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ERNEST HART, D.C.L.

ASSISTED BY

DAWSON WILLIAMS, M.D.

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IS THE APPOSITION OF PERITONEUM TO PERITONEUM A SURGICAL ERROR?

By J. GREIG SMITH, M.A., M.B., F.R.S.E.,

Surgeon to the Bristol Royal Infirmary; Professor of Surgery, University College, Bristol.

To put the question which heads this paper is almost to suggest a surgical heresy. "Peritoneum to peritoneum" is a surgical rule that is near being an axiom. Amongst surgeons few beliefs are more widely and more firmly held than this one, that the best healing in abdominal operations is by apposition of serous surfaces; therefore it behoves one who ventures to dispute this axiom to be sure of his ground and to tread warily.

Some years ago various accidental experiences combined to unsettle my belief in the axiom. During the past two years I have deliberately and intentionally, where possible, acted as if the axiom were an error, and the result of this experience has been to convince me that for all purposes where sound, speedy, permanent union is desired, the apposition of two intact serous surfaces is a surgical mistake.

To fully illustrate and support the principles I uphold would occupy much space and necessitate the relation of many cases; but perhaps my purpose will be sufficiently well served by indicating the lines of reasoning followed in arriving at this conclusion.

My first doubt of the principle of sero-serous apposition arose in connection with intestinal operations, and particularly with the means of providing intestinal drainage in cases of intestinal obstruction. Many of these operations had to be rapidly performed, and in some of them I dared to ignore the time-honoured habit of "shutting off the cavity" by suturing parietal peritoneum to bowel, and both to skin; often, indeed, I omitted to place sutures of any kind. The cavity was shut off just as well when the bowel was implanted on the raw surface. But later on, when it came to the closure of the fistula or anus, I found this direct implantation of bowel to incision had its disadvantages, for the adhesions were so firm, and so extensive, and so intimate, that it was not easy to separate them. The practical outcome of this has been that where I want temporary drainage with loose adhesions and mobile bowel—as in temporary enterostomy—I suture parietal peritoneum, bowel, and skin; but where I desire firm, permanent, and intimate adhesion, with no mobility of bowel on parietes—as in cœlio-colostomy—I implant bowel directly on raw surface, and if this rawed surface is small, as it is in thin subjects, I increase it by unfolding or peeling from the parietes more peritoneum, and turning its rawed, not its serous, surface on to the bowel.

A few special or crucial incidents may be quoted. Some years ago I lost a case of cœlio-colostomy, done in the usual way by sero-serous suturing, through the opened gut being dragged inside the abdominal cavity. I blamed an imperfect suturing of the parietal peritoneum to the gut and skin at the lower end of the wound, and expected that the *post-mortem* examination would show this to be the cause of the giving way. As it turned out, this was the only part that held firmly; everywhere else the adhesions had given way, wholly or partially; here they were strong and firm.

Three weeks after undergoing the operation of gastrostomy a patient died of bursting into the lung of an abscess connected with cancer of the gullet. For an inch all round the gastric opening parietal peritoneum was glued to gastric peritoneum by adhesions which were dense and opaque, but easily detached. The line of the fistula, where a tube of gastric wall lay implanted on the raw incised surface, could not be detached at all. By mistake the specimen was put into the macerating tub. At the end of a week, when the specimen was found, the sero-serous adhesions had melted away, but the fibro-serous adhesions between the stomach and the parietes were as firm as ever; the stomach seemed to be absolutely incorporated with the parietes. The specimen (now mounted in spirit in the Bristol Medical School) continues to show the close intimacy of the union.

Further evidence in favour of the strength and durability of sero-fibrous adhesion is supplied by the occurrence and persistence of adhesions when surfaces are left after operation uncovered by peritoneum. Adhesions between bowel and raw surface (such as the stump of a pedicle) may, as we know, be strong enough to cause obstruction. A recent hospital case, where I had to reopen the abdomen for obstruction a week after removal of the appendages for myoma, was a striking example of this. The intestinal wall was positively incorporated with the surface of one of the ligated pedicles; it was quite impossible to tear them apart; it was necessary to cut away a piece of the stump to liberate the intestine. Such adhesions remain to give further trouble also.

Sero serous adhesions, on the other hand, tend to disappear; often they disappear very quickly. Another hospital case, in which I have performed no fewer than eight operations—four to relieve obstruction and four to close fistulæ—gave abundant opportunities for observation of the growth and disappearance of peritonitic adhesions. The case was a complicated one, with enormous distension, and hernia through the foramen of Winslow. There was prolonged evisceration of intestines during evacuation of their contents. At the end of a month the abdomen was reopened for recurrence of symptoms, and numerous close peritonitic adhesions were discovered. A fistula was now established. Twice the fistula was closed, and the symptoms recurred on each closure. A further thorough exploration of the abdomen showed that the old adhesions had disappeared, with the exception of a few thin threads easily torn through. The bowel implanted on the raw parietal wound, however, was always firmly fixed—too firmly. Indeed, as I have said, where loose and temporary fixation is desired, as in temporary drainage of intestines for obstruction, sero-serous apposition I now believe to be better than sero-fibrous.

These examples show by comparison on the same patient that at the end of days or weeks the adhesions between intact serous surfaces is not so strong nor so intimate as between serous and raw surfaces.

At the end of three months the same holds good, and of this I had a disagreeable experience with two colleagues a few weeks ago. Three months previously on this patient I had done an operation for fixing the colon—colopexy it may be called—to the left inguinal parietes. The colon at the operation was fixed over an inch by three silkworm gut sutures carried through the parietes, and forming part of the parietal sutures; but the peritoneum was outfolded, and its rawed surfaces laid on the gut. It was necessary to open the abdomen again, and we were startled to find how close and intimate had become the union of the colon to the parietes. The colon seemed to be buried in them, although muscles were not at all penetrated. It was as if the gut had acquired a new mesentery, firmer and stronger than the natural one.

These are examples of the union of serous to raw or incised surface, and perhaps they will serve their purpose as well as

a greater number of examples culled from the ordinary routine of practice. Wherever possible this routine is made to involve the implantation of one raw surface on peritoneum. Thus in hysterectomy by the extraperitoneal method the peritoneum is not attached by its serous surface to the serosa covering the pedicle, but the raw surface of the peritoneum is opened up and laid over the pedicle. In cholecystotomy the gall bladder is surrounded by the raw surface of the detached peritoneum not gathered in and sutured, but purposely opened up and spread out. It is easy enough, if it tends to remain open, to close the fistula without entering the general cavity. In colostomy by cœliotomy immovable fixation of the gut on the parietes, preventing both indrawing and prolapse is best got by direct implantation of the gut on the parietal incision, supplemented, if necessary, by outfolding of the detached peritoneum. And in every case where I desire to get rapid and strong fixation of hollow viscus, cyst or abscess wall, pedicle or solid growth to the abdominal parietes, I always now apply not serous to serous surface, but either serous to raw surface or raw to raw. The parietal peritoneum is either turned out so that its raw surface lies in contact with the serosa to be attached, or the serosa of the organ is peeled off, or both are done.

The apposition of a raw to a serous surface has thus far only been spoken of as being more perfect in its results than serous to serous. Raw to raw surface, while in my experience better than serous to serous, is probably not quite so good as raw to serous. My adoption of the junction of raw surfaces has been in the first place to avoid opening of the abdomen, but my appreciation of it has gone beyond this. I was first led to adopt the apposition of raw to raw surfaces in the healing of intestinal fistula after operations for intestinal obstruction, and for resection of intestinal growths and areas of gangrene. As I am responsible for the introduction of intestinal evacuation and drainage in obstruction, I have naturally become responsible for the healing of a considerable number of cases of intestinal fistula and artificial anus. This I now manage by an extraperitoneal operation made possible by detaching the parietal peritoneum for some distance around the fistula. The parietal peritoneum, still adherent to gut, being detached, the bowel with the peritoneum can easily be delivered through an incision traversing the cutaneous and muscular layers, and the opening, large or small, in the gut is closed by apposition of rawed surfaces. The union is as good and as rapid as when serous surfaces are united. The details of this operation do not concern us now; I quote it simply to show that, in enterorrhaphy, closure of a fistula, or even of the whole circumference of the gut, sero-serous apposition is not essential.

One prime advantage of sero-serous union is that it takes place very rapidly, that in a few hours it is water- and gas-tight. But such union is no more rapid than when peritoneum is apposed to a raw surface. If we bear in mind the histological forces at work, we can readily understand how this should be. The layer of lymph and young cells which lies between the serous surfaces has little cohesion, and, being shut off by a double layer of endothelium from vascularisation and from ingrowth of plasma cells, is long in being converted into true granulation tissue. Vascularisation is slow and fibrillation is slow, and while they are going on Nature is beginning to get rid of the exuded lymph. Such adhesions often disappear; if they remain they nearly always get thinned and elongated.

On the other hand, the primary lymph coagulum between serous and fibrous surfaces forms just as quickly, and having more points of attachment amongst the opened fibres, it holds more strongly. As it taps open connective tissue and is surrounded by plasma cells vascularisation begins at once and goes on apace. At the end of two days sero-fibrous adhesions are stronger than sero-serous; at the end of a week sero-serous adhesions may still be peeled off with little bleeding; sero-fibrous can then scarcely be separated at all, and their separation causes free bleeding. If there is little to choose between the two as regards prevention of extravasation of fluids for the first few hours, the sero-fibrous has a decided advantage as time goes on. The lowly-organised, inert, and loosely coherent plug of lymph is easily disturbed and would be easily broken up in the presence of fluid. This we know to our cost; it is on the second or third day that leakage takes place. A sero-fibrous junction that lasts for a day is practically safe for ever, for it goes on improving in strength and solidity.

The practical application of these principles is as wide as abdominal surgery, and includes not only results to be encouraged, but results to be avoided. Where it is desired to secure quick, strong, and permanent union, sero-fibrous apposition is better than sero-serous. Where the union sought need not be strong and is desired to be only temporary, sero-serous apposition may be adopted. Fibro-fibrous apposition, while perhaps as good as sero-serous, is not in my experience so good as sero-fibrous. Sinister results which we seek to avoid arise when we leave raw surfaces to which intestines may adhere and cause obstruction. To cover such a surface by peritoneum would, according to published statistics, save nearly 2 per cent. of the deaths after abdominal operations.

In ordinary work the carrying out of these principles involves some such practices as the following: Fibro-fibrous as against sero-serous apposition is carried out in the closure of the parietal wound; in operations for the cure of ventral and umbilical hernia; and in kolpo-hysterectomy. Closure of the parietal incision is made by apposition of the rawed peritoneal flaps outfolded, and not of the intact serous surfaces inturned. This, it may incidentally be mentioned, by abolishing the inward dip of the united peritoneal flaps, helps to prevent ventral hernia. And ventral hernia, when it occurs, may efficiently be cured without entering the cavity at all by a union of the rawed peritoneal membrane on its outer aspect in some line away from or crossing a further union of the retracted or displaced muscle. Similarly, though with more detail, is performed an operation for the radical cure of umbilical hernia which I devised and described some years ago,[1] and is now in very general use. In kolpo-hysterectomy the peritoneum is turned away from the vagina, and union is got by apposition of the rawed surfaces between the vagina and the cavity. In Cæsarean section I should suture the uterine wound, not by inturning of both peritoneal surfaces, but by out-turning both or one of the peritoneal coverings.

Sero-fibrous apposition or apposition of a peritoneal surface on the raw wound is carried out in such operations as gastrostomy, hysteropexy, enterostomy, colostomy, cholecystostomy, and the numerous operations which involve the drainage of cysts and abscesses. In these and allied operations I can speak with what confidence is begotten of personal experience. I should like to see the principles carried further into intestinal resection. Senn went some way towards sero-fibrous approximation when he suggested scratching of the apposed peritoneal surfaces. I should like to see it carried further either into actual denudation of one serous surface or actual outfolding of both serous surfaces so as to get a flange-stitch; or by removal of a ring of mucous membrane and enveloping the intact gut by the muscular and serous coats (Jessett-Robinson). And this is one purpose of my writing now, to suggest further experiments in intestinal surgery to test the question whether sero-serous apposition with infolding is really the best method of joining divided bowel. A cautious application of accidental results has convinced me that, over the greater part of the field of abdominal surgery, sero-serous junction is not the best; extended experience must show whether the same rule holds good with regard to intestinal surgery. If the proof in this case goes against the general principle, I think it is more likely to be on mechanical than on pathological grounds.

Hypnotism in Hungary.—The National Sanitary Council of Hungary has called the attention of the Minister of the Interior of that country to the dangers of the unrestricted use of hypnotism by unqualified persons. It is suggested that such experiments should be strictly confined to legally-qualified members of the medical profession, and should be permitted to them only on the following conditions: (1) That the consent of the person put is proposed to hypnotise, or, in the case of minors, that of their parents or guardians, should first be given; (2) that a third person should invariably be present at the sittings; (3) that the experiments should be conducted on the part of the practitioner under the full responsibility which the law of Hungary attaches to the practice of the healing art.

[1] *Bristol Med.-Chir. Journ.*, March, 1890.

THE SENSORY THROAT NEUROSES OF THE CLIMACTERIC PERIOD.

By FELIX SEMON, M.D., F.R.C.P.,

Physician for Diseases of the Throat to St. Thomas's Hospital, and to the National Hospital for the Paralysed and Epileptic, Queen Square; President of the Laryngological Society of London.

THAT a special and intimate, if scientifically somewhat mysterious, connection exists between the sexual apparatus and the respiratory organs has, of course, long been known. Its physiological prototype in man is found in the sudden development—particularly in the male sex—of the larynx during the time of puberty, accompanied by the characteristic change in the voice known as the "break" of the voice; whilst in the female sex changes in the finer mechanism of the singing voice are by no means infrequent at the time of menstruation. In animals again this physiological connection is shown, to give but two instances, in the "roaring" of the otherwise silent stag at the rutting time, and in the vocal self-intoxication, in which the capercailzie cock during the corresponding time indulges to his own destruction, inasmuch as his excessive voice use, during which he appears to be quite incapable of taking notice of anything around him, enables the Continental stalker to approach this otherwise extremely wary bird.

On the border-line between physiological and pathological conditions manifesting the connection referred to stand the various forms of vicarious bleeding from the upper air passages, particularly epistaxis, which in a number of well-observed and authenticated cases has been observed to either completely or in part replace normal menstruation.

Pathologically, again, plenty of illustrations exist in medical literature of the influence exercised by the genital sphere upon the upper respiratory tract. Thus, excessive salivation is not rarely found to accompany gravidity and actual diseases of the uterus; anosmia has been observed to follow operative removal of both ovaries, whilst, on the other hand, olfactory hallucinations have been known to occur in cases of sexual neurasthenia; anomalies of menstruation in young girls frequently enough are accompanied by vocal weakness; castration of boys in early youth, as is well known, is followed by very considerable changes in the character of the voice; a number of cases has been described in which functional aphonia was caused by anteversion or other changes of position of the uterus, and disappeared as soon as reposition of that organ had been effected. Many additional points could here be named, but the above quoted observations of the physiological and pathological connections of the upper air passages with the sexual organs will suffice, I think, to show the actuality of this connection. Moreover, Dr. Gustav Endriss of Goeppingen has in his inaugural thesis so well collected and described the previous observations made in this connection, that I cannot do better than refer those interested in the general question to the original.[1]

But even in his monograph, fully as it deals with the influences of menstruation and gravidity upon the respiratory organs, very little is said about a class of cases which, if not from their pathological dignity, yet from their frequency and from the sufferings which in not a few instances they entail, deserve, I think, a somewhat fuller notice than has hitherto been granted to them, medical, gynæcological, and laryngological textbooks being either entirely silent about them or dismissing them with a very few words indeed.

I refer to the sensory throat neuroses of the menopause. I purposely use the vague expression, "throat" neuroses instead of speaking of "pharyngeal" or "laryngeal" neuroses, because, as has been well pointed out by Schadewaldt, and as I am able to corroborate by personal experience,[2] the power of localisation of sensations felt in the throat is very defective physiologically as well as pathologically.

"The sensations in the most different parts of the organs of the neck are as a rule jointly referred to a region in which, so to say, the joint sphere of sensation (the sensorium commune, according to Zeissl's analogy) of the entire throat is situated. This region is the front part of the neck, the laryngo-tracheal region" (Gottstein).

It is therefore no use attempting a more precise differentiation of the neuroses to be treated in the following paper according to the locality in which the sensations are felt, and, on the contrary, an attempt of this kind might easily lead to therapeutic mistakes.

The way by which I have gradually arrived at looking upon the menopause not merely as a possible etiological factor in the production of sensory neuroses of the throat, but as their, in my own experience, by far most fertile source, has been simply that of clinical observation. The first thing that drew my attention to this point was the fact that female patients of a distinctly non-neurotic or hysterical type, but either just entering upon or being in the midst of the climacteric period, formed the overwhelming majority of all the patients who consulted me for these sensory neuroses. The next point that struck me was that, again in the enormous majority of all cases belonging to this class, there was a total absence of the local or general signs which we know to cause or to accompany sensory neuroses of the throat. Thirdly, the fact impressed itself upon me that the usual local or general treatment which is found useful in such neuroses when due to other causes entirely failed in this class: and, finally, I found that when once the organism had settled down to the new condition of things, these neuroses, obstinately as they had resisted all possible therapeutical measures, spontaneously disappeared. Thus, the impression that the menopause in itself was the cause of the troubles on account of which the patients consulted me became more and more engraved on my mind, and now that further experience has convinced me of the correctness of my observation, which, moreover, is by no means extraordinary, in face of the fact that the "change of life" so frequently is the cause of nervous disturbances in all possible territories of the body, I think it right to publish my experiences, particularly as I see that these neuroses frequently are misunderstood.

SYMPTOMS.

The patients in question, who I consider form a distinct and separate class, are women in the critical period of life, commonly spoken of as the climacterium, the menopause or the "change of life," that is, women between the ages of forty and fifty on an average. Occasionally the change takes place a little sooner, more frequently somewhat later than within that decade, but I have never seen a patient of less than 38 nor of more than 55 years, in whom I have made the diagnosis of a "climacteric" throat neurosis. The sensations of which these patients complain vary enormously in kind and in intensity, but can all be summarised under the two large headings of "paræsthesia" and of "neuralgia," the former being by far the more frequent one. I have never seen a case of anæsthesia of the throat due to the climacteric period, and I may mention incidentally that motor neuroses, such as functional aphonia, or spasms in the throat, are in my experience, rarely due to the change of life itself.

As to the kind of sensations experienced by these patients, they are described very variously. Most frequently one hears of unpleasant sensations which often enough cannot be exactly described, and which are in some cases general, in others shifting from one part to the other. In other cases the patients name general or partial "irritation," "burning" sensations, general or partial "soreness," "dryness," "tickling," desire to constantly "scrape" or "hawk and

[1] "Die bisherigen Beobachtungen von physiologischen und pathologischen Beziehungen der oberen Luftwege zu den Sexualorganen," *Inaugural Thesis*, by Dr. Gustav Endriss. Würzburg, 1892.

[2] Some years ago at a dinner party a piece of partridge bone became impacted in my throat, and I was unable to dislodge it myself. When a *confrère*, who fortunately was present, asked me where I felt it, I pointed to the region of the right hyoid fossa as being the seat of the impaction, and was not a little surprised when the gentleman in question (Professor Oppenheimer of Heidelberg) assured me after inspection, and proved his statement by removing it, that it stuck in the posterior wall of the pharynx, just behind the uvula and a little to the right of the median line, that is, a distance of between two and three inches from where I thought I felt it! This instructive experience taught me how little one can rely upon statements, however apparently exact, even of intelligent patients with regard to the locality where sensations in the throat are felt, and a good many subsequent experiences in others have fully corroborated the one made in my own person.

hem," sensations of "choking" or of "strangulation," a feeling as if the throat were "wooden," very frequently the sensation of a foreign body, variously described like a crumb of bread, a bone, a hair, a needle, etc., a constant desire to "swallow empty," feelings of heat or cold. Such are the paræsthetic sensations most frequently named. But in very many cases one sees how the patients vainly strive to exactly describe what they feel, and where the seat of the sensation is.

The infinitely less frequent "neuralgic" sensations are usually described as a fixed pain on one side of the throat, which sometimes radiates into the corresponding ear, and which is not increased, and even may be temporarily diminished by the act of swallowing. More rarely the patients complain of lightning pains shifting from one side to the other.

The intensity of these neuroses varies, as already said, most remarkably. In the great majority of cases the sensations are merely felt as an inconvenience or a nuisance, and this probably is one of the reasons why these cases are so much more frequently seen in private practice than at the hospital, it being a general experience that the neuroses of the climacterium are more frequently met with in women of the upper classes than in the lower orders. In other cases, and not a few, the subjective troubles are of a more severe kind. The patients not rarely actually cry whilst giving one the history of their ailment, and the general depression accompanying the affections is sometimes very marked indeed.

In a good many of these cases, particularly in the course of the last few years in which general attention has so much more been directed towards cancer of the throat, there is a very distinct "cancrophobia," and a mere assurance after careful examination that there is no cancer suffices to completely transform the patient's previously frightened and anxious countenance. Fears of consumption and syphilis I hear much more rarely expressed. In the very worst cases, which fortunately in my experience are rare, the suffering appears to be extreme and the mental condition of the patient deplorable; thus, not long since a lady, the wife of a clergyman, threatened, in her husband's presence, to commit suicide if I were not successful in curing the horrible sensations and pains in the throat from which she suffered, and which had obstinately resisted the theurapeutical efforts of various medical advisers.

In a large number of cases the throat symptoms complained of are the *only* sign of the approaching change of life, and sometimes—to which I would particularly draw attention—even *precede* the menstrual irregularities. In an other perhaps equally large number they either follow the usual uterine disturbances of the climacteric period, or are associated with other complications of the menopause, such as dyspepsia, waterbrash, flushes, sweats, rapid and considerable increase in bulk, neuralgia of other parts, debility and exhaustion, mental depression, cardialgia, sleeplessness, headache, etc. In a few instances very intelligent persons have spontaneously, whilst giving their history, expressed to me a belief that the throat symptoms complained of were a sign of the impending change of life. Much more frequently I have heard, when after examination I gave my opinion to the effect that the sensations complained of were merely a local expression of the change of life, that the patients themselves had suspected this to be the case.

The objective symptoms in the cases which really belong to the domain of the sensory neuroses of the climacteric period are either conspicuous by their absence or the changes found are so slight as to make it extremely unlikely that they could be held accountable for the symptoms complained of.

In a very large number the appearances are quite normal; in other cases, when in women during the climacteric period, a few small pharyngeal granulations or a very slight enlargement of the lingual tonsil or some hardly noticeable thickening of the lateral folds of the pharynx are detected, or when the veins in the pharynx or at the base of the tongue are a little more visible than usual, or when there is some slight anæmia, the experienced observer will not at once rush to the conclusion that they are the cause of all the ills complained of, and will keep before his mind the by far greater possibility that the neurosis in question is in reality due to the change of life itself. This question will be more fully discussed under the head of treatment.

Prognosis.

The prognosis in these cases is universally good. I have never known of a case in which these sensations persisted after the organism had once settled down to the new condition of life, whilst I have often had the opportunity of hearing from former patients of mine, whom I afterwards met by chance, that my cheerful prognosis as to the ultimate disappearance of their complaints had come true. The course of the neurosis, however, whilst in the majority of cases it exists for some months only, not infrequently occupies a period of one or two, and, in rare cases, even three years, which is quite in accordance with our knowledge of the duration of the climacteric period in general. This, of course, is an important point. Sometimes also the throat neuroses disappear, and give way to other neurotic or neuralgic affections, whilst in other cases again other neuralgias may disappear and throat neuroses take their place.

Diagnosis.

In making the diagnosis of a sensory throat neurosis of the climacteric period (which of course can only be arrived at *per exclusionem*), we have to guard against falling into one of two strictly opposite mistakes, namely, of either overlooking some actual and tangible cause of the affection, or, on the other hand, of accusing slight accidental abnormalities of being the real cause of the neurosis.

With regard to the first point it need hardly be said that there is not the least reason why women during the climacteric period should not suffer from any of the other well-known causes of sensory throat neuroses just as well as anybody at any other period of life. But I think it right to emphasise this point because I should be sorry if my attempt to establish the climacterium as a sufficient cause *per se* of sensory throat neuroses should lead anybody to rush into the erroneous conclusion that *all* sensory throat neuroses met with during that critical period must of necessity be due to the climacteric period alone. Thus, before arriving at the diagnosis of a sensory throat neurosis of the climacteric period, we must first exclude by careful examination the possibilities that the affection is due to chronic pharyngeal catarrh of a marked type, to considerable nasal stenosis, to a foreign body, to considerable enlargement of the lymphatic tissue at the base of the tongue, to general anæmia of the pharynx, particularly in cases of commencing tuberculous disease of the lungs, to general neurasthenia or hypochondriasis, to syphilophobia, etc. Particularly it ought to be remembered that paræsthesia, hyperæsthesia, or neuralgia of the throat may be the first sign of malignant disease of the part or of its neighbourhood, and that the age at which the climacteric neuroses come under observation is identical with that in which the beginning of malignant mischief is most frequently observed.

On the other hand, we must with equal care avoid accusing every trivial little alteration in the appearance and texture of the throat and its neighbourhood as the actual cause of the paræsthesia or neuralgia. A warning of this kind is anything but superfluous. No thoughful physician will for a moment deny that it means a real progress in the art of diagnosis if an actual local cause of a neurosis in any part of the body can be discovered. But I am afraid that the pendulum of the present current of thought, particularly in my own special branch, has swung a little too much towards that direction, and that but too frequently the discovery of the smallest aberration from the ideal state of a part, which thousands of times is seen without any symptom whatever being thereby caused, is by enthusiastic observers not merely looked upon as a sufficient explanation of the neurosis complained of, but also as a signal of the desirability of immediate topical interference. No doubt such errors may be committed in good faith, and I have myself, as mentioned in the beginning of this paper, been partly led to the considerations of which the present article is the outcome by the oft repeated observation that forms of treatment which had proved useful in other cases remained barren of result when adopted in cases of the class now under consideration. It is the wish to spare

others the disappointments I have had which induces me to dwell at some length upon this point, and it may in particular not be amiss in this connection to warn against the now fashionable view of looking upon the nose as the *fons et origo* of all morbid sensations experienced in any part of the body, and of associating the discovery of the smallest abnormality in that part with the hasty conclusion that the neurosis in question must be due to that abnormality. I feel pretty sure that this wave of enthusiasm will pass away as other similar waves have passed, and will leave a very small residuum only of actual facts behind. As, however, in connection with the subject now under discussion, I have, particularly in the course of the last two years, seen several patients in whose cases the nose had been accused of being the cause of their climacteric throat neuroses, and had been more or less vigorously treated, with the result that after either a perfectly negative effect or after a very transitory improvement, the sensations had returned, and the patient, who had been promised a cure, had been reduced to a state of greater despondency than previously—I think it my duty to particularly warn against adopting a form of treatment which in all probability merely acts—to use my friend Dr. M'Bride's telling expression—like a blister applied to a very sensitive spot, the immediate effects of which at best are rapidly evanescent and the lasting results of which usually are so undesirable as those just described.

TREATMENT.

In cases in which there is any reasonable doubt as to whether the neurosis is due to the climacteric period or to some actual local mischief, not the slightest objection can of course be raised against treating the latter in the usual fashion. Thus, marked nasal stenosis, considerable granular or lateral pharyngitis, much developed hypertrophy of the lingual tonsil will have to be treated in the usual way by local measures, and in cases of neuralgia particularly the probe ought to be used in order to ascertain whether there is any tender spot in the region of the pain complained of: again, cases of anaemia and chlorosis should be treated by the cautious use of iron and arsenic, etc. But in all those cases in which there is rational doubt whether the paræsthesia and neuralgia complained of are due to such causes as those mentioned or to the effects of the menopause, the practitioner will do well not to promise too confidently a satisfactory result of the local or constitutional treatment he is going to adopt, and to at once mention the possibility that the sensations complained of may simply be a transitory sequel of the change of life. When, after exclusion of all other possible causes, I have come to the definite conviction that the neurosis is of a climacteric character, I have been gradually led to rely on moral efforts only, and to desist from all other forms of treatment. In the great majority of these cases the patients who (may it once more be said) are by no means of a neurotic or hysterical type, consult the physician only because they are alarmed about the unpleasant sensations of which they themselves cannot give any satisfactory account. When they see that their ailment is not poohpoohed, and that, after a careful examination, the deliberate opinion is given that the sensations are merely due to the change of life, and when this opinion is coupled with the cheerful assurance that in not too distant a time they may with certainty reckon upon their disappearance, they are as a rule perfectly satisfied. This obtains particularly in those cases in which cancer or consumption or syphilis, or some equally grave disease, has been feared. The usual local remedies, astringents, caustics, etc., I have found perfectly useless or of most transitory effect, and, considering that this whole period of a woman's life is in itself often enough associated with a state of mental depression, I would particularly warn against their indiscriminate use, inasmuch as after their failure patients are liable to be infinitely more depressed and convinced that their ailment is of a really serious character than before. This applies with particular force to all forms of narcotics, which I find are unfortunately much too frequently prescribed in this class of cases. Opium, morphine, cocaine, bromide of potassium, etc., whether locally or constitutionally employed after a very short time lose their effects, and the patients are either driven to become victims of one of the pernicious habits to which the continued use of these narcotics so frequently gives rise, or their general and local sufferings are considerably increased, if they are compelled to desist from their use. Only in aggravated cases of paræsthesia, and more particularly in cases of neuralgia, do I utilise drugs which cannot do any possible harm, such as a menthol spray or a general tonic. My experience of the use of electricity in such cases is very limited and of an indefinite character. The best effects are certainly obtained in those cases in which the throat neurosis is associated with considerable increase in bulk, digestive disturbances and gouty manifestations. In such cases, if the patients can be persuaded to go through a mild course of the mineral waters of Carlsbad, Marienbad, Kissingen, Aix-les-Bains, Vichy, etc., a disappearance of all the symptoms complained of and establishment of settled conditions in general is often much sooner obtained than in the ordinary forms of climacteric neuroses. But in the great majority of cases, I repeat, no other treatment but moral influence is, in my experience, necessary.

A CASE OF SUBCORTICAL CEREBRAL TUMOUR TREATED BY OPERATION.[1]

(WITH COLOURED PLATE.)

BY

CHAS. E. BEEVOR, M.D., F.R.C.P., Physician to the Great Northern Central Hospital, and to the National Hospital for the Paralysed and Epileptic, Queen Square.

and CHARLES A. BALLANCE, M.S., F.R.C.S., Surgeon to the National Hospital for the Paralysed and Epileptic, Queen Square; and Assistant-Surgeon to St. Thomas's Hospital.

SUMMARY OF SYMPTOMS.

THE salient points of the case which we record below were as follows:

1. The gradual onset of the paralysis, involving successively the right ankle, the knee and hip, and then extending, after the lapse of seven months, to the joints of the right hand, and then to the whole of the upper extremity. Finally speech became affected.

2. The classical symptoms of intracranial pressure were present—headache, vomiting, and optic neuritis.

3. The mental condition gradually deteriorated.

4. There was some loss of sensation affecting the right limbs chiefly (see figures on p. 7), while the face entirely escaped.

5. There was no family history of tubercle, and no personal history of tubercle or syphilis.

6. Under antisyphilitic remedies, taken for over six weeks, the patient's condition not only did not improve, but grew worse.

GENERAL DIAGNOSIS.

Hemiplegia may be due to vascular changes such as hæmorrhage, embolism, and thrombosis when the onset is sudden, or takes only a few days to develop; but in the case of hemiplegia, which progressively increases during several months, there is strong presumptive evidence that it is due to a tumour, and when this is associated with optic neuritis, headache, and vomiting, the combination of symptoms makes the diagnosis almost certain.

LOCALISING OR SPECIAL DIAGNOSIS.

Having determined on the presence of a tumour in the left cerebral hemisphere, the next question to settle was its exact position. Such hemiplegia might be caused by a tumour of the cortex, the centrum ovale, or the internal capsule, and we will now give the symptoms of lesions in these different parts:—

(*a*) The type signs of involvement of the cortex are: 1. Jacksonian epilepsy: the aura or the initial movement being represented in the part of the cortex first involved in the tumour; this is followed later by a permanent paralysis of the same part which progresses in a definite order. 2. Corresponding to the paralysis of the limb segments there is change of sensibility. Light touches may not be felt, but if they are, they are not properly localised. Loss of muscular sense so that the patient is not cognisant of the position or

[1] A paper read at a meeting of the Medical Society of London on November 26th, 1894. The patient was present at the meeting in good health.

the passive movement of his limb.[2] 3. Occasional tenderness of cranium over site of tumour.

(*b*) The type signs of involvement of the internal capsule are: 1. Absence of Jacksonian fits. 2. The paralysis is progressive but extends more rapidly than a cortical paralysis owing to the closer gathering of the fibres. 3. Sensation tends to affect the whole of the opposite half of the body including the head, to be more complete than in cortical lesions, and to involve all forms of sensation.

(*c*) The type signs of involvement of the centrum ovale can only be determined by a process of exclusion, and they probably are modified according as the growth extends towards the cortex or towards the internal capsule. 1. Absence of fits. 2. Absence of tenderness of cranium. 3. Progressive paralysis and progressive loss of sensation either of cortical or capsular type.

In comparing the present case with the symptoms of the above types, the internal capsule appeared not to be involved in the tumour on account of the fact that the anæsthesia corresponded to the paralysed parts, and was not complete: further, localisation was imperfect, and muscular sense was lost, the face escaping completely. The gradual march of the paralysis, too, pointed away from the internal capsule.

The diagnosis, therefore, rested between a cortical and a subcortical lesion.

It is first to be noted that she had never had a fit, and although it is known that a cortical tumour may be present for many months without giving rise to a fit, still the general rule holds good that the absence of fits is against the diagnosis of cortical lesion. Secondly, there was never at any time any tenderness of the cranium, which, if present, makes for the diagnosis of a superficial cortical lesion involving the dura. Thirdly, the sensation was of cortical type, and did not assist in the differentiation of a cortical from a subcortical growth, but it pointed to the lesion being nearer to the cortex than to the internal capsule. Fourthly, the sequence in which the different parts of the brain were involved, as shown by the march of the paralysis, was also instructive. According to the experimental observations of Mr. Horsley and one of us (Beevor) on the monkey, the different segments of the body are represented on the motor cortex and in the internal capsule respectively according to the following tables:

Internal capsule, from behind forwards (Macaque monkey):	Motor cortex, from above downwards (cortex of Orang):
Ankle	Ankle
Hip	Knee
Hand	Hip
Elbow	Shoulder
Shoulder	Elbow
Mouth and tongue.	Hand
	Mouth and tongue.

It will be seen that, according to the above tables, the order in which the paralysis in this case came on, namely, ankle, hip, hand, elbow, shoulder, speech corresponded rather to the arrangement of the internal capsule than to that of the cortex. This, however, did not materially alter the view that the tumour was probably near the cortex, since it is not known how high the arrangement of the fibres in the internal capsule is maintained in the centrum ovale. We, therefore, came to the conclusion that the tumour was subcortical, and did not involve the internal capsule. The importance of this from the point of view of relieving the patient was very great, since whereas a tumour of the cortex or centrum ovale may be removed, at present, one involving the internal capsule appears beyond the reach of operation. It does matter, too, whether the tumour be cortical or subcortical, since presumably a cortical tumour may be more completely removed than one more deeply placed.

Mrs. S., aged 39, a patient of Dr. Morgan, of Seaford, was admitted to the National Hospital for the Paralysed and Epileptic on May 21st, 1894, for symptoms which had been recognised by Dr. Morgan and one of us (Ballance) as probably due to the presence of a subcortical cerebral tumour.

History of Present Illness.—Twelve months before admission the right ankle gradually became weak, and the foot was dragged in walking; this continued for some time; the paralysis then gradually extended up the limb, and it was not till seven months later that the right hand became affected. Soon after the whole of the right upper extremity was paralysed. Four or five weeks before admission the speech became for three or four days stuttering and thick, and three weeks ago it was noticed that tactile sensations were not properly localised on the affected side, and that light touches were not felt at all. At the time that speech became affected she first had an attack of vomiting, and at the same time very severe headache referred to the frontal region. The vomiting and pain intermitted; the last attack having occurred about a week before admission. No history of a definite fit could be obtained, or of giddiness. Double optic neuritis was observed three weeks ago. During the last week she had had attacks of sudden pain in the left side of the head of a hammering character.

Previous History.—The patient has always had good health, and has had (previous to this one) no illness of importance. Married eight years; has had three children; one miscarriage two years ago after the birth of the last child. Husband is a coachman, a strong healthy man with no history of specific disease.

Family History.—There is no history in the family of tumours or nervous diseases.

Condition on Admission.—Fairly well nourished; face somewhat expressionless; mental state dull; no delusions; memory bad. Temperature rather subnormal, equal on either side; pulse 100. Motor System: Movements of eyes good; movements of right side of face less brisk and rather weaker than on left side. The upper face muscles act equally, as do the muscles of mastication, and the tongue is protruded straight. Movements of right fingers and elbow are very feeble, extension of the latter being absent. No movement of shoulder, and this part cannot be shrugged. The grasp of the right hand is absent. Abdominal muscles—that is, the recti—act equally. Right Leg: No movement of toes or ankle; flexion and extension of knee very weak; movements at hip with difficulty obtained. Patient can walk fairly well with assistance, swinging the right leg forwards. The wrist tap on right side is increased, as is also the right knee-jerk. Jaw-jerk brisk. Plantar reflexes equal and brisk; ankle clonus is present on the right side. There is no rigidity of the right limbs.

Sensation.—Frequent attacks of headache, but no tenderness of scalp. No anæsthesia of face. Light tactile sensations not so well felt on the right arm and leg as on the sound side. *Localisation* imperfect; sometimes too high and sometimes too low; this is more marked over the upper arm, shoulder, and hand than on the forearm. The anæsthesia extends over the chest to the mid-line and up to the lower jaw, but is less marked than on the shoulder. Over the abdomen and back on the right side there is slight blunting of sensation and defective localisation. Over the right lower limb sensation is blunted to an extent equal to that over the shoulder. *Muscular sense* lost in the joints of the right upper limb and in the right toes and ankle. It was present in the right knee and hip. No complete analgesia, but pricks are felt less on the right side below the face than on the left side. *Heat* and *cold* impressions blunted over the right limbs and right side of trunk.

Ophthalmoscopic Examination by Mr. Gunn.—In the right and left eye there is blurring of the edges of the discs all round with considerable venous turgescence. Each optic disc is high coloured and the retina for a long distance outside is wanting in transparency; the details of the fundus are somewhat interfered with by a vitreous haze which Mr. Gunn considered indicated specific disease. Vision: right eye $\frac{6}{18}$ths badly, J. 1, 10 inches; left eye, $\frac{6}{9}$ths well, J. 1, 10 inches. No hemianopsia; no limitation of visual fields. Pupils unequal; R. 7 mm., L. 6 mm.; they react normally.

Smell and taste good on both sides; no affection of hearing. Lungs, heart, and abdomen healthy: urine normal.

The treatment at first adopted was inunction of ung. hydrag. daily, with the internal administration of pot. iod., gr. 5 ter die. The dose of pot. iod. was gradually increased. On June 6th she was taking gr. 20 ter. die., on June 13th gr. 25 ter. die., and on June 20th gr. 30 ter. die. On June 8th the mental state was more lethargic and the optic neuritis was worse. The discs were examined by Mr. Gunn, who reported that the right disc could be seen with + 3 and the left with + 4, and that there were hæmorrhages in both discs. As the paralysis did not improve, and as the mental condition was deteriorating, it was determined to operate with a view to the removal, if possible, of the tumour.

Operation.—On July 11th, the scalp having been prepared in the usual way, the patient was placed under chloroform, and a large Horsley's ∩-shaped flap was thrown down on the left side. This flap included the periosteum, and allowed of the exposure of the coronal and sagittal sutures, about 1 inch of the posterior part of the left frontal bone, and practically the whole of the parietal bone with the exception of the anterior inferior angle, and the part immediately adjacent to the lambdoid suture. The portion of bone to be removed was then marked out by means of a lead saw. It was in shape a parallelogram, whose anterior and posterior borders running parallel with each other were planned also to run parallel with the sulcus of Rolando. The anterior border encroached a little on the frontal bone at its lower end. The upper border of the parallelogram corresponded with the sagittal suture, and extended along it from the bregma for fully $3\frac{1}{2}$ inches. The lower border was parallel with the upper and 2½ inches below it. The portion of bone removed would thus include the parietal eminence, and would allow of the free exposure of the upper part of the motor cortex, especially of the toe and ankle centres at the upper extremity of the ascending parietal convolution, which it was desired to thoroughly examine.

The removal of the bone thus marked out was accomplished by the aid of the same large saw, by means of which it was divided up into small quadrangular pieces by vertical and horizontal cuts. These pieces were then easily raised from the dura by an elevator. As soon as one piece had been removed the use of strong bone cutting forceps facilitated the final separation and removal of the pieces into which the bone had been mapped out by the saw. Along the upper boundary of the opening in the skull the final removal of bone was accomplished in part by disarticulation at the sagittal suture. In this way the dura was exposed without injury, and the middle meningeal artery lay upon it without having been wounded. The dura bulged considerably into the opening in the skull. As it was clearly desirable to perform the operation in two stages, the edges of the scalp wound were now brought together by horsehair sutures, the antiseptic dressing applied, and the patient put back to bed.

[2] Horsley, BRITISH MEDICAL JOURNAL, October 9th, 1886, p. 670.

On July 17th (that is, six days after the first operation), the patient having completely recovered from the previous operation, she was again chloroformed by Dr. Dudley Buxton. On removing the dressing the wound was found united by first intention, but its edges were easily separated by the handle of a knife after the stitches had been cut. The scalp flap was again thrown down, no bleeding occurring, and wrapped up in an antiseptic dressing. A little clot was lying on the dura. This was taken away, and as large a square dural flap as possible was cut and folded down over the scalp flat. The part of the cortex thus exposed was bulging, and, especially over the upper part of the ascending parietal convolution, presented a mottled unnatural appearance. This mottling may have been due to minute ecchymoses produced during the removal of the bone a week before, or to malignant invasion of the cortex. The former alternative seemed the more probable. On palpation no area of special resistance indicating the site of the tumour could be discovered, but on exploring the mottled ascending parietal convolution with the finger, the cortex being here greatly thinned, was broken through, and the tumour of a whitish-grey colour, was seen. As the ruptured cortex receded the tumour appeared to be discontinuous with the brain substance, and an attempt with the finger and the handle of a sterilised silver spoon was made to shell it out. This, however, was impossible, as it was discovered to be continuous with and infiltrating the surrounding cortex, and also the substance of the hemisphere about an inch below the surface and towards the front and middle line. The consistence of the tumour was semigelatinous, softer than the normal brain substance, and it was found easier to remove it with a silver spoon than in any other way. A considerable hæmorrhage took place at the time, and, as it was not controlled by filling the cavity in the brain by cotton wool, a series of fine silk threads were passed through the cortex for a depth of about ¾ inch all round the affected area except for about an inch at the median line, and tied so that all the vessels within the operation area were controlled. The area was about 2½ inches in diameter. A free incision was then made through the cortex all round, just within the line of ligature, and all the included part, brain, and tumour was taken away by means of the spoon. The tumour extended to the medial surface of the hemisphere, and so a part of the marginal convolution and quadrate lobule was removed, the falx being clearly exposed. In this way as much of the tumour as was visible was removed, but as the line of junction of healthy and diseased tissue was so indeterminate, it is not possible to say that the whole tumour was excised; it is, indeed, probable that it was not.

At the close of the operation the brain presented a large cup-shaped cavity nearly 2 inches deep, and the size of half an orange. It is probable that the area removed comprised the upper part of the ascending frontal and parietal convolutions, the anterior part of the parietal lobule, and the adjacent portion of the marginal convolution. When all bleeding had ceased the dural flap was very carefully stitched in position with fine silk. No bone, of course, was returned. The scalp flap was brought into place by many horsehair stitches.

The antiseptic employed during the operation was solution of mercuric perchloride (1 in 2,000). The brain wound was constantly irrigated with the solution so as to keep it clear of blood, by squeezing a wet cotton wool mop over it. No marine sponges were used, and the operation area was kept free of blood, not by mopping or touching the brain, but by the stream of fluid.

During the operation the patient was kept warm by several hot bottles, but she was much collapsed when she was put back to bed, the pulse was very small and thready, and her temperature was as low as 95° F. A brandy enema was administered, the bed placed in front of a large fire, and, the patient being surrounded by hot bottles, her condition improved, and the danger of death from shock soon passed away.

Dr. Colman, Pathologist to the hospital, made a microscopical examination of the tumour, and reported the growth to be a sarcoma with round and spindle cells.

On the next day, July 18th, the pulse had improved, but was still of poor force and tension; the patient had marked aphasia, largely motor, as she could say her name, but could not repeat words spoken to her. She understood a good deal of what was said to her, and said "Yes" and "No" appropriately, but she did not understand simple commands, as when told to put her hand on the top of her head she failed to do so. She was completely paralysed in the right arm and leg.

On July 19th the patient had a series of clonic spasms involving the right angle of the mouth, which was drawn upwards and outwards, but the orbicularis palpebrarum was not affected. Each attack lasted a few minutes.

On July 20th she had a similar attack lasting three hours. From this date her convalescence was uninterrupted. The dressings were changed twice, on the 19th and 23rd, and on the latter date the stitches were removed. The temperature varied from 97.5° to 99°, and was not materially different on the two sides.

July 26th. It was noted on this date that the position of the right hand was as follows: The hand lay on the bed with the thumb adducted and with the phalangeal joints flexed: the first and second fingers were in the interosseal position, while the third and fourth fingers were semiflexed at all the joints. There was constant clonic spasm of the thumb and index finger towards each other with extension of the first and second fingers, but without affecting the other fingers and the wrist. This spasm was first noticed on the 22nd, but was not continuous till the 26th. The aphasia had passed away, but there was still some hesitation in speaking, although appropriate words were used, it had been noticed that the nouns were the last to return.

There was absolute loss of power in the right upper extremity, and on July 25th the patient began to have voluntary movement in the right lower limb, and was able to flex the hip and extend the knee, raising the heel off the bed, but she had no power to move the right ankle or toes; abduction and adduction of the hip-joint, and flexion of the knee was also possible. On testing sensation it was found that she could recognise the slightest touch on the right side, but localisation was defective.

July 30th. The clonic spasm had ceased, motor power had still further improved in the leg, but the upper limb remained powerless.

Mr. Donald Gunn, on July 31st, made an ophthalmoscopic examination, and found the right disc was swollen to 3 D. The swelling was steep at the edges, and extended on to the retina beyond the margins of the disc: there were also some hæmorrhages with full veins.

On August 28th her vision was R = $\frac{6}{12}$, with difficulty, and J. 6 at 10 inches for both eyes, slowly.

August 29th. The condition of the patient was as follows: Her mental condition was very much improved, and from being morose and dull, she became lively, and amused the other patients. She had no paralysis of the face, and could now carry the right hand to the chin, but could not move the fingers or thumb; she could walk with a little assistance. she had good movement at the hip and knee and some movement at the ankle, but no movement of the toes.

With regard to sensation, she could appreciate light touches everywhere, but over the right upper limb, the localisation was still faulty. Speech was perfectly restored.

We wish to thank the resident medical officers of the hospital, Drs. Whiting and Warrington for the great care which they took in the management of the case.

CONDITION AT PRESENT TIME, NOVEMBER 20th, 1894.

The hair has grown again, hiding the area of operation. The scalp covering the opening in the skull, which when she left the hospital was a little concave, is now at the normal level. The edges of the bony opening are not quite so sharp as they were. The scar has to be looked for, being very narrow and showing the perfection of union by first intention. It might be thought that the filling up of the opening and the rising of the scalp over it to the normal level was due to recurrence of the growth, but in the absence of symptoms such a view cannot be definitely asserted, since a like phenomenon is not unknown after recovery from compound fracture, involving loss of brain substance.



Charts showing the areas of anæsthesia which entirely disappeared after the operation. Vertical lines show marked blunting to tactile impressions; dotted areas show slight blunting to tactile impressions.

The patient is restored to her normal mental condition: Speech is perfect. There is no headache. Movements of face normal.

Upper limb (right): Fingers as a rule are kept straight, phalangeal joints being extended and metacarpo-phalangeal joints being flexed. There is some very slight rigidity about the joints of the hand and wrist, and at the elbow the humerus can be passively abducted to a right angle but beyond that pain is caused. She can extend the fingers but not thumb. Grasp, left, 60; right, 11 (weakest dynamometer). Can flex well thumb and fingers, can pick up a pin with the right hand from a soft ground, not from a hard flat one. Cannot button with

finger and thumb. Consensual movement of the right hand obtained with grasp of left, but grasp of left does not increase power of right grasp. Frequent slight clonic spasm of first finger and thumb (no tonic spasm) observed and increased by emotion. Can extend wrist to line with forearm but not beyond. Can pronate and supinate forearm. Can flex and extend elbow. The humerus she can elevate to a right angle but not beyond that. She has some difficulty in advancing the humerus, but can adduct it strongly. In abduction the whole scapula moves. She has very little power to shrug the right shoulder, but the anterior part of the trapezius acts well in forced inspiration. Walks without assistance, or stick, swinging the right leg, catching it on the ground sometimes.

Right lower limb. There is no rigidity in the joints, but the calf muscles have shortened so that the ankle cannot be dorso-flexed to less than a right angle. She has not the least power in the toes, either flexion or extension, and she can only faintly plantar-extend the ankle, but cannot dorso-flex it. The right knee she can extend powerfully, but flexion is weak; extension and flexion of the hip are good, but weaker than on the left; rotation out of hip good, rotation in weak. Knee-jerk excessive on the right, well marked on the left; right ankle clonus. Radius and ulna tap readily obtained on right; no jaw-jerk. Right plantar reflex deficient.

Sensation.—Pain in the right shoulder, especially when it is moved. No anæsthesia anywhere, and localises correctly. No loss of muscular sense.

A remarkable feature about this case is that, though so large an area of cortex has been removed, the patient has recovered sensation completely, and, with the exception of the toes, ankle, and shoulder, she has recovered almost completely as regards direction, but with diminished strength as compared with the other side. We should explain this, according to the theory of Dr. Hughlings Jackson, as follows: that all movements of the upper limb, for instance, are represented in all parts of the upper limb area of the cortex, but in different degrees; and that it is not possible to completely paralyse the upper limb unless the whole of this area is removed. In our case some of the upper limb area was left. This is no way invalidates the minute analysis of cortical representation, which demonstrates the place where any definite movement is most highly represented.

The question is not seldom asked, "What do patients suffering from tumours of the brain gain from surgery?" It appears to us that in the several following ways enormous benefit may be given by operation:

1. The complete removal of a tumour, as in Mr. Horsley's case, of a small tuberculous mass occupying the cortex in the region of the representation of the movements of the thumb.[3] This patient, a man aged 20, suffered from frequent local fits, beginning in the thumb and forefinger, and from headache and from these symptoms he was completely relieved by the removal of the tumour and part of the cortex.

2. Partial removal of a tumour, as was probably done in the case on which this paper is founded. The operation on this patient relieved her of headache, vomiting, double optic neuritis, anæsthesia, and from the greater part of her paralysis; the mental condition, which was very much deteriorated, was restored, the patient regaining her former bright and cheerful condition.

3. The draining of a cavity in a cerebral glioma or sarcoma which cannot be removed. This is well illustrated by a case which was under the care of one of us (Ballance) and Dr. Gowers. This patient, aged 11 years, suffered from headache, vomiting, double optic neuritis, fits beginning in the thumb and followed by hemiplegia, and was practically relieved of all his symptoms, including moral deterioration (stealing) by this procedure. He lived for three years.

4. *The Removal of Bone and Incision of the Dura Mater.*—The benefit resulting from this operation is well shown by a case which was under the care of Dr. Buzzard and one of us (Ballance). A woman, aged 41, was admitted with symptoms pointing to tumour of the internal capsule, namely, hemianæsthesia, nearly complete hemiplegia, double optic neuritis with failing sight, and severe headache with agonising paroxysms. In one of these paroxysms she became comatose and was evidently dying, it was thought from hæmorrhage into the tumour. The above operation was at once performed and the relief of the urgent symptoms was immediate, and in a month's time the report states that there was no headache, vomiting, or optic neuritis, and some return of power and sensation had already occurred, with improvement of sight and restored mental condition.

5. Removal of a considerable area of bone without opening the dura mater is, we believe, considered by some to be adequate to relieve the classical symptoms of tumour. It is true that the dura bulging through the opening in the skull indicates that there is a relief of pressure, but what we have to deal with is tension within a practically inelastic membrane, and the intradural space can hardly be materially increased while the dura is intact and the opening in the skull is comparatively small. The sac of the dura cannot be distended to its full extent while the cranium is intact, and so when bone is removed its foldings are flattened out. A considerable fall in pressure can only be obtained by taking away a large area of bone, and in tumour cases, when this is done, the dura still bulges under much *plus* pressure. As we have known of no case in which the removal of bone alone has relieved the pressure symptoms, we should advise that the dura should always be opened; another reason of great import being that the cortex might be involved without any of the type signs being present.

The following experiment is of interest in showing how little extra room is gained in the dural cavity by the removal of a very large area of skull.

A dog was killed with chloroform, and a cannula was passed into the cranial cavity through the spinal theca in the cervical region. This cannula was then connected with a manometer which was filled with oil. The column of oil was made to rise 1,000 mm. high in the capillary tube connected with the manometer, and a trephine opening 1 cm. in diameter was then made in the skull. The fall in consequence was very slight, the dura bulging through the trephine hole. Then more and more bone was removed, until nearly half the vault of the skull was taken away. It was then noted that the oil in the capillary tube had fallen 300 mm., the volume of which, as estimated, showed that only 0.54 c.cm. of oil had entered the dural cavity in consequence of the removal of bone.

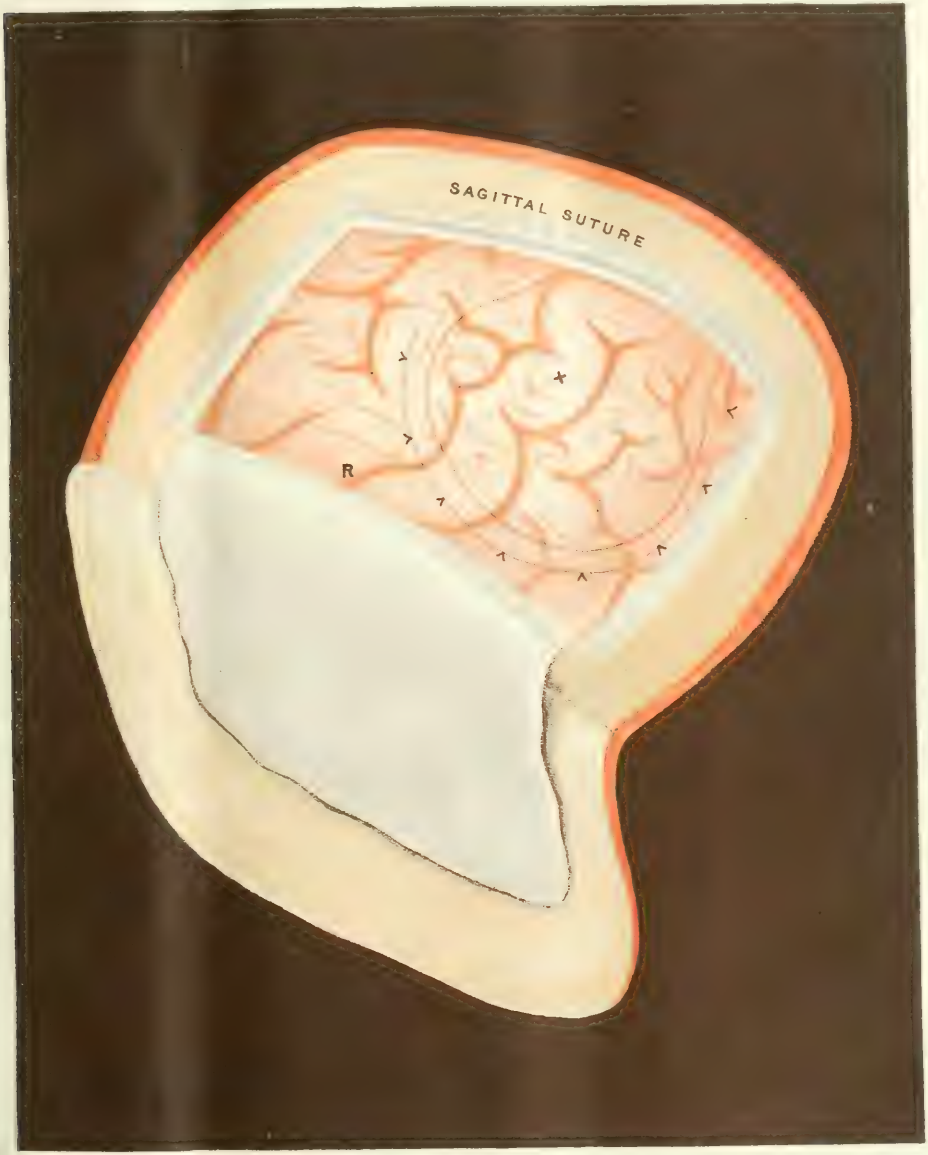
We are much indebted to Dr. Sherrington for his aid in this experiment.

We would conclude this paper with the question, How soon should one of the preceding operations be performed? When the type symptoms are present, it is quite certain that no delay is desirable after a fair trial has been given to anti-syphilitic remedies, and we should limit this time to six weeks or two months.[4] The main difficulty arises when the symptoms are not typical, and it is to be borne in mind that large, slowly-growing tumours may be present without any symptoms which are unequivocal. As an instance of this, a case may be referred to which was under the care of Mr. Horsley and one of us (Beevor). The patient had occasional fits with unconsciousness, beginning in the corner of the mouth, six years before other symptoms arose which justified operation, and then the tumour was found to be so situated that it could not be removed without producing aphasia. It would be easy to mention other cases illustrating the same point.

In any case in which the typical signs of tumour are absent, and where the fits always begin with the same localised warning, and are attended with loss of consciousness, the question is, Are these fits due to idiopathic epilepsy, or are they due to a tumour? And we would say that no operation is advisable, other signs of tumour being absent, unless the paralysis which follows the fits is permanent—that is, not recovered from in the course of a few days, or unless the fits occur very frequently. While it is impossible to lay down absolute rules for the treatment of these cases, it would appear that occasional fits, beginning locally, followed by loss of consciousness and attended only by headache, would not justify an operation. But that any other combination of the type symptoms—headache, purposeless vomiting, optic neuritis especially with failing sight, localised fits, and permanent paralysis—would render surgical operation advisable.

[3] BRITISH MEDICAL JOURNAL, 1887.

[4] Horsley, BRITISH MEDICAL JOURNAL, 1893.



TO ILLUSTRATE PAPER BY CHAS. E. BEEVOR, M.D., AND CHAS. A. BALLANCE, M.S.

DESCRIPTION OF COLOURED PLATE.

The drawing was made from memory (C.A.B.). It illustrates the plan of and the parts involved in the operation. The opening in the bone corresponds to the deficiency at present existing in the patient's skull. It is to be remembered that the curve of the head prevents the actual linear dimensions of the deficiency in the skull being reproduced on a flat surface. The drawing is a view at right angles to the mid point of the exposed cortex and was made in part from the normal brain and in part by the help of one of Professor Cunningham's casts. At the upper border of the opening in the skull is seen the sagittal suture, at the lower border the scalp flap and the flap of the dura mater. R = the sulcus of Rolando. + = the place where the cortex ruptured during palpation. With regard to the area of so-called "motor cortex" involved in the operation the reader is reminded that the ascending frontal and parietal convolutions are separated from each other for a distance of $3\frac{3}{4}$ inches by the sulcus of Rolando. The fine silk cortical ligatures which controlled the bleeding within the region of the operation are represented. The continuous line within the silk threads is the line of incision of the cortex. The darker blue tint of the dura below the sagittal suture marks the course of the superior longitudinal sinus.

THREE CASES OF INTRACRANIAL ABSCESS: RECOVERY IN EACH CASE.

BY ROBERT W. MURRAY, F.R.C.S.,
Surgeon Liverpool Infirmary for Children.

ONE of the following cases was operated upon three years and a-half ago, and an account of this case has been published in the BRITISH MEDICAL JOURNAL of February 13th, 1892. I again refer to it as the subsequent history of patients operated upon for cerebral abscess is always of interest, especially when the lesion occurs in childhood.

AFTER-HISTORY OF A CASE OF CEREBRAL ABSCESS.

The following is a brief history of this case. A. L., admitted into the Children's Infirmary on May 5th, 1891, on account of loss of power of the left hand, and epileptic seizures affecting the left upper extremity and the left side of the face. A fortnight previous to her admission her father threw a poker at his wife, missed her, the poker striking the child end on, on the right side of the head. There was free bleeding from the wound, which was cleansed and a plaster applied. The child appeared to be in her usual good health until two weeks after the accident, when she ran into the house crying, because her left arm and the left side of her face were twitching. This twitching continued without any loss of consciousness for half an hour. She had no further attacks until the day before admission. When I saw her there was paralysis of the left upper limb, chiefly involving the hand, which assumed a claw-like position. There was a small sloughing scalp wound in the right parietal region, corresponding to the junction of the upper with the middle third of the Rolandic area. The bone here was bare, and a probe could be passed through a small aperture in it into the cranial cavity. I trephined at this spot, and at a depth of two inches opened a cerebral abscess, a drachm of thick non-offensive pus escaping.

She had no more fits, and made an uninterrupted recovery, very soon regaining the power of the paralysed arm and hand. She was at the time of operation 5 years old, and is now $8\frac{1}{2}$ years of age. During these three years and a half she has enjoyed good health, and shows no sign of mental impairment.

TEMPORO-SPHENOIDAL ABSCESS.

In the next case the abscess was the result of middle-ear disease. L. J. was admitted into the Children's Infirmary on November 17th, 1893, being then $9\frac{1}{2}$ years of age. She was quite well until four weeks previous to her admission, when she had great pain in her left ear. This was followed by an offensive discharge from the ear, which discharge continued for four or five days; it then ceased, and there had been no discharge from the ear since then. This ear trouble necessitated her being away from school for a week. She went back to school on October 23rd, but remained at home the next day, as she felt tired, and her head ached. She, however, attended school the following day, and managed the morning lessons, but only had light work to do, as she looked poorly. She returned home at midday, and almost as soon as she arrived had a fit. In this fit she struggled slightly, then became semiconscious, and relapsed into another fit; this was followed by a third, the three fits lasting in all about one hour and a-half. The character of these fits could not be ascertained, as the friends were too much upset to observe details. These attacks occurred on October 28th. After that date she had no more fits, but was decidedly ill, remaining in bed with the exception of two days, until her admission, complaining of constant frontal headache. She vomited occasionally. She had no shivering and was not feverish. She was brought to the hospital on November 17th, it then being four weeks since the onset of the otorrhœa, and three weeks since her last fit. She was a well-grown child, conscious though drowsy, knew where she was and answered questions. Constantly put her hand to her forehead, and said her head ached. There was a slight divergent squint of the left eye, and the left pupil was dilated. The right side of the face was slightly paralysed, but there was no apparent weakness of the right arm or leg and no aphasia. There was no discharge from either ear. Her temperature was 97° F. Mr. Stevenson, Surgeon to the Eye and Ear Infirmary, kindly examined the eyes for me, and said there was double optic neuritis, more marked in the left than in the right eye. As it was late in the evening when the child was admitted I decided to postpone operating until next day. But shortly after I arrived home I was telephoned for, as the child's condition had undergone a marked change for the worse, and she appeared to be dying. Her pulse and respiration, which on admission were both below normal, had fallen to 48 and 8 respectively.



Fig. 1.—Case II: temporo-sphenoidal abscess showing line of incision adopted.

I at once operated, making a curved incision practically corresponding to the line of the squamous suture on the left side, and removed a disc of bone with a half-inch trephine, about three-quarters of an inch directly above the external auditory meatus. The dura mater bulged into the opening and did not pulsate. When the dura was divided the brain protruded through the incision. I then passed a tenotomy

knife into the brain for about half an inch, when it entered an abscess cavity and pus at once escaped. On further dilating the opening with a pair of sinus forceps the pus was forcibly ejected. A drainage tube was inserted and the abscess cavity thoroughly cleansed by syringing with warm boracic lotion. The flap was sutured and the drainage tube brought to the surface through an opening made in the middle of the flap. Three ounces of pus were collected and fully half an ounce of pus was lost, so that the abscess contained three and a-half ounces.

The immediate effect of the operation was very marked. The pulse, which before operation was 48, rose to 72, and the respiration, which before operation was 8, rose to 28. Two weeks later I opened the mastoid antrum and removed from it some unhealthy granulation tissue. From the date of opening the temporo-sphenoidal abscess, now a year ago, the child made an uninterrupted recovery and has remained perfectly well ever since.

Cerebellar Abscess.

The third case was that of a boy aged 11, who was admitted into the infirmary on June 2nd, 1894. His previous history, so far as we could obtain it, was the following. There had been a discharge from his right ear for the last three weeks, but he had attended school regularly until within a few days, when he complained of headache, and frequently vomited. He had no fits or shivering attacks. On admission he was emaciated, very dirty, looked extremely ill, and complained of frontal headache. There was an offensive discharge from the right ear, and a painful swelling over the right mastoid region. His temperature was 100°. There was double optic neuritis. I made a vertical incision over the mastoid process, and opened a subperiostial abscess. During the next few days his general condition was worse rather than better. The temperature varied from 98° to 100°; the pulse varied from 80 to 90, and was irregular.



Fig. 2.—Case III: Cerebellar abscess with extradural abscess over sigmoid sinus.

There was swelling and tenderness on the upper part of the neck corresponding to the line of the internal jugular vein. His frontal headache persisted. We again put him under chloroform, with the view of opening the mastoid antrum and exposing the sigmoid portion of the lateral sinus. The mastoid antrum was full of offensive granulation tissue, and on further removing bone in order to expose the sigmoid sinus, I opened an extradural abscess on the sinus, about a drachm of thick non-offensive pus escaping. The sinus, covered with granulation tissue, was collapsed, and appeared to be thrombosed. I did not open it. The boy was not materially relieved by operation; in fact, two days afterwards was markedly worse, though the swelling in the neck was rapidly subsiding. He still had constant frontal headache, and vomited occasionally. His respirations were sighing, and the pulse varied from 40 to 60 a minute, and was irregular. He had no paralysis of the face or limbs, neither was there any ocular paralysis, and his pupils were equal. There was no aphasia, motor or sensory. The optic neuritis was more marked. The temperature was 97° F. It was obvious he was suffering from some grave cerebral affection consequent upon middle-ear disease, most probably an abscess either of the temporo-sphenoidal lobe or of the right lateral lobe of the cerebellum. As the evidence pointed strongly in favour of the latter, I decided to explore the cerebellum. Mr. Hugh E. Jones kindly saw the boy with me, and agreed as to the diagnosis. I exposed the cerebellum by nibbling away the bone from the seat of my former incision. The dura mater bulged, but did not pulsate. On incising the dura, the brain protruded, and by passing a director into the cerebellum in a direction forwards and inwards I opened an abscess, 4 to 6 drachms of sweet pus escaping. The abscess cavity was well washed out through a drainage tube, and the tube brought to the surface through an opening made in the middle of the flap, as in the previous case. His pulse, which previous to operation was 20 beats per minute, rose directly after operation to 100 per minute, and his temperature, which before operation was 97°, rose to 99.6°.

The operation was performed on June 25th, 1894, and since then he has steadily improved. He attends school regularly and enjoys excellent health.

The chief interest in the first case is the apparently complete and permanent recovery. In the second case the symptoms were typical of the lesion, though it is unusual for a cerebral abscess to follow an acute otorrhœa. It also shows the remarkable cerebral capacity in childhood, for the abscess was an unusually large one. The third case was a complicated one, as abscess of the cerebellum consequent upon middle-ear disease usually is. The diagnosis was arrived at chiefly on anatomical grounds, the sigmoid groove being diseased, and from the absence of definite symptoms of a lesion of the temporo-sphenoidal lobe. The sighing respiration is also noteworthy.

I am glad of this opportunity to express my indebtedness to Dr. Macewen for his very clear exposition of this branch of surgery, for what little I know of intracranial lesions consequent upon middle-ear disease has been derived from a study of his works.

A CASE OF RIGHT HEMIPLEGIA WITH EPILEPSY. TREATED BY TREPHINING.

USE OF HAND, ARM, AND LEG RESTORED, AND NO RETURN OF FITS AFTER OPERATION.

BY

T. OUTTERSON WOOD, M.D., M.R.C.P., Honorary Physician to West End Hospital for Nervous Diseases, Welbeck Street, W.

and

EDWARD COTTERELL, F.R.C.S., Honorary Surgeon to the West End Hospital for Nervous Diseases, Welbeck Street, W.

Description of the Case by Dr. Outterson Wood.

M. P., a girl, aged 3 years and 3 months, was admitted into the West End Hospital for Nervous Diseases, Epilepsy, and Paralysis, on January 1st, 1894, suffering from weakness and inability to use her right hand, arm, and leg. There was also a history of epileptic attacks. In other respects she was a well-nourished, healthy-looking child, bright, intelligent, and cheerful.

The previous history showed that when she was born the labour was easy, natural, and free from complication; that she had been perfectly well from birth until she was 1 year of age, and in every respect healthy and vigorous. She then

fell from the top of a hayrick, and, although the fall was from a considerable height, she soon recovered from the shock, and there was no further injury apparent at the time. In the course of a few weeks, however, she had what appears to have been an epileptic seizure. She suddenly fell down and became unconscious, and the mother immediately noticed she could not move her right arm and leg. The face was not affected.

In July, 1892, she had two slight epileptic seizures, and again in July, 1893 (six months prior to her admission), she had several seizures, but these were not followed by any appreciable difference in the hemiplegia.

In the fits the convulsive movements always commenced in the right thumb and fingers, and she became quite unconscious. There was nothing further to note with regard to the previous history, and the family history was good. On examining the head it was found that the left supraparietal region was distinctly flattened, and sloping straight away from the vertex, the parietal eminence appearing to be pushed down and becoming more abruptly prominent than on the opposite side. A vertical section through the parietal eminences, viewed from behind, would be represented as in the engraving. There was no evidence of facial paralysis;



the eyes were normal, there were no fundus changes and no ocular paralysis: the left pupil was very slightly larger than the right, and both acted well to light and accommodation.

The right arm was a quarter of an inch shorter than the left, was cold and bluish-red in colour, the movements being confined to flexion at the elbow-joint, necessarily limited by the general rigidity of the limb. The thumb was held across the palm of the hand, and, like the fingers and wrist, remained strongly flexed. The leg was rigid, the foot inverted, and the child could only walk, and that with great difficulty, by holding on to something.

The flattening of the skull over the motor region of the cortex corresponding to the right arm and leg centres, the condition of the right hand, and the fact that the epileptic seizures always commenced in the thumb and fingers, led me to the conclusion that the symptoms were probably due to some irritating lesion affecting the cortex, probably the result of an injury caused by the fall from the hayrick. I therefore asked my colleague, Mr. Cotterell, to see the case, with the view of removing by operation any focus of irritation, and thus arrest the tendency to epilepsy and restore power to the limbs. Certainly the result has been so far exceedingly satisfactory, the hand and arm are freely used, and now, eleven months after the operation, the patient can run about as well as most children, without limping; nor has there been any return of the epileptic seizures.

DESCRIPTION OF THE OPERATION BY MR. COTTERELL.

In January, 1894, I saw this case, in consultation with Dr. Outterson Wood, and found the condition as he has described it. The flattening of the left upper parietal region was very marked, especially when viewed from behind. We determined that it would be the best thing to explore the flattened region, and to be guided then by what was found as to any further operative measures.

Accordingly, on February 2nd, the scalp having been rendered thoroughly aseptic, the child was anæsthetised and a semicircular flap 4 inches long was reflected up, from the left parietal region. The periosteum was raised over an area of about 2 inches, the centre of which corresponded to the middle of the flattened region. A trephine having a diameter of ¾-inch was applied to a point on the skull corresponding to the middle of the fissure of Rolando and the disc of bone removed. This opening was enlarged with cutting forceps. The dura mater was opened, and directly underneath there appeared a small cyst filled with serous fluid, situated apparently under, or between the layers of, the arachnoid. The dura mater was somewhat thickened over the cyst and adherent in places. The adhesions were separated and two pieces of the external wall of the cyst were removed. The dura mater was stitched up except at the lower angle, a catgut drain inserted, and the wound closed.

The child was collapsed after the operation, but quickly rallied. The after history of the wound presents nothing worthy of note, as it all healed up by first intention, except the track of the drain. A large amount of cerebro-spinal fluid escaped, rendering dressing of the wound necessary twice a day for the first three or four days. The wound was completely healed by February 11th.

After the operation the child rapidly improved, in spite of attacks of whooping cough and chicken-pox. Dr. Guthrie Blandford, our late house-surgeon, to whom I am indebted for the great care and attention which he bestowed upon this case, notes that on March 17th, 1894, that is, about six weeks after the operation, "the child can now walk without support. The hand can be opened spontaneously; no fits since operation." The improvement has steadily continued, and at the present time very little remains of the hemiplegic condition from which she suffered.

The situation of the cyst corresponded to the arm and leg centres, and it was doubtless the cause of the hemiplegia and of the epileptic convulsions. The exact nature of the cyst I am unable accurately to determine, but I am inclined to think that it was the result of hæmorrhage, probably, into the subdural space. We know that in these cases the coagulated blood in the course of time becomes completely decolorised and forms a thin membrane-like layer of tissue, which encloses a cavity containing serous fluid. As far as I can learn, I believe that this condition has been found very rarely during operation.

FLAP OPERATING IN LAMINECTOMY AND SUBCUTANEOUS CYSTS.

BY C. H. GOLDING-BIRD, F.R.C.S.,
Surgeon to Guy's Hospital.

THE eulogium pronounced by Professor Chiene in the BRITISH MEDICAL JOURNAL, October 4th, 1894, on the flap method of operation, will draw the attention of all surgeons to its wide application and advantages. I add now to his list two other operations in which the flap will be found preferable to the linear incision:

1. In operating upon the spinal column, whether for disease or traumatism. The linear vertical incision, though it unites at first, may under the pressure of the spinous processes, as the patient lies in bed, break down, especially where, in a traumatic case, there has been much bruising. Such an accident has occurred in my own practice. Lately operating for fractured spine on two adults, both in the dorsal region, I made a horseshoe flap with the convexity upwards, and crossing the middle line between two vertebral spines, well above the area of injury. The sides of the flap were prolonged downwards, parallel to the spine, as far as requisite. In both cases primary and sound union followed: there was no pressure on the scar, since it only crossed the middle line of the spine once; and then between the prominences of two vertebræ.

2. In operating on subcutaneous cysts generally, and on enlarged bursa patellæ especially.

In the latter, a horseshoe flap is made, crossing the middle line just above the patella, and prolonged downwards by two parallel lines on either side of it, as far as necessary. The flap is reflected downwards. The scar is thus completely out of the way of all pressure. A further advantage in these cases, as in subcutaneous cysts generally, is that the cyst is first attacked below its summit, at a spot where there is always a good thickness of subcutaneous tissue; there is therefore less liability of injuring the cyst than when a vertical incision is made over its summit, where the skin is often closely applied to it. More room is also obtained, and the manipulations being freer, the operation is more rapidly performed.

CASTRATION FOR THE CURE OF HYPERTROPHIED PROSTRATE.

By J. WILLIAM WHITE, M.D.,
Professor of Clinical Surgery in the University of Pennsylvania.

THE reception by the medical profession here and elsewhere of the suggestion made by me in June, 1893, that castration might be an effectual remedy for prostatic hypertrophy has been increasingly favourable. Up to that time no reference existed in surgical literature to the possibility of affecting the overgrowth by the removal of the testes. Since then, twelve more or less successful cases have been published. It is not too much to say that, in connection with the further corroborative evidence that has been brought forward, they serve to establish the operation as a rational and justifiable procedure. I have already reviewed[1] the history of eight of these cases.[2] The other four may be briefly summarised as follows:

Mayer and Haenel[3] operated, May 16th, 1894, on a man about 70, with a much enlarged prostate, cystitis, and ammoniacal urine, tenesmus and toxæmia, in whom catheterism was becoming impossible on account of the pain it excited. There were several ounces of residual urine. Some improvement was noted in a few days; after two weeks the tonicity of the bladder began to return; in three weeks the urine was nearly normal; and in six weeks the prostate had shrunk to its proper dimensions, the bladder emptied itself completely, no catheter being required; urination was performed only once in four hours, and the urine was limpid and of acid reaction.

These authors discuss the apparent analogy between the prostatic and the uterine fibro-myomata (which was what led me to the researches that resulted in my suggesting the operation to the profession), mention my confirmatory experiments on dogs (which gave a definite and scientific basis for the suggestion), and after quoting Ramm's cases, arrive at conclusions entirely favourable to the method on account of its comparative safety and the ease of its performance as contrasted with the other operative measures directed against the hypertrophied prostate.

Moullin[4] reported the case of a man, about 81, with complete retention due to a prostatic enlargement the size of an orange, with cystitis and failure of general health, and in whom catheterisation was impossible, the attempts being followed by hæmorrhage. Suprapubic aspiration was necessary on several occasions. After the castration the improvement was almost immediate, the prostate was appreciably smaller in ten days, and in three weeks had practically disappeared. An ordinary catheter could be readily passed. The bladder had begun to regain power. The urine was nearly normal.

J. I. Thomas[5] reports a case in which castration in a patient of 65, who had had symptoms of prostatic hypertrophy for fifteen years, had caused "considerable improvement." He adds: "Urination which was formerly very frequent, is now necessary but three times a day." This report was made very soon after the operation, and no further details are given.

B. Ricketts, of Cincinnati, reports[6] a case in which he did this operation in a patient, about 74, who left the hospital at the end of the sixth day. On the second day after the operation the patient could urinate with greater ease, and the pain was so slight that he said he had not had so much comfort for a year; he could sleep four hours at a time during the night, whereas formerly he had been getting up once every hour, and had been urinating thirty times daily. The condition continued to improve. A further report was promised later.

Launois[7] publishes an interesting memoir reviewing the whole subject and bringing forward some collateral evidence, chiefly from the works of Godard, showing that monorchidism is apt to be associated with unilateral atrophy of the prostate, and giving instances of such atrophy after gonorrheal epididymitis, and of complete atrophy in cryptorchis, after syphilis, sarcocele, etc. He too concludes that the operation is of distinct curative value.

What might be called a supplementary indication for the operation will, I think, be found in some cases in which with the usual urinary symptoms of prostatic overgrowth there are others referable to the sexual system, and often causing more serious trouble. Every genito-urinary specialist is familiar with instances of "psychopathia sexualis" in old men, but not everyone realises that they often have a physical rather than a psychic basis, and depend on the prostatic congestion and excitation incident to the early stages of hypertrophy. In one of Haynes's cases the relief experienced in this direction was as marked as that derived from the disappearance of obstruction.

[1] BRITISH MEDICAL JOURNAL, June 23rd, 1894.
[2] Haynes, 3; Smith, 1; Ramm 2; Powell, 1; White, 1.
Cent. für die Krankheit. der Harn und Sexual-Organe, August 23rd, 1894.
[4] *Med. Press and Circ.*, September 19th, 1894.
[5] *Pittsburgh Medical Review*, September, 1894.
[6] *Cincinnati Lancet-Clinic*, December 1st, 1894.
[7] *Ann. des Mal. des Org. Gen.-Urinaires*, October, 1894.

The details of several successful operations performed here (Philadelphia) will shortly be published.

The objections to the operation met with in practice have in my experience arisen altogether from the sentimental side of the question. As Launois says, men even of advanced age, "*aimant à se faire illusion*," insist upon retaining their testicles as evidence of a "*virilité passée*." This applies of course with especial force to the cases in which dysuria is slight or catheterism easy, the general health remaining unaffected. As to the more serious cases, such as those noted above, we have now reached a point in certainty of knowledge where we can promise results at least equivalent to those obtained by oöphorectomy for uterine fibroids, and I believe that the assertion I made in my original paper was correct, and that "there will be no lack of cases willing to submit to an operation almost painless, with a low mortality, and followed by no such unpleasant conditions as accompany persistent fistulous tracts, either suprapubic or perineal, even although the operation carries with it the certainty of sacrificing whatever sexual power has survived the excessive and often intolerable suffering of such patients."

CASTRATION FOR PROSTATIC HYPERTROPHY.

By JAMES SWAIN, M.S., M.D.LOND., F.R.C.S.ENG.,
Assistant Surgeon to the Bristol Royal Infirmary.

FROM the commencement of "catheter life" to the death of the patient from bladder or kidney mischief, hypertrophy of the prostate gland is associated with so much worry and pain and danger that we should gladly welcome any means which offer relief from this distressing condition.

John Hunter[1] pointed out that the prostate of the perfect bull was much larger than that of the ox, and in more recent years the observations of Griffiths, Civiale, and others have shown that in man and animals removal of the testes prevents the development or produces atrophy of the prostate gland, according to whether the castration is performed before or after puberty. Mr. Harrison[2] also divided the vasa deferentia some years ago for the purpose of producing atrophy of the prostate; but the case was not followed up, and it was reserved for Professor White,[3] of Philadelphia, to make use of these facts in suggesting that castration should be performed in order to diminish the size of an abnormally enlarged prostate, and he instituted a series of experiments on dogs in 1892, which fully confirmed his expectations of the influence of the removal of the testes in producing atrophy of the prostate. Since then these principles have been applied to prostatic hypertrophy in men, and with a considerable measure of success.

The following case, which will serve as an illustration, has recently been under my care at the Bristol Royal Infirmary:

W. M., aged 73 years, had suffered from difficulty and pain in passing his water for the past five years, and during the greater part of this period he was compelled to use a catheter to empty his bladder. On two previous occasions he had been admitted to the Infirmary for retention, and for the last two years there had been blood in his urine on various occasions. About six weeks before admission he was said to have had a "stroke," and since then all his bladder symptoms had been much worse. He got up about four times in the night to pass his water; there was considerable pain in the bladder, and the use of the catheter was constantly necessary. The day before admission he failed to pass his catheter, and he was brought to the Royal Infirmary on August 29th, 1894. A soft catheter was introduced, and the urine, which was decomposing and contained a large quantity of blood, was drawn off. By rectal examination the prostate was felt to be very hard and prominent, and about as large as an orange, and it was impossible to reach the top of it with the finger. The temperature was about 99.6° F., and the patient seemed very weak. After this it was impossible for two days to introduce a catheter, and the bladder was aspirated above the pubes.

On the third day I succeeded in passing a metallic prostatic catheter, which traversed the urethra for 9½ inches before the urine began to flow, the considerable depression of the handle which was necessary suggesting that the middle lobe, as well as the lateral lobes, was much enlarged. For about ten days his bladder was irrigated night and morning with boracic acid lotion, and, although the urine then contained very little blood and was less fœtid, the prostate did not diminish in size, and the patient was getting gradually worse. The kidneys were presumably healthy, as the total amount of urea excreted daily was about normal. After the matter had been fully explained to the patient, I performed double castration on September 11th. In consequence of the decomposition of the urine it was necessary to continue the irrigation of the

[1] Quoted by White in *Trans. Am. Surg. Ass. Phil.*, 1893, vol. xi, p. 167.
[2] BRITISH MEDICAL JOURNAL, September 23rd, 1893.
[3] BRITISH MEDICAL JOURNAL, and *Med. News*, June 2nd, 1894, p. 601.

bladder for three weeks after the operation; but on the seventh day the patient passed a small quantity of water of his own accord, and this gradually increased in amount, so that when the washing out of the bladder was stopped he passed all his urine naturally. Coincidently with this his general condition improved, and the prostate gradually became smaller.

There was a perceptible diminution in the size of the prostate at the end of the first week after operation, but in the third, fourth, and fifth weeks the increasing atrophy appeared to progress more rapidly. In three weeks after operation the patient began to get about, and in five weeks he was discharged. At this time his general condition had much improved; his urine was normal, he sometimes passed half a pint at a time, but he could not hold his water for more than four or five hours in the daytime. There was no "residual urine" in the bladder; the prostate was comparatively soft and about the size of a large horse chestnut. If a catheter was introduced, it passed easily, and urine began to flow along it when a distance of 3 inches from the orifice of the urethra had been reached without any more depression of the handle than is usual.

I saw the patient on December 11th—thirteen weeks after operation—and found that since his discharge he has not once had to use a catheter or to get up at night to pass water, and is now free from any difficulty in emptying his bladder, and the urine is normal in appearance and has no bad odour. On rectal examination, the prostate was felt to be rather smaller and firmer than at the last examination.

I do no propose to discuss the reason why castration is followed by disappearance of the prostate as this question has been recently brought forward in the current medical literature, but it is well to note that in this case each testicle, with its coverings, when removed, weighed about 9 drachms, and on microscopical examination appeared normal; and that the secretion in the vasa deferentia was full of living spermatozoa. Other observers have not mentioned such facts, but I think they are important, and should be recorded, as we do not yet know whether atrophy of the prostate is caused by the removal of the functionally active testicles only, or not.

The method of operation I adopted was to make a median cut with scissors along the lowest portion of the raphé of the scrotum, when the testicles were easily turned out from either side; and I can strongly recommend this procedure for the rapidity and facility with which it is accomplished, and for the small amount of incision and suture required.

The operation we are considering has been performed nine times in various parts of the world, in addition to the case I have just narrated, and in each instance, so far as I can ascertain, atrophy of the prostate has ensued, and the local and general condition of the patient improved.

In all these cases the shrinkage appears to have taken place to such an extent that it is impossible to ascribe it to the mere relief of local congestion which may occur under certain conditions.

Here, then, we have a series of cases which strongly support the claims of castration for prostatic hypertrophy. It is not enough, however, to show that an operation succeeds, but it must be shown, also, that it compares favourably with other procedures before it can be allowed to supersede them.

It is not proposed that this operation should be done until "catheter life" has become more and more irksome or inefficient, or until the urine shows fermentative changes, and symptoms of cystitis have supervened. In other words, when we ought to think of drainage of the bladder and prostatectomy, then we ought to think of castration as another, and perhaps better, means of relief.

The permanent retention of a cannula or tube over the pubes or in the perineum is, no doubt, sometimes an effective and safe procedure, and would in many cases be preferred to castration; but even here I think the patient should be allowed the choice of the loss of his testicles as against the disagreeableness of a permanent trickling of urine from his bladder. Much the same argument might be urged against perineal prostatotomy which, however, has a mortality of 4.5 per cent.[4]

It is rather with prostatectomy that we should compare it, for this is the chief radical operation which has hitherto been relied upon as curative rather than palliative.

Perineal prostatectomy has a mortality of 14.3 per cent., and suprapubic prostatectomy a mortality of 14.9 per cent.[5] If we compare these figures with the low death-rate of castration, and bear in mind the greater ease in performing, and the small amount of shock attending the operation of castration as compared with prostatectomy, it needs little conjecture to say which is the operation of the future, if the present successful results of castration for prostatic hypertrophy continue.

Then, again, we must consider the fact that prostatectomy owes its success very largely to the atrophy of the gland which follows surgical interference, and if this same result can be brought about by the procedure we are now advocating, with less danger and equal certainty, most surgeons and patients would prefer the operation of castration.

Of all methods of prostatectomy, the "combined method" of Dr. Nicoll[6] is, perhaps, open to the least objection, but in this it is admitted that subsequent atrophy of the testes may ensue in consequence of injury inflicted on the vasa deferentia during operation. Dr. Nicoll does not think this is of much importance to elderly men, nor is it; but if such results follow a somewhat severe surgical procedure, we may ask why it is necessary to perform the major operation if the act of castration alone is capable of bringing about the desired result?—the testes being virtually or really lost in either case.

[4] Moullin, BRITISH MEDICAL JOURNAL, 1892, vol. i, p. 1250; and White, *Annals of Surg.*, 1893, vol. 17, p. 72.

[5] Moullin, BRITISH MEDICAL JOURNAL, 1892, vol. i, p. 1294. See also statistics quoted by the author in the *Bristol Med.-Chirurg. Journ.*, 1892, vol. x, p. 247.

THE COOL BATH TREATMENT OF ENTERIC FEVER.[7]

BY C. STENNETT REDMOND, L.R.C.P.I.,
Gateshead-on-Tyne.

AFTER some preliminary observations, in which he referred to the widespread prejudice on the part of the public against the mode of treatment by cool baths, the author observed that though more generally identified with the name of Brand of Stettin, the bath treatment was undoubtedly English in origin having been first suggested and practised by Dr. Currie, of Liverpool, in 1787. After his death, however, it soon lapsed into desuetude, and it was not until the year 1861 that it was revived by Brand. Since then it had gradually risen in favour until it had become the established practice of the German school. In England the bath treatment was still regarded as heroic, although many authorities, including Sir William Broadbent, Dr. Frederick Taylor, Dr. Cayley, Dr. Sidney Coupland, and Dr. F. J. Hare, had written strongly in its favour.

As to the indications for the bath, the author held that with a temperature of 102° F., to 104° F., maintained for a few days with marked evening rise, and no local lesion such as pneumonia to account for it, enteric fever might reasonably be suspected, and the patient placed in a bath for ten or fifteen minutes. The temperature should be taken half an hour after the bath, and regularly every three hours; the bath should be repeated at a higher or lower temperature, whenever the temperature in the rectum rose to 102.2° F. In some instances a tepid bath at 87° F., or 90° F., for thirty minutes was better borne; in others again a temperate bath at 78° F., or a cool one at 66° F. for ten or fifteen minutes. The author preferred as a rule the tepid bath at 87° F. After the temperature had ceased to rise to 102.2° F. but still remained above normal, a warm or tepid bath for fifteen, twenty, or thirty minutes night and morning, was beneficial and grateful to the patient. The author related four cases in the management of which he had rigidly adhered to the following code of rules compiled from various sources:—

1. A temperature of 102·2° in the rectum calls for a bath, and it must not, as a rule, be permitted to rise higher without giving the bath unless the patient is in a sound sleep.
2. The bath, long enough for the patient to be at full length in, is brought close to the bedside, and the patient carefully lifted in and out in the horizontal posture.
3. Half an ounce or 1 ounce of old pale brandy in 2 or 3 ounces of soda or aerated lime water to be given first (in case of adult).
4. The patient always must pass water before being put in the bath.
5. The patient to be immersed up to the neck; the head to be constantly sponged; and the chest and extremities, not abdomen, to be gently rubbed by an attendant.
6. The first bath to be given at 90° F. or 85°, and cooled down by adding cold water to 75° or 70°. If the patient bears it well subsequent baths may be given at 80° and cooled down to 70°. The cold water is poured over the patient's head and chest.

[6] *Lancet*, April 14th, 1894.

[7] An Abstract of a paper communicated to the Section of Medicine at the Annual Meeting of the British Medical Association, 1893.

7. Average duration of bath, ten minutes; some say until patient begins to shiver; but if he begins to feel cold or gets uneasy the bath must be cut short. Where a patient is nervous or bears the cool baths badly he may be kept in tepid ones at 87° for fifteen, twenty, or thirty minutes, the more prolonged immersion producing the desired effect.

8. Lift the patient carefully on to a couple of large soft bath towels laid over a mackintosh sheet, and rub him dry briskly, except the abdomen, which dry gently, envelop him in a warm blanket and put him in bed, covering lightly, and give him a cup of warm coffee and milk or peptonised cocoa and milk.

9. Half an hour after take the temperature, in the rectum preferably, when it should be 2° or 3° lower.

10. Take the temperature every three hours, and as soon as it again rises to 102.2° F. repeat the bath, unless he is sleeping, when as a rule he must not be disturbed, even if the temperature rise to 104°, but the bath deferred till he awakes.

11. Usually a bath is indicated every six hours. Sometimes, however, during the fastigium the pyrexia is so obstinate and uncontrollable as to call for a bath every three or two hours.

12. During the night baths are seldom called for except by an extremely high temperature.

13. In case the bath lowers the temperature only 1° or less, or only for a very short interval, it becomes necessary to lower its temperature to 66° (cool bath) or even 45° (cold), and lumps of ice may be put in the bath to cool it down with perfect safety, as was done in one of my cases. In Strumpell's experience, baths below 73° F. are seldom needed. He regards 80° to 85° F. as the average

14. If intestinal hæmorrhage occur, baths must be discontinued.

The advantages of the bath treatment were stated to be: (1) diminution of fever and calming of the nervous system, the patient as a rule sleeping between the baths; (2) disappearance of headache, stupor, and delirium; (3) modification of the irritable condition of the gastro-intestinal mucous membrane, with diminution of thirst, of vomiting, and of diarrhœa; (4) improved tone and diminished frequency of pulse, with deeper inspirations promoting expectoration and diminishing, therefore, the risk of pulmonary complication; (5) diminished dehydration of tissue and less liability to bedsore; (6) diuretic action on the kidneys; (7) the reduction of mortality by 50 per cent. The objections to the treatment were: the labour and expense entailed; the public prejudice against it; the nervous dread which some patients exhibited; and the increased frequency of relapse.

The only absolute contra-indications were peritonitis, perforation, hæmorrhage, and the advanced cardiac weakness sometimes observed in the later stages of the disease. Broadbent considered that neither albuminuria nor pulmonary complications were prohibitive, and stated that he had seen albumen disappear from the urine and pulmonary complications cease after a single bath.

The author referred to the system of continuous baths planned by Dr. James Barr, of Liverpool, which appeared to possess all the advantages of the intermittent bath with fewer objections. In conclusion, he expressed the opinion that the case for the bath treatment was unanswerable.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE USE OF COCAINE TO PREVENT RESPIRATORY DISTURBANCES DURING CHLOROFORMISATION.

It is quite possible that others have been struck by the ease with which a patient whose tonsils and post-nasum have been pencilled with a solution of cocaine previous to the use of chloroform takes the anæsthetic. For some time I have practised this use of cocaine in tonsillotomy and removal of adenoids after having noticed the comparative freedom from hæmorrhage in a case where I attempted, but without success, to operate under cocaine alone, and had to give a general anæsthetic. In this case the tonsils were removed with very little hæmorrhage indeed, and I was able at once to remove the adenoids unhampered by hæmorrhage from the tonsillar stumps. Apart altogether from the fact that cocaine thus used eases the subsequent use of chloroform (or ether), this circumstance of the freedom from hæmorrhage in an operation (tonsillotomy), where such is always dreaded, ought to be freely observed. Before the action of the cocaine is over the patient is already conscious, and ice can be employed to prolong its effect. I should say that the cocaine, which need only be applied in weak solutions (2 per cent.), reduces the loss of blood in the double operation of removal of tonsils and adenoids by over 50 per cent.

Rosenberg,[1] of Berlin, has recently drawn attention to the fact that if the mucous membranes of the upper air passages are anæsthetised by cocaine before the administration of chloroform, the disturbances consequent upon their irritation are obviated. This author has found by experiments that at the beginning of anæsthesia, if the blood pressure be considered as equal to 100, the systole is represented by 210, and the diastole by 40. Under normal conditions, on the contrary, the blood pressure being the same, the systole is represented by 110, and the diastole by 90. These modifications are due to respiratory disturbances consequent upon irritation by the chloroform of the mucous membranes of the upper air passages. In two or three cases of my own where this combination of general and local anæsthesia has been employed, less chloroform has apparently been used, and the patient went under with less struggling and fright, and more quickly. In strabismus operations cocaine furnishes a field free from hæmorrhage, but as it abolishes sensation in the conjunctiva, it might prove embarrassing to the chloroformist.

Wm. Robertson, M.D.,
Surgeon, Throat and Ear Hospital, Newcastle-on-Tyne.

QUININE AS AN ECBOLIC.

The following case recently came under my observation. The patient did not send for me until after she had aborted, neither did she give me the facts of the case until she was about again. Doubting her accuracy as to the quantity she took, at my wish she bought for me the same quantity from a drug store, which I found to be exactly 120 grains of pure quinine.

Mrs. C., aged 31, 7-para, whose last child was 6 years old, had recently married her second husband. She had menstruated last on September 14th. On December 3rd, about 10.30 P.M., she took 2 drachms of quinine suspended in a wineglass of water. Within ten minutes she felt sick. This was followed by severe retching, and she brought up a little food. The retching passed off in ten or fifteen minutes. About 11 P.M. she was freely purged, once only. Following this quickly came a bursting sensation in the head. She could hear but could not "catch" what was said to her; she felt hysterical and screamed a few times, but was in no pain. She thinks she was unconscious. About 12.30 A.M., after having taken threepenny-worth of brandy, she felt much better, except for a headache. About 1 A.M. she had a "slight show." This was followed by forcing down pains, which passed off about 7 A.M. She got up at 5 P.M. on the same day, and about 7.30 felt the "water break," and found a fœtus on the floor. Next morning I was sent for, and found the patient in bed. The pulse and temperature were normal. She made a good recovery, and got up five days afterwards, refusing to stay in bed longer. I may add that Mrs. C. is a woman of fine physique and always strong and healthy.

Camberwell Road, S.E. F. A. Baldwin.

THE THERAPEUTIC VALUE OF SALICYLATE OF STRONTIUM.[2]

I should like to say a word in regard to a drug which probably will prove a valuable addition to every-day therapeutics. After using the lactate, iodide, and bromide of strontium very freely, I came to the conclusion that the strontium element materially modifies the action of haloid bodies on the alimentary canal. This suggested the possibility that strontium might modify the action of salicylic acid, and I got Rosengarten and Sons, chemists, to make a strontium salicylate, and experimented with it upon dogs, determining that in therapeutic doses it elevates the arterial pressure, and that to depress the blood pressure and circulation larger amounts of it per kilo. are required than of the sodium or even of the ammonium salicylate. Subsequently to this study upon animals I have employed it largely in practice. I found, somewhat to my surprise, that in doses of 5 grains it is one of the best of intestinal antiseptics, yielding better results than salol, naphthalin, and similar agents.

[1] The *Medical Week*, November 23rd, 1894.

[2] Remarks made at the December meeting of the College of Physicians of Philadelphia, U.S.A.

In doses of 10 or 15 grains it acts very decidedly as a salicylate in gouty and chronic rheumatic conditions without producing disturbance of the stomach. It may be given in capsules. I also found that when given largely it produces cinchonism, but it seems to be less active and powerful in acute cases than is the ammonium salicylate. In chronic gouty conditions and lithæmia with intestinal indigestion it appears to be the most valuable drug that we have.

University of Pennsylvania. H. C. WOOD, M.D.

A CASE OF SARCOMA OF THE TESTICLE.

THE example of this disease which I now record resembles closely a case published by Dr. Charles Morton in the BRITISH MEDICAL JOURNAL of November 3rd.

C. C., aged 29, came to me early in October, 1893, complaining of a swelling in the scrotum, which had been growing for six or eight months, and, latterly, somewhat rapidly. He felt weak and ill, and suffered from constant dragging pain in the groin and hip of the same side. The patient looked extremely ill. A pyriform tumour involved the right testicle, and extended upwards to the external ring. It was about the size of a large Jersey pear, of firm consistency and somewhat elastic, but not hard in any part. He complained of much aching, but there was no great localised tenderness. The cord could not be clearly defined. The glands of the groin were unaffected.

Castration was performed on October 21st, 1893. An exploratory incision into the most prominent part was followed by a gush of dark brown fluid, and on inserting a finger through the wound into the centre of the growth a quantity of black clotted blood was extracted. The tumour was easily removed after following the cord to the internal ring, and ligaturing as far up as possible. It was found to consist of a soft malignant growth, somewhat easily broken down, and enclosing in its centre a quantity of soft blood clot and some remaining dark fluid blood. Microscopical examination confirmed the diagnosis of round-celled sarcoma. At this date, November 11th, 1894, the patient is alive and well.

The interest of the case lies in the rather unusual association of a blood cyst with sarcoma of the testicle, and illustrates the occasional difficulty expressed by Dr. Morton in diagnosing between hæmatocele and malignant disease.

MACPHERSON LAWRIE.
Physician to the Weymouth Sanatorium.

THE TREATMENT OF CHRONIC ALBUMINURIA BY KIDNEY EXTRACT.

SOME months ago a young man consulted me who ten months previously had contracted nephritis, the result of a chill. Since the attack he had been constantly under medical treatment, and had gradually become worse.

When I first saw him, he was suffering from general anasarca, his urine was scanty, specific gravity 1010, showing one-third of albumen on heating with nitric acid. Under nitro-glycerine he somewhat improved. About six weeks ago I got Messrs. John Richardson and Co., of Leicester, to make some tablets of fresh kidney extract (5 grains), one of which he has since taken three times a day, in addition to the nitro-glycerine mixture. He is now practically free from anasarca, and his urine shows no trace of albumen.

This may be a coincidence: I would therefore ask some of your readers who have greater opportunities of treating kidney diseases than I have to give the kidney extract a trial, and report the result.

This result of even one case has seemed to me sufficiently good to warrant me in trespassing on your space.

Erdington. WILLIAM DONOVAN, M.D.Durh.

A CASE OF INGUINAL COLOTOMY.

MR. GREIG SMITH, in his book on *Abdominal Surgery*, recommends, in inguinal or coelio-colotomy, the operation of Maydl as modified by Reclus, as the operation of election.

I should like to add the testimony of one not specially trained in abdominal surgery as to the simplicity and the extremely satisfactory results of the operation as shown by the following notes of a case under my care:—

M. W., a female, aged 61, had had increasing difficulty in getting the bowels to act for six months, with occasional discharge of blood and matter from the anus for two months. She had lost flesh and strength during the same time. About an inch and a-half from the anus was a cancerous mass, very hard, firmly attached to the sacrum, and surrounding the bowel; the upper limit of the growth could not be felt, and the finger could not pass through the constriction. She was admitted to the Ross Cottage Hospital on June 28th, 1894, and the bowels acted fairly with cascara until July 5th, and then only once until July 17th, when colotomy was performed (the patient's consent not being obtainable sooner). Under chloroform an incision, nearly vertical, about 3 inches in length, was made about an inch and a-half internal to the left iliac spine. Hardly any muscular fibres were divided, and only two pairs of pressure forceps were required in reaching the peritoneum. On pushing aside the omentum, the colon full of scybala was felt at once, and easily pulled out through the wound; the mesentery was perforated with the finger, and a glass stirring rod covered with boracic lint pushed through it, and left lying on the abdominal wall across the wound. As the omentum was inclined to protrude three sutures were put in the lower end of the incision, and the operation was complete. A little chloroform sickness occurred afterwards, but the only other discomfort was from flatulence. The temperature did not rise above 99°: flatus passed freely by the anus. The bowel was opened by a transverse cut with scissors on July 21st, but no motion passed. Half an ounce of castor oil was given at night. There was frequent sickness next day, but no scybala passed, though they could be felt blocking the bowel. On July 23rd, as symptoms of obstruction continued, 4 grains of calomel were given, and then scybala in great quantities began to pass, and all bad symptoms subsided. The bowel was cut right through in the track of the glass rod on July 28th. The patient was allowed up on July 31st, as the wound was firmly cicatrised. The bowels acted regularly, and there was a most satisfactory artificial anus without any tendency to prolapse of bowel. She was discharged from hospital stronger and better than before operation. She has remained quite comfortable up to the present time (October 20th), the anus acting well, and the bowel showing no tendency to prolapse.

Partial obstruction seems to me an advantage in operating, as the presence of scybala leads one at once to the colon, the finding of which, if empty, I fancy might prove the only difficulty to the inexperienced, in this very simple operation.

ARTHUR CUTFIELD, B.A.Camb., B.Sc.Lond.
Ross, Herefordshire.

A FATAL CASE OF GONORRHŒA.

EARLY in March last I was consulted by C., a waiter, concerning a gonorrhœa he had contracted some week or ten days previously. I prescribed the usual remedies, and urged him to abstain entirely from all forms of alcohol, and to rest as much as possible. He was under treatment for three weeks without any improvement, and began to show signs that his malady was debilitating him more than is usual in these cases. Notwithstanding my repeated warnings, and his assurances to the contrary, I afterwards discovered he had persistently continued to take alcohol, because he felt so depressed.

On March 26th he was engaged at a wedding reception, and in company with the other waiters celebrated the occasion "not wisely but too well;" in fact, returned home helplessly intoxicated.

On the morning of March 28th he came to my consulting room and said he feared he had taken cold, for he had had several shivers, and had pains in his head, and body generally. He had also vomited, but this he attributed to his alcoholic excess. His pulse was 120, temperature 101°, tongue dry, and discharge diminished in amount; but micturition was very painful. I advised that in my opinion his symptoms were not due to cold, and that he must instantly go to bed. This he did not do.

On March 31st I was called to see him at his home. He lay in bed on his back, with a most anxious expression of face; he spoke with difficulty, and was almost helpless. The pulse was 150, temperature 103°, and the respirations 50. His nightshirt was saturated with perspiration, his breath smelt sweet, his tongue was brown, dry and parched, and with difficulty could be protruded from his mouth: he had slight diarrhœa, and the urethral discharge was entirely suppressed. I examined him carefully but could discover no evidence of implication of any organ. He rapidly developed a typhoid condition, and died in the morning of April 3rd.

This in my opinion is a case of acute septicæmia, due to absorption of septic material from an uninjured inflamed urethra. No bougie was passed. Apparently he had not abraded the mucous membrane with his syringe, for I inspected carefully with negative result. He had some lymphangitis of the dorsum penis, but his inguinal glands were not painful. I could elicit no knowledge of any injury whatever. *Post-mortem* examination was refused.

ARTHUR LOXTON,
Honorary Assistant Surgeon Birmingham and Midland Skin and Lock Hospital.

OPHTHALMIA IN A HIGH-CLASS SCHOOL.

At a large boarding school near here, where the most scrupulous care is taken of the children, we had a similar outbreak of follicular ophthalmia to that described by Mr. Snell in the British Medical Journal of November 17th. The sanitary arrangements are perfect, both as regards space, water and drainage, and the school lies high. Many of the children having relatives at the York school, I examined the eyes of every child on his or her return to school in January, and found all were healthy, a strict home quarantine having been enforced. Six weeks later, in March, one or two slight cases of ophthalmia occurred, which were promptly treated. However, we were doomed to an epidemic—some slighly affected, while one case was isolated for four days. The treatment adopted for all was bathing the eyes with warm boric acid lotion three times a day, and completely closing the eye or eyes with a boric acid pad, wool, and bandage, with atropine in the more obstinate or severe cases. The cases occurred in batches with intervals of clean bills of health. By June only two cases remained, which soon got well. In most cases the eyes were well in a week, but in one or two delicate children with naturally weak eyes some congestion remained for two or even three weeks. Besides closing the swimming bath, and strict attention to towels, sponges, etc., the whole school was supplied with Jeyes' No. 2 disinfectant soap, and it was used exclusively the whole term, in both bedrooms and lavatories, a measure which I am sure checked the disease in its early insidious stages. We had in all about 45 cases.

Axbridge. A. C. Liche.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

16th FIELD HOSPITAL, WAZIRISTAN FORCE, CAMP WANO.

NOTES ON CASES OF SWORD-CUT WOUNDS.

(Under the care of Surgeon-Major H. C. Hudson, S.M.O. 16th F.H., and Surgeon-Lieutenant Bruce Gordon Seton, I.M.S., 16th F.H.)

Case I.—Sepoy, B. B. T., 1st battalion 1st Goorkhas, was picked up during the action of November 3rd, 1894, at Wano, and brought into hospital. As the latter was under heavy fire at the time and the tents were being slashed by the Waziris, there was no chance of doing more than place him, along with fifty other wounded men on the ground with a blanket over him, and give him a large dose of tincture of opium. Arterial hæmorrhage was arrested at once, partly by tourniquets and partly by pressure forceps. He was so completely blanched and bloodless that we did not think he would live more than a few minutes. He had been cut down and then slashed as he lay on the ground by four of the enemy, who left him for dead. His wounds were twenty-one in number, all sword cuts, varying from 12 inches to 3 inches in length. Briefly they were as follows:

Head.—Three parallel sword cuts at the back of head, through occipital protuberance; all through the bone, one being well into the cortex and the others exposing the dura mater. A vertical wound over right eye 5 inches in length, through the skull, and at the upper end cutting the brain. Left ear cut off transversely. A linear cut, 12 inches long, from the base of the mastoid process (left) down the whole length of the neck on the left side. The carotid artery could be seen beating in the bottom of the wound.

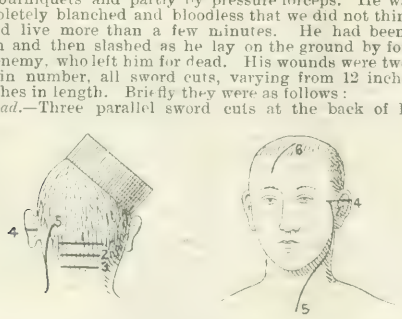


Fig. 1.—Case I: 1, 2, 3, 6, position of cuts through the skull: 4, cut through skin and subcutaneous tissues exposing the deep vessels; 5, cut through the ear joining 4.

Right Arm.—Transverse incision through olecranon, opening the elbow-joint. A similar one above the back of the wrist, cutting through the ulna and ulnar artery. Three other deep cuts on different parts of this arm; one phalanx cut through.

Left Arm.—Transverse cut dividing radius and ulna and radial and interosseous arteries.

Chest.—Cut, 10 inches long, from the anterior fold of the axilla to the last rib down to the ribs.

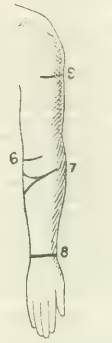


Fig. 2.—Case I: back view of right arm; 6, a cut into the elbow-joint; 7, a cut down to the bone dividing the ulnar artery; 8, a cut dividing both bones and vessels; 9, a cut through the deltoid.



Fig. 3.—Case I: Inner aspect of right leg; 10 and 12, superficial wounds; 11, cut through the capsule of the knee-joint exposing the bones.

Right Leg.—Cut across outer and posterior surface of knee-joint, dividing lateral and posterior ligaments and exposing the external condyle of the femur through the wound.

There were about half a dozen other minor cuts in other parts of his body.

No operative measures (amputation, etc.) could be attempted, owing to the very large number of wounded demanding attention. The fractured limbs were treated in the usual way: the opened joints were cleansed from the dust, etc., in them, with liquor hydrargyri, then well dusted with iodoform, and covered with tow.

The brain injuries were of course regarded as fatal; but they were washed, loose brain matter irrigated out, and sewn up.

The case has been in hospital 27 days now. He had slight fever for a day or two only. He was kept deeply under the influence of opium for 21 days, and fed by enema. At present his condition is as follows: All the wounds on the head have closed, without a bad symptom. The others are all rapidly healing, except that on his left forearm; in this one the radius and ulna were badly splintered and portions are coming away. His condition is very good, and he will be sent down to the base in a few days.

Case II.—Sepoy, B. J., 1st battalion 1st Goorkhas, was brought in at the same time as the first case. The wounds were not numerous, nor of the dangerous nature of the

wounds in the first case, but as far as they went they were extensive. There was an oblique wound from the right mastoid process across the back of the neck and the left scapular region, and terminating at the posterior fold of the left axilla. This wound "tailed off" at the upper end, but for the rest of its extent was very deep. It removed the spines of three cervical and three upper dorsal vertebræ; it also completely severed the spine of the scapula to a great extent. The diagram shows the extent of this and the other wounds.

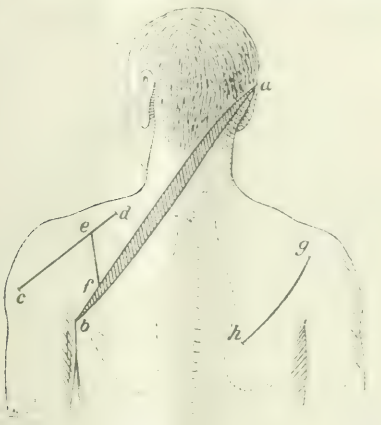


Fig. 4.—Case II: a—b, a deep sword cut about 12 inches long through the cervical and upper dorsal spines, the ligamentum nuchæ, and most of the spine of the scapula; c—d, e—f, g—h show the position of the other principal wounds in this case.

When admitted the patient's head had fallen forward, owing to division of the ligamentum nuchæ; there was profuse arterial bleeding; the left arm and scapula had fallen forward, so that the posterior border of the latter presented in the wound, and the loose fragments of bone and a large quantity of dirt filled the whole cavity. Loose bone was removed, and the wound irrigated out. Bleeding having been arrested, the parts were brought together, the skin and deep tissues sewn up with silk, and the patient was kept deeply narcotised for ten days with opium.

There was no rise of temperature after the first three days. The wound healed for three-quarters of its extent by first intention, leaving about 3 inches in the centre to granulate up.

This man had a sword cut across the back of his left wrist-joint, dividing all the tendons and opening the joint. There was no time, under the pressure of cases, to hunt for the tendons: but the injury has healed up. He has partial extension of the hand only. His greatest difficulty is the forward drop of the head.

THE LEEDS PUBLIC DISPENSARY.

AN UNUSUAL CASE OF ATAXIA.

[Under the care of Dr. TREVELYAN.]

(Reported by R. G. HANN, M.R.C.S., L.R.C.P.)

A MARRIED woman, aged 28, was seen for the first time on January 5th, 1894. She then presented marked ataxia in the arms. She could not sew or button her clothes, and could only feed herself with difficulty. She walked badly, and was easily tired. There was some unsteadiness on standing with the feet together, and the eyes closed; otherwise the incoordination in the legs was but very slightly marked. She felt as if there were no limits to the legs, and suffered from girdle pain. Sensation appeared but very slightly if at all blunted; there was certainly no distinct anæsthesia. The deep reflexes were exaggerated, the superficial absent. The pupils were somewhat dilated, and acted sluggishly to light. The bladder functions were undisturbed, but there was obstinate constipation.

The patient gave the following history: She was delivered of an apparently healthy child nine months previously. She had been in good health up to September 20th, 1893, with the exception of some numbness, etc., in the limbs, and headache during the preceding fortnight. On that date she suffered from *malaise*, and began to walk with difficulty, the legs feeling heavy and numb. The next day she took to her bed, being unable to walk about. There was a feeling of stiffness in the legs which steadily spread to the abdomen, and a couple of days later involved the arms; these latter also became weak. She was at her worst in about four days' time, when she was apparently quite helpless. At the end of a fortnight there was some slight improvement.

On October 25th she was admitted into the Leeds General Infirmary under the late Dr. Jacob (clinical clerk, Mr. Nicholson). It was then noted that the legs and arms were very weak and somewhat wasted, but not completely paralysed. The grasp of the right hand was very feeble, that of the left a little stronger. Co-ordination was defective in the arms. The plantar, epigastric, and abdominal reflexes were absent, the patellar present. The muscles of the legs and arms reacted to faradism. Perverted sensations were present in all four extremities, as well as a tight feeling round the chest, but there was no anæsthesia. In ten days' time she could carry a mug to the mouth, and ten days later she could walk a little. No pathological change was noted in the discs. There was a temporary ptosis lasting five days during her stay in the hospital. Her mental faculties were intact. The temperature was subnormal throughout. The treatment was almost solely electrical. She was discharged considerably improved on November 28th, 1893. From this time the improvement was steady but slow.

In the early part of 1894 she was put on a prolonged course of arsenic. In June she could dress herself without assistance. Her condition in November was as follows: She can walk a good distance, and do her household work without discomfort. The gait is not at all ataxic, but Romberg's symptom is just present. There is still a slight clumsiness in the fine movements of the fingers, but she can sew with ease. The pupil light reflex was still sluggish. The patellar knee-jerk is exaggerated. There is no front tap contraction and no ankle clonus. The superficial reflexes are absent except the left plantar and left epigastric, which are faintly marked. There is no definite impairment of tactile or thermal sensations. There is still a slight feeling of numbness round the chest.

There was no history of influenza, diphtheria, or lead poisoning. Alcoholism was excluded. No history of syphilis could be obtained, but in June last she brought her infant, about 15 months old, with a marked syphilide about the anus.

REMARKS BY DR. TREVELYAN.—The onset of the disease was certainly acute. The case was unlike peripheral neuritis in many particulars. The presence of motor weakness along with ataxia strongly suggested the ataxic form of that disease. In the absence of other causes and the presence of undoubted syphilitic manifestations in the infant, the question arose as to whether the neuritis could possibly be of a syphilitic nature. The presence of the marked girdle pain was a difficulty in the case. An acute disseminated myelitis such as has been known to follow some of the acute infective illnesses and has produced ataxia in all four extremities, is here hardly a possible explanation. The almost ascending character of the disease without distinct tactile loss or interference with the electrical reactions is remarkable. At the present time the patient is almost well, and further improvement may, in the light of the past history, reasonably be expected.

DONATION AND BEQUESTS.—The Lord Lieutenant of Cambridgeshire (Mr. Peckover) has presented £1,000 to the Addenbrooke Hospital, Cambridge, being his second donation of a similar amount within twelve months. The Duke and Duchess of Teck have contributed £5 to the "Infant Prince Fund," established in connection with the Victoria Hospital for Children, Chelsea.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

SHIRLEY F. MURPHY, M.R.C.S., L.R.C.P., President, in the Chair.

Friday, December 14th, 1894.

THE RELATION OF BACTERIA TO THEIR PRODUCTS.

DR. KLEIN, F.R.S., read a paper on this subject. The action of all bacteria on the organic fluids in which they grew, was analogous to that of the yeast fungus on saccharine solutions, each species effecting specific changes in suitable media, and producing bodies of definite chemical composition, the most important in the present connection being the ptomaines or albumoses developed in albuminous fluids. (1) Pathogenic bacteria produced toxins peculiar to each species, and the immediate causes of the several specific diseases. The action of bacillus anthracis was at first explained as deprivation of oxygen, but Hankin showed that though it was aërobic, the enormous multiplication of the bacilli occurred after the death of the animal. It was he who discovered the albumoses of anthrax, while Sidney Martin demonstrated the presence of albumoses, alkaloids, and organic acids among the products of many species of bacilli, both in cultures and in the living body. Roux and Yersin, by filtration of cultures of the bacillus of diphtheria, obtained a toxin in solution capable of inducing all the symptoms of the disease except its communicability by ordinary infection. Kitasato and Brieger did the same for tetanus, while S. Martin verified and extended these observations to other diseases. (2) Toxins had been proved by Martin to be of the nature of ferments—to be extracted by water precipitated by alcohol and killed by heat, and acting on albumen similarly to digestive ferments, the result being the production of a special albumose, together with alkaloids, etc., in some cases. Some bacteria actually contained poisons having properties differing widely from those of the poisons formed in the surrounding fluids, and this whether the bacteria were living or dead, but not all, and while some non-pathogenic forms, as the hay bacillus, were poisonous, some pathogenic, as that of diphtheria, were in themselves inert. The introduction into the peritoneal cavity of a large quantity of bacteria scraped from a solid culture, as on potato, was usually followed by fall of temperature and peritonitis, often fatal within twenty-four hours. When living pathogenic bacilli were used, the effects were complicated with those of the toxins subsequently produced. A non-fatal dose of dead bacteria gave a certain power of resisting the effects of the injection of living bacilli but not of those of the toxins produced outside. It was probable, however, that the bacilli contained more than one kind of poison, since it was possible to extract from some a pyrotoxin, or one which caused elevation instead of depression of temperature. (3) The blood serum of an animal that had survived an attack of any of these diseases, if injected into the system of another but susceptible individual, conferred on the latter an immunity of longer or shorter duration against infection by the bacteria and the toxins alike. These serums, or the substances contained in them, were called antitoxins, and were capable also of arresting the actual progress of the disease—at any rate, in its earlier stages—neutralising the toxins and inhibiting the further growth of the bacteria. Antitoxins had been discovered in tetanus, diphtheria, and cholera; but there was some difference of opinion as to their origin, though the weight of evidence was in favour of their production by the cells of the organism under the influence of stimulation by the toxins. The antitoxins, like the toxins, presented all the characters of ferments, and they were capable of neutralising one another when mixed *in vitro* as well as when brought together in the living body. Bacteria were occasionally excreted during recovery, but usually dissolved and absorbed.

DR. WILLOUGHBY thought that this temporary and transient power of resisting and of overpowering infection should be clearly distinguished from the longer, if not permanent, immunity conferred by vaccination, and possible only in those diseases one attack of which rendered the individual secure against subsequent infection; for, if, as he believed, like results were expected of Haffkine's anticholera inoculations, the consequences would be serious.

DR. DOWNES compared the action of cellular and soluble yeasts with those of bacteria and toxins.

DRS. PARKES, MURPHY, MCLEOD, and others having spoken, DR. KLEIN, in reply, observed that some clinical experiences might be explained by the fact that the incubation was shorter and the disease more intense when some toxin was injected along with the living bacteria.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, December 19th, 1894.

T. S. CLOUSTON, M.D., President, in the Chair.

CASES.

MR. CATHCART showed two patients illustrating Ulcerative Forms of Secondary Syphilis.—DR. JOHN THOMSON showed a child with an unusual condition of "Atrophy" on the left side. There was defective formation of subcutaneous tissue, the pectoralis major and minor were nearly non-existent; there was defective development of the bones of both arm, forearm, and hand, and the digits were webbed. The condition evidently dated from intrauterine life.—DR. W. ALLAN JAMIESON showed a case of Molluscum Contagiosum in a girl of 16. There was no history of infection. The treatment had been boracic starch poultice, and the condition was rapidly improving.

SPECIMENS.

DR. JAMES RITCHIE showed a specimen of Cancer of the Splenic Flexure of the Colon.—DR. A. BRUCE showed a specimen of an Aneurysm which had perforated by two apertures at different times into the inferior vena cava.

STERILISATION OF MILK.

MR. CATHCART showed an apparatus for sterilising milk for infant feeding. It consisted of a tin vessel, a tin stirring thing made somewhat in the manner of a steamboat paddle, an outlet partly of tin, partly of india-rubber, with a stop-cock. The aperture for the manipulation of the paddle was covered with cotton-wool; the edges of the lid and vessel were covered by an elastic band. The milk was poured into a bottle when wanted, and there warmed.

DR. JAMES RITCHIE thought the tin would certainly give a taste to the milk.

RAYNAUD'S DISEASE.

DR. URQUHART (Perth) read a paper on two cases of Raynaud's disease, the only two cases he had seen in twenty-one years. The first was in a man, aged 33, with a strongly rheumatic history, who became delusional, had constant dribbling of urine, picked a sore on the back of his head, absence of reflexes, hæmatomata that did not yield to treatment. The necropsy showed chronic tuberculous disease in the left kidney; no neuritis, no arteritis, and no plugging of any vessel. The second was in a lady who had influenza in 1892, a highly neurotic history, insanity, and great motor excitement with delusions. She developed jaundice and eye weakness. There was retention of urine from time to time, paroxysmal hæmoglobinuria, left hæmatoma. In February, 1893, there were signs of gangrene. The patient had now largely recovered. Both cases showed great sensitiveness to cold.

After some remarks from DR. JOSEPH BELL, MR. CATHCART, MR. ALEXIS THOMPSON, and DR. A. BRUCE, the PRESIDENT said that in his experience in asylum practice cases of Raynaud's disease fell under two categories: (1) Those acutely delirious: (2) more chronic cases. He also had noted the great sensitiveness to cold even when the room was kept at a temperature of 60° or 65°. Hence the nurses in Morningside Asylum were accustomed to pack up the extremities in cotton wool, sometimes even the trunk.

DR. URQUHART, in reply, expressed the opinion that amputation ought to be done in Raynaud's disease only when there was absolute necessity of removing dead tissue. The great majority of cases of gangrene from this cause recovered.

CANCER OF THE COLON.

DR. JAMES RITCHIE read notes on a case of cancer of the splenic flexure of the colon, which at first gave rise to no

definite symptoms. Later distension appeared; at first it was believed in the stomach, but afterwards evidently in some other viscus, probably the transverse colon. There was marked peristalsis, though because the patient was well nourished this was not so well seen. There was great difficulty in emptying the bowel; there was "ballooning" on injecting fluid *per rectum*. Later something was felt in the region of the splenic flexure—some resisting mass. The distension grew, and death occurred from sudden cardiac failure. The necropsy showed the condition which had been exhibited at an earlier period of the meeting. The lumen of the gut was nearly obliterated.

Dr. Bell and others made some remarks; and Dr. Ritchie replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

Thornley Stoker, P.R.C.S.I., President, in the Chair.

Friday, December 7th, 1894.

Appendicectomy.

Mr. Myles read a paper on appendicectomy, and gave details of two successful cases. He discussed at some length the questions of diagnosis, time for operation, and the treatment of the parietal wound, so as to obviate the dangers of a ventral hernia occurring at the seat of operation.

The President said that accuracy of diagnosis between typhlitis and perityphlitis was extremely difficult. When a diagnosis of appendicitis could be made, he agreed with Mr. Myles as to the propriety of early operation. He thought that the method of opening the abdominal wall by a flap was the best. Ventral hernia was then practically impossible.

Mr. M'Ardle said the moment he knew acute appendicitis was present he would operate. With regard to the method of dealing with the appendix, he considered that there was no need of ligaturing the mucous membrane. If the peritoneum was sutured over the retracted mucous membrane, all had been done that was necessary. He agreed with Mr. Myles as to the suture of the parietal wound in layers. He did not think that the continuous suture was the best. He thought that no skin flap would have any influence in preventing a hernia if the deeper part did not unite early.

Mr. Tobin thought that gouty inflammation occurring in the neighbourhood of the appendix was very liable to be mistaken for appendicitis. Where the symptoms passed away by adopting anti-gouty remedies, he thought that probably the inflammation did not start in the appendix.

Mr. A. J. Smith still adhered to the old method of taking in the entire abdominal wall by interrupted sutures, but was careful to include the aponeurosis, which generally retracted behind the skin and peritoneum in the suture. If he did so he found that ventral hernia did not occur.

After remarks by Mr. Croly and Dr. Parsons, Sir W. Stokes said the opinion that abdominal pain in the region of the appendix, together with rise of temperature, justified a person opening the abdomen and excising the appendix, was an exceedingly dangerous one. With reference to the closing of the abdominal wound, he thought that one of the most important things was to fix similar tissues together, and that this could only be done by relays of deep sutures.

Mr. Myles, in replying, said he thought that when a person was suffering from acute peritonitis it was a very dangerous time to operate.

Adenoid Vegetations in the Naso pharynx.

Mr. Kendal Franks read a paper on this subject. Where these growths gave trouble, the only treatment was their removal. The most important point was to remove all the growths thoroughly. This he did not consider could be effectually done unless the patient were placed under chloroform. Nitrous oxide was not sufficient. He always adopted Rose's position, pushed the anæsthetic to the abolition of the faucial reflexes, scraped the growths away with Gottstein's curette, and plugged the post-nasal space with pledgets of cotton-wool dipped in tannic acid. These pledgets were removed in a few moments whilst the patient was still under the chloroform, and all hæmorrhage was found to have stopped. He advised the removal of the tonsils, if enlarged, at the same time.

Remarks were made by the President, Mr. Woods, Mr. Doyle, and Surgeon-Major Daly; and Mr. Kendal Franks replied.

CLINICAL SOCIETY OF MANCHESTER.

S. Buckley, F.R.C.S., President, in the Chair.

Tuesday, December 18th, 1894.

Cases.

Mr. Thomas Jones mentioned three cases of Head Injury.—Dr. Milligan and Mr. Hoops showed a patient suffering from Chronic Empyema of the Right Antrum. Transillumination showed complete opacity upon the right—the diseased—side.—Dr. Milligan made some remarks upon the Etiology of Antral Suppuration. A demonstration was given upon the method of transillumination with the electric lamp. The value of Lichtwitz's trocar for exploratory purposes was insisted upon, and the instrument was shown. The various methods of treatment were discussed. Krause's trocar and aspirator for performing the intranasal operation of opening the antrum from the inferior meatus was shown, and Scanes Spicer's modified operation described. A special cannula for irrigating the antrum after operation by the alveolar method was shown.—Mr. Herbert Lund showed a little girl, aged 12, operated upon for Sarcoma of the Superior Maxilla in July, 1894. The growth proved to be a mixed sarcoma necessitating removal of the entire maxilla on the left side. The deformity was extremely slight.

Cyst of Thyroid.

Mr. Herbert Lund showed a girl, aged 16, upon whom he had operated for thyroid cyst, complicated with laryngeal paralysis. The enlargement of the left lobe of the thyroid commenced in 1891. From the first there was trouble in swallowing, great difficulty in breathing, and in 1892 the voice became affected from abductor paralysis of the left vocal cord. The cyst measured 3½ inches by 3 inches, was thin-walled, lay quite superficially in the gland, and was easily enucleated through a 2 inch incision along the inner border of the sterno-mastoid. The operation was followed by primary union. One month after operation the voice was more distinct, but there was no alteration in the condition of the cord. Mr. Lund also showed a a thick-walled cyst removed by enucleation from right side of thyroid of gentleman, aged 25.

Specimen.

Mr. H. Lund showed the Sac of a large Inguinal Hernia removed from a woman, aged 50. The hernia had existed for eight years, and, owing to the size of the ring, could not be kept up by a truss. The ring easily admitted two fingers. Operation for radical cure, July 31st, 1894. A good result followed, and at the present time patient is able to follow occupation, but is advised to wear a pad and bandage for some few weeks.

Northumberland and Durham Medical Society.—At a meeting on December 13th, Mr. F. Page, President, in the chair, Dr. Murphy showed a man after Enterectomy for Obstruction of six days' duration. Six inches of gangrenous intestine were removed, and the ends united by Murphy's button. The latter passed on the nineteenth day.—Dr. Modlin showed a man after operation for Traumatic Stricture.—Dr. Robinson showed a boy with Dislocation of Both Ulnæ inwards. The injuries were produced at different times.—Dr. Oliver and Mr. Williamson showed a girl after removal of a Cerebral Tumour, showing distinct amelioration of symptoms.—Dr. Oliver showed (1) a man with Charcot's Joint. (2) A man with Localised Muscular Atrophy.—The President showed (1) a boy after operation for Suppurating Hydatid of Liver. (2) Two women after Cholecystotomy. (3) A woman after Removal of One Lobe of Thyroid, already showing marked atrophy of the remaining lobe. (4) A man with extensive and rapidly-progressive Ulceration of Face.—Dr. Robertson showed (1) a lad after Stack's Operation on the Mastoid. (2) Papilloma of Septum Nasi and Inferior Turbinal.—Dr. Richardson showed a patient after operation

for Sarcoma of Jaw.—Dr. Limont showed (1) a man with Erythematous Rash of Uræmia. (2) Woman with Universal Dermatitis.—Mr. Morison (with Mr. Markham, L.D.S.) gave a demonstration of Trephining by means of the dental drill and specially-shaped "bits" devised by Mr. Markham.—Dr. Metcalfe showed a new Portable Electric Light Battery.—Mr. Williamson read notes of a Case treated with Tetanus Antitoxin, but ending fatally.—A Large Uterine Fibroid, removed by abdominal section, was shown by the President, and one of Meckel's Diverticulum by Dr. Richardson.

Birkenhead Medical Society.—At a meeting held on December 7th, the President (Dr. Francis Vacher, F.R.C.S.) in the chair. Dr. Pollard showed a specimen from a case of Strangulated Umbilical Hernia; the patient, a young woman, died fifteen minutes after admission; the specimen showed a small knuckle of the large intestine, constricted in the umbilical ring, with early peritonitis.—Dr. Wilkinson showed an Acephalous Fœtus with a large apical meningocele, accompanied by cleft palate and harelip; the viscera had been exposed, the preparation being reserved for museum purposes.—Dr. R. S. Marsden, M.O.H., read a paper on the Compulsory Notification of Phthisis as an Infectious Disease in Relation to the Public and the General Medical Practitioner. He could not agree with those who would place phthisis upon the list of notifiable infectious diseases, as he could not see that much good would follow. The cost of carrying out any effectual scheme of prevention, and the many very serious social difficulties which would arise, rendered it impracticable for the present. It was more a case for advice by the family physician to his patient and the family than for State control through the medical officers of health.—A long discussion followed, in which Drs. A. C. Harris, Pinkerton, Paterson, Brien, Stansfield, and Vacher, took part, the general sense of the meeting being adverse to compulsory notification.

Wigan Medical Society.—At a meeting held on December 6th, Mr. E. H. Monks Muir, President, in the chair, the Honorary Secretary read a paper on A more Frequent Use of the Forceps in Midwifery Practice. An interesting discussion followed, in which Messrs. Cowan, Rees, Blair, Part, and the President took part. The opinion of the meeting was in favour of forceps being used in cases in which they were indicated, and not to save the time of the practitioner.—Mr. W. Mitchell Roocroft read notes of a case of Hydrophobia which he had recently treated in the infirmary, with full notes of the necropsy.—A discussion followed, in which Messrs. Brady, Lowe, R. P. White, Rees, the President, and the Honorary Secretary took part.

Sheffield Medico-Chirurgical Society.—At a meeting on December 6th, Mr. Makeig Jones, President, in the chair, Mr. Snell showed (1) a young girl with Palsy of the External Rectus and Double Papillitis, with a history of diphtheria (?); (2) a boy with Double Ectropion, treated on one side by temporary union of the eyelids, and on the other by shortening of the palpebral fissure.—Dr. Runton showed microscopical sections of an Endothelioma of the Cerebral Cortex.—Dr. Porter showed a labourer in a rubber warehouse, aged 32, with Enlargement of the Lymphatic Glands in the Neck, Left Axilla, and Mediastinum, producing considerable pressure effects. Cordy condition of lymphatics of lower extremities; fourteen months' history. No anæmia, no apparent splenic enlargement, no change in the relative number of red and white corpuscles in the blood. Dr. Porter thought it might be a case of Hodgkin's disease in a comparatively early stage.—The President showed a case of (?) Cerebral Tumour.—Dr. Burgess showed a man, aged 34, with a Gumma near the upper end of the left Fissure of Rolando. Syphilis twelve years ago, severe headache, and attacks of Jacksonian epilepsy during the last three months; double optic neuritis, weakness of right leg, and exaggerated reflexes on right side, when the patient came under observation three weeks ago. The right disc, which was least affected, was clearing up under large doses of iodide of potassium.—Dr. Gwynne read notes of a case of Indurative Mediastino-Pericarditis in a boy, and showed the specimen. The principal features of the case were orthopnœa, general anasarca, great enlargement of the veins of the neck, and great swelling of the face and neck, the eyes being so swollen that he could hardly open them. The immediate cause of death was apoplexy. A *post-mortem* examination revealed a clot in the right lateral ventricle of the brain. An enormous mass of inflammatory tissue filled the mediastinum, and pressed upon the blood vessels, especially the superior vena cava. The pericardium was enormously thickened. No valvular disease nor ascites.—Dr. Fearson read notes of the successful treatment of a case of Uræmic Asphyxia by the inhalation of oxygen, and of the Status Epilepticus by bleeding in another case. The President, Dr. Adair, Mr. Atkin, Dr. Burgess, Dr. Ruxton, Mr. Richard Favell, Dr. Clarke (Chesterfield), Dr. Hargreaves, and Dr. Kite took part in the discussions.

Newport Medical Society.—At a meeting on December 6th, Dr. B. Davies in the chair, the following papers were read and discussed: Dr. A. G. Thomas: A Case of Long Retained Placental Growth. Mr. O. E. B. Marsh: Intestinal Sepsis in Typhoid.—Pathological specimens were also shown by Dr. S. H. Lee (House-Surgeon).

Medico-Psychological Association.—A meeting of the South-Western Division of this Association was held at Bath on December 13th. The first paper was one by Dr. Goodall (read by Dr. Bullen) on Certain Questions bearing upon the Problems of Heredity and Alcoholism in connection with Insanity.—Dr. Hubert Bristowe read a paper on The Relationship between General Paralysis and Chronic Renal Disease. The reading of each paper was followed by a discussion. In consequence of Dr. Maury Deas's accident the discussion which he was to have opened had to be postponed. We are glad to learn that Dr. Deas is progressing satisfactorily.

Bristol Medico-Chirurgical Society.—At a meeting held on December 12th, Dr. Harrison in the chair, Dr. Waldo showed (1) a patient with Primary Lateral Sclerosis and resulting Spastic Paraplegia and Deformity. (2) A boy with Lichen Pilaris.—Mr. Paul Bush showed a man with very extensive Necrosis of Skull.—Mr. C. Morton showed a patient with Gummata of the Skull and Limbs.—Mr. A. W. Prichard showed a Portion of a Catheter which he had removed by suprapubic operation from the bladder of a man who had had a calculus removed some years before.—Mr. Morton reported a case of Pyæmia from Middle-Ear Disease, in which the internal jugular vein was ligatured. Mr. Harsant discussed the symptoms and mode of operating; Mr. Paul Bush mentioned a similar case; and Dr. Clarke and Dr. Elliott also made remarks.—Dr. J. Swain brought before the Society a case of Castration for Prostatic Hypertrophy. (For full report of this case see p. 12 of this issue.)

The Pathological Society of London.—Our reporter informs us that no meeting of the Pathological Society of London was held on January 1st as a quorum of members was not formed. He adds: "Although no notice of a meeting was sent to the British Medical Journal by the Secretary, a meeting was on the notice card furnished to members." This is, we believe, not the first time that a similar mischance has befallen this Society. To turn out on a cold winter's night at the holiday season of the year argues very extraordinary devotion to pathology, and it might be well if in future years the dates of the meetings of the Society were so arranged as to avoid the last and first weeks of the year.

The Lady Strangford Hospital at Port Said.—This hospital, which was opened in June, 1887, has already received 2,000 patients, mostly British seamen, though passengers are also admitted. The Egyptian Government have now given a complete title to the site, which has been considerably enlarged, and the committee have decided to build a series of blocks of permanent buildings, new blocks being added as the funds received justify the extension. The first of these blocks—one for infectious cases—is already complete, and a recent donation has encouraged the committee to prepare to build a second block. It is hoped eventually to erect more suitable quarters for the staff, which consists of an English medical officer, matron, nurses, and chaplain.

REVIEWS.

CLINICAL LECTURES AND ESSAYS ON RICKETS, TUBERCULOSIS, ABDOMINAL TUMOURS, AND OTHER SUBJECTS. By Sir WILLIAM JENNER, Bart., G.C.B., M.D.Lond., F.R.C.P., etc., Physician in Ordinary to the Queen, Consulting Physician to University College Hospital. London: Rivington, Percival and Co. 1895. (Demy 8vo, pp. 342. 14s. net.)

WHEN noticing the appearance some fifteen months ago of a volume of collected essays and lectures on fevers and diphtheria by Sir WILLIAM JENNER, we expressed the hope that the welcome given by the profession to that volume would encourage the author to issue a second, containing certain other clinical studies by him which rendered the greatest service to clinical medicine at the time of their original publication in various periodicals, but have since remained unavailable for general perusal and study owing to the difficulty of consulting old files of medical papers. This hope is fulfilled by the appearance this week of the volume now before us. We may say at once that this new collection is in no respects less valuable—in some respects it is even more valuable—than the first. It affords fresh proof that really sound clinical observation never grows old. The lectures and essays have in this volume, as in the first, been subjected to the extremely severe test of publication exactly as they were written twenty, thirty, and even forty years ago.

The first lectures in this volume, and those perhaps which may be read at the present day with greatest advantage, are three lectures on rickets delivered at the Hospital for Sick Children, Great Ormond Street, in December, 1859, and January, 1860. They show the author at his best, and were so original and so much in advance of the current opinion of that day, that they still read as though written yesterday. If we omit the association of scurvy with rickets, an example of which, evidently, had not come under the author's notice at the time, and perhaps the use of phosphorus in treatment, it would be difficult to mention any points in connection with this disorder which Sir William Jenner could not fairly claim to have discussed in these lectures. Even the association with it of laryngismus, and carpo-pedal contractions (tetany), which has recently been the text of so many German essays and lectures did not by any means escape his attention. His clinical descriptions are admirably complete and graphic, and each graphic touch which cheers the reader on his way is introduced not for the sake of literary effect, but because it really throws light on the subject. Take, for example, the following from a paragraph in which the effect of rickets on the chest and on the respiratory function are under consideration: "Observe a child the subject of extreme rickets, but otherwise healthy. See the business it is to him to breathe. The chief occupation of his life is to get by effort the air into enough of the air cells of his lungs to enable him to live. You will see at once that the least obstruction in the bronchi must suffice to render all his efforts useless." Or, again, this, when speaking of the extreme muscular weakness which may be present in a bad case of rickets: "She lay across the arms of the person who carried her like a large half-stuffed rag doll." Or, for a shrewd piece of observation of the amiable foibles of maternal human nature, let us quote the following: "In regard to the intellect of a child, speaking generally, the mother's opinion must be weighed before it is received as correct. If a child be not suffering from chorea, and the mother states that it is mentally deficient, her statement is, I believe, invariably correct: but the mother constantly tells us that her child is very clever, quite a prodigy, when it is only a few degrees removed from an idiot."

In spite of all that has been done, in spite of school boards and lady managers, we fear that a good deal of truth still remains to the following apostrophe: "Can we wonder that rickets is prevalent among the poor of London? Can we fail to wonder that geography, history, and crochet work form so large items in the instruction imparted at our national schools, and the doctrines of life so small? Let the girls there educated be taught that Constantinople is the capital of Turkey, if it be of any advantage for them to know it, but let them also learn how to dress, nurse, feed, and lodge an infant, so that it may run a fair chance of not swelling the amount of that truly awful column in the Registrar-General's return—'Deaths under 1 year.'"

A large part of the volume is taken up by the lectures on the Diagnosis of Extrapelvic Tumours of the Abdomen, which were published originally in the BRITISH MEDICAL JOURNAL in 1869 and 1870. The lectures were clinical lectures, but they form a complete handbook to the examination of the abdomen, and to the diagnosis of diseases which lead to the enlargement of the abdominal viscera. They were delivered partly at the bedside, partly in the lecture theatre after the class had had an opportunity of seeing and examining a case during life, and in many instances of witnessing the *post-mortem* examination. In his introductory remarks Sir William Jenner took occasion to explain briefly, but we believe more fully than elsewhere, his theory of clinical teaching. The amount and worth of the clinical knowledge possessed by a practitioner does not depend directly, he says, on the number of cases seen. "There are men who have had a great deal of practice, and are still inexperienced." There are to be found men, he says, especially among those who have early been placed in charge of large numbers of patients, who, "because they have treated many people, and comparatively few of their patients have died, are satisfied with their imperfect knowledge, speaking confidently of the results of their experience and the cures they have effected. In truth, such men mistake self-deception for experience."

The object of clinical teaching should be to give a man a general view of medical doctrines and principles, and to train him "to see with his eyes, to touch with his hands, to hear with his ears, to reason with his brain; he should, in fact, be put into possession of that practical knowledge which, in long time, the master has acquired for himself." Some men have a great store of practical knowledge, but cannot impart it, because "they have never analysed the process by which they gained it." There can be no doubt that Sir William Jenner himself had mastered this difficult art, and that by an arduous process of self-education and self-analysis, not less than by continuous study at the bedside, he made himself the very great clinical teacher that he was. How simple they all seem as we read these lectures, how inevitable and even obvious the conclusions! It is only a critical analysis which enables the reader to perceive how much patient and accurate clinical observation, what well-judged application of clinical and pathological knowledge to the problem on hand was required: how remarkable, in fact, considered merely as an intellectual effort, the production of one of these lectures was. They ought to be read again by every practising physician; and, still more, perhaps, by those "abdominal surgeons" who, when they find some difficulty in diagnosing the nature of an abdominal tumour, are disposed to cry, "let us look and see."

Of the other chapters in this interesting volume we need not speak at length: they include the author's well-known articles on Deformities of the Chest, from Quain's *Dictionary of Medicine*, and on Emphysema, from Reynolds's *System of Medicine*; the paper on Vesicular Emphysema, from the *Medico-Chirurgical Transactions*; the papers on Sarcinæ, and two or three others.

The two volumes of collected lectures are a valuable addition to every medical library, and will serve to make plain to younger generations the grounds of Sir William Jenner's high reputation as a physician and a clinical teacher.

ON PUERPERAL FEVERS. By LOVELL DRAGE, M.A., M.D.Oxon., Medical Officer of Health of the Hatfield Rural District, Herts. London: Adlard and Son. 1894. (Cr. 8vo, pp. 52. For private circulation only.)

DR. LOVELL DRAGE has written this pamphlet because he thinks that, in recent discussions on the important subject of which it treats, there has been a tendency "to magnify the power of antiseptics, and to lose sight of the fact that in the absence of suitable conditions bacteria cannot live, let alone produce symptoms of disease." Dr. Drage gives a very fair summary of our present knowledge as to the bacteriology of puerperal fever, its symptoms, and the way of preventing it. His thesis is that the function of bacteria is to break up dead animal and vegetable matter. From the purely saprophytic forms, other kinds develop by natural selection. Some

of these produce disease in the human body. Among these there are some which, by exposure to fixed conditions for many generations, have acquired fixed characteristics. These produce the definite forms of zymotic disease, such as scarlet fever. But even they vary; all cases of scarlet fever, for instance, are not alike. Other forms, such as those which produce sepsis, have less fixed characteristics, and therefore the variations in the morbid processes which they produce are much wider than those of the zymotic diseases. Dr. Drage's essay is a thoughtful one, and well worth study.

China: Imperial Maritime Customs. Medical Reports for the half-years ending March 31st and September 30th, 1891. Forty-first and forty-second issues. Shanghai. 1894.

In our notice of the previous issue we expressed regret that the value of these reports of late years was diminished by the great delay in publication. We also pointed out that this delay was the reverse of encouraging to contributors. We are glad to see, from the speedy way the present has followed the previous issue, that an effort is being made to remedy this and to bring the reports up to date.

Both the present numbers contain many allusions to the epidemic of influenza prevailing in most parts of China in 1891. In the latest of the two reports Dr. Adams, of Foochow, and Dr. Cantlie, of Hong Kong, deal at some length with the subject. The former confines himself to facts, whilst the latter indulges in some ingenious, but what appear to us to be rather doubtful, speculations. Dr. Wallace Taylor has a paper on Abdominal Hysterectomy, founded on 5 cases (1 fatal), which cannot fail to have a historical as well a practical interest to the abdominal surgeon. Dr. Begg adduces additional evidence for the value of yellow santonin in the treatment of sprue. Dr. W. A. Henderson calls attention to an epidemic of herpes tonsillitis in Chefoo and Mid-China. He found that in Chefoo the udders of cows are affected at times with a vesicular eruption. The fact of his mentioning this circumstance in juxtaposition with his remarks on epidemic herpes tonsillitis gives the reader the impression that Dr. Henderson regards the connection of the two conditions as something more than one of mere coincidence. Dr. McCartney's report on Chung King, a large city of two or three hundred thousand inhabitants and an active commercial centre on the Yangtse, many miles above Ichang, is, we trust, the forerunner of many interesting papers from what doubtless will prove a fresh and valuable centre for the extension of knowledge in geographical pathology. The other reports contain much information of interest, and many of them well repay perusal.

Reference would be much facilitated and the utility of these reports extended were the pages numbered consecutively through, say, ten numbers and a full index provided. The subject-matter of the various paragraphs might also with advantage be indicated either by marginal notes or by headings in italics. As at present arranged these reports are troublesome to refer to.

Rain Making and Sunshine. By J. Collinson. London: Swan Sonnenschein and Co. 1894. (8vo, pp. 296. 3s. 6d.)

Mr. John Collinson, according to his own account, is a person who possesses extraordinary claims upon the British public. He has discovered, he tells us, a means by which "the health, energy, and comfort of the inhabitants of the British Isles can be improved, and made more genial, and rendered less changeable, and less uncertain, and in many respects less hurtful to persons not in robust health." This sentence is obscure, but everyone will agree that "the weather is often almost as bad as bad can be," yet the professors of meteorological skill can do nothing to mend it. Happily for a suffering nation, Mr. Collinson has discovered what to do and how to do it; and not only what to do, but what not to do, which really seems equally important. He has discovered a new force which is to regulate the weather of the future; at least, he has not exactly discovered it, but rediscovered it. With the assistance of a suitable person, possessed of the power of controlling this new force, it will be possible for the British Government of the future, should it rise to the occasion, "to compel weather changes when desirable, and particularly aërial and aqueous results when necessary for the well-being of society and the nation." Unfortunately Mr. Collinson has already discovered that British rulers "are slow to find out, slow to believe, and slow to act, and slow to appreciate, and slow to reward."

This new force is called "od," or "odyle," and by a great many other names. "The nature and properties," Mr. Collinson sagely observes, "of physical force, steam force, and magnetic force, are fairly well known, but odic force, except to some scientists, is unfortunately known only to a small section of society." As to what exactly odylic force is we have no very clear explanation, but we are pleased to learn that it is superior to dynamite for weather-making purposes. Judging from what has recently befallen us, it is to be feared that Mr. Collinson, disgusted with the small attention which his claims have received from an ungrateful Government, has been giving us a taste of his power. He tells us that the results of his action on magnets are certain to produce changes in the weather—"storms, floods, droughts, etc." Have we not had storms and floods in the Valley of the Thames, and drought at Leicester? Mr. Collinson, in fact, confesses that he has been experimenting upon the weather for some time with crystals, drugs, metals, and concoctions. The particular badness of the weather in London may be accounted for apparently on the ground that noise and turmoil, and knocking, and exploding of fog signals, the slamming of railway carriage doors, and many other noises of civilisation, interfere with the comfort of the sensitive manipulator of odylic force, so that we are told that "the noise of a Salvation Army drum has often spoilt most charming weather, and effected changes which have been followed, in consequence, by a week of rain, wind, and even occasional storms." All this is very uncomfortable, but Mr. Collinson assures us that what is required is a proper laboratory, supported by the Government, and "a very trustworthy gentleman of suitable knowledge and experience" to direct it. A trustworthy gentleman is essential, for without care you may evolve a contrary odyle, with very fearful consequences. No doubt Mr. Collinson thinks that he can easily find the very trustworthy gentleman. He tells us that the discovery of this wonderful energy was brought about through reading the *Arabian Nights*; and his leading authorities are Lord Lytton's novels, *Maunders's Treasury*, *Household Words*, and so on.

It is astonishing that such a farrago of nonsense should have found a publisher, and the book is a curious illustration of the extraordinary self-deception of which a man is capable when once he embraces a hypothesis not founded upon accurate observation, but upon subjective sensations.

La Lèpre: Observations et Expériences Personelles. [Leprosy: Personal Observations and Experiments.] Par le Docteur Jules Goldschmidt. Paris: Société d'Editions Scientifiques. 1894. (Roy. 8vo, pp. 56. 3 francs.)

This little work gives an account of Dr. Goldschmidt's observations and experiments on leprosy in Madeira, where he has resided for twenty-six years. He informs us that at the present time there are about seventy lepers on the island, the number of cases having greatly diminished in recent years. The village of Ponta do Sol, and the neighbouring districts, are relatively most affected, and have furnished nearly a third of the cases admitted to the asylum at Funchal during the last sixty years. The peasants in the country are most frequently attacked, and, contrary to the general opinion, the higher the altitude the larger is the percentage of cases. Although poverty and defective hygiene have a predisposing influence, Dr. Goldschmidt does not consider that diet plays an important etiological part. Two-thirds of the population may be regarded as vegetarians, and fish eating is rare. At Sao Gonsalves, where the very poor sometimes eat decomposed fish, there are fewer cases of leprosy than elsewhere. Dr. Goldschmidt is able to contradict absolutely the accusation that the spread of leprosy is due to vaccination. Although this measure is now supposed to be obligatory, a great many of the inhabitants refuse to submit to it, and very few of the lepers have ever been vaccinated.

Dr. Goldschmidt has made several attempts at inoculation from man to man. The juice of a leproma injected into the skin of a paralytic case produced no permanent local effect,

but with two individuals suffering from the tuberous form, inoculation of an unaffected part of the skin was followed some months after by a spot or infiltration on the same place, containing the bacilli. He has never succeeded with animals, nor has he been able to cultivate the bacilli. He has observed that lepers escape influenza and also small-pox, in spite of the fact of their having been so rarely vaccinated: he also states that tuberculous subjects are never attacked with leprosy. Upon this point, as well as upon some other conclusions that he draws, he is not likely to meet with general agreement. Believing that the disease is propagated directly from man to man, he recommends isolation, but modified according to the special epidemiological conditions of the various countries. With reference to treatment, the author has made many experiments; he has tried all the vaunted specifics as well as tuberculin, and even excision or cauterisation of the early tubers and spots, without success. He has had a good result in one case out of five by the use of an oily solution of "europhen" (isobutylorthocresoliodide), a preparation which contains 28 per cent. of iodine. The affected parts were inuncted three times a day, and the skin always kept oily for fifteen months. He recommends subcutaneous injections for paralytic cases.

LUNACY LAW FOR MEDICAL MEN. By CHARLES MERCIER, M.B. London: J. and A. Churchill. 1894. (Cr. 8vo, pp. 148. 5s.)

THIS admirable little book gives, in a clear and systematic way, the points of lunacy law, and the necessary formalities connected with the placing and keeping of lunatics under care and control. It describes the various proceedings, forms, and duties with which the medical practitioner should be acquainted who undertakes the certification or care of the insane. Occasionally a direction given is too concise or too restricted. Thus, the notice of discharge (p. 92) must, in some cases, be sent to others than the Commissioners; the statement that "the following is the form of the document" (p. 95) implies that the death notice to the coroner must be in the exact form given, but this is not the case. The defects in the book are trifling, and do not really diminish its value.

LEHRBUCH DER KLINISCHEN UNTERSUCHUNGS-METHODEN. [Treatise on the Methods of Clinical Examination.] Für Studirende und praktische Aerzte. Von Dr. H. SAHLI. Mit 191 theilweise farbigen Hölzschnitten im Text und 2 lithographirten Tafeln. Leipzig u. Wien: Franz Deuticke. 1894. (Roy. 8vo, pp. 674.)

AFTER some general considerations the clinical examination is detailed in the following order: the skin, body temperature, respiration and its changes, cough and voice, pulse and vessels, percussion, auscultation, palpation as applied to the lungs and pleura, palpation in respect to the abdomen, the diagnosis of the various valvular lesions with aortic aneurysm and perica ditis, the stomach and its contents, the fæces, urine and sputum, the mouth and gullet, laryngoscopy, rhinoscopy, ophthalmoscopy, and finally the nervous system.

One of the author's objects has been not only to detail physical signs, but also to give an explanation of them. The section on the pathological physiology of the heart in valvular lesions (including compensation) will be read with great interest. This subject often hardly receives the attention which it deserves. The description of percussion and auscultation in distinct chapters necessitates a separation of physical signs belonging to the particular organ in question, and this is open, we think, to objection. The advantages of an elaborate set of symbols for recording physical signs seem to us also open to doubt. The physical, chemical, microscopical, and bacteriological examinations are very satisfactorily given. One of the best sections is on the examination of the nervous system; it is given at considerable length and with much clearness. It must suffice to say that there is a large amount of useful and well-arranged information in this book, and that it is quite worthy of the author's reputation. It is copiously provided with appropriate and exceedingly well-executed illustrations.

NOTES ON BOOKS.

Saunders' Pocket Medical Formulary. By WILLIAM M. POWELL, M.D. Second edition, revised and enlarged. London: Henry Kimpton. 1894. (Post 8vo, pp. 298. 6s.)—This volume contains a collection of prescriptions arranged under the head of various diseases which they are designed to benefit. The diseases are classified in alphabetical order, and the volume is supplied with a thumb-nail index, which renders consultation the more easy. The prescriptions given appear to have been selected with judgment from a large number of sources, and this handbook will doubtless often be useful in indicating how an unfamiliar drug may best be prescribed. It will also be of use sometimes in suggesting new lines of treatment, for there is no doubt that we are all rather disposed to fall into habits in the matter of drug prescribing.

Alexander Popham, M.P. for Taunton, and the Bill for the Prevention of the Gaol Distemper, 1774. A Hygienic Retrospect. By ARTHUR DURANT WILLCOCKS. London: Harrison and Sons. 1894. (Demy 8vo, pp. 22. Published privately. —This pamphlet, which has been printed at the request of several friends and members of the Association, contains the Presidential address of Mr. Willcocks, before the annual meeting of the West Somerset Branch of the British Medical Association at Taunton. The address gives an interesting account of the behaviour of typhus fever in prison communities in former times, and indicates the nature of the work which has made the name of John Howard so famous. Popham's Bill was one of the first and most epoch-making Acts of Parliament bearing on public health, and we are told that it was largely as the result of Popham's encouragement that Howard continued his researches and labours. An appendix contains a chronological table of outbreaks of gaol fever in the United Kingdom.

Ambulance Lectures. By SAM. OSBORNE, F.R.C.S. London: H. K. Lewis. 1894. (Fcp. 8vo, pp. 148; 42 Illustrations. 2s.) —The fact of this little book having in so short a time reached the third edition is sufficient proof of its utility. The description of the various parts of the human frame, and some of its principal functions are clear and concise, giving just enough information to the learner to enable him to understand why he is doing what he is told to do, in rendering first aid in the various emergencies he may be called upon to treat. We notice with satisfaction that special stress is laid on the improvised methods of treatment, as in the majority of cases they have to be relied upon, the orthodox apparatus being rarely at hand. The hints on "Nursing" in the last lecture are very brief, but just to the point, and a large amount of information is contained in the few pages.

Les Gaz du Sang [The Gases of the Blood]. By N. GRÉHANT. Paris: G. Masson; Gauthier, Villars et Fils. 1894. (Crown 8vo, pp. 166. 17 illustrations. 3 francs.)—Professor Gréhant is well known as a physiologist who has done good experimental work in connection with science. The present little volume forms one of a series known as the *Encyclopedie scientifique des aide-mémoire.* It relates not only the chief known facts in connection with the blood gases, but to a greater extent is concerned with the author's own researches on that subject. Methods are very fully described, and new pieces of apparatus figured. An interesting section of the work relates to poisonous gases in mines and similar places. We recommend the book to all interested in the general question, and particularly to those who have worked at the subject from the practical or hygienic standpoint.

A Manual of Human Physiology. By JOSEPH H. RAYMOND, M.D., Professor of Physiology in the Long Island College Hospital, and Director of Physiology in the Hoagland Laboratory. (Philadelphia: W. B. Saunders. 1894. Cr. 8vo, pp. 382, 102 illustrations and 4 coloured plates. 1.25 dollar.)—This book has been prepared with special reference to students of medicine, and contains a concise summary of the most important physiological facts which junior students should

know. It does not pretend to take the place of the more advanced and complete textbooks, but we regard it as a very trustworthy guide for those commencing the study of physiology. There are, however, so many other books of the same kind at present in the market that it can hardly be said to meet a want. The book is extremely well got up, the type is good, and the illustrations obtained from the best sources have been selected with care. The text itself shows that Professor Raymond is a clear teacher, and fully abreast with modern physiology. It is indeed well up to date, which is more than can be said of some American physiological textbooks.

Diaries.—We have received from Messrs. William Collins, Sons, and Co., Limited, London and Glasgow, samples of their diaries, which appear to be remarkably cheap. There is a large foolscap interleaved diary with a week on the opening (1s.) which would be convenient for notes of home appointments, messages, etc. The size of the diaries descend in regular gradations from this to a small "Bijou" Diary, bound in red leather, for the waistcoat pocket, the price of which is 6d.—Messrs. Charles Letts and Co., Royal Exchange, send us a copy of their Hospital Nurse's Diary (1s.), which contains, in addition to ordinary space for manuscript notes, notes on various points which may be of use to nurses, including even the form of will, which, we trust, may only be used in very extreme emergencies.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

EUCALYPTOL (ABSOLUTE) AND STANDARDISED OL. EUCALYPTI.

Eucalyptol is prepared by Messrs. F. H. Faulding and Co., Adelaide, S.A., and 9, South Street, E.C., by a patented process, which renders the separation of eucalyptol from the oil a matter now of very little difficulty. The method adopted is to take advantage of the fact that eucalyptol forms with concentrated phosphoric acid a crystalline compound which can be easily separated from the terpene and other constituents of the oil. The sample of eucalyptol prepared in this way was found to have a specific gravity of 930 at 60° F., and it answered to the tests of a good sample of eucalyptol. It has the additional advantage of being much less expensive than eucalyptol prepared in other ways.

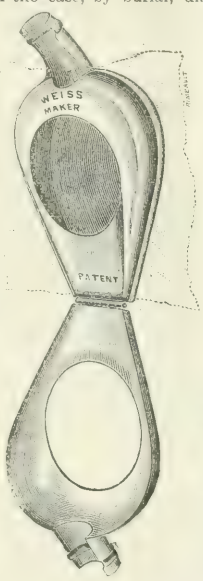
The amount of eucalyptol in commercial samples of ol. eucalypti is very variable, and, presuming that eucalyptol is therapeutically of more importance than the terpene constituents of eucalyptus oil, the introduction of an oil containing a definite amount of eucalyptol will be of great service. Faulding's eucalyptus oil is guaranteed to contain 50 per cent. of eucalyptol when determined by Faulding's process, and examination of the sample supplied confirms that statement, besides showing that the oil is in other respects of good quality.

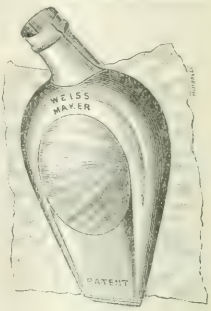
SYNTHETIC GUAIACOL.

Crystallised alpha guaiacol is the name given by the makers, Messrs. A. Champigny and Co., Paris, to guaiacol prepared synthetically by the method of Béhal and Choay, who claim to be the first to have obtained guaiacol in a crystalline condition. The sample of guaiacol sent for examination is a finely crystalline body of great purity, good odour, and free from irritating constituents. It melts at about 28° C., and for external use can be easily rendered liquid by warming, and does not again solidify until cooled to a much lower temperature, or it can be dissolved in oil for hypodermic injection. For internal administration it can be used in the form of capsules or pearls. Synthetic guaiacol has been found by Professor Marfori to be therapeutically and chemically identical with highly purified guaiacol prepared from beech wood creasote: it is, therefore, to be preferred for use in all cases where a prophylactic is required, rather than the ordinary guaiacol, which is of uncertain composition, and sometimes contains less than 50 per cent. of real guaiacol. A preparation termed alpha creasote, and corresponding to creasote, is also made by mixing a definite proportion of guaiacol with the other constituents of beech wood creasote after they have been subjected to purification. On account of its uniform composition and freedom from injurious irritating substances, it is preferable to ordinary creasote. The London agents are Messrs. Wilcox and Co., 239, Oxford Street.

AN IMPROVED BED-PAN.

Surgeon-Major Chester, A.M.S., has designed a special bed-pan for use in infectious cases, which possesses certain advantages. It is a slipper-shaped pan, made of metal: the top part is movable, working on a hinge behind. A loose lining of waterproof paper to receive the excreta is held firmly between the lid and the top of the pan. After use the top of the pan is lifted and the excreta removed at once in the waterproof paper, and treated, according to the nature of the case, by burial, disinfection, or the usual manner.





The pan has been specially designed to meet the difficulty of cleaning the ordinary bed-pan, which from its form is commonly extremely difficult to purify completely. The pan can also be used for vaginal irrigation, or for the administration of large enemata by omitting the waterproof paper. It is manufactured by Messrs. John Weiss and Son, 287, Oxford Street, London, W., and 42, King Street, Manchester.

A BOILER AND STEWER.

The cooking in an ordinary English household is commonly very much to seek, and in particular the use of the "bain marie" is hardly understood at all. Mr. R. W. Wellbank, North Newington, Banbury, has designed a simple apparatus which he calls the "Duplex Boilerette." It is, in fact, a water bath, in which the water in the outer vessel boils under a slight pressure, so as to ensure that the food placed in the inner vessel is maintained at the boiling point. The valve is of special construction, and it would seem that, with ordinary care, the appliance should answer its purpose without risk. The apparatus seems well adapted for invalid cookery, and is sold at a reasonable price (five pints, 7s.6d.).

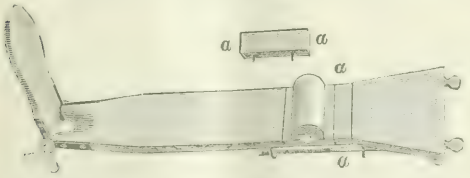
AUSONIA TABLE WATER.

This is a natural aërated mineral water imported from Bognanco, in Italy, by Messrs. Cosenza and Co., 95, Wigmore Street. It contains nearly 11 grains of solid mineral constituents per pint, of which rather more than one half consists of magnesic carbonate and sodic sulphate. Although

the water is not very brilliant it is free from organic matter, and it is highly recommended for table use by many Milanese physicians as slightly aperient, and having a beneficial action on the digestive organs.

AN ADAPTABLE SPLINT.

MR. C. PERCIVAL CROUCH, M.B., F.R.C.S., of Weston-super-Mare, informs us that he has found the splint illustrated in the accompanying drawing very useful in private practice. It



is made of wood, and by the insertion of the leaves (*a*, *a*) can be lengthened to suit any leg in a few minutes. By tightening the screws the fixity of the leaves is ensured. To fit the hollow of the knee he uses a curved block of wood shown in the drawing, which can be fixed at any point of the splint according to the position of the knee. The splints have been made for him by Messrs. Ferris and Co., of Bristol.

SIMPLE BED TICKET HOLDER.

DR. ERNEST S. REYNOLDS has devised a bed ticket holder, which has the merit of being extremely simple and inexpensive. The holder consists merely of a piece of stout millboard, with metal protections for the corners. It can be suspended by a metal spring clip, which also holds notes or temperature charts in place. He informs us that holders of this pattern have been in use at the Manchester Workhouse Infirmary for three years, and have neither warped nor cracked. They are manufactured by Messrs. H. Rawson and Co., 16 New Brown Street, Manchester, who will supply them at 3s. 6d. a dozen.

"MARROL."

THIS preparation is analogous to "Virol," but it is not so sweet, and the fat and proteid of eggs are replaced by ox marrow, that ingredient being selected partly on account of its easy digestibility as compared with most other kinds of fat, and partly because the red portion of marrow contains hæmoglobin and organic compounds of iron and phosphorus. Marrol is more specially designed to serve as a fat food for adults; but it is claimed that it will also be useful for infants. On account of an albuminoid ingredient, malt extract, and phosphatic salts it contains it has considerable nutritious value, while the flavouring of the malt extract with hops renders the taste of the preparation very agreeable. The results of analysis show that in its preparation regard has been paid to physiological principles, and that, while being an important substitute for cod-liver oil, the representation that it constitutes a good form of administering fat to bottle-fed infants and frail children is well founded. For these reasons it appears likely to be a very serviceable preparation, and the absence of any injurious preservatives is a further recommendation. Marrol is prepared by the Liquor Carnis Company, Aston Clinton, Bucks, and 28A, Farringdon Street, E.C.

WOOLLEN FABRICS.

MESSRS. BOYD AND CO., of Belfast, manufacture a woollen fabric of great excellence, to which they have given the name "Eiderdon." The material is made of various thicknesses suitable for invalid jackets, coverlets, and rugs, and also for capes, ulsters, and other articles of clothing. The manufacturers claim that the fabric is made of pure wool of long fibre and the best quality. The fabric of the specimen submitted to us is compactly woven and extremely light for its thickness and warmth. The fabric has, we are informed, been used in several recent Arctic explorations.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

SPECIAL COMMISSION OF THE "BRITISH MEDICAL JOURNAL."

XXXI.—DURHAM.

THE workhouse in Durham is a large one, but the infirmary department is small. According to the official returns, there is accommodation for 49 patients, with a separate fever hospital having 21 beds: this was not occupied at the time of our visit. The infirmary buildings are of a more recent date than the house: the drainage has lately been remodelled, and there is an ample supply of water. The buildings stand high on the outskirts of the city, having a free space all round.

WARDS AND CLASSIFICATION.

Having an introduction to the master, we were courteously received and every facility given for the purpose of our visit. Indeed, the master observed that he thought it the duty of every ratepayer to visit the workhouse. The wards are distributed on the ground and first floors, the first floors being set apart for the sick and the lower floors for the infirm. They extend as two wings, having the administration block in the centre. There are both large and small wards; they are lighted with windows on the one side, with ventilators in the upper part of the window. The appearance of the wards was cheerful and bright, with armchairs, pictures, and a few flowers. The bedsteads provided for the sick are spring with hair mattresses, whilst those for the infirm are of varying width, laths covered with cocoanut matting and straw beds; they were clean and well made. There are no wards for the separation of the lock or offensive cases: the idiots, imbeciles, and "fit" cases are with the sick or infirm, and there did not appear to be any means by which an insane patient could be under control until removal. We were surprised to see that there are no bathrooms attached to the sick wards; on each landing outside the wards there is a supply of hot and cold water, but no means for emptying baths except by baling. The lying-in ward is a continuation of the long female ward; it has separate offices: it holds four beds, and at the time of our visit a woman with her babe was doing quarantine on account of suspicion of some infection. In the event of any epidemic occurring in either the main or the lying-in ward there would be grave danger to the patients. There is no ward for the sick children. There are no day rooms for the sick, but there are day rooms for the infirm.

PATIENTS.

At the time of our visit the wards were comparatively empty: on the female side there was a patient "with fits" in bed, a woman with phthisis, one paralysed, one recovering from bronchitis, and a case of senile debility; on the male side a man who had injured his spine, a case of heart disease, and others in bed with old age: there were about twelve altogether, while in the lower wards were several patients very infirm. Each bed was provided with a bed card.

NURSING BY PAID ATTENDANTS.

The system of nursing is by the employment of attendants; there are three such for the infirmary—a man and his wife, who have been there for about fifteen years—and the other nurse, who was appointed about two months ago. The two female nurses at present take day and night duty each alternate month. About a year ago a trained nurse was appointed for the night, but she only stayed six or eight months. We are not surprised to learn this; a trained nurse cannot work as one of a staff in which the other officials are untrained: this attempt at patching makes the rent bigger. There is some misapprehension in this infirmary in the application of the word "trained" as applied to the nursing

staff; and as we had not the opportunity of seeing the medical officer, we have been at the pains to ascertain from him the exact status of those who are employed in this infirmary as nurses. Under these circumstances the services of the inmates must still be retained in the nursing of the patients: but as we did not see the "nurses" we were not able to ascertain to what extent they made use of the inmates in nursing the sick.

Defects in the Infirmary Buildings.

We were surprised to note so many defects in a building of a comparatively recent date. First, there is the want of bathrooms above spoken of. It is difficult to understand that any institution intended for the reception of any number of sick people should not include one or more bathrooms. The water-closets are not on a level with the wards but are on a lower landing, obliging the aged and weakly to go up and down stairs, or adding to the work of the nurses by giving them additional steps. The wards themselves admit of no classification except that of infirm or sick. Then the labour ward is only a piece taken off the main ward, and, in the event of any epidemic, isolation would be almost impossible: it is also too small for its work. No separate wards for children is a mistake, especially in this house, where there seemed to be a large number of children, and where the management of the children's department in other particulars appeared to be enlightened and liberal. We saw no slop sinks, or, indeed, any place for the emptying of vessels other than the closets. Hot and cold water is laid on outside the wards.

General Arrangements.

The infirmary buildings look on to a garden, in which the master informed us the patients are permitted to sit when the weather is suitable. There are also airing courts for the male and female patients. The receiving wards are near the gate, and the master can admit any patient to the infirmary from these wards if in his opinion necessary, reporting the same to the medical officer. The infirmary is in telephonic communication with the master's quarters; the medical officer lives at some little distance from the workhouse; one of the nurses is the midwife.

Diets.

The dinner, which was being served at the time of our visit, was meat and potatoes for those able to eat it, and broth for the more sickly. The matron informed us that the medical officer ordered such extras as he judged necessary, such as milk, beef-tea, and puddings, and that food was given to the patients at night. The meat was boiled neck of mutton, or some other form of boiled mutton.

Recommendations.

We advise that a new infirmary be built with all necessary appliances for the nursing of the sick bathrooms, slop sinks, closets of easy access for the sick and helpless, separate wards for the children and for the offensive cases, and a proper lying-in ward. The nurses' quarters under the same roof. That the infirmary and the isolation hospital be made into a separate department under the head nurse. That the existing infirmary be utilised for the imbeciles, idiots, and "fit" cases, the same to be in the charge of a responsible attendant. When the infirmary has been remodelled, we suggest as the top stone that a complete staff of trained nurses be placed in charge, the entire sick department be taken from under the control of the workhouse officials.

Patients for the Pasteur Institute.—Eight persons have been bitten recently in Glasgow by a dog which subsequently died of unmistakable rabies, as verified by Professor McCall, who kept the animal under observation until its death. By direction of the Health Committee, the persons bitten, who were all males, left Glasgow on Christmas Day under the care of Dr. Chalmers for the Pasteur Institute in Paris. The local authority have issued a muzzling order.—Four persons bitten in Lancaster by a dog found to be rabid after veterinary examination also went last week to the Pasteur Institute for treatment.

OBSERVATIONS ON MALARIAL PARASITES IN AMERICA.

We have received from Dr. William Osler, Professor of Medicine in Johns Hopkins University, Baltimore, a communication containing the conclusions of a report on parasites found in the malarial fevers observed in and about Baltimore. The report will appear in an early number of the *Reports of the Johns Hopkins Hospital*.

The following are the general conclusions on parasites observed in types of malarial fevers drawn up by his two senior assistants, Dr. Thayer and Dr. Hewetson. The observations extend now to more than 600 cases, in all of which the blood has been carefully studied. The full details will appear in a fasciculus of the reports of the Johns Hopkins Hospital, which will shortly be issued.

General Conclusions.

Malarial fever is rare in Baltimore during the winter months but becomes more frequent as the season advances, reaching a maximum in the month of September, the majority of all the cases occurring in August, September, and October. Any differences between the susceptibility of individuals of different ages and of the two sexes depend apparently only upon the varying chances of exposure to infection. The relative susceptibility of the negroes is by nearly two-thirds less than that of the white population. We have distinguished three varieties of the malarial parasite (1) the tertian parasite; (2) the quartan parasite; (3) the æstivo-autumnal parasite.

1. The tertian parasite requires about forty-eight hours to accomplish its complete development, and is associated with relatively regular tertian paroxysms, lasting on an average between ten and twelve hours associated almost always with the three classical stages—chill, fever, and sweating. Infection with two groups of tertian organisms frequently gives rise to quotidian paroxysms; infection by multiple groups of organisms rarely gives rise to more irregular subcontinuous fevers.

2. The quartan parasite is an organism requiring about seventy-two hours for its complete development. It is rare in this climate, and is associated with a fever showing regular quartan paroxysms similar in nature to those associated with the tertian organism. Infection by two groups of the parasite causes a double quartan fever (paroxysms on two days, intermission on the third). Infection with three groups of the parasite is associated with daily paroxysms.

3. The æstivo-autumnal parasite passes through a cycle of development, the exact length of which has not yet been determined. It probably varies greatly from twenty-four hours or under to forty-eight hours or more. But few stages of development of the parasite are found ordinarily in the peripheral circulation, the main seat of infection being apparently in the spleen, bone marrow, and other internal organs. Infection with this organism is associated with fevers varying greatly in nature. There may be a quotidian or tertian intermittent fever, or more commonly a more or less continuous fever with irregular remissions. The individual paroxysms last on an average about twenty hours. The irregularities in temperature depend probably mainly upon variations in the length of the cycle of development of the parasite, or upon infection with multiple groups of organism.

We have not been able to separate two distinct varieties of the parasite, though we feel that much more study is needed upon the subject.

The cases of malaria in the spring and early summer are of the milder and more regularly intermittent varieties (tertian and quartan fever), the severe æstivo-autumnal infections beginning to appear only in the later summer, and reaching their maximum in September.

The coloured race, while showing a relative insusceptibility to malarial infection, are equally susceptible to the various forms. The infections which recur are, however, more apt to take a simpler, milder course, the single tertian cases, for instance, outnumbering the cases of double tertian fever.

A majority of all the cases of malarial infection in this climate depend upon the tertian parasite; these tertian in

fections form the vast majority of all the cases in the first half year, and occur throughout the malarial season. The majority of infections during the height of the malarial season depend, however, upon the æstivo autumnal parasite.

The earliest cases of tertian infection are more commonly single in nature while as the season advances double tertian infections become more common.

Nothing in our experience has led us to believe that these varieties of the parasite are interchangeable. They are, we believe, distinct varieties, though closely allied to one another biologically. Combined infections with parasites of different varieties may occur, but they are rare, forming less than 2 per cent. of all the cases which we have observed.

The crescentic bodies associated with the æstivo autumnal parasite develop from the small hyaline forms. We have seen nothing to support the view of Mannaberg that they are the result of conjugation. We have never seen sporulating forms which we believe to be developed from crescents. We are not inclined as yet to accept the view that these are degenerate forms, though we do not feel that their true nature is as yet determined. The nature of the flagellate bodies which are seen to develop in all types of malarial fever from the full grown organism is not yet determined.

The specific action of quinine upon these three varieties of the parasite is undoubted. It exerts its influence most strongly when the parasite is undergoing the process of segmentation, before the entrance of the fresh segments into new red corpuscles. It is best administered, then, just before the beginning of a paroxysm if we wish to obtain the most effect with a single dose. The action is much more rapid and certain with the tertian and quartan parasites than in the æstivo-autumnal infections.

THE PHYSICAL SIGNS OF VIRGINITY.

THE doctrine has come down to us from venerable antiquity that the hymen is the sign of virginity; its laceration the proof of defloration; its presence or absence the test of the virtue of an unmarried woman. In the ancient words of the Hebrew Scriptures: "And the damsel's father shall say unto the elders, I gave my daughter unto this man to wife, and he hateth her; and, lo he hath given occasions of speech against her, saying, I found not thy daughter a maid; and yet these are the tokens of my daughter's virginity; and they shall spread the cloth before the elders of the city."[1]

Now, it is undoubtedly true that in most women there is a hymen; that in the first complete intercourse the hymen is usually torn; that in most women accustomed to sexual intercourse it can easily be seen that the hymen has been torn. But do these statements apply to all women?

In the first place, the toughness of the hymen and the size of its orifice vary very much in different women. In some the orifice is so large and the hymen so distensible that intercourse can be completed without laceration; in other women, partly because the hymen is tough, partly also from some defect on the opposite side, it happens that after months or years of married life the hymen is not torn, but simply pressed backwards, so that it comes to be funnel-shaped, with its apex inward, and the fossa navicularis becomes lengthened; this may happen without suspicion on either side that intercourse has not been complete. On the other hand, the absence of the hymen or the large size of its orifice does not prove unchastity. Further, scarcely a volume of the yearly indices to medical literature which are published can be referred to without finding a case or cases in which delivery of a child was obstructed by what is often incorrectly described as "imperforate" hymen. The presence of a hymen showing no sign of laceration therefore neither proves chastity nor negatives the possibility of pregnancy.

When we are asked what are the evidences of virginity, the question arises, what is meant by a "virgin?" When a prisoner is accused of rape, which is defined as "the carnal knowledge of a woman against her will," it is necessary, in order that the prisoner may be convicted of this crime, that it should be proved that penetration was effected. But for this purpose mere vulvar penetration is sufficient, and the fact of a persisting hymen would not necessarily be accepted as an answer to the charge. Now if a virgin, in a legal sense, was one who had never had complete sexual intercourse, it would sometimes be possible from physical examination, to assert virginity. If the hymen is in its natural position, not displaced backwards, and its orifice is small, showing no trace of having been torn, it is possible to say that complete sexual intercourse has never taken place. But the proportion of virgins is small in whom the hymen is so well formed, and its orifice so small as to warrant a dogmatic statement on this point.

But is this the legal meaning of the term "virgin"? According to the dictionary, a "virgin" is "a woman who has had no carnal knowledge of man." The meaning is often made more definite by the use of the words *virgo intacta*, untouched virgin. It is quite possible for a woman to have been guilty of sexual immorality, to have acquired venereal disease in the usual way, and to have become pregnant, without sexual intercourse having been complete, and without the virginal condition of the hymen having been destroyed. There is, then, no one physical sign from which a medical man can assert of any woman that she is *virgo intacta*, an untouched virgin.

Bearing these facts in mind, it clearly is of the greatest importance that medical witnesses should exercise much caution in giving evidence in cases where the chastity of a woman is called in doubt. The presence or absence of a hymen is a mere matter of fact, but whether the law cares to admit it or not, juries certainly accept the evidence of experts as expressing not only a fact but an opinion upon it. Although, then, it remains true that in a small number, comparatively a very small number of cases, the signs of virginity may persist after carnal intercourse, and although it may be impossible by any one sign or fixed criterion to say that a woman is a *virgo intacta*, still it is often possible for a medical man, taking all the circumstances into consideration, to form an opinion which may be very useful to a jury in arriving at a verdict upon a case. It is not merely a question of a hymen, but of its completeness, its position, its thinness, and its apparent lacerability under the asserted conditions, and also it is to some extent a question of these conditions. A persistence of hymen which would be no disproof of rape by an old or feeble man, might, in the mature judgment of an experienced surgeon, be quite incompatible with sexual intercourse with consent. It would, however, be far better were medical witnesses to be appointed either by the judge or by consent of both parties, so as to do away with even the appearance of conflict between them. This, however, we fear is at present but a counsel of perfection.

[1] Deuteronomy, xxii, 16, 17.

NOTES ON HEALTH RESORTS.

XVIII.—THE SAN TELMO SALINE SPRING AT PUERTO OROTAVA, TENERIFFE.

By GEORGE V. PEREZ, M.B.Lond.

DURING the few months that have elapsed since a patient afflicted with chronic eczema of the fingers accidentally found out the medicinal power of this spring, numbers of inhabitants have flocked to try them for all kinds of complaints, mostly without medical advice.

The water appears to be of signal benefit in various skin diseases, eczema and psoriasis chiefly. I have known an inveterate case of psoriasis of many years' standing to be markedly influenced by only one week's treatment. The patient took the waters freely—3 pints and more daily.

A few lepers still in an early stage have certainly been much improved, whilst, on the other hand, two or three in an advanced condition have done badly, from the occurrence of diarrhœa. The same mishap has attended its administration in cases of febrile phthisis. Dyspeptics have been relieved in almost all cases. Patients suffering from chronic rheumatism have derived much benefit; it has also been taken successfully in cases of chronic ulcers, scrofula, and glandular enlargements.

Whilst relieving patients with vesical catarrh, I have known it bring on cystitis in at least three instances in otherwise healthy persons; one of these drank eight glasses in one

day, and was seized during the following night with violent bladder symptoms.

Copy of Analysis of the San Telmo Spring, Puerto, Orotava, Teneriffe, made by Professor Attfield on October 15th, 1894.

Dissolved Solids.	Grains per Gallon.
Chloride of potassium	20.020
Chloride of sodium	289.870
Nitrate of sodium	0.899
Chloride of magnesium	26.758
Sulphate of magnesium	36.041
Chloride of calcium	4.906
Carbonate of calcium	7.200
Oxide of iron (alumina, traces)	0.040
Silica	1.684
Total dissolved solids	387.528

The water is remarkably free from organic (animal or vegetable) matter, only 0.04 of free ammonia per 1,000,000 and 0.02 of albuminoid ammonia per 1,000,000 being yielded; in fact, there is practically no organic matter present.

The water contains no special gases beyond the usual minute amounts of the three gases of the atmosphere (nitrogen, oxygen, carbonic acid) present in all ordinary water.

This chemical analysis clearly shows that the water belongs to the class of "strongly saline, mildly laxative" mineral waters.

(Signed) John Attfield.

Generally speaking, I should say that this new spring has the same applications as Kissingen, Homburg, Kreuznach, Ischl, and other saline springs, having the advantage over them that, whilst few, if any, go to Germany in winter to take these waters, here, thanks to the wonderful uniformity and mildness of the climate, they could be administered in winter with equal advantage. It can be confidently predicted that for the uric acid diathesis—for gout and rheumatic gout—this spring, so happily situated, will be a great boon.

THE FLORENCE FACULTY OF MEDICINE.

By STUART TIDEY, M.D.Lond., M.R.C.P.Lond.

The Department of Physiology.

In England we look to the individual to initiate and elaborate, in Germany the individual is but an accident in an elaborate State organisation, in Italy we find a happy engrafting of modern State organisation on to the hereditary stock of individualism.

Professor Fano, of Genoa, who last year succeeded Professor Luciani, now in Rome, in the Chair of Physiology in Florence, is just completing the reorganisation of the department. There are now twelve or fourteen laboratories, each for a special kind of work. A dynamo, driven by a gas engine, provides light and motive power throughout the building through the medium of twenty-four accumulators. Electricity is used *inter alia* for driving a centrifugal machine, which makes 3,500 revolutions a minute. A series of about twenty small dwellings for animals opens into the garden, and looks very clean. In the garden are birds, tortoises, and a fishpond. Among the rooms are Professor Fano's bureau and private laboratory, the assistant's laboratory, a dark room for optics and photography, and a theatre, to contain about eighty students, with the motto "Provate e Riprovate." There is a room for physical experiments, an operating room, and a special room for the estimation of gases fitted with Pflüger's gas pump and Pettenkofer and Voit's apparatus for estimating the gases of respiration. A few senior students have the privilege of working in the laboratory.

Professor Fano remarked that the finest laboratories with which he was acquainted were Professor Michael Foster's at Cambridge. There is nothing in London to compare with the physiological laboratories of poverty-stricken Florence.

The Department of Gynæcology.

This forms part of the maternity hospital, and is affiliated to the medical school of Santa Maria Nuova. The theatre is lined with glazed tiles, and admits of thorough cleansing with a hose. The instrument cupboards and tables are of glass, and the receptacles of glazed earthenware. The operating table is of metal. Towels and sponges are boiled, and the dressings are in the tin cases in which they have been baked. Chemical cleanliness replaces antisepsis. Chloroform is the anæsthetic used; it is administered on an ordinary muzzle, and death under chloroform is of the rarest occurrence. Dr. Hirsch, the resident assistant, is of opinion that safety depends on the method of administration, but that racial idiosyncrasy may render the Italian less susceptible to its toxic action than is the Anglo-Saxon. I was struck with the absence of dread on the part of patients awaiting operation. Their manner expressed confidence in the operation as a means of relief, a mental attitude which doubtless contributes to the weal of the patient.

Trendelenburg's position is adopted for laparotomies, and doubtless affords the best view of the pelvic organs. The latter tend to approach the abdominal incision, while the intestines keep out of the way, and light from a side window strikes direct into the pelvic cavity. I saw the following operations performed by Professor Pestalozza with the patient in this position: For removal of diseased ovary and dilated Fallopian tube; for adherent retroflexion of uterus with severe symptoms of pain and hæmorrhage; for pyosalpinx, a severe case with matting of peritoneum and dense adhesions of tube and ovary to intestines, omentum, etc. The median incision is free, extending from near the umbilicus to the pubes. A strong ligature is passed through the entire thickness of the abdominal wall on either side, for the purpose of holding open the wound: a third is passed at the lower extremity of the wound to prevent the peeling off of the parietal peritoneum. A portion of the pedicle of the appendages is included in a ligature, and tied; the corresponding portion of the pedicle is then divided; a second portion is then ligatured and divided, and so on till the entire pedicle is divided. This method is also adopted for the division of adhesions, or removal of thickened peritoneum. After removal of diseased organs the opposite side is examined, and finally the cavity is dried with medicated gauze. If pus escape a square piece of gauze is thrust into the most dependent part of the peritoneal cavity, so as to form a pouch, and this is filled with strips of gauze. The upper and lower extremities of the wound are sutured, and the dressing protrudes somewhat below the middle of the incision. On the fourth day the dressing is replaced by a drainage tube. I saw two such cases on the eighth day; both were healing well. The tubes are frequently removed on the tenth day. In simple cases the abdominal wound is closed by a single row of sutures. Some of the old cases I saw showed perfect cicatrisation. Cases of laparotomy for removal of appendages, for division of adhesions, and for small tumours frequently leave the hospital on the tenth day.

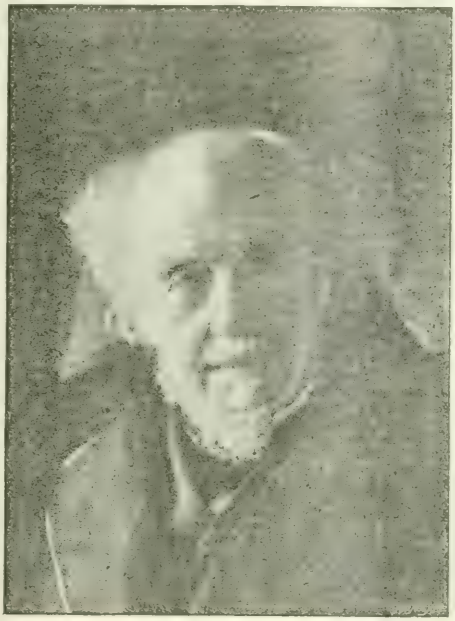
The Mockler Collection of Jenner Relics.—The collection of relics relating to Edward Jenner, which was exhibited by Mr. Mockler at the Bristol Exhibition and, in the early part of last year, at the First Avenue Hotel, was put up to auction on December 21st, 1894, by Messrs. Puttick and Simpson. There was a poor attendance of purchasers, and very few lots changed hands, the bidding being in most cases below the owner's reserve. The portraits were brought in at prices ranging from one to four guineas; nearly all the original drawings by Stephen Jenner were disposed of for very small sums. The miniatures did not change hands; the one of Edward Jenner being bought in at £4; the drawings of the vaccine pustule were likewise bought in for £3 5s. A few of the "objects of interest" changed hands; the silver porringer was bought in at £27, and the gold mourning ring with inscription, worn by Jenner in memory of his wife, for £5. The diplomas and certificates did not change hands, nor did the collection of books and pamphlets; the latter were bought in at £11. A few of the autograph letters were sold at prices ranging from 10s. to 25s., but the majority were not disposed of. The minute books of the Jennerian Society were bought in for £6 10s., and the MS. of the "Inquiry" for £8 10s.

Small-pox in Edinburgh.—Fifteen fresh cases were reported last week as against 10 in the previous week, with 1 death as against 4 of the former week. One case at least has been reported from Jedburgh. Leith seems particularly free from this, or indeed any other, infectious disease.

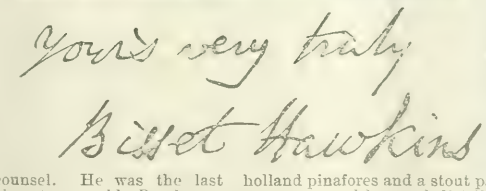
The Sultan has conferred the grade of Grand Officer of the Medjidie on M. Monod, Director of the Assistance Publique; Professor Grancher; Dr. Roux, of the Pasteur Institute; and M. Pozzi, the well-known gynæcologist; and that of Commander on Dr. Martin.

DR. BISSET HAWKINS.

We have thought it would be interesting to our readers to reproduce a photograph and a specimen of the handwriting of the late Dr. Bisset Hawkins, whose death at the age of 98 we chronicled on December 15th, 1894. The signature is from a letter written within two months of his death. For the opportunity of publishing both we are indebted to the courtesy of Dr. Theodore Williams, who, as executor to Dr. Hawkins's brother, had been engaged in a considerable correspondence with him till within a week of his death, and who was much impressed with his capacity for thoroughly grasping business details in spite of his great age. We have been unable to learn at what medical school Bisset Hawkins was educated, but the following letters give some particulars about him of which we were not in possession when the obituary notice, which will be found at page 1410 of the British Medical Journal of December 15th, 1894, appeared.



Dr. Reginald Southey writes: "I had known Dr. Bisset Hawkins from my own boyhood, my father having been an intimate friend of his. He was a remarkable man enough, and a most courteous gentleman, with a head and face and manner and voice that would have commanded attention anywhere. I called upon him at Bournemouth last about a year ago, and had then a long chat with him. Although nearly 98, he could hear and see perfectly, read a great deal, and could remember and reason on what he had read as well as ever he did. We talked about the early days of the Lunacy Commission, the increase of lunacy, the increasing difficulty in providing adequate accommodation for the insane, and the new lunacy laws. His mind was as clear, self-diffident, yet wide-grasping, as I had always known it, and his common sense of a most uncommon kind, applicable to practical purposes. I should think he had never been in a hurry or passion in his life, his head was large and long, well bossed behind and at the temples, and he had the big well-lobed long ears and small, clear, light-grey, humorously twinkling eyes usually associated with high intellectual capacity and sound judgment. Many times in my life have I gone to him for advice, and never did he fail to give me most profitable counsel. He was the last of his race, I believe, belonging to an old Dorchester family, and used to pass the summer months in his own family property, Lewell Lodge, near Dorchester, and between it and Weymouth; latterly his brother, to whom he was much attached and who predeceased him only a few months ago, had resided with him at Bournemouth in a very comfortable winter residence. He came of a long-living stock, his father and mother each attaining upwards of 90 years of age; he himself was, like his parents before him, rather below middle stature, but broad and round-shouldered; he was liable to bronchial catarrh and winter cough, although otherwise enjoying good health and appetite. Of late years he was never out of his house (kept well warmed), and seldom out of his study all through the winter months. He was well versed both in French and German hygienic literature, but then he was a wide reader upon most scientific subjects, and an industrious and active-minded man all his life."



Dr. Lush (of Weymouth) writes: "I had corresponded with him respecting matters connected with our County Hospital, and set a high value upon his opinion; what brought us into closer connection was his writing me a kind congratulatory letter from Bournemouth on my obtaining the Fellowship of the College, in which he expressed a hope that I would occasionally attend the meetings. After this I made his personal acquaintance. His mental faculties appeared excellently good, and he took an interest in professional matters. Like Sir Thomas Watson, he believed in a change of constitution having taken place, so that patients could not endure the violent remedies of former days. If I recollect rightly he gave me an account of his treatment and recovery from an attack of pneumonia, imputing beneficial results to mercury. At my last visit to him he inquired as to any matters engaging the attention of the College. He counselled me not to invest money in land under the idea of its bringing an adequate interest, telling me that there were duties attached to the ownership of land, and certainly if one may judge by his liberality as a resident landlord there would be a very sorry pecuniary return. Close to his seat in Dorsetshire is the village of West Knighton, and he has indeed been a benefactor to the inhabitants. Five shillings was given on every birth, and a like sum at every death, and I think double this amount annually to each widow; doctor's bills were paid and an unlimited amount of nourishment supplied during illness, etc. He had several pensioners amongst those who were old or unable to get their living: anyone who had worked for him in any capacity and became unfit for work was sure to some extent to be provided for. Every year he gave half-a-crown to all the old people of Knighton, and to all the children a shilling and a cake. He gave large prizes in money and books to the children of the school, also holland pinafores and a stout pair of boots to each child. He was very wealthy, and distributed his wealth with great liberality and thoughtfulness."

We extract the following from a notice which appeared in the *Dorset County Chronicle*, penned, we understand, by a friend and neighbour, who is in a position to speak with authority: "In his own immediate neighbourhood his charity was boundless, and there are few homes in the locality that will not miss his open-handed liberality—exercised, as it always was, with the utmost delicacy and tact. In 1865 Dr. Hawkins built new schools and a teacher's house in the village of West Knighton (the site for which, we should add, was given by the late Mr. John Floyer, Lord of the Manor),

and more recently he effected another notable work by bearing at his sole cost the enlargement and renovation of the parish church. To the County Hospital and to the various institutions that abound Dr. Hawkins showed his sympathy with the utmost liberality, and we have rarely known a subscription list for a worthy object that did not bear his name. In his own parochial district his warm-hearted charity will be sadly missed. It was his custom to bear at his own cost many parish benefactions and he never failed to give large gifts to all the poor parishioners before the stress of winter set in. His political views were those that he believed to be truly Conservative doing all the good he could in a quiet and unostentatious way to all around him, however they might differ from him. He was a deeply religious man, and had no sympathy with the scepticism of the age."

LITERARY NOTES.

Two volumes of the *Transactions* of the eleventh International Medical Congress, held in Rome last Easter, are now out of the printer's hands, and it is hoped that the entire work will be ready for delivery by April in the present year. The distribution of copies will be entrusted to a firm of booksellers, which will place itself in direct communication with members of the Congress, who will have nothing but postage to pay for the *Transactions*.

In the *Monthly List* of new books, printed by Brockhaus, of Leipzig, for November, 1894, Dr. Osler's excellent work on *Chorea and Choreiform Affections* is catalogued under the heading of "Geography and History"! The Chino-Japanese war has much to answer for.

The *Internationale klinische Rundschau*, which was founded by the late Professor Schnitzler, of Vienna, eight years ago, has changed its name to *Wiener Internationale Rundschau*. It will not, however, drop its "international" character as far as the contributors of original papers are concerned.

A new medical journal entitled *Aerztliche Sachsverständigen-Zeitung*, appeared in Berlin on January 1st. It is edited by Drs. L. Becker and A. Leppmann, and is to be issued fortnightly. It is to be devoted to the healing art generally, but special prominence will be given to matters connected with public health and the interests of the medical profession.

The first number of *The Practitioner*, under the new *régime*, fully justifies its existence by some excellent communications bearing the names of Sir John Williams (*On* Puerperal Albuminuria and Convulsions), Dr. J. Mitchell Bruce (The Gouty Heart), Mr. Howard Marsh (Oblique Fracture of the Femur above the Condyles), and Dr. R. Saundby (Diabetes Insipidus). One of the changes with which Mr. Malcolm Morris inaugurates his reign is an article entitled "The Month," in which, addressing the reader in the first person, he discourses on passing events in which the medical profession is interested. Then there is the "medico-literary causerie" which relieves the scientific austerity of the papers, abstracts, and reviews which made up the bulk of the journal. Other new features are a short summary of matters relating to public health and a miscellany of therapeutic hints under the heading of "Practical Notes." Messrs. Macmillan and Co. have published an excellent index to the whole series of the *Practitioner*—extending to fifty volumes—which appeared under the editorship of the late Dr. Francis Anstie, Dr. Lauder Brunton, Dr. Donald MacAlister, and Dr. Mitchell Bruce. It contains 308 double column pages, with catch words at the head of each column. The book, which is excellently got up, is a necessary addition to the file of the *Practitioner* in its original form.

The American journals are endeavouring to save the *Index Medicus*, which, as we announced last week, is in urgent danger of perishing for want of support. This invaluable work has more than once been in danger from the same cause, and it is to be hoped that some way may again be found out of the difficulty. It seems almost incredible that amongst the profession in Great Britain and America, to say nothing of the Continent of Europe, sufficient subscribers cannot be found to make the *Index* pay its way. There must be many men who habitually use the *Index* in our medical libraries and so do not see any necessity for subscribing to it personally; if it can be brought home to them that in future they will have to work without this great aid unless they help to support it, there surely will be no difficulty in getting the necessary additional subscribers. To medical libraries the loss will be irreparable, and to try and prevent this loss each of our libraries might subscribe for a second copy of the *Index* and so swell the list of subscribers. It is stated, apparently with authority, that it will be possible to continue the work if five hundred new subscribers are obtained. The subscription is 10 dollars (£2) a year, which should be sent to Mr. George S. Davis, publisher of the *Index Medicus*, Box 470, Detroit, Mich., U.S.A.

The *Intercolonial Quarterly Journal of Medicine and Surgery* is a new periodical which is published at Melbourne, under the editorship of Drs. Angel Money and A. MacCormick, for New South Wales; Drs. Geo. E. Anson and F. C. Batchelor, for New Zealand; Drs. W. L. Cleland and Benjamin Poulton, for South Australia; Drs. A. Jefferis Turner and J. Lockhart Gibson, for Queensland; Drs. W. A. Harvey and F. J. Drake, for Tasmania; Drs. G. F. McWilliams and H. T. Kelsall, for Western Australia; and Drs. David Grant and William Gardner, for Victoria. The third number (November, 1894), which is the first with which we have been favoured, contains, in addition to papers on Actinomycosis Hominis, by Dr. R. H. Marten; the Operative Treatment of Displacements of the Uterus, by Dr. W. Gardner; and the Feet of Chinese Ladies, by Dr. W. Kent Hughes; an interesting communication from Dr. E. C. Stirling giving some account of his recent explorations in that almost unknown region. "Barcoo," or "barcoo rot" is the local name of a condition in which the slightest scratches pass speedily into rapidly spreading, freely suppurating, yet painless and superficial circular ulcers, which are often of extraordinary persistence. The sores are generally on the backs of the hands. Dr. Stirling had experience of the affection in his own person. By bushmen the ulcers are supposed to arise from scratches with the Mulga wood (*Acacia aneuria*), but Dr. Stirling thinks the plant does not deserve the bad reputation which it has in this respect. Circumcision and subincision (slitting the urethra from the meatus to the angle of junction of the penis and scrotum) are performed by all the natives met with, from the Odnatta terminus to the Macdonnells and, westward, to Ayers Rock and Mount Olga. The former operation is performed at the advent of puberty; the latter from a few weeks to a year later. Dr. Stirling could find no support whatever for the statement which has been made that subincision is intended to check procreation. He heard of well-authenticated instances of three, four, or even five in a family that were the offspring of subincised males. Venesection is extremely common: nearly all adult men show one or more scars of the operation, either at the bend of the elbow or on the front of the forearm. The blood is used as a glutinous medium wherewith to cause adherence to the body of a kind of vegetable down, which is used for decorative purposes. Gonorrhœa and syphilis are extremely rife, too often, Dr. Stirling fears as the result of intercourse with the whites. Skin diseases, notably psoriasis, psoriasis, and eczema are also common. Ophthalmia is also very prevalent. Dr. Stirling saw only one case of cancer, an epithelioma of the foot. The suggestion that a woman might have two children at a birth was met by the natives with derisive laughter, but Dr. Stirling saw at Alice Springs a young black woman who had had half caste twins; these the mother promptly disposed of by choking them with sand. Dr. Stirling saw no cases of small pox, though from previous observation he has no hesitation in affirming that this disease has existed among Australian aborigines. Diseases of the lungs form a heavy percentage of deaths. Of the mode of treatment of disease Dr. Stirling could get little information. The native therapeutics, however, seem to be not very far removed from the most advanced methods in one respect, for Dr. Stirling tells us that "in some extreme cases freshly drawn blood is administered internally, and is supposed to work wonders." A sovereign antidote for strychnine poisoning is urine, and Dr. Stirling saw some cases of recovery apparently due to it. He thinks the beneficial effect is due to the vomiting set up by the remedy.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JANUARY 5TH, 1895.

THE FINANCES OF THE LONDON HOSPITALS.

I.

On Christmas Day the *Times* took occasion to publish a seasonable article on the financial condition of the London charities, calling attention to the fact that the hospitals are passing through a serious crisis the outcome of which is altogether uncertain. Starting with the striking instance afforded by Guy's Hospital, where, in the last fifteen years, the annual income has decreased by no less a sum than £20,000, the writer goes on to say that hospitals dependent on voluntary contributions are in even worse plight than the great institution on the south side of the river. For this financial depression many causes are alleged. There is the ubiquitous agricultural depression, which has hit Guy's so hard, and other charities scarcely less severely; there is the natural tendency in bad times for the well-to-do to cut off their subscriptions to charities as the first means of retrenchment; there is the much-abused Finance Act of the last session, which renders it incumbent on the owners of land and wealth to provide for the death dues; and there is finally the ever-increasing number of those who clamorously appeal to the public to support some small special charity or to their private friends to enable them to carry out some temporary impulse of benevolence at small personal expense.

After this analysis of the causes which have brought about so gloomy a situation it was somewhat of a relief to the readers of the *Times* to find next day that Mr. Burdett had been roused to take the field with a letter, about two columns in length, wherein, after paying a high compliment to the many and great services rendered by the leading contemporary journal to "our day and nation," he proceeds to demolish the case made out by the writer of the *Times* article and to ascribe his lamentations to a misapprehension of facts, and to that spirit of pessimism which, in Mr. Burdett's opinion, is "the most striking feature of the current opinion of the day." Charity *in extremis!* he cries. Nothing of the sort; never was it in a healthier or more progressive condition; and as to the bankrupt charities of which you speak, no well-managed charity is ever bankrupt. In all this we seem to catch the tone of one to whom the Christmas season has brought Christmas cheer, and whose eupeptic constitution enables him to take an almost aggressively optimistic view of his surroundings. Nevertheless, Mr. Burdett, as most of our readers are aware, is a man of light and leading in the charitable world—one who may with some justice describe himself as finding himself more and more in the position of Chancellor of the Exchequer for the British charities, since the reports of nearly all of them come into his hands, and are analysed for the purpose of his well-known publication, the *Hospitals and Charities Annual*. Mr. Burdett points out that whilst during the nine years, from 1885 to 1893 inclusive, the increase in the annual expenditure of the metropolitan general and special hospitals has been rather more than £198,229, the total income has increased during the same period by £65,000. We do not, however, learn how many new institutions have arisen to share in this increase, nor can we expect the older institutions which feel themselves straitened in circumstances by the advent of new competitors to recognise at once their own unfitness to survive, or to submit to annihilation without raising loud appeals to gods and men to avert the impending calamity. Mr. Burdett himself is impelled by candour to admit that 1893 was a very bad year for hospitals, and that in that year, at least, "there was a net deficiency between total income, including legacies, and total expenditure of about £22,000.

What the figures for 1894 will prove we have yet to learn; but it is not unreasonable for the authorities of voluntary hospitals, with the experience of the previous year before them, to be appealing with more urgency and insistence than usual—and, we may hope, not without good results. All must recognise that the last few years have been exceptional years for most people. Taxation has increased, and there has been a steady and almost continuous fall in values. Most charities have felt the effects of this prolonged depression; but, on the whole, Mr Burdett concludes that the "diminished resources of our charities are by no means serious, and they could and ought to be met out of the reserve fund, which in the case of some institutions is unnecessarily large." Mr. Burdett, in fact, if we judge him rightly, is an out-and-out supporter of the voluntary system as opposed to the endowment of hospitals, and he would gladly see reserves—which are in the nature of an endowment—reduced, believing that in this way the managers of a hospital are made more immediately dependent on the public for support and more sensitive to the criticism of outsiders.

Our readers will probably conclude that truth lies somewhere between the two authorities, of whose respective views we have given the above summary. For a sober and judicial estimate of the present condition of hospital finance we may refer those interested to the columns of the *Charity Record*, which recognises that, in spite of the depressed condition of trade and commerce which leads many people to begin to economise by cutting off their charitable gifts, progress has to be chronicled in the work of hospitals and other charities, which, if not so fast as in other years, is still of a solid nature. Amongst the evidences of such substantial progress may be mentioned the opening of the New National Dental Hospital, and, in connection with this enterprise, the proposed rebuilding on a new site of the Dental Hospital in Leicester Square, the opening of a new block for accidents at the Poplar Hospital, the great extension scheme at St. Mary's, and the reconstruction of the front of the Royal Free Hospital. These amongst other developments too numerous here to be commemorated, make the year's

record no bad one, though, perhaps, a captious critic might retort that the starting of funds for new buildings is notoriously an easy matter, the real difficulties only arising when it comes to the point of maintaining the buildings after the glow of enthusiasm which attended the formative nisus has had time to cool.

Admitting, therefore, on a candid review of the whole matter, that things are neither so gloomy as the *Times* would have us believe, nor so rosy as they are painted by Mr. Burdett, we propose in a further article to inquire whether, as a profession, we have any special interest in the maintenance of the medical charities of the metropolis on their present basis.

CONCERNING FLEAS.

The flea shares with the cockroach the doubtful honour of being almost as common as the dirt in which both live; but whereas the cockroach is useful as a scavenger, the flea is harboured by the dirt at certain periods of its life history, which was carefully worked out, nearly two centuries ago, by an Italian, D'jacenti Centone, whose observations are contained in a letter to Martin Lister published in the *Philosophical Transactions* for 1699, accompanied by a plate of well-drawn figures of the flea, its egg, the larva and cocoon.[1]

No one requires to be told of the general external anatomy of the flea. We all know its abominable bilateral flatness, which makes it impossible to kill it by pressure between the fingers. Everyone, too, is acquainted with its wonderful agility and strength, as expressed in the great leaps it takes when chased. The leap has been measured, and it is found to be some two hundred times the length of the insect, which is equivalent to a man leaping three or four hundred times his own height. Ere this fact was scientifically known, Aristophanes had held Socrates up to ridicule in attributing to him the endeavour to measure this leap of the flea.

The great sensitiveness to danger, the apprehension of being chased, is due in great part to the sensory hairs which are set in rows across the flea's back; some of these hairs are much stronger than others, and these rows of bristles, having different positions in different species, are of considerable value for identification.

If the head of a flea be examined from the side, the mouth organs depending from its under surface are seen to consist of two pairs of jointed sensory appendages—the maxillary palps and the labial palps—by means of which the animal can select dainty spots wherein to thrust its stylet-like mandibles. These latter organs lie side by side in an incomplete tube formed by the approximation of the two labial palps; between the mandibles lies a median piercer—the hypopharynx—which is traversed by the duct of the salivary glands; these probably discharge some irritant into the puncture.

The flea lays some eight or ten eggs at a time; these, in the case of the dog or cat, are deposited among the fur; in man in the undergarments; but in most cases the eggs, sooner or later, fall to the ground, and here undergo development. Each egg is oval, and measures about 0.6 mm. in length. From it there soon issues a white, footless grub or larva, which breaks through the eggshell by means of a "shell piercer" on its head, analogous to that on the tip of the beak of a young chick. This worm-like larva consists of a yellow head, followed by twelve white segments, each provided with long sensory hairs at the sides; the large terminal segment carries a couple of stiff spines, by means of which, no doubt, locomotion is in part effected. The head carries a couple of strong mandibles, by means of which the larva, which wriggles about actively, feeds on decaying vegetable and animal refuse. This stage lasts about twelve days in summer, rather longer in winter; and then the grub spins round itself a silken cocoon, like that of the silkworm, and enters upon a state of rest. Within this cocoon the larva changes into an inactive pupa. Under the larval skin profound changes are taking place, and the organs of the flea itself become developed; the legs, head, appendages, and so on make their appearances, but each is wrapped in a separate case of skin. This inactive pupal stage lasts from ten to sixteen days, or may even, in cold climates, continue through the winter; then the flea emerges from the pupa, bursting through the pupal skin and issuing from the cocoon, commences its predatory life on warm-blooded animals.

Thus the life-history occupies rather less than a month, more or less, according to temperature and surroundings. If there is no dust about on which the larva can feed it dies. There is no need to insist here on the fact that cleanliness is a powerful enemy to the flea.[2]

The number of species of flea occurring in Great Britain can be stated only with some reserve, but at least fourteen have been accurately distinguished by German authorities, though only two of these at the most are predatory on man. The common flea, which occurs on man, is *Pulex irritans*; this is almost cosmopolitan, though it is doubtful if it occurs in Equatorial regions; he is, however, stated to be subject to occasional attacks from the flea naturally living in the blood of the dog and cat, and known as *P. serraticeps*. It is uncertain whether this species actually bites man. Some authors, even at the present day, refer to the dog's flea as *P. canis*, to the cat's flea as *P. felis*, etc., but Taschenberg (1880) has shown that the fleas infesting the dog, cat, and many wild carnivora in reality belong to one species. These two fleas, *P. irritans* and *P. serraticeps*, are much of a size, measuring from 2 to 3 millimetres in length; the thorax of the human flea is, however, larger than that of the carnivore's flea, and the latter derives its name from the presence of two rows of stiff hairs or bristles, one round the head and another on the thorax.

Fowls, pigeons, ducks, and with few exceptions (for the parrot and woodpecker have each their own particular flea), the parasite of all birds is a third species *P. avium*. It is slenderer and longer (3 to 3·5 mm.) than the two preceding species. It possess the thoracic bristles of the carnivore's flea, but is without the head spines; and further, the antennæ, which are inconspicuous in the two preceding species, are here large and projecting.

A fourth species (*P. goniocephalus*), smaller than the dog's flea, but rather like it, is found on the rabbit and hare. The squirrel, badger, and hedgehog, each has its own species.

Three or four species of flea occur on bats, and belong to a

[1] Even as early as 1687 Leuwenhoek, who made such excellent and surprising use of the earliest microscopes, had published some facts of the flea's history.

[2] Kirby and Spence tell us that Hungarian shepherds were in the habit of greasing their clothes and their person with hog's lard, and thereby "rendering themselves disgusting even to fleas."

different genus (*Typhlopsylla*), in which the eyes are absent or quite small; the body is relatively longer, as the abdomen is not so deep from above downwards. Mice, rats, and shrews are attacked by three other species of this same genus.

A third genus is found for the mole's flea (*Hystricopsylla obtusiceps*), which is the largest of our native fleas, measuring 3.5 mm. to 5.5 mm. The body is particularly hairy: the head is short and rounded, and, like the preceding genus, is without eyes. This flea is also found in the nests of bumble bees, where no doubt it is a harmless visitor; having left the mole during the latter's excursions through the soil.[3]

It appears then that certain species of flea are associated, not with species of mammals, but with larger groups.

It is a curious and interesting fact that, as far as we are aware, no flea has been recorded as occurring in monkeys in a state of nature. Judging from their actions in captivity, one would assume the presence of these parasites in considerable numbers. A well-known naturalist informs us that he kept a monkey for three years and never found a flea on it. Nevertheless, nothing seemed to amuse the monkey better than for its owner to pretend to catch fleas on its coat and to present them to it to be eaten. Man, therefore, does not seem to have inherited fleas from his Simian ancestors; it appears probable that he has "caught" fleas from his associates, the cat and the dog, and that the present human flea, *P. irritans*, is descended from the same ancestor as *P. serraticeps*.

The flea is really only an occasional parasite, merely visiting its host to obtain food in the same kind of way that the leech merely sucks the blood of man and then drops off. The flea and the leech belong to quite a different category of parasites from the tapeworm or the tick, which take up their position once and for all. In fact, the flea makes use of man and other animals merely as a larder or provision store, and leaves its host readily. The character of the blood and the thickness of the skin no doubt determines that one species of flea attacks man, another the dog, and so on. On the death of its host the flea leaves at once.

The flea is fairly long lived for an insect. We have a record of one which lived for 23 months in captivity, when it died of old age.

[3] No doubt other species of fleas, such as those which have been recorded from the fox, weasel, stoat, and other animals, as occurring in Germany and Holland, may be added to our list of British forms.

MOUNTAIN SICKNESS.

The published accounts of De Saussure and some other of the early mountaineers contain graphic accounts of the unpleasant symptoms from which they suffered at high altitudes in the Alps, but the general experience of mountaineers of the present day has cast some doubt upon the assumption that these symptoms depended in reality upon the rarefaction of the atmosphere. The costume which the older mountaineers thought it necessary to adopt was voluminous and elaborate, and raises a smile on the face of their modern imitators, whose garments are of the simplest and lightest. The mere exertion of walking so dressed must have been considerable. The experience, however, of the Schlagintweits in the Himalayas, of Mr. Whymper in the Andes, and of other explorers in high altitudes, appears to show that when in mountain climbing a height of 16,000 or 17,000 feet is reached, the majority of persons experience to a greater or less degree a train of symptoms to which the term "mountain sickness" (*mal des montagnes: Bergkrankheit*) has been applied. At the time of the publication of Mr. Conway's book describing his explorations in the Karakoram-Himalayas, we mentioned some of the observations which he had made, and we have now before us the report of Professor Roy, of Cambridge, on the notes and pulse tracings made by Mr. Conway on himself and his companions, which is published as one section of the supplementary volume[1] just issued, containing scientific reports on the observations of the expedition.

It is interesting to note in the first place the general agreement of the Schlagintweits, Whymper, and Conway, that the consciousness of discomfort is first experienced at an elevation a little under 17,000 feet. Mr. Conway adds the curious observation that in descending the discomfort was felt to a lower level, and that the climbers found themselves continuously less able to hold out against the effects of the high altitude the longer they remained at a high level. For people who are not in good condition or have been living on food which they cannot digest the limit may be very greatly lower than 16,500. The symptoms, as they are summarised by Professor Roy, are primarily a sense of difficulty in getting enough air into the lungs, which is accompanied by a feeling of anxiety and distress. On exertion there is dyspnœa and fatigue, and while at rest lassitude. Rapid, short, gasping respirations and diminished ability for active exertion occur both in man and in animals. There is palpitation of the heart with a quickened pulse, and man is liable to severe headache, giddiness, singing in the ears, bleeding at the nose, coldness of the extremities, diminished appetite and nausea, with or without vomiting. Bleeding may also occur from the conjunctivæ, lips, gums, air passages, or lungs. In some cases there is in addition amblyopia, and in others diarrhœa. In the most severe cases the muscular weakness becomes so great that standing or sitting is no longer possible, and eventually the limbs become completely paralysed and the climber unconscious.

Professor Roy concludes, therefore, that mountain sickness is of the nature of asphyxia. "The important feature in the asphyxia of mountain sickness," he adds, "is the reduction in the amount of oxygen supplied to the tissues, but the same effect is produced if, with a limited supply of oxygen to the system, there be from any cause an increased demand for it by the tissues."

Mr. Conway confirms the statement of others that more distress was experienced in hollow places and when the sun was shining than in walking in exposed positions. Professor Roy makes a most ingenious suggestion to account for this. He points out that water takes up more oxygen than nitrogen from the air, so that when on a high level the sun begins to melt the snow the neighbouring air is robbed of some of its oxygen; the difference in the amount of the two gases absorbed is not very great, but there is the further fact that the two gases will not be dissolved in the proportion in which they exist in the atmosphere, but each as if it were the only gas present. Thus, even if the melting snow takes up equal volumes of oxygen and nitrogen,

[1] *Climbing and Exploration in the Karakoram-Himalayas.* By William Martin Conway, M.A., F.S.A., F.R.G.S. (Supplementary Volume, containing scientific reports.) (London: T. Fisher Unwin. 1894. 18s.)

there may be a very serious lowering of oxygen in the air, which rests or passes over melting snow, while the wind on a ridge need not have passed over fields of melting snow, and may, therefore, contain a larger percentage of oxygen.

Professor Clifford Allbutt has pointed out that heart failure is of not uncommon occurrence even in the Alps, and that the person who thus suffers is incapacitated from further climbing by intense dyspnœa, palpitation, and irregularity of the heart. At his suggestion Mr. Conway took a number of observations on himself and his companions with Dudgeon's sphygmograph. Many of these tracings were lost in transmission, but those which reached this country have been carefully studied by Professor Roy, who, however, has come to the conclusion that they do not enable the question whether or not heart failure is an essential element in mountain sickness to be decided. At 20,000 feet there was a fall to 48 heart beats a minute, showing unmistakably increased vagus action, which is a sign of distressed heart, but one which may be brought into play long before the heart has become overstrained. The comparative regularity of the tracings is against the likelihood of failure of the heart, but they were of course taken during periods of rest. Whether the heart is overstrained during the exertion of mountain climbing can, Professor Roy suggests, be settled only by ascertaining whether a murmur accompanies the first sound during the actual exertion. If it does functional incompetence of the mitral or tricuspid valve or both must be present, and therefore failure of one or both ventricles.

On the whole, Professor Roy concludes that even at 23,000 feet the pulse tracings indicate that muscular fatigue and distress of the heart were present rather than the nearly complete collapse of muscular power which accompanies well-marked heart failure, with the vagus slowing and irregularity. They confirm, therefore, Mr. Conway's own feeling, that the climbers had not come to the end of their tether.

AT the request of the Prince of Wales Dr. Jameson, C.B., will deliver a lecture on Matabeleland at the Imperial Institute in February next. The Prince of Wales will take the chair on this occasion.

WE are requested to state that subscriptions to the Sturges Memorial Fund will be received by Mr. S. M. Quennell, Secretary to the Westminster Hospital, S.W. The memorial will take the form of a scholarship or a prize in Clinical Medicine.

THE Paris Municipal Council has decided to give the name of M. Pasteur to the street now known as the Rue d'Ulm. In this street are situated the laboratories of the Ecole Normale, where much of the distinguished scientist's chemical work was done. The Council has also voted a sum of 1,500 francs towards the erection of a bust of M. Pasteur.

DR. WILLIAM GOODELL, the well-known gynæcologist of Philadelphia, whose death was recently recorded in the BRITISH MEDICAL JOURNAL, has bequeathed 50,000 dollars (£10,000) to the Medical Department of the University of Pennsylvania, and 10,000 dollars (£2,000) to the Philadelphia College of Physicians.

THE former house-surgeons of Dr. Patrick Heron Watson in the Edinburgh Royal Infirmary and the Chalmers Hospital last week presented that gentleman with his portrait in recognition of his pre-eminent merits as a surgeon and teacher. The painting was done by Sir George Reid, the President of the Royal Scottish Academy.

THE subscriptions towards the erection of a monument to Charcot, received directly by the Committee, now amount to about 25,000 francs (£1,000). Of this a large part has been contributed by foreign admirers of the great neurologist. In addition to this sum the *Progrès Médical* has collected about 10,000 francs for the same purpose.

THE Secretary of State for India has appointed Brigade-Surgeon-Lieutenant-Colonel William Roe Hooper, of the Indian Medical Department, to be President of the India Office Medical Board, on the retirement of Sir Joseph Fayrer, K.C.S.I., this month. Brigade-Surgeon-Lieutenant-Colonel Hooper belongs to the Bengal branch of the India Medical Service. He entered the army as Assistant Surgeon on February 10th, 1859, was promoted Surgeon-Major on July 1st, 1873, and Brigade-Surgeon on March 31st, 1887. He is not shown in the official *Army List* as having any war service. In noting this nomination it is safe to say that the unexpected has come to pass.

FEES TO MEDICAL WITNESSES.

THE Home Secretary has consented to receive a deputation from the Police Surgeons' Association on some day subsequent to January 15th, who will bring under his notice the subject of the inadequate fees and allowances to medical witnesses at assizes and sessions and other subjects connected with police administration.

"THE USE OF SPECIAL HOSPITALS."

UNDER this title we have received a communication from the secretary of a special hospital to the effect that one of the surgeons to this hospital succeeded in relieving a patient who had been under treatment at a general hospital, where the nature of the injury from which he suffered was not recognised. The communication is a manuscript document reproduced by some copying process. It would appear as if this document was intended to be sent widely to the press. It is an example, no doubt, of mistaken zeal on the part of the secretary, but is none the less an extremely bad precedent, and one which places the surgeon referred to in an extremely invidious position.

THE LOCAL GOVERNMENT BOARD AND THE JOURNAL WORKHOUSE COMMISSION.

WE are glad to hear that the Local Government Board has addressed a letter to the Liskeard Board, calling the attention of the guardians to the condition of the hospital, and recommending various improvements: especially is attention drawn to the lying-in ward and the nursery, rooms which it will be in the memory of our readers were condemned as quite unfit by our Commissioner. The letter practically echoes the words of the BRITISH MEDICAL JOURNAL in the recommendations contained in the brief summary which lies before us.

THE SOCIETY OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

WE are asked to state that a Society of Members of the Royal College of Surgeons of England has been formed to continue the work of the late Association of Members. The objects of the new Society are stated to be to arouse and maintain among the Members a permanent interest in their College by obtaining for them a share in its management, and to this end to promote the acquisition of a new charter by the College giving permission to the Members to take part in the election of the Council. The Society proposes to support and co-operate with the Fellows' Societies in their efforts to obtain such reforms in the by-laws as are possible under the

present charter, and generally to promote the welfare of the College by bringing into harmonious association the Council, Fellows, and Members. The Committee, as at present formed, consists of Messrs. Joseph Smith (Chairman), Danford Thomas, F. H. Alderson, Brindley James, George Brown, Nelson Hardy, Thomas Morton, J. C. Smith, and W. G. Dickinson, with power to add to their number. The annual subscription is 2s. 6d., and the Honorary Secretary, Mr. W. G. Dickinson, Southfields, London, S.W., will be glad to receive the names of Members wishing to join the Society.

A CHRISTMAS DANGER.

In the familiar cracker, which is supposed by the elders to be a source of amusement to children, may lurk, it would seem, an unexpected danger. Dr. Frederick J. Hicks, of Madeira, tells us that a mother recently gave to her child, aged 5, which was laid up in bed, a cracker with which to amuse itself. With the assistance of its sister, the cracker was pulled in the absence of the mother. Inside was found a small box which contained certain round bodies which the child not unnaturally assumed to be good to eat. It tried one and swallowed a little, but, not liking the taste, consulted its sister, who also tried the supposed sweetmeat, but also disapproving of the taste, spat it out at once. Dr. Hicks, who arrived to pay his ordinary visit a few minutes later, hearing the story and finding the child inclined to vomit, quickly made him do so. The supposed sweets were in reality what are called "Pharaoh's serpents' eggs," composed largely, we are informed, of cyanide of mercury. The legal question as to whether the sale of such poisonous objects is not contrary to law need hardly perhaps be raised, for the manufacturers of crackers, when once their attention is called to this possible danger, will doubtless see the propriety of discontinuing to insert these objects in their confections.

A "KNOCK-OUT" BLOW.

A recently reported death following a blow on the jaw received in a boxing contest draws attention to the serious effects which are apt to result from such an injury. It would seem to be so widely recognised by pugilists that a well-planted blow on the point or side of the jaw is capable of producing incapacity, if not unconsciousness, that such an attack has come to be spoken of as a "knock-out"—an efficient and immediate way to victory if it can be got in. In this particular case death seems to have resulted from septicæmia arising from a fracture of the jaw, the evidence being that on his death, three weeks or so after the alleged injury, a fracture was found on the right side of the jaw near the canine tooth, which had healed by fibrous union, and another on the left side near the angle, with an abscess cavity round it opening into the mouth through a bad tooth. It would not appear in fact that he was knocked out, and the case, while illustrating another danger from blows upon the jaw, has but small relation with this particular manœuvre. The effects of a violent blow on the jaw, especially if the muscles are in a state of relaxation, are somewhat peculiar, and the mode of their causation is not very clear, in fact, is almost certainly not in all cases the same. In the case of a student at Harvard who died in consequence of a blow on the jaw, received in a friendly sparring bout[1], death was found to be due to rupture of the lateral sinus, the shock having apparently been transmitted directly through the condyle of the jaw and the temporal bone. In a case also which occurred recently at Syracuse, New York, where a man died from a blow on the point of the jaw, death is reported to have been due to cerebral hæmorrhage. That a man, however, may be knocked out by such a blow without the occurrence of any such serious lesion as internal hæmorrhage seems clear from the rapidity with which recovery often takes place, and the absence of after-effects. The immediate result of such a blow is, however, sufficiently alarming. The heart's action is for the moment stopped, and there is absolute and immediate unconsciousness. Still, after a time recovery may take place and no coarse mischief be observable. Whether the mechanism in this form of knock out be due to disturbance of the internal ear or to jar of the nervous structures at the base of the brain or to disturbance of the pneumogastric, causing immediate inhibition of the heart, is not very clear; but some observations made by Dr. George L. Walton point strongly to the last as the most probable. A blow on the right side of the jaw, when relaxed, was found to produce decided dizziness and faintness, followed by pain in and about the left ear and a disagreeable full feeling. The pulse, however, at the same moment suddenly stopped, then became rapid for a few beats, and then continued for a time at 20 beats fewer per minute than before the blow. In another case a blow on the side of the jaw weakened the pulse and reduced it to 54 per minute. It would seem, then, that among the possible results of blows on the jaw, either on the point or the side, we may reckon immediate fracture with its unpleasant and sometimes fatal consequences, fracture of the base of the skull, and rupture of the blood sinuses within the skull even without any fracture; but that either with or without any of these we may have the "knock out," a sudden unconsciousness, with temporary cessation of the action of the heart, which may pass off through stages of giddiness and general "dazing" into apparently complete recovery, or may perchance not pass off at all.

[1] Reported in the *Boston Medical and Surgical Journal*, March, 1894.

DIRTY RAILWAY CARRIAGES.

Mr. Thomas Christy writes complaining of the condition of certain first class carriages on the London, Brighton, and South Coast Railway. He has dealt with dirty carriages as other people do with abusive cabbies, and has taken their number. We fear, however, that the long list of delinquent vehicles which he sends us would not form interesting reading. Nevertheless, he has our every sympathy. To wage war against dirt wherever found is the first duty of sanitary man, and the conditions he describes must be deleterious to the health of those innocents who go by rail in search of pure air.

EDINBURGH HEALTH NOTES.

Not for very many years has the health of Edinburgh been so good or the death-rate so low as during the months of September, October, and November, and perhaps the first week of December, 1894. The death-rate, indeed, reached its lowest known point, this despite the prevalence of both small-pox and scarlatina. One peculiarity of these closing months of last year is worthy of record—to wit, the prevalence of something like an epidemic of appendicitis. One of the surgeons to the Royal Infirmary had seen during the period noted more than a dozen cases in hospital and private work, and had been compelled to operate on several. In the students' ward there had been several sufferers from this malady. Two doctors in general practice have had 4 and 3 cases respectively. A few cases of illness, particularly among children, have seemed to belong to the category of influenza. They have been comparatively mild attacks, but yet having features that put them beyond the group of merely febrile disorders.

MACHINE-MADE DIAGNOSES.

When first those curious machines began to be exhibited which profess, in return for a penny in the slot, to test your eyesight, we drew attention to the delusive nature of the performance. Not that much harm was done so long a they were merely displayed at railway stations to while away a passing minute, along with other like machines for

indicating one's fortune, or one's future wife, or for supplying scent for the pocket handkerchief, or chocolate for the comfort of the inner man. It would seem, however, that a higher flight is contemplated. Perhaps a discerning public hesitates, not altogether without reason, to condemn its eyesight on the strength of an examination conducted in an underground railway station, or, perhaps, chocolate and cigar lights pay better; anyway, we are told that the eyesight machines are to be removed, and distributed among the chemists' shops in the principal provincial towns. We can quite believe it. To be placed in a position in which to be anything but absolutely right is to be absolutely wrong, is sufficiently trying, but to have to supply a rigid and inflexible sign of one's ineptitude in the form of a pair of spectacles, which can at any time be brought in proof of the happy-go-lucky ignorance with which they were prescribed, is absolutely intolerable. We cannot wonder, then, at the welcome given to these machines, which, at the price of a humble penny, will relieve the chemist of all responsibility, and leave him the profit on the spectacles all the same. The struggle for existence leads to strange devices. It is the trustful public which is always taken in. The whole thing seems so plausible. In everything else machinery is used, why not in medicine? So the public drops in its penny and receives its prescription. It is not difficult to foresee the time when the prescribing chemist will be a thing of the past. There will, in fact, be no need for him; his shop will be crowded with penny-in-the-slot machines, by the use of which the patient's weight will be taken, his eyesight tested, his urine examined, his vital capacity ascertained, his muscle power measured, his knee-jerks recorded, his pulse trace taken, and ultimately his prescription written plainly by a typewriter, so that it can be made up by an assistant at a mere living wage, while the chemist, free from all responsibility, will take the fee and flourish exceedingly. The great aim of all mechanical appliances is simplicity, and we can conceive that when the time arrives in the evolution of man, when all defects of vision shall fall into one or other of three categories, a rough coarse test of this nature may do for some people; in the meantime, while man's defects are so much more complex than a machine's capacity, it is as well to avoid such snares.

THE SICK POOR IN PROVINCIAL WORKHOUSES: DURHAM.

It will be seen from the report of our Commissioner, which appears in another column, that the city of Durham possesses a workhouse which in its general arrangements contrasts favourably with others; but as our concern is with the condition of the pauper sick, the Commissioner paid little attention to the able-bodied part of the house. We applaud the sentiment of the master, who said that he considered it the duty of every ratepayer to visit the workhouses and see for himself how the public money is expended. But even the visit of the ratepayer does not of necessity convey the special knowledge of the requirements of the sick, and we note that under the management of a liberal Board there is yet an absence of that special knowledge. In the infirmary the wards are comfortable, but they do not admit of any classification; the imbeciles, idiots, and patients suffering from fits are among the infirm and sick. Our Commissioner saw a woman with fits in the sick ward: if her fits are serious they must be very disturbing to the other patients. Among the idiots there may be at one time or another the chattering patient, who talks incessantly, and there is no ward in which such a patient can be kept apart from those who need quiet. There is no ward set apart for the sick children; in health they are carefully kept from mixing with the adults, but when sick are put among the older people, and in a short time all the result of careful training may be undone. The women who enter the infirmary for their confinement are not provided with proper quarters; the ward for their use is in immediate connection with the main ward, and in the event of any epidemic it might easily spread to the lying-in women. Clearly the whole infirmary department is too crowded for efficient working. Again, the infirmary seems most deficient in all appliances for the treatment of patients; there are no bathrooms, nor any means of making use of portable baths, nor are the ward conveniences easy of access to the patients. A new infirmary, embracing all the improvements suggested, would be the most satisfactory way of overcoming the difficulty of want of space; and if this infirmary were put under the control of a trained nurse, with a staff of trained nurses and probationers under her, who should at the same time be responsible for the infectious hospital, the guardians would have a complete sick department of which they would have a right to be proud.

A THOUSAND INFANTS OVERLAIN.

There are sad sides to a merry Christmas, and not the least sad of these this year has been the sacrifice of infant life from overlying. On December 27th, 1894, Mr. Braxton Hicks held five inquests on the bodies of children who had died while sleeping with their parents, the cause of death in the majority of cases being suffocation. The coroner said he could not persuade parents to get cots for their children, adding that a thousand infants were overlain in London alone every year. The matter is extremely serious. Perfectly healthy children are sacrificed to the bad habit of making them sleep with their parents. It is perhaps difficult to draw the line, and to separate thoughtlessness from carelessness so gross as to be criminal, but the Liverpool statistics, showing the enormous frequency of deaths from overlying on Saturday nights, points to the fact that the carelessness is gross, and that, unless drink is to be accepted as a general excuse for crime, the action is in a large proportion of cases criminal. Mr. Braxton Hicks announced that he would make it a rule in all future inquests of this character to disallow the expenses of the parents, a course which he adopted in each of the five cases before him. The fight against preventable diseases is hard enough, but it seems harder still to prevent the effects of carelessness and folly.

THE DISCOVERY OF ANÆSTHESIA.

A tablet of bronze, to the memory of Dr. Horace Wells, of Hartford, Conn., was unveiled on December 11th, 1894, in commemoration of the fiftieth anniversary of the discovery of nitrous oxide as an anæsthetic. On December 11th, 1844, Dr. John M. Riggs, at Wells's request, administered nitrous oxide to him and extracted a tooth under the influence of the gas without causing him any pain. The tablet bears a medallion portrait of Horace Wells, with the following inscription: "To the memory of Horace Wells, the dentist, who upon this spot, December 11th, 1844, submitted to a surgical operation, discovered, demonstrated, and proclaimed the blessings of anæsthesia."

SURGERY UP TO DATE.

Modern surgery is heroic enough to please the grim prophet of hero worship. It seems to have taken Danton's motto, *De l'audace, de l'audace, et encore de l'audace*, for its own. Almost every week one hears of some surgical Alexander cutting his way to fresh conquests. It is not unnatural, therefore, that nearly every ambitious surgeon should see in the knife his *In hoc signo vinces*. In the hands of a skilful operator the knife doubtless can work greater wonders than the fabled wand of the magician, but it should be reserved for difficulties worthy of so noble a weapon. As Falstaff says of the English nation it may be said that it was always yet the trick of our profession, if they have a good thing, to make it too common. We cannot help think-

ing that the knife is made just a trifle too common when it is used for the treatment of gonorrhœa. In a recent number of the *Journal of Cutaneous and Genito-urinary Diseases* we find the following deliverance from Dr. Burnside Foster on this subject: "As soon as may be after we have established the diagnosis of a first gonorrhœa, the patient should be etherised and properly prepared; a buttonhole opening made in the perineum, and drainage of the bladder established. Through a properly contrived apparatus, the anterior urethra could then be thoroughly flushed with any antiseptic or cleansing fluid, and treated on surgical principles. The details of the local treatment would vary with the fancy of the operator. The feasibility of packing and distending the anterior urethra with iodoform gauze suggests itself to me; but any one of a great number of methods would doubtless be efficacious." This is quite in the spirit of "advanced" surgery, which, in the words of one of its chief professors, thinks no more of opening a patient's abdomen than a man does of putting his hand into his pocket. Is the day coming when a cold in the nose will be dealt with by Rouge's operation, and bronchitis treated "on surgical principles" after preliminary opening of the windpipe?

DANGEROUS LAMPS.

ANOTHER series of lamp accidents has occurred which ought to drive public opinion another step onwards towards the recognition of the necessity of some sort of restriction being placed on the sale and manufacture of these dangerous contrivances. A fragile, easily-broken reservoir is the cause of the great majority of the catastrophes we are so continually hearing of. An old lady in Holborn took a penny lamp into her coal cellar. What happened is not known, but shortly afterwards a policeman saw a blaze, and the woman was so injured that there is little hope of recovery. A woman at Croydon fell with a lamp in her hand, and immediately afterwards was found rushing into the street enveloped in flames. She was taken to the hospital only to die. Last week again an inquest was held at Hebden Bridge on a child who pulled down a lamp off a table, with the usual consequences: a scattering of the oil, a conflagration with explosive suddenness, and the loss of a child's life. It seems strange that in a country where special Acts are passed to protect people from the effects of even the minutest adulteration of food the sale of such dangerous articles, as ordinary paraffin lamps undoubtedly are, should remain so long unregulated by law.

THE INDIAN MEDICAL CONGRESS.

THE Indian Medical Congress came to an end on December 29th. At the final general meeting, attended by 600 medical men, Mr. Ernest Hart delivered the address, an abstract of which was published in the BRITISH MEDICAL JOURNAL last week. According to the telegram from the *Times* correspondent in Calcutta, Mr. Hart, at the conclusion of his address, added some observations as "to the Cantonment Acts Amendment Bill now pending before the Legislative Council, and said that the measure, having been recommended by a commission of five persons, two of whom opposed it, had been accepted by the Home Government, and forced upon the Government of India against the unanimous opinion of those best able to give advice on the subject. It consisted of three clauses, of which only the second and third were important. The second clause expressly prohibited the Government of India from making any rules on the subject of contagious diseases. The third prohibited, under penalty of a fine, the compulsory examination of any woman by a public servant. There could be no doubt in any unprejudiced mind that these provisions were meant to humiliate the Government of this great Empire for some supposed neglect in the past, and that they cast a slur upon the medical profession by menacing those of their brethren who were in the service of the Government. Surely it was a new principle in legislation that failure to carry out an executive order should render an officer liable to a criminal prosecution. Moreover, it was unnecessary, as the compulsory examination of a woman by any person was already an offence under the penal code. He felt certain that the Congress would utter a protest—and in so doing they would have the hearty co-operation of the medical profession at home—which would prevent the Bill from becoming law." Mr. Hart's address, the correspondent adds, "was received with loud and continued applause," and the Congress subsequently passed three resolutions: the first, thanking Mr. Hart for his address; the second, urging on the Government, municipal boards, and the public the importance of promoting scientific research into the causes of communicable diseases and the means for their prevention; the third resolution declared, in the name of the unofficial members of the Congress, that the proposed Cantonment Acts Amendment Bill was mischievous, "especially in so far as the third clause is concerned, which proposes penal legislation aimed at public medical servants, and implies that they cannot be trusted to carry out loyally and promptly the orders of the Government on this subject." The *Times* correspondent adds that the question raised by this Bill is likely to raise a storm of excitement throughout India, and that already all the provincial governments have reported strongly against the Bill, while the Government of India itself regards it with little favour. The entire medical profession, he adds, in India, look upon it as a positive insult. On the previous day Dr. Simpson, the Health Officer of Calcutta, read a paper on the Need of a Sanitary Service for India, in the course of which he suggested the complete separation of the sanitary administration of the army from that of the civil population, and special instruction in sanitation in the medical schools. He also urged the appointment of a special health officer by every municipal board. A discussion ensued at the conclusion of which the Congress resolved to make representations to the Government in accordance with his suggestion.

ALTRUISM IN MEDICINE.

WE have it on high authority that medicine is the most altruistic of professions. It is doubtful whether such a statement is nowadays correct. The struggle for existence yearly becomes more severe. The daily practitioner daily treads more closely upon the heels of the consultant, whose duties thus tend to become more and more circumscribed. The highest members of the profession are thus less and less able to help their younger brethren who are striving to attend a similar position. Never again can there be such a succession as that of Radcliffe, Mead, Pitcairn, and Baillie, in which each handed on to his successor the influence he had himself attained, and thereby enabled each member of the band to hold a better position than his own. Although this form of altruism is no longer possible in the crowded ranks of our profession, where each fights for himself, much can be done, and much more should be done, to afford moral support to the younger and more hardly-worked teachers. Teaching is of necessity an unsatisfactory occupation, for the results are scarcely ever apparent to the teacher himself. His reward lies in the far distance, when in the fulness of time his pupils look back to his work with grateful hearts, not so much for the facts which he has taught them as for the influence which he has exerted over them and for the bias he has given to them at the most impressionable period of life. It behoves the medical schools, therefore, to select as teachers men of known probity, many-sided, and of as wide knowledge as may be obtained. Such men, indeed, are rare, and are usually diffident of their own powers—for self-confidence, even in medicine, often bears a direct ratio to ignorance. It kills the best men to go on year after year in the drudgery of teaching; yet how often could their labours be lightened

and their lives rendered happier if their superiors were more truly altruistic. How rarely in a large medical school is a word of sympathy or of praise accorded to an overworked and underpaid demonstrator by any of the senior officers.

FOOTBALL IMPETIGO.

The Council of the Medical Officers of Schools Association are desirous of obtaining information as to the etiology, nature, and treatment of the skin affection which is reported to be at the present time prevalent among football players. It is believed to be contagious, and occurs principally on the face, ears, and neck, sometimes on the hairy scalp. It goes through the following stages: erythema, papule, vesicle, and purulent crusts, the latter, on the head, having the appearance of impetigo contagiosa (porrigo). The Council of the Medical Officers of Schools Association therefore request other medical men besides those connected with the Association to furnish notes of their experience to Dr. H. G. Armstrong, Medical Officer of Wellington College, Berks. A bacteriological examination is being conducted in connection with the inquiry by the Clinical Research Association. The points to which attention is particularly directed are: (1) the nature of the site on which the school stands; (2) whether Association or Rugby football is played; (3) the nature of the disease, in particular as to its contagiousness; (4) the prophylactic and curative treatment proper to the disease. As it is desired to ascertain the extent to which the disease has prevailed, negative information would be welcomed.

THE NATIONAL HEALTH SOCIETY IN INDIA.

The *Times* correspondent at Calcutta telegraphs under date of January 2nd as follows: The Lieutenant-Governor of Bengal and Lady Elliott held a drawing-room meeting this afternoon, for the purpose of considering the best means for diffusing sanitary knowledge among women in India. There was a large attendance of ladies and gentlemen, including several influential members of the native community. Addresses were delivered by Mr. Ernest Hart, Surgeon-Colonel Harvey, Dr. Gregg, Sanitary Commissioner of Bengal, and several other gentlemen. It was resolved to form a society on the model of the National Health Society of England, and a committee was appointed to carry out the project. A considerable sum of money was subscribed on the spot.

BY-WAYS OF INFECTION.

We have long decided that many of our diseases are parasitic, and against the parasites, whether tapeworms or microbes, we have more or less unsuccessfully waged war. Evidently there are traitors within the gates, and suspicion points, by no means uncertainly, to those creatures which have grown up as the companions of man during the slow progress of his evolution. If the rat and the pig are engaged in transferring one sort of worm, and the luscious strawberry or crisp lettuce another, from man to man, we need not be surprised to hear that the necessary cat, no longer to be called harmless, is accused of rubbing, all too freely and with far too little discrimination, against both healthy and diseased; or that our constant companion the domestic fly is thought to be one of the means by which cholera is diffused. As regards the cat, there can be but little doubt that, both as to diphtheria and the infective fevers such as small-pox, the charge is well founded; and as to flies, much evidence against them has accumulated lately. Surgeon-Major Macrae, in the *Indian Medical Gazette*, has drawn renewed attention to the influence of these small pests in disseminating cholera. Not only has he shown how probable it is that in a recent outbreak of cholera in Gaya Gaol flies took a prominent part in spreading the disease, but, with the assistance of M. Haffkine, he has demonstrated the fact that flies not only can, but do, act as bearers of the cholera bacillus. The practical lesson, he says, is that flies should be looked upon as poisonous agencies of the worst kind during cholera epidemics; for if they find access to the poison they will carry and distribute it in every direction.

CART WATER TANK FOR FIELD SERVICE.

We have received a description and photograph of this tank, invented by Major J. Jones, late R.E., which was tested and approved in the Soudan, and ordered by the Secretary for War to be adopted in the service as long ago as 1886. But the inventor complains, "After eight years' delay, about 150 carts are now being made; the delay is inexplicable." Not a bit, we think; it is only usual, for a whole train of obsolete water barrels had probably to be used up before a new invention, however superior and desirable, could be brought into use. It is a way with the department of army stores, which, old officer as he is, we fear Major Jones has not fully studied. It is nothing to urge that the old dirty water barrel belongs to the primitive period of "Brown Bess" and "flint locks"; it had to be used up no matter what the consequences. We would suggest they should all at once be sold as liquid manure distributors, and Major Jones's cart substituted. For the bad tasting and smelling wooden barrel, perched on a cart at a point of gravity calculated to insure an upset on the smallest jolt, Major Jones has substituted a galvanised iron tank, slung on the cart frame at a low point of gravity. It can be cleaned through a manhole, which the barrel cannot; and instead of one large tap has also six smaller ones, by which many water bottles can be rapidly filled without waste; it has also a perforated partition in the centre, which prevents a sudden rush of a full tank, or the hasty sway of a half emptied one. Empty it can be used for the transport of stores; four fastened together form a river raft; it can be readily fitted to any existing service field wagon. Altogether it is undoubtedly an immense improvement on the old barrel, and the sooner it is brought into use the better.

BACTERIOLOGY OF THE LAKE OF GENEVA.

M. Léon Massol has recently carried out a remarkable series of experiments extending over twenty-two months, in the course of which he has used over 26,000 tubes of nutrient gelatine. He comes to the conclusion that the water of the Lake of Geneva is very pure, although it contains bacteria and vibrios of various kinds. The number of microbes per cubic centimetre varies from 1 to 4,125, the average being 50; this compares favourably with the best drinking water of Paris, which contains 1,250 microbes per c.cm. When the Lake is calm, the microbes are much less numerous than when the mud deposited at the bottom has been disturbed by waves. All other things being equal, the number of microbes is about three times smaller in summer than in winter, probably owing to the purifying action of the sun's rays. The microbes found in calm weather have no pathogenic properties, and even those which are contained in the mud hardly ever present any danger. The quantity of dissolved organic matter is 10 milligrammes per litre, that is, one-fifth of the maximum allowed by most water analysts.

HELP FOR THE DYING POOR.

Letters in the Liverpool *Daily Courier* draw attention to the sad and miserable plight of the sick and dying among the very poor. The tales are graphically told, but in fact the misery is so great, the wretchedness so complete, that word painting is unnecessary. The bare recital of the foul and meagre surroundings, the want of food, the coarseness and bad preparation of such food as is offered, the hard and lumpy bed, the dirt, the squalor, the neglect amid which the very poor, in their so-called homes, have to wait for death, admit of no other conclusion than that some place should be provided where, even if society has used them ill during their active life, at least they may be nursed and

kindly treated for a space before they die. But are there no such places? For what are guardians of the poor appointed, for what are poor rates paid, for what does the vast army of Poor-law officials exist, covering the land, as it does, from one end of the country to the other, unless it be to afford succour to the deserving poor? A great part of the machinery of the Poor-law is no doubt devoted to discovering who is deserving. But in the cases which are described, gradually dying of cancer or fading in consumption, there can be no question and no doubt. A tradition stands in the way, a tradition of the old bad days, which are rapidly vanishing in the large towns, but are still far from having disappeared in country places, a feeling deeply rooted among the poor, that workhouses and the infirmaries thereof are not good places in which to dwell. Here is a great work for the guardians of the poor—to disabuse the poor of this idea. To set up a grand infirmary here and another there, good work as it is, goes but a little way to reassure people who have heard accounts of other workhouses, in which they know that their friends and relatives have not been well treated. The one fly in the apothecary's ointment spoils the whole mixing: the unnursed, ill-managed infirmaries, dotted here and there over the country, counterbalance and undermine all the efforts of the better guardians, and the poor remain unconvinced. Everyone must fully sympathise with the distressing tales told in the Liverpool papers, but the moral is not, as some would have it, that "homes for the dying" should be established, but that every energy should be directed to so developing the workhouse infirmaries that the sick poor should be provided with good nursing, not when dying only, but also when, by its aid, restoration to usefulness is possible.

ANTISEPTICS IN A FRONTIER WAR.

THAT our "little wars" may call for the exercise of as much individual courage and as cool heads as the biggest European campaigns is a truism, but perhaps its truth was never better exemplified than by the details mentioned incidentally by Surgeon-Major Hudson and Surgeon-Lieutenant Bruce Gordon Seton in their report, which we publish this week, of two cases of severe sword wounds received by Sepoys during the attack by Waziris on November 3rd, 1894, on the camp at Wano. The wounds involved brains and joints, and in one case cut through the great ligament of the neck, so that the man's head fell forward on the chest, and are horrible enough to read about; but the graphic touch which brings the facts home to the stay-at-home Englishman is the apology of the surgeons for the hasty treatment adopted on the score that the hospital was under fire, and the Waziris were engaged in slashing the tent. Of courage it is of course unnecessary to talk when English officers are concerned, but this picture of the two surgeons methodically putting splints on broken legs, washing wounds, and inserting sutures, with the Waziris slashing the hospital tent, seems proof of very fine devotion to duty. That, in spite of the apology, the surgical work was thoroughly well done is shown by the fact that out of the eighty wounded received into the two field hospitals during and after the action only one man died. It seems almost incredible that a man should have survived such a slashing as the Bahadur, whose case is recorded, received; and it argues well for the thoroughness with which antiseptic surgery can be carried out even in a field hospital under fire. These good results were obtained, moreover, in spite of many disadvantages, such as overcrowding, intense cold, and insufficient and improper food. We regret to learn that Surgeon-Lieutenant Bruce Seton was severely wounded at the action at Kaniguram on December 22nd. At Wano the left rear attack took place directly on the transport animals and medical officers' tents, which, in consequence, suffered rather severely. Surgeon-Major Hudson had a *syce* (groom) killed, and two horses carried off. Surgeon-Captain Wyville Thomson lost two servants and a horse killed; and Surgeon-Lieutenant Melville had a horse mortally wounded by a sword cut on the neck.

POISONING BY BELLITE.

BELLITE is one of the now numerous explosives invented for use in war, and in mines for blasting. A principal element in its manufacture is nitro benzole or dinitro-benzole, the poisonous properties of which have been from time to time illustrated by not a few deaths among workers in explosive factories. The last case of the sort is recorded from Withnell near Darwen. Deceased's business was to fill cartridges with bellite, in powder, and, although an extracting fan was attached to his working place to draw the dust downwards and away from him, some of the poison got inhaled, and was probably also absorbed through the skin by handling it. This latter circumstance would be the more likely if the nitro-benzol were impure and greasy, as it is apt to be, unless specially purified. The newspaper account of symptoms and *post-mortem* appearances is meagre and not very clear, but the symptoms in general resemble those met with in the case of explosive compounds at large, whether roburite, dynamite, sicherheit, melanite, or bellite. Of these symptoms headache seems invariably present, accompanied by confusion of head or maziness, dyspnœa, pallor, and blueness of lips and general lividity, and ending in coma and insensibility. In the account of the case at Withnell, twitchings of the limbs was a marked feature, and, before the comatose symptoms appeared, the patient almost wholly lost the ability of supporting himself, "began to cry, after which he commenced to jump and scream as if he had lost his senses." His father stated that he had only commenced work ten days previously, and had not complained until the day preceding his death. A fuller detail of the symptoms could be wished for, as also of the appearances after death. Curiously enough no mention is made of the condition of the lungs or brain, or of the appearance of the blood. All that we learn is that "there were signs of fatty degeneration of the heart, and that the kidneys were not quite sound." The medical men who had to deal with the case attributed death to "congestion of the brain due to non-oxygenation of the blood, owing to the chemical changes in the blood brought about by the dinitro-benzole." Cases of poisoning by explosive substances belonging to the benzole series, or by picric acid compounds are happily rare, but they deserve more attention than they have received, their symptoms more fully recorded, and the conditions of the blood and viscera to be carefully examined. They present a combination of pathological phenomena not well understood, and which for the most part are well nigh unknown to the mass of the profession. It is well to add that these explosives, and accidents arising from them are not confined to factories where they are made, but are likewise in constant use in mines. Moreover, dinitro-benzole is employed in preparing certain colours used by dyers.

THE EFFECT OF GRAVITY ON THE CIRCULATION.

A PAPER read before the Royal Society on December 13th, 1894, by Mr. Leonard Hill on the Influence of the Force of Gravity on the Circulation draws attention to a point of great interest. One of the conditions necessary for the maintenance of life is the supply of a due amount of blood to the brain, a condition depending on a proper relation between the tonus of its vessels and of those supplying every other part of the body. This relation must alter with every variation of position. Putting it roughly, there would not be enough blood for all the regions of the body at the same time if all the vessels were relaxed, and an even distribution to different organs is only maintained by an exact coordination between the contractile action of the muscular walls of the vessels and such pressure within them as is due

to gravity. Mr. Hill pointed out that the important duty of compensating for the simple hydrostatic effects of gravity in changes of position must be ascribed to the splanchnic vasomotor mechanism, and that the effects of changing the position afforded a most delicate test of the condition of this mechanism. He also showed that the compensation was far more complete in upright animals such as monkeys than in rabbits, cats, or dogs, and therefore was probably still more complete in man. These investigations are of all the more interest when read side by side with the clinical observations of Dr. Oliver, who has endeavoured by a special instrument to measure the calibre of the arteries and to demonstrate their variations under different circumstances of position, showing that loss of this variability of calibre with changing posture is to be looked in as indicating a departure from health. Mr. Hill pointed out that the influence of gravity became of vital importance whenever the power of compensation was damaged by paralysis of the splanchnic vaso-constrictors, as by shock, by asphyxia, or by some poison such as chloroform, for, under such circumstances, in the feet-down position, the blood drained into the abdominal veins, the heart emptied, and the cerebral circulation ceased. On the other hand, although the feet-up position generally caused no ill-consequences, it might happen if the heart was affected, as by chloroform, that it might be stopped altogether by the inrush of a large quantity of blood if pressure were applied to the abdomen too suddenly. Besides its action on the heart chloroform rapidly paralysed the compensatory vasomotor mechanism, whereas ether acted on it very slowly. One of the dangers of chloroform was then that by destroying this compensation for gravity the patient's circulation was left peculiarly under the influence of posture, and death might result from the abdomen being placed at a lower level than the heart. Mr. Hill also suggested that emotional syncope was not so much due to direct implication of the nervous mechanism of the heart as to paralysis of the splanchnic area, and a case was quoted where compression of the abdomen immediately removed the syncopal condition. The picture of the increasing vital co-ordination between the different portions of the circulatory apparatus to compensate for the varying effects of posture is a very interesting one, and the suggestion that a suspension of this co-ordination may take place under certain circumstances, allowing the blood to drain by gravity into paralysed areas, would explain what ordinary teaching does not make very clear—the striking contrast clinically observed between cardiac failure and what is so commonly spoken of as cardiac syncope.

LEAD POISONING BY YARN DYES.

A source of lead poisoning that has attracted little attention has just recently been prominently illustrated by the history of a fatal case of plumbism happening at a dyeing works at Newton Heath, which became the subject of a coroner's inquisition. The victim was a young girl of good physique who had not long been employed at the dyeworks in "noddling," that is, in drawing by hand with some force the dyed cotton yarn over and around a smooth wooden arm or crossbar of a simple machine, slightly combing it with a small comb, and then twisting it into a hank ready for packing. This proceeding involves the production of some fine dust derived from the dye. The dyes that prove injurious consist mainly of chromate of lead, from which are derived a dark green, a yellow, and an orange colour. The last named is the most poisonous; next after it is the bright yellow, whilst the dark green is held to be almost innocuous. Plumbism from textile material has sometimes been traced to the presence of lead salts, as in "weighting" sewing silk, and in the reprehensible practice of using finely powdered white lead to throw up the pattern of lace as displayed in boxes. Unfortunately, the case of poisoning in question was not a solitary one. There was evidence forthcoming that other deaths had occurred within comparatively a few years; and that cases of plumbism were of frequent occurrence among the girls employed in the factory. These circumstances were recognised by all parties connected with the factory, and had stimulated the occupiers to adopt expedients calculated to mitigate results so painful. Ventilating fans had been introduced, respirators provided, the approved sulphuric acid drink placed within the reach of all, and means for washing fitted up. As events have proved, these measures failed of their purpose to prevent the occurrence of lead poisoning. An explanation may be that the dosage of poison in the air is too strong; but the more powerful cause of failure is the neglect, indifference, and carelessness of the workpeople themselves, who are too indifferent to cleanliness in work and dress, and opposed to wearing respirators provided for them. The same statement may be made of artisans generally when exposed to injurious surroundings. Pride and prejudice are too strong for prudence, which circumstances so strongly suggests and health demands. But whatever preventive measures be adopted, there seems wanting some authority to see them carried out. A perpetual visitation by factory inspectors is impossible, but surely the certifying surgeons, who have certain duties at all factories, could be made more use of than they at present are. A periodical examination of the working hands could be made where such a poison as lead occurs in the processes of manufacture, and every worker presenting the signs of plumbism should be stopped, at least for a season, from his or her injurious business. Moreover, the visits of a professional man having some training in sanitary science might otherwise be turned to good account in regard to many health conditions, connected with labour and labourers in factories.

CLUBS AND FRIENDLY SOCIETIES IN THE SOUTH OF IRELAND.

In accordance with the notice given some months ago, to which we have already referred on several occasions, the medical practitioners of Cork have resigned their connection with the clubs and friendly societies in that city. We understand that Dr. Morris, who recently settled in the city, is a candidate for election to the vacant posts, and is making use in his candidature of testimonials from leading members of the profession in Dublin. Comment upon these facts appears to be unnecessary.

NEW YEAR'S HONOURS.

The list of New Year's honours, which is not a very long one, contains the intimation that the Queen has been pleased to confer a baronetcy upon Dr. J. Russell Reynolds, President of the Royal College of Physicians, London, and President-elect of the British Medical Association; and also upon Mr. John Eric Erichsen, President of University College, London, and formerly President of the Royal College of Surgeons of England. The election of Sir Russell Reynolds, in December, 1893, as President of the Royal College of Physicians in succession to Sir Andrew Clark, and his selection to preside, as President of the British Medical Association, over the annual meeting of the Association in London this year, are in themselves sufficient indications of the place which he holds in professional esteem. His whole career has more than justified the distinctions which have come to him in recent years. To few physicians in any generation has it been given to occupy so leading a position for so long a period. Sir Russell Reynolds attained a foremost rank among consultants in London at an unusually early age. After a brief time, a few writings which he published, and the judgment of those who knew him personally, led to his nomination in 1861 to the posts of Professor of Clinical Medicine and Physician to University College Hospital. His book on *Epilepsy*, one of the first applications to medicine of the statistical method after the example set by Dr. Walshe, fell on fertile soil, and at once carried him

to the position of a leading authority on diseases of the nervous system, and to the place left vacant by the death of his friend, Dr. Marshall Hall. Sir Russell Reynolds has thus for some thirty years stood in the first rank of physicians in London, and we are glad to think that the profession may hope to retain for many years more the advantages of his mature judgment and ripe wisdom, as the last practising representative of that galaxy of brilliant physicians —Gull, Jenner, Andrew Clark, Wilson Fox, and Murchison —who, a few years ago, were in active work. Sir Russell Reynolds succeeded Sir William Jenner as Professor of Systematic Medicine in University College, and excelled in the manner in which he discharged the duties of this chair; his old pupils retain a vivid recollection of the wit, scientific precision, and admirable clearness of the lectures which used to fill the lecture theatre, even at nine o'clock on a winter morning. As the editor of the well-known *System of Medicine* his name became widely familiar to the profession throughout the world. The members of the British Medical Association will appreciate the honour done to the President-elect, and the Fellows of the Royal College of Physicians, who have had many opportunities of observing the grace and tact with which their President discharges the duties of his office, will know how well it has been deserved. Sir Russell Reynolds is Physician in Ordinary to Her Majesty's Household, and it is interesting to recall that he is the grandson of one of the physicians to George III. Sir John Erichsen, who became a Fellow of the Royal College of Surgeons of England in 1845, was for many years Surgeon to University College Hospital, and is at the present time Emeritus Professor of Surgery and Clinical Surgery in University College. Since his retirement from the office of surgeon to this hospital he has continued to take an active part in the administration of the College, and in 1887 he was elected President in succession to Lord Reay: as incumbent of this office he has taken an active share in the movement for obtaining a reconstitution of the University of London. He was President of the Royal College of Surgeons in 1880, and is Surgeon Extraordinary to the Queen. His name has been familiar to many generations of students as the author of one of the most widely-read textbooks of surgery in the English language. The kindly regard which he inspired in all his pupils —and, indeed, in all who knew him—his facile grace of speech, his resourceful skill, and his high character marked him out long ago as one of those who most deserved the recognition he has now received. This has been emphasised of late years by the devotion with which he has given himself up to public duties, especially to those involved in the Presidency of University College, to which he has given energy and time the amount of which is known only to a few.

TYPHOID FEVER AND OYSTER EATING.

DURING the past six or eight weeks enteric fever has been largely, and we believe increasingly, prevalent among the more wealthy classes in London. A careful consideration of the surrounding of many of these cases has shown the extreme improbability of their having arisen from any of the more ordinary causes, and their complete independence of any defects in their sanitary surroundings. Suspicion has fallen upon oysters as the origin of the outbreak. We believe this suspicion has not arisen merely by a process of exclusion or in consequence only of the difficulty in ascertaining any other cause. Cases have been observed in which the connection between the fever and the oysters has seemed very clear, cases especially where small groups of oyster eaters have been picked out by fever from among others living amid the same conditions who have escaped. The outbreak has fallen with quite extraordinary severity upon City men, who have been known to take oysters at luncheon. A case has come to our knowledge in which a young man, slowly convalescing from influenza, never having left the house for many weeks, developed typhoid fever, he alone of all the family having partaken of oysters. Again, two young men had an oyster supper, and a fortnight later developed typhoid, both beginning on the same day. Again, a barrel of oysters sent to a well-situated house in the country, the sanitary surroundings of which were very perfect, and the neighbourhood of which was free from fever, was eaten by two persons, both of whom were attacked by typhoid fever: they alone were attacked, and that at the same time. If oysters are the real explanation of the matter, the affair is evidently one of considerable gravity. We understand many of the cases have been of great severity.

LORD RANDOLPH CHURCHILL.

DURING the past week the symptoms from which Lord Randolph Churchill has been suffering have become less urgent, the coma has gradually lessened, he has taken a fair amount of nourishment, has been able to talk with those about him, and has had good nights. It is well recognised that more or less temporary exacerbations are of common occurrence in the disease from which he suffers, but the fact that this attack occurred during the fatigue of a journey, while rendering the attack itself far more serious, leaves more ground for hope of a certain amount of improvement than if an attack of equal severity had occurred in the midst of more favourable surroundings.

EXHAUST AND SUPPLY SYSTEMS OF VENTILATION OF SHIPS.

IT would, perhaps, be too much to say that the ventilation of our warships is defective, but it may be very fairly asked if in the interest of shipping in general the present system might not be reversed with advantage. Hospital experience has shown pretty conclusively that efficient ventilation is best achieved by a system of exhaustion rather than propulsion. It is easier to extract 1,000 cubic feet of air from a ward or the body of a vessel than to force the same bulk of air into it. The pressure on the contained air in the first case would be diminished so as to induce the ingress of denser air at every opening, while in the second case the increased pressure would not only more tardily produce the opposite effect, but favour stagnation in the very localities which require the most efficient ventilation. We may conclude, therefore, that extraction would be a method of ventilation for ships far preferable to propulsion were naval architects restricted to either. No restriction of the kind, however, need exist, and where it is desirable, both may be simultaneously employed. Extraction to be efficient must reach contained air in the inmost recesses of a ship where foul effluvia are so apt to stagnate. Gases diffuse with a rapidity which is inversely as the square root of their density. Active egress would thus favour the diffusion of gases outside the vessel, while by active ingress, or "plenum ventilation," diffusion can only take place within, and that less actively in proportion to the pressure. Moreover, in the former case the air is insensibly renewed, while in the latter cold draught is usually a concomitant. Supply fans are usually fitted in the ships of the Royal Navy, varying from 3 feet to 6 feet in diameter, but in cases where the escaping air would have no suitable upcast, exhaust fans are employed. On reviewing a list of 24 ships, 11—or nearly half the number—were found to be without any mechanism for extraction: 5 were each furnished with a single exhaust fan; in 2 there were three exhaust fans, and in 2 others four. In every instance, however, supplies were found ranging from one to twelve in number. Finally, in the *Royal Arthur* with five and the *Royal Sovereign* with twelve large supply fans no exhaust fans were fitted.

M. DE LANESSAN, the Governor-General of Hué, who has just been summarily dismissed by the French Government, is a member of the medical profession. He was in practice in a country district of the Gironde for several years, till he was induced by Gambetta to enter on a political career.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

XXXV.—For the following notes on cases of diphtheria treated with antitoxin at the Royal Hospital for Sick Children, Aberdeen, we are indebted to Dr. Ross, Junior Surgeon. The cases were described in a paper read before the Aberdeen Medico-Chirurgical Society, December 6th, 1894.

Since the middle of September six cases of diphtheria under my care have been treated with antitoxin, and in five tracheotomy was performed. In every case the patient was put into a tent bed, and steam from a kettle kept the air charged with moisture and kept at a temperature of 65° F. Stimulants were given freely, but no local application except in Case VI was used.

I give the following brief notes and the temperature, pulse, and respiration charts:

CASE I.—G. R., aged 4½ years, was admitted on September 22nd suffering from diphtheria. There was urgent dyspnœa, and the pulse was quick and thready. Tracheotomy was performed on admission (at 6.30 P.M.) by the house-surgeon, but no relief was afforded. At 10.15 Behring's antitoxin ℿx was injected, but no improvement followed. The patient died at 11.15 P.M. This case was a hopeless one from the first. No treatment could have proved beneficial, and no record of the temperature was kept.

CASE II.—E. McN., aged 4½, a very strong, stoutly-built child, had been ailing for two or three days. On admission on October 3rd she suffered from urgent dyspnœa, with the usual symptoms of laryngeal obstruction. There was a small patch on both tonsils. I performed tracheotomy at 2 P.M., with immediate relief of the dyspnœa. At 10 P.M. I injected Behring's antitoxin ℿxiv. The patient slept well. A second injection of antitoxin ℿx was given at 10 A.M. The temperature rose a little towards night, and the pulse became more rapid; but on the following morning the temperature was normal. The appended table will give the best idea of her progress, which resulted in recovery. Owing to a mishap the bacteriological examination was not conclusive; but, from the appearance of the throat and membrane, there was no doubt but that this was a case of diphtheria.

Day of Disease.	Time.	Temperature.	Pulse.	Respiration.	Remarks.
		Deg.			
4th	2 P.M.	100.0	—	—	On admission.
,,	6 P.M.	101.0	132	40	After operation.
,,	10 P.M.	100.1	140	40	Injection antitoxin ℿxiv
5th	2 A.M.	100.1	132	44	—
,,	6 A.M.	100.1	112	38	—
,,	10 A.M.	100.1	112	48	Injection antitoxin ℿxiv
,,	2 P.M.	101.0	120	52	—
,,	6 P.M.	102.0	128	52	—
,,	10 P.M.	101.3	136	48	—
6th	2 A.M.	99.9	116	40	—
,,	6 A.M.	98.4	120	40	—
,,	10 A.M.	98.9	128	40	—
,,	2 P.M.	100	136	44	—
,,	6 P.M.	99.3	120	40	—
,,	10 P.M.	98.4	104	28	—
7th	2 A.M.	96.8	100	28	—
,,	6 A.M.	99.0	108	28	—
,,	10 A.M.	100.0	112	36	—
,,	2 P.M.	99.0	102	36	—
,,	6 P.M.	98.8	104	28	—
,,	10 P.M.	98.0	100	28	—
8th	2 A.M.	97.0	104	28	—
,,	6 A.M.	98.4	100	32	—
,,	10 A.M.	100.0	112	32	—
,,	2 P.M.	99.0	100	34	—
,,	6 P.M.	98.8	100	32	—
,,	10 P.M.	96.4	108	32	—
9th	2 A.M.	97.0	96	28	—
,,	6 A.M.	97.0	96	28	—
,,	10 A.M.	98.6	100	28	—
,,	2 P.M.	99.2	96	32	—
,,	6 P.M.	98.4	96	32	—
,,	10 P.M.	96.0	—	28	—

CASE III.—M. T., aged 3 years, a weak, delicate-looking child, had been ill for ten days. Attacks of dyspnœa appeared forty-eight hours before admission. These passed away, but recurred a few hours before removal to the hospital, when they became urgent. I performed tracheotomy at 3 P.M., and at the same time injected antitoxin ℿx. Immediate relief of dyspnœa followed the tracheotomy. At 10 P.M. antitoxin ℿx were injected. The patient, though restless, slept a good deal, and looked well in the morning. The progress of the case may be followed on the table. The result was recovery. Bacteriological culture showed the presence of the bacillus.

Day of Disease.	Time.	Temperature.	Pulse.	Respiration.	Remarks.
		Deg.			
11th	2 P.M.	99.0	—	—	On admission antitoxin injected ℿx, 3 P.M.
,,	6 P.M.	101.0	148	40	After tracheotomy.
,,	10 P.M.	101.0	156	32	Antitoxin injected ℿx, 10.30 P.M.
12th	2 A.M.	101.4	140	40	—
,,	6 A.M.	100.0	140	44	—
,,	10 A.M.	100.0	132	36	—
,,	2 P.M.	100.6	134	36	—
,,	6 P.M.	100.0	132	36	—
,,	10 P.M.	98.4	124	36	—
13th	2 A.M.	99.0	128	28	—
,,	6 A.M.	100.2	132	28	—
,,	10 A.M.	99.0	120	28	—
,,	2 P.M.	99.4	112	28	—
,,	6 P.M.	100.2	132	36	—
,,	10 P.M.	98.0	132	32	—
14th	2 A.M.	99.6	124	40	—
,,	6 A.M.	98.8	136	28	—
,,	10 A.M.	99.6	136	40	—
,,	2 P.M.	99.0	132	32	—
,,	6 P.M.	99.4	120	32	—
,,	10 P.M.	99.0	108	28	—
15th	2 A.M.	98.4	108	24	—
,,	6 A.M.	98.0	132	24	—
,,	10 A.M.	100.0	132	32	—
,,	2 P.M.	98.6	120	36	—
,,	6 P.M.	99.0	112	32	—
,,	10 P.M.	98.4	124	32	—
16th	2 A.M.	98.4	110	32	—
,,	6 A.M.	99.0	124	32	—
,,	10 A.M.	98.6	132	28	—
,,	2 P.M.	99.0	120	28	—
,,	6 P.M.	98.8	112	32	—
,,	10 P.M.	97.0	110	32	—
17th	2 A.M.	98.2	112	32	—
,,	6 A.M.	98.4	112	28	—
,,	10 A.M.	99.0	120	36	—
,,	2 P.M.	99.8	120	32	—
,,	6 P.M.	99.0	112	32	—
,,	10 P.M.	98.4	124	32	—

CASE IV.—A. B., aged 14 months, a strong, healthy-looking child, had croupy symptoms for three or four days previous to admission on November 1st. On admission the patient was in great distress with his breathing and very restless. The pulse was feeble and running: the temperature 99.2°. Tracheotomy was performed at 1.15 P.M., and at 3 P.M. antitoxin ℿviij were injected. The breathing and pulse improved rapidly, and the patient was quiet for a few hours and slept a little. The temperature rose to 103° at 10 P.M., when another injection of antitoxin ℿviij was given; a third at 3.15 A.M., a fourth at 11 A.M., and a fifth at 10 P.M. The patient died. Bacteriological culture showed characteristic growth.

Day of Disease.	Time.	Temperature.	Pulse.	Respiration.	Remarks.
		Deg			
4th	2 P.M.	99.2	148	44	On admission antitoxin injected ℿviij
,,	4 P.M.	99.8	148	66	—
,,	6 P.M.	102.2	148	56	—
,,	10 P.M.	103.0	148	52	Antitoxin ℿviij
5th	2 A.M.	103.2	140	52	—
,,	6 A.M.	101.8	140	48	Antitoxin ℿviij at 3.15
,,	10 A.M.	101.8	—	—	Antitoxin ℿx at 11 A.M.
,,	2 P.M.	102.8	—	—	—
,,	10 P.M.	104.2	—	64	Antitoxin ℿviij
6th	2 A.M.	105.2	—	—	—
,,	6 A.M.	104.4	148	52	—
,,	10 A.M.	106.0	—	—	—
,,	2 P.M.	—	—	—	Died

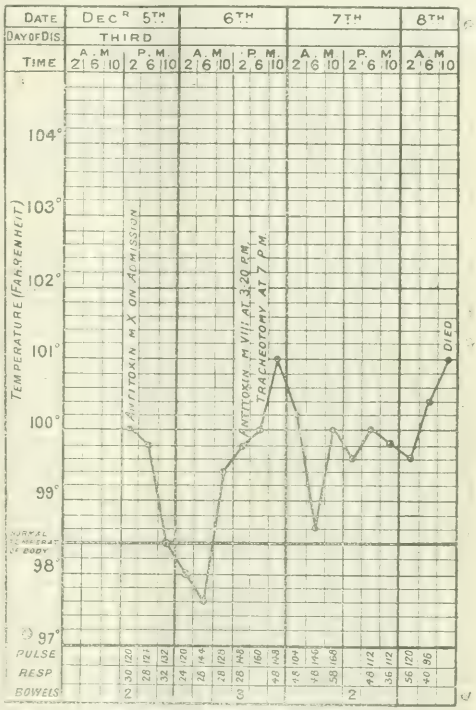
CASE V.—J. M., aged 3½ years, a very strong healthy child of healthy parents, was seen in private on November 14th.

He had a slight cough and flushed face. The temperature was 100°; the pulse 120; respiration 30. The throat was a little inflamed. I ordered a mixture containing salicylate of sodium and chlorate of potassium. Next day the temperature was 103°; the pulse 140; the respiration 40. In the evening of the same day, as there was no change and all else seemed healthy, I began to suspect laryngeal diphtheria. Next morning the pulse and respiration were as on the day previous. The temperature was 100°. Inspiration, however, had become noisy and breathing laboured. The patient was removed on November 16th to the Sick Children's Hospital, and was seen at 1 P.M. by Dr. Garden, who considered that it was a case that would require close watching, on account of the laryngeal obstruction, which might possibly require tracheotomy. The patient was placed in a tent bed and treated as usual, but, in addition, he was given antitoxin ℥viij. (This was all we had.) On admission the temperature was 100°, but at 10 P.M. it had fallen to 99° and breathing had become easy and slower. The stridor had disappeared. The patient passed a good night and had no return of the laryngeal dyspnœa. The table shows the progress of the patient. The result was recovery. The bacillus was found in the cultures. A small abscess occurred at the point of injection in the back, but it seemed to give the patient very little trouble.

Day of Disease.	Time.	Temperature.	Pulse.	Respiration.	Remarks.
		Deg.			
3rd ...	2 P.M.	100.2	132	40	1.30 P.M., antitoxin ℥viij on admission.
,, ...	6 P.M.	100.2	128	40	—
,, ...	10 P.M.	99.0	132	32	—
4th ...	2 A.M.	99.0	132	36	—
,, ...	6 A.M.	99.8	128	32	—
,, ...	10 A.M.	100.2	132	32	—
,, ...	2 P.M.	100.4	136	36	—
,, ...	6 P.M.	101.4	144	28	—
,, ...	10 P.M.	99.8	136	28	—
5th ...	2 A.M.	100.0	124	36	—
,, ...	6 A.M.	102.0	136	32	—
,, ...	10 A.M.	101.2	136	28	—
,, ...	2 P.M.	102.2	132	32	—
,, ...	6 P.M.	100.0	132	40	—
,, ...	10 P.M.	100.4	120	28	—
6th ...	2 A.M.	100.0	132	28	—
,, ...	6 A.M.	100.0	128	28	—
,, ...	10 A.M.	99.6	120	28	—
,, ...	2 P.M.	99.4	124	28	—
,, ...	6 P.M.	98.6	116	28	—
,, ...	10 P.M.	98.2	112	24	—
7th ...	2 A.M.	98.0	100	24	—
,, ...	6 A.M.	99.2	100	24	—
,, ...	10 A.M.	99.2	100	24	—
,, ...	2 P.M.	99.2	102	28	—
,, ...	6 P.M.	99.6	116	28	—
,, ...	10 P.M.	—	—	—	—

CASE VI.—L. C., 1¾ year, a soft flabby-looking child, with a neglected look, was admitted on December 5th. He had suffered from gastro-intestinal catarrh for a fortnight. Two days before admission the glands of the neck became swollen. On admission the patient had a croupy cough, and his cry was husky. There was a purulent discharge from the nose, the upper lip and side of the nose being excoriated by it. Respiration was laboured, but there was not much stridor. Dr. Macgregor, under whose care the patient was placed, considered it a case of diphtheria, and as the symptoms were urgent at 2 P.M. he gave the patient antitoxin ℥x, which had been supplied by Dr. Klein through the agency of the BRITISH MEDICAL JOURNAL. The throat was brushed every hour with Condy's fluid and glycerinum boracis alternately. At 10 P.M. the temperature was normal, but pulse and respiration were about the same.

On the morning of December 6th at 10 A.M., although the temperature was low, the patient was much worse, the face pale and pulse feeble. At 11 A.M. he was still worse. The pulse was 160. There was marked retraction of the epigastrium during inspiration. I saw the patient at 3 P.M. when there had been an improvement. Dr. Macgregor gave him a second injection of antitoxin ℥viij at 3.20 P.M. No improvement followed. At 7 P.M. I was again called, and performed tracheotomy, although the case seemed hopeless; immediate improvement followed. Even before the patient was removed from the table he looked much better. The pulse 140, stronger and regular. The patient did well until 2 A.M. on December 8th, when he was seized with an attack of dyspnœa. This passed away, but at 10.30 the respiration became embarrassed. The face became livid, and the child constantly put its hand to its mouth as if to remove an obstruction. The tube was removed, but no membrane could be got out by a forceps, and the child died about 11 A.M. The chart will show the course of the disease.



Bacteriological cultures showed the diphtheria growth. Such are the cases. Is there anything in them different from what we would reasonably expect in similar cases treated without antitoxin? I think not. At first I was inclined to consider the charts of Nos. 2 and 3 as exceptionally favourable, the more so as the one followed the other. I find, however, that I have as good charts in similar cases without antitoxin. No. 5 showed an improvement after injection, but I have often found an improvement follow the removal of the patient to a tent bed, with the use of the steam kettle. No. 4 seemed to get worse if anything after the injection, while in No. 6 it was very doubtful if any benefit followed its use.

In regard to any conclusions that can be drawn from the above cases I cannot point with certainty to good results having followed the antitoxin treatment. The cases I have to report are no doubt few in number, but they were all severe and therefore testing. I am well aware that to draw positive conclusions from a limited number of cases, or from one case as some do, is on the face of it absurd. It is only by the aggregation of a large number of cases carefully observed, and by care in drawing conclusions from these that a correct estimate of the value or otherwise of antitoxin as a cure for diphtheria can be arrived at. The results I have got

have been negative, but I wish to guard against the conclusion that good results may not have followed its use in other hands. I intend to give it a further trial, especially in laryngeal and tracheal cases, where so little can be done in the way of treatment, and we are driven to tracheotomy or intubation.

I very gratefully record my indebtedness to Dr. Garden, Senior Surgeon, for the opportunity of treating those patients, and to Dr. Gordon and Dr. Rennet for a supply of antitoxin.

***Dr. Klein has from the first stated that the dose of his serum to be injected is over 5j; even a young child should receive at least this quantity on the first occasion.

THE SUPPLY OF SERUM.

WE have received this week through the courtesy of Dr. Klein a further supply of the diphtherial antitoxic serum prepared by him. Owing to the numerous applications received this supply is already nearly exhausted, but Dr. Klein informs us that he hopes to be able to furnish a further supply to us on January 12th.

THE PRIORITY OF THE DISCOVERY.

PROFESSOR JAIME FERRAN, of Barcelona, has called the attention of the editors of the *Deutsche medicinishe Wochenschrift* to a paper by him entitled "Nota sobre la vacunacion contra el envenenamiento difterico agudo experimental," bearing date April, 1890, in which a safe and practical method of immunising animals against fatal doses of the diphtheria poison successfully employed by him is described. On the basis of this publication, which appeared eight months before Professor Karl Fraenkel's communication on the same subject, Dr. Ferran claims the priority of the discovery. The Spanish bacteriologist's claim, together with the *pièces justificatives*, having been submitted to Professor Karl Fraenkel, has been frankly acknowledged by him to be well founded. He says (in a letter published in the *Deutsche medicinische Wochenschrift* of December 27th) that after reading Dr. Ferran's paper he has been able to convince himself that the Spanish worker had in fact, in April, 1890, reported the result of prolonged experiments on the immunisation of guinea-pigs against infection with diphtheria bacilli, adding, "there can therefore be no doubt that in this question decisive priority belongs to him."

Professor V. Babes, of Buda-Pesth, also lodges a claim on his own behalf. He points out, in the same number of the *Deutsche medicinische Wochenschrift*, that whereas the first communication by Drs. Behring and Kitasato on the immunising power of the blood serum of artificially immunised animals in the case of tetanus, was published in 1890 in the *Deutsche medicinische Wochenschrift*, No. 49, 1890, he, in co-operation with Dr. Lepp, had established the same principle as regards "a not less important infective disease" (hydrophobia) in 1889, in a paper published in the *Annales de l'Institut Pasteur*, July, 1889. Professor Babes, however, admits that to Behring belongs the credit of applying the principle to diphtheria. All he claims for himself is that he took a definite part in laying the foundation stone of the great and solid structure which Behring and his fellow workers have raised.

THE MODE OF ACTION OF THE ANTITOXIN.

"SCEPTIC" writes: There are many questions which might be put to those who support the serum treatment of diphtheria. Antitoxin, it would appear, has nothing to do with the microbes of diphtheria. Not microbes, but their filtered products, are injected into the horse. Antitoxin is by the hypothesis a result of the reaction of living tissues to a chemical poison—toxin. How, then, are we to account for its action when within the vessels on the membrane which is "practically outside the body"? How does it cause it to dissolve and strip off? The estimation of the antitoxic power of the serum is a mere numerical matter of test tubes and guinea-pigs, the units being cubic centimetres and lethal doses. In the test tube the toxins and the antitoxins neutralise each other; why, then, if it is a matter of chemical neutralisation, does it take two days to effect its purpose? One would think that when the chemical antidote had been introduced the organism would at once be indifferent to the toxins, but that nevertheless these would continue to be brewed by the microbes, which being outside the body would be beyond its influence. But exactly the opposite seems to be the case: the character of the membrane soon changes, it loosens and strips off, while the relief of the toxæmia, the chemical reaction of toxins and antitoxins, which ought to fizz off like a seidlitz powder, takes two days to do its work.

Keeping still to theory, are we to imagine that the human body is a magic bottle, which can pour out at will all the various antitoxins to all the various toxins produced by all the various microbes of the multitudinous diseases from which man suffers? This would seem to be part of the hypothesis of chemical neutralisation, but it is hard to accept.

So far as physiology teaches, each cell in the body sticks pretty definitely to its own work; whence, then, comes this extraordinary array of new and strange compounds? Are they not, in fact, merely altered toxins? That they have nothing to do with immunity seems to be shown by the fact that although the horse remains immune, he must be continually loaded with toxins to keep up the supply of the antitoxin. May not the joint pains, etc., be really the result of unconverted toxins?

In German criticisms of the treatment such stress has been laid upon the fact that the hospital cases have changed in type in consequence of mild cases being sent to hospitals because there alone could the treatment be obtained, that it is very important to know whether any variation of any sort was made in the mode of selection of the cases for admission to the Eastern Hospital. What about the ages of the patients? Everything depends on the assortment of ages.

Among 70 patients a very small increase of the number between 10 and 15 who last year and the year before only died at the rate of 6 and 6.1 per cent. respectively at the Eastern Hospital, would make a vast dilution of the mortality. In those same years the mortality under 1 year of age was 81 and 90 per cent. in the same hospital, while in another it was 100 per cent. last year, as it was also in two hospitals the year before. Clearly it might require, even on the lower percentage, fifteen times as many of the older cases to make up the same mortality as it would of the younger. Even taking the general average for five years, the cases under 3 years of age die at six times the rate of those between 10 and 15.

Further, the remarks of Mr. Shirley Murphy before the Epidemiological Society must not be forgotten. He pointed out that the period of greatest virulence as shown by case mortality does not coincide with that of greatest prevalence; and although we know that their treatment was carried out during a time of great prevalence of the disease, it will not do to assume that the virulence was equal to the average of the year. Many details require to be known before statistics founded on small numbers and short periods of time can be accepted.

ANTITOXIN AND ANURIA.

MR. LENNOX BROWNE (Mansfield Street, W.) writes: Will you allow me to point out that Dr. Goodall has not answered the questions I put to him at the Clinical Society? and, as two of them have such an important bearing on the question at issue, I must ask you to allow me to repeat them.

First, what was the exact cause of death in his 10 cases "which ensued from the poison of diphtheria?"—how many died from cardiac failure and how many from uræmia? I would ask permission also to add, What was the nature of the "complications" to which he attributes the other 3 deaths?

Secondly, what was the interval between the first injection and the fatal termination?

My motive for asking these questions was that, while the average of deaths from uræmia in 1,000 consecutive cases is only 2.6 per cent., 2 out of my 5 cases treated with antitoxin had died of suppression of urine, and I have now to record that 6 out of a total of 8 cases so treated have terminated fatally from the same cause. I fail to see the relevancy of Dr. Goodall's objection to my suggestion of cause and effect, that "if serum determined nephritis, albumen would be found in non-diphtheritic cases treated by this remedy."

DR. RICHARD HAMILTON (General Infirmary, Chester) writes: I am afraid that Mr. Lennox Browne has misunderstood some of the details of the case (XXVIII) which I reported in the BRITISH MEDICAL JOURNAL of December 8th, and so I cannot agree with his conclusions; but it would occupy too much of your valuable space to reply to them at length. The correctness, however, of my diagnosis has since been verified by the occurrence of those paralytic sequelæ to which Dr. Browne attaches such diagnostic importance; which sequelæ, by interference with the child's power of swallowing, urgently necessitated a second tracheotomy, and this, I am glad to say, has been perfectly successful.

PROFESSOR BEHRING IN PARIS.

OUR Paris Correspondent writes: Dr. Behring, whose antitoxic serum has been so successfully tested and developed by Dr. Roux, is now in Paris. On Saturday he visited the Pasteur Institute, and was received by M. Duclaux. He then went to see M. Nocard, and visited the Alfort Veterinary School. M. Bouchard's and M. Straus's laboratories at the Medical Faculty have been visited by Herr Behring, who is making a very short stay in Paris on his way to Egypt, where he proposes both resting and working. He will make experiments in connection with some ideas concerning a manner of treating cholera he is now studying.

THE ANTITOXIN TREATMENT ABROAD.

France.—On December 22nd, 1894, the French Chamber of Deputies unanimously passed a Bill providing for the allocation of a sum of 200,000 francs (£8 000) as "a subvention to the Pasteur Institute for the purposes of the serotherapeutic treatment of diphtheria."

In accordance with an arrangement arrived at between the Pasteur Institute, the city of Paris, and the department of the Seine, a Vaccine Institute against Diphtheria has been founded. The city of Paris undertakes all the expense of installation, and of the 20,000 francs (£800) a year required for maintenance, 15,000 francs (£600) will be provided by the city and the remainder by the department of the Seine. The object of the new institute is to furnish a supply of serum to all the communes of the department.

Italy.—The cities of Padua and Venice have jointly contributed a sum of 12,000 lire (£480) to enable Professor Bonome, Director of the Pathological Institute of Padua, to prepare serum for experimental purposes. If his report be favourable a serotherapeutic institute will in all probability be founded at Padua. Professor Bonome has already four horses in process of immunisation. It is pointed out by a writer in the *Riforma Medica* that the enthusiasm for the new treatment is of a somewhat febrile type in Italy. Institutes are being precipitately founded all over the country before the materials for a definitive judgment on the value of the treatment are available.

The circular of Professor Pagliani, Director of Public Health, permitting the sale of the Höchst antitoxin and that of Roux, but of no other, has had a result which must surely not have been contemplated by that energetic official. A man was admitted to the Ospedale Civico at Padua suffering from tetanus. Application was made to Professor Tizzoni for a supply of tetanus antitoxin, but Signora Cattani telegraphed, in reply, that in the face of Dr. Pagliani's prohibition it was impossible to send out antitoxin of Italian manufacture to any place in Italy. The patient died five days later.

Russia.—The serum treatment has been tried in Russia with good results. One of the first places where it was used was Reval, where the local practitioners seem to have clubbed together to obtain a supply of Behring's serum from Höchst. The remedy was successfully employed in two cases of severe diphtheria (proved bacteriologically) in children aged respectively 2 and 16. In the younger child a scarlatina-like eruption came out on the eleventh day, and disappeared completely in thirty hours.

Cuba.—At Havana a serotherapeutic service has, thanks to the initiative of Dr. Juan Santos Fernandez been established in the bacteriological laboratory of our enterprising contemporary *La Cronica Medico-Quirurgica de Habana.*

Cape Colony.—At the Cape the acting Colonial bacteriologist, Dr. Black, has been instructed to prepare, with the means at his disposal, some "toxin," with a view to the inoculation of animals and the preparation of immunised blood serum. Dr. Edington is visiting the Pasteur Institute and other similar institutions, in order to make himself acquainted with the details of preparation. Supplies of toxin and antitoxin have been ordered from England to serve the purpose of standard preparations. The *South African Medical Journal* states that the Government of Cape Colony is maturing a plan whereby the necessary equipment for making cultures for the bacteriological diagnosis of diphtheria will be kept at convenient stations—usually chemists' shops—throughout the Cape peninsula for the use of practitioners. After inoculation the tubes will be sent to the Bacteriological Institute at Graham's Town, where the cultures will be examined and the result telegraphed to the practitioner. The results of the working of this system in the peninsula will decide whether it shall be extended to the rest of the Colony.

United States.—In the United States a proposal has been brought forward that a National Commission be created for the investigation of the antitoxin treatment of diphtheria. The following are the terms of the resolution which has been prepared by Mr. Goldzier, member of the House of Representatives for Illinois:

Resolved, By the House of Representatives, the Senate concurring, That the Secretary of the Treasury, the Secretary of War, and the Secretary of the Navy be, and they are hereby, authorised and directed to create a commission for the investigation of the antitoxin treatment of diphtheria, said commission to be composed of not more than three officers of the medical services of each of the respective departments, which officers shall be selected for their special qualifications for such investigation, and shall serve without extra pay or emolument; that said commission shall immediately proceed to the proper localities for the necessary study and research, and shall prepare, with as much promptness as is consistent with thoroughness, a report embodying the results of their investigation, which report, upon the joint approval of the Surgeons-General of the Army and Navy, and of the Supervising Surgeon-General of the Marine Hospital Service, shall be published in a special edition of the Abstract of Sanitary Reports now published by the Treasury Department in accordance with the Act of Congress of February 15th, 1893.

The New York City Board of Health has issued a circular calling attention to the necessity of immediate steps being taken to supervise in the most careful manner the sale of diphtheria antitoxin in New York. Systematic inspection and scientific examination of the various preparations offered for sale are urged as necessary measures and in the event of fraud being discovered in the offering of preparations either spurious or of doubtful strength, it is suggested that the Board should institute criminal proceedings against offenders. Dr. T. Mitchell Prudden, Consulting Physician to the Health Department in the Division of Pathology, Bacteriology, and Disinfection; and Dr. Hermann M. Biggs, Pathologist and Director of the Bacteriological Laboratory of the Department, have been requested to prepare a plan for the determination of the strength and purity of the various preparations of antitoxin offered for sale (or hereafter to be offered) in the city of New York, so that the public may have some guarantee of the genuineness of the antitoxin.

The municipality of New York has placed a sum of 30,000 dollars (£6,000) at the disposal of the Board of Health for the application of the treatment.

The Massachusetts State Board of Health has several horses already undergoing immunisation, and expects in time to be in a position to supply considerable quantities of antitoxin. The Boston Board of Health is also "getting ready" to furnish a supply to the public institutions of the city.

At New Orleans twenty-four cases of diphtheria have been treated with antitoxin, with three deaths. The cases were not selected, but with one exception the regulation local and general treatment was vigorously carried out in all of them. In the case treated by antitoxin alone the treatment was successful.

UNIVERSITY OF TOMSK.—The number of students in the Medical Faculty in the University of Tomsk, Siberia, is at present 415. During the current semester 60 candidates have received the licence to practise medicine. Of these, 16 passed with the note "*eximia cum laude.*"

MEMORIAL TO SIR HENRY ACLAND.

THE NURSES' HOME AT OXFORD.

THE Sarah Acland Memorial Home for Nurses in Oxford was founded by public subscription in 1879 to perpetuate the name of Sarah Acland, wife of the Regius Professor of Medicine, "whose life (in the words of the first report) was adorned by rare graces and virtues, and who, though her sphere of life was wholly private and her modesty pre-eminent, was widely known and as widely revered and loved." The objects proposed by the founders of the home—which have since been successfully carried out—were to provide gratuitous nursing for the sick poor in their own homes, to supply trained nurses on reduced terms to those unable to pay the ordinary charge, as well as to those whose circumstances enabled them to pay a fixed remunerative charge.

It was expressly laid down that the administration of the charity should be free from all bias of creed or party, and that in all cases of need nurses should be supplied gratuitously or at a lessened charge, so far as the funds would allow.

At the time of the foundation of the home, donations to the amount of nearly £4 000 had been received, with promises of annual subscriptions amounting to £140 for five years. Of this sum £3,000 was invested and devoted entirely to the purposes of district nursing.

A house suitable for a small beginning was taken in Wellington Square, Oxford, to which two neighbouring houses were subsequently added. At first only one district nurse and one nurse for private cases were employed. This number soon increased, and at present there are five district nurses and twenty-eight private nurses working under a trained superintendent.

Two or three years after the institution was founded it was decided to open a Medical and Surgical Home in connection with it. The importance of such a home will be appreciated from the fact that there is no sanatorium attached either to the University or any of the colleges, and its value has been fully recognised by the governing bodies of the various colleges, who now contribute annually towards the cost of its maintenance. In 1893 79 patients were nursed in this home. During the same period 1,088 cases were also gratuitously nursed in their own homes, and nurses were supplied to 229 private cases.

The endowment of the home is so small that its efficient working depends largely upon annual subscriptions and donations, and its work is necessarily restricted by the inconvenience of the present site, and the inadequate accommodation for nurses and patients, consequent on the increased demands made upon it.

The total income of 1893 from all sources, including the earnings of the nurses, was £2,368 13s. 2d.: the expenditure, £2 430 8s. 11d.: showing (with a previous deficit) a total loss of £125 9s. 11d. Through the energies of Miss Acland, who has lately been undertaking the duties of treasurer, this sum has been paid off by the generosity of a few friends of the institution, and it is at the present time free from debt.

It is with the object of placing the home in a more secure financial position, and of extending its present usefulness, that an appeal is now made for subscriptions to a fund which it is proposed to raise as a memorial of Sir Henry Acland's work in Oxford.

The proposal to connect this memorial with the Nursing Home, decided upon by the Executive Committee, without previous communication with Sir Henry Acland, is entirely in accordance with what he would most wish. Any project for nursing the sick poor in their own homes has always received his warmest sympathy and support, and he has from its foundation taken a deep interest in the success of the institution that bears his wife's name, and the primary object of which is to provide highly trained district nurses for the poor.

AN ILLOGICAL VERDICT.

THE CASE OF DR. ALLAN, OF LASSWADE.

IT will be in the recollection of our readers that Dr. Allan, of Lasswade, near Edinburgh, was subjected to a most unwarrantable prosecution for damages by a Dalkeith labourer on the alleged ground of incompetent treatment and neglect, and that a jury returned a verdict in favour of the plaintiff, so that Dr. Allan was called upon to pay £50 and expenses. The case was rightly appealed, and as one of the appeal judges stated that "the verdict was a most illogical one," and his colleagues concurred, the original verdict was quashed. The matter was taken up by the Edinburgh Branch of the Association, and they have just issued the following circular:

Edinburgh, December 27th, 1894.

DEAR SIR,—At a largely attended meeting of the Edinburgh Branch of the British Medical Association, held here on June 28th, 1894, it was resolved:

> That the members of the Branch express their sympathy with Dr. Allan, of Lasswade, in his anxiety consequent on the recent actions in the law courts; they desire to thank him for his courage in appealing the case, by which the rights of the profession have been vindicated in the eyes of the public, and they resolve to open a subscription to defray Dr. Allan's expenses resulting from the aforesaid actions.

A Committee was appointed to give effect to the above resolution, and we beg to invite you to participate in this most laudable movement. Reference to the facts of the case will be found in the BRITISH MEDICAL JOURNAL, June 30th, 1894, p. 1445.

Subscriptions will be received and acknowledged by Dr. Underhill, 8, Coates Crescent, Edinburgh, Honorary Treasurer of the Edinburgh Branch, or by any of the undersigned.—We are, dear sir, yours faithfully,

THOMAS ANNANDALE.
T. S. CLOUSTON.
P. A. YOUNG.
R. W. PHILIP.

Already a good many subscriptions have been intimated, including 2 guineas from each of the following: Sir Thomas Grainger Stewart, Professor Annandale, Drs. Argyll Robertson, T. S. Clouston, Peel Ritchie, P. A. Young, and R. W. Philip. It is to be hoped that the profession at large will co-operate with the Branch in preventing Dr. Allan from being the loser by these two trying actions, which will now stand as test actions and judgments for future guidance.

THE MEDICAL PROFESSION, MEDICAL CLUBS, AND PROVIDENT DISPENSARIES (SO-CALLED).

WE have always contended that in all organisations, whether called provident clubs, or medical clubs, or provident dispensaries, in which that which is contracted for is skilled medical advice, the medical officers should have a controlling voice. Lay committees of would-be philanthropists have nothing whatever to do with arrangements of this kind. They are, or ought to be, in reality contracts between certain associated members of the working classes on the one side, and the medical men of the district on the other, for medical attendance in sickness at specified rates and under specified conditions. It is absurd and unbusinesslike to permit the introduction of any third person into the matter. We hear, therefore, with satisfaction that at a meeting of the medical practitioners of the West Salford Parliamentary Division, held on December 27th, 1894, at the Town Hall, Pendleton, it was resolved to take action directed to prevent the continuance of certain abuses which it is alleged have crept into the management of the Pendleton Provident Dispensary.

We are informed by Dr. Philip Gell Garrett (Albany Square, Pendleton) that the grounds of complaint have been formulated in the five following propositions:

1. This dispensary, in common with other provident dispensaries, has not fulfilled the purpose for which it was intended, the bulk of the members being well able to pay ordinary medical fees.

2. The absence of any wage limit or other standard by which the admissions can be regulated and the interests of the profession safeguarded.

3. Practically the whole management of the dispensary is in the hands of a lay committee, who only consider the financial success of the dispensary and who care nothing for the proper remuneration of the medical staff.

4. The remuneration bears no proportion to the labour and responsibility attached to the work.

5. Some of the branches of the Manchester and Salford Provident Dispensaries have recently been guilty of a most objectionable form of professional advertising.

We are informed further that the following resolution, proposed by Dr. FRASER and seconded by Dr. WOLSTENHOLME, was carried unanimously:

That the Manchester and Salford Provident Dispensary system as at present conducted is inimical to the interests of the profession, derogatory to its dignity, and unworthy of the countenance and support of medical men. That this meeting of medical practitioners, residing in the West Parliamentary Division of the borough of Salford desires therefore to record its firm conviction that the members of the staff of the Pendleton Provident Dispensary, in unanimously sending in their resignations, have consulted the best interests of the profession, and deserve the thanks of all who value its present and future welfare.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 16th day of January next, at 2 o'clock in the afternoon.

December 11th, 1894.

FRANCIS FOWKE, *General Secretary*.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on January 16th, April 17th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 28th, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election. FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

SOUTH-WESTERN BRANCH.—A special meeting of the Branch will be held at Tavistock on Thursday, January 10th, to consider the "proposed amendments of the Medical Act."—WILLIAM GORDON, Honorary Secretary, Barnfield Lodge, Exeter.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—An ordinary meeting of this District will be held on Tuesday, January 8th, at 9 P.M., at the Portsmouth Medical Library.—C. C. CLAREMONT, Honorary Secretary, 5, Pembroke Road, Portsmouth.

YORKSHIRE BRANCH.

SINCE the list of members was closed, we have been advised that the following gentlemen have joined the Yorkshire Branch: Drs. Metcalfe Sharpe, Farnley; J. E. Fishbourne, Sheffield; J. A. Carr, Kippax; J. Nightingale, Horsforth; Wm. Roulston, Wakefield; P. B. Mackay, Doncaster; R. H. Hall, Leeds; J. Holliday Naylor, Low Moor; E. J. H. Sullivan, S. Kirkby; Edwin Roberts, Leeds; W. W. S. Corry, Pickering; Jas. Marshall, Halifax; J. H. Aitken, Stanningley; W. R. Naylor, Huddersfield; J. Waddington, Bradford; H. Kershaw, Pudsey; H. M. Holt, Malton; J. J. Smithies, Clitheroe; F. F. Armitage, Rotherham; T. Horsfall, Bedale; J. C. Kershaw, New Wortley; H. H. Davies, Snainton, York; T. Johnstone, Guiseley; J. D. Kenny, Rotherham; J. C. R. Husband, Ripon; George E. Fisher, Skipton-in-Craven; and J. B. Milne, Sheffield.

BRITISH MEDICAL ASSOCIATION.

SIXTY-THIRD ANNUAL MEETING.

THE sixty-third Annual Meeting of the British Medical Association will be held in London on Tuesday, Wednesday, Thursday, and Friday, July 30th, 31st, August 1st and 2nd, 1895.

President: E. LONG FOX, M.D.Oxon., F.R.C.P., Consulting Physician to the Bristol Royal Infirmary.

President-Elect: Sir J. RUSSELL REYNOLDS, M.D., Bart., F.R.C.P., F.R.S., President of the Royal College of Physicians.

President of the Council: J. WARD COUSINS, M.D.Lond., F.R.C.S., Senior Surgeon to the Royal Portsmouth Hospital.

Treasurer: HENRY TRENTHAM BUTLIN, F.R.C.S., D.C.L., Surgeon to St. Bartholomew's Hospital, E.C.

An Address in Medicine will be delivered by Sir WILLIAM BROADBENT, Bart., M.D., F.R.C.P., Physician-in-Ordinary to H.R.H. the Prince of Wales.

An Address in Surgery will be delivered by ARTHUR EDWARD DURHAM, F.R.C.S.Eng., Surgeon to Guy's Hospital.

An Address in Physiology will be delivered by EDWARD ALBERT SCHAFER, F.R.S., Jodrell Professor of Physiology, University College.

The Scientific Business of the Meeting will be conducted in Fifteen Sections, as follows, namely:

A. MEDICINE.—*President:* F. W. PAVY, M.D., F.R.S. *Vice-Presidents:* Sir FREDERIC BATEMAN, M.D.; D. W. FINLAY, M.D.; W. S. CHURCH, M.D.; J. W. MOORE, M.D.; STEPHEN MACKENZIE, M.D.; E. MARKHAM SKERRITT, M.D. *Honorary Secretaries:* WILLIAM COLLIER, M.D., St. Mary's Entry, High Street, Oxford; W. P. HERRINGHAM, M.D., 13, Upper Wimpole Street, W.; Sir HUGH R. BEEVOR, M.D., 18, Serjeant's Inn, Fleet Street, E.C.

B. SURGERY.—*President:* Sir WM. MAC CORMAC, F.R.C.S. *Vice-Presidents:* T. BRYANT, F.R.C.S.; C. N. MACNAMARA, F.R.C.S.; REGINALD HARRISON, F.R.C.S.; A. WILLETT, F.R.C.S.; Sir W. STOKES, M.D.; MAYO ROBSON, F.R.C.S. *Honorary Secretaries:* J. D. HARRIS, M.R.C.S., 45, Southernhay, Exeter; J. BLAND SUTTON, F.R.C.S., 48, Queen Anne Street, W.; A. MARMADUKE SHEILD, F.R.C.S., 4, Cavendish Place, Cavendish Square, W.

C. OBSTETRICS AND GYNÆCOLOGY.—*President:* Sir WM. PRIESTLEY, M.D. *Vice-Presidents:* A. R. SIMPSON, M.D.; J. WATT BLACK, M.D.; Sir FRANCIS LAKING, M.D.; J. KNOWSLEY THORNTON, M.B.; W. J. SINCLAIR, M.D.; M. HANDFIELD-JONES, M.D. *Honorary Secretaries:* W. S. A. GRIFFITH, M.D., 114, Harley Street, W.; A. H. F. BARBOUR, M.D., 4, Charlotte Square, Edinburgh; W. R. DAKIN, M.D., 57, Welbeck Street, W.

D. PUBLIC MEDICINE.—*President:* ERNEST HART, D.C.L. *Vice-Presidents:* J. SPOTTISWOODE CAMERON, M.D.; C. H. W. PARKINSON, M.R.C.S.; WM. COLLINGRIDGE, M.D.; LOUIS C. PARKES, M.D.; P. BOOBBYER, M.D.; JOHN C. THRESH, M.D. *Honorary Secretaries:* C. E. PAGET, M.R.C.S., Town Hall, Salford; REGINALD DUDFIELD, M.B., Sanitary Department, Vestry Hall, Harrow Road, Paddington, W.; F. W. CLARK, M.B., Lowestoft.

E. PSYCHOLOGY.—*President:* W. J. MICKLE, M.D. *Vice-Presidents:* G. H. SAVAGE, M.D.; T. CLAYE SHAW, M.D.; D. NICOLSON, M.D.; HENRY RAYNER, M.D.; J. G. MCDOWALL, M.D.; LIONEL A. WEATHERLY, M.D. *Honorary Secretaries:* JAMES CHAMBERS, M.D., 99, Harley Street, W.; T. SEYMOUR TUKE, M.B., 37, Albemarle Street, W.; JAMES TAYLOR, M.D., 34, Welbeck Street, W.

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G. Anatomy and Histology.—*President:* Henry Morris, F.R.C.S. *Vice-Presidents:* A. Macalister, M.D., F.R.S.; W. J. Walsham, F.R.C.S.; A. H. Young, F.R.C.S.; B. C. A. Windle, M.D.; G. H. Makins, F.R.C.S.; A. W. Hughes, F.R.C.S. *Honorary Secretaries:* F. G. Parsons, F.R.C.S., St. Thomas's Hospital, S.E.; C. B. Lockwood, F.R.C.S., 19, Upper Berkeley Street, W.

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L. Pharmacology and Therapeutics.—*President:* Sir William Roberts, M.D., F.R.S. *Vice-Presidents:* J. Talfourd Jones, M.B.; T. Lauder Brunton, M.D., F.R.S.; J. Mitchell Bruce, M.B.; W. Hale White, M.D.; Donald Mac Alister, M.D.; M. McHugh, M.B. *Honorary Secretaries:* Vaughan Harley, M.D., 25, Harley Street, W.; W. Soltau Fenwick, M.D., 10, Devonshire Street, W.

M. Laryngology.—*President:* Felix Semon, M.D. *Vice-Presidents:* Sir Philip Smyly, M.D.; W. Macneill Whistler, M.D.; F. de Havilland Hall, M.D.; Greville Macdonald, M.D.; Scanes Spicer, M.D.; A. W. Sandford, M.D. *Honorary Secretaries:* J. Middlemass Hunt, M.B., 55 Rodney Street, Liverpool; St. Clair Thomson, M.D., 28, Queen Anne Street, W.; E. B. Waggett, M.B., 66, Park Street, Grosvenor Square, W.

N. Dermatology.—*President:* H. Radcliffe Crocker, M.D. *Vice-Presidents:* McCall Anderson, M.D.; Malcolm Morris, M.R.C.S.; J. J. Pringle, M.B.; Wm. Anderson, F.R.C.S.; H. A. G. Brooke, M.B. *Honorary Secretaries:* J. Herbert Stowers, M.D., 41, Finsbury Square, E.C.; Jonathan Hutchinson, Jun., F.R.C.S., 15, Cavendish Square, W.

O. Ethics.—*President:* W. F. Cleveland, M.D. *Vice Presidents:* Thomas Bridgwater, M.B.; J. Hughes Hemming; D. B. Balding, F.R.C.S.; C. Parsons, M.D.; W. H. Axford, M.B.; A. Dempsey, M.D. *Honorary Secretaries:* Major Greenwood, M.D., LL.B., 243, Hackney Road, N.E.; T. F. Pearse, M.D., 12, Norfolk Street, Southsea; Hugh Woods, M.D., 11, Archway Road, Highgate, N.

Honorary Local Secretaries:

Andrew Clark, F.R.C.S., 71, Harley Street, W.
Isambard Owen, M.D., 40, Curzon Street, W.

Honorary Local Treasurer:

George Eastes, M.B., F.R.C.S., 35, Gloucester Terrace, Hyde Park, W.

Programme of Proceedings.

Tuesday, July 30th, 1895.

9.30 A.M.—Meeting of 1894-95 Council.
2.30 P.M.—First General Meeting. Report of Council. Reports of Committees; and other business.
9.0 P.M.—Adjourned General Meeting from 2.30 P.M. President's Address.

Wednesday, July 31st, 1895.

9.30 A.M.—Meeting of 1895-96 Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine. Any business adjourned from First General Meeting at 2.30 previous day.

Thursday, August 1st, 1895.

9.30 A.M.—Meeting of Council.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery.
7.30 P.M.—Dinner of the Association.

Friday, August 2nd, 1895.

10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Concluding General Meeting. Address in Physiology.

SPECIAL CORRESPONDENCE.

BERLIN.

Conclusion of the Discussion on Diphtheria Antitoxin.

A certain reaction from the excited interest with which the discussion on diphtheria antitoxin had been followed on the two previous evenings was noticeable when the discussion was resumed on the final evening. Julius Ritter, the bacteriologist, was the first speaker. His arguments followed those of Hansemann, and the addition of carbolic acid to the serum he pronounced dangerous. Dr. E. Meyer, Assistant at the University Clinic for Diseases of the Throat, said that in numerous cases of rhinitis fibrinosa he had found the Loeffler bacillus. Professor E. Hahn, Director of the Municipal Friedrichshain Hospital, said that from the year 1880 up to the end of November, 1894, his hospital had had 4,571 cases of diphtheria. During the first years the number of cases had only been about 180 or 190 a year; this year the number would reach about 600. At first the hospital had a diphtheria mortality of 54 per cent., but of late years it had been reduced to 38 per cent., and the years 1888 and 1889 only showed 32 per cent. and 33 per cent. respectively. In this year, from February up to November 22nd he had had 430 cases of true diphtheria, with 33 per cent. deaths. Of these 430 cases, 205 had been treated with serum; of these only 24 per cent. had died, but it should not be forgotten that during the first few months only cases that did not seem hopeless had been treated with serum. Afterwards all the diphtheria cases had been so treated. He had not noticed disagreeable after-effects, with the exception of erythema. He thought the result might be more satisfactory if the treatment were begun early enough in every case. At present the cases brought to the hospital were generally two or three days old. Dr. Hans Aronson gave an account of his observation of horses who had undergone the injection of the Loeffler bacillus culture. He had observed subsequent paralysis of the heart and the extremities similar in every respect to those following human diphtheria. He said that, where the therapeutic action of the antitoxin was not apparent, the doses given had probably been too small. Dr. Schiemmann warned general practitioners against employing the antitoxin, which he said should be left to the hospitals for the present. Professor O. Liebreich, director of the Pharmacological Institute of the University, criticised the published serum statistics. He said that the Berlin hospitals had always had a much higher percentage of deaths from diphtheria than the Berlin town practice. This was of course because, broadly speaking, only serious cases were brought to the hospitals. But since the introduction of the serum treatment, a far greater number of cases—and cases of all sorts—had been brought to the hospital, and so it was quite natural that the percentage of deaths had fallen considerably. He considered the serum treatment to be based on fallacies very similar to those which had formed the foundation of the tuberculin treatment. It would be interesting to find out, he added, what action on the organism injection of pure indifferent serum would have. Dr. Hansemann, in a few last words, stood to his view that antitoxin is not to be regarded as a specific for diphtheria.

PARIS.

Chemists and Carbolic Acid Dressings.—The Out-patient Department at the Parvis Nôtre Dame.—First Aid in the Bois de Boulogne.—General News.

DR. LAUGIER, Physician to the Maison de Nanterre, writes to the Academy of Medicine calling attention to the dangers of carbolic acid dressing. Dr. Laugier gave evidence in a recent action brought against a chemist for gangrene of a finger resulting from the use of carbolic acid prepared and recommended by him. He has met with three cases of gangrene of the fingers caused by carbolic acid dressings continued for too long a time. In two cases damages were claimed. Dr. Laugier urges that chemists should be forbidden to furnish customers without a medical prescription with carbolic acid in a stronger solution than 1 in 1000. When chemists are called upon to dress temporarily a patient, Dr. Laugier recommends boric acid solution.

After April 1st, 1895, the out-patient free consultation held at the Parvis Nôtre Dame will be no longer given. These consultations will be replaced by other central consultations for every district. Special medical men, appointed by the Assistance Publique, will examine and prescribe for the patients. Hitherto it has been nominally hospital surgeons and physicians who have treated the hospital out-patients, but the work was really done by the *internes*. The out-patients at the hospitals were frequently, after a long journey, and, invariably, after patiently waiting many hours, cavalierly sent off to the Parvis Nôtre Dame.

The Municipal Council has voted £80 to Dr. Ramonat's Accident Organisation. In the Bois de Boulogne accidents occur often. Dr. Ramonat has organised *Postes de Secours* in the Bois, where cases of accident are temporarily attended by the keepers of the Bois. In order to fit them for these duties Dr. Ramonat organised lectures, and his efforts have been crowned with success. A patient dressed by one of the Bois keepers was taken to a hospital, and the *chef* asked: "What *confrère* had applied that excellent dressing?"

A certain number of midwives have succeeded in being registered pupils at different maternity hospitals before reaching the age of 19, the regulation age. The administration has decided that the scholastic curriculum will be reckoned only after the age of 19, even if the midwifery pupils enter sooner.

The heirs of M. Adolphe Cruse have given to the Bordeaux Municipal Council £24,000 for the purpose of adding forty beds to the asylum for aged persons. This sum was bequeathed in a former will but omitted in the last made just before his death. His heirs, nevertheless, generously carry out what they believe to have been the intention of the testator.

The Philanthropic Society has organised dispensaries which furnish indigent patients with free medical help and drugs. Those unable to attend the dispensaries are attended at their own homes.

CHICAGO.

A "Summer" School of Medicine.—Evening Medical Schools.—Impure Bread.—The Antitoxin Treatment.—Dr. Godfrey Dyas.—Actinomycotic Cattle.

CHICAGO now enjoys an innovation in the possession of a "summer school of medicine," an institution designed to take up the teaching of medicine in the early spring months and carry it along until the regular schools open in the fall of the year. It is thought there is a certain class of students who follow an occupation during the winter, which prevents their giving the proper time to studies. It is again thought there are some now attending the regular winter schools who would prefer to remain the entire year under continued teaching rather than leave the city during the warm months; and it is further believed there are certain lagging ones who could be taken in hand during the summer and prepared for the exacting demands of the full curriculum. With the winter schools, the evening schools—of which there are two—and the new summer school, the convenience of almost any aspirant appears to be satisfied.

Mention of the evening medical schools brings up a question of their usefulness. They are not qualified to issue diplomas, and it is doubtful if they will be able to furnish such a course as will entitle them to recognition by the State authorities. They are patronised by clerks and others having some occupation for livelihood during the day hours, yet who are fired by an ambition to enter the medical profession. For these, and, indeed, for all others, the evening medical school should be, and should aim to be, no more than a preparatory school, wherein a student may lay the foundation, and possibly receive some credit, for the work that is to come when he is able to enter a fully qualified college and give his whole attention to professional study. Beyond this influence and assistance it does not seem the night school can advance, and if up to this point they are well conducted and honest, an encouragement may be given.

The Health Department has taken up the matter of impure bread, the product of insanitary and unquestionably dirty bakeries. A crusade has been started, and a purification is promised. The large bakeries are generally clean, and court inspection, but the small shops in the thickly populated, unhealthy parts of the city certainly come under grave suspicion.

The diphtheria antitoxin is just coming to be experimented with here, it having been, until recently, impossible to obtain the serum. Reports from New York, Philadelphia, and the European centres have, however, been carefully watched, and comparative results will soon be in order.

Dr. W. Godfrey Dyas, one of the oldest practitioners in the city, and still in office and consultation practice notwithstanding his 87 years, has recently been seriously ill, though now quite convalescent. Dr. Dyas is a very well preserved man, both physically and mentally. He is a graduate of Trinity College, Dublin, and a Fellow of the Royal College of Surgeons of Ireland; indeed, so far as he is aware, is the senior Fellow thereof. Dr. Dyas has long occupied a highly honourable position in the local profession, and the knowledge of his recovery comes as pleasant news to a host of friends.

A statement of much importance to the health of the community is embodied in the annual report of the State Board of Live Stock Commissioners just issued. Since July 23rd, 1894, a thorough system of inspection for actinomycosis has been in operation at the Union Stock Yards of Chicago, and from the date above mentioned to the time of making the report, namely, fourteen weeks, 2 313 head of suspected cattle were examined; 1,460 were passed in the yards, and 853 were slaughtered, while 622 were condemned as unfit for food. The report goes on to say that there is no question that many cattle in the State are affected with tuberculosis. Investigation of herds have been made, and a per cent. (varying) were found affected. In the *post-mortem* examination of actinomycotic cattle, since July 23rd, 1894, 48 cases of tuberculosis have been discovered. Texas fever, glanders, and anthrax have developed in isolated instances, but strict quarantine and quick disposition of the affected stock has prevented any spread of the diseases.

CORRESPONDENCE.

AN ORIGINAL MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—In the BRITISH MEDICAL JOURNAL of December 22nd, 1894, you have a short notice of some of the old men of medicine. As I, in a moderate degree, belong to this class, it has occurred to me to write you a few lines of autobiography.

I am in the 89th year of my age, with very tolerable general health, but not free from some of the defects of old age and decay. I began my medical studies in March, 1822 a few months before I was 16 years of age, as a house pupil or apprentice at the Bristol Infirmary. I began general practice in May, 1829. From that time I was a very hard-worked country general practitioner, and from August, 1830, surgeon to the Taunton and Somerset Hospital. I had especially a large midwifery practice, mostly in country districts. I retired from general practice at the age of 70 in the year 1876, my health failing from overwork and nervous exhaus-

tion. I have had several severe attacks of acute disease in the course of my life, especially one very severe attack of typhoid, which was nearly fatal, in the 12th year of my age, from the effects of which I have still a cicatrix from bedsores on the lower part of my back.

As far as I myself know my mental faculties are as clear and distinct as ever, except some weakness or loss of memory for recent facts and events. One evidence of my mental powers is the fact that since I retired from practice I have employed myself at intervals in drawing up what I call annals of my life, for the information or amusement of my children and numerous grandchildren. These annals now amount to several volumes. I have never written anything for publication except reports of a few cases in the medical journals; I never had any leisure for writing whilst I was in practice.

I have been a member of the British Medical Association from the time it was first established in 1831 as the Provincial Medical and Surgical Association, and I attended the first anniversary meeting, which was held at Bristol, in the committee room of the Bristol infirmary, Dr. Carrick, of Clifton, the Senior Physician of the Infirmary, being President. The meeting was only for one day, and there were no sectional meetings.—I am, etc.,

Henry Alford F.R.C.S
L.R.C.

Taunton, Dec. 26th, 1894.

CASTRATION AS A TREATMENT FOR HYPERTROPHIED PROSTATE.

Sir,—The evidence summarised in my communication (p. 12) obviously and amply justifies the suggestion made by me last year. It was not made without hesitation. Having observed with disapprobation the undiscriminating assaults of some extremists upon the urethra, the tubes, and ovaries, and, more recently, upon the appendix, I did not want to be responsible for a similar attack upon the testicles. I therefore took pains to say that I had as yet arrived at no definite conclusions, but was still seeking further light on the subject, knowing that the step from experiment to operation is, and should be, a long one, and feeling the responsibility involved in proposing a new operation, especially one of this character—easy of performance, with a low mortality, and intended for the relief of a condition of enormous frequency. This appears to me to have been a proper attitude, but Mr. Mansell Moullin has recently twice gone to the trouble of calling attention to the way in which I introduced the operation, each time coupling his remark with the statement (made by him once before) that he suggested it to a patient in November, 1892. If his motive for this thrice repeated assertion is the apparent one of a claim of priority of thought it would be easy for me to establish the fact that I told Dr. John S. Billings, of Washington, of my views on the subject in the early summer of 1892, and that I outlined my experiments and instructed my assistants in regard to them in October of the same year. This would antedate both Mr. Moullin's "suggestion" and Ramm's operations. But these are puerilities. I believe that the surgeon who, before submitting his patients to a hitherto untried operative procedure, seeks the criticism of his colleagues occupies a sounder position than he who, with neither experimental evidence nor professional backing, bases his advice on what, in this instance, must have been little better than guesswork. As I have already said, I have no wish to claim operative priority; but I would like to be credited with having been the first to undertake a series of experiments to determine the effect of castration on the prostate, and the rapidity of that effect, with a view to the therapeutic value of the operation; and then with having, with what still seems to me proper caution, presented for the first time the whole subject to the profession with the evidence upon which my suggestion was based. The operation appears to have come to stay, and, in view of the wide field which it may some day occupy, it is not unnatural that I should desire to have my relation to its introduction and adoption kept straight as a matter of record.—I am, etc.,

Philadelphia, Pa., Dec. 1st, 1894. J. William White.

CISTERNS AND DOMESTIC WATER SUPPLY.

Sir,—In No. 1772 of the British Medical Journal, at p. 1405, I see that the same unsatisfactory results of the drinking of water from cisterns have been seen in England as in some places of the Netherlands. A good water supply from a source that cannot get contaminated is of course the best plan for a community. Where that can be obtained, I quite agree with Mr. Chapman, that it is safer to draw the water straight from the main service pipe, instead of storing it up in the cistern. But that cannot be obtained everywhere. In some cases, where the cistern—in rural communities—had to be filled by the rainwater, in my former position as assistant medical inspector of the province North Holland, I made the suggestion to filter the rainwater before it reaches the cistern. By a very simple construction, a filtering process through gravel and sand can be had at small cost, and the cleansing of the cistern, a rather costly thing, can then be dispensed with. Dead animals, leaves, and a considerable quantity of mud are easily removed from the preliminary filter apparatus.

I think that it is a better plan to avoid contamination of the cistern water as far as possible than to let it get foul and then to filter it.—I am, etc.,

Dr. R. H. Saltet,
Amsterdam, Dec. 21st, 1894. Health Officer of Amsterdam.

AXILLARY CANCER.

Sir,—I think Mr. Paul is rather unreasonable in deprecating comment on his interesting case, because there has been no opportunity of examining his specimens. Surely the sole *raison d'être* of publication is to make known the fundamental facts to those who have not had this opportunity. In ascribing the origin of the neoplasm in his case to such an ill-defined entity as an "axillary lump," Mr. Paul has imported into the discussion an unnecessary element of obscurity. As hitherto usually employed, this term has been applied to at least three perfectly distinct anatomical structures:

(1) Hypertrophied sebaceous follicles secreting lactescent fluid during lactation.

(2) Hypertrophied quasi-sweat glands (Sappey), secreting lactescent fluid during lactation.

(3) Hypertrophied subcutaneous axillary mammary sequestrations, which during the puerperal state often discharge milk through minute pores

The question at issue really is from which of these three kinds of structure did the tumour arise? I think the indications point clearly to the last named. Mr. Paul has advanced nothing of importance against this view.—I am, etc.,

Preston, Dec. 29th, 1894. W. Roger Williams.

ANTIPYRETICS IN PNEUMONIA.

Sir,—In the interesting article upon Antipyretics in the British Medical Journal of December 22nd, 1894, the need of caution was pointed out in their use in typhoid fever, diphtheria, and pneumonia. The value of antipyretic drugs in typhoid fever was ably discussed at the last annual meeting of the British Medical Association, and the general opinion was greatly adverse to their administration. If considered useless in typhoid fever, antipyretic drugs cannot but be dangerous in diphtheria and pneumonia, where the temperature is of so small importance and the tendency to cardiac failure so great.

That in pneumonia the cause of the pyrexia, not the pyrexia itself, is responsible for serious symptoms was well shown by a case in the Bristol General Hospital in 1893. A man, aged 28, was ordered 3 grains of phenacetin by one of the residents, on the sixth day of his illness, for a temperature that had risen above 104° F. During the next sixteen hours the temperature fell to 97°, and towards the end of that time the patient became noisily delirious and his pulse irregular.

One can hardly believe that so small a dose of phenacetin

was responsible for the complete reduction of the pyrexia, but whether or not such was the case the noteworthy fact remains that marked delirium was present in a patient with pneumonia while the temperature was at 97°. The delirium continued as the temperature rose the same evening, but disappeared as it again fell early the next day at the onset of the crisis of the disease. If delirium and irregular pulse can exist in pneumonia with a temperature of 97°, obviously pyrexia and serious symptoms are not synonymous terms. The toxins that produce cerebral disturbance and cardiac weakness also give rise to fever, but they can injuriously affect the centres of vital activity without the aid of a high temperature.

A fatal ending is not due to the raised temperature. Any patient previously in good health could withstand for seven or eight days a temperature between 102° and 105°. Neither is it due to the cutting off of a large breathing area, since in the large majority of instances as soon as the crisis occurs the patient is out of danger, in spite of the fact that the affected portion of lung remains for several days after as useless as before. Death is due chiefly to the action of toxins upon the heart. The cyanosis of the later stages of pneumonia does not in the main indicate the deleterious effect of lung consolidation upon the pulmonary circulation; it points rather to cardiac failure, due to the action of poisons upon the heart muscles. Very shortly after these toxins cease to be produced the heart recovers sufficient strength to force the blood rapidly enough through the unaffected portions of lung to secure average oxygenation, and the cyanosis disappears.

At present pneumonia antitoxins do not appear to have been successful, and we are left without any scientific and reliable method of treatment. In the absence of any such method it behoves us to be careful not to run the risk of diminishing the patient's powers of resistance to the disease by the administration of powerful drugs.—I am, etc.,

Clifton, Bristol, Dec. 22nd, 1894. THEODORE FISHER.

MEDITERRANEAN FEVER.

SIR,—In the ninth edition of Roberts's *Practice of Medicine* I see a special account of Mediterranean fever has been given under the head of Miscellaneous Diseases. I would therefore plead for a special place for this disease in the *Nomenclature of Diseases*. I do not think it necessary to wait till the whole entity of this affection is recognised, for at present it may be returned under the head of Simple Continued Fever, or Remittent Fever, and so help to swell the number of these affections unfairly. I would suggest that on page 7, par. 17 of the *Nomenclature of Diseases*, Typho-malarial Fever be erased and Mediterranean Fever substituted.

The number of cases from Mediterranean fever—shown in official returns—could then be bracketed under the heading of Enteric Fever, but would still be kept separate. The strong resemblance between enteric fever and Mediterranean fever is now generally recognised.—I am, etc.,

December 26th, 1894. MELITA.

SUPPOSED EXCEPTION TO COLLES'S LAW.

SIR,—Mr. Albert Lucas has, by quoting one sentence of my letter and suppressing the rest, made me appear to agree with him that his quoted case is an exception to Colles's law. I can only reiterate that I quite fail to see that Mr. Lucas has produced any satisfactory evidence to prove that the child was suffering from hereditary syphilis, and I may further state that I do not believe that up to the present a case has been quoted which upon thorough investigation has proved an exception to the above law. In the recently issued edition of Mr. Alfred Cooper's work on *Syphilis* we have fully dealt with this question and discussed the weak points in some of the principal recorded cases.—I am, etc.,

West Halkin Street, S.W., Dec. 24th, 1894. EDWARD COTTERELL.

SIR,—Before joining in the discussion on Mr. Lucas's case I have awaited his reply to the criticisms upon it. Although the details he furnishes of an important case are exceptionally meagre, I can see no inherent impossibility of its being one of congenital syphilis, notwithstanding the high authority of Mr. Hutchinson to the contrary. If we are to summarily class every instance of syphilis in an infant as undoubtedly belonging to the acquired variety merely on the grounds of a faulty family history and that no symptoms had been observed before the age of six months by a hospital mother, then acquired infantile syphilis would be far from a rarity.

I suppose that I may take it that my own is one of the "several other narratives of supposed exception to Colles's law" alluded to by Mr. Hutchinson. It was published in much detail in the *Lancet* of June last, and so fully and ably discussed by Dr. George Ogilvie, the weight of whose criticism I freely acknowledge, that I feel any further lengthy allusion to it here unnecessary. I may perhaps claim for it that it stands on a surer basis than the one recorded by Mr. Lucas. In it there was a history of snuffles and rash on the buttocks at a few weeks old—a combination that, taken with the later symptoms, affords every ground for the assumption of a syphilitic manifestation. It was seen by perhaps a dozen qualified observers, three or four of whom had had exceptional experience in infantile syphilis, and by no one of them was any doubt thrown upon my interpretation of the case. The infant then had every prominent symptom of congenital syphilis, and it might have been painted as an absolutely typical example of the complaint.

After my paper, too, was written and sent off to the *Lancet*, another case of syphilis presented itself at the Shadwell Children's Hospital, under one of my colleagues, that seemed to throw additional light on my one. This case was one of a little girl with secondary syphilis and a chancre of the vulva, who came from the same house as my infantile patient. From what I gathered from Dr. Ware, then resident medical officer, this latter case threw grave doubts on the history furnished to me about my own, and tended to confirm what I had deduced on clinical symptoms only. For obvious reasons I cannot give details, nor can I claim undoubted proof for my case from them, for undoubted proof in the matter would have compelled the moral necessity of the institution of criminal proceedings on the part of the hospital authorities. Enough, however, was inferred to prove that, as regards the denial of syphilis by the hospital class, had a certain psalmist lived in these latter days, he need not have tendered any apology for explosive haste in pronouncing on the mendacity of his fellow beings.

That infants occasionally acquire syphilis by accident goes without saying. But accidental syphilis is rare enough in adults, and as infants are exempt from the usual sources of inoculation, such as drinking vessels, pipes, foul shaves, etc., it is evident that examples of it should be still rarer in them. My own experience of infantile acquired syphilis is limited to seven or eight cases, but even this number I consider an exceptionally large number for a single observer. The whole point at issue in the discussion turns upon the possibility of differentiating between the symptoms in the acquired and congenital forms. In my own cases I had no difficulty in this respect, and although a congenital case may assume some of the aspects of an acquired one, I repeat my disbelief in the symptoms of the latter so closely assuming those of the typical ones of the former as to lead to any confusion. If, however, the symptoms in the two varieties are so identical as to be practically indistinguishable, then it is incumbent on the preachers of the universality of Colles's doctrine to furnish evidence of a primary sore or source of infection in every case they publish of the acquired form. The mere fact of an infant having been vaccinated, along with a defective family history and a tardy notice of any symptom, will not now suffice.—I am, etc.

Upper Berkeley Street, Jan. 1st. J. A. COUTTS.

ASSOCIATION OF QUALIFIED ASSISTANTS, JUNIOR MEDICAL OFFICERS, AND *LOCUM TENENTES*.

SIR,—I shall be pleased to receive the names of gentlemen who are favourable to the formation of such a society, stating their views on the subject, also giving their qualifications and addresses, so that I shall be enabled to ascertain whether such an association as the above would meet with the approval and co-operation of a sufficient number to warrant my calling a meeting in London to consider and thoroughly discuss this new departure in all its important bearings.

Personally I think such an association rightly managed might do an immense amount of good and useful work, and

would be the most powerful instrument for detecting and ultimately eradicating the shameful practice of employing unqualified men as medical assistants—a practice unjust to qualified men, degrading to the best interests of our noble profession (should be), and an imposition on the public at large.—I am, etc.,

T. Howard Brocklehurst, M.R.C.S.Eng

1, Ilchester Villas, Westham, Weymouth, Dec. 26th, 1894.

NAVAL AND MILITARY MEDICAL SERVICES.

PARKES MEMORIAL PRIZE.

The subject of the next triennial award is "The Etiology, Prevalence, and Prevention of Diphtheria." The prize consists of a bronze medal and a sum of 75 guineas. The competition is open to executive officers, on full pay, of the Navy, Army, and Indian Medical Services, except assistant professors at Netley, who are not eligible to compete during their tenure of those appointments. Essays should reach the Secretary, Parkes Memorial Committee, Royal Victoria Hospital, Netley, on or before December 31st, 1897.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A Surgeon-Major serving in the Punjab whose tour expires in August next is open to an exchange in India with a Surgeon-Major having a year or eighteen months longer to remain in the country. Address Medical Officer, i c Section Hospital, Meean Meer, Punjab, India.

THE NAVY.

Staff-Surgeon C. L. Vasey has been promoted to be Fleet-Surgeon, December 18th, 1894. He was appointed Surgeon, September 30th, 1873, and Staff-Surgeon twelve years thereafter.

INDIAN MEDICAL SERVICE.

Brigade-Surgeon-Lieutenant-Colonel William Roe Hooper, of the Bengal Establishment, has been appointed by the Secretary of State for India to be President of the India Office Medical Board on the retirement of Sir Joseph Fayrer, K.C.S.I. Brigade-Surgeon-Lieutenant Colonel Hooper entered the Indian Medical Service in 1859, and in 1891 was appointed Civil Surgeon and Superintendent of the Lunatic Asylum at Lucknow, which post he now relinquishes.

Surgeon-Lieutenant-Colonel A. H. Seaman, M.B., Bengal Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from October 22nd. He was appointed Assistant Surgeon October 1st, 1869; and Surgeon-Lieutenant-Colonel from October 1st, 1889. He served in the Afghan war in 1879-80 (medal), with the Burmese expedition in 1885-86, including the capture of Minhla (medal with clasp), and with the Lushai expedition in 1889 as Principal Medical Officer to the force (mentioned in despatches).

Surgeon-Lieutenant Colonel T. C. H. Spencer, Madras Establishment, is permitted to retire from the service from December 31st. His commission as Assistant Surgeon dates from October 1st, 1869, and that of Surgeon-Lieutenant-Colonel from October 1st, 1889.

Surgeon-Lieutenant B. G. Seton, Bengal Establishment, in charge of No. 16 Native Field Hospital, Waziristan Delimitation Escort, was slightly wounded in an attack on the enemy's towers in the village of Karam, near Kaniguram, on December 22nd, 1894.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant-Colonel C. S. Hall, having resigned his volunteer appointment, ceases to be an officer of the Army Medical Reserve December 29th, 1894.

Surgeon-Major James Creagh is promoted to be Surgeon-Lieutenant-Colonel December 29th, 1894.

Surgeon-Captains Samuel B. Mason, George Middlemiss, M.D., Francis L. Stephenson M.B., and William S. Symes, are promoted to be Surgeon-Majors; and Surgeon-Lieutenant Walter K. Loveless to be Surgeon-Captain December 29th, 1894

Surgeon-Lieutenant Charles C. Moxon, 2nd Volunteer Battalion the York and Lancaster Regiment, to be Surgeon-Lieutenant December 29th, 1894.

THE VOLUNTEERS.

Surgeon-Major E. F. Hall, M.D., 2nd Lancashire (the St. Helens) Artillery, is promoted to be Surgeon-Lieutenant-Colonel, January 2nd.

Mr. William Langran is appointed Surgeon-Lieutenant to the 3rd Volunteer Battalion the Devonshire Regiment, January 2nd.

THE CASE OF SURGEON-MAJOR SMITH.

The *Pioneer* publishes a despatch from the Secretary of State for India to the Madras Government on this lamentable case. in it Mr. Fowler refuses to allow Surgeon-Major Smith to complete service to July, 1895, in order to qualify for pension, but orders his immediate removal on a "compassionate allowance equal in amount to the half-pay of his rank." This stern decision is said to be based on "facts and representations" placed before the Secretary. But the *Pioneer* naturally asks: What are they? "Was Mr. Fowler aware when he wrote his despatch that Dr. Smith had never been informed of the actual charges made against him? If he was, how could he tell how much was 'fact' and how much was 'representation' in the Madras communication?" That is the question. Is a man to be condemned and ruined without due formality of investigation? We fear this case throughout has been enveloped in a mist of mere "moral hysterics" in which the thread of level-headed administration has been lost.

CIVILIAN BUNGLING OVER ARMY MEDICAL TITLES.

A correspondent sends us a copy of a telegram he lately received in which he is addressed Serjeant instead of Surgeon-Major; indeed, that is now quite a venerable blunder, for which there may be some excuse as being a somewhat natural muddle over another well known title; but what excuse can there be for Serjeant-General, which was addressed to a worthy Surgeon-General lately?

IMPUDENCE AND ABUSE.

An army medical officer lately had occasion to pass a young soldier as fit for foreign service, and immediately afterwards received a letter from a person purporting to be his mother, which for downright impudence is unique. It hails from Ireland, and is a wretchedly illiterate production from a lady who says, "I was not trained in a college, but am a doctoress by profession, and there is not a doctor that could tell me better than I know myself." She wants to know how any medical man could have passed "my dear boy suffering from cronic Bronchitis; indeed, he is more Dead than alive, and you would be doing your right duties were you to order him into hospital;" further, "he will never live the voyage out, and my life will go to, so that there will be double crime to answer for. I do not think think the Zulus would be guilty of such an act," etc. She finally expresses a hope she will get a "satisfactory" answer, or, of course, she will know the reason why. It is needless to say there were no real grounds for such a wild effusion; but, as our correspondent points out, this letter indicates how little real respect is accorded to the army medical officer—the result of the unfair and disparaging treatment he is constantly receiving at the hands of men who ought to be his comrades in the service.

THE ROYAL VICTORIA HOSPITAL, NETLEY.

This hospital is now undergoing considerable repairs recommended by the Army Sanitary Committee. There have been, it is reported, a number of cases of erysipelas in the surgical division, which led to inquiry by a Board. New flooring has been recommended; and it is stated that a sum of some £20,000 or more is to be spent in executing repairs and remedying defects during the next few years. A new water supply system is also in action, the water being supplied by the South Hants Water Company. This supply is a great improvement on the old one. The production at the Netley Hospital of antitoxin is also in swing, under Professor Wright's direction. Two horses have been handed over, and the necessary operations are in course of completion.

DENTISTRY IN THE ARMY.

A. M. S. writes: Candidates for the Army Medical Staff are required to produce a certificate of having gone through an ophthalmic course. I would suggest that a course of dentistry should also be considered necessary. In the recruit the soundness of the teeth is a very important point in view of the possibility of the soldier having to masticate "bully beef" and hard biscuits. There can be no doubt that in every campaign a certain amount of illness is directly caused by malassimilation through defective teeth. Extraction of a bad tooth is now the only resort, but we are now approaching the time when specialism in dentistry will be required of the army medical officer. I do not advocate the appointment of dental surgeons, which could only be carried out at the largest military stations, but of special training of the ordinary medical officer in dentistry.

*** It would be futile to demand specialism either in ophthalmic or dental science in the ordinary army medical officer; he should certainly be able to verify or refute real or pretended defective vision but can no more be an expert in mechanical dentistry than the general practitioner. To the recruiter the condition of the teeth is undoubtedly important, but it is impossible to lay down hard and fast rules as to the dental defects that shall disqualify: the question is properly left to the judgment of the examining medical officer. From what we can learn, however, inexperienced recruiters are apt to be too exacting in the matter of teeth, especially in urban recruits. Even unsound teeth in young subjects, as dentists know, are likely to last a certain number of years, probably quite as long as the short service of the soldier. Experienced recruiters, therefore, taking each case on its merits, are less concerned with the actual number of teeth lost or decayed, but rather whether there are a sufficiency of fairly sound opposing molars left to carry on the work of mastication. Beyond a general statement of the case in that way we imagine there is little more to be said.

MILITIA MEDICAL STAFF CORPS.

Dr. W. Collingridge, Surgeon-Major Commanding Militia Medical Staff Corps (St. John's, S.E.) writes: Will you allow me to point out to Dr. J. W. Curtis (Canterbury), late East Kent Militia, that he is entirely in error as to his statement with reference to the Militia Medical Staff Corps, made in the British Medical Journal of December 15th, 1894, p. 1407. The officers of the Militia Medical Staff Corps are not Volunteers, but are appointed in the same manner, are under the same law, and have the same status as any other Militia officers (*vide* Militia Regulations, 1894). Further, he implies that the officers of the Militia Medical Staff Corps have medical charge of the Militia. Here he is again in error. This falls upon the medical staff or civilian medical officers.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CLUB APPOINTMENTS.

A CORRESPONDENT, who thinks that his conduct has been somewhat unfairly commented on by an answer in the BRITISH MEDICAL JOURNAL of December 15th, p. 1307, to which his attention has been drawn, propounds the following questions: (1) In the event of the death or retirement of a member of a firm holding the appointment of surgeon to a friendly society, is it a breach of professional etiquette for an outside practitioner to call on the secretary of this society to make inquiries as to the appointment, and to ascertain whether it is likely to be thrown open to public competion when the remaining partner continues the practice? (2) Ought inquiries for this purpose to be made only to the remaining partner? (3) In a town where most of the medical practitioners are in partnership, would it not be an unjust and untenable hardship if, on one of the doctors of a partnership dying or retiring, and a public post which he held being thrown open for competition, a medical man not in partnership could not or ought not to compete for it?

*** (1) There can be no doubt that it is a breach of professional etiquette to call upon a secretary of a friendly society under the circumstances detailed by our correspondent, as it is quite impossible to differentiate between conduct of this kind and ordinary canvassing. It is, further, difficult to understand what other object could be intended, as all the information desired will be readily attained when the post is thrown open, and, if no canvassing is intended, there is no need to get this information earlier. (2) This certainly appears to be the only justifiable way in which the information might be got before the post is thrown open for public competition. (3) While admitting that hardships might occasionally arise as suggested by our correspondent, and that circumstances might easily be imagined in which outside practitioners would be justified in competing for the public appointments of firms rendered vacant by the retirement of individual partners, we are of opinion that it is incomparably more important that a suitable feeling of professional fellowship should be maintained in such a town, which could never be done if the common right which one partner has in the business of the other as against the world generally, were wantonly neglected. It must, moreover, not be forgotten that a "club," although in a sense a public appointment, is very different from such an appointment as the medical officership to a public institution or a board of guardians, and is, in fact, held by the surgeon on much the same tenure as he holds his private patients; and few would maintain that it would be justifiable on the retirement of a member of a firm to use any means to attract his private patients away from the remaining partner.

BONDS OR CONTRACTS NOT TO PRACTISE.

A. B.—In reply to our correspondent's inquiry on the subject of bonds or contracts not to practise entered into by assistants with their principals, we do not think that a radius of seven miles from the principal's house is unreasonable, especially if the *locus in quo* is in a rural district. The limit in point of time might (with a due regard to the object in view), perhaps, be fixed at ten years instead of twenty, but the liquidated damages fixed at £100 a month for practising in violation of the terms of the deed does not appear excessive. We do not think the latter a very important factor from the point of view of either principal or assistant, because, if the document is properly framed, the principal would (on a breach by the assistant) doubtless procure an injunction. It is quite usual for the principal to require a contract of this kind on the part of an assistant, the object being to secure the principal from the competition of those who might have special facilities for becoming acquainted with his patients and his method of practice.

"CHANGING THE DOCTOR."

F. F. writes: A. consults B. for some ailment, at the same time explaining that she has dispensed with the services of C., her former medical adviser, for sufficient reasons. Is B. ethically bound to refer to C. before taking charge of the case? and, if so, why?

*** The lady patient referred to has an unquestionable right to change her medical adviser and insist on dispensing with his services; nor is it, in our opinion, essential under the circumstances that B. should refer to C. before taking charge of the case. If, however, he be a friend of the latter, it would be judicious as an act of courtesy to apprise him of the fact. For his fuller guidance in the matter we would refer our correspondent to the *Ethical Code*, chap. i, sect. 2, rule 9; and chap. ii, sect. 5, rule 9.

MEDICAL PRACTITIONER OR PHARMACIST.

HENRY writes from one of Her Majesty's Colonies as follows: (1) Is a medical practitioner, holding the M.R.C.S.Eng. and L.S.A., either entitled or justified in opening under his own name a chemist's shop? (2) Can he legally, in virtue of above degrees, place on his signboard after his name "pharmaceutical chemist"? (3) In the event of such being illegal, what course would you recommend should be followed?

*** (1) We are advised that a practitioner possessing the qualifications mentioned may keep an open shop if he so desires. (2) It would, we think, be quite contrary to medical etiquette to style himself pharmaceutical chemist. In England no person, unless registered under the Pharmacy Acts, may take the title of chemist, and no person registered under the Medical Acts can be registered under the Pharmacy Acts. (3) It might be desirable to bring the facts before the General Medical Council and the Pharmaceutical Society.

ALLEGED COVERING.

W. F. G.—If the facts as stated by our correspondent can be substantiated, the case should be brought before the President of the General Medical Council. If A. is actually engaged in "covering" an unqualified practitioner, he voluntarily puts himself outside the pale of professional comity.

A SINGLE QUALIFICATION.

SPERO asks: Has a man who has only one qualification, and that a surgical one, any right to undertake the treatment of purely medical cases, such as heart disease? Can he legally claim a fee for such a treatment? Patients, of course, take everything for granted as regards qualifications, but is this not getting money under false pretences, and is it not "infamous conduct?"

*** Strictly speaking, a person possessing a surgical qualification only is not entitled to undertake the treatment of purely medical cases; and he could not recover his fees for so doing if the want of qualification were properly raised by way of defence to an action for them. We do not think, however, that the General Medical Council would hold such practice to be "infamous conduct," and we are advised that it would be extremely difficult in such a case to secure a conviction for obtaining money under false pretences. Moreover, any such action would, rightly, as we think, be viewed with grave displeasure by the majority of the profession.

COLLIERY MEDICAL ASSOCIATION.

MEDICUS writes: Near at hand here there is a large colliery with a medical association on the following lines: The members pay sixpence a fortnight for attendance and medicine; midwifery and teeth extra. A committee is formed, and they elect the medical officer at a salary. The drugs are all ordered through the committee, and at the end of a year a balance sheet is issued, and, should any balance be over, it is returned in dividend to the members. All complaints to be made to committee, who call the medical officer to account.

*** The plan described appears to have some of the defects of the Medical Aid Associations which were recently discussed by the General Medical Council, but we fear the Council has no power to remedy them.

OBITUARY.

DAVID STUART, M.B., C.M.

THE announcement of the death of Dr. David Stuart, late assistant to Professor Greenfield, in Edinburgh University, at the early age of 27, has come as a painful surprise to his many friends in Edinburgh and elsewhere. His death took place at Bordighera on December 13th, 1894. Towards the end of last summer he had a sharp attack of pleurisy, and, though he recovered from this to a considerable extent, a pulmonary affection supervened. For some time after his arrival at the Riviera, his progress was apparently satisfactory until more rapid tuberculosis appeared, and he died after a few days' illness.

Dr. Stuart graduated as M.B., C.M., at Edinburgh University in 1891, after a medical course in which he proved himself a student of marked ability, attaining the highest honours in several classes. After graduating, he was resident physician for six months, under Professor Greenfield, in the Edinburgh Royal Infirmary, on leaving which he became his second assistant in the Pathological Department of the University. This latter post he held till the close of last summer session. He devoted himself with great zeal to pathological teaching and research, and, even in the comparatively short time, had acquired a sound and extensive knowledge of the subject. As a teacher of pathology he was eminently successful, being thorough and painstaking in his method, and possessing in a high degree the power of clear exposition. He was an able and patient worker, actuated by a sincere love for the work and desire for truth. He was engaged in a research on the suprarenals, and it was his greatest regret, when his health gave way, that he had to abandon the work.

Amongst those who knew him best he will be specially remembered for his personal qualities, possessing, as he did, a character of sterling integrity combined with the greatest modesty and kindliness of disposition. He has left behind

him in Edinburgh the memory of an upright and noble character, of a life devoted to duty and the welfare of others.

We regret to have to record the death of Dr. J. J. NEVILLE, of Chorley, Lancashire, in the 49th year of his age. The name is to be added to the ever lengthening roll of members of the medical profession who have succumbed in the path of duty. The cause of death was typhoid fever, contracted during the course of his professional work. The fatal issue was determined by hæmorrhage, on the thirteenth day after the symptoms of the disease compelled him to take to his bed. He had the advantage of the assiduous attentions of Drs. Harris and Mackay, who consulted with Professor Dreschfeld. But their skill could avail nothing against the dire disease, which had attacked a constitution undermined by over-work and mental anxiety. John Joseph Neville was born in the neighbourhood of Cork, and received his medical education in Cork and Dublin. He took the diplomas of Licentiate of the Royal College of Physicians, and of the Royal College of Surgeons of Edinburgh in 1867. A few years later he settled in Chorley, and for some time held the post of medical officer of health. Subsequently he became a member of the town council, but did not seek re-election, and the process of municipal reform was too deliberate to suit his active and energetic temperament. He was certifying factory surgeon in the district, and for some years he was surgeon to the Artillery Volunteers. He was a member of the British Medical Association and of the Lancashire and Cheshire Branch.

We regret to have to announce the death of ARTHUR WILLIAM LOVERIDGE, of Newport, Mon., at the early age of 36. He appeared to be in his usual health till about three weeks before his death, when he was attacked by pneumonia. He was apparently doing well, when, on the morning of December 13th, 1894, paralysis set in, and he died on December 18th. He was the eldest son of the late Thomas Loveridge, of Merthyr Tydvil, and was educated at the grammar school there, and afterwards at Crawford College. He received his medical education at the Middlesex Hospital, and held the post of Physician's Assistant there. He obtained the diploma of L.S.A. in 1879, and of M.R.C.S.Eng. in 1881; subsequently he held in succession the post of Junior House-Surgeon to the Huddersfield Infirmary, Resident Medical Officer to the Clayton Hospital, Wakefield, and House Surgeon to the West Norfolk Hospital, King's Lynn. On resigning this appointment in 1887 he settled in Newport, and became Honorary Surgeon to the Newport and County Infirmary. Dr. Loveridge, who was a member of the British Medical Association and of the South Wales and Monmouthshire Branch, was much respected and beloved in Newport, where he carried on a successful practice, and will be greatly missed both by his patients and medical brethren.

PROFESSOR LUIGI DE CRECCHIO has lately died. He was Professor of Legal Medicine in the University of Naples, and for some years was a Senator of the Kingdom. He was born at Lanciano, in Abruzzo, in 1822, and was elected Professor of Legal Medicine in the University of Naples in 1858.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. F. L. Sim, of Memphis, Tennessee, Professor of the Principles and Practice of Medicine in the Memphis Medical College, editor of the *Memphis Medical Monthly*, and a former president of the American Medical Editors' Association; Dr. Levi Frey, one of the best-known practitioners of York County, Pennsylvania, and President of the Pennsylvania and Maryland Union Medical Society, aged 64; Dr. Sézary, Professor of Hygiene and Forensic Medicine in the Mustapha Hospital, Algiers, and author of several works on hygienic and climatological subjects; Dr. George A. Peters, for many years surgeon to the New York Hospital, and one of the most prominent practitioners of that city; Dr. J. Bernard Brinton, of Philadelphia, a botanist of considerable reputation, aged 59; Dr. C. Studiati, Professor of Physiology in the University of Pisa; and Dr. Donnet, Member of the French Senate, formerly Medical Superintendent of the Lunatic Asylum of Limoges, and afterwards of that of Vaucluse.

ERRATUM.—The name of Dr. Samuel Telford, of Liverpool, whose death was announced in the BRITISH MEDICAL JOURNAL of December 22nd, 1894, was incorrectly printed as "Illford."

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

ADDENBROOKE'S HOSPITAL.—At the Quarterly Court of Governors, held on December 31st, 1894, Dr. Alexander Peckover, Lord Lieutenant of the County, presiding, important proposals for the improvement of the nursing school were considered. The requirement of three years' training for a certificate as nurse, and the employment of resident ward maids for the domestic work of the hospital were among the proposals made. The discussion was adjourned to another court. Sir George Humphry's plan for the improvement of the out-patient department, towards which he had generously contributed £500, was adopted. At the close of the meeting the Lord-Lieutenant presented the hospital with a second cheque for £1,000. His munificence was warmly acknowledged by the President of Queens' College, and by Sir George Humphry on behalf of the medical staff.

UNIVERSITY OF EDINBURGH.

THE University and extramural classes resume after the Christmas recess of seventeen days on January 8th.

A meeting of the University Court will be held on January 14th, for the appointment of Examiners in Medicine and in Science, and for other competent business.

At its last meeting the Court appointed Dr. J. O. Affleck additional Examiner in Medicine in its bearings on public health. The course in Chemistry, given by Mr. T. W. Drinkwater, Ph.D., and the course in Zoology, by Mr. T. Arthur Thomson, M.A., were recognised as qualifying women students for graduation in Arts.

UNIVERSITY OF LONDON.

B.S. EXAMINATION (Honours). *Surgery.*—First Class: J. H. Fisher (scholarship and gold medal), St. Thomas's Hospital; H. Davies (gold medal), Guy's Hospital; *C. S. Wallace, St. Thomas's Hospital; S. W. F. Richardson, B.Sc., St. Thomas's Hospital. Second Class: W. R. Smith, King's College; G. H. Cowen, London Hospital.

* Obtained the number of marks qualifying for a gold medal.

INDIA AND THE COLONIES.

INDIA.

THE INDIAN CANTONMENT ACTS.—A retired Indian medical officer of long experience sends us the following explanation of the circumstances in connection with the Indian Cantonment Acts Amendment Bill, which has aroused so much opposition and indignation in India: "The story of the Cantonment Acts Amendment Bill is this. In 1869 the Contagious Diseases Acts were introduced into Indian cantonments and towns for the purpose of preventing venereal disease among soldiers and sailors. Ladies were framed under these defining areas, and providing for registration and examination and treatment in hospitals of public women. These Acts were repealed under Parliamentary pressure, and a Cantonment Act was passed under which certain regulations were issued providing that public women found to be diseased must either leave the cantonment or submit to detention and treatment in hospital. The British agitators procured the repeal of these rules under Parliamentary resolution. The Commander-in-Chief in India then issued orders through his Quartermaster-General that commanding officers must do their best, without breaking the law, to protect the men from venereal infection. The British agitator raised a cry that under these orders the old system of compulsory examination, detention, etc., was still carried out. A Parliamentary committee, under the chairmanship of Mr. Stanhope, was appointed to investigate the matter. It reported that the allegation was substantially correct, and recommended the Secretary of State for India to take steps to prevent all efforts in the direction of preventing venereal disease. The measure now under the consideration of the Imperial Legislative Council of India is the result. The matter has its sanitary, administrative, and service aspects. As regards the sanitary aspect, the proposed Act is uncompromising. No rules are henceforth to be framed on the subject of contagious diseases, and the soldier is left to contract these among the foul women who haunt Indian cantonments and bazaars without let or hindrance. The administrative point is whether the Secretary of State for India can dictate to Indian Legislative Councils what laws they are to enact without leaving them either discretion or choice. The service question is a serious one. The proposed Act presumes that medical officers will break the law of the land and disobey the order of Government unless they are deterred from committing this particular act of crime and breach of discipline by fear of special penalty. This presumption is an insult to the medical service, and it is against this that Mr. Ernest Hart waxes indignant and wroth, and righteously so."

THE Countess of Dufferin's Fund has just received the gift of a hospital at Karachi. The building, which will cost about 50,000 rupees, is to be given by a wealthy Parsee, and the foundation stone was laid recently by Lady Elgin. The fund has sufficient money for furnishing and

equipping it, and also an assured income for its maintenance when completed.

NEW SOUTH WALES.

THE City Council of Sydney intend to erect a chamber for the disinfection of contaminated bedding and clothing, by means of high pressure steam.

QUEENSLAND.

THE Central Board of Health has resolved that it is desirable to set aside a certain district in which all offensive trades should be carried on.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,205 births and 3,649 deaths were registered during the week ending Saturday, December 22nd, 1894. The annual rate of mortality in these towns, which had been 20·2 and 19·7 per 1,000 in the preceding two weeks, further declined to 18·2 last week. The rates in the several towns ranged from 11·3 in Plymouth, 13·7 in Derby, and 14·0 in Croydon to 22·6 in Liverpool, 24·2 in Norwich, and 26·7 in Preston. In the thirty-two provincial towns the mean death-rate was 18·8 per 1,000, and exceeded by 1·4 the rate recorded in London, which was 17·4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1·9 per 1,000; in London the death-rate was equal to 1·8, while it averaged 1·9 per 1,000 in the thirty-two provincial towns, and was highest in Portsmouth, Leeds, and Gateshead. Measles caused a death-rate of 3·0 in Bradford, 3·8 in Leeds, 4·3 in Portsmouth, and 5·6 in Gateshead; and whooping-cough of 1·6 in Huddeasfield, 1·7 in Halifax, and 1·9 in Preston. The mortality from scarlet fever showed no marked excess in any of the large towns. The 60 deaths from diphtheria in the thirty-three towns included 36 in London, 4 in West Ham, and 3 in Manchester. One fatal case of small-pox was registered in London, 1 in Birmingham, and 1 in Liverpool, but not in any other of the thirty-three large towns. There were 15 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday, December 22nd, 1894, against 31, 32, and 22 at the end of the preceding three weeks; not one case was admitted during the week, the numbers admitted during the preceding three weeks having been 5, 7, and 3 respectively. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 2,148, 2,142, and 2,034 at the end of the preceding three weeks, had further declined to 1,931 on Saturday, December 22nd, 1894; 161 new cases were admitted during the week, against 228 and 187 in the preceding two weeks.

In thirty-three of the largest English towns, including London, 4,921 births and 3,615 deaths were registered during the week ending Saturday, December 29th, 1894. The annual rate of mortality in these towns, which had been 20·2, 19·7, and 18·2 per 1,000 in the preceding three weeks, further declined to 18·0 during the week under notice. The rates in the several towns ranged from 6·5 in Croydon, 13·2 in Leicester, and 13·6 in West Ham to 23·3 in Brighton, 24·0 in Gateshead, and 26·2 in Preston. In the thirty-two provincial towns the mean death-rate was 18·6 per 1,000, and was 1·4 above the rate recorded in London, which was 17·2 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1·9 per 1,000; in London the rate was equal to 1·8, while it averaged 1·9 per 1,000 in the thirty-two provincial towns, and was highest in Burnley, Leeds, and Gateshead. Measles caused a death-rate of 1·6 in Burnley, 1·8 in Newcastle-upon-Tyne, 3·4 in Portsmouth and in Leeds, and 5·0 in Gateshead; whooping-cough of 1·0 in Norwich, and 1·1 in Huddersfield and in Swansea; and "fever" of 1·1 in Derby and in Sunderland. The mortality from scarlet fever showed no marked excess in any of the large towns. The 64 deaths from diphtheria in the thirty-three towns included 35 in London, 6 in Manchester, and 3 in Leicester. One fatal case of small-pox was registered in London, 1 in Birmingham, 1 in Liverpool, 1 in Hull, but not one in any other of the thirty-three large towns. There were 16 small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday, December 29th, 1894, against 32, 22, and 15 at the end of the preceding three weeks; one new case was admitted during the week, against 7, 3, and 0 in the preceeding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital on Saturday, December 29th, 1894, was 1,890, against 2,142, 2,034, and 1,931 at the end of the preceding three weeks; 116 new cases were admitted during the week, against 187 and 161 in the preceding two weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, December 22nd, 1894, 869 births and 619 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 20·3 to 22·5 per 1,000 in the preceding five weeks, declined to 21·7 in the week in question, but exceeded by 2·5 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 15·0 in Greenock to 25·8 in Perth. The zymotic death-rate in these towns averaged 3·9 per 1,000, the highest rates being recorded in Perth and Aberdeen. The 308 deaths registered in Glasgow included 35 from measles, 9 from whooping-cough, 5 from scarlet fever, and 4 from diphtheria. Four fatal cases of small-pox were recorded in Edinburgh, and 13 of measles in Aberdeen.

During the week ending Saturday, December 29th, 1894, 857 births and 629 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22·5 and 21·7 per 1,000 in the preceding two weeks, rose again to 22·1 during the week under notice, and exceeded by 2·1 per 1,000 the mean rate during the same period in thirty-three of the largest English towns. Among these Scotch towns the death-rates ranged from 13·7 in Leith to 26·9 in Aberdeen. The zymotic death-rate in these towns averaged 3·0 per 1,000, the highest rates being recorded in Glasgow and Aberdeen. The 324 deaths registered in Glasgow included 24 from measles, 14 from whooping-cough, 7 from scarlet fever, and 3 from diphtheria. One fatal case of small pox was recorded in Edinburgh.

HOW TO DEAL WITH SMALL-POX.

THE annual report for 1893 of the health officer for the borough of Stockport contains a short account of the measures adopted by the sanitary department in the face of a threatened small-pox prevalence. There were in all 30 cases in the year up to the end of August, and no fewer than 21 of these were separate and independent introductions of the disease, 10 being tramps. In addition to isolation of cases in hospital, thorough disinfection of infected houses and articles was carried out; nine stations were opened for evening attendances for gratuitous vaccination; handbills were widely distributed; revaccination was urged; the press also lending its assistance, and employers of labour co-operating with the sanitary officers; every common lodging-house was nightly visited, and several cases of small-pox in this way found in an early stage of disease; all cases of illness in these houses were at once made known to the health officer; the inmates were, so far as they consented, vaccinated on the spot; and the medical officer of the workhouse satisfied himself as to the condition of all casuals discharged into the town. It is satisfactory to learn from Dr. Porter that these steps were so far successful that only 9 secondary cases of small-pox arose as a result of the 21 introductions of the disease into the town. The measures adopted are worthy of imitation in other places similarly threatened.

A NATIONAL BOARD OF HEALTH FOR THE UNITED STATES.

IN his annual message to Congress President Cleveland expresses his conviction that the United States ought no longer to be without a National Board of Health or National Health Officer, charged with no other duties than such as pertain to the protection of the country from the invasion of pestilence and disease. The President proceeds as follows: This would involve the establishment by such board or officer of proper quarantine precautions, of the necessary aid and counsel to local authorities on the subject; prompt advice and assistance to local boards of health and health officers in the suppression of contagious disease, and in cases where there are no such local boards or officers the immediate direction by the national board or officer of measures of suppression; constant and authentic information concerning the health of foreign countries and all parts of our own country as related to contagious diseases, and consideration of regulations to be enforced in foreign ports to prevent the introduction of contagion into our cities and the measures which should be adopted to secure their enforcement. There seems to be at this time a decided inclination to discuss measures of protection against contagious diseases in international conference with a view of adopting means of mutual assistance. The creation of such a national health establishment would greatly aid our standing in such conferences and improve our opportunities to avail ourselves of their benefits.

SMALL-POX IN DUBLIN.

THERE has been a slight decrease in the number of new cases of small-pox in Dublin compared with our last report, but there are still about 140 in hospital. A few cases have occurred among the better classes, and there are reports from country districts of the appearance of occasional cases there. In the last three weeks of December, 1894, the hospital admissions were 86, 113, and 32, and the total deaths caused by the epidemic amount to 68, out of over 600 cases treated. Of 10 deaths last week 3 were of persons who had vaccination marks, 6 had not been vaccinated; in the remaining case no statement was made by the doctor registering.

The Local Government Board have issued sealed orders to the guardians of the North and South Dublin Unions to have hospital accommodation provided to meet the demands of the present outbreak. In the case of the South Union a hospital is already in process of erection in the suburbs, and on the northern side a site will be procured as soon as possible.

A complaint has been made of the want of isolation rooms at the various Poor-law dispensaries, and the Public Health Committee has called the attention of the guardians to the need of this accommodation. There is at present great difficulty in keeping a small-pox patient apart from the general body of patients until the ambulance can be had. The guardians will no doubt correct this dangerous arrangement.

QUALIFICATIONS OF M.O.H.

A MEMBER asks whether the Local Government Board would sanction the appointment of a medical man who does not hold a diploma for medical officership of health when another medical man in the same position, but who has been a medical officer of health for twenty years or more, is an applicant for the appointment.

*** The statutory provision regulating the matter in question is contained in Section 18 of the Local Government Act, 1888, which enacts that, in the case of a district having at the last published census a population of 50,000 or more inhabitants, the officer shall possess the qualification referred to unless he has been during three consecutive years medical officer of a district with not fewer than 20,000 inhabitants or a medical officer or inspector of the Local Government Board.

DR. D'ARSONVAL has been appointed to the Chair of Medicine in the Collège de France, in succession to the late Professor Brown-Séquard.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. F. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. F., 2.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Eye Hospital, Southwark. *Hours of Attendance.*—Daily, 2. *Operation Days.*—Daily.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 3.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2. Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.* Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.30.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30. *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical, daily, [illegible] Obstetric, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, [illegible], S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; [illegible] Tu., W. Th., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

MEDICAL NEWS.

Mr. W. E. Dawson, L.R.C.P., has been elected an urban district councillor for Walton-on-the-Naze, and at the election of guardians for Melcombe Regis North Dr. Macpherson Lawrie, J.P., was placed at the head of the poll.

At the examination for inspectors of nuisances held by the Sanitary Institute at Liverpool, on December 21st and 22nd, 1894, 67 candidates presented themselves, of whom 30 were successful in obtaining the certificate of the Institute.

Vision of Railway Servants.—The Government of India have decided to recommend the adoption of tests for colour vision and night blindness by all the railway administrations in India.

An extensive epidemic of measles appears to exist in Scotland. In Aberdeen there were 257 cases in the fourth week of December, and in Paisley there were also a large number in proportion to the population.

Lady Doctors in Russia.—Several attempts to obtain the sanction of the Russian Council of State to the practice of medicine by women have failed, but it is believed that a scheme now on foot is more likely to succeed, as it has received the sanction of the Minister of Public Instruction. It is stated that the necessary funds are already promised.

Medical Martyrs.—*The Maryland Medical Journal* of December 15th announces the death of Dr. Hazlett Cummins, a prominent practitioner of Wheeling, West Virginia, of diphtheria, contracted from a patient on whom he was performing tracheotomy. Dr. Alexander Kutowoi, of Kaneff, Russia, died on November 29th, of diphtheria, contracted from a patient whom he attended; his wife, who nursed him during his illness, also fell a victim to the disease. The memory of Dr. Bonnafous, of Salindres, whose death under somewhat similar circumstances was recorded in a recent issue of the British Medical Journal, is, we are glad to see, held in such regard by those amongst whom he laboured, that the inhabitants of the town, and the workmen of the chemical factory to which he was medical officer, have subscribed a sum of nearly £72, which has been handed over to the Pasteur Institute of Montpellier. This act is as graceful as the application of the money subscribed is appropriate.

Bacteriological Diagnosis of Diphtheria.—Bristol is about to adopt a lesson given at the meeting of the Association in August last. In the Public Medicine Section Dr. Bigg, of New York, made a statement with regard to the method adopted by the Health Department of that city for the prevention of diphtheria. This includes a bacteriological examination and the systematic supply for this purpose to medical men of cultivation tubes. The cultivation was conducted in the health laboratory. Acting on the advice of their medical officer (Dr. Davies) the Bristol Sanitary Committee have decided to provide such culture outfits, to be placed at five or six convenient depôts in the city, arrangements being made for their collection after inoculation by the medical attendant, and for their culture and examination. The plan was expected to be of service in identifying cases of suspected diphtheria, as well as in ascertaining if the patient was fit to mix with others after the attack. The Sanitary Committee intend voluntarily to undertake this work as a complement of the duties already performed under the Notification and Public Health Acts.

MEDICAL VACANCIES.

The following vacancies are announced:

Birmingham and Midland Free Hospital for Sick Children.—Resident Medical Officer and Resident Surgical Officer. Salary, £70 and £50 per annum respectively, with board, washing, and attendance in the institution. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by January 8th.

Bolton Union.—Medical Officer for the Workhouse at Fishpool. Salary, £200 per annum and a furnished house. Applications (on forms to be obtained of the Clerk) to Simpson Cooper, Clerk to the Guardians, 28, Mawdsley Street, Bolton, by January 14th.

Chesterfield and North Derbyshire Hospital and Dispensary, Chesterfield.—Resident Junior House-Surgeon and Dis-

penser. Salary, £50 per annum, with board, apartments, and laundress. Applications to the Secretary by January 10th.

COUNTY ASYLUM, Prestwich, Manchester.—Pathologist. Salary, £200 per annum, with furnished apartments, board, attendance, and washing. Applications to the Superintendent.

DEVON AND EXETER HOSPITAL, Exeter.—Assistant House-Surgeon; doubly qualified and unmarried. Salary, £40 per annum, with board and lodging. Applications to Albert E. Boyce, Secretary, by January 7th.

GERMAN HOSPITAL, Dalston, N.E.—Honorary Physician; must be native of Germany. Applications to H. Gülich, Superintendent, by January 9th.

HEIGHAM HALL ASYLUM, Norwich.—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Must be under 30 years of age. Applications to Dr. Compton, Medical Superintendent.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Two Assistant Physicians; must be F. or M.R.C.P.Lond. Applications to the Secretary by January 14th.

LONDON HOSPITAL MEDICAL COLLEGE, Turner Street, Mile End.—Lectureship on Organic Chemistry. Salary not less than £175 a year. Applications to Munro Scott, Warden, by January 10th.

PAROCHIAL BOARD OF BARONY PARISH OF GLASGOW.—Senior Assistant to the Medical Superintendent of the Barony Parochial Asylum, Woodilee, Lenzie, near Glasgow. Salary, £200 per annum, with board, apartments, etc. Applications, marked "Woodilee Medical Assistant," to Jas. R. Morton, Acting Inspector of Poor, Barony Parish Chambers, 38, Cochrane Street, Glasgow by January 12th.

WEST HERTS INFIRMARY, Hemel Hempstead.—House Surgeon and Dispenser, doubly qualified and unmarried. Appointment for two years. Salary, £100 per annum, with board, furnished rooms, fire, lights, attendance, and washing. Applications to the Secretary by January 17th.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's Road, Chelsea, S.W.—House-Physician and House-Surgeon for the in-patients. Honorarium, £50 per annum and board and lodging in each case. Applications to the Secretary by January 12th.

VICTORIA UNIVERSITY, THE YORKSHIRE COLLEGE, Leeds.—Lecturer on Diseases of the Eye and Ear. Further particulars from the Registrar.

MEDICAL APPOINTMENTS.

ASHBY, T. H., M.B.Toronto, L.R.C.P.Lond., appointed Medical Officer to the Workhouse of the Shardlow Union.

BOTT, Henry, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Brentford Local Board.

DACRE, John, M.R.C.S., L.R.C.P., reappointed Honorary Surgeon to the Bristol Hospital for Sick Children and Women.

FLAVIN, Francis Joseph, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the No. 7 (Newton and Godley) District of the Ashton-under-Lyne Union, *vice* G. Kisby, L.R.C.P.I., L.F.P.S.Glasg., resigned.

GREENWOOD, A., L.S.A., appointed Medical Officer for the Haggerston East District of the Parish of St. Leonard, Shoreditch, *vice* M. Greenwood, M.D., resigned.

HODGSON, Charles, M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the County Hospital, York, *vice* A. C. Coles, M.D., B.Sc.Edin., resigned.

HOUSE, S. Herbert, M.B., Ch.B.Vict., appointed Resident Medical Officer to the Grimsby and District Hospital.

JAMES, R. Blake, M.R.C.S., L.R.C.P., appointed Resident Surgeon to the Birmingham General Dispensary.

KELYNACK, T. N., M.D.Vict., reappointed Pathological Registrar to the Manchester Royal Infirmary.

LEWIS, Ernest Wool, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Anæsthetist to the West London Hospital, Hammersmith.

MARSDEN, R. W., M.B., B.Sc., Ch.B., appointed Resident Officer to the Monsall Fever Hospital.

MILLIGAN, W., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Cumberworth District of the Huddersfield Union.

NESFIELD, R. W., M.B., Ch.B.Vict., appointed a Resident Medical Officer of St. Mary's Hospital, Manchester.

O'BRIEN, Hy. Joseph, L.R.C.P., L.R.C.S.I., appointed Medical Officer for the West District of the Poplar Union.

PLANCE, Charles, jun., M.A.Cantab., L.R.C.P.Lond., M.R.C.S.Eng., late House-Surgeon to St. Thomas's Hospital, appointed Junior Assistant Medical Officer to the East Sussex County Asylum, Hayward's Heath, *vice* F. D. Bennett, L.R.C.P., M.R.C.S., resigned.

PROPERT, Walter Archibald, M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Physician to the West London Hospital.

RICHMOND, J. R. M., L.S.A., appointed Medical Officer of the Overton Penley District of the Ellesmere Union.

RISELEY, Stanley, M.D.Edin., appointed Senior House-Surgeon to the Halifax Infirmary.

SHARMAN, M., M.B., C.M.Glasg., reappointed Medical Officer for the Harefield District of the Uxbridge Union.

SHAW, T. D. S., M.B., C.M.Edin., appointed Medical Officer of the North District of the Cirencester Union, *vice* W. Doughty, L.R.C.P., L.R.C.S. Edin., resigned.

SUTHERLAND, G. A., M.A., M.D., M.R.C.P., appointed Physician to Out-patients at Paddington Green Children's Hospital.

TIPPETT, S. G., M.R.C.S., L.R.C.P.Lond., appointed Senior House-Physician to the Westminster Hospital.

TYNAN, Dr., appointed Resident Surgeon to the St. Vincent's Hospital, Dublin.

WOODWARD, Martin, M.R.C.S.Eng., reappointed Medical Officer for the Fladbury and Eckington Districts of the Pershore Union.

YONGE, Eugene S., M.B., C.M.Edin., appointed Assistant Medical Officer to the Manchester Hospital for Consumption and Diseases of the Chest, *vice* Dr. Wood, resigned.

DIARY FOR NEXT WEEK.

TUESDAY.

CENTRAL LONDON THROAT AND EAR HOSPITAL, 4.30 P.M.—Lecture on the Methodical Diagnosis of Diseases causing Deafness without Pain or Discharge, by Dr. Dundas Grant.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. John D. Malcolm: Illustrations of some Modes of Death from Ovariotomy.

WEDNESDAY.

NORTH-WEST LONDON CLINICAL SOCIETY, North-West London Hospital, Kentish Town Road, 8.30 P.M.—Exhibition of Cases.

HUNTERIAN SOCIETY, 8.30 P.M.—The President (Mr. Charters J. Symonds): The Surgical Treatment of Typhlitis. Dr. Fred. J. Smith: Notes of a case of Typhoid Fever treated by the Continuous Bath.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 4.30 P.M.—Annual General Meeting. Election of Officers and Council, etc. Cases, Specimens, etc., by Mr. A. E. Durham, Drs. William Hill, Alex. Hodgkinson (Manchester), Middlemiss Hunt (Liverpool), Percy Kidd, Edward Law, the President, Dr. Scanes Spicer, and Mr. W. R. H. Stewart.

THURSDAY.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Specimens. Reports on Specimens. Election of Officers for 1895. President's Valedictory Address.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, 20, Hanover Square, 4.30 P.M.—Dr. Eddowes: Exfoliative Dermatitis. Dr. David Walsh: A Note on Antitoxin Rash.

NORTH-LONDON MEDICAL AND CHIRURGICAL SOCIETY, Great Northern Central Hospital, 9 P.M.—Dr. A. Morison: The Blood Pressure in Angina Pectoris. Dr. Archibald K. Christie: Remarks on the Selection of Cardiac Tonics.

FRIDAY.

BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION, 11, Chandos Street, 3 P.M.—Cases and Clinical Notes by Dr. Whistler, Dr. Law, Mr. F. Marsh, Dr. Dundas Grant, Mr. Jakins, Mr. Lennox Browne, and Dr. Wolfenden. Illustrated by lantern views, microscopic sections, etc.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Mayo Robson: Three cases of Abdominal Section for Unusual Conditions (*a*) Tuberculous Disease of the Liver, (*b*) Complete Volvulus and Strangulation of Great Omentum, (*c*) Traumatic Hæmorrhage without External Wound. Dr. J. W. Browne: A case of Loculated Empyema. Mr. F. Eve: A case of Acute Intestinal Obstruction from Gall Stone, Laparotomy, Removal of Stone, Suture, Recovery. Dr. S. West: Two cases of Detachment of the Retina in the course of Granular Kidney.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

HOLBERTON.—On December 30th, 1894, at Chetwynd, East Molesey, Surrey, the wife of Henry N. Holberton, M.R.C.S., L.R.C.P., D.P.H., of a son.

OKELL.—On December 30th, 1894, at Magdala Road, Nottingham, the wife of J. Bathurst Okell, M.R.C.S., L.R.C.P., of a son.

MAYNARD.—On Sunday, December 9th, 1894, at the Medical Officers' Quarters, General Hospital, Calcutta, the wife of Surgeon-Captain F. P. Maynard, M.B., I.M.S., of a son.

PHILLIPS.—On Christmas Day, at 83, Shirland Gardens, Maida Vale, W., the wife of Hubert C. Phillips, M.R.C.S.Eng., M.&L.S.A.Lond., etc., of a daughter.

WILLIAMS.—At Madras, on November 30th, 1894, the wife of Surgeon-Captain C. L. Williams, M.D., M.R.C.S., Indian Medical Service, of a daughter.

MARRIAGES.

HIRSCH—MOREY.—On October 29th, 1894, at the Holy Trinity Church, Suva, Fiji, by the Rev. Francis Jones, M.A., Charles Theodore William Hirsch, M.R.C.S Eng., L.R.C.P.Lond., F.C.S.Lond., etc., District Medical Officer, Rewa, Colonial Medical Service, Fiji, to Emmeline, fifth daughter of the late James Morey, Esq., of Fiji.

SMITH—EDMOND.—On December 28th, 1894, at 3, Blackford Road, Edinburgh, by the Rev. Archibald Henderson, D.D., Crieff, J. Lorrain Smith, M.D., son of the late Rev. Walter Smith, Half-Morton, to Ella, daughter of E. Edmond, late of the Indian Civil Service.

DEATH.

SHELTON-JONES.—On December 27th, 1894, at his residence, Church Place, Pwllheli, N. Wales, in his 47th year, Edwin Shelton-Jones, L.R.C.P., L.R.C.S.Edin.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

LIME WASHING AS AN ANTISEPTIC.

M.O.H. asks for definite information as to the effect upon microbic life of lime-washing living rooms in the ordinary way, and whether any experiments have been made in order to determine this.

ENGLISH RESORT FOR PHTHISICAL PATIENT.

INQUIRER asks to be recommended some of the places in England most likely to suit a medical man suffering from pulmonary tuberculosis, where he could live quietly and economically, his means being very slender.

PERIODIC NEURALGIC PAIN.

RUSTICUS asks: Is any explanation forthcoming to account for the periodicity of pain in cases of neuralgia? A fourth attack of brow ague has raised in my mind the interesting question why pain should be present for several hours each day, and then entirely absent until the same hours on the following day.

PORTABLE SURGEONS' OPERATING TABLES.

MR. J. LAWRENCE-HAMILTON (Brighton) desires to learn which are the best home and foreign portable surgeons' operating tables, suitable for private practice and also for armies in the field, and to obtain illustrations and prices of these appliances.

MALE AND FEMALE MEMBERS OF "JUVENILE" ODDFELLOWS' COURTS.

A CORRESPONDENT asks whether it is usual to admit female members into "junior" Oddfellows' courts.

*** By "junior" it is presumed that juvenile is meant, and it may be answered that it is unusual to admit female members into such courts, though it is difficult to see why they should be less eligible than males. To take either male or female members at the present low rates is equally objectionable, and there can be no doubt that juvenile members of friendly societies ought to pay at least as much for their medical attendance as adult members. A contract at 2s. a member is so low that it is most unfortunate that any medical man can be found willing to accept such terms, that is, actually to contract to provide for twelve months all necessary medical treatment for a sum which could not be considered high if paid for a single consultation. It is by the acquiescence of medical men in such conditions as this that so much harm is done to the profession generally, and the whole calling is depreciated from a business point of view. How can the public with such spectacles as these constantly before their eyes learn to rate medical services at their proper value? Being mostly business men, they are only too apt to reckon a commodity as worth what it will fetch, and to apply the same rule to professional services; and even when certain members of the public pay their own medical advisers at a more suitable rate, they are only too prone to consider that they do this out of their own generosity and from a desire to do things well rather than from any feeling of appreciation and consciousness that the services in question are worth fully as much as they pay for them. As to the admission of female members into adult "clubs," this is of course quite another question; for obvious reasons the scale of payments for female members would have to be considerably in excess of that paid for males. The experiment has never as yet been tried by any of the large friendly societies, and would scarcely be likely to succeed; there have been, we believe, a few attempts to form medical clubs among women only, but with very partial success, and practically the only way in which women can get at the present day "cheap" medical attendance is by means of medical aid societies and "dispensaries," so-called.

ANSWERS.

"AN INTERESTED ONE" has omitted to send his name.

M.D. is referred to the answer published in the BRITISH MEDICAL JOURNAL of December 29th, 1894, p. 1508, headed "M.B.'s and the title of 'Dr.'"

H. G.—The best method of keeping bacteriological specimens is to dry them thoroughly or to keep them in sealed-up tubes, so that oxygen has no access to them. After a time they cease to grow and remain unaltered for years. Probably the best fluid for keeping plates would be a mixture of glycerine and arsenious acid or bichloride of mercury. We do not remember to have seen the fluid referred to. We believe that microscopical specimens can be obtained from J. Klönne and G. Müller, Luisenstr. 49, Berlin, N.W.

ALLEGED UNQUALIFIED PRACTICE.

E. B. C.—We believe that any case of alleged unqualified practice brought with sufficient details under the notice of the President of the General Medical Council would be made the subject of investigation.

TYPHUS FEVER AND THE PUERPERAL STATE.

BETA should take the same precautions after seeing a typhus case before going to a case of labour that he would before seeing any other patient. If the patient developed typhus, "Beta" would be blamed. Typhoid fever is not communicated in this way.

INCOME TAX AND RESIDENCE.

MEMBER B. M. A.—As our correspondent lives abroad he is not compelled to make any return for income tax, but if his wife receives any remittance from him she is bound to make a return of any such remittances and to pay thereon, as well as upon any income of her own; then, if she is within the limit of abatement, that is, £500, she can obtain a refund of income tax; for assistance in doing so she might apply to the Income Tax Repayment Agency, 8, Chichester Road, Paddington, London, W.

TREATMENT OF BORBORYGMI.

DR. J. WILLIAMS (Barrow-in-Furness) writes to suggest to "Nemo" to try the oil of rue for borborygmi. One drop in a pill three times daily after meals usually affords great relief.

DR. O'D. suggests to "Nemo" to try the following in the case of the young lady the subject of borborygmus: ℞ Zinci valerianatis gr.xxiv; extracti belladonnæ gr.iij; pulvis ipecacuanhæ gr.iv; pilulæ galbani co. 3iss; olei cajiputi mxij. To make 24 pills; one to be taken night and morning.

G. R. M. writes: I find that great relief is afforded if the patient abstain from fluid whilst eating, and to make it a practice only to drink after the meal is finished.

TREATMENT OF OPIUM HABIT.

DR. WILLIAM E. WYLLYS (Great Yarmouth) writes: In reply to "An M.D.," I have found the best plan to be at once to reduce the quantity of opium or morphine by one-half, and then by a gradual process to diminish the supply to *nil*. The concurrence of the patient and the supervision of some resident who can be depended upon are necessary. For instance, Mrs. C., an elderly lady, had been for years taking 9 drachms of tincture of opium at one dose daily. I immediately reduced the dose to half an ounce, and then by 5 minims each day. The patient suffered a good deal for the first two or three days, but not much afterwards. She has remained perfectly well for three years, and the habit has not been resumed.

DENTISTS AND THE ADMINISTRATION OF ANÆSTHETICS.

A. E. L.—In reply to a similar question, we stated in the BRITISH MEDICAL JOURNAL of March 18th, 1893, page 618, that there is no law which forbids a L.D.S. from administering anæsthetics, but if he does so he does it at his own risk. In case of death under such circumstances, a coroner's jury might with justice consider that sufficient precautions had not been taken to provide against accidents or emergencies. It is clearly very undesirable and unsafe that the same person should administer the anæsthetic and perform the operation on the teeth. Anæsthetics should always be administered by a qualified medical man, if possible with special experience.

STUDY OF TROPICAL DISEASES IN LONDON.

D. W. T.—There is at present in London no post-graduate class on tropical disease, nor are we aware of any scheme for teaching this important subject having been formulated. Our correspondent should study Davidson's *Hygiene and Diseases of Warm Climates* in conjunction with Kelsch and Kiener's *Maladies des Pays Chauds*. He may see many examples of a variety of tropical diseases at the Seamen's Hospital, Greenwich, and at the Branch Hospital, Albert Docks; but there is no clinical teaching at either of these places. Granular ophthalmia he will see in abundance at Moorfields or at any of the ophthalmic hospitals.

ANTIPYRIN RASH.

MR. WILLIAM SEDGWICK (Gloucester Place, W.) writes, in reply to "R. H. S.'s" inquiry on the above subject, that in the case of a lady, aged 35 years, a rash of an erythematous character has on two occasions lately appeared about two hours after taking 10 grains of antipyrin. Her face, which begins to burn soon after taking the drug, very quickly becomes bright red or scarlet, up to the roots of the hair. The rash closely resembles that of scarlet fever, and the burning sensation continues till the rash itself has disappeared, which does not happen till fully two days or rather more have passed. A first cousin of the

same sex has also suffered from a similar kind of rash after taking moderate doses of antipyrin. But the rash in her case has appeared on her thighs and legs instead of on her face.

NOTES, LETTERS, ETC.

THE CROUP.

THE *Figaro* contained recently a poem dedicated to M. Roux, and recited by Mme. Bartet, at a representation given on Friday, December 21st, 1894, in Paris, on behalf of the fund for the new treatment of diphtheria. The following is a free translation, for which we are indebted to a distinguished correspondent.

With open mouth and eyelids closed,
Without a cloud upon the brows
The mothers watch the infants posed,
In downy cots of lovely rose.

Beneath the fresh and pearly skin,
The blood still flows in purest blue,
Man's future heart there beats within,
With peach-like breath his lips bedew.

Anon! with curls and flowing hair,
They make the fields with laughter ring,
And like the larks in lofty air,
Proclaim the glory of the spring.

The step is firm, the soul is gay,
Bright prospects of the future rise,
On them the sun pours every ray,
They feel that they could scale the skies.

One night a monster like a wolf,
Springs with his claws upon the throat,
It is the hideous strangling croup
Which hisses like the bellows' note.

But see, the thickened blood moves not,
Now sometimes hot, now sometimes cold,
The raving children clutch their throat,
To drag the fiend from his stronghold.

The hissing, crowing, creaking voice,
As if in iron vice were held,
Which crying out—More air, more air,
Dire as in Dante's Hell is told.

See mother's love and her caress,
To seize and crush the demon black.
On strangling babe her lips to press,
To drive the hideous monster back.

The mother's prayers now mixed with tears,
In bitter drops and pain acute,
Display her anguish and her tears,
Whilst croup yet makes the cradle mute.

But hark! a smile now lights the bed,
Where mau with strength sublime is led,
Cooling the fever and the breath:
Science now has conquered death.

The monster now has found his peer,
And must submit to Nature's laws;
The dying may no longer fear,
He never more can use his claws.

Behold the hero of the day,
Of grand and everlasting fame,
Who stood upright in battle's fray,
With care preserve the giant's name.

Thank him, Oh France, with all thy lands,
Who fruitful now will make thy race,
To fight against the world-wide bands,
And bear triumphant flags apace.

And now you mothers on your knees,
Fill the box with joyful voices:
Henceforth let all your sorrows cease,
On your path the sun now rises.

S. W.

A DISCLAIMER.

MESSRS JAMES MOTT AND SON (29, Queen Street, London, E.C.) write: In the BRITISH MEDICAL JOURNAL of December 15th, referring to the report of the General Council of Medical Education and Registration, with reference to our client, Mr. Cosgreve's balsamic elixir, it is stated that the medicine had been analysed, and had been found to contain certain ingredients—namely, infusion of elderberries, a little friar's balsam, and a little allspice. Our client denies this statement *in toto*, and has requested us to write and ask you as a matter of justice to him to insert this letter.

CHLORATE OF POTASSIUM LOZENGES AND A MATCH BOX.

DR. LINDSAY JOHNSON (Stratford Place, W.) writes: A few days ago a private patient of mine was suffering from aphthous sores on the tongue. For the cure of these I ordered the ordinary chlorate of potash lozenges (*B.P.*), which he kept loose in his waistcoat pocket for convenience. Without thinking what he was doing he put an unopened Swedish safety box of matches into the same pocket. While bending down to pick up something on the floor the lozenges rubbed against the friction paper on the outside of the box. This set the entire box alight, and the heat kindled all the matches in the box. The heat generated decomposed the chlorate lozenges, and the oxygen set free intensified the combustion tenfold. The result was that the gentleman was instantly in flames, the combustion being of explosive violence. Had we not instantly thrown a pail of water over him the result must have been fatal, as the combustion was inconceivably violent. He was frightfully burnt as it was, but fortunately he has escaped without permanent disfigurement. I think in future it might be well if a caution were to be printed on the bottle or box in which the lozenges are kept to the effect that they should in no case be carried loose.

THE HEREDITY OF PHTHISIS.

MR. WILLIAM SEDGWICK (Gloucester Place, W.) writes: Your correspondent, Dr. Gilbert Richardson, in his comments on the recent debate at the Royal Medical and Chirurgical Society on the heredity of phthisis, has emphasised some of the remarks which I made both on the limited value of statistics in the study of this subject, and also on the great tendency there is to overlook the importance of distinguishing between transmission and development in morbid inheritance. The substitution of statistics in place of family history in heredity has often led to inconclusive, and sometimes, as your correspondent justly states, to peculiarly fallacious results. This was to some extent pointed out during the discussion on Dr. Edward Smith's paper, entitled A Statistical Inquiry into the Prevalence of Numerous Conditions affecting the Constitution in One Thousand Phthisical Persons when in Health, which was read at the same Society on March 25th, 1862; and it was during the debate on this paper that the late Dr. Headlam Greenhow gave the histories of three families which had come under his own observation, in which there was well-marked limitation of the disease by sex, and which I cited on the occasion referred to. The influence of this sexual limitation had led to all the sons in the first of the three cases dying of phthisis, whilst the daughters escaped; and in the second and third cases all the daughters died of the disease, whilst the sons were exempt. It was specially noted in all of these three cases that the mothers suffered from asthma; and although no previous history of phthisis had been traced, yet it is allowable to assume that the unisexual development of the phthisis in each family was due to the disease having been derived from a maternal ancestor at least two, if not more, generations back.

There are, as is now fairly well known, some diseases and defects which are habitually subject to the full influence of heredity, both as regards their development and their transmission. Among such cases are those of colour blindness, hæmophilia, and some affections of the nervous system, which were formerly grouped together under the somewhat vague and comprehensive title of locomotor ataxy. In these cases the development of the disease was limited to one, and usually the male sex, whilst its transmission was generally restricted to the female sex, who, especially in cases of hæmophilia, have been long and popularly known as conductors of the disease. It will consequently be recognised that although no sex and no generation can be regarded as absolutely free from the influence of heredity, yet it may, so to speak, skip over one, two, or more generations, and reappear, through the influence of atavism, in some more or less remote descendants. It would necessarily be very difficult, if not impossible, to determine, especially in the case of a disease so comparatively common as phthisis, whether it might become altogether extinct by lapse of time. The evidence afforded by some well authenticated cases of remote atavism shows that diseases which have been subjected to the well-marked influence of heredity may be latent for many successive generations, and yet fail to become extinct. Such, for example, occurred in what has long been known as the "monument" case, for which we are indebted to the late Sir Henry Holland. In this case four out of a family of five children became blind at the age of 12 years, and the only record of any preceding occurrence of the defect was an ancient tombstone, the figures and inscriptions on which showed that a mother and her children, members of two remote generations of the same family, had also been blind.

DISTILLED WATER AS A HOUSEHOLD REQUISITE.

DR. HOWARD MURPHY (Twickenham) draws attention to the brown colour, the faint odour, and the copious slimy deposit which characterise the water at present supplied to the riverside towns. Doubtless, he says, this is due to the floods, and is probably the cause of the intestinal disorders which have lately occurred in these towns. In view of the proved inutility—nay, harmfulness—of most domestic filters he suggests the desirability of devising an apparatus by which distilled water might be produced; something cheap, simple, strong, easily cleaned, and not too heavy. Of course in most large steamers trading to fever-stricken tropical countries distilled water is used for drinking purposes and distillatory apparatus is provided, but we fear that the latter does not generally comply with any of the conditions laid down, except may be in regard to strength.

SMALL-POX AND VACCINATION IN ITALY.

WE have received from Professor Ruata, of Perugia, a letter with regard to an article entitled Small-Pox and Vaccination in Italy, published in the BRITISH MEDICAL JOURNAL on October 13th, 1894, p. 834. The main part of this article was occupied with an account of the arrangements made by the Italian Government for the production and supply of calf lymph, but at its conclusion certain statistics were quoted from an official publication showing the number of notifications and deaths from small-pox in Italy during the five years ending 1892. Professor Ruata criticises the deductions from these figures. He says in the first place that vaccination was so general in Italy before the passage of the law as to compulsion that that law could not produce any effect. He writes: "The act of 1888 on compulsory vaccination was not felt at all, as vaccination was going on so completely that in no place of Italy it had to be applied," a somewhat surprising assertion in view of the fact that the Legislature considered it necessary to pass the law. He considers that the decline in small-pox in Italy in 1891-92 is to be attributed to periodic variation. In 1883 the death-rate was as low as in 1892, and adds that recently Bitonto, a small town near Bari had 500 cases of small-pox in a few days. So far as we understand from Professor Ruata's letter, he does not dispute the accuracy of the statistics published in the JOURNAL, which, as we have said, were taken from an official source, but only their interpretation. Professor Ruata thinks that the fall noticed in the number of cases and o

deaths in Italy since the compulsory law was passed has nothing to do with the law, but that in future epidemics Italy will suffer as much as before. We hope he is wrong, and the experience of other countries, of Germany especially, where compulsory vaccination has been really enforced, gives good grounds for that hope.

Professor Ruata digresses into the question of the degree of immunity conferred on children under 5 years of age by vaccination. "In the epidemics of small-pox that we had in Italy," he writes, "during the years 1887-89 the number of deaths has been: 1887, 16,249, of which 9,678 before the 5th year of age; 1888, 18,110, of which 12,010 before the 5th year; 1889, 13,416, of which 9,147 before the 5th year." He asks us to accept his assurance that "19-20ths of these children were duly and successfully vaccinated." We have no doubt that Professor Ruata believes his assertion to be correct, but we should like to know the source of these statistics, and to see somewhat fuller statistics extending over a longer period before accepting his conclusion, which is contrary to the experience of other countries. Such statistics cannot, of course, be forthcoming for some years yet.

THE GIANT AND THE CHARM.

IT was a pretty conceit on the part of a writer in *Common Sense* to picture a disease as a giant stalking the land, consuming the people with fever and putting his mark upon the faces even of those he did not destroy; an ogre, terrible and greatly dreaded, and yet controlled and rendered harmless by a little charm. "And now the giant who used to be so feared is seldom seen, as it is only in lands where there are careless people who neglect the charm that he can obtain food, and even there, as soon as he appears, the careless are so frightened that they at once seek the charm. And the name of the giant is small-pox, and of the charm Vaccination," which is good sense in metaphor.

THE GENTLE ART OF ADVERTISEMENT.

IN a subscription list published by a French newspaper the following contribution appears:

"Dr. B....., ayant guéri 6 myélites à L..... (Mayenne). 50 centimes."

(Dr. B., having cured 6 cases of myelitis at L....., Mayenne, 50 centimes—about 4½d.)

No doubt Dr. B. has reason to be gratified that he has been the instrument of curing six cases of myelitis, but one can hardly help regretting that his sense of the success which blessed his work did not find a little more generous expression. His subscription bears much the same proportion to his gratitude as Falstaff's bread did to the sack in his tavern bill. The cynic might almost suspect that the subscription was indeed bread thrown by the subscriber on the running water of publicity to return to him after many days in the shape of other cases of myelitis—or, for the matter of that, any other disagreeable things in—*its*—to cure. We have no doubt such a suspicion would be unwarrantable, but there is perhaps a shadow of excuse for it in the fact that Dr. B.'s virtue has been rewarded by an effective and cheap advertisement.

LARGE HYPODERMIC DOSES OF MORPHINE.

DR. H. W. WINDSOR-AUBREY (Bristol), writes: On June 28th, 1894, I began to attend Mrs. S., aged 52, suffering from cancer of the uterus, causing great pain from pressure on the pelvic nerves. Early in July I gave her morphine hypodermically, beginning with grain ¼. I found this useless, and rapidly increased it till near her death, which occurred on October 24th, 1894, she was having from 17 to 19 grains injected daily in three injections. The pain, from pressure, chiefly on the sciatic nerve, was excruciating, and smaller doses were useless. Contraction of the pupil was very seldom present, and never very marked. She had no headaches, and, till near her end, some time after, there were evidences of secondary cancer of liver, hardly any sickness. I think it probable she had the morphine habit. She told me it was given her hypodermically for some time for acute persistent "sciatica" (?) in Hong Kong, where she was living. She also told me the native Chinese used to give morphine injections to anyone who chose for a trifling sum. But she said she had broken herself of the habit.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Mr. R. C. Atkins, Brighton; Dr. T. C. Askin, Alderton; Arsenic; Mr. H. G. Armstrong, Wellington College; Atkins Filter and Engineering Co., London. (**B**) Mr. G. R. E. Bonsall, Aberystwith; Dr. G. Buchanan, Glasgow; Mr. D. Butler, London; British Gynæcological Society, the Secretary of, London; Mr. T. H. Brocklehurst, Weymouth; C. H. Bond, M.B., Banstead; Dr. L. Barnett, London; Mr. L. Browne, London; Mr. R. H. Barkwell, London; Sir J. Crichton Browne, Dumfries; Mr. G. B. Browne, London; Miss J. Bullen, London; Mr. F. H. Barker, London; Mr. R. H. Baxter, Bristol. (**C**) Dr. L. Cane, Peterborough; A Country Surgeon; Mr. J. Couldrey, Scunthorpe; Mr. G. F. Chutter, Birmingham; Mr. C. Cotton, Ramsgate; Mr. C. B. Cutting, Norwich; Rev. S. W. Churchill, Atherstone; Mr. E. Cotterell, London; Mr. A. Cuffe London; Dr. J. Caldwell, Barnsley; J. A. Coutts, M.B., London; Mr. J. T. Clarke, Mauritius. (**D**) F. Dixon, M.B., London; Mr. C. W. Dean, Lancaster; Mr. J. Daland, Philadelphia, U.S.A.; Dr. W. Donovan, Erdington; Mr. J. Dacre, Clifton; Mr. W. G. Dickinson, London; Dr. A. C. Dove, London; W. Dickson, M.B., Stirling; Mr. C. de Wagan, Saumur. (**E**) Mr. R. Ellis, Newcastle-on-Tyne; Mr. E. East, London; Mr. E. W. Evans, Tadley; Mr. A. Evans, Lampeter. (**F**) Dr. T. Fisher, Clifton; Mr. C. E. S. Flemming, Freshford; F.F.P. and S.G.; Mr. T. Fletcher, Warrington; Mr. D. Farrer, Bradford; Dr. M. B. Ferguson, Winnipeg, U.S.A.; Mr. C. L. Fraser, Berwick-on-Tweed; Dr. Hingston Fox, London; Mr. E. W. Forster, Darlington; Mr. W. C. Finch, Salisbury. (**G**) G. R. M.; Mr. T. Garner, London; Dr. W. Gordon, Exeter; C. H. Golding-Bird, M.B., London; Mr. T. H. Gillaw, Bromyard; Dr. W. Gay, Leeds; Mr. H. Gurney, Dovercourt; Dr. J. Gairdner, Crieff. (**H**) Mr. H. Halford, Taunton; Mr. C. Hodgson, York; Mr. H. Hutchinson, Eccleshall; E. R. Holmes, M.B., Shifnal; H. R. Hunt, M.B., Christchurch, Hants; F. J. Hicks, M.B., Funchal, Madeira; Mr. C. J. Heath, London. Mr. B. F. Hartzhorne, London; S. H. House, M.B., Leeds; Messrs. A. Haacke and Co., Celle; H. W. H. (**I**) An Interested One; Insurance; Inquirer; Dr. F. Isdell, London. (**J**) Messrs. Johnson and Willcox, London; Mr. F. B. Jessett, London; Dr. C. M. Jessop, Redhill; Messrs. Jewsbury and Brown, Manchester; Mr. R. B. James, London. (**K**) Dr. H. Kingston, London. (**L**) Mr. R. Lake, London; Mr. A. Loveridge, Newport; Mr. H. Lund, Manchester; J. Limont, M.B., Newcastle-on-Tyne; Mr. E. W. Lewis, London; L.R.C.S., L.R.C.P.Edin., Laryngological Society of London, the Secretary of, London; Lever Bros., Ltd., Port Sunlight. (**M**) M.R.C.P.; Melita; Member, B.M.A.; Dr. C. Muirhead, Edinburgh; Mr. C. Y. Moor, London; Medicus; Messrs. Manlove, Alliott, and Co., Nottingham; Dr. J. M. Moir, Inverness; R. C. Macdonald, M.B., Ollaberry; Dr. D. Mitchell, Renton; Dr. E. J. McWeeney, Dublin; Mrs. A. Maude, Westerham; Mr. F. Maynard, Calcutta; M.B., M.A.: Member; Mr. F. P. 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A NOTE ON THE TRANSMISSION OF THE INFECTION OF TYPHOID FEVER BY OYSTERS.

BY SIR WILLIAM BROADBENT, BART., M.D., F.R.C.P.,
Physician-in-Ordinary to the Prince of Wales, and Senior Physician to St. Mary's Hospital.

FROM time to time I have seen cases of typhoid fever apparently attributable to oysters, but it is only in the course of the last autumn that the evidence of communication of typhoid by this means has been of such a character as to produce a conviction in my mind. I consider it my duty to make this evidence known, not only because it may be the means of preventing disease being thus communicated, but also because contamination of oysters by the typhoid poison can only be accidental, and is therefore probably preventable.

I saw on November 12th, 1894, with Dr. McCaskie, a young married lady who had been attended a little more than a month previously by Sir John Williams in her confinement. Up to the time of the attack, for which I was consulted, she had made a favourable recovery. The precautions against the communication of disease of any kind were more than usually careful. Milk and water were boiled, and the sanitary arrangements of the house were perfect. No other inhabitant of the house was ill in any way. In the course of her convalescence from the confinement she had oysters, and in about ten days later was attacked with typhoid fever of an unusually severe type, with early acute tympanites, which proved fatal.

On December 6th I saw, with Dr. Benson, a young gentleman who, three weeks before, had had an attack of influenza. After subsidence of the fever he was kept in his room on account of bronchial catarrh. During this time he partook freely of oysters. The sanitary arrangements of the house were faultless; no other member of the household—a large one—suffered; no other source of the attack of typhoid fever, from which he suffered, could be traced.

On November 27th I saw, with Mr. Manley Sims, a gentleman and his wife who had simultaneously been attacked with typhoid fever. The sanitary surroundings were irreproachable; no possible source of typhoid fever could be traced, except that a fortnight before they had partaken of oysters. The simultaneous attack was strong evidence of simultaneous exposure to the poison. One of these cases ran a somewhat severe course; the other, in respect of fever, was mild, but was attended with more than usual gastric catarrh. In the course of our attendance on these cases Mr. Manley Sims gave me particulars of an extremely severe attack of typhoid fever in a child, aged 8. No other member of the household was affected, and no possible source of poisoning could be traced, until it was ascertained that shortly before the attack the child had eaten twelve oysters at the house of friends of the parents.

On November 23rd I saw a young married lady who, ten or fourteen days previously, had on two occasions had six oysters with a young married lady of about her own age, a cousin. She had a mild attack of typhoid fever, attended, however, with unusually severe gastric catarrh. Her cousin, who meantime had gone to Italy, also suffered from typhoid fever.

On November 19th, 1894, I saw, with Dr. English, two young men living in the same house, one being the brother-in-law of the other. The sanitary arrangements of the house were good. No other member of the household suffered. The two young men were engaged together in the City in irreproachable surroundings. They had simultaneously been taken ill with an unusually severe form of typhoid fever. One was moribund at the time of our first consultation; the other, after apparently recovering from the severe symptoms, of which acute tympanites was one, ultimately died of perforation. No cause for the disease could be discovered, except that after visiting a theatre they had had an oyster supper together some ten days previous to the setting in of the symptoms.

Early in December I was called in consultation into the country by Dr. Forster of Daventry to see a clergyman and his daughter, 12 years of age, both suffering from typhoid fever. The daughter had been attacked a few days before her father. Typhoid fever was an unknown disease in the neighbourhood, the sanitary arrangements were those usually found in a large country house. Great attention had been paid to the ventilation of the drains and cess pit. No other member of the household was ill. About a fortnight before the attack they had twice had oysters down from London, which had been eaten by the father and the little girl, no one else having partaken of them.

Other cases in which the evidence was equally convincing have come to my knowledge although the patients have not been under my care, and I have seen several cases of typhoid fever in gentlemen engaged in the city, their families at home not suffering. On inquiry it has been found that they frequently took oysters for lunch.

ON THE PERSISTENCE OF THE BACILLUS OF LOEFFLER AFTER RECOVERY FROM DIPHTHERIA.

BY E. A. SCHÄFER, F.R.S.,
Professor of Physiology in University College, London.

THE following facts are of interest in connection with the persistence of the Loeffler bacillus after diphtheria, and the effects of antoxic serum in this disease.

On November 28th, 1894, in conjunction with Dr. Muspratt and Mr. McGillicuddy, of Bournemouth, I administered 10 c.cm. of antitoxin, furnished by Dr. Ruffer, to each of two school-boys (aged 13) suffering from diphtheria. The clinical appearances were unmistakable, and were confirmed by bacteriological investigation. The dose was repeated in twenty-four hours, by which time a marked improvement was manifest in both cases, and in another twenty-four hours the membrane had totally disappeared in one case, and almost so in the other. To hasten its removal this second boy received a third injection of 10 c.cm. on the morning of November 31st, this time with antitoxin of Dr. Klein's preparation. By the same evening no trace of membrane remained, and both boys were practically convalescent. Their recovery has been uninterrupted, but the one boy who received only 20 c.cm., and who was also not treated until the sixth day of the disease, had some albuminuria during convalescence, and has since had slight paralysis, whereas the other boy, who received in all 30 c.cm., and was treated on the third day of the disease, has had no albumen, and up to the present has shown no symptoms of paralysis.

Samples of the two boys' mucus were sent from time to time to Dr. Ruffer for examination, and up to four weeks from the disappearance of the membrane they afforded on cultivation abundant colonies of the Loeffler bacillus. After four weeks these showed "many involution forms," and a sample taken from one of the cases at five weeks after the disappearance of the membrane no longer furnished evidence of their presence.

Another boy in the same school had an attack of "tonsillitis" early in May last, which was only recognised as diphtheritic on the appearance two months later of characteristic paralyses. A sample of mucus from this boy's throat was sent seven months and a-half after the attack, along with the others to the British Institute of Preventive Medicine for comparison with them, and was found to present numerous colonies of the typical Loeffler bacillus in serum cultivations; these cultivations have since been used successfully for inoculation of animals. It will be interesting to determine how much longer the organism continues to manifest itself in this case, and whether in cases treated by antitoxic serum the period is reduced; in the meantime the fact of a persistence of pathologically active bacilli already extending to seven months and a-half furnishes food for reflection. As regards a possible connection between the "May" and the "November" cases it may be noted that one of the "November" cases slept in the same dormitory, and the other one shared a desk with the "May" case.

The sanitary arrangements of the school are excellent, and both drinking water and milk are always boiled. There have been no other cases of diphtheria either in the school or

neighbourhood, and the "May" case appears to have been imported, for it developed immediately after the holidays. As it was unrecognised, no disinfective measures were adopted, although the patient was isolated during the attack of "tonsillitis."

SIXTY-SECOND ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION,
Held in Bristol, July 31st, and August 1st, 2nd, and 3rd.

PROCEEDINGS OF SECTIONS.

SECTION OF OBSTETRIC MEDICINE AND GYNÆCOLOGY.

J. G. Swayne, M.D., President.

THE TREATMENT OF UTERINE HÆMORRHAGE DURING THE LAST TWO MONTHS OF PREGNANCY.

By W. J. Smyly, M.D.,
Master of the Rotunda Hospital, Dublin.

Uterine hæmorrhage occurring during the last two months of pregnancy may result from a wound or disease; but in the vast majority of cases it is due to the premature separation of the placenta, and in the limited time allotted to me I shall consider only those hæmorrhages which proceed from the placental site.

The uterus is divided by Nature into two distinct portions, an upper and a lower. These two portions can be distinguished both in the pregnant and the non-pregnant state, but the difference is most apparent after parturition. The upper segment is thick and muscular, the peritoneal covering is intimately connected with it, and its arterial supply is derived directly from the uterine and ovarian arteries. The lower segment is thinner, less muscular, but more elastic than the upper: the peritoneal covering is loosely connected with it by connective tissue, and the blood vessels pass to it through the upper or contractile portion. The line of junction of these two segments of the uterus is termed the contraction ring.

The placenta may develop in any part of the uterus; it generally does so in the upper segment; this is therefore the normal site, but the placenta may grow partly or altogether in the lower segment, and the placenta may be situated its premature separation causes hæmorrhage. We distinguish those which proceed from the normal site as accidental, and those from an abnormal site as unavoidable hæmorrhages. Neither of these terms is altogether satisfactory, but they have the sanction of long use and general acceptance; and it is improbable that we shall see them replaced by better ones, nor is it possible to draw the line exactly between these two forms of hæmorrhage; anatomically we should consider all cases in which the placenta dips down below the contraction ring as examples of placenta prævia, but clinically the majority of these cannot be diagnosed as such, and are therefore classed amongst accidental hæmorrhages.

Placenta prævia occurs most frequently in women who have borne many children in rapid succession; who have relaxed subinvoluted uteri, and who have suffered from leucorrhœa. It occurs with relative frequency in women who have frequently aborted, or who suffer from retroversion, myoma, or carcinoma of the uterus; in fact, in connection with an enlarged and diseased uterus. It has also been observed to recur in plural births and in the same woman in subsequent pregnancies.

The placenta in these cases is seldom normal, it is generally thinned out and covers a large surface; there are often membranous spaces in it, with little or no placental tissue. Placenta succenturiata is common, and the insertion of the cord is eccentric or velamentous. A very interesting and important specimen was shown by Hofmeir in 1888 at the meeting of the German Gynæcological Association in Halle. It was a fifth-month pregnant uterus, in which a portion of the placenta grew from the decidua reflexa, and covered the os internum, whilst the remainder of the placenta was attached to the middle of the uterus. From these facts it may be inferred that the low attachment of the placenta may be due to four different causes. A very large placenta, as in plural pregnancies, may not have room to develop in the upper part of the uterus, and therefore spreads into the lower segment. In the normal uterus the walls are convex inwards, and pressed together so that there is only a potential cavity; in metritis the walls are often concave inwards, forming a true cavity, thus permitting the ovum to descend. The ciliated epithelium in the normal condition probably delays the descent of the ovum: but in disease this epithelium is shed. Lastly, the placenta may develop partly from the decidua reflexa, and so become spread over the os internum. This abnormality has been attributed to a diseased serotina forming an imperfect placenta, to compensate which the chorionic villi, within the reflexa, develop placental tissue.

The diagnosis of placenta prævia depends upon, hæmorrhage occurring towards the end of pregnancy or the commencement of labour: and feeling the placenta through the cervix or os uteri. Formerly importance was attached to hearing the placental *souffle* over the pubes or *per vaginam*, and to the effect of the labour pains upon the flow of blood, but neither of these has any diagnostic value.

It is difficult to account for the hæmorrhages which occur before labour commences. Possibly they are due to a disproportion between the placental site and the placental area. When they commence with labour, they are due to the physiological process by which the ovum is separated from the lower part of the uterus. At the commencement of labour the lower uterine segment is hemispherical, and is occupied by the presenting part of the fœtus, through which it directly receives the uterine pressure, and over which it is gradually drawn upwards, being converted as the os dilates into a cylinder, equal in circumference to the presenting part of the child; at the same time, the bag of the waters is pressed down into and dilates the cervical canal, and orificium externum. So long as the membranes remain intact the ovum is driven downwards by the uterine contractions, the lower uterine segment being at the same time drawn upwards, a separation takes place between the two, and the lower pole of the ovum is cast free from its uterine connections; this separation commences at the os internum and gradually extends upwards towards the contraction ring. When the membranes rupture, however, the fœtus only is driven downwards, the membranes being drawn upwards with the uterine wall to which they are attached. Should the placenta, which is a specially modified portion of the fœtal envelopes, be developed at the lower pole of the ovum, it will be separated with the latter, and hæmorrhage occurs: as the detachment extends more vessels are opened, but as the detachment may cease with the rupture of the membranes so may the bleeding also.

Treatment.

In almost every case of severe hæmorrhage the os will be found sufficiently dilated to admit two fingers; a foot should then be brought down, when the rupture of the membranes, and the pressure of the fœtal body upon the placenta, will control the hæmorrhage; and the further progress of the case is left to the natural efforts. Should flooding continue, however, gentle traction upon the leg of the fœtus is all that is required. If any part of the fœtus present excepting the lower extremity, version either by abdominal manipulation or by Braxton Hicks's bipolar method is a necessary preliminary to bringing down the foot. This is the routine practice, and is applicable to the great majority of cases. There are two conditions, however, in which it is inapplicable—first, where the os internum will not admit two fingers: and, secondly, where labour is so far advanced that version is impossible or unnecessary. In the first of these I should plug the vagina, but such cases are rarely met with. Out of 50 cases that we have treated in the Rotunda Hospital and extern maternity during the past four years I have not once met with such a case. When labour is far advanced, and the os well dilated, rupture of the membranes is all that is required.

Other methods of treating placenta prævia should be mentioned, but I do not recommend any of them. *Accouchement forcé* has, I hope, been universally abandoned. Dr. Barnes's method of separating the placenta from the lower zone of the uterus is good and scientific, but it does not with absolute certainty control the bleeding, and by rupturing the membranes early in labour it renders version more difficult should it afterwards become necessary: besides the separation of the placenta with the finger, even with the most careful antiseptic precautions, is not free from risk. It is, however, preferable to the method still so frequently adopted of plugging the vagina until the os is sufficiently dilated to admit the hand, and then performing internal version followed by extraction. This method entails a number of dangers, resulting in a maternal mortality of about 24 per cent. The plug itself is a source of danger, especially when it has to be frequently renewed. It may introduce septic matter from without, and causes a stagnation of the discharge which is liable to putrefaction; besides, it entails loss of time and considerable hæmorrhage before the os is sufficiently dilated to effect delivery. The introduction of the hand may carry up septic matter from below, and favours the entrance of air into the veins, a recognised cause of death in these cases. The extraction of the child may cause deep cervical lacerations, and the emptying of an imperfectly retracted uterus predisposes to atonic *post-partum* hæmorrhage. The method already recommended minimises all these dangers. The early performance of version prevents excessive *ante partum* hæmorrhage; the plug is not employed, the hand is not introduced into the uterus, and the expulsion of the child being left to Nature, *post partum* hæmorrhage is efficiently guarded against. The mortality following this method is under 7 per cent. Out of 20 cases treated in the wards of the Rotunda Hospital during the last four years and a-half two patients only were lost; one died of pulmonary embolism on the eighteenth day and the other from rupture of the cervix, having been delivered during my absence by internal version followed by extraction; she died in a few minutes. Excluding this case the mortality was under 6 per cent.

Accidental Hæmorrhage.

This term suggests that the premature separation of the placenta from the normal site is always the result of violence. Too many well authenticated instances have been recorded in which the flooding immediately succeeded a fall, a blow, lifting heavy weights, and even a hearty fit of laughter, for us altogether to deny that the injury and the flooding were related to one another as cause and effect; but I very much doubt that such accidents could cause the separation of a normal placenta, and in the great majority of cases there is no history of an accident. Accidental hæmorrhage has been observed following upon violent mental emotion and in connection with exophthalmic goitre, uterine deformity, a very short funis, hydramnios, and plural births; in the two latter probably owing to the retraction of the uterus, and a loss of accommodation between the placental area and the placental site. But I believe by far the commonest cause of premature separation of the normally situated placenta to be disease of the uterus, and especially of its lining membrane; and though I am not acquainted with any exact observations in proof of this statement, yet there is a concurrence of probabilities to render it certain, amongst which may be mentioned its frequent association with syphilis and renal disease. The blood vessels participate in the disease of the decidua, and are thus predisposed to rupture; the extravasated blood separates the placenta from the uterine wall, and more bleeding takes place, until the tension in the cavity formed is equal to the maternal blood pressure. Evidence of this is found in some cases of placental apoplexy. In other cases the hæmorrhage continues because, either the uterine wall yields to the pressure of the accumulating blood, or the latter escapes externally. The former is termed concealed internal hæmorrhage. The causes usually assigned for the retention of the blood in the uterus are adhesion of the placental margin, hæmorrhage into the ovum, firm attachment of the membranes around the internal os, and the adaptation of the lower uterine segment to the presenting part so closely as to prevent the escape of blood between them. But I am sure that disease of the uterine wall, rendering it unable to resist the blood pressure, so that it yields before it, is a much more important factor, and I cannot believe that in a normal uterus a fatal hæmorrhage limited to the placental site could take place.

Symptoms.

In many cases the flow of blood is the only symptom. It is often thin and serous, or dark and venous in character; but in severe cases, and especially where no blood escapes externally, other symptoms are well marked and are due partly to the loss of blood and partly to shock. The woman becomes pale, cold, faint, with an anxious expression and dark rings around the eyes; the pulse feeble and rapid. She complains of pain in the abdomen, of a dull aching or severe colicky or bursting character; uterine contractions are generally feeble or absent. If the patient does not succumb to shock, symptoms of acute anæmia become more marked, restlessness, jactitation, yawning, and dyspnœa supervene. Upon examination the uterus is found distended, harder than normal, often tender. The enlargement may be limited to a part of the organ, which is more prominent than the rest; no fœtal parts can be felt, no heart heard. A bulging downwards of the cervix has been described, but nothing characteristic is usually to be discovered *per vaginam*.

The symptoms resemble those of rupture of the uterus or of an ectopic gestation. The former, however, usually occurs after the patient has been some time in labour. The pains cease suddenly; there is recession of the presenting part and the fœtus can be palpated. The latter is distinguished by the relation of the round ligament and the flaccid condition of the lower uterine segment.

Prognosis.

Many cases of external hæmorrhage are slight, but others are very severe, and internal hæmorrhages are always serious, because they are only possible in a profoundly diseased and atonic uterus, the distension of which increases the shock, and, by enlarging the placental site, increases the hæmorrhage also, and renders the rapid expulsion of the child impossible. Out of 110 cases collected by Goodell 54 mothers died and only six children were born alive. Hæmorrhages occurring before are more serious than those accompanying labour.

Treatment.

It is unfortunately impossible to lay down any routine treatment applicable to all cases: the condition of the patient as regards shock and anæmia, the presence or absence of labour pains, and the state of the os and membranes, must be the chief guides to treatment. Some cases require no interference, and in others simply rupturing the membranes will suffice, but the value of this method has been greatly over-estimated, and in my opinion its employment should be restricted to cases in which labour is well advanced, and where, in case of necessity, version, forceps, or perforation could be immediately resorted to. If, on the contrary, the os be small and the pains feeble or absent, the membranes should be preserved as long as possible; their rupture favours hæmorrhage by diminishing intrauterine tension, delays the progress of labour, and renders version more difficult should it subsequently become necessary. This appears to me to be a question of the utmost importance. Does the escape of the liquor amnii bring on labour pains with sufficient promptness? and does it stop the hæmorrhage in the class of cases which I have indicated? In my experience it has not done so, and hours might elapse before uterine action sets in. Under these circumstances the blood pours into the empty uterus, nor can the flow be in any way controlled until the organ is emptied, a proceeding under such circumstances attended with the greatest risk; and my own experience fully corroborates the opinion of my predecessor. Dr. Collins, who in the report of his Mastership, published in 1836, wrote as follows: "I know of no operation more truly dangerous both to mother and child than the artificial dilatation of the os uteri and turning the child; and confident I am that the practitioner who adopts such a line of practice, except from strict necessity, will often have abundant cause to regret his proceedings." We must not forget that these patients are suffering from shock as well as hæmorrhage, and that it is liable to be increased to a fatal extent by the *accouchement forcé*. It is better in such cases to combat shock and endeavour to restore the patient by every means in our power. Where blood escapes externally and the membranes

are intact, a hot vaginal douche, a firm tampon, and the application of a binder are of much use. They check external hæmorrhage, increase the intrauterine tension, and induce or strengthen the labour pains, nor do I think the objection that the tampon converts an external into an internal hæmorrhage holds good in practice. After rupture of the membranes, however, the plug is never to be employed.

In internal hæmorrhage, if labour is sufficiently advanced, the patient may be delivered by the forceps, version, or perforation, whichever appears to offer the best chance for the mother; the child, being dead, need not be considered, but most of these cases occur either before or at the very commencement of labour. Under these circumstances one must not be in too great a hurry to interfere. In some cases the hæmorrhage may have ceased, the overdistended uterus being unable to contain more blood, and we should endeavour to restore the patient and carefully watch her symptoms; to plug the vagina or rupture the membranes would be useless. If she gets worse we shall have to choose between *accouchement forcé* and Porro's operation; the latter I believe to be the less hazardous proceeding. I am only acquainted with one case in which this method has been employed in accidental hæmorrhage. It occurred in our extern maternity, and was performed under most disadvantageous circumstances by my former assistant, Dr. Bagot, now of Denver, Colorado. The woman made an excellent convalescence, and the case was fully reported by myself at the Bournemouth meeting of this Association.

In conclusion, I may thus epitomise the treatment of accidental hæmorrhage:

1. When the os is small and labour pains weak or absent, preserve the membranes intact as long as possible; in external hæmorrhage plug the vagina.

2. If labour is well advanced rupture the membranes, and if hæmorrhage continues deliver by the safest method available.

3 In internal concealed, and in some cases of external, hæmorrhage, if a vital necessity, deliver by *accouchement forcé* or Porro's operation.

In all cases the ruling principle should be to proceed with as little force and precipitation as possible.

Dr. Robert Barnes congratulated Dr. Smyly on the successful exposition of an important subject. In reference to placenta prævia he called attention to the fact that the uterus was divided into two sections divided by a line; he felt justified in saying that the line of demarcation, to which a German had attached his name, had been described and figured by himself thirty years before. He objected to plugging -plugs were a delusion—the cervix could always be dilated gradually by the bags, thus avoiding all necessity for stretching the cervix by hand. His mortality had not been greater than Dr. Smyly's. With regard to accidental hæmorrhage he agreed that disease of uterus leading to disease of placenta was usual.

Professor Byers (Belfast), speaking of placenta prævia, said that in those cases in which the os was so far dilated as to admit two fingers (and these formed the majority), they were all agreed that bipolar turning, bringing down a part, and then, if possible, leaving the delivery to Nature, was the most scientific plan of treatment. When, however, the os would only admit one finger he thought the use of Champetier de Ribes's bag was a great gain, as by it the cervix was dilated, the hæmorrhage stopped, and when the bag was expelled delivery could be easily effected. As to the treatment of accidental hæmorrhage, he thought, if there were pains present, rupture of the membranes was good practice, enabling the uterus to contract, and to embrace firmly the child. By both these procedures bleeding was stopped. In cases of accidental hæmorrhage, in which pains were not present, he thought, with Dr. Smyly, it would be better to rally the patient first, and afterwards to adopt the plan of delivery suited to each case.

Dr. More Madden (Dublin) thought that in discussing the hæmorrhages of the latter months of pregnancy it was desirable to retain Rigby's time-honoured classification—namely, accidental and unavoidable. In the majority of cases of unavoidable hæmorrhage the discharge first showed itself during the eighth month. In such instances, if the hæmorrhage were frequently repeated, or serious, Dr. More Madden would protest against any merely expectant or temporising treatment; the most effective methods safely practicable for the immediate arrest of hæmorrhage and completion of delivery should be adopted. The practice which he recommended was thoroughly to wash out the vagina with some antiseptic solution, and firmly plug from the vulva to the roof of the vaginal vault with sponges rendered perfectly aseptic by corrosive or carbolic solution, and then soaked in pure terebene. On the removal of this plug it would generally be found sufficiently dilated or dilatable to admit the surgeon's hand, and the accomplishment of immediate delivery by version. This, if performed with proper antiseptic precautions and in suitable cases, was hardly less safe, and was far more generally feasible than the methods of version by external manipulation. In the treatment of accidental hæmorrhage just before labour, the older methods of inducing premature delivery by rupture of the membranes, so as to evacuate the liquor amnii, stimulate uterine contraction, and thus effectually arrest hæmorrhage, was generally efficacious.

Dr. James Murphy (Sunderland) thought the great secret of success in the treatment of placenta prævia was to recognise the seriousness of the complication, and to take advantage of the preliminary warnings which were given by the hæmorrhages which almost invariably took place during the last months of gestation. Gestation should be terminated in every case in which the hæmorrhages occurred after the seventh month. The method of Dr. Barnes was the one that he adopted. Dr. Murphy said that his cases now numbered 63, with only 2 deaths; one of these patients was moribund when first seen.

Professor Murdoch Cameron (Glasgow) said that in his own experience the hæmorrhage of the last two months of pregnancy had been due to faulty insertion of the placenta. He could not remember a single case of serious hæmorrhage during these two months resulting from normal attachment. It had been mentioned that Porro's operation had been performed for hæmorrhage. Such treatment he thought unjustifiable, more especially as he was convinced that the os uteri was easily dilatable. He had found Barnes's bags of the highest service, but at the same time, in general practice, plugging with linen napkins was good. Champetier de Ribes's bag he thoroughly condemned; its size was against it when the os was not well dilated; was also a drawback in the cavity of the uterus. In all cases of hæmorrhage the os was easily dilated.

Dr. William Donovan (Erdington) said that in treating hæmorrhage the result of placenta prævia he still followed the plan taught by Dr. Harvey of Cork, some thirty years ago. This was that when hæmorrhage occurred in the seventh month of pregnancy resulting from placenta prævia the fingers should be passed into the vagina, the os dilated, and a foot brought down. In placenta prævia hæmorrhage he had found no difficulty in dilating the os and getting hold of a foot; that done he left the case to nature. He had never used Barnes's or any other bags, nor had he used plugs, as he held it to be the duty of the obstetrician to terminate the case at once, and not to trust to anything less than version and a leg or foot brought down.

Professor W. L. Reid said that he had been in the habit of trusting to antiseptic plugging in the early stages of both kinds of hæmorrhage. Since real antiseptic precautions were employed he had had few cases of septic mischief. The labours were ended mostly by version in a few by the forceps.

Mrs. Scharlieb, M.D., said that in abortion and in placenta prævia plugging was useful as an antecedent to Barnes's bags. The vagina must be rendered aseptic as far as possible. The best substance for the plug seemed to be iodoform gauze.

The President (Dr. J. G. Swayne) quite agreed with the remark of Dr. Smyly that hæmorrhage during the last two months of pregnancy most frequently arose from partial detachment of the placenta, but stated his belief that it often arose at a much earlier period, although it was difficult to prove that it arose so early from that cause. At the time of quickening a sudden rise of the uterus, so often arising from that cause or hysterical convulsions, so-called, which are so frequently observed at this time, may easily induce a detachment of a portion of placenta, and be a cause of the daily hæmorrhages

from that cause which go on persisting, and reduce the condition of the patient so much as to render the induction of abortion necessary.

Dr. BOXALL, speaking from his observations made some years ago at the General Lying-in Hospital, on the position of the placenta with reference to the cervix, was surprised to observe the frequency with which the dangerous zone was encroached upon, even without hæmorrhage taking place. In some hundreds of cases, at the beginning of labour, by means of a stylet armed with dye in a catheter introduced into the cervix, he stained the portion of the fœtal envelope lying immediately above it: and after the delivery of the afterbirth, he measured the distance between the nearest margin of the placenta and the stain. This afforded the data necessary for the above observation, as in addition the time of rupture of the membranes was in each case noted. The reason for the absence of hæmorrhage in so many of the cases became apparent. It was found that when the membranes had ruptured prematurely no loss as a rule took place. This coincided with the result which was looked for in a well recognised method of treatment in cases of partial placenta prævia, to wit, artificial rupture of the membranes. In making a routine examination of the afterbirth, he had also observed that where accidental hæmorrhage had taken place, as often as not evidences of previous hæmorrhage and often repeated hæmorrhages (as may be judged from the varying condition of the clots) were to be found on the uterine surface of the placenta and sometimes of the membranes as well. In many cases no external hæmorrhage had taken place, but usually the history of some accident, such as would be likely to cause premature separation of the placenta, followed by an attack of uterine pain and discomfort, and evidence of internal bleeding was forthcoming. Moreover it was observed that the fœtus in these cases, if not dead and macerated, at any rate often gave evidence of recent interference with its due development varying in proportion to the amount of separation of the placenta. As a practical outcome of this last observation he wished to emphasise a point alluded to already in the discussion, namely, the advisability of inducing labour as soon as possible when hæmorrhage of any severity sets in during the last two months of pregnancy. This he would urge in the interest not only of the mother—and particularly when she could not make sure of immediate skilled attendance in case of need—but also of the child, and in consequence of risk to the life of the mother from recurring loss, and to that of the child from interference with its nutrition. The same reasoning applies to unavoidable as to accidental loss, and he would urge the early termination of a pregnancy. He also remarked that when the placenta encroached upon the lower pole of the uterus it was at least as likely to be disturbed from its attachment and hæmorrhage to result as when situated normally and from the operation of similar causes. In such cases unavoidable might be said to complicate accidental hæmorrhage. Much had been said in the discussion as to the applicability of internal version and of the combined method to the treatment of placenta prævia: he wished to draw attention to the special applicability of external version to some of these cases, particularly where it sometimes happened the fœtus already lay in a transverse or oblique position. In cases of accidental hæmorrhage when the cervix was, as occasionally happened, insufficiently dilatable to admit the finger or hydrostatic bags, or when the latter were not immediately available he recommended that the vagina should be first douched with hot water (110° to 115°F.) and then if necessary the vagina tamponed with aseptic cotton wrung out of antiseptic solution. The hot water in itself tended to stay the hæmorrhage and to soften the cervix and by the addition of an antiseptic afforded an opportunity at the same time of disinfecting the vagina. For plugging the vagina he preferred pads of cotton tied together in the form of a kite tail so as to allow of easy removal.

Professor WRIGHT (Leeds) asked Dr. Smyly whether he had in any of his cases diagnosed the position of the placenta from external examination. He referred to the cases in which placenta prævia was detected chiefly by palpation before hæmorrhage commenced by Professor H. Spencer. Professor Wright concluded that at the present time, even if a case were diagnosed, premature labour should not be induced, as was advised but a few years ago. He quoted a case of fibroid with pregnancy, in which this treatment in a case of unrecognised placenta prævia led to a rapidly fatal result. Professor Wright also quoted a case of placenta prævia which occurred some years ago, in completing which the hand was passed through the middle of the placenta and the child delivered by version through it. This practice was still justifiable according to the rules laid down by Professor M. Cameron.

Mr. O'CALLAGHAN (London) wished to support the remarks of Dr. Smyly with regard to Porro's operation in certain limited cases of placenta prævia, and to say emphatically that there were cases in which it was the only hope held out to the women. The cases were not met with in the neighbourhood of a well-managed maternity hospital, as they were recognised early and conducted to a successful termination. But he had met them in the neighbourhood of a large county town. In two cases he had been sent for a long distance into the country, and found the woman blanched and pulseless, with a history of hæmorrhage going on for weeks previously. He had emptied the uterus in the manner advocated by previous speakers, and before the child was delivered the woman died. These were the cases that justified Porro's operation, and should he ever meet with such a case again he would unhesitatingly stop the fatal hæmorrhage by this simple method, and give the woman her only chance.

Dr. AUST-LAWRENCE (Bristol) thought that a woman who was over seven months pregnant and who was bleeding to any definite extent or had evidence of internal bleeding ought not to be left until she was delivered. The best plan was to plug the cervical canal and the vagina with iodoform gauze, and to deliver slowly and with due care to avoid injury to the cervix.

Dr. SMYLY replied briefly. He considered that very frequently easy dilatation meant easy laceration, the cervical tissues giving way like wet paper. He considered that the not having seen a case of concealed internal hæmorrhage did not preclude its occurrence.

IMPERFORATE HYMEN: IMPERFORATE OS UTERI: HÆMATOMETRA: HYSTERECTOMY.

BY JAMES MURPHY, M.A., M.D.,

Surgeon to the Sunderland Infirmary, and Lecturer on Medical Jurisprudence University of Durham.

I AM indebted to Dr. Morton of Philadelphia, co. Durham, for this very interesting and curious case. Mrs. G., aged 42, married 25 years, had never menstruated nor suffered from any periodical troubles. She had enjoyed fairly good health till four months previously to my seeing her, when she was found to be suffering a good deal of pain in the lower portion of her abdomen on the right side, and was losing flesh. On admission into the infirmary a large fluctuating tumour could be felt extending an inch or two above the umbilicus, and situated principally on the right side. On introducing the finger between the labia, a cul-de-sac could be entered for 2 or 3 inches, beyond which no tumour could be found. By passing the fingers into the rectum, no tumour could be found, or any traces of a uterus, but the cul-de sac could be inverted and protruded through the labia as one can turn out his trousers pocket. Abdominal section was performed, and a tumour was discovered covered by a thick layer of peritoneum, and was of a greyish colour. The introduction of a trocar allowed the escape of some 10 ounces of brown serum. On enlarging the wound, a large mass of organised blood clot was removed, and the uterus, for such it was, was then shelled out of what appeared to be the broad ligament, and was ligatured at its base by a silk ligature and removed. The broad ligament was then sutured to the abdominal wound, and as there was free hæmorrhage, it was plugged with iodoform gauze. The patient made an uninterruptedly good recovery.

REMARKS.

This was apparently a case of imperforate hymen where the husband's energy, although not sufficient to rupture the hymen, was in the course of a quarter of a century, equal to stretching it to the extent of 2 or 3 inches. The patient also appears to have had complete atresia of the os uteri,

but the curious point is that the womb seems to have hybernated till its owner reached the age at which most wombs become dormant, and then it seems to have realised its duties, with the results that I have related.

SEQUEL.

This patient had to be readmitted into the infirmary four months after the operation as the abdomen had become very much distended and she was suffering very severe pain. On opening the abdomen, it was found to be full of organised blood clot, all trace of the marsupialisation of the broad ligament had disappeared and the stump of the cervix appeared in its normal position and on each side a fairly normal ovary. The clot (some 60 ounces) was cleared out and no bleeding point could be discovered, and the abdomen was washed and closed. She left the infirmary quite well in three weeks, but in a few weeks more she again began to swell, the swelling increased enormously and eventually burst open the cicatrix and for some days a brown serous fluid escaped, and then she died, having, in a most positive manner refused all treatment, and to the great regret of Dr. Morton and myself no *post-mortem* examination of the body could be obtained.

NERVOUS IMPULSES CONTROLLING MENSTRUATION AND UTERINE HÆMORRHAGE.

By E. Tenison Collins, M.R.C.S.,
Cardiff

In the following paper I propose to review the nerve theory of menstruation, and to supply a deficiency without which I think it is untenable. The advocates of this theory advance the following arguments in its favour:

1. That a nervous centre is situated in the lumbar enlargement of the cord.

2. That menstruation is the result of periodic and rhythmical changes in this centre.

3. That menstruation follows the discharge of vasodilator impulses from the centre coursing along the uterine nerves to the uterus.

The phenomenon of menstruation thus advanced does not, however, bear physiological investigation: first, there is no histological element in small arteries capable of dilating the vessel unless we fully accept Foster's suggestion that the relaxation of a muscular fibre is an active process. All vessels are normally in a state of medium tone or partial constriction, and their lumen is enlarged for functional purposes by vaso-inhibitory impulses which inhibit the contraction of the muscular coat. The theory of a nerve centre from which the rhythmic discharge of impulses is so accurately timed is not in accord with what is known of other centres. Finally, the theory suggests an automatic centre, which is most improbable. The nervous centres invariably act reflexly with regard to both visceromotor and vasomotor impulses. The respiratory, micturition, and defæcation centres are all reflexly excited and the resulting movements are the effect of a reflex stimulation. The vasomotor changes similarly are the result of afferent impulses reaching the local controlling centre. Thus the taking, sight, or smell of food produces reflexly vascular dilatation of the salivary glands and flow of saliva. The presence of food in the stomach and of digestive products and waste in the intestines is accompanied by free secretion of the various digestive fluids, vascular dilatation, and peristaltic movements. It is the presence of foreign matter acting as a stimulus which reflexly is the cause of these changes.

Pathologically the presence of a polypus in the rectum, a stone or growth in the bladder is characterised by increased muscular activity and hæmorrhage; there is a discharge of visceromotor and an inhibition of vasoconstrictor impulses. In the uterus the chief symptoms of any intrauterine growth or retained foreign body is hæmorrhage reflexly excited by its presence.

The theory I wish to bring before this Section for its consideration is "that uterine hæmorrhage, menstrual, or metrorrhagic, is invariably caused by intrauterine irritation acting reflexly through a nervous centre." Physiologically we have proof of the existence of such a centre, and nerve filaments have been traced into the uterine mucous membrane. I believe that this utero-ovarian centre consists of two parts—a visceromotor controlling uterine muscular contractions intermittent in action, and a vasoconstrictor which is in constant activity, and only inhibited by the arrival from the uterus of afferent inhibitory impulses at the centre. Stimulation of the uterine nerves causes either uterine contractions or change in calibre of its arteries, or both. The arteries are, as I have already mentioned, in a state of medium constriction. When, however, there is within the uterus any foreign body or pathological change of the lining membrane, impulses are generated which pass to the utero-ovarian centres and inhibit the discharge of vasoconstrictor impulses to the uterine vessels, and additionally cause the discharge of visceromotor impulses resulting in uterine contractions. Why? Because foreign bodies are discharged from the uterus partly by expulsive contractions, partly by a blood flux. Villous endometritis, retained pieces of placenta or decidua, subinvolution with pathological changes in the mucosa, and uterine polypi are all accompanied by hæmorrhage which invariably ceases on removal of the cause. In tubal disease hæmorrhage is common, but the tubes are embryologically part of the uterus. In fibromyoma the hæmorrhage is greatly dependent on the proximity of the growth to the intrauterine surface being most marked in the submucous or polypoid forms; uterine contractions are also said to occur. In all these causes the exciting element is the new growth, morbid material, or changed mucous membrane, and the chief afferent nerve conveying the impulses to the centre is probably Johnstone's nerve.

In inflammatory diseases confined to the ovary, menstruation is frequently unaffected, but when by extension the tubes become implicated hæmorrhage occurs. In ovarian cystoma menstruation may be unaltered, or there may be amenorrhœa. It is possible that ovarian impulses may increase the discharge of vasoconstrictor impulses in contradistinction to uterine impulses which inhibit the discharges. In one form of cystoma, however, the small multilocular cystic ovary, one of the most constant symptoms is menorrhagia, but Mr. Lawson Tait has pointed out its frequent complication with fibromyoma of the uterus. Menorrhagia, too, is not uncommon in intraligamentous ovarian cysts close to the uterus, which probably by their contiguity and pressure lead to changes in the parenchyma spreading to the mucosa.

Apart from these local causes of hæmorrhage the centre, like all others, may be affected by the quantity and presence of its blood supply and by drugs acting upon it. The menorrhagia of renal, hepatic, and cardiac diseases is thus explained. In anæmia and chlorosis, on the other hand, amenorrhœa is common, and is probably due to the altered quality of blood supplied to the uterus retarding or arresting the development of the menstrual decidua. Ergot stimulates the visceromotor part of the centre, causing muscular contractions, and increases the discharge of vasoconstrictor impulses. Alcohol on the contrary inhibits vasoconstriction, and causes vascular dilatation. This effect is made use of in the use of hot hip baths, and warm gin given in cases of suppression of menstruation. Finally, the direct effect of the superintending influence of the central nervous system over local subsidiary centres is seen in cases of amenorrhœa due to fright.

MENSTRUATION.

With respect to this phenomenon, I think the uterine mucosa undergoes progressive construction for the reception and retention of the ovum. Failing this, having reached its highest state of development, it degenerates and becomes a foreign body, and so acts as a stimulus generating afferent impulses to the utero-ovarian centre, the reception of which is followed by inhibition of vasoconstrictor and development of visceromotor discharges. On this point Mr. Christopher Martin says: "In the intermenstrual periods the organ is under the control of anabolic nerves, engaged in a constructive metabolism, preparing a decidua, building a nest for the expected egg. But should impregnation not occur within a definite period, the katabolic nerves assert their influence and menstruation occurs. The actively growing cells of the endometrium undergo a rapid destructive

metabolism, the fabric of the half-formed decidua tumbles to pieces, the turgid capillaries burst and pour out the menstrual flow, which sweeps away the useless *débris*." Here, again, the discharges of automatic nervous impulses are suggested as the cause of the cell destruction, not that the cells having fulfilled their function decay, and so become the irritating means by which the vessels are reflexly dilated. The irritant also sets up reflex uterine contractions, and so the blood, according to Dr. Champneys, is squeezed out of the distended capillaries, and washes away the degenerated cells. This theory of morbid material acting as the stimulus is, I venture to think, a more practical solution of the uterine congestion than the somewhat vague theory of Leopold and others that it is due to "ovarian influence." Sometimes after impregnation menstruation continues for a time, showing that the uterus does not always adapt itself to its normal physiological contents, but treats it temporarily as a foreign body, and the so-called abortion habit may thus be possibly accounted for. In pregnancy the presence of the ovum causes vascular dilatation and later muscular contractions, both of which favour the marvellous development of the uterine substance. Further proof of this reflex theory is seen in ectopic gestation, when the false decidua is expelled and hæmorrhage occurs. Mr. J. W. Taylor has also demonstrated in his recent paper "On Intraperitoneal Hæmatocele" that the hæmorrhage is commonly from the abdominal ostium in unruptured tubal pregnancy; the hyperæmia being evidently caused reflexly by the presence of the foreign body in the tube, as a developing ovum necessarily is.

The Effect of Removal of the Appendages.

This operation is in the great majority of cases followed by arrest of menstruation. Of the various explanations that have been advanced, I shall only refer to two. Professor Sinclair states that arrest follows ligature of the ovarian arteries without removal of the appendages because the blood supply is cut off. This obviously is not the case, as the chief supply is by the uterine arteries. Mr. Christopher Martin suggests it is due to the division of the menstrual nerves cutting off the uterus from its nerve centre. Both are, I think, partially correct, but ligature of the arteries also includes Johnstone's and other nerves which are, in my opinion, the afferent nerves. It is therefore the centre that is cut off from the uterus, not the uterus from the centre. The division prevents the transmission of impulses to the centre, the vessels remain in a state of medium tone and the hyperæmia of the uterus cannot take place. At the same time it is possible that the ovaries directly or indirectly influence the formation of the decidual membrane, and after their removal this ceases to be constructed. The absence of the stimulus and of the means of transmitting uterine impulses to the centre results in amenorrhœa. In some cases after the operation menstruation still continues, and instead of an unusually deep course of Johnstone's nerve as suggested, I think it is more likely to be due to a pathological state of the mucosa stimulating subsidiary nerve endings which, in a healthy state, would not be called into play. Pozzi says: "There is one circumstance, moreover, which may favour the temporary prolongation of the menstrual nisus, and it is the presence of changes in the uterine mucous membrane or parenchyma found in cases of fibroids and of obstinate oöphoro-salpingitis for which the appendages are removed; and therefore in all these cases I hold that the major operation should be terminated by a complementary curettage." Again, "The cases in which menstruation persists seem often to depend upon a condition in which some lesion of the uterus (endometritis, etc.) plays the part of an irritative stimulus." Sänger relates an interesting case of periodic menorrhagia after castration performed for retroflexion complicated by endometritis, in which he reopened the abdomen, and found no trace of the appendages. The hæmorrhage ceased after curetting, showing the part taken by the endometritis in their production. Finally, the pseudo-menstruation following ovariotomy and salpingo-oöphorectomy has been attributed to "the mechanical stimulation of the end of the divided menstrual nerve by the traumatism of the operation originating and propagating a series of impulses along the nerve to the uterus."[1] If this were the case then, the discharge should commence soon after the ligature is applied, and not two or three days after. The explanation, in my opinion, is that the utero-ovarian centre, like its neighbour the micturition centre, suffers from the shock of the operation, and is irresponsive to afferent impulses, necessitating, in the case of the bladder, use of the catheter. After a variable period the shock is recovered from, the centre is able to respond to the impulses originated by the mechanical stimulation of the ligature, the discharge of vasoconstrictor impulses is inhibited, and a menstrual discharge ensues. This ceases as soon as the ligature is cut off from the centre by the degeneration of the nerve fibres in the immediate neighbourhood of the constricting irritant.

To sum up, therefore, the chief points in conclusion:

1. The uterus is under the control of a nervous centre in the lumbar cord.

2. Hæmorrhage from the uterus is either the result of a local uterine condition, or of influences outside the uterus acting directly on the centre.

3. Menstruation is the result of stimulation of the centre by the decaying decidual cells.

4. Removal of the appendages arrests menstruation by preventing the propagation of uterine impulses to the centre.

5. Clinically in all cases of uterine hæmorrhage it is of the first importance thoroughly to explore the state of the uterine cavity with a view to correct diagnosis and treatment.

Mr. Christopher Martin (Birmingham) said that on most points he agreed with Mr. Collins. They both looked upon menstruation as a process due to and depending on a nerve centre in the spinal cord, but Mr. Collins looked upon it as a reflex centre, whilst he (Mr. Martin) thought it was automatic. He quite agreed, however, that this centre might be excited to abnormal activity by reflex excitation from the uterus, ovary, or tube. He had often looked for Johnstone's nerve, but could never find a nerve trunk worthy of the name. There were numerous nerve filaments, but no large trunk. The difficulty in investigating the physiology of menstruation was that it was a process peculiar to the human female, and did not occur amongst the lower animals. Hence we could not elucidate it by performing vivisection experiments. The subject was one that required further investigation, and most light would be obtained by careful clinical study of cases in which operations had been performed on the pelvic organs in the human female.

Dr. John D. Williams (Cardiff) wished to state that whilst listening to Mr. Collins's valuable paper, he was carried back to the investigations which he conducted years ago upon the histology of the structures contained in the mesosalpinx, during which he very carefully examined 210 pairs of broad ligaments, and in no instance could he say that he met with a nerve corresponding to the description given by Johnstone. Many nerve fibres varying in thickness, but all of a small size, were seen.

ON SOME SYMPTOMS WHICH SIMULATE DISEASE OF THE PELVIC ORGANS IN WOMEN AND THEIR TREATMENT.

By A. Rabagliati, M.A., F.R.C.S.Edin.,

Honorary Gynæcologist, late Senior Honorary Surgeon, Bradford Infirmary.

[Abstract.]

A typical case of what is often called ovarian neuralgia was described. Women, single and married, mostly nulliparous, but sometimes multiparous, complain of lumbar, iliac and ilio-inguinal pains, aching through to the back. They are fatigued, tired, listless, often with headache. Better in bed, though not much; but pain returns when they get up. The pains are much worse during and after the menstrual periods.

In the kind of case supposed, with no gross coarse disease of the pelvic organs, vaginal examination reveals nothing

[1] Mr. C. Martin, Nerve Theory of Menstruation, *Brit. Gynæcological Journal*, vol. ix.

more than, say, a slight displacement; os, cervix, uterus, broad ligaments, and appendages being otherwise normal. In some cases a pessary seems to have relieved by its support, in others to have done harm. On the whole, Boerhaave's phrase, "disease of a lax fibre" seems best to cover the laxness and want of tone which characterise the disease. In multiparæ the parts may be more swollen and lax, and there may be leucorrhoea, which, however, is often present also in the unmarried, though to a less extent.

Different doctors take different views and give different opinions regarding this condition. One calls it neurosis and says it is, "a nervous affection," another calls it neurasthenia, a third, hysteria, a fourth, perhaps, colic. The writer remembers two cases so diagnosed—not uterine colic, which is often present, but intestinal colic, which shows itself in wholly different symptoms. Another doctor diagnoses displacement, and still another, oöphoritis or salpingitis. After much suffering and failure to find relief from one member of the faculty after another, the patient is often induced in the end to submit to what she at first resolutely put from her, viz., removal of the appendages. Except for grave disease, for example, as severe adhesive oöphoritis, salpingitis suppurativa, etc. (of course ovariotomy for large tumours is not at present in question) the writer feels strongly that oöphorectomy is an unjustifiable operation. It unsexes the women, and for the most part fails to cure their disease. A better procedure, he thinks, is his own operation of cutting down on the umbilicus, rawing its edges, removing, if necessary, a finger depression of peritoneum, and bringing the edges together. This operation does not mutilate or unsex, and sometimes cures. It has always a most marked and beneficial immediate effect on the symptoms. The *modus operandi*, both of oöphorectomy and of this operation, are explained later. The writer believes, on the other hand, however, that as a rule neither operation is necessary, as the women can be cured without. As to oöphorectomy, although he has never known death from it (which would indeed be unpardonable as a result of operation for a disease never of itself fatal), still he has known long-continued suppuration from it and slow recovery. Also as a remote result he has known new miseries from pain arising about the wound, adhesions of the stump, and so on.

Proceeding with the examination of these women, the writer finds tenderness of the oblique muscles of the abdomen, of the recti muscles, of the umbilicus itself (usually excessive tenderness there), of the quadrati lumborum, of the sacro-iliac synchondroses in most cases, and also of the sacral origins of the glutei maximi muscles. These tendernesses are not, therefore, neurotic, as is commonly supposed, but are myotic or mysitic rather. They explain, the writer suggests, the complaint made by these women, of being easily tired. The kind of pain also is an aching, such as is associated with trouble in muscles, rather than numbness, tingling, or smarting, such as characterise nervous involvement. Further, when investigation is continued, it is found that other muscles besides those named, are affected, for example, the solei and gastrocnemii, the vasti, both quadriceps extensors, glutei medii, erectores spinæ, latissimi dorsi, pectorales, teretes, sterno-mastoids, splenii, trapezii, etc., several other muscles being also named. Further than that, the writer points out that the sphincter vaginæ, the interior or pelvic face of the sacro-iliac synchondroses, the obturator muscles and membranes, the gemelli and pyriformes muscles, etc., are all tender. He also shows that the pain caused by pressing the appendages is different from that elicited by squeezing the muscles, and says that he makes a point, in examining these women, of distinguishing these different kinds of pain.

The writer draws attention to this: Minor degrees of disease may exist he says in the appendages, for example, dilatation of the tubes due to salpingitis mitis; or oöphoritis mitis may exist coincidently or simultaneously with these mysitic tendernesses; and yet the latter are by far the main or chief cause of the complaints and sufferings of the women. In this way, when the mysitis has been dealt with, the women recover, even although the salpingitis or oöphoritis remain much as they were. Of course, treatment of the perimysitis exerts a beneficial influence on the salpingitis, etc., but the perimysitis is so much the more important affection, that the salpingo-oöphoritis can often be neglected. Nevertheless, it has hitherto been considered the main disease.

Discussing the nature of the myalgia from which these women suffer, he shows by a series of arguments that it is rheumatic in character: (1) It often comes on in women who have had acute or subacute rheumatism; (2) It not infrequently results in acute or subacute rheumatism; (3) As rheumatism affects joints, so does this affection, a true joint, like the mandibular articulation, being invariably involved, as well as the false sacro-iliac articulation, also the false joints of the sternum, and the sterno-costal articulations; (4) In women suffering in this way, the tarso-metatarsal joints, the metatarso-phalangeal articulations, and the metacarpo-phalangeal joints are apt to be affected. These are admittedly rheumatic affections, and so, the writer believes, is this. (5) In myalgia, as in acute rheumatism, changes are apt to occur in the heart. The only difference is that in this affection the changes are generally slow, in acute rheumatism, rapid; but in chronic and mild rheumatism the changes are slow also. The writer criticises adversely some of the views of Dr. Pye-Smith regarding rheumatism, and dissents from them. As the result of his reasoning and study of the affection, Dr. Rabagliati names it "perimysitis rheumatica." He says there is often found coincidently, perineuritis rheumatica, affecting, among others, the infra-orbital and supraorbital nerves. The presence of tenderness over these and other nerves may have led to the general belief that the disease is a neurosis. But perhaps the main reason for this view has been that pains which are very severe at one place and time may have quite disappeared when we next see the patient. But this transitory and evanescent character is, it must not be forgotten, well marked in acute rheumatism also, in which affection it is very striking how a joint which is swollen and painful one day may be quite well the next, while another joint has become affected.

Along with perimysitis and perineuritis rheumatica is often found periostitis rheumatica, and even chondritis, which the writer believes to be rheumatica also.

The pain caused by an adherent inflamed ovary is quite distinguishable from the myalgic pain described, and besides in oöphoritis we can make out congestion and more or less fixation.

As to causation, the writer believes that the main cause is improper feeding, chiefly the bread and tea which these women mainly live on. In any case it must be the same causes which induce other sorts of rheumatism. Most of the women, even when quite young, have lost their teeth, a calamity due he believes to the same cause. The mode in which wrong feeding induces the myalgia is discussed.

As to treatment, the writer recommends placing the patient on a liberal diet, counteracting the rheumatism by appropriate remedies and washing out the waste from the blood by hot water taken an hour before food three times a day.

Finally, he lays great stress on the value of bathing, followed by methodised exercises calculated to put into action the often disused and pained muscles, and gives an elaborate series of directions for what he calls auto-piesto-myo-kinetics (or self-movement of muscles under pressure). This he much prefers to massage, which usually only implies kneading, rolling, etc., of the muscles, and no active contraction and expansion of them by the patient's own volition. He continues with a series of platinotype illustrations to show the recommended movements; and concludes with references to a number of cases to illustrate the paper.

INTRODUCTION TO A DISCUSSION ON
SURGICAL TREATMENT OF UTERINE MYOMATA.

I.—Mary Scharlieb, M.D., B.S.,

Physician to the In-Patients New Hospital for Women.

It is with the greatest diffidence that I venture to bring this paper before you, being sensible how small is my knowledge, how unripe my experience, as compared with many of my brethren and colleagues. My reason for asking your attention for a few minutes is that in the present unsettled state

of professional opinion on the treatment of myomata every case faithfully reported may serve as an element in the construction of an authoritative teaching and useful practice.

The cases on which I base my remarks are twenty in number. In six I removed the appendages for the relief of hæmorrhage, in thirteen I removed tumour, uterus, and appendages, and in one the tumour only. The six women for whom I removed the appendages all recovered, and in all but one the symptoms were entirely removed. Two cases of hysterectomy terminated fatally from shock and one from sepsis. The others all recovered and are in good health. The six cases in which I removed the appendages were in no way unusual, and I followed in all respects the usual *technique*—removing the tubes as close to the uterine cornua as seemed practicable.

The methods adopted in all the cases of hysterectomy were approximately the same—median incision, ligation of the upper part of the broad ligament outside the ovaries and tubes, marking out and dissection of flaps of peritoneum from the anterior and posterior surfaces of the mass, ligation of the uterine arteries on each side, amputation at the level of the os uteri internum, with shelling out of any remaining nodule, scraping and disinfection of the cervical canal, sewing together the mucous surfaces; then the muscular layers of the stump: and, lastly, the peritoneal flaps which were folded in and sewn with Lembert's suture. Tears in the broad ligament were carefully repaired, and then the abdominal walls were closed in three layers—fir t, peritoneum; secondly, the muscles and their sheaths; lastly, skin. In five cases, the first three, the fifth, and the last, a temporary elastic ligature was used to control hæmorrhage. In all these cases there was some subsequent oozing, in all but one sufficient to demand drainage. In the remaining nine cases no temporary ligature was used. The uterine arteries were secured as they are in vaginal hysterectomy, and all minor bleeding joints were tied or subjected to sponge pressure. There was no oozing, no drainage, and no complication during convalescence.

The lessons that have been forced on me are briefly these:

I. *The Necessity of Surgical Cleanliness as nearly perfect as we can make it.*—With this object we prepare our patients thus: Baths: Disinfection of skin: the abdomen is covered with a cotton pad soaked in 1 in 40 carbolic for forty-eight hours. Disinfection of clothes, of sheets, etc. Operator and assistants wear sterilised white overalls and caps; their hands and arms are washed and scrubbed in two waters with soap and nailbrush, then soaked in Condy's fluid, decolorised by saturated solution of oxalic acid, dipped in sterilised water, and finally soaked in sublimate solution 1 to 1,000. The instruments are boiled, and then laid in 1 in 20 carbolic lotion, which just before operation is diluted with boiled water. The abdominal pad is removed when anæsthesia is complete. The skin is wiped with perchloride solution 1 in 1,000, and the field of operation is surrounded with sterilised towels wrung out of carbolic lotion. These are renewed from time to time as they become soiled. The instruments constantly needed and likely to be laid down for a moment on anything near at hand are laid in a small dish containing carbolic lotion. The sponges are cleansed, boiled in sulphurous acid lotions, and then steamed with carbolic lotion. During the operation our hands are frequently dipped into warm sterilised water and sublimate solution. The cut cervical canal is at once disinfected with absolute phenol.

II. *The Importance of Injuring the Peritoneum as Little as Possible.*—It appears to be a mistake to sponge and to mop. If a bleeding point can be seen and secured it should be ligatured with silk of appropriate fineness. If there is general oozing firm pressure with a sponge or iodoform gauze will stop it, whereas mopping increases the flow. This is what we should expect. Do we not mop a scarified cervix uteri to make it bleed when we wish to deplete? Again, it is well, if possible, to avoid the temporary elastic ligature. I began by using it, but found the peritoneal flaps oozed freely, and after all, of course, the uterine arteries had to be tied. In these cases drainage was necessary, probably from the injury inflicted on the peritoneum, which caused the oozing. Drainage is a risk in itself, although one which is often deliberately and rightly incurred to avert worse dangers.

III. *If the ovarian and uterine arteries are securely ligatured secondary hæmorrhage is unlikely and need not be feared.*

IV.—If the tissues composing and covering the stump are uninjured, and if infection from the cut cervical canal can be averted, the stump will remain aseptic, and will be less dangerous and more comfortable in the abdomen than if secured to the lower angle of the wound.

In my fourteen cases I have had but one case of sepsis: two patients died apparently of shock; eleven recovered without giving me cause for anxiety, and are now alive and well. To secure these objects I dress the cervical canal with absolute phenol, wiping away any excess of the acid. Then the mucous membrane is sewn together, next the uterine muscular tissue of the stump is sewn together, but not ligated with locking threads as is an ovarian pedicle, because such ligature interferes with the vitality of the stump. The uterine arteries are found and tied. Lastly, the peritoneal flaps are turned in and sewn together, so as to accurately fit the stump and leave no space. I have never seen the stump again, and do not wish to have the opportunity: but from the even run of the temperature I have no doubt that the surfaces rapidly adhere to each other, and that union by first intention occurs. In one case only has there been a purulent discharge from the vagina. Cystitis has not occurred.

CASE I.—Mrs. L., aged 42, widow; one miscarriage. Complained of abdominal pain and tumour, also of difficulty in defæcation. Bladder not affected. Menstruation regular. On examination, a hard, elastic, multinodular mass was found, occupying the umbilical and hypogastric regions, and extending an inch and a half above the umbilicus. *Per vaginam*, a hard mass pressing on the rectum occupied Douglas's pouch and both lateral fornices. Sound entered 3.5 inches. The patient, a charwoman, was entirely incapacitated.

Operation, November 29th, 1892.—Median incision from just below umbilicus to one inch above pubes exposed a brick red, multinodular tumour. Right ovary adherent to mass; adhesions broken down. The left ovary, represented by a cyst the size of a cocoanut, was inaccessible, lying under the left lobe of the myoma. A temporary elastic ligature was passed twice round the mass and secured. Anterior and posterior peritoneal flaps were fashioned and stripped down. The mass, consisting of uterus, tumours, and right appendages, was amputated about the level of the os uteri internum, and the uterine arteries secured. The cystic left ovary was then removed, and the elastic ligature relaxed, bleeding points tied, and the stump treated as described. The peritoneum was flushed, sponge dried, and the wound closed, a glass drainage tube being left in lower angle. Towards the end of the operation patient ceased breathing, but was rallied with artificial respirations, injections of ammonia and rectal injection of brandy and beef-tea. Convalescence way delayed by a large abscess between the skin and muscles, probably due to infection during artificial respiration; otherwise she did very well, and was sent to convalescent cottage on February 10th, 1893. She is very well now, and in service as a cook.

CASE II.—Mrs. B., aged 45, married, four children and five miscarriages, complained of abdominal tumour, severe pain, floodings, and difficulty of micturition. Abdomen unsymmetrical. Tumour reached umbilicus. Sound entered 5.5 inches.

Operation, May 27th, 1893.—Median incision umbilicus to pubes. Tumour immediately under muscular wall, having grown from anterior surface of cervix uteri, and having raised the peritoneum as it grew. The tumour was the size of an adult's head, and behind it was the body of the uterus, enlarged to the size of a five months' gestation. The tumour was first amputated, and then the uterus. The space left bare by removal of tumour was packed with gauze. Patient died at the end of sixty hours. There was no rise of temperature until immediately before death. There was no hæmorrhage (as evidenced on removal of gauze packing). The bowels had acted, flatus passed freely, and the urine was normal in all respects. Sickness set in directly after operation, and was the only bad symptom until shortly before death sixty hours afterwards. No *post-mortem* examination was allowed, and I do not know what caused death, unless it was secondary shock from fright during a thunderstorm.

CASE III.—E. W., aged 48, single, complained of abdominal tumour, hæmorrhage, and pain.

Operation, August 8th, 1893.—Fundus uteri a little above the brim, the mass of the tumour occupying the pelvis, from which it could not be raised until the broad ligaments were ligatured and cut. The uterus and tumour were then drawn up with powerful volsellæ, and the peritoneal flaps marked out. The uterus was amputated at the level of the os internum, and the operation finished as usual. Time, one hour and a half; patient's condition good all through; convalescence satisfactory.

CASE IV.—S. E., aged 30, single. Had suffered for years from excessive pain, profuse hæmorrhage, and a large abdominal tumour. The appendages of the right side had been removed in 1891 with temporary benefit, but the operator found it impossible to remove the appendages of the left side. On August 16th, 1893, I operated, hoping to relieve the intolerable sufferings. The tumour was an enormous fibroid uterus. On its anterior surface the left Fallopian tube (the size of the small intestine and about 8 inches long), was densely adherent. The tumour was adherent to transverse colon, the mesentery, sigmoid flexure, the small and large intestines, also to the pelvic floor and walls. It was, in fact, densely and universally adherent, except in front. The elastic ligature was used, and no profuse bleeding occurred, but the operation lasted two and a-half hours, and was very difficult. The patient never rallied, and died after five hours.

CASE V.—Mrs. M., married, no children, aged 47, complained of large abdominal tumour of six years' growth, and hæmorrhage.

Operation, November 10th, 1893.—Incision from above umbilicus to

pubes. Tumour extended three inches above umbilicus; no adhesions, but small nodules involved the uterine cornua and origins of tubes, so that the intention of removing the appendages was abandoned. The only difficulty in the case was an enormous dilatation of the veins of the right pampiniform plexus, many of which were the size of the little finger. In this case a temporary elastic ligature was applied, and there was considerable oozing, which necessitated drainage for five days. The patient made a good convalescence, and went into the country on the thirty-seventh day. I still hear that she is well and strong.

Case vi.—Mrs. C., 41, married, no children, complained of tumour, pain, and disorders of micturition. She suffered alternately from retention and incontinence of urine.

Operation, January 28th, 1894.—Incision from umbilicus to pubes, necessitated by very thick abdominal walls. The tumour extended into the left iliac fossa, and was adherent to the bladder, the rectum, and the pelvic wall. A second mass was encapsuled in the right broad ligament, and had to be shelled out of it. These two lateral masses were connected by the central mass of the enlarged uterus, in the anterior wall of which was a myoma the size of an adult head. Both ovaries were cystic. The operation was difficult, owing to the numerous and dense adhesions. It lasted two hours and twenty-five minutes, but the patient's condition remained good throughout, and she made a very satisfactory recovery.

Case vii.—Mrs. C., aged 64. No pregnancy, complained of abdominal tumour and falling of womb, great difficulty in micturition, constipation and pain in rectum. On examination the abdomen seemed nearly filled with a soft indefinite mass, dull on percussion. *Per vaginam* uterus very low (prociderit when standing), left side of pelvis filled with a soft mass, apparently a part of the tumour felt per abdomen.

Operation, February 2nd, 1894.—Incision from umbilicus to pubes. On introducing the hand it was easy to pass downwards towards the right side and upwards, but to the left or the middle line there was a firm resisting sheet shutting off the mass. On dividing this the tumour appeared, but the incision had to be enlarged upwards. The tumour was soft and pinkish white in colour, it was easily shelled out, its pedicle at the left side of the fundus uteri was transfixed with silk ligatures and the flaps of peritoneum sewn together. The capsule was drawn together and a drainage tube inserted. Patient's temperature never rose above 100° nor her pulse above 100. She went home on the twenty-seventh day. She remains perfectly well (December, 1894).

Case viii.—Miss L., aged 42. Complained of tumour, severe recurrent pain, menorrhagia; the periods returned every third week. Lower abdomen and pelvis filled with hard elastic mass. Sound entered 3 inches.

Operation, February 8th, 1894.—Several masses, some adhesions; no unusual difficulties; very little blood lost; no temporary ligature; no oozing, drainage, nor complications. Operation lasted one hour and a-half. Highest temperature, 100.4° F.; quickest pulse, 120, taken just after an attack of retching. Patient returned home on the twenty-fifth day.

Case ix.—Mrs. S., aged 38, married, one premature child. Complained of tumour, pain, much dysuria: flow intermittent and painful; not much hæmorrhage. Abdomen large, unsymmetrical; costal angle very open; stomach resonance as high as fourth intercostal space. Hard elastic tumour, chiefly developed towards the left of the abdomen. *Per vaginam* a mass was felt behind the uterus. Sound passed 3½ inches.

Operation, March 20th, 1894.—Mass drawn up; amputated stump treated as usual. Highest temperature, 100°; quickest pulse, 110. Left hospital on the twenty-fifth day.

Case x.—C. T., aged 36, single, complained of pain, profuse menorrhagia, and moderate, but almost constant, metrorrhagia. Micturition difficult; flow of urine intermittent. Mother and both maternal grandparents and other members of maternal family died of cancer. On examination, there was no abdominal tumour, but the pelvis was filled with the growths.

Operation, April 17th, 1894.—Incision 3.5 inches long. Tumour drawn up with lion forceps. Ovaries examined and found cystic. The left ovary was removed, and then a fibroid nodule was shelled out of left broad ligament. The right broad ligament ligatured and cut; peritoneal flaps fastened; uterus with tumours amputated and stump treated as usual. Highest temperature 100.8°; pulse 104. Left hospital on twenty-fifth day.

Case xi.—Mrs. T., aged 43, no child, complained of constant pain. Abdominal tumour and difficulty of micturition.

Examination.—Abdominal tumour, hard, elastic, non-fluctuant, reaching to within an inch of umbilicus. *Per vaginam*, hard mass in anterior fornix and right broad ligament. Sound entered 5 inches.

Operation, June 19th, 1894, lasted one hour and forty minutes. Ovaries cystic, no complications; not drained. Highest temperature 100°, quickest pulse 100.

Case xii.—Mrs. B., history of profuse menstruation for years, and nearly incessant hæmorrhage for four months; no interval of amenorrhœa; tumour up to level of umbilicus. Tait's corkscrew was introduced to draw mass forwards. On separating adhesions the mass behind was found to be an extrauterine gestation. The sac ruptured during separation of adhesions, and about one quart of dark clotted blood was removed. The adhesions to the back of the uterus were so tough, and in separating bled so much that, considering the wound made by the corkscrew, it was thought better to remove the organ; this was done by complete hysterectomy. The patient made a good recovery, leaving the hospital well at the end of the month. She remains well (December, 1894).

Case xiii.—Miss X., hæmorrhage, abdominal tumour; pelvis filled with a mass, round, smooth, and hard, rather larger than fœtal head at term.

Operation, July 24th, 1894.—On opening the abdomen the broad ligaments were ligatured and the myomatous uterus was amputated at the level of the os uteri internum. The cervical canal admitted two fingers, and through it the pelvic mass was felt attached by a pedicle; this was cut through; the abdominal wound closed, and the polypus delivered with midwifery forceps. The perineum had to be incised to permit its passage, and was immediately douched and stitched. The patient did well up to August 3rd; neither pulse nor temperature exceeding 100°. After this septic symptoms appeared, and she died on August 9th.

Case xiv.—Miss D., very large tumour, severe hæmorrhage, and great distress from pressure.

Operation, July 27th, 1894.—Mass multinodular, extending into both hypochondriac and the epigastric regions; extracted with difficulty; no adhesions; broad ligaments clamped; bladder stripped down; uterus and mass amputated; stump treated as usual, and broad ligaments oversewn. Mass weighed, when drained of blood, 17 lbs. The patient made very satisfactory recovery, and is now able to resume her work as shopkeeper, December, 1894.

II.—J. Stuart Nairne, F.R.C.S.Edin.,

Surgeon Glasgow Samaritan Hospital for Women.

Resection of the Uterus for Fibroid Tumours and other Diseases.

Mr. Nairne considered the nomenclature of uterine tumours very unsatisfactory, and proposed to divide them into (*a*) neoplastic, (*b*) autoplastic, (*c*) obstructive, (*d*) infective, (*e*) non-infective, (*f*) contagious, (*g*) non-contagious formations. The forms *a* and *b* might, however, also possess the characters of *c*, *d*, *e*, *f*, and *g*.

In operating, the incision in the uterus might be either transverse, vertical, or lateral. The requisites for success were rapidity and the use of specially toothed compression forceps; and the details of the operation comprised deep suturing of uterine fragments, elastic tourniquet, sponge pressure, and drainage.

In illustration three cases were related:

Case i. Age 28. Lobulated fibroids protruding through each side of uterus. The uterus was split on each side, and dissected off the tumour, the cavity of the uterus was opened and muscular fibres were removed along with the tumour. The fragments of the uterus were firmly stitched together. No drainage was employed. Subsequently pregnancy took place, and was followed by safe delivery.

Case ii. Age 31. Fibroid of uterus. A right lateral incision was made, and the tumour removed along with muscle. No drainage was used. Recovery took place, with restoration of normal menstruation.

Case iii. Age 34. Fibroid. A vertical incision was made in front. Muscular tissue was removed along with tumour, the cavity of the uterus being opened. Deep stitching was applied, and the uterus when stitched up was not much larger than a man's hand. The operation was followed by hæmorrhage *per vaginam* and great collapse, but ultimately recovery took place.

III.—W. J. Smyly, M.D.,

Master of the Rotunda Hospital, Dublin.

Total Extirpation of the Myomatous Uterus.

The treatment of uterine myomata is still one of the burning questions of the day. In this communication I shall deal only with the last resource of surgery where every other means has failed or is deemed inefficient, and the removal of the offending organ is necessary. A number of methods for accomplishing this purpose are in vogue, and it would at present be impossible to state dogmatically which of them is best. Success depends not alone upon the particular operation selected and the peculiarities of each case, but even more upon the experience of the operator. It is remarkable how different are the results obtained by the same operation in the hands of different operators of apparently equal skill and experience, one obtaining excellent results by the extraperitoneal fixation of the stump, another by its intraperitoneal treatment, and a third by total extirpation; but incurring failure by deviating from the method to which he has become accustomed. The operator therefore requires not only skill and judgment, but also a special education in the performance of hysterectomy for myoma; and I should advise the beginner not only to practise but to adhere to the extraperitoneal treatment of the stump until he has at least thoroughly mastered the details of tying and dividing the broad ligaments and isolating and deperitonealising the stump. Until 1892 I invariably followed the plan of operation formularised and so successfully carried out by Dr. Bantock. Since then I have resorted to it in one case only; in all sixteen cases, with three deaths.

I have never attempted Schroeder's intraperitoneal method, but I did employ Zweifel's on one occasion with an unfortunate result. The cause of death was shock, and I attribute it rather to other causes than the method of treating the stump.

I first performed total extirpation of the uterus, or panhysterectomy, in the autumn of 1892. I was obliged to employ

this method, in a case of myomatous uterus, in consequence of malignant adenoma of the mucous membrane. The cervix being easily accessible, it was drawn down as far as possible and separated from its connections as in vaginal hysterectomy. The abdomen was then opened, and the entire organ, which was as large as an adult head, removed through the wound. The facility with which this operation was performed, the comparative freedom from pain, and the rapid convalescence, made such an impression upon me, that I determined to resort to it in other cases also in preference to the extraperitoneal treatment of the stump. The dangers of the intraperitoneal method appeared to me inherent to the stump and removable with it: the extirpation of the cervix, therefore, whilst avoiding its risks, secures its advantages in the diminution of suffering, rapid convalescence, and lesser risk of hernia.

Panhysterectomy may be performed in three different ways: (1) by removing the organ through an abdominal incision: (2) *per vaginam*; and (3) by a mixed method, freeing the cervix below, and removing the entire organ from above, or by removing the body of the uterus from above and the cervix *per vaginam*. The methods are the same in principle and differ only in details.

In March, 1893, at a meeting of the British Gynæcological Society, I exhibited three myomatous uteri which had been successfully removed by total extirpation, and strongly advocated this method. Since then I have operated upon 12 other patients, making in all 15 cases with 2 deaths.

Mixed	method,	11	cases,	1 death
Abdominal	,,	2	,,	1 ,,
Vaginal	,,	2	,,	0 ,,

The first fatal case was my fourth. The tumour weighed when drained of blood 22 lbs. The patient came to operation in a very exsanguine condition. In ligaturing the left broad ligament I unfortunately wounded a large vein and a hæmatoma resulted. The hæmorrhage was considerable, and I lost much time in trying to remedy the hæmatoma but with only partial success. The patient was very collapsed after the operation and died in thirty-six hours.

Amongst the successful cases were some with very large tumours. One patient, whose uterus was as large as at the full term of pregnancy, had been under my care for many years. Her hæmorrhages were controlled by ergot until she had passed the menopause. Two years later hæmorrhage returned, and upon examination I found malignant disease of the mucous membrane. The uterus was extirpated, and she made an excellent recovery.

Another patient upon whom I operated in May last had reached the full term of pregnancy. She first came to me in February. The uterus was then found to be infested with myomata, and one tumour as large as a fœtal head occupied Douglas's pouch, was quite immovable, and encroached so much upon the pelvic brim that no hope of obtaining a living child could be entertained. I therefore advised the removal of the uterus at term.

On May 2nd I opened the abdomen, drew out the uterus, and closed the upper part of the abdominal wound. The uterus was then opened as in Cæsarean section, and the child, a female, 19 inches long and weighing 6¾ lbs., extracted. In the meantime an elastic ligature, which had been loosely applied around the uterus, was tightened by my assistant, and the hæmorrhage controlled. The uterus was removed above the ligature, and I then proceeded to remove the tumour, which was below it, a proceeding which was rendered very difficult by the dense adhesions of the peritoneum which covered its upper third, and by the extraperitoneal development of the lower two-thirds. The tumour having been removed and all bleeding points closed by suture, the cervix was extirpated *per vaginam*, the broad ligaments being secured by clamps. On examining the left ligament, however, I discovered a mass of tissue outside the clamp. Another clamp having been applied, the mass was removed, and upon examination proved to be a second non-pregnant uterus. Convalescence was delayed by a thrombosis in the calf of her left leg, but she left the hospital six weeks after the operation in perfect health with a living child.

The removal of the organ altogether from above is a more elegant, and probably a more rapid, method than the mixed operation. It was first performed in these countries by Mr. Bowreman Jessett, but he was evidently unaware that a similar operation had been adopted by Martin in Berlin two years previously. In his earlier operations Martin no doubt employed the mixed method, but for the past three years he has operated altogether from above, with a mortality of 9.5 per cent. I have had the advantage of seeing him perform this operation. The abdomen having been opened and the uterus drawn out, the broad ligaments were ligatured and divided down to the cervix, the peritoneum divided posteriorly by an incision uniting the wounds at the bases of the ligaments, and the tissues separated down to the vagina, which was opened, and the mucous membrane sutured to the peritoneum. The incision was then extended forwards, freeing the cervix at the sides, and, lastly, the bladder separated, all vessels being controlled by sutures before being divided. A forceps was then passed up through the vagina, by means of which all the ligatures twisted into a rope, were drawn downwards, and the peritoneum closed above so as to exclude the wound from the abdominal cavity. I have myself performed this operation in two cases, but unfortunately one of them died of peritonitis on the third day. In that case the vagina was very long and distorted, so that its disinfection was very difficult.

In small tumours which do not extend above the umbilicus I prefer removal of the uterus *per vaginam* by *morcellement*. In the two cases in which I operated in this way I adopted the method of M. Doyen, of Rheims, which I had seen most skilfully carried out by Dr. Landau in Berlin. I was astonished to see that a large myomatous uterus could be sliced like cheese with little or no hæmorrhage. In one of my cases the fragments weighed 2½ lbs., in the other 3 lbs.; both were nulliparous unmarried women, with narrow vaginas. During the two days previous to operation the vagina was thoroughly disinfected and packed with antiseptic gauze: Doyen uses a Gariel's air pessary. The vulva having been disinfected and the mons veneris shaved, the patient was placed upon the table in the lithotomy position. The cervix, seized on both sides with bullet forceps, was drawn downwards and separated from its connections, the pouch of Douglas laid open, and the bladder pushed upwards with the finger. A retractor having been placed between the bladder and uterus, the cervix was divided in the middle line in front with scissors, and two pair of Muzeux forceps inserted into the lips of the wound: with these the organ was drawn further down, and the incision prolonged upwards. In large myomatous uteri two lateral incisions, extending upwards towards the cornua of the uterus, are required, and the tissue between, including any myomatous nodules which present in the wound, cut away. At last the fundus is drawn through the wound, and the uterus comes outside the vulva: up to this nothing is done to arrest hæmorrhage. The left broad ligament is now seized between the finger and thumb of the corresponding hand, and a long clamp applied from above downwards; a second shorter clamp is applied to the base of the ligament from below upwards for greater security, and the ligament divided. The other ligament is treated similarly. The small amount of hæmorrhage, the absence of shock, and the rapid recovery of these patients impressed me very favourably, and I think this an excellent operation: whether it will replace the removal of the appendages in cases suitable for the latter operation the future must decide.

IV.—Dr. HEYWOOD SMITH.

DR. HEYWOOD SMITH congratulated Dr. Mary Scharlieb on the result of her operations, especially as she had in all adhered to the subperitoneal treatment of the stump. He was quite convinced that as we had gone through the evolution of the treatment of the stump in ovariotomy, so also were we doing with the stump of amputated uteri; but it would be found that in spite of Lawson Tait, Bantock, and others, who still as a rule insert the clamp, many operators were pursuing with success the subperitoneal method. Mr. Nairne's method of operating is so new and his results so startling that he hoped that his diagrams would yet be given to the profession. That a uterus can be operated upon, tumours cut away, the uterine cavity opened, and the uterine remnant so

trimmed and stitched up as to be able to bear a child, was, to say the least, remarkable. When they came to Dr. Smyly's paper it was exceedingly interesting to hear the various methods of operating on uterine fibroids, and in his hands with fairly even results. With regard to panhysterectomy, the simplest way was to operate simply through the abdomen, and so snip all round the cervix till the vagina is reached; the mixed way had the disadvantage of necessitating operating first in the vagina, then in washing of the hands, turning the patient on her back, and doing a fresh operation. There is no doubt, however, that after all precautions vaginal hysterectomy is a much safer operation than any other method. Even with a narrow vagina and other difficulties, given the possibility of getting a fibroid through the pelvic outlet, vaginal hysterectomy is the method that gives the best chance of recovery. While we are convinced that the removal of uterine fibroids is in many cases a necessity, yet the best means of doing it is not yet determined.

V.—Dr. RABAGLIATI.

DR. RABAGLIATI asked with all diffidence whether, in the treatment of uterine fibroids, the profession was not becoming too surgical. Uterine fibroids played remarkable freaks—disappearing with rest in bed, sometimes without rest. He had seen fibroids disappear with pregnancy, so that, where Cæsarean section had to be performed, hysterectomy might be an unnecessary complication of the operation. To save organs, as Mr. Nairne said, ought to be one of our main objects, and an organ ought to be sacrificed only if life could not be preserved without it.

VI.—Dr. CULLINGWORTH.

DR. CULLINGWORTH congratulated Mrs. Scharlieb on her paper, and especially on the impartiality with which she had approached the subject of her paper. She had not appeared as the advocate of one method of treatment or another, but had given an unbiassed account of her results in each of the methods she had adopted. In regard to the method of treatment by removal of the uterine appendages, he had had occasion recently to look up the literature of the subject, and he found that the results of this operation had not been published in sufficient number or in sufficient detail in this country to enable a true estimate to be formed as to its value. What was wanted, especially at the present time, was a series of clinical histories of uterine myomata, in which there had been no interference, so as to furnish us with material for knowing more than we now know of the natural history of the disease.

VII.—Dr. TRAVERS.

DR. TRAVERS asked Mrs. Scharlieb the percentage of cases operated upon compared with those seen, and the ultimate capability of her cases to do hard work. High death-rate, from cases being postponed too long, partly arose from the very strong opinion by some well-known authority that death from fibroid is all but unknown.

VIII.—Dr. AUST-LAWRENCE.

DR. AUST-LAWRENCE spoke on two points: 1. The great importance of having fibroid cases watched to see if they would improve under general treatment before resorting to operation. 2. On the necessity of operating on some poor women because they cannot rest, etc., having in fact to risk their lives to earn their living.

IX.—Dr. F. BARNES.

DR. BARNES asked if it was consistent with the experience of those who were familiar with these cases that fibrous tumours of the uterus seldom caused danger, and did not justify operation.

Dr. SCHARLIEB'S REPLY.

DR. SCHARLIEB said the appendages were seldom healthy, many ovaries being cystic, tubes inflamed, etc. The choice of operations lay between removal of appendages and hysterectomy. The multinodular when small would cease to cause hæmorrhage, and dwindle when appendages were properly removed. The uninodular were different, and were uninfluenced by removal of appendages. Electrical treatment was sometimes successful, often unsatisfactory, sometimes fatal, and only succeeded when appendages were healthy. Myomata did kill, and frequently prevented women from earning their living. The fatal case mentioned in the paper died from anæmia. Some patients were earning their living as cooks and charwomen. She had had no ileus and no hernia in 64 cases of abdominal section. All her cases had long been under treatment.

Mr. STUART NAIRNE'S REPLY.

MR. NAIRNE said he had already defined the meaning of the word "resection" as used by him. He distinguished it from hysterectomy and enucleation. It meant that after the tumour and such part of the uterus as was found intimately adherent to the tumour were removed, the fragments of the uterus were stitched firmly together, the remnant being as nearly as possible a retention of the uterine organ on a smaller scale. In reply to Dr. Barnes, he was decidedly of opinion that fibroid tumours of the uterus, whatever was their size, were very rarely fatal—were, in fact, only so from the two, not always present, conditions of hæmorrhage and malignancy, and that if these two conditions could be controlled or altered by other means, operations such as hysterectomy and panhysterectomy, with their fearful mutilations, were quite unjustifiable. He spoke in this matter with a great amount of feeling and certainly from no want of knowledge, as, counting private and public practice together, he could not be seeing fewer than from 13 to 20 cases of fibroids every week, and the number of his operations had not been small.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ARCUS SENILIS AT TWENTY YEARS OF AGE.

A MUSSULMAN clerk, aged 20, employed in the Lahore Medical College, consulted me for slight trachoma of the upper lips. On examining his eyes I was very much surprised to see that there was a typical and fully-developed "arcus senilis" occupying the upper margin of each cornea. (There were no nebulæ or leucomata present.)

I examined the patient for any signs or symptoms of organic disease which would be likely to be associated with such an early tissue-degenerative sign, but could find no such cause to account for the condition. It is possible that the continued friction of the trachomatous upper lids may have led to a certain amount of keratitis, and that the inflammatory products may have undergone fatty degeneration, giving rise to the appearance known as "arcus senilis."

If this explanation be the correct one it would be curious to know why the inflammatory, and consequent degenerative, changes were so strictly localised to the upper margin of the corneæ, and did not affect other portions of the corneal discs as well. I should add that I have now had the patient under my observation for eight months, and, though the trachoma is cured, the "arcus senilis" condition remains.

CHARLES H. BEDFORD, M.D., D.Sc.Edin.,
Professor of Chemistry, Lahore Medical College; Chemical Examiner to the Punjab Government; Surgeon-Captain, Bengal Medical Service.
Lahore Medical College.

A CASE OF ACUTE ALCOHOLIC POISONING.

S. J., aged 41, wife of a labourer, a periodic inebriate, on December 19th, 1894, in London, drank 1½ pint of whisky 22° overproof (47 stronger than whisky as usually retailed). As this is nearly double the ordinary retail spirituous strength she must have swallowed an amount equivalent to more than 2¾ pints of the latter. The spirit was taken right off. In a few minutes she was found lying on her back insensible, and never recovered consciousness, but died in five hours and a-quarter. The *post-mortem* appearances thirty hours after

death were: Head: venous engorgement, with subarachnoid effusion, in addition to old-standing congestion with white milk-like film on pia mater. Heart: walls fatty, pale, thickened. Cavities: about half an ounce of fluid tarry-like blood in right ventricle. Lungs: slight pleural effusion, patches of extravasation of blood in both. Stomach: walls thinned in parts, with patches of mucous membrane semi-detached, presented brownish-black ridges with fiery tree-like aspect on a translucent pale ground interspersed with red; corrugated inflammatory appearances extending into duodenum. Contents of stomach: 8 ounces of grumous fluid with a faint odour of alcohol. Spleen: engorged. Kidneys: capsule semi-adherent. While alive the face was pale, the eyes suffused and dull, the skin cold and clammy with cold perspiration, the pulse thin, compressible, almost imperceptible, and the breathing stertorous. Throughout the pupils were dilated. The temperature fell 7° below normal.

Grove Road, N.W. NORMAN KERR, M.D., F.L.S.

SPONTANEOUS FRACTURE OF RIBS.

As spontaneous fractures are somewhat rare in pregnancy, the following case may prove of interest:

J. H., aged 25, who for some time had suffered from anæmia, was confined for the second time on November 18th, 1894. One week previous to the onset of labour, whilst moving about in bed, she "felt something snap in her side," and this was accompanied by pain and cough. I saw her three days after delivery, and found the eighth and ninth ribs of the left side fractured, with the usual symptoms. These rapidly yielded to treatment. The urine contained albumen for some time, but this has now disappeared.

Ascot. R. P. RYAN, F.R.C.S.I.

ARTERIAL HÆMORRHAGE PRODUCED BY IMPACTED RABBIT BONE IN ŒSOPHAGUS: RECOVERY.

ON November 21st, 1894, I was consulted by a man, aged 36, who stated that he had had a small bone in his throat for three days.

On examination no trace of a bone could be detected, but as he was complaining of some local irritation and difficulty in swallowing, I passed an expanding probang into the œsophagus. This had the effect of relieving the symptoms somewhat, but did not remove the bone. The bone being so small, and evidently impacted in the folds of mucous membrane of the œsophagus, I was unable exactly to localise it, and as the symptoms were not urgent, I decided not to interfere further.

After the lapse of three days I received an urgent message in the night, and found he had vomited a pint of pure arterial blood, the impacted bone having evidently sloughed through the wall of the œsophagus, and perforated a large blood vessel. After applying an icebag to the neck and administering ice by the mouth, there was no return of the hæmorrhage.

The patient was fed by nutrient enemata for ten days, and recovered without a bad symptom.

Dovercourt. HAROLD GURNEY.

RECURRENT HYDRAMNIOS.

MRS. S., aged 32, in the eighth month of her sixth pregnancy, suffered from swelling of the feet and legs, and from shortness of breath. I found the abdomen greatly distended, the breathing very laboured, and the urine loaded with albumen. She had been unable to lie down for the past week. The distension of the abdomen was due to an abnormal quantity of liquor amnii. The fœtal heart was inaudible and the symptoms were urgent so I punctured the membranes and drew off the fluid into a bath, very little being lost. It measured twenty pints. The membranes and placenta were normal in appearance. Mrs. S. states that, of her previous five pregnancies, the same state of affairs was present in two, labour coming on spontaneously at six and seven months respectively. I should mention that the patient is, in my opinion, the subject of Graves's disease.

Chard. C. E. STOKES, M.D.

A CASE OF TRAUMATIC PERICARDITIS.

J. C., aged 19 years, male, drove eight miles to my house having been accidentally shot. He walked from my gate to my surgery, a distance of 20 yards, and seemed quite strong and composed. On examination I found the marks of 73 pellets, between the right side of his sternum and his left arm. Eight pellets were near enough to the surface to be extracted. The majority had penetrated deeply. The gun (said to be a "hard killer"), was fully charged with No. 1 shot, had been fired at a distance of not more than 10 yards, and the charge had passed through a glass window before striking the patient. Shortly after admission evident signs of pericarditis showed themselves. The apex beat became displaced, and then was lost, and there was distinct friction to be heard on auscultation; there was very distinct bulging of the precordial region and great dyspnœa and cyanosis. The treatment consisted simply in absolute rest, very light poultices, and very mild but frequent saline laxatives. I was prepared to tap the pericardium at any moment, but on the third day, to my surprise, the apex beat began to be felt again, the dyspnœa gradually disappeared, and after a long but steady convalescence, the lad is now pursuing his usual work as a farm labourer. The gun had been fired a little to the left front, so there is every reason to believe that several of the pellets must have penetrated to the pericardium, and his recovery, after such severe symptoms, appeared to me to be remarkable.

Corowa, N.S.W. W. H. LANG, M.B., C.M.Edin.

INCUBATION PERIOD OF CHICKEN-POX.

J. N. and W. N. are two brothers, aged respectively 7 and 5 years, and attending the same board school. J. N., the older, is rather delicate and was confined to the house with bronchitis from about November 10th. The younger continued to attend school, and on the night of November 26th became feverish, restless and wakeful. Next morning, November 27th, he was found to have a copious varicellar eruption over his body, and was kept at home till December 10th. The two were allowed to live and sleep together as usual, and the older was examined from time to time for evidence of infection. On morning of December 10th I examined him and found no eruption. During the afternoon, however, he fevered, was put to bed, and at night neck, shoulders, and back and front of chest were found covered over with chicken pox papules.

Though this is only one case, it is free from any complicating condition as regards source of infection. It goes to prove that "the incubation period is fourteen days, and that it is infectious directly the rash appears," as demonstrated by Dr. J. J. Eyre, Beckenham, in the BRITISH MEDICAL JOURNAL, December 31st, 1892, pp. 1430-31.

Anstruther, N.B. ROBT. T. FERGUSON, M.B., C.M.

VARICELLA BULLOSA.

MR. GEORGE MORGAN'S article on Varicella Bullosa, as well as Dr. Stephenson's contribution on the same subject in the BRITISH MEDICAL JOURNAL, lead me to believe that the following brief outline of several cases seen by me in September last will be of interest.

The disease occurred in a family of six children, ranging in age from 6 months to 11 years, all of whom were affected with a vesicular eruption; of the four elder ones, the second had only one vesicle, and the others only four or five; they were about the size of a pea, and situate on the face, (the upper part), except in one instance, in which there was a bleb of the size of a shilling on the leg, and another on the arm.

The youngest, aged 6 months, had, however, about twenty-five vesicles, fairly equally divided amongst the following regions—namely, the scalp, the face, the thorax, the buttocks, and thighs; of these, some were typical varicellous vesicles, while on the outer surface of each thigh was a bleb about 2 inches in diameter.

Unlike the rest of the family, the remaining child, aged 2, and the subject of pronounced rickets, was suffering from sharp febrile disturbance and debility; she had a bleb on either buttock the size of a florin, while the abdomen was covered with one enormous ruptured bulla measuring 7½ inches across; it was circular in outline, and the shreddy remains of its epi-

dermal covering existed along its margin, within half an inch or more of which its floor was red, excoriated, and inflamed. The greater part of its surface had returned to the normal condition.

The mother also had two vesicles on the hand typical of chicken-pox.

The family is free from any syphilitic or tuberculous taint, and, excepting the case of rickets, is of a healthy type, nor have any of them had chicken-pox previously.

In conclusion, alluding once more to the eruption, in the case of the larger bullæ, their thin cuticle had given way, leaving an excoriated surface, while the smaller remained intact, filled with serous fluid; they appeared in successive crops, the smaller ones forming scabs. With the exception of some discoloration of the skin and tendency to form pits, the affection disappeared within three or four weeks.

Harwich. T. E. Stuart, M.R.C.S., L.R.C.P.Lond.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GUY'S HOSPITAL.

A CASE OF DOUBLE POPLITEAL ANEURYSM TREATED BY COMPRESSION.

(Under the care of Mr. Golding-Bird, Surgeon to the Hospital.)

E. B., aged 28, unmarried; was first seen by Dr. Barnard, of Paris, on February 18th, 1893, who reported: "There is a pulsatile swelling in the right popliteal space; compression of the femoral artery stops the pulsation in the tumour, and the posterior tibial artery can hardly be felt, though it is quite perceptible in the other leg. In the left popliteal space there is evidently a commencement of the same process, the artery being dilated and pulsation being abnormal."

The patient, who lived a quiet business life in Paris, was sent to England for treatment, which was commenced in Guy's Hospital on March 3rd. He had had chancre and secondaries at 19 years of age. He was treated for one month only, but had been well ever since. In the late autumn of 1892 he began to take long walks daily, and early in December began to feel pain in the right popliteal space; he then observed a pulsatile tumour there, and employed embrocations to "disperse it." He continued his daily walks, and took no advice until February, 1893.

When seen in London there were all the characters of a saccular popliteal aneurysm, the size of a hen's egg, on the right side, very near the surface; the coverings were thin, but not inflamed, nor adherent; some œdema occurred in the leg after standing. Otherwise the patient was quite healthy; nothing was physically wrong with the heart or other vessels, except the left popliteal, where deeply in the left space undue pulsation could be detected, which was lost between the attachments of the sural muscles; no tumour could be distinguished; the characteristics were those of a spindle enlargement of the artery of the size of the forefinger.

On March 3rd, after a short course of iodide of potassium, no alteration being made in the diet, treatment of the right aneurysm by digital compression of the right femoral artery was commenced at 3 P.M., and continued by relays of dressers continuously until 3 P.M. the next day, but all pulsation had ceased three hours previously. The pressure was well borne and well maintained throughout; only three small doses of morphine were given. The limb was enveloped in wool in the usual way. To avoid having to manipulate the aneurysm to judge of the progress made, the following plan was adopted. A Marey's cardiograph tambour was securely but lightly bandaged over the tumour, the pneumatic tube from it passing under the bedclothes to the usual tambour recorder placed on a chair at the bedside, a feather on the end of the lever enabling its slightest movement to be seen, and thus the progress of the clotting as well as the effectiveness of the compression could be continuously watched.

On March 10th (seven days later) the aneurysmal condition of the left popliteal was also treated by compression, but in different fashion. An Esmarch's bandage was applied up the entire limb, including the aneurysm, and was worn for forty minutes once a day until March 13th. It caused great pain, and could not be more frequently applied in consequence. On its discontinuance the pulsation was slightly less marked.

The following day, March 14th, at 4 P.M., treatment of weight pressure was commenced, the tambour having been applied over the aneurysm to register the pulsation, as on the former occasion. A leaden weight, of the form of a truncated cone, was so adjusted over the artery in Scarpa's triangle as to stop all pulsation, the patient himself keeping it in position by the aid of two check straps attached to the curtain bars of the bed. With now and then a ten minutes' interval, compression was kept up until 10.30 P.M.; it was renewed the next day, March 15th, at 7.30 A.M., and continued till 9 P.M., with fifteen minutes' rest each hour. On March 16th it was continued, with thirty minutes' rest each hour, from 8 A.M. to 8 P.M. On March 17th it was similarly maintained from 8 A.M. to 9 P.M., and on March 18th from 9 A.M. to 3 P.M. The pulsation since the evening of March 16th had been hardly able to move the recording lever, and there is reason to believe that the aneurysm had coagulated from that date, since on March 18th an examination showed this slight pulsation to be due to an anastomotic artery, nearly the size of the radial, coursing almost superficially down the popliteal space, and overlying the now completely consolidated aneurysmal dilatation of the main artery. Pulsation had ceased in both the tibials, but the foot remained warm.

After a further rest of three weeks in bed the patient was allowed to get up, and he gradually began to move about, so that by the middle of May he was ready to resume his duties in Paris. When critically examined on May 2nd the condition was as follows. In the right leg the aneurysm formed a solid and firm swelling, gradually shrinking and hardening; no pulsation in the tibials. In the left there could be felt what appeared to be a circumscribed thickening, as of a small solid clot in a saccular aneurysm, but at the same time a longer thickening, as of a fusiform enlargement. Just under the deep fascia the anastomotic branch already mentioned could be felt pulsating; there was no pulsation in the tibial vessels.

Both limbs were quite free in their movements; there was no œdema, and the patient could walk well; he thought the feet seemed colder than he had been accustomed to feel them formerly. He was advised to continue taking iodide of potassium, which had already been ordered.

Remarks by Mr. Golding-Bird.—The following points are worthy of note. There can be no doubt that the sudden resumption of walking exercise after a long period of inactivity was the immediate determining cause of the disease; yet it is more than probable that there was previous weakening of the walls of both popliteal arteries, induced by syphilis, from which he had suffered nine years before, and for which he had had very little treatment. No proof of this connection of course exists: but in the absence of any other general influence it is hard to disconnect the general disorder and the local lesion. Atheroma so early in life is rare; nor could evidence of arterial disease be discovered anywhere else; the patient himself was a man of most temperate habits. In the treatment of the right aneurysm there is nothing further to note, except the method employed for registering the variations in pulsation. The tambour method, which I have tried before and with equal satisfaction, has the advantage of at once indicating not only the progress of consolidation, but the degree of pressure on the proximal artery to be employed, as well as the direction in which it should be exerted. This last is very important where the patient himself undertakes intermittent pressure—as in this case on the left side; for provided he is intelligent enough to undertake the treatment at all, he can quickly learn to read the indications of the lever and vary the compression accordingly. A very similar case of double popliteal aneurysm in which the patient cured the tumour on one side himself is recorded by Mr. Bryant in the *Guy's Hospital Reports*, vol. xiv, p. 241.

Dr. Barnard reports that the patient was well on June 24th, 1893. Both sacs are consolidated. Posterior tibial pulsation suppressed on both sides. E. B. still becomes easily fatigued if he walks at all quickly, the calf muscles aching

somewhat. Otherwise the condition is excellent. The iodide of potassium is still being continued.

16th FIELD HOSPITAL, WAZARISTAN FORCE, CAMP WANO.

CASES OF SWORD-CUT AND GUNSHOT WOUNDS.

(Under the care of Surgeon-Major H. C. Hudson, 16th B.C., and Surgeon-Lieutenant Bruce Gordon Seton, 16th B.C.)

(*Continued from page 16 of the* British Medical Journal, *January 5th, 1895.*)

Case III.—B. S., Goorkha Rifles, was admitted after the action with a sword cut on the inner side of the left knee-joint, opening the latter, and removing part of the internal condyle of the femur, and dividing the internal and crucial ligaments. The wound was cleansed as far as possible from the dust and dirt which filled it, and the limb put up on a splint. It did fairly well for a few days, but the exposed bone necrosed: and subsequently subsidiary abscesses appeared about the joint. An attempt was made to preserve the limb; but as the joint gradually became quite disorganised, modified circular amputation was performed on December 1st. There was a slight rise of temperature for a couple of days, but no pain or tenderness. As the man had to be sent back to the base, with a number of other wounded men, the stump was dressed on the third day, and found to be nearly healed. A large drainage tube had been put between the flaps, but there was very little discharge. Diarrhœa and fever, which persisted for a week before the operation, subsequently quite disappeared.

Case IV.—M. K., follower, was sitting outside his tent in the usual "squatting" Oriental position, when he was struck by a Martini bullet just above the internal condyle of the right femur. The bullet passed through the bone, and left at the lower border of the external condyle. There was practically no hæmorrhage; the internal and the lower part of the external condyle were loose under the skin; and there was considerable deformity from muscular contraction. The wounds of exit and entrance were dressed with antiseptic tow, and the limb placed on a back splint. The case progressed almost without a symptom: there was some discharge from the wound of exit, and a local abscess; but practically no constitutional symptoms. When the wounds were healed the limb was put up in dextrin and plaster. The joint was probably injured by the breaking up the condyle, and considerable permanent stiffness has resulted.

Remarks.—There were over 120 killed and wounded after the action: a few of these, some three or four, died while they were being dressed; but these were cases of gunshot wound of the brain.

The method of procedure was simple, and necessarily no great attention would be paid to any one case. First, field dressings were hastily applied as each man was brought in; blankets were issued in lieu of the clothes they wore, as these were frequently cut up and soaked with blood. The complaint of cold, which they all made, was met by giving each man tea, or brandy and mutton essence; and in a large proportion of the cases, 5ss tinct. opii was administered at the same time.

Each man's wound, and the word "operation" (if such were considered to be necessary) were written on a "tally," and affixed to the patient's person. And when the whole were dressed, the operation cases were attended to again. The number of these was sufficient to keep three operating tables employed from 8 A.M. to 8 P.M. The dressings employed were boracic and cyanide wool and gauze, and "antiseptic tow." No carbolic acid was used, but a 1 in 4,000 solution of the regulation "antiseptic lotion" (liq. hydrarg. perchlor.) was freely employed throughout.

For the first few days all the more seriously wounded men were kept quiet with opium. No obvious harm resulted, and it certainly prevented them tossing about in the straw, which formed their sole bedding. Dieting was the chief difficulty. Fresh milk could not be obtained, so condensed milk had to be used instead.

Convalescence was very rapid, and nearly all the wounds healed by first intention, in spite of the unfavourable circumstances of overcrowding, cold, inferior food, and the scorbutic taint which inevitably results from field service. Up to the present time, December 9th, 1894, only two deaths have occurred, and there are not likely to be any more.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Tuesday, January 8th, 1895.

In opening the meeting the President made the following announcement: That with a view to extending the scope of the discussions and the usefulness of the Society, the Council had arrived at the following resolutions: (1) That papers accepted for reading be thereby accepted for publication either in the *Transactions* or in the *Proceedings*, as may be determined by the Council subsequently to the reading. (2) That the *Transactions* be published in three parts during the year, namely, on February 1st, May 1st, and August 1st, as well as annually: and that it be optional to the Fellows in which form they receive the *Transactions*. (3) That papers be issued separately (for sale by the Society only) as early as possible after the issue of the part, at a price to be affixed to each. (4) That the papers be printed before discussion, and be obtainable in proof on application at the Society's rooms. (5) That attention be drawn to the fact that the President may direct an author to read his own paper. (6) That some of the ordinary meetings be devoted to discussions and demonstrations on special subjects, to be introduced by a short paper or papers by Fellows of the Society or others at the request of the Council; and that a small standing committee be appointed to arrange for these meetings and to draw up regulations respecting them.

Illustrations of some Modes of Death from Ovariotomy.

Mr. John D. Malcolm read this paper. After referring to certain instances in which he had not operated on patients having tumours which he believed to have originated in ovarian tissue, Mr. Malcolm read the histories of all the cases of death from ovariotomy that had occurred in his practice to date. These were as follows: (1) A dermoid tumour ruptured into the bowel. At the operation a portion of the tumour inseparable from the sigmoid flexure was left on it, and fixed outside the peritoneum through an opening made for the purpose in the left groin. Symptoms of obstruction of the bowel began on the third day, after which the groin wound become offensive. Death occurred on the sixth day. After death there was no sign of general peritonitis. There was an obstruction on the right side formed by an adhesion of the healthy small bowel to the ovarian pedicle. On the left side there was suppuration round the groin wound, limited by peritoneal adhesions. (2) A ruptured tumour, with papilloma fungating in and on it. About a year before the author saw the patient, her abdomen had been explored by another medical man, by whom the tumour was diagnosed as malignant, and no attempt was made to remove it. Complete ovariotomy was performed by Mr. Malcolm. Symptoms of partial obstruction of the bowels began on the ninth day after the operation, and gradually increased. An attempt at relief by operation was made on the thirty-fourth day. The obstruction was found to be due to an immense dilatation with convolutions and adhesions of the sigmoid flexure. The portion of the pedicle beyond the ligature had sloughed, but there was no suppuration in the peritoneal cavity. The patient died fourteen hours after the second operation, and no evidence of malignant disease was found after death. The death was attributed to the condition of the sigmoid flexure rather than to the sloughing of the pedicle. (3) A malignant solid ovarian tumour of the consistence of blood clot and distinctly fluctuating. It extended from the pelvic floor to above the costal margins, was universally adherent, and was mistaken for a cyst by all who examined the patient. The operation was incomplete, and death occurred from shock. (4) Two ovarian cystomata and a uterine fibroma. These were removed, and death took place on the twelfth day from

clotting in the iliac vein. Symptoms of this complication existed for about six hours. (5) A ruptured colloid ovarian tumour in a patient aged 60. After death it was found that she had numerous hard atrophied fibroids in the uterine walls, and the uterine cavity was dilated. Many of the fibroids bulged into the cavity, but the outer surface of the womb was smooth above. The physical signs and history suggested that the enlargement of the womb was due to malignant disease. Discharge from the uterus ceased on the fourth day after the operation, high fever followed, and the patient died on the sixth day. (6) Two ovarian cystic tumours raising the uterus and peritoneum completely out of the pelvis. The author made an exploratory operation, and a diagnosis of malignant uterine growth in November, 1891. Slow enlargement followed, but there was no clinical evidence of malignancy. A second operation was therefore performed in October, 1893, the tumours with the body of the uterus, forming one mass, being completely removed. Death followed from shock. No *post-mortem* evidence of malignant disease was found. The author had not to record any case of death from slipping of a ligature or from septicæmia conveyed to the patient at the time of operation, and terminating within three days. He had recorded these cases fully, because the more clear the records of the way in which death followed operations performed, the more likely it was that surgeons would be able to prevent a fatal issue in similar cases in the future, and he therefore ventured to hope that these histories might be useful to others, and might give rise to an instructive debate. He concluded by suggesting for discussion the following propositions, which he thought to be in accord with present knowledge of the subject, and to be supported by the cases related: (1) That in dealing with ovarian tumours it may be impossible to make an exact diagnosis as between the malignant and the benign, and it may be impossible to remove successfully even a non-malignant growth. Hence that the selection of cases for operation, which many men profess not to make, is one of the most difficult, and perhaps the most important, duty of the surgeon in this branch of his art. (2) That septicæmia is the most common danger of abdominal surgery, but that septicæmia in uncomplicated cases of ovariotomy is preventable by the use of antiseptics and by care; whereas in certain complicated cases its avoidance is difficult, and may be impossible. (3) That functional and mechanical disturbances of the bowels are the special dangers of abdominal surgery. The circumstances under which operation in difficult cases should be undertaken or refrained from were briefly considered.

The President, in thanking the author for his paper, referred to the time before antiseptics were invoked in the prevention of septicæmia, when very different results were obtained, and commended the frank honesty with which he had recorded his fatal cases of ovariotomy.

Mr. Alban Doran said that the object of recording fatal cases at the present time was very different from that when—thirty years ago—the operation was on its trial. Thanks to Sir Spencer Wells, ovariotomy was now firmly established, and the object of investigations like the present was to answer the question, How is it that cases are ever fatal? He divided the causes of a fatal result into (1) preventable and (2) non-preventable. In the former category he placed (*a*) hæmorrhage, as from the slipping of a ligature off the pedicle; general oozing, he thought, was fatal, not from loss of blood but from offering a favourable nidus for septic processes; (*b*) sepsis from within, as from the escape of fluid from a tumour or cyst during the operation; (*c*) sepsis from without. Among non-preventable causes he instanced (*a*) the bronchitis which frequently supervened in elderly women, connected possibly with the anæsthetic, and (*b*) the impossibility of completely removing malignant tumours and occasionally dermoids.

Dr. Handfield-Jones asked whether the author did not consider the condition of the heart as exerting a most important influence on the result of a case. He contrasted the case of a delicate woman from whom a solid ovarian tumour was removed, who had pneumonia of the right lung within a week after the operation, and intestinal obstruction necessitating abdominal section on the twenty-first day and recovered in spite of these complications with two other cases (1) a woman, extremely pale and feeble, aged 30, with a small solid ovarian tumour and some ascites, who never rallied from a simple operation, and died from cardiac failure, no other cause being found *post mortem*; and (2) a woman, at whose urgent request ovariotomy was performed four days after the temperature had fallen to normal after influenza, and who never recovered from the operation. He thought that in such cases the operator should, if on exploration of the abdomen the operation appeared likely to be a difficult one, not complete the removal of the tumour or cyst, but close the abdomen. He was of opinion that ether gave rise to bronchitis.

Dr. Cullingworth congratulated the author on his former paper on intestinal paralysis and on his present valuable contribution. With regard to isolating the patients, he was at variance with the author. At St. Thomas's Hospital his operation cases were in the general wards. For the first twenty-four hours they were screened off, but if their progress was satisfactory this was discontinued. This had a good effect on the nursing generally as well as on the patient. Ovariotomy cases were, if isolated, very likely to become self-conscious and fanciful. Other patients too were encouraged by seeing the progress of those already operated on. Contrary to what might perhaps have been expected, this practice had not made any difference in the statistics. He pointed out that after the operation, the peritoneal cavity being closed, the atmosphere of a general ward was not likely to bring about any bad result. He would like to hear what was the author's routine with regard to purgation. He had just seen a case in which, after operation, the bowels had been confined for two weeks, not from carelessness, but as the result of a definite opinion expressed by authority that there was no cause for interference; the result was very unsatisfactory. He himself always gave an enema on the fourth day after the operation, which brought away flatus; this was followed on the next day by castor oil and, if necessary, an enema. If any distension occurred, an enema was given at once, even on the second day. He remarked on the fact that papillomatous cysts had only recently come to be generally considered as non-malignant. Though far from deprecating abdominal explorations in certain cases, he did not consider them perfectly harmless; in some cases they undoubtedly hastened the fatal termination.

Dr. Amand Routh commented on the freedom of the author's cases from the condition of "pseudo-ileus," described in his former paper, and congratulated him on his satisfactory method of treatment.

Mr. Malcolm, in reply, said that although he was greatly interested in the causes of death, his paper did not cover the whole ground of fatal abdominal sections. With regard to general oozing, drainage was often successful in preventing death. He had been successful in operating on old women, but had not had any patient older than 69. He agreed that the condition of the heart was important, but thought the prevention of complications much more important; a powerful heart would not avail much against sepsis or intestinal obstruction. With regard to isolation, all the advantages mentioned by Dr. Cullingworth were, to his mind, gained by the transfer of the patient into a general ward some time after operation. In cases where the peritoneal cavity was being drained, he considered it, at any rate, partially exposed to the air. With reference to the administration of purgatives after abdominal operations, he did not think it desirable to have any rigid practice; if it was necessary to have a routine Dr. Cullingworth's plan would meet his views as nearly as possible. He was convinced of the great danger that resulted from distension of the intestines.

OBSTETRICAL SOCIETY OF LONDON.

G. E. Herman, M.B.Lond., F.R.C.P., President, in the Chair.

Wednesday, January 2nd, 1895.

Specimens.

Dr. Cullingworth: Pyosalpinx simulating Tubo-ovarian Cyst. — Dr. Stevens: Fœtus in which the Urethra was absent, with other Abnormalities. — Dr. Ilott: Fœtus Papyraceus. Dr. Amand Routh: Cancerous Uterus and Parovarian Cyst removed together *per vaginam*.—Dr. DesVœux: Circumscribed Clot in Placenta.

PERITONITIS: ITS NATURE AND TREATMENT.

Dr. JOHN SHAW read this paper. He gave notes of two cases, the one of acute peritonitis of undoubted septic origin, the other presenting the symptoms of obstruction of the bowels following ovariotomy. In the first death seemed to be hastened by a dose of opium, presumably from its effect in diminishing the elimination of the poison: and in the second case the strong presumption was that death was primarily due to the absorption of poison from the gastric mucous membrane. With this experience the author, regarding the fatal issue as essentially toxic in origin, determined on a plan of action in any succeeding case which might present itself. Two such cases were briefly described where the treatment was successfully carried out. The course of action indicated was (1) to limit as far as might be the formation of the poison; (2) to eliminate it when formed as quickly as possible, or at least to destroy it; and (3) to support the patient's strength during these processes. To secure these ends he advocated the application of warm antiseptic compresses to the abdomen; the provision in suitable cases of drainage from the peritoneal cavity; persistent effort to evacuate the bowels, and pending this, as far as might be, the disinfection of the intestinal contents and the regular washing out of the stomach; hypodermic injections of strychnine and digitalin, and the inhalation of oxygen.

Mr. DORAN said none of the cases were simply instances of peritonitis. The first was septicæmia after disturbance of a suppurating focus. There was little evidence that the dose of opium mentioned did much harm. In the second case the main symptom was obstruction. The abdomen had been opened a few hours after operation and the pedicle fixed to the parietes, strain being designedly put on the broad ligament. In the third the clinical symptoms mainly indicated obstruction. Clear serum escaped in quantities through the tube. The appearance of clear serum was an indication for removing the tube, else the flow might go on indefinitely. The fourth case was very complicated: bronchitis set in, the omentum prolapsed on the fifth day; next day the wound was opened up and sloughy omentum removed; a valvular communication between the peritoneum and surface existed. Mr. Doran found that whenever flatus accumulated and did not come away spontaneously, a turpentine enema answered well. After the confined flatus escaped other bad symptoms usually disappeared. He recently observed that in a case of his own where bronchitis set in, the grave pulmonary symptoms abated and ceased when the flatus came away. Warm water and bicarbonate of potash acted well in clearing the stomach.

Dr. PETER HORROCKS did not think it correct to speak of peritonitis as a toxæmia. Cases of peritonitis varied from the trivial to the rapidly fatal. The difference between different cases depended on the cause of inflammation. Bacteriology showed that certain microbes set up a mild inflammation, others a virulent one. Dr. Shaw thought that death was due to absorption of putrefactive material from the stomach and bowels: he (Dr. Horrocks) thought the mode of death indicated disturbance of the nervous system through the solar plexus. Again, the author seemed to deprecate the use of opium in peritonitis; but opium and its derivatives were the very best remedies in certain forms, such as what used to be called "traumatic peritonitis." Dr. Horrocks mentioned a case of rupture of the uterus where opium had been of great service. Dr. Shaw had quoted a statement of Mr. Lawson Tait's to the effect that in cases of peritonitis if you could open the bowels the patient would recover but if you could not she would die. This statement was simply untrue. It was often a most important question whether to disturb the bowels or not. He agreed with Mr. Doran that it was very important to get rid of flatus, particularly after abdominal section, on account of the wound being liable to be burst open.

Dr. AMAND ROUTH thought it was clear that the last three cases were not cases of peritonitis, but of paralysis of the bowels ("pseudo-ileus"), the result of handling. He alluded to the remarkable fact that though the bacterium coli commune was perfectly harmless in health, it became virulent when the bowel was in any way diseased, and was then capable of passing out of the bowel into the blood and tissues, and of causing septicæmia, including septic peritonitis. Olshausen and others believed that this happened as a result of this "pseudo-ileus." He (Dr. Routh) agreed with this; and thought it was possible that a sapræmia arose in some cases from absorption of the products of the bacilli, the patient escaping the more fatal septicæmia if treatment were in the meanwhile successful. He mentioned the treatment now advocated in many cases where septicæmia had not become established of reopening the abdomen, and making free incisions into the bowels and evacuating their contents. He thought that as certain lengths of the bowel might be in a state of tonic contraction while the rest were exhausted, it was not wise to give strychnine alone, but that it should always be combined with atropine.

Mr. MALCOLM dealt with the question of arterial tension as a result of operations, abdominal operations among others, and objected to Dr. Shaw's theory that the contraction of the vessels found in the febrile state was a "revolt of the system against the circulation of impure blood." The view that the hardness of the pulse in this state was due to deficient kidney secretion was not consistent with Mr. Malcolm's observations. The kidney secretion was of course not diminished but very greatly increased during fevers; and the diminution of the watery constituents, which he presumed was referred to by Dr. Shaw, seemed to be greatest immediately after an aseptic operation rather than on the second or third day, when the pulse changes were most marked. He (Mr. Malcolm) believed that during the healing of a wound contraction began in the peripheral vessels, that it increased in intensity, and extended from these small vessels to larger vessels in proportion to the severity of the inflammatory fever, reaching the maximum of extent and intensity about the second or third day. About this time distension of the bowels might begin, producing by increased mechanical opposition still further reflex contraction of the vessels throughout the body, and thus altogether deprive the tissues of their blood supply, and be the actual cause of death. He criticised the description of the cases in the paper as peritonitic, and considered that when the patient was constantly sick absorption from the stomach was in abeyance, and that the occurrence of such absorption meant that the patient was getting better. He was of opinion that where the intestines were distending and the patient was sick, food which was rejected did more harm than good.

Dr. GIBBONS wished to add his testimony to that of the author as to the great value of subcutaneous injections of digitalin and strychnine—and he would also include atropine—in the treatment of peritonitis. He mentioned a case where this method had, he believed, saved the life of a patient. He considered it infinitely superior to extra stimulation by alcohol.

The PRESIDENT thought that some such title as "The Advantage of Washing out the Stomach in Cases of Peritonitis" would have better denoted the scope of the paper. He thought it was now established that peritonitis was produced by micro-organisms. The poisoning they brought about was only an effect of the micro-organisms, but not the essential cause of the disease. He was quite prepared to accept Dr. Shaw's statements as to the benefit of washing out the stomach in peritonitis when vomiting was copious. He did not accept Mr. Tait's statement that peritonitis could be prevented by purging the patient, but quite believed that if the bowels could be got to act the patients were the better for it. Mr. Treves had shown that in those cases of peritonitis in which diarrhœa was present the mortality was less than in those where there was constipation. The treatment of peritonitis was according to its cause. If it depended on disease of the stomach or bowels it was important that the diseased part should be kept at rest, and therefore opium was indicated to restrain peristaltic movement. But when peritonitis arose from disease of the uterus or its appendages, the alimentary canal being healthy, there was not the same utility in giving opium. It was in such cases beneficial in relieving pain, but in no other way.

Dr. JOHN SHAW, in reply, acknowledged the justice of the criticism on the title of his paper, and explained certain points which he thought had been misunderstood by the speakers.

HUNTERIAN SOCIETY.

Charters J. Symonds, M.S., F.R.C.S., President, in the Chair.

Wednesday, December 12th, 1894.

Aneurysm of Aortic Arch.

Dr. Arnold Chaplin showed a specimen of aneurysm of the transverse arch of the aorta from a man, aged 35. Sixteen years previously he suffered from venereal sores, without rash or other specific symptoms. His illness began twelve months ago with shooting pain in the front of the chest, and barking cough. A month ago, when he came under Dr. Chaplin's care, he was complaining of pain to the left of the sternum, shooting in character, difficulty in breathing, and cough, which was of a distinctly brassy nature. On inspection of the chest there was seen a fulness below the left clavicle, with extensive venous dilatation in the skin. Pulsation was perceptible, and tracheal tugging could be plainly made out. The pulses and the pupils were equal, but on laryngoscopic examination the left vocal cord was seen to be motionless and in the cadaveric position. On percussion there was dulness over the upper part of the left lung, and a pulsatile thrill conveying to the hand a distinct jog. Over this dull area a loud systolic murmur was heard, ending in a somewhat accentuated second sound. The breath sounds were weak. Ten days after admission he died suddenly in the act of bringing up some blood. At the necropsy a large aneurysm was found arising from the end of the transverse part of the arch of the aorta, and missing the main arteries going to the arm and neck. The aneurysm was filled with an immense clot, and to all intents and purposes was cured. The opening through which the blood escaped could not be made out, but from the quantity found in the lung and trachea there could be no doubt that there had been leakage. Death was brought about more by asphyxia than by actual syncope due to hæmorrhage. The interesting points were (1) the large size, without much interference with the main vessels, the œsophagus, or trachea; and (2) the fact that, although filled with laminated clot and practically cured, it yet caused death just as surely as if uncured.

The President asked if needling had been tried. He had himself used it in a similar case, and the patient was much relieved, so much so as to be able to go about his work.

Mr. Openshaw mentioned a case where needling had been tried, and the patient died on the table.

Dr. Fred. J. Smith said he thought the great lesson to be learnt from this case was that treatment for an aortic aneurysm must be futile. If a physician had tried to produce such a result, he would congratulate himself; and yet here, where Nature had done the thing herself, the aneurysm leaked. In such cases the only thing to be attempted was to realise that the patient's days were numbered, and make him as comfortable as possible.

Dr. Chaplin, in reply, said he was glad he had never used needling. He had seen wire introduced almost by the mile. He agreed with Dr. Smith's view as to treatment.

Primary Cancer of the Bladder.

Mr. Targett exhibited a series of lantern slides illustrating various specimens of primary carcinoma of the bladder. The first showed the interior of the bladder apparently turned inside out. There was a large flat growth, the edge having a characteristic rolled margin. The second specimen showed to the left of the left ureteral orifice an oval ulcer, with a distinctly elevated base. There were secondary nodules in the submucous tissue. Both the above were specimens of flat ulcers. The third slide showed the bladder laid open in front, with a large mass, the size of an orange, filling the interior. The lower part only was eroded, the upper part having been tightly grasped by the bladder. A fourth specimen presented a more marked condition. The bladder had been divided horizontally, showing the fundus. The surface had been taken off with a knife. Projecting from the left wall of the bladder was a tuberous growth. It was important to note how very little change there was in the muscular wall beyond it, demonstrating the feasibility of treating surgically such a growth without damage to the wall of the bladder. The patient from whom the next specimen was taken was admitted not for bladder symptoms, but for a tumour. He had a little hæmatemesis before death. *Post-mortem* examination revealed a very large perinephritic abscess, of which the cause was not clear, but it was probably connected with a foul intravesical ulcer. The patient had been sounded on several occasions, but with negative result. The symptoms simulated those of stone. In the next specimen which had been divided down the centre, and showed one half of the prostate, the tumour presented a large interior attachment, as in the class known as pedunculated carcinoma. Another specimen of the same class showed the left half of the bladder, the whole of which was filled with a soft growth, arising from a very small attachment in the right upper half, extending downwards towards the fundus. The growth had undergone a certain amount of softening, but the bladder wall was quite free from growth and healthy. The bladder had so firmly grasped the upper part that no urine had passed over it, and consequently no erosion had taken place. In several of these cases the patients had suffered from incontinence of urine, which was not surprising taking into consideration the reduction in the size of the bladder cavity. Another specimen was shown which demonstrated the possibility of one part infecting another by contact. It seemed possible, when the bladder was empty, that the posterior wall might have come in contact with the fundus, and so become infected. It had been calculated that about 40 per cent. of tumours of the bladder were malignant: microscopical examination of the processes only was insufficient to prove that the growth was not malignant. These villous processes became infiltrated by growths at their bases. The next specimen was a curious one, hardly simulating a malignant growth. The whole of the surface represented villous tumours, presenting an appearance like that of a cauliflower. It was like an ordinary epitheliomatous growth. A microscopic section of the surface demonstrated the structure of the tumour to be simply villous, but in the deepest parts the villous growth must be regarded as having taken on an infiltrated form. The invasion had taken place from the surface. A microscopic section of another specimen showed very long villous processes, much like the surface of a cauliflower, the deeper portions of which were invaded by squamous cells. Another specimen showed the posterior wall of the bladder, with nodular outgrowths, and villous processes on their surface, the secondary deposits from which were very remarkable. The tumour was a malignant papilloma, and the secondary deposits in the liver showed similar characteristics—namely, villous processes and tesselated epithelium. The last specimen showed the fundus of the bladder and the orifices of the two ureters. The growth here was of the size of a tangerine orange, projecting well into the interior of the bladder. It appeared to be epithelial to the naked eye, but he was surprised to find the surface of the growth covered with small papillomata. He considered that all the specimens which he had shown were squamous epitheliomata. He had never seen any specimen of glandular carcinoma affecting the bladder.

The President, commenting upon one of the specimens where the bladder had been full of growth, said that he had himself known a case where nearly a pound of growth had been removed from the bladder. The new point to be noted seemed to be that Mr. Targett considered that all these cases were epitheliomata.

Dr. Fred. J. Smith said he had been specially interested in one case, which was one of acute cystitis, with perinephritic infiltration with crowds of small abscesses, and yet no trace of ureteritis or pyelitis. He had been puzzled to know how the infiltration had spread to the perinephritic region without implicating the ureter.

Mr. Targett, in reply, pointed out that in the specimen referred to there was considerable dilatation of the ureter.

Vertebral Caries.

Mr. Tubby showed a specimen of carious lumbar vertebra, which he at first thought to be due to congenital syphilis, from a child aged 3 weeks, who, when first seen, exhibited two or three swellings, one on the cheek, one on the buttock, and one on the left wrist. The two first decreased in size, but the one on the wrist developed considerable fluid and was opened. Subsequently the child died, and it was then found that the right hip-joint was full of pus, the vertebral

caries—the most interesting feature—remaining unrecognised during life. It was possible the case was due to syphilis, seeing that some of the swellings cleared up under mercury.

The President remembered a case where for a similar swelling the knee-joint had been opened and scraped. It healed; but another swelling followed in the wrist, and the patient died.

Dr. Fred. J. Smith asked whether there had been any external wound by which pyæmia might have been produced, or whether there was any tuberculous history.

Mr. Tubby said the tumours were not gummatous but tuberculous. The sequence of events rather inclined him to look upon the case as one of general pyæmia consequent upon infection through the skin.

Fibroid Changes in Lung.

Mr. Glover Lyon showed a specimen from a case which he had at first thought to be one of complete fibrosis of the lungs; he had, however, modified his opinion after microscopical examination. The patient was a married woman, aged 41, at the time of her death. For three years her health had been failing, but previously she was said to have had robust health. She married in 1883. She was admitted into hospital in August, 1891, with no other evident symptom than frequent vomiting whenever food was taken, and sometimes when the stomach was empty. She was a well-grown, stout woman. At the *post-mortem* examination the left lung was found to be adherent to the other, and there was much thickening of the glands and fibrous tissue. The lungs contained scarcely any air, the lung substance being replaced by dense connective tissue. The alveoli were disintegrated; the right lung was extremely emphysematous. The kidneys showed slight granular change. There was nothing noticeable about the heart beyond that the apex beat was raised. The case led to the conclusion that great fibroid changes can occur in a much shorter time than was generally thought.

The President asked whether there had been any history of antecedent pleurisy.

Mr. Glover Lyon, in reply, said that there was an indefinite history which might have pointed to pleurisy.

Bronchial Cast.

Dr. Sequeira showed a specimen of complete bronchial cast. The patient was a lad of 19, who had good health until 1893, when he had an attack of acute pneumonia. In the course of a severe attack of dyspnœa he expectorated a solid cast, which must have lodged in the lower part of the trachea. The material of which it was composed was of a particularly tenacious character, as it extended down quite to the small bronchioles. Dr. Sequeira referred to cases mentioned by Dr. Wilks and Dr. Bristowe, some of which might have been due to croupous exudation, but he did not think the one in question could come under that head because of its size. No other similar cast had been expectorated by the patient so far as he knew. Diphtheria had been alleged to be always the cause of these casts. In this case the bacillus had not been sought for. A case had been mentioned by Dr. Pye-Smith in 1880, where a young woman of 25 came to Guy's Hospital carrying in a bag a cast which she had expectorated. She died, and on examination there was found to be acute inflammation of the air passages. No evidence of diphtheria was found, and Dr. Pye-Smith thought it might be called a "membranous inflammation of the air passages which was not diphtheria."

Gallstones.

Dr. Sequeira also showed three large gallstones. The patient had had severe colic, and after a course of olive oil they were passed *per anum*.

Mr. Openshaw related a case of a woman of 60 upon whom he had operated. She had had sudden pain in the abdomen, followed by acute obstruction. Upon abdominal section a gallstone which measured $1\frac{3}{4}$ by $1\frac{1}{2}$ inch was found in the ileum. Had it been a little smaller it would have passed along the gut. It had been in position so long that it was necessary to cut into the gut, and the woman lived long enough for the incision in the gut wall to unite.

Dr. Hingston Fox said he had seen some similar stones removed *post mortem* in the case of an elderly weakly woman, in whom they had caused obstruction Here they had passed into the small intestine from the gall bladder.

HARVEIAN SOCIETY OF LONDON.

George Eastes, M.B., F.R.C.S., President, in the Chair.

Thursday, January 3rd, 1895.

Cases.

Mr. G. C. Wilkin showed a boy, aged 10, with Deflection of the Nose, which had been much improved by wearing a special splint.—Mr. Edmund Owen showed a girl, aged 11, from whom he had removed the upper third of one fibula for Septic Osteomyelitis of the Diaphysis. A new segment of fibula had been developed from the diaphysial periosteum. Mr. Mansell Moullin inquired whether it had been possible to ascertain whether the inflammation had begun under the periosteum or between the shaft and the epiphysis. Of late the opinion had gained ground that in the majority of instances it commenced in the latter situation and that the subperiosteal mischief was secondary.—Mr. Mower White showed a man, aged 65, who had a Tumour of a doubtful nature involving the Adductor Muscles of the Left Thigh. The tumour was first noticed seven weeks before. No cause could be assigned for it; it had never been painful, and it had scarcely interfered with progression. There was no history of venereal disease. When Mr. White first saw the patient five weeks ago the tumour was firm and inelastic. He thought it was either a gumma or a sarcoma, and at once commenced antisyphilitic treatment, and had continued the same up to the present time. During this period the tumour had slightly increased in size, its borders had become better defined, and it had become elastic. At present it was oval, measuring $4\frac{1}{2}$ inches in its longest axis; it was movable, but was rendered fixed by the voluntary contraction of the adductor muscles; it gave distinct fluctuation almost to its borders, which were, however, firm and inelastic. There was an enlarged lymphatic gland attached to its upper end, and the inguinal glands were larger than natural; one or two glands could also be felt in the fore part of the iliac fossa. In view of these facts Mr. White thought the diagnosis of gumma must now be given up, and also that the changes which the tumour had undergone under observation were scarcely consistent with sarcoma. He suggested that the mass was a chronic abscess, and that its origin was probably tuberculous. He proposed to operate, and would inform the Society later what it proved to be.—Dr. Cagney showed cases of Raynaud's Disease and Muscular Dystrophy and of Tabes. Dr. James Taylor said it was unusual to get the symptoms of Raynaud's disease aggravated by a higher temperature. In regard to the case of so-called muscular dystrophy, it was a pity to apply such a term to this case. The term was now so widely used as descriptive of cases of perverted muscular nutrition without change in the nervous system—cases of pseudohypertrophic or idiopathic muscular atrophy—that its application to cases other than those was apt to be misleading.

BRITISH GYNÆCOLOGICAL SOCIETY.

Professor Thos. Savage, M.D., President, in the Chair.

Thursday, December 13th, 1894.

Chronic Salpingitis with Tubo-Ovarian Abscess.

Dr. Heywood Smith showed a specimen and read notes of the case. The patient—married eleven years, widow for five years—had had two miscarriages. She suffered from severe pain and flooding, especially at the periods. At the operation the right tube and ovary were found, forming a mass the size of a small orange, and adherent to the intestine and pelvic wall. The left tube was much thickened, whilst the ovary was of normal size. Pus was found in both tubes. The woman made a good recovery. The specimen was referred to a pathological committee.

Hæmatosalpinx and Tubal Pregnancy Contrasted.

Dr. Bantock read a paper, based on one case of each kind, and showed the specimens. The clinical history was given, and the contrast brought out that in the first case the evidence of pregnancy was negative, in the second positive.

The first was complicated by intestinal obstruction, and the patient was so bad that she died suddenly within a few minutes of taking the anæsthetic, before the operation was begun. On *post-mortem* examination the pelvis was found to contain blood, forming a clot, linking together the intestine and right Fallopian tube. This was also distended with blood clot and had given way in the centre and the circle of adhesions. The author associated the tubal hæmorrhage with the menstrual function of the tube. The second case was a typical example of ruptured tubal pregnancy. When he first saw the patient he found her greatly collapsed, but commencing to rally. He therefore decided to wait before operating till a rise of temperature should give the signal for interfering. This came about in five days, and the operation was done. The patient made a satisfactory recovery.

After some remarks from the President, Dr. Mansell Moullin, Dr. Heywood Smith, and Dr. Leith Napier,

Dr. Shaw-Mackenzie called attention to the fact that in the specimen of ectopic gestation the fimbriated end of the tube was unaltered. Bland Sutton had stated that the ostium generally became sealed before the tenth week. From the examination of many specimens he had concluded that this depended on the situation of the ovum. If this was at the outer end of the tube the ostium became sealed; but it remained unaltered when the pregnancy was at the uterine end. If rupture occurred afterwards the symptoms were those of marked collapse, and he thought that to delay operation was perilous. But if downwards, into the broad ligament, the symptoms were less severe, and temporising was allowable. He mentioned a physical sign to which Dr. Cleghorn had called attention as being almost diagnostic of tubal pregnancy—namely, the presence of pulsating vessels over a lateral rapidly growing tumour. They could be felt by bimanual examination.

Dr. Bantock, in reply, said that when a patient was severely collapsed he thought it was unwise to operate, because the operation involved additional shock. During the collapse hæmorrhage was largely arrested, and it was better to wait till the patient began to rally. Before rupture diagnosis was almost impossible, because physical signs were unreliable, and so much depended on the history: and the history itself was inconclusive till rupture had occurred. He thought the rise of temperature to which he had referred was due, not to inflammation, but to irritation. He quite agreed with Dr. Shaw Mackenzie's remarks as to the pathology of these cases. He had not met with the sign he spoke of—the pulsating vessels—probably because the patients he had had to deal with were generally in a state of collapse. The pulsating vessels were, however, often very distinct in cases of fibroids.

LARYNGOLOGICAL SOCIETY OF LONDON.

Felix Semon, M.D., F.R.C.P., President, in the Chair.

Wednesday, December 12th, 1894.

Aneurysm of the Aortic Arch Associated with Abductor Paresis of the Right Cord.

Mr. A. A. Bowlby showed a patient, aged 60, who had suffered from gradually increasing dyspnœa for a year. At first the left cord only was fixed, but later on the right also became paralysed, and tracheotomy had to be performed. The dyspnœa was not much relieved, and the patient subsequently died from cardiac syncope. A large aneurysm of the aorta was found to have pushed its way between the trachea and œsophagus. The trachea was compressed to a diameter of about a quarter of an inch. The left pneumogastric nerve and the recurrent laryngeal were stretched, flattened, and adherent to the tumour, the nerves on the right side being free.

Mr. de Santi suggested that intubation would have been useful.

The President said pressure upon one vagus rarely caused double paralysis. Abductor paresis always appeared first. In such doubtful cases it was never safe to promise complete relief by tracheotomy.

Dr. Mackern (Buenos Ayres) mentioned a case of double abductor paralysis, with complete recovery after iodide of potassium and faradisation.

Exhibits.

Mr. R. Lake showed a Silver Tube, which had been worn continuously for eleven years. The outer tube was much eroded.—The President showed an interesting series of foreign bodies removed from the Nose, Larynx, Bronchi, and Œsophagus, and gave details of the cases.

Cases.

Mr. W. G. Spencer exhibited a domestic servant, who had had a Swelling of the Thyroid for seven years. The tumour had got smaller and harder, but there had been gradually increasing dyspnœa. An attempt was made to remove the tumour, but it was found to be absolutely adherent to the trachea, which was converted into a soft tube, which was sucked in and blown out during respiration. It was incised longitudinally downwards till normal rings were reached, and a tracheotomy tube inserted. The dyspnœa was relieved. In a fortnight the tube was removed, and in a month the wound was healed. Six months later the breathing was still free with only a little tracheal stridor. The remainder of the gland was unaltered. The pulse was still 120. There was no exophthalmos and no sign of myxœdema. Microscopically the part of the gland removed was simply fibrous, the fibrosis having, apparently, spread inwards from the capsule. Mr. Spencer had not been able to find record of a similar case.—Mr. A. A. Bowlby exhibited a patient, aged 60, from whom he had removed a large Cystic Bronchocele, causing dysphagia. Double abductor paralysis of the vocal cords existed before and after the operation, but no cause for it could be discovered. The voice was normal, and dyspnœa only followed on exertion.—Mr. C. J. Symonds showed (1) a woman, aged 56, with Fixation of the Left Half of the Larynx. The right arytenoid moved up to, but did not cross, the left. No cause for paralysis could be found, nor was there any evidence of destructive ulceration. (2) A patient upon whom he had operated successfully, for relief of Tuberculous Ulceration of the Epiglottis and Ary-Epiglottic Fold by means of the curette and lactic acid two years ago. No pulmonary disease was present.—Dr. McBride showed a drawing of a case of Varicose Veins of the Soft Palate. They caused no symptoms.—Mr. Butlin showed a patient with Chronic Thickening of the Vocal Cords, with Outgrowths into the Glottis. The history indicated a syphilitic cause, but the appearance suggested multiple papilloma.—Dr. Scanes Spicer showed (1) a patient in whom Paralysis of the Left Vocal Cord and Soft Palate (? Diphtheritic) was said to have followed a common cold. No evidence of any infective disease could be obtained. The patient was recovering under liq. strychniæ: (2) a specimen of a Saccular Aneurysm of the Posterior Wall of the Arch, with Paralysis of the Right Cord. The left recurrent nerve was stretched over the back of the sac. The trachea was displaced and compressed, and its convexity pressed on the right recurrent laryngeal and pneumogastric nerves.

NORTH-WEST LONDON CLINICAL SOCIETY.

R. H. Milson, M.D., in the Chair.

Wednesday, December 12th, 1894.

Unusual Pigmentation.

Dr. Sibley showed two cases: (1) a woman, aged 42, who had been nervous and losing strength for three years. She had spots of pigmentation on the lips and hard palate. Her pulse was rapid but there was no cardiac disease. (2) Single woman, aged 20, with pigmentation of face, axillæ, hands, and areolæ. She suffered from dyspepsia, nervousness, and prostration, and had a very rapid pulse.

Dr. Harry Campbell regarded the second case as one of Addison's disease.

Dr. Gill had seen similar pigmentation in scurvy.

Dr. Guthrie thought that both cases were instances of Graves's disease: pigmentation was commonly found in that condition.

The President called attention to the occurrence of pigmentation in persons living in malarial districts and the subjects of ague.

Dr. Sibley, in reply, said the pigmentations were originally

hæmorrhagic. He was inclined to favour Dr. Guthrie's view.

Acromegaly.

Dr. Harry Campbell showed a case of acromegaly. He propounded the theory that acromegaly was essentially a reversion to the anthropoid type, and a view which he considered to be well illustrated by the case shown.

Dr. Abraham said that against Dr. Campbell's theory was the fact that growth had been normal up to the period of adolescence. Moreover, muscular development was far short of the bony overgrowth.

After some remarks from Mr. Brodie,

Dr. Campbell acknowledged that there was much to be said against his theory of reversion. But he thought it possible that an adult should grow backwards, and held that reversion was displayed in all diseases.

Treatment of Dilated Heart.

Dr. Campbell showed a case of dilated heart treated on rational lines. The patient, a woman, aged 50, was stout. To reduce fat he put her on a milk diet, and gave salicylate of soda to guard against gout. In this way the heart's work was lessened. He induced the patient to take frequent deep breaths, and by instituting a system of passive exercise had restored the balance of the circulation so that the heart was much less dilated than formerly.

Nasal Disease causing Neuralgia.

Mr. Mayo Collier showed a case of nasal disease causing severe neuralgia of four or five years' standing. The anterior nares were occluded, but the probe detected dead bone. He removed a polypus, and afterwards some necrosed bone covered with granulations. As a result the patient made a good recovery.

Dr. Cagney related a case in which severe infraorbital neuralgia, which had lasted twelve years, was found to depend upon disease of the middle turbinated bone. The necrotic tissue was removed by Mr. Collier, and a satisfactory cure resulted.

Resection of Knee-joint.

Mr. Collier showed a case of resection of the knee-joint in a boy. The whole joint was disorganised. He dissected out the whole of the synovial membrane and scraped away every trace of diseased bone. The joint was thoroughly drained and the patella sutured by a double silver wire. The leg was placed on a splint, and was now useful.

Electrolysis in the Treatment of Nævus.

Mr. Jackson Clarke showed two children of one family. The first exhibited the rare condition of congenital tertiary syphilitic ulceration of the tongue. The younger child showed the result of treatment of nævus at the side of the nose by electrolysis. He regarded electrolysis as a radical treatment of some nævi, but as chiefly useful when employed as preliminary to excision. He believed that nævi of the scalp, if treated by electrolysis alone, produced baldness, but that this was obviated by a subsequent excision.

Dr. Cagney thought that electrolysis was the most rational method of cure for nævi in most cases. The proper course was to secure deep scarring, and so gradually to reduce vascularity.

Remarks were made by Mr. Brodie and Mr. Collier.

Mr. Clarke, in reply, said he employed a current which he found by testing sufficient to decompose water.

Progressive Muscular Atrophy.

Dr. Guthrie showed (1) a case of progressive muscular atrophy with symptoms of tabes; (2) a case of progressive muscular atrophy in which he believed that the lateral columns were involved because the knee-jerk and certain other reflexes were exaggerated.

Erythema Nodosum.

Dr. Cagney showed a case of erythema nodosum in a young woman. There was no history of rheumatism and no circulatory disorder, but the subject was neurotic, and suffered from dyspepsia. The symptoms differed from those usually described in their extent and severity.

After remarks from Mr. Collier, Dr. Abraham advocated the persistent administration of iron and quinine.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

E. Malins, M.D., in the Chair.

Friday, November 30th, 1894.

Spurious Hermaphroditism.

Mr. Christopher Martin showed a case of spurious hermaphroditism—a person with the external genitals and general characteristics of a woman, but with the essential organs of a man. He was aged 21, had been brought up as a woman, and had earned his living as a nursemaid, kitchenmaid, and barmaid. In February, 1894, he consulted Mr. Martin with reference to a painful swelling in the left inguinal region. Mr. Martin cut down on this and removed a body which proved to be an undoubted testis. The patient's voice was rather low pitched, but not masculine. There was no trace of beard, whiskers, or moustache. The breasts were flat and poorly developed. There was no hair on the external genitals. These exactly resembled those of a woman, consisting of a labia minora and majora, a vestibule with the meatus urinarius, a small clitoris, and a vaginal ostium with the remains of the hymen. The vagina was a blind *cul de sac* 1½ inch long, and there was no trace of a uterus. He made a good recovery from the operation. In September a painful lump formed in the right groin, somewhat similar to that which had appeared on the left, and in October, 1894, Mr. Martin cut down on it and removed what proved to be the right testis. He made an excellent recovery. After the first testis was removed hair began to grow on the pubes, and he developed symptoms of hysteria; and after the second was taken away the breasts became swollen and tender and more fully developed. At the same time he complained of "heats and flushes," which recalled those of the menopause. Mr. Martin showed the two testes and microscopic sections, kindly made for him by Professor Allen.

Ankylosis of Jaw.

Dr. E. N. Nason showed a man, aged 39, who had received an injury to the jaw on the right side some twelve years ago. This was followed after a time by ankylosis. A wedge (with the base posteriorly) was removed from the ascending ramus just above the angle. Movement was commenced on the third day, and gave very little pain. The patient had now, after a year's interval, excellent masticatory powers.

Cases and Specimens.

Dr. E. N. Nason showed a Finger that had been Wrenched off at the Middle of the First Phalanx. Attached to the avulsed finger were all its tendons and muscles. There was little hæmorrhage, and the wound healed by first intention.—Dr. Kauffmann showed a man, aged 58, who presented the clinical picture of early General Paralysis of the Insane, with loss of memory and general stupidity. Within the space of eight weeks he developed an ataxic gait, and presented unequivocal signs of posterior sclerosis of the spinal cord. Points of special interest were the rapidity of the onset of the tabetic symptoms and their sequence upon the mental disturbances.—Dr. Russell showed a case diagnosed as Chronic Peritonitis of Syphilitic Origin in a man, aged 34. There was extreme ascites and a history of alcoholism. The ascites needed repeated tappings, and after a time a nodule was felt underneath the abdominal wall. Large doses of iodide of potassium were administered, with the result that the nodule gradually disappeared, and the ascites from that time slowly cleared up. The patient was discharged: shortly afterwards, whilst attending as an out-patient, he developed well-marked tertiary syphilitic lesions. Enlargement of the liver could now be made out.—Mr. F. Marsh showed a specimen of Sarcoma of the Testis excised, on November 7th, 1894, from an Italian, aged 38. For six months the left testis had been slowly and uniformly increasing in size without any known cause. There was no thickening of the cord, nor

could any enlargement of glands be detected. A microscopic examination had been made by Dr. Kauffmann, who reported the growth to be a large round-celled sarcoma spreading between the tubules of the testis.—Mr. F. Marsh related a case of Tetanus in a man, aged 45, who died from a tetanic spasm of the heart. Mr. Leedham Green had made a cultivation from a portion of tissue taken from the wrist-joint immediately after amputation, and demonstrated the presence of the characteristic drumstick tetanus bacillus.—Dr. Foxwell showed the Large Intestine from a case of Dysentery in a well-nourished woman, aged 32, who had died at the Queen's Hospital under his care with the symptoms of acute dysentery. Though Dr. Foxwell had never previously come across a case of acute dysentery in Birmingham, yet he could give the condition no other name. In all cases of simple ulcerative colitis seen by him *post mortem* the ulcers had been much deeper and larger with densely infiltrated edges, and, moreover, of greatly varying age; there were evidences also of fibrous deposit. The freedom from congestion of Peyer's patches negatived typhoid.—Dr. Sinclair showed (for Mr. Eales) a man, aged 47, with Absolute Glaucoma in one Eye, the result of chronic glaucoma of at least six years' standing. There were two large cystic detachments of the uveal pigment layer of the iris. The other eye was normal.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Monday, December 17th, 1894.

S. R. Lovett, L.R.C.P., L.R.C.S., President, in the Chair.

Sanitary Administration Abroad.

Dr. T. M. Legg read a paper on Some Points of Difference between English and Continental Methods of Municipal Sanitary Administration, based on personal observations made in special visits to Copenhagen, Christiania, Stockholm, Paris, Brussels, and Berlin, as well as some other French and German cities, his general impression having been that in many departments Continental methods were more perfect than ours, and that their shortcomings were greatly due to the exigencies of military defence, and to the subordination of the sanitary to the police service, and the want of any special Public Health Act. This was especially true of France, for in Germany the Stadt- or the Kreis-Physikus, held a position like that of our M.O.H. in a large urban or rural combined district. In Scandinavia the sanitary services were highly organised, but the duties of the medical officer were too numerous for any one man, even with a large and efficient staff. He was also public analyst, registrar of births and deaths, medical assessor in the law courts, and had the general supervision of factories, schools, asylums, vaccination, prostitution, etc. All diseases deemed preventable, about twenty-five in number, were notified, and the forms were models, furnishing a mass of valuable information. In Norway the Contagious Diseases Acts had been repealed, and notification substituted with very unsatisfactory results. Except in Brussels, the farce of sulphur fumigation had been entirely abandoned, a thorough spraying and washing with sublimate solution (1 in 1,000) being found incomparably more effective, free from danger, and not occupying more than an hour. All clothing, bedding, etc., was disinfected in steam ovens, with which in Denmark even villages were provided, Reck's apparatus, with boiler and fittings complete, costing only £68. In Berlin, when the sublimate was objected to, the walls were rubbed down with bread, which was surprisingly efficient, and then saturated with 5 per cent. carbolic acid. At Stockholm was the best isolation hospital in the world, though London was provided with the most perfect ambulance service. In Germany small pox had been practically stamped out by systematic vaccination and revaccination. The medical inspection of public schools in Germany and Scandinavia was very strict, the children being examined every fortnight by a medical man and by a dentist, and pamphlets, etc. on infectious diseases and first aid circulated among teachers and parents. Public slaughterhouses, without which effective meat inspection was impossible, were to be found in most large cities on the Continent, but those at Berlin were perhaps the most complete. The co-operative dairy trade, carried out on scientific principles in Denmark and Schleswig-Holstein, was well worthy of imitation. The chemical and bacteriological examinations of public water supplies were very exact, and at Berlin all water giving 100 colonies to the c.cm. was rejected, as was that passing through a sand filter bed within twenty-four hours of the removal of the confervoid film. Water carriage of excreta was adopted in Brussels and most large towns in Germany. Pail systems existed in the Scandinavian capitals, and both in Paris. But while the Seine below Paris and the Senne at Brussels were abominably foul, the Spree at Berlin was remarkably clear. The entire sewage of that city was treated by irrigation on farms covering 12,000 acres, conducted with the highest skill and military precision. What was once a tract of barren sand with a few stunted pines, was now a vast garden yielding heavy crops of corn, grass, roots, vegetables, and fruit; and studded with villages, public institutions, and villas, the population of which enjoyed the best of health.

Limits of Infection in Phthisis.

Dr. Ransome, of Manchester, read a paper on this subject, in which, while freely admitting the inoculability, and under certain conditions the communicability of tuberculosis by inhalation or ingestion, he maintained that there was a tendency at present to ignore these conditions which were essential to infection, and to create of the mere fact of its communicability a scare. A recent writer had demanded that consumptives should not only be forbidden to marry, but be excluded from churches, theatres, etc.; isolated at home, and in short treated as lepers. Dr. Ransome had, however, for years maintained that it was a grave error to ignore the conditions without which infection was scarcely possible. He had shown that there were in large towns infected areas, constituted such by damp and want of air and light with overcrowding. He had even known patients in whom the disease remained in abeyance so long as they resided in the hospital, as servants or otherwise, but was rekindled on their return home. In our own country agriculturists were far freer than urban populations, and fishermen enjoyed the greatest immunity. He and Dr. Delépine had carried out a number of experiments which tended to show that while dried sputa retained their infectiveness for a long time in the dark, exposure to air, and still more to air and light, soon rendered them inert; and Dr. Heron had shown the same. He would, of course, enjoin the destruction of sputa, but he insisted far more on light and ventilation, remembering that the present reduction in the death-rate, representing a saving of 30,000 lives per annum, was wholly the result of sanitary improvement.

Drs. Seaton, Whitelegge, and Willoughby, Mr. Murphy, and others took part in the discussion.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

J. A. Scott, M.D., President, in the Chair.

Friday, November 30th, 1894.

Acromegaly.

Dr. A. H. Benson read notes on a case of acromegaly with ocular complications, and exhibited the patient.

Dr. Baker exhibited a cast of the patient's mouth.

Mr. Swanzy concurred as to the diagnosis and treatment of the disease. Hemianopia was one of the most constant ocular symptoms of this disease. It existed in this case first as colour-blindness of the temporal side of each field, and afterwards as partial blindness of the temporal side of each field. Central scotoma was not a usual symptom, but it was probably due to a toxic amblyopia caused by excessive tobacco smoking, and not having anything to do with the acromegaly. Dr. Cunningham had endeavoured to show that the skeleton of M'Grath in Trinity College, Dublin, was that of a patient suffering from this disease. The pituitary fossa was so large that one could easily put a walnut into it. Neighbouring bony structures were obliterated, and it must be supposed that the optic tracts and some of the ocular nerves were pressed upon. It was very probable that his right eye was completely blind, and that the left half of the left visual field was also a blank. It was very curious that in no account of the giant was mention made of any

defect of sight, so the above conclusions must be more or less speculative.

Typhoid Fever, with Rare and Rapidly Fatal Complications.

Dr. A. R. Parsons read a paper on this subject, and exhibited a portion of the small intestine, the spleen, and the larynx of the patient.

Dr. Dawson said that in his experience laryngeal complications in typhoid fever were not very rare. Ulcerations of two different types had been regarded as probable—one a diphtheritic ulceration, and the other, although this had not been conclusively proved, due to the typhoid bacillus. Its existence in the blood and its powers of causing ulceration in the intestine were evident, and it was easy to imagine that it could cause ulceration elsewhere. The present case he did not think to be one of diphtheritic ulceration, judging from the sections of tissue removed from the larynx.

Dr. J. W. Moore, having inspected the ulcers present in the small intestine, said that as far as he could judge they were ulcers of typhoid fever, from which the sloughs had come away. He considered that sometimes portions of the system other than the intestines—as for instance the lungs—bore the brunt of the disease.

Dr. Croly, who had performed tracheotomy on the patients, said that never before in his experience had he met with a case of typhoid fever presenting this severe laryngeal complication, and, moreover, he had never been troubled with emphysema as a sequel to any tracheotomy he had previously done. In the performing of the operation he emphasised the importance of opening the trachea as soon as possible to check venous bleeding; of cutting a piece out of the trachea, not merely making a slit in it, and of scraping away the deep layer of the cervical fascia lest it should form a sort of valve over the opening in the trachea by the opening in the fascia not remaining exactly over the opening in the trachea. He had heard of a case in which this fact led to the death of the patient. He was unable to explain the occurrence of the emphysema.

After some remarks from Dr. Hawtrey Benson,

Dr. Parsons, in reply, stated that Dr. Bewley had drawn his attention to a statement in Eulenburg's *Encyclopædia of Practical Medicine*, where it was alleged that 20 per cent. of the cases of typhoid which died had ulceration of the larynx. In a few cases extensive emphysema had been observed.

Typhoid Ulcers.

Dr. Bewley exhibited some typhoid ulcers, and shortly described the case from which they were taken.

West London Medico-Chirurgical Society.—At a meeting on January 4th, Dr. Banning, President, in the chair, a subcommittee of the Society was appointed to report on the advisability of petitioning the Local Government Board to establish stations for the bacteriological examination of suspected cases of diphtheria.—Dr. Colman read a paper on the Treatment of Epilepsy. He mentioned that nearly a ton and a-half of the various bromides were consumed annually at the National Epileptic Hospital. More effect was produced by considerable doses than by small ones administered frequently. Borax, next to bromides, had the most influence in controlling fits. Reference was made to the excision of portions of the cerebral cortex in idiopathic epilepsy when the fits began locally, but the author did not think the results obtained at present very encouraging. After remarks from the President and Dr. Boyton, Dr. Allerson said that, although having great faith in bromides, he had greater confidence in abstinence from meat, especially beef, and also in the freedom from worry and anxiety. Dr. Shuttleworth had found borax inferior to bromides, and he advocated the combination of the two remedies. He referred to the occurrence of alopecia after the use of borax. Mr. Bidwell related a case of Focal Epilepsy, in which he had removed a portion of the motor area of the cortex. The patient now, two and a-half years after the operation, was nearly free from fits. Remarks were also made by Mr. Menzies and by Dr. C. Pope, and Dr. Colman replied.—Dr. Chapman read a paper on the *Rôle* of Alcohol in the Treatment of Heart Disease. While recognising its value in appropriate cases, he protested against its prescription in cardiac cases as a matter of routine. He considered that some cases of failing heart were more benefited by purging or bleeding than by stimulation. Dr. Symons Eccles referred to the existence of dilatation of the left ventricle in cases of neurasthenia, and in such cases he found that alcohol was advantageous, but it must not be abused. Dr. Campbell Pope drew attention to the use of the tincture of cactus in cases where the heart was beating forcibly, and which, therefore, were unsuitable for alcohol. Dr. Chapman replied.

Bradford Medico-Chirurgical Society.—At a meeting held on December 18th, 1894, Dr. Samuel Johnstone, President, in the chair, Dr. Major showed: (1) A case of General Paralysis of the Insane in a young man, aged 20. The rarity in one so young was noted. (2) A case of Multiple Sclerosis (spinal form). The patient was a young woman with ankle clonus, increased knee jerks, and very marked volitional tremor. (3) A young man whose Left Lung showed marked signs of Fibroid Changes. No tubercle bacilli were found in the sputum.—Dr. T. C. Denby showed a boy, aged 10, who presented the symptoms of Pseudo-hypertrophic Muscular Paralysis without having any hypertrophy of the muscles at the present time, or a history of hypertrophy.—Mr. Horrocks showed: (1) Two cases of Cleft Palate on which he had operated. (2) A child having a Congenital Deformity at the Anus (*atresia ani vaginalis*). (3) A case of Excision of the Wrist and one of Excision of the Hip. The latter had been operated on twelve months ago, and the result was excellent. (4) A Bursal Cyst which he had excised from the shoulder of a man.—Dr. Wood showed: (1) A woman who had a Wound of the Wrist dividing the ulnar and median nerves and the flexor tendon; the ends of the divided structures were sutured, the result being recovery of sensation and a good grasp. (2) A boy who had had the Extensor Tendons of his Wrist and also the Bones divided. The bones were sutured and also the Tendons: result satisfactory. (3) A Diffuse Sarcoma which he had dissected *post mortem* from the neck of a woman. (4) An Ovarian Tumour which had been removed *post mortem*, showing a twisted pedicle.—Dr. Chapman showed: (1) A child suffering from Cretinism which had improved under treatment by thyroid extract. (2) Two cases of Aneurysm.—Dr. A. Bronner showed: (1) Cases in which he had cleared out the Mastoid Antrum: he advocated the use of lead wire to prevent a too early closing of the wound. (2) A patient whose common carotid artery he had tied for a Pulsating Exophthalmos, the result being excellent.

Sheffield Medico-Chirurgical Society.—At a meeting on December 20th, 1894, Mr. Makeig Jones, President, in the chair. Dr. Sinclair White showed: (1) A woman on whom he had recently performed Cholecystotomy for severe and persistent attacks of Hepatic Colic. Twenty-seven stones were removed from the gall bladder, and two were crushed in the common bile duct. The woman made an excellent recovery, and had been free from pain since the operation. (2) A boy nearly blind from Double Optic Atrophy due to a subdural abscess which discharged itself six weeks after the onset of severe symptoms through the anterior fontanelle. (3) and (4) Sarcomatous Tumours removed from the coccyx of a woman, aged 72, and the Parotid of a girl, aged 26. The latter had grown very rapidly, and had invaded the neighbouring lymphatic glands.—Mr. Richard Favell showed: (1) A Large Multilocular Ovarian Cyst containing 53 pints of fluid which he had removed from a woman aged 55. (2) A Piece of Retained Placenta which had caused recurring attacks of severe hæmorrhage till its removal eight weeks after confinement.—Mr. West Jones gave particulars of a case of large Gall Stone passed by the bowel, and showed the specimen.—Dr. Arthur Hall showed specimens of Cystine Calculi from a case, full notes of which will be found in the *Quarterly Medical Journal*, vol. iii, part i.—Dr. Keeling showed specimens of Tubal Mole, Ovarian Dermoid Cyst, and Substance removed from uterus four months after incomplete abortion, and gave particulars of the cases.—Dr. Bernard Stedman read a paper on Rectal Etherisation. He had lately administered ether by the rectum in about twenty cases of operations about the mouth in the

Sheffield Public Hospital. So far his results were extremely satisfactory. The method used was that of placing a vessel containing ether in water at 120° F., and conducting the vapour through indiarubber tubing to the rectum. There was little or no struggling during the administration. The disadvantage was the length of time taken to anæsthetise some patients. For several cases this was over half an hour. This disadvantage could be overcome by giving ether by the mouth as well at the outset. When this was done the temperature of the water need not be over 110° F., this being sufficient to keep the patient under by the rectum alone when once fully anæsthetised. The after-effects in Dr. Stedman's cases were slight: In half the cases no sickness; in two or three a little diarrhœa with a discharge of mucus for several days; no pain about the rectum complained of by any of the patients; no marked distension of the abdomen during anæsthetisation.—The President, Dr. Sinclair White, Dr. Gwynne, Mr. Dale James, Dr. Arthur Hall, Mr. Lockwood, Mr. Pye-Smith, Dr. Kite, Mr. West Jones, Dr. Keeling, and Dr. Hargreaves took part in the discussions.

Nottingham Medico-Chirurgical Society.—At a meeting on December 19th, 1894, Dr. J. S. Tew, President, in the chair, Mr. Tresidder read a paper on Rupture of the Perineum. For the prevention of rupture of the perineum he advocated in all cases immediate operation where rupture occurred, delaying that for complete rupture for two hours after delivery; of the secondary operations for rupture, he advocated a modified Lawson Tait's for incomplete rupture, and Galabin's for complete rupture. The President, and Drs. Wood, Blurton, Hunter, Carroll, Gebaty, Tompsett, Watson, and Bolton took part in the discussion.—Dr. Watson showed the Brain of a case of General Paralysis of the Insane.—Dr. Boobbyer gave an account of the case of Dr. Joseph Carroll (M.O.H. for Ilkeston), which will be dealt with elsewhere.

Inverness Medical Society.—The first meeting of this Society was held on December 10th, 1894. Dr. Mackay read notes of a case of Myxœdema treated with thyroid gland extract, and practically cured.—Dr. Wilson Black read notes of two cases of Psoriasis treated with thyroid gland extract, one successfully; the other, after showing marked improvement for some time, relapsed.—Dr. Keay read notes of two cases of Insanity treated with thyroid gland extract, but with negative results.—The following office-bearers were elected: *President:* James Macnee, M.D., L.R.C.S.E. *Vice-Presidents:* James Murray, M.A., M.D.; F. M. Mackenzie, M.A., L.R.C.P. and S.E. *Secretary and Treasurer:* J. Munro Moir, M.D.

REVIEWS.

Clinique Médicale de la Charité: Leçons et Mémoires. [Lectures and Essays from the Medical Department of the Charité Hospital (Paris).] Par le Professeur Potain et ses Collaborateurs. Paris: G. Masson. 1894. (Imp. 8vo, pp. 1072, avec figures noires et en couleurs. Fr. 30.)

We have read this large book through with great interest, and cordially commend it to our readers. Unfortunately editorial care has not prevented repetitions, which have swollen the book to a needless size. On the subjects of cardio-pulmonary murmurs and of the apex beat, for instance, Dr. Potain and his representative, Dr. Vaquez, have been guilty of much redundancy.

The divisions of the work are as follows: Twenty-three clinical lectures on affections of the heart—no doubt by Professor Potain, although the attribution is not expressed—are recorded by Dr. Vaquez. These lectures occupy a third of the volume, and deal with clinical subjects of immediate interest, such as "inorganic" cardiac murmurs, functional cardiac disorders, adherent pericardium, and cardiac therapeutics. Tracts from Professor Potain's own hand on cardio-pulmonary murmurs and on the apex beat follow the lectures, and contain the repetitions of which we have spoken. An experimental research into the action of digitalin upon the rate, rhythm, and energy of the heart by Professor François-Franck comes next in order; then an essay on phlebitis of the limbs, by Dr. Vaquez, and on the association of pure mitral stenosis with tuberculosis, by Dr. Teissier; and Dr. Suchard ends the book with a summary of the methods of *post-mortem* examination. These contributions are written in the modest and careful spirit of genuine research.

The names of Potain and François-Franck are a sufficient indication of the character of their own parts of the work, and their disciples follow their good example: so that the volume on the whole does great credit to the school of La Charité and to modern French medicine.

In speaking thus we must not be understood to overlook the great strain which facts undergo in that ruthlessly systematising machine, the French mind; nor, again, the curiosity or even preciosity with which certain details are pursued, as it seems to us, somewhat disproportionately to their respective values. But after some strife with the intellectual lumber shot in heaps at our feet by the labourers of some other lands, we heartily welcome the spirit of symmetry and lucidity.

In the first clinical lecture M. Potain gives a brief but interesting sketch of the rise of clinical study and teaching in France, with special reference to Corvisart, who began his official career by refusing the post of physician to the Necker Hospital rather than wear the peruke which the rules of that hospital imposed. He then proceeds to write of the heart, and formulates the proposition, to which he frequently refers in subsequent chapters, that the apex beat on palpation is to be perceived in two parts—in a lift of the intercostal space and an internal shock (*ébranlement*); the former being due to the systole of the auricles, and the latter to the closure of the auricular-ventricular valves forming the first sound. The varying relations of these parts of the apex beat are minutely considered, and compared with the opinions of Marcy, Ludwig, and other observers. Dr. Dickinson's view of the "presystolic mitral murmur" is also examined, and this observer is corroborated in respect of the coincidence of this murmur with the apex beat. Dr. Potain points out, however, that the coincidence is with the former, "preparatory" or auricular part of the beat, which interval in mitral stenosis is much prolonged, and not with the second, outputting part, which generates the first sound, and which interval in this disease is abbreviated.

This subject permits of much curious and interesting discussion of the heart's phases and times well worth reading, and the author's opinions seem, on the whole, to correspond with the observations on the "præsphygmic interval," and with Hürthle's experimental results to which M. Potain does not seem to refer.[1] We think also that the rare cases of simple aortic stricture would bear out the author's opinions, seeing that in them, so far as we have had the opportunity of observing, the direct murmur is or may be slightly "post-systolic," that is, after the præsphygmic moment. We are under the impression that Dr. Waller has somewhere made the same observation.

On closer analysis, however, we think, with all respect for M. Potain, that he does not speak quite clearly, and may even be incorrect as regards the relation of auricular contraction to the præsphygmic interval, and he offers no discussion of Roy and Adami's papillary moment. We must remember that venous pressure is not sufficient, nor indeed is auricular contraction, to cause much rise of pressure in the ventricle and auricle, resistance in the ventricle being then low if not negative. This low pressure has been attributed to lack of valves at the openings of the large veins, but apparently in forgetfulness of the contraction of the muscular fibres on these veins. As the vermicular contraction of these fibres advances, the pressure on each unit of inner surface must increase, and squirting of blood backwards against the venous current be prevented or reduced to a negligeable quantity until passive distension sets in; valves therefore would not be required. Cardiographic tracings, largely used by M. Potain, valuable as they are for measuring certain characters, are not to be relied

[1] The lack of an index—a fault strangely characteristic of the otherwise methodical French medical authors—prevents our speaking with certainty on this point.

upon to measure accurately the duration of the different phases of the cardiac cycle, and the parietal pericardium is too distensible for use as a cardiometer by means of the introduction of fluid into its cavity under more than atmospheric pressure.

As regards the relations of cardiac disease to insanity and other neuroses discussed in Lecture xvii, we can only at present say that English observers have not yet admitted all the facts alleged. Professor Potain's opinion that the so-called "inorganic" or hæmic murmurs are in all or nearly all cases cardio-pulmonary is very fully and ingeniously set forth in the chapter on that subject, which deserves careful study.

To consider Professor François-Franck's experimental results on digitalin would require an article to itself, for which we may find space perhaps on some future occasion. The chapter is illustrated by many good cardiographic tracings. In thousands of tracings under digitalin, this observer has never noted asynchronism of the ventricles, and they are relatively synergic within a certain small margin. He points out where mercurial manometers fail in analysing the cardiac processes, and also that intracardiac pressure measurements are to be preferred to extracardiac or arterial.

The Sanitary Arrangement of Dwelling Houses. By A. J. Wallis-Tayler, Assoc.M.Inst.C.E. London: Crosby, Lockwood, and Son. 1894. (Cr. 8vo, pp. 196, 118 illustrations. 2s. 6d.)

This is a cheap clearly written work giving in language as little technical as possible a description of the sanitary arrangements of houses so far as relates to drainage and the accessories of drainage. There are some chapters on heating, ventilation, and water supply, but the information on these points is too restricted and fragmentary to be of much use; it appears, indeed, that the intention of the author originally was to confine his remarks to drainage and the fittings connected therewith. It is to be regretted that this intention was abandoned; for the chapter on ventilation reads more as if it were an advertisement of the inventions of a particular firm than a popular description of the principles and methods of ventilating a house.

With regard to sanitary appliances generally the work is well up to date, the very latest improvements in detail being recorded, and the advice given sound. The book, generally speaking, may be considered a trustworthy guide to a subject with which every householder should have some acquaintance.

Les Eaux d'Alimentation: Épuration, Filtration, Stérilisation. [Drinking Water: its Purification, Filtration, and Sterilisation.] Par Dr. E. Guinochet, Pharmacien en Chef de la Charité. Paris: J. B. Baillière et Fils. 1894. (Cr. 8vo, pp. 370, 52 illustrations. Fr. 5.)

This book, which is published as a volume of the *Encyclopédie de Chimie Industrielle*, is an accurate and complete textbook on the subject of filters and filtration. In the introductory pages the author discusses the definition of the purity of drinking water in the light of modern chemical and bacteriological science without exaggeration, and, in a preliminary sketch of the methods of filtration, afterwards described in detail, treats of their merits from a practical point of view. Dr. Guinochet first reviews the various systems of what he terms "central filtration," that is, the wholesale treatment of water for public supply. These are lateral filtration through the natural soil adjacent to rivers, filtration through artificial sand filters, the Lefort system of wells, and various so-called industrial processes. First among the latter is placed the Anderson process of purification by iron. This is followed by the description of several types of high-pressure filters, and of apparatus for softening hard waters. The second section of the book describes the principal domestic filters in use in France and elsewhere, and discusses their merits. the third section treating of the cleansing and sterilisation of filters. The greater part of this section relates to experiments carried out by the author on the working of the Chamberland-Pasteur filters. The book concludes with a chapter on sterilisation by heat and the various sterilising apparatus employed. Appended to the work is a list of 182 publications, dealing with the various subjects treated of by Dr. Guinochet, nearly all of which have appeared in the last ten years. The volume, which is well printed and bound, is a valuable book of reference.

Über das Sehvermögen der Eisenbahnbeamten (The Eyesight of Railway Employés). Von Dr. Paul Silex, Berlin. London and Edinburgh: Williams and Norgate 1894. (Demy 8vo, pp. 42. M. 1.)

In this monograph the writer gives a brief summary of the regulations enforced since 1870 in his own country regarding the sight of railway officials. Some of the regulations as to the visual acuity necessary in the various classes of railway servants seem to be sufficiently ambiguous to have led Dr. Silex to bring the matter before a congress of railway medical officers in Berlin last year. Dr. Silex proposes a scheme of regulations as to the acuity of vision necessary in railway servants, the standard varying according to the duties of the individual, and naturally being highest in engine drivers and stokers. Normal colour vision is required in all who are in any way concerned in the working of trains. Re-examination of the *employés* should be carried out at intervals of not less than three years; the present custom in Germany of allowing an interval of five years to elapse, Dr. Silex thinks, is dangerous. At the end of the pamphlet the writer gives notes of the regulations in force in other countries; in this list Holland, with an almost ideal scheme, is *facile princeps*.

NOTES ON BOOKS.

Das Wesen und die Behandlung der Neurasthenie. [The Nature and Treatment of Neurasthenia.] Von Dr. G. Kothe. (Jena: G. Fischer. 1894. Royal 8vo, pp. 32).—The author defines neurasthenia as an irritable weakness of the whole nervous system, but chiefly of the cerebrum. He looks upon it as a fairly distinct morbid entity, not liable to develop into more grave nervous disease, such as tabes or general paralysis, unless some specific cause for the latter—for example, syphilis, be present. Rejecting Arndt's hypothesis that the neurasthenic nervous system bears a more or less embryonal character, with which there often is concurrent defective formation of blood cells, he agrees with Erb and others in attributing the condition to changes in the finer nutrition of the nerve centres. He concludes an ably written monograph with some judicious observations on treatment.

Animal Vaccines.—By J. A. W. Dollar, M.R.C.V.S. Paper read at the twelfth general meeting of the National Veterinary Association. (Birmingham: G. Jones and Son. Demy 8vo, pp. 36. For private circulation.)—In the preface to this valuable paper Mr. Dollar states that the framework of the work is composed of notes taken at the Institut Pasteur and the Hygienisches Institut of Berlin. It is evident, however, that he has spared no pains in order to verify his facts, and to place before his hearers a full and accurate account of our theoretical and practical knowledge of animal vaccines. We can safely recommend this little work to all those who take an interest in this subject, and more especially to the members of the veterinary profession who in this country have shown up to the present but slight interest in the practical results of bacteriological science.

Vade Mecum du Praticien [Practitioner's Vade Mecum] *Diagnostic et Traitement des Maladies Internes.* Par le Dr. Fernand Roux. (Paris: G. Steinheil. 1894. Cr. 8vo, pp. 391. 4 francs.) The subjects treated in this book are arranged in alphabetical order. A short description of the disease is first given, and this is followed by an account of the diagnosis and treatment. Besides dealing with the so-called medical diseases, it includes at times subjects of more strictly surgical interest, but which are frequently met with in everyday practice. Occasionally operations are detailed at some length. Skin diseases also find a place in this book. Some omissions must be noted. It is surprising to find under rabies not even an allusion to the Pasteur treatment. Under

bulbar palsy, feeding by the tube should be mentioned. For those who desire a short and mostly succinct summary of the diagnosis and treatment of disease, this book may very possibly be useful, but the study of disease apart from its morbid anatomy is open to disadvantages.

The Education and Training of Children in Institutions under the Control of the Local Government Board. By J. Birkby. (Manchester: *Poor-Law Officers' Journal.* Cr. 8vo, pp. 31.)—Among the papers read recently before the North-Western Poor-Law Officers' Association was one of considerable interest by Mr. J. Birkby, Superintendent of the Swinton Schools at Manchester. This gentleman holds a brief for the "barrack schools," his own being of this class. The paper deals seriatim with the six systems under the Poor Law for the education of the pauper children, and something may be said for and against each one of them; they are all worked under difficulties unknown to Board School managers, the most telling being the "ins" and "outs." After all the question is mainly one of men not measures; careful selection of officers and their considerate and sympathetic treatment by the guardians being mainly responsible for the success or failure of the method chosen. The paper opens with some excellent remarks on education.

Die Extraktion der Zähne: ihre Technik und Indikations-Stellung, mit Einschluss der Betaubung. Von Prof. Dr. F. Busch. (Berlin: August Hirschwald. 1894. Roy. 8vo, pp. 60. 33 Illustrations. M. 2.)—This pamphlet on extraction of teeth deals fairly thoroughly with the subject, including extraction when the patient is under the influence of the various anæsthetics. Nearly every page has an illustration of an instrument: several of them, however, are not such as would be used in this country. Elevators of various kinds are shown but there is no illustration of the most useful straight one, which is the best of all elevators. The screw gag figured has long been superseded by several better forms. The book is carefully and well written. It would be materially improved, however, if, instead of so many diagrams of instruments, illustrations showing the relative positions of the operator and his hands to the patient could be inserted in a new edition.

Notes on Army Medical Services in War. By Brigade-Surgeon-Lieutenant-Colonel W. H. McNamara. (London and Aldershot: Gale and Polden. Cr. 8vo, pp. 46. 1s.)—This is a most useful handbook for army surgeons, especially for junior officers, and those in higher rank without experience of active service. Brigade-Surgeon-Lieutenant Colonel McNamara's position as the officer commanding the Depôt and Training School, Medical Staff Corps, at Aldershot, qualifies him to deal in a concise, but yet instructive, form with a variety of executive and administrative details falling on the medical department during mobilisation and campaigning, that have not before been treated in a succinct manner. The moderate price of this little work brings it within the purchasing compass of all ranks in the Army Medical Service.

Our Secret Friends and Foes. By Percy F. Frankland, F.R.S., Professor of Chemistry in Mason College, Birmingham. Second Edition. Romance of Science Series. (London: Society for Promoting Christian Knowledge. 1894. Pp. 204.)—The only fault we have to find with this little volume is in the title of the series to which it belongs. The book is tersely and interestingly written, and the interest is maintained throughout; but to speak of the facts it narrates, however interestingly they may be set forth, as belonging to the "romance" of science, is at least a contradiction in terms. In the present edition there has been added a chapter on the comparatively novel subject of the action of light on micro-organisms, in which the principal results hitherto obtained in this fascinating branch of bacteriology have been brought together. Otherwise the changes are mostly verbal.

Elements of Surgical Pathology. By Augustus J. Pepper, M.S., M.B., F.R.C.S., Surgeon to St. Mary's Hospital, and Teacher of Practical and Operative Surgery at the Medical School. Fourth Edition. (London: Cassell and Co. 1894. Cr. 8vo, pp. 624; 99 engravings. 8s. 6d.)—We are glad to see the new edition of this well-known little manual, and the fact that this is already the fourth speaks well for its popularity and practical utility. The changes that will be noticed in this edition are so great that very little of the old matter remains, the original text having been almost entirely rewritten to keep abreast of recent advances in both general and surgical pathology. Among the additions to the work will be noticed short accounts of mycetoma, myositis ossificans, appendicitis, mastoid disease, together with many others. We cordially wish this edition of the book all the success it deserves.

REPORTS AND ANALYSES.

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A STRONG CLINICAL THERMOMETER.



Messrs. Arnold and Sons, West Smithfield, send us a specimen of a clinical thermometer, which they intend to call the "Reliance." It is the result, we are informed, of numerous experiments made to meet the requirements of St. Bartholomew's Hospital. The object was to obtain a clinical thermometer which would be much stronger in the constricted portion than is usual. In this way it is hoped that the expense of breakage may be diminished. The new thermometer is illustrated in the accompanying woodcut. The constriction is the strongest part of the instrument, and the makers say that if dropped on the floor the instrument would certainly not break at the constricted part of the stem, where the glass is in fact much thicker than in the ordinary patterns. The thermometers are sold at the usual price, and it is believed that their enduring qualities will make them a real economy.

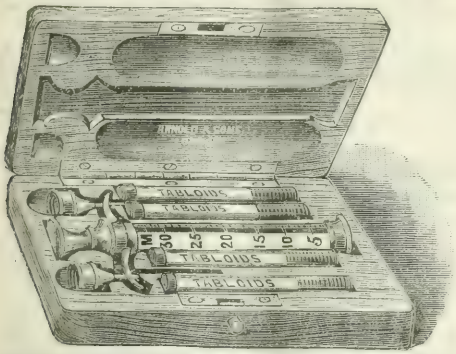
IRON JELLOIDS.

To preserve ferrous carbonate from change is undoubtedly a matter of the greatest difficulty. This difficulty appears to have been overcome by Messrs. Warwick Brothers, manufacturing chemists, 18, Old Swan Lane, London, E.C., by mixing the freshly-precipitated carbonate with a jujube mass, which acts as a remarkable preservative. We have examined a specimen made in the shape of compressed tablets, and known as "iron jelloids," several months after its preparation, and find that the iron salt is unchanged and in the proto state. The iron jelloids are soluble, have a pleasant taste, and, since the essential ingredient is in that condition in which it is considered to be most easily assimilated, this form of Blaud's pill can certainly be recommended.

IMPROVED HYPODERMIC SYRINGE.

Dr. Bowen, of the General Hospital, Barbados, has designed, and Messrs. Arnold and Son, of Smithfield, have manufactured, a hypodermic syringe which appears to present certain distinct advantages. The barrel is lined with white enamel, and the graduation is made boldly in black, so that it can be clearly seen even if the light is not very strong. The piston rod, which has a screw stop nut, is also graduated, the numbers running in the contrary direction to that usually adopted. This arrangement has the advantage that if the nut is adjusted, say to the figure 5, 5 minims will be injected, whereas with the ordinary mode of mensuration with the screw nut at 5, 25 minims would be injected with a 30-minim syringe. This, it is thought, might easily happen in a fit of absence of mind, and the danger is at least worth guarding against. The piston valve is a modification of Arnold's patent double oil valve, in which a flat leather sur-

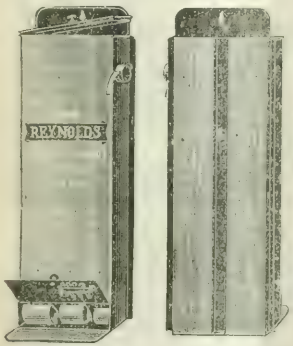
face on the piston impinges against a flat leather washer in the base of the needle. When these two come in contact there can be no residual fluid left in the syringe. The barrel



is fitted at its upper end with two horns, which enable it to be held steadily between the first and second finger, while depressing the piston with the thumb, thus leaving the other hand quite free for manipulating the skin. This is a very distinct improvement. The extreme toughness of the skin of his negro patients has induced Dr. Bowen to have the needles manufactured of a special tough yellow metal. The needle screws on over the barrel, so that a tabloid can be dropped into the cylinder and dissolved in it if desired. The barrel has a screw cap for carrying.

BANDAGE SHOOT.

Messrs. Reynolds and Branson, 13, Briggate, Leeds, have made a very convenient bandage shoot to hang on the wall. Its construction will be understood from the accompanying drawing. The specimen sent is designed to hold the three sizes of bandages in ordinary use, which can be withdrawn as wanted from the slot at the bottom. The shoots are filled from the top. At the side is a small receptacle for tape strapping. The invention will serve to keep bandages clean, and will be altogether found a very tidy addition to the surgery. At the back is space for two wooden splints, suitable for arm or leg. The larger size, for two dozen 4 inch, two dozen 3 inch, two dozen 2½ inch, two dozen 2 inch, and three dozen finger bandages, costs 17s. 6d. empty. The smaller size for one dozen 3 inch, one dozen 2 inch, and one dozen and a-half finger bandages, costs 10s. empty.



THE MOVILLETTE.

The Movillette is a rigid *pince-nez* for astigmatic and other glasses, which can be put on and off with one hand. The glasses are held in their place by two plaquets, which are kept applied to the sides of the nose by springs, the plaquets themselves being adjustable by a hinge to varying shaped noses. For putting on and off, the plaquets are separated by pressure with the thumb and forefinger on two spurs which project slightly forwards on each side of the nose-piece. By this arrangement the glasses can be applied and removed by



one hand only—a great advantage to public speakers and others who only need their glasses intermittently. They are made in four different sizes by Messrs. J. Raphael and Co., 13, Oxford Street, W.

THE AMENDMENT OF THE MEDICAL ACTS.

Draft Bill of the Parliamentary Bills Committee.

At its last meeting the Parliamentary Bill Committee had before it clauses for a Bill for the amendment of the Medical Acts, which had been drafted according to its instructions by Mr. Muir Mackenzie, and Mr. R. W. Turner and Mr. B. F. C. Costelloe. The alternative clauses suggested by these gentlemen were in many instances nearly identical, and the differences were often merely verbal. It has appeared, therefore, that it would be convenient to have an agreement by the three barristers consulted as to the wording they would recommend. The Bill printed below is the considered form, signed by the three barristers, and it is printed here for the convenience of the Branches, who have been requested to consider the Bill at an early date, and to forward their observations to the Chairman of the Parliamentary Bills Committee. It is hoped that communications from the Branches upon the subject may be received by the end of February or early in March, in order that they may be considered and digested, and submitted to the Parliamentary Bills Committee.

A Bill intituled an Act to Amend the Law relating to Unqualified Persons who practise Medicine and Surgery.

Be it enacted by the Queen's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled, and by the authority of the same, as follows:—

Punishment of unqualified persons who assume medical or surgical titles.

1. Any person who not being duly qualified takes or uses

(*a*) The name or title of Physician, Doctor of Medicine, Licentiate or Master in Medicine or Surgery, Bachelor of Medicine, Surgeon, General Practitioner, Medical Practitioner, Medical Specialist, Medical Dispenser, Apothecary, Aurist, Oculist, Ophthalmist, Accoucheur, Medico-Herbalist, Medico-Electrician, or any of these or the like titles with any added words, variations, or designations, or

(*b*) Any title, style, addition, or description directly or indirectly implying that he is the possessor of any degree in or licence to practise medicine, or surgery, or midwifery, or is in fact possessed of the skill necessary for the practice of medicine, or surgery, or midwifery, or any branch of medicine or surgery, or the performance of any operation in surgery or midwifery, or the administration of any medical treatment, shall for each offence be liable, on summary conviction under the Summary Jurisdiction Acts, to a penalty not exceeding twenty pounds, and to imprisonment in default of payment for not longer than one calendar month, and on conviction upon indictment to imprisonment for not longer than one year, with or without hard labour, and with or without the option of a fine, provided always that no person shall be liable to imprisonment without the option of a fine unless it shall be proved that he has by the performance of some opera-

tion, or the administration of some treatment, or otherwise by or in the practice of Medicine, Surgery, or Midwifery, caused to some person grievously bodily harm.

Definition of unqualified person.

2. A person is not duly qualified within the meaning of this Act unless he is
(*a*) Registered under the Medical Acts;
(*b*) Possessed of the diploma of one of the Medical Corporations mentioned in the Medical Acts entitling him to practise medicine or surgery:
(*c*) Possessed of the diploma of a foreign or colonial medical body which would entitle him to registration in the *Medical Register* as a foreign or colonial practitioner.

Definition of taking and using titles by persons and institutions.

3. For the purposes of this Act
(1) The words "title, name, style, addition or description" include any title, addition to a name, designation or description, whether expressed in words or by letters, or partly in one way and partly in another.
(2) A person shall be deemed to take and use a title, name, style or description who advertises, exhibits or holds out, or is party to the advertisement, exhibition, or holding out of any title, name or description of or concerning any institution, company, association, body, place, or premises whereby it is directly or indirectly expressed or implied that medicine or surgery or any branch of medicine and surgery is practised there, or who carries on, or is a party to the carrying on, by or at any such institution, or under or in connection with such institution, company, association, body, place, or premises the practice of medicine, surgery, or any branch of medicine or surgery.

Legal proceedings.

4. (1) All penalties under this Act shall be recovered summarily, and all proceedings against any person for an offence under this Act shall be taken under the Summary Jurisdiction Acts.
*(2) Proceedings under this Act against any person for offences under this Act may be taken by the General Medical Council, or by a branch Council, or by a Medical Corporation, or by a private person.
(3) In the application of this Act to Scotland the expression "Summary Jurisdiction Acts" means the Summary Jurisdiction (Scotland) Acts.

Evidence on prosecutions.

5. In any prosecution under this Act
(1) It shall be sufficient *primâ facie* evidence that a person is not duly qualified that his name does not appear in the *Medical Register* for the current year, which may be proved by production of a copy of a *Medical Register* for the time being purporting to be printed and published in pursuance of the Medical Acts, or by an affidavit of the registrar of the General Medical Council.
(2) In the case of a person entitled to be registered whose name does not appear in the current *Medical Register*, an affidavit by the registrar of the General Medical Council that the person is entitled to be registered, or that he is in fact registered, or an affidavit by the registrar, secretary, or other public officer of one of the Medical Corporations that the person is duly qualified under the diploma of the corporation, shall be sufficient evidence that the person is duly qualified unless the contrary is proved.

Saving as to persons who do not practise in the United Kingdom.

6. This Act shall not apply to
(1) Any person who has been duly registered under the Medical Acts, and whose name has been erased from the *Medical Register* on the ground only that he had ceased to practise.
(2) To a person possessed of any medical diploma granted in a British possession or foreign country legally entitling him according to the laws of that possession or country to practise there in medicine, surgery, or midwifery, who is temporarily or not ordinarily resident in, or who has for some *bonâ fide* operation or special purpose of the like nature come to the United Kingdom, or who, if ordinarily resident in the United Kingdom, proves that he does not carry or intend to carry on the practice of medicine, or surgery, or midwifery, or any branch thereof, in the United Kingdom.

Saving as to penalties under Medical and Dentists Acts.

7. Nothing in this Act shall be construed to repeal or affect the operation of the provisions of the Medical Acts or the Dentists Act, 1878, relating to penalties on persons for falsely pretending to be registered, or who take titles which they do not possess.

Short title and construction.

8. This Act may be cited as "The Medical (Unqualified Practitioners) Act, 1895," and shall be construed as one Act with the Medical Act, 1886, and the Medical Act therein referred to.

Resettled in consultation.

(Signed) Montague Muir Mackenzie.
B. F. C. Costelloe.
Richard Whitbourn Turner.

December 21st, 1894.

* *Note*.—"Medical Corporation" means under the Act of 1886 one of the Corporations mentioned in the Act. "Person" includes public bodies by the Interpretation Act.

THE REGISTRATION OF MIDWIVES.

Convened by the Midwives' Institute, a meeting of midwives and others interested in the promotion of a Bill for the registration of midwives was held on Wednesday afternoon at the Trained Nurses' Club, 12, Buckingham Street, Strand. Sir Frederick FitzWygram presided, and briefly opened the proceedings by explaining the object for which the meeting was convened, although he avowed himself as opposed to the attempt to introduce a Bill.

Mrs. Hall then read letters from several persons unable to be present, including Mr. H. F. Pease, M.P., Mr. Rathbone, M.P., Sir J. Williams, Dr. Danford Thomas, Dr. Playfair, and others, all of whom expressed themselves as being in sympathy with the object of the meeting.

The Chairman, after giving a short history of the movement for the compulsory registration of midwives, said he was bound to say that in his opinion, if the Institute got a charter which would give them a prescriptive right to issue certificates, that was as far as they had a right to go. It would require an Act of Parliament to impose any penalty, but he did not believe that there was any probability of Parliament passing any such measure. However, it was his duty to put before the meeting the clauses of the proposed Bill, which, among other provisions, would contain clauses for defining and safeguarding the term "midwife," rules for the examination of midwives by central and local boards, the requisites for registration, penalties for acting as midwives without registration, etc.

Some considerable discussion ensued, in the course of which Dr. Herman said that the resolution passed by the General Medical Council on the subject might be regarded as a general threat only, which he did not think they would dare to enforce.

Dr. J. B. Potter also expressed a similar opinion.

Dr. Watt Black suggested that the best course would be to appoint a subcommittee to draw up a Bill, as he said it was impossible for a meeting like that to discuss details. The Midwives Registration Association had drawn up a scheme with great care, and it might be useful as a model on which to draft a Bill. The scheme was intended to be a self-supporting one, with the exception that the county councils would be asked to keep a local register of the midwives in their own counties, and they would have to pay for them.

The Chairman inquired whether the meeting was of opinion that the best course was to proceed to obtain a Royal Charter first and afterwards an Act. That was certainly his advice.

Miss Wilson and others said that the Institute had not the slightest idea of asking for a charter; they wanted nothing short of an Act dealing with the subject.

Dr. Leith Napier proposed a resolution to the effect that the meeting was of opinion that it was desirable to obtain the passing of an Act; and this, after some discussion, was agreed to.

The Chairman then vacated the chair, and his place was

taken by Mr. SCHWANN, M.P., who expressed his willingness to do what he could in promoting a Bill in the next session of Parliament: and a subcommittee was chosen to draft a Bill, Dr. F. Rowland Humphreys being appointed secretary.

It was also agreed, on the motion of Dr. WATT BLACK, seconded by Dr. BOXALL, that the Bill to be introduced should, in the interests of the poor mothers of England, contain a clause to the effect that it was desirable that midwives should continue to exist, and should continue to be known and designated as such.

A vote of thanks to Mr. Schwann closed the proceedings.

PATHOLOGICAL MUSEUM AT THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, LONDON, 1895.

THE Pathological Museum Committee have arranged to form a temporary Museum of Pathology on the following outlines: (i) Any specimen or drawing of general pathological interest, preference being given to recent specimens; (ii) any specimen of extreme rarity.

The collection will be arranged under the following special groups:

1. (1) Specimens and drawings illustrating the various modes by which tubercle may be introduced into the body.
   (2) Specimens illustrating the results of operations on—(*a*) The kidney. (*b*) The small intestine. (*c*) The vermiform appendix.
   (3) Gall stones and the morbid condition of the gall bladder, with especial reference to their escape into the intestine.
   (4) Foreign bodies, other than gall stones, which have passed through the intestinal tube.
   (5) Foreign bodies, other than gall stones, which have been found impacted in the intestinal tube.
   It is especially desired to exhibit any specimen showing the impaction of a gall stone in the intestine.
   (6) Syphilitic lesions of joints.
   (7) Tumours of the brain and spinal cord.
   (8) Injuries to the epiphyses.
   (9) Actinomycosis.
   (10) Malignant affections of the skin.
   (11) Tuberculosis of the skin.
   (12) Specimens illustrating surgical operations for enlarged prostate, with statements of results.
   (13) Congenital malformations of the heart.
   (14) Acromegaly.
   (15) Scurvy rickets.
2. Vegetable pathology.
3. Diseases of the lower animals.
4. Bacteriology.
5. Teratology.

EXHIBITION OF PATIENTS.

Arrangements will be made for the exhibition of patients every morning at 9.30. The following groups will be formed, but it is by no means wished to restrict the cases to these subjects. All rare cases will be acceptable if of a character to admit of demonstration. The Committee will be greatly obliged to all who will assist them by supplying patients.

A. Syringomyelia.
B. Acromegaly.
C. Acro-arthritis.
D. Acro-sphacelus.
E. Spondylitis Deformans.
F. Muscular Atrophy.
G. Duchenne's Paralysis.
H. Xerostomia.
I. Ophthalmoplegia.
J. Morphœa and Hemi-atrophy of Face.
K. Congenital Absence of Limb Bones.
L. Congenital Hypertrophies.
M. Leprosy.
N. Rare Forms of Skin Disease.
O. Raynaud's Disease.
P. Unusual Forms of Œdema.

The Secretary of the Committee is Mr. Edgar Willett, 25, Welbeck Street, London, W., to whom all communications should be addressed.

THE MEETING OF FELLOWS AT THE ROYAL COLLEGE OF SURGEONS.

THE third half-yearly meeting of the Fellows of the Royal College of Surgeons of England was held in the theatre of the College on January 3rd. Mr. HULKE, the President, occupied the chair, upwards of fifty Fellows being present.

When the hour fixed for the meeting had arrived, the necessary quorum of thirty was not in attendance, but soon afterwards the number was reached, and the proceedings commenced. The routine business having been transacted,

The CHAIRMAN reported that in reply to the resolution adopted at the last meeting of Fellows, requesting the Council to take steps for obtaining the opinion of the Fellows on the mode of election to the office of President, the Council, on July 30th, 1894, agreed to the following resolution: "That the Council are not prepared at the present time to consult the Fellows or solicit their opinion through other means than the meetings of Fellows, which have been lately established. The Council would, however, point out that if any Fellow is anxious to test the opinion of the general body of Fellows as to whether or not it is desirable to make any change in the present mode of election to the office of President, it is open to him to do so by submitting a motion on the question to the meeting of Fellows in January, or to some subsequent meeting."

Mr. H. W. PAGE then, on behalf of the Society of Fellows, communicated the result of a canvass made by the Society of all Fellows resident in Great Britain upon the mode of election to the office of President. From this it appeared that 1,000 circulars had been issued, requesting replies to three questions. These questions were: (1) "Are you in favour of the election of the President by the Fellows?" (2) "Are you in favour of the nomination of the President by the Council and his election by the Fellows?" (3) "Are you in favour of maintaining the present mode of election?" There were 468 postcards returned, of which for certain reasons 50 were held to be invalid. This left 418, and of these 112 Fellows signified their agreement to the first question, 156 to the second, and 150 to the third. Mr. Page concluded from these figures that there was practically no indication on the part of the Fellows that any change from the existing order of things was desired.

Mr. RIVINGTON pointed out the numbers showed that there was a majority of 118 in favour of some change; in other words, 268 for and 150 against the present mode of election.

A long discussion ensued upon this interesting topic; inasmuch as however, no formal resolution appeared on the agenda paper in respect to it, the CHAIRMAN ruled that no action could be taken in the matter.

Mr. W. H. BENNETT next moved:

That the Council be requested to appoint a conjoint committee of members of the Council and other Fellows of the College to consider the desirability of obtaining a new charter, together with the details thereof.

He pointed out that this resolution was in no sense the outcome of any feeling of antagonism towards the Council. On the contrary, all that was desired was that the question of the charters should be settled and the next application for a new charter should be the final one.

The resolution was seconded by Mr. TIMOTHY HOLMES, Vice-President of the Association of Fellows, on behalf of that body, and after some remarks from Mr. HOWARD MARSH, it was carried by 22 to 14.

A similar resolution to the above was on the agenda in the name of Mr. Gant, but this was, by leave, withdrawn.

A vote of thanks to the Chairman brought the meeting to a close.

AT a meeting of the Association of Fellows held on the previous day it had been arranged that Mr. Holmes should second Mr. Bennett's motion. At this meeting a letter was read from the Honorary Secretary of the Society of Members, inquiring whether a resolution of the Association of Fellows, passed in May, 1885, to the effect that it would be advantageous that Members should be empowered to take part in the election of the Council of the College, had been rescinded. A reply was directed to be sent, stating that the resolution had not been rescinded, but that it had given rise to so

much difference of opinion that the Association of Fellows had determined to leave the question untouched. The reply pointed out further that the acceptance by the Council of the College of the resolution moved by Mr. Bennett and seconded by Mr. Holmes would not prevent the addition to the Committee of representatives of Members of the College.

LITERARY NOTES.

According to the *Publishers' Circular* the number of new books on subjects belonging to the domain of medicine and surgery published during 1894 was 97, and of new editions of works of the same category, 59. The numbers are very nearly the same as for 1893.

The Roumanian Government has purchased the library of Professor Karl Vogt, of Geneva. The distinguished biologist is to receive an annuity of 12,000 francs (£480) during his life, and if his wife survives him she will receive a life pension of 4,000 francs (£160).

The publication of Mr. Hutchinson's *Archives of Surgery*, which has lapsed for six months, is now, we are pleased to hear, about to be resumed. No. 21 will appear in a few days with additional letterpress and nine plates. This number, which commences Volume VI, will also contain a chronology of medicine from the 15th to the 19th century. The publishers will in future be Messrs. West, Newman, and Co., 54, Hatton Garden.

With the beginning of the new year the *Union Médicale* has enlarged its size and transformed itself into a weekly, and has somewhat widened its scope. The editors are M. Richelot, surgeon to the St. Louis Hospital, and M. Richardière, physician to the Paris Hospitals. The editorial secretary, who on French journals is generally the working editor, is M. Eugène Rochard, also a hospital surgeon.

In connection with the subject of theses presented to the Paris Medical Faculty, of which some statistical details were given in this column not long ago, it may not be amiss to remind members of the Association that all the more recent of these valuable publications may be consulted in the Library of the Association. The number of Paris theses presented in 1892-3 was 441, and in 1893-4, 547. During the current academic year 91 were presented up to the end of December, 1894. The theses are indexed under the names of the authors and under the subject. As these works are sometimes looked upon as mere academic essays, it may be well to point out that many of them are written under the direct inspiration of some renowned teacher, who uses the candidate as his mouthpiece. Nélaton, for instance, wrote comparatively little in his own name, but was content to speak through his pupils.

In the United States the birth-rate of medical journals shows no decrease. The *Colorado Climatologist* is the name of a new journal published monthly at Denver, Colorado, under the editorship of Dr. C. Manley and J. N. Hall, with a goodly list of collaborators. The *Vermont Medical Monthly* is the name of a new journal which is published at Burlington, Vermont, United States. The medical students of Yale have now a journal of their own, entitled the *Yale Medical Journal*. The first number appeared in November, and the journal is to be published monthly from November to June.

Another new birth in medical journalism is the *Journal of Medicine and Science*, which is to be the official organ of the Maine Academy of Medicine. It is edited by Dr. E. E. Holt, of Portland, with the collaboration of more than fifty members of the Academy. That learned body, by the way, would seem to have its full share of that "go-ahead" quality which is the national characteristic of our American cousins; it was organised on October 29th, 1894, and already it can boast a membership of 175, and an "organ" of its own.

In an interesting article entitled "Notes on Sanitation, by an Army Medical Officer," which appears in the *Medical Magazine* for January, it is pointed out that although ample provision is made by the regulations of the service for the tendering of advice on sanitary subjects by the Army Medical Department, the military authorities are by no means obliged to take the advice of the "doctors." The responsibility in army sanitary matters lies between the military authorities, the Royal Engineers, and the Medical Staff: "the last advise the first, who in their turn refer the points represented to the second." With reference to this edifying game of battledoor and shuttlecock, poor Tommy Atkins might say, with the frogs in the fable, "It may be sport to you but it is death to us!" The guiding principle of the military mind too often is to snub the "doctors." Lord Wolseley, it is true, goes so far as to admit that "medical advice is an excellent thing—when it is asked for:" but other military authorities seem to make a point of asking for the commodity, thus graciously patronised by the author of the *Soldier's Pocket Book*, for the express purpose of rejecting it. The writer of the article referred to gives many examples of the unsatisfactory results of the jealous exclusion of the Army Medical Department from an effective share in sanitary administration in the army, which prove clearly that, as far as sanitary work is concerned, the Royal Engineer Corps is in its right place only when acting under the direction of the Medical Staff.

We have received Vol. XV of the colossal *Index Catalogue of the Library of the Surgeon-General's Office of the United States Army* (imp. 4to, pp. 842). The volume extends from *Universidad* to *Vzoroff*. Dr. Billings, in a prefatory note, states that the volume contains 6,152 author titles, representing 3,312 volumes and 4,235 pamphlets. It also includes 8,596 subject titles of separate books and pamphlets, and 35,667 titles of articles in periodicals. Altogether in the fifteen volumes of the catalogue, 80,806 volumes, 139,891 pamphlets, have been recorded under their authors' names, and 160,245 books and 497,832 articles in journals under their titles. The imagination shrinks from such figures, and the whole medical world is indebted to the Government of the United States for carrying out this immense undertaking, and to Dr. Billings for the skill with which it has been directed.

The publication of Penzoldt and Stintzing's *Handbuch der speciellen Therapie innerer Krankheiten* continues to make steady progress, and the fourteenth fasciculus has now been received. The fragmentary manner in which the articles are being published puts a formal review practically out of the question, but a cursory examination shows that the characters of completeness and accuracy noticed in the earlier part of the work are being fully maintained.

M. Paul Bourget gives his impressions of America, which he recently visited, in a French periodical under the title of *Outre Mer*. Among other more or less memorable experiences, he was present at a football match between the Universities of Harvard and Pennsylvania. His account of the game is interesting:

> The signal is given and the play begins. It is a terrible game, which by itself would suffice to indicate the differences between the Anglo-Saxon and the Latin world—a game of young bulldogs brought up to bite, to rush upon the quarry, a game fit for a race made for wild attack, for violent defence, for implacable conquests and struggles, even to extermination. With their leather vests, with the Harvard sleeves of red cloth, and the Pennsylvania blue and white vests and sleeves, so soon to be torn; with the leather gaiters to protect their shins, with their great shoes, and their long hair floating around their pale and and pink faces, these scholarly athletes are at once admirable and frightful to see as soon as the demon of contest has entered into them. At each extremity of the field is a goal, representing at the right end one of the teams, at the left the other. The entire object is to throw (*sic*) an enormous leather ball, which the champion of one or the other side holds in turn. It is in waiting for this throw that all the excitement of this almost ferocious amusement is concentrated. He who holds the ball is there, bent forward, his companions and his adversaries likewise bent down around him in the attitude of beasts of prey about to spring. All of a sudden he runs to throw the ball, or else, with a movement of wild rapidity, he hands it to another, who rushes off with it, and whom it is necessary to stop. The brutality with which they seize the bearer of the ball is impossible to imagine without having witnessed it. He is seized by the middle of the body, by the head, by the legs, by the feet. He rolls over and his assailants with him, and as they fight for the ball and the two sides come to the rescue, it becomes a whole heap of twenty-two bodies tumbling on top of one another, like an inextricable knot of serpents with human heads. This heap writhes on the ground and tears itself. One sees faces, hair, backs, or legs appearing in a monstrous or agitated *mêlée*. Then this murderous knot unravels itself, and the ball, thrown by the most agile, rebounds and is again followed by the same fury. Constantly, after one of these frenzied entanglements, and when the knot of players is undone, one of the combatants remains on the field motionless, incapable of rising, so much has he been hit, pressed, crushed, thumped.

It appears that what M. Bouget saw was a comparatively tame affair, in which no one was killed or even permanently disabled. One would like to read his impressions of some of the more recent contests between Yale and Harvard, and other haunts of the Muses, which, if the American papers are to be believed, were examples of a form of sport which may be "manly," but can hardly be called human.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JANUARY 12TH, 1895.

THE FINANCES OF THE LONDON HOSPITALS.

II.

WE referred last week to the conflicting views recently expressed as to the financial condition and prospects of the London hospitals, and pointed out the difficulties under which certain of them are undoubtedly labouring. How pressing these difficulties are has been clearly set forth by Mr. Burford Rawlings, whose able letter to the *Times* of January 9th, is well worthy of careful perusal. The question of the duties of the medical profession in relation to the great London hospitals is one which appears to deserve further consideration. Whether the medical profession, as such, has any special interest in the maintenance of the medical charities of the metropolis on their present basis is a point upon which opinions will be by no means unanimous. Indeed, some of our correspondents from time to time seem to be so convinced that hospitals attract many patients from struggling practitioners by treating for nothing, or for a small consideration worse than nothing, those well able to pay them fees, that they desire a very serious curtailment of hospital relief, or that it should be put on a very different footing. Others, again, with no personal interests at stake, may desire that instead of numerous committees managing separate hospitals often overlapping each other in their fields of operation, and entailing consequent waste and extravagance, we might have some central board, which should control the administration of existing institutions and prohibit their undue multiplication. Another group of thinkers recognises the existence of a growing sentiment that relief in sickness is a duty which should be undertaken by the State for all its citizens irrespective of rank. Charity, according to them, is an anachronism. The aid which is at present extended to suffering and distress as a matter of benevolence should be supplied by the State or the municipality as a matter of justice, and they point to the progress towards this point of view which has been made by recent legislation. When the law enacts that medical relief shall be given by the infirmaries and by the medical officers of the Poor Law to those who claim it without the stigma of pauperism attached to it, we have at once a condition which cuts at the root of the old distinction between the infirmary and the hospital, between the medical relief granted under the Poor Law and the out-patient department. In former days the patients at the one were paupers, at the other they were presumably of better position. Now that the working class may obtain the benefits of the Poor Law without incurring the civil disabilities involved in the acceptance of relief from the rates, the old distinction vanishes or at least becomes much less distinct.

If the views of these thinkers should be carried out to their logical conclusion, the hospitals would become infirmaries supported by the rates, controlled by the municipality or county council, and filled by patients who would not rank as paupers, and might, indeed, be reasonably well-to-do. The parish doctor would still exist, and would probably be much better paid than he is at present, and everyone would have a right to his services, the question of the fee the patient should pay being one not for the doctor, but for the civil authority, to settle.

As regards medical education, it would not, perhaps, suffer under such a scheme, and the municipality would usefully check the undue multiplication of hospitals, if, indeed, the stream of benevolence needed to keep such establishments afloat did not spontaneously cease to flow when the hospital rate was paid with the regularity of the income tax, and the hospital board was as much an integral part of local government as a vestry or parish council.

We have said so much on this head, not for the purpose of indicating any sympathy with the school of thought to whose conclusions we have just adverted, but that the profession may see whither we must assuredly tend if the hospitals, voluntary and endowed, should prove to be unable to carry out existing obligations. Hospitals we must have, and if not supported by voluntary contributions, then from the rates. Can we say that as a profession we are doing our best to maintain the hospitals? Considering their opportunities, considering how often they are appealed to for guidance by their wealthy patients, how few medical men, whether in general or consulting practice, appear to recognise the duty of suggesting our hospitals as fitting objects of a testator's benevolence. So far as we can learn, it is but very rarely either as regards his old school in London or the local hospital of his town the practitioner exhibits such interest as to direct the thought of his patient to their needs. And, again, do the wealthy amongst us—those who during their lives stand at the head of the profession in means and reputation—show by their testamentary dispositions that sense of obligation to their hospitals and schools which is shown by many successful men of business to the town in which their money has been made? A wealthy physician or surgeon dies, and leaves it to filial piety to commemorate his name in the hospital whence his greatness was derived, or he bequeaths to his old school hundreds, where as many thousands of pounds would never have been missed. It is all very well to say, as is often said, that such men have done more for their hospitals than their hospitals for them; it may be so, but the public, which is a keen critic in such matters, notices only that nothing is left to medical charities, and draws its own conclusions from the omission. In particular it seems to us that the wealthy amongst us should not forget their old schools, for they surely, of all men, must know the importance of well equipped laboratories and well paid demonstrators, and such objects must, of necessity, appeal less to the public mind than the broad claims of the sick and suffering, and

thus it becomes more difficult to appeal successfully for funds to be used for such purposes. The greater need, therefore, that those who do know should not act as though they knew not.

What, in short, may be urged is, not that the family physician should make himself a nuisance to his patients by an unseasonable insistence on the necessities of this or that charity, whether medical or otherwise, but that when opportunity offers, and the *mollia tempora fandi*, which familiar intercourse affords, come in his way, he should not forget the needs of his Alma Mater or local hospital, and that those who, after satisfying the legitimate claims of kinsfolk, may have somewhat to give of their superfluity, should so give it as to convince the world at large that not only in word but in very deed they appreciate the incalculable advantages which our hospitals and medical charities confer on those who, in familiar words, "are anyways afflicted or distressed in mind, body, or estate."

TYPHOID FEVER AND OYSTER EATING.

As we stated briefly in the BRITISH MEDICAL JOURNAL of January 5th, the suspicion which has been growing for some weeks that certain sporadic cases of typhoid fever among the wealthier classes in London were connected in some way with the consumption of oysters, has been converted into something very like certainty. We are enabled this week to publish a paper by Sir William Broadbent, in which he gives particulars of a number of cases under his observation which have led him to the opinion that the disease was derived from the consumption of oysters. The cumulative weight of the facts will, we apprehend, be generally accepted as considerable. The exclusion of all the ordinary sources of typhoid fever, and the peculiar incidence of the disease in certain families, on those members only who had partaken of uncooked oysters, and the further fact that this consumption of oysters appears to be the only circumstance common to the cases, afford a very strong presumption for the view that these succulent bivalves were in some way the means of conveying infection.

The present is not the first occasion upon which grave suspicion has fallen upon oysters. A similar suspicion was entertained with regard to certain cases which occurred in 1890 in Dublin, and as long ago as 1880 Sir Charles Cameron reported cases at the Cambridge meeting of the British Medical Association, in which the consumption of certain oysters had produced intestinal disease of a serious character.

A recent number of the *Medical Record* of New York contains a very able report by Dr. H. W. Conn, Professor of Biology in the Wesleyan University, Middletown, Connecticut, of a limited epidemic of typhoid fever which occurred at the end of October and the beginning of November, 1894, among the students of that University. The College has both male and female students, but the typhoid fever was limited to the males. Consideration of all the circumstances appeared to exclude the more ordinary vehicles of infection, such as water, milk, and the general sanitary conditions of the building. It appears that amongst the students of the College have been organised seven fraternities, which are of the nature of clubs. Early in the inquiry it was ascertained that all the cases of typhoid, with three exceptions, occurred among the members of three of these fraternities. The three fraternities number 100 students, and among these 25 out of the 28 or 29 cases of typhoid had developed. It was evident, therefore, that there must be some cause at work producing a special incidence of the disease upon these fraternities. Inquiry was therefore next directed to the question of food, but at first without result, as the facts with regard to the food supply did not fit in with the facts as to the peculiar incidence of the disease. Inquiry was then directed to ascertain whether there had been used on any particular occasion some unusual articles of food, and it was recollected that on October 10th, eight days before the first case, there had been given by each of these fraternities an initiation supper. It then turned out that each of the three fraternities had been supplied by the same oyster dealer with oysters, which were eaten raw; while of the other four fraternities two had no oysters, a third had cooked oysters, and the fourth had oysters from an entirely different source. One of the three students outside the three fraternities attacked by the disease had been a guest at one of the suppers; and another one had eaten of the raw oysters in the store of the oyster dealer. Next it was ascertained that certain other guests had been present, including some old students (alumni). Inquiries addressed to these alumni produced twenty responses, from which it appeared that two had been attacked with genuine typhoid fever at about the same time as the outbreak in the College, and that three others had suffered from illness not regarded as serious. Among the other guests were five students of Yale, of whom two suffered from severe typhoid fever, beginning four weeks after the supper. Inquiries made as to the source of the oysters showed that they had grown in the deep water of Long Island Sound; but they had been deposited in the mouth of a fresh water stream for a day or two to freshen, or "fatten" as it is called. It was then ascertained that within about a hundred yards of the place where these oysters had been deposited to fatten was the outlet of a private sewer, coming from a house wherein resided a lady and her daughter, who had first come under medical treatment on October 11th for an illness which turned out to be typhoid fever. The oysters had, therefore, been fattening close to the mouth of the private sewer for several days during the early stage of the attack in these ladies, and before any special precautions as to disinfection of stools were likely to have been taken. Lastly, it was ascertained that at Amherst College several cases of typhoid fever had occurred among the members of one fraternity, who had eaten of raw oysters at a fraternity supper on October 12th, and that these raw oysters had been fattened at the mouth of the same creek.

The facts collected by Dr. Conn, therefore, afford a long chain of circumstantial evidence tending to incriminate the oysters. The question: "What is to be done?" is not an easy one to answer. Of course, it is easy to say: "Don't eat uncooked oysters." Perhaps this is the only advice which can be given at the moment, but it is not really a solution of the difficulty. Means must be taken to prevent contamination of oysters by sewage during the process of "fattening" or freshening, and there ought not, apparently, to be any insuperable difficulty in carrying out the necessary preventive measures. It is safe to say that the conditions

under which oysters can convey the infection of typhoid fever must be of rare occurrence, and in all probability an investigation carefully conducted by competent pathologists, with the co-operation of those engaged in the culture of oysters, which we believe can be secured, will result in the discovery of simple precautions which will render infection from this source impossible in future.

INOCULATION UNDER THE VIVISECTION ACT.

WHEN the Vivisection Act was passed in 1876, there can be no doubt that the framers of it did not contemplate experiments of so trivial a character as simple inoculation. Nevertheless, those who have been advancing medical and scientific knowledge by means (among other methods) of inoculations have voluntarily sought the protection of the Act in order that they might be free from any petty annoyance on the part of fanatics who are opposed to all experiments on living animals. Those who have to administer the Act have naturally interpreted it in the way which was safest for themselves and the licensees; and, accordingly, all who wished for licence and certificates for inoculations, and who were furnished with the necessary legal credentials, have met with no opposition on the part of the authorities.

The inoculation experiments have steadily increased in numbers, and a reference to the Inspector's report for 1893 shows that they constituted more than 57 per cent. of the whole.

Now the act of inoculation is practically painless, but under the Vivisection Act no experiment may be performed without anæsthetics, except under the protection of a special certificate—Certificate A—which must state "that insensibility cannot be produced without necessarily frustrating the objects of such experiments." Such a declaration in respect of the simple process of inoculation is unnecessary, and a technical adherence to the letter of the Certificate would subject the guinea-pig to the additional annoyance of chloroform. The majority of the inoculations have been performed under Certificate A. The terms of this certificate may, we think, be taken as proof positive that, as we have stated, the framers of the Vivisection Act did not contemplate inoculations as coming under it.

To regard inoculations as coming under the Act has a further disadvantage, which is beginning to be rather acutely felt, and is not unlikely to prove a vexatious hindrance to the advance of knowledge. The Act (Clause 3, Section 5) provides that no experiment shall be performed "as an illustration of lectures," except under a special certificate (Certificate C), to which the condition is attached that the animal must be anæsthetised. Although, therefore, it may be legal, under a certificate inaccurately worded, to inoculate a guinea-pig in a laboratory without an anæsthetic, under no circumstances can this be done publicly without subjecting the guinea-pig to the administration of chloroform in addition to the prick of the hypodermic needle.

Whether or no the guinea-pig which has been publicly pricked under chloroform is to be killed before recovery seems a moot point, and depends upon the view taken as to the likelihood or otherwise of the continuance of the pain

The Vivisection Act was framed for the protection of animals from experiments "calculated to give pain," and it depends upon the view taken of inoculations as to whether or no they come under the Act.

That the simple prick of a hypodermic needle is the kind of pain which the framers of the Act had in view, few would be found to contend, and the only reason for placing these experiments under the Act is the fact that theoretically the process of inoculation subjects the animal to the subsequent annoyance of disease. This undoubtedly is theoretically true, notwithstanding the fact that inoculated animals never afford any evidence of pain whatever. It is certain that the thousands of animals which have been infected with tubercle by means of inoculation or feeding have suffered no pain whatever, and it would be impossible to prove that animals infected with the more acute febrile conditions have suffered pain.

Some of the inoculative processes have already escaped from the Act. Animals are being frequently injected with mallein or tuberculin, for the purpose of diagnosing glanders or tuberculosis, without any reference to the Vivisection Act, and in the same way calves are being inoculated for the production of calf lymph.

When the Council of the British Institute of Preventive Medicine commenced the preparation of diphtheria antitoxin, they sensibly determined that the process, "not being an experiment" and not "calculated to give pain," did not come within the Act—a view which has been practically adopted by the law officers of the Crown to whom the case was submitted for opinion.

The question arises as to whether the majority (if not all) of the inoculation experiments can reasonably be regarded as experiments "calculated to give pain," and whether the time has not arrived for putting a reasonable interpretation upon the Act, and incurring the risk of a prosecution.

The only alternative would be to get the Act amended by the House of Commons; but it is evident that this would be a task which no Minister or private member would care to undertake in the present state of public opinion. On the whole we think that a little boldness is the best course to pursue, and the one which is most likely to be successful.

THE HYGIENE OF LITERARY WORK.

THE number of persons engaged in literary work of one kind or another is now so large that discussions on the physical conditions of such work are becoming every day more widely interesting. One of our lay contemporaries has lately been concerning itself with the attitudes of literary workers, and the subject is by no means unworthy of attention.

It appears from the inquiries of a contemporary that some authors stand at their work, others "tramp around," others rush headlong up and down a cloister or garden with a book or in thought. Some sit to write, others stand to write, and so on.

A recent German writer asserts that when at our desk we are sunk in profound thought, these thoughts, however pure and lofty, are nevertheless actually poisoning our brains. Then we lose grip of our ideas, we become dull, our temples throb, our heads ache, and so forth. "But rise from your table," says this writer, "take deep inhalations, move your

arms in rhythm with them," and your ideas are clarified and your conclusions become logical.

Mr. Auberon Herbert[1] carries the matter farther still; he is rude enough to tell us that it is not the profundity of our thought but the foulness of our chambers which makes many of us so dull. Wit and philosophy, says Mr. Herbert, are to be wooed, not in the cozy and curtained library but with the hair blowing about one's temples and one's legs packed in a rug. "Turn indoor life into outdoor life, open your windows widely, get curtains and other impediments well fastened back, and wear a sufficiency of extra clothing."

We may be judges, each in our own case, whether our headaches be due to profundity of thought or to bad air; but we shall all agree that the immediate cause is the same in both cases, namely, impurity of blood and tissue. An open fire in an otherwise closed room is not usually sufficient to purify us from the waste products of our work. In a letter published by Mr. Herbert, Sir Dyce Duckworth cruelly says: "I generally observe that where scientific men mostly congregate the ventilation is worse than elsewhere." This is a sad reflection.

Now, unless the air of our rooms be pure, respiratory gymnastics, hygienic desk attitudes, and so forth, cannot be of much avail. Whether in our fine frenzy we sit, stand, or march, our ideas will grow muddy if the air of our apartments be not regularly renewed.

To many persons, especially to English people, who are accustomed to radiant heat only, warmed air is unpleasant, and all contrivances for admitting cool air in streaks and streams are but ingenious modes of torture. Whoso then cannot stand open windows—and it is not given to most of us to be foresters—will do wisely to sink the well of truth in short "shifts;" and to take occasion between whiles to renew the air of the study by throwing windows widely open at not infrequent intervals, intervals which must depend on the size of the apartment.

Thus we shall find ourselves able to choose what attitudes we please while we work, and may nevertheless look forward in antiseptic philosophy to triumphs as brilliant as those of antiseptic surgery.

Last spring we had the pleasure of referring to the celebration of the golden wedding of Sir James and Lady Paget. We regret now to have to record the death of Lady Paget on January 7th in her 80th year.

The annual general meeting of the Neurological Society of London will be held at the rooms of the Royal Medical and Chirurgical Society on January 17th, at 8.30 P.M., when the President-elect, Sir William Broadbent, will deliver an address on Some Speculations on the Constitution and Action of the Nervous System.

The President and Council of the Harveian Society of London have issued invitations to the annual *conversazione* which will take place at the Society's rooms, Titchborne Street, Edgware Road, on Thursday next, the 17th instant, at 8 P.M. The President's address will be delivered by the retiring President, Mr. Eastes, and there will be an exhibition of illustrated medical works published before 1800, views of home and foreign health resorts, and various Pompeian relics.

[1] *Bad Air and Bad Health*, Williams and Norgate, 1894, pp. 98.

DEATH OF THE CHAMPION CENTENARIAN.

Lieutenant Nicolas Savin, the famous veteran of the Grande Armée, who, having been left behind at the time of Napoleon's ill-fated Russian campaign in 1812, has made Russia his adopted country ever since, passed away not long ago at the age of a century and a quarter. Born in Paris in 1768, he entered a regiment of hussars, and served through all the principal campaigns, both of the Consulate and the Empire. In the retreat from Moscow he was taken prisoner by the Cossacks. When liberated, instead of returning to France, he married and settled at Saratoff, where he has lived ever since, earning his livelihood by teaching French. He leaves a daughter aged 78. In 1887 the late Czar sent Savin a present of 1,000 roubles. We are not in a position to say whether authentic proof of Savin's age is extant, but there can be no doubt that he had lived very far beyond the ordinary span of human existence. He has for many years been the show centenarian of Russia, and a stock subject of newspaper paragraphs.

THE CHOLERA AT LUCKNOW.

The severe epidemic in the East Lancashire Regiment in July and August, 1894, has already been alluded to in the British Medical Journal. The inquiry into this is, we are informed, being conducted by the Principal Medical Officer of the district, Professor Hankin, and the Sanitary Commissioner North-West Provinces. It appears that the filters of broken brick and sand in barracks were recharged in July, and to do this work some coolies were employed who, it is suspected, came from a cholera-infected part of Lucknow. It is believed that the first cases originated from the water of some wells in which Professor Hankin found cholera bacilli. Probably when the full report is published we shall find wells when being cleaned by natives contaminated, followed by cholera cases; then, in order, barrack filters contaminated and used in camp, and last of all a fresh water supply tainted.

LOCAL GOVERNMENT BOARD ORDERS AND PAUPER NURSING.

We have before us the reply of the Penzance Board to Dr. Fuller's report. This report reflected upon the nursing, upon the lying-in ward accommodation, and upon the care of the infants; these matters are dealt with *in extenso*. But it is not with the reply on all these points that we concern ourselves, but with one sentence which appears to us to sum up the situation: "The committee report that the present nurse has had twenty-two years' experience, was appointed by the Board with the approval of the Local Government Board, and has performed her duties satisfactorily, and paupers of a satisfactory type have been engaged in the sick wards under the supervision of the nurse, as permitted by the regulations of the Local Government Board." Here the whole thing lies in a nutshell, and until the "orders" are altered, these abuses will exist. The Local Government "orders" were framed when the treatment of the sick was on quite a different footing to the present, and the employment of paupers as nurses is provided for and sanctioned in the "orders;" in these "orders" the whole care of the sick is placed under the workhouse matron, the employment of a paid official as nurse is simply to meet the difficulty of the matron having more patients than she can attend to. It seems, then, that before these reforms in the care of the sick can be put on a firm basis, we must bring about a reform of the Poor Law.

THE NEW COUNCILS AND THE MEDICAL PROFESSION.

WE are glad to find from communications which reach us from various quarters that the medical profession will be well represented on the new parish, district, and urban councils, and that in not a few cases medical men have been invited to accept the post of chairman. These selections show clearly that the general body of electors appreciate the importance of sanitary matters, and recognise the public spirit which has been so widely shown by the profession in forcing upon public attention the need for continuous improvement in public health administration. Among the most recent notifications we have received are that Dr. Arthur Flint, J.P., of Westgate-on-Sea, has been elected chairman (from outside) of the Westgate Parish Council, and also vice-chairman of the Isle of Thanet District Council: that Dr. H. K. Hitchcock has been elected chairman of the Branksome Urban District Council: that Drs. Bampton and Scott have been elected urban district councillors for Ilkley-in-Wharfdale; and that Mr. Vincent J. Magrane, L.R.C.P.I., was returned at the head of the poll at the recent election for the urban district council of Darlaston, and was at the first meeting, held on January 1st, elected vice-chairman.

THE NOSTRUM STAMP.

IT appears that in 1860 the Government tax on patent concoctions produced £43,600, and that in 1892 this figure had risen to £240,000. We have pointed out that the journals of the various religious sects are the chief offenders, and seem to be particularly favoured by the advertisers of these nostrums. But why should the State, so solicitous of checking fraud and misrepresentation in other quarters, not protect the ignorant from this traffic instead of actually conniving at it? A poor country like Italy, with embarrassed finances, declines to fill its exchequer by drawing a revenue from fraud. Every proprietary article in that country must have printed clearly on each box or bottle the name and exact amount of each ingredient. The owner may give to his production what fancy name or price he chooses: he is not required to divulge any particular method or art employed in manufacturing his goods or in rendering them more pleasant to the eye or palate: but he must make no false statements as to the source, nature, or power of any drugs used or as to the effect of his medicine. For example, he may advertise his "Pectoral Pick-me-up" as the "sovran'st thing on earth" for coughs, colds, bronchitis, pleurisy, etc. But on the label he must state the name and quantity of each ingredient in every dose; and if he suppressed the fact that opium was present or gave its dosage incorrectly, or claimed that his pick-me-up was a certain cure for consumption, he would at once be prosecuted and convicted of fraud. Having to give the plain matter-of-fact prescription, he, of course, does not attempt to gull people by advertising his nostrum as made of "Oriental flowers grown in his own gardens in Arabia." The public buys his goods with open eyes and not from fraudulent misrepresentation. Can we not take a lesson from Italy?

SIR JOSEPH FAYRER.

THE long and distinguished official career of Sir Joseph Fayrer terminates on January 11th, when, in consequence of the operation of the age rule, he retires from the office of President of the Medical Board at the India Office. Sir Joseph Fayrer, who is the son of a naval officer, entered the medical service of the royal navy soon after qualifying in 1847, and was present at the sieges of Palermo and Rome. In 1849 he joined the Army Medical Department, but in the following year was appointed an assistant surgeon in the service of the Honourable East India Company. Shortly after his arrival in Bengal he served in the Burmese war in 1852, and in recognition of his services during that campaign was at its close appointed Residency Surgeon, and assistant political agent at Lucknow. He was at his post in that city throughout the Mutiny, and his intrepid and resourceful conduct during that period earned for him the medals and clasps, and brevet rank. Coming home on furlough after this terrible experience, he gave himself with characteristic energy to medical study, and obtained the degree of M.D. from the University of Edinburgh. In the same year he was appointed professor of surgery in the Calcutta Medical College, a post which he retained until his appointment in 1874 to the post of President of the Medical Board and physician to the Secretary of State for India, in succession to Sir Ranald Martin. During the fifteen years he spent in Calcutta he not only gained a high reputation as a surgeon, but threw himself into all works for the advancement of science and of education. He found time, however, to bring out his magnificent volume, the *Thanatophidia of India*, and to serve not only as President of the Medical Faculty of the Calcutta University, but also as President of the Asiatic Society of Bengal. He accompanied the Duke of Edinburgh and the Prince of Wales as medical adviser during their visits to India. Of the distinguished place which Sir Joseph Fayrer quickly earned for himself as a physician in London, a position which we trust he may long live to enjoy, it is not necessary for us to speak, and of his services as President of the Medical Board of the India Office, it will suffice to say that the Secretary of State has signified his appreciation thereof in handsome terms. A career so active, so meritorious, has earned for him many public recognitions, both from the Government of this and other countries, and from universities and learned societies: while his strong and upright character, his high sense of honour and duty, and genial breadth of view, have won him the affection and esteem of all those who have been brought into official or professional relations with him.

THE INDIAN MEDICAL CONGRESS.

THE correspondent of the *Times* in Calcutta telegraphs that a deputation of the Indian Medical Congress had an interview with Sir A. P. MacDonnell, the member of Council in charge of the Home Department. The deputation in the first place presented the resolutions of the Congress with regard to Government aid to scientific research and sanitation. In reply, Sir A. P. MacDonnell said that it was intended to create a cenire of research and study at Lahore similar to that already existing at Agra, and that, as far as financial and administrative considerations allowed, he would advise the Goverument to proceed further in this direction. With regard to sanitation, he pointed to the large expenditure already incurred on sanitary works and water supply as evidence of the Government's appreciation of its importance. The deputation also presented the resolution mentioned in the BRITISH MEDICAL JOURNAL of January 5th with regard to the Cantonment Act Amendment Bill, and stated that it was authorised to present an earnest and respectful but indignant protest in the name of the medical profession against the Bill.

THE REGIUS PROFESSORSHIP OF MEDICINE AT OXFORD.

PROFESSOR J. BURDON SANDERSON, hitherto Waynflete Professor of Physiology in the University of Oxford, has been appointed to succeed Sir Henry Acland as Regius Professor of Medicine in that University. At the time when he was elected to the Waynflete Professorship in 1882, Professor Burdon Sanderson was Jodrell Professor of Physiology in University College, and had devoted himself to the study and teaching of physiology for some years, but before that he had won his spurs as a pathologist, and had served as Assistant-Physician both to the Middlesex Hospital and to the Hospital for Consumption at Brompton. He had also carried out several important official investigations. Thus,

in 1865-66 he was engaged in a pathological inquiry into the cattle plague for the Royal Commission on that subject, and in the first of these two years had proceeded to North Germany to inquire into an epidemic of cerebro-spinal meningitis. In 1869 he investigated for a Royal Commission the influence of extreme heat on the health of miners in Cornwall. For eleven years he was Medical Officer of Health for Paddington. Professor Sanderson has, therefore, had an unusually wide and varied experience in the various departments of professional activity, and his translation from the Chair of the Institutes of Medicine in his old University of Edinburgh, as Physiology is officially and not unhappily denoted there, to the Regius Professorship of Medicine is in accordance with the fitness of things, and we trust that he may long be spared to discharge the important duties of his new office, and that the Medical School of Oxford may continue to advance under his leadership along the road which it has followed in recent years.

THE PERSISTENCE OF DIPHTHERIA BACILLI IN THE FAUCES.

The instance of the persistence of pathologically active diphtheria bacilli in the fauces of a boy, who suffered from tonsillitis in May last, related by Professor Schäfer in another column, is of interest from whatever point of view it may be looked at. It has already been recorded that such bacilli may persist in the fauces for six or seven weeks after the false membrane has disappeared, but this is the first instance reported of the persistence over a period of at least seven and a-half months. If these bacilli have been present continuously one of two alternatives must be accepted: either the protection afforded by the attack of diphtheria in this case lasted longer than is usually believed, or the bacilli, though still pathogenic for guinea-pigs, were less virulent than at the commencement of this period. This second supposition, however, is negatived by the fact—if fact it was—that this boy is looked upon as being the focus from which two other boys became infected. It should be noted, however, that this boy and the one secondarily infected slept in the same dormitory, and it is of course quite within the range of possibility that the presence of active bacilli in the mouth of the boy who had previously been the subject of the disease may really have been due to the presence of the diphtheria bacilli in the second case, which occurred in a boy in the same dormitory. This, however, is purely a matter of speculation; the interesting fact remains that these diphtheria bacilli were in the fauces of an apparently healthy boy seven and a-half months after an attack of diphtheria.

THE SICK POOR AT SEDGEFIELD AND BLACKBURN.

The report of our Commissioner's visit to the little workhouse at Sedgefield again shows the neglect with which the sick poor are treated. From the mention made of the kindness evident on the part of the officials, we should think that there is ignorance rather than wilful neglect on the part of the Board. We are shocked to read that the poor women in labour have no privacy but such as the matron can contrive at the end of a small ward, in which are the infirm and sick inmates, nor do they seem to have the assistance of a skilful attendant, for the matron, though she may have experience from practice, is not a midwife; the doctor is close by in the village certainly, but experience shows that it is impossible to guarantee that the medical man is not miles off in the country when his services are needed by the pauper woman in labour. The wards for the sick do not deserve the name: there is the picture of the poor blind old man left alone to die, receiving only such intermittent attention as a busy workhouse matron could take from her other duties. Our Commissioner notes the bath in the lobby at the foot of the stairs, practically useless unless the bath is to be taken in public, or the use of the stairs interdicted for the time. Sanitary appliances are in the same rudimentary condition, the absence of the same for indoor use necessitating either a walk outside in bad weather, or the use in the ward of such conveniences as are available. The whole report presents a picture of sad neglect on the part of the responsible authorities.—The Blackburn Board of Guardians, according to the local papers, are in hot water, having on their hands an investigation into certain malpractices on the part of the master. Our Commissioner has visited the infirmary, and, as will be seen by the report in another column, was pleased with the arrangements and nursing in the infirmary proper. The infirmary, which is a modern building, has been modelled on the lines of a hospital. We read of large airy wards well lighted, having cross ventilation; of good bath rooms, of trained nurses, working under a trained head, and of probationers in process of training; of patients, such as we meet in the wards of general hospitals, being nursed under similar conditions; of the lectures and methods of training that are provided for the probationers; and of a medical officer justly proud of the department for which he is responsible. We wonder, then, whether someone or other has not made a mistake. Has our Commissioner gone wrong? Where are the "beds that are maggotty," "the bedsore the size of a dinner plate, with vermin eating into them,' the "faulty bathing arrangements for the sick paupers?" It reads like an evil dream. But there is another block; and here, evidently, our Commissioner's suspicions are aroused. It seems that in the arrangements for the sick an old block in the main portion of the workhouse is used for the treatment of the lock, itch, and infirm cases—a class of patients who need most careful and thorough attention. In the case of the two first diseases in the class, vice, ignorance, and dirt are the factors bringing them into the wards; in the last the helpless state of the men or women places them at the mercy of their attendants. In commenting upon the system of nursing provided for these poor folk our representative is careful not to pass judgment upon a matter in process of investigation, but points out the sharp contrast evident between the sick in the hospital and those for whom untrained attendance and pauper help are provided, and remarks "that it was quite possible that the abuses which have been brought to light by the investigation committee could occur under the existing condition of the nursing of these cases." It would appear that the guardians, in making the improvements in the hospital, fell into a common mistake, and retained the offensive cases in the main portion of the house, nursed in the old style, the master and matron being responsible for their supervision; hence the existing state of patchwork that has been just disclosed. Between two stools the patients have come to the ground. There is but one satisfactory way of dealing with the sick—place them all under the sole control of the trained nurses, who shall alone be held responsible for their well-being. If the Board at Blackburn can only see the way to do this, the scandal of holding a workhouse official responsible for duties for which his training and experience do not qualify him will cease.

THE LARYNGOLOGICAL SOCIETY.

The annual meeting of the Laryngological Society of London was held on January 9th; and in the evening the members dined together, with the President of the Society (Dr. Felix Semon) in the chair. Dr. Semon developed unsuspected excellencies in this capacity. In speaking of the short but successful career of the Society, he said that the aim of the founders had been to emphasise the intimate relations of the special study of diseases of the larynx to general medicine and surgery. This aim had been borne always in mind, and the success of the Society, which had grown from a membership of 28 at the beginning to some

90 odd during the three years of its existence, was a proof that this aim had been achieved. The toast of "The Guests" was acknowledged by the President of the Royal College of Physicians and by Dr. Ord. Sir Russell Reynolds recalled how, in 1859, he had met the late Professor Czermak in the house of Erofessor Sharpey and how Czermak had demonstrated on his own person the use of the laryngoscope. The health of Signor Garcia, the inventor of the laryngoscope, was drunk with enthusiasm, and the father of laryngoscopy, now in his 91st year, responded in appropriate terms. Sir George Johnson, in acknowledging the toast of the honorary members, related some reminiscences of the early days of the laryngoscope, and in particular how, during Professor Czermak's first visit to this country, he had organised for him at King's College a class which numbered among its members Sir Edward Sieveking and Mr. Timothy Holmes. During the evening Mr. W. Shakespeare and Mr. Plunket Greene sang some songs, which, as Dr. Pavy observed, were illustrations of the physiological side of laryngology. The proceedings were brought to a close by Mr. Butlin, who proposed the health of the Honorary Secretaries, Dr. Clifford Beale and Dr. Scanes Spicer, a compliment duly acknowledged by those gentlemen.

ADVERTISING DENTISTS AND THE GENERAL MEDICAL COUNCIL.

AN article entitled Dentists and the Public, which appeared recently in the *Pall Mall Gazette* has been reprinted in a small pamphlet, and copies can be obtained from King, Thorne, and Stace, Jubilee Street, Brighton. The article is on the whole a sober statement of the need for an amendment of the Dentists Act. The reference to the General Medical Council, which contains an implied criticism of its mode of procedure, appears to be somewhat out of place. The resolution adopted by the Council last May was in the following terms :

> The attention of the Council having been called to the practice of advertising as pursued by certain dentists, it is hereby declared that while the Council will not at present interfere with this practice so long as it is confined to a mere notification of the place of abode and the profession of the advertiser, yet that the publication of a scale of charges or the issue of advertisements containing claims of superiority over other practitioners, or unfair depreciation of them, will be regarded as an offence with which the Council will be prepared to deal and which may easily be carried so far as to constitute infamous or disgraceful conduct in a professional respect.

It seems only right and proper in all the circumstances of the case that the General Medical Council should in the first place issue such a warning as this. If it is disregarded it will be for some representative body of dentists to bring individual examples under the notice of the Council.

THE TENURE OF MEDICAL OFFICERSHIP OF HEALTH.

AT the last meeting of the Nottingham Medico-Chirurgical Society Dr. Boobbyer made a statement with regard to the circumstances attending the non-re-election of Dr. Joseph Carroll to the post of medical officer of health for Ilkeston. Dr. Boobbyer stated that Dr. Carroll has, during his ten years' tenure of office, organised the Public Health Department of the town and its Isolation Hospital, doing good work at a very inadequate salary. During seven years, he said, Dr. Carroll received the nominal salary of £30 a year, during two years and a-half £50 a year, and for the final six months £75 a year. His connection with the Public Health Department of Ilkeston was then suddenly severed by the appointment, at a salary of £100 a year, of a member of the Town Council. Dr. Boobbyer pointed out that an urban medical officer of health outside the metropolis was at present appointed under Section 189 of the Public Health Act of 1875, which practically placed the medical officer of health at the mercy of the authority. It was very desirable, he added, that the provisions of Section 108 of the London Public Health Act of 1891 should be extended to the provinces. This section, it will be remembered, enacts that a medical officer of health should be removable by the sanitary authority with the consent of the Local Government Board, or by that Board, and not otherwise; and that any such medical officer should not be appointed for a limited period only. The following resolution, moved by Dr. Boobbyer and seconded by Dr. Hunter, was carried unanimously :

> That the Medico-Chirurgical Society of Nottingham, which includes among its members four medical practitioners of Ilkeston, and which, by the proximity of Nottingham to the latter town, is in a position to obtain reliable information upon matters of public business transacted there, considers that the circumstances under which Dr. Joseph Carroll has recently been deprived of his appointment as medical officer of health for Ilkeston are such as to justify the strongest possible appeal to the Government for a speedy change in the existing laws affecting the appointment and tenure of office of provincial medical officers of health; and that this resolution be forwarded to the Postmaster-General (Mr. Arnold Morley), the Parliamentary Secretary of the Local Government Board (Sir W. Foster), and other local M.P.'s, and to the Incorporated Society of Medical Officers of Health.

FOOD POISONING.

THE cause of an outbreak of illness among persons in Sutton Coldfield, who partook of soup distributed gratuitously by the proprietress of the Wylde Green Hotel there, is very obscure. About 18 gallons of soup were given away to customers and poor people, and within two days about a hundred of those who partook of the soup were attacked by illness, characterised by purging, vomiting, and prostration. Immediately after the outbreak samples of the meat from which the soup was made, of the pearl barley also used, and the soup itself were submitted to Professor Bostock Hill, medical officer of health for the borough, who has been good enough to furnish us with the following particulars: No trace of any mineral poison was found, and the suggestion that the symptoms might be due to poisoning by copper derived from the so-called "copper" in which the soup was made was negatived, not only by the absence of copper in the soup, but also by the fact that the vessel was made of iron. The suggestion that the symptoms might be due to an excess of saltpetre used in pickling the meat cannot, in Dr. Bostock Hill's opinion, be entertained, since the salt could not have produced toxic symptoms unless present to the extent of some pounds in the quantity of soup distributed; and this, of course, would not be the case. The suggestion that a hare which had become high was put into the soup is strongly denied by the proprietress, but it appears that the broth in which a rabbit was boiled was added. No symptoms followed the eating of the rabbit, however. Further, the round of salt beef used in making the soup has since been eaten daily without any symptoms of poisoning being produced. The meat itself appeared to be of excellent quality, and the portion remaining on January 9th was still quite fresh. The soup itself showed no trace of decomposition. In nearly all the cases the first symptoms did not appear for many hours, in some for thirty hours and upwards, after the soup was consumed. The chief symptoms noticed have been pain, swelling of the abdomen, and purging, in some cases followed by vomiting. The purging generally lasted a considerable time. In many instances great coldness, with pain in the legs, was complained of, and in one instance a child, aged 9, nine days after the attack, was still unable to use his legs sufficiently to walk about the room. Professor Bostock Hill points out that the long delay in the commencement of the symptoms contra-indicated mineral poisoning, and this view was confirmed by the results of chemical analysis. Experience of similar outbreaks leads him to the conclusion that poisonous symptoms were produced by ptomaines or other substances generated from animal matter. The sanitary arrangements of the hotel are good, the water being from the public supply of the South Staffordshire Water Company, while the

drainage was carried out under the supervision of the borough officials, the house being cut off by a fresh-air inlet siphon. The meat is stated to have been taken directly into the outhouse where the vessel was fixed in which it was boiled. This outhouse is under the same roof, and separated only by a door from a stable in which there is a drain. The soup, which was distributed on December 29th, 1894, was left all the previous night in the vessel in which it was made, covered loosely by a lid. The drain-ventilating pipe runs up the side of the outhouse; its joints appear to be tight, but it is possible that drain air or sewer gas escaping from the top of the ventilator may have found its way down the chimney into the interior of the outhouse. A few feet away, against the wall of the house, is a shaft ventilating the sewer of the main road, and this may have discharged on the night in question quantities of sewer gas, which gained access to the soup in the boiler. It is impossible to say definitely that this is sufficient to have caused the illness, but looking at the fact that the symptoms point to the poison being either septic or of animal origin, and bearing in mind the various other circumstances connected with the case, Professor Bostock Hill confesses himself unable at the present time to discover a cause more likely to have produced the outbreak. Up to the present time only one patient has died and we understand that an inquest has been held.

COMMERCIALISM IN THE MAGAZINES.

It is pleasant to see the artless and ingenuous manner in which the higher masters of advertising plant their baits before the public. Handbills, hoardings, and the advertising columns are far less enterprising spirits, but those who are curious about the by-ways of literature may well be amused at the uses to which our magazines are sometimes put. Not long ago we were edified by a panegyric on woollen clothing by the agent of a woollen clothing manufacturer: now it is a puff of certain foreign-made globules by the agent of the makers. We shall soon have to be as wary with our magazines as we long have been with our newspapers to make sure where matter ends and where advertisement begins. An article in the *Humanitarian*, "In Defence of Matteism," might well suggest that some sect or cult had been attacked, whereas it is but a defence of the faith some people, especially the dealers, profess to have in the occult virtues of the so-called drugs sold by a certain vendor. Faith and water would seem to be the active principles by which these "remedies" act, and as the water which is in the bottles cannot well be intensified, it becomes necessary to strengthen the faith which is in the patients. It is, perhaps an advantage, as showing the status of the man, to have an official statement that "Count Mattei declares that his remedies contain vegetable electricity." a term so void of meaning that the writer is compelled to confess that "the exact signification now attached by him to the phrase is doubtful." We are indulged in wordy disquisitions to show that electricity does exist in vegetables. and that "when we speak of red, yellow, and green we simply indicate variations in wave lengths. And as there are variation wave lengths in sound and heat, is it not true that there are variations in the wave lengths of electricity? . . . If there be any truth in the modern view that what we call light is simply one of the modes in which electro-magnetic waves become perceptible to us, we are using the most strictly scientific phraseology when we speak of red electricity." After all this science and phraseology any one who can swallow Matteism ought surely to be content. But even the author seems to have had some doubt. For, like the prisoner with two pleas in his defence, he goes on to say "even, however, if Count Mattei did use the language of an ignoramus and call that electricity which is not electricity at all, it would not follow that that which he had wrongly called by this name was an altogether inert substance." The children's tale of a hundred cats which was reduced by degrees to "our cat and another," is feeble beside this advocate's contention that if the "electricities" and all their virtues are untrue, at least the stuff may perhaps not be "an altogether inert substance." The innate honesty, however, of the author of the "defence" makes his task a difficult one, for it leads him to confess, as regards the term "electricity," that "it is certain, however, that he was first led to use it by noticing the lightning-like rapidity with which his fluids acted on the nerves." On this showing the term "electricity" is just about as applicable, and for the same reason, as it might be to a box on the ear or a prick with a pin, or anything else that acts with "lightning-like rapidity." It is interesting to judge the audience to which this defence is addressed by the arguments which it is thought they will accept. They are told, as in fact could not be avoided, that analysis shows the presence in these remedies of nothing but distilled water; but then they are also told that homœopathic preparations as a rule defy analysis. This is the great analogy and the great defence. This strange sect of deluded worshippers of a foreign globule are expected to believe that because chemical analysis, which proves there is nothing in the electricities, proves the same also of homœopathic preparations, analysis must be wrong. Most people of common sense, however, will believe that both analysis and analogy are right.

THE RACIAL ELEMENT IN DISEASE.

Dr. J. S. Billings gives the following statistical data bearing on the racial factor in the etiology of disease, drawn from certain portions of the United States, which are now the great mixing ground of races. In 1890 the City of New York contained about 335,000 white persons whose mothers were born in America, and 25,000 coloured; 400,000 whose mothers were born in Germany; 400,000 whose mothers were born in Ireland; 120,000 Russian and Polish Jews; 55,000 Englishmen; and 54,000 Italians. Thus it had a larger Irish population than any city in Ireland, and but three cities in Germany exceed it in the number of German population. Taking the deaths among persons 15 years old and upwards for the six years ending May 31st, 1890, it was found that the annual death-rates per 1,000 of the population in these different races were as follows: Irish, 28; coloured, 23.6; English, 20.8; Germans, 17.0; Americans, 16.0; Italians, 12.3; Russian and Polish Jews, 6.2. The low death-rate of the Jews has been noted in Germany and France also. In New York City they occupy some of the most crowded tenement-house districts. A considerable number of those reported as Germans were Jews with a low death-rate; and if these could be separated, the death-rate of the Germans would probably be over 19 per 1,000. These are general death-rates only. Taking the figures for certain causes of death, the annual death-rates for consumption were, for each 100,000 persons: coloured, 774; Irish, 646; Germans, 329; Americans, 205; Russian and Polish Jews, 98. For pneumonia, the death-rates per 100,000 persons of all ages were: Italians, 456; coloured, 390; Irish, 344; American whites, 273; English, 269; Germans, 214; Russian and Polish Jews, 170. The corresponding data from Boston, Philadelphia, Baltimore, Washington, and from the New England States as a whole, taken with those from New York State and New York City, and with those derived from a special investigation of over 10,000 Jewish families, including over 50,000 persons, lead to the following conclusions as being probable for the United States: 1. The coloured race is shorter-lived than the white, and has a very high infantile death-rate; it is specially liable to tuberculosis and pneumonia, and less liable than the white race to malaria, yellow fever, and cancer. 2. The Irish race has a rather low death-rate among its young children, but a very high one among adults, due to a considerable extent to the effects of tuberculosis, pneumonia, and alcoholism. 3. The Germans appear to be particularly liable to disorders of the digestive organs and to

cancer. 4. The Jews have a low death-rate and a more than average longevity; they are less affected than other races by consumption, pneumonia, and alcoholism, but are especially liable to diabetes, locomotor ataxy, and certain other diseases of the nervous system.

THE CHELSEA HOSPITAL FOR WOMEN.

We understand that the following gentlemen, who had been asked to assist the Board of Management in the election of the new staff of the Chelsea Hospital, Sir William Broadbent, Bart., Sir William Priestley, Sir Walter Foster, and Mr. Henry Morris, have sent in their report. The action of the Board will be awaited with considerable interest, as upon it will hinge much of the future prosperity of the hospital. We understand that the Medical Committee of Selection were asked if possible to send in the names of two fitting and suitable candidates for each vacancy, still leaving to the Board the final selection; and we can quite believe that among the names sent in will appear those of many, perhaps all, of the late staff. The public, however, will look with some curiosity at the final selection: and, if out of the whole list the Board merely reappoints the former staff, the public will draw its own conclusions. It seems difficult to believe that so responsible a Committee of Selection will not take some steps to let the Board understand whom they think most worthy of the appointments, and it need hardly be said that the credit and reputation of the hospital will suffer most seriously if after ostentatiously appealing to this Medical Committee for their assistance they refuse to follow their recommendation. We may add that it is a matter which all friends of the institution must greatly regret, that before the advertisement was issued the names of those to whom the applications were to be submitted were not announced, as there can be but little doubt that the uncertainty which existed on this head has had its effect in holding competent men back from making applications.

DEGREES FOR LONDON MEDICAL STUDENTS.

A correspondent calls our attention to a most extraordinary letter published in a recent issue of the *Boston Independent*. The writer of the letter, who signs himself "No Medico," gives the names of four gentlemen practising in Boston who are M.D.'s, and proceeds to make the most astonishing reflections upon the other medical men practising in the town who do not possess a university degree. He complains that certain of these gentlemen who do not possess the degree of M.D. describe themselves on their doorplates and cards as "doctors," thus "wrongly leading patients to regard them as Doctors of Medicine or M.D. in the eye of the law." Such a view expressed by a person who states that he is not a member of the medical profession might, perhaps, pass without comment but for the fact that so many practitioners educated in England do not possess the degree of Doctor of Medicine which is rather their misfortune than their fault; but when this same writer proceeds as follows, it is high time to protest against the innuendo: "To me such conduct seems at once reprehensible, dishonourable, and fraught with danger to the general public. For in more complicated diseases, especially those of an internal character, a true diagnosis as a basis of operations is not always to be found in the ordinary non-graduate medical man, whose treatment is not fortified by that more mature learning which, in these latter days especially, is the prerogative of the legally-qualified M.D. or Doctor of Medicine." Such an extraordinary blunder does not require elaborate refutation, but it is a striking example of the confusion produced in the public mind by the present anomalous position of the university question in England, and an instance of the injustice under which English students labour. The public are not aware that two students at a London medical school may pass through the same curriculum extending over the same number of years, hear the same lectures by the same professors, work in the same laboratories, and hold the same hospital posts, and yet at the end the one may be able to obtain a university degree while the other, owing to want of knowledge of university regulations on his own part or on the part of his parents, may have failed to become an undergraduate at the outset of his student's career, and cannot, therefore, become a graduate. It is intolerable that this injustice should exist, and we cannot but think that if the thousands of diplomates throughout the country who find themselves in this position were each to represent the facts to his Parliamentary representative, the Government might be induced to give facilities in the House of Commons for the discussion and possibly for the solution of the university question in London. As it is, we fear that unless some special effort of this kind is made, the matter will be shelved for another year. It is true that the scheme at present in existence does not make any provision for the case of those who already possess the diplomas of the English colleges, but the admission of the principle that London students should be able to obtain a degree upon reasonable terms is the all-important element in the matter.

LONDON POST-GRADUATE COURSE.

On January 21st the Vacation Courses in Pathology and Hygiene will commence and be given daily until February 1st. By this arrangement practitioners who can spare twelve days can go through practical courses on these important subjects. The syllabus can be had on application to Dr. Fletcher Little, 32, Harley Street, W.

LORD RANDOLPH CHURCHILL.

In regard to the attack of coma through which Lord Randolph Churchill has recently passed, we are authorised to state that ever since the paralysis with which he was affected when in Japan, he has had repeated attacks of semicoma or deep drowsiness, but none at all approaching the last in severity or duration. This one came on while on board ship, the day after leaving Alexandria, and lasted till two days after his arrival in London, practically a fortnight. During the passage between Alexandria and Marseilles, although the coma was deep, Lord Randolph could be roused, but on arrival at the latter port it became so profound that it was impossible to arouse him to consciousness. At the same time the pulse became intermittent and increased in speed, and other indications of failure were observed. It had been intended to proceed to Monte Carlo and stay there for a time, but Dr. Keith was so impressed with the gravity of the condition of his patient, that he insisted on bringing him home at once.

Dr. F. J. Waldo, M.O.H. St. George's, Southwark, and to the Inner and Middle Temples, has, at the request of Dr. Thorne Thorne, C.B., Lecturer on Public Health to St. Bartholomew's Hospital, been appointed Tutor in Public Health to the Hospital Medical School.

The Public Health.—The low death-rate of London, to which we twice drew special attention during the autumn, still continues: in fact, last week it was only 17.4, whereas the general death-rate of the thirty-three great towns included in the Registrar-General's weekly return was 18.9 per 1.000 of their population. The deaths in London last week were as many as 820 below the average in the corresponding weeks of the last ten years. The death-rates of London for the last four weeks have been 18.6, 17.4, 17.2, and 17.4, giving an average of 17.7 per 1.000, and being 6.6 per 1.000 below the mean rate in the corresponding periods of the ten years 1885-94. The lessened mortality of last week was noticeable under various heads: thus the deaths from the chief zymotic diseases were 81 below the average of the week, and the deaths due to diseases of the respiratory organs were 449 below the corrected average.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

THE DOSE OF THE SERUM.

Dr. E. Klein, F.R.S. (Saint Bartholomew's Hospital and College), writes: In the British Medical Journal for January 5th, Dr. Rose, Junior Surgeon to the Royal Hospital for Sick Children, Aberdeen, publishes notes of cases of diphtheria that had been treated with antitoxin, one of these cases having been treated with the antitoxin supplied by me through this Journal. Dr. Rose does not consider the antitoxin treatment to have been followed by good results, but I see from his notes that the case (VI) that had been treated with my antitoxin received ℿx as a first dose, and next day again ℿviii. Now, what I would ask Dr. Rose and Dr. Macgregor, who administered the second injection, is: Why did they inject ℿx and ℿviii respectively when they were told twice in big type in the Journal that the dose is *from* 1½ *to* 2 *drachms*, and, in addition, the bottle of antitoxin had a label on which is printed in red ink that the dose is from 1½ to 2 drachms? These gentlemen must have had special reasons of their own for electing to inject ½ to ⅔ of a dose instead, and it is important that they should state those reasons, otherwise it seems to me sheer waste of material to use the antitoxin as those gentlemen have used it, and instead of furthering the knowledge of the value of the antitoxin treatment, they only help to confuse it.

THE STATISTICS OF THE HOMERTON HOSPITAL: ANURIA.

Dr. E. W. Goodall (Medical Superintendent, Eastern Hospital, Homerton), writes: Certain questions having been asked in the British Medical Journal, January 5th, about the cases treated with the antitoxic serum at this hospital, and reported upon by Dr. Washbourn, Mr. Card, and myself at a recent meeting of the Clinical Society, I will answer them as briefly as possible:

1. There was no variation in the mode of selection of the cases admitted into the Eastern Hospital during the period when antitoxin was being employed. The whole of the arrangements in connection with the sending of patients into the various hospitals of the Metropolitan Asylums Board are in the hands of officials at the chief office and ambulance stations. I doubt if these officials (who are none of them medical men) knew what was being used. If they did, they made, as far as I could tell, no difference in the arrangements for sending patients here; I had no reason whatever to suspect that patients were being sent to this hospital who would not have been sent in the ordinary course of affairs. As far also as I know, both the public and the members of the medical profession residing in the districts from which the hospital receives its cases, were unaware that antitoxin was being used.

2. As they have been asked for, I give the ages of the 72 cases clinically diphtheria treated with antitoxin, arranged in a tabular form. This table was not inserted in the paper read at the Clinical Society, because the authors did not wish to lay too much stress upon statistics. Speaking for myself, my opinion as to the merits of antitoxin is based more upon clinical experience than upon statistics. In the course of a three years' residence in the midst of diphtheria I have tried myself, or seen my colleagues try, a considerable number of drugs in that disease. In my experience no other remedy has been so efficacious for good as antitoxin.

Ages of the 72 Serum Treated Cases.

Under 1 year	... ...	4, of whom 1 died.	
1 to 2 years	... ...	10	,, 2 ,,
2 ,, 3 ,,	... ...	7	,, 1 ,,
3 ,, 4 ,,	... ...	9	,, 2 ,,
4 ,, 5 ,,	... ...	10	,, 5 ,,
5 ,, 10 ,,	... ...	22	,, 2 ,,
10 ,, 15 ,,	... ...	10	,, 0 ,,

It will be seen that 55.5 per cent. of these cases were under 5 years of age, 30.5 per cent. between 5 and 10, and 14 per cent. between 10 and 15. The mortality of the cases under 5 was 30 per cent., of those between 5 and 10, 9 per cent. Of the 400 children under 15 years of age admitted into this hospital from January 1st, 1894, to October 22nd, 1894, 194 (48.5 per cent.) were under 5 years of age; 156 (39 per cent.) were between 5 and 10; and 50 (12.5 per cent.) were between 10 and 15. The number of deaths amongst these 400 cases was as follows: Under 5, 94, a mortality of 48.4 per cent.; between 5 and 10, 44, a mortality of 28.2 per cent.; between 10 and 15, 6, a mortality of 12 per cent. The only conclusion that can be drawn from these figures is one in favour of the value of antitoxin.

3. The exact cause of death in the 10 cases where death ensued from the poison of diphtheria was in all of them cardiac failure. In 1 of the cases the cardiac failure was secondary to convulsions, in 1 it was accompanied by total anuria for the last fifty-three hours of life, the patient dying on the ninth day after the first injection; in 6 of the remaining 8 cases there was partial anuria.

4. The nature of the complications in the other 3 cases was detailed in the paper read at the meeting of the Clinical Society. I will, however, again mention that 2 of the cases terminated fatally by lung complications following tracheotomy on the thirteenth and twenty-fourth day respectively after the first injection of antitoxin. The third patient died of scarlet fever on the seventeenth day after the first injection.

5. The times at which death took place in the 10 cases which were fatal from the toxic effects of diphtheria, dating from the first injection, were as follows: Seventh hour, thirty-first hour, seventy-ninth hour. The following are the anuria cases: Sixty-first hour, eightieth hour, ninety-eighth hour, sixth day, seventh day, ninth day, fourteenth day.

6. I am sorry your correspondent, Mr. Lennox Browne, fails to understand my argument on the question of antitoxin being the cause of nephritis. Had he been present at the adjourned meeting of the Clinical Society he would have heard what I said. I understood him to suggest at the previous meeting that the renal symptoms were due to the antitoxin. I replied that these symptoms (allowing, for the sake of argument, that they are renal) were common in diphtheria; and I further said that it was a remarkable fact that if the antitoxin was responsible for these symptoms, in not a single one of the non-diphtheria cases treated with antitoxin was even albuminuria, let alone any serious renal symptom, produced.

I think I have now answered the questions that have been asked by your correspondents; I trust you will allow me to add a few words on the subject of anuria in diphtheria.

Of the 14 deaths occurring amongst the 72 cases clinically diphtheria which were treated with antitoxic serum, in 7 there was anuria. Anuria is a symptom of diphtheria poisoning with which I have been familiar for some time past—ever since, in fact, I have had the opportunity of closely studying the disease. In order to show how common it is I will mention the following fact. Up to the time of writing (January 6th) there have been at this hospital, amongst children under 15 admitted since November 27th (when the last of the 72 cases came in), 15 deaths from diphtheria, and in 6 of these cases there has been anuria. The time after admission at which death occurred was as follows: Sixteenth hour, twenty-first hour, fortieth hour, forty-sixth hour, eighty-sixth hour, fifth day (3 cases), tenth day. The following are the anuria cases: Twenty-ninth hour, forty-fifth hour, sixty-first hour, fifth day, seventh day, ninth day.

All these cases, with one exception, were treated without antitoxin; the exceptional case was treated with antitoxin; it was the patient who died on the tenth day after admission, and there was no anuria. I may add that both in this case and in those reported to the Clinical Society the first injection was given immediately after the patients' admission.

I am at present engaged in writing a paper on Anuria in Diphtheria, which I hope shortly to be able to publish. Meanwhile, those who are interested in the subject and who have not the opportunities of observing cases of diphtheria for themselves should consult a paper by a former colleague of mine, Dr. G. G. Morrice, which is to be found in vol. xxviii of the *St. Bartholomew's Hospital Reports*. Though there are hints of it in the writings of others, I believe Dr. Morrice was the first definitely to draw attention to this symptom.

A COLLECTIVE INVESTIGATION.

The *Deutsche medicinische Wochenschrift* is organising a collective investigation of the antitoxin treatment of diphtheria throughout the whole of Germany on the lines of the similar investigation on influenza which was carried out four years ago under the auspices of the Verein für innere Medicin. A schedule of questions, drawn up with the aid of Professors Leyden, Litten, Renvers, and Heubner, and Drs. Behring, Ehrlich, and Guttstadt, is being issued to every medical practitioner in the German Empire, and it is hoped that everyone who tries the remedy, whether in hospital or in private practice, will assist in the investigation. Replies must be received by April 1st, 1895.

THE ANTITOXIN TREATMENT ABROAD.

France.—The sum finally voted by the French Legislature for the carrying out of the antitoxin treatment was 100,000 francs (£4,000), not 200,000 francs, as was announced in the British Medical Journal of January 5th. The latter sum was proposed, but M. Roux thought the smaller amount would be sufficient for the purpose in view. It is intended to make a grant in aid of the antitoxin treatment a permanent item in the French budget. In the estimates for 1895 appears a subvention of 80,000 francs (£3,200) to the Pasteur Institute for the preparation of antitoxin, together with one of 20,000 francs (£800) for the general purposes of the vaccination service.

It is estimated that some 140 horses will be sufficient for the supply of the whole of France. This represents, so far as can be judged, a total expenditure, including preparation, maintenance, and distribution, of about 180,000 francs (£7,200). The difference between this and the yearly grant of £3,200 will, it is hoped, be made up by the profits on the sale of the serum to persons in a position to pay for the remedy. Besides this a part of the cost will be met by an arrangement under which certain cities and departments will maintain a sufficient number of horses to ensure a supply of serum in case of need. Thus the Bouches du Rhône department has decided to keep six horses in Paris. The total cost of maintenance of a horse is estimated at 1,000 francs (£40) a year. For this sum a town can make sure of having every month a supply of serum sufficient for 150 injections of 20 cubic centimetres, each horse producing on the average 3 litres of serum a month.

It is rumoured that Herr Behring's visit to Paris was to assert his claim to the Saint Paul Prize, founded twenty years ago, to be given to whoever found a cure for diphtheria. It has never been awarded. The thousand pounds placed in the hands of the Académie de Médecine has increased by accumulated interest. Many consider that Behring is entitled to it if the value of the antitoxin is established. It is also whispered that M. Dupuy, the President du Conseil, intends offering to Herr Behring the Cross of Commander of the Legion of Honour. If there is any hesitation about taking this step, it is due to political considerations. Perhaps the German Government may not care to see an army surgeon honoured by the French Government when he has been left out in the cold by his own.

The principal of the Avranches College, M. Henri Gougon, has opened a subscription of one penny among his pupils towards the antitoxin treatment, and has been authorised by the Minister of Public Instruction to ask all the school pupils throughout France to do the same; the children of the President of the Republic, and those whose parents form part of the *maison militaire* of the President, have subscribed to the fund.

The Municipal Council of Havre has just agreed to establish an institute for the preparation of the antitoxin.

Austria.—At a recent meeting of the Imperial-Royal Medical Society of Vienna, Professor von Widerhofer reported the results of a trial of the antitoxin treatment in his clinic. In 100 severe cases of diphtheria, some of which were complicated with measles, there were 24 deaths. In half of the fatal cases the patients were children under 2 years of age, who were brought to the hospital as a rule on the second or third day of illness. Of the antitoxic effect of the serum, Widerhofer said there could be no possible doubt. With the exception of slight and evanescent rashes there were no untoward effects. Renal complications were not more frequent than they were in cases not treated with the serum; when they did occur in the cases treated with antitoxin, they were of mild character, and disappeared in a couple of days. From his experience, Widerhofer was led to the belief that the antitoxin treatment was really curative in diphtheria.

Professor Paltauf, who has been entrusted with the preparation of the serum in Austria, mentioned that he had already prepared some serum according to Behring's directions which had an antitoxic effect from seven to eight times more powerful than that now in use. He hoped in a few months to be in a position to supply it to hospitals.

Russia.—Between December 12th and 25th, 1894, a sum of 4,175 roubles (£417) was subscribed in Moscow towards the expenses of an adequate trial of the serum treatment in Moscow. Of the amount, 3,060 roubles was subscribed by the French colony in Moscow.

United States.—The Board of Health of Kansas City has received a supply of antitoxin, and the Jackson County Medical Society has appointed a Commisson of five physicians to cooperate with the Board of Health officers in the use of the serum, and record results. The Committee consists of Dr. G. E. Bellows, Instructor in Bacteriology and Histology in Kansas City Medical College; Dr. L. Rosenweld, who occupies a similar position in the University Medical College; Dr. Wood, Dr. E. von Quast, and Dr. J. D. Griffith.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XXXII.—SEDGEFIELD, DURHAM.

Under the shadow of the great county asylum we found the small workhouse and infirmary, if the latter deserves the name, as it is only composed of a few wards under the same roof as the workhouse, and is deficient in everything that the sick require. The sick department consists of two wards at the back of the building; there are nine beds for the men and five for the women, all on the ground floor. We were glad to hear that the Board is conscious of these deficiencies, and that there is some talk of building.

Wards.

The men are located in two rooms, one that is used also as a dayroom; in the ward proper we saw an old man dying of old age, and he was also blind: there was no one at hand to see to his requirements, not even a pauper; he was there alone, a sad picture of lonely helplessness. The matron told us that the nursing of the sick is in the hands of the master and herself, that they visited this old man constantly, but in the nature of things their work must take them away from him; there did not appear to be any want of care on their part, but an inability to be master, or matron and nurse combined. Under these circumstances there can be no isolation or separation between the imbeciles and the other patients. There is no lying-in ward, the matron has to confine the women in the women's ward, with such makeshift screens as she can improvise. The female ward has no indoor closet attached to it; they have the use of that for the women in general; for the men there is a convenience, but the water supply is quite inadequate, and it was in an insanitary condition at the time of our visit.

There is one bath in the house, and that is at the foot of the staircase, unscreened, in the lobby. On the men's side there are fixed basins behind a partition taken off the dayroom; for the women there is not even that means of washing. No hot water is laid on, it is all heated in a copper.

Diets.

The matron informed us that the diets were practically in her hands; that she tried to give the sick any little thing

from their table that they could eat. The medical officer had a free hand in ordering extras for the sick.

The Infants.

The matron took us into the nursery where the little ones had been having their tub; they ran up to be kissed in the most confiding manner, and appeared to be on good terms with everyone. They were under the care of a pauper inmate. The little ones and the older children are together, and the older children go to the village school. The house being so small, it is more like one family than a workhouse.

The Management

appeared to be humane and considerate, but no officers, with the best intentions in the world, can undertake duties for which they have neither time nor training. The efficient control of a workhouse is ample employment for the master and matron, and they ought to have the aid of another officer, a trained nurse or midwife responsible for the care of the sick. When the nurse is found, then it will be necessary to improve the infirmary department, for as it now stands the sick and infirm are the most neglected among the inmates.

XXXIII.—BLACKBURN, LANCASHIRE.

According to the reports in the local papers the workhouse has been passing through a stormy time, so that we were pleased on visiting the infirmary attached to the workhouse to find that the storm had not reached the sick department, only the distant reverberation. The union buildings stand on a hill about two miles from the town, commanding an extensive range of country with a foreground of smoking chimneys. The infirmary, which is a modern building, stands in a line with the house, and a little apart.

Accommodation

is provided for 164 patients in the infirmary and 92 in the house; these beds in the house are for the lock, itch, and infirm patients; they are kept in separate wards in a block that now represents the oldest part of the house, reminding one of the old infirmaries of past days, many of which still exist up and down the country. There is besides an infectious hut for 40 patients at the far end of the field; at the present time this hut was in possession of a family ill with typhoid fever, five in all. Another small hut, standing closer to the infirmary, is used for the detention of any suspicious case that may occur among the tramps or casuals.

Infirmary Buildings.

The entrance is by means of a handsome door into a lobby, passing through swing doors to a corridor leading to the two wings. The administration block is in the centre, having the male and female wards on each side. On the ground floor there is the superintendent nurse's sitting room on the one side and the nurse's sitting room on the other; the nurses also have a mess room apart from their recreation room; above these rooms are the bedrooms. The wards are placed in the length of the building, having windows on each side; the largest wards hold twenty-eight beds and the smaller wards twelve beds; the smaller wards at each end of the block have the advantage of an apse, giving them a magnificent view over the country, and adding materially to their light and air space. The cubic allowance is ample. To each large ward there is an isolation ward available for eye cases or any other case that requires to be isolated for treatment. Ward kitchens are on each floor of each wing. The walls in most of the wards are the brick surface painted in two shades of blue; in one ward the surface has been plastered, with the effect of making a much cleaner-looking wall surface. The floors are polished, and have kamptulicon paths down the middle of each; tables with red table covers, plants and flowers, and pictures on the walls. Though there are fireplaces, these have been discarded for steam pipes, as the medical officer informed us that it was impossible to obtain sufficient heat from open fires in the winter. The artificial light is gas. The ventilation is cross, and besides the windows we saw ventilators near the cornice. One thing we remarked as being absent, and that is some form of light handy screen for ward use, those provided being so cumbersome as to be practically useless. We also saw an abundant supply of armchairs for the sick, but no couches.

Classification and Patients.

We had the advantage of the medical officer's (Dr. W. Pollard) escort round the infirmary, and he showed a pardonable pride in pointing out all the improvements that he had been able to introduce by patient endeavour, and certainly the infirmary would compare favourably with some provincial hospitals in its appointments. The imbeciles, idiots, and fit cases are in a separate block under the charge of trained attendants; the patients in the wards are divided into medical, surgical, helpless cases, and children. At the time of our visit there were about 90 patients in bed; all kinds of diseases are under treatment, and the doctor informed us that he would undertake any major operation requisite, or be prepared to carry through any line of treatment. There was a case of irreducible hernia, just admitted, gangrene of both feet, amputation of the hand, an obscure case of injury to the spine in a child, necrosis of the long bones, pneumonia, in fact such patients as would be found in the ward of a general hospital, as well as the chronic cases of the workhouse. The sick are admitted to the infirmary direct, they are bathed or not on admission at the discretion of the head nurse, and in the event of the doctor's advice being necessary on the spot he can be communicated with by telephone.

The Nursing

is in the hands of trained nurses, and the sick department is practically distinct under the superintendent nurse, who has two charge nurses under her, one on the male and one on the female side, assisted by six probationers. Two of these probationers are on night duty, and with them a male and a female pauper. The probationer at the time of our visit was on duty in the isolation hospital with the typhoid family above mentioned. The superintendent is entirely responsible for the nursing of the sick under the direction of the medical officer; the house master or matron have the right to visit in the infirmary, but they do not take any control. The charge nurses are selected from the senior probationers as vacancies occur; these probationers can qualify for the L.O.S.; they have lectures from the medical officer and from the superintendent on general and on obstetric nursing, besides anatomy and physiology. We went into the lecture room, which was well furnished with diagrams (Marshall's), a skeleton, separate bones, and some models, and the lectures, if our memory serves us aright, were given three times a week. We also saw a very good set of surgical instruments and a case of *post-mortem* instruments, enabling the doctor to perform such operations as might be necessary without delay on the one hand, or, on the other hand, obliging him to travel about with a surgical instrument shop in his carriage.

The Lying-in Ward

is close to the superintendent nurse's quarters; it holds 2 beds, with separate offices. The system in this infirmary is to keep the woman in this ward for nine days, and then, if all is well, pass her into the general ward.

The Children's Ward

has been contrived out of an old lumber room in what is called the basement, though from the height of the ground floor this ward is really on the ground level. It is furnished with nice cots and hair mattresses, toys, picture books, and games for the amusement of the patients, and there is a lobby which serves as a playground for the convalescents. The children are nursed in this ward from 1 month to 12 years of age. It is bright and cheerful, and it has its separate bathroom and offices.

Sick Poor in the House.

We were sorry to pass from the well-appointed hospital to the quarters provided for the lock and other cases as above specified; in the former case the work was done in a business-like way, and here, on the other hand, we find the old style that ought to be a thing of the past. These wards are nursed by untrained attendants, with pauper help; without going so far as to say that the patients are neglected, we have no hesitation in stating that our impression of these wards was

that it was quite possible that the abuses which have been brought to light by the investigation committee could occur under the existing condition of the nursing of these cases. The hospital sick received such care as would aid their recovery, but these poor creatures had less than a minimum of nursing, nor would the circumstances that surrounded give them much chance of recovery. As these matters are the subject of an inquiry we will leave them to be dealt with by the proper authorities, only we trust that public attention will not be diverted from this weak spot in the workhouse until it has been brought into line with the infirmary nursing. We have always found that the division of the sick, part under the trained nurses and part under the workhouse management, is a fruitful source of abuses.

THE SANITARY ARRANGEMENTS

are, as one would expect, quite up to date; the bathrooms are most simply fitted with the porcelain bath in the middle: the baths appeared to us to be rather small for a full-sized adult. Besides the closets and lavatories, the nurses are provided with slop sinks. In reply to our inquiry as to the method of towels in use, the superintendent informed us that the children had each a separate towel, but that in the adult wards roller towels were used, a certain proportion to the patients (we forget the exact proportion), and that these were changed twice a day. Hot and cold water is laid on everywhere, and there is a good flush for the closets.

THE AIRING COURTS

present the appearance of small gardens; they are grass plats with flower beds around: of course they are a great outlet in the fine weather. In the hospital the men are allowed to smoke in the lavatories. Besides these airing courts, in some of the wards there is a glass lobby to the doors on to the courts, making a pleasant seat for some of the patients.

GENERAL SUMMARY.

From the above report it will be seen that there is little, if anything, to recommend for the comfort of the sick in the infirmary, and indeed the persistent efforts of Dr. Pollard to improve their condition have borne good fruit: we congratulate him and the guardians on the possession of a very complete hospital. We would, however, suggest that the ward walls should all receive the same treatment of plaster as has been tried in the experimental ward, as being conducive to cleanliness, and that the heart of the superintendent nurse should be gratified by the providing of the wards with handy rail screens, to supersede the present cumbersome ones in use.

With regard to the block tenanted by the lock, itch, and infirm patients, we would suggest that the same be erased from the system of work; that accommodation be provided for the same under the head of the sick department removed entirely from the control of the workhouse officials, and that the help of the paupers be discarded. We feel the more confidence in making these suggestions, as the present condition of the infirmary is an earnest that, given a reasonable time, the Board will erase this blot for the Union.

THE PRESS AND THE *JOURNAL* COMMISSION ON THE PROVINCIAL WORKHOUSE INFIRMARIES.

THE *Local Government Journal* has a long column of comment on the reports that we have been publishing every week. It makes the significant remark that "Only three complaints have reached the *Journal* traversing the reports, and this knowing that the articles have been read by the members and officials of every workhouse concerned." In forcible language it points out the miseries of the helpless poor left all night without any soul to wait on them or to administer to their natural necessities; and, after much more to the same purpose, it concludes in these words: "There is a lot to be done in our country workhouses ..... One thing is certain; our system of inspection is either entirely useless, or the inspector's suggestions fall on the guardians' ears like water on a duck's back." We are glad to see that *Reynolds's* newspaper emphasises a suggestion that has been made in these columns, namely, that when these provincial infirmaries are properly equipped, it may be possible to train a staff of nurses to visit patients in their own homes, bringing only the severer cases into the hospital for treatment. The *Bradford Daily Telegraph* and the *East Anglian Times* both have leaders on the reports, and both draw attention to the faultiness of the system which makes such things possible. The article in the latter paper is so much to the point, that it might well be reprinted as a leaflet and be sent to all the guardians in the kingdom. We hail with pleasure these press notices. If only the press, both metropolitan and provincial, will join hands with us in this crusade in the cause of the sick and infirm pauper, reform will soon come.

NURSING AT THE BARTON REGIS WORKHOUSE INFIRMARY.

AT the last meeting of the Barton Regis Board of Guardians, the Chairman, Major Rumsey, mentioned, for the information of new members, that the Board had decided to alter the nursing arrangements of the institution, and had already appointed two trained nurses from the Nursing Association. Two others were about to be appointed, and their testimonials were before the board. Replying to questions as to the procedure which had been adopted, the Chairman stated that the Association had trained nurses at their disposal, and supplied them without any charge further than a small annual subscription. The nurses supplied had always been suitable. In the course of discussion it was proposed that in future no nurse be appointed without being seen by the Board, but found no seconder, the Chairman stating that confidence ought to be placed in the Association.

LEWISHAM WORKHOUSE INFIRMARY.

THE Local Government Board has held an inquiry into the unhappy differences that have arisen between the medical superintendent and the matron. The case being still *sub judice* we cannot now comment on it; but we shall refer to the question later on, for it is one of extreme importance in the management of these large workhouse infirmaries.

CORNWALL GUARDIANS AND THE LOCAL GOVERNMENT INSPECTOR.

IT causes us some amusement to see that the various Boards who have been rebuked by the Local Government Board as the result of the visits of the inspector have not taken their castigation humbly; indeed, the hard words and harsh judgment which have been meted out to that individual, as one report after another has been read by the clerk, are quaintly like some of the criticisms that have followed on the track of our Commissioner. Must it be said of these bodies as was said in old time of another body, Whereas thou hatest to be reformed?

STOCKPORT.

STOCKPORT UNION is advertising for a hospital trained nurse for the hospital at the workhouse. We trust that this may be counted as one of the results of our report, in which our readers will remember that our Commissioner pointed out a sad deficiency in the nursing staff employed in that union. We hope that this advertisement is for an increase on the staff, and not a proof of the inability of the nurse to cope with the hopeless task depicted in these pages.

HOLBORN.

THE Holborn Union is advertising for two night nurses, and require candidates "to have had at least one year's training in a hospital or nursing institution;" doubtless the latter is a slip in drawing up the advertisement, as nursing institutions are not in a position to train a nurse, though they may pay for the nurse whilst receiving her training. But the point that we wish to draw attention to is the necessity of having trained nurses on duty at night in our ordinary workhouses; many cases of acute illness are of necessity admitted during the night, cases of emergency are brought in, complications arise among the patients in the wards in the house; in point of fact the workhouse is the night receiving-ward of the infirmary, and it not infrequently occurs that some of the patients are too ill to be transferred to the infirmary, or the infirmary beds are full, hence they must be treated where they are admitted. Another point to be noted is that there is no resident medical officer; we can see from this how very responsible the work is, and that the year's training in hospital is the very least that will suffice for such an important post.

THE CORK FRIENDLY SOCIETIES AND THEIR DOCTORS.

THE dispute between the friendly societies in Cork and their medical officers has now reached an acute stage, the whole of the doctors having resigned and their resignations having been accepted by the societies, and we cannot but reiterate our hope that the issue of the affair will be such as to maintain and even elevate the status of the profession, and at the same time to ensure good medical attendance to the working people of that town, who by the very fact of belonging to such societies give evidence of their thrift, and of their desire to pay for what they receive, although their notion of payment may be somewhat vague.

We must point out that there is no quarrel with the club system of payment; the protest is against two details in that system which tend to undermine on the one side its fairness, on the other its utility.

When it is stated, as it is in a letter to the *Cork Constitution* of December 31st, 1894, by a member of one of these clubs, that "gentlemen in this city, to my knowledge, enjoying incomes close upon £1,000 per annum, have been so mean as to join societies and avail themselves of the medical services of experienced physicians at the rate paid by artisans," every one can see clearly why it is that the medical profession protests against a system worked in such a manner. As regards the utility of the club system, we hold that if the members require good attendance they must pay for it.

The club system, properly used, provides for those whose wages come in weekly an easy weekly method of payment, but it by no means follows either that the service ought to be poor or the payment cheap. It could no doubt be worked so as to give the very best attendance, and to give a fair remuneration to the medical men.

In regard to this, we have been at some trouble to ascertain what is being done at Cork, and, while we are bound to say that the fees paid are in many cases very low, still we do not thing that the question of fee is really where the shoe pinches. At any rate, in many—nay, in the majority of—cases the fees now paid are higher than the minimum fixed in the rules laid down by the doctors. Taking those societies which provide both medicine and attendance both for the member and his family, we find that the yearly fee ranges from 8s. to 15s., the majority being about midway.

In considering these fees, it must be remembered that they cover the family, there being only one club in Cork the subscription to which is for members only, and it is pretty obvious that such an arrangement must be a perennial cause of dissatisfaction, the unmarried members practically paying for the attendance on the families of the married ones.

There can be no possible doubt that 8s. per annum, or less than 2d. a week, is very poor remuneration for attendance on a man, his wife, and all his family; much, however, depends on the proportion of married and unmarried in the societies, and we are not prepared to say that the existing rates would be on the average lower than those accepted in England if the societies contain a fair proportion of the unmarried.

Everything seems to come round to the fact that the admission of the well-to-do to the medical benefit of the artisan clubs is the real root of the difficulty, and in their protest against this we offer our brethren in Cork every sympathy. At the same time we are not sure that good may not come out of this dispute in a somewhat unexpected direction. The methods of calculating professional fees in Cork, and we believe in other parts of Ireland, are very different from what obtains in England. The large initial fee and the difficulty of ascertaining on what basis remuneration should be offered are subjects which are brought forward in the correspondence going on in the Cork papers, and it is not improbable that many people are drawn to the club or contract system as a way of escape from one in which it is difficult to ascertain what fee should be looked upon as sufficient. Some reformation in the mode of estimating medical fees might smooth the path to peace, and would leave less excuse for the well-to-do joining the artisan societies.

THE "GIBERT" DISPENSARY AT HAVRE.

[FROM A CORRESPONDENT.]

THERE is at Havre a building devoted to the treatment of diseases of children, which in many respects is unique of its kind. This dispensary on account of its history, its management, and its mode of treating the children of the poor may be said to have no rival in this country. It has a modest exterior, as the annexed illustration indicates, and is situated at the corner of the Rue de St. Quentin. The simplest architectural features and an absence of adornment render it indistinguishable from the neighbouring buildings. As to this the founder of the institute observed that "diseases are not to be cured by magnificent buildings nor wounds healed by fine architecture."



Fig. 1

What strikes the visitor about this dispensary is the curious contrast it presents with the dispensaries in this country. Here are seen no crowds of out-patients arriving in the early morning, and waiting patiently through the greater part of the day for their consultation and the simple lotion, bandage, or mixture, which in the vast majority of cases forms the only treatment which they receive.

M. Constans, the Minister of the Interior and of Education of France, defined the true object of dispensaries when he said: "The consultation is generally only an indication for the treatment which is to be followed. The object of dispensaries is to satisfy the needs of the patient and to indicate as far as possible and at once the full nature of the treatment to be followed. These establishments should be provided in such a manner that in most cases the medical treatment can be given on the spot, whether it be dressing of wounds, orthopædic treatment, bath treatment, electrical treatment, or even treatment which requires the administration of food. Thus negligence and errors are likely to be avoided. We should, therefore, try to administer to the patient tonic preparations and alteratives (reconstituents); and, when the pecuniary position permitted, to distribute food to the children, which very often has the value of medical treatment."

Dr. Gibert's dispensary fulfils all the conditions laid down by M. Constans. It provides food for the starving sick, warmth, clothing, medicaments, consultation, baths, electrical treatment, and, when required, surgical operations are performed which do not require hospital treatment; the treatment is generally done on the spot.

The plan shows the door opening from the street into a waiting-room, which is floored with red brick, and heated by

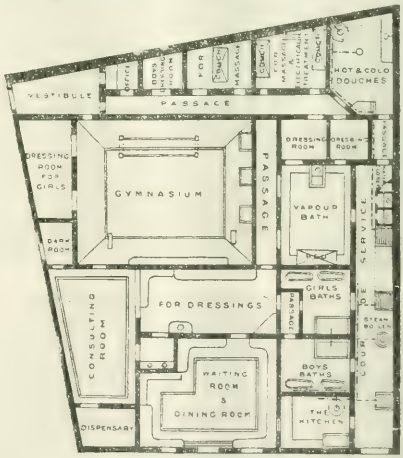


Fig. 2.

steam passing through iron pipes, as indicated by the dotted line on the diagram. The room is lit from the roof as well as from the street, and is capable of seating from twenty to thirty people. It communicates with the kitchen by an aperture in the wall, through which, in the cold days of winter, soup and other forms of nourishment are provided. The patients are then received into a smaller apartment, also

fitted with seats, and appliances for cleansing and dressing wounds.

The consulting-room is well ventilated, carpeted, and supplied with a complete armamentarium such as is required for a thorough dispensary practice. From the waiting-room a passage leads to certain smaller rooms, some of which, it will be seen, are fitted up for the administration of baths, with dressing-rooms attached, hot and cold douches, also with dressing-rooms, rooms for massage and electrical treatment, fitted and provided with couches, and kept at a uniform temperature, in the same way as the other rooms, by steam supplied from a small boiler.

The largest room of the establishment is the gymnasium, fitted with all the apparatus necessary for the carrying out of the Swedish movement system of gymnastics. This room forms a great attraction, not only to poor children, but to those who can afford to pay for its use.

The remaining apartments consist of separate dressing rooms for girls and for boys and a small office in which the business of the establishment is transacted. The sanitary accommodation is all that could be desired: the water appliances are of the most modern type, and the heating apparatus is of a kind at once efficient and economical. The steam boiler supplies heat to the whole building, and consumes less than two sacks of coke in the day. By a slight alteration in the admission of the steam the temperature can be regulated to almost any required degree.

It has long been with many eminent physicians and surgeons a motto, based upon the necessities of the condition of the poor and of active life, never to put a patient to bed as long as he can be kept going at his work, and never to allow a patient to do for himself what the surgeon ought to do for him. The principle has formed the keynote of the success of Dr. Gibert's dispensary. All treatment is carried out in this dispensary. It remains open from 8 in the morning till 8 o'clock in the evening, and the patient is thus constantly under the supervision of efficient and highly trained nurses. His progress is watched from day to day, and the best tonics which can be obtained are administered. Scrofulous, tuberculous, and syphilitic patients are abundant here, as in other poor districts. More than 3,000 new patients have to be treated in the course of the year, and the constitutional treatment carried out has resulted in much experience of the action of many drugs. Thus Dr. Gibert, after a long period of administering iodine, found no form agreeable to children, and suggested to M. Nourry, a chemist of great reputation in Havre, the advisability of preparing iodine with Malaga wine, which is agreeable to children. Iodine is therefore administered in this pleasant and effective form, and the children willingly come to get it.

In addressing the Prefects of France, M. Constans said: "To lighten the burdens which weigh upon the votes for Public Assistance, I do not see any more practical means than the establishment of this system, whose beneficial influence is most considerable, and which has, I repeat, for its object the combination of consultation on the case of out-patients with treatment in those cases in which the condition of the patient does not necessitate admission into hospital."

This dispensary is a monument of individual effort and initiative—a rare merit in France. The scheme was absolutely new, but has been so productive of good that it has had many imitators. There are now in France no fewer than twenty-one dispensaries which have followed on the lines first carried out at Dr. Gibert's establishment in the Rue St. Quentin. At Havre itself there are now three dispensaries on similar lines, for sick children. At Paris the Gibert principle of treatment on the spot has been adopted in the Société Philanthropique, Dispensaire Rue Jean Lantier, Dispensaire Rue Oudinot, Dispensaire Furtado Heine, Dispensaire Ruel, Dispensaire Alix Love. The following provincial towns have also established institutions on similar principles: Clermont Ferrand, Bordeaux, Mulhouse, Montpellier, Marseilles, Rouen, Lyons, Lisieux, Nantes, and Brest.

The condition of the treatment of the children at the out-patient departments of hospitals first attracted Dr. Gibert's attention when he was a student in Paris in 1855, and clerk to Professor Berthez, the medical attendant of the Prince Imperial. At this time the mortality of the hospitals des Enfants Malades and Ste. Eugénie was so enormous, that he said to Dr. Berthez that, if he were in the Emperor's place, he would suppress these children's hospitals as a great public danger. "But what would you put instead of them?" Dr. Gibert replied. "When I am the proud possessor of a little cash in my pocket I will show you." Years after Dr. Gibert purchased a photographic establishment at a reasonable price, and fitted it up as this dispensary. This fact explains the reason why the rooms for dressing the wounds of the children are so light and airy. The little rooms at the side now used for baths and massage apparatus were originally the work rooms of the photographer.

Dr. Gibert got little encouragement to persevere in this work. Few in authority could get it into their heads that there was anything to be done for poor children except to send them to the hospitals. They could not at that time see anything practical in such institutions as he proposed. Now the Government itself advises and urges the creation of similar dispensaries all over France.

Originally the money to start the dispensary came out of his own pocket. The working expenses, however, became considerable, and to defray them Dr Gibert enlisted the aid of his wealthy patients. Some subscribed 50 francs in return for the option of sending any poor child whom they chose to be treated there. By this means 8,500 francs (£425) were subscribed during the first year. For the first two years all went merrily, and the promises were fulfilled with exceeding regularity. After this, however, difficulty began to be experienced in getting the promised money together, and this means had ultimately to be abandoned.

The idea then occurred to Dr. Gibert that he might so arrange the dispensary as to make enough money out of rich paying patients who visited the establishment to pay for the treatment of the poor. He consequently established in one large chamber all the appliances of Ling's system of Swedish gymnastics and engaged the services of an expert gymnast and masseur. He thought this form of treatment to be the most likely means of obtaining the requisite funds. He also added baths in various forms, namely, douches, sprays, vapour, and medicated.

The idea proved successful, and, although the cost is somewhere between 13,000 and 15,000 francs a year, the whole sum is defrayed by the money received from the patients who pay to obtain the benefit of the Swedish treatment and by the gifts forwarded to Dr. Gibert by charitable donors, which come in occasionally though at irregular intervals. Upon two occasions the Government has given a subvention of 1,000 francs to the support of the dispensary as an "institution of popular utility." The early receipts obtained from those who pay amount on the average to between 9,000 and 10,000 francs per annum.

The cost of treatment at this institution amounts in the year to between 9,000 and 10,000 francs. In this calculation Dr. Gibert does not include the expenses incurred in attending to the paying patients. Notwithstanding this, Dr. Gibert said: "I am always on the verge of bankruptcy, and wondering whether I will shut the establishment up, when somebody drops on the scene and prevents this catastrophe."

One of the most characteristic of his methods of raising money for this charitable purpose was the purchase of a small donkey and a cart. He interested in the work of collecting rags some of his poor patients, and others undertook to pick and sort them. He was assisted in this undertaking by the servants in the houses of his numerous friends. He was able to turn these philanthropic efforts to good account, and to swell for a time the receipts. The French Government was speedily down upon him, and wanted to tax him for plying the trade of a ragpicker. Dr. Gibert, who at this time was paying the professional tax of doctor and also as the administrator of baths, which he had erected in the dispensary, did not consider the business lucrative enough to justify him in paying the further tax imposed upon ragpickers.

The great disadvantage attaching to establishments of this kind arises from the fact that in hands less honourable, and less scrupulous, and less devoted to the necessities of poor children than Dr. Gibert, it might open a door to many undesirable practices. But here we have a model, even if it is in the embryonic state, of what a large public dispensary

ought to be. With adequate control, and, if necessary, subsidised with State or municipal aid, and with a staff of efficient medical men and trained nurses, the plan has many advantages.

ARCHÆOLOGICA MEDICA.

XII.—PETER LOWE, JOHN SMITH, AND KING SOLOMON'S PORTRAITURE OF OLD AGE.

There are few more remarkable instances of perverted ingenuity and the effects of pedantry than the work of Dr. John Smith, published in London in the year of the great fire. The book is entitled Γηροκομία βασιλική, being a perfect paraphrase upon the six former verses of the twelfth chapter of Ecclesiastes. The six verses beginning "Remember now thy Creator in the days of thy youth" have been understood since the time of Jerome, in accordance with the Jewish Targum, as an allegorical description of the Ætas capularis, or age of him who is shortly to be taken unto death or into the coffin, which the Latins also called Silicernium. The allegory was fully expounded from a medical point of view by Peter Lowe, Scottishman and doctor in the Facultie of Chirurgerie in Paris in his *Discourse on the Whole Art of Chirurgerie*, published in 1612, and Bishop Hall (1574-1656), in his *Hard Texts*, has pretty closely followed Lowe's interpretation. Dr. Smith goes into the matter much more thoroughly, and where Lowe devotes a page to his interpretation Smith requires no fewer than 266. He labours to prove that Solomon was an exact anatomist, and that these six verses contain an epitome of his knowledge.

The following extracts will give the reader a good example of his style and method: "The strong men shall bow themselves," the keepers of the house being the hands, the strong men can be none other than the feet: Now, as the hand was divided before, so also is the anatomical foot, containing not only tarsum, metatarsum, and phalanges digitorum, but also femur, tibiam and extremum pedem: and, as I before showed, the beginning of the hand was to be accounted from the scapula, so here I must also tell you that the beginning of the foot is from the os ilium; and those muscles which are inserted into the thigh, and have their use for the motion thereof, notwithstanding their origination, may be either from the back (inwardly as the chief flector the psoas, or outwardly as the first extendor, gloutæus major), or from the os ilium (as most other movers of the thigh have) ought all to be accounted in the number of the strong men." In like manner: "The grinders cease because they are few" calls forth a disquisition upon the teeth; whilst "And those that look out of the windows be darkened" gives rise to a description of the eye and its humours and tunicles. The fourth verse: "And the doors shall be shut in the streets when the sound of the grinding is low" is held to imply the physiology of digestion as it was then understood, including the making of milk and the production of seed. Under the latter heading the following very remarkable statements are made: "And this is the last operation in man which I shall mention that is here intended by the word grinding; and this, namely, the preparation of seed (if not all the other) is eminently called grinding, in that place (Job xxxi. 10) where it is said, 'Let my wife also grind to another and let others bow down upon her;' and all the other alterations of the nutritive juice in man (if not this also) are eminently so called in the story of Samson; for although it be generally understood that Samson ground in a mill, and our later commentators (as if in a mill themselves) following the beaten track, do all take it up from others, and leave it unto others as granted; yet in the text there is not once mention made of a mill, but there are many circumstances that to me do clearly evince the contrary; the words run thus (Judges, xvi, 21): 'The Philistines took him and put out his eyes, and brought him down to Gaza, and bound him with fetters of brass, and he did grind in the prison house.' Wherein it is very observable that it is not said they made him grind, or they forced him to grind, but he did grind in the prison house; and it is so much the more observable because all the injuries done to him before named are expressed by a force put upon him—they took him, they put out his eyes, they brought him down to Gaza, they bound him with fetters; and if this last had been a likely injury and force unto him, it had been more congruous to have continued the same manner of expression, and to have said, they made him grind; but the violence is here left out, and his grinding made his own doing he did grind in the prison house. Besides those manacles put upon him were exceedingly inconvenient for a grinder in a mill; and it is most improbable that for that small advantage or pleasure that should accrue to them by his grinding in a mill that they should at any time take off his fetters, since they had had so many and so sad experiences of his unparalleled strength; and if at any time they should loose him, then sure was the least danger when the lords of the Philistines and 3,000 of the people were gathered together to see him make sport; yet at that time he was kept by his chains doubtless—at the disposure of a lad, 'for Samson said to the lad that held him by the hand, Suffer me that I may feel the pillars whereon the house standeth that I may lean upon them.' Moreover the ancient Rabbies give us an interpretation upon this place which is not altogether improbable, and which is confirmed unto us by Hieron in his commentary upon the forty-seventh chapter of Isaiah, and that is that these people being very desirous of giants, and boasting much in their strength (as is well known by sacred story) brought of their choicest and lustiest women to him in the prison, that from this mighty destroyer of their country, they might have a gigantic race for its preservation. However, in the main, I persuade myself his grinding was nothing else but performing the offices of nature, his eating and drinking and being nourished there; his turning his food into chyle, his chyle into blood, his blood into flesh, and other like natural operations, which is the true meaning of the word grinding in this place." In a similar manner "the silver cord" is made to represent the spinal cord and "the golden bowl" the pia mater. He says, finally, that this part of the allegory could never be understood before the time of Dr. Harvey, who is here in agreement with King Solomon, for "the pitcher" represent the veins. "the fountain" is the right ventricle of the heart, "the wheel" is the instrument of circulation, and "the cistern" is the left ventricle. These statements are additional to those given by Peter Lowe, to whom, of course, the circulation was unknown, and who contents himself with saying that "The Pitcher broken at the fountaine: that is, the great Vaine Caue, that may no more shoote blood from the Liuer, which is the spring that humecteth the whole body in such sort that it serveth no more than a broken vessell. The wheele broken at the Cesterne, that is the Nerues and bladder doth growe so weake that they can no more retain the warter."

Peter Lowe was a Scotsman, born about 1550, who practised for twenty-two years in France and Flanders, serving for two years as surgeon-major to the Spanish regiment at Paris. He was, he tells us, ordinary surgeon to Henry IV, King of France and Navarre. He eventually returned to his native land, and in 1598 the King of Scotland granted him a privilege under his privy seal of examining all practitioners in surgery in the western parts of Scotland. He was practically the founder of the Faculty of Physicians and Surgeons of Glasgow. He died between the years 1612 and 1614. The first edition of his *Discourse on Surgery* is dated from his house in Glasgow, December 20th, 1612; a fourth edition was printed in London in 1654. Dr. Finlayson has printed a good account of his life and writings, which is now out of print. The library of the British Medical Association, however, contains a copy.

John Smith was born in Buckinghamshire, entered Brasenose College, Oxford, and matriculated in the University, February 20th, 1648-9; took the degree of Bachelor of Arts, February 7th, 1650-1, and M.A., June 27th, 1652, and on July 9th, 1659, proceeded Bachelor and Doctor of Physic. He was admitted a candidate of the College of Physicians in the same year, and a Fellow, April 2nd, 1672. He died at his house in Great St. Helen's, London, either in October or November, 1679, and is buried in a vault in the church close to his wife.

There are two editions of *King Solomon's Portraiture of Old Age*. The first, printed by J. Hayes for S. Thomson, at the sign of the Bishop's Head in St. Paul's Churchyard, 1666. The second edition corrected, printed by J. Macock for

Walter Kettilby, at the Bishop's Head in St. Paul's Churchyard, MDCLXVI. The date of the second edition appears to be incorrect, probably owing to a printer's error. Its imprimatur is February 17th, 1675-6, Ex ædib., Lambeth. Both editions are octavo.

THE INDIAN MEDICAL CONGRESS.

MR. ERNEST HART writes from Calcutta, under date December 19th, 1894:

The Congress is likely to be well attended. On the opening day the Viceroy will attend, and deliver a short speech of welcome; after which the President of the Congress, Surgeon-Colonel Harvey, will deliver an address; and he will be followed by the Presidents of Sections in the afternoon. The 25th, which is Christmas Day, will be an off-day. It is expected that there will be a picnic, under the auspices of Dr. King, at the Botanical Gardens, which are of a high order of scientific interest as well as of considerable beauty.

There are various public functions during the week, of much social interest, including a Levée at Government House and evening reception, and ball and a dinner, at which the United Services and a few guests will join together, with abundant private hospitalities, dinners, receptions, and other social functions for which hospitable Calcutta has a great reputation. Surgeon-Colonel Harvey, Drs. Joubert and Simpson, and other of the leading medical notabilities are arranging, both on their own part and with the aid of others, a succession of banquets which will add much to the enjoyability of the meeting.

Professor Haffkine's paper is anticipated with much interest. In it he will give a detailed account of his proceedings in India in his chivalrous crusade for the prevention of cholera by inoculation methods which have been attended with a considerable measure of success, and from many of the details of which much new and interesting information may be expected both as to the powers and limitation of this method. Dr. Haffkine has won all hearts by the undivided attention he has given to the work which he has undertaken so nobly at his own cost, and carried on with ceaseless effort. He has never spared himself, and has fulfilled all engagements under circumstances of great fatigue and no little danger to his life. Indeed he has at last fallen a victim, as might almost have been predicted, to the exertion and exposure attendant upon his long journeys to whatever place his services might seem to be most useful. After taking long horseback journeys in spite of the warnings of his medical friends, when over-fatigued and when already suffering from illness and boils, he has had a sharp attack of fever which has invalided him and kept him in bed for some weeks, and from which he has not yet quite recovered. He is, however, back again in Calcutta, and is already hard at work with the fever still on him, analysing the heavy mass of papers incidental to the inoculation of the 30,000 patients who have desired his aid, and of all of whom he has kept, with the assistance of clerks, accurate records and details in cholera centres.

I understand that the number of entries of members already exceed 600, and it is expected that in a few days a great many more will join.

DEATHS UNDER CHLOROFORM.

CHLOROFORM ADMINISTRATION AND ASPHYXIA.

DR. WM. HARDMAN (Blackpool) writes: A matter, the importance of which I do not remember to have ever seen sufficiently insisted upon, is the necessity of exercising the greatest caution in the administration of chloroform in all asphyxial conditions. In many such cases the patient is only kept alive by gigantic voluntary respiratory efforts, in which all the extraordinary muscles of respiration are worked to their utmost. Abolish volition, and dying immediately commences. To persist in the production of full anæsthesia under these circumstances is to produce an anæsthesia which will pass into euthanasia. This equally applies to all operations in which, from the entry of blood into the air passages, the asphyxial state is introduced.

I am afraid it may be the insufficient recognition of this fact which accounts for the disproportionate frequency o the occurrence of "death under chloroform" in cases of teeth extraction, operations on the pharynx, etc. Truly, asphyxia is itself an anæsthetic state, and when present little aid is needed from other anæsthetics.

In many cases when the patient is in a state of anæsthesia the respiration is exceedingly shallow and inadequate, though there is not actual asphyxia. The diaphragm and abdomen alone act, the chest sometimes rather retroceding than expanding. Under these circumstances asphyxia is a potentiality which will become an actuality with very slight provocation.

It is well for the anæsthetist to have an occasional glance at the doings of the operator and his assistants, and see that no injurious pressure is made on abdomen or thorax. In operations on the breast it is sometimes found a convenience to rest an arm on the patient's abdomen; similarly in operations on the neck, jaws, etc., the thorax may be made a *point d'appui* to the increase of the patient's respiratory inadequacy.

DR. ROBERT KIRK (Partick, Glasgow) writes: In the BRITISH MEDICAL JOURNAL for December 15th, 1894, Dr. A. E. Sansom gives us the grounds on which he based the statement that by the open method of administering chloroform as much as 12 per cent. of vapour may be breathed. Observing that air inspired from a surface on which chloroform is poured is air in motion, he goes on further to say that he has proved that by the common means adopted atmospheres of from three to ten times the necessary strength were employed. Dr. Sansom does not give us details as to his methods, and I have not been able to see the volume of the *Journal of Dental Science* to which he refers. In the circumstances I shall briefly state my reasons for dissenting very widely from his opinion as to the quantity of vapour which the patient may inhale. I would direct attention to an experiment first performed by Sir Joseph Lister, and which I have frequently repeated, and which is described in Holmes's *System of Surgery*, 3rd ed., vol. iii, article Anæsthesia. Sir Joseph came to the opinion that at a temperature of 70° F. the patient would not inhale more than 4½ per cent., even when a drachm and a-half had been poured on the towel at the commencement. It appeared to me, on repeating the experiment, that this was a good deal over rather than under the mark. Indeed, I was so struck with this experiment that I have never cared since to administer chloroform at a temperature below 60° F., and I much prefer one of 65° to 70°, even with the supposed dangerous ready method.

The difference in the above result and those of Dr. Sansom is so great as to suggest the desirability of some further investigation by experts on this matter. It is quite true that the air during inhalation is air in motion, but the expired air contains watery vapour, and much of the chloroform is blown away with expiration.

What seems to me more decisive of the question is the effects produced by the open method compared with the results obtained with titrated mixtures. I have found, for instance, that an atmosphere of 5 per cent. is one of overwhelming power, that I cannot bring my nose and mouth near it, that it will kill the strongest rat or mouse in from ten to 15 seconds. I have found, further, that 2½ to 3½ per cent. produced effects on cats and dogs quite as pronounced as I can produce in children of a year or two old by the "ready" method, and when I am told that I give these children 5, not to mention 10 per cent. of chloroform, which would kill them in half a minute, I can only answer—nonsense. Admitting to the full the necessity for diluting the vapour, I yet maintain that this is accomplished by a towel as effectually as by any inhaler whatever.

Dr. Sansom goes on to say that it can hardly be to the point to quote Sir James Simpson as right for all time, to which I have only to say that I believe Syme and Simpson were right for all time in their doctrine by giving plenty of chloroform, by which I only mean inducing deep anæsthesia before stopping. I have quoted Dr. Snow with equal approval on other matters, especially with regard to apnœa, and I think it is very relevant to indicate where we agree with previous writers, it being always understood that every doctrine or opinion must stand on its own merits. Dr. Sansom expresses the hope that there may be few left to deny the dangers of

chloroform, to which I answer that I think there are none who will deny this; but, fortunately, the question of the proper administration of the anæsthetic is still *sub judice*, and the question of how it has been administered in the past, and how it ought to be administered, are two totally different things.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 16th day of January next, at 2 o'clock in the afternoon.

The following Committees will also meet:

Tuesday, January 15th, 1895.—3.30 P.M. Medical Charities Committee.—4.30 P.M. Premises and Library Committee.—5.0 P.M. General Practitioners Committee. *Wednesday, January 16th, 1895.*—11.0 A.M. Journal and Finance Committee.

FRANCIS FOWKE, *General Secretary.*

January, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on January 16th, April 17th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 28th, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTHERN BRANCH.—The next meeting of the South Wilts District will be held in Salisbury on Wednesday, February 13th. Further details in a later issue. Members intending to be present to communicate with the Honorary Secretary, H. J. MANNING, Laverstock, Salisbury.

OXFORD AND DISTRICT BRANCH.—The next meeting of the Branch will be held on Friday, January 25th, in the Radcliffe Infirmary at 3.15 P.M. Members are requested to give notice to the Honorary Secretary, W. Lewis Morgan, 37, Broad Street, Oxford, of all papers, communications, etc., before January 15th.—W. LEWIS MORGAN, 37, Broad Street, Oxford.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE third ordinary meeting of this Branch was held on December 13th, 1894; Mr. H. LANGLEY BROWNE, President, in the chair. Forty-six members were present.

New Members.—The following were elected members of the Branch: H. W. Gardner, M.D., Shrewsbury; T. S. Allan, L.R.C.P., Coventry; H. Fowler, M.D., Bristol Road, Birmingham.

Registration of Midwives.—A subcommittee of the Branch was appointed to consider and report on the schemes proposed in connection with the registration of midwives.

Amendment of Medical Acts.—A subcommittee of the Branch was appointed to consider and report upon the Draft Bill to amend the Medical Acts submitted by the Parliamentary Bills Committee.

Cases.—Mr. ALBERT LUCAS showed a man, aged 58, with a Cured Aneurysm of the Common Femoral Artery following a kick in the groin. The external iliac was ligatured by means of an incision higher and more external than Abernethy's; Ballance and Edmunds's "stay knot" was used. Three weeks later some redness was noticed over the front of the leg; this increased, and eventually the anterior tibial muscles sloughed out. On November 9th amputation of the thigh was performed at the junction of the lower fourth with the upper three-fourths. The wounds healed by first intention. The aneurysm was now quite solid and not larger than a walnut.—Mr. LLOYD OWEN showed a case of complete removal of Eyelids and Contacts of Orbit for rapidly growing sarcoma within the orbit. To conceal the effects of this extensive operation Messrs. Salt and Son, of Birmingham, made an eye for the patient, around which they modelled lids and a substitute for a considerable portion of tissues removed, in a species of vulcanite.—Mr. BARLING showed a man, aged 50, from whose lower lip an Epithelioma was excised in October, 1890. In March, 1892, a mass of glands, together with the involved submaxillary salivary gland, were removed, the submaxillary fossa being well cleared out. In June, 1892, there was extensive recurrence, reaching from the angle of the jaw to the side of the larynx, and involving the anterior part of the sterno-mastoid muscle. With but little hope of giving permanent relief, an extensive dissection was made to extirpate the diseased parts, and at the present time, two years and a-half after the last operation, the patient remains well and in robust health.

Papers.—Mr. BARLING read a further note on the Mortality of Operation for Vesical Calculus, which will later be published.—Mr. LEEDHAM GREEN read a paper on A Method of restoring Persons Apparently Dead from Chloroform.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE 123rd general meeting of this Branch was held at Sydney, on November 2nd, 1894; Dr. W. H. CRAGO, President, in the chair. Forty-one members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—The PRESIDENT announced that Dr. P. H. Mellish, Dr. J. B. Nash, and Dr. W. S. Brown had been elected members of the Branch.

Letters of Sympathy.—The PRESIDENT stated that two members of the Branch had been injured in the railway accident at Redfern on Wednesday, October 31st, and that Dr. Sydney Jones's brother had lost his life in that catastrophe. He (Dr. Crago) thought it would be well that letters of sympathy be sent to these gentlemen. It was resolved that letters of sympathy be sent to the members—Drs. Maher, Weekes, and Sydney Jones.

Communications.—Dr. SCOT SKIRVING read notes on a case of Idiopathic Muscular Atrophy, and exhibited the patient, who was examined by the members. Dr. ANGEL MONEY made remarks.—Dr. E. FAIRFAX ROSS exhibited a patient suffering from Addison's Disease. Dr. SCOT SKIRVING made remarks.—Dr. BARKAS read notes of a case of Bilateral Facial Palsy as a sequence of influenza.—Dr. CHAMBERS read clinical notes of four cases of Abdominal Section. Drs. WORRALL, FOREMAN, THRING, and HANKINS discussed the paper; and Dr. CHAMBERS replied.

HALIFAX, NOVA SCOTIA, BRANCH.

THE regular fortnightly meeting of this Branch was held on December 6th, 1894. A very large number of members were present, the largest in the history of the Branch.

General Business.—The SECRETARY read two communications from the General Secretary. The Committee on Diphtheria Antitoxin was ordered to be continued. The Auditing Committee reported the accounts correct and a small balance in hand.

Communications.—Dr. LOUIS SILVER read a paper on the Surgical Treatment of Enlarged Prostate, and reported a case of enlarged prostate where the utmost benefit had re-

sulted from suprapubic cystotomy. The patient wore a tube for more than two years with the greatest comfort.—Dr. D. CAMPBELL showed three pathological specimens illustrating the condition of enlarged prostate. Drs. FARRELL, BLACK, MADER ARCHER, and others took part in the discussion.—Dr. M. A. B. SMITH reported a case of a man, aged 54, suddenly attacked with Hemianæsthesia, Glycosuria, and some Loss of Vision and Nystagmus. Drs. CAMPBELL, CHISHOLM, KIRKPATRICK, MURRAY, and others discussed the case.—Dr. BLACK reported two cases of Abdominal Wound, one from a bullet and the other caused by a stab. The first case ended fatally; the abdomen was opened a few hours after the accident, and the cæcum found to be opened, but no second opening could be made out; the patient did well for five days, but sank rapidly on the fifth day. The *post-mortem* examination showed that the bullet had wounded the cæcum, and had lodged in the iliacus.

A MEETING of this Branch was held on December 20th, the PRESIDENT (Dr. Milsom) in the chair. Nineteen members were present.

Letter.—A letter from the President-elect was read, and ordered to be acknowledged.

Exhibit.—Dr. JOHN BLACK showed an Operating Table which he had constructed, having the Trendelenburg table working with lever; the table could also be used for the Sims position.

Communications.—Dr. MURDOCH CHISHOLM reported two cases of Chorea, treated by means of galvanism. Drs. MURRAY, CARLETON JONES, CAMPBELL, and others took part in the discussion which followed.—Dr. CAMPBELL reported four cases of Diabetes, all with peculiar history and nervous symptoms. A prolonged discussion followed, in which Drs. CARLETON JONES, CAMPBELL, MURRAY, BLACK, and others took part.—Dr. JOHN STEWART showed specimen of Eye-ball, which he had enucleated for a foreign body. Drs. KIRKPATRICK, TOBIN, and HARVEY, of Providence, R.I., took part in the discussion.

SPECIAL CORRESPONDENCE.

PARIS.

Hospital Surgeons and the Assistance Publique.—Copyright in Lectures.—The Paris Policlinique.—Election and Payment of Teachers.—Honours to the Medical Profession.

THE surgeons of the Bureau Central are in a great state of excitement. The Public Assistance is bent on suppressing surgical and creating maternity wards; thus the posts of "hospital surgeon" have been suppressed at the Municipal Maison de Santé, and it is said the same steps will be taken at the Trousseau Hospital. Accoucheurs are appointed to the maternity wards. There will be no surgical vacancies to be filled up for some time. Some of the Bureau Central surgeons must be content to remain as they are for ten years. This means that they must hold themselves in readiness to replace titular *chefs* when they are absent on holidays or from illness. The lucky accoucheurs after ten years' service at the Bureau Central will become hospital surgeons. The irritation of the pure surgeons is natural, if inevitable. A meeting of the Bureau Central surgeons has been held to concert measures to induce the Assistance Publique to change its plan of action. It is estimated that 44 per cent. of the Parisian mothers are delivered in the Paris hospitals, and it is asked if these are of the indigent population.

In the *Presse Médicale* M. Thomas, barrister at the Cour d'Appel, discusses the question whether lectures delivered at a medical faculty or in a hospital may be published in pamphlet form without the lecturer's consent being obtained. It often happens in such cases that the lecturer has imputed to him opinions and theories opposed to his own. The decision is that pupils have the right to take stenographic notes and use every means to benefit personally from the lectures, but have no right to publish their notes unless with the express sanction of the professor.

The Paris Policlinique has an income of £480 a year, made up of sums voted by the General Council and the Paris Municipal Council. It has rendered the following services: 12,000 out-patients have received gratuitous attendance; others, unable to come to the *Policlinique*, have been operated on and at their homes.

At the Lyons Congress of Higher Education votes were passed that professors should be paid by their pupils, and that competitive examinations for Faculty appointments should be replaced by a long observation and election based on professorial success and scientific work.

M. Vallin, army medical inspector, has been named Commander of the Legion of Honour. Six medical men have been named officers of the Order; twenty-nine Chevaliers. M. Mesnard, physician-in-chief of the Colonial Sanitary Service, and M. Terrin, Colonial physician, have been named *Chevaliers de la Légion d'Honneur*; likewise Mme. Brière (Sister Elise) for her devotion as superior in the lepers' hospital, *La Désirade*, at Guadeloupe.

ROME.

Waterborne Typhoid Fever in Sicily.—Sanitary Exhibition at Turin.—Death of Professor Cuzzi.

TOWARDS the end of November an epidemic of typhoid broke out in Syracuse, a town about 24,000 inhabitants, situated in the province of Calabria, Sicily. The municipality of the town did not report the outbreak to the provincial administration (the Italian county council) for reasons of their own. They have been for some time in bad odour with the inhabitants, because the latter were very desirous of having the water supply improved, and the municipality, being in an impecunious condition, would or could not agree to their requests. The provincial council, having heard of the epidemic through private sources, immediately sent the provincial medical officer to investigate the cause, and to take preventive measures, etc. He has not yet furnished an official report, but it appears that the epidemic began, as already stated, about the end of November, and terminated at the end of December. Altogether there 130 cases and 12 deaths. It is evident, from the small death-rate, that the epidemic was not of a very severe type. There seems to be little doubt that the disease was caused by contaminated water. The water supply of the town is partly derived from wells and partly from fountains. The supply for the latter is obtained from two sources—one from a spring, from which the water is conveyed in closed earthenware pipes to a point about three kilometres outside the town, where it joins the second source. This latter is obtained from the river Galerina, and is conveyed in an open channel to the point of junction just mentioned. The water, in its passage through this channel, is very liable to contamination. At the point of junction both waters pass through a filter, and are then conveyed in pipes to supply the fountains in the town. The provincial medical officer ordered twenty of the wells in the town to be closed, as he found them contaminated with sewage which escaped from the drain pipes, which are badly made and jointed. The water supply from the river Galerina was also cut off, and since then the epidemic has ceased. The authorities have not up to the present traced the original cause of the epidemic. It appears that persons who drank the well water as well as those who drank that from the fountains were attacked with the disease.

A meeting has been lately held at Turin, under the presidency of Professor Lorenzo Bruno, with the view of making arrangements for the Sanitary Exhibition, which will be held there in September next. The exhibition (besides the usual sections of hygiene, medicine, surgery, meteorology, sanitary engineering, etc.) will have as its principal object the opening of a concourse of all the works in relation to public health executed by sanitary officials in Italy since the promulgation of the laws in relation to public health.

Professor Cuzzi died on January 4th, after a long and painful illness, at Pavia. He was professor of gynæcology and obstetrics in the University there, and also director of the Clinica Ostetrica. He was born at Suna, on the Lago Maggiore, in 1848, and was a most indefatigable worker and voluminous writer. His work on *Obstetrics for Midwives* is the textbook in use at all the Italian schools. He has left incomplete a treatise on obstetrics for students, an able work, of which the first volume and a portion of the second have

been published. Notwithstanding his comparatively young age, he was considered by many the most able of the Italian gynæcologists.

CORRESPONDENCE.

CASTRATION FOR PROSTATIC HYPERTROPHY.

SIR,—The trouble which an enlarged prostate sometimes causes an elderly man is so great that all surgeons are keenly on the look-out for additional methods of treatment. Two years ago most of us believed, as Sir Benjamin Brodie wrote in 1849, that "the prostate gland of a man advanced in life cannot be rendered like that of a young man, any more than his grey hair can be converted into black." During these two years, however, owing to the initiative of Professor William White, of Philadelphia, there has been much speculation upon the results of castration where the prostate is enlarged, and for very obvious reasons there has been but little actual experiment. As far as I can learn, there have been 13 cases published, and in all the result is said to have been satisfactory: the prostates at once diminished in size, and the bladders resumed their normal functions. This complete success leaves the mind of the student somewhat unsettled when he reflects upon the various forms assumed by prostatic hypertrophy, the very different vesical states induced, and the constantly changing condition of the prostate itself, even when hypertrophied. It is not every surgeon who can obtain cases willing to be subjected to a novel proceeding, and as an anxious inquirer I venture to beg all those who have put the operation of castration in prostatic hypertrophy to the test to lose no time in placing their results upon record, be they what they may. It is now six months since Mr. Mansell Moullin performed the first operation of the kind in this country. I am sure that there are many like myself who would be grateful if he would report fully upon the present general, mental, and vesical condition of his patient.—I am, etc.,

Wimpole Street, W., Jan. 5th. G. BUCKSTON BROWNE.

SIR,—Those who impute motives to others are seldom quite correct, and Professor White is no exception to the rule. It is of course annoying to Professor White to find that an idea which he thought was peculiarly his own had occurred independently to others (who were acquainted with John Hunter's work), and had already been successfully put into practice by Ramm, but it is none the less true.

As I have already answered Professor White fully elsewhere I must decline to take any further notice of his remarks about me.—I am, etc.,

Wimpole Street, W., Jan. 5th. C. MANSELL MOULLIN.

SIR,—Will you allow me, as an observer of the rather jealous controversy which has gone on in connection with this subject, to say it is only just that Professor White should be allowed to wear his laurels as being really the first to adapt the experiments of Hunter to human surgery. Indeed, I am under the impression that he carried out these same experiments unconscious of the literature of the past, with a definite point in view. No one, therefore, with a sense of equity, will, irrespective of dates even, place the claims of others alongside his, and who, in support of priority, merely bring forward a consulting room's *tête-à-tête* with some unknown Methuselah.

But, Sir, there is something repugnant in this operation which is not relieved by such jealousy displayed in the rush for its perpetration, and one thinks of the possibility of any alternative procedure. Tying the internal iliac and severing the duct (Harrison) has been tried with some success. I wonder if tying the arteries of the cord and severing its nerves, so as to destroy the nutritive arc, would have the desired effect. Certainly tying the spermatic artery has caused atrophy of the testicle.—I am, etc.,

Finsbury Pavement, E.C., Jan. 6th. JAMES MACMUNN.

THE COOL BATH TREATMENT OF ENTERIC FEVER.

SIR,—In the BRITISH MEDICAL JOURNAL of January 5th, 1894, appears an article by Mr. C. Stennett Redmond on the Cool Bath Treatment of Enteric Fever, in which he says the "bath treatment was undoubtedly English in origin, having been first suggested and practised by Dr. Currie, of Liverpool, in 1787." The method of treatment pursued by Dr. Currie was, I believe, known as "cold affusion," that is, pouring water upon the patient, and was suggested to him by the fact that a man on board ship suffering from typhus fever had in his delirium jumped overboard, and when rescued was found free from delirium, and very much improved in every way. When I began practice, I was so struck by the statistics published by the Germans showing the benefit of the cold bath, that I began to use it as directed, but soon had reason to give it up, seeing the mischief it did. In a case, however, of hyperpyrexia to which I was summoned in the practice of a neighbouring practitioner, I learned a lesson of some importance. The patient was unconscious and twitching all over. I carried him to the bathroom and laid him in the bath, which was empty. I turned on the cold tap, but seeing the critical state of the patient and the time the water would take to fill the bath sufficiently to have any influence on his temperature, I took a tumbler which was standing by, filled it, and dashed the water on his chest. The first tumblerful made him look up with intelligence, and two or three more had such an effect in dispelling all the worst features of the case before the temperature could have been much affected, that I could not help concluding that the shock from the cold water had been the cause of the improvement I had observed.

I looked into the literature of the subject, found Currie's observations, and began the practice of "cold affusion" as recommended by him with results which were so satisfactory as not only to astonish me, but to make the friends of the patients adopt the practice with enthusiasm. I would, therefore, claim for Dr. Currie, who was a graduate of Edinburgh University, the credit of adopting a treatment far more scientific than the cool bath of the Germans, and which, moreover, while it does so much good, does no harm.—I am, etc.,

Hawick, Jan. 6th. JOHN HADDON, M.D.

AN ELECTRIC DENTURE.

SIR,—A friend recently called on me with the inquiry, "Could I tell him if he had any electricity in his mouth?" In reply to my look of astonishment he added: "I have a most severe pain in my tongue; it is very sore. I have been to my doctor and dentist. I wear artificial teeth. The dentist says my teeth are all right, nothing wrong with them. The doctor says my tongue is all right, and pooh-poohs the whole matter," and, with a ghastly expression, my friend speaks of cancer, spending his Sundays before the mirror looking for some dreadful sign of this disease on his tongue, and generally driving himself silly.

Upon examining his teeth I find two metals are used to fix them to a composition plate. To these metals I attach wires and put a galvanometer in the circuit; then, putting his teeth into his mouth, I ask him to moisten the plate and metals with his saliva, which being done the galvanometer showed quite a large current from so small a source, quite enough to cause ulceration and severe pain when long continued on so sensitive an organ. Upon covering the metals with an insulating varnish all pain and inconvenience has ceased, and my friend is "himself again." As a layman I thought this might interest your readers.—I am, etc.,

Birmingham, Dec. 24th, 1894. GEO. F. CHUTTER, A.I.E.E.

LIBRARY BOOKS AND INFECTIOUS DISEASE.

SIR,—At page 1390 of the BRITISH MEDICAL JOURNAL of December 15th, 1894, attention is directed to the fact that Mr. Lovett and Dr. Kenwood in their respective sanitary districts furnish a regular list of infected premises to the public librarian. Permit me to point out that this precautionary measure has long been in force in several northern towns, for example, Manchester, Blackpool, Stockport, and probably others. I enclose copy of the form of mutual notification by

medical officer of health and public librarian which is used in Stockport, and by which also the librarian is informed when disinfection of infected premises has been completed. I was led to adopt it as the result of inquiry into a case of scarlet fever in which the infection seemed to have been transmitted several thousand miles through the medium of an illustrated paper sent in June, 1893, to a family in this town by a lady convalescing from scarlet fever in Denver, Colorado. The paper was opened, and subsequently given to a 4-year old child to look at and play with. Within four days this child developed scarlet fever, and though, of course, it is impossible to say that the disease may not have been contracted elsewhere, I failed altogether to trace any other history of exposure to infection.

The method of disinfection of books till recently adopted here has been their exposure to a current of hot air in a "Nottingham" disinfector. The demonstration by Koch and later investigators that neither dry nor wet air can be relied upon to disinfect naked organisms except at temperatures of 280° to 300° F. has, however, shown the necessity for a more reliable mode of procedure. I have therefore recommended that infected books of little value be burnt, or, if suitable, kept for use in the isolation hospital only, and that more valuable books be disinfected by saturated steam, and subsequently pressed and rebound.

I may add that the number of borrowed books at infected houses has been surprisingly small during the past eighteen months.—I am, etc.,

CHARLES PORTER.

Health Office, Stockport, Dec. 22nd, 1894.

Public Health Department, Stockport,
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Dear Sir,—Infectious disease has been reported to me to exist at the following addresses, its nature in each case being as stated:

Address..... Nature .....
" ..... " .....

Kindly set aside for disinfection any books recently returned to you from the houses named, and notify me thereof.

The period of infection is stated to have terminated, and disinfection has now been carried out by this Department at the following recently infected houses:

.....

Yours faithfully,
CHARLES PORTER, M.D.,
Medical Officer of Health.

Mr. J. D. Buckland, Librarian,
Free Library, Stockport.

Free Library, Stockport,
..... 189

Dear Sir,—Acknowledging your notification of this date, I have to inform you that books belonging to this Library are at present on loan at the following of the addresses given by you:

.....

Please note that ..... books now lie at this Library awaiting removal and disinfection.

Yours faithfully,
J. D. BUCKLAND,
Librarian.

Dr. Charles Porter,
Medical Officer of Health, Stockport.

TYPHOID FEVER AND OYSTERS.

SIR,—In reference to the article on typhoid fever being caused by eating oysters, it may be pointed out that huge amounts of market oysters are now bred and reared in packs or tanks. It is, therefore, highly probable that the cases of illness resulting from eating oysters may have been produced by the tank oysters, and not by the sea oysters.

These tanks are to seen any day at Ostend and elsewhere on the Belgian and French coasts, and have been in use for a great many years past. The waters in these are distinctly foul and evil smelling, resulting from the tardiness of renewal and current, and the want of vegetation to clarify them. People who try oysters at these places generally suffer bad effects from them.—I am, etc.

Edinburgh, Jan. 7th.

W. J. BLACK, F.R.C.S.E.

"THE NEW PHARMACY."

SIR,—In the correspondence started by "An Old Fogey" on the "New Pharmacy," the question at issue was not by what means, and for what reasons dispensing should be "forbidden" to the country practitioner, but rather that with recent improvements in pharmacy the necessity of the doctor's shop, "*officina*," or what one will, had a gradually waning reason for existence, or at all events that we were witnessing the "passing" stage of an incubus, both social and otherwise, to the profession, which it was the intention of my note of December 15th, 1894, to emphasise. While fully admitting what Dr. Peachey says as to social status always depending on the merits of the individual himself, there is no doubt that "shopkeeping" is derogatory to the profession, taken in the corporate sense of the word. The surgeon has escaped from under the *ægis* of the barber's pole: why not the medical practitioner from that of the pestle and mortar?

As a means to this end I think that in spite of its various drawbacks, and in spite of continued dispensing by a minority of practitioners, we shall be largely indebted to the still incomplete "New Pharmacy."—I am, etc.,

January 2nd.

J. C.

ACUTE ATAXIA.

SIR,—The case briefly reported by Dr. Trevelyan in the BRITISH MEDICAL JOURNAL of January 5th, page 17, is of very great interest. If the suggestion that the development of the ataxia is to be attributed to syphilitic infection, the acute course and partial recovery noted would be an important piece of evidence as to the etiological connection between infectious diseases and subsequent nervous disorders. Dr. Trevelyan states that no history of syphilis could be obtained, but that some nine months after the first onset of the symptoms the patient's infant presented an anal syphilide. The child was then 15 months old, and this is distinctly late for the first appearance of a skin lesion produced by the congenital disease.

It would be of interest if Dr. Trevelyan could give the history of the woman with regard to previous pregnancies, or some other way fix the date of her infection. It seems quite possible that the mother contracted the disease after the birth of the child, and that the child was suffering from acquired, and not from the congenital, affection.—I am, etc.,

London, Jan. 4th.

DAWSON WILLIAMS.

THE MEDICAL PROFESSION AND OLD AGE.

SIR,—In your notice of aged members of the profession who died last year, you omitted to mention my old friend Mr. John Ogilvy, of Inshewan, Forfarshire, who died early in the year, aged 100; and who was in full possession of his faculties up to the time of his death. Although Mr. Ogilvy was a qualified medical man he did not practise, having inherited his property early in life.—I am, etc.,

W. S. PLAYFAIR.

George Street, Hanover Square, W., Jan. 5th.

AXILLARY CANCER.

SIR,—I regret that my letter should have given Mr. Roger Williams the idea that I deprecated comment in my case. On the contrary, I am indebted to him for much knowledge on the breast and its tumours, and am very glad to learn his views. I used Dr. Champneys's term "axillary lump" because it involved no theory of structure, and I did not wish to commit myself to a definite view regarding the structure of these lactating tumours until Dr. Champneys had made his report on the two cases examined by him. My desire to wait was no doubt reflected in the letter, and hence Mr. Williams's misapprehension of its intention.—I am, etc.,

Liverpool, Jan. 5th.

F. T. PAUL.

ANTIPYRETICS IN PNEUMONIA.

SIR,—It is very gratifying to see so sound a warning on the above subject by Dr. Fisher.[1] I should like to add another instance in which the use of the coal tar series is fraught with extreme danger, namely, in influenza. From a large experience in four recent epidemics of this disease, one could not fail to notice that many who relied mainly on antipyrin, salicylates, etc., also reported deaths from bronchitis and pneumonia after influenza. In my own practice I have not had a death from influenza, nor have bronchitis or pneumonia supervened. I pointed this out in the BRITISH MEDICAL JOURNAL at the time, but little notice was taken of the matter. I may be excused, therefore, if I repeat that in influenza the coal tar series are extremely dangerous, and if there is any suspicion of bronchial or pulmonary mischief, should be carefully avoided. Far better increase the patient's

[1] BRITISH MEDICAL JOURNAL, January 5th, 1895.

power of resistance by that which has, in my hands, proved most valuable, namely, iron, one of our most powerful weapons against toxins, whether in septicæmia, pneumonia, or influenza.—I am, etc.,

Menston, Jan. 7th. A. H. FREBE, M.B.

OBITUARY.

ROBERT FARRER, M.R.C.P.ED., M.R.C.S.ENG.

WE regret to have to record the death of Dr. ROBERT FARRER, formerly of Brighouse, Leeds, at the age of 72. Robert Farrer was the son of the late Mr. Benjamin Farrer, of Pontefract, and received his early education at the Grammar School of that town. His medical studies were carried on at the Leeds School of Medicine and University College, London. He became a Licentiate of the Apothecaries' Society in 1846, and in the same year was appointed House-Surgeon of the Halifax Infirmary, a post which he held for five years. On his retirement, in 1851, from this post to settle in practice at Brighouse, he was presented with a testimonial. In 1852 he became a Member of the Royal College of Surgeons of England, in 1859 a Licentiate and in 1872 a Member of the Royal College of Physicians of Edinburgh. Dr. Farrer took an active interest in public matters and for a time sat upon the Brighouse Local Board. He was devoted to his profession and his kindly presence and cheerful temperament endeared him to his patients. He was at various periods of his career certifying factory surgeon to a large district surgeon to the Low Moor Coal and Iron Works Company, Poor-law Medical Officer, and Public Vaccinator. Dr. Farrer retired from practice in 1886 and went to reside at Scarborough. He was a member of the British Medical Association, and leaves two sons, both in practice at Brighouse. He was buried at Brighouse, and the funeral was attended by a large number of residents, who took this last opportunity of testifying to the respect in which he was held.

DR. S. SPITZER, who recently died in Vienna at the age of 81, was born at Nikolsburg, in Mähren, and took the degree of Doctor of Medicine at the University of Vienna. He was soon afterwards appointed Professor of Anatomy at Constantinople, and there he laboured for many years, trying to place medical education in the Turkish capital on a scientific basis. On completing the term of his appointment as Professor, he was named Director of the Medical School of Constantinople. During a serious illness of the late Sultan Abdul Medschid, Spitzer was appointed Physician in Ordinary to His Majesty. Disgusted by the intrigues of his enemies, he resigned his appointment in Constantinople, but it was with great regret that Abdul Medschid allowed him to leave. In gratitude for Spitzer's services the Sultan appointed him Ottoman Consul at Naples. This office Spitzer resigned in 1860 on the death of his patron, Abdul Medschid. The rest of his life was spent in literary and scientific pursuits partly in Vienna, partly in Paris.

WE have to announce the death of Dr. JAMES HALL, of Preston, on December 17th, 1894. He was born at Preston on December 24th, 1815, and had thus nearly completed his 79th year. He took the diplomas of M.R.C.S.Eng. and L.S.A. in 1839, and the whole of his professional life was passed in Preston, where he enjoyed a large practice and was highly esteemed. He continued in active work until about ten years ago, when his health gave way. The immediate cause of death was apoplexy. He had been for many years a member of the British Medical Association.

DR. ERRICO JACOLUCCI, of Naples, whose death is announced in the Italian journals, had earned for himself a considerable reputation as a surgeon. In August, 1862, he performed Cæsarean section in the Ospedale degli Incurabili, and succeeded in saving the lives both of the mother and of the child—a girl. The event was commemorated by a large gold medal, with an inscription recording the date and result of the operation, which was awarded to Dr. Jacolucci by the Government. The operation is said to have been the first successful case of Cæsarean section performed in Naples.

DEATHS IN THE PROFESSION ABROAD.—Among the members in the medical profession in foreign countries who have recently passed away are Dr. Marcus Abeles, of Carlsbad and Vienna, author of numerous publications on diabetes, etc.; Dr. Kulin, Emeritus Professor of Obstetrics in the University of Vienna; Dr. Alexander Jusskewitsch-Krasskowski, lecturer on obstetrics in the University of Kieff, aged 36; Dr. Poppelauer, Medical Director of the Friedrich-Wilhelm Hospital of Berlin, aged 70; Dr. Paolo Covini, an old comrade of Garibaldi's, and afterwards a well known practitioner at Milan, aged 57; and Dr. Malécot, of Paris, a specialist of some reputation in genito-urinary diseases.

UNIVERSITIES AND COLLEGES.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners, on Monday, January 7th:

Passed in Anatomy and Physiology.—H. O. P. De Mirimonde, student of Yorkshire College, Leeds; N. J. Kendal, W. A. L. Jackson, and J. G. Young, of Mason College, Birmingham; F. T. Butler, R. Hughes, H. M. Rees, W. H. Stott, and F. S. Rhodes, of Owens College, Manchester; E. Symes and G. W. B. Beverley, of University College, Bristol; D. R. Edwards, C. J. L. Palmer, and W. Daley, of University College, Liverpool; R. R. Horley, of Middlesex Hospital; and J. Templeton, of St. Mary's Hospital.

Passed in Anatomy only.—L. N. Lloyd, of Charing Cross Hospital; H. R. Rice, of Mason College, Birmingham and London Hospital; C. D. Ingle, of University College, Bristol; T. P. Yates, of Owens College, Manchester; and S. H. Longhurst, of Guy's Hospital.

Passed in Physiology only.—A. Cubley, of Firth College, Sheffield, and Mr. Cooke's School of Anatomy and Physiology; F. C. Torbitt, of Owens College, Manchester; A. Evans, of St. Mungo's College, Glasgow; G. H. Heron, of University College, Liverpool; J. Gott, of King's College, London; J. B. A. Treusch, of Guy's Hospital; and M. C. B. Anderson, of St. Mary's Hospital.

Thirteen gentlemen were referred in both subjects, and five in Anatomy only.

Tuesday, January 8th:

Passed in Anatomy and Physiology.—W. Q. Bown, W. R. Flint, and C. H. Furnival, students of St. Mary's Hospital; E. H. Ross, E. L. Forward, W. S. Maugham, and H. S. E. Williams, of St. Thomas's Hospital; R. G. Murray, of St. George's Hospital; J. Oldfield, G. A. W. Spear, and H. J. Hutchens, of St. Bartholomew's Hospital; T. A. Dowse, of Charing Cross Hospital; G. Q. Richardson, of Adelaide Hospital and Royal University, Dublin; A. E. Gilmour and S. E. Denyer, of Cambridge University; F. J. Nicholls and R. Balderston, of Guy's Hospital.

Passed in Anatomy only.—D. Ackland and J. H. C. Fegan, of Charing Cross Hospital; F. Voller, of St. Thomas's Hospital; T. H. Bailey, of King's College, London and Mr. Cooke's School of Anatomy and Physiology; and R. D. Dobie, of King's College, London.

Passed in Physiology only.—S. H. Mason and C. C. Poole, of Guy's Hospital; G. F. M. Clarke, of Charing Cross Hospital; C. N. Chadborn, of St. George's Hospital; and E. F. Crabtree, of St. Bartholomew's Hospital.

Eleven gentlemen were referred in both subjects, 5 in Anatomy only, and 5 in Physiology only.

Wednesday, January 9th:

Passed in Anatomy and Physiology.—H. A. C. Harris and A. C. Haslam, students of St. Thomas's Hospital; G. O'Neill, of Charing Cross Hospital; B. F. Wingate, of St. Mary's Hospital; J. B. Walters, J. G. Watt, and C. Worts, of Guy's Hospital; F. Buckwell, W. Beckton, and E. G. Klumpp, of St. Bartholomew's Hospital; A. S. Bruzand and H. J. Bryan, of London Hospital; and H. Breton, of St. George's Hospital.

Passed in Anatomy only.—A. R. O'Flahertie, of Queen's College, Cork, and London Hospital; C. A. C. Salmon, of Guy's Hospital; F. A. Pitts-Tucker, of St. Thomas's Hospital; and C. S. Agnew, of Charing Cross Hospital and Mr. Cooke's School of Anatomy and Physiology.

Passed in Physiology only.—R. L. Argles, of St. Mary's Hospital and Mr. Cooke's School of Anatomy and Physiology; A. J. Andrew, of St. Bartholomew's Hospital; and A. E. Malaher, of St. Thomas's Hospital.

Sixteen gentlemen were referred in both subjects, 6 in Anatomy only, and 4 in Physiology only.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION, PART II, JANUARY, 1895.—The following candidates passed:

Anatomy and Physiology.—C. S. Agnew, Charing Cross; W. Amsden, St. Bartholomew's; E. Brice, Birmingham; E. F. Crabtree, St. Bartholomew's; E. F. Dowding, St. Thomas's; W. H. Gale, St. Thomas's; A. H. Gibbon, St. Thomas's; A. T. Griffiths, Birmingham; H. W. Hues, Birmingham; T. T. Hughes, Middlesex; W. J. Lindsay, Guy's; M. Paine, Women's Medical College; C. C. Poole, Guy's; E. W. W. Pughe, Birmingham; C. B. Salway, St. Thomas's; H. E. Scowcroft, Cambridge; E. Whalley, Leeds; A. M. St. J. Wright, Madras; L. Wright, St. Thomas's.

Anatomy.—T. H. Bailey, King's; P. Cator, St. Bartholomew's; C. F. W. Dunn, Cambridge; A. H. Fitzgibbon, St. Bartholomew's; C. F. Eddowes, St. George's; J. G. Gowlland, St. George's; M. B. Hebron,

King's; H. M. Maitland, Women's Medical College; S. J. Meredith, Birmingham; A. Ross, Guy's; J. Scarr, Manchester; A. M. Williams, Women's Medical College.

Physiology.—G. F. M. Clarke, Charing Cross; J. Freeman, University College, Bristol; J. R. Jeaffreson, St. Bartholomew's; F. T. Knott, Guy's; H. M. Waller, St. Bartholomew's.

PRIMARY EXAMINATION, PART I.

Chemistry, Materia Medica, Botany, and Pharmacy.—H. M. Hardy, South London School of Pharmacy.

Chemistry.—L. Bradstock, Birmingham; C. H. F. Dalton, Charing Cross; A. G. Lang, Guy's.

Materia Medica and Pharmacy.—C. F. Eddowes, St. George's; A. C. McLean, King's.

Materia Medica.—W. O. Piper, Westminster.

Biology.—S. K. K. Haslam and E. C. Scarlett, Women's Medical College.

The diploma of this Society entitles the holder to practise Medicine, Surgery, and Midwifery.

NAVAL AND MILITARY MEDICAL SERVICES.

P.M.O. INDIA.

WE understand that it is probable that Surgeon-Major-General T. Walsh, P.M.O. Madras, will be the successor of Surgeon-Major-General Bradshaw as P.M.O. of India.

UNDER Indian Notes the *Broad Arrow* of January 5th notifies that the Secretary of State for India has refused to sanction the extension of the services of Surgeon-Major-General Bradshaw, P.M.O., with Her Majesty's forces, as proposed by the Government of India. He will consequently be retired in March next on attaining the age of 62.

We predicted this announcement in the BRITISH MEDICAL JOURNAL of November 24th last, and pointed out why the retirement should take place. It is generally believed that some disputation and difference of opinion is likely to arise between the Indian and Home Governments on this refusal on the part of the latter. It is generally felt that the interests of the department require that the decision should be adhered to.

THE NAVY.

SURGEON ALEXANDER G. WILDEY has been appointed to the *Wildfire*, additional, January 5th.

INDIAN MEDICAL SERVICE.

THE following are the allotment of annuities for 1895 of the Bombay Medical Retiring Fund: Surgeon-General T. B. BEATTY, M.D., F.R.C.S., £283; Surgeon-General J. PINKERTON, M.D., £210*; Deputy-Surgeon General C. JOYNT, M.D., £210*. Surgeon-Major J. T. D. MACKENZIE, M.B., F.R.C.S., £168*; Brigade-Surgeon E. H. R. LANGLEY, £168*; and Brigade-Surgeon P. W. COCKELL, £168. *Lapsed to Government, these officers having received a refund of their subscriptions.

ARMY MEDICAL STAFF.

SURGEON-MAJOR-GENERAL W. A. THOMSON, M.B., has been selected for appointment as Honorary Physician to the Queen, on January 9th, *vice* Surgeon-General J. FRASER, C.B., deceased. Surgeon-Major-General Thomson joined the service in 1851, and quitted it on retired pay in 1892.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR W. R. SMITH to be Surgeon-Lieutenant-Colonel, January 9th.

Surgeon-Lieutenant DAVID TODD, 1st Durham Volunteer Artillery (Western Division Royal Artillery), to be Surgeon-Lieutenant, January 9th.

THE VOLUNTEERS.

SURGEON-MAJOR E. F. HALL, M.D., who was mentioned in last week's BRITISH MEDICAL JOURNAL as having been promoted to be Surgeon-Lieutenant-Colonel, should have been described as of the 2nd Lancashire (the St. Helens) Volunteer "Engineers," instead of "Artillery."

Surgeon-Lieutenant W. T. CRAWFORD, M.B., 1st Midlothian Artillery, has resigned his commission, January 9th.

Mr. HENRY WM. LAING, M.D., is appointed Surgeon-Lieutenant to the 1st Fifeshire Artillery, January 9th.

Surgeon Lieutenant-Colonel A. SCLANDERS, M.D., the Highland Artillery, has resigned his commission, with permission to retain his rank and uniform, January 9th.

Surgeon-Lieutenant A. PEACOCK, M.B., 1st (Renfrewshire) Volunteer Battalion the Argyll and Sutherland Highlanders, has resigned his commission, January 9th.

VOLUNTEER MEDICAL STAFF CORPS.

QUARTERMASTER AND HONORARY CAPTAIN F. MILLS has resigned his commission, retaining his rank and uniform, January 9th.

FOREIGN SERVICE A.M.S.

COMPLAINTS reach us of the injustice of keeping medical officers proceeding to India uninformed of the presidency in which they will be called on to serve. The uncertainty is also a source of expense to individual officers. One recently embarked stated that had he known beforehand his presidency the bulk of his baggage might have been considerably reduced, for in a state of doubt he was compelled to carry out a kit which was both adapted to the coldest stations in the Punjab, or the milder and warmer quarters in the south—for example, the Madras Presidency. In no other department of the army is this treatment accorded to its officers, and why the Medical Staff should be singled out for unfair dealing in this respect it is difficult to understand. It is much to be desired that the Director-General take steps to terminate a condition of affairs which is keenly felt by his officers.

THE COCKADE.

RETIRED SURGEON-MAJOR writes with regard to this subject to express the opinion that a volunteer officer retired with rank and permission to wear uniform as captain or major is entitled to use the cockade.

*** We are indebted to Mr. G. Ambrose Lee (Bluemantle), of Heralds' College, London, for the following observations on this point: I have to inform you that the opinion given by this College is that the privilege appertains and is confined to the naval and military services, including the militia, yeomanry, and volunteers, and that every officer, whatever his rank, as long as he holds Her Majesty's commission, has a right to mount, in the person of his servant, a cockade. It would also appear that the use of a cockade by officers who have retired with rank and permission to continue to wear their uniform is both customary and justifiable.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 7,410 births and 3,844 deaths were registered during the week ending Saturday, January 5th. The annual rate of mortality in these towns, which had declined from 20.2 to 18.0 per 1,000 in the preceding four weeks, rose again to 18.9 last week. The rates in the several towns ranged from 14.1 in Cardiff, 14.5 in Halifax, and 14.6 in Plymouth to 24.3 in Wolverhampton, 24.5 in Preston, and 25.0 in Gateshead. In the thirty-two provincial towns the mean death-rate was 20.0 per 1,000, and exceeded by 2.6 the rate recorded in London, which was 17.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 2.0 per 1,000; in London the rate was equal to 1.8, while it averaged 2.1 per 1,000 in the thirty-two provincial towns, and was highest in Portsmouth, Gateshead, and Newcastle-upon-Tyne. Measles caused a death-rate of 2.5 in Newcastle-upon-Tyne, 2.7 in Gateshead, 2.8 in Preston, and 3.3 in Portsmouth; scarlet fever of 1.0 in Salford; whooping-cough of 1.2 in Wolverhampton and 1.6 in Blackburn; and "fever" of 1.5 in Birkenhead. The 87 deaths from diphtheria in the thirty-three towns included 50 in London, 5 in Birmingham, and 4 each in Leeds and Sheffield. Two fatal cases of small-pox were registered in Birmingham and 1 in Liverpool, but not one in London or in any other of the thirty-three large towns. There were 23 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, January 5th, against 22, 15, and 18 at the end of the preceding three weeks; 8 new cases were admitted during the week, against 3, 0, and 1 in the preceding three weeks. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital on Saturday last was 1,779, against 2,034, 1,931, and 1,890 at the end of the preceding three weeks; 126 new cases were admitted during the week, against 161 and 116 in the preceding two weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, January 5th, 910 births and 630 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.7 and 22.1 per 1,000 in the preceding two weeks, declined again to 21.8 during the week under notice, but was 2.9 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 13.8 in Paisley to 24.6 in Glasgow. The zymotic death-rate in these towns averaged 2.8 per 1,000, the highest rates being recorded in Paisley and Aberdeen. The 329 deaths registered in Glasgow included 18 from measles, 4 from scarlet fever, 5 from diphtheria, and 7 from whooping-cough. Two fatal cases of small-pox were recorded in Edinburgh, and 13 of measles in Aberdeen.

VITAL STATISTICS OF LONDON DISTRICTS DURING THE FOURTH QUARTER OF 1894.

IN the accompanying table will be found summarised the vital and mortal statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the fourth or autumn quarter of 1894. The mortality figures in the table relate to the deaths of persons actually belonging to the various sanitary areas, and are the result of a complete system of distribution of deaths occurring in the institutions of London among the various sanitary areas in which the patients had previously resided.

The 32,697 births registered in London during the three months ending December last were equal to an annual rate of 30.1 per 1,000 of the population, estimated at 4,349,166 persons in the middle of last year; this rate almost corresponded with the average rate in the fourth quarter of the preceding five years, 1889-93, which was 30.0 per 1,000. The birth-rates during the period under notice in the various sanitary areas showed, as usual, wide variations, owing principally to the differences in the sex and age distribution of the population. In Kensington, St. George Hanover Square, St. James Westminster, Hampstead, St. Martin-in-the-Fields, London City, and Lee the birth-rates were considerably below the average; while in St. Luke, Shoreditch, Whitechapel, St. George-in-the-East, Mile End Old Town, St. Olave Southwark, and Bermondsey the birth-rates showed a marked excess.

The 17,582 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 16.2 per 1,000; this death-rate was considerably lower than in any corresponding quarter on record, the nearest approach to so low a rate being 18.1 per 1,000 in 1892. During the December quarters of the preceding nine years 1885-93 the average death-rate was 20.1 per 1,000. The lowest death-rates last quarter in the various sanitary areas were 9.6 in Stoke Newington, 10.0 in Hampstead, 12.3 in Plumstead, 12.5 in Lee, 12.7 in Wandsworth, and 13.3 in St. George Hanover Square; the highest rates were 19.4 in St. George Southwark and in Woolwich, 20.7 in St. George-in-the-East, 20.9 in Strand, 21.6 in St. Saviour Southwark, 23.4 in Limehouse, and 25.6 in St. Luke. During the quarter under notice 1,836 deaths were referred to the principal zymotic diseases in London; of these, 645 resulted from diphtheria, 300 from measles, 254 from different forms of "fever" (including 254 from enteric fever, and 1 from an ill-defined form of continued fever), 251 from diarrhœa, 205 from whooping-cough, 175 from scarlet fever, and 5 from small-pox. These 1,836 deaths were equal to an annual rate of 1.7 per 1,000, which was 0.7 below the mean zymotic death-rate in the corresponding periods of the nine preceding years. The lowest zymotic death-rates during last quarter in the various sanitary areas were 0.3 per 1,000 in St. Olave Southwark, 0.7 in London City, 0.9 in Holborn, 1.0 in Marylebone, in Hampstead, and in Wandsworth, and 1.1 in St. George Hanover Square and in St. Saviour Southwark; while the rates ranged upwards to 2.2 in Fulham, 2.4 in St. Luke, 2.5 in Limehouse, 3.0 in Plumstead, 3.1 in Greenwich, and 4.3 in Woolwich.

Only 5 deaths from small-pox of persons belonging to London were registered during the three months ending December last, of which 3 belonged to Marylebone, 1 to Paddington, and 1 to St. George Hanover Square sanitary area. Measles showed the highest proportional fatality in Hackney, Poplar, Greenwich, Lee, Lewisham, Woolwich, and Plumstead; scarlet fever in Fulham, Bermondsey, and Rotherhithe; diphtheria in Fulham, St. George-in-the-East, Limehouse, St. Saviour Southwark, St. George Southwark, Camberwell, Woolwich, and Plumstead; whooping-cough in St. Luke and Battersea; and "fever" in St. James Westminster, St. Giles, Strand, Bermondsey, and Lewisham sanitary areas.

During the three months ending December, 1894, 1,813 deaths from phthisis were registered in London, equal to an annual rate of 1.7 per 1,000. Among the various sanitary areas the lowest phthisis death-rates were recorded in Paddington, St. George Hanover square, Hampstead, Wandsworth, Lee, and Lewisham; the highest rates in St. James Westminster, St. Martin-in-the-Fields, Strand, Clerkenwell, St. Luke, and St. Olave Southwark.

Infant mortality in London last quarter, measured by the proportion of deaths under one year of age to registered births, was equal to 138 per 1,000; this rate was, with one exception, lower than in any December quarter on record, and 12 per 1,000 below the mean rate in the corresponding periods of the preceding nine years. Among the various sanitary areas the rates of infant mortality were lowest in St. George Hanover Square, Hampstead, Stoke Newington, Clerkenwell, Lee, and Plumstead; while they showed the largest excess in St. James Westminster, St. Martin-in-the-Fields, Strand, Limehouse, St. Saviour Southwark, St. George Southwark, Newington, and Battersea.

CHOLERA.

A STEAMSHIP, *The Heron*, which arrived at Gravesend last week, reported that an able-bodied seaman had been attacked with cholera while the ship was at Massena, and that he died within thirty-eight hours. The body of the man had been cremated on shore at Port Augusta, the quarantine station. The vessel was visited by Dr. Collingridge, Medical Officer of the Port of London, who granted permission to proceed.

Turkey.—In the neighbourhood of Diarbekir, in Turkish Armenia, cholera is reported to have been present since November 10th, 1894; 158 cases have been reported in the town with 85 deaths. The epidemic showed marked diminution early in December, but is reported to have been prevalling in the surrounding Kurdish villages.

Argentine Republic.—A few cases of cholera were reported during the

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions, during the Fourth Quarter of 1894.

Sanitary Areas.	Estimated Population middle of 1894.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Phthisis.	Deaths of Children under 1 year of age to 1,000 births.
LONDON	4,349,166	32,697	17,582	30.1	16.2	1.7	1,836	5	300	175	645	205	—	254	1	251	1,813	138
West Districts.																		
Paddington	121,583	699	424	23.1	14.0	1.4	41	1	9	—	18	3	—	5	—	5	40	113
Kensington	167,350	853	604	20.8	14.5	1.7	70	—	11	7	27	4	—	12	—	9	59	160
Hammersmith	105,696	749	417	28.4	15.8	1.7	45	—	5	2	13	7	—	5	—	10	37	169
Fulham	110,993	944	422	34.0	15.3	2.2	62	—	8	13	28	6	—	2	—	5	45	127
Chelsea	99,052	668	372	29.6	16.1	1.5	37	—	3	3	16	4	—	6	—	5	41	136
St. George Hanover Sq.	75,003	384	248	20.5	13.3	1.1	21	1	1	2	7	3	—	5	—	2	25	89
Westminster	54,414	398	228	22.6	16.8	1.5	21	—	1	1	9	4	—	4	—	2	29	131
St. James Westminster	23,571	116	107	19.7	18.2	2.0	12	—	—	1	3	2	—	5	—	1	16	172
North Districts.																		
Marylebone	138,554	1,035	558	30.0	16.2	1.0	35	3	—	4	12	7	—	5	—	4	60	113
Hampstead	75,443	371	188	19.7	10.0	1.0	18	—	11	2	—	1	—	3	—	1	14	105
St. Pancras	233,739	1,758	1,017	30.1	17.5	1.6	84	—	13	10	26	14	—	17	—	14	123	141
Islington	331,900	2,312	1,235	27.9	14.9	1.4	119	—	2	13	41	26	—	16	—	21	175	123
Stoke Newington ...	54,172	150	82	22.3	9.6	1.2	10	—	1	3	2	1	—	2	—	1	12	79
Hackney	211,493	1,501	752	28.5	14.3	1.9	98	—	27	7	34	2	—	19	—	9	55	118
Central Districts.																		
St. Giles	38,141	208	172	28.2	18.1	1.2	11	—	1	—	2	2	—	5	—	1	24	127
St. Martin-in-the-Fields	13,783	58	61	16.9	17.8	1.5	5	—	—	—	2	1	—	1	—	1	11	241
Strand	23,170	145	121	25.1	20.9	1.7	10	—	1	—	3	2	—	4	—	—	17	166
Holborn	32,439	219	154	28.4	19.0	0.9	7	—	—	—	1	1	—	—	—	2	15	161
Clerkenwell	65,312	535	276	32.9	17.0	1.2	19	—	1	3	7	3	—	4	—	1	46	112
St. Luke	41,168	476	263	46.4	25.6	2.4	25	—	4	3	3	11	—	1	—	3	31	134
London City	34,832	133	150	15.3	17.3	0.7	6	—	—	1	—	—	—	4	—	1	16	143
East Districts.																		
Shoreditch	123,186	1,120	518	36.5	16.9	1.4	43	—	8	1	12	7	—	5	—	10	71	140
Bethnal Green	129,840	1,176	608	36.3	18.8	1.6	53	—	5	6	22	1	—	7	—	12	54	153
Whitechapel	75,000	778	357	40.3	19.0	1.8	31	—	4	5	15	2	—	5	—	—	41	137
St. George-in-the-East	45,360	482	234	42.6	20.7	1.8	20	—	—	1	10	3	—	1	—	5	36	129
Limehouse	57,000	500	333	35.2	23.4	2.5	38	—	2	4	20	3	—	2	—	5	37	166
Mile End Old Town ...	108,242	996	499	36.9	18.5	1.6	42	—	2	5	18	3	—	6	—	8	49	143
Poplar	170,217	1,521	736	35.8	17.3	2.0	83	—	26	7	29	4	—	13	1	12	65	143
South Districts.																		
St. Saviour Southwark	26,712	213	144	32.0	21.6	1.1	7	—	—	1	6	—	—	—	—	—	11	174
St. George Southwark	49,060	355	240	35.7	19.4	1.4	21	—	—	3	13	1	—	2	—	2	39	178
Newington	118,512	1,057	534	36.4	18.1	1.4	41	—	—	4	17	8	—	4	—	8	53	163
St. Olave Southwark	12,984	120	60	37.1	18.5	0.3	1	—	—	—	—	—	—	—	—	1	10	142
Bermondsey	84,053	834	400	39.8	19.1	2.1	45	—	—	9	12	2	—	8	—	14	45	143
Rotherhithe	40,395	361	181	35.9	18.0	1.7	17	—	—	5	6	—	—	1	—	5	20	144
Lambeth	282,574	2,333	1,091	33.2	15.5	1.5	107	—	3	16	42	16	—	16	—	14	110	133
Battersea	161,558	1,215	657	30.2	16.8	2.1	85	—	—	8	29	21	—	11	—	18	70	170
Wandsworth	179,518	1,193	559	24.7	12.7	1.0	45	—	2	4	15	4	—	11	—	9	54	123
Camberwell	248,863	1,804	997	28.1	16.1	1.9	120	—	7	5	68	9	—	13	—	18	89	155
Greenwich	173,128	1,340	693	31.0	16.1	3.1	133	—	63	8	33	9	—	14	—	8	63	128
Lee	38,172	207	119	21.8	12.5	1.7	18	—	8	2	4	1	—	1	—	—	9	97
Lewisham	76,903	518	304	26.0	15.3	1.8	35	—	19	1	1	4	—	8	—	2	14	133
Woolwich	42,360	369	205	29.3	19.4	4.3	45	—	32	2	8	—	—	—	—	3	15	149
Plumstead	50,273	440	182	29.8	12.3	3.0	41	—	20	5	14	3	—	1	—	1	17	109

last week of December from various parts of the Argentine Republic, but it is now stated that the epidemic is at an end.

Cholera in France in 1892.—The complete report of the progress of the epidemic of cholera in France in 1892, and of the proceedings taken by the public authorieties in regard to it, has been published as an appendix to Vol. xxii of the Reports of the Consultative Committee of Public Hygiene. Many maps and tables are given, showing the progress of the outbreaks in the different districts affected. The total deaths from cholera in France during 1892 amounted to 4,550, which were widely scattered over the country, reports of deaths coming from 49 departments. In 13 departments however only one death occurred in each, and in 19 others the deaths in no case reached the figure 30; the great mass of the deaths, 4,431 in number, occurring in 17 departments. On examining the returns, however, more carefully, it is seen that the epidemic more especially concentrated itself on five departments, namely, Morbihan, Pas-de Calais, Seine, Seine Inférieure, and Seine-et-Oise, in each of which more than 200 deaths occurred, while in the department of the Seine they amounted to 1,858. In the preface by Dr. Brouardel, he points out one of the indirect evils resulting from the system of quarantine so widespread all over the world. Speaking of the tendency to hide the existence of the malady, which is carried to a greater extreme in the seaports than anywhere, he says: "the fear of being put in quarantine silences every other sentiment." Dr. Brouardel also holds up the example of England as one to be followed in sanitary matters. "England," he says, "is for us an example to which we ought constantly to appeal. The English have spent considerable sums to make their ports and cities healthy. Twenty times has cholera invaded England from Germany during the last two years, but it has not in a single case taken root (*il n'a pas fait un seul foyer*); at the worst, in certain cities in 1893 two or three persons who had been in contact with the sick were attacked. Among the modes of sanitation there is one which holds the first rank: it is the purity of the water. In 1892-93 the French soldiers found themselves, notably in Paris and its outskirts, at Lorient, at Nantes, etc., in the midst of epidemic centres, but those soldiers alone were attacked, and those only in very small numbers, who lived outside the barracks and who could, therefore, drink and eat like the rest of the inhabitants. Now, what difference was there between the inhabitants and the soldiers? One alone. These last had no water except what had been filtered by the Chamberland filter, or had been boiled. In the midst of contaminated surroundings, in a focus of cholera, the substitution of clean water for that which is open to suspicion is then sufficient to preserve the population."

A HEALTH OFFICER'S RECORD.

WE have before us the annual report of Dr. Charles Porter, as medical officer of health of the county borough of Stockport during 1893, and have been much struck by the immense amount of work which it shows to have been accomplished by that indefatigable officer. In addition to his admirable report on the water supply of the borough issued last year, he has had to institute inquiry into a serious prevalence of enteric fever, an epidemic of diarrhœa, of measles, of diphtheria, and of scarlet fever. He has, moreover, also had to instigate inquiry into some 600 separate cases of notified infectious disease, and has combated in masterly fashion a threatening prevalence of small-pox. This may sound but little in the telling, but it needs only a small knowledge of the multifarious duties of a health officer to understand what these matters have meant in a town having a population of over 70,000 persons. Indeed, it is not alone questions of magnitude that occupy time, but also and largely the thousand and one little nothings which, small in the unit, are serious in the aggregate. Yet, despite the fact that Dr. Porter is giving his whole time to the duties of his office, his remuneration is only £400 per annum, an incentive of a poor kind, one would think, to a sanitarian of his standing. And still the case of Stockport and its health officer is only typical of many of our towns; but it serves to draw attention to the fact that we have in the country a number of medical officers of health who deserve of the public much more than is, often grudgingly, offered to them in return for years of study and patient inquiry into multitudinous matters affecting the common weal, with a view of securing for the community that measure of health and strength which are to be obtained and maintained by strict attention to the demands of sanitation.

MAGISTRATES AND VACCINATION.

WE see from a report which appears in the *Cardigan and Tivyside Advertiser* that at a recent meeting of the Cardigan Board of Guardians there was a long discussion on the enforcement of vaccination, and that a resolution was formally moved by Mr. J. V. Colby "that the previous resolutions which authorised legal proceedings to be taken under the Vaccination Act be rescinded." This motion, of which no notice had been given, was ultimately carried by a majority of 10 to 6, though strongly opposed by the chairman and several other guardians, who expressed surprise that any such proposal should be made by a magistrate whose duty appeared to be to support the existing law rather than to offer any form of opposition to it. We are as much surprised at the action of Mr. Colby as the chairman appears to have been, and much regret to find that the proposal made had the support of Captain Harris, also a magistrate. These two gentlemen can scarcely be considered fit and proper persons to administer the law, when they take such active steps to prevent it being put in operation. The action taken by them appears to be nothing less than an attempt to set the existing law on the subject of vaccination at defiance and that any magistrates should so act is inexplicable.

EDINBURGH PUBLIC HEALTH.

HAPPILY the small-pox epidemic again seems to show signs of subsiding, inasmuch as only 4 new cases were reported last week with 2 deaths. At the beginning of the winter the authorities feared an alarming outbreak of scarlatina. Thus far the number of cases of this disease has not been unusual, only 49 cases having been notified. But there has been a very rapid increase in the number of cases of measles; no fewer than 212 cases were reported last week, and 2 deaths.

INFECTIOUS HOSPITAL CHARGES.

S. J. S.—A report upon an investigation on Infectious Hospital Accommodation and Administration in England appeared in the columns of the BRITISH MEDICAL JOURNAL (January 28th, 1893). It was therein shown that of 27 sanitary districts making returns, 15 admitted ordinary patients free of charge; 6 admitted all residents free; and 6 others made charges varying from 7s. to £2 3s. weekly, with an average charge per patient of something under £1 per week. In regard of patients desiring special privileges, of 22 district authorities, 9 admitted such patients free, and 13 made charges varying from 10s. to £4 4s. weekly, the average charge per patient being just over £2 weekly.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES TO MEDICAL WITNESSES.

L.R.C.S. AND L.R.C.P. ED.—The fee usually allowed to a medical witness when summoned to attend and give evidence before magistrates is 10s. 6d. For attendance before a superior court a higher fee is allowed. When a witness attends a court without a summons, merely in obedience to a verbal message delivered by a policeman, he is lucky if he gets any fees at all. The only person he could sue would be the policeman who delivered the message, unless that man could be shown to have had authority from someone in a more responsible position to require the attendance of the witness.

NOT QUIXOTIC.

F. W. L. writes: A. and B. are practitioners in the same town. A. meet B. in consultation over a child, C. Some months later A., the consultant, is asked to attend D., a brother of C., the parents having determined not to employ B. any longer. A., however, refuses to accede to this request, owing to the fact of his having been introduced to the family in question as a consultant. Is A. acting in accordance with professional etiquette, or does his behaviour smack of the Quixotic?

*** The course pursued by our correspondent in relation to the above case was not, as he suggestively asks, of a Quixotic nature, but in strict accord with the true principle of medical ethics, and fortunate indeed would it be for the faculty if all practitioners were actuated by the same spirit in their daily professional duties.

POISONS ACTS.

W. S.—Our correspondent, who holds the qualification of assistant by examination of the Society of Apothecaries, and who is engaged as an assistant to a Licentiate of that body, states that the question has now arisen whether he is allowed to sell any drug, such as paregoric, which is contained in the Schedule of Poisons to the Pharmacy Act. We are of opinion that our correspondent would be protected in so doing provided that if the employer keeps an open shop the regulations of the Act as to sale of poisons are complied with. We may further mention that the provisions of Section 17 of the Pharmacy Act, 1868, relating to the sale of poisons do not apply to any medicine supplied by a legally qualified apothecary to his patients.

GRATUITOUS CONSULTATION.

SPERO.—If it be, as stated in our correspondent's explanatory note, that the consultant in question is debarred from practising because he is in receipt of a pension, and would forfeit it if well enough to earn his living by his profession, we are of opinion that his exceptional position should impel him to act in strict accordance with the principle laid down in the following rule of the Ethical Code, Chap. ii, Sec. 5, rule 20: "A wealthy or retired practitioner should abstain from giving gratuitous advice to the affluent or well-to-do, for to dispense with fees which may justly be claimed is not only a default of duty to the profession, but, to a certain extent, a defraudment of the faculty by the patient and the practitioner."

SUBSTITUTES AND FEES.

E. B. writes: A patient of A.'s, while on a visit to a house in which B. is in attendance, is taken suddenly ill (and dies). Both A. and B. are sent for, B. arriving first, A. shortly after. Kindly state what B should do. (The patient was dead before either A. or B. arrived.)

*** Our correspondent should have expressed in clear, definite terms, the real question to which he sought a reply. Assuming, however, that it has especial reference to his right to a fee, we may incidentally note that, if the lady had survived, the subsequent professional attendance would medico-ethically have devolved upon A., unless that of B. were also further desired. Moreover, inasmuch as both practitioners were simultaneously sent for, each would be entitled to the usual fee for a special visit of urgency. For fuller information on the subject we would refer our correspondent to the *Ethical Code*, Chap. ii. Sec. 5, Rule 16, and to No. 2 of the Explanatory Notes of the *Medico-Chirurgical Tariffs*.

DONATIONS AND BEQUESTS.—The British Medical Benevolent Fund has, under the will of the late Mr. T. M. Stone, received a legacy of £500.

PRESENTATION.—Dr. Gordon, of Rathmines Road, near Dublin, has been presented with a gold seal pendant, and Mrs. Gordon with a handsome gold bracelet.

INDIA AND THE COLONIES.

CAPE OF GOOD HOPE.

Medical Council Election.—The poll for the election of four members of the Colonial Medical Council has resulted in the re-election of Drs. John Hewat, W. C. Scholtz, J. H. M. Beck, and C. L. Herman. The number of votes cast on the present occasion was very much larger, in fact three times as large as last year. The election of three members of the Colonial Pharmacy Board also resulted in the re-election of the old members.

MEDICAL NEWS.

The Municipal Council of Havre has decided to establish an office of hygiene and a bacteriological laboratory.

Dr. Anton Wölfler, Professor of Surgery at Graz, has been appointed to the corresponding chair at Prague, in succession to Professor Gussenbauer, now of Vienna.

Two female medical assistants (*Feldscherinnen*) have recently fallen victims to disease contracted in the discharge of their duty at Balaschoff, in the Saratoff Government, Russia.

A British Massage Association has been formed to consist of reputable practitioners of the method. The temporary offices are at 2, Sloane Square, S.W., and the Hon. Secretary is Mr. T. Garner.

It is proposed to erect a statute to the late Professor von Helmholtz. *Nature* states that the German Emperor has offered to head a subscription list for that purpose with a donation of 10 000 marks.

A department of General Pathology has been established in the Imperial Institute of Experimental Medicine, St. Petersburg. Dr. Lukjanoff has been appointed Director of the new department.

A conference arranged by the Matrons' Council will be held at the rooms of the Medical Society of London on Thursday next at 8.30 p.m., when Miss Mollett, Matron of the Royal South Hants Infirmary, will open a discussion on Infirmary Matrons under the Poor Law.

On the initiative of the professors in the medical faculty a Society for the Repression of Infectious Diseases has been founded at Kieff. The funds are to be provided by private contributions. In the meantime they will be applied to the furtherance of the serum treatment of diphtheria.

New Overland Route to Egypt.—The International Sleeping Car Company on January 6th commenced to run a special through train from Ostend to Constantinople for passengers travelling to Egypt. The train catches the mail steamer which proceeds direct to Alexandria. The whole journey is performed in just over five days from London.

A national Congress on Tuberculosis is in process of organisation in Portugal. It is to be held in the buildings of the University of Coimbra in March next, beginning on the 24th, which is the date on which Professor Koch communicated his discovery of the tubercle bacillus to the Berlin Physiological Society. Professor Augusto Rocha, editor of the *Coimbra Medica*, has been chosen to preside at the Congress.

Medical Practitioners in Austria.—Statistics recently published by the Superior Sanitary Council of Austria show that in the various kingdoms and countries represented in the Reichsrath, there were, at the end of 1893, 8,149 practitioners of the healing art, being an increase of 52 as compared with the previous year. Of these, 6 728 were doctors of medicine, and 1,421 lower grade practitioners. Within the last five years the number of *Wundärzte* has fallen from 1,896 to 1,421, or about 25 per cent.

The Twelfth International Medical Congress.—Preparations are already in active progress in Moscow for the twelfth International Medical Congress, which is to take place in that city in 1897. The Organising Committee includes all the professors in the Medical Faculty of the University of Moscow, under the presidency of the Curator of the Moscow Teaching Staff, Count Kapnist. A special Executive Committee, under the presidency of Dr. Klein, Professor of Morbid Anatomy, and Dean of the Medical Faculty, has been entrusted with the preliminary arrangements for the Congress.

Donations and Bequests.—Sir John Baker, M.P., has offered to the Committee of Management of the Royal Portsmouth, Portsea, and Gosport Hospital, the sum of £500, on condition that a convalescent home in connection with the hospital be established.

The Missing Link.—Dr. Eug. Dubois, of the Dutch Indies Army Service, believes that he has found the missing link between *homo primas* and the anthropoid apes in some fossil remains recently discovered in the andesitic tuffs of Java. The bones consist of the upper part of a skull, a very perfect femur, and an upper molar tooth. The remains are elaborately described and figured in a quarto memoir recently published in Batavia.

Edinburgh Royal Infirmary.—The annual general meeting of the Court of Contributors to the Edinburgh Royal Infirmary was held on January 7th, under the presidency of the Lord Provost. From the annual report then presented it appeared that 9,853 indoor patients had been treated during the year, the percentage of deaths was 6.5; 25,500 outdoor patients had been seen. The "ordinary" income for the year was £29,686, a decrease of £1,083 from last year. The expenditure was £42,074, a decrease of £1,858.

An interesting paper on the Formation and Climate of Egypt in Geological, Prehistoric, and Historic Times, by Dr. Grant Bey, of Cairo, was read before the St. Andrews Literary Union recently. In dealing with the climate of Egypt, the author stated that the present rainless condition of the upper country was due to a process of desiccation which had been going for countless years over an immense area. In earlier times rains of tropical violence prevailed. The present comparatively high rainfall of the Delta was shown to be due, in part at least, to the great lakes near the sea coast, and to the increase of vegetation which an improved system of irrigation now permitted.

The *Archives d'Electricité Médicale*, published in Bordeaux on the 15th of every month, terminates its second year of existence with the number which we have just received. It contains an interesting original article by Bordier on Muscular Contractions produced by Spark Discharges; and one by Tripier on Electrolytic Phenomena in Living Tissues, considering especially the interpolar effects and their influence in the treatment of fibroids by Apostoli's method; also the report of a commission appointed to advise as to the best way of rendering aid to persons injured by electric accidents. There are also condensed reports of the proceedings of the French and of the American electrotherapeutic societies, abstracts of papers which have appeared elsewhere, and an index (four pages) of the writings on medical electricity during the past quarter. The last forms a most useful feature of this good publication.

Mortality among Medical Practitioners in Russia.—A writer in the *Vratch* gives some interesting details on this subject. There are in Russia between 15,000 and 16,000 medical practitioners, and a study of the mortality statistics among them during the years 1891, 1892, and 1893 shows that during that period the total number of deaths in the profession was 642, giving an average mortality for each year of 13.9 per cent. Among the causes of death it is of special interest to note that the foremost place is taken by contagious diseases contracted, it is to be presumed, at the bedside of patients; nearly one-third of the deaths of which the cause could be ascertained were from diphtheria, cholera, typhus, etc. Tuberculosis was accountable for 15 per cent. of the whole number of practitioners who died, while in general statistics it causes only 11 to 13 per cent. of all deaths. Suicide appears from the figures given by the *Vratch* to be relatively very frequent among medical practitioners in Russia, reaching 8.8 per cent., and it is said to be increasing every year. The cause of this is probably to be sought in the severity of the struggle for existence, which, in the medical profession at least, is even harder in that country than it is elsewhere.

FEMALE PROFESSORS IN MEDICAL COLLEGES.—The College of Physicians and Surgeons of Kansas City now has a lady professor in the person of Dr. Katherine Berry Richardson, who occupies the chair of Visceral and Histological Anatomy. The Board Regents of the University of Michigan have removed the barrier of sex to the occupancy of its chairs, and a movement has been set on foot in Detroit to endow a female professorship. It is estimated that a capital of 30,000 dollars will suffice for the endowment of the chair, and one enthusiastic advocate of the rights of her sex has already subscribed 10,000 dollars, while four others have among them given 4,000 dollars.

MEDICAL VACANCIES.

The following vacancies are announced:

BOLTON UNION.—Medical Officer for the Workhouse at Fishpool. Salary, £200 per annum and a furnished house. Applications (on forms to be obtained of the Clerk) to Simpson Cooper, Clerk to the Guardians, 28, Mawdsley Street, Bolton, by January 14th.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Assistant Registrar, qualified, and undertake to hold office for twelve months. Applications to the Secretary by January 15th.

CITY OF DUBLIN HOSPITAL.—House-Surgeon. Salary, £50 a year, with apartments, light, fuel, and attendance. Applications to the Honorary Secretary, Medical Board, City of Dublin Hospital, Upper Baggot Street, Dublin, by January 19th.

GUEST HOSPITAL, Dudley.—Resident Medical Officer; doubly qualified. Salary, commencing £100 per annum—increasing £10 a year to £120 if services are satisfactory—with board, residence, attendance, and washing. Applications to the Secretary by January 24th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by January 24th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Two Assistant Physicians; must be F. or M.R.C.P.Lond. Applications to the Secretary by January 14th.

NEWTON ABBOT UNION.—Medical Officer and Public Vaccinator for the Ashburton (No. 1) District. Salary, £72 10s. per annum and £3 per annum for the medical officer to provide a surgery at Broadhempston. Salary mentioned will include all extras except payment of 10s. 6d. for each midwifery attended and the usual payment for vaccination. Applications to John Alsop, Clerk, Union Offices, Newton Abbot. Election on January 23rd.

ROYAL HOSPITAL, Chelsea.—Dispenser; must be on the *Medical Register*, and preference given to a married man with qualifications in surgery. Remuneration, 10s. a day, with unfurnished quarters, fuel, and light. Applications to the Secretary by January 19th.

SOUTH-EASTERN FEVER HOSPITAL, Hatfield Street, New Cross, S.E.—Temporary Assistant Medical Officer; doubly qualified. Salary, £13 6s. 8d. per month, with board, lodging, attendance, and washing. Applications, on forms to be obtained at the offices of the Metropolitan Asylums Board, Norfolk House, Norfolk Street, Strand, W.C., to be sent to the Medical Superintendent, at the hospital, by January 11th.

UNIVERSITY OF EDINBURGH.—Additional Examiner in Natural History and Clinical Surgery. Period of office four years. Salary, £75 per annum in each case, with £10 per annum for travelling and other expenses in the case of an additional examiner not resident in Edinburgh or the immediate neighbourhood. An additional allowance is made to the Examiner in Natural History for examining for Graduates in Arts. Applications to L. J. Grant, Interim Secretary, University Court, University of Edinburgh, by February 6th.

WEST HERTS INFIRMARY, Hemel Hempstead.—House Surgeon and Dispenser, doubly qualified and unmarried. Appointment for two years. Salary, £100 per annum, with board, furnished rooms, fire, lights, attendance, and washing. Applications to the Secretary by January 17th.

MEDICAL APPOINTMENTS.

BRODRICK, H. Edward, M.D., B.S., M.R.C.S., L.S.A.Lond., appointed Honorary Medical Officer to the Richmond (Surrey) Dispensary.

INGLIS, David W., M.D., appointed Medical Officer of the Hebburn District of the South Shields Union, *vice* Robert Mitchell, M.B., C.M. Edin., resigned.

KENWOOD, Henry Richard, M.B., C.M.Edin., L.R.C.P.Lond., reappointed Medical Officer of Health to the Finchley Local Board.

LAW, T. Brough, M.B., C.M., appointed a District Medical Officer in the Colonial Medical Service at Nicosia, Cyprus.

MARSH, O. E. B., L.R.C.P.Edin., M.R.C.S.Eng., appointed Honorary Surgeon to the In-patients at the Newport Infirmary, *vice* Arthur Williams Loveridge, M.R.C.S. Eng.

PALMER, Horace J., L.R.C.P., L.R.C.S.Edin., L.M., L.F.P.S.Glasg., appointed Medical Officer of the Heath, Sutton-cum-Duckmanton, and Temple Normanton District.

SHEPPARD, Amy, M.B.Lond., appointed Assistant-Physician to the New Hospital for Women.

STEAVENSON, A. Paget, M.B., C.M.Edin., appointed Senior House-Surgeon to the District Hospital, West Bromwich, *vice* G. E. Helme, M.B., C.M., resigned.

UMNEY, William F., M.D.Lond., M.R.C.S.Eng., appointed Assistant Medical Officer to the Home and Infirmary for Sick Children, Sydenham, S.E.

WADHAM, Frank J., L.R.C.P.Lond., M.R.C.S.Eng., appointed a Medical Officer to the Royal Isle of Wight Infirmary, Ryde.

DIARY FOR NEXT WEEK.

MONDAY.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 40, Leicester Square, W.C., 8 P.M.—Mr. C. S. Tomes: On Some Points upon Amalgams. Casual communications by Mr. J. J. Andrews and Mr. J. Mansbridge.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Sir B. W. Richardson, F.R.S.: Cycling and Heart Disease. Dr. Hector Mackenzie: A case of Hysterical Deafness successfully treated, with some remarks on the Diagnosis and Treatment of this Affection.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. H. D. Rolleston: Diffuse Secondary Growth on Dura Mater. Dr. Collier: Enlarged Spleen. Mr. Cecil Beadles: Five Brains from Insane. Dr. T. W. Carr: Serous Pachymeningitis from a Syphilitic Child. Dr. H. Snow: Density of Duct Cancer of Mamma with Ordinary Carcinoma. Dr. H. D. Rolleston: Abnormal Suprarenals. Mr. C. P. White: On the Cultivation of the Diphtheria Bacillus on Hydrocele Fluid. Card Specimens: Dr. F. Parkes Weber: Boar's Tusk forming a Circle.

CENTRAL LONDON THROAT AND EAR HOSPITAL, 4.30 P.M.—Lecture by Mr. Lennox Browne on Diphtheria: the Elements of Prognosis and General Therapeutics.

WEDNESDAY.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 P.M.—Annual Meeting. Address by the President.

ROYAL METEOROLOGICAL SOCIETY, 25, Great George Street, Westminster, 7.30 P.M.—8.15 P.M., Annual General Meeting.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, 3 P.M.—Lecture by Dr. Gowers.

THURSDAY.

SOCIETY OF ANÆSTHETISTS, 20, Hanover Square, W., 8.30 P.M.—Dr. Frederic Hewitt: On Nitrous Oxide and Oxygen.

HARVEIAN SOCIETY, 8 P.M.—Annual General Meeting and President's Address. Smoking and music.

NEUROLOGICAL SOCIETY OF LONDON, 20, Hanover Square, 8.30 P.M.—Annual General Meeting. Address by Sir William Broadbent (President-elect) on Some Speculations on the Constitution and Action of the Nervous System.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

MOIR.—On December 14th, 1894, at 7, South Street, Halifax, Nova Scotia, the wife of Surgeon-Captain John Drew Moir, Army Medical Staff, of a son.

NUTTALL.—On January 4th, at 41, Great Bolton Street, Blackburn, the wife of Frank Nuttall, L.R.C.P.&S.Edin., of a son.

THOMAS.—On January 5th, at Greenlawn, Pen-y-lan, Cardiff, the wife of Mr. J. Lynn Thomas, F.R.C.S., of a daughter.

MARRIAGES.

DAVIS—NUTTALL.—On January 2nd, at St. Nicholas's Church, Liverpool, by the Rev. L. J. Rich, M.A., Albert Edward Davis, F.R.C.S.Edin., L.R.C.P.L., of 20, Great George Square, to Annie Louisa, only daughter of James S. Nuttall, of 26, Sandringham Road, Tuebrook.

FERRABY—ANSELL.—On January 3rd, at St. Paul's Church, Grove Park, Chiswick, by the Rev. Nevison Loraine, Vicar, George Arthur Ferraby, L.R.C.P.Lond., M.R.C.S.Eng., of Birmingham, to Gertrude Somers, eldest daughter of William Henry Ansell, surgeon, of Market Rasen, Lincolnshire. At home Tuesdays in February.

LORRAINE—MATHEWS.—On January 8th, at Elm House, Maxwelltown, Dumfries, by the Rev. Maxwell Hutchison, M.A., B.D., Kirkmahoe, Dumfries, Richard Bell Lorraine, M.B., C.M., 26, Castle Street, Dumfries, to Mary Jane, daughter of the late Robert Dundas Mathews, Lochar House, Dumfries.

QUILLER—KING.—On January 1st, at the Chapel Royal Savoy, Charles Turner Quiller, M.R.C.S., to Caroline, widow of the late J. Walton King. No cards.

SCUDAMORE—SMITH.—On December 27th, 1894, at Wentworth Parish Church, by the Rev. H. C. Russell, Rector of Wollaton, assisted by the Rev. P. Verini, Vicar of Wentworth, Charles George Colin Scudamore, L.R.C.P., L.R.C.S.Edin., of 1, Burngreave Road, Sheffield, to Mary Olive, eldest daughter of James Smith, of Ashcroft, Wentworth.

DEATHS.

HUTCHINSON.—On January 1st, at Ashdown House, Fawley, Southampton, very suddenly, Martha Ann, wife of Joseph Hutchinson, M.R.C.S., aged 43.

SCHMIDT—On January 5th, at 150, Bethnal Green Road, Alfred Edwin Schmidt, L.R.C.P.E., L.R.C.S.E., L.S.A., aged 56.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER. Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 2.30. *Operation Days.*—M. F., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.* W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30. S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL EYE HOSPITAL, Southwark. *Hours of Attendance.*—Daily, 2. *Operation Days.*—Daily.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic, M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 2.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S *Hours of Attendance.* Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.15. *Operation Days.*—M., 2, Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30, (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—Tu., W. Th., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

CALNUS asks to be recommended an institution or home where an imbecile boy, aged 6, can be received for a weekly pay of 5s. or 6s.

TREATMENT AFTER SUPRAPUBIC CYSTOTOMY.

R. C. S. writes: What is the best apparatus to be worn when it is desirable to keep open the sinus after suprapubic opening into the bladder? How long can such an apparatus be worn without inconvenience or injury? What would be the ultimate effect on the bladder where there is no malignant disease or serious enlargement of the prostate?

THE RULES OF COTTAGE HOSPITALS.

JUSTICE sends us a copy of the report of the cottage hospital of the town in which he practises, and calls our attention to the following rule: "(11) Any medical practitioner resident in the counties of —— or —— possessing the legal qualifications required by the Local Government Board shall be allowed to visit his own patients in the hospital." He states that this rule has been interpreted to mean that the visit mentioned in it should be "a social visit."

*** Such an interpretation of the rule is contrary to all precedent, and would reduce the rule to a meaningless absurdity. The intention of a rule of this kind—which, we believe, has been adopted by all cottage hospitals—is that patients admitted to the cottage hospital should continue to receive the medical attendance of their own medical man if he be a duly qualified practitioner resident in the district.

"ON THE TREATMENT OF GLEET BY THE URETHROSCOPE."

M.D. writes from the Isthmian Club, Piccadilly, W.: I noticed in this club, the members of which are chiefly young men, a paper called the *Medical Week* in the library to-night. The paper is not taken in here, nor have I ever seen it here before. The article with the above title was marked on the cover in blue pencil.

ANSWERS.

M.R.C.S.—A Licentiate of the three Scottish corporations is not entitled to call himself Doctor, neither legally nor by Scottish use and wont.

CLINICAL SOCIETY OF LONDON.

M.B., C.M.—The subscription for resident members is one guinea annually and two guineas admission fee; for non-resident is two guineas admission fee, no annual subscription. A composition fee of five guineas entitles members to receive a copy of the *Transactions* each year.

PATENT MEDICINES.

E. N. N.—A list of "patent medicines" may be obtained from the Index of Patents at the Patent Office Library, and the composition of such medicines can be ascertained from the specifications relating to them. Lists of the secret proprietary articles sometimes improperly called "patent medicines" can be obtained from Messrs. Newbery or Messrs. Barclay. The composition of these articles can only be ascertained by analysis. Partial analyses of some of them, chiefly in regard to the presence of statutory poisons, have been published in *Hygiene*, and reprinted under the title *Patent, alias Quack, Medicines* (London: Beaumont and Co. 1894), and in a pamphlet on the subject by Dr. Joseph Tillie published by Macniven and Wallace, Edinburgh. See also *Pharmaceutical Journal*, December 23rd, 1893.

NOTES, LETTERS, Etc.

ERRATUM.—In the paragraph in the BRITISH MEDICAL JOURNAL of January 5th (p. 41) referring to the honour conferred by the Crown on Sir John Erichsen, it should have been stated that he succeeded Lord Kimberley (not Lord Reay) as President of University College, London.

ANTITOXIN, THE PRESS, AND ADVERTISERS.

SEVERAL correspondents have called our attention to the activity of the ubiquitous reporter, who records with a needless parade of names the use of diphtheria antitoxin by various practitioners in various localities. It would be well if medical men warned the reporter in search of information that it is undesirable to mention in public prints the names of the practitioners who may have adopted this method of treatment with success.

Another correspondent sends us a circular issued by a well-known firm of manufacturing chemists in the north of England which contains in large type the particulars of a case in which the serum supplied by them was first used, and the name of the medical man who used it. "Good wine needs no bush," and we think the chemists in question would be well advised to drop this part of their circular, and to issue their preparation to the profession on its own merits without mentioning any names except such as may be necessary for identifying the source of the serum.

CHEAP DISPENSARIES.

DR. LOUIS F. DODS (West Hampstead) writes on this subject criticising the conclusions of Dr. Martin. He points out that there are some people who are ineligible for hospitals and others who are unable to afford the time to go to them and who yet cannot pay full fees, and that unless very cheap attendance is provided for them they must perforce go to the prescribing chemist. He maintains that at even a cheap dispensary it is possible to give good advice and good medicine. He also shows that medical aid associations are a far greater evil than even the cheapest of dispensaries, and asks that the licensing authorities should unanimously make it "infamous conduct" to have dealings with these institutions.

"THE VILLAGE DOCTOR."

DR. JOHN SERVICE (Newtown, Sydney, N.S.W.), in sending a copy of verses, from which we extract the following stanzas, writes: These verses were suggested to me in Melbourne, November, 1891, while reading in the BRITISH MEDICAL JOURNAL the following passage in an introductory address on Old Age, delivered at the opening of the session of the medical department of the Yorkshire College, Victoria University, Leeds, by Sir James Crichton Browne, M.D., LL.D., F.R.S.: "Amongst the rank and file of our profession there are countless examples of men unknown to fame, who, with ripe knowledge and quiet devotion, ply their calling and are looked up to in their neighbourhood when past three score and ten—men of the stamp of Dr. Welsh, of Haddington, of whom we should never have heard had not Carlyle married his daughter, but of whom Edward Irving said: 'He was one of the wisest, truest, and most dignified of men.' I have often thought that Gray's elegy was defective in having no verse commemorative of the sequestered and unsophisticated philanthropy of the village doctor."

White haired, benevolent, and bent with years,
By children loved and by their sires revered,
The village doctor, pacing slow, appears,
A world of wisdom in his staff and beard.

High priest of mysteries at birth and death,
The yokel deems him more than mortal when
The agony of the first and latest breath
Is soothed for little children and for men.

But lo! the ancient enemy, alas!
He often worsted in the deadly fight,
Has swept his cruel scythe along the grass,
And day is blotted out, and there is night.

Methinks I see a pageant winding slow
Up the steep bank and round the ancient fane,
Followed by hundreds, weeping as they go,
For him they never more may see again.

FLUELESS STOVES.

MR. THOMAS FLETCHER, F.C.S., writes to us drawing attention to the researches of Dr. Haldane, which were recently brought before the British Association, and gives a series of facts and figures strongly confirmatory of what was stated in the BRITISH MEDICAL JOURNAL of November 10th, 1894, page 1091, in an editorial comment on flueless stoves. He states that human beings can live and breathe in an atmosphere in which the oxygen had been so reduced and the carbon-dioxide increased to such an extent that a candle will go out. We may safely take it for granted, he says, that any amount of carbon-dioxide formed by the combustion of coal gas in an ordinary room, under ordinary conditions, would be inappreciable, except to delicate chemical analysis, and that the only possible products of combustion from this source which could be injurious are sulphurous and sulphuric acids and carbon-monoxide. The last is undeniably dangerous, but, if the combustion is perfect, recent careful researches show that it is not formed. We appear then to be brought to the fact that the products of combustion from gas lights and flueless gas stoves are inert, and, with the exception of the sulphur compounds, are inappreciable to those present in the room. Why then, he asks, are rooms thus warmed so unpleasant, causing in most cases cold feet and headache? His answer is that convected heat rises to the ceiling and leaves the floor cold, whereas by radiant heat, as that of an open gas or coal fire, the floor is warmed, the temperatur at the floor level being the same if not higher than that of the upper part of the room, and that it is to this fact that are due unpleasant effects of warmth derived from the flueless gas stoves. In this it would seem hot pipes and flueless stoves stand on somewhat the same footing; they heat the air rather than warm the room. But Mr. Fletcher points out that this does not so much matter in a bed-room, where the whole body is at one level; and he believes it will be found that in bed-rooms in which fires cannot be used in consequence of down draughts, flueless stoves may be used with perfect safety and comfort if they are made with ordinary lighting burners, or if the light is objectionable, with good atmospheric burners, the flames of which are clear and unobstructed by any solid matter. The question is full of interest, and worthy of the careful observation of those who have occasion to use such stoves, for there are large numbers of invalids who seem to require the chill to be taken off the air they breathe, and to whom a fire in the bed-room is a great difficulty.

HINTS FOR INVALIDS IN THE CLIMATE OF EGYPT.

DR. CHARLES MOORE JESSOP (Deputy Surgeon-General, retired, Redhill) writes: The remarks of Dr. Bentley on the climate of Egypt, on the careful selection of cases for places, and on the duties of invalids to themselves I heartily endorse in every particular, even to clothing. Cairo is an interesting city for perfectly healthy people to visit and dwell in, but from its insanitary atmosphere and indifferent water-supply the very reverse for an invalid of any kind. An invalid sent to Egypt for a pure and dry air should not stay even one single night in Cairo, but drive straight from the ship (railway from Alexandria or Ismailia about three hours) to the Mena Hotel, 7 or 10 miles from Cairo, at the foot of the Great Pyramid, a journey of an hour and a-half, or take the train to Helouan. When an invalid is improved in health and wishes for a change he might move up the Nile in a *dahabeeh* to Luxor, or take the post boat (nothing will be gained by a combination of railway to Sinyeh and then the post boat except fatigue). At Luxor he will find a commodious hotel situated centrally between Luxor and Kamak, airy and not surrounded by trees and native dwellings, belonging to the Thewfikieh Company. At Assouan, about 150 miles further up, another excellent and well-furnished hotel. The air of this place is very dry, and rain almost unknown. A few drops fell when I was there, and last year—a most unusual occurrence—a downpour of rain from 8 A.M. to 6 P.M. With Dr. Bentley's remarks on railway travelling and overfatigue all will agree. I would, however, remark that smoked spectacles are more necessary than an umbrella. The spine can be protected by a padded coat, and the head by a good covering, but the actinic rays penetrate the eyeballs and do much mischief. For this reason I recommended smoked spectacles for the Royal Engineer workmen at Hong Kong. They were sanctioned.

TREATMENT OF BROMIDROSIS.

DR. E. A. C. BAYLOR (Ash, Dover) writes: From the numerous inquiries one reads from time to time in the columns of the BRITISH MEDICAL JOURNAL, it is evident that the want of an efficient and ready means of controlling that most troublesome condition, bromidrosis, is still very much felt. I therefore venture to suggest a simple remedy—by means of powdered alum, which, although incapable of curing the affection for all time, yet exerts a more satisfactory influence than any other agent I have tried, and at the same time is so simple of application as not to be too irksome to repeat occasionally. The feet having first been washed, the alum should be well rubbed in dry between the toes and on to the soles and heels, the excess of powder not being rubbed off, and at the same time some of the alum should be sprinkled into the socks before putting on. The good effect of this treatment is soon observed by the almost immediate arrest of the epithelial maceration which the decomposing sweat causes. That this is due to some chemical action, by which the alkaline elements of the sweat are rendered less eroding, seems probable, for as a rule the secretion does not stop at once, but gradually diminishes, although it loses its offensive characteristics almost at once. In commencing treatment for this condition it is very essential to lay aside old boots and shoes, for the linings of these become after a time saturated by the sweat and most offensive, and this largely aids in contaminating new socks. With this treatment frequent change of socks is usually unnecessary.

OXYGEN LOCALLY IN THE TREATMENT OF WOUNDS AND ULCERS.

MR. GEORGE STOKER (Hertford Street, W.) writes: I am very sensible of the debt the profession owes to the author of the *Medical Digest*. At the same time, if Dr. Neale had made himself acquainted with the details of my "new treatment," I do not think he would have written as he has done. I have examined his references, and I cannot find there, or elsewhere, allusion to any such method as I have devised. The treatment can be seen in operation at the Hanover Nursing Institute, 22, George Street, W., and I will be happy if any of my professional brethren will go and see it. The wounds are washed about 11.30 A.M. and 9 P.M.

THE APPOSITION OF PERITONEUM TO PERITONEUM.

MR. GEORGE A. HAWKINS-AMBLER, F.R.C.S.E. (Liverpool) writes: Mr. Greig Smith has done good service in drawing attention to this subject, and his remarks will tend to improve the *technique* of many operations in abdominal surgery, such as ventro-fixation of the uterus, for example, which will become vastly better operations if his personal experience is borne out by practice, and mechanical difficulties do not bar his methods in the hands of the less experienced; but the procedure is by no means new as a matter of practice. I well remember my surprise on first witnessing Mr. Lawson Tait's operations at his apparent indifference to orthodox methods. Once I asked him what became of the union of peritoneum to peritoneum in cases where he, on opening the abdomen, tore up the serous lining with his fingers and made no attempt to unite them. He replied that he did not know, and that it did not matter. Certainly few, if any, operators got better, speedier, and firmer union of their wounds than Mr. Tait. Another example was afforded by a case of an exploratory operation which revealed a large malignant growth attached to the bowel, in the removal of which the intestine was divided. The rapidity with which this was sewn up with-

out the usual elaborate precautions in the union of peritoneum to peritoneum, etc., astonished and rather scandalised me. But though the patient died a few days after of exhaustion, the wound in the intestine was firmly united and had nothing whatever to do with the fatal termination. Other examples might be given of the use of this method by Mr. Tait before Mr. Greig Smith, as far as I recollect, used it, or, at any rate, other than accidentally. I had the pleasure of seeing him operate at one of the Bristol hospitals after my work with the former gentleman, and did not observe any use of this method at the time. Probably Mr. Tait found out long ago that as the fussy care for the peritoneum exhibited by some surgeons was unnecessary for the patient's welfare, and, indeed, took up time which is too often a fatal extravagance in abdominal surgery, it was useless to waste time on it. With him and with Mr. Smith, himself an excellent operator, the time element is reduced to a minimum; either of them will frequently complete a difficult operation while some other abdominal surgeons are haggling away with a director into the peritoneal cavity, and spending themselves and their patients in puzzling over just those details of surgery which can be neglected, but which, having been absorbed in their early days from textbooks which still print useless rules of practice framed for quite other conditions, but on top of which they have built antiseptic and aseptic surgery and surgery under anæsthesia, are unreasonably and slavishly adhered to. I am glad to see the further extension of a not new practice, and shall more happily continue to practise with reason what I have hitherto done in a small way from mere observation and imitation. The suggestions offered to abdominal surgeons will, I am sure, be valued both for themselves and for what they lead us to.

THE FUNCTION OF THE VERMIFORM APPENDIX.

DR. DAVID W. AITKEN (Edinburgh) writes: Permit me to make a few further remarks: 1. I stated facts, and the consequences naturally flowing from them. 2. My note does not profess to cover the whole ground and my position in no way controverts Dr. Berry's. 3. The "vermiform" was referred to, and not the pouch like appendix of such animals as the rabbit, of which, by the way, that organ has long been known (Quain) to contain at its slightly contracted extremity lymphoid follicles. 4. In a *post-mortem* examination (death being due to another cause), I found a condition much resembling Dr. Berry's experiment. The appendix at its proximal end was blocked by a faecolith which had given rise to no symptoms during life. No accumulation was found, and the only change was a slight irritation of the mucous coat. 5. Besides the upright posture previously referred to as an important consideration in the study of the appendix, several other factors should be noted.

1. The consistence and shape of the excreta. 2. The character of the act of defæcation. Three points may be stated.

1. In some animals the fæces are so soft that little expulsive force is needed. 2. In others the mass is subdivided into pellets, which are probably evacuated by the unaided intestinal contraction, for it is to be noted that the animals of both these classes can defæcate while running. This marks a differentiation from the following. 3. In these the consistence is firmer as a rule, and the shape shows its expulsion to depend upon great *vis a tergo*, involving the powerful aid of the abdominal muscles. Now I maintain that here the contracted appendix is advantageous My other reasons have been previously stated.

As regards the "vestigial theory," I confess not to accept it. In fact, I desire to combat the (to me) impious view that the Creator has endowed us with useless, and hence mere risk-entailing, organs. The "vestigial theory" solely rests upon the assumption that because its upholders can find no function, therefore none exists. But it by no means follows that organs in some animals are useless simply because we cannot, with our present knowledge, state their use, or because in others the *rôle* is very manifest. Is it, indeed, a misguided position to maintain that their development is in harmony with their function? But consider the instance of Dr. Marshall, namely, the auricular muscles. In the first place, the sole function of a muscle is not motion. In the shoulder-joint, with its lax capsule, co-aptation is maintained by muscular tone—a condition (be it observed) much more complex than mere elasticity.

As regards the ear, it it evident that, even from the æsthetic view, muscular attachments, both extrinsic and intrinsic, are much more advantageous than mere rigid ligamentous union. Again, it would be difficult to inspect the drum were the auricle attached to the skull by fibrous tissue. Further, in mastication the muscles must be useful, seeing that the jaw encroaches upon—in fact, displaces—the ear in the act, as can be proved by palpation while the movement is in progress. Finally, it may be proved, by placing a finger upon the retrahens aurem that actual contraction takes place when the jaw moves, showing that even this function is not abolished.

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BOOKS, ETC., RECEIVED.

A Manual of Veterinary Therapeutics and Pharmacology. By E. W. Hoare, F.R.C.V.S. London: Bailliere, Tindall, and Cox. 1895. 10s. 6d.

Imagination in Dreams and their Study. By F. Greenwood. London: John Lane. 1894.

Transformations Chimiques de la Substance Fondamentale du Cartilage pendant l'Ossification. Par M. C. Chabrie. Paris: Gauthier-Villars et Fils. 1894.

Essays on Rural Hygiene. By Dr. G. Vivian Poore. Second Edition. London and New York: Longmans, Green, and Co. 1894. 6s. 6d.

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CASES ILLUSTRATING THE IMPORTANCE OF AN EXAMINATION FOR THE DIPHTHERIA BACILLUS.

BY

JOHN W. WASHBOURN, M.D., F.R.C.P., Physician to the London Fever Hospital; Assistant Physician to Guy's Hospital, etc.

and

EDGAR O. HOPWOOD, M.D., Resident Medical Officer to the London Fever Hospital.

AT the London Fever Hospital, during the last two years, we have met with many instances of the value of a bacteriological examination for the diphtheria bacillus. In this short communication we propose to quote a few cases which appear to us to be of especial interest.

The method we have adopted has been the well-known one of cultivation upon the surface of coagulated blood serum, and, when necessary, the virulence of the cultivations has been tested by the inoculation of guinea-pigs.

SCARLET FEVER COMBINED WITH DIPHTHERIA.

Several observers have shown that the pultaceous or even membranous exudation upon the fauces, which often accompanies the acute stage of scarlet fever, is not caused by the diphtheria bacillus, and is therefore not true diphtheria. In a paper read by Dr. E. W. Goodall and one of the authors before the Clinical Society in 1893 this was insisted upon, and a number of cases were quoted in support of such a view. The authors did not deny that a true diphtheria might complicate the acute stage of scarlet fever; but they considered it to be uncommon. Our observations at the London Fever Hospital confirm these views, and the case we are now quoting is an exceptional one, in which the acute stage of scarlet fever was accompanied by an exudation upon the fauces produced by the diphtheria bacillus.

A boy, aged 9, was admitted into the London Fever Hospital suffering from scarlet fever. The history of the illness was that he was attacked with sore throat on the day before admission, and that the rash appeared within twenty-four hours of the onset. On admission there was a well-marked scarlatiniform rash, accompanied by the usual symptoms of scarlet fever. On the right tonsil there was a patch of whitish pultaceous exudation, similar in appearance to the exudation commonly met with in the acute stage of scarlet fever.

The case was put in the scarlet fever ward; and, simply as a matter of routine, a bacteriological examination was made. On the next day many typical diphtheria colonies developed in the tubes. The exudation spread to the opposite tonsil, but soon cleared off from both sides. Well-marked desquamation ensued, and followed the usual course. Cultivations were made from the throat at short intervals during the patient's stay in the hospital, and on each occasion diphtheria bacilli were found. They are still present at the time of writing, six weeks after admission.

POST-SCARLATINAL DIPHTHERIA.

A pultaceous or membranous exudation, occurring on the fauces during the convalescent stage of scarlet fever, is frequently a true diphtheria caused by the diphtheria bacillus. In some fever hospitals this post scarlatinal diphtheria is very prevalent, and there has been much discussion as to its causation. The case we have above quoted points to one of the ways in which this may arise. Had the case not been recognised, it is quite possible that it might have given rise to an epidemic of post-scarlatinal diphtheria in the ward. The following case is instructive from the same point of view.

A boy was admitted with an ordinary attack of scarlet fever, accompanied with rhinitis. The symptoms disappeared in due course; but during convalescence the rhinitis reappeared. This was considered to be a recrudescence of the rhinitis caused by the scarlet fever, especially as there were no other symptoms, and the throat was quite normal. A bacteriological examination of the discharge from the nose was made, and virulent diphtheria bacilli were found.

DURATION OF INFECTION IN DIPHTHERIA.

At the London Fever Hospital no patient is considered free from infection until a bacteriological examination has shown the absence of diphtheria bacilli from the throat.

The time varies very much in different cases: the longest period of which we have notes was sixty-three days after the disappearance of the membrane. In this case a number of examinations at different intervals were made, and bacilli were always found. Towards the end, the virulence of the bacilli, which were of the short variety, was tested and found absent. Attempts were made to disinfect the throat with various antiseptic sprays, but with no effect. It should be mentioned that the boy was suffering from adenoid growths in the pharynx.

THE VALUE OF A BACTERIOLOGICAL EXAMINATION MADE SOME TIME AFTER A SLIGHT UNRECOGNISED ATTACK OF DIPHTHERIA.

The following case will serve as an illustration: A boy suffered from a mild attack of what was considered to be coryza, accompanied by a slight nasal discharge. He quickly recovered, and nothing more was thought of it until some cases of diphtheria broke out among his companions. It was then thought possible that the coryza might have been a mild attack of nasal diphtheria, and one of the authors was consulted. A careful clinical examination of the patient, made three weeks after the attack of "coryza," failed to reveal anything abnormal; a bacteriological examination, however, revealed the presence of diphtheria bacilli, which were proved to be virulent by inoculation. There thus appeared little doubt that the "coryza" was really diphtheria, and that the boy was in an infectious stage at the time of examination.

DIPHTHERIA BACILLI IN THE THROATS OF OFFICIALS IN ATTENDANCE ON CASES OF DIPHTHERIA.

A nurse, who was in perfect health, was in attendance upon cases of diphtheria. A systematic bacteriological examination of her throat was made. Although the throat appeared absolutely normal, yet diphtheria bacilli were present on each of many occasions during a period of six weeks. The bacilli were of the long variety, and were proved to be virulent. The nurse did not suffer at all in health.

An examination of the throat of another official, who was often in contact with cases of diphtheria, was made on one occasion. Diphtheria bacilli of the short variety were present, but they were found not to be virulent.

The throats of four other nurses in attendance upon cases of diphtheria were examined, but with negative results as far as the presence of the diphtheria bacillus was concerned. One of these nurses suffered on two occasions from a mild angina while on duty in the diphtheria ward. On neither occasion were diphtheria bacilli present in her throat.

TYPHOID FEVER AND OYSTERS AND OTHER MOLLUSCS.

BY SIR PETER EADE, M.D., F.R.C.P.,
Consulting Physician to the Norfolk and Norwich Hospital.

THE striking array of facts contributed to the BRITISH MEDICAL JOURNAL of January 12th by Sir William Broadbent, coupled with the further evidence adduced in the editorial article in the same issue, as to the possible or probable connection, in some cases, of typhoid with the consumption of oysters, will necessarily at once challenge the attention of the whole medical profession. And no doubt in every fresh case of this fever occurring just now careful inquiry will be made as to the possibility of these molluscs having been the medium of conveying the infective bacillus into the stomach and intestines of the patient.

My object in writing is to point out that the oyster is not the only shellfish to which such suspicion may attach.

Some few years ago a considerable epidemic of typhoid disease occurred at Norwich, the poorer classes being those principally affected. As it was prolonged, and no definite cause could be ascertained for its continued prevalence, I took some trouble in the matter, and made many inquiries as to possible causes and sources of the disease. After a time one of the medical officers of the Local Government Board came down and inspected the city sanitary arrangements; and at an interview with him I mentioned a suggestion which had been made to me by a leading surgeon residing in one of our coast towns as to the possibility of *mussels* being a medium of contagion. We could not demonstrate this, and indeed it was then a mere hypothesis, but the suggestion was noted in the subsequent medical report to the Board, and as the epidemic shortly after this died out, the matter dropped.

It is well known that mussels are collected in large quantities on our shores, and are stored in the beds of our estuaries until required for sale. I have myself seen them lying stored in the bed of one such tidal estuary, into which the sewage of the adjacent town was (and I believe is) constantly discharged, although, of course, at a little distance from this "living fish warehouse."

If, then, oysters be proved to be capable of ingesting typhoid germs, and of passing them on undigested to human consumers, it seems in the highest degree probable that mussels also may be capable of being such carriers of contagion; and it is well known that these molluscs are constantly on sale on public stalls in our large towns, and are largely consumed by the poorer classes.

With the evidence now before us, and considering the seriousness of the matter, I cannot but think that attention should be directed to the mode of storing these, and that medical officers of health should forthwith insist upon their not being allowed to be placed in waters contaminated by town sewage. Doubtless the accepted view has been that current water, and especially sea water, was an immediate and complete destroyer of these living germs, whilst we should certainly have expected that the digestive processes of the mollusc would have destroyed their vitality. But the facts now being adduced appear to render this view doubtful and dangerous. Of course, the typhoid bacillus is specific, and if no local typhoid disease existed, ordinary sewage matters could not propagate this disease; but it would become recurringly dangerous, as cases of this disease from time to time appeared or reappeared in the town draining into the water.

I may mention that quite recently I saw, in consultation, in one of our county towns, a case of typhoid, where the patient had visited London some ten or twelve days before his seizure, and had there eaten oysters.

MULTILOCULAR CYST—(?) OVARIAN OR MESENTERIC: ABDOMINAL SECTION: RECOVERY.

By GEORGE BUCHANAN, M.A., M.D., LL.D.,
Professor of Clinical Surgery in the University of Glasgow.

Mrs. M. D., aged 40, was admitted to the Western Infirmary on November 2nd, 1894. She is a healthy woman, with a slightly sallow complexion. She has had eleven children, the last in October, 1893. Following on her last confinement she had an attack of influenza which confined her to bed for four months. Nevertheless, she has been nursing the child up till the present time, and has not menstruated. After recovering from influenza she regained her usual good health till about three weeks ago, when it became apparent to her that her abdomen was increased in size. On close questioning she admits that there may have been some swelling for a longer time as she was rather stout, and not particularly observant on the matter.

On examination the abdomen was found to be greatly enlarged: circumference at level of umbilicus 44 inches; from pubes to umbilicus 9 inches; from there to ensiform cartilage 8 inches; from right anterior superior spine to umbilicus 11 inches, and from there to left spine 10 inches. It was occupied by a globular mass, somewhat prominent at the umbilicus. This was decidedly fluctuant, with some feeling of resistance at the sides, suggesting the idea of some solid matter. Percussion was dull in front and at the sides, but tympanitic in the lumbar region. The mass was slightly movable from side to side. The uterus was low down in the pelvis, not enlarged, and movable in the vagina. The diagnosis was that of a multilocular ovarian tumour.

Abdominal section was performed on November 9th, Dr. Renton assisting. I made a long incision from the pubes to an inch above the umbilicus. When the peritoneum was opened the cyst bulged forward. Passing my hand all round in front and at the sides, no adhesions were detected, but, owing to the abdomen being completely distended by the mass, the hand could not be passed round behind to feel if there were any posterior connections. I therefore reduced the bulk by tapping, till most of the fluid ran out (280 ozs.), and it remained about the size of a young child's head. The fluid was oily or starchy looking, of a pale greenish-yellow colour, with some whitish flakes floating in it. Immediate microscopic examination of it showed abundant oil globules, epithelial cells, and cholesterine.

After its size was sufficiently diminished, I lifted it out from the wound, and, when half out, I found that it pulled after it the mesentery, which, along with a large loop of intestine running round, was firmly adherent. By carefully scraping and tearing with the finger-nail and a director, and cutting through—between two fine catgut ligatures—several fair-sized veins, which seemed to enter into the substance of the walls, I succeeded in separating all the peritoneal attachments, but, to my surprise, there was no pedicle nor any connection with the ovary or broad ligament, so that, when freed from the mesentery, it slipped out. A good many bleeding points on the edge of the torn mesentery were tied with fine catgut. A few clots which were lying among the coils of the intestine were removed, and a quart of tepid boracic solution was poured into the pelvis. I now passed down my hand into the pelvis, and felt and took between my thumb and finger the uterus and both ovaries, which seemed to be in their normal place, and in size and consistence were very much as they should be in a woman at the gestating age. I looked in and saw them, and in neither ovary could I find any indication of present or former cystic disease. I again poured in two or three quarts of tepid boracic solution, and removed it thoroughly with successive spongings.

The wound was closed with five strong silk deep sutures, and numerous surface silkworm gut sutures.

Result.—The patient never had a bad symptom, and made a rapid recovery. The wound was not uncovered till the fifteenth day, when the stitches were removed, and union was found to be complete throughout.

Pathological Report by Professor Coats.

A large cystic tumour, whose external surface presents many tags of connective and adipose tissue. The wall generally is of a white fibrous character. Internally the cyst is seen to be divided by many partial septa, and in some places there are collections of developing cysts. In addition, the internal wall frequently presents a white flocculent deposit, and this in several places has a glistening satiny look; for instance, there is a flat deposit of this kind measuring 5 cm. by 6 cm. Microscopical examination shows these deposits to be largely composed of cholesterine.

Microscopical Examination by Dr. Sutherland.

Sections made through the entire thickness of the wall show essentially a fibrous structure. Externally there is a considerable amount of adipose tissue, and this also occurs, in less amount, superficially in the substance of the wall. The connective tissue fibres are disposed irregularly, interlacing throughout the tissue, which, tolerably rich in spindle-shaped nuclei, is permeated with numerous blood vessels. Internally there is no appearance of any definite endothelial lining, but applied to this surface, and adherent in part, are considerable masses of altered fibrin, with occasional leucocytes. Scattered irregularly throughout the entire thickness of the wall there are areas of massed leucocytes. These areas are of a size visible to the naked eye. In

addition, there are towards the internal surface not infrequent cleits or cyst-like spaces, isolated or grouped, which are lined with what appears to be a single layer of low cubical epithelium. In a few cases these spaces are filled with a material resembling fibrin.

Judged solely from the histological standpoint the precise nature of this cyst is obscure. There is nothing sufficiently distinctive in the microscopic structure of its wall to suggest the ovary as a starting point; it rather favours the possibility of a local origin. The existence of the cyst-like spaces mentioned would imply an epithelial origin of these particular structures, but the actual nature of this epithelium, and especially its source, is not clear.

REMARKS.

It is now thirty years since I performed the first successful ovariotomy in Glasgow. Since that time I have done a great number of abdominal sections and removed tumours of all sorts. But I have never myself met with, nor seen, nor have I read of one precisely similar to this. Its clinical characteristics and pathological description as to structure of the sac and the endogenous saccules, as well as the nature of its contents, fluid and viscid, are all those of an ovarian tumour; but the absence of any trace of a pedicle on its wall, and of any fragment remaining attached to the ovary or broad ligament seem to favour the idea that its origin was not ovarian.

Cases are cited by Sir Spencer Wells, Thornton, and others, which had been diagnosed as ovarian cysts, but during operation or on *post-mortem* examination had proved to be mesenteric or omental. In none of these, however, so far as I know, has there been such similarity in the structure of the sac and its contents to multilocular true ovarian cysts. In fact so much am I impressed with the idea that it is of ovarian origin that I believe it is one of those rare cases of transplanted ovarian cysts. It is easy to understand how an extra-ovarian tumour, such as a parovarian cyst, can escape from its position below the ovary, can form adhesions to peritoneal folds, and how its pedicle can be elongated, stretched, or twisted and ruptured. But for a tumour which has its origin in the substance of the ovary it is not so easy. Ovarian tumours which have been found detached, or in the process of detachment, have the distal end of the pedicle adhering to their walls, and the proximal stump of the pedicle connected with the broad ligament. Cases of this kind are described in the *Edinburgh Medical Journal* for 1861 by Sir Wm. Turner, who quotes other cases from Rokitansky, 1860. But here there was no stump at either end, so that it was not an ovarian tumour which had become disconnected by division of a pedicle of the usual kind, which includes the Fallopian tube.

But a tumour of ovarian origin might become disconnected, through having no true pedicle in the ordinary sense of the term. Suppose a Graafian vesicle on the surface of the ovary should put on a cystic character, should grow externally without invading the structure of the organ or pressing upon it and incorporating it with the substance of its walls, should increase in size till it became a pedunculated tumour with a neck consisting of little more than the peritoneal covering and the stretched fibres from the opening of the ovarian capsule through which it escaped. Having attained a certain size, it became attached to the mesentery, and soon derived its chief supply of blood from the mesenteric vessels. The intestinal movements gradually pulled it off from the ovary, the neck being stretched and elongated till it was thinned away to a mere shred; then some sudden movement or twist broke this through. The cyst, being disconnected, rapidly increased in size till it became an abdominal tumour; and the ovary, being now free, slipped back and resumed its normal place in the pelvic cavity. Such I imagine to be the history of the tumour under consideration. Myomata have occasionally been found detached or semidetached from the uterus in a similar manner.

REFERENCES.

I have made some inquiry into the subject of transplanted ovarian tumours and mesenteric tumours simulating ovarian, but I found that it involved an extended search through many books, pamphlets, and periodicals. I therefore obtained the assistance of my former house-surgeon, Dr. Munro Kerr, now assistant to the Professor of Midwifery, and he has furnished me with the following references. They may be useful to others engaged in similar research:

Ovarian Tumours.—Baumgarten, *Virch. Archiv*, xcvii, p. 18. Chalot *Ann. de Gynec.*, xxvii, p. 161. Kuge, *Zisch. f. Geb. und Gyn.*, xxi, p. 211, refers to atrophied ovarian cysts as free bodies in the abdominal cavity. Greig Smith, *Brit. Gyn. Journal*, November, 1887, also in his work on *Abdominal Surgery*, p. 118. Turner, *Ed. Med. Journal*, 1861, vol. vi. p. 598. Wells, *Diagnosis and Surgical Treatment of Abdominal Tumours*, 1885, p. 8, refers to several cases.

Mesenteric and Omental Cysts.—Akérion, Etude sur les kystes du Mésentere, *Thèse de Paris*, 1891, 142 pages. Buckley, BRITISH MEDICAL JOURNAL, 1885, i, p. 994. Carter, BRITISH MEDICAL JOURNAL, 1883, i, p. 7. Collet, *Sur les kystes du Mésentère*, Paris, 1884. Dalnez, Emile, Kystes du Mésentère, *Thèse de Paris*, 1891. Doran, *Obstet. Trans. Lond.*, vol. xxiii, p. 165; *Med. Chir. Trans.*, vol. lxviii. Gooding, *Lancet*, 1887, i, p. 311. Hahn, Concerning Cysts of Mesentery, *Berlin. klin. Woch*, 1887, xxiv, p. 408. Newman, *Med. Times and Gaz.*, ii, 1862, p. 162. Ormsby, *Med. Press and Cir.*, 1883, i, p. 258. Péan, *Tumeurs de l'Abdomen*, vol. i, p. 111. Ransom, BRITISH MEDICAL JOURNAL, 1890, ii, p. 1062. Schwarzenberger, Multilocular Cystoma of Great Omentum, *Diss. Heidelberg*, 1894. Schmitt, *Multilocular Cyst of Great Omentum*, Munchen, 1883. Greig Smith, *Abdominal Surgery*, p. 38, 656. Thornton, BRITISH MEDICAL JOURNAL, 1882, ii, 1242. Waldy, Cystic Tumour of Omentum, *Lancet*, 1889, ii, p. 642. Wells, *Diagnosis and Treatment of Abdominal Tumours*, 1885, pp. 104 and 205; also BRITISH MEDICAL JOURNAL, 1890, i, 1361. Barrat, Cystic Development of Ovum, *Pathological Transactions London*, vol. xvii, 1866, p. 192

IMPROVED METHOD OF DEODORISING AND CLEANSING CATHETERS.

BY JOHN WARD COUSINS, M.D.LOND., F.R.C.S.,
President of the Council of the British Medical Association; Senior Surgeon to the Royal Portsmouth Hospital, and the South Hants Eye and Ear Infirmary.

SURGICAL tubes and catheters are difficult to clean, and every surgeon has felt the need of some simple method by which they could be readily cleansed and effectually deodorised. These instruments are often syringed out with some antiseptic solution; but this process cannot be wholly relied on. I have frequently found catheters which had been washed out in this fashion lined with a dangerous mixture of foetid urinary products and decomposing oily matter. Catheters are manufactured, too, with hollow points, and these become receptacles for a septic accummulation which is always very difficult to remove.

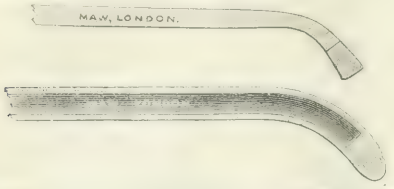
Another method frequently employed consists in simply boiling the instruments in a long tin or copper vessel with some disinfecting solution, but this boiling process alone is not sufficient to secure the thorough cleansing of the interior of the tube.

At the recent Bristol meeting I exhibited a deodorising apparatus, with some special instruments and cleaning rods. The catheters are made of solid metal points, terminating in flat surfaces within the tubes, just above the first perforation. The antiseptic method I recommend consists of two stages—(1) steaming the catheters, and (2) polishing the interior of the tubes.

1. The deodorising of catheters can be very rapidly and effectually performed by the action of steam. The apparatus consists of a boiler having a capacity of about 3 pints, and capable of bearing a pressure of 80 pounds to the square inch. It can be heated by a spirit or gas jet in about fifteen minutes. The steam pipe is connected with a circular tube fitted with projecting terminals, and these are adapted to hold a complete set of catheters. Steam cocks are arranged on the steam pipe to regulate the discharge of steam, and a tray is placed beneath the instruments to collect the condensed water. Steam sprays—the relics of early antiseptic days—are still to be found in many hospitals, and these can very easily be converted into catheter deodorisers. Four tapering tubes can be attached to them capable of holding three catheters of different sizes, and with this arrangement four catheters can be steamed at the same time.

2. As soon as the deodorising process is finished, the instruments should be wiped dry with a soft leather, and their insides polished with the steel stilettes. The beak of a catheter and the corresponding stilette are represented in the woodcut. The point of the stilette consists of a flat metal disc,

which exactly fits the bore of the instrument; the stem is flexible, and terminates in a strong handle. By the friction of the disc the interior of the tube can be perfectly polished in a few minutes.



The whole process is so extremely simple that any hospital nurse can carry it out, and completely deodorise a set of catheters in half an hour. The steaming apparatus with the catheters and stilettes have been made for me by Messrs. Maw, Son, and Thompson, of London. Gum-elastic and vulcanite catheters with solid points are also manufactured by the same firm. These can be readily cleaned by the same process, but a polishing stilette must be selected which does not quite fit the bore of the tube.

The apparatus was exhibited in the Section of Surgery at the annual meeting of the British Medical Association at Bristol, 1894.

SIXTY-SECOND ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in Bristol, July 31st, and August 1st, 2nd, and 3rd.

PROCEEDINGS OF SECTIONS.

SECTION OF OBSTETRIC MEDICINE AND GYNÆCOLOGY.

J. G. SWAYNE, M.D., President.

INTRODUCTION TO A DISCUSSION ON VAGINAL HYSTERECTOMY:

THIRTY CASES: TWO DEATHS FROM OPERATION.

By FREDERIC BOWREMAN JESSETT, F.R.C.S.,
Surgeon to the Cancer Hospital, Brompton.

MR. PRESIDENT AND GENTLEMEN,—Vaginal hysterectomy for carcinoma uteri and certain forms of uterine myoma has now become a recognised operation; but although it has been performed for some years on the Continent and in America, it is only within a comparatively short period that it has found favour in the eyes of gynæcologists in this country. The reason of this is not difficult to understand, for the mortality after the operation in former years was so great, that it was not considered justifiable to advise patients to submit to it. Practice here, however, as in other abdominal operations, has now enabled us to reduce the mortality so much, that perhaps it may be ranked as one of the most successful operations in surgery.

The cases, short notes of which I propose to place before you to-day, constitute a series of operations performed by me for malignant diseases of the uterus, and in two cases for fibroids of the uterus; the whole series were operated upon between July, 1892, and April, 1894. Twenty-eight of the cases were purely vaginal hysterectomies, and in two the organ was removed by the combined abdominal and vaginal method.

The time at my disposal is so short that I shall confine my remarks purely to the cases before us, only alluding shortly to the different methods of performing the operation adopted by different operators, and describing in detail the operation as performed by myself. Perhaps the most important point to determine is how to select cases, and to decide which may be operated upon with the fair hope of a successful issue: first, as regards the operation itself, and, secondly, as to the chances of the patient being free from recurrence. To this, however, I shall allude more particularly when commenting upon the cases themselves. I will now proceed to describe the different steps of the operation which was adopted in all the cases I now place before you. There are three methods of operating:

1. Removing the uterus and its appendages, ligaturing the broad ligaments in segments.
2. Removing the uterus by applying clamps to the broad ligaments.
3. Removing the diseased organ by the combined abdominal and vaginal method.

Preparation.—The preparation of the patient for operation is the same in all, and success or failure depends very greatly upon this.

Vagina.—The patient should be kept perfectly quiet for three or four days or a week in bed. The vagina must be syringed out twice or three times a day with some antiseptic solution. I prefer either corrosive sublimate solution (1 in 3,000) or solution of carbolic acid (1 in 40 or 60). These injections should be made through a Ferguson's speculum, and, if there is much ulceration, the parts should be thoroughly dried with wool on uterine forceps and dusted with iodoform: then some iodoform gauze or a tampon should be applied lightly to the os and the vagina and left *in situ* until the next douching. If this is done thoroughly the most offensive cases are found to be fairly free from bad odour when they come on to the table for operation.

Bowels.—The bowels should be thoroughly cleared out three or four days before operation by means of a good dose of calomel, followed in the morning by some Glauber's salts in hot water. The salts should be taken every morning for the three days previous to operating, and on the morning of operation a large enema should be administered; by this means the bowel and rectum are thoroughly cleared.

Diet.—The diet for the week before should be light but nourishing: strong beef-tea, milk and soda water, eggs whipped up in tea or, if the patient is very low, in brandy. A little boiled white fish may be allowed once a day, and farinaceous food. By adopting this method of preparation the patient is placed in the very best condition for operation. The vagina is made as aseptic as it is possible; the uterus, from the patient being in the recumbent position, is relieved of much congestion; the bowels are emptied, and at the same time the patient's strength and general condition is improved.

Method of Performing the Operation.—The patient being placed on the table, is to be thoroughly anæsthetised and then put into the lithotomy position by means of Clover's crutch, two Sims's specula are placed into the vagina which must be thoroughly douched out with carbolic acid solution (1 in 40). With a sharp hook the anterior lip of the os is caught and the uterus drawn down, the upper speculum is removed and the os seized by two pairs of vulsellum forceps, one pair securing the upper lip and the other the lower.

If the uterus can be drawn down between the vulva readily the lower speculum may be withdrawn. A sound is next passed into the bladder and its relations to the uterus defined, then, with a pair of strong scissors bent on the flat, the mucous membrane around the os is divided, being careful to keep as wide of the disease as it is possible. The next step is to separate the bladder and ureters from the uterus, and this is done entirely by means of the two index fingers, and here care must be taken to free the bladder thoroughly laterally, as by this procedure the ureters are pushed forward out of the way. The utero-vesical fold of peritoneum will now be readily recognised; this should be opened and the index fingers introduced and the membrane torn across from side to side. The next step is to open up Douglas's pouch behind—the uterus is now free before and behind. The surgeon next passes the forefinger of his left hand into the peritoneal cavity in front, and the thumb behind when he will recognise the uterine arteries. The uterus being now drawn well down, and a few nicks made

with scissors on each side of the vaginal portion of the ligament, the uterine arteries can be readily ligatured by passing this broad ligament needle on the flat over the uterus in



front, then the point, being felt just above the arteries, is depressed and forced through the broad ligament, the point being brought into the vagina through the posterior opening in Douglas's pouch. This is threaded with a double ligature of No. 4 Chinese silk or catgut and withdrawn; one ligature is tied tightly, securing the uterine arteries, care being taken to tie it a sufficient distance from the uterus to allow of its being secure: a pair of pressure forceps is applied between the ligature and the uterus, and the tissues divided with scissors. The same manœuvre is now carried out on the other side. The uterus will now be found to be quite freely movable, and it usually is an easy matter in those cases in which the uterus is not enlarged and the vagina is fairly roomy to either antevert or retrovert the organ. The vulsellum forceps can now be removed. The uterus being turned over so that the fundus is in the vagina, the ovaries and tubes are readily brought into view and ligatures applied to the broad ligament from above downwards. I prefer transfixing the ligament with a silk or catgut ligature and catching the loose ligature already passed in the needle, and tying in two segments; before finally dividing the ligament it is advisable to catch it with pressure forceps in case the ligature should not be quite taut. All the ligatures are left long and brought out through the vagina.

The uterus being removed and all bleeding arrested the cavity is flushed out with a solution of boric acid; occasionally some hæmorrhage will be still going on; this is usually from the posterior vaginal artery, and will be readily seen by pulling down the posterior vaginal flap. The anterior and posterior flaps of the peritoneum are seized with pressure forceps, two pairs on each flap, and drawn well down; if there is much oozing a short glass drainage tube is inserted into the peritoneum between the flaps, and the vagina firmly packed with long strips of iodoform gauze. Finally a winged catheter is placed into the bladder and a morphine suppository into the rectum, and the patient is returned to bed. If all goes well the gauze plugs need not be removed until the third or fourth day. I generally, however, remove them on the second day.

This then is the plan of operation which I have adopted in 26 of these cases; in two, however, the uterus was so large that I could not remove it in its entirety through the vagina; in these cases it has been recommended to divide the uterus in halves, or to remove it in pieces. This method does not commend itself to me: in the first place you may have some very troublesome hæmorrhage which it would be difficult to control, and moreover there would be a great deal of bruising and tearing of the parts, which may be a fruitful source of septicæmia afterwards. I much prefer doing the combined abdominal and vaginal operation.

The Combined Operation.—The primary steps of this operation are precisely the same as those described for the vaginal method—namely, the patient is placed in the lithotomy position, and the uterus freed and the uterine arteries secured *per vaginam*: then the patient being still retained in the same position and the surgeon standing between the legs, the abdomen is opened in the middle line above the pubes; the fundus of the uterus is then seized and drawn up through the abdominal opening, and the broad ligaments tied from above downwards, care being taken that the lower ligatures are passed so as to include that portion of the ligament which has not been tied when the uterine arteries were secured. By keeping the patient in the lithotomy position the operation is made more easy, as the abdominal parietes are relaxed, and the operator has complete control of both the the vaginal and parietal openings.

Clamping.—With respect to the operation of clamping the broad ligaments I have never had a case in which I could not remove the uterus by ligature, and I certainly much prefer the ligature to the clamp. It is true I have had some cases in which I have had great difficulty in removing it by ligature, and for that reason I have had these clamp forceps made by Messrs. Weiss. As in cases in which the patient may be very low and exhausted by frequent hæmorrhage before the operation no doubt it is of importance to adopt the method whereby the diseased organ can be removed most quickly, and no doubt by the use of the clamp this very desirable object may be obtained.

After-Treatment. — With respect to the after-treatment the greatest care and attention are required, as it is by attention to this that so much of our success depends. As I have said I usually remove the gauze packing from the vagina by means of Marion Sims's screw on the second day. I do this especially if the patient has had much anæsthetic vomiting, as if such should be the case there is always a fear of a knuckle of intestine or a portion of omentum being forced through the wound in the roof of the vagina. If such an accident should occur, by removing the packing on the second day it is readily seen and can be easily returned, as the adhesions by that time are not so very firm.

A full-sized Ferguson's speculum should be always used so as to obtain a good view of the seat of operation, the parts should be thoroughly douched with warm iodine and water, and then dried with cotton wool. Iodoform should be freely dusted over the parts, and a long strip of iodoform gauze introduced; this treatment should be repeated every day until the fifth day, when it will be usually found that there is more free suppuration: it will be necessary then to douche the vagina twice a day.

In the first twelve hours after the operation the patient should have nothing by the mouth but sips of hot water; after this a teaspoonful of Brand's essence of beef or weak milk and lime water may be given. On the third day the bowels should be opened by means of a dose of sodæ sulphas in a tumbler of hot water or 5 grains of calomel, and if this does not act a good enema should be administered.

I am in the habit of conducting the catheter, which is retained in the bladder, into a receptacle containing an antiseptic solution, which is placed between the patient's legs. An ordinary china male urinal is a very convenient vessel for this purpose. At the end of the third day the patient is usually able to pass water voluntarily, and then the catheter is removed. By the end of a fortnight most of the ligatures will be able to be removed. In some instances, however, if silk is used it will be somewhat longer before they separate.

The majority of the cases I am describing were up in less than three weeks, and had been discharged convalescent within the month.

As all the cases I am about to relate to you were operated upon and treated by the method I have described, it will not be necessary, excepting in one or two instances, to refer further to them. For the notes of the cases which occurred in the hospital I have to thank my house-surgeon (Mr. West), who has always taken a most lively interest in them; and I would like now to thank all those gentlemen who have so kindly sent me cases, and also my colleagues and others who have rendered me most valuable assistance.

It will not be necessary to occupy your time and patience by reading all the notes of the 30 cases. I will, however, read the notes of some of them. Nos. I, II, III, V, VIII, IX, XIII, XV, XVI, XVII, XVIII, XX, XXII, XXIII, XXVI, XXVII, XXVIII, XXIX, and XXX, the two last being cases of fibroid, are all free from any recurrence and in good health. Of these I propose reading short notes of Nos. XVII, XX, XXIII, which are typical cases.

Nos. XXIV and XXVII are two cases illustrating the combined method, and, as these exhibit some points of interest, I shall read their notes.

Nos. XII and XIV died from secondary growths in other organs, and are of interest; as also Nos. XI and XXV—the two cases which died from the effects of the operation.

CASE VII.—C. J. E., aged 42, has been a widow for the last six years; no children; admitted into the Cancer Hospital, June 24th, 1893, under my care, suffering from uterine carcinoma: sent by Dr. Pedler.

History.—Patient had been always regular every month until two years and a-half ago, when she lost a good deal of blood and clots *per vaginam*, and had much pain; has lost much strength and flesh. Dr. Heywood

Smith, three weeks ago, dilated the os and curetted the uterine cavity: the scrapings were examined microscopically by Dr. Bousfield, who pronounced the growth to be an encephaloid carcinoma.

Present Condition.—Patient is an anæmic, poorly-nourished woman: the cervix uteri is normal, but the body of the uterus is enlarged to about the size of a large orange; feels hardish and globular, freely movable: the left broad ligament is thicker than normal.

July 1st, 1893. Vaginal hysterectomy was performed. The vagina was very small, and the uterus being enlarged it was difficult to remove; it not being possible to antevert or retrovert, it was pulled straight down; the broad ligaments each side were tied with silk, one ovaries were not removed. The uterus was much enlarged, about the size of a small cocoa-nut; on section, the uterine walls were considerably thickened: a whitish, somewhat hard growth was seen surrounding the uterine cavity, soft matter, looking like brain substance, occupying the place of the mucous lining of uterus. Patient made a good recovery. The disease recurred in a few months, and she died about nine months after operation.

CASE XI.—Mrs. H., aged 35, married, two children, was sent to me by Dr. Cullingworth in July, 1893. Patient had had discharge for eighteen months and bleeding from time to time, suffering great pain at bottom of back.

Present Condition.—A large ulcerated surface occupies position of os extending to vaginal roof; bleeds on examination; badly-smelling discharge; uterus movable, but the disease appeared to have infiltrated the cellular tissue around cervix.

Microscopic Examination.—Sarcoma.

On July 17th I performed vaginal hysterectomy. Patient did very well for first two days; then symptoms of septic peritonitis set in, and she died on the fifth day.

CASE XII.—Mrs. S., aged 52, married, three children. Menopause about five years ago, sent me by Mrs. Garrett Anderson, who saw her in July, 1893. She had been suffering from discharge for some months, and had recently a good deal of hæmorrhage. Mrs. Garrett Anderson dilated the os and removed a small piece of growth with the curette, which microscopic examination proved to be malignant. I performed vaginal hysterectomy on July 5th. The patient made an excellent recovery.

This patient came to see me in April, 1894, suffering from intestinal obstruction and stercoraceous vomiting. She had a hard nodule situated apparently on the ascending colon. As the symptoms were urgent I advised immediate abdominal section. On opening the abdomen the nodule referred to was evidently malignant; there was a second growth also found at the junction of the descending colon and the sigmoid flexure. I fastened the cæcum to the abdominal wound and opened it the next morning. The patient sank, however, from exhaustion. No recurrence of disease locally.

CASE XIV.—E. D., aged 57, admitted into the Cancer Hospital, August 1st, 1893, under my care, suffering from uterine carcinoma; sent by Dr. Heywood Smith and Dr. Hunter.

History.—Patient is married and has had four children and three miscarriages; the last pregnancy was fifteen years ago. Patient has had vaginal discharge for the last year; for the last six months patient has noticed blood occasionally in the dis harge; for the last fortnight discharge has become more watery and offensive; has lost much flesh, and has had much pain in the lower part of abdomen and back latterly.

Present Condition.—Healthy-looking and well-nourished woman. In the situation of external os is an ulcer admitting the tip of the forefinger; uterus freely movable; examination causes some bleeding. The walls of ulcer are formed by hard tissue.

August 5th, 1893, vaginal hysterectomy was performed. Patient recovered without a bad symptom, and was discharged, September 9th, without any pain or discharge; wound quite healed; patient has gained 8 lbs. in weight during her stay in the hospital.

In November patient consulted me again suffering from violent vomiting. On examination, stomach was found much dilated, and a distinct tumour the size of a small apple could be felt at the situation of the pylorus. The vaginal roof was quite healthy and no growth could be felt in the pelvis. The patient gradually sank. A *post mortem* examination was declined, but presumably she died of carcinoma of the pylorus or enlarged glands pressing on the pylorus.

CASE XVII.—M. J., aged 33, was admitted into the Cancer Hospital in October, 1893, suffering from sarcoma of the uterus, under my care. Patient has been married eleven years, has had two children and two miscarriages; the last pregnancy was three years ago, which terminated in a miscarriage, the patient being then five months pregnant; sent to me by Dr. Barbour.

Present Condition.—Patient is losing blood from uterus in considerable quantity. *Per vaginam* the cervix is enlarged—no ulceration or erosion visible per speculum. Blood is seen coming from external os. Bimanually the uterus feels enlarged to about the size of a small cocoa-nut freely movable; the sound passes 3½ inches.

October 10th. Patient was placed under the influence of ether, and the cervical canal was dilated up with Hegar's dilators to number 24. The finger was introduced into the uterine cavity; the mucous membrane felt roughened in places and very hard; a small polypus about the size of a filbert nut was felt at the fundus uteri. The interior of uterus was then scraped with a curette, and the uterus was washed out. A microscopic examination of scraping proved the growth to be a round-cell sarcoma. October 13th. As a result of the microscopical examination patient was strongly advised to have hysterectomy performed, to which she consented. On October 13th the uterus was removed through the vagina. The uterus appeared more globular in shape than normal, and about the size of a two months' pregnancy, the peritoneal coat appearing normal; on section the walls of the uterus were considerably thickened. Patient made an excellent convalescence, and is still free from any recurrence.

CASE XIX.—A. G., aged 52; admitted on December 11th, 1893, into the Cancer Hospital suffering from cancer of the body of the uterus under my care.

History.—Had one child thirty years ago. For the past three years has had a blood-stained discharge, and has had several rather severe losses of blood during this period.

In November, 1893, patient was under the care of Dr. Heywood Smith. She was then anæsthetised, and the uterus was explored, and some growth removed for microscopical examination, which subsequently proved to be cancerous.

Past History.—Patient had her breast amputated six years ago at St. George's Hospital by Mr. Pickering Pick; very extensive scar now present; no recurrence of disease.

Present Condition.—Fairly well-nourished woman. On vaginal examination the os is hard with everted lips; blood-stained and very offensive discharge seen issuing from external os through a Ferguson's speculum. On bimanual examination the uterus feels slightly enlarged though freely movable; sound not passed.

December 12th, 1894. Vaginal hysterectomy performed. Patient made an excellent recovery, and on January 13th was discharged convalescent. The disease recurred in six months after operation.

CASE XX.—P. St. J., aged 44; admitted on January 4th, 1894, into the Cancer Hospital, suffering from cancer of the uterus, under my care. Complains of great pain in the lower part of the abdomen. *Per vaginam* the cervix feels hard and os thickened and eroded. Body of uterus feels enlarged. Some bosses felt on the posterior surface of uterus; sound passes 3¾ inches; some foul vaginal discharge.

January 9th, 1894. Under ether vaginal hysterectomy performed, both ovaries and tubes also removed. February 4th Patient discharged, wound quite healed. No recurrence at present time. Microscopic examination, adeno sarcoma. January, 1895, patient quite well.

CASE XXIII.—E. C., aged 44, admitted into the Cancer Hospital on February 19th, 1894, under my care, suffering from epithelioma of the vulva and carcinoma of the cervix uteri. No family history of cancer. Patient has been married twenty-three years; has had thirteen children; no miscarriages; the last child 4½ years ago; has had vaginal discharge for the last six months, which latterly has become more watery and offensive. Patient first noticed growth of vulva about six months back, which has been growing steadily since; has lost much flesh and strength latterly; has suffered very little pain. Sent to me by Dr. Sunderland.

Present Condition.—Fairly well-nourished woman. In the left labium majus is a growth about the size of a hen's egg; the growth has ulcerated, and has hard, everted, and sinuous edges.

Per Vaginam.—In the situation of external os is an ulcerated cavity admitting the tip of the finger; the walls of cavity are formed by hard tissue; the uterus is freely movable, and the vagina is free from disease.

Operation.—February 27th. The growth from the vulva was first freely excised, a vaginal hysterectomy was then performed. Patient made an excellent recovery, and was discharged March 21st free from recurrence. Remains well up to present time.

CASE XXV.—E. B., aged 31, married, six children, youngest 2 years. Admitted on March 8th, 1894, into the Cancer Hospital under my care suffering from cancer of the uterus.

Family History.—Uncle on father's side had cancer of stomach.

History.—Has had foul vaginal discharge since November, 1893, has had pain in lower part of abdomen for the last month, a large cauliflower growth of cervix. Uterus freely movable, vaginal walls not affected with disease. March 13th. Vaginal hysterectomy performed. The uterus was easily pulled down with vulsella—uterine arteries tied with silk, the cut edges of peritoneum were pulled down with forceps, glass drainage tube used and vagina packed around tube with iodoform gauze. March 14th. Glass drainage tube removed. March 15th. Iodoform gauze removed. March 17th. Patient very sick and somewhat collapsed.; bowels not open since operation; ordered 5ss of soda sulphas in hot water. March 18th. Bowels still not open, vomiting more severe, some abdominal distension, no tenderness; ordered an enema. March 19th. Patient getting worse, vomiting and abdominal distension more severe, vomiting not fæcal. Abdominal section performed; a portion of small intestines was discovered strangulated by a piece of adherent omentum, the gut was released and the omentum was ligatured in two or three places and cut off. The peritoneal cavity was washed out with salt solution. March 20th. Patient died from shock, no peritonitis at *post-mortem* examination.

CASE XXVII.—F. R., aged 57, married, three children. Dr. Walker asked me to see this patient with him, in April, 1894. Patient always enjoyed good health until four years ago, when she had some violent hæmorrhage, and she felt a tumour in her abdomen. She consulted a specialist for this and a fibroid sloughed from the uterus; from that time until a few months ago she kept fairly well, when she noticed a discharge, and she experienced a good deal of pain in getting about.

Present State.—There is a well marked tumour, readily felt, deeply situated in the pelvis. The parietes are flaccid, and admit of ready examination. The os feels healthy, no erosion or ulceration; uterus readily movable. The growth is evidently in the body of the uterus; there is a sanious badly smelling discharge from os; sound passes 4 inches. Combined vaginal and abdominal hysterectomy performed on April 19th. The combined operation was necessitated from the size of the growth. The patient made an excellent recovery, and is now able to get about well.

Microscopic Examination.—Sarcoma.

CASE XXIX.—H. K., aged 54, was admitted to the Cancer Hospital under my care on July 8th, 1893, suffering from a large fibromyoma of the uterus. Patient is married and has eight children; the last child was born twelve years ago.

History of Illness.—Patient has had swelling of abdomen and constant attacks of hæmorrhage from the vagina for the last twelve or thirteen years. The attacks of hæmorrhage latterly have become much more frequent and more severe, and are seriously undermining patient's health.

Present Condition.—Patient is a fairly well nourished woman of average height, markedly anæmic. There is a rounded tumour felt in the lower part of abdomen rising out of the pelvis about the size of a fœtal head; the tumour feels as though it were solid, is centrally situated, and feels smooth on the surface. On bimanual examination the tumour is clearly the enlarged uterus; the uterine sound was not passed.

Operation.—July 13th, 1893. Under ether an incision was made in the middle line of abdomen, about 7 inches long and commencing just below

the umbilicus. The peritoneal cavity was opened along the whole length of incision in the usual way. The tumour then appeared in the wound about the size of a foetal head, and evidently the uterus enlarged by a fibroid growth in its walls. The broad ligaments were securely tied on each side with silk, using an aneurysm needle. Small anterior and posterior flaps were then dissected from the tumour. With scissors the uterus was then snipped in the direction of the vaginal fornices; when the uterine arteries were reached they were tied with silk in two places and divided between. An assistant holding a Ferguson's speculum in vagina, the vaginal fornices were then cut through from above, and the whole uterus, body and cervix, was removed *en masse*. The bleeding points in the stump were tied with catgut, and the ligatures left long were drawn through the hole left in the roof of vagina. The two flaps had silk ligatures passed through them from without inwards, so that the ends of ligatures passed from the raw surface over peritoneal surface; they were not tied, but were pulled taut through the roof of vagina, so as to turn in the two peritoneal surfaces of the flaps. The vagina was then packed with iodoform gauze; a winged catheter was left in the bladder. The operation lasted about an hour and a-half. The growth was chiefly in the anterior wall of the uterus. Patient made a good recovery, and was discharged on August 1st quite well.]

Thirty Cases of Vaginal Hysterectomy—Two Deaths from Operation.

Number.	Name.	Age	Married.	Single.	Children.	Date.	Result.	Disease.	Remarks.
1	M. E.	53	M	—	6	July, 1892	Successful	—	Free from recurrence.
2	A. C.	37	M	—	0	March, ,,	,,	—	,, ,,
3	W. C. S.	46	M	—	5	July, ,,	,,	—	,, ,,
4	L. P.	57	M	—	2	Oct., ,,	,,	—	,, ,,
5	F. B.	38	M	—	4	Jan., 1893	,,	—	Recurrence, ,, May, 1894.
6	A. K.	36	M	—	0	May, ,,	,,	—	Ureter divided. Died, two months.
7	C. I. E.	42	M	—	0	July, ,,	,,	—	Free from recurrence.
8	F. S.	52	M	—	3	,, ,,	,,	—	,, ,,
9	H. D.	56	M	—	6	Feb., ,,	,,	—	,, ,,
10	S. J.	55	—	S	0	July, ,,	,,	—	Recurrence in three months.
11	M. H.	35	M	—	2	,, ,,	Died	—	Died on fifth day. Peritonitis.
12	M. S.	52	M	—	3	,, ,,	Successful	—	No local recurrence.
13	E. A.	32	M	—	5	Aug., ,,	,,	—	Recurrence in eight months.
14	E. D.	57	M	—	4	,, ,,	,,	—	Secondary growth, five months.
15	M. I.	41	M	—	2	,, ,,	,,	—	Free from recurrence.
16	C. L.	45	M	—	0	Sept., ,,	,,	—	,, ,,
17	M. J.	33	M	—	2	Oct., ,,	,,	—	,, ,,
18	A. S.	47	M	—	3	Dec., ,,	,,	—	,, ,,
19	A. G.	52	M	—	1	,, ,,	,,	—	Recurrence in six months.
20	F. S.	44	M	—	2	Jan., 1894	,,	—	Free from recurrence.
21	A. M.	31	M	—	4	,, ,,	,,	—	Recurrence in six months.
22	F. J. C.	62	—	S	0	Feb., ,,	,,	—	Free from recurrence.
23	E. C.	44	M	—	13	,, ,,	,,	—	,, ,,
24	L. M.	47	—	S	0	March, ,,	,,	—	Recurrence in four months.
25	E. B.	31	M	—	6	,, ,,	Died	—	Died. Intestinal obstruction.
26	S. M.	54	M	—	10	April, ,,	Successful	—	Free from recurrence.
27	F. R.	57	M	—	3	,, ,,	,,	—	Combined operation
28	S. L.	56	M	—	3	,, ,,	,,	—	,, ,,
29	H. K.	54	M	—	8	July, 1893	,,	Fibroid	Quite well. Combined operation.
30	K. F.	45	M	—	0	Jan., 1894	,,	—	,, ,,

Results.

Free from recurrence over 2 years			3
,, ,, ,, 1 year, 9 months			1
,, ,, ,, 1 ,, 5 ,, ...			1
,, ,, ,, 1 ,, 9 ,, ...			1
,, ,, ,, 9 ,, ...			6
,, ,, ,, 3 months and under 6 months			5
			17
Recurred under 6 months...			5
,, ,, 9 months			1
,, ,, 1 year 5 months			1
			7
Secondary growths			2
Died from operation			2
			28

REMARKS.

The results conclusively prove two points—namely, that vaginal hysterectomy, *per se*, is not a hazardous operation, and in cases of malignant disease of the organ, when seen early, good results may be anticipated.

In discussing these cases it appears to me we should confine ourselves: (1) To the form of the disease in which the operation should be advised; (2) the method of performing the operation.

In reference to the first question, I think these 30 cases are very instructive. Five cases had a recurrence of the disease *in situ* within six months, and died within the year. These cases, therefore, may be said to have derived no benefit from the operation, and therefore were not suitable cases for operative measures. I think, therefore, we might summarise the question by stating that those cases only are fit for operation in which the disease is recognised early, is limited to the uterus, and in which the cellular tissue around the cervix and the broad ligaments are free from infiltration; the uterus being freely movable.

With regard to the second question, the method of performing the operation, there are, I think, several questions which are of great importance to discuss, and I will arrange them under the following heads:

1. Should the broad ligaments be secured by ligation or clamp?
2. Should the peritoneal flaps be stitched together or not?
3. Should the peritoneum be stitched to the mucous membrane of the vagina?
4. Should the peritoneum be drained after the operation? If so, what is the best form of drainage?
5. Should the peritoneum be flushed out before finally packing the vagina?
6. What are the chief dangers connected with the operation, and how can they be best avoided?
7. In cases in which the disease implicates the vaginal portion of the uterus and is very offensive, should this be excised before the uterus is removed?

1. *Should the Broad Ligament be Secured by Ligature or Clamp?*—Most surgeons on the Continent invariably use the clamp, and this practice is adopted by many American and some English surgeons. Now the advantage of the clamp appears to be more rapid removal of the organ, but as in any ordinary case of vaginal hysterectomy the uterus can be removed and the broad ligaments tied comfortably in from half to three-quarters of an hour, I do not think this argument of any moment.

Granted in some cases in which the uterus is large and difficult to pull down, in such undoubtedly the clamp applied to the broad ligament on each side may considerably facilitate matters. But are such cases favourable ones for performing the operation at all? Now the arguments against the use of the clamp are, in my opinion, numerous and strong. First the ends of the clamps must project into the peritoneal cavity, and so keep up a communication between this and the vagina. I am answered Yes, but this constitutes good drainage, and these clamps are removed on the second day, but surely the tissues which have been compressed by these clamps must necrose, and so, until the necrosed parts become detached, there must always be danger of septic mischief.

Moreover, it has been proved beyond dispute by statistics from America and the Continent that intestinal obstruction is much more frequent after the use of the clamp than after the use of ligature. Then, again, the risk of catching one if not both the ureters in the clamp is by no means mythical: it has happened over and over again. Many surgeons who formerly used the clamp have now abandoned it, as they found not infrequently that on removal of the instrument hæmorrhage occurred. Then lastly, but by no means to my mind the least objection to their use is the weight and general discomfort caused to the patient by the retention of the clamps in the vagina for two or three days,

I consider, then, the evidence is strongly in favour of the use of the ligature; and here a question may arise, Should the ligature be of silk or catgut? There is no doubt there are many strong arguments in favour of the latter, as the ligatures may be cut short at once, and the surgeon need not trouble his head further about them: whereas silk must be left long, and in some cases they do not come away for some considerable time: but personally I always use these for the

uterine arteries, but for the ovarian and rest of the broad ligaments I often use catgut.

2. *Should the Peritoneal Flaps be Stitched Together or not?*—I have never been in the habit of doing so, although in some instances, if they are long, I have passed one suture through and drawn the flaps well down while packing the vagina. I think not only is this stitching of the flaps together unnecessary but harmful, as, in those cases in which the peritoneum must have come into contact with the diseased part of the uterus, some septic matter must have contaminated the peritoneum, and, by closing the exit, the risk of septic peritonitis is much increased. I think it, however, very important to draw these flaps well down into the vagina so as to allow of a free discharge from the peritoneum. I always do this by the means I have described of catching the two flaps with pressure forceps and packing around them with iodoform gauze.

3. *Should the Peritoneum be Stitched to the Mucous Membrane?*—I consider this absolutely unnecessary and a waste of time.

4. *Should the Peritoneal Cavity be Drained?*—This is a question which no doubt there will be some difference of opinion about. I think, however, if there has been much difficulty in withdrawing the uterus or there has been much oozing it is safer to introduce a glass drainage tube. I am quite sure I have seen trouble from want of attention to this point. Some surgeons are contented with introducing a piece of gauze. The great risk in drainage is when it is withdrawn: after forty-eight hours I have seen the omentum adherent to the tube or gauze and drawn out between the flaps.

5. *Should the Peritoneum be Flushed Out before Packing?*—This I am sure is a useful thing to do, as often clots of blood collect in the peritoneum, and any septic discharge is thus washed away.

6. The chief dangers after the operation are sepsis, hæmorrhage, injury to the ureters, vesico- and recto-vaginal fistula. Sepsis may usually be avoided by strict attention to cleanliness and care in sterilising all instruments, ligatures, etc. Hæmorrhage after ligatures is of very rare occurrence, and is only to be anticipated in cases in which the ligaments are very thick and not easily compressed by the ligature. Injury to the ureters is rare, if care is taken, in separating the bladder from the ureters, to go widely on both sides so as to lift the ureters well out of the way, and when applying the ligature to introduce the needle from before backwards; by adopting this procedure the needle passes under the ureter and between it and the artery. Vesico-vaginal fistula should never occur if care is taken in pushing the bladder away from the uterus. Recto-vaginal fistula may occur in old virgin vaginæ in which the vagina is very narrow and it is necessary to divide the perineum. This is best avoided by dividing the perineum on one side so as to keep by the side of the rectum.

7. No doubt in some cases of extensive cauliflower growth of the os there is less risk of sepsis if the diseased portion is removed, and the parts thoroughly disinfected before the peritoneum is opened.

Should the Ovaries and Tubes be Removed?—In the majority of cases in women who have passed the climacteric, I should certainly say No, but in younger women, if the ovaries present into the wound I do not think the risk to the patient is increased by their removal. I have but little doubt, however, that they become atrophied in a very short while after the uterus is removed, and cause no trouble by being retained. Dr. W. Duncan has, however, reported a case in which there were three very sharp attacks of pain that correspond exactly with the menstrual periods, showing indubitable ovulations with circumscribed peritonitis.

I have now a patient from whom I removed this large sarcomatous uterus who suffers periodically in the same way, the mammæ also becoming enlarged and painful, and she also suffers from severe headaches at these times.

I think, gentlemen, I have now exhausted my subject, and it only remains for me to say I have purposely omitted the mention of all authorities on the subject, but have alluded to most of the views entertained by different operators; my reason for doing is to curtail the length of my paper as much as possible.

Dr. W. J. SMYLY had used most methods of vaginal hysterectomy, but he now gave the preference to the method of M. Doyen of Rheims. In two cases where malignant disease was complicated by myoma, he had extirpated the uterus by the combined method, but would now prefer to do so *per vaginam* with *morcellement*, and this method was applicable to all tumours which did not reach above the umbilicus. The fear of hæmorrhage was not justified in practice.

Dr. E. T. DAVIS said they were indebted to Mr. Jessett for bringing forward this interesting series of cases. In most cases operated on for carcinoma unfortunately there was a recurrence of the disease, and the point to know was when to operate and when not to operate from the point of view of recurrence. His experience had been entirely in the use of clamps, which were universally used in the hospital with which he was connected, and almost invariably with successful results. In many cases, however, he feared there was a return of the disease. The clamps acted as efficient drainage, and were removed in thirty-six or forty-eight hours. The peritoneum was not stitched or bothered about. No douching was ever used after the operation. He thought the appendages had better be removed if possible, for in some cases he had seen them sink down between the peritoneal flaps.

Dr. HEYWOOD SMITH thought in vaginal hysterectomy in cases of malignant disease of the cervix there was some risk in inverting the uterus, and so drawing up the diseased portion into the peritoneal cavity. It was easy to talk about pulling down the uterus; such might be comparatively easy in multiparous women, but in many cases of narrow vagina and short broad ligament it was next to impossible to draw down the uterus sufficiently to pass ligatures round the broad ligament. In these cases, then, the use of the clamp was called for, but in the construction of these instruments care should be taken while making the points to close earlier than the heel, yet that they should close also completely and firmly at the heel, as otherwise the uterine artery might slip, which it did in one of his cases, and had to be separately tied. Then as to the question of the retention or otherwise of the ovaries. After alluding to the function of these organs, he said that in cases where the uterus could not be well drawn down, it was easier, and lessened the duration of the operation to pass the clamp close to the uterus. When the clamps were used, they should be kept on at least forty-eight hours, better sixty. Then with regard to the catheter, he considered that in all operations on the female pelvis it was advisable to use the catheter as little as possible, so as to lessen the risk of cystitis.

Dr. AUST-LAWRENCE hoped that this paper and discussion would draw attention to two facts (1) that cancer of the uterus at an early stage was purely a local disease; (2) that an early removal of the entire organ should be practised in all cases if possible.

Mr. CHRISTOPHER MARTIN (Birmingham) asked Mr. Jessett if in the two cases of myoma where vaginal hysterectomy was performed it would not have been better to have removed the uterine appendages. It was only possible to remove the uterus *per vaginam* where the myoma was comparatively small one, and in such cases the removal of the appendages was a very easy and safe operation, and should be considered the operation of election.

Dr. SCHARLIEB said: From my small experience, namely, 10 cases only with 2 deaths, I prefer ligatures to clamps; the latter seem to delay convalescence, and later cases have all done well with the ligature. Ligature should be outside the appendages if possible because they may be diseased; in the eighth case the right ovary was a mass of sarcoma the size of a duck's egg.

Mr. F. BOWREMAN JESSETT thanked the members for the manner in which the paper had been received and for the criticisms which had been made upon it, which he was sure would prove of great service and interest. Mr. Jessett had not employed Matthews Duncan's operation and had not seen it performed; perhaps it was because he had been quite satisfied with the use of the ligatures. Neither had he any experience of removing the uterus by *morcellement*, but he could not conceive but that septic mischief would be more likely to follow than by the combined operations. In regard to Dr. Heywood Smith's fear of soiling the peritoneum by

retroverting the uterus, he thought this would be overcome by flushing. He quite agreed if the disease had extended into the cellular tissue, round the cervix, or into the broad ligaments, the disease had better be left alone, or else removed by curetting or caustics. He would impress upon the profession the necessity of careful examination whenever a woman was 50 years of age, or, after the menopause, had hæmorrhage. With regard to Dr. Martin's question, Mr. Jessett pointed out that in one case of fibroid the patient was 54 and past the menopause, and the other case was one of impacted fibroid with retroflexed uterus, in which the patient complained of intestinal pain. In neither of these cases, therefore, would the removal of the appendages have done any good.

AN ACCOUNT OF FOUR CASES IN WHICH SEPARATION OF THE AFTER-COMING HEAD HAD OCCURRED DURING DELIVERY AND OF THE MEANS USED TO EXTRACT THE HEAD.

By C. E. PURSLOW, M.D.Lond., M.R.C.P.Lond.,
Honorary Obstetric Officer, Queen's Hospital; Demonstrator of Midwifery and Gynæcology Mason College, Birmingham; and Honorary Medical Officer Birmingham Lying-in Charity.

I WILL in the first place briefly narrate the cases, leaving any conclusions to be drawn from them until afterwards. In the first three the delivery was premature, and in all there were no signs of life in the fœtus before the accident occurred.

CASE I occurred in my own practice. Patient, aged 34, nine previous labours, the last four children born prematurely and dead, having to be extracted under chloroform. Seen December 8th, 1889, os then admitted one finger, membranes were ruptured, no pain, no hæmorrhage. December 10th, feet presenting through os, patient very exhausted. Chloroform administered by my then house-surgeon, Mr. Horton, and by gentle traction the body was delivered and the neck of the fœtus was then felt to be tightly grasped by the cervix. Although traction was gentle the neck gave way and the head remained *in utero*. I attempted to hook it through the os with the finger but could not succeed. I had with me no instrument suitable for its removal, but after some difficulty I managed to push the finger through the vault of the skull and so removed it. The placenta was firmly attached to uterine wall and had to be scraped away with the finger. Patient made a good recovery.

CASE II occurred in the Queen's Hospital and was very similar. In this case I removed the head by grasping it with vulsellum forceps. This case also made a good recovery.

CASE III I saw in consultation with Mr. Oakes, of Birmingham. The patient had had two previous children, and was five months pregnant. She had been losing constantly, in spite of treatment, for eight weeks. The induction of labour was decided upon, and with that view a laminaria tent was introduced; twelve hours later this was withdrawn, and as the index finger could then be passed into the cervix, chloroform was administered and dilatation continued by means of the fingers. When sufficient dilatation had been obtained, a foot was seized and brought down and the body of the child gradually extracted. The extraction was continued until the neck was firmly gripped by the edge of the cervix, and then, in spite of the efforts used being very gentle, the neck gave way. A pair of Heywood Smith's ovum forceps was then guided up to the head by the finger and the head seized, but at the first grasp the facial bones only came away; at the second attempt, however, the rest of the head was extracted whole. The uterus was washed out with hot iodine water and the patient made a good recovery.

I may here remark that it is, in my opinion, a wise proceeding in every case in which intrauterine operation of any kind has been required to subsequently wash out the uterus, taking care that there is free reflux escape: and, that may be done with hot iodine water. ℥j of tincture of iodine to one pint of water at a temperature of 120° F.

CASE IV was seen with Dr. Tighe, of Birmingham. Patient had had several children, the last three being born dead. She was taken in labour on November 1st, 1893, at full term, and when seen by Dr. Tighe the breech was presenting. On the following day at 4 P.M. the breech was born, and in pulling on the body to get down the arms the neck gave way, and the head was left in the uterus. The body of the child was fully developed, but in a state of putrefaction, and having an exceedingly disagreeable smell. I was called by Dr. Tighe four hours later, and in the meantime several attempts had been made to deliver the head by forceps and crotchet. The patient was placed under chloroform, and on passing the hand into the vagina the os was found to have closed somewhat, so that it was with difficulty that the hand could be passed on into the uterus. The head could be felt, and the sharp edges of the cervical vertebræ were directed downwards. On abdominal examination the uterus could be felt to be firmly contracted on the head. After great difficulty and four ineffectual attempts the head was extracted by the cephalotribe (Braxton Hicks). In each of the ineffectual attempts the blades grasped the head behind its middle line, and as soon as traction was attempted they slipped off. There was decided resistance to the entrance of the head into the pelvis. There was also very great difficulty in locking the blades, as when they were in position the lock was 1½ to 2 inches within the vulva. We had no assistance, but Dr. Tighe, who was giving the anæsthetic, made pressure on the abdomen as well as he could. This was, I think, the most exhausting case of any I have ever had to deal with in midwifery practice. The patient made an excellent recovery.

I find, on looking up the subject, that much more attention is paid to it by the earlier writers on midwifery than by those of the present day: thus Smellie, in his works published about 1740, refers at some length to the subject. After describing how the head may be left in the uterus by those who pull with all their strength without knowing that the face should rotate backward, he says: "This may also happen to an expert accoucheur when the child hath been dead some days and the body is much mortified, even though he hath used all the necessary precautions." He gives minute directions as to the means to be used for extracting the detached head, and mentions in order—traction by the finger in the mouth, the use of one or two crotchets to the outer side of the head, pressure on the woman's belly, the grasping of the head by a strong pair of forceps, followed by its perforation: and, lastly, several special instruments which had then been invented for the purpose. These included Levret's "tirette," which from the description given appears to have been an instrument with three blades, which were applied to the head at equal distances from one another; Mauriceau's broad fillet or sling for passing over the head: and Amand's net for the same purpose. Of these two latter Smellie says that it was almost impossible to adjust them so that they would not slip off.

Denman, in his *Midwifery*, published in 1794, dwells at some little length on the subject, and I may be pardoned for quoting from him. He says: "When the head of the child has been left behind the case was considered as frightful and exceedingly difficult to manage ..... It is, however, said that in some instances every attempt to extract the head has been in vain, and the patient has been resigned to her fate; yet even in these cases the action of the uterus has come on, and at length expelled the head, in one case so late as the twentieth day after the accident had happened ..... The degree of distension of the uterus occasioned by the mere head of a child would not, indeed, be so great as to make us apprehend any fatal consequences on that account, and, if the uterus be in a healthy state, a substance of that bulk and kind would be managed, either by common putrefaction, reducing its size and dividing it into portions, or it would by repeated efforts be expelled."

This latter paragraph reveals a sublime disregard of the modern bugbear—septicæmia—and is a line of argument which would hardly recommend itself now to the most virulent opponents of meddlesome midwifery.

Spiegelberg, in his work, does not refer to separation of the head from traction on the body, but, in reference to extraction of the head after decapitation in shoulder presentations, he advises that it should be delivered by traction on the lower jaw with the finger in the mouth. This, I should imagine, would only be of service in cases where very slight tractile power would be sufficient, and in my last case it would have been of no avail, as the jaw would very easily have come off. When that fails he advises the cranioclast, one blade being placed in the mouth, and, last of all, the cephalotryptor. He points out that brain matter will seldom flow out through the foramen magnum, and that perforation may often be required.

Galabin does not refer to the possibility of spontaneous separation of the head, but describes in detail the method of removing the head after decapitation. He points out what seems to be overlooked by those whom I have already quoted, namely, that if the finger or crotchet is hooked into the mouth and the head delivered with the face presenting there is a possibility of injury to the uterus or cervix by the jagged bone at the root of the neck. In cases of contracted pelvis he advises the use of the cephalotribe.

Playfair says, speaking of extraction of the decapitated head: "By abdominal pressure the head in most cases can be pushed down into the pelvis so as to come easily within reach of the cephalotribe, which is by far the best instrument for extraction."

Matthews Duncan made several experiments to determine the amount of force required to separate the head. He found that in a fresh and healthy fœtus at term the force required to decapitate was 120 lbs., that the vertebral column gave way

under a tractile force of 105 lbs. Moreover one leg proved stronger than the neck, hence we may exert on a single leg a stronger pull than is compatible with the integrity of the neck.

I think it will be at once agreed that it would be unjustifiable ever to exert so much force on the body of a live or fresh child at term as would risk separating the head. But in the case of premature children the circumstances are different; in each of the first three cases I have given it was surprising how easily the head separated. The resistance in each of these cases was caused by a rigid cervix, and the fact that the cervix was not torn in any of them proves that the amount of traction applied was not very great. In each of the three cases there was no pulsation to be detected in the cord from the first.

In the fourth case I was not present when the accident occurred, but the rotten condition of the fœtus showed that very little force was required to pull off the head.

As regards prevention, I think that where the fœtus is premature and this accident appears likely to happen, it would be well to seize the head with a suitable pair of forceps (and I know none better for the purpose than Heywood Smith's ovum forceps), while it is still possible to fix the head by the attached body. I am speaking now of cases in which the fœtus is not viable.

In cases such as the last one, where the fœtus is fully developed but decomposed, great care should be exercised in drawing on the body, and, if it is possible the finger, or a crotchet should exert traction on the lower jaw, and so relieve to some extent the strain on the neck.

As regards the treatment after the head has separated: when the fœtus is small and the only resistance met with is at the cervix the extraction is not a matter of much difficulty if a suitable pair of forceps be at hand, but when recourse has to be had to the finger alone it is a somewhat troublesome proceeding. In that case the best way is to endeavour to push the finger through the vault of the skull, and a hold can then be obtained.

I will consider more particularly the method to be adopted in cases such as the last one I recounted, where the fœtus is decomposed and some obstruction is met with at the pelvic brim. In such a case as this I think it is better to at once attempt delivery with the cephalotribe. If an attempt is made to deliver by traction on the jaw the latter will in all probability come off, and in addition the stump of the neck, with probably jagged bone projecting, is turned into such a position as to be likely to seriously injure the walls of the uterus or vagina. This latter objection also applies to the method of bringing down the vertex and perforating, as advised by some of the older writers; and in an equal degree to the method advised by Spiegelberg, namely, to deliver with the cranioclast, one blade being placed in the mouth and the other on the forehead.

The President remarked that cases of the kind related by Dr. Purslow were much more common many years ago. He related a case that occurred to his father, in which an unlicensed practitioner had by sheer traction fallen backwards on the floor with the body of a putrid child in his hands, leaving the head behind. The retention of the head usually occurred in consequence of the face being in front, so that the chin hitched over the pubes, and the practitioner not having sufficient skill to remedy this malposition. In such cases it was much better not to apply the forceps, which were very apt to slip owing to the slippery and compressible state of the decomposed head, but to use the cranioclast as Dr. Purslow suggested.

Dr. Boxall considered that where difficulty arose, as in the case reported, the advantage of anæsthesia should be borne in mind, as enabling delivery to be effected with the minimum exhibition of force. For the same reason, and in order to obtain the greatest mechanical advantage, he would advise that an endeavour should be made to tilt the head, so that the occiput or face presented in the cervix. Of the two poles of the head he preferred to bring down the face, the mouth offering a convenient purchase for the finger in extracting, and, should that means fail, providing a safe site for perforation through the roof. The subsequent delivery could in such a case be completed by traction with the finger or strong crocodile forceps, and rarely required the use of the cephalotribe.

ON THE PATHOLOGY AND TREATMENT OF PRURITUS AND OTHER HYPERÆSTHETIC CONDITIONS OF THE VULVA AND VAGINA.

By Thomas More Madden, M.D., F.R.C.S.Edin.,

Obstetric Physician and Gynæcologist Mater Misericordiæ Hospital; Consultant and ex-Master National Lying-in-Hospital, Dublin; Consulting Physician to the Children's Hospital, Dublin; Examiner, Conjoint Board, Royal College of Surgeons; and Apothecaries' Hall, Ireland, etc.

Abnormal sensibility of the structures forming or adjoining the external genital orifice, although a symptom common to various diseases, in many cases assumes a distinctive character. In some of these instances this condition may occasion an intensity of mental as well as of physical discomfort, or give rise to difficulties in treatment greater than are met with in any other of those so-called minor ailments that come before us in daily gynæcological practice. Believing, therefore, that this condition is well deserving of special consideration, I have grouped together under the above heading the results of my clinical experience of the most important of the hyperæsthetic condition to which the vulvar area and vaginal passage are particularly liable. In so doing I have, however, omitted any allusion to irritration of the genitalia, arising from causes such as eczema, papular prurigo, scabies, herpes, or other diseases which when thus localised follow the same course and require the same treatment as when elsewhere situated.

Pruritus Vulvæ.—Of the local complaints to which I would now invite attention none come more frequently under observation, or are of greater practical interest than pruritus of the pudendum. The importance of this affection is measurable not merely by the immediate distress it occasions, but also by its possible significance as a symptom of uterine cancer, diabetes, general neuroses, or other constitutional disease, in which cases the local trouble may be so predominant as to overshadow and obscure its true cause. Moreover, even purely locally occasioned pruritus of the external organs of generation is far from being of such trivial consequence as it is sometimes regarded; but, on the contrary, it is oftentimes of the greatest importance, when neglected or injudiciously treated, as a factor in the causation of nymphomania, hysteria, or other cerebro-nervous disorders.

Etiology.—As just observed, in some instances the causes of vulvar pruritus must be sought in constitutional diseases which are obviously beyond the scope of our present consideration. In a far larger number of cases, however, this complaint arises from direct or primarily local irritation, such for instance as that resulting from acrid secretions of the vulvo-vaginal glands, which, when sufficient attention to personal cleanliness is neglected, may accumulate and possibly become the seat of pathogenic micro-organisms. Occasionally also pruritus is traceable to serpiginous erosion, or to neuromata, or to subacute inflammatory diseases of the vulvo-vaginal vaginitis however caused. In many patients, moreover, pruritus is an apparently functional, and most distressing, accompaniment of pregnancy; and in others again it it consequent on the genital hyperæmia that ushers in the catamenial periods or which attends the menopause.

Symptoms.—From whichever of these causes it may arise, genital pruritus generally commences by a persistent vulvar tingling or irritation, which speedily becomes developed into a pathognomonic burning itching, presenting paroxysmal exacerbations, increased by warmth or motion, usually most troublesome at night, and invariably aggravated on the approach of the menstrual epoch. So intense is this irritation that, *malgré elle*, the patient is very commonly irresistibly impelled to exemplify the old adage, *ubi dolor, ibi digitus*, although thus but increasing the complaint, the eventual result of which, when not allayed by judicious treatment, may be the occurrence of some of the hysterical or nervous complications already alluded to.

General Treatment.—It may perhaps appear hardly necessary to observe that in dealing with a condition so many-sided in its etiology as this is, the recognition, and if possible the removal, of its exciting cause, whether that be constitutional or local, should be the first object of the practitioner. As, however, this truism is very commonly ignored, I may here repeat that its practical importance is daily illustrated in cases of pruritus occurring in neurasthenic patients, or in those suffering from either diabetes or uterine cancer, in which merely topical measures are frequently relied on for the relief of the vulval irritation, although it is obvious that no possible curative effect can be anticipated from their unaided employment in such instances.

If, therefore, a case of pruritus vulvæ be traceable to, or to any recognisable extent connected with, a distinctly neurotic or hysterical temperament, our primary attention should be given to the abatement of the constitutional hyperæsthesia by the administration of nerve tonics and sedatives such as the hydrobromates of iron, quinine, and zinc, bromides of potassium and sodium, and hydrobromic acid given in combination with valerian. On the other hand, should the pudendal irritation be symptomatic of uterine cancer, surgical interposition for the removal of the disease affords the only effectual remedy for the pruritus; whilst if that be impracticable we must then only fall back on those general palliative methods that may be employed for the relief of incurable cancer of the uterus, together with the special local pruritic remedies, to which I am about to refer. Lastly, in this connection, in those cases in which vulvar irritation results from diabetes, my opinion coincides with that of the late Dr. Goodell as to the value of salicylate of soda. But I may add that to be of any use whatever in such cases this remedy must be given in full doses, and in the form of the natural salicylate, which I have found therapeutically different from, and far more efficacious than, the foreign and cheaper synthetically prepared drug now commonly employed under that name.

Local Treatment of Pruritus Vulvæ.—Even in the cases just referred to, wherein pruritus arises from constitutional causes, much may be done to palliate the symptomatic genital irritation by judicious use of some of those locally employed agents, of which I shall now briefly recapitulate my experience. These applications, it is evident, will *a fortiori* prove still more distinctly as well as directly useful in the relief of the commoner or primarily vulvar form of this complaint, although in this also some constitutional treatment should as a rule be conjoined with whatever local measures may be required. Of the latter, the first and probably the most essential is to secure complete asepsis of the affected parts by frequent and diligent washing with hot water (temperature 120°) and coal tar or some other antiseptic soap, such, for instance, as that containing ichthyol with lanolin made by Burroughs and Wellcome, which I have found specially serviceable in these cases. After this cleansing, the vulva should be well bathed with some effectual germicide or antiseptic solution, as, for instance, corrosive sublimate (1 in 1,000), boric acid (1 in 25), izal (1 in 100), or lysol (1 in 100), or carbolic acid (1 in 40), so as to destroy any possibly present pathogenic micro-organisms that may have survived the preparatory ablution, and thus bring the pruritic surface into a suitable condition for the analgesic influence of the local sedative applications which must subsequently be employed.

Of the many remedies of the latter class that I have tried none has proved so generally serviceable in allaying pruritus and other hyperæsthetic affections of the vulvo-vaginal area, as tetramethylthionine (methylene blue) which I have employed with marked benefit during the past session in my wards in a large number of such cases. In these instances the local application at frequent intervals of a strong solution of the methylene blue, namely, four grains to the ounce, was used conjointly with its internal administration in grain doses given in pill twice or thrice daily until the complaint was relieved.

One objection to the employment of methylene blue is the inevitable staining of the parts as well as linen and fingers of the patient by whom it is locally applied; and even when administered internally the consequently blue-stained urine speedily produces a similar and persistent discoloration of the vulvar parts. That circumstance, trivial as it may seem, I have found sufficient to prevent the majority of patients in private practice from giving a fair trial to this remedy, my experience of which is almost entirely derived from hospital cases.

When, therefore, the use of methylene blue is thus declined by the patient, or when it fails or ceases to give relief in pruritic cases, we must then fall back on some of the older local sedative applications, on which the changes must be rung until either the hyperæsthesia subsides or until its exciting cause may if possible be removed. Of these topical analgesics one of the most effective is cocaine in a 5 per cent. solution with peppermint water, or in the form of a cream made with equal parts of cocaine, menthol-camphor, and chloral, rubbed up with paraline. Another, in some cases excellent, application is a saturated solution of boric acid, as is also the long-employed combination of hydrocyanic acid with borax and morphine in carbonated solution of camphor. Whilst in many other instances nothing that I tried before methylene blue appeared to afford such relief as either ordinary black wash or yellow wash, both of which are especially applicable in hospital and dispensary practice, in which the cost as well as the efficacy of our remedies must be considered.

Vulvar Neuromata.—Hyperæsthesia of the vulvar area and vaginal passage may, independently of the causes just referred to, result from the presence of highly sensitive red vascular spots, which, together with distinctly neuromatous papilla, are oftentimes found thickly scattered throughout the vulvo-vaginal mucous surface. These, which commonly occasion much local irritation and produce acute pain on touch, are amongst the not unfrequent causes of pruritus as well as of dyspareunia. In the treatment of this condition the surgical removal of all these inflamed and hypertrophied nerve filaments and the surrounding vascular spots has been long advocated. The general necessity for this procedure is, however, dispelled by the more correct modern doctrine that this complaint is the result of a progressive degeneration or serpiginous erosion, passing in succession from one part to an adjoining portion of the vulvo-vaginal mucous membrane, and hence beyond possibility of complete removal by excision of any of the affected spots. In such cases, therefore, we must be content to rely chiefly on the methods of treatment which I have already recommended in the ordinary or palliative treatment of pruritus.

Vaginismus.—Although it would be impossible within my present limits to enter into any detailed consideration of the general pathology and treatment of vaginismus, or that condition of abnormal sensibility of the vaginal orifice and passage attended with such spasmodic contraction of the sphincter vaginæ that may constitute an impediment to marital intercourse or dyspareunia, nevertheless the subject cannot be altogether ignored in this connection. In such cases the local hyperæsthesia is commonly evinced on any attempt at vaginal examination, being most marked about the meatus urinarius and clitoris, or in the vicinity of the vulvo-vaginal glands and fourchette, whence the hymen or its remains project upwards.

It would be useless to expand this communication by any allusion to the different theories which, from the time of Simpson and Marion Sims to the present day, have in turn prevailed with regard to the pathology of vaginismus; nor do I here purpose to make any detailed reference to the treatment of such minor cases of that complaint as are commonly effectually relieved by the topical application of cocaine, methylene blue, or other local analgesics, as my present object is merely to submit my own views and experience concerning the etiology and treatment of those more serious cases of dyspareunia that may be thus occasioned, and which require more serious remedial measures.

As to the general etiology of the cases now referred to, I would therefore venture to express my opinion, founded on extensive observation, that in the great majority of these instances of vaginismus the complaint is not only very intimately connected with the neurotic temperament almost invariably found present in such cases, but also that hardly less frequently it is largely ascribable to a special local lesion—namely, an abnormal condition or neuritis affecting either the trunk or fibrillæ of the pudic nerve, one branch of which

supplies the clitoris; whilst the other or superficial perineal nerve is distributed not only to the perineum, but also to the labia, in which its terminal fibrillæ ramify.

In the recognition of the two circumstances just referred to may be found the key to the general treatment of the complaint. On the former point, which I have elsewhere fully discussed, all that I shall here observe is that in vaginismus, as in many other gynæcological disorders, the importance of the constitutional or neurotic element in the causation and treatment of the disease is too commonly lost sight of. In all such cases, therefore, the best curative results will probably be obtained by those practitioners who, recognising the general connection of constitutional causes with the topical lesions to which I have now called attention, are alive to the necessity of combining the employment of nerve tonics, and other appropriate remedies, with the no less essential directly applied measures one or other which may be specially required in each case.

The Local Treatment of Vaginismus may, as I can vouch from experience in a large proportion of cases of this kind, be successfully carried out by such forcible dilatation of the vulvo-vaginal passage as to effectually overcome the abnormal contractility of the parts, and also at the same time produce thorough stretching of the affected nerve fibrillæ. For this purpose, in the first place, the patient being duly prepared by the usual syringing and other antiseptic precautions for the vaginal operation, and her rectum and bladder evacuated, is to be etherised and placed on a suitable couch or table in the ordinary left lateral semi-prone position. Secondly, a large-sized bivalve vaginal speculum is to be introduced, and the blades then extended to their fullest extent. Thirdly, a tampon of antiseptic cotton or wood wool, saturated in boracic glycerine, is to be passed in through the speculum, so as to fill its calibre from the vulva to the roof of the vaginal vault. Fourthly, the speculum, still widely expanded, is to be forcibly withdrawn, for the purpose, as I have already said, of overcoming the contractility of the parts, and thoroughly stretching, or even slightly rupturing, the affected nerve fibres. In so doing some little abrasion of the vaginal walls may possibly be occasioned. But any hæmorrhage therefrom will be sufficiently controlled by the tampon, on which counterpressure is to be made during removal of the speculum, so as to leave the included plug behind it in the vagina, where it must be left for at least twenty-four hours, and then at the same intervals replaced by similar antiseptic tampons, which must be employed for the next week to maintain the patency of the passage. Immediately after removal of these tampons on each occasion the vagina should of course be thoroughly washed out with some antiseptic injection. Finally, if at the end of a week after this first dilatation any trace of vaginismus or spasmodic contraction should still remain, then the same procedure may be again repeated, after which it will probably be found that the passage has regained its normal sensibility and capacity. In some exceptional instances that curative result may not be thus obtainable, and in such cases it may become necessary to resort to one or other of those various methods, such as the excision of any specially hyperæsthetic tissues in the vaginal or vulvar area, or else to some of the recent modifications of Sims's or Emmet's operation for vaginismus. These procedures, however, will, as I believe, comparatively seldom be found essential by gynæcologists who adopt the simple and, according to my experience, generally effectual plan of treatment which I have now described.

Dr. Boxall enquired whether Dr. More Madden allowed the patient to come round from the anæsthetic before removing the speculum, being himself of opinion that when the patient was of a hyperæsthetic temperament the pain suffered at that time was in itself an important element in impressing upon her the reality of the cure.

The French Temperance Society (Association contre l'Abus des Boissons Alcooliques), which was founded in 1872, at its recent general meeting elected Dr. Semelaigne President. Two out of four of the vice-presidents, the general secretary, and the two assistant secretaries, the two secretaries of the meetings, and the keeper of the archives are all members of the medical profession.

TWO CASES OF HYSTERECTOMY FOLLOWED BY INSANITY.

By MACPHERSON LAWRIE, M.D.,
Gynæcologist to the Weymouth Sanatorium for Diseases of Women.

A. B., aged 40, consulted me at the beginning of 1893, on account of troublesome persistent pelvic pain, situated principally in the back and right side. Her general health was undermined by more or less constant suffering.

On making an examination under ether, a large tumour was found in Douglas's pouch, continuous with the uterus, and another, much smaller, to the right, apparently an outgrowth of the uterus. The sound passed upwards in front of the posteriors swelling, for 4 inches.

An attempt to relieve the symptoms was made for some time by a course of palliative treatment, but little benefit resulted, and she was advised to submit to the operation.

On September 4th, 1893, the abdomen was opened in the usual way. The uterus was found pushed forwards and upwards by a large tumour attached by a broad base to its posterior surface, and practically occupying the whole of the pelvic cavity. The other swelling was about the size of an orange, and growing from the right side of the fundus. The abdominal wound was enlarged for some distance above the umbilicus, a strong pair of vulsellum forceps was attached to the most prominent part of the pelvic tumour, and after a little manipulation the whole mass was brought to the surface. The wire of the *serre-nœud* was passed round the lower part of the cervix so as to include both tumours and the ovaries as well as the uterus. These structures were cut away from the stump, which was transfixed and trimmed and brought down to the lower angle of the wound. The parietal peritoneum was very carefully stitched to the peritoneal covering of the stump all round and the abdominal wound closed.

The wound healed rapidly without any complication, and the patient was practically well in two months, and able to resume her former pursuits. She continued in excellent health until May, 1894, about nine months afterwards, when symptoms of acute mania developed, to which she succumbed in the course of four weeks.

The special interest in this case is the occurrence of mental disturbance following the operation. She was of a highly nervous temperament, but there was no clear history of any hereditary taint so far as I was able to learn.

In connection with this point I published in the British Medical Journal, January 13th, 1894, the case of an old lady, aged 66, on whom I performed total extirpation of the uterus for cancer. She made a rapid recovery from the operation, but some weeks afterwards her mind became deranged. She was transferred to the care of Dr. MacDonald, of the County Asylum, and after an anxious illness of two or three months' duration made an excellent convalescence, and is now in perfect health.

A CASE OF TETANUS TREATED BY ANTITOXIN.

By JOHN MARRIOTT, M.B.Lond.,
Northampton.

The patient, a butcher, aged 28, was struck on September 24th, 1894, by a missile from a catapult under the chin, about half an inch below the symphysis of the lower jaw. The projectile imbedded itself in the flesh, setting up inflammation and induration round the wound. There was a foul discharge, amongst which portions of the foreign body were expelled, composed of shreds of string cemented with shoemaker's wax. He took no notice of the wound until six days later, when (on September 30th) he found that he could not open his mouth, and had difficulty in swallowing.

I was sent for to see him on October 3rd. There was well-marked trismus, the muscles of the neck and back were stiff and prominent, and he could hardly swallow anything. I incised the wound, but found that the whole of the foreign body had been expelled. The wound was then thoroughly disinfected with carbolic lotion 1 in 20, and dressed with

double cyanide gauze. Chloral was ordered, but hardly any could be swallowed.

On October 4th pain and stiffness had increased. Slight spasmodic twitchings of the muscles of the face and back were observed. There was no pyrexia.

On October 5th the body was rigid with the exception of the arms and hands. There was slight opisthotonos. Dr. Buszard kindly saw the case with me, and by his suggestion a supply of Tizzoni's antitoxin was telegraphed for to Messrs. Allen and Hanburys. In the evening $\frac{1}{100}$ grain of physostigmine was given hypodermically.

On October 6th the symptoms were more pronounced; there were frequent jerky spasms in the muscles of the back: those at the back of the neck were rigidly contracted, throwing the head backwards. At 4 P.M. 2.5 grammes of antitoxin were given in sterilised distilled water by punctures in the abdominal walls. Each puncture caused considerable pain, and was accompanied by a strong opisthotonic spasm. The punctures were covered with a small piece of waterproof plaister. He was fed with nutrient suppositories.

On October 7th antitoxin 1 gramme was injected. There was some improvement in swallowing, teaspoonfuls of milk being given frequently and swallowed after several efforts. There was great trouble in ejecting mucus, which was secreted in considerable quantities, from the throat. Sharp but short spasms in the back and legs were frequent.

On October 8th antitoxin $\frac{1}{2}$ gramme was injected. Swallowing was easier. Speech was unintelligible, but the patient could make himself understood by writing in large jerky scrawls.

On October 9th he swallowed liquid much better. The suppositories were discontinued. He complained of constant thirst, and was able to gratify it. Spasms in the back were still frequent, and sometimes violent, especially when he was moved or tried to expectorate mucus. The jaws were still tightly closed. Antitoxin $\frac{1}{2}$ gramme was injected. Later in the evening stronger opisthotonic spasms came on, with much distress, cyanosis, and difficulty of breathing. One-third of a grain of morphine with one-fiftieth of a grain of physostigmine was given hypodermically, followed by marked relief about two minutes later. In a short time the patient was asleep. He passed a fairly quiet night. There was some difficulty in urination temporarily, but catheterisation not required.

The wound had cicatrised on October 10th, when antitoxin 1 gramme was injected. The spasms were less frequent. The improvement continued on October 11th, when 1 gramme of antitoxin was given. As the bowels had not acted since the beginning of the attack, 5 grains of compound powder of elaterium were given, and on the following day a castor oil enema; a copious evacuation followed. One gramme of antitoxin was administered. He took fluid nourishment well. The jaws were still immovable, but the opisthotonic spasms were much less strong. On October 13th 1 gramme of antitoxin was injected, but on October 14th only 0.2 gramme. Towards evening the muscular twitchings were slightly more numerous, but only very feeble. On October 15th no antitoxin was given. He passed a comfortable day. The jaws were still clenched.

Early on the morning of October 16th, during sound sleep, the jaws opened sufficiently wide for the tongue to be protruded, and the patient waking up, it was caught between the teeth and firmly held. The pain brought on violent spasms all over the body, respiration being much embarrassed and the face cyanosed. Every effort was made by the two nurses to release the tongue, but unsuccessfully. When I arrived, some time after, his condition appeared alarming, violent spasms affecting the whole trunk, succeeding one another with hardly any interval, and the breathing was extremely laboured. The tongue was severely lacerated. Chloroform was given, but immediately caused such aggravation of the spasms and difficulty of breathing that it had to be abandoned, and, although the patient appeared to be dying, $\frac{1}{30}$ grain of physostigmine with $\frac{1}{2}$ grain of morphine was hastily injected. The effect was wonderfully rapid, as in less than a minute the jaw opened sufficiently to allow of the tongue being released, and immediately this was done the breathing became quiet, the lividity passed off, and the violent opisthotonic spasms ceased for a short time, being, however, followed by numerous less severe ones later in the day. In fact, the unfortunate accident appeared to give rise to a complete relapse of the symptoms, and it was resolved to again resort to antitoxin, of which 1 gramme was given. An elastic band was fixed round the jaw to prevent its opening during sleep.

On October 17th 1 gramme of antitoxin was given. The patient was more comfortable, but spasms were frequent, though not severe, and the tongue, which could not be seen, was very sore.

On October 18th 1 gramme of antitoxin was given, and repeated on October 19th, when a rather strong spasm was caused by the puncture.

On October 20th, half a gramme of antitoxin was given (completing the third bottle used). He took plenty of liquid nourishment through an infant's feeding bottle, the tube of which was passed into the buccal sac outside the teeth. From this date steady improvement took place, the jaws opening, and the stiffness passing away from the back and neck, so that by October 28th he was able to sit out of bed for an hour, and to take soft food, such as bread and butter, eggs, and even fish.

REMARKS.

Antitoxin, with the exception of the three injections of physostigmine and morphine, was the only remedy used in this case, as, though chloral was at first prescribed, only a very small quantity was swallowed. The patient certainly seemed to be much relieved by the treatment, and it is to be remarked that the severe and nearly fatal relapse occurred after the diminution of the dose on October 14th, and its suspension on October 15th.

On the two occasions on which physostigmine and morphine were given together, the effect in quieting the spasms was most marked and speedy, and on both occasions it appeared to me that the patient's life was saved thereby.

The temperature has remained subnormal since the tetanic symptoms have disappeared.

A CASE OF TETANUS NEONATORUM UNSUCCESSFULLY TREATED WITH TETANUS ANTITOXIN.

BY J. LACY FIRTH, M.D., M.S.LOND., F.R.C.S.,
House-Surgeon to the General Hospital, Bristol.

I HAVE in the first place to thank Mr. Barclay, Surgeon to the Bristol General Hospital, for permission to publish the above case, the treatment of which was undertaken with his concurrence.

The infant was born on Tuesday, September 18th, 1894, at noon. A midwife was in attendance at the confinement. The navel was dressed after ligature of the cord, in the usual way, with cotton wool and a clean piece of linen. This dressing was not disturbed until six days had elapsed. It was then replaced by a scorched piece of linen soaked in castor oil. On the eighth day of life the child became fretful and ceased to take the breast satisfactorily. The eighth day of life appears, therefore, to have been the first day upon which signs of the disease appeared. On the fourth day of the disease and the eleventh of life the patient was admitted to the Bristol General Hospital.

On the fifth day of the disease the child was jaundiced. The eyes were tightly closed, and the conjunctivæ could not be exposed. The face was wrinkled, but risus sardonicus was not present. The masseter muscles were hard and the lower jaw rigidly fixed, but there remained a slight interval between the upper and lower jaws which it was impossible to enlarge with justifiable force. The head was slightly retracted, and the neck and spine were very rigid. The arms and forearms were rigid in the adducted position, with the elbows slightly flexed. The fingers were firmly flexed into the palm, and the thumbs adducted and flexed over them. The lower limbs were rigid in the extended position. The abdominal wall was hard. The tension of the limb muscles could only be overcome by the exertion of considerable force. The child could be held up in the vertical position by holding the legs only. When milk was placed in

the mouth a large part of it was returned in bubbles and the rest swallowed with delay and difficulty, and the attempt produced cyanosis and short feeble cries. Examination or disturbance of the child by feeding or touching caused an increase of rigidity in the trunk and limbs with slight cyanosis. The spasm so produced was of three or four minutes' duration, and the beginning and the end were gradual, so that the time of commencement and termination could not be definitely fixed. There were no short or sharp attacks of spasm. The temperature was normal or slightly subnormal all the day; the pulse was 128, the respiration 36. Chloral hydrate gr. ½ and potassium bromide gr. 1 were prescribed every four hours and nutrient enemata. Milk was given by the mouth at regular intervals.

On the sixth day the patient was weaker; the enemata had been for the most part retained. Chloral hydrate gr. ½ and potassium bromide gr. 2 ordered every two hours and more nourishment.

On the seventh day the jaw was sometimes found less fixed than formerly. The slow spasms of increased rigidity were easily excited as before. At 6.30 P.M. the ward sister for a moment thought the child dead. It had ceased breathing, and the pulse had become imperceptible at the wrist. The attack had passed off when I reached the ward a few minutes later, and the child had resumed its previous condition. The temperature was 100° at 10 P.M.

On the eighth day, at 3 P.M., the patient had another of the attacks, during which respiration ceased. At 6 P.M. 0.4 gramme of tetanus antitoxin[1] was injected in five places under the skin of the abdomen. The temperature on this day was at 2 P.M. 102° (the highest point registered throughout), at 10 P.M. 100.6°.

On the ninth day the jaw and neck were less rigid. The arms, legs, and trunk were, perhaps, also a little less rigid. Slow spasms were easily evoked as before, but were less marked in intensity. The patient on this day had a succession of attacks at intervals of two to four hours, during which breathing stopped. They began at noon, and three of these occurred before the second injection of 0.4 gramme of antitoxin, which was made at 4 P.M. A third injection was made at 8.30 P.M. of the same quantity.

The attacks alluded to began with increase of rigidity and cyanosis, followed in a few seconds by total cessation of respiratory and all other movement. Then the rigidity was replaced by complete flaccidity, and the child lay as one dead. The pulse gradually lost force, and finally, in one or two of the most severe fits, became imperceptible at the wrist. The heart sounds, however, remained distinct, and indeed seemed more distinct than usual, perhaps by reason of the absence of respiratory sounds. The frequency of the pulse was diminished.

The first sign of recovery was a stertorous and imperfect inspiration. This was followed by other less and less stertorous inspirations at decreasing intervals, until the normal rhythm was established. The return to the more normal condition was in fact like that seen in cases of suspended animation, from other causes, for example, from chloroform inhalation.

In the course of the tenth day the patient had eight attacks, as above described. The duration of these varied from five, to ten or fifteen minutes. The longest interval without a single respiratory act in the attacks was seven minutes. In the longer attacks the child passed from one into another with a few intervening and imperfect respirations. At 7 P.M. it had its last and longest seizure, which ended fatally at 8 P.M.

The fourth and final injection was made at 1 P.M. on this day, when 0.8 gramme was injected. The temperature during the last twelve hours of life was subnormal.

On admission as in-patient, the navel was cylindrical in shape with a flat top covered with epithelium, having the appearance of a recent cicatrix. There was a yellow point in the centre which was not pus. There were a few dried blood scales in the sulcus at the base. The cicatrix and the skin around were carefully cleaned with soap and water and scrubbed with 1 in 20 carbolic and dressed with cyanide gauze and sublimated wood wool. The appearance of the navel did not materially alter during the remainder of the child's life.

In one of the severest of the attacks described above, artificial respiration was tried, but no improvement followed, and a few minutes after desisting the child recovered spontaneously.

It will have been seen that the infant had four injections of antitoxin in all, namely, one on the eighth day, two on the ninth, on each occasion 0.4 gramme being used, and on the tenth day one injection of 0.8 gramme. The total quantity used was thus 2 grammes.

No improvement in the condition of the infant followed, and no definite physiological effect was noticeable. No sign of irritation remained at the site of the punctures. It was interesting to note the completeness and rapidity with which the bulky injections were absorbed. The large swellings produced at the moment of injection could be seen to diminish in size immediately after their formation, and in two or three hours no swelling remained.

The clinical course of the case as detailed above is in some respects peculiar, but no doubt exists in our minds as to the correctness of the diagnosis. Unfortunately, the mother of the child refused to allow a *post-mortem* examination.

I have read the accounts of tetanus in numerous authoritative books, but have in none of them found attacks of failure of respiration described which resembled at all closely those in our case. In Fagge and Pye-Smith's book a case is mentioned in which attacks of lividity occurred without any sign of increase of spasm except a clenched state of the hands, and in one of these the patient died. In the same paragraph Poland is quoted as mentioning a case in which the heart's action was kept up for a short time after breathing had ceased. Bauer, too, is there quoted as stating it to be his opinion that the frequency of death from asphyxia has been over-estimated, and that the carbonic acid in the blood relaxes the spasms before death can take place, but I can find no account of frequent attacks of prolonged cessation of respiration with flaccidity of the muscular system to all outward observance. In the attacks described in our case there was an initial increase of rigidity, and cyanosis followed by relaxation of the muscular system, with the maintenance, apparently, of a stationary degree of cyanosis for many minutes, in one instance for seven minutes. How are these attacks to be explained? The condition of the glottis can only be inferred. The condition of the diaphragm was one of fixture, but whether it was relaxed or in spasm is also a matter of inference.

The abdominal muscles certainly, and the intercostals almost certainly, were relaxed. Possibly carbonic acid gas in the blood was the cause of the relaxation of the muscular system generally, including the diaphragmatic and glottic muscles. In that case the absence of respiration must have been due to an exceptional central or peripheral nervous state. Two possible explanations of the attacks are thus suggested. The glottis, diaphragm, and intercostals, or the diaphragm and intercostals only, may have been in a state of spasm when the other muscles of the body were relaxed. The inefficiency of artificial respiration rather points to closure of the glottis as existing. If this spasm existed then the asphyxia in our case was due to the causes which usually lead to the fatal termination of tetanus cases, but had the peculiarity of not being associated with general muscular spasm, and was attended with a remarkable persistence of cardiac action. On the other hand, if the respiratory muscles and glottis were in a state of relaxation, as the rest of the muscular system was seen to be, the asphyxia must be explained by a paralytic action of the tetanus poison upon the medullary centre of respiration, or upon the efferent nerves therefrom. In this connection it is of interest to note that during the intervals between the spasms the general rigidity and trismus was less marked than it had been in the earlier days of the disease.

In some cases of tetanus Dr. E. Rose is mentioned as having felt the pulse suddenly stop and death ensue. Possibly this syncopal ending was of nervous and toxic origin, as the asphyxia may have been in our case. The vasomotor centre

[1] The antitoxin we used had been obtained two months previously for another case, and the bottle had been then opened, and 2.5 grammes abstracted. (This was injected in a traumatic case a few hours before death, and had no appreciable effect). The bottle had been sealed with wax on the day following, and kept for the two months in a dark and cool place, and I presume had retained all its virtues.

is sometimes affected in tetanus, producing contraction of arterioles. Liston is reported to have performed an amputation in which there was little or no bleeding by reason of contraction of the vessels in a case of tetanus. But in Liston's case, and probably in the syncopal cases, the toxic action is one of stimulation. To explain the asphyxia in our case, if all the muscles were relaxed, a depressant and paralysing property of the poison has to be assumed unless simple exhaustion of the respiratory centre is a sufficient cause.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

RUPTURE OF PULMONARY VALVE.

I VENTURE to send you the following notes of a case, in the belief that it may be of interest:

I was called to a patient at 1.25 A.M. on January 1st, and found a young man of 23 years of age, who had been to the theatre, and afterwards had eaten a hearty supper at 11.30 P.M., consisting of potato pie and a glass of beer. He was then quite well. Shortly after 12.30 A.M. he complained of pain in his chest, and felt sick. He went out into the yard and vomited freely. He was then given 10 drops of chlorodyne and a little soda water and milk. As he got worse I was sent for. I found him pulseless, hands and feet quite cold, no heart sounds to be heard, chest full of fine bubbling *râles*, respiration free but hurried. He spat a good quantity of blood-stained foam; there was no cough. He told me that he had pain in his chest and that he was very cold. He died in about forty-five minutes, a considerable amount of frothy, pink, watery fluid escaping from the mouth during the last few minutes of his life.

About thirty-six hours after death I performed a *post-mortem* examination by order of the coroner. In disarticulating the left clavicle I wounded the subclavian vein, and the blood, which was black, fairly spouted. Heart healthy in appearance. On careful examination I found one segment of the semilunar valves of the pulmonary artery ruptured from a point close to the corpus Arantii to its base. Another was perforated. The lungs were full of black blood, but none extravasated. The stomach contained about 15 ounces of fluid, with portions of unchewed meat (pork and beef), and lumps of potato—not many of these. The kidneys were healthy.

Warrington. A. W. HALL, L.R.C.P. and S.

AXIAL ROTATION OF THE TESTIS: SEQUEL TO A CASE.

IN the BRITISH MEDICAL JOURNAL of April 8th, 1893, I recorded a case of axial rotation of the right testis, which I saw on March 17th, 1893, one hour and a-quarter after the appearance of the first symptom. I was able to undo the half twist present, which gave immediate relief. Next day the testicle was normal in size, and free from tenderness. The lad shortly after this left school, and I lost sight of him. Mr. Edmund Owen, in a paper read before the Medical Society of London, suggested that it would be interesting to know whether the testicle received any permanent damage from the brief strangulation. I therefore wrote to the patient, and in reply on November 3rd, 1894, he stated that "the right testicle is considerably smaller than the other."

This case lends weight to Mr. Bryant's suggestion that certain cases of atrophied testicle have been caused by axial rotation.

Bedford. W. GIFFORD NASH, F.R.C.S.

ALBUMINURIA DURING PREGNANCY.

MRS. A., aged 36, who had had thirteen children (the last born twelve months earlier), and was again six months pregnant, on December 19th, 1894, complained of cough and lumbar pain. The temperature was 101° F., and bronchitic *râles* were heard generally in the chest; the skin was moist, the tongue furred. She was retching violently. There was no œdema, facial or otherwise. Micturition was frequent.

The urine contained albumen to the extent of one-fourth. She was treated by applying mustard on hot poultices over the kidneys, and by the following mixture: Liq. ferri perchloridi, ℥j; liq. ammon. acet. conc., ℥ij; aquæ chlorof. ad ℥vj; ℥j quater die. For the bronchitis, wadding and camphorated oil, and linseed tea with liquorice and lemon juice were ordered. By December 30th there was left only a trace of albumen, and the cough had gone. She was able to get up and eat a little.

The point of interest in the case is that the bronchitis was sufficient to account for all the symptoms except one—namely, the lumbar pain reflected into the groin (pregnancy explaining the frequency of micturition); and the lesson I drew for myself was to test the urine of a pregnant woman as a matter of routine.

Shaftesbury Avenue. F. ISDELL.

VESICAL SPASM CAUSED BY MEDICINAL DOSES OF STRYCHNINE.

SEVERE vesical spasm following the administration of liquor strychniæ *B.P.* in four-minim doses taken three times a day for a period of five days prompts me to send in a short account of the case, especially as this is the second time that I have noticed such symptoms occurring after the use of liquor strychniæ.

The patient, a man about 30 years of age, had been under treatment for some weeks for chronic gastric catarrh and stubborn constipation.

Dilute hydrochloric acid and Glauber's salts affected the gastric catarrh favourably, but did not materially relieve the constipation, so that I resorted to the addition of liquor strychniæ *B.P.* in the doses above mentioned to the original medicine. The constipation was at once relieved, but after a few days, the patient came to me complaining of greatly increased frequency of micturition—eight or ten times during the day and three or four times during the night.

This distressing symptom was coupled with a dull pain in the right loin in the region of the right kidney, which made him fancy that he had some kidney trouble. The urine was perfectly clear, of light colour, specific gravity 1015, and contained neither albumen nor sugar. I assured my patient that very probably on discontinuing the medicine for a few days, his troubles would cease, and to my great satisfaction this occurred.

The patient comes from a highly neurotic stock, the mother and two sisters suffering from neurotic complaints.

Canonbury, N. JOHN H. SPITZLY, M.R.C.S, L.R.C.P.

MENTAL DISTURBANCE AS A CAUSE OF HERPES ZOSTER.

WITH reference to a memorandum on the etiology of herpes zoster, which appeared in the BRITISH MEDICAL JOURNAL of October 20th, the history of a case I am now attending may be interesting.

Mrs. P., an elderly lady of 70, in somewhat delicate health, was dreadfully shocked at hearing of the sudden death of her daughter. Four days after this news had reached her, she noticed an eruption attended by slight neuralgic pain, which turned out to be herpes zoster.

On the following day her daughter's funeral took place, and in the evening while the friends of the deceased, including Mrs. P., were taking tea together, they were much startled by the sudden smashing of the window of the room by a football thrown from outside.

Within a few hours of this second shock the pains became very much more severe, especially at night, and are now only slowly yielding to gelseminum, bromide of potassium, and strychnine, with draughts of bromide and chloral at bedtime.

The patient has never before been troubled with any form of skin eruption, and I think there is every reason to believe that the herpes in this case is due to the shock of the ill tidings she suddenly heard, and that the very marked increase of pain was due to the fright sustained on the day of the funeral.

I may mention that one of the young ladies who was present with the funeral party has suffered from severe infraorbital neuralgia ever since.

Old Kent Road, S.E. F. L. POCHIN, M.B., C.M.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL SURREY COUNTY HOSPITAL, GUILDFORD.

TWO CASES OF COMPOUND FRACTURE OF THE SKULL.

(Under the care of Mr. SELLS.)

[Reported by CHARLES FRIER, M.B., House Surgeon.]

CASE I.—L. W., aged 8, schoolboy, received a blow on the head on May 2nd, 1891. This produced a compound depressed fracture in front of the coronal suture on the right side. The wound suppurated two days later. He was admitted into hospital on May 22nd, when he was found to have a depressed fracture. The brain pulsations were visible in the wound. There were no symptoms, and the wound gradually healed.

On September 15th the boy had an epileptic seizure, and a similar attack occurred two days later.

On September 26th he was anæsthetised, and a portion of the outer table was removed. There were no cerebral symptoms at this time. On October 16th he was again anæsthetised, the opening in the skull was enlarged, and the depressed portion of the inner table was removed. The wound gradually granulated up, and healed without any further symptoms.

CASE II.—J. E., a schoolboy, aged 7 years, was accidentally shot just above the frontal eminence on the right side. He was immediately conveyed to hospital, when there was found to be a triradiate lacerated wound in the position indicated, with a somewhat circular opening in the skull. The boy was conscious, and had no paralytic symptoms.

Chloroform was administered, the wound was enlarged, and a piece of bone about the size of a florin removed with gouge forceps. The shattered fragments of bone were removed, and the bullet was then found embedded about 1¼ inch in the frontal lobe; it was removed with forceps.

Next day the boy had twitchings of the left side of the face, arm, and leg, with marked conjugate deviation to the left side. There was found to be some tension in the wound, so the sutures were loosened and a tube inserted.

Four days later the wound suppurated freely, and there was a small hernia cerebri. The hernia gradually retracted and the wound granulated up and healed in six weeks' time.

Both boys were fitted with aluminium plates, which they still wear with comfort, and neither have any symptoms since their discharge from hospital.



Manchineale (full size).

THE GOVERNMENT HOSPITAL, CARRIACOU, GRENADINE ISLANDS.

POISONING BY MANCHINEALE.

(By DUNCAN JAMES CADDY, M.D., F.R.G.S., H.M. Colonial Medical Service.)

THE following short account of a case of manchineale poisoning may prove of interest to many of your readers. The smell of the apple-like fruit is delicious, and has been the cause of many a sailor in these regions meeting his death from eating it.

On June, 2nd, 1894, a black child, aged 5 years, was admitted under the following circumstances. The mother stated that the child had been playing with some other children on the previous evening by the seashore, when she suddenly came running home crying violently, and complaining of severe pains in her "mouth and belly." She was very sick, but could not swallow food or water, and passed a very bad night, screaming loudly at times, and being extremely restless. Early the following morning the mother brought the child to the hospital, and upon my questioning her said that the child had been poisoned from eating some manchineale from one of the trees under which she had been playing. I found the child in a state of collapse, the surface of the body being bathed in a cold sweat, the radial pulse imperceptible, heart sounds hardly distinguishable, respirations 30 and very shallow, temperature 96.2° F. The lips were much swollen and covered with blisters, and the tongue was enormously swollen and blistered, interspersed with white eroded patches. There were also blisters in the palm of the right hand, and two small ones on the left. On palpation the abdomen was very tender, this being much exaggerated over the epigastric region. The pupils were widely dilated.

I at once ordered the child to be placed in bed and surrounded by hot-water bottles, and injected subcutaneously ether sulph. ℿxxv. The child gradually rallied, and the after-treatment consisted in washing out the mouth with glycer. boracis, and the administration of the following mixture: ℞ Tinct. opii. ℿx; potass. brom. ʒss; potass. chlor. ℿxx; sod. bicarb. ʒj; bismuth. subnit. ʒj; mucilag. acaciæ ʒi; aquæ ad ʒij; ʒj every two hours. To be allowed to trickle down the throat a few drops at a time. An enema consisting of brandy ʒj, starch ʒij, and beef-tea ʒij was given, but, as this appeared to distress the patient, it was discontinued, and "zyminised nutrient suppositories" substituted every four hours. On June 4th the temperature rose to 101° F., and, as the patient was unable to swallow even a few drops of water, and ice could not be procured, the mixture had to be discontinued, and hypodermic injections of morphine sulph. gr. ⅟₆ were given every five hours, while, to cope with the intense thirst, an enema

of cold water was given every two hours, which appeared to cause great relief to the patient. The urine was excreted very copiously and contained a trace of albumen. On June 6th the patient had decidedly improved, and continued to do so up to June 20th, when she was discharged well. I give on previous page a sketch of the leaves and fruit of the manchineale tree.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. PAVY, M.D., F.R.S., President, in the Chair.

Tuesday, January 15th, 1895.

FIBROUS STRICTURE OF THE PYLORUS.

DR. CYRIL OGLE exhibited two specimens of the above. In the first the walls of the stomach were on an average half an inch in thickness, in the second there was extreme contraction of the pylorus without any signs of past ulceration. There was no histological evidence of carcinoma; the muscular coat was hypertrophied and the submucous tissue thickened. Although Dr. Hilton Fagge had regarded such cases as carcinomatous, both Dr. Wilks and Dr. Bristowe admitted the existence of fibrous structure.

ENLARGED SPLEEN.

Dr. WILLIAM COLLIER reported the case of a female child, aged 6 years, who had some obscure illness when 8 months old; after this the abdomen steadily enlarged, from increase in the spleen. Of seven other children, one had died from exhaustion associated with enlargement of the spleen, but no histological examination had been made of the organ. Whilst under observation the case reported by the author gave no evidence of leucocythæmia; no increase of white corpuscles was noticed. After death the spleen was found to weigh 4 lbs., 2 ozs., the total body weight being only 23 lbs.

Dr. RITCHIE added the histology of the case. Sections of the spleen showed great numbers of very large cells replacing the reticulum, only slight remains of the trabecular structure remaining; there were certain areas of necrosis surrounded by white fibrous tissue. In the retroperitoneal lymphatic glands were similar appearances. No tubercle bacilli were discovered. The changes in the gland suggested what had been named large-celled hyperplasia, and possibly the changes in the spleen were of a similar nature, and due to endothelial proliferation of the cells of the splenic reticulum.

Mr. W. G. SPENCER thought the lesion to be sarcomatous, tuberculous, or syphilitic, and it remained to determine to which group it belonged.

Dr. H. D. ROLLESTON remarked that in leucocythæmia cells of a similar character had been described in the spleen. He considered the disease to be either lymphadenomatous or leucocythæmic.

Dr. J. W. CARR compared the disease to that met with in infancy, and which he designated as splenic anæmia. The disease was connected with enlargement of the spleen, but there was no leukæmia. This enlargement might be associated with rickets or syphilis. Some such cases recovered, the spleen regaining its proper dimensions.

Dr. W. P. HERRINGHAM did not think that the term "splenic anæmia" explained the condition. The enlargement of the spleen was probably secondary.

Dr. COLLIER, in reply, noticed that the signs of rickets were extremely slight: nor were there signs of rickets in the other child, which had previously died. Of syphilis there was no history. There were no indications of lymphadenoma.

BRAINS FROM CASES OF INSANITY.

Dr. C. F. BEADLES exhibited five brains showing different coarse lesions, but which he did not attempt to relate particularly to the mental conditions observed during life. In the first there was extensive hæmorrhage into the right cerebellar hemisphere; the patient, a man, aged 65, had been insane for four years, and died suddenly. In the second case there was atrophy of the lobe of the cerebellum, the space being occupied by fluid in the pia-arachnoid. Insanity had lasted four years; the patient, a woman, aged 56, was latterly subject to severe fits. In the third case, one of great dilatation of the lateral ventricles, the patient was a woman 82 years of age. The fifth specimen was one of atrophy of the left cerebral hemisphere from a man, aged 66.

SEROUS PACHYMENINGITIS.

Dr. J. W. CARR recounted the case of a child who was the subject of a severe form of congenital syphilis. Slight epiphysitis of the lower end of each femur was noticed, notwithstanding the use of mercurial treatment. No injury had been received at birth by instruments or otherwise. The child was very backward for its age, and was subject to convulsive attacks without rigidity. After death there was found a thin new membrane on the inner side of the dura mater, and a similar membrane on the arachnoid, and in the space an accumulation of fluid, the brain being so compressed and shrunken as to weigh only 18 ounces in place of about 30. There was notable sclerosis and depression about the posterior limit of the fissure of Sylvius. Dr. Gowers had described similar cases in children under the name he had used. A similar specimen had been shown to the Society by Dr. Wheaton, who could find no evidence of syphilis; the spleen, however, was enlarged. The author thought the condition due to syphilitic meningitis, the sclerosis and atrophy being secondary to this. Idiocy was certainly in some cases due to hereditary syphilis, and this was an instance.

IDENTITY OF DUCT CARCINOMA WITH ORDINARY CARCINOMA.

Dr. HERBERT SNOW exhibited four microscopic sections of tumours of the breast. The first, to which he attached chief importance, showed, he thought, a transition from an ordinary scirrhous carcinoma to one of columnar cells. The specimen was from a woman, aged 42, and recurrences took place in the axilla. The author contended that any classification of carcinoma based on the forms of the cells was fallacious. Epithelium was subject to change, as seen in the case of internal piles that protruded, or in inversion of the uterus, etc.: columnar epithelium, if carcinoma arose from it, did not give rise to columnar epithelium; he thought that carcinoma starting in the rectal crypts was of a different kind from that commencing on the surface of the mucous membrane; columnar epithelium might give origin to a squamous-celled carcinoma. Carcinoma of the bladder was flat-celled, though the epithelium of the viscus was columnar; and so of the larynx. He thought that the term "duct cancer" should give place to that of "intracystic carcinoma."

Mr. JACKSON CLARKE considered that the term "duct carcinoma" was useful, as such disease possessed characters of its own, both pathological and clinical.

Dr. BEADLES pointed out that he had described intracystic formations covered with columnar epithelium in parts of the breast away from the site of a carcinoma, and even in breasts where there was no malignant disease.

Dr. A. A. KANTHACK criticised Dr. Snow's contentions, observing that no change in characters of epithelium took place after the epithelium was fixed. A squamous-celled epithelium was found in various degrees on the laryngeal mucosa and arose by substitution of this for the columnar, under various forms of irritation, as smoking. He had seen such change very extensive in a child after chronic laryngitis. The columnar lining was lost, and the other grew over. As to the intestine, the columnar-celled lining of the follicles was precisely the same as that of the surface, and no distinction could be made between it in those two situations, or between the carcinomas arising in them. The histology of the case especially referred to by the author he considered too obscure to base an opinion upon. On the author's views, squamous-celled carcinoma should arise in the substance of the mamma, but it never did.

Mr. A. A. BOWLBY objected to the use of the author's term "identity;" there was at the most only a superficial resemblance. Clinically and pathologically villous carcinoma differed from ordinary scirrhus: of the thirteen cases he had seen all were now alive, and in none had there been glandular recurrence. He thought that only one of the specimens exhibited was a villous or duct carcinoma.

Mr. S. G. Shattock had never supposed that squamous-celled carcinoma of the larynx arose except from areas of squamous-celled epithelium; the burden of proof rested entirely with those who held the contrary. In the case of the bladder, although the usual form of carcinoma showed epithelial nests, the normal epithelium was not columnar but transitional, and furnished with a flat surface layer of cells. Mr. Bowlby had limited the term duct carcinoma to mean villous or papilliferous carcinoma; this was not really justifiable; a carcinoma, as he should say of the columnar-celled form, might arise from the ducts on the ordinary type; such were indistinguishable in a naked-eye section from ordinary scirrhus [Mr. Bowlby afterwards stated his agreement with this]. He did not follow Dr. Kanthack's explanation of epithelial metaplasia if he implied that there was an actual loss of one kind of epithelium, and the growth of another in its place. The transition thought to take place in his first specimen by Dr. Snow was probably explained by the association of a spheroidal-celled carcinoma with the changes to which Dr. Beadles had referred.

Card Specimens.

Dr. F. P. Weber; Boar's Tusk Growing in a Circle.—Dr. C. F. Beadles: Ruptured Heart.

CLINICAL SOCIETY OF LONDON.

J. W. Hulke, F.R.C.S., F.R.S., President, in the Chair.

Friday, January 11th, 1895.

Abdominal Section.

Mr. A. W. Mayo Robson read notes of three cases of abdominal section for unusual conditions. (1) The first case was one of tuberculous abscess of the liver which was treated by incision, rubbing in of iodoform and drainage. The patient, whose illness had extended over twelve months, had completely recovered his health. (2) The second case was one of volvulus and strangulation of the omentum following on the reduction of a large inguinal hernia. Peritonitis led to the suspicion of reduction *en masse*. Abdominal section revealed the whole of the omentum in a state of deep congestion verging on gangrene connected by two twisted cords with the stomach above and the left inguinal cord below. Recovery followed on removal. (3) The third case was one of traumatic intraperitoneal hæmorrhage without external wound, in which the patient was in so serious a condition that exploration to reveal the actual site of the hæmorrhage would probably have led to death on the table, but where incision, washing out with hot saline solution and drainage, had been efficient in arresting the bleeding and bringing about recovery.

The President, in his experience in the *post-mortem* room, had never seen a large tuberculous abscess of the liver which was not part and parcel of general tuberculosis. He had also never seen or read of such rotation of the great omentum as was present in the second case. There was scarcely any viscus except the liver to which rotation had not occurred. Floating kidneys with long stalks had been found with the stalk twisted. So also with wandering spleen; Mr. Sutton, in the Middlesex Hospital, in the course of last year removed a spleen which had so long a stalk as to reach the left inguinal region, the stalk being twisted on itself several times. Even the uterus had been found twisted in a case described in the *Allg. und spec. Chirurgie* brought out under Billroth, where the uterus was lifted out of the pelvis by a myoma which had contracted adhesions to the ascending colon, and had its cervical part lengthened and taking the form of a strand twisted several times, and about which the Fallopian tubes were twined.

Mr. Eve asked on what ground the author had described his first case as one of tuberculous abscess of the liver. The possibility of its being actinomycosis was not entirely precluded by the absence of the usual clubs.

Mr. Robson said that tubercle bacilli were found in the pus, whereas careful microscopical examination proved the total absence of anything like the ray fungus.

Mr. Makins asked how Mr Robson absolutely excluded the idea that it was an abscess of the peritoneum on the surface of the liver. In regard to the case of hæmorrhage, the speaker thought the patient's serious condition increased his chance of recovery. In cases of that kind very little good could be done by laparotomy except to put in a stitch if the bleeding point were found, and this was perhaps of doubtful good.

Mr. Croft had once removed a spleen for hæmorrhage from that organ, the abdomen at that time being full of blood and the patient collapsed and apparently dying. As it was she lived for some hours. He thought it a mistake to delay operation or put in a drainage tube without exploration to find the source of the hæmorrhage. If bleeding were occurring from such an organ as the spleen, he would not expect it to cease except by draining away the life of the patient.

Mr. L. A. Dunn asked what was the temperature of the fluid injected.

Mr. Battle said there seemed no reason to suppose there was in Mr. Robson's case lesion of any special part which could be easily examined, and asked if the author had formed an opinion as to the source of the hæmorrhage. He (the speaker) had last autumn in St. Thomas's Hospital an instructive case. A boy, whilst playing leap-frog, had accidentally fallen on his face, and was admitted in a state of very severe shock. There was a dull area on the left side of the abdomen, the pulse was rapid, and aspect bad. He had been vomiting severely. There was no tension of the abdominal muscles. The dull area reached to the linea semilunaris. It was carefully watched, and was found not to be extending either that day or the next. No operation was therefore considered necessary. He eventually recovered, and the hæmorrhage was absorbed. It probably came from the mesentery. If asked, What symptom should warrant abdominal section?—which was a severe operation—he would reply, The onset of tympanites. When that symptom was present it portended a severe case, for it showed that peritonitis was beginning, and called for operation then and there.

Mr. Benham asked if there was any evidence of the presence of tubercle in the lungs in the author's first case. It was Louis's law that if tubercle was anywhere in the body it was invariably found in the lungs.

Mr. Robson, in reply, said that he thought the abscess in his first case was in the liver substance, from the feeling it had conveyed to his finger. The patient was examined as to his chest and other organs before and after the operation, but no other disease than that of the liver was found. As to his second case, it was difficult to account for these cases of rotation. Mr. Teale, who was present at the operation, had made a drawing of the appearances of the twist. Amongst the cases that most frequently twisted were ovarian cysts. In regard to his third case, he did not advise for every case the adoption of the treatment he had followed in that instance. He would usually advise laparotomy and search for the bleeding point. In a case of rupture of extrauterine fœtation he had fished up the bleeding point from the pelvis when the patient was quite pulseless, and arrested the bleeding; but there one knew where the bleeding point was. In the case reported that night, a search for such a point would have killed the patient. The hæmorrhage, moreover, was clearly not from a large vessel, as was proved by the time that had elapsed after the accident before severe symptoms supervened. The temperature of the water used for lavage was from 108° to 110°. He did not use general lavage unless it was quite necessary, as it was often attended by shock. Extravasated blood did not set up peritonitis for several days. Blood extravasated in the broad ligament, or in contact with intestine, would decompose.

Loculated Empyema.

Dr. J. W. Browne described this case. The patient was a strong man, aged 46, with a vague history of syphilis and spinal neuralgia, who between September 25th, 1891, and April 1st, 1892, had symptoms which suggested to different observers the diagnosis and treatment that follow. September 25th. Gall stones. September 30th. Perihepatitis or hepatic abscess, with right pleurisy or empyema. October 8th. Some abdominal lesion, necessitating exploratory incision, which was made with negative results. October 17th. Right pleurisy, displacing heart, also left pleurisy, probably

due to abscess of liver or vertebral disease. October 18th. Paracentesis of right thorax, with negative results. October 28th. Escape of pus from left pleura into left lung, pericarditis. October 31st. Limited left pneumothorax, consolidation of left lung. November 21st. Double pleurisy, probably by extension; no present or past pneumothorax, displacement of stomach, gall stones which had no causal association with the pleurisy. December 1st. Collapse of left apex; consolidation of left base, syphilitic or tuberculous. December 7th. Successful operation for loculated left empyema. After this the patient grew rapidly better, but some symptoms persisted, which invited still further explanations of his previous and present state. March 17th, 1892. Hydatids at back of liver. April 1st. Encapsuled pus at right base; shortly afterwards he recovered his full health and strength, with the exception of pain and weakness in his lower limbs after exertion.

Acute Intestinal Obstruction from Gall Stone.

Mr. F. Eve gave details of this case. The patient was a man, aged 42. Laparotomy was performed, and an impacted gall stone was found to occupy the ileum two or three inches from the ileo-cæcal valve. An attempt was made to push the calculus through the ileo-cæcal orifice, but unsuccessfully. The calculus was then worked up the ileum into a free loop, which was brought outside the abdomen, and, after applying elastic ligatures above and below, it was extracted through a longitudinal incision. Rectal alimentation was maintained for four days. The further progress of the case was uneventful, and the patient left the hospital at the end of three or four weeks. After operation it was elicited that eighteen years previously the patient had been subject to severe attacks of pain in the epigastrium, sometimes accompanied with vomiting. For seven or eight years he was never entirely free from pain, but about once a week had a severe attack. Ultimately the pain and attacks of vomiting ceased quite suddenly. He had never passed a gall stone. This trouble might be referred to the presence of a biliary calculus in the gall bladder, and the sudden cessation to its passage into the duodenum; so that it might be inferred that the calculus had occupied the intestine for some ten years. The calculus was cylindrical in shape, and its circumference 3¼ inches. The following suggestions were made with regard to treatment: 1. When a diagnosis was possible expectant treatment should be tried, as one-third of the cases of marked obstruction from gall stone recovered without operation. 2. Operative interference should not be long delayed as the patients were nearly all aged, the mean age being 64 years. 3. After opening the abdomen the calculus should, if possible, be forced through the ileo-cæcal valve. 4. If the calculus were immovable, or at a distance from the valve, and the intestine healthy, the stone should be excised. 5. When the intestine was inflamed, and the stone immovable and adherent to it, an attempt should be made to break the calculus up with needles; this failing it should be extracted, the intestine fixed to the abdominal wall near the wound, and surrounded with iodoform gauze. 6. In only 1 case out of 27 was it found necessary to resect the intestine on account of ulceration.

The President remarked that it was often impossible in these cases to make a correct diagnosis; but in all cases the sooner the operation was done the better, if it was to be done at all. He believed breaking up of the stone by a needle to be dangerous, as there was a liability to leakage into the punctures made by the needle. He narrated the case of a gentleman supposed to have cancer of the rectum, whose symptoms were due to a gall stone pressing against the anus, and acting as a ball-valve. The stone being removed the trouble ceased. He preferred a small incision for the removal of the stone.

After some remarks from Mr. Mayo Robson, Mr. Eve, in reply, said that his own bias was towards resection of the stone rather than the needling operation.

Donations and Bequests.—The late Mr. Thomas Lyon Thurlow, of 96, Eaton Place, and Baynards Manor, Surrey, has by his will bequeathed £50 to the Surrey County Hospital, Guildford.

MEDICAL SOCIETY OF LONDON.

Sir William Dalby, M.B., F.R.C.S., President, in the Chair.

Monday, January 14th, 1895.

Cycling and its Effects.

Sir Benjamin W. Richardson read a paper on this subject. He had been a practical cyclist since 1877 (over sixteen years), and had ridden with numberless riders of different ages and sexes and under the most varied conditions; he therefore ventured to detail from his experience certain of the effects he had observed. With regard to cycling and its effects upon the body at large, the author said that exercise told primarily and most distinctively on the heart, in which it differed from other exercises. In all riders at all ages it produced at once a quickened circulation, though riders themselves might not be conscious of the phenomenon. The effort might be so extreme as to cause the pulse to rise from 65 or 75 to 200 beats per minute, and although after a longer time it sobered down, it was always a quickened action which continued so long as the rider was at work. This act of quickened movement accounted for the astounding journeys a fully trained cyclist could undertake; journeys lasting two or three days and nights when the cyclist was in his prime. The same probably accounted for his endurance as against sleep, the circulation through the brain being one continued series of waves by which the molecular change of the brain occurring during natural sleep was suspended. The sounds of the heart and the readings of the pulse were then described, and the conditions under which the heart increased in action and sometimes underwent enlargement. He had, however, never once seen a rider embarrassed by cardiac overstrain, faintness, breathlessness, angina, or vertigo, so as to be obliged to dismount. Indeed he had known a practical rider who could climb a hill on his machine but could not mount a flight of stairs on his feet without breathlessness and slight palpitation; also he had never seen a sudden death from cycling. With regard to the after-effects of cycling as observed in the consulting room Sir Benjamin had met with instances in which after some years of cycling there was evidence of cardiac disease and inability to sustain fatigue if exercise were again tried on the machine. On the other hand he had known examples in which even an octogenarian had kept up the exercise in a moderate degree apparently with benefit to the circulation, and who in one journey had ridden from London to Bedford. In certain instances he had seen what appeared to be benefit arising from cycling, even when there was indication of some disease affecting the circulation. He had known good arise from it in cases of varicose veins, in examples of fatty degeneration, and unquestionably in conditions of anæmia. After describing opposite conditions in which excessive cycling had become a definite cause of injury to the circulation, the author proceeded to sum up the conditions in regard to the heart and circulation under which riding was favourable or unfavourable:—1. Cycling, when carried on with moderation, might, in so far as the healthy heart was concerned be permitted, or even recommended by practitioners of the healing art. 2. In all cases of heart disease it was not necessary to exclude cycling. It might even be useful in certain instances where the action of the heart was feeble, and where signs of fatty degeneration were found, since increased muscular exercise often improved the condition of muscle and of no muscle more than the heart itself. 3. As the action of cycling told directly upon the motion of the heart, the effect it produced on that organ was phenomenally and unexpectedly great in regard to the work it got out of it. 4. The ultimate action of severe cycling was to increase the size of the heart; to render it irritable and hypersensitive to motion. the cycling acting upon it like a stimulant. 5. The over-development of the heart under the continued over-action and extreme over-action affected in turn, the arterial resilience; modified the natural blood pressure, and favoured degenerative structural change in the organs of the body generally. 6. A fact that had only been incidentally noticed in the paper was worthy of notice, namely, that in persons of timid and nervous natures, "neurotics," the fear incidental to cycling, especially in crowded thoroughfares, was often creative of dis-

turbance and palpitation of the heart, and ought to be taken account of as a piece of preventive advice. 7. In advising patients on the subject of cycling, it was often more important to consider the peripheral condition of the circulation than the central. Enfeebled or worn out arteries might be more dangerous than the feeble heart, and when connected with a heart that was over-active, were seats of danger. This same remark would, of course, apply to cases where there was local arterial injury, as in aneurysm. 8. Venous enlargement seemed rather to be benefited than injured by cycling, and conditions marked by sluggish circulation through veins were often greatly relieved by the exercise. 9. There were three things which were most injurious in cycling: (*a*) Straining to climb hills and to meet head winds; (*b*) excessive fatigue; (*c*) the process of exciting the heart, and wearing it out sooner by alcoholic stimulants, and the omission of light, frequently repeated, and judiciously selected foods. 10. The time had arrived when practitioners of medicine everywhere should make observations for themselves that confirmed or confuted these observations.

The PRESIDENT expressed the pleasure he had felt at the conclusions arrived at by the author in view of the immense amount of good that cycling as an amusement had done both in this country and abroad. He gathered from the paper that for all practical purposes cycling might be regarded as a perfect exercise, and that its effects upon the heart, as compared with other forms of sport, might be disregarded.

Dr. SANSOM observed that the conclusion arrived at by the French Academy of Medicine, with the elaborate precautions enjoined upon persons wishing to take to cycling, bordered on the ridiculous. He questioned the assertion that 1 per cent. of persons had a condition of the heart in which cycling might prove specially injurious. Among the cases of tachycardia which he had brought before the Society in his oration there was only one example of a cyclist who developed tachycardia after a cycle race, and there was not a single instance in which irregularity of the heart could be attributed to overstrain in cycling, although the list, naturally enough, comprised several examples of athletic overstrain. Among the other forms of exercise which appeared to predispose to cardiac trouble, running to catch a train was perhaps the most frequent. Certain mental shocks, however, stood far above any form of physical shock in this respect. Not only did he agree with the author that the influence of cycling was far more for good than for evil, but he would even go so far as to advocate cycling, under certain restrictions, as a treatment for valvular disease, on Oertel's plan. As a hygienic and therapeutical means he thought cycling had materially contributed to increase the healthiness of the present generation.

After remarks from Dr. MACGEAGH, Dr. ROUTH, and Dr. WASHINGTON ISAAC, Dr. FLETCHER LITTLE observed that since the introduction of better saddle springs and the pneumatic tyre the tremulousness that was observed with comparative frequency in the days of the earlier machines had practically ceased to occur. He thought that carefully directed exercise on a light tricycle was an excellent means of treating dilated heart, provided, of course, that common sense precautions were enjoined and observed, the patient being warned against the excitement inseparable from riding through crowded streets.

Dr. SOLOMON SMITH suggested that the good effects of cycling as compared with other forms of exercise were due to the predominance of exercise over exertion, in that there was so much limb movement with a very small amount of actual labour. This led him to conclude that riding high-gear machines, by reducing the limb movement while increasing the labour, tended to bring back cycling to the category of exercises which were recognised to have a powerfully disturbing effect on the circulation.

Sir B. W. RICHARDSON, in reply, said it was an open question whether cycling could safely be recommended for persons suffering from valvular disease of the heart, and he always took care to leave the responsibility of deciding upon the patient himself. He thought running to catch a train was the most dangerous exercise there was. He had been one of the first to call attention to the evil effects of vibration as it occurred with the older forms of machine, but that was now a thing of the past. Much of the irritability of the circulation that used to be observed was doubtless due to this vibration, which was transmitted through the feet, the spinal column, and the hands. Excepting overstrain, he saw no reason why cycling should not prove as beneficial to women as to men, especially those in whom there was a tendency to anæmia, against which cycling was the best possible remedy.

HARVEIAN SOCIETY OF LONDON.—The following is a list of names of gentlemen proposed by the Council as officers of the Society for the year 1895: *President:* *Sir John Williams, Bart. *Vice-Presidents:* Mr. Bayley Owen, Mr. D'Arcy Power, *Dr. W. Hill, *Dr. E. Clifford Beale. *Treasurer:* Mr. H. Cripps Lawrence. *Hon. Secretaries:* Mr. Peyton Beale, *Dr. Cagney. *Council:* *Dr. Boxall, Mr. Henry Davis, *Mr. G. Eastes, Dr. Charles Gross, *Mr. W. F. Hazel, *Mr. S. Hurbutt, *Mr. Henry Juler, Mr. Howard Marsh, Mr. Malcolm Morris, Mr. E. W. Roughton, Dr. J. E. Squire, *Dr. Samuel West. An asterisk is prefixed to the names of those gentlemen who did not hold the same office the preceding year.

BOURNEMOUTH MEDICAL SOCIETY.—At a meeting held on December 21st, 1894, Mr. PARKINSON, President, in the chair, a resolution was passed recording regret at the death of Dr. Bisset Hawkins, one of the hon. members.—Dr. MUSPRATT showed a case of peculiar Skin Affection. On the radial side of the second phalanx of the left forefinger was a raised ring about as large as a sixpence. The history was that it had begun as a slight wart, and had extended at the periphery, while the natural skin became restored in the centre. The patient was a healthy girl of about 20. It was not tender, and there was nothing in her occupation to account for it.—Mr. T. FRED. GARDNER showed a case of Deformity of the Scapula in a child.—Mr. BERNARD SCOTT showed a patient in whom he had removed the internal Semilunar Cartilage from the Knee.—Mr. MAHOMED read notes of a "Post-mortem in a Case of Acute Dilatation of the Stomach, with Short Notes of the History." The affection arose during convalescence from pleuro-pneumonia, and was rapidly fatal. The patient was a volunteer, aged 20. Mr. Mahomed argued that excessive secretion was a factor in the disease besides the loss of muscular power in the stomach walls. He found that in all the recorded cases the history showed the existence of some primary disease in the vagus tract.—Mr. KEMBLE read notes of a case of Convulsion occurring at 4½ months of pregnancy, and accompanied by Hemiplegia. There was no renal incompetency. The fits had been very persistent before he saw her. Trinitrine was very efficacious in the first instance, but the fits recurred three weeks later, and it then proved of no value. Bromides were then successful. The hemiplegia was transitory. Gestation was now proceeding, without disturbance of health, and had advanced to seven months.—An adjourned discussion followed on the PRESIDENT'S address on "The Wants of the General Practitioner."

LARYNGOLOGICAL SOCIETY OF LONDON.—The following are the officers and Council for 1895: *President:* Felix Semon, M.D. *Vice-Presidents:* E. Cresswell Baber, M.B.; Charters J. Symonds, M.S. *Treasurer:* H. T. Butlin. *Librarian:* E. Clifford Beale, M.B. *Secretaries:* Scanes Spicer, M.D.; W. R. H. Stewart. *Council:* Dundas Grant, M.D.; A. Bronner, M.D.; F. W. Bennett, M.D.; J. W. Bond, M.D.; Percy Kidd, M.D.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting held on January 10th, the following list of office-bearers, Council, and Pathological and Microscopical Committee was adopted:—*President:* Chauncy Puzey, F.R.C.S. *Vice-Presidents:* C. G. Lee, M.R.C.S., J. W. Warburton, M.D., *W. Macfie Campbell, M.D., *G. G. Hamilton, F.R.C.S.Edin. *Honorary Treasurer:* A. Bernard, M.B. *Honorary General Secretary:* *R. S. Archer, M.D. *Honorary Secretary to Ordinary Meetings:* Charles H. Shears, M.R.C.S. *Honorary Librarian:* *K. Grossmann, M.D. *Council:* L. R. Bradshaw, M.D., J. E. Gemmell, M.B., J. Middlemass Hunt, M.B., Rushton Parker, F.R.C.S., G. S. Stansfield, M.R.C.S., *H. G. Rawdon, F.R.C.S.Edin., *R. W. Murray, F.R.C.S., *W. T. Thomas, F.R.C.S., *A. H. Wilson, M.R.C.S., *Richard Williams,

M.R.C.S., J.P., *R. J. Hamilton, M.R.C.S., *F. C. Larkin, F.R.C.S. *Auditors:* *G. S. Stansfield, M.R.C.S., *William Crozier, M.R.C.P.I. *Pathological and Microscopical Committee:* J. H. Abram, M.D., F. H. Barendt, M.D., F.R.C.S., A. Barron, M.B., *Rubert Boyce, M.B., A. W. Campbell, M.D., T. B. Grimsdale, M.B., G. G. Hamilton, F.R.C.S.Edin., F. C. Larkin, F.R.C.S., J. R. Logan, M.B., R. W. Murray, F.R.C.S., Frank T. Paul, F.R.C.S., W. T. Thomas, F.R.C.S., and Joseph Wiglesworth, M.D. Those marked * did not hold the same office last year.

Manchester Medical Society.—At the annual meeting held on January 9th the following office-bearers, members of Committee, Library Committee, and auditors were elected for the year 1895: *President:* Mr. F. A. Southam. *Vice-Presidents:* Dr. Edge, Dr. Railton, Dr. Robertson, Dr. Yeats. *Treasurer:* Dr. Glascott. *Secretary:* Mr. Coats. *Committee:* Dr. Bury, Dr. Carson Clarke, Mr. Collier, Dr. Delépine, Mr. Fawsitt, Dr. Griffith, Dr. Harris, Mr. Milner, Dr. Moritz, Dr. Stallard, Mr. Thorburn, Dr. White. *Library Committee:* Dr. Kelynack, Mr. Larmuth, Dr. Reynolds, Dr. Wild, Dr. R. T. Williamson. *Auditors:* Dr. Milligan, Mr. E. Roberts.

REVIEWS.

A Treatise on Diseases of the Skin, with special reference to the Diagnosis and Treatment. By T. McCall Anderson, M.D. Second edition, revised and enlarged, with plates and numerous illustrations. London: Charles Griffin and Co., Limited. 1894. (Roy. 8vo, pp. 782. 25s.)

Dr. McCall Anderson devotes this book specially to a consideration of the symptomatology, diagnosis, and treatment of diseases of the skin. The present edition has undergone thorough revision, some of the chapters having been entirely rewritten, and many new articles added. The author has wisely secured the assistance of Dr. Cameron, who is responsible for most of the purely surgical sections, including those on sebaceous cysts, anthrax, pustula maligna, dermatitis calorica, nævus, and epithelioma. Dr. Savill gives an account of dermatitis exfoliativa epidemica, which he was the first to describe, and which a recent outbreak in London has again brought prominently before the public. It was desirable that an account of this malady should appear in a textbook of skin diseases, so that attention may be more prominently called to it, if we are in the future to see successive outbreaks of such a serious affection.

Dr. Anderson believes in the existence of a special strumous eczema. Certainly the symptoms of eczema occurring about the nose, eyes, mouth, and ears of strumous children are both common and distinctive, but whether their peculiarities are due to the "strumous constitution" or to simple debility is a matter not easy to determine.

Very wisely, Dr. Anderson has obtained the services of Dr. Unna to write the chapter on seborrhœic eczema, to which no fewer than thirty pages of the book are given. Dr. Unna's doctrines in regard to the cases of eczema to which he has given this special appellation are by no means universally accepted. But it is well that so active and skilled an observer should have a good opportunity of placing his views on this subject before English readers. As is fairly generally known, Dr. Unna believes that there is a local seborrhœic production of fat, limited to the lesions in this disease, which is independent of the regional fat function. To unravel Dr. Unna's statements regarding this affection is impossible here, but his own words may be quoted to the effect that if any elementary form can be established as primary and real, "it is for seborrhœic eczema the scaly spot." In its treatment we observe that sulphur, chrysarobin, salicylic acid, ichthyol, and resorcin occupy the chief place.

In this edition there has been added to the illustrations chromo-lithographs of xeroderma pigmentosum and xanthoma multiplex, and seventeen additional wood engravings.

It is interesting to note that Dr. McCall Anderson still thinks that there is a field of usefulness for tuberculin in the treatment of lupus, considering that the best cases for its use are those in which the whole patch is in a state of ulceration. He believes that its judicious use can convert a severe case into a slight one.

There is much useful and interesting matter in this substantial volume on diseases of the skin.

Yearbook of Pharmacy, comprising Abstract of Papers relating to Pharmacy, Materia Medica, and Chemistry. London: J. and A. Churchill. 1894. (Demy 8vo, pp. 607. 10s.)

The Pharmaceutical Conference—an organisation for the encouragement of pharmaceutical research and the promotion of friendly intercourse among pharmacists—presents to its members annually a yearbook which contains the latest information upon matters relating to chemistry, pharmacy, materia medica, and also the proceedings of the yearly meeting. The present volume includes abstracts of papers which have appeared in the British and foreign journals from July 1st, 1893, to June 30th, 1894. The character of the book is fully maintained as a reliable annual collection of matters useful to the pharmacist. The abstracts are precise and clear, and it would appear from their number that all available sources of information have been fully utilised. During the year the already long list of synthetic remedies has been still further lengthened by a number of additions. Asparol, malakin, and thermodin have been introduced as new antipyretics and antirheumatics. Lycetol, represented to be dimethylpiperazine, and nasrol a sulpho-caffeinate of sodium, are recommended as efficient diuretics. A sedative is brought forward under the name of sedatin; its composition is stated to be paravalerylphenetidin.

Sanguinol is a new blood tonic, consisting of 10 per cent. oxyhæmoglobin, 44 per cent. of peptonised albuminoids and 45 per cent. of the ash constituents of blood.

A considerable number of vegetable drugs have been investigated during the past year with special reference to their constituents. The chemistry of ipecacuanha has been extended, and four distinct crystalline principles have been separated from squill (urginea scilla). Further researches upon the aconite bases have thrown a new and interesting light upon the nature of these bodies. The assay and standardisation of galenical preparations of aconite may become possible from the fact that from aconitine a constant quantity of acetic acid can be obtained on heating, or by hydrolysis.

There is a valuable collection of notes and formulæ, and also a very complete bibliography of the year in chemistry, materia medica, pharmacy, etc.

The Johns Hopkins Hospital Reports. Report in Neurology, II. By Henry J. Berkeley, M.D. Baltimore: The Johns Hopkins Press. 1894. (Roy. med. 8vo, pp. 128, 1.50 dols.)

The present volume of the *Johns Hopkins Hospital Reports* is one of exceptional interest for neurologists, containing as it does a number of valuable researches on the innervation and histology of various organs, all elucidated by the application of the Golgi silver methods which, with certain modifications in the author's hands, have given results of uniform success. Besides these strictly neurological articles, there is one of medico-pathological interest on dementia paralytica in the negro. Dr. Berkeley shows as the result of his inquiries that general paralysis of the insane is on the increase among the negro races, and that this is especially so in those states "where the negro comes into sharp competition with the white man (for example, the Western and North-Western States), and it is to these localities the mentally better developed negroes are drifting, the more indolent and less mentally active ones remaining in their native States." Statistics show that since 1870 the increase has been notable, and while giving due weight to such factors as improvidence, disregard for hygiene, excessive venery, etc., which are prevalent among these people, he shows that the main factor is the increase of the social stresses under which the negroes live in these States, and that these stresses are competent to bring out the neurosis in question. The clinical progress towards dementia is rapid in these cases, and the pathology corresponds to the account given by Bevan Lewis.

Of the remaining articles the second deals with the histology of the liver, and the nerve endings in the hepatic and biliary epithelium, and in the blood vessels, illustrated with an excellent plate.

The pulmonary nerve endings are next studied, also with the Golgi method, and the distribution of the nerve fibres to the vessels and to the bronchial epithelium and glands clearly shown. In all these cases the terminations are by free blunt points, as Golgi, Cajal, and Retzius had shown for other secreting tissues. In the ventricles of the heart a similar ending is present, side by side with a rudimentary digitiform expansion of the ending, applied to the muscle fibre but not reaching the extent and complexity of ramification observed in skeletal muscles. In the submaxillary and thyroid glands the author obtains excellent silver stainings with the picric acid modification, which shows free bulbous endings into which the fibres break up, these terminal points piercing the basement membrane of the alveoli, to be distributed about the bases of the cells, though a few penetrate in between the individual cells, some even reaching the free borders of the lumen. The concluding article on the nerve elements of the pituitary body strikingly confirms the discoveries of Lloyd Andriezen concerning the structure and functions of that organ. The author confirms the presence of secretory fibres in the anterior lobe, and of special sensitive nerve structure in the posterior lobe enclosed within a shell of neuroglia tissue. This structure presents a remarkable structural analogy to the olfactory bulb, the peripheral (protoplasmic) processes of many of its nerve cells being directed towards the surface of the organ, and others ending along the margins of the infundibular duct. These are very like the glomerular (sensitive) expansions of the mitral cells in the olfactory bulb, and suggest a similar function (osphradeal or water testing, as was shown by Andriezen). This function being lost in the higher vertebrata, an overgrowth of neuroglia has taken place, enclosing these cells more completely, as can be seen in the pituitary gland of the dog; in these higher vertebrates, therefore, this function must be quiescent. The author adduces further evidence concerning this organ, and its significance in the animal kingdom. Among so many articles where the intrinsic excellence is so high, it is difficult to select those for special mention, but we would especially draw the reader's attention to the first (on dementia paralytica, etc.), and the last (nerve elements of the pituitary) as contributions of real and permanent value in neurology.

Aeussere Einflüsse als Entwicklungsreize. [The Influence of Environment on Heredity.] Von August Weismann. Jena: Gustav Fischer. 1894. (Demy 8vo, pp. 80. M. 2.)

This is the German edition of the Romanes Lecture for 1894, with an appendix relative to a controversy between Herbert Spencer and the author. Weismann commences the lecture by an attack upon the view held by Nägeli that evolution is due to internal inherent forces within the organism, and he gives several illustrations of the important part played by the environment in forming and transforming living organisms. He then discusses the views of Wilhelm Rouse regarding "intraselection" giving as his own opinion that the qualities of cells and biophores (differing as they do from each other in their ready reaction to stimuli) give ample opportunity for the operation of intraselection. The facts discovered by Siebold and Leuckart regarding the sterility of bee workers, the changes in Artemia observed by Schmankewitsch, and the observations of Yung on the sex of tadpoles are then discussed, and explained in terms of the theory of heredity propounded by Weismann. It would be difficult even for an expert to follow this lecture without carefully reading Weismann's recently published book on the Germ Plasm, where the author's ideas concerning biophores, determinants, ids, and idants are fully stated. Provided with this previous knowledge, there are some readers who will follow with interest and satisfaction Weismann's attempt to explain the phenomena of the organised world by conceiving organic matter as made up of ids and idants endowed with the very qualities which have to be explained. Such readers will follow with earnest appreciation the *rôle* of biophore and id in the production of the worker or queen bee. With Weismann they will suppose that the germ plasm of the bee consists of different kinds of ids, some of which contain the primitive constituents of the workers and others of the queen; the queen ids becoming active on good food, while the worker ids become active on low living. Other readers perhaps may consider that the question is obscured by this added complication: they may prefer to turn from the conceptualised Nature of Weismann to the Nature of which Darwin and Galton have written, which can be examined, experimented upon, and described in simple language by anyone who is so disposed.

It is to be regretted that in this lecture some clear issue was not kept in view and its discussion more fully attempted. We are constantly led into by-ways and controversies which lead nowhere. Thus several pages are devoted to a repetition of the view held by many that the sterility of bee workers is caused by or is a direct consequence of their bad feeding in the larval state. Weismann holds that this is incorrect, and quotes his own experiments on flies (diptera), which when ill-nourished were nevertheless fertile. This shows that ill-nourishment does not produce sterility in the fly as in the bee, and it is gravely insisted upon that we must look upon the fly as different from the bee—a position which the most obstructive would surely grant. We are then told that bad nourishment is a stimulus, but not the cause of sterility—a discussion which at once resolves itself into the meaning to be attached to the word "cause."

Practical Manual of Diseases of Women and Uterine Therapeutics. For Students and Practitioners. By H. Macnaughton-Jones, M.D., M.Ch., M.A.O. Sixth Edition, Revised and Enlarged. London: Baillière, Tindall, and Cox. 1894. (Cr. 8vo, pp. 794, 487 Illustrations.)

This well-known handbook maintains its popularity, as this issue of a sixth edition amply demonstrates. It is clearly popular amongst practitioners and qualified specialists, for whom it is so well adapted. The newest opinions on diseases of women, the latest therapeutic discoveries, and the most recently contrived instruments for the treatment of the diseases of women are duly noted. The section on diseases of the mammary gland has been omitted to make way for new chapters on uterine reflexes, sutures, and ligatures, the surgical treatment of fibroids, diseases of the Fallopian tube, chronic affections of the ovaries, and tubal pregnancy. We may award an honourable mention to the chapter on sutures, which is fully illustrated. Naturally this chapter is a compilation, but the practitioner does not care to load his bookshelves with the original works of every specialist, whilst to the gynæcologist the bringing together of every authority's principles and practice within a few pages saves time and trouble. To those unable to attend the operative practice of acknowledged experts these descriptions of knots and sutures will prove valuable.

An Index of Medicine. A Manual for the Use of Senior Students and Others. By Seymour Taylor, M.D., Senior Assistant Physician to the West London Hospital. London: Smith, Elder, and Co. 1894. (Cr. 8vo, pp. 808. 12s. 6d.)

The title of this volume will apt to be misleading to those who have in mind Keetley's well-known *Index of Surgery*, to which volume it was, indeed, first intended as a companion. The author tells us in his preface that it was found that the consideration of medical diseases, if taken alphabetically, would entail so many and such complex cross references, that the work, to fulfil its title, would be disjointed and useless. We think he has done wisely in abandoning his original plan, for to the class of reader for whom the work is intended, a systematic treatise or compendium is quite as easy of reference as the strictly alphabetical arrangement. The volume is, however, if not an index in form, a most concise and comprehensive one in substance as far as its scope will allow, which is defined as designed for students preparing for their final examinations, and not as a textbook. But though admittedly not a textbook for beginners, yet as a supplement to the larger standard treatises, and so as a means of

codifying the knowledge of the more advanced, it will prove invaluable. It contains all the subject matter usually found in volumes of much greater pretension, with the omission of all matters not immediately bearing on the point at issue, and we can confidently recommend it as a compendium of unusual compactness and lucidity, having in no manner the usual character of such books, namely, the sacrifice of completeness to portability. It is thus equally suitable to the advanced student or the practitioner. The addition of several boldly executed diagrams and of much tabulated matter materially enhances its value.

LECTURES ON THE DARWINIAN THEORY. Delivered by the late ARTHUR MILNES MARSHALL, M.A., M.D., F.R.S., Professor of Zoology in Owens College. Edited by C. F. MARSHALL, M.D., B.Sc., F.R.C.S. With 37 Illustrations. London: David Nutt. 1894. (Pp. 236. 7s. 6d.)

THIS volume consists of a series of lectures delivered by the late Professor MARSHALL in connection with the Extension Lectures of the Victoria University during the year 1893. The editor states in his preface that they have been amplified where occasion demanded from other unpublished lectures by the same author, and that any alteration in the fulness of the text is due to the variable nature of the original MS., much of which was in the form of notes. Although it is to be regretted that these lectures were not elaborated and prepared for publication by the author himself, yet owing to the complete and conscientious care which the editor has bestowed on their production, the result is such that little can have been lost on this account. The book will form a useful contribution to the literature of Darwinism, since the lectures were delivered by one of Darwin's most earnest disciples. A large majority of the illustrations are taken from original drawings by the author or from photographs from Nature, and a few are modified from other sources.

PULSE GAUGING: A CLINICAL STUDY OF RADIAL MEASUREMENT AND PULSE PRESSURE. By GEORGE OLIVER, M.D. F.R.C.P. London: H. K. Lewis. 1895. (Foolscap 8vo, pp. 188, plates 20. 3s. 6d.)

THIS original monograph is divided into two parts. The first deals with the measurement of the size of the arteries, and, as from time immemorial, the radial is the one selected. The author first describes his instrument for determining the calibre of the artery—the arteriometer. The diameter of the artery is obtained by bringing a pad, connected with an indicator on a dial, in contact with the artery, and then obliterating the lumen of the artery. In health the calibre of the arteries is constantly varying in relation to change of posture and other physiological conditions such as exercise, digestion, external temperature, etc. In an addendum these clinical observations receive the support of physiological research at the hands of Mr. L. Hill. The calibre of the arteries may, however, remain uniform when the position of the individual is changed; this may be temporary, and is then most often due, not to organic change in the arterial wall, but to increased blood pressure, or permanent as in chronic interstitial nephritis, chronic gout, arterio-sclerosis, acquired syphilis, and myxœdema. Here the explanation is structural change in the vessel wall. The practical applications of the arteriometer (1) in forming a diagnosis in certain cases, and (2) in suggesting the appropriate treatment, especially with regard to baths, are succinctly indicated.

The second part deals with the estimation of pulse tension by the author's pressure gauge, which is arranged on the same lines as the arteriometer. The instrument is of a convenient form, and appears to be admirably adapted for clinical use, and therefore meets a long felt want, since the instruments devised for this purpose by Von Basch, Potain, and Roy and Adami, are adapted rather for laboratory than for ward work.

The signs of *plus* and *minus* arterial tension, as furnished by the author's instrument, are described. A chapter on the treatment of high tension, illustrated by cases investigated by means of the arteriometer and pressure gauge, is followed by a terse summary.

This book should be read by every clinical physician, not only for the new and promising methods of clinical research that it contains, but also for its suggestiveness and practical bearings.

HELPS IN SICKNESS AND TO HEALTH. By HENRY C. BURDETT, London: The Scientific Press. 1894. (Cr. 8vo, pp. 500, 5s.)

THIS is a book which may well find a place in every house. It is a sort of first aid in emergencies, bristling with suggestions, well padded with wise saws, and prefaced by a dozen chapters of useful information on various subjects appertaining to health. Beginning at the nursery information is given as to walls, flooring, baths, clothing, and even playthings. Hints are thrown out as to school hours, desks, eyesight, and hours of sleep. The chapter on the care of the person will be interesting to many, especially the portion devoted to the different kinds of baths. A great deal of useful knowledge is compressed into the portion devoted to the arrangements of the house. It may seem rather elementary, but the book is written for ordinary people, whose knowledge on such matters is even more elementary still. The chapter on the sanitary powers and duties of the citizen is useful, while that on health resorts and "cures" gives a great deal of information which would not be easily got together by one who had not access to special works on the subject.

The second part, on the treatment and nursing of emergencies and simple ailments, is good although not perfect. The difficulty is to draw the line; how to select, when the attempt is made, for example, to treat of diseases of children in ten pages. The obvious impossibility must excuse defects; but here again a great deal is told which ordinary people seem not to know, and hence its usefulness.

The speciality of the book comes in Part III, in which are given particulars as to the terms of entrance, hours of admission, etc., of all institutions in England and Wales for the relief of sickness or bodily infirmity; where to apply in case of fever, or of mania, the addresses of lying-in institutions, of pay hospitals, of special hospitals, etc., are given in profusion.

PHANEROSKOPIE UND GLASDRUCK FÜR DIE DIAGNOSE DES LUPUS VULGARIS. [Phaneroscopy and Glass Pressure in the Diagnosis of Lupus Vulgaris.] Von OSCAR LIEBREICH. Mit drei lithographirten Tafeln. Berlin: August Hirschwald. 1894. (Demy 8vo, pp. 46. M. 4.)

IF a tube, for example the tube of a very thin stethoscope, with a funnel-shaped end for application to the ear, is pressed against the pulp of a finger and the funnel-shaped end placed before the eye the part of the finger enclosed in the small end of the stethoscope is seen as a disk of uniform redness. The skin is seen "diaphanoscopically." If, however, the source of light and the eye are placed on the same side of the finger we see the disc as a reddish centre surrounded with a clear yellow ring. This condition is described by LIEBREICH as "phaneroscopic," and as compared with diaphanoscopic illumination it possesses the advantage of illuminating the epidermis alone. But before this method of using light can be advantageously employed it is necessary to use some optical apparatus. A plano-convex lens, having a focal distance of 120 mm. and a diameter of 57 mm., affords the requisite illumination, the convex side being turned to the source of light. In order to use this light advantageously a diaphragm is needed. To fulfil these various purposes and otherwise to improve this method of using light, Liebreich has caused to be constructed a "phaneroscopic lantern," the principle and use of which are described in this work with considerable detail. He has employed it so far mostly in the diagnosis of lupus, and goes so far as to say that no one should talk of a lupus being healed until the cure is confirmed by the use of phaneroscopic illumination, and another method which he has introduced under the name of "glass pressure." The latter is simple both in idea and use. When we wish to distinguish a simple erythema from a permanent congestion, we press the finger on the red part, and on lifting it, observe whether we have expelled all the blood. But the rapid reentrance of the blood when we lift the finger, renders this

method somewhat inaccurate. To obviate this, Liebreich recommends and uses a round or oval plate of glass with parallel surfaces of about 16 mm. diameter, fastened in a metal handle, one surface of the glass projecting a millimetre and a-half beyond the holder. By the use of these combined methods of phaneroscopy and glass pressure, Liebreich states that he has been able to observe small lupus patches which could not be detected by the naked eye, and in patches which are visible to the naked eye it enables us to see the extent to which the diseased process encroaches on the healthy tissues. Through glass pressure, he remarks, we can make certain whether nodules are present under the epidermis, and through phaneroscopic illumination we can ascertain how far the disease extends. Hitherto, he remarks, it has been impossible to make the diagnosis with similar certainty. These statements are illustrated by a report of cases in which lupus patches were diagnosed months before they could be detected by the naked eye, and by useful coloured plates, in which the appearances under phaneroscopy and glass pressure are shown and contrasted with naked eye appearances. Full details regarding the construction of this lantern are given in the work.

BIBLIOTHECA MEDICA. Herausgegeben von Drs. BOEN, FLÜGGE, GRÜTZNER, HITZIG, KAST, KOCHER, KÖNIG, MIKULICZ, NAUNYN, NEISSER, PONFICK, and WEIGERT. C. Heft 1, and D1, Heft 1. Cassel: Fisher and Co. 1893. (Super roy. 4to, pp. 25 and 54.)

A WORD must first be said concerning the object of this serial publication. It is intended to cover the whole field of the medical sciences, but it will not enter into competition with any existing periodicals, as it is to include articles which, by reason of their length or illustrations, cannot find a place in the ordinary journals, etc. Each article will appear in a separate part, and may be thus purchased.

The first part before us, by Dr. Eduard Asmus, contains an exhaustive account of a case of syringomyelia, with illustrations of the lesions found. It is a case of considerable interest from the great difficulty of distinguishing it in the earlier stages from hysteria.

The second part, by Dr. Wilhelm Weintraud, of the Strassburg Clinic, contains an article upon metabolism in diabetes and the dietetic treatment of the disease. It is based on an elaborate investigation of four cases of diabetes. It shows the value of a diet not only restricted qualitatively but even quantitatively, discrimination, of course, being exercised. It is impossible to summarise in a short space the contents of this paper, but we may confidently refer those interested in this subject to its pages. The article is illustrated by numerous tables of the results obtained in the course of the investigations.

HANDBUCH DER SPECIELLEN THERAPIE INNERER KRANKHEITEN. [Handbook of the Special Treatment of Internal Diseases.] In sechs Bänden. Herausgegeben von Dr. F. PENZOLDT and Dr. R. STINTZING. Lieferungen v to viii. Jena: Gustav Fischer. 1894.

THESE four parts deal with poisoning by various vegetable products and by morphine and cocaine, general gymnastic and massage treatment, diseases of the respiratory organs, including general treatment and pneumato-therapy, etc., acute and chronic rheumatism and the rheumatoid diseases, along with diseases of muscle, bone disease embracing rickets and osteomalacia, diseases of the nose, pharynx, and larynx, and some diseases of the skin.

The part by Professor Husemann concerned with the treatment of poisoning by vegetable products is most complete, and will make an excellent work of reference. Morphinism and cocainism, by Dr. Erlenmeyer, are not less successfully and practically given. The illustrated account of osteomalacia, by Professor Winckel, is most interesting; all the possible methods of treatment, including oöphorectomy, come under discussion. The prophylaxis and general treatment of respiratory diseases, by Professor Jürgensen, is an important section.

The treatment of diseases of the throat and larynx is mostly written by the well-known specialist, Professor Ph. Schech. Professor Kaposi gives the general treatment of skin diseases, including a description of the bath treatment so efficiently carried out in his Vienna Clinic. Thes four parts maintain throughout the same high standard o thoroughness so conspicuous in the previous parts.

JAHRBUECHER DER HAMBURGISCHEN STAATS-KRANKENANSTALTEN, Band III, 1891-92 [Reports of the Hamburg State Hospitals]. Herausgegeben von den Aerzten unter Redaktion von Professor Dr. RUMPF. Hamburg und Leipzig: Leopold Voss. 1894. (Demy 8vo, pp. 314 and 517.)

THIS volume contains the Reports of the New and Old General Hospitals, the Seamen's Hospital, and the Friedrichsberg Asylum in Hamburg. The first part consists chiefly of tabulated statistics of the patients treated in these institutions with the results obtained. The second part is made up of a number of original articles by members of the various staffs. The year 1892 will long be remembered for its appalling epidemic of cholera in Hamburg. It was, therefore, to be expected that this dreaded disease would occupy considerable attention in these reports. The articles on this subject deal with the disease in its various aspects, the treatment including subcutaneous infusion and intravenous transfusion being accorded a prominent place. Among other interesting subjects dealt with, gonorrhœal rheumatism by Dr. Gläser, a case of acromegaly due to a tumour of the hypophysis, by Dr. Boltz, gastro-enterostomy by Dr. Lauenstein, and an epidemic of conjunctivitis by Drs. Saenger and Staelin may be mentioned. The paper on gastro-enterostomy is of considerable value, for although the results were far from encouraging, yet it is only by the report of unsuccessful as well as successful cases that a correct estimate of the value of this procedure can be formed. These hospital reports are well in keeping with the considerable reputation already obtained by the Hamburg School.

A MONOGRAPH ON DISEASES OF THE BREAST, THEIR PATHOLOGY AND TREATMENT, WITH SPECIAL REFERENCE TO CANCER. By W. ROGER WILLIAMS, F.R.C.S., late Surgeon, Western General Dispensary, and Surgical Registrar Middlesex Hospital. London: John Bale and Sons. 1894. (Royal 8vo, pp. 580, 76 figures. 21s.)

MR. ROGER WILLIAMS has endeavoured in this book to meet a decided want by submitting to the profession a review of the many recent additions to our knowledge concerning the pathology and surgical treatment of diseases of the breast. He has certainly spared no pains to render his monograph complete and trustworthy. The reader will find in it not only a full record of the work that has lately been done by others at home and abroad, but also much useful teaching based on the author's personal experience, and on a careful study of the abundant clinical experience that has been placed at his disposal. In spite of its claims to a favourable reception, this work will, in consequence of the amount of pathological detail and statistical information so abundant in almost every part, be found useful probably rather for reference than for continuous perusal.

A considerable portion of the book (285 pages) is devoted to the all-important subject of cancer. The author in discussing clearly and at full length the present controversy on the pathogeny of cancer, opposes the view of the parasitic origin of the disease. He holds that there are strong *a priori* reasons for regarding this theory of cancer as improbable, and points out that the many attempts to demonstrate a special cancer microbe have hitherto failed. In the surgical treatment of mammary cancer he is an advocate for removal not only of the whole of the affected breast, but also of the fatty and glandular structures of the armpit, and a portion of the pectoralis major. Such treatment, he justly states, is not new nor of German origin, but its present adoption by British surgeons is simply a tardy recognition of teaching which was strongly urged a quarter of a century ago by Mr. Moore, of the Middlesex Hospital.

Among the chapters, apart from those dealing with mammary cancer, which make up this treatise, favourable reference

may be especially made to those on polymastia, and on malignant and other growths of the male breast.

UEBER DIE TIEFEREN EITERNDEN SCHIMMELERKRANKUNG DER HAUT UND UEBER DEREN URSACHE. Beobachtungen und Untersuchungen aus der Göttinger Chirurgischen Poliklinik. [On the Deeper Suppurating Diseases of the Skin associated with Parasitic Fungi, and their Cause. Observations and Investigations made in the Göttingen Surgical Policlinic.] Von Dr. F. J. ROSENBACH, Professor in Göttingen. Mit 1 Tafel in Farben und 5 Tafeln in Lichtdruck. Wiesbaden: J. F. Bergmann. 1894. (Roy. 8vo, pp. 44. M. 4.60.)

PROFESSOR ROSENBACH'S pamphlet appears at an opportune time. Sabouraud's interesting work on trichophyton has naturally excited great interest amongst pathologists and dermatologists. The demonstration that this fungus occurs in many varieties, each having its own culture characteristics and capacity to produce more or less severe inflammation in the skin in a somewhat uniform degree appears to rest on a firm basis. Professor Rosenbach's labours in this field are marked by great industry and scientific exactness, and this work is illustrated by plates admirably suited to fulfil the object which he has in view of enabling his readers to judge for themselves of the value and results of his observations.

He lays great stress on the temperature at which these fungi are cultivated. His incubator was kept at a temperature which varied between 18° and 22° C., and mostly stood at 20°. Unless the temperature is uniform cultures cannot be compared with each other. At a temperature of 37.5° C. he found that various kinds of trichophyton all grew in the same manner, and in a way which seemed to him to be pathological. The differences are shown mostly in the divisions of the mycelial threads. Whilst in those grown at a lower temperature the mycelial members have considerable length, only the older, thicker threads in the centre dividing into short square pieces, in those grown at a higher temperature the peripheral mycelia also divide into short divisions, so as to form small, rectangular pieces, whose breadth often exceeds their length. The author describes seven groups of trichophyton, a coloured plate showing the appearances which each of these groups gives when grown on potato. Two plates show photograms of potato cultures, and three more plates show photograms of these fungi as they appear under the microscope. To each of his groups he gives a name expressive of some of its characteristics. They are as follows: Group A. Trichophyton: holosericum, album. Group B. Trichophyton: fuscum, tardum. Group C. Trichophyton: planum, fusolargum. Group D. Trichophyton: plicans, fusisporum. Group E. Trichophyton: farinaceum, album, polysporum. Group F. Trichophyton: candidum, endosporum. Group G. Trichophyton: propellens, leptum.

THE VACCINATION QUESTION. A letter addressed by permission to the Right Hon. H. H. Asquith, Q.C., M.P. By ARTHUR WOLLASTON HUTTON, M.A. London: Methuen and Co. 1894. (Cr. 8vo, pp. 130. 1s. 6d.)

THIS violent polemic against vaccination is not written in a scientific spirit at all: on the contrary, we find here all the old statements used of late years, and refuted over and over again, together with some startling new ones, while the main body of evidence in the favour of vaccination is utterly ignored. The medical profession is badly treated by Mr. HUTTON. We gather from this work that the evidence of medical men goes for nothing at all. To begin with, they know very little about vaccination or small-pox, or anything else apparently; and, in the next place, vaccination has now become a religion with them, or, rather, a degrading superstition of harmful—nay, dangerous—character, "a *damnosa hæreditas*, which the medical profession is now bound to maintain out of respect to its own prestige, quite apart from the pecuniary interest involved." A large space is devoted to Jenner, and here we have Dr. Creighton's argument reproduced, that vaccination is to be discarded as a delusion because Jenner happened to choose a particular title for his celebrated pamphlet in 1796—namely, *Variolæ Vaccinæ*. "Vaccination is likely to prove, while the febrile symptoms still last, antagonistic to the small-pox infection." This is the utmost concession the author will allow. Dr. Creighton is also represented in this book as having "proved" that vaccination is a mild syphilisation, and we are even told that this theory "is hardly contested by the advocates of vaccination, who are content to rely solely on the evidence of statistics." This will be news to the advocates of vaccination. A considerable space is devoted to a discussion of the value of statistics, from which we gather that they are of no use at all, except when brought forward by the opponents of vaccination; for the only statistical tables in the book are two, giving the small-pox deaths and the percentage vaccination default in twenty-two towns or districts (but the population of the towns is not given). The report of the Royal Vaccination Commission is, of course, condemned beforehand by implication. Dr. Klein's paper "On the Etiology of Vaccinia and Variola" is discussed in very bad taste in a footnote, and afterwards in a postscript in six numbered paragraphs. The book ends with a Parthian shot in the form of a short letter by Professor Crookshank, who says that Dr. Klein's experiments "have not added in the least to the information we previously possessed."

PHOTO-MICROGRAPHY. By Dr. HENRI VAN HEURCK. English edition. Re-edited by W. E. BAXTER. London: Crosby, Lockwood and Son. 1894. (Demy 8vo, pp. 42. 1s.)

THIS is a translation, with additions, from the fourth French edition of that part of Dr. VAN HEURCK'S large work on the microscope which deals with photo-micrography. Those who are studying any particular science or art do well to obtain all the best books upon the subject of their study, as from each one they can cull some particular hint or suggestion which will help them forwards towards success. The book we are now noticing is one of these; it gives the particulars of the different apparatus used in photo-micrography, and describes in a short intelligible manner some of the processes. It concludes with notes from several well-known photo-micrographers, of whom the first one is the veteran micrographer, Dr. R. N. Maddox, who has from time to time given most valuable suggestions, and has always been ready to assist anyone in difficulties. There is also a note from Mr. Pringle, whose valuable book on the subject was reviewed in the BRITISH MEDICAL JOURNAL not long ago. The frontispiece is a photograph of one of Dr. Van Heurck's photo-micrographs of that very difficult diatom, amphipleura pellucida Kütz, magnified 2,000 times.

THE URIC ACID DIATHESIS: GOUT, SAND, AND GRAVEL. By Dr. F. LEVISON, Kreisarzt in Copenhagen. Translated from the German and edited by LINDLEY SCOTT, M.A., M.D.Aberd. London: Cassell and Co. 1894. (Cr. 8vo, pp. 152. 3s. 6d.)

THIS is a compact and well-translated book, up to date, and therefore worth reading, as giving a satisfactory sketch of the current views as to the part played by uric acid in the production of disease.

The first part deals with the physiology of uric acid. The author accepts the conclusions of Horbaczewski that uric acid is derived from nuclein, and that albuminous food produces an increase in the excretion of uric acid indirectly only, through a digestive leucocytosis, while the amount of urea is directly increased by proteid food. Dr. Haig's views, so well known in this country, do not meet with the author's approval. The theory of Garrod and Roberts that retention of uric acid in the blood, due to its defective excretion by the kidneys, is the cause of gout, is endorsed by Dr. LEVISON. In the section on the treatment of gout, lithia salts and piperazin are dismissed as being useless in acute gout.

In the third section of the book the subject of lithiasis is well and succinctly described, and its rational treatment discussed.

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BOOKS NEEDED TO COMPLETE SERIES.

The Honorary Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

AMERICAN CLIMATOLOGICAL TRANSACTIONS. Vols. 1 to 7.
AMERICAN JOURNAL OF THE MEDICAL SCIENCES. New series, vols. 4, 5, 1842-43; vols. 14, 15, 1847-48; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-65; vols. 59, 60, January, 1870; vols. 89, 90, 1892-93; vols. 94, or any parts of these vols.
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Applications for duplicates from medical societies forming libraries may be addressed to the Sub-librarian, 429, Strand.

A large number of Medical Officers of Health have kindly responded to the request of the Honorary Librarian by sending copies of their reports.

Calendars of all the important Medical Colleges and Schools for the session 1894-5 have been received in response to our request.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held at the College on January 10th. Mr. HULKE was in the chair.

After the minutes had been read and confirmed, a resolution of congratulation to Sir John Erichsen, Bart., was carried.

Messrs. William Anderson, Edmund Owen, and Herbert Page were introduced as members of the Court of Examiners.

A report was received from the Committee of Management, recommending that University College, Nottingham, be added to the list of recognised places of instruction in the elementary subjects of the Conjoint Examination. Further, that the Clinical Demonstrations in Lunacy, given by Dr. Julius Mickle and Dr. Hack Tuke, be recognised so long as they shall hold their respective lectureships on mental diseases in the Middlesex and Charing Cross Medical Schools.

It was resolved that the formulæ for the alteration of Sections iv, xvi, and xxv of the By-laws be approved and ordained by the Council, and signed by all members of the Council present.

The Solicitor of the College was instructed to take the necessary steps for submitting the formulæ to the Home Secretary for sanction and notification.

Mr. BRYANT, on behalf of himself and Sir James Paget, Bart., reported the presentation to the College by Mr. William Hunter Baillie, of portraits of John Hunter and William Hunter. John Hunter's clock, and two volumes of very valuable autographs.

It was announced that a *conversazione* would be given by the College on the occasion of the annual meeting of the British Medical Association in London this summer.

The next Council will be held on February 7th instead of the 14th, in consequence of the Hunterian Oration on that date.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

SPECIAL COMMISSION OF THE "BRITISH MEDICAL JOURNAL."

XXXIV.—OKEHAMPTON, DEVON.

OKEHAMPTON Workhouse having lately attracted the attention of the local press, we presented our credentials to the board at their fortnightly meeting, asking permission to visit. This was readily granted, and the matron was deputed to act as our guide.

The situation of the house would be admirable for a fishing lodge: it stands close to the river (the Torridge), with a sharply rising slope behind it, and a high bank facing it on the opposite side of the stream. This is not a suitable locality for a house designed mainly as a shelter for the sick and old. The present board, however, did not select the site, and will, we hope, shortly have it in their power to make a better choice, for the workhouse is so old and so faulty in construction that it can hardly be in use much longer.

THE WARDS

are on the first floor: that for the women is immediately off the staircase. It holds fourteen beds, the present number of inmates being six; these were all out of bed, and we found them in a small day room adjoining. This room was warmed by an open stove, which smoked persistently. The patients were cases of old age, or had some slight ailment which did not confine them to bed; some were occupied with needlework.

THE APPEARANCE

both of ward and day room was comfortless and bare: the walls are whitewashed, and without any attempt at decoration, unless the dado of matchboarding in the day room may be considered such; the roofs are pitched, with transverse beams, and from these are suspended some temporary bedpulls made with cord and a bit of wood. We were struck by the absence of armchairs; there might have been one or two, but many of the patients were seated on a bench against the wall. There were no pictures, no plants, nothing to relieve the weary monotony.

THE BEDSTEADS

are narrow (33 inches) and low; the bedding is chaff, changed twice a year, or oftener if necessary. It was sufficient, and quite clean.

HEATING AND VENTILATION.

The ward is heated by an open fireplace at one end. The ventilation is by means of the windows, which are swung sashes, and there are some apertures in the roof, but we suspected that these were blocked by an accumulation of dust and dirt.

THE MALE WARD

is similarly placed in the other wing. It holds thirteen beds, and there is no day room. Three men were in bed in this ward—one with chronic rheumatism, his legs being contracted, one with softening of the brain, and the third with senility: about five men were up, one of whom was the wardsman. The style and appointments of this ward are similar to those on the women's side: it was well warmed by an open fire at one end, round which the men were seated on benches, some smoking.

THE LYING-IN WARD

is on the female side, close to the nurse's room; it has two beds. The ward, though clean, is too small to be healthy; but we were informed that it is seldom in use, though always kept in readiness. The nurse holds the certificate of a monthly nurse from a maternity hospital.

ISOLATION.

In conversation with the medical officer, Dr. Burd, we were informed that any case that required isolation would be treated in the receiving wards, and that any offensive case could be put into a small ward off the female ward, which was not in use at the time of our visit.

THE RECEIVING WARDS

open out of the court, and are furnished with a bath and water supply; there is a small ward on the ground floor, and another above it; in all, accommodation for three patients. These wards are clean, and supplied with fireplaces; but the nursing of a serious case of fever or small-pox would be carried on under difficulties in these quarters, for the fireplaces are small, the rooms are small, and, between window and door, it would be almost impossible to keep the patient out of a draught.

THE SANITARY APPLIANCES

for the wards comprised a w.c. on each side contiguous to the ward, with a good flush; they were clean and wholesome; and a supply of both hot and cold water. There was a long portable bath, both filled and emptied by hand labour. The only fixed bath we saw was in the receiving ward. Commodes are provided for use in the wards at night.

THE NURSERY,

in which we found five babies, is on the ground floor, a small room with fireplace and two windows, a boarded floor, and some most antiquated wooden boxes on rockers, the remains of the ancient cradles which in the old days were placed on a frame against the walls. The number of babes must have been formerly much larger, as the old nursery is a room twice the size of the present one. Here, as elsewhere, we noted with regret the absence of toys or picture book for the little ones, nor did we see any children's chairs or low seats for their use. The babes looked well, except one ailing little one, suffering from some temporary disturbance. The matron assured us that the infants had all the food that was ordered for them; she could quite trust the mothers to deal honestly by their children.

THE CHILDREN

in this workhouse seem badly housed: they are sent to the village school, but have no satisfactory play room when in the house. That for the boys is a paved whitewashed shed, with benches round it, one window, and a stove in a solid iron grating. Boys are likely to take to mischief in such surroundings. There are not many children in the house—about twenty all told.

DIETS.

Wishing to verify the statements concerning the dietary of the inmates as published in the papers, and to reconcile these with the reply to our query that the diets "were liberal and varied," we wrote to the clerk for a diet table, but not having received one, we conclude that the published diet gives the facts as they stand. For the able-bodied men, per week, 6 lbs. of bread, ¾ lb. of meat (meat boiled three times a week), 1 lb. of pudding, 6 ounces of cheese, 3 lb. of potatoes, 10½ pints of gruel, 3 pints of soup, 1 lb. of stew, 6 pints of broth, and ¾ pint of milk. This is a low diet if anyone will take the trouble to analyse it, and we are still in the dark as to the manner of cooking it. We saw that the cooking is done by an inmate whose intellect is not of the highest order; this may be no blame to the officers, who have to work with the material that they have: we also noticed that the cooking is done in boilers, thus admitting of no variety in the style, and, though the medical officer may have a free hand in varying the food of the sick, the range of his orders must be much fettered by the limitations of the cook and the scanty apparatus in the kitchen.

Dr. Burd is much attached to the scald milk diet for the children, and he has a right to his opinion as borne out by his experience; therefore we prefer to quote the opinion of one of the highest authorities on the feeding of young children, Dr. Cheadle, who says: "I wish to lay special stress upon the paramount importance of a due proportion of fat in the food of infants;" and again, "children fed on fresh milk never get scurvy except when the quantity is extremely small."

THE NURSE

recently appointed has not received hospital training, except as a monthly nurse, but has had experience of infirmary

work. We understood from the matron that it was part of of her duties to bathe and attend to the female vagrants; we cannot commend this arrangement; it must place the nurse in contact with disease and infection—a danger no monthly nurse should run.

The Workhouse Infirmary would practically receive all the destitute sick of the district, as there is no hospital nearer than Exeter, but there are not many who avail themselves of the aid offered, and the medical officer informed us that it was a rare thing to nurse an acute case in the infirmary.

Recommendations.

We cannot in common honesty recommend anything less drastic than the building of a new workhouse; a comparatively small outlay in smoothing and colouring the walls, in providing armchairs for the patients, curing the smoky chimney, building isolation wards, and improving the children's quarters, would make the place far more satisfactory. Yet when we consider that both the laundry and kitchen are inadequate to the work of the house, that the house is a very old one, and that the situation is wholly bad, we cannot but think that the construction of a new workhouse, with separate quarters for the sick, would be far the better plan, and also more economical in the long run. The population of the district is increasing, and there is likely to be a greater demand for accommodation in the house in a few years' time.

THE REGISTRATION OF MIDWIVES.

The following report was submitted to the Edinburgh Branch of the British Medical Association at a meeting held in the Royal College of Physicians on January 14th:

Your Committee report their disapproval of the principle of the registration of midwives.

They consider that no woman is competent to attend on her own responsibility even so-called normal labours unless legally registered to practise under the Medical Act, because sudden complications may arise under the apparently most normal conditions where impromptu and active treatment, which such women are not qualified to undertake, is demanded; and further, because the diagnosis of complications must be, in a number of instances, beyond their power, and thus delay in sending for assistance is caused which is in many cases most vital.

And if thus incompetent legal registration would lay on the medical profession, who would be the teachers and examiners, the onus of the dangers and evils which might arise. And your Committee are further of opinion that legal registration would open the door to serious abuses in the treatment of infants and of the diseases peculiar to women.

But, while deprecating any proposals in the direction of founding a new order of registered midwives, your Committee are of opinion that something may be done to improve the present state of matters.

Recognising as they do that a large number of women will still be attended by unqualified women only, they suggest that, in order to minimise the evils, the training of midwifery nurses should be improved.

They suggest that the power of granting certificates to midwifery nurses should be restricted to those institutions which have sufficient facilities for imparting both theoretical and practical instruction, and that certificates should only be granted after examination by some competent examiner not on the staff of the institution in question.

Your Committee would consider it very desirable that all midwifery nurses should be under the supervision of some qualified medical practitioner.

Signed on behalf of the Committee,
James Ritchie, *Chairman.*
Norman Walker, *Convener.*

Professor Heubner has been promoted from the Extraordinary to the Ordinary Professorship of Children's Diseases in the University of Berlin. This is the first time the rank of Ordinary Professor has been accorded to any one in Germany in connection with this specialty.

LITERARY NOTES.

A movement is on foot to present a testimonial to Dr. John S. Billings on the occasion of the completion of the Index Catalogue of the Library of the Surgeon-General's Office, United States Army.

During the fiscal year ended June 30th, 1894, there were added to the Library of the Surgeon-General's Office 1,082 medical journals, 214 volumes of *Transactions*, 346 bound pamphlets, 2,272 medical books of other kinds, 2,258 medical theses, and 9,053 medical pamphlets. At the close of the year the Library contained 33,297 medical journals, 4,913 volumes of *Transactions*, 1,663 bound theses, 2,604 bound pamphlets, 72,090 medical books of other kinds, 52,218 medical theses, and 127,560 pamphlets, a grand total of 183,778.

The first number of *Clinical Sketches*, the new monthly periodical, edited by Mr. Noble Smith, contains papers by Mr. Henry Morris, Dr. John Phillips, Mr. Anderson Critchett and others, with abstracts, reviews, notes of new inventions, etc. There is a department of veterinary surgery, and a "Nurses' Column" under the charge of Miss Honnor Morten. A special feature is to be made of illustrations, and the editor proposes "to introduce a full-sized plate of some medical celebrity, or other subject of interest, in each issue." In the present number an engraving of the portrait of Harvey in the Royal College of Physicians is given. *Clinical Sketches* is well printed, and presents a creditable appearance.

According to an American contemporary, Dr. Conan Doyle, in the course of his recent tour in the United States, visited the grave of Oliver Wendell Holmes, and, in the name of the London Society of Authors, placed on it a number of palms tied with purple ribbon, and ornamented with large bunches of English violets, bride roses, and asparagus vines. On a card attached to the flowers were the following words: "From the Society of Authors (London). A token of reverence and of love. A. Conan Doyle."

Dr. Viquerat, whose treatment of tuberculosis with ass's serum was referred to in the British Medical Journal not long ago, evidently takes himself and his discovery very seriously. He has founded an "institute," which bears his own name, at Côte-Drize, near Geneva. Here he prepares his serum and treats patients, and the results will no doubt be published in due course in a monthly journal, which he modestly calls *Annales de l'Institut Viquerat*. In this periodical full details are given as to the price of the remedy and the tariff of fees for treatment; but the information vouchsafed as to the method of preparing the remedy is somewhat meagre. We are assured, however, that the discovery "will snatch from an untimely death thousands and thousands of men," but Dr. Viquerat's philanthropic ambition is apparently not yet satisfied, for we are told that "the numerous animals" which he has at his disposal will enable him to continue his researches. We are assured that the *âne de Viquerat* is destined to be as famous in the history of medicine as the *asinus Buridani* used to be in the schools. In view of regrettable possibilities of confusion, would it not be well for the sake of posterity to make it quite clear that the term is applied solely to the patient quadruped from which the serum is obtained?

We hail with pleasure the resurrection of Mr. Hutchinson's valuable *Archives of Surgery*, which appears in the same form as before, though enlarged and bearing the imprint of a new publisher. It contains a large amount of interesting original matter from the pen of Mr. Hutchinson himself, and is well illustrated. An article of special interest at the present time is "A Plea for Clinical Research," in which Mr. Hutchinson protests against the threatened displacement of clinical observation by instrumental methods of research, and "the feeling of distrust, almost of contempt, for conclusions based merely on circumstantial evidence, which is at present prevalent." With regard to diphtheria he says:

The discovery of Loeffler's bacillus has perhaps added definiteness to our knowledge, and may be thought to have strengthened the hands of contagionists. Clinical observers had, however, fully anticipated it, and it may be asserted that the creed which they had suggested was in some important aspects a much sounder and safer one than that which is now becoming prevalent. Practical men, eager to repose on what they count scientific demonstration (that is, something seen only by the aid of a microscope), now search painfully for the bacillus, or send up a piece of membrane to London, and receive by telegram a diagnosis from which

there is no appeal. The clinician, on the other hand, cares little or nothing whether the bacillus be present or not, but treats all inflammatory sore throats as possible sources of contagion. The more virulent the case the greater the risk, but on no account, even in the mildest cases, will he forego precautions. If misplaced confidence in a negative diagnosis by the microscope should in the future lead to the neglect of such precautions, then it is quite possible that Loeffler's discovery may sometimes prove injurious rather than otherwise to the public welfare.

Messrs. West, Newman and Co. (54, Hatton Garden) announce that *A Smaller Atlas of Illustrations of Clinical Surgery and Pathology*, by Mr. Jonathan Hutchinson, will be published in March. The atlas will comprise 132 octavo portraits, of which 87 are in chromo-lithography. About five-sixths are from original sources. They illustrate a great variety of clinical and pathological subjects, and in not a few instances represent almost unique forms of disease. Almost all the plates in this atlas have already appeared in Mr. Hutchinson's *Archives*. The descriptions have, however, been rewritten and cross references and other emendations have been introduced.

A paper by Professor Edwin Klebs, late of Zurich, on The Present Status of the Specific Treatment of Diphtheria, was published in the New York *Medical Record* of December 15th, 1894. The Professor has now "located"—as he has probably already learnt from our American cousins to say—in the United States, having established a sanatorium and a laboratory at Asheville, North Carolina. He seems to regard the antitoxin treatment of diphtheria with what Mr. Gladstone would call an "open" mind, and is evidently—and not unnaturally—inclined to back his own "antidiphtherine" against it. Of this substance he says that it will be his endeavour to produce it so cheaply that it will be within the reach of the poorest family in the land as soon as he has demonstrated its clinical value. When he has a sufficient supply on hand, he proposes to distribute it free of all cost for the purpose of making comparative trials of its value with that of Behring's serum. For the present Dr. Klebs has records of a series of 51 cases treated by various physicians in Germany with antidiphtherine. Of these, 7, or 13·73 per cent., died, and 44, or 86·27 per cent., recovered. These statistics include both light and severe cases and some in which tracheotomy was required.

The following notice appears in the *Youth's Companion*, an American publication well known for its enterprise. It may prevent misapprehension if we state that the term "physician" as used in America includes all regular practitioners of the art of healing. To translate dollars into pounds sterling divide by 5:

Six prizes will be given for the best stories founded on incidents in a physician's life, as follows: For the best story based upon experiences in a physician's life, 100 dollars; for the second, similar story, in merit, 100 dollars; for the third in merit, 100 dollars; for the fourth in merit, 50 dollars; for the fifth in merit, 50 dollars; for the sixth in merit, 50 dollars. The offers of "special prizes" to physicians include also a very much larger offer or prizes for short original stories made to authors generally. For this reason, a story that secures a special prize in the offer to physicians, if superior to stories offered in the more general competition, will be entitled to both prizes.

POLICE SURGEONS' GRIEVANCES.

Deputation to the Home Secretary.

On Thursday, January 17th, a deputation from the United Kingdom Police Surgeons' Association waited upon Mr. Asquith, the Home Secretary, at the Home Office, to direct his attention to several points affecting their interests. Mr. H. Nelson Hardy introduced the deputation, which consisted of Mr. Thomas Bond, F.R.C.S., President of the Association; Mr. Timothy Holmes, F.R.C.S.; Dr. Roocraft (Wigan); Mr. F. W. Lowndes, M.R.C.S. (Liverpool); Mr. H. C. Hopkins, M.R.C.S. (Bath); Dr. Brown (Bristol); Mr. W. J. Heslop, F.R.C.S. (Manchester); Dr. L. Maybury (Portsmouth); Mr. Stephens (Bristol); Mr. Scatliff (Margate); and others. Mr. Asquith was accompanied by Sir George Russell; Sir Edward Bradford, Chief Commissioner of Police; Mr. Kenelm Digby, Permanent Secretary at the Home Office; and Mr. Horace West, private secretary to the Home Secretary.

Mr. Nelson Hardy, in introducing the deputation, said the first matter to which he desired to call attention was the inadequacy of the fees paid to medical witnesses. They suggested that the present fee should be increased to two guineas in the case near a witness's residence, and three guineas at a distance.

Mr. Asquith said he had long held the opinion that the scale of fees was inadequate, but if they were to alter it in favour of medical witnesses other professional witnesses would want to be put upon the same footing. There was another question, too, which was—where was the additional money to come from?

Mr. Hardy said it was hardly his province to answer that question; all he could do was to point to the utter inadequacy of the present fees. Continuing, he said that in cases of emergency, where a medical man was called in by a policeman, it was often very difficult to obtain any fee at all, and he submitted such a state of things was not fair or reasonable.

Mr. Asquith said he quite agreed, but he had no power in the matter; the most he could do was to make a suggestion.

Mr. Hardy said the next point he wished to speak on was as to the position in which medical men were liable to find themselves in cases of examining prisoners in cases of criminal or indecent assaults. The matter was one that did not affect the metropolitan police, for there an examination could not be made without the consent of the accused, but in country districts that was not the case, and it was open for a prisoner to prosecute a doctor for making an examination. Mr. Hardy then spoke as to the necessity that existed for the appointment of police surgeons in the various centres throughout the country, where at present no such officers existed; and in conclusion he referred to the recommendation of the Death Certification Committee on the subject of the appointment of medical certifiers of death. The Association which he represented was, he said, quite of opinion that medical certifiers should be appointed, but they did not agree with the Committee when they recommended the appointment of medical officers of health for the position. Rather they suggested that the proper persons to undertake such duties should be the police surgeons, who were intimately acquainted with the work.

Mr. Asquith remarked that *primâ facie* he must say that police surgeons seemed the best fitted for the work.

Mr. Lowndes, Mr. Timothy Holmes, Mr. Thomas Bond, Mr. Hopkins, Mr. Heslop, Dr. Brown, Dr. Maybury, and Dr. Roocraft having spoken on the various points,

The Home Secretary, in reply, said the deputation had addressed him on many points which were of considerable importance not only to themselves but to the public. On the very important question of the medical examination of witnesses, he would promise to issue a circular from the Home Office to the various watch committees throughout the country calling their attention to the rules on the subject framed by the Metropolitan Police, and suggesting to them the expediency of issuing similar regulations for their own towns. As to the appointment of medical certifiers, as he had said before, he was of opinion, *primâ facie*, that police surgeons were likely to be more competent to discharge those duties than medical officers of health, but any legislation that might be initiated on that matter would not come from the Home Office, but from the Local Government Board, and he would promise to lay his opinions on that matter before that department. As to the remuneration of witnesses, the scale was fixed so long ago as 1858, and various Home Secretaries had not touched it for fear of burning their fingers, and he was not sure that he was not going to imitate their prudent example. He admitted that perhaps medical men might have more reason to complain than other professional men, because of the frequency with which they were called upon as witnesses, but he would suggest that the doctors should call the attention of various watch committees to the subject, and ask them to take the matter into consideration. As to the lack in some important counties of police surgeons, he quite agreed with the deputation that, in the interests of justice and good police administration, it was very desirable that every police force should have attached to it some recognised, accessible, and generally known practitioner, not only for attending upon the members of the force, but also to be called in in cases of emergency requiring medical knowledge.

The deputation, having briefly thanked Mr. Asquith, withdrew.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JANUARY 19TH, 1895.

THE BRITISH MEDICAL ASSOCIATION AND CLUBS AND FRIENDLY SOCIETIES IN THE SOUTH OF IRELAND.

THE importance of the stand made by the members of the profession in Cork against the abuses which have grown up into the club system is meeting with general recognition, and their action is likely to have far-reaching results.

In the movement in Cork the lead has been taken by the Cork and South of Ireland Branch of the British Medical Association. A deputation from this Branch was received by the Council of the British Medical Association at its quarterly meeting on January 16th. The object of the deputation was to explain the exact position taken up by the medical men in Cork in their contest with the managers of the clubs and benefit societies in that city, and to ask for the advice of the Council of the Association with regard to such medical men as might be induced by the promises held out to accept the appointment of medical officers to the societies and clubs in Cork which have not given in their adherence to the rules promulgated by the Branch.

The deputation further desired to discuss the possibility of extending the movement against the admission as members of such clubs and societies of persons whose pecuniary position did not entitle them to medical attendance at club rates, and of enlisting moral and material support in aid of medical men who, having resigned the position of medical officers to such clubs, were deprived of the means of maintaining themselves.

The deputation, which consisted of Professor Henry Corby, Dr. Cummins, and Dr. Philip Lee (Honorary Secretary of the Branch), was introduced by Dr. Sandford, the representative of the Branch on the Council. The deputation stated briefly the position of the question, and the causes which had led to the action taken by the medical men in Cork. These are already sufficiently well known to our readers who have followed the subject in the series of articles published in the BRITISH MEDICAL JOURNAL during the last six weeks. The deputation stated further that a fund had been opened by the Cork and South of Ireland Branch of the British Medical Association with the view of indemnifying those medical men in Cork whose pecuniary position had been seriously compromised by their loyal adhesion to the terms of the regulations and rules adopted and approved by the Council of the Branch.

The action taken in consequence of these representations by the Council of the British Medical Association will, we believe, be hailed with satisfaction by many members of the medical profession in this country as well as in Ireland, who in the solitude and isolation of their daily life are sometimes disposed to think that their more fortunate brethren have not sympathy enough with their hard struggle with adverse fates.

The following resolution, moved by Dr. Ward Cousins, from the chair, and seconded by the Treasurer, was adopted unanimously:

That the Council of the British Medical Association receive most cordially the deputation from the South of Ireland Branch, and much regret to hear of the unfortunate contention which has occurred within the area. The Council strongly condemns the admission of improper persons as members of medical aid societies. They deeply sympathise with those medical men who have been compelled to resign their positions, and unanimously resolve to render them all the assistance in their power.

A further resolution was also adopted on the motion of Mr. Butlin, seconded by Dr. Saundby, desiring that publicity should be given to the fact that a fund has been opened by the Cork and South of Ireland Branch of the British Medical Association in order to afford pecuniary assistance to those medical men in Cork who have resigned their positions in connection with the clubs. The Council desire it to be announced that subscriptions from members of the Association towards this fund will be received by Dr. Denis Dempsey Donovan, of 51, King Street, Cork, who is acting as treasurer of the local fund.

We need only add that we wish the profession in Cork all success in their fight to establish a principle of fundamental importance to the material interests of the medical profession. We not only wish them success, but we believe they will win. It is true that at the present time only five out of the thirty-one medical clubs and benefit societies in Cork have accepted the terms and conditions stated in the rules drawn up by the Cork and South of Ireland Branch, but there is gratifying evidence that the action of the Branch is receiving support from the rank and file of the profession. Thus we understand that many junior members of the profession who were at first disposed to offer themselves as candidates for appointment as medical officers to these clubs, have declined to proceed as soon as the facts became known to them, and we have before us a letter addressed by a young practitioner in a country part of the South of Ireland to one of the members of the Council of the Branch, conveying his desire to become a member of that Branch as a mark of his sympathy with and admiration of the plucky stand made by the Branch. In the course of his note he expresses the opinion that the position of the Branch would be strengthened if the unattached members in the South of Ireland, who number over 100, became members of the Branch. To this view we cordially subscribe.

SANITARY DEFICIENCIES IN EAST LONDON.

REPORTS by the medical officer of the London County Council on Deptford, Mile End Old Town, and Whitechapel have been recently issued from the Public Health Department of the Council. The medical officer has caused inquiry to be made into the sanitary condition and administration of the three districts; the results obtained are set out in detail, and in each instance the conclusion is drawn that the exist-

ing staff of inspectors requires to be strengthened. In Deptford and Whitechapel the need of regular inspection of workshops is insisted upon, in Mile End workshops appear to have received a good deal of attention. All three districts are, however, alike in one respect—no systematic attempt has hitherto been made to put in force by-laws under Section 94 of the Public Health (London) Act, 1891, relating to houses let in lodgings, or occupied by members of more than one family. The important provisions of this section should no longer be allowed to remain in abeyance—indeed, it is matter for surprise that the necessary action should still, after the lapse of four years, remain to be taken.

It is becoming clearer every year that the provision of healthy dwellings and sanitary surroundings for the poor, great as is the task, is but a part, and not the major part, of the work which the sanitary authorities have to perform. The rapid and unjustifiable manner in which all improvements deteriorate under the treatment they receive, the entire indifference of many of the people to the condition of the appliances provided for their health and comfort, and the fact that in many cases the standard of sanitation attempted to be enforced is a little higher than that which is acceptable to the people or to which they have been accustomed, all tend to increase enormously the work of the authorities. It is not a matter of putting things to rights, but of constant inspection to keep them from going wrong again. This, of necessity, involves a large staff of inspectors, and it is quite clear from these reports that, well as the present staffs are working, they are insufficient to cope with the special conditions of such a population.

Taking, for example, the Whitechapel district, we find a population of 73,000, crowded together at the rate of 215 persons to the acre, the densest population noted in the medical officer's report for 1892 being St. George-the-Martyr, with 211, while the average for London was only 57 per acre. but the density in Whitechapel is very unevenly distributed, one part having only 11 to the acre, while another has the enormous figure of 428. Among these people, also, there were two years ago 17,961 foreigners, of whom 13,538 were Russians or Russian Poles, who by this time have probably been increased by another 6,000.

The birth-rate is high, being 40.9 per mille; so also is the death-rate—25.6, against 20.9 for the whole of London.

Of the houses and tenements, about 650 in number, visited by Dr. Hamer, 58 per cent. were found defective. The indifference of tenants is well shown in the following paragraph: "Defects in connection with waterclosets I found of common occurrence. I noted 12 instances of choked waterclosets, 9 instances of broken watercloset pans, 6 of total absence of fittings for the supply of water, 65 in which the flushing apparatus was out of order, 29 foul pans, 17 instances in which the flush of water was inadequate, and 4 of broken closet seats. In many cases where defects of this kind exist the tenants do not take any steps to secure a remedy; for example, I found 3 closets full of excreta in a courtyard surrounded by 11 houses. Inquiry elicited the fact that these closets had been choked for several days. No complaint, so far as I could learn, had been made by the tenants, and but for this chance visit of the inspector and myself, the condition of things might apparently have remained unremedied for an indefinite period."

Nothing shows the low standard of comfort which people of this class will put up with more than the amount of overcrowding of their tenements. At one place a man, his wife, and seven children were found occupying a single room of 800 cubic feet capacity; again, two rooms were occupied by a man and wife and their family, consisting of a grown-up son and his wife and three children, two grown-up daughters, and a second son. In another case a family of ten persons (man, wife, and eight children, aged from 6 to 23, of both sexes) occupied two small rooms; and in a further case another pair of small rooms accommodated man, wife, and eight children, aged from 5 to 20, of both sexes.

When life is carried on at such a social level, one cannot expect much care for the propriety of sanitary appliances, and nothing but the most rigid inspection will ensure things being kept in order. It must be borne in mind, however, that a proper application of the law as to the registration and regulation of houses let in lodgings would do a great deal to raise the sanitary standard of houses of this description; but to carry out this, again, rigid inspection would be even still more necessary. All the reports are unanimous in regard to this, and it is pretty clear that the present numerical weakness of the staff is responsible for many of the deficiencies in sanitary administration which are pointed out, especially such as pertain to the inspection of workshops and the dwellings of out-workers, a matter which appears not to have been touched either by Whitechapel or Deptford.

THE CHELSEA HOSPITAL FOR WOMEN.

The outcome of the election at the Chelsea Hospital for Women on January 16th—which we announce on another page—will, we imagine, surprise no one. Only the most sanguine could have anticipated any other issue. If it was not the deliberate intention of the Board of Management from the outset to condone its own action of last summer and simply to reappoint the staff elected in August, it must at least be admitted that they took the best possible means to compass this end. While making a great parade of empanelling a medical committee of advice, which was to guide them in the selection of a staff, they adopted the very course of precedure best adapted to render the appointment of such a committee no more than a formal concession to professional opinion. Whether a medical committee was actually appointed or not has never, as far as we know, been officially announced. It was generally understood that three distinguished physicians and one eminent surgeon had consented to sit upon it; but we believe we are right in saying that the advertisements of the posts on the staff were issued before any such committee was formed, and that up to the last day for receipt of applications candidates were still left in uncertainty by what tribunal their merits were to be judged, or how far the verdict of that tribunal was likely to be acted upon. It was obvious to everyone that under such conditions the number of new candidates of an eligible order presenting themselves was not likely to be large.

This last proceeding of the hospital management is but of a piece with all the rest. We have done our best to induce those responsible for the control of this unfortunate insti-

tution to place their hospital on a satisfactory footing, and to conduct their proceedings in such a manner as to gain the confidence of the medical profession. That the leading laymen connected with it should be angry and resent our remarks in the tone they adopted in their recent general meeting is, we suppose, only to be expected under the circumstances. "Wilful men will have their way." We should gladly have seen this hospital set upon the right track. As things are, it can hardly fail to point once more the moral of the disadvantages inherent in the constitution of small special institutions as compared with that of the large general hospitals.

STUDIES IN THERAPEUTICS.

VII.—TRIONAL, SULPHONAL, AND TETRONAL.

A HARMLESS hypnotic, useful in all kinds of cases, and certain of producing the required effect, is a sort of "philosopher's stone" for modern therapeutic research to discover. Nevertheless, modern research has discovered hypnotics, which in certain cases are found preferable to the older ones. Amongst these, the group of drugs—sulphonal, trional, and tetronal—have been already before the medical public for a considerable time. Sulphonal has been the longest in use of these three, and the most employed. Tried in all sorts of cases it was found in certain conditions to produce the required effects, and at the same time to be safer than older hypnotics. It was found useful in the insomnia of nervous irritability, in chronic heart affections, phthisis, etc., especially when opium was contra-indicated. On the other hand, it is sometimes slow in its action and cumulative in the system, and may be attended with disagreeable after-results, such as anorexia, diarrhœa, vomiting, giddiness, headache, or depression. It is said also to increase arterial blood pressure, and to be contraindicated in angina pectoris.

Sulphonal is diethylsulphon-dimethylmethane. Baumann and Kast,[1] the latter of whom had first described the hypnotic effect of sulphonal, made a number of experiments upon dogs[2] with compounds allied to sulphonal, and concluded that their hypnotic action increased with the number of ethyl groups in their molecules. Sulphonal contains only two ethyl groups in its molecule, whilst trional (diethylsulphon-methylethylmethane) contains three, and tetronal four (diethylsulphon-diethylmethane). If Baumann and Kast's theory were correct, then trional should be a more powerful hypnotic than sulphonal, and tetronal than trional, as they were actually described to be in the case of dogs. Barth and Rumpel tried to find out how far this conclusion was correct in the case of human beings.[3] They gave trional and tetronal to patients who had already taken sulphonal with advantage. Like sulphonal, both trional and tetronal were found to have marked hypnotic properties, but this action of the three drugs did not seem to bear a definite relation with the number of ethyl groups contained in their molecules, as described by Baumann and Kast in their experiments on dogs. On the contrary, the same dose of any of the three drugs was found to have much the same effect, though it was noted that when any one of the three had been administered several days in succession, a change to one of the others usually intensified the action. In a few cases where sulphonal was slow in its action, trional and tetronal produced a full hypnotic effect. Barth and Rumpel considered that the indications for trional or tetronal probably corresponded with those for sulphonal, but that in some nervous condition the two former may act better than the latter. Neither trional nor tetronal, even when given in doses of 4 grains daily, produced, according to these observers, any perceptible effect upon the outbreak or course of alcoholic delirium. No injurious by-effects were observed by them in any of the 220 cases in which trional and tetronal were administered. As a hypnotic, tetronal acted in 14 cases better than sulphonal, in 4 cases worse than it, and in 6 equal to it; while trional acted in 17 cases better than sulphonal, in 7 cases worse than it, and in 6 cases equal to it.

More recent observers—Horvath, Hammerschlag, Koppers, etc.[5]—are more enthusiastic as to the advantages of trional. Whilst Horvath, however, from experiments on animals, concludes that tetronal acts better than trional, Ramoni,[6] from experiments on lunatics, thinks that trional is the stronger hypnotic of the two. Trional is a colourless substance, possessing a slightly bitter taste, soluble in 320 parts of cold water, and, owing to the rapidity of its action, is best administered about half an hour before bedtime in about 8 ounces of some warm vehicle, as tea, broth, or milk. If necessary, it can also be administered by the rectum, its action thereby not being lessened.[7]

The action of trional is much the same as that of sulphonal, but the advantages claimed for it are that it is a more powerful hypnotic, that it may act where sulphonal fails, that its action is more immediate, and that unpleasant after-effects are fewer or absent altogether. Schaefer adds that after continued use of trional no disagreeable symptoms follow its discontinuance, and no "trional habit," it is said, is established; but similar claims made for other drugs have proved ill-founded. The average dose for a healthy individual is about 15 grains, and this will usually suffice for simple insomnia; 20 or 30 grains may be given if necessary, but with still larger doses the effects do not seem to increase proportionally; according to Koppers 4 or 8 grains may suffice to diminish night sweats. By experiments on animals Horvath found that it first increased and then diminished the pulse frequency; that the blood pressure was only slightly lowered, and that death took place by cessation of respiration.

Amongst the occasional unpleasant effects observed in human beings Koppers mentions diminution of blood pressure in a case of heart disease, and Hammerschlag and others have noted some slight digestive disturbances. It appeared never to cause albuminuria. In a few cases lassitude, headache, giddiness, tinnitus aurium, and a sort of ataxy with Romberg's sign, have been noted next day.[8]

Koppers places trional as a narcotic above sulphonal, amylenehydrate, chloralamide, bromides, and chloral, but finds that in cases of severe pain it does not possess the

[1] *Berl. klin. Woch.*, 1888, p. 309.
[2] *Zeit. f. phys. Chem.*, xiv, p. 52.
[3] *Deut. med. Woch.*, August 7th, 1890, and *Pharm. Journ.*, August 30th 1890.
[5] The results of Hammerschlag and Koppers were carefully summed up in the EPITOME.
[6] *Deut. med. Zeit.*, 1892, No. 67.
[7] Koppers, *Intern. klin. Rund.*, 29, 30, 1893.
[8] *Inaug. Dissert.*, Würzburg, 1893.
[9] Schaefer, *Berl. klin. Woch.*, 1892, 29.

power of morphine. Schaefer[10] found that in cases of great psychical and motor excitation trional could not take the place of hyoscin. He likewise attributed no good effects to trional in the treatment of morphino-cocaine psychoses. This is however disputed by Boettiger and Hammerschlag, the latter differing from other observers in finding trional a useful hypnotic in the treatment of the majority of alcoholics. Hammerschlag[11] finds the results as good as or better than those with those chloral or morphine in the treatment of cases he quotes, including melancholia, mania, hysterical and epileptic conditions, hypochondria, paranoia, and general paralysis of the insane.

The sittings of the Poor-law Schools Committee were resumed on January 16th.

A memorial of the late Professor Theodore von Billroth is to be erected within the precincts of the University of Vienna.

It has been found necessary to alter the date of the lecture to be given by Dr. Jameson at the Imperial Institute from February 11th to February 4th.

The course of Lettsomian Lectures before the Medical Society, on the Combinations of Morbid Conditions of the Chest, by Dr. Frederick Roberts, will commence on Monday evening next.

The dinner to be given to Dr. Jameson, C.B., of Mashonaland, by his teachers and fellow students at University College, and other friends, will take place at the Hôtel Métropole on Thursday, January 24th, at 7.30 P.M. The chair will be taken by Mr. Christopher Heath, Senior Surgeon to University College Hospital.

We understand that no steps have yet been taken towards filling up the vacancy in the Chair of Physiology at Oxford caused by the appointment of Professor Burdon Sanderson to the Regius Professorship of Medicine. Among the names which have been mentioned in connection with the appointment are those of Professor Schäfer, F.R.S., of University College, London; Professor Gotch, F.R.S., of University College, Liverpool, formerly Lecturer on Physiology in the University of Oxford; Dr. J. S. Haldane, the present incumbent of that post; and Mr. J. N. Langley, M.A., F.R.S., University Lecturer on Histology in the University of Cambridge.

CHELSEA HOSPITAL FOR WOMEN.

We are informed that at a fully attended special meeting of the Board of Management of the Chelsea Hospital for Women, held on Wednesday, January 16th, the following appointments were unanimously made to the medical staff: *Physicians to In-Patients:* Drs. William Duncan and W. H. Fenton. *Surgeon to In-Patients:* Mr. Robert O'Callaghan, F.R.C.S.I. *Physicians to Out-Patients:* Drs. J. Inglis Parsons, A. E. Giles, and T. W. Eden. *Pathologist:* Dr. E. J. Maclean. *Registrar:* Mr. G. H. A. C. Berkeley, M.B., B.C.

LORD RANDOLPH CHURCHILL.

We understand that on January 10th Dr. Gowers, Dr. Buzzard, Dr. Robson Roose and Dr. Keith met in consultation on the case of Lord Randolph Churchill. The improvement which we reported last week has not been maintained. On January 11th Lord Randolph had a serious relapse. Great weakness and intermittency of heart, approaching to syncope, occurred, with a tendency to coma. The next day, however, a rally took place, and the coma passed away, but the previous condition has not been regained. He has appeared to become considerably weaker day by day, the drowsiness or semi-coma recurring at intervals. On January 16th great failure of the heart was observed, and in the evening he passed into a condition of complete coma, which was followed, on the restoration of consciousness, by slowing and intermittency of the pulse and great disturbance of the respiration, rendering his condition one of extreme gravity; he appeared in fact, to those around him, to be sinking. On the following morning, however, his condition was a little better, but the pulse was very feeble, slow, and intermittent, and there was considerable hypostatic congestion of the lungs.

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[10] *Loc. cit.*

[11] *Inaug. Dissert.*, Berlin, 1883.

THE LATE DR. WITHERS MOORE.

The Council of the British Medical Association at its meeting on January 16th unanimously adopted the following resolution, which was moved by Dr. Holman and seconded by Mr. Verrall: "The Council desire to place on record their deep regret at the loss of their valued colleague, Dr. Withers Moore, Vice-President of the Association. For more than thirty years Dr. Moore had been a member of the Association, and during the whole of that period had taken an active interest in its affairs. His work for the Association, and the esteem in which he was held by the members of the South-Eastern Branch, combined with his position in the profession, led to his election to the office of President at the meeting in Brighton in 1886. The esteem and confidence of his colleagues was subsequently shown by his election to the responsible and honourable position of President of the Council in 1890. These posts he occupied with activity and ability, and to the great advantage of the Association. By the death of Dr. Withers Moore the Council lose not merely an active and useful member of their body, but a colleague whose opinion was invariably that of an honourable and upright gentleman. The loss of such men cannot be too deeply deplored." The resolution was adopted in silence, the members of the Council standing.

POISONING IN THE PUNJAB.

The report of the Chemical Examiner to the Punjab Government (Surgeon-Captain C. H. Bedford, M.D., D.Sc.) for the year 1893 gives some interesting particulars regarding the chief poison used for the destruction of life in that province. Articles connected with 498 cases of human poisoning and 238 cases of cattle poisoning were submitted for examination, with the result that poison was detected in 78.88 per cent. of the former and 73.5 of the latter. The poisons found in human cases were principally opium (50.8), arsenic (37.2), and datura (4.4); these three accounting for 92.4 of the whole. Opium is used mainly for suicide, rarely for homicide, while arsenic and datura are employed solely for homicide. Cattle poisoning, which is perpetrated for the sake of the hide, was in 92.52 of the cases done by means of arsenic; croton seeds, mercury, and aconite being used in a few cases. There were 32 cases of cattle poisoning by means of wooden needles smeared with a paste composed of the powdered seeds of the abrus precatorius. One case of human poisoning by this means was submitted. From the vicinity of the puncture an alkaloid was extracted, which, injected under the skin of a frog, caused its death in 15 minutes. In addition to cases of suspected poisoning a large number of articles were examined for blood and semen, and 65 articles connected with 17 cases of abortion, of which 7 were fatal. Poison was found in half of the articles. A large number of samples of water, food, drink, and drugs, submitted by the civil and military departments, were also

examined. The work done by the provincial chemical examiners in India is of a very important character and becoming, like every other work in India, yearly more burdensome. Reports such as this possess a high value as indicating the criminal habits of Indian people, and it would be exceedingly interesting if a series of them for the whole of India were carefully collected by a competent compiler. The fusion of the provincial chemical departments into an imperial whole would greatly facilitate the preparation of such a record.

PRACTICAL SYMPATHY.

It will be remembered that some little time ago Dr. Cullingworth, Obstetric Physician to St. Thomas's Hospital, had to defend an action in the Court of Queen's Bench under circumstances which illustrate very well the hardships and vexations to which a member of the medical profession may be subjected in the course of his professional work. We are informed that Dr. Cullingworth has been indemnified by his professional brethren for the whole of the costs incurred. Soon after the trial an eminent Fellow of the Royal College of Physicians in writing, as an old friend, to congratulate Dr. Cullingworth on the result of the action, enclosed a most generous contribution towards his legal expenses. On Saturday evening last the medical and surgical staff of St. Thomas's Hospital gave practical and graceful expression to the sympathy they felt for their colleague by presenting him with a cheque for the remainder of his outlay. We may congratulate Dr. Cullingworth, and, we think, the profession at large also, on this spontaneous act of sympathy and appreciation.

THE NEW PRESIDENT OF THE INDIAN MEDICAL BOARD.

The Lieutenant-Governor of the North-West Provinces has placed on record his appreciation "of the excellent and devoted services" rendered by Brigade-Surgeon-Lieutenant-Colonel W. Roe Hooper, who has been appointed President of the Medical Board at the India Office. The note states that this officer entered civil employment in 1861, and after serving for eleven years at the central prisons of Allahabad and Benares, was placed in medical charge "of the important station and district of Benares, where the magnificent Prince of Wales Hospital is a monument of his untiring energy in charitable medical work as well as of his personal popularity." In August, 1891, he was appointed Civil Surgeon at Lucknow, where, it is added, he not only earned the approval of the Government of India, but gained the confidence and affection of all classes of the European and native communities. "In 1881 he received the thanks of His Excellency the Viceroy and Governor-General of India, and between 1878 and 1893, on eight separate occasions, those of the Government of these Provinces, for the working of the hospitals and other medical institutions under his charge, and throughout a long career he has well upheld the high character of the service to which he belongs."

BRITISH MEDICAL BENEVOLENT FUND.

The annual general meeting of this fund was held on January 10th, when the Secretary was directed to convey an expression of sympathy to Sir James Paget in his recent bereavement. Dr. Samuel West, who has succeeded Dr. Sidney Phillips as Honorary Financial Secretary, presented the financial statement and report, from which it appeared that, in the grant or immediate relief department, the receipts had been as follows: Subscriptions, £1,083 14s. 5d.; donations, £707 8s. 4d.; together, £1,791 2s. 9d.; while £1,759 had been expended in grants to 169 applicants. At the close of the year there were 104 annuitants of £20 each, absorbing £2,053, and the income from investments to meet these annuities had been £1,938 11s. 3d. Two legacies had been received, one of £100 from the estate of the late Mr. E. Newton, F.R.C.S., formerly a member of the Committee, and one of £500 from that of the late Mr. T. Madden Stone, but the latter had been received too late for inclusion in the balance sheet. The expenses, including the collection and distribution of £3,812, the printing, postage, and stationery, the collector's commission, and sundry incidental expenses, had amounted to £161 13s. 10d. The report of the Committee mentioned the objects of the Society and the various methods of applying the funds at its disposal, and, while they felt able to speak well of the annuity department, were persuaded there was room for a great deal of improvement in the contributions given for grants, which were wholly inadequate to meet the requirements of applicants, so much so that it had been necessary to use the whole of the large donations, contrary to the usual custom. Three local secretaries, Mr. G. F. Hodgson, of Brighton; Mr. Bartrum, of Bath; and Dr. Cooper Rose, of Hampstead, had resigned during the year. Successors for the first two had been found, and an earnest hope was expressed that others in various parts of the kingdom would be found willing to undertake similar duties. The duties of local secretaries comprise not only the collection of funds and the advocacy of the claims of the Fund, but also the investigation of claims on the spot and the administration of relief. The chair was occupied by Dr. C. J. Hare, who in returning thanks for a vote of thanks to him for his services, took occasion to speak in terms of warm praise of the utility of the Fund, its quiet, unobtrusive work, and the excellence of its method of giving assistance after full investigation. Subscriptions and donations, which are urgently needed, will be received and acknowledged by any official of the Fund, or they may be sent direct to Dr. Samuel West, 15, Wimpole Street, Cavendish Square, London, W.

SICK ROOM COOKERY FOR MEDICAL STUDENTS.

The first of a series of four demonstrations on sick room cookery for medical students was given in the large theatre of the Edinburgh Royal Infirmary on January 12th, when the following subjects were taken up and illustrated: Beef-tea, quickly made, ordinary, raw, and essence; Restorative Beef-tea, Sago Pudding, Orange Jelly, Game Omelette. The second demonstration is to be given on January 19th, and the programme is: Fish Soup, Stewed Fish, Minced Chicken, Poached Eggs, Calf's Foot Jelly, Egg Drinks, Raw Beef Sandwiches. The third on February 2nd, with this programme: Stewed Sweetbreads with white sauce, Fish Cream, Snowflake Potatoes, Apple Jelly, Lemon Barley Water, Gruel. The fourth on February 9th, with this programme: Peptonised Foods—beef-tea, jelly, etc., milk, gruel, farina; Tea, Coffee, and Chocolate. The demonstrations are given by teachers from the Edinburgh School of Cookery and Domestic Economy, 3, Atholl Crescent. The ticket for the course costs 3s. 6d. Each demonstration lasts from 10 to 11.20, and the textbook recommended is *The School Cookery Book*, price 1s. (Macmillan and Co.), along with Sir William Roberts's *Receipts for Peptonised Foods*, price 1d.

THE SICK POOR IN PROVINCIAL WORKHOUSES: OKEHAMPTON.

We have good reason to hope, from the discussion in many of the local papers, that the Devonshire ratepayers, roused by the scandal of Newton Abbot, are now determined to overhaul the condition of all their workhouses and infirmaries. That at Okehampton has lately attracted attention, and our Commissioner accordingly paid that place a visit, a report of which will be found in another column. It appears to be one of those numerous unions in which both board and officers are striving to make the best of entirely unsuitable premises. Whitewashed walls might be rendered smooth and painted, armchairs might be provided for the infirm patients, and our Commissioner suggests various other minor improvements which could be carried out at a

small cost and would add to the comfort of the patients. But none of these would remedy the real difficulty—the bad situation (the bank of a river in a narrow valley) and the unsuitable structure. The wards are old, there is no day room for the men, nor any proper isolation ward, the receiving room being used as such when required, kitchen and laundry are inadequate, the children's quarters dreary and comfortless. No classification is possible under the existing arrangement—a defect not perhaps very sensibly felt at the time of our Commissioner's visit, as there were few patients in bed and no acute or offensive case. But such immunity cannot always be looked for where the infirmary is the only hospital for the district. With regard to those trifles which make all the difference to the cheerful look of a ward and to the happiness of the poor little waifs whose only home is the workhouse, we have often wondered why it is that the thoughtful care of the charitable does so little for the workhouses as compared with the hospitals. The guardians of a poor union may with some show of reason refuse to spend the ratepayers' money on decorations for the sick wards, such as growing plants and coloured prints, or in toys for the children, but they would surely not refuse such gifts if offered by kindly disposed persons. We are glad to note the presence of a nurse with some training and more experience, and we hope the guardians will soon see their way to building a new house on a more suitable site.

THE REFORM OF THE UNIVERSITY OF LONDON.

THE Convocation of the University of London will again discuss on Tuesday next the proposals for the reform of the constitution of the University. A report will be presented to an extraordinary meeting summoned for that day by the Annual Committee of Convocation. It will be remembered that the Annual Committee elected in May last differed very considerably in constitution from that which had previously held office. The report to be presented on Tuesday sets out at great length the reasons of the history of recent negotiations, and recommends certain resolutions for adoption by Convocation. Of these the first expresses the opinion that there should be not two but one University in London, and that this object should be attained by an enlargement and reconstruction of the existing University, so as to enable it to promote learning, scholarship, and research as a teaching University for London, while retaining its existing powers and privileges, and without interfering with the efficient discharge of its present duties as an examining body for students from all parts of the British Empire. A second resolution expresses general approval of the proposals contained in the Report of the Royal Commission, but states the opinion that the Statutory Commission ought to have power to vary the details, and to be instructed before framing the statutes and regulations to confer with representatives of the Senate and Convocation as to the modifications which may be desirable. A third resolution suggests the appointment of a special committee of nine members to prepare a memorandum for the Statutory Commission, and to confer with that Commission and with any committee of the Senate.

THE SMALL-POX OUTBREAK IN DUBLIN.

THE small-pox exidemic in Dublin still continues, although there has been no serious increase in the number of new cases. Over 800 persons have been treated in the two hospitals which receive the cases—the Hardwicke and Cork Street. The new arrangement, by which convalescents are received into the Kilmainham auxiliary of the South Union Workhouse, has greatly enlarged the powers of the hospitals to cope with the outbreak. As soon as possible after a patient enters upon convalescence he is removed to Kilmainham, so that the wards are lightened to that extent for the reception of acute cases. The mortality has been from 15 to 20 per cent. A certain proportion of vaccinated persons have been attacked and have died, but, so far as we are able to learn, no recently revaccinated person has been attacked. We are aware of one large establishment in which all the clerks, with one exception, were revaccinated, and that gentleman is the only person who has suffered from the disease. The death-rate in Dublin last week rose to 30. There were 11 deaths from small-pox. Of these, 5 (aged respectively 10, 21, 40, 42, and 64) had been vaccinated, and 6 (aged respectively 1, 3, 4, 9, 9, and 13) were unvaccinated; 88 cases were admitted to hospital, being 17 in excess of the admissions for the preceding week; 53 were discharged: 11 died; and 194 remained under treatment on Saturday last, being 24 over the number in hospital at the close of the preceding week. Since the appearance of this disease in July last, the deaths from it within the Dublin Registration District registered in each week from July 21st to January 12th have been respectively 1, 0, 1, 1, 3, 6, 0, 1, 2, 0, 2, 4, 2, 2, 4, 1, 4, 3, 1, 3, 6, 5, 6, 10, 5, and 11, making a total of 84 deaths, all except 1 of which occurred in hospital; and the admissions to hospital during the same period have been 0, 4, 9, 26, 37, 14, 16, 16, 12, 13, 19, 8, 8, 28, 15, 28, 37, 24, 18, 37, 34, 86, 113, 32, 71, and 88 weekly.

TYPHUS FEVER PAST AND PRESENT.

TYPHUS fever, hardly known by experience to the majority of practitioners in Great Britain, was half a century ago one of the greatest scourges of our large towns. An interesting chart, founded on historical data and recording the incidence of typhus fever in Dundee, was presented recently to the Sanitary Committee of the Town Council. The chart, which was the work of Dr. J. W. Miller, went back to 1834, and showed that in 1835, when the population of Dundee was little more than a third of what it is at the present day, no fewer than 778 cases of typhus fever were treated in the Dundee Infirmary. As there were no special powers for removal of such cases to hospital, nor, of course, any compulsory notification, it seems fair to assume that the actual number of cases in the town must have been much larger—probably twice the number admitted to the infirmary. If it be contended that typhoid fever was then certainly included under the head of typhus, there is still the statement that in 1865 the number of cases admitted to the infirmary was 1,084. In 1867 the Public Health Act for Scotland was passed; and in 1871, under an Improvement Act, a great number of old insanitary houses were demolished and new streets opened up through densely populated localities. In 1873—as soon, therefore, as the effect of these improvements could be expected to be felt—the number of cases admitted dropped to 134. The Notification Act came into operation in 1882, and soon afterwards a contagious hospital was erected. Since 1893 all the cases of typhus fever have been recorded, and are as follows: 1883, 29 cases; 1884, 60 cases; 1885, 45 cases; 1886, 80 cases; 1887, 28 cases; 1888, 10 cases; 1889, 13 cases; 1890, 61 cases; 1891, 82 cases; 1892, 99 cases; 1893, 43 cases. The history of Dundee in this respect is the history of many other large towns in the British Isles during the last century. The debt which the nation owes to sanitary science, upon which public health legislation is founded, is incalculable.

THE LIVERPOOL MEDICAL SCHOOL.

THE annual distribution of medals and prizes to the students of the medical faculty of University College, Liverpool, took place on January 12th in the Victoria Buildings, the Right Hon. the Earl of Derby, President of the College, presiding. The distribution was preceded by an eloquent and scholarly address by Professor Gotch, F.R.S., dealing with some points in the development of the sciences of physiology and pathology, and with certain problems connected with modern medical education. In connection with the recently endowed Chairs of Anatomy and Pathology, and the contemplated reconstruction of the buildings of the medical school, he paid a fitting tribute to the liberality of the Earl

of Derby, of Mr. George Holt, and of the Rev. S. A. Thompson Yates. In the course of his remarks he said that one lesson taught with greater emphasis than another by the history of every department of knowledge and education was that, however restricted might be the scope of teaching, even elementary instruction should be given by those who had every opportunity of studying the subject as completely as possible. The greatest mistakes of education had been those which proceeded from the belief that elementary teaching could be undertaken by anybody. The present examination system had appeared to him for some time to be one of the evils in modern education. Teachers who had students under them should know far better than any extern examiner whether a student had done his work efficiently, grasping the essential principles and assimilating the main facts. He looked forward to the day when there would be a radical alteration, though he did not believe it would make the portals of the medical profession more easy to force than they were at present. The Earl of Derby, in the course of an interesting speech, expressed his satisfaction that his forecast last year as to the future progress of the school had been already in certain important respects fulfilled, and alluded to the unsatisfactory state of the present school buildings. His lordship then distributed the medals to the successful students. A vote of thanks to Professor Gotch for his address was moved by Mr. W. Rathbone, M.P., and seconded by Dr. Caton. Professor Gotch, in his reply, emphasised the great obligation under which the school was to Dr. Caton for his untiring exertions in its behalf. A *conversazione* was afterwards held in the Victoria Buildings.

SEWAGE IN OYSTERS.

We have received a communication from Sir Charles A. Cameron, Medical Officer of Health for Dublin, in the course of which he says:—Sir William Broadbent's observations in reference to the transmission of typhoid fever poison through the medium of oysters, which appeared in the BRITISH MEDICAL JOURNAL of January 12th, deserve the most careful consideration. At the meeting of the British Medical Association at Cambridge fifteen years ago I read a paper on "Typhoid from Oysters." My hearers seemed to think that this paper was one which might amuse but could not instruct them, although I stated that I had found sewage in considerable quantities in oysters. Since then the possibility of the *materies morbi* of enteric fever and of other diseases gaining access to oysters has frequently been discussed, and I have published the cases of a large number of persons who were undoubtedly subjected to severe gastro-enteritis as the result of eating oysters which were undoubtedly fresh. I have frequently examined oysters taken from the estuaries of rivers, and often detected sewage in them. This pollution must also occur in cockles and mussels. There seems to be little doubt that oysters and other edible bivalves, taken from places to which sewage has access, must occasionally be the vehicle of pathogenic bacilli. This matter ought to be considered by the sanitary authorities whose districts abut on bays and the seashore, and they should not permit oysters to be cultivated on beds to which sewage has direct access. With lobsters and crustaceans generally there need be no interference, as no danger is incurred by eating them even when they have fed in foul water.

THE UNIVERSITY OF EDINBURGH.

During the past year the total number of matriculated students (including 140 women) was 2,949. Of this number, 1,494 were enrolled in the Faculty of Medicine. Of the medical students, 623 (nearly 42 per cent.) belonged to Scotland, 498 (fully 33 per cent.) to England and Wales, 74 to Ireland, 59 came from India, 205 from the Colonies, and 35 from foreign countries, whilst the total number of students of medicine has decreased in recent sessions, the ratio of students coming from the countries named has been practically unchanged for the last ten years. The General Council of the University now numbers 7,642 members. During the year the following numbers of degrees were among others conferred: Doctor of Science (D.Sc.), 7; Bachelor of Science (B.Sc.), 28; Doctor of Medicine (M.D.), 64; Bachelor of Medicine (M.B.), 245. The total annual value of the University Fellowships, scholarships, bursaries, and prizes now amounts to about £15,930; of this, £3,750 belongs to the Faculty of Medicine, and £420 to the Faculty of Science. A new departure has been made in the admission of women to degrees in medicine, provided they have obtained their medical education in extra-academical schools specially recognised by the University. The McEwan University Hall is approaching completion, and it is hoped that it may be ready for the summer graduation ceremonial on August 1st next. The total number of professors in the University is now 39. Of these, 13 belong to the Faculty of Medicine. Courses in physics, mental diseases, diseases of the eye, diseases of children, regional anatomy, experimental pharmacology, and pathological bacteriology, are now given in the Faculty of Medicine.

THE ROYAL METEOROLOGICAL SOCIETY.

The annual meeting of the Royal Meteorological Society was held on Wednesday evening last, when the President, Mr. R. Inwards, F.R.A.S., delivered an address on the subject of "Weather Fallacies." He divided these into "Saints' Day Fallacies," "Sun and Moon Fallacies," and "Fallacies concerning Animals and Plants." He also referred to the almanack makers, and to some weather prophets and impostors who from time to time, he said, furnished the world with fit materials for its credulity or its ridicule. The report of the Council presented to the same meeting stated that forty-five new Fellows had been elected during the year, and that additional accommodation had been provided to meet the growing need of the library.

ANTIVACCINATIONISTS IN THE WEST.

In the recent election of guardians for the unions into which Bristol is divided the antivaccination party exhibited considerable activity, and the question was made rather a prominent one. It was, therefore, only to be expected that the matter would come up at an early date when the new Boards met. It appeared on the agenda at the last meetings of both the Bristol and Barton Regis Boards of Guardians. At the former it was moved:

> That no further proceedings in the police court to compel parents to have their children vaccinated be taken by this Board.

The Chairman (Mr. J. W. Lane), however, at once ruled the motion out of order on the ground that the responsibilities and action of the guardians were governed by Article 16 of the Local Government Board's order of October 31st, 1874, and the Board's duty was to carry out the law as it stood. There was a protest against the ruling, but the Chairman held firmly to the position he had taken up, and a resolution to proceed to the next business was at once adopted. At the Barton Regis Board the antivaccination resolution was as follows:

> That no further prosecutions be ordered by the Board against defaulters under the compulsory clauses of the Vaccination Act until the Royal Commission has issued its report.

The matter was pretty fully argued, and Dr. Harrison and Miss Clifford gave their testimony in favour of vaccination. They advocated the dealing with each case upon its merits, and the enforcement of the law where deemed desirable, and this course was adopted by a majority of votes.

MICROBES AND MONEY.

That money is the root of all evil is one of the stock platitudes of the pulpit, but probably the preachers themselves do not always fully realise the vileness of the gold and the filthiness of the lucre they are so fond of denouncing. That

thriving colonies of microbic "small deer" are found on banknotes is one of the many uncomfortable revelations we owe to bacteriology; and it is equally well known that the germs of contagious diseases circulate with the metallic currency. So impressed with the danger arising from this source is Professor Demosthenes, of Bucharest, that he urges medical men to use strict antiseptic precautions in receiving their fees. He describes the practitioner who attends a case of scarlet fever or other infectious illness receiving money which has been under the patient's pillow, or, at any rate, in contact with him. Then he goes straight to the bedside of another sufferer, and feels his pulse, and touches various parts of his person, giving the microbes received with the fee from the first patient an excellent chance of finding fresh pastures. In course of time the doctor returns to the bosom of his family laden, we are led to infer, with precious metals and bank notes, and distributes the day's catch of microbes among his children in returning their caresses. This is a terrible picture, but it suggests to our minds certain reflections. In the first place it does not appear superfluous to inquire whether it is not the custom of our brethren in Roumania to go through some process of purification, at least to the extent of washing their hands, before they pass from one patient to another. Again, are all Dr. Demosthenes's brother practitioners paid in ready money? We imagine that many doctors in this country would cheerfully take the risk of contagion if they could get the cash. Professor Demosthenes concludes his discourse with the warning: "Be on your guard against your patients' money." This, we submit, is a somewhat dangerous doctrine, and we only hope his patients may not take advantage of the situation. His suggestions for the disinfection of bank notes with 5 or even 10 per cent. solutions of carbolic acid do not sound very practical, but it is, at any rate, comforting that he does not insist on sterilisation by flame. This method of disinfection would, no doubt, be approved of by the banks.

SCOTTISH ASSOCIATION FOR THE MEDICAL EDUCATION OF WOMEN.

The fifth annual meeting of this Association was held on Tuesday, January 15th, under the presidency of Sir Alexander Christison. The report showed a deficit of a few pounds, a much better financial condition than has hitherto been experienced in the history of the Association. It was pointed out that three of the Scottish Universities were now prepared to grant degrees to women, namely, Glasgow, St. Andrews, and Edinburgh, and that Edinburgh had recognised the school conducted by the Association "as a medical school and course of instruction qualifying for graduation in medicine," and that this necessarily increased the necessity of having a thorough equipment of the school. A school for women students affiliated to the university would put the medical education of women on a permanent basis, would do away with the necessity for disturbing the university arrangements for the education of men, and, indeed, be a fitting complement to the various facilities (educative) of which Edinburgh was so proud. The following office-bearers were appointed for the ensuing year:—*President:* Sir Alexander Christison, Bart. *Vice-Presidents:* Mrs. Auckland Geddes; Mr. J. R. Findlay. *Members of Court:* Dr. R. C. Maclagan, Mr. Robert Simson, Dr. J. Allan Gray, and Dr. Francis Cadell.

HOSPITALS, INFIRMARIES, AND STUDENTS.

In discussing recently the hardships which are endured by many members of the poorer classes who suffer from some chronic disease, we pointed out that it was incorrect to say that no provision at present exists for them, inasmuch as they are eligible for admission to the Poor-law infirmaries. Shortly afterwards Miss Twining addressed a letter to the *Times* somewhat to the same effect, in the course of which she said that the Poor-law infirmaries "are allowed by all competent judges to be equal to the voluntary hospitals (at least in the metropolitan district) in care and nursing." Miss Twining perhaps went too far in making this assertion even of the best Poor-law infirmaries, and her letter has drawn from the Chaplain of Guy's Hospital an interesting communication to the *Times*, in which he urges that there is need not only for homes for the hopeless sick and dying who have means or friends to do something towards their support, but also of "free places for respectable folk whose past history makes one shudder at the prospect of sending them to lie and to die amidst the ordinary clients of the Poor Law." This picture is, we hope, overdrawn, but the special point of interest in the letter of Mr. Bowden, who has had considerable experience, both of a Poor-law infirmary and of a voluntary hospital, is a point which he makes in favour of the large voluntary hospital. "In a Poor-law infirmary there is usually only one doctor to look after 200 patients, and his power is despotic; in a voluntary hospital no one doctor has more than thirty patients, and he has attending him that great safeguard of the sick poor, a body of students anxious to learn why he does this and that, and eager to detect symptoms and to watch the progress of his cases." We have again and again pointed out that this is true, and that, so far from the presence of students being to the disadvantage of patients, a teaching school, properly conducted, invariably tends towards greater efficiency; but it is satisfactory to have this opinion confirmed from an independent and competent source. If the great Poor-law infirmaries were more freely opened to medical students a great advantage would be conferred not only on medical education but also on the inmates. The time must come when the present Chinese wall of obstruction will be broken down. Those who attempt the task must be prepared for a little obloquy from ignorant and fanatical persons, but they will earn the respect of those who know and the gratitude of those who suffer.

A "CANCER CURER."

At the Waterford Quarter Sessions, on January 2nd, a "cancer curer" named Thomas McGrath was sued by a patient for the recovery of £20, for that the defendant undertook for a certain fee to cure the plaintiff of a cancer in the hand, and by his negligent and improper treatment aggravated the disease to such an extent that the arm of the plaintiff had to be amputated at a later date. According to the evidence as reported in the *Waterford Standard*, the plaintiff had been previously treated by various duly qualified surgeons, who had advised excision of the wrist of the affected hand, but unfortunately had elected in preference to consult, and had placed himself under the care of, the unqualified defendant. He was by this person treated by certain plasters and powders applied locally, with the effect, as declared in the evidence, that the hand was greatly inflamed and ulcerated. The plaster was acknowledged to contain corrosive sublimate. The plaintiff's case was supported by the evidence of various medical men; and the defendant, after giving evidence in his own favour, desired by his counsel to put in the box persons who had been cured of cancer by his treatment. The judge declined to admit such evidence, stating that these persons could not know whether or not it was really cancer from which they had suffered. After a protracted trial, the jury gave a verdict for the plaintiff, with costs, awarding him, however, only 17s. 6d., that being the amount of the fee paid by him to the defendant. To bear the pain of a caustic application to a cancerous growth for seventeen weeks without a cure being effected, then to have one's arm amputated in consequence thereof, and finally to have the damages sustained estimated by an enlightened jury at 17s. 6d.—these things are not calculated to increase the faith of the ignorant in the advantages of quackery over skilled advice.

A REPORT

ON THE

POSSIBLE CONVEYANCE OF CERTAIN WATERBORNE DISEASES, ESPECIALLY TYPHOID FEVER, BY OYSTERS AND OTHER MOLLUSCS.

I.

The evidence which has lately become available, and especially the valuable paper by Sir William Broadbent published in the British Medical Journal of January 12th, has shown that the conveyance of typhoid fever and possibly also of certain other waterborne diseases by oysters, is a source of danger to the public health which cannot be disregarded. It has, therefore, appeared to be desirable to institute a special inquiry into the conditions under which these molluscs may become infected during the course of their culture and preparation for the market and their distribution to the consumer.

It will be remembered that during the outbreak of cholera at Grimsby in 1893 a suspicion existed that the sporadic cases of the disease which occurred in various inland towns might have been due to the ingestion of oysters from the infected locality. On previous occasions Sir Charles A. Cameron and other health officers have met with outbreaks in which the possibility of this source of infection could not be excluded, but, on the contrary, appeared to be the most probable explanation of the facts. In other instances, again, the eating of mussels and other molluscs has been the apparent cause of severe attacks of gastro-intestinal disease. For the present, however, it will be well to confine our attention to oysters and their possible connection with the dissemination of typhoid fever.

In the first place, and as preliminary to the inquiry which has been set on foot, we propose to describe shortly the normal conditions of life under which the oyster lives. The shell consists of two dissimilar parts or "valves," connected at their narrower ends or "beaks." One valve is flat; the other convex externally and hollow internally; and it is in the latter that the oyster may be said to lie, for this one is attached to the "oyster bed," whilst the upper flat one can be raised and lowered to a greater or less extent. The opening of the valves is due to the elasticity of a powerful ligament joining the two valves at the "beak;" the closure, on the other hand, is brought about by the contraction of the thick "adductor muscle," which passes from one valve to the other, somewhere near the centre, traversing the body of the oyster, of which it forms a considerable part. The two valves are in contact with one another, below the beak, along a ridge known as the "hinge," which acts as a fulcrum to a lever (the valve), to the short arm of which the ligament is attached, and to the long arm, the muscle. The opening is thus passive, the closing active; consequently, on the death of the animal, the ligament enters upon a state of permanent contraction, and the valves gape.

During life the valves constantly gape slightly and projecting beyond their margins is a delicate membrane fringed with short tentacles and supplied by nerves; it is by their means that a warning is given to the animal of any harmful disturbance in the surrounding water. The adductor muscle then comes into use and the upper valve shuts down tightly upon the lower one, thus protecting the oyster from harm. If, for example, any sudden fouling of the water by sewage were to occur the oyster would immediately shut itself up within its thick walls of lime till the water was clear again. The oyster itself is made up of a body, "beard," and "mantle." The mantle is the thin membrane which during life lies closely against the shell, beyond which it projects, but when the shell is opened it shrinks considerably. It secretes the carbonate of lime which composes the shell. It is also highly sensitive, as already mentioned, being traversed by numerous nerves which go to the fringe round its margin. This mantle is continuous with the "body" near the beak of the shell and forms the sides of a large chamber in which the sickle-shaped "beard" (constituted by the four "gills") hangs down. The "body" is traversed by the great adductor muscle, and contains the alimentary canal, liver, heart, nervous system, kidneys, and reproductive organs.

The oyster is a delicate feeder, and being fixed, has to obtain its food by the action of the cilia which cover the body and especially the gills. Lying with its valves slightly apart, it draws in by this ciliary movement a current of water, with minute animal and vegetable matter in suspension; this water passes forwards over the "beard" towards the mouth, which is situated near the beak of the shell; the blood in the gills—each of which is essentially a minute trellis-work of hollow rods—takes up the oxygen from the water, whilst the solid particles pass forward to the labial palps which conceal the mouth. The palps are sensory organs and appear to possess a certain power of selection as to what shall and what shall not pass into the alimentary canal. Minute vegetable organisms, diatoms and desmids form, with infusoria, the oyster's food; any solid particles of mud or sand, if fine enough to be carried along by the ciliary current will be rejected by the palps.

One of the conditions essential for the healthy life of the oyster is that the water be clear, clean, and possess at least 3 per cent. of salt. If the water contains much solid inorganic matter in suspension this will be carried into the gill chamber either by the ciliary current or by eddies in the water, and will fall into the gills, injuring them, interrupting the current carrying food to the mouth, causing an obstruction which will catch small particles, and so ultimately "suffocate" the oyster. Again, larger particles of sand may get between the valves at the hinge and prevent closure; the oyster is then unable to exclude the finer particles causing suffocation, or to protect itself against such enemies as the starfish or crab. A particular kind of bottom is found forming the "oyster beds," a fine shelly sand, mixed with a certain amount of mud, with perhaps larger stones on to which the young oysters or "spat" can fix themselves when the "fall" occurs.

A second condition is presence of the suitable kind of living organic matter in the water serving as the food for the oyster. The amount of this will, of course, depend on a variety of causes, both physical, such as temperature, direction of current, etc., and organic, such as the presence or absence of other animals using the same kind of food.

Any serious interference with these two conditions will materially affect the health of the oyster. The animal may starve or more likely become diseased and die, although any temporary inconvenience may be withstood by closure of the valves. If for instance, sewage in quantity be allowed to discharge itself on to an oyster bed, no doubt the oysters would be exterminated sooner or later; but if the bed be at some distance from the outfall, the sewage, in its passage down the river or at sea, will be very greatly diluted. The conditions existing in the outbreak quoted from Professor Conn in the British Medical Journal of January 12th must therefore be of rare occurrence.

The question as to typhoid bacillus existing in the oyster is one that can only be settled by experiment. Have we any reason to believe that the bacillus can live in salt water for any length of time? and, supposing it reaches the oyster, will it reproduce?

The physiological processes appear to go on very rapidly in the oyster. It is a well-known fact that oysters from one bed are often "laid down" in some other bed in order to "fatten" previously to being put upon the market. This process of "fattening" may last a few weeks or some months, and the result of this change of diet is seen in the fact that the animal becomes much thicker from shell to shell, at the same time gains a better flavour, and loses the original character of the shell. In other words, the character and supply of food at the places selected for this purpose is superior to that at other spots.

To such an extent does the food affect oysters that certain French oyster-culturists artificially feed them upon a particular diatom of a blue colour in order to obtain the green oyster, or *huitre de Marennes*, which is esteemed so great a delicacy in France but which is regarded with disfavour in England. If the "green oyster" be laid down on a bed where

it cannot obtain this particular diatom it soon loses its colour, which only affects the beard.

It is a very common and widespread belief, and one which, in spite of scientific observations refuting it, is extremely difficult to eradicate, that the green colour of this oyster is due to copper in the water in which it has lived, and that the animal is poisonous. It is, however, known as an absolute fact that this colour is not due to copper, and, moreover, the animal is eaten by Parisians and esteemed a delicacy. Furthermore, there is no scientific evidence forthcoming to show that mussels or oysters, or indeed any other animal, can absorb copper into the system in quantity sufficient to be harmful to those who eat them. On the other hand, it is undoubtedly true that mussels, about which there has been no suspicion that they have absorbed copper from ship bottoms, have produced when eaten symptoms of severe, even fatal, gastro-intestinal disorder. It seems, therefore, in these cases certain that the sickness is not due to copper in the mussel, but it remains to be proved whether ptomaines are at the bottom of the mischief, as seems probable.

With regard to the green oyster of Marennes, the cause of the greenness has been thoroughly worked out within the last few years by one of our leading zoologists, who has shown that the colouring matter of the ingested diatoms is absorbed into the blood and collected by phagocytes, which then make their way to the gills, where they take up their position, and eventually no doubt get rid of their burden of colouring matter, or make their way out of the tissues of the animal.

In the ordinary oyster the appearance of the gills affords means of detecting unhealthiness. Oysters are frequently kept for some days either in clean sea water, in which they remain alive for a week, or entirely out of water, in which condition they are stated to live for a fortnight, or even longer. But in either case, though alive, the animal may be somewhat sickly. If on looking at its "beard" the edges are found to be dry, or dark coloured, or streaked, the animal should be rejected as being in an unhealthy state, and therefore in a condition unfit for human food.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

Cases treated in the County Monaghan Fever Hospital with antitoxin serum prepared by Dr. Klein, by J. Campbell Hall, M.B.:—

Case I.—A girl, aged 8, was admitted on December 1st, 1894, on the third day of the disease. The tonsils, the fauces, the back of the pharynx, and a portion of the soft palate were covered with membrane. The pulse was 124, and the temperature 100.4°; there was a trace of albumen in the urine. I put her on my usual treatment, consisting of tincture of perchloride of iron, acetate of potassium every third hour, with frequent rinsing of the mouth and throat with a gargle of salicylate of sodium and boric acid. On December 6th I received from the Editor of the British Medical Journal some antitoxin placed at his disposal by Dr. Klein. On that day the membrane was beginning to separate; the urine was scanty and highly albuminous; the pulse 80, the temperature 99.6°. I injected antitoxin ℥jss. In twelve hours after she was looking much brighter, was feeling hungry, took nourishment without any discomfort, and had slept well. Prior to this she scarcely slept at all, and deglutition was most painful and difficult. Improvement continued until December 10th, when cardiac failure became apparent, accompanied by pain in the stomach and constant vomiting, which continued until December 12th, when she died rather suddenly. Paralysis of the palate had been well marked.

Case II.—The sister of the above patient, aged 18 years, was admitted on December 3rd, 1894, the second day of illness. There was membrane on both tonsils, and large and painful glands at both angles of the jaw. On December 6th I injected antitoxin ℥ij. Her condition at time of injection was—great increase of membrane over the soft palate and right side of mouth. The pulse was 100, and the temperature 101.2°. The urine was almost solid on boiling. She complained greatly of pain in the throat, and took nourishment badly. On the following day she coughed up a quantity of membrane, and then improved daily. On December 12th the temperature was normal, and the membrane had nearly all gone. On December 16th paralysis of the palate was noted. The membrane had completely gone. The urine contained about half albumen. She left the hospital on December 22nd apparently well, except for paralysis of the palate and a trace of albumen in the urine. Professor Purser, of Trinity College, Dublin, kindly examined a portion of her membrane, and found Loeffler's bacillus.

Case III.—The sister of the last patient, aged 13 years, was admitted on December 5th, 1894, on the second day of illness. The fauces were very much inflamed, and membrane was commencing to form on both tonsils. The urine was slightly albuminous. On December 6th the membrane had increased greatly over the left tonsil. The pulse was 120, and the temperature 101.3. I injected antitoxin ℥jss. On December 7th she felt much better, had slept well, and there was no increase of membrane. On December 11th the membrane was quite gone, and the temperature was normal. On December 16th a rose-coloured rash appeared all over the body, without any rise of temperature or constitutional disturbance, and continued until December 19th. Paralysis of the palate appeared on December 21st. She left the hospital on December 22nd.

Case IV.—Girl, aged 10 years, was sent to hospital, as a brother and sister had just died of diphtheria, and her father thought her throat looked suspicious. She was admitted on December 9th, 1894. I could find nothing whatever wrong with her. She felt quite well, and looked the picture of perfect health. I placed her in a ward by herself, and examined her frequently. On the morning of December 11th her healthy appearance had vanished; she looked ill and wretched. Her throat, she said, had become painful during the night. The pulse was 120, and the temperature 102°. I found the fauces congested and diphtherial membrane on the left tonsil. I injected antitoxin ℥jss at 9 A.M. I saw her again at 4 P.M. The pain in the throat had gone, and there was no increase of membrane. The pulse was 120, and the temperature 104°. She slept the entire night, and felt much better on December 12th; the pulse was 100, the temperature was normal; the membrane was smaller. On December 15th the membrane had quite gone; she felt well. On December 18th a rose-coloured rash appeared without producing any constitutional disturbance, and lasted for twenty-four hours. She made a good recovery. No albumen was found in the urine at any time.

Case V.—A girl, aged 12 years, was admitted on December 11th, the third day of illness. There was membrane over both tonsils, the fauces, and the back of the pharynx, and it was commencing to form on the uvula and soft palate. The urine was albuminous. Vomiting was most distressing. I injected antitoxin ℥jss. The pulse was 125, and the temperature 103.5° at the time of injection. She had a restless night, and vomiting was troublesome, but she felt better on December 12th. The pulse was 118. The temperature was 100.6°. The membrane had spread over the greater part of the palate and the mucous membrane of the nose. At 6.30 P.M. she coughed up a quantity of membrane, and felt much better. The temperature was 99.5°. She continued to improve until December 19th, when vomiting returned and lasted for two days, accompanied by very weak pulse and scanty, dark-coloured, albuminous urine. The temperature ranged between 99° and 100.6° F. On December 21st a rose-coloured rash appeared all over the body. The temperature was 100.6°, and the pulse 96. She was stronger, there was no vomiting, and she took stimulants and nourishment well. On December 22nd there was paralysis of the palate. The rash had gone, no membrane was visible. She was progressing in a most satisfactory manner until the morning of December 25th, when vomiting returned with great heart failure and diminished secretion of urine, which became quite solid on boiling. I injected another antitoxin ℥jss, after which vomiting ceased, but cardiac weakness steadily increased notwithstanding stimulants and hypodermic injections of ether. She died at 7 P.M.

Case VI.—A woman, aged 40, the mother of Cases V and VII, was admitted on December 11th, 1894, the second day of

illness. The glands at both angles of the jaw were enlarged. The tonsils were slightly enlarged, and there was membrane on the inner aspect of the left. The pulse was 100, and the temperature 101°. I injected 1¼ drachm of antitoxin, which was all I had remaining of my first supply. On December 12th she slept well. The skin was moist. The pulse was 100, and the temperature 100.2°. No increase of membrane had occurred. On December 14th the membrane had quite gone. The pulse was 80, and the temperature 97.8°. She made a good recovery. No albumen was present at any time.

CASE VII.—A man, aged 24 years, was admitted on December 16th, 1894. He had been nursing a younger brother, aged 20 years, who died of diphtheria a few hours before his admission. He had slight soreness of throat, and a rigor on the preceding day. The glands at both angles of the jaw were hard and painful. There was a patch of membrane about the size of sixpence on both tonsils. The fauces were congested. The pulse was 104 and the temperature 101.3°. There was no albumen in the urine. I injected antitoxin ʒij. He had good night. On December 17th he was reported to have perspired very freely; the pulse was 88 and the temperature 99.5°. He got up a quantity of blood-stained membrane. On December 19th the membrane was quite gone; the temperature was normal; the urine did not contain albumen. He made an excellent recovery.

CASE VIII.—A girl, aged 18 years, cousin of Case VII, had been exposed to infection. She was admitted on December 19th, 1894, the third day of illness. The glands at the angles of the jaw were enlarged and painful; the pulse was 92 and the temperature 100°. There was membrane on both tonsils, but no albumen in the urine. I injected antitoxin ʒij. She had a good night, and on December 20th the pulse was 100 and the temperature 100°. The membrane had come off the left tonsil. On December 23rd the membrane was quite gone. The urine did not contain albumen. She made a good recovery.

CASE IX.—A child, aged 18 months, on the first day of illness had a temperature of 101.3°. The throat was congested, and there was a large patch of membrane on the left tonsil. The glands at both angles of the jaw were enlarged and painful, especially on the left side. I injected antitoxin ʒjss on December 20th, 1894. She had a fair night, and on December 21st the temperature was 99.6°. The glands were smaller and the throat not so red. No increase of membrane had occurred. On December 23rd the membrane had quite gone. The temperature was 98.5°. There was no albumen in the urine. The child made a good recovery.

CASE X.—A girl, aged 6, was admitted on December 17th, 1894, the fifth day of illness. The glands at the angles of the jaw were greatly enlarged and painful, and there was a discharge from the nose. An eruption of chicken-pox appeared on December 16th. Both tonsils, the pharynx, the uvula, and the greater portion of the soft palate were covered with a thick greenish-looking membrane, the odour of which was most offensive. The urine contained albumen. The pulse was 120, and the temperature 100.3°. I injected antitoxin ʒjss at 9.30 A.M. At 5.30 P.M. she looked and felt much better and had expelled a large quantity of membrane. The pulse was 120, and the temperature 99.7°. She had perspired freely. She continued to improve until December 22nd, when vomiting began, with irregularity of pulse. The temperature was normal. The urine contained one-eighth albumen. She gradually grew weaker, and on December 26th, when the membrane had quite gone, the pulse was 60, the temperature was normal, and the urine very scanty and albuminous, she died suddenly of heart failure.

CASE XI.—A woman, aged 20, mother of (Case IX), was seen on January 3rd, 1895, the third day of illness. She looked very ill. The pulse was 92, and the temperature 98.5°. The glands at both angles of the jaw were enlarged and extremely painful. Both tonsils were completely covered with membrane. The soft palate and uvula were congested, and membrane was beginning to form on the right side of the palate and the base of the uvula. The urine contained albumen. I injected antitoxin ʒij at 11 A.M. On January 4th the pain in the glands was quite gone; she felt and looked better. There had been no increase of membrane. On January 5th she expelled a quantity of membrane, but on January 7th the membrane had completely gone. The temperature was normal, the pulse 72, and the appetite good. She said she felt all right in every way. The urine contained no albumen.

Remarks.—Unquestionably antitoxin has a most powerful influence over diphtheria, especially in the early stages. When given not later than the third day it appears to me to check the disease completely, as in Cases III, IV, VI, VII, VIII, IX, and XI. When deferred until diphtherial cachexia has supervened, it does not seem to possess any influence over the rapid wasting which invariably follows, accompanied by cardiac failure; a tendency to the latter, I fear, it rather increases, as Cases I, V, and X seem to indicate. In all cases it appears to prevent the formation of fresh membrane, hastens the separation of that already formed, produces sleep, reduces glandular enlargement, relieves pain in the throat, and improves appetite. I do not think it produces kidney trouble or increases the quantity of albumen. In not one of these cases was I able to discover renal casts in the urine. While using antitoxin I continued my usual treatment described in the notes in Case I, so that I have been able to compare these cases with my former ones, full notes of which I possess. Three out of the eleven cases I have treated with antitoxin have died, being a mortality of 27.2, as against 31.25, being the mortality of my former cases. I find also a most interesting comparison in the average time membrane begins to separate and its final disappearance under both methods of treatment. With antitoxin membrane begins to separate in 4.5 days and disappears in 7.5 days, whereas in cases not treated with antitoxin membrane begins to separate in 7.4 days and disappears in 15.0 days. As several of my antitoxin cases have been intelligent adults I have been able to get much information as to their personal feelings after its administration. They all agree that in about two hours after its injection they experienced a great feeling of relief, both from pain and that terrible feeling of depression of which diphtheria patients complain so much. They felt easier in every way and relished nourishment. One woman told me she felt as if a heavy load had been lifted off her.

THE DOSE OF SERUM.

DR. GEORGE ROSE (Aberdeen) writes: I have observed Dr. Klein's remarks in the BRITISH MEDICAL JOURNAL of January 12th on the dose of antitoxin in my Case VI published in your issue of January 5th, and regret that there should have been any misunderstanding and that Dr. Klein should have felt aggrieved. This case was under the care of Dr. Macgregor, and was treated by him with the antitoxin. It came under my care only when surgical interference seemed necessary. Dr. Macgregor will no doubt have his own explanation to give. In my other cases, which were surgical from the first, Behring's antitoxin was employed, and I injected the doses given because in the bulk of published cases good results were claimed for even smaller doses. My results seemed to be negative, and if they serve no other purpose they are a contribution to the dosage of antitoxin, and support the contention that much larger doses of any antitoxin are needed to produce a good result. Much, therefore, of what has been written of the good effect of antitoxin must, I fear, go for nothing. I am using the antitoxin so kindly sent by Dr. Klein in the doses advised by him, and I shall continue to do so, as it certainly would be a waste of material, as well as unfair to my patients, to employ doses which have clearly been proved to be insufficient.

DR. A. MACGREGOR (Aberdeen) writes: In the BRITISH MEDICAL JOURNAL of January 12th Dr. E. Klein asks "Why did they (Dr. Rose and myself) inject ♏x and ♏viij respectively, when . . . . . the bottle of antitoxin had a label on which is printed in red ink that the dose is from 1½ to 2 drachms?" My "special" reason for giving a ♏x dose was the age of the child. I naturally concluded that the dose stated on the label was that for an adult, and also naturally concluded that ♏x was a fair dose for a wretched little child 21 months old. Had Dr. Klein stated on the label that an infant must have as large a dose as an adult, this would have prevented what seems to him "sheer

waste of material." I regret having done what in Dr. Klein's opinion not only does not "further the knowledge of the value of the antitoxin treatment," but "helps to confuse it." An addition to the label, as suggested, would prevent others from falling into the same mistake.

THE STATISTICS OF THE ANTITOXIN TREATMENT.

Mr. Lennox Browne (Mansfield Street, W.) writes: I am much obliged to Dr. Goodall for answering so fully all the questions I asked of him, and I think it will be generally admitted that the character of his very frank replies fully justifies my insistence of their importance.

If I presume on further criticism, it is not because I do not fully appreciate Dr. Goodall's excellent results, on which indeed I sincerely congratulate him, but solely that I deem it indispensable to eliminate every element of inexactitude in the deductions to be drawn from his or any other records of the serum treatment.

1. As to mortality, it is certainly satisfactory to have reduced a death percentage of 45—the rate on all the cases, 349 in number, under 10 years of age, admitted under Dr. Goodall's care in 1893—to just under 21, his result with antitoxin on 62 cases. But at one of the five Asylums Board Hospitals treating diphtheria, the percentage during the same period was but 34 on 892 cases, and the average for all the five was just under 41 per cent. on 1,940 cases.[1] From these figures it must be conceded that if we are to test the advantages of the serum treatment, we should estimate them by comparison with the death-rate of that hospital at which it was lowest, by the former methods of treatment at command, and not at that one at which it was nearly the highest.

2. As to the exact cause of death, may I ask, Is cardiac failure responsible for 100 per cent. of the mortality from the poison of diphtheria? for that is what Dr. Goodall's answer comes to. If not, his experience would seem to lend colour to Dr. Baginsky's suggestion that "attention should be paid to symptoms of cardiac failure, which seemed to be disproportionately frequent in the recent epidemic; for most of those dying under the (antitoxin) treatment died from cardiac asthenia."[2] In 6 of the 10 fatal cases Dr. Goodall reports, there was partial anuria, and in one total. In what respect is his experience in this direction opposed to mine; and of what were the nature of the "convulsions" to which the cardiac failure was in one death "secondary"? Were they uræmic? Was there anuria in this case partial or total?

Dr. Goodall gives some interesting personal experience regarding anuria under ordinary treatment, which he states to have been present in 6 out of 15 recent fatal cases under his care. I do not gather that Dr. Goodall intends to suggest that anuria is due to some other condition than nephritis, a question which can only be determined by a *post mortem* examination in every case; but if he has any such idea, all pathological observations—including those of Dr. Morrice, whom he quotes—would be against him.

Dr. Goodall's recent experience of its frequency is certainly curious, when we learn from the published statistics of the Asylums Board Hospitals (Table VIII, page 105) that nephritis was only recorded as a complication in 8 instances out of a total mortality of 865 in the whole of the Asylums Board Hospitals for the year 1893, and 3 of these occurred at Homerton.

But Dr. Benda, pathological prosector to the Urban Hospital, Berlin, has stated that on necropsy of 39 diphtheria patients treated by the serum, only 6 were free from nephritis; 8 showed severe, and 25 slighter parenchymatous nephritis.[3]

But the fact is that no questions relating to the new treatment of diphtheria can be satisfactorily settled unless (1) all cases are eliminated from consideration where the clinical diagnosis cannot be confirmed by bacteriological examination, and (2) that a careful record of *post-mortem* examination be made of every fatal case. Both these conditions are essential before we can definitely say that a remedy capable of effecting such an amount of good is incapable of doing harm.

[1] Published Statistics for 1893, Table VII, p. 103.
[2] *Lancet*, January 5th, 1895.
[3] *Medical Press and Circular*, January 2nd, 1895.

In this respect the short series treated with antitoxin at University College Hospital, under the superintendence of Professor Ringer,[4] is of exceptional value; but what a lesson it teaches! Eight cases with 5 deaths—1 from cardiac failure, 1 from total suppression of urine, and 3 with evidences of septicæmia, all established by necropsy.

PROFESSOR WIDERHOFER'S STATISTICS FROM VIENNA.

A brief account was published last week of Professor Widerhofer's experience with Behring's diphtheria antitoxic serum in the St. Anne's Children's Hospital in Vienna. Professor Widerhofer's paper,[5] however, contained some statistics as to the ages of the patients treated by him, which it will be interesting to compare and combine with those given by Dr. Goodall in the British Medical Journal of January 12th from the Eastern Hospital at Homerton.

Professor Widerhofer's cases were treated during October and November, 1894, but not all the cases admitted to the hospital were subjected to treatment by the antitoxic serum. The supply was limited, and for this reason it was not employed in the very mild cases, nor in those which appeared to have passed into a hopeless state at the time of admission. During these two months the number of cases not treated with antitoxic serum was 50, of whom 21, or 42 per cent., died.

The number of cases treated with the antitoxic serum was 100; of this number 24 died and 76, including one child, who remained in hospital in consequence of a mild attack of scarlet fever, recovered. The following table shows the number of cases and of deaths at various ages:

	Cases Treated.	Died.
Under 1 year	8 ...	... 5
,, 1 ,, ...	7 ...	... 3
,, 2 years	17 ...	... 6
,, 3 ,, ...	20 ...	... 7
,, 4 ,, ...	14 ...	... 6
,, 5 ,, ...	16 ...	... 3
,, 6 ,, ...	5 ...	... 0
,, 7 ,, ...	7 ...	... 0
,, 8 ,, ...	2 ...	... 0
,, 9 ,, ...	1 ...	... 0
,, 12 ,, ...	2 ...	... 0
,, 14 ,, ...	1 ...	... 0
	100	24

In the following table the cases reported by Widerhofer and by Dr. Goodall in the British Medical Journal of January 12th, p. 100, are brought together, the totals at the various ages shown, and the percentage of deaths at the various ages have been calculated:

	Widerhofer.		Goodall.		Total.		
	Treated.	Died.	Treated.	Died.	Treated.	Died.	Per-centage.
Under 1 year ...	8	5	4	1	12	6	50.0
1 to 2 years ...	24	9	10	2	34	11	32 3
2 ,, 3 ,, ...	20	7	7	1	27	8	29.6
3 ,, 4 ,, ...	14	6	9	3	23	3	13.0
4 ,, 5 ,, ...	16	3	10	5	26	8	30.8
5 ,, 10 ,, ...	15	0	22	2	37	2	5 4
10 ,, 15 ,, ...	3	0	10	0	13	0	0.0

In the two series there were 122 cases 5 years old or under, of whom 36, or 29.5 per cent. died. There were 37 cases from 5 to 10 years old, of whom 2 died, or 5 4 per cent.

The bacillus of diphtheria (Loeffler's) was found in 96 of Widerhofer's 100 cases. It was not found in 2 cases, and in 2 others deaths occurred at so early a date that the bacteriological examination was not made

The causes of death in Widerhofer's 24 cases were as follows: "Croup" in 12, sepsis in 5, diphtheria and œdema of the glottis in 1, diphtheria without croup or sepsis in 1, relapse and catarrhal pneumonia in 1, scarlet fever and capillary bronchitis in 1, pneumonia after measles in 2, tuberculosis with double empyema in 1.

[4] British Medical Journal, December 29th, 189
[5] *Deutsche med. Woch.*, January 10th, 1895.

Widerhofer points out that the occurrence of an outbreak of measles and scarlet fever in the diphtheria wards made his statistics worse than probably they would otherwise have been, for two children died of pneumonia, secondary to measles, the one 15 and the other 16 days after the first injection with antitoxic serum. Two other children had measles after injection but recovered. He refers to the difficulty of distinguishing the erythematous rash often produced by the serum from scarlet fever, and he admits that his diagnosis was not quite certain. He states, however, that the erythematous attacks, whether scarlet fever or not, were not confined to the cases injected; in all 15 children suffered from it, 8 who had been injected (of whom 1 died), and 7 who were not injected (of whom 3 died).

In all the 12 cases which died of "croup" the symptoms of laryngeal stenosis were so marked at the time of admission that immediate intubation was practised. In 3 cases intubation failed to give any relief, and tracheotomy was at once performed: in 9 the relief was temporary, and tracheotomy had to be performed after a few hours.

Among the cases which recovered it was necessary to perform intubation in 16 and tracheotomy in 3, while in 7 there was some laryngeal stenosis, but not enough to demand intubation.

Widerhofer describes as an early effect of the injection a change in the colour of the false membrane, which became quite white. This change preceded its detachment. A little later a diminution in the glandular swelling about the neck and of the œdema of the fauces occurred. An effect upon the temperature was not always at once observable, but a fall in the pulse rate ensued commonly quickly after the injection. This fall, which is accompanied by increased strength of the pulse is, he thinks, an important element in a favourable prognosis.

Widerhofer states five propositions as to which he says his opinion is settled, for he writes, "What I have written I have seen, and what I have seen that do I believe." These propositions shortly stated are: 1. That Behring's serum is a real remedy for diphtheria. 2. That it has a most favourable influence on cases, even of the severest type, if there be no secondary infection (by streptococci in particular), but that (3) the treatment ceases to have any noteworthy effect on the final result if commenced after the third, or at latest the fourth, day. 4. In the early stage of involvement of the larynx the treatment produced a good effect, but in the later stages the effect was uncertain; and when the smaller bronchi were involved, or when catarrhal pneumonia had been set up, no effect was produced. 5. There are good grounds for the hope that Behring's serum will reduce the mortality from diphtheria.

THE ANTITOXIN TREATMENT ABROAD.

France.—In a letter, bearing date December 21st, 1894, addressed by M. Roux to the *New York Herald*, which had opened a subscription in aid of the serum treatment, he speaks warmly of "the benefit which we owe M. Behring, who has introduced the antidiphtheria serum into science." "For my part," adds M. Roux, "I am very happy to have contributed, with the help of MM. Martin and Chaillou, to the introduction of the new method into practice."

Professor Arloing, of Lyons, has some horses almost ready to furnish a supply of serum.

Austria.—Statistics prepared for the Government authorities of Trieste show that from August to the end of December, 1894, the total number of cases of diphtheria treated was 406. The effect of the adoption of the antitoxin treatment showed itself in a reduction of the percentage of deaths from 58.3 to 16. Equally favourable results are officially reported from Czernowitz and Bakowina.

United States.—We gather from the *Journal of the American Medical Association* that the young medical men attached to the New York Board of Health until lately themselves bore all the expenses of the present antitoxin experiments. Some months ago an application was made for an appropriation for the purpose from the city's funds, but was refused. The amount asked for was 27,000 dollars. It is calculated that the average monthly cost for a stable with fifty horses for the first year will be about 2,300 dols. (£460); the average cost per horse during the first non-productive half-year being about 290 dols. (£58), and in the second half-year about 250 dols. (£50). The following is an estimate of the cost of preparing fifty horses for the production of serum, the period necessary for such preparation being estimated at about five months:

	Dols.	
Cost of horse	40	(£8)
Cost of keeping horse (per month 25 dols. = £5) (5 months)	125	(£25)
Total	165	(£33)
Cost of 50 horses (each 165 dols.) ...	8,250	(£1,650)
One veterinarian (5 months at 100 dols. a month)	500	(£100)
Two experts (5 months at 150 dols. a month)	1,500	(£300)
One helper (five months at 65 dols. a month)	325	(£65)
Apparatus	1,500	(£300)
Total	12,075	(£2,415)

At the end of five months it is estimated the following further expenses will be necessary:

	Dols.	
Fifty horses (stabling 25 dols.)	1,250	(£250)
Two experts, each 150 dols.	300	(£60)
One helper	65	(£13)
Apparatus	100	(£20)
Loss on horses	250	(£50)
Total	1,965	(£393)

It is estimated that each horse will produce sufficient serum for the treatment of about 15 cases per month, so that the fifty horses would produce enough for 750 cases per month. In other words, 50 horses would produce about 2,500 doses per month.

As before announced, the New York Municipality has voted a sum of £6,000 for the purchase of sixty horses for the supply of serum.

The Health Commissioner of Buffalo has asked the City Council for an appropriation that will enable him to employ two bacteriologists to prepare antitoxin and study infectious diseases.

In the *Revista de Ciencias Medicas*, of Havana (December 20th, 1894), Dr. C. M. Desvernine reports the first cases of diphtheria treated with the serum in Cuba. It was first tried in a child almost *in articulo mortis*, of course without success. The next case was that of a girl, aged 10; 600 units of Behring's serum were injected on the fourth day, and the child speedily recovered. She had slight albuminuria before the injection, but this disappeared two days after it. No mention is made of any bacteriological examination.

THE SANITARY INSTITUTE.—The nineteenth London course of lectures and demonstrations for sanitary officers given under the direction of the Sanitary Institute will commence on Friday, February 1st, and will be continued on Tuesdays and Fridays in succeeding weeks until the end of April. In addition visits will be paid to laundries, disinfecting stations, the Aylesbury Dairy Company's premises, the East London Waterworks, the sewage farm at Croydon, a knacker's yard, casual wards, the sewage outfall works, etc. The fee for the course is £1 5s. The first six lectures form a separate subcourse on elementary science, and students who do not desire to attend these can attend the remainder of the course for the fee of one guinea.

COUNTY ASYLUM FOR PAYING PATIENTS.—At the last meeting of the West Riding County Council a recommendation from the General Asylums Committee to the effect that it was desirable that an asylum for lunatics other than paupers should be provided with as little delay as possible was, after some discussion, adopted by a large majority. It is proposed to erect a building to receive 200 patients, and to make a charge of from 20s. to 25s. a week. The Committee was authorised to purchase Scalebor Park, Burley-in-Wharfedale, an estate of some 74 acres, for this purpose. There can be no doubt that there is great need for an institution of this character, not only for lunatics, but also for imbeciles and idiots.

DONATIONS AND BEQUESTS.—The late Mr. Henry Charles Chilton, of Merrow Croft Guildford has by his will bequeathed £50 each to the King's College Hospital and the Surrey County Hospital.

THE INDIAN MEDICAL CONGRESS.

We published on December 29th, 1894, telegraphic despatches announcing the opening of the First Indian Medical Congress in Calcutta on December 24th. We have now received fuller reports by mail:

The opening meeting of the Congress was held in the hall of St. Xavier's College, lent for the occasion by the Fathers of the Society of Jesus. The hall, which was gaily decorated for the purpose, was filled by an audience of some 700 persons, of whom the majority were members of the Congress. When his Excellency the Governor-General arrived, he found already assembled a large number of the leading representatives of the European and native communities, including the Lieutenant-Governor of Bengal, the Lord Bishop of Calcutta, his Grace Archbishop Goethals, the Hon. Sir Alexander Miller, the Hon. Lieutenant-General Brackenbury, Lord Onslow, and Lord Elphinstone, His Highness the Maharaja of Durbhanga, His Highness the Maharaja of Mysore, Sir Bhagwath Singhi, Raja of Gondal, near Kathiwar, who is an M.D. and F.R.C.P.; the very Rev. Fathers Lafont and Naish, the Hon. Dr. Lethbridge, the Hon. Mr. Buckland, the Hon. Mr. Bourdillon, Mr. Ernest Hart, Surgeons-Major-General Rice and Bradshaw, and the several Presidents of the Sections, Drs. Crombie, Lawrie, Martin, Dimmock, King, Kynsey, Watt, Kanze Lall Dey, and McConnell.

The Governor-General, in his opening speech, welcomed the members of the Congress, and expressed the hope that the meeting would be successful. After paying a tribute to the noble aims of the medical profession, he went on to say that no one would deny that one of the first duties of any organised Government was to consider how the health of those living within its jurisdiction could be improved or maintained. The questions of public health might be approached from two sides, either by inquiring into the nature of the diseases which specially affected the country or by turning attention to the habits and modes of life of the people in relation to the prevalence of disease. The special circumstances which affected the health of the population of India could best be considered in India. The report of the Sanitary Commissioner to the Government of India—a volume of some 400 full pages—contained ample evidence that the subject of public health was regarded by the Government of India as of the first importance. That Government must deal chiefly with general principles, the local government and departments with their application to the various localities. The scientific discoveries were the outcome of long and patient investigation, and so must be also all observations on the connection of the habits and customs of the people with the public health. He was glad to see that there were some signs of the growth of public opinion in India on sanitary questions during the previous two months. He had met a large number of representatives of municipal committees and other local bodies, and he had found that stress was always laid by them on what had been done or what was to be done in the matter of water supply and other sanitary matters. He thought that too much might be made of local prejudices against sanitation, and he thought there was evidence that the people of India to some extent at least appreciated the advantages which cleanliness in the household and pure water supply could confer. He urged the necessity for a wide tolerance, and that while essentials should be insisted on in every case, there was a fair question of expediency. When the difficulty came from religious feeling, local customs, or financial pressure, or even personal prejudice, there was only one safe rule, which was unlimited patience. In conclusion, he desired to testify, not only his official, but his personal interest in the work before the conference.

The Medical and Sanitary Needs of India.

In his Presidential address at the opening of the Congress, Surgeon-Colonel Robert Harvey said that to bring the additions of modern medicine within the reach of all the inhabitants of India a great extension of hospitals and dispensaries, officered by practitioners trained locally, was required. To obtain practitioners educated up to the high standard which should be held in view, improved facilities for teaching were needed, in order to bring the schools up to date in method and equipment, and so to raise the educational standard, and improve the position of the graduates and licentiates. In Bengal, not more than one-fifteenth of the population was within a reasonable distance of a dispensary. Other provinces were better off, and the North-West Provinces had resolved not to rest content until there was a dispensary within five miles of every village. The medical education given in the great colleges which taught in English was marvellously good, and many native graduates were fit to hold their own with men educated in any country. The results achieved in some instances by the vernacular schools were wonderfully good, and had greatly improved in recent years; but neither the English nor the vernacular schools were as efficient as they should be. The Medical College of Calcutta, the parent of all subsequent medical schools in India, was most miserably cramped, and in structural arrangements was far behind the schools in Bombay, Madras, and Lahore, and in some respects behind the vernacular school at Agra. The result of the activity of the English and vernacular schools was that the supply of graduates and licentiates was almost in excess of the demand. It was true that the Indian Medical Service was open to all, but to enter it involved a sojourn in England and a severe competitive examination, while the local service was limited in numbers, and offered few real prizes. The outlet to meet the natural aspirations of the pupils of the Indian schools would, he believed, be found as the number of hospitals increased and the Health Department was strengthened. He appealed to the local profession to show more self-reliance, and welcomed the recent establishment of the School of Medicine in Calcutta, independent of Government aid, as a step in the right direction. As hospitals came to be built and maintained in India as in England by voluntary contributions, the contributors would naturally elect their own officers; and already 139 of the dispensaries of Bengal were officered by medical men elected by the committees. A need greatly felt by the profession in India was a Medical Act by which properly educated and duly qualified men might be distinguished from the host of quacks, charlatans, and impostors who abounded. If the Act, in addition to a *Register*, were to create some body analogous to the General Medical Council of the United Kingdom, it would elevate and improve the condition of the profession by purging it of those members—few, yet still far more common than they ought to be—who disgraced themselves and helped to degrade medicine by publishing advertisements, by the issue of obscene catalogues, and other objectionable practices. Turning, then, to the scientific side of medicine, he said that India would only take her proper place among those countries which were trying to advance science for the benefit alike of men and animals, when a Pasteur Institute of India was established. For its establishment he looked mainly to private effort. Finally, he referred to the sanitary needs of India. The Governments of Europe were calling on India to attack cholera in its home; but though the Government was alive to its responsibilities, the difficulties in its way were tremendous. India was one of the largest, most populous, and poorest of countries. Its population numbered 222,000,000, excluding the 67,000,000 in Native States; while the income of the Government did not exceed at the present rate of exchange £36,000,000; that is to say, the revenue per head in India was only 3s. 8d., against £2 8s. in England. It was said that England still expended £9,000,000 a year on sanitary work. If that were so, India would need to expend £53,000,000 a year to bring the country up to the English level. Thus it would appear that even if the people were prepared for it—which unfortunately was not the case—financial reasons alone would prevent the Government from dealing adequately with sanitary problems out of the public funds. But he was no friend to counsels of despair. What was possible must be done. The elements of hygiene were already taught in schools, and by degrees

public opinion would be formed. Such societies as the Calcutta Health Society helped to spread a knowledge, and he was pleased to know that Mr. Ernest Hart, whom they were glad to welcome, had brought out a scheme for establishing branches of the National Health Society of England in all important Indian towns. Further, he thought that the necessity for the appointment of special health officers was plain. Health duties were at present included in those performed by the civil surgeons of the various stations; but these officers had their ordinary medical duties to perform, were responsible for the whole medical work of the district, for the management as well as the medical charge of the gaol, and for the inspection of outlying dispensaries. There was no more hard-working and devoted body of men than civil surgeons, but the duties placed upon them were too numerous, and they should be relieved of those connected with public health. The question of cost arose, but he had calculated that one anna (a trifle over ¾d.) per head of the population, paid to a special sanitary fund, would produce in round numbers 14 millions of rupees, and would not only pay the salary of a health officer in every district in India, but would leave a large balance available for sanitary work.

At the conclusion of Surgeon-Colonel Harvey's address, a vote of thanks to him was moved by the Lieutenant-Governor, Sir CHARLES ELLIOTT, who said that, on the part of the Government officials, he could do no better than subscribe to the remarks of the Viceroy as to the great importance which the Government attached to everything which conduced to the spread and improvement of medical knowledge. A question which had much occupied the mind of Government was that regarding cholera among Meccan pilgrims. As their distinguished visitor, Mr. Ernest Hart, had said at the great meeting of Mohammedans on December 22nd, 1894, it was of the utmost importance to carry the mind of the public with the Government in any attempt that it might make to put down the evils which attended the pilgrimage to Mecca. The pilgrims started from Calcutta in a condition of disease and poverty, by reason of which they were unable to carry out the journey properly and safely. The Mohammedans were the persons from whom the pilgrims were drawn, and he thanked Mr. Hart on his own part and on that of the Government for the trouble he had taken in drawing together the principal members of the Mohammedan community to consider this important question.

The motion was seconded by Dr. GALLAY, who spoke in the name of the French physicians in India.

A vote of thanks to the Viceroy was then moved by Surgeon-Major-General BRADSHAW, who said that the gathering constituted an epoch in the history in Hindustan of the profession of Western medicine.

The motion was seconded by Mr. ERNEST HART, who observed that the duty and privilege of encouraging and supporting such conferences had of late years been recognised without exception by Sovereigns and the heads of the State of all European countries. The Prince of Wales had been the official President and Patron of the meetings of a similar character which had taken place in England—the International Medical Congress in 1881, and the International Congress of Hygiene and Demography in 1892. The question which the Prince of Wales had put in respect to the mortality from preventable diseases in Great Britain—"If preventable why not prevented?"—was still more painfully though more hopefully applicable to India. Wherever their advice had been followed the Indian medical officials and practitioners in modern times had trebled the power, the duration of life, and the efficiency of the British army, and had increased the chances of life of the whole population. But while the mortality in India from cholera amounted to three quarters of a million, while fevers caused a mortality of four millions and a-half, it must be evident that a work of great magnitude still remained to be done. This work the officers of the medical services and the medical practitioners in India were prepared and able to do when the municipalities and the people of India were sufficiently instructed and sufficiently alive to their own interests to undertake the supervision of pure water, to cease from polluting the water they drank, and to take the necessary measures for cleansing the soil. There was no reason why cholera and malarious fevers should not be as effectually banished from India as from any European country. Medical science was day by day acquiring new powers and new knowledge, which would put into the hands of every municipality the power to banish cholera, malarious fevers, diphtheria, and other diseases of the same class, and so to free the Eastern as well as the Western countries from these fatal scourges. The one word which was the keynote of the whole reform was water—everywhere to have only pure and unpolluted water for drinking purposes. The presence of the Viceroy was a recognition of the services not only of the European officers, but also of the individual exertions, skill, and services of the medical profession everywhere in India. Progress would depend largely upon a wide liberality on the part of municipal and local sanitary authorities, but it would depend also upon the encouragement which the Government of India was able to give to laboratories of research, to clinical laboratories, attached and to be attached to hospitals and to other bodies, as well as to the great dispensaries throughout the Empire.

The motion was carried by acclamation, and the VICEROY, having briefly acknowledged the compliment, the proceedings terminated.

THE MECCA PILGRIMAGE: MOHAMMEDAN MEETING IN CALCUTTA.

ADDRESS BY MR. ERNEST HART.

UNDER the auspices of the Mohammedan Literary Society of Calcutta, there was a very large gathering of Europeans and Mohammedan gentlemen at the Madrissah on December 22nd, 1894, to hear a lecture by Mr. Ernest Hart on Meccan Cholera. Sir JEHAN KADR MIRZA, K.C.S.I., presided, and he introduced the lecturer to the audience. There were present a large number of distinguished representatives of the various phases of thought in India.

Mr. HART said that the meeting, convoked as it was by a society of orthodox Mohammedans, was one of deep interest to the Mohammedan communities not only in India, but all over the world. It was of excellent augury that the enlightened Mohammedan community of Calcutta should come forward to discuss publicly the causes of the frequent, and sometimes enormous, mortality from cholera amongst Meccan pilgrims. So late as 1893 the loss of hundreds of lives per day was announced at the time of the annual pilgrimage to Mecca. In the course of a single month in that year 20 000 lives were lost from among pilgrims who were the cream of Muslim orthodoxy and piety from India and other parts of the world. The question was whether this enormous loss of valuable lives in the fulfilment of an imperative religious duty was unavoidable, and one which must be submitted to as the will of Allah, or whether it was, as he thought it might easily be demonstrated to be, the result of human neglect, and offences against those great laws of health and living which could not be infringed without bringing with them heavy punishment, and without causing great, but a quite needless, loss of life. This was a subject in which he had been greatly interested for many years, and he had at various times conducted close inquiries, the result of which had been the irresistible conclusion that the whole of this great loss of life, whether in India or amongst the pilgrims to Mecca, was preventable, or could be prevented, and ought to be put a stop to.

He had shown in the *Nineteenth Century* in 1892 what hardships and what mortality the pilgrims were exposed to; and after the publication of that article the Mohammedans of Mochina, near Cape Comorin, held a public meeting, and memorialised His Imperial Majesty the Sultan of Turkey to "adopt suitable measures for improving the sanitation of Mecca and other places of pilgrimage." Nevertheless, the measures taken, whatever they may have been, were insufficient to meet the case, and during the following year that enormous mortality occurred. Since then, however, inquiries conducted by careful authorities had led to the convocation of an International Conference, which took place this year in Paris, and in which the Sultan of Turkey, the head of Islam, was represented by a plenipotentiary. Representa

tions were there made and agreed to by the representatives of all the European nations and of the Sultan which would have a great effect in improving the condition of travel by sea of pilgrims. These provisions included supervision of pilgrim ships, the provision of an adequate supply of good drinking water, and of medical safeguards during the ship's journey. But in Mecca itself, and at the quarantine stations on the island of Camaran, at Jeddah, along the pilgrim stations to Medina, and on the return route, there still existed conditions which could not fail from time to time to reproduce this appalling loss of life to which he referred, and of which they were all painfully aware. How might these dangers be best prevented? In this matter the Mohammedan community of India, in co-operation with other Mohammedan committees which they might invoke, would be able to give large assistance, but it was necessary to remember that this great loss of life could not be got rid of without the patronage and aid of the Sultan.

Mr. Hart then proceeded to give a graphic description of the present state of our knowledge of the origin and causes of cholera, and of the steps by which that knowledge had been obtained, with all of which European readers are sufficiently familiar. He then described the shameful arrangements at the quarantine stations, showing that in regard to Camaran, owing to the neglect of the local authorities, the great quarantine station was so shamefully neglected, so ill provided, and so exposed to risks from the badness of the water supply, that during the two days of waiting there the pilgrims frequently became infected with cholera. This was well known, and he could give authentic examples of a recent date. He also spoke of the rites at Mecca showing how, from pollution of the water of the holy well at El Zemzem, thousands of lives were sacrificed by receiving infection at the very moment of fulfilling their pious duties. In regard to the prevention of this most disastrous state of affairs, it would be a most vitally important matter to provide that the pure water of Mount Arafat, which was led into Mecca, should also pass on to this well, and that arrangements should be made to prevent the water returning to the well after being poured over the pilgrim. If this were done, one of the greatest causes of the mortality at Mecca would be removed. There were, of course, other sanitary provisions which were absolutely necessary for the welfare of the pilgrims. Of these, India gave successful and brilliant models in the methods now adopted on the occasion of the great religious fairs, such as those at Hardwâr, Allahabad, and elsewhere. These centres were, as was well known, great sources of cholera epidemics, but at the last fair at Allahabad, where three millions of pilgrims were assembled, by taking proper sanitary precautions, by laying down pipes everywhere for the supply of pure water, by employing a staff of sweepers to clean the ground from all impure deposits, by organising local hospitals to which the sick were instantly removed and by the establishment of clean latrines the great fair passed off without one single case of death from cholera.

What India had done for its great religious festivals, that the Mohammedan should and the Sultan of Turkey could do for Mecca and the Mecca pilgrims.

Mr. Hart said his suggestions on this important subject were that they should exert their individual influence, and also make collective representation to the Sherref of Mecca, the Barbar, and especially to the head of Islam, the Sultan, and the high officers, urging and imploring them to protect the lives of the pious Mohammedans in the exercise of their religious duties. This could be done by carrying out rigidly precautions for a pure water supply, and for cleansing Camaran and Jeddah and all the pilgrim stations in Mecca itself. He would advise such a representation to be made at once by a petition in detail to H.I M. the Sultan. He would also advise that committees of Hadjis here, and in communication with smaller committees in other parts of the Mohammedan world, should be established, who would appoint officers to report upon the state of the drinking water in pilgrim stations in Mecca and the latrine arrangements in them. These were the facts which should be ascertained.

It must be remembered that heavy dues were already exacted from pilgrims for the very purpose of providing water and other safeguards for their health. But there was reason to believe that no small portion of this money did not go precisely to the purposes for which it was intended, and it would be necessary to ensure that the pilgrims got some return in regard to sanitary arrangements from the money so contributed. But other help was needed. The individual liberality of wealthy Mohammedans in India and throughout the world had done much to provide a pure water supply from Arafat to Mecca, but this was still very inadequate and was not properly distributed and safeguarded. For this purpose ample funds were still needed, and he had no doubt that the piety and munificence of wealthy Mohammedans in India and other parts of the world would supply what was required to lessen the danger in their great religious obligation, not only in regard to themselves but as it affected the rest of the world. Not only was it necessary that a general co-operation of Mohammedans should be secured for this purpose but that representations should be made to the Sultan of their great desire that the obligation laid upon them of pilgrimage to Mecca should be relieved of the danger, unsought and unprovided for, of death from cholera for themselves, and of danger from cholera for the rest of the world.

A MIRACLE OF PLASTIC SURGERY.

We are indebted to Dr. Percy Boulton for the very beautiful illustration reproduced on the next page. It is taken, by his kind permission, from a unique volume in the library of Mr. Thos. Brooke, of Armitage Bridge House, Huddersfield. The volume is entitled *Antiphonarium ad Usum Ecclesiæ SS. Cosmæ et Damiani.* Dr. Percy Boulton sends us the following description of this volume. It is a manuscript upon vellum of the fifteenth century, of Italian execution. The superb paintings are by the great masters Andreas and Franciscus de Mantegna, and illustrate the lives and martyrdoms of those saints. The following is a translation of a story as related by Jacobus de Voragine in the *Legenda Aurea:*

"Felix ye eight pope after saynt Gregorie dyd do make a noble chirche at Rome of ye Sayntes Cosme and Damyan. And there was a man which devoutly served ye holy martyrs in that church whom a canker had consumed all his thye, and as he slepte the holy martyrs Cosme and Damian appeared to hym their devoute serviant, bryngynge with them an instrument and oyntment of whome that one sayd to ye other, Where shall we have flesshe when we have cutte away the rotten flesshe to fyll the voyde place. Than that other sayd to hym, There is an Ethiopyen yt this daye is buryed in ye chircheyerde of Saynt Peter ad vincula whiche is yet fresshe, let us bere this thyder and take we out that Ethyopyens flesshe and fyll this place w'all. And so they fette ye thye of this deed man and cutte of the thye of the sike man, and so they chaunged that one for that other.

"And when the sike man awoke and felt no payne, he put forth his hand and felt his legge without hurte, and then he took a candell and saw well that it was not his thye, but that it was another. And when he was well come to himselfe, he sprang out of his bedde for joye, and reconted to all the people how it was happened to hym, and that whiche he had seen in his slepe, and how he was heled. And they sent hastely unto ye tombe of ye deede man, and fonde the thye of hym cutte of, and that other thye in the tombe in the stede of his thye." "Caxton's Translation. Printed by Wynkyn de Worde. 1527."

The picture represents the sick man in bed surrounded by friends and neighbours, one of whom lifts the covering over the legs and discloses the miracle which has been wrought. Above those in the room is a vision of the Almighty with cherubims. The two saints dressed as Venetian doctors are standing in the foreground cleaning their instruments, and in front is the diseased leg that has been amputated. To the right of the painting, separated from the interior, is a landscape with the church of S. Pietro in middle distance, outside of which are a number of people gathered round an open coffin, in which is seen the body of the dead Ethiopian, whose leg was taken to complete the miracle.

The bazaar held lately in aid of the Cork Eye, Ear, and Throat Hospital has realised the handsome sum of £4 000. This, added to the subscriptions already received or promised, will be sufficient to commence the rebuilding of a new ophthalmic hospital, which will prove of great service to the South of Ireland.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

Meetings of the Council will be held on April 17th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 28th, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election. Francis Fowke, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch: North London District.—A meeting of this District will be held at the London Temperance Hospital, Hampstead Road, N.W., on Saturday, January 19th, at 4 P.M. Mr. Henry Morris will read a paper on the Clinical Confusion between Distended Gall Bladder and Movable Kidney. Interesting cases will be shown by the hospital staff. Dr. Cleveland will preside. The District Committee are requested to attend at 3.50 P.M.—Hugh Woods, Honorary Secretary, 11, Archway Road, Highgate.

Dublin Branch.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians (by permission of the President and Fellows) on Thursday, February 14th, at 4.30 P.M. The annual dinner will also take place the same evening in the College at 7.30.—John Molony, Honorary Secretary, St. Patrick's Hospital, Dublin.

North of Ireland Branch.—The winter meeting will be held in the Museum, College Square North, Belfast, on Friday, January 25th, 1895, at 4 P.M. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting will kindly communicate as early as convenient with John Campbell, M.D., F.R.C.S., Honorary Secretary, 21, Great Victoria Street, Belfast.

Southern Branch.—The next meeting of the South Wilts District will be held in Salisbury on Wednesday, February 13th. Further details in a later issue. Members intending to be present to communicate with the Honorary Secretary, H. J. Manning, Laverstock, Salisbury.

Oxford and District Branch.—The next meeting of the Branch will be held on Friday, January 25th, in the Radcliffe Infirmary at 3.15 P.M. Members are requested to give notice to the Honorary Secretary, W. Lewis Morgan, 37, Broad Street, Oxford, of all papers, communications, etc., before January 15th.—W. Lewis Morgan, 37, Broad Street, Oxford.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

An ordinary general meeting of the Branch was held at Aberdeen on December 19th, 1894, Professor Finlay in the chair.

New Members.—Drs. Cowie and Owen Snow, Royal Infirmary, and Salmond, Queen's Road, were admitted members of the Branch.

Communications.—Dr. Mackenzie Booth read notes of a case of Intralaryngeal Tumour successfully removed by Thyrotomy. The Chairman, Drs. Milne, Rannie, Levack, and Riddell took part in the discussion.—Dr. Scott Riddell read a paper on the Beneficial Effects of Phlebotomy in Severe Epileptic and Uræmic Convulsions. He instanced some cases in which the number and severity of epileptic seizures had been markedly diminished by loss of blood due to accidental causes, and related a case of a girl of 10 years of age, who suffered on two different occasions from severe uræmic convulsions, which did not yield to ordinary treatment, but were immediately stopped by venesection. An interesting discussion followed, taken part in by Professor Finlay, Drs. Milne, Mackenzie Booth, Rannie, Levack, and Gibb.

SOUTH WESTERN BRANCH.

A special meeting of this Branch was held on January 10th at Tavistock; Dr. Thompson (Launceston), Vice-President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Amendment of Medical Acts.—The documents relating to the proposed amendment of the Medical Act were produced and discussed. The following resolution was proposed by Dr. Woodman (Exeter), and seconded by Mr. W. Square (Plymouth), and carried unanimously:

That this Branch approves of the proposed Bill as being in the best interests of the profession.

SPECIAL CORRESPONDENCE.

PARIS.

Smoke Abatement.—The Overcrowding of the Paris Medical School.—Medical Examination of Emigrants at French Ports.—The Paris Death-rate.—Paris Sewage.—General News.

The smoke abatement problem is about to be seriously tackled in France. On March 19th, 1894, the Paris Municipal Council organised a competitive examination among inventors of apparatus for abating the smoke evil. These inventions will be examined by a Technical Commission named by the Prefect, and composed of the city engineers, members of the Sanitary Council, scientists, large manufacturers, and a representative of the Paris Municipal Council, At St. Etienne and Lyons the inhabitants live in an atmosphere of soot, and Paris itself is far from being free from the nuisance. The aërating smoke apparatus used in the buildings of the Paris Bourse is thought well of; its principle is that of smoke cleansing or smoke washing. The apparatus consists of a big washing cylinder filled with water up to a certain level: the cylinder has a slow rotatory movement. The smoke rushes on to the walls of the cylinder, deposits the coal, soot, and powders it contains, also all its gases soluble in water. The gases cooled down in the water cylinder are drawn away by a ventilator and sent into a receptacle, whence they pass into the chimney. The gases thus purified from all matter held in suspension are innocuous, and do not blacken.

Professor Gautier has found a solution to the overcrowding difficulty of the Paris Medical Faculty, so embarrassing to the Dean. M. Gautier recommends that medical students should pursue their studies during the first three years in the provincial medical schools nearest to them: he declares that since he has been examiner in the medical schools in the West of France—at Rennes, Nantes, Caen, Rouen, Angers—he has observed that the average of the candidates have a more thorough knowledge of their subjects than the Paris students at corresponding examinations.

A Washington telegram states that the French and German Governments have protested against the presence of American medical inspectors in French and German emigrant ports, for the purpose of examining the emigrant passengers. As far as regards the French Government, it is stated on the authority of the United States Minister that the communications exchanged between the two Governments on the subject have been most friendly and conciliatory. The consuls are not competent to examine the emigrants and eliminate the unhealthy. A serious medical examination of these passengers relieves the American Government from sending back to France those emigrants who do not realise the conditions exacted by the United States. The American medical inspectors have obtained from the French Government all the facilities they desire for performing their duties.

According to M. Jules Rochard, the mortality of Paris from 1894 to 1895 is one-tenth less than has been the average mortality during the last three years. This decrease of mortality is not due to a decrease in deaths from typhoid fever, small-pox, or phthisis. The two former diseases have raised

the scale of mortality. Deaths from diphtheria have been below the average. Deaths from phthisis regularly increase in proportion with the increase of population; the decrease in the Parisian mortality is due to fewer deaths from common ailments. M. Rochard attributes this happy change to the fact that a much larger proportion of the Paris population take summer holidays.

The *Bulletin Municipal Officiel* of December 27th, 1894, gives the names of the streets where the house sewage will be directly carried into sewer pipes. These dwellings will be relieved from the nuisance of cesspools, and night carts: but the 631 Paris streets thus benefited represent only a sixth part of what ought to be done. There are 3,655 streets in Paris.

Dr. Bucquoy having reached the age limit, has passed into the list of honorary physicians. A few days ago he bade farewell to his staff and patients in his wards at the Hôtel Dieu Hospital. A considerable number of his colleagues, former house-surgeons, and pupils were present on the occasion. Dr. Bucquoy was presented with a bust of himself. Dr. Bucquoy, in a touching and appropriate speech, said he attributed his success to the influence of the good example he always had before him.

Experiments made on board the *Princess Alice*, the Prince of Monaco's yacht, on the effect of artificial light on certain forms of marine animal life, show that it attracts crustacea, flying fish, eels, and cephalopods. An electric lamp suspended above the sea surface, or lowered into it a distance of two metres, was surrounded by these animals.

ERRATUM.—In the letter of our Paris correspondent published in the BRITISH MEDICAL JOURNAL of January 12th, the sentence, "The lucky accoucheurs after ten years' service at the Bureau Central, etc.," should read "after *two* years'."

ROME.

The Health of the Pope: The Cold Bath Treatment of Typhoid Fever Half a Century Ago: A Vigorous Octogenarian: An Abstemious Diet: A Long Day's Work.—The Supply of Calf Lymph to Rome.

THE health of Pope Leo XIII is a matter of so much interest to Europe at the present time that I have sought from his physician, Dr. Lapponi, some further particulars. The venerable Pontiff has very graciously given his permission to Dr. Lapponi to communicate to me the following facts. This permission I esteem the more highly as it is the first time Leo XIII has acceded to such a request. Moreover, the facts themselves are of so much medical, or, perhaps I ought to say, physiological, interest, for it must be remembered that the Pope will complete his 85th year next March, that, having his permission, I need make no apology for writing somewhat at length. The Pope's health at the present time is perfect, and he has not suffered the least indisposition for eight months. This healthy condition is, no doubt, due largely, not alone to his possessing a sound constitution, but also to the regular and abstemious life he has led. Throughout his long and hard-working life he has enjoyed very good health, with the exception of a period when he was about 35 years age, during which he suffered from typhoid fever. The illustrious Pontiff was then residing at Benevento, and he has told Dr. Lapponi that the fever was cured by means of three cold baths, administered by Dr. Vulpe, who attended him during his illness. This is probably one of the earliest cases treated by this means; if so, it is a very interesting fact in the history of medicine. Dr. Lapponi informs me that all the organs of the body are perfectly healthy, and perform their functions in a normal manner. There are no perceptible indications of atheroma of the arteries, and there is only very slight arcus senilis in the upper portions of the cornea. The pulse is regular with no intermissions, 68 to 70 pulsations per minute. The eyesight is good, slightly presbyopic, but he can read a newspaper without the aid of glasses. The hearing is very good. The Pope has for a great many years eaten very moderately and has been very abstemious in the use of stimulants. The following is his daily regimen: Breakfast: a cup of coffee with milk and a little bread. Dinner: soup, boiled meat or roast lamb, with potatoes or other vegetable, and a small wineglassful of Bordeaux wine. Supper: soup and bread, and the same quantity of wine as for dinner. His Holiness takes no other stimulant but claret and eschews the heavier wines. On occasions he takes some soup between meals. His digestion is very good. The daily quantity of food he eats is very small, so much so that Dr. Lapponi said that he could eat as much at one meal as the Pope does in a week. By the advice of the doctors he rarely abstains, although he is very desirous of doing so. On those occasions he eats sole or codfish. He takes daily exercise in the Vatican gardens when the weather permits, and, when unsuitable, in his apartments. Although he looks very fragile, he possesses much more physical strength than might be imagined. He is accustomed to little sleep, usually from three to four hours a night, with the addition of a short nap after dinner. He retires to bed very late and gets up very early. The chief indication of his age is the muscular trembling from which he suffers.

His mind is very lucid, and his memory, to use Dr. Lapponi's expression, is "very prodigious" (*molto prodigiosa*). For his speeches he makes very few notes, a word here and there as headings for the chief divisions of his discourses. As is known to those persons who have had the privilege of hearing the illustrious Pontiff, he speaks with the greatest facility, force, and in most elegant diction. On occasions he has repeated to Dr. Lapponi the whole of one of his speeches. He is an indefatigable worker, toiling as a rule about fifteen hours a day. He holds receptions from 9 A.M. to 2 P.M., besides the other various duties his position entails. Dr. Lapponi states that he himself, who is a young, very active, and, I must add, a very courteous gentlemen, "could not dream of getting through the daily work of the Pope." Leo XIII is of a nervous temperament: he has keen powers of perception, and appears to grasp intuitively the fundamental facts of questions with which he has not had previous acquaintance. It may interest some persons to know that he takes snuff largely. Finally, Dr. Lapponi gave it as his opinion that, judging from the present condition of the health of the venerable Pontiff, there is no reason why he should not live for many years.

With the view of facilitating private vaccination in Rome and in response to the request of the medical practitioners the communal administration have decided for the future to place at the disposition of the public the calf lymph obtained from the Municipal Institute for Vaccine. The commune will provide the vaccine at the request of the doctors or of private individuals on the following conditions: 1. Whoever desires the lymph must make a verbal or written request at the Office of Hygiene, where the vaccine will be given, or it will be sent to the houses within three days of application. 2. One franc will be charged for a tube containing lymph sufficient for five persons, and 2 francs for twenty-five vaccinations. 3. The doctors will be required to inform the Office of Hygiene of the result of the vaccination according to the instructions sent with the lymph.

CHICAGO.

The Health of Chicago in 1894.—The Zymotic Mortality.—Deaths from Small-pox among the Vaccinated and Unvaccinated.—Proposed Amalgamation of the College of Physicians and Surgeons with the Illinois State University.—Underground Bakeries.

THE annual report of the Health Commissioner was completed and given out on the first day of the new year—that is, the figures were ready, though the report has not been officially tendered. There is much of importance in this record. For instance, based upon the returns it is found that 1894 was a remarkably healthy year. In 1893 the death-rate was 16.9 per 1,000, but it is now stated that during 1894 the total deaths numbered 23,701, which, even on the minimum population of 1,567,727 accorded by the school census of last April, gives Chicago a death-rate of only 15.1 per 1,000. The year has been a phenomenally healthy one in almost all parts of the country, and in nearly all the large cities, but Chicago may safely challenge the health record among cities of the first magnitude in any part of the world. The report states that diseases of the respiratory system—pulmonary

consumption, pneumonia, and bronchitis—caused one-fifth of the total mortality of 1894. As compared with 1893 this group of diseases showed a marked reduction, the number of deaths being 6,167 in 1893, and 4,806 in 1894. Diseases of the alimentary canal—diarrhœa, dysentery, inflammation of the bowels, typhoid fever, and cholera infantum—claimed the next largest number of victims, 3,439, as compared with 2,894 in the previous year. This increase was due chiefly to an unusual prevalence of cholera infantum during the hot summer months, the mortality from this cause increasing from an aggregate of 179 deaths in the first six months of the year to 797 in July, 494 in August, and 356 in September. Although the milk supply of the city has been much improved in the matter of quality, yet these figures indicate that there is still opportunity for ordinance and education.

Aside from small-pox the deaths from the directly contagious diseases—measles, scarlet fever, diphtheria, and croup—show a gratifying reduction, the total mortality from this group in 1894 being 1,776, as against 2,030 in 1893. In this connection it may be said that the Health Office now undertakes the bacteriological examination of suspected cases of diphtheria, and further the preparation of the antitoxin was commenced some time ago, and a sufficient supply will soon be available for use among the poor."

A total of 3,062 cases of small-pox, with 1,029 deaths, during the year is the lesson of neglected vaccination. Almost exactly 45 per cent., that is to say 1,378, of the whole number of cases showed no evidence whatever of vaccination, and of this number 902, or more than 65 per cent., died. The average mortality of all cases, vaccinated and unvaccinated, was 33.6 per cent., but of those who exhibited some evidence of vaccination only 127, or 6.8 per cent., died, while 1,557, or more than 93 per cent., recovered. To again illustrate the value and striking effect of universal vaccination, which is compulsory vaccination, the report gives the returns of deaths by months, which shows the influence of the great effort put forth to control the disease; Deaths from small-pox—January, 29; February, 55; March, 100; April, 157; May, 253. Up to May 246,000 vaccine points had been used, the number being limited by the obtainable supply, but, as the result of special effort and appeal, in April the supply was largely increased, and 586,500 vaccinations were performed in May, during which month the number of deaths reached 253. In June the mortality fell to 171, in July to 51, and continued the rest of the year as follows: August, 53; September, 31; October, 40; November, 51; and December, 38. The outbreak is practically under control, and the most important agency has been this wholesale vaccination.

It is currently stated that the College of Physicians and Surgeons, situated on West Harrison Street opposite the Cook County Hospital, has been absorbed by the Illinois State University, of which it will become a department. The negotiations were conducted by a committee composed of Governor Altgeld, the president of the university, and Mr. Armstrong, one of the trustees, who were appointed by the Board of Trustees. After carefully investigating the College they recommended its purchase at a price to be definitely agreed upon hereafter, but in no event to exceed the sum of 160,000 dollars. If the parties to the transaction cannot fix the price, then the matter is to be left with a board of arbitration. The money is to be raised through an appropriation by the Legislature. The purchase covers buildings, real estate, equipment, and good will. The equipment includes a chemical laboratory. The agreement entered into provides that until the Legislature either makes the appropriation to purchase or refuses to do so the College will not seek to connect itself with any other institution, and the University people will not negotiate with any other college. It is also understood the owners of the College shall not endeavour to make any money out of the deal; that they shall put only such a price upon the property as will compensate them for the amount they have expended upon it. Besides the College proper and ground that goes with it, which represent an outlay of considerably over 100,000 dollars, the West Side Dispensary has cost the stockholders 32,000 dollars. For five or six years the college was conducted at a loss of 3,000 dols. a year. With 200 students, however, it is now in a flourishing condition and growing in popularity. It was organised and established by a joint stock company thirteen years ago, and for a time had something of a struggle for existence.

Chief Inspector Young, of the Health Department, has submitted to Health Commissioner Reynolds a report on the bakeries of the city. The inspector is especially severe on basement bakeries. He says he has inspected upwards of 300 bakeries, and that in many of them the sanitary conditions are "bad beyond description;" that they are deficient in ventilation, defective in sewerage, and have plumbing of the most primitive description. He says walls and ceilings are covered "with years' accumulation of grime and dirt, floors covered with refuse, hardened into a solid mass, and the entire premises utterly unfit for a workshop for the manufacture or storage of that which is the staff of life." In thirty cases, he says, these defects have been remedied, but in basements where men are necessarily employed for long hours, where the air is overheated, where there is no ventilation and much leakage of sewage, the manufacture of bread becomes dangerous. The report calls attention to the frequent flooding of these cellars from the sewers and recommends that each baker be taxed a small yearly licence, which will put them all under supervision of the Health Department.

CORRESPONDENCE.

THE GENERAL MEDICAL COUNCIL AND THE OBSTETRICAL SOCIETY.

SIR,—For many years the Obstetrical Society of London has laboured in the cause of the education and registration of midwives. Meanwhile, until this object be attained by legal means, the Society has, at great trouble, examined women who have passed through a certain training, and given certificates to the successful candidates. The Council of the Society, being anxious that its certificate should not in any way offend against the Medical Acts or the ethics of the profession, when drawing it up sought the help of a solicitor intimately acquainted with the Medical Acts. The certificate does not purport to be a legal qualification, and is as much like a legal qualification as the certificates of honour granted by the medical schools to successful students in their classes or the diploma granted to the successful brewer in a beer exhibition. The certificate in its present form has been used by the Society for many years without complaint of any kind having been made. During the last two years the Society has received two notices from the General Medical Council pointing out to institutions granting such certificates that the certificate should be expressed in such a form as not to lead to the impression that it is a legal qualification to act as a medical practitioner, but no fault was found with the certificate of the Obstetrical Society.

The Society, in acknowledging the communications, mentioned the care which had been taken to draw up the certificate in accordance with the views expressed by the General Medical Council. No further communication took place between the two bodies until the Society received the resolution of the General Medical Council of December 3rd, 1894, and until then the Obstetrical Society was ignorant of any objection to its certificate on the part of the General Medical Council. I can hardly think that the Council can be fully aware of the full significance of its resolution, for should the Society grant its certificate again, the following persons will be regarded as guilty of infamous conduct by the General Medical Council, namely, all the past Presidents of the Society, its trustees and other officers, most of the Examiners in Midwifery in the Universities of London, Oxford, and Cambridge, and the Royal Colleges of Physicians and Surgeons. In fact, all the obstetric physicians of note in London. These men, contingently branded with infamy, are well acquainted with the provisions of the Medical Acts, and many or all of them well versed in the ethics of the profession and punctilious in their observance, many of them having held high posts in the colleges and schools, and are held in honour by their professional brethren; none are better informed of the needs of the poor in their travail, none are better able to train and examine midwives; and, by reason of their learning, culture, and experience, none are

fitter to form correct views of what is, and what is not, professionally infamous. Yet these are the men who have for years been guilty of what is declared to be infamous conduct after December 3rd, 1894, by the General Medical Council. Had the Council conferred with the President of the Obstetrical Society, the two bodies could have easily come to an understanding on the matter (for the Society has shown every desire that its certificate should be inoffensive), and avoided the ill-feeling which the resolution must inevitably cause.—I am, etc.,

Brook Street, W., Jan. 11th. JOHN WILLIAMS.

TYPHOID FEVER AND OYSTERS.

SIR,—I have under my care just now Mr. R. D. B., of Stoke Newington, who, with Mr. C. R., who lives near him; Mr. G. P., who lives in Forest Gate; and Mr. A. W., of St. Bartholomew's Hospital, indulged in oysters on the evening of November 5th, 1894. They had about a dozen and a-half each at a shop in the city. On the 23rd three out of the four were laid up and subsequently reported as cases of typhoid. The fourth gentleman escaped any serious consequences, but the other three have been so dangerously ill that it becomes, in my humble opinion, our duty to initiate an active investigation. There can, I think, be no doubt as to the mode of infection in the cases before us, because the victims live in different localities, and were not together at any other time in a possible incubation period.

I consider, Sir, that this is a good case to work upon, because two persons (*vide* Sir William Broadbent's article last week) being attacked after eating oysters might be considered coincidental; but three being so, practically removes the element of chance.

My patient humorously suggests that typhoid might be renamed bivalvular disease.—I am, etc.,

Albert Sq., E., Jan. 15th. CHAS. GRAHAM GRANT.

SIR,—In connection with this subject, may I remind you that several cases of cholera in this country were attributed to oysters? One such case came under my care. It was that of an elderly woman who lived at an oyster saloon. In this case I am told that the feeding beds whence the oysters were derived are situated close to the mouths of the sewers of a large town where cholera was very prevalent at the time. At any rate the oyster shells were all very dirty, being thickly covered with sludge, and they had to be washed and scrubbed before being taken into the bar for sale. It would be interesting if you could tell us whether typhoid fever is, or has lately been, prevalent in this town, as, of course, the supply of oysters is still going on.—I am, etc.,

January 14th. CHOLERA.

SIR,—In your article on "Typhoid Fever and Oyster Eating" it appears to me the more this grave subject is ventilated the sooner our succulent friend will meet with consideration, and be protected from deleterious contamination. I am given to understand that many tons of the imported bivalves are kept for weeks together in huge fish boxes as a kind of depôt and to fatten, through which water flows out of the docks.

It is a subject matter for serious and thoughtful consideration as to what becomes of the sewage of hundreds of vessels lying in such dock, and likewise the sewage of the huge premises adjoining.

It is possible that oysters so fed and sent wholesale to all parts of the kingdom have much to answer for, and may be the means of propagating sporadic cases of typhoid.—I am, etc.,

Sanatorium, Woodhall Spa, Jan. 15th. ROBERT CUFFE.

SIR,—I think Sir William Broadbent has done well to put on record his experience of the association of typhoid and infected oysters. A few such cases have come under my notice, where little doubt existed; indeed, so impressed have I been with the probable contamination of oysters, that I rarely order them to my patients, partly on this account and partly because I consider them a very much overrated article of diet.—I am, etc.,

Bournemouth, Jan. 5th. A. KINSEY-MORGAN, M.D.

CASTRATION FOR PROSTATIC HYPERTROPHY.

SIR,—I now read that there have been thirteen cases published in which this operation has been performed, and in all the result is said to have been satisfactory. Mr. Mansell Moullin must be congratulated upon having first operated in this country six months ago. I am heartily glad that he has this credit, though it was not my fault that he was not forestalled by myself.

It happened last May that I was asked whether excision of the whole or part of the prostate gland was a safe operation; and further, asked to supply a report upon the treatment of prostatic hypertrophy, giving authorities and particulars up to date. I did not entertain seriously the idea of excising the entire gland, but passed in review suprapubic prostatectomy, perineal prostatomy, obliteration of the obstruction by galvano-cautery and treatment of castration. From the evidence then before me I concluded that treatment by castration seemed the most promising method of all, the risk being probably least, the prospect of cure greatest and suitable for the case of a patient 60 years of age.

Though surgeons know that castration is one of the safest operations, especially as conducted with all the advantages of modern science at hand, your readers may like to hear the unanswerable view not unnaturally taken by the patient: "The operation sounds a formidable one, and must involve considerable risk. Therefore so long as I can work on without suffering I shall avoid it, but the day may come when it will be otherwise, and then I shall have Dr. Jennings's note by me for reference."—I am, etc.,

Seymour Street, W., Jan. 12th. CHARLES E. JENNINGS.

SIR,—Will you allow me to state, in answer to Mr. Buckston Browne's courteous letter, that two or three weeks ago I sent a paper dealing with this subject, and containing an account of two other cases in which I have performed the same operation, to the Secretaries of the Clinical Society, and that I hope that it will be in time to come off this session?—I am, etc.,

Wimpole Street, Jan. 12th. C. MANSELL MOULLIN.

THE ANTISEPTIC ACTION OF PERMANGANATE OF POTASSIUM.

SIR,—I trust that a little friendly criticism on one point of detail in Dr. Mary Scharlieb's very valuable paper, published in the BRITISH MEDICAL JOURNAL of January 12th, on the Surgical Treatment of Uterine Myomata, will not be considered uncalled-for or discourteous. Dr. Scharlieb very properly lays great stress on the necessity for surgical cleanliness being aimed at with as near perfection as practicable. Amongst other measures she recommends that "the hands and arms of the operator and assistants should be soaked in Condy's fluid, decolorised by saturated solution of oxalic acid." What I wish to point out is that a solution of Condy's decolorised by oxalic acid (with the necessary addition of a little sulphuric acid) would have no more germicide action than so much plain water. Condy's fluid (solution of permanganate of potash) depends for its germicide action upon the fact that it readily parts with oxygen to any easily oxidised matter with which it may be brought in contact in solution. This is precisely what occurs when Condy's fluid is mixed with oxalic acid; the fluid is decolorised by the oxidation of the oxalic acid, but the further germicide (oxidising) power of the fluid is destroyed.—I am, etc.,

Shrewsbury, Jan 14th. W. N. THURSFIELD, M.D.

A UNIVERSAL LANGUAGE FOR USE AMONG MEDICAL MEN.

SIR,—In a leaderette of September 29th last you allude to a universal language for medical men for official use at Moscow and for congresses in the future. This is a consummation to be wished, not only for congresses, but for all medical examinations.

For some time I have sought for a suitable subject to propose for prevention of the increase of practitioners, unqualified assistants, quacks, medical pretenders of all kinds, and elevation in dignity of the medical man. Hence the suggestion of Dr. Vitali seems to me to be what is required.

If all examinations for a medical diploma were compul-

sorily carried on in Latin, I venture to think rejections for a pass would be unknown. Rejections should be at the portal, and not at the finish of a student's career.

If a youth cannot reply in good Latin to questions asked at a preliminary examination, and at the same time evince sound scientific knowledge in the subjects submitted, it is evidence that medicine should not be his vocation. The practice of medicine and surgery is purely one of charity (whether or not fees are received from those who can pay), to enable creatures (biped and quadruped) to do their duty to their fellow-beings; it is not a profession for the purpose of obtaining a bare livelihood, hence it is not one for him who may, without the possession of means, become a mendicant.

From this other advantages will arise: for once hospital wards will not be overcrowded, only students of Nature will be there—earnest men enabled to pursue their vocation in comfort, whilst the sick are left more in peace. I need not take up your space with further advantages.—I am, etc.,

Redhill, Dec. 29th, 1894. CHARLES MOORE JESSOP.

SUPPOSED EXCEPTION TO COLLES'S LAW.

SIR,—Mr. Edward Cotterell, in writing to the BRITISH MEDICAL JOURNAL of January 5th concerning the supposed exceptions to Colles's law, states that "in the recently issued edition of Mr. Alfred Cooper's work on *Syphilis* we have fully dealt with this question, and discussed the weak points in some of the principal recorded cases." Perusal of the few pages devoted to this subject does not realise the expectations which the words of his letter lead one to entertain. This extensive and complicated question is neither fully dealt with, nor can the three selected cases be considered the principal ones on record. The obvious weak points of Guibout's case have long ago been pointed out by Diday, Doyon, Kassowitz, and Caspary, all of whom agree in not considering it as conclusive. Its position is not strengthened by the contradiction existing between Guibout's and Fournier's statements, the former of whom declares he showed it to the latter, while Fournier does not recollect having ever seen this or any similar case.

Dr. Coutts's case, which is quoted in full, is undoubtedly the only one published in England, up to the present date, which is worth discussing. I have previously stated my objections to it, and I have had the satisfaction of having the *raison d'etre* of my criticisms acknowledged by Dr. Coutts himself.

The only case of the three to which the term "principal" can be rightly applied is that of Ranke: to this no serious objection has ever before been taken even by the most ardent supporter of Colles's law. The objections made to it by Mr. Cooper and Mr. Cotterell can be explained by their judging of the case from an imperfect report in the medical journals, and by their overlooking an original communication made by Ranke five years later, giving more detailed facts. In their criticism they say that "there was no note taken of the condition of the glands in the axilla," while Ranke states that after infection of the left nipple, a considerable mass of glands appeared in the left axilla. Further, they remark that "we are not informed whether the first child was suckled or not," whereas Ranke expressly states that it was not suckled by the mother, but brought up by hand. In reference to the first child, they say that "the symptoms which led to the diagnosis of hereditary syphilis are not stated." Here, again, Ranke distinctly informs us that in making this diagnosis he had to rely upon the father's statement that the child, in addition to other obvious manifestations of syphilis, had ulcers at the angles of the mouth; and that further evidence was furnished by the prescriptions given by the medical man who attended the first child during its illness.

Mr. Cooper and Mr. Cotterell comment as follows on this case: "The most plausible explanation appears to us that neither child was syphilitic; but that some other lesion was mistaken for syphilis, and that the lesion on the breast may have been, and probably was, specific." They also ask, "even if the lesion was syphilitic, may it not have been derived from some other source?" despite Ranke's statement that the milk had not been drawn off by a third person. This seems to me not only not "the most plausible explanation," but altogether unwarranted by the facts. The additional argument that the husband was free from symptoms of syphilis for six years previous to his marriage and during the first three years of his married life is of no moment.

To deal fully with the subject of the exceptions of Colles's law many other cases besides those quoted by Mr. Cooper and Mr. Cotterell must be given, which, if not quite as conclusive as Ranke's case, require full and careful consideration. I am not aware that this has yet been done in this country, and when it has been attempted by writers abroad the subject has been treated in a more or less incomplete manner owing to the great difficulty of obtaining access to the originals of the cases published. It is evident that the question whether a case has been presented in a conclusive form or not can only be decided from a careful perusal of the original paper, and not from a necessarily incomplete report in a medical review.—I am, etc.,

Welbeck Street, W., Jan. 15th. GEORGE OGILVIE.

MEDITERRANEAN FEVER.

SIR,—I agree with your correspondent "Melita" that the term typho-malarial fever should be erased from the nomenclature of diseases, but the substitution of Mediterranean fever would not be satisfactory, for this form of fever is not confined to the Mediterranean. The practical difficulty has been added to by the alleged discovery of a specific microbe, and it appears that Eberth's test does not respond in this fever. But, as your correspondent "Melita" observes, "the strong resemblance between enteric and Mediterranean fever is now generally recognised." Though some years have elapsed since the discovery of this microbe, no practical result has followed, and it seems hopeless "to wait till the whole entity of this affection is recognised." As your correspondent further states, what is now wanted is a designation by which this and allied fevers may be known and "be bracketed under the same heading as enteric fever, but still kept separate." For this purpose I believe no more suitable name than pseudo-enteric will be found, and for the following reasons: The nomenclature adopted by many observers, typho-malarial, adeno-typhoid, remittent typhoid, gastro-remittent, etc. Its identity of causation, its clinical resemblance, its constant occurrence side by side with true enteric, and the manner it attacks young soldiers.

The *post-mortem* appearances are the points most relied upon by those who regard the two fevers as wholly distinct. Fatal cases are not common, but I have seen instances in which no ulceration of the bowel existed, though there was always congestion of Peyer's patches, and some enlargement of the follicles of the ileum and cæcum.

According to my observation, founded on an examination of a large number of medical history sheets, some thousands of men who had served lengthened periods in the Mediterranean and Egypt, an attack of this fever gives immunity against enteric, and enteric against it. Should this be established, a close relation will be proved to exist between the two fevers.—I am, etc.,

J. MACARTNEY, M.D.,

Dublin, Jan. 11th. Brigade-Surgeon-Lieutenant-Colonel.

MEDICO-LEGAL AND MEDICO-ETHICAL.

NON-PAYMENT OF FEES TO MEDICAL WITNESSES.

SURGEON.—The solicitor is only agent for his client in each particular case; money due through him from client A. cannot legally be retained out of fees paid by him for client B. If, however, the two guineas owing be deducted from the money he is expected now to pay, and attendance in the approaching case be refused unless the deficiency is made good, the solicitor will very likely pay up sooner than leave his former shortcomings exposed. It probably may be worth while to make the experiment.

FEES TO MEDICAL WITNESSES.

FINNEY.—If a witness in a criminal case attends court in obedience to a subpœna, he cannot then decline to give evidence on the ground of non-payment of his expenses. If he has any doubt about being paid, his proper course is to remain at home, as no penalty will practically be imposed for disobedience to a subpœna in cases where proper conduct money has not been tendered.

The solicitor's letter does not contain any definite promise to pay any particular fee, but it would afford some evidence on which to found an action against his client. Possibly this might be fortified by verbal statements, at or on the way to the court, if any were made.

Copies and not original documents should be sent when inquiries are addressed to us.

A DISPENSER'S RESPONSIBILITIES.

X. Y. Z. (India) writes: A man who has a claim for free medical attendance orders from a dispensary a quantity of caustic lotion to be applied to a child's throat by a non-professional man. It is supplied and marked "Caustic Lotion—Poison." If an eye be destroyed by it, or if a brushful get into the larynx, and cause acute laryngitis, how does the law hold the issuer?

".* If an accident occurs from the misuse of the lotion, the responsibility of the dispenser would depend on whether or not he could be said to have been in any way negligent in sending out the lotion in the way described. This depends on what his duties were, as to which no information is given by the query. If the dispenser was bound to issue the lotion to the recipient, labelling it as was done would appear to have been a proper precaution. But if he had a discretion as to supplying or not supplying medicines ordered and to be used by an unskilled person, the issue of an irritant poison, without taking any adequate precaution to prevent its improper use, is a step which might easily be regarded as criminally negligent. It would be well not to issue such lotions again if it can be avoided.

MAGISTRATES AND FEES TO MEDICAL WITNESSES.

MEMBER.—A sum not exceeding 3d. per mile each way may be allowed to a witness for travelling expenses to and from court. The allowance, however, is in the discretion of the magistrates. If they refuse to allow it, there seems to be no appeal.

THE QUESTION OF ACCOUNTS.

A COUNTY MEMBER.—1. Under the Medical Act, 1886, a registered medical practitioner (not being a Fellow of a College of Physicians prohibited by by-law) can recover expenses, charges in respect of medicaments, and any fees to which he may be entitled. Medicines may therefore either be charged for separately or included in the charge per visit.

2. Charges to be recoverable at law must be those usually charged by the plaintiff to patients of the class of the one sought to be made liable. The charges stated seem to be reasonable in themselves, but the usual charges to other patients must be taken into consideration. These are not stated in the present case.

3. The fact of having rendered a quarterly account without giving details is not conclusive, but will no doubt be taken into consideration in determining the reasonableness of the claim, if the matter is fought out. It would be better now to sue for the larger sum, but to be prepared to accept the smaller if offered.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL JOHN HOYSTED, retired on retired pay, January 16th. He was appointed Surgeon, September 30th, 1871; Surgeon-Major, September 30th, 1886; and Surgeon-Lieutenant-Colonel, September 30th, 1894. He served in the operations in the Malay Peninsula in 1875-76 (medal with clasp); in the Afghan war in 1878-80 (medal); and in the Soudan campaign in 1885 (medal with clasp, and Khedive's bronze star).

Surgeon-Captain, E. D. FARMAR-BRINGHURST, F.R.C.S.Edin., whose first commission is dated July 30th, 1881, is now promoted to be Surgeon-Major, January 16th. He was in the Egyptian war in 1882, receiving the medal and Khedive's star, and in the operations in Zululand in 1888.

MILITIA MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL T. W. S. LOCKE, 3rd Battalion the Suffolk Regiment, is retired under para. 82 of the Militia Regulations, 1894, with permission to retain his rank and uniform, January 16th.

INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL PATRICK MURPHY, M.D., Bombay Establishment, is allowed to retire from the service from January 17th. He was appointed Assistant Surgeon, October 1st, 1869, and became Surgeon-Lieutenant-Colonel from October 1st, 1889. He served in the Egyptian war of 1882, and was present at the battle of Tel-el-Kebir, receiving the medal with clasp and the Khedive's bronze star.

THE VOLUNTEERS.

MR. JOHN HENRY BLAKENEY is appointed Surgeon-Lieutenant to the 1st Worcestershire and Warwickshire Artillery, January 16th.

Lieutenant A. L. MACLEROY is appointed Surgeon-Lieutenant to the 1st Devonshire Artillery (Western Division Royal Artillery), January 16th. He joined the corps as Lieutenant August 22nd, 1894.

Surgeon-Major J. ATKINSON, 2nd Cheshire Engineers, Fortress and Railway Forces, Royal Engineers, is promoted to be Surgeon-Lieutenant-Colonel, January 16th.

Surgeon-Lieutenant P. M. KERR, M.B., 3rd (Dumfries) Volunteer Battalion the King's Own Scottish Borderers, has resigned his commission, January 16th. Mr. PETER MURRAY KERR, late Surgeon-Lieutenant, is appointed Lieutenant to the same corps, January 16th.

Surgeon-Lieutenant T. A. DAGG, 1st Surrey (South London) Rifles, is promoted to be Surgeon-Captain, January 16th.

Surgeon-Captain R. DE LA P. BERESFORD, 2nd Volunteer Battalion the King's Shropshire Light Infantry, is promoted to be Surgeon-Major, January 16th.

Mr. WILLIAM ARTHUR BOND is appointed Surgeon-Lieutenant to the 2nd London Rifles, January 16th.

HONORARY PHYSICIAN TO THE QUEEN.

IT is announced that Surgeon-Major-General W. Thomson has been appointed Honorary Physician to the Queen, *vice* Surgeon-General J. Fraser, deceased. Surgeon-Major-General Thomson, while Principal Medical Officer of the Forces in India, was very popular, and instituted several necessary reforms in the submission of departmental returns and reports, abolishing some that were useless and curtailing the frequency in submission of others. These measures greatly reduced the clerical work in hospitals—a great point achieved. He was ably aided in his valuable work by his then secretary, Brigade-Surgeon-Lieutenant-Colonel W. Taylor.

THE INDIAN PRESS ON THE I.M.S. AND A.M.S.

Two interesting leading articles appear: one in the *Civil and Military Gazette* (Lahore), of December 10th, 1894, on Anomalies in Promotion; and the second in the *Indian Medical Gazette*, for the same month, on Titles of Medical Officers in the Army. The former article shows how largely the medical officers I.M.S., in high executive ranks, approaching promotion to administrative grades, have been employed in civil appointments, and on this account are disqualified to a great extent for military administrative berths. It proceeds to state that no inducement is held out to Indian medical officers to remain in military duty, for the civil line is by far the more lucrative, and, in consequence, the members of the I.M.S. (which, be it remembered, is primarily a military service) endeavour as much as possible to obtain civil employment. The article is full of anomalies in promotion and, very justly, concludes by suggesting that some plan should be devised, under the reorganisation, of ensuring the promotion of medical officers who at considerable pecuniary sacrifice remain faithful to military duty, while the interests of officers in civil employ are also duly safe guarded. The Military Surgeon-Colonelships should as a rule be reserved for officers mostly employed in military duty.

The article in the *Indian Medical Gazette*, in alluding to the substantive ranks of officers of the A.M.S., and the precedence and "other advantages" they are, by Warrant, said to carry, states: "There is no ambiguity about precedence, but uncertainty exists as regards the phrase 'other advantages,' whether it includes the use of the military portion only of the compound," when, say, a Surgeon-Major or Surgeon-Major is addressed by a junior in any branch of the service. This is a very important point that should without delay be cleared up.

THE ARMY MEDICAL STAFF AND THE INDIAN GOVERNMENT.

A SHORT comment is needed on the pay regulation which rules that a surgeon-colonel or surgeon-major-general of the British service joining his appointment to a district in India should, while travelling from Bombay or port of debarkation to his station, receive less pay and allowances than he would under similar circumstances in England or the colonies. Thus, for instance, say between Bombay and Allahabad, is a three days' journey, and at the rate of Rs.29 a day converted into English money at 1s. 2d. exchange, the pay would equal £1 13s. 10d., which is what a surgeon-colonel would get. In England, similarly employed, he would receive per diem pay £2; servant allowance, 1s., travelling allowance, 15s.; ditto for civilian servant, 4s.; total £3. Whereas the Indian Government give no allowance at all beyond the pay and allowances as unemployed pay at the rate of Rs.900 per month (a surgeon-colonel's pay being Rs.1,800 per mensem).

The Indian Government's contention is that a surgeon-colonel is not a principal medical officer or an administrative officer until he is employed as such by the authority of the Government of India, and not even then until he takes up his appointment. This is a curious argument and scarcely one that impresses an unprejudiced person as equitable or strictly logical. The consequences are far-reaching, for let us assume that a medical officer in administrative grade is ordered out from home and on arrival in Bombay is directed by the principal medical officer in India to proceed to, say Mandalay (Burmah), which is quite on the cards, or to an army on the frontier; look at the pecuniary loss he would sustain while travelling night and day on duty for several successive days to join his post. Besides, is it not monstrous to call such a person "unemployed"? He is employed travelling to take up his appointment under the orders of his superiors. It is said, and with truth, that officers of the Army Medical Staff are lent by the War Office to the Indian Government; if so, the former is in duty bound to protect the interests of its officers and to see that they are not losers by transactions over which they have no power. There is reason to believe that unless this question is settled in the or by way that can be considered equitable and satisfactory it will be ventilated in Parliament from a powerful quarter.

An important question arises over this matter and it is this: Has the word "unemployed," when used in military regulations, a different meaning in India from that it carries in England or the colonies?

THE ARMY MEDICAL STAFF IN INDIA.

THE undermanning of the Medical Staff in India is a constant source of complaint. The Government of India is largely responsible for this, and it leads to no end of difficulty. For example, in former years, when a regimental or staff medical officer was sent home sick, an arrangement existed for his immediate relief from England, but now any medical officer proceeding home from India on medical certificate for a period varying from six months to one year, is borne on the strength of his district, and the additional work arising from the absence of one or two such sick officers has to be borne by those remaining. Even with a full complement of the Medical Staff there are not more than is necessary for efficient work, so that when any numbers are absent on necessary sick leave those in India are overworked, and cannot obtain any relaxation by leave, privilege, or district, and thus, through this, not infrequently themselves break down in health. The one year recently added on to the tour of foreign service is absolutely indefensible, and is altogether defeated by the action of medical boards who, very properly, have no hesitation in granting sick leave to any washed-out and overworked officer who submits an application for a board. The expense of sending

such a case home falls on the Indian Government, so that one is incapable of seeing the economy that accrues to India by cutting down the strength of the Medical staff in that country to an inadequate number.

THE FRENCH ARMY.

In an article in the *Revue Scientifique* of January 5th M. Max de Nansouty deals with the meat ration of the French soldier. He mentions that the distribution of diseased meat under the form of bouilli has brought about grave and sometimes mortal illness, and alludes to butchers substituting horse flesh for beef. The regulation ration of the soldier has been from time immemorial 300 grammes on a peace footing. These figures are applied to raw meat, that is to meat deprived of skin, bone, and fat, without including the nerves and tendons unfit for consumption. This ration of 300 grammes has been calculated so that the soldier should receive each day the quantity of nitrogen and carbon necessary for his maintenance. He takes these elements in the 1,430 grammes of solid aliments (meat, bread, and vegetables) and in the 2,570 grammes of liquid aliment which he daily absorbs in the mean proportion of, say, about 20 grammes of nitrogen and 350 grammes of carbon.

The author proceeds to state that in a mathematical point of view these rations are sufficient; but, he adds, neither from a physical nor from a moral point of view can a man be treated as an equation. M. Max de Nansouty considers that there are times of the year when the ration is insufficient, for example during the first months of enlistment, when the recruit, disturbed by the change of life and subjected to fatigues before unknown to him, has need of being sustained by a more substantial nourishment: also during manœuvres a period of toilsome marching and nights of bivouacking, with the heavy load of his equipment.

MEAT INSPECTION IN THE FRENCH ARMY.

The French Minister of War, after consultation with various committees of experts, has issued stringent instructions as to the inspection of meat supplied to the army. All animals are to be inspected both before and after slaughter, and the meat must be marked by a veterinary or medical officer before it is served out.

THE SEWAGE SWAMP AT ALDERSHOT.

The *United Service Gazette* of to-day's date (1895) has an article on the sewage swamp. It turns up the reports furnished by Drs. Seaton and Denny to their respective councils, the one for Surrey County and the other for the Hartley Rural Sanitary District. When the former medical officer of health states that "it is a matter for astonishment that the War Office authorities could permit such a noxious state of things to exist close to their camp;" and the latter, that the sewage swamp, poisoning earth, air, and water, is "a disgrace to any civilised community," the time may be said to have arrived when the subject should be fully discussed in Parliament. Our views on this so-called sewage farm have been expressed repeatedly for years past—that is, ever since 1891.

RETRENCHMENT IN INDIA.

It is reported that the Principal Medical Officer in India has recently made some modifications in the scale of medicines for rest camps on grounds of economy. The Secretary to Government remarks very pertinently on these modifications by noting that they will result in a saving to the Government of some five annas for each rest camp hospital. This is economy with a vengeance.

SELECTION *VERSUS* SENIORITY.

Surgeon-Major, in acknowledging the interest of our article, "Selection *versus* Seniority," says that although it would without doubt be fairer to inform a medical officer beforehand of the intention not to promote him, he hardly thinks it could be done in practice, because any such officer would "actually demand an inquiry, and strive by all means in his power to avert his impending fate, which would give trouble to Board of Selection."

*** It should be remembered that Article 416, Pay and Promotion, Royal Warrant, 1894, distinctly rules that the promotion of departmental officers shall "be solely by selection on the ground of ability and merit;" no officer, therefore, who may be warned of supersession can demand any inquiry. All that is needed on the part of the Selection Board is absolute firmness and decision in advancing the best man irrespective of the off chance of being troubled over the performance of its duty. Secondly, "Surgeon-Major" states that "the service at large would hardly agree that a superseded officer should be compelled to retire, and that it need not necessarily follow that because a man is not fit for higher promotion, he is unable to perform the duties of his existing rank." Compulsory retirement was suggested only for officers in surgeon-colonel's rank who are passed over. They are administrative officers, and if superseded it is clear that they are not considered to be up to the mark for administrative duties, for, after all, a surgeon-colonel's and surgeon-major-general's duties are much alike, although there is a distinction between the two ranks. Of course it is possible that an executive officer, for example, a brigade-surgeon, who is superseded for promotion, may be a man fitted for executive duties, while unfit to be trusted with the administrative functions.

The possible working in the future of Article 427, extending the age, is looked on with suspicion by the Medical Department, and it is feared that if great care and a thorough recognition of responsibility do not accompany the exercise of the power Article 427 gives, serious injury will be done to the Department.

The sole aim of the article was to facilitate the retirement of medical officers in administrative rank who are unfit for advancement. This alone can bring about efficiency and contentment in the Medical Service.

MOTTO FOR MEDICAL STAFF.

A Correspondent suggests "Ubique," which is borne by the Artillery and Engineers, as an appropriate motto for the Medical staff; or, "Non vi sed arte," as being suitable to their special calling.

*** We would remind our correspondent that the essential antecedent to the conferring of a motto is that the department be constituted a Royal Medical Corps.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 7,072 births and 4,091 deaths were registered during the week ending Saturday, January 12th. The annual rate of mortality in these towns, which had been 18.0 and 18.9 per 1,000 in the preceding two weeks, further rose to 20.1 last week. The rates in the several towns ranged from 14.6 in Derby, 16.8 in Bradford and in Croydon, and 16.9 in Leicester to 24.1 in Blackburn, 25.7 in Huddersfield, and 28.9 in Liverpool. In the thirty-two provincial towns the mean death-rate was 20.8 per 1,000, and exceeded by 1.5 the rate recorded in London, which was 19.3 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the rate was equal to 1.7, while it averaged 1.9 per 1,000 in the thirty-two provincial towns, and was highest in Portsmouth, Wolverhampton, and Gateshead. Measles caused a death-rate of 1.6 in Derby and in Gateshead, 1.7 in Halifax, 2.0 in Sheffield, and 2.4 in Portsmouth; scarlet fever of 1.8 in Wolverhampton; and whooping-cough of 1.4 in Sunderland and 1.6 in Huddersfield. The 66 deaths from diphtheria in the thirty-three towns included 34 in London, 4 in West Ham, and 3 each in Bristol, Wolverhampton, Birmingham, and Sheffield. Three fatal cases of small-pox were registered in Liverpool, but not one in London or in any other of the thirty-three large towns. There were 28 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, January 12th, against 15, 16, and 23 at the end of the preceding three weeks; 8 new cases were admitted during the week, against 1, 1, and 8 in the preceding two weeks. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,931, 1,890, and 1,779 at the end of the preceding three weeks, had further declined to 1,713 on Saturday last; 130 new cases were admitted during the week, against 116 and 126 in the preceding two weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, January 12th, 948 births and 736 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.1 and 21.8 per 1,000 in the preceding two weeks, rose again to 25.5 during the week under notice, and was 5.4 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 16.3 in Perth to 31.1 in Aberdeen. The zymotic death-rate in these towns averaged 3.9 per 1,000, the highest rates being recorded in Glasgow and Aberdeen. The 384 deaths registered in Glasgow included 28 from measles, 15 from whooping-cough, 3 from scarlet fever, and 2 from diphtheria. Two fatal cases of small-pox and 1 of diphtheria were recorded in Edinburgh, and 19 deaths from measles occurred in Aberdeen.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1894.

The vital and mortal statistics of the thirty-three large English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending December last 80,117 births were registered in these thirty-three towns, equal to an annual rate of 30.7 per 1,000 of their aggregate population, estimated at nearly ten and a-half millions of persons. In the corresponding periods of 1892 and 1893 the birth-rate in these towns was 31.0 and 30.7 per 1,000 respectively. In London the birth-rate last quarter was equal to 30.2 per 1,000, while it averaged 31.1 in the thirty-two provincial towns, among which it ranged from 20.8 in Huddersfield, 20.9 in Halifax, 25.6 in Croydon, and 25.9 in Bradford to 35.2 in Sunderland, 35.4 in West Ham, 35.6 in Gateshead, and 35.7 in Sheffield.

During the quarter under notice 46,269 deaths were registered in the thirty-three large English towns, corresponding to an annual rate of 17.7 per 1,000, against 19.4 and 22.6 in the third quarters of the preceding two years 1893-3. In London the rate of mortality was equal to 16.6 per 1,000, while it averaged 18.0 in the thirty-three provincial towns, among which the death-rates ranged from 12.7 in Croydon, 14.6 in Leicester, 14.8 in Birkenhead, 15.5 in West Ham, and 15.6 in Cardiff to 20.7 in Oldham, 21.0 in Burnley, 22.1 in Preston, 22.5 in Liverpool, and 23.4 in Sunderland. The 46,269 deaths registered in the thirty-three towns last quarter included 5,124, which were referred to the principal zymotic diseases, equal to an annual rate of 2.0 per 1,000; in London the zymotic death-rate was equal to 1.7 per 1,000, while it averaged 2.1 in the thirty-two provincial towns, and ranged from 0.6 in Leicester, 0.8 in Plymouth, 0.9 in Norwich, and 1.0 in Croydon and in Halifax to 2.7 in Burnley and in West Ham, 3.5 in Derby, 3.6 in Portsmouth, 3.7 in Leeds and in Sunderland, and 5.0 in Gateshead. The 5,124 deaths referred to the principal zymotic diseases included 1,068 which resulted from measles, 1,058 from diphtheria, 807 from diarrhœa, 604 from "fever" (principally enteric), 585 from whooping-cough, 492 from

scarlet fever, and 56 from small-pox. The fatal cases of measles, which had been 2,724 and 1,695 in the preceding two quarters, further declined to 1,403 during the three months under notice; in London the measles death-rate was only 0.28 per 1,000, while it averaged 0.72 in the thirty-two provincial towns, among which this disease showed the highest proportional prevalence in Portsmouth, Derby, Bradford, Leeds, Sheffield, Sunderland, and Gateshead. The deaths referred to diphtheria, which had been 1,106, 901, and 914 in the preceding three quarters, further rose to 1,058 during the three months ending December last; in London the death-rate from this disease was equal to 0.25 per 1,000, while it averaged 0.37 in the thirty-two provincial towns, among which diphtheria was proportionally most fatal in West Ham, Brighton, Cardiff, Wolverhampton, Birkenhead, and Oldnam. The 867 fatal cases of diarrhœa were equal to an annual rate of 0.34 per 1,000, which was slightly below that recorded in the corresponding perious of recent years; in London the diarrhœa death-rate was only 0.23 per 1,000, while it averaged 0.41 in the thirty-two provincial towns, and was highest in Wolverhampton, Bolton, Burnley, Blackburn, and Preston. The deaths referred to different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever), which had been 519, 382, and 432 in the preceding three quarters, further rose to 664 during the three months under notice; in London the "fever" death-rate was equal to 0.25 per 1,000, and almost corresponded with the mean rate in the thirty-two provincial towns, among which "fever" showed the highest proportional fatality in Wolverhampton, Derby, Liverpool, Bolton, and Sunderland. The fatal cases of whooping-cough, which had been 2,064, 1,513, and 838 in the preceding three quarters, further declined to 586 during the three months ending December last, and was below the rate recorded in the corresponding period of any recent year; in London the rate of mortality from this disease was equal to 0.19 per 1,000, while it averaged 0.25 in the thirty-two provincial towns, and was highest in Swansea, Oldham, Blackburn, Preston, Huddersfield, Sunderland, and Newcastle-on-Tyne. The deaths referred to scarlet fever, which had been 598, 588, and 501 in the first three quarters of 1894, further declined to 492 during the three months ending December last; in London the scarlet fever death-rate was equal to 0.16 per 1,000, while it averaged 0.21 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Wolverhampton, Liverpool, Salford, Burnley, and Huddersfield. The fatal cases of small-pox in the thirty-three towns, which had been 166, 149, and 83 in the preceding three quarters, further declined to 56 during the three months ending December last, of which 31 were registered in Birmingham, 15 in Liverpool, 5 in London, 2 in Hull, and 1 each in Birkenhead, Manchester, and Halifax.

Infant mortality in the thirty-three towns, measured by the proportion of deaths under 1 year of age to registered births, was equal to 155 per 1,000, against 154 and 174 in the corresponding periods of the preceding two years. In London the rate of infant mortality was 139 per 1,000, while it averaged 166 in the thirty-two provincial towns, among which it ranged from 99 in Croydon, 134 in West Ham, 135 in Cardiff, and 137 in Derby to 194 in Huddersfield, 199 in Halifax, 204 in Oldham, 207 in Swansea, 209 in Sunderland, and 226 in Preston.

The causes of 812, or 1.8 per cent. of the 46,269 deaths in the thirty-three towns during the fourth quarter of last year were not certified, either by a registered medical practioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0.8 per cent., while it averaged 2.3 in the thirty-two provincial towns. The causes of all the deaths during the quarter in Croydon, in Derby, and in Birkenhead were duly certified; in the other towns the lowest proportions of uncertified deaths were registered in Wolverhampton, Bolton, and Oldham, and the highest in West Ham, Birmingham, Leicester, Blackburn, Preston, and Hull.

THE HEALTH OF EDINBURGH.

THE Edinburgh measles epidemic continues to increase, 230 fresh cases having been reported last week, and 5 deaths. No cases were reported from Leith. Small-pox shows an increase again, 10 cases last week and 2 deaths for Edinburgh; and 2 cases for Leith. Fifty-five cases of scarlatina were notified for the week. The death-rate was 21 per 1,000.

THE SANITARY ADMINISTRATION OF A WATERING PLACE.

THE *Walton Gazette* of January 9th contains a report of the first meeting of the urban district council for Walton-on-the-Naze, which, as everybody knows, is an Essex watering place of some note. The new council do not appear to have commenced their reign with any very exalted notions of the importance, or at all events of the money value, of the sanitary work which they expect their officers to perform. A medical officer of health was appointed at a salary of £20, after the rejection of an amendment in favour of a still smaller sum, which (perhaps owing to a printer's error) is said to have been supported by a medical member of the council! Next came, or should have come, the appointment of an inspector of nuisances, but after some discussion whether the salary should be £10 or £20, the former inspector declined to undertake the duties even at the higher figure, and it was decided to advertise. The odd question was asked whether the inspector would have to take samples of food and drugs and have them analysed at his own cost, and this elicited from the clerk the answer that the samples taken would be submitted to the council, who in turn would submit them to the county analyst. All this is scarcely worthy of a body which has the care of the interests and sanitary reputation of a health resort.

THE HEALTH OF SHEFFIELD.

DR. HARVEY LITTLEJOHN, the medical officer of health for Sheffield, has published some interesting statistics on the abnormally low death-rate in that city during the past year. The total number of deaths was 5,995, or 17.7 per 1,000 of the population. The next lowest year was 1896, when the death-rate was 20.1 per 1,000. In 1893 the rate was 22.2 per 1,000 and the number of deaths 7,419. In the week ending June 22nd last, there were

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Fourth Quarter of 1894.

Towns.	Estimated Population middle of 1894.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhœa.	Deaths of Children under one Year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	10,458,442	80,117	46,269	30.7	17.7	2.0	5,126	56	1,403	492	1,058	586	664	867	155	1.8
32 Provincial Towns	6,109,276	47,420	28,269	31.1	18.6	2.1	3,268	31	1,103	317	405	381	398	615	166	2.3
London	4,349,166	32,697	18,000	30.2	16.6	1.7	1,858	5	309	175	653	205	266	254	139	0.8
West Ham	288,184	2,102	948	35.4	15.5	2.7	159	—	14	9	87	10	14	25	134	4.0
Croydon	111,921	714	351	28.6	12.7	1.0	27	—	11	1	6	4	2	3	99	—
Brighton	118,715	792	523	28.8	17.7	1.7	51	—	21	1	11	8	3	7	158	1.3
Portsmouth	170,473	1,160	752	27.4	17.6	3.6	153	—	121	9	15	15	9	4	148	0.8
Plymouth	87,931	612	352	27.9	16.1	0.8	18	—	2	—	2	4	6	3	168	0.6
Bristol	226,578	1,512	936	26.8	16.7	1.1	63	—	13	3	16	3	6	22	154	2.0
Cardiff	148,890	1,257	570	33.9	15.4	1.2	46	—	—	4	14	7	1	20	135	1.6
Swansea	95,389	770	456	32.3	19.2	1.7	41	—	1	5	5	18	5	7	207	0.8
Wolverhampton	85,036	718	347	33.9	18.7	2.2	46	—	—	10	11	2	8	15	173	0.5
Birmingham	492,301	3,956	2,140	32.2	17.4	1.7	210	31	3	27	24	21	32	72	164	5.8
Norwich	105,645	784	459	29.8	17.4	0.9	25	—	—	3	5	9	8	—	161	2.3
Leicester	189,136	1,554	687	33.0	14.6	0.6	26	—	—	2	7	3	4	10	158	4.7
Nottingham	223,584	1,595	899	28.6	16.1	1.5	82	—	2	16	4	12	15	33	165	1.1
Derby	98,796	744	457	30.0	18.9	3.5	85	—	55	5	1	3	12	8	137	—
Birkenhead	105,827	760	301	28.6	11.4	1.2	32	1	—	4	10	8	1	8	137	—
Liverpool	507,230	4,338	2,840	34.3	22.5	2.4	298	15	35	60	34	32	81	41	171	3.0
Bolton	118,303	920	592	31.2	20.1	2.4	72	—	20	1	3	7	10	31	192	0.5
Manchester	529,211	4,091	2,615	30.8	20.2	1.9	249	1	50	31	43	31	35	58	163	1.5
Salford	205,828	1,767	930	34.4	19.1	2.0	103	—	5	32	12	13	16	23	183	5.2
Oldham	138,755	956	717	27.6	20.7	1.7	58	—	8	3	13	14	4	16	204	0.4
Burnley	96,478	838	504	34.8	20.9	2.7	66	—	—	2	9	19	6	26	193	4.2
Blackburn	125,797	930	624	29.9	19.9	2.3	62	—	4	—	—	12	9	20	226	4.9
Preston	111,425	869	612	31.3	22.0	1.6	45	—	7	8	2	14	5	6	194	2.9
Huddersfield	98,511	510	411	20.8	16.7	1.7	42	—	5	8	2	14	5	6	194	2.9
Halifax	92,861	483	404	20.9	17.4	1.0	23	1	6	—	5	8	3	—	199	3.7
Bradford	223,985	1,446	1,041	25.9	18.6	2.5	140	—	82	14	3	15	8	16	192	1.5
Leeds	388,761	3,071	1,946	31.7	20.1	3.7	359	—	258	16	15	23	14	33	172	0.8
Sheffield	338,316	3,012	1,509	35.7	17.9	2.1	178	—	110	11	13	11	14	18	144	3.6
Hull	212,679	1,746	981	32.9	18.5	2.4	128	2	61	10	16	7	10	22	165	4.9
Sunderland	126,101	1,103	733	35.2	23.4	3.7	124	—	51	6	2	15	31	19	209	1.4
Gateshead	93,372	828	474	35.6	20.4	5.0	116	—	88	2	8	6	5	7	180	0.6
Newcastle-on-Tyne	201,947	1,547	997	39.7	19.2	2.8	141	—	59	12	10	28	13	18	162	1.0

only 83 deaths, and the rate only 12.8 per 1,000. This was the lowest death-rate in any week of the year. The highest was in January at 21.7. The birth-rate was 33.3 per 1,000. Of children under 1 year, there died 2,454, as compared with 2,238 in the previous year. This is a decrease of nearly 500, which is more considerable when it is remembered that the city is presumed to increase at the rate of 5,000 a year. In the deaths of people over 60, there was also a decided decrease. There was a marked decrease in deaths from respiratory diseases. He thought general weather conditions had much to do with the excellent health of the city, and that the activity that had been displayed for several years by the health authorities had also done much.

FEES FOR OPERATIONS IN WORKHOUSES.

W. V. M. asks if, as medical officer to a workhouse, is he entitled to the usual fee allowed by the Local Government Board for the operation of amputation of the leg performed on an inmate of the workhouse? If not, can he charge for expenses incurred, such as chloroform, lint, etc.?

*** A medical officer of a workhouse is not entitled to an extra fee for any operation performed on one of its inmates, nor do we think he can claim any allowance for chloroform, etc., but if the guardians should by special resolution award him any special fee, the Local Government Board will probably confirm the guardians' resolution.

GUARDIANS AND MEDICAL ORDERS.

Inquirens writes: Can a board of guardians adopt a proposal of one of its members empowering each guardian to issue medical orders for "urgent and critical cases?"

*** We believe that any such resolution, unless confirmed by the Local Government Board, would not empower guardians to issue medical orders.

UNIVERSITIES AND COLLEGES.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

The following gentlemen passed the First Examination of the Board in the subjects indicated at the quarterly meeting of the Examiners, under the "Four" Years' Regulations:

Part I. *Chemistry and Physics.*—E. G. Battiscombe, London Hospital; T. Boulton, Owens College, Manchester; L. C. S. Broughton, Mason College, Birmingham; D. R. T. Griffiths, Guy's Hospital; C. W. Iliffe, Owens College, Manchester; S. D. Oldham, Owens College, Manchester; J. A. Rooth, St. George's Hospital; A. P. Watkins, Cambridge University and University College, London.

Part II. *Materia Medica.*—E. C. D. Bascombe, Middlesex Hospital; E. H. Betts, St. Bartholomew's Hospital; L. C. S. Broughton, Mason College, Birmingham; J. M. Chambers, St. Thomas's Hospital; J. W. Cheese, University College, London; C. L. Chevallier, St. Thomas's Hospital; J. H. Clements, Mason College, Birmingham; B. J. Collyer, St. Bartholomew's Hospital; E. H. Cooper, London Hospital; P. J. Curtis, Guy's Hospital; T. S. Davies, St. George's Hospital; E. J. Distin, King's College, London; J. D. Eastman, Owens College, Manchester; A. G. Essement, Middlesex Hospital; H. G. Ellery, Queen's College, Cork, and Middlesex Hospital; A. Evans, St. Mungo's College, Glasgow; C. R. Evans, Guy's Hospital; L. A. W. French, University College, London; W. L. T. Goodridge, Guy's, Durham, and University College, London; A. Hair, University College, London; G. W. C. Hodges, St. George's Hospital; E. S. Johnson, St. Mary's Hospital; R. G. Knox, King's College, London; J. C. MacWalters, University College, Bristol; S. H. Mason, Mason College, Birmingham, and Guy's Hospital; J. S. Mellish, St. George's Hospital; H. R. C. Newman, University College, Bristol; J. G. Owen, Charing Cross Hospital; L. E. Owen, University College, London; F. Parlett, private study; W. C. Rivers, Charing Cross Hospital; R. J. Rogers, University College, Bristol; K. R. D. Shaw, Owens College, Manchester; J. H. Smith, St. Thomas's Hospital; M. Smith, Middlesex Hospital; W. B. Stevenson, St. Mary's Hospital; J. L. Sykes, London Hospital; R. S. Thorpe, Owens College, Manchester, and Guy's Hospital; A. K. D. Tomkins, Mason College, Birmingham; S. K. Vines, Mason College, Birmingham; S. H. Watton, Owens College, Manchester; E. C. Willis, University College, Bristol; W. J. Woodman, St. Mary's Hospital.

Part III. *Elementary Anatomy and Elementary Physiology.*—H. W. Allan, Cambridge University; L. P. Anderson, University College, Liverpool, and Owens College, Manchester; F. C. E. Atkinson, St. George's Hospital; E. A. Charlesworth, Middlesex Hospital; S. E. Denyer, Cambridge University; J. S. Duncan, Westminster Hospital; J. M. Garman, London Hospital; A. E. Gilmore, Cambridge University; J. Micklethwait, Firth College, Sheffield; J. J. D. Richardson, Guy's Hospital; C. G. Simms, Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology; W. N. Spencer, University College, Bristol; A. H. Whittingham, Cambridge University and St. Mary's Hospital.

The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the examiners on Thursday, January 10th:

Passed in Anatomy and Physiology.—P. C. Douglas, St. Mary's Hospital; H. F. N. Hine, Middlesex Hospital; G. E. Caglieri, California University and University College, London; A. W. Wilkinson, St. Bartholomew's Hospital; C. H. S. Lincoln, Guy's Hospital; B. L. Dhingre and P. P. L. Atal, Panjab University, Lahore; N. M. L. Harris, Toronto University, Canada; F. G. Grapel, University College, London; R. C. Robertson, Charing Cross Hospital.

Passed in Anatomy only.—L. H. Lewis, Guy's Hospital and University College, Cardiff; A. J. Pattison, C. F. Andrews, and J. H. R. Robinson, London Hospital; W. Miles, St. Mary's Hospital and University College, Cardiff; G. V. Miller, University College, London; W. K. Hay-Coghlan, St. Mary's Hospital.

Passed in Physiology only.—H. M. Walker and W. Amsden, St. Bartholomew's Hospital; A. R. Henchley, Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology; W. St. A. St. John, St. Mary's Hospital; C. W. Gibson, Guy's Hospital; E. J. Gruchy, London Hospital; G. M. Foster, University College, London.

Fifteen gentlemen were referred in both subjects, 6 in Anatomy only, and 7 in Physiology only.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following gentleman, having previously passed the necessary examinations and having now attained the legal age of twenty-five years, was, at the quarterly meeting of the Council on Thursday, January 10th, admitted a Fellow of the College:

D. M. Beddoe, L.R.C.P.Lond., Guy's Hospital (diploma of Membership dated May 11th, 1893).

OBITUARY.

Dr. Conrad, first assistant in the Institute of Morbid Anatomy of the University of Erlangen, died on December 29th, 1894 of typhoid fever, contracted in the course of his duties. His untimely death cuts short a career of great promise.

Dr. William Detmold, one of the oldest and most distinguished surgeons in the United States, died on December 27th, 1894. He was the son of Dr. Henry G. Detmold, formerly Physician to the King of Hanover, and was born in Hanover in 1808. He took his doctor's degree in the University of Goettingen in 1830, and after serving for a time as an army surgeon in Germany he emigrated to the United States in 1837, and settled in New York. He is said by the New York *Medical Record* to have introduced orthopædic surgery into America. In 1862 he was appointed Professor of Military Surgery and Hygiene, and afterwards of Clinical Surgery, at the New York College of Physicians and Surgeons. Dr. Detmold took a prominent part in the organisation of the Medical Corps of the United States Army in the earlier part of the Civil War. He contributed largely to the medical journals of his adopted country, his first paper on orthopædic surgery having appeared in the *American Journal of Medical Sciences* in 1837.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Dismas Kuhn, President of the Salzburg Medical Council and Physician to the Grand Duke Ferdinand of Tuscany, aged 60; Dr. E. Bailly, sometime Professeur Agrégé in the Paris Medical Faculty; Dr. A. Haspel, formerly Chief Physician to the Military Hospital at Strassburg and author of various publications on diseases of the liver, etc., aged 84; Dr. Comon, Member of the General Council of the Department of Meurthe et-Moselle and a highly respected member of the profession; Dr. J. Lafargue, sometime President of the Society of Medicine of Bordeaux and an authority on medical jurisprudence aged 77; Dr. A. Giraud, a prominent practitioner of Lyons and President of the Sanitary Committee of that city; Dr. H. Guillaud, also of Lyons, a botanist of considerable reputation, aged 68; and Dr. Vincenzio Lo Savio, of Fasano, author of an elaborate treatise on the diagnosis and treatment of intestinal obstruction, which saw the light only a few weeks before his death.

New York Academy of Medicine.—The treasurer's report for 1894 states that the estimated assets of the New York Academy of Medicine now amount to nearly half a million dollars (£100,000). The current expenses amount to about 17 000 dollars, not including amounts spent for special purposes such as the purchase of books. The number of Fellows is as follows: Resident, 774; non resident, 40; corresponding, 7. During the year 40 new resident Fellows were elected, 8 were lost by death, and 15 by removal or suspension.

MEDICAL NEWS.

DONATIONS AND BEQUESTS.—The late Mrs. Church Dixon has left by her will £500, free of legacy duty, to the funds of the Belgrave Hospital for Children, Gloucester Street, S.W.

THE meeting of the German Congress für innere Medicin will take place this year at Munich April 2nd to 5th, under the presidency of Professor von Ziemssen.

A COMMITTEE has been formed consisting of the present staff of Demonstrators in the School of Anatomy, Trinity College, Dublin, with the object of making a presentation to Dr. H. St. J. Brooks, who is about to proceed to America. Dr. Brooks has been associated with the School as Chief Demonstrator and University Anatomist, and it is believed that many past students who have had the benefit of his teaching will take part in the presentation. Further particulars can be obtained from Mr. G. Jameson Johnston, 49, Harcourt Street, Dublin.

AT the Quarterly Court of the Directors of the Society for the Relief of Widows and Orphans of Medical Men, a resolution expressing sincere sympathy and condolence with the President, Sir James Paget, in his recent bereavement was moved by Mr. Christopher Heath, Vice-President, who was in the chair, and adopted unanimously. Two new members were elected and the deaths of three reported. A sum of £1,193 10s. was voted for distribution among 53 widows, 9 orphans, and 4 orphans on the Copeland Fund. A Christmas present had been given to each widow (£5), orphan (£2), and orphan on the Copeland Fund (£5), entailing a total expenditure of £303. The offices of the Society are at 20, Hanover Square, W.

TENURE OF MEDICAL OFFICERSHIP OF HEALTH.—We referred on January 12th to the circumstances under which the Ilkeston Town Council failed to continue Dr. Carroll as medical officer of health, a position he had filled with efficiency for ten years. The action of the Town Council, as we learn from the *Ilkeston Pioneer*, caused general indignation among all classes of the town. This was expressed at a public meeting, and a movement was set on foot to present a testimonial to Dr. Carroll. An address, which was accompanied by a purse of gold, was recently presented to Dr. Carroll. The address stated that the presentation was made in recognition of the valuable services rendered by Dr. Carroll during the past ten years as medical officer of health for the borough at a very inadequate salary, to express the deep sympathy of the subscribers in the unfair treatment he had received at the hands of a bare majority of the Town Council, and as a token of the high esteem in which he was held by all classes of the community. Dr Carroll, in acknowledging the presentation, said that he had had occasion several times to call attention to the insanitary condition of the property of some of the members of the Town Council. Members of that Council, especially members of its Health Committee, ought to show an example in sanitary matters. He condemned the system of short term appointments, which constituted a serious danger to public health. In conclusion, he said that he hoped before the end of 1895 to regain the post of medical officer to the borough.

MEDICAL VACANCIES.

The following vacancies are announced:

AUDLEY URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £40 per annum. Applications to John J. Nelson, Clerk to the Audley Urban District Council, Kidsgrove, by January 22nd.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's Inn Road, W.C.—House Surgeon. Applications to the Secretary by February 12th.

GUEST HOSPITAL, Dudley.—Resident Medical Officer; doubly qualified. Salary, commencing £100 per annum—increasing £10 a year to £120 if services are satisfactory—with board, residence, attendance, and washing. Applications to the Secretary by January 24th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by January 24th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Registrar and Pathologist. Appointment for six months, which may be renewed. Honorarium of 25 guineas a year is attached to the appointment. Applications to the Secretary by February 1st.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Two Assistant Physicians to the Out-patient Department; must be fully qualified medical women. Appointment for two years. Applications to the Secretary by January 24th.

NEWTON ABBOT UNION.—Medical Officer and Public Vaccinator for the Ashburton (No. 1) District. Salary, £72 10s. per annum and £7 per annum for the medical officer to provide a surgery at Broadhempston. Salary mentioned will include all extras except payment of 10s. 6d. for each midwifery attended and the usual payment for vaccination. Applications to John Alsop, Clerk, Union Offices, Newton Abbot. Election on January 23rd.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Junior House-Physician; doubly qualified. Appointment for six months. No salary, but board and lodging (including washing) provided. Applications to the Secretary, 27, Clement's Lane, E.C., by February 13th.

PARISH OF RONSAY AND EGILSHAY.—Resident Medical Officer. Salary, £51 per annum. Applications to the Inspector of the Poor, Ronsay, by January 31st.

SHEFFIELD UNION.—Resident Assistant Medical Officer for the Workhouse and Children's Homes at Fir Vale, Pitsmoor; not under 26 years of age. Salary, £100 per annum, with apartments, rations, and the other usual allowances. Applications to Joseph Spencer, Clerk to the Guardians, Union Offices, Sheffield, by January 19th.

UNIVERSITY OF EDINBURGH.—Additional Examiner in Natural History and Clinical Surgery. Period of office four years. Salary, £75 per annum in each case, with £10 per annum for travelling and other expenses in the case of an additional examiner not resident in Edinburgh or the immediate neighbourhood. An additional allowance is made to the Examiner in Natural History for examining for Graduates in Arts. Applications to L. J. Grant, Interim Secretary, University Court, University of Edinburgh, by February 6th.

WEYBRIDGE URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £60 per annum. Applications, endorsed "Application," to the Chairman, Mr. E. Till, Studley, Weybridge, before January 23rd.

WIRRAL CHILDREN'S HOSPITAL, Woodchurch Road, Birkenhead.—House-Surgeon. Salary, £50 a year, with board, lodging on the premises, and washing. Applications to P. W. Atkin, Honorary Secretary, 25, Lord Street, Liverpool, by January 30th.

MEDICAL APPOINTMENTS.

ARROL, Charles, M.D.Glasg., L.R.C.S.Edin., reappointed Medical Officer of Health to the Sheerness Urban Sanitary District.

BEATTY, Wallace, M.D., appointed Physician to the Adelaide Hospital, Dublin.

EEWLEY, Henry T., M.D., appointed Assistant-Physician to the Adelaide Hospital, Dublin.

BODY, H. M., M.R.C.S.Eng., reappointed Medical Officer for the Sandford District of the Crediton Union.

BOGER, W. H., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer for the Fifth District of the Liskeard Union.

CROSBIE, R. P., M.B., B.Ch., B.A.O.R.U.I., appointed Assistant House-Surgeon to the South Charitable Infirmary and County Hospital, Cork.

DAY, W. A., M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer for the Kirkleatham District of the Guisborough Union.

DE BUTTS, Stanley, M.D., appointed Anæsthetist to the Royal Ear Hospital, Frith Street, Soho.

ETCHES, W. R., D.P.H., reappointed Medical Officer of Health, Macclesfield Urban District.

FAIRFAX, H., L.S.A., appointed Medical Officer for the No. 13 District of the West Ham Union.

FISHER, Dr., appointed Assistant Port Medical Officer for the Milton and Conyer Districts.

FORTUNE, G. R., L.R.C.P., L.R.C.S.Edin., appointed Police Surgeon for the Central Division of Glasgow.

GOODALL, John Kenaz, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for Brimington.

GOODFELLOW, J. A., M.B., C.M.Glasg., reappointed District Medical Officer to the Chesterfield District Council.

HAMMOND, W., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer for the Sixth District of the Liskeard Union.

HEAD, Henry, M.D., appointed Consulting Physician to the Adelaide Hospital, Dublin.

JAMESON, Wilfred, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for Ashover.

LEE, B. J., L.S.A., reappointed District Medical Officer to the Chesterfield District Council.

LEIGH, Wm. Watkin, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Llanfabon District of the Merthyr Union.

LITTLE, James, M.D., appointed Senior Physician to the Adelaide Hospital, Dublin, *vice* Henry Head, M.D.

MCLAY, Robert, M.B.Glasg., appointed Medical Officer for the Parish of Tarbolton.

MARTIN, Robt., L.R.C.P.&S.Edin., L.F.P.S.Glasg., appointed Medical Attendant on Royal Irish Constabulary at Gilford.

MATHESON, J. Colin, M.B., C.M., appointed House-Surgeon to the Royal Ear Hospital, Frith Street, Soho.

PARKER, George, M.A.Camb., M.D., M.R.C.S.Eng., appointed Honorary Physician to the Bristol Dispensary.

PARSONS, Mr. J., appointed Medical Officer for the Fourth District of th Alton Union.

Reid, John, M.B., B.Ch., B.A.O.R.U.I., appointed House-Surgeon to the South Charitable Infirmary and County Hospital, Cork, *vice* P. T. O'Sullivan, M.B., B.Ch., resigned.

Richard, William J., M.A., M.B., C.M.Glasg., appointed Medical Officer, Govan Poorhouse and Asylum, Merryflatts, Govan.

Richards, Wm. Hunter, L.S.A., appointed Medical Officer and Public Vaccinator for the St. Mellon's and Rumney Parishes of the Newport Union.

Richardson, W. G., M.B., B.S., F.R.C.S., appointed Surgical Registrar to the Royal Infirmary, Newcastle-on-Tyne.

Robinson, H., L.R.C.P., L.R.C.S.Edin., reappointed District Medical Officer to the Chesterfield District Council.

Scott, J. Alfred, M.D., appointed Pathologist and Bacteriologist to the Adelaide Hospital, Dublin.

Shears, W., M.B.Lond., M.R.C.S., L.R.C.P., appointed Junior House-Surgeon to the Scarborough Hospital and Dispensary.

Thomson, J. A. Mulville, L.R.C.P., L.R.C.S.I., appointed Medical Officer of Health to the Bradford-on-Avon Rural District Council.

Tubby, Alfred Herbert, M.S.Lond., F.R.C.S.Eng., appointed an Assistant Surgeon to the Westminster Hospital.

Vine, Mr. C. W., appointed Medical Officer for the No. 4 District of the Portsea Island Union.

Withers, John Sheldon, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for Sale Urban Sanitary District.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Dr. Frederick T. Roberts: The Combinations of Morbid Conditions of the Chest (Lettsomian Lecture I).

Society of Medical Officers of Health, 20, Hanover Square, 7.30 P.M.—An ordinary meeting. At 8 P.M. a discussion on Preventable Infantile Mortality, especially in Connection with Factory Labour, will be opened by Dr. Porter, M.O.H. of Stockport.

TUESDAY.

Central London Throat and Ear Hospital, 4.30 P.M.—Lecture by Dr. Dundas Grant on the Treatment of Deafness without Pain or Discharge.

The Clinical Museum, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. A. W. Mayo Robson: Varieties of Intestinal Obstruction dependent on Gall Stones, with a series of cases.

WEDNESDAY.

Hunterian Society, 8.30 P.M.—Clinical evening. Dr. F. J. Smith: Typhoid Fever Treated by the Continuous Bath (note). Sir Hugh R. Beevor, Bart: Pyonephrosis. Mr. J. F. Woods: Chorea Treated by Hypnotism (two cases). Mr. J. Poland: (1) Excision of Isthmus of Thyroid Gland; (2) Intracapsular Fracture of Neck of Femur in a Boy. Dr. Hingston Fox: A Tumour for Diagnosis. Mr. Openshaw: (1) Congenital Sacral Tumour; (2) Congenital Defect in Clavicles.

National Hospital for the Paralysed and Epileptic, Queen Square, 3 P.M.—Lecture by Dr. Beevor.

FRIDAY.

Clinical Society of London, 8.30 P.M.—Dr. S. West: Two Cases of Detachment of the Retina in the Course of Granular Kidney. Dr. Felix Semon: A Novel Form of Malingering—Chronic Self-inflicted Ulceration of the Throat. Dr. Pasteur: Cases Illustrating the Association of Respiratory Paralysis with Grave Cardio-pulmonary Symptoms in Diphtheritic Multiple Paralysis. Dr. E. W. Goodall: An Unusual Form of Tracheal Diphtheria. Dr. Lee Dickinson: A Case of Malformation of the Heart, with Hæmophilia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

George.—On January 11th, at 1, Burton Road, Brondesbury, N.W., the wife of Alfred Wm. George, M.B., M.R.C.S., L.R.C.P., of a son, still-born.

McCall.—At The Terrace House, Conisboro', Yorks, on January 7th, the wife of Anthony McCall, M.B., C.M., of a son.

Pierez.—At Long Lane House, St. Philip's, Antigua, the wife of George E. Pierez, M.D.Edin., of a son.

MARRIAGE.

Rendle—Darley.—On January 16th, at St. Peter's, Belsize Park, C. E. Russel Rendle, B.A.Oxon, M.R.C.S., L.R.C.P., of 7, Buckland Terrace, Plymouth, to Edith Mary, second daughter of J. J. Darley, 3, Lancaster Road, Belsize Park.

DEATH.

Harmer.—On January 14th, at Redlands, Tonbridge, William Milsted Harmer, F.R.C.P.E., aged 56.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. F. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. F., 2.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operations Days.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

Royal Eye Hospital, Southwark. *Hours of Attendance.*—Daily, 2. *Operations Days.*—Daily.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 3; Orthopædic, W., 2; Dental, Tu. S., 9. *Operations Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 3.30. *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—Tu., W. Th., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

BOMBAY will be grateful for information as to a sheltered, dry locality, not too expensive, suitable for one having now such attenuation or denudation of mucous membrane of all air passages, that exposure to cold or any wind causes additional irritation for several days.

ALPHA writes: I have a case of masturbation in a little girl, aged 8 years, and shall be glad to know if there is any record of this vicious habit in one so young? Also to have any suggestion of treatment. Many plans have been tried without success, and the child is becoming morose and secretive. She is too young for moral suasion.

"HOW LONG IS A DIPHTHERIAL PATIENT INFECTIOUS?"

DR. J. M. asks:—

1. Is a convalescent from diphtheria certainly infectious so long as there is any paralysis remaining?

2. May one conclude that there is no infection when no Loeffler bacilli can be found in the mouth, pharynx, or nasal cavities?

*** 1. Not necessarily unless the diphtheria bacillus remains in the fauces.

2. Yes.

ANSWERS.

H. G.—We cannot undertake to express an opinion upon the diagnosis of the case described by our correspondent, as to which, according to his own statement, competent authorities have differed.

ALLEGED UNQUALIFIED PRACTICE.

E. C. B.—We are unable to answer the question, but we believe that a letter addressed to the Registrar of the General Medical Council would elicit the information desired.

A "CROWNER'S QUEST."

M.O.H.—Such an inquest as that described by our correspondent is absolutely worthless, but, unfortunately, such occurrences are not uncommon. The fractured leg described was, we presume, due to an accident, and, therefore, an inquest was necessary; but, in the absence of medical evidence, it would be impossible to connect the death with the injury, and the inquest so conducted is a mere farce.

M.B.'S AND THE TITLE OF "DR."

M.D.—We have very frequently answered questions of this nature. There is no general rule. In the case of certain universities it is the custom, as a matter of courtesy, to employ the title of "Dr." in describing Bachelors of Medicine, except within the precincts of the University itself. Other universities, as for instance the University of London, distinctly forbid the use of the title of "Dr." by bachelors.

MEDICAL BENEFIT SOCIETIES AND A WAGE LIMIT.

PUZZLED.—There is no set of model rules published to our knowledge; but it is very generally recognised that no society of the type described by our correspondent can be properly carried on without a wage limit. Six shillings per annum per member is somewhat in excess of the ordinary club rate, but is no more than even the poorer working classes ought to be able to pay, and many of the working classes could afford to pay a much higher rate, so that if a benefit society were formed the members of which were willing to pay this rate, but in which there was no wage limit, such a society might be as readily abused as any. The fact that the contribution of the members was a little higher than that paid in some other clubs might even lead to greater abuse by encouraging a class to join who could readily afford to pay their doctors better, and who at the same time are ashamed to join the ordinary clubs.

INCOME TAX.

JUNIOR.—As our correspondent has only just purchased the practice, and as income tax is payable for the twelve months ending April 5th next, he is entitled to have the amount demanded from him adjusted between him and his predecessor proportionately to the number of months each took the profits. Our correspondent might be well advised to consult the Income Tax Repayment Agency, of 6, Chichester Road, Paddington.

RE-ELECTION OF CLUB MEDICAL OFFICER.

FORESTER.—According to the rules of most Foresters' Courts, it is always usual for a special notice to be sent to every member on the election of a surgeon. An ordinary court meeting can dismiss a surgeon in some cases; but the latter will be eligible for re-election, and would probably be re-elected if the court as a whole disapproved of the dismissal. In some courts the surgeons are elected annually, and although the election is frequently a mere form, the late occupant of the post being nearly always re-elected, this annual election gives an opportunity to a clique at times to oust from his office a surgeon who has become personally objectionable to them. We can quite understand the circumstances as detailed by our correspondent if the meeting he refers to was the annual meeting.

JUVENILE BRANCHES OF CLUBS.

INQUIRER.—There can be no doubt that the rate quoted is far too low. It is, indeed, humiliating to think that such terms as a third of a penny per member per week can be offered to medical practitioners for their professional services, and it is scarcely conceivable that they can be accepted by anyone. A short attendance on one or two individual members during the year at the ordinary rates would be far more remunerative than the entire annual receipts from such a club, and every practitioner in the district may reasonably expect to be called in privately to attend one or two members of it during the year. There can, therefore, be no doubt that professional work ought not to be done at such a rate, and that it cannot be expected to pay.

ON THE TREATMENT OF GLEET BY THE URETHROSCOPE.

DR. ALFRED S. GUBB (*The Medical Week*, Gower Street, W.C.) writes: In reference to the paragraph in the BRITISH MEDICAL JOURNAL of January 12th, headed "On the Treatment of Gleet by the Urethroscope," I am requested by Dr. de Maurans, the Editor-in-Chief, to state that no copies of the number of the *Medical Week* containing the article in question were despatched from the office except to subscribers. The "Administration" consequently repudiates all responsibility for the distribution of copies to the clubs to which your correspondent calls attention.

NOTES, LETTERS, Etc.

APOMORPHINE IN SCIATICA.

DR RICHARD OWEN (Willesborough, Ashford, Kent) writes: Having a very severe and intractable case of sciatica, I proposed to give the patient, a man, a subcutaneous injection of morphine to obtain relief from the agony he was then suffering. A few minutes after doing so I was alarmed to hear a strange noise, and on looking towards the patient in bed, I saw him endeavouring to raise himself. He was blanched and cold, with enormous beads of perspiration dripping from his forehead. Emesis quickly supervened violently. Then I found, on looking at my case of hypodermics, that I had given apomorphine (gr. $\frac{1}{10}$). I was at once satisfied that there was no danger, though much alarmed at first, but was surprised before I left the room to find that the pain in the leg had almost entirely subsided. It gradually disappeared in a few days, and did not return again for twelve months, and then only a slight attack, not preventing him following his daily work as shepherd and farm bailiff. This attack has progressed favourably under iodide of potassium and gelseminum.

A MEDICAL RECIPE.

THE following lines are from a volume entitled *Poems and Sonnets*, by the late Dr. John Swanwick Drennan, of Belfast:

> By a patient too fair sat a doctor too young,
> With eyes more intent on her lips than her tongue;
> He tested her heart, as her pulse's recorder,
> But, alas! in his own was the latent disorder:
> And soon from the region in which it was bred
> This sad tremor cordis so muddled his head
> That, instead of some physic to mend her condition,
> He urged as a recipe: "Take your physician!"

A CHARMED LIFE.

DR. WHITFIELD PERKINS, Admiralty Surgeon, Port Isaac, Cornwall, writes: On December 31st, 1894, a heavy middle-aged man was walking on the edge of a cliff at Port Isaac, in Cornwall, when he lost his footing and fell to the beach beneath. He soon regained his lost consciousness and crawled along at the edge of the waves to a shelving spot where he shouted for help. He was rescued and brought home in a cart. I was in immediate attendance and found a superficial cut on the right temple and a somewhat severely sprained right wrist and right foot, no bones were broken, there was no dislocation or internal injury. The height of the cliff was measured by a gentleman of the place who found it to be 150 feet. The fall was probably once broken by the right foot catching in a projecting rock, as the sole of a thick boot was split in two, accounting for the sprain. But his wonderful preservation from fearful injuries was undoubtedly owing to the force of the wind, which, blowing half a gale against the face of the cliff, must have lowered him almost gently to the ground.

THE "DIPLOMA" OF THE OBSTETRICAL SOCIETY OF LONDON.

MR. ARTHUR H. RIDEAL, M.B. (Manchester), writes: In the BRITISH MEDICAL JOURNAL of January 5th I observe an advertisement of the City of London Lying-in Hospital for a matron and midwife, and a provision in the advertisement is that candidates for the appointment must hold the diploma of the Obstetrical Society of London.

Would it not be as well if our General Secretary were instructed to write calling the attention of the City of London Lying in Hospital to the fact that the General Medical Council has decided that the "diploma" in question is a legally worthless document, and that any medical man concerned in its issue in future will be considered guilty of infamous conduct in a professional respect?

ARCUS SENILIS AT TWENTY YEARS OF AGE.

DR. E. DONALDSON (Londonderry) writes: In the BRITISH MEDICAL JOURNAL for January 12th, Dr. C. H. Bedford records a case of arcus senilis at 20 years of age. He suggests the possibility of the opacity being due to the slight trachoma of the upper lids that existed in his patient. Might I offer the suggestion that the opacity may be congenital? In young persons opacities of the cornea closely resembling arcus senilis are sometimes found, and may be of inflammatory or non-inflammatory origin. They may result from fœtal keratitis, or may arise in the following way: The fœtal cornea is at first opaque, and gradually clears. Occasionally this process is arrested, and the cornea remains in part opaque. When we consider these possibilities, it is hard to be at all sure that the diagnosis of arcus senilis is correct.

OXYGEN LOCALLY IN THE TREATMENT OF WOUNDS AND ULCERS.

DR. CAMPBELL BLACK (Professor of Physiology in Anderson's College Medical School, Glasgow) writes: Will you be good enough to allow me to inform Mr. Stoker that so long ago as 1870, in my pamphlet on *Therapeutics and Disease*, published by Messrs. Churchill, I advocated the application of oxygenating agents to putrid wounds, and my reasons for doing so are there given in detail. After referring to specific local ulcerations and advocating the application of chlorides and other oxidisers to them, the following observation is made on page 44: "Then, if we have a specific auto-inoculable suppurating surface, as in scarlet fever, if fresh irritation and its pathological consequences are thus indefinitely perpetuated, then oxidising agents brought into contact with such surface facilitate the due degradation of tissue—prevented, as we have seen, by capillary stagnation, etc.—thus stimulate absorption, make place for the new tissue by restoring the cycle of changes which constitute normal function and thus call into coexistence a healthy action." I need hardly say that I have no belief whatever in the putridity and virulence of septic surfaces being due to germs, but that they are due to the presence of intermediate alkaloidal substances (ptomaines and leucomaines), and that I conceive the rational way to render them inert is Nature's method—that by oxidation—thus converting them into innocuous binary compounds.

DR. R. NEALE (Boundary Road, N.W.) writes: That Mr. Stoker's method of applying oxygen locally to ulcers and wounds is new I doubt not, but the use of oxygen locally to ulcers and wounds I am quite sure is not novel. Still, if I be mistaken, I shall be most happy to make the *amende honorable*.

A COSTLY DOG.

THE *Boston Medical and Surgical Journal* states that on December 21st a rabid dog bit no fewer than sixteen persons in the town of Salem, New Jersey, and of these seven are now under treatment at the New York Pasteur Institute. Others of those bitten are also to be sent to New York for treatment, and the total expense will amount to over 1,000 dollars (£200). It is stated that the cost will be borne by the Salem Glass Works Company.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(**A**) A.M.O.; Dr. F. P. Atkinson, Surbiton; C. C. Aitken, M.P., Barnsley; A. E. I.; Dr. J. Althaus, London; Alpha. (**B**) Dr. G. A. Bannatyne, Bath; Mr. L. Browne, London; Dr. D. C. Black, Glasgow; Mr. G. H. Broadbent, Manchester; Mr. W. A. Betts, Port Elizabeth; Mr. T. H. Brocklehurst, Westham; J. F. Boyes, M.B., Jersey; Mr. Blackett, London; Mr. F. Brett, Bridlington; Dr. T. Barr, Glasgow; Mr. W. Basset, Newport, Mon. (**C**) Mr. G. A. Cardew, Cheltenham; Mr. C. Campbell, Saddleworth; Dr. L. Cane, Peterborough; Mr. E. J. Cross, St. Neots; Sir Charles Cameron, Dublin; Mr. W. B. Campbell, Tacoma, U.S.A.; Mr. H. Collius, Birmingham; Cholera; Mr. J. R. Caldwell, St. Helena; Mr. F. E. Cockell, London; Cantab.; Mr. R. Cuffe, Woodhall Spa; Mr. M. T. Casey, Bruff; C. J. S. (**D**) Mr. R. Dudfield, London; Deputy; Dr. A. T. Davies, London; Mr. D. L. Davies, Criccieth; Mr. J. Mc.F. Dougall, Welburn; Deltoid; Mr. E. Donaldson, Londonderry; District Medical Officer. (**E**) Mr. J. S. Elsmore, London; P. S. Eves, M.B., London; Mr. E. East, London; Sir Peter Eade, Norwich; East London Hospital for Children, the Secretary of, London; Mr. W. N. Etches, Macclesfield. (**F**) F. I. C.; Dr. H. Fox, London; F.R.C.S.; Sir Joseph Fayrer, London. (**G**) Mr. T. Garner, London; Dr. W. Gordon, Exeter; Mr. H. Gilford, Reading; Dr. A. S. Gubb, London; J. W. Grant, M.B., Woburn Sands; Mr. C. G. Grant, London; Mr. A. C. Goodwin, Cheltenham. (**H**) Dr. G. E. Harrison, Sunderland; Mr. T. Hunt, London; Messrs. Holt, Webb, and Co., London; Mr. J. Hutchinson, London; House-Surgeon; Mr. R. Harrison, London; Surgeon-Colonel R. Harvey, Calcutta; Dr. J. A. Hutton, Scarborough; Mr. G. H. Hawkins-Ambler, Liverpool; Dr. F. T. Hewetson, London; Mr. A. F. Hopkirk, London; Mr. H. Hitchon, Heywood. (**I**) Dr. F. Isdell, London; Inquirens. (**J**) Dr. W. J. Jacques, Chicago; Dr. C. E. Jennings, London; Mr. W. Jones, Liverpool; Mr. D. J. Jones, Clydach Vale; Dr. G. L. Johnson, London; Mr. G. J. Johnston, Dublin. (**L**) Mr. G. Lewis, London; Mr. T. B. Law, Glasgow; Dr. R. Lee, London; Dr. H. G. Lys, Bournemouth; J. Limont, M.B., Newcastle-on-Tyne; Laryngological Society of London, the Secretary of, London; Dr. H. C. Linden, Compton Martin. (**M**) Mr. W. L. Morgan, Oxford; Sir William Moore, London; Messrs. Maskery and Co., Warrington; Medical Officer of Health; Mr. W. A. Manning, Wylde Green; Mr. D. Murray, London; Mr. F. W. D. McGachen, Southsea; M.D.; Member B. M. A.; Dr. C. W. M. Moullin, London; M.B.; Dr. A. MacGregor, Aberdeen; Dr. C. Mercier, London; Mr. P. J. May, Manchester; Dr. F. W. Mann, Ashton-under-Lyne; Dr. L. J. Minter, Rotherham; Mr. A. E. Morris, Parkhurst. (**N**) Mr. W. G. Nash, Bedford; Dr. R. Neale, London; Mr. N. H. Nixon, London; Nemo. (**P**) Poor Law; Dr. A. Paterson, Bridge of Allan; Messrs. Pitt and Scott, Liverpool; Mr. E. J. Pryse, Keighley. (**Q**) Mr. S. M. Quennell, London. (**R**) G. Rose, M.B., Aberdeen; Dr. H. Renney, Sunderland; Mr. A. W. M. Robson, Leeds; Roma; Mr. J. Roberts, Melton Mowbray; Dr. J. Reynolds, London; W. G. Richardson, M.B., Newcastle-on-Tyne; Dr. R. Ryan, Bailieborough; W. J. Richard, M.B., Govan; Mr. M. F. Ryan, London. (**S**) Mr. A. P. Stevenson, Nottingham; A. M. Sheild, M.B., London; Dr. Dr. F. J. Smith, London; Dr. R. Sinclair, Dundee; Mr. E. Swales, Sheerness; Surgeon-Major, Mr. P. H. M. Star, Chilton; R. H. Shaw, M.B., New Mills; C. E. G. Simons, M.B., Merthyr Tydfil; Mr. W. Scatchard, Boughton-sub-Blean; C. Saunders, M.B., London; Mr. C. Smith, Southsea. (**T**) Mr. L. A. Tallerman, London; Mr. E. B. Treat, New York; T. M. (**U**) C. T. D. Urquhart, M.B., Aberdeen. (**W**) Mr. E. W. Wallis, London; W. V. M.; G. E. Williamson, M.B., Newcastle-on-Tyne; Dr. J. W. Washbourn, London; Dr. D. C. Wray, Skegness; Messrs. J. Weiss and Son, London; E. B. Waggett, M.B., London; Mr. H. T. Wharton, London; Dr. J. Williams, London; Mr. A. Winkfield, Oxford; Mr. H. Watkins-Pitchford, Blackwater. (**Y**) Dr. E. G. Younger, London; etc.

BOOKS, Etc., RECEIVED.

The Rearing and Feeding of Children (A Practical Mother's Guide). By Dr. T. Dutton. London: Hirschfeld Bros. 189 . 2s.

The Retrospect of Medicine. Edited by Dr. J. Braithwaite. Vol. 110, July to December, 1894. London: Simpkin, Marshall, Hamilton, Kent, and Co.

Herbert Fry's Royal Guide to the London Charities. Edited by John Lane. London: Chatto and Windus. 1894. 1s. 6d.

A System of Legal Medicine. By Dr. A. McL. Hamilton and L. Godkin. Vol. I. New York: E. B. Treat. 1894. $5.50.

The New Annual Army List, Militia List, and Yeomanry Cavalry List for 1895. By the late Lieutenant-General H. G. Hart; edited by his son. London: John Murray. 1895.

Tables and Directions for the Qualitative Chemical Analysis of Moderately Complex Mixtures of Salts. By M. M. P. Muir, M.A. London: Longmans, Green, and Co. 1895. 1s. 6d.

Gehirn und Seele: Rectoratswechsel an der Universität Leipzig am 31 October, 1894. Von Dr. Paul Flechsig. Leipzig: Alexander Edelmann. 1894.

Leitfaden der gerichtlichen Medicin. Von Dr. K. J. Seydel. London: Williams and Norgate. 1895.

Monatsschrift für Geburtshülfe und Gynäkologie. Herausgegeben von Professor A. Martin und Professor M. Sänger. Heft 1. London: Williams and Norgate 1895.

On the Eccentricity of Youth leading to Crime. By L. Forbes Winslow, M.B. London: John Bale and Sons. 1895. 1s.

*** In forwarding books the publishers are requested to state the selling prices.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	...	£0 4 0
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A page	...	...	...	5 5 0

An average line contains six words.

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Post-Office Orders should be made payable to the British Medical Association at the West Central Post-Office, High Holborn. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to recieve letters at *Postes Restantes* addressed either in initials or numbers.

[1] BRITISH MEDICAL JOURNAL, January 12th, p. 119.

THE LETTSOMIAN LECTURES

ON THE

COMBINATIONS OF MORBID CONDITIONS OF THE CHEST.

Delivered before the Medical Society of London.

BY FREDERICK T. ROBERTS, M.D.,

Professor of Materia Medica and Therapeutics at University College; Physician and Professor of Clinical Medicine at University College Hospital; Consulting Physician to the Brompton Hospital for Consumption and Diseases of the Chest.

LECTURE I.

DR. ROBERTS, in his introductory remarks, observed that, though it was well known that the majority of chest cases did present combinations of morbid states and were not cut and dried examples of individual diseases, such as they were described in textbooks, yet his observation had forced him to the conclusion that the fact was by no means so generally recognised and appreciated as it ought to be, and, further, that certain conditions of real consequence were often entirely ignored. A not uncommon practice was to entertain an incomplete conception of the contents of the chest, and he enumerated the following structures as those which had to be borne in mind:

1. The chest walls, including the superficial and muscular tissues, as well as the bony and cartilaginous framework.
2. The diaphragm, a structure as a rule entirely forgotten and ignored.
3. The lungs and pleuræ, with the trachea and its primary bronchial divisions.
4. The heart and pericardium, with the great vessels, both arteries and veins.
5. The less prominent contents of the mediastinum, including the œsophagus, absorbent glands, thoracic duct, certain important nerves, not forgetting even the thymus gland, and the mediastinal cellular tissue.
6. The abdominal viscera contiguous to the diaphragm, which, though not actually contained in the thoracic cavity, come normally more or less within the area covered by the ribs, especially the liver, stomach, and spleen.

By morbid conditions he understood both functional disorders and organic changes. The organic changes might, he said, be grouped as follows:

1. Those which are not injurious in themselves, but are important on account of the physical effects which they produce, and this class of lesions are often the remains of some previous acute or active disease.
2. Permanent structural changes impairing the functions of organs.
3. More or less acute diseases or morbid conditions, which are temporary, inasmuch as, if they do not prove fatal from their extent or severity within a limited period, they, as a rule, clear up in the ordinary course of events, or are restored to the normal state when their determining causes are removed.
4. Changes which are grave in themselves, either from the immediate danger due to some serious lesion; from their essentially fatal tendency: from being of a destructive type, or of a septic and infectious nature; or because they become the occasion of, or predispose to, dangerous secondary lesions.
5. Morbid conditions, often obvious enough and persistent, but which in reality are of a curative or compensatory character. These may be quite harmless, or even in a way beneficial and helpful, but not uncommonly they become more or less injurious from a physical point of view, or they are accompanied with impairment of function, owing to the permanent damage done to the affected organ, of which they are the evidence and outcome.

GENERAL CLASSIFICATION.

Entering, then, upon the proper subject of the course of lectures, Dr. Roberts presented the following table, being a general classification of the combinations of morbid conditions of the chest:

TABLE I.—*General Classification of Morbid Conditions of the Chest, and their Combinations.*

I. Conditions of chest walls and diaphragm.
II. Slight or indefinite intrathoracic changes.
III. Combinations of changes belonging to Nos. I and II.
IV. Secondary effects of certain intrathoracic physical conditions.
V. Combinations of chronic chest diseases or their remains.
VI. Combinations in acute cases.
VII. Combinations due to accidental lesions or complications, usually sudden.
VIII. Combinations associated with sudden or acute disorders of function, temporary or paroxysmal.
IX. Combined conditions originating from the abdomen.

I.—CONDITIONS OF CHEST WALLS AND DIAPHRAGM.

These structures, the former especially, were always well worthy of consideration in dealing with thoracic cases. Information might be obtained sometimes from an examination of the skin of the chest. Marks of cupping or leeching would suggest that the patient had had an acute intrathoracic inflammatory attack at some time, or a scar might draw attention to a former operation for pleural effusion or empyema. Painful sensations were certainly in many cases of internal disease connected with the superficial structures, and there might be cutaneous hyperæsthesia, or spasm of the muscle. Pleurisy, the results of which might persist in the form of adhesions, might be associated with herpes zoster, with an extensive burn or scald of the chest wall, or with injury. On the other hand, certain states of the chest wall occasioned internal derangements, as in the case of a cleft sternum, or of a ruptured muscle allowing a hernia of the lung to take place.

TABLE II.—*Conditions of Chest Walls and Diaphragm.*

I. Painful or other morbid sensations; cutaneous hyperæsthesia.
II. Muscular disorders; excessive irritability, spasm, cramp, paralysis.
III. Superficial conditions; cyanosis, enlarged veins, œdema, subcutaneous emphysema, eruptions, scars, excessive fat.
IV. Wasting of soft structures, especially muscles; local muscular atrophy.
V. Alterations in shape and size; small chest, overdistended chest, general deformities, unilateral and local changes.
VI. Softness of the ribs; changes in rickets and osteomalacia.
VII. Rigidity of the chest walls.
VIII. Changes resulting from injury, or associated with particular diseases; empyema, peripleuritis, aneurysm, malignant or other growths diseases of bones or cartilages, sinuses or fistulæ, actinomycosis.
IX. Congenital clefts or deficiencies; rupture or perforation of muscles
X. Conditions of diaphragm:
  (1) Functional disorders: spasm, paralysis.
  (2) Mechanical embarrassment or displacement.
  (3) Acute inflammation; diaphragmatic pleurisy.
  (4) Adhesion to neighbouring structures.
  (5) Chronic structural changes; atrophy, fatty degeneration, fibroid changes.
  (6) Rupture, perforation, or congenital deficiency.

Dr. Roberts then proceeded to discuss certain individual conditions of the chest wall associated with internal diseases, which were simple and of frequent occurrence, but were yet often overlooked and neglected in practice.

1. *Wasting of the superficial tissues and muscles*, to be observed most conspicuously, but not solely, in phthisis, did not perhaps in its minor degree contribute appreciably to the troubles of the patient, but, if neglected in physical examination, might lead to serious mistakes in diagnosis. It must not, moreover, be regarded merely as a part of the general emaciation, for when well marked it might add materially to the difficulties of the acts of breathing, coughing, and expectoration, and thus assume a special importance, or be an immediate source of danger.

2. *Softness of the ribs* must during early life be constantly borne in mind, since when it was present any obstruction to the passage of air, or even a slight bronchial catarrh, but still more serious bronchitis or pneumonia, became important. The importance of this factor in the aggravation of the severity of chest affections was obviously greater in children suffering from rickets.

3. *Rigidity of the chest walls* should be looked for in adult life, and an attempt made to estimate its effects. The changes, Dr. Roberts said, which produce the rigidity are well known, consisting of undue calcification of the ribs and sternum, with incomplete ossification or calcification of the cartilages; while changes also take place in the joints, which

ultimately lead to their more or less complete ankylosis. Of course these changes develop naturally with advancing age, and there is at any rate no excuse for overlooking them in old people; but the more or less "rigid chest" is quite frequently met with in individuals who have not yet reached middle life, and in the ordinary run of practice it is astonishing how often it is revealed in the examination of even young subjects. Under these circumstances it is generally obviously traceable to the effects of hard physical work, excessive indulgence in athletic and allied exercises, injudicious training for the public services, and like causes, but by no means always. I wish to draw special attention to the fact that the changes which lead to rigidity of the chest walls may be but a part of the entire case, developing along with other morbid processes which are taking place within the thorax, or being in some instances probably the secondary result of these processes. Anyhow we have to deal with a combination of conditions in which this rigidity is anything but an insignificant factor. Occasionally one meets with a very fixed chest in young subjects, the explanation of which is not at all evident. In some of these cases, at any rate, I am inclined to think that congenital syphilis partly accounts for the change. The most obvious consequence of rigidity of the chest walls was interference with both the expiratory and inspiratory movements. If associated with internal thoracic disease its effects at once became apparent, especially if the thorax happened to be of small capacity. It added, for instance, to the severity of a slight bronchial catarrh, and became a real source of danger in acute inflammatory affections within the chest, especially those, such as pleuritic or pericardial effusion, which led to encroachment upon the thoracic cavity. The importance of this condition in chronic affections was, he thought, not generally recognised, and Dr. Roberts drew special attention to the dangerous position in which a person with rigid chest, in whom extensive vesicular pulmonary emphysema subsequently developed, was placed. Cases were met with in which rigid chest walls would not yield before a greatly enlarged heart, and in consequence that organ encroached upon the thoracic space, interfering with the other contents of the thorax and with the diaphragm, so that the symptoms were much more severe than they would otherwise have been.

4. *Abnormalities in shape and capacity and chest deformities* were important in themselves as well as in their connection with intrathoracic changes, and Dr. Roberts held that a contracted chest of small capacity, whether the outcome of natural delicacy, want of proper development, or of internal disease, ought to be considered a morbid condition. So also an over-distended chest was in itself actually morbid, and not merely an indication of internal disease, a fact of which athletes might well take note. Unilateral and local changes in the shape and size of the thorax should not be regarded merely as physical signs of various conditions, but rather as constituting a part of the entire group of morbid changes presented by the patient.

5. *Conditions affecting the diaphragm*, mentioned in the table, were in not a few instances important factors in connection with intrathoracic diseases, of which he would give some illustrations later on.

II.—Indefinite Internal Conditions.

This term was applied to certain changes taking place within the chest, because they gave rise to no evident symptoms. They were of common occurrence. Often they could only be detected by careful methodical physical examination, while in other cases their presence could be at most only reasonably suspected as a matter of inference rather than of actual demonstration. These were:

1. Localised pleuritic, or possibly pericardial adhesions.

2. Ill-defined changes in the pulmonary structures, such as senile atrophy, lesser degrees of over-distension of the lungs, or even of true vesicular emphysema, commencing degeneration impairing the pulmonary elasticity and expiratory force, and limited fibrotic changes, the remains of a cured phthisis or other past lesion.

3. The lesser degrees of atheromatous degeneration of the thoracic aorta and its main branches.

4. Atrophy or early degenerative changes affecting the heart walls, or infiltration of its muscular tissue with fat.

After a brief reference to cases of transposition of the viscera, Dr. Roberts observed that most of the changes mentioned came on gradually and imperceptibly, as the result of the wear and tear of life, or of the other causes mentioned as leading to changes in the chest walls. Others were the remains of some past illness, of which the patient might or might not retain a distinct remembrance. Intrathoracic adhesions to a considerable extent were often found *post mortem*, as to the origin of which nothing could be traced. Though their existence was often unrecognised during life, he believed that many such adhesions could be easily detected by proper examination.

III.—Combinations of Changes belonging to I and II.

There is, he said, a distinct group of cases, of which he had seen numerous examples, and which are characterised by the presence of certain of these conditions in combination, affecting both the walls and the contents of the thorax, and therefore assuming a degree of importance which they would not otherwise possess. In these cases the superficial structures are more or less wasted, it may be considerably; the chest walls are obviously rigid; localised pleuritic adhesions can be made out, it may be in several spots; there are no gross lesions to be detected in the lungs, but these organs are evidently wanting in normal elasticity, and tending towards degeneration, perhaps also exhibiting limited areas of emphysema, or there is a suspicion of a fibrotic change here and there; sometimes there are indications of commencing atheroma of the aorta, or the heart is feeble in its action, and is probably of actually small size. Now I maintain that cases of this kind ought to be definitely recognised, though it is difficult or even impossible to apply to them any particular designation. They do not exactly belong to the chronic emphysematous or the phthisical group, and they can only be included under that somewhat vague category known as a "weak chest." The patients who suffer from this combination of changes are fully aware of their existence, for at any rate they affect their breathing powers considerably, while they render them extremely susceptible to the effects of even a slight cause likely to act injuriously upon the respiratory organs. Still, so long as they keep quiet, and consent and are able to remain in a comfortable house or room during the colder seasons of the year, or to reside in some more genial and suitable climate than ours, they get on very well. Let them, however, have even the slightest bronchial catarrh, or still more a pronounced acute bronchitis or a pneumonic attack, and their troubles increase at once in a marked degree, while the danger to life also becomes for obvious reasons very serious, quite out of proportion to the acute illness in itself, and I know of few more anxious combinations of conditions to deal with in practice.

IV.—Secondary Effects of Certain Intrathoracic Physical Conditions.

Although the point to which I wish to refer under this heading fairly comes within the scope of my subject, in order to render it complete, I do not propose to discuss it at any length, as the more definite combinations of conditions likely to be met with belonging to this group must be familiar to every well-informed medical practitioner. What I want to bring into prominence is the fact that, given a particular physical condition within the chest, others are likely, or in many instances certain, to be produced by it as secondary consequences, varying within well-known limits in their nature and degree according to circumstances. Hence it happens that the case presents itself as a more or less complex one, there being a combination of morbid conditions, which it is incumbent upon us to recognise, at the same time endeavouring to determine and estimate how far each contributes to the sum total of the clinical phenomena observed. It is too much the custom to look upon these secondary effects as mere "physical signs" of the primary condition, their real importance in themselves being overlooked, or at any rate not adequately appreciated. As illustrations of the more prominent conditions which originate this more or less complicated state of things, to some of which I shall have again to refer, I may mention a large fluid or gaseous accumulation in the pleural cavity, or a much thickened and extensively adherent pleura; pericardial effusion; marked general

emphysema; and an intrathoracic tumour of any description, whether aneurysmal, solid, or of other kinds. I may draw attention to one special point in this connection—namely, that when from any cause the action of either lung is extensively interfered with, the opposite one almost necessarily undergoes compensatory enlargement, and the combination may be easily misunderstood unless due care be exercised.

V.—Combinations of Chronic Diseases, or their Remains.

Combinations of definite chronic morbid conditions of the contents of the chest are to be met with in almost endless variety. In speaking of the remains of chronic disease Dr. Roberts intended to refer to morbid changes which had ceased to be active, and were often the manifestations of the arrest of destructive or other injurious processes, and of an attempt at repair. The chief conditions to be dealt with were enumerated in the following table:

Table III.—*Combinations of Morbid Conditions in Chronic Cases.*

I. Respiratory apparatus.
  (1) Pleuritic.
  (2) Pulmonary and air tubes { (*a*) Phthisical. (*b*) Emphysematous and bronchitic. (*c*) Chronic pneumonic. (*d*) Syphilitic. (*e*) Mixed.
  (3) Pleuritic and pulmonary.
II. Pericardial, cardiac, and vascular.
III. Respiratory and circulatory.
IV. Special diseases: aneurysm, glandular enlargements and tumours, hydatids, actinomycosis, œsophageal pouching.
V. Independent diseases.
VI. Highly complicated conditions.

I.—Respiratory Apparatus.

1. *Pleuritic.*—There is, the lecturer continued, a definite class of chronic chest cases in which we have practically to deal with prominent morbid states of the pleura, and their immediate consequences. They have either started in a well-marked attack of pleurisy with effusion, or have followed an empyema which has opened into the lung, or been operated upon, or have sometimes developed slowly and imperceptibly. In exceptional cases they appear to have originated in a limited pneumothorax, which has probably been associated with phthisis, the progress of this disease having been checked by the pleural lesions. The large majority of chronic pleuritic cases are simple enough, but in some instances the conditions are decidedly complicated, and we may meet with various combinations of adhesion, great thickening, localised collections of fluid, or possibly even the remains of a pneumothorax or pyo-pneumothorax. Nor must I forget to note here that the pleura may be the special seat of an extensive tuberculous or malignant infiltration, which still further complicates matters. The important practical lesson for us is that, when brought into contact with what is obviously a chronic pleuritic case, we must not jump to the conclusion that we have to deal simply with an effusion, a conclusion to which a superficial and careless examination might easily lead; and we must always further remember the possibility of some of the conditions being of a very grave nature.

2. *Pulmonary and Air Tubes.*—Of course there is no definite line of demarcation between the bronchial ramifications and the other tissues which enter into the construction of the lungs, and it is a familiar fact that they are all more or less implicated in a large number of cases. Under this head, however, it will be convenient to allude to certain lesions affecting the main air passage or its primary bronchial divisions, which are liable to be met with in connection with some lung diseases. The sub-divisions given in the table indicate, I think, fairly clearly the aspects under which the large majority of chronic pulmonary cases come before us in practice, and I propose to say a few words about each.

(a) Phthisical.—Under this head Dr. Roberts observed that there was a tendency to concentrate attention too much on bacilli, and a want of due appreciation of the actual morbid changes which ordinarily characterised phthisical cases, especially as regards their extent and combination. The changes in the lungs, setting aside other thoracic structures, were definite, often pronounced, and in cases of some duration were usually found to be more or less combined, culminating ultimately in a highly complicated state. As the evidence and results of the phthisical process in these organs, he continued, we have to deal with distinct areas or masses of consolidation, tuberculous, inflammatory, caseous, or mixed; miliary tubercles, diffused or in groups; softening of these structures, and breaking-down, leading to destruction of the pulmonary tissues; cavities in all varieties of size, shape, characters of walls and surroundings, and contents, more or less suppuration usually taking place in them; as well as with changes indicating a tendency to arrest of the disease in places, and to a reparative process, especially the formation of a fibroid tissue, which leads to induration and contraction of the affected portion of lung, with narrowing and, it may be, even ultimate closure of cavities. Then we have to recognise also in many cases an associated bronchitis, which contributes more or less to the expectoration; while in some instances there are definite tuberculous ulcers in the larger bronchi or the trachea. The more pronounced laryngeal complications of phthisis hardly come within the scope of my subject, as the larynx is outside the thoracic cavity, but I may point out that laryngeal symptoms are occasionally produced by the effect of phthisical changes upon intrathoracic nerves, and these must also not be overlooked. Again, in parts of the lungs not actually phthisical, compensatory distension, or so-called emphysema, is often met with; and, further, there are vascular changes, but the only one I need specially mention is the possible development of an aneurysm on a branch of the pulmonary artery within a cavity. In that special group of cases known as "mechanical phthisis" there is the additional element of the solid foreign particles infiltrating the lung tissues.

(b) Emphysematous and Bronchitic.—The term emphysema was often used, the lecturer said, in a very loose fashion, to signify any abnormal distension of the lung with air, whether general, unilateral, or local. He was concerned, however, with the real disease, in which not only were both lungs more or less enlarged, but their tissues had undergone certain structural changes, evidenced chiefly by impairment or loss of elasticity. Bronchitis was in many instances the primary disease, and, indeed, could not persist for any length of time without producing more or less emphysema, even in early life. Even in ordinary cases it was desirable to determine the degree of distension of the lungs, the amount and nature of the changes in their tissues, the degree to which elasticity was impaired, the kind of bronchitis with its amount and mode of distribution, and the state of the chest walls. The effects of emphysema upon the chest walls and diaphragm, as well as its association with chest deformities, deserved consideration, as they were often essential parts of the case. The degree of rigidity of the chest walls also deserved study; and it should be recognised that from time to time the distension of the lungs became greater, owing to the escape of air being obstructed by the conditions of the bronchi. These conditions might pass away, and then the lungs would diminish in bulk, and their movements improve in proportion. Not only must the different varieties of bronchitis be borne in mind in this connection, but also the fact, Dr. Roberts added, that the walls of these tubes are in time likely to undergo serious permanent changes, their mucous lining likewise becoming disorganised, and finally more or less extensive bronchial dilatation being often established. Bronchiectasis should more especially be remembered as a possible condition, because extensive emphysema will often completely obscure the physical signs which may be expected to reveal the presence of the dilated tubes. I may mention here that plastic bronchitis is a rare variety met with, which may be associated with a more or less emphysematous state of the lungs.

(c) Chronic Pneumonic.—There are the well-known cases of chronic interstitial pneumonia, which are described under the terms "cirrhotic or fibroid lung," "fibroid phthisis," etc. These become in time decidedly of a complex nature, in whatever way they may have originated. The fibroid change is limited in most cases mainly or entirely to one lung, or a portion of it, which is thus hardened and contracted, the involved structures being rendered quite useless. It is also often accompanied with the remains of phthisical cavities, and still more frequently with dilated bronchi; while unaffected areas of the same lung, as well as the oppo-

site one, become the seat of compensatory distension, which may ultimately terminate in true emphysema. Sometimes both lungs are involved in unequal degrees; or, if one is not fibrotic, it is frequently the seat of bronchitis. There is an exceptional class of chronic pneumonic cases which I must just mention, as they may prove very puzzling. In these one lung is either throughout, or over a large extent, absolutely solid, but, instead of being contracted, it is more or less enlarged. The opposite lung becomes greatly distended, and also in some instances the seat of dry bronchial catarrh; so that the general aspect of the patient, as well as the prominent symptoms, may resemble closely at first sight those of an extreme case of emphysema and bronchitis, with an asthmatic tendency.

(d) Syphilitic.—Time forbids my doing more than allude to these cases, which are somewhat indefinite from a clinical point of view, though they occasionally present distinct combinations of different morbid conditions, which it may be possible to recognise during life.

(e) Mixed.—I have already given illustrations of mixed conditions in the lungs in my discussion of the specially-named groups, but I have thought it desirable to designate by this term a particular class of cases, in order to emphasise the fact that any of the pulmonary lesions which I have been thus far considering may be met with together in almost every conceivable variety of combination. There are two points to which I more especially wish to draw your attention in this connection. I have heard it often stated, and it seems to be rather a prevalent idea, that emphysema and tuberculosis are antagonistic, and are rarely observed together. Now, as a matter of fact, phthisical changes are not at all uncommon even in markedly emphysematous lungs, while it is quite usual to find the two conditions associated together in different parts of the same organs. Under these circumstances the physical signs of the tuberculous lesions are very likely to be obscured, and we may have to rely very much on the symptoms in their diagnosis. The other point to which I must refer is the relation between phthisis and chronic bronchitis. There is a distinct class of cases in which chronic bronchitis having existed in a more or less pronounced form for a variable period, tuberculous changes ultimately supervene, which are easily explained on the bacillary theory, and the clinical phenomena reveal definitely enough a combination of the two diseases. The danger is lest the development of the tuberculous lesion under such circumstances be not recognised, and my observations have led me to the conclusion that not a few cases regarded as bronchitic are in reality phthisical, and that they are so recorded in death certificates, a most important matter, in my opinion, in relation to life insurance and to the question of the heredity of consumption. This oversight is especially liable to happen in the case of patients advanced in years, a statement in support of which I could mention many examples from personal knowledge.

3. *Pleuritic and Pulmonary.*—If I were to attempt to discuss in detail the different kinds of cases in which pulmonary and pleuritic conditions exist together, the subject would take up at least the whole of the time allotted for one of these lectures. I must, however, on the present occasion content myself with merely stating emphatically the fact that these combinations do frequently present themselves under different aspects in practice, and giving a few prominent illustrations in support of my assertion.

First, we have to deal with fairly simple cases, in which, as the result of a definite attack of pleurisy with effusion, or perhaps an empyema, the effects produced by these conditions on the lungs remain persistent, though there is no further active mischief in these organs. That is to say, the lung on the affected side continues in a more or less condensed or collapsed state, being bound down by pleural adhesions, probably becoming also, in course of time, somewhat fibroid; while the opposite one presents various degrees of distension or compensatory hypertrophy. This combination may remain quiescent for an indefinite period. Sometimes the effusion in the pleura is not cleared, or there may even be the association of chronic changes previously referred to.

Secondly, it must be constantly borne in mind that pleural adhesions, varying in extent and situation, but often well marked, and frequently accompanied with more or less thickening, are most important factors in a large number of cases belonging to the pulmonary groups considered under the previous heading. I lay special stress on this point, because my experience has convinced me that by many these pleuritic conditions are never even thought of under such circumstances; while they are frequently overlooked when evidently producing very troublesome or serious effects. In chronic phthisis, for instance, it is quite common to find one lung universally adherent, the change often extending much beyond the limits of the actual pulmonary disease; while the opposite organ may be also partially fixed in a similar way. Of course, in some of these cases the phthisis is secondary to the pleuritic condition, but the lesions as they come before us are practically the same. It is at the present time a favourite doctrine that most cases of pleurisy are originally tuberculous; but without discussing this doctrine I must be permitted to say that I do not agree with it as a general statement, although I fully recognise the great importance of pleuritic conditions in relation to phthisis, and that the changes are often truly tuberculous. Then, with regard to emphysema and bronchitis, local adhesions are very frequent in association with these affections. There is a very definite class of cases of this kind, in which a more or less extensive and usually very firm adhesion binds down the upper part of one lung, this being sometimes associated with a chronic mediastinitis. A somewhat complicated class of cases occasionally present themselves, which without due care are very liable to be regarded as merely "emphysematous and bronchitic." Their history is that the patient has had a distinct attack of pleurisy, which has left one lung universally adherent, and probably somewhat compressed, while the opposite lung has undergone compensatory hypertrophy. In course of time, however, the enlarged organ becomes truly emphysematous, and ultimately greatly distended, while the compressed lung may also expand under certain circumstances, and subsequently become emphysematous. Dry bronchial catarrh or chronic bronchitis is frequently added to these conditions, and should phthisis supervene as well, as may actually happen, the case comes to present a highly complicated aspect. I have had the opportunity of watching some cases of this kind in their progress and development, and I must say that occasionally they ultimately become decidedly puzzling. In connection with the fibroid lung the pleura is usually very much thickened and the adhesions very dense, while the lobes of the organ are also firmly matted together. Some of these cases have undoubtedly originated in pleuritic changes, but into any discussion of this subject I cannot now enter.

Thirdly, there are definite cases of a chronic phthisical nature in which pulmonary and pleuritic lesions exist together in a pronounced form, including perhaps the remains of a pneumothorax, and the combination may be very perplexing. Occasionally one meets with phthisis at one apex and an effusion on the opposite side, which returns again and again after removal by paracentesis, being evidently of a tuberculous nature. Exceptional instances occur in which the combination of conditions affecting the lungs and pleuræ is extremely complex. Extensive thick adhesions and tuberculous infiltration, with perhaps the remains of effusion or a pneumothorax; marked emphysema in parts; phthisical lesions of all kinds, with fibroid changes and dilated bronchi; and bronchitis—all are jumbled up together in inextricable confusion.

Lastly, an important class of cases, where the pleura and lung are involved together, are those in which an empyema has burst into the lung, and the discharge of pus in this direction has persisted as a chronic state, the matter being usually coughed up at intervals. In short, we have then to deal with a pyo-pneumothorax, which is periodically emptied, partially or entirely, by way of the air passages. The state of the lungs under these circumstances varies much in different cases, and may be very difficult to determine with any approach to accuracy.

II.—Pericardial, Cardiac, and Vascular.

Under this heading it was pointed out that in dealing with the pericardium, heart, and great vessels clinically, it was helpful to have a systematic and comprehensive knowledge

of the changes to which they were liable. Certain of them were not infrequently forgotten in dealing with individual cases. They were summarised in the following table:

Table IV.—*Chronic Pericardial, Cardiac, and Vascular Conditions.*

I. Pericardial adhesion or agglutination, calcification, chronic effusion or pyo-pericardium (rare).
II. Cardiac:
  (1) Affections of orifices, valves or their appendages, and endocardium.
  (2) Enlargements of heart:
    (*a*) Hypertrophy } Varying in degree, distribution, and
    (*b*) Dilatation } relative combination.
  (3) Atrophy, diminution in size.
  (4) Fatty infiltration.
  (5) Myocardial changes; fatty degeneration, connective tissue hypertrophy, fibroid myocarditis, brown atrophy and other peculiar degenerations.
  (6) Rare conditions, cardiac aneurysm, growths, hydatids.
  (7) Congenital malformations; traumatic rupture of septa.
III. Vascular:
  (1) Atheroma or calcification of aorta and large branches; dilatation.
  (2) Aneurysm of various kinds.
  (3) Degeneration and narrowing of coronary arteries.
  (4) Dilated large veins; incompetency of valves.
  (5) Changes in pulmonary artery.

Without attempting to discuss the several ways in which the morbid conditions mentioned in the table might be associated, Dr. Roberts submitted the following propositions:

1. That cases of cardiac diseases are, in relation to the structures immediately concerned, in a large proportion of cases by no means so simple as they are often thought to be, and that most of them must inevitably at some period or other of their history present various combinations of morbid changes. They cannot, and ought not to be summarily dismissed as presenting this or that "murmur," even when a grand name is attached to it; or under the comprehensive and sometimes meaningless expression "enlarged heart."

2. That pericardial adhesion or agglutination is a most important element in not a few chronic heart cases, and should therefore always be borne in remembrance, especially as it can frequently be easily recognised.

3. That in every individual case it is essential to think of all the conditions associated with the heart itself referred to in the table, and to study them intelligently, being guided by an adequate general knowledge of the probable combinations which may be anticipated under particular circumstances. I may allude here to the fact that it is quite common to find two or more orifices and their valves affected in the same case, and the well known consequences of these lesions will be modified accordingly. Congenital malformations, and other peculiar classes of cases, must of course be regarded from their own special aspects.

4. That functional disorder of the action of the heart does often modify, from time to time, or even persistently, in a remarkable way and degree, the phenomena associated with organic cardiac affections, both symptoms and physical signs, and it should therefore be made a rule to study systematically in every case the mode in which the heart is performing its functions, in relation to the organic changes that happen to be present. In short, we have frequently to deal with a combination of organic diseases and functional derangement of this organ, which it is most important to recognise and understand.

5. That it is also of the highest importance always to attend to the great vessels within the chest and those of the neck, as these are commonly affected in various ways along with the heart, or may reveal conditions of this organ which cannot otherwise be definitely determined. The frequency of extensive atheroma or calcification of the aorta and its large branches in cases of cardiac disease ought never to be forgotten, or there may even be dilatation or an aneurysm. In this connection attention may also be specially drawn to similar changes affecting the coronary arteries, although it may be very difficult positively to determine their presence. Certain conditions of the veins, which are really morbid, are likewise of great significance and consequence, especially in relation to abnormal states of the right heart.

III.—Respiratory and Circulatory.

Under this head Dr. Roberts referred to the effects of mitral disease of the lungs on the one hand, and on the other of prolonged emphysema or bronchitis, or certain other conditions obstructing the pulmonary circulation of the right heart. He referred also to the covering of the heart by emphysematous lung, or its exposure by the contraction associated with chronic phthisis. He mentioned also that contractile changes might embarrass the action of the heart or displace it; and that a very large heart compressed the left lung, so that it might even become completely collapsed and airless. In another class of cases both lungs and heart might be affected by the same morbid process, as, for instance, by acute inflammation: further, certain of the causes which produced over-distension of the lungs and rigidity of the chest walls acted at the same time upon the great arteries, or even upon the aortic valves, producing a very serious combination of conditions. Certain chronic changes, especially those of a tuberculous nature, commencing in the one set of organs, might spread to the other.

IV.—Special Diseases.

Cases belonging to this class were enumerated under this head as given in Table III, but Dr. Roberts confined his remarks to aneurysm and glandular enlargements, or other kinds of intrathoracic tumour, as to which he said: It is necessary to be constantly on the look out for these kinds of cases, and especially aneurysm, for, although they are of comparatively infrequent occurrence, we never know when they may come under our notice. I say this advisedly and emphatically, because I have met with some striking instances in which an aneurysm has been entirely overlooked when the conditions present, which had been produced by the aneurysm, clearly pointed to this disease as the primary source of the chest troubles. Enlarged bronchial or other glands within the chest is another condition to be remembered, especially in children. In relation to a thoracic aneurysm or solid tumour, we have not only to think of these conditions in themselves, but also of their effects upon adjoining structures. These must be well known to every properly educated and intelligent practitioner, and as a rule it ought not to be difficult to understand the phenomena resulting therefrom in individual cases. The changes may be of a pronounced and definite physical nature within the chest, such as collapse or compression of a lung, consolidation or destruction of a portion of this organ, chronic pleurisy and its results, hydrothorax, cardiac displacement, etc.; but it is in these classes of cases more particularly that we have to bear in mind the several minor structures in the mediastinum, interference with which is indicated merely by certain thoracic symptoms, by special superficial phenomena, by remote symptoms, or by signs which are only revealed by particular methods of examination. I must draw special attention to the fact that an aneurysm of the aorta may come before us under the guise of what appears to be a mere case of "emphysema and bronchitis," the result of pressure on the trachea, the aneurysm itself being entirely obscured by the distended lungs, and out of reach.

V.—Independent Diseases.

Under this head I only wish to say that there are cases of chronic chest disease in which morbid conditions are associated together, having no direct connection with each other, and being in reality quite independent. For instance, I have met with not a few cases of phthisis and cardiac disease which would come under this category, as well as exceptional instances of aneurysm and phthisis. Another illustration is the association of right pleurisy with cardiac disease; and, if time permitted, I could give from my own experience numerous other examples.

VI.—Highly-Complicated Conditions.

I have already given examples of combined chest conditions of a complicated nature, and I merely remark, further, that exceptionally they present such a degree of complexity that it becomes practically impossible to unravel them, apparently every structure connected with the thorax, both internally and externally, being more or less implicated in the morbid changes, and ultimately becoming either agglutinated and matted together into one mass, or involved in a common

ruin. Some highly-complicated cases, however, can be fairly understood, even when several structures are affected.

General Conclusions.

Permit me, before bringing this lecture to a close, to submit the following general conclusions to which the discussion has, I think, fairly led, namely:

1. That chronic diseases of the chest, even of individual structures or organs, to which we apply particular names, are in reality usually made up of different morbid conditions in various combinations.

2. That two or more directly related structures are frequently implicated, and present well-recognised associated lesions in cases which are thus designated.

3. That definite and well-understood pathological relations exist between the important organs occupying the thoracic cavity, which explain many of the combinations of morbid conditions met with in medical practice; but also that these and the structures associated with them may be implicated together, apart from the effects of any such obvious relations.

4. That certain classes of cases must be dealt with specially and individually, as regards the morbid combinations which they are likely to produce.

5. That we must be prepared for cases in which separate and independent diseases exist together, as well as for those in which the changes are of a highly complicated nature, and which may tax our knowledge and skill to the utmost in our attempts to unravel them.

6. That in all cases of chronic thoracic disease due attention and consideration must be given to the chest walls; and that, in not a few instances at any rate, the diaphragm ought not to be forgotten or overlooked.

SOME THOUGHTS ON THE METHODS OF EMPTYING AN OBSTRUCTED BOWEL.[1]

By W. THORNLEY STOKER, M.D.R.U.I., F.R.C.S.I.,

President of the Royal College of Surgeons in Ireland, President of the Section, and Surgeon to the Richmond Hospital.

It is the privilege of the President of this Section to address the members at its opening meeting on some matter of surgical interest, and it is an occasion when one may fairly be excused if he selects a topic to which he can apply his experience, rather than one of the novel and obscure subjects in which the theorist delights to revel, and which capture the intellect rather than deal with every-day incidents of our surgical life.

I do not intend to go far afield for material, because it seems to me that the importance of facts is to be measured by their commonness, and that just as the dignity of labour overshadows the greatness of kings, so the most frequent incidents of our surgical life throw the curiosities and rarities of our science into the shade. Common surgery means universal surgery, and implies that which may be cultivated to the greatest good of the greatest number. What Tennyson has called "the falsehood of extremes" is one that creeps very insidiously into the daily life of the enterprising surgeon. There is a tendency to argue from extreme or rare and individual cases, and to lose sight of broad and collective issues. How often we see elaborate and able papers written with a view to deduce a theory or a practice from a particular and eccentric instance, and the paucity of material concealed by an overshadowing cloud of science condensed from the literature of half a dozen modern languages. This "paper-making" or encyclopædic style is destructive to a fine cultivation of our science, but is a less evil than that which it conceals—the undue craving after originality. Every second surgeon wants his name connected with an operation or an instrument, and in this age of hot and unwholesome competition the hunger is disastrous to the quiet and perfect digestion of abundant material which waits on normal appetite.

[1] Read before the Section of Surgery, Royal Academy of Medicine in Ireland.

As far as my sight reaches I can see no direction in which the craving for novelty and originality has caused men to overstep themselves more than in the operations undertaken so often and with such a light heart for the relief of some forms of obstruction of the bowel. The hateful expression that "there is practically no danger in opening the peritoneum" is ever before the reader in these days, and as regards a class of cases I wish to speak of, a more false or poisonous teaching was never promulgated.

It is more than five years since I read before this Section of the Academy a paper "On the Treatment of Acute Intestinal Obstruction due to Collections within the Lumen of the Bowel," and I am here to-night to repeat with every force I can, and with what added weight time, experience, and the position I now hold may give to my words, the doctrines I then enunciated.

Do not let anyone misunderstand me, although I hold that we live in a time when there is too free a resort to operation in general, and although we may look for a subsidence of the waves and a return to a normal level, yet I have no cry to raise against the general advance of the operative treatment of the bowel—that would be foolish as well as futile. I have no word to say now against laparotomy in any class of cases save one, and even in that class I make no wholesale condemnation, but only urge that it shall be adopted after grave consideration and in selected instances. My remarks do not apply to obstruction due to neoplasms growing in the substance of the bowel or to pressure on it by peritoneal or intraperitoneal material; but to those very common cases in which, owing either to an atonic intestine failing in its peristalsis, or a normally strong one becoming overloaded by its contents, the balance between the propulsive power of the bowel and the load it has to move is destroyed. The result is the decreasing power of the gut, its extreme distension, and the production of the condition named "ileus paralyticus." We seldom see these cases until they have arrived at an advanced stage, until great abdominal distension has taken place, and until the issue is very evidently one of much gravity.

I have seen a great number of such cases in my own practice and in that of others, and I wish to reiterate the opinion I have already expressed that laparotomy is in them an extremely fatal operation, and should only be undertaken when other legitimate means have been exhausted, or where they are evidently improper owing to the advanced stage or general condition of the case. To formulate rules as to when or in what conditions such an operation might be undertaken is not possible except to the book-surgeon. The man who has practical experience knows that abdominal surgery cannot be reduced to a formula, and it is long experience and the tact which may be cultivated, but cannot be conferred, that teach us when we must and may open the abdomen in ileus paralyticus. To be sure, even the most skilled may fall into the error of delay, and there is no case so surrounded by doubtful problems as that of which I am speaking.

As regards antecedent treatment I have not much to add to, and nothing to subtract from, what I have already urged in the paper I have quoted.

Of the ordinary local measures such as the application of heat and rubefacients I have a growing dread. I have never seen them doing substantial service, and I have repeatedly witnessed their production of such superficial redness and inflammation as served to obscure diagnosis and increase the dangers of operation. If poultices or massage be employed they should be used in such a degree as to soothe or stimulate, but not to produce irritation.

Of the value of belladonna, if used freely and early in the case, I still hold a favourable opinion and I am convinced that its best therapeutic effect is obtained by administering it if possible uncombined with opium. I have nothing to take from, or add to, the ideas I have already expressed about this drug. Its action is understood, and its administration logical. It relieves pain, while it does its work. It finds its chief use in those cases of peristaltic paralysis due to tympanites or fæcal accumulation, and as these are most often seen in obese persons, and are attended by great meteorism—both conditions which render operation extremely dangerous—this drug is often

an alternative with the knife. It should be given in full and repeated doses, and pressed until it shows its constitutional effect by producing either dilated pupil or dryness of the throat. The latter symptom is that most usually seen. It is perfectly useless employing this drug unless it be administered to its full extent. It may generally be combined with calomel. It is remarkable that whereas the tolerance of belladonna when given in chronic obstruction is very variable and its employment requires caution, it is extremely well borne in acute cases. The weak and impeded heart which is present in so many examples of acute obstruction is materially aided by the use of belladonna, which is a most excellent cardiac stimulant,

Of opium itself I still have a respectful terror; it masks symptoms so much that it is capable of being a very destructive agent. Nothing but severe pain indicates its use, and in view of the vomiting which is generally present it is best employed in the form of morphine, and best administered by the hypodermic method.

Of the early employment of purgatives I am even less afraid than formerly, but I have somewhat modified my opinion as to the best drug to use. While I have not relinquished calomel, I rarely employ it except in combination with belladonna. I have a growing fondness for salines. I generally use the sulphate of soda, and give it in hourly doses of one or two drachms until an ounce or more has been administered. The worst that can result from the use of a cathartic that fails to purge is disturbance of the stomach, and this unhappily is such a usual incident of these cases that it is of less moment than it otherwise would be. The difficulty of giving a purgative is often very great on account of the vomiting which exists, and in such cases their administration by the rectum is occasionally successful. Before using a purgative in this way the rectum should always be washed out with warm water. The greatest therapeutic desideratum of our day is a method of catharsis by hypodermic medication; and whoever can discover a purgative capable of this mode of introduction will have done as much for humanity as Jenner or Simpson. Nothing is more perplexing than the problem of how to purge a patient whose stomach rejects everything that is introduced into it.

Of all the points in the treatment of an overloaded or paralysed bowel there is none on which my convictions remain stronger, or in which, pleasant to relate, I have seen more improvement in method than in the use of the long enema tube. I have spoken in no uncertain fashion of the uselessness and danger of that instrument called "O'Beirne's tube," all the more awful because it was—and I fear, still is—the custom to teach that it is safe, and its employment so free from danger that even unskilled persons may use it. Mr. Treves was, perhaps, the first writer to cast discredit on this hoary impostor. It is not enough to recognise its danger unless we also admit its comparative uselessness. Life may be destroyed by it. It is rigid enough to perforate the bowel; and I know cases in which this result has, by a little untrained energy, been achieved. I will undertake to perforate the coats of any average rectum with an ordinary gum elastic long tube, such as is usually supplied by instrument makers; and what can be done may be done, if either enough will or sufficient ignorance be present. So much for its danger; what of its uselessness? I contend that no mechanical effect can be gained by the introduction of fluid into the bowel which is not possible with an instrument 9 or 10 inches long, assisted by the natural penetrating quality of water, by gravitation produced by the posture of the patient, and such gentle pressure as that afforded by the use of a tube to which I shall presently refer. The absurdity of supposing that a pipe can be passed through the sigmoid flexure must be evident to those acquainted with the anatomy of that bowel; and the obvious explanation of the instances where, on external examination, it seems to have done, can only be a difficulty to the tiro in the dissecting room or deadhouse. The length of mesentery possessed by the sigmoid bowel will often permit it to be pushed into the upper zone of the abdomen by the intrusive instrument. Nor must we overlook the danger of the force with which an injection can be introduced by the powerful pump usually employed with the long tube. I have seen a bowel which had been ruptured with fatal effect by this agency alone. As regards the use of medicaments other than water, and supposed to be solvent—such as oil or ox gall—I disbelieve in their efficacy. They have no effect except whatever moral one they may exercise on the patient or his friends. All that can be done, can be best done by warm water alone.

For some years past I have used but two instruments for giving enemas. One is an ordinary Higginson's syringe, to the nozzle of which a No. 12 or 14 red rubber catheter has been attached. For the daily purposes of the rectal toilet, or in cases where the injection is to be retained, or ejected by natural effort, this will be found perfect. It is absolutely safe, and quite painless. It can be used in the most tender infant or the most callous adult, and in instances where injection is called for in the presence of inflamed piles, it is a blessing without any disguise.

The second instrument is an ordinary red rubber tube ⅜ to ½ of an inch in diameter, such as is used for washing out the stomach. It is convenient to have circles marked at 3, 6, and 9 inches from its extremity, so as to know what length of it lies in the rectum. A large funnel should fit the dilated extremity and should be transparent, so as to allow the fluid which is being introduced, to be seen. I have found a celluloid funnel more convenient and portable than one made of glass.

The patient lies on his back or left side with the pelvis raised so as to facilitate the passage of fluid into the sigmoid and descending colons. The only fluid that should be used is warm water, and 8 or 10 gallons of it may be employed at one sitting. The surgeon sits on the right of the patient's bed, introduces the end of the tube, and retains it in position with his left hand, while with his right he holds the other end of the tube, into which the funnel is inserted. The tube is introduced 3, 6, or 9 inches, as may be indicated, and should occasionally be moved up and down in the anus by the left hand. An assistant pours water into the funnel, and the pressure may be varied and adjusted by the height to which it is raised by the operator. The left hand can be used at any moment, when the pressure in the rectum becomes painful, to pinch the tube and stop the flow. When as much water has been introduced as can be borne, the funnel is removed, that end of the tube lowered to a basin placed on the floor, and the fluid allowed to run out of the bowel. By repeated operations of this kind large quantities of water may be used, and the bowel emptied without the patient being exhausted by straining or by the necessity of changing his position. The solution of fæces and expulsion of flatus are assisted by the pushing in and out of the tube which I have indicated, and by the varying hydrostatic pressure, caused by alternately raising and lowering the funnel at the free end of the tube.

The advantages of this method over older ones are as follows:

1. The tube is soft and cannot cause injury.
2. The fluid pressure can be regulated to a nicety, and cannot be made excessive, as, if undue pressure threatens, regurgitation into the funnel takes place.
3. Enormous quantities of water can be used.
4. The currents created by alternating hydrostatic pressure have a powerful solvent effect on the fæces.
5. The operation necessitates no exertion on the part of the patient, no change of position, and can be carried on for a long time without causing exhaustion.

I trust I may be excused for entering into a detail of this kind in the presence of so many accomplished surgeons; but there are many young ears present into which my words may pass. I cannot but regard this apparently simple procedure as one of the greatest improvements which has been introduced into the treatment of bowel obstructions. I have avoided many laparotomies by employing it, and I believe I have seen a number of lives saved. Like all other surgical practices, it gains value by experience; but I am convinced that those who patiently employ it will esteem it as highly as I do; and I earnestly urge on my younger colleagues the abandonment of the old rigid tube and the adoption of the simple rectal armament included in the two instruments I have spoken of.

It is not alone in cases of fæcal obstruction that this method finds its use. In every instance where it is sought

to empty the bowel it will be found of service. It may be used with excellent effect in the paralysis of peritonitis, and will, in that difficult case, produce evacuation where other means have failed. As a method of unloading the intestine in chronic obstruction, preparatory to operation, its value also expresses itself.

There is no organ of the body which requires more tender treatment than the bowel, and none which is so often left to be dealt with by the unskilled or uneducated. Many surgeons delegate the use of the enema to an assistant, as if this potent engine were unworthy of their own attention, and many who use it employ undue force. "No force" should be the postulate of our work with the intestine. We cannot be too persuasive, and it is because so much bad practice with regard to the use of the enema is followed, that I have ventured on such an occasion as this to urge my views against the use of the rigid tube, and to plead for one which has both complete safety, and infinite advantage in point of merit. I offer you no weary list of cases because after all they are only useful to substantiate opinion, and if you cannot accept a man's deliberate opinion you are not likely to put faith in his cases. Cases, like figures, can be twisted to prove anything. In such a position as that which, by the kindness of the Fellows, I occupy, a little dogmatism may be excused, and I feel so strongly about this matter of the tube that I have ventured to deal with it in preference to some more brilliant or alluring topic. I beg you to believe that if I speak forcibly it is because I feel conviction, and when I argue for the total abandonment of the older form of tube I desire to assure you that any words I use are spoken with a full recollection of the gravity which my office attaches to them.

Of course the great difficulty to be overcome in acute obstruction is that of diagnosis, and even to the most experienced no finality is possible. There is no branch of surgery in which extended clinical observation and careful reasoning work better together. A simple process of logic will help the most trained clinician to a true conclusion. No cases afford more opportunity for the display of high surgical qualities than those of which I have spoken. Given the proper faculties of observation and deduction, the two qualities which combine to produce great surgical fitness are thoroughness and resource, and in the management of obstruction of the bowel there is the most ample opportunity for their development.

THE TREATMENT OF OBSTRUCTION OF THE BOWEL BY ELECTRICITY.

By JULIUS ALTHAUS, M.D.,
Consulting Physician to the Hospital for Epilepsy and Paralysis, Regent's Park.

INTESTINAL obstruction is now generally treated by laparotomy, after purgatives, opium, and belladonna have failed; and there is no doubt that in the case of absolute mechanical occlusion, such as strangulation by bands, etc., the knife affords the only chance for the patient's recovery. Nevertheless, we are bound to admit that the risks of the operation are great, in spite of recent improvements in its *technique:* and for this reason it would appear preferable to resort to electricity rather than to laparotomy in cases where it is conceivable that the obstruction might be overcome by a powerful contraction of the muscular coat of the bowel, that is, in fæcal accumulation and intestinal palsy, foreign bodies impacted in the intestine, etc.

In January, 1878, Mr. Allingham requested me to see with him a gentleman, aged 54, who had on the whole been in fair health, but had for the last three months suffered from obstinate constipation, for which purgatives and enemata had been used without much effect. Nothing in the shape of a solid or liquid motion had been passed for fully ten days, when I saw the patient. The abdomen was very much distended and tender; there was total loss of appetite, a degree of collapse, with sunken face, and a small and feeble pulse. Mr. Allingham had the day before introduced a long tube, but without bringing the fæces away; and was anxious that the effects of electricity should be tried, as the patient appeared to be in great danger. I introduced an insulated sound, with free metallic end, into the rectum, and applied a moistened conductor to the abdominal parietes, chiefly in the region of the sigmoid flexure. The primary faradic current was now sent through, and its force gradually increased until the patient experienced a decided feeling of vibration in the bowel. This was done at 10 A.M., and the same evening the patient had a copious motion, with wonderful relief to all symptoms. During the next two days the bowels acted ten times, and in a week the patient appeared to be quite well.

Another case in which I have used faradism successfully was that of a married lady, aged 57, who had nearly all her life suffered from obstinate constipation, which she thought had been brought on "by living on biscuits at school." She had often gone for a week or ten days without relief, but did not appear to be much the worse for it until the time I was called in, when there was great distension and tenderness of the abdomen, bilious vomiting, and prostration after eight days' constipation.

I used the same proceeding as in the previous case at 5.30 P.M. At 1 A.M. she had a good motion, followed presently by two others, when an enormous quantity of fæcal matters was discharged, with complete relief.

I regret to be unable to speak about the further progress of these cases, but in both of them life was evidently saved by the application of electricity.

"*Electric Injections.*"—In Paris the continuous current has recently been somewhat extensively used in similar cases, more especially by MM. Boudet and Larat, who have employed it in the form of so-called "electric injections." In order to avoid the escharotic effects of a metallic electrode applied directly to the mucous membrane of the intestines salt water is injected into the rectum, so as to act as a large liquid electrode, the metallic conductor connected with the positive pole of the battery being enclosed in an elastic sound, and thus conducting the electricity to the salt water. It is claimed that by acting in this manner a considerable current strength can be safely used. The circuit is closed by placing a large negative electrode on the abdomen, when the deflection of the needle of the galvanometer indicates the passage of the current. The strength in milliampères must be regulated according to the susceptibility of the patient. In many cases of pseudo-strangulation and fæcal obstruction this proceeding, continued from five to twenty minutes, has appeared to give relief. In cases in which a real obstacle has to be overcome, it is recommended to use the current as directed for five or six minutes, and then to reverse its direction, care being taken first to reduce its strength, and get the needle of the galvanometer down to 0, after which the current is gradually put on again to its former power. As soon as the cathode acts in the rectum the bowel contracts, and great desire is felt for defæcation, which the patient, however, is instructed to resist until he finds it impossible to do so any longer. One, two, or three such applications may be required in the twenty-four hours. M. Boudet states that he has been successful with electric injections in 35 out of 50 cases (70 per cent.), while M. Larat claims 101 successes in 230 cases (nearly 44 per cent.). The latter recommends resort to laparotomy at once if the electricity has failed to act in the period just mentioned, and not to lose time by exhibiting purgatives. If electric injections were made soon after the appearance of bad symptoms, and laparotomy followed quickly after failure of electricity, the electrician as well as the surgeon would have a better chance of saving the patient's life than now, when they are often called in too late.

GASTRO-ENTEROSTOMY WITH SENN'S BONE PLATES FOR PYLORIC STENOSIS.

By THOMAS SINCLAIR, M.D., F.R.C.S.ENG.,
Professor of Surgery in Queen's College, Belfast.

THE choice between gastro-enterostomy by lateral anastomosis and the Heinecke-Mikulicz operation of pyloroplasty in cicatricial contraction of the pylorus is one that can only be satisfactorily made when the abdomen is opened. The plan of Loreta of digital divulsion is not likely to be favourably considered when compared with the newer methods

mentioned. In the case detailed below, gastro-enterostomy was preferred on account of the indurated condition of the pylorus. This was judged to be non-malignant at the time; but lest subsequently this estimate should prove to have been erroneous, the operation of gastro-enterostomy appeared the safer course to adopt.

G. W., aged 43, had been a dyspeptic for twenty years, but he did not begin to suffer acutely till twelve months before operation. Previously occasional bilious attacks with vomiting and diarrhœa had occurred. After an attack of sea-sickness, however, frequent gastric pain, relieved by vomiting, became a more constant feature during the next year. The site of the pain was some 3 or 4 inches from the pylorus, showing, as many other cases of gastric ulcer have done, that pain is a most fallacious guide to the situation of an ulcer. Doubtless this was the period of active ulceration, though no hæmatemesis occurred at any time to confirm this opinion. No palpable pyloric tumour could be made out. Increasing weakness and emaciation followed, and the signs of dilatation of the stomach developed rapidly. The organ when distended reached 2½ inches below the umbilicus. Everything in the way of gastric medicines and digestive aids had been employed by Dr. Austin, Dr. Eustace Smith, and other advisers with little effect, including one-tenth grain doses of bichromate of potassium. Washing out the stomach with the siphon tube gave most relief, though this lavage exhausted him much. Nevertheless he steadily lost strength, flesh, and colour, and gave up his employment after losing 3 stones in weight. An operation was determined upon for his relief, upon the assumption that cicatrisation of an ulcer was responsible for the dilatation.

On opening the abdomen, gastro-enterostomy was selected in preference to pyloroplasty on account of the hard cartilaginous feel of the pylorus, and Senn's decalcified bone plates were employed. As the visceral wounds were made very ample, the plate sutures were supplemented by a row of Lembert's sutures all round. The stomach was incised about 2½ inches from the greater curvature and about 7 inches from the pylorus. The jejunum was opened about 1 foot from the duodeno-jejunal junction. The intestine was doubled back upon itself, as suggested by Rockwitz, before applying it to the stomach in order to secure correspondence in the direction of the peristaltic waves in the two organs.

The operation was aseptic rather than antiseptic; and the course afterwards was uneventful, neither pulse nor temperature being disturbed. Neither opium nor morphine was given. For three days absolutely nothing by the mouth was permitted. Four nutrient injections were administered each day of the formula recommended by Dr. Knut Hoegh.[1] These injections were well borne, and gave more satisfaction than other forms of nutrient enema that had been used in other cases. On the third day tea, wine and water, and meat juices were allowed by the mouth. By the fifth day soup, beef-tea, and white foods were given; and on the eighth fish and fowl were added. Finally, on the twelfth day ordinary solid food was ordered.

The patient rose on the fifteenth day, and on the seventeenth was exhibited to the members of the North of Ireland Branch of the British Medical Association. A fortnight later he reported himself as feeling well, having gained 2 pounds in weight, and proposed resuming his duties as an engineer to a railway.

PYLORECTOMY FOR SUPPOSED CANCER: PATIENT IN GOOD HEALTH THREE YEARS AFTER OPERATION.[2]

By T. R. JESSOP, F.R.C.S.,
Consulting Surgeon, Leeds General Infirmary.

SEEING that the patient whose history I am about to narrate is now in the enjoyment of good digestion and excellent general health at the expiration of nearly three years since the removal of her pylorus for new growth, the time has arrived when the facts may be placed on record with the confidence that the charge of hasty publication will not be brought against me. I had once previously performed pylorectomy at the Leeds Infirmary, on a patient whose disease proved to have made more extensive inroads upon both stomach and duodenum than had been divined, or than appeared even on handling the parts when exposed for removal, until too late for the operation to be abandoned, and in whom, therefore, owing chiefly to the prolonged nature of the operation, the shock proved fatal within three days. Since meeting with these two I have not seen another example in which the circumstances seemed favourable for pylorectomy.

Mrs. R., aged 49, first came under observation on November 26th, 1890. She was then complaining of abdominal pain and vomiting, and had lost upwards of 2 stones in weight. It was noted at the time that the stomach stood out in the epigastrium, suggesting retention, and a distinct splashy sound could be elicited. About midway between the ensiform cartilage and the umbilicus, and about 2 inches to the right of the middle line, a hard, irregular nodule could be felt. A diagnosis of pyloric cancer was made. Up to January, 1891, under a rigid dietary and some medicinal treatment, the symptoms seem to have abated. The patient gained a few pounds in weight, and felt better in every way, and the lump in the abdomen could not be found.

In September sickness returned, and gradually increased in severity up to December, 1891. She then looked fairly healthy in face, but was wasted. The abdomen was decidedly thin; the stomach dilated and splashy. A swelling the size of a tangerine orange could be felt at the pyloric end of the stomach.

Satisfied that the disease was malignant, that she was surely losing ground, whilst her strength was by no means exhausted, and that the physical signs in her abdomen indicated an absence of adhesions, I advised her to consider the question of having the pylorus removed. The proposal was favourably entertained by herself and her husband, but before giving their consent they naturally desired to consult the physician upon whose judgment many members of their family had been accustomed to rely. She accordingly went to Glasgow, and there saw Dr. S. Gemmell, who, after a careful examination, wrote to me confirming the diagnosis, and approving the proposed operation.

From December 24th to 28th the stomach was washed out daily, and the patient fed by nutrient enemata and suppositories.

On December 28th, 1891, pylorectomy was performed. An incision 3½ inches long was made in the middle line, starting at the apex of the ensiform cartilage. The stomach at once presented, and the lump at the pylorus was easily found. The stomach and duodenum were secured by means of Hahn's clamps and about 1½ inch of bowel removed. The cut ends of stomach and duodenum were then united by fine silk sutures, the serous surfaces posteriorly being united first, then the mucous membrane all round, and finally the serous surfaces anteriorly. Lembert's sutures were used for the peritoneum. The incision through the stomach wall bled freely, but the vessels were readily seen and ligatured. Once during the operation the patient attempted to vomit, and forced a little fluid through the opening in the stomach. The peritoneum of the median incision was secured separately with fine catgut sutures, and the remaining layers of abdominal wall stitched with silkworm gut. No drain was employed.

The patient vomited once or twice during the afternoon after the operation. The vomit contained a little blood. She was fed by nutrient enemata every three hours. Morphine gr. ¼ was injected hypodermically in the evening, after which she slept five hours.

On December 29th, at 6 P.M., the patient commenced to take a drachm of milk with two of water every two hours, by the mouth, but as after the third time she vomited a little, it was discontinued. Morphine gr. ¼ was injected for the night.

On December 30th the note made was: Slept five hours: given ice during the night, vomited a little in the morning and two or three times this afternoon: given morphine gr. ¼ at night. She passed a good night without vomiting, and on

[1] *Annals of Surgery*, Part 18: "One ounce of glucose boiled with one drachm of flour and five ounces of water; after this has cooled there is added half an ounce of claret and two eggs beaten up with half an ounce of water."

[2] Read before the Yorkshire Branch of the British Medical Association at Scarborough, November 7th, 1894.

December 31st she was allowed to have a little barley water. She vomited, at 11 P.M. on that day, a little greenish fluid; and on January 1st was ordered to have milk and soda, barley water, and koumiss. The general condition good. The abdomen was a little distended; flatus was passing freely. She was given a turpentine enema on this night. No fæces passed, but some flatus and the remains of the nutrient enemata. After this the patient went on steadily towards recovery. There was no further vomiting. On January 9th she had a sponge bun. On January 19th some fish, and on January 21st some fowl. On January 25th she got up, and on February 9th went for a drive.

From time to time I have seen Mrs. R. since she passed from my direct observation. In the course of a few months she resumed her ordinary duties, and gradually she found herself able to enjoy unconscious digestion. At the present time she is in very good health, and shows no sign of having suffered from any serious disease.

Examination of Tumour.

Length 1½ inch; circumference 6 inches. The pyloric opening barely admitted the tip of the little finger; the stomach wall was much thickened, the duodenal wall less so. At the lower part of the pyloric opening was a saucer-shaped ulcer of the size of a shilling, with thickened base and edges.

Microscopically.—The chief bulk of the tumour consists of densely packed fibrous tissue, with intervening small round cells. Here and there in the interstices of the fibrous tissue are the remains of degenerated glands. In the deeper layers of the section, outside the fibrous tissue these glands are numerous.

FÆCAL FISTULA OF TWO YEARS AND TWO MONTHS' STANDING FOLLOWING HERNIOTOMY FOR STRANGULATED HERNIA: OPERATION: CURE.

By ANTHONY BOWLBY, F.R.C.S.,
Assistant Surgeon to St. Bartholomew's Hospital.

The following case presents several interesting features. In the first place it is very rare to find the intestine give way as long as a month after herniotomy. I have myself seen it perforate as late as the ninth day, but not later. It is evident that the precaution of leaving the damaged gut near to the femoral ring allowed it to contract adhesions in a position which was a favourable one for the escape of its contents, and it is fairly certain that had it been placed in the midst of the peritoneal cavity acute peritonitis would have ensued.

E. D., aged 66, was admitted into St. Bartholomew's Hospital on March 3rd, 1893, suffering from a fæcal fistula in the right groin of two years and two months' standing.

His history was that in January, 1890, he was admitted into St. Mary's Hospital suffering from a strangulated right femoral hernia, and that after operation he made a good recovery, and left the hospital with the wound closed at the end of three weeks. The registrar's note at St. Mary's Hospital recorded the following observation: "Gut deeply congested; sulci where nipped; returned into abdomen; sac removed but not ligatured; drainage tube passed into abdomen and removed next day."

A week after leaving hospital an abscess formed at the site of the operation and discharged spontaneously. The discharge of the pus was followed by escape of fæcal matter, and this steadily increased in quantity. At the end of a year, however, the wound closed for three weeks, and then again reopened. For the next year he gradually passed more and more fæcal matter by the wound, and for the last three months before admission had passed nothing by the rectum, except when an aperient was taken, the whole of the fæces passing for several weeks at a time by the fistulous opening. He also began to lose flesh quickly, and had gone down 2 stone in weight. It was under these circumstances that Dr. E. J. Lewis advised him to submit to an operation for relief.

Condition on Admission.—Fairly well nourished. In the right groin is a sinus in the situation of the crural canal. It admits with difficulty the tip of the little finger, but soon narrows so as only to allow the passage of a director. The sinus constantly discharges liquid fæces and the skin around is excoriated and sore. On the left side is a scrotal hernia with an undescended testis. The viscera are generally healthy.

He was kept in bed and fed on light diet, and it was observed that his statement as to the absence of evacuation by the rectum was true, the bowels being only opened *per rectum* by aperients. A few hard, scybalous masses could sometimes be removed by enemata. Charcoal taken by the mouth was observed at the fistula forty-eight hours later. After consultation, it was decided to operate at the seat of the fistula.

On March 20th a vertical incision was made, opening up the fistula and dividing in part Poupart's ligament. It was found that a piece of small intestine occupied the crural ring and was drawn by the scar tissue a little way into the canal. it was dissected from the surrounding parts with some difficulty, owing to the very narrow space available, and was then discovered to have an opening in it half an inch in length. Into this aperture the opposing mucous membrane bulged. This opening was closed by a series of Lembert's sutures of fine silk, and the gut was placed in the abdomen just clear of the crural ring. It did not appear that the general peritoneal cavity was exposed during the operation, the neighbouring coils of intestine being adherent. The skin incision was not closed. Two days later fæces again passed by the wound, and continued to do so in considerable quantities for the next week. After that time the discharge rapidly lessened, so that by April 18th it was noticed that only about half a teaspoonful of discharge escaped in twenty-four hours. The bowels also acted regularly, with the assistance of a slight laxative, and sometimes for a day or two no flatus passed by the fistulous opening.

For the next month progress was not so satisfactory: the parts around the wound were a good deal inflamed, and he also suffered from an attack of inflammation of the right testis. The quantity of fæcal discharge varied much, but on the whole it diminished.

By June 3rd the discharge was simply purulent, and contained no fæces. On this day he was put under an anæsthetic, and as the escape of pus did not seem quite free, the aperture in the skin was enlarged, and the mouth of the sinus erased. A little rough exposed bone was discovered near the pubic crest. From this time improvement was rapid. For a week at a time no fæces escaped, and after June 20th he never passed flatus by the wound.

On July 21st he was discharged, the sinus still being open, but no fæcal matter escaping.

On October 30th the patient came to show himself. He said that the sinus had healed finally a week or two after leaving the hospital, and an examination of the parts showed a sound, firm cicatrix. The man had gained a stone and a half in weight, and his bowels were open naturally. He had returned to his work as a bootmaker. A year later—that is, in November, 1894, he remained in good health and with a sound scar.

The result of the small plastic operation performed was most satisfactory. At first I was disposed to treat the artificial anus by resection of intestine and suture; but, considering the very considerable risks of such a proceeding in an old man, I came to the conclusion that it was better to see what could be done by less severe measures. I have chiefly brought the case forward as one which encourages the performance of such a comparatively trivial operation, for there is a tendency at present to consider that long-standing fæcal fistula after hernia requires resection of intestine for its cure: and seeing that in my patient the fistula was of more than two years' standing, it is evident that mere duration does not call for the performance of the more serious of the two operations which may be employed.

At a meeting of the Berlin Medical Society on January 9th Professor Virchow was re-elected President for the ensuing year.

John McPhail Dougall, M.D., M.B., C.M., was unanimously elected Chairman (from outside) of the Parish Council of the parish of Welburn, near York.

REMARKS ON TWO CASES OF RECTAL DISEASE TREATED BY MODIFIED OPERATIVE METHODS.[1]

By G. H. MAKINS, F.R.C.S.,
Assistant Surgeon to St. Thomas's Hospital.

I.—Recto-urethral Fistula.

W. F., aged 23, a collier, a strong healthy young man, with a good family and personal history, who when 7 years of age underwent the operation of left lateral lithotomy for vesical calculus. Since that date he had always passed a portion of his urine *per anum*; at times the whole had been passed in this manner, but more frequently the greater part *per urethram*. Gas was passed *per urethram*, and occasionally fæcal particles, but as a rule he suffered no pain. Rectal control was complete, but he had not complete control over the urethra, and incontinence was noted almost daily. Examination showed the old perineal scar firmly healed; on the passage of a catheter about 1 inch could be felt bare in the membranous urethra when the finger was placed in the rectum. The recto urethral opening lay about 1½ inch from the anus, admitted the tip of the forefinger readily, and had the usual sharp knife-edged margins. The urine was acid, specific gravity 1025, and contained a trace of albumen.

Operation.—On October 7th, 1893, the following operation was performed: The patient was placed in the lithotomy position, the perineum shaved, and an H-shaped incision made. The horizontal arm was 2 inches in length and about 1 inch anterior to the anal margin. Each vertical limb was about 1½ inch in length. The skin having been divided, the wound was rapidly deepened with scissors, the left forefinger being kept in the rectum as a guide until the communication between the urethra and bowel was reached. The membranous urethra was found large enough to admit the forefinger readily, and was separated from the rectum only by a sharp marginal ridge.

A circular incision was now carried around the ridge and the urethral mucous membrane dissected up for half an inch on either side. Lembert's stitches were passed on the raw surface of the flaps so raised, and the mucous membrane was turned in towards a catheter placed in the urethral canal. The urethra was thus closed.

Attention was then turned to the rectum. The rectal wall, already free below, was somewhat separated from the back of the prostate above: the fistulous opening was continued down to the anus, dividing both sphincters. A set of Lembert's sutures were employed on the raw surface of the bowel flaps, and the canal was closed, as had already been done with the urethra.

A conical wound, extending to the prostate, with the closed canals in front and behind, now existed, the lateral vertical incisions allowing of considerable separation of them. Deep silkworm gut sutures were now carried through the raw sides of the wound, as is done in Mr. Lawson Tait's ruptured perineum operation, and the whole perineum closed, except a small cleft at the anterior extremity, which was plugged with gauze.

A No. 10 gum elastic catheter was left in the urethra to drain the bladder. There was remarkably little bleeding during the operation. Two and a-half hours afterwards, however, an untoward event occurred which threatened to wreck the whole operation. The patient asked for the bedpan, and evacuated about 16 to 20 ounces of blood, partly fluid, partly in clots. On examination blood flowed with some freedom from the anus, and Mr. Stabb, who saw the patient in my absence, plugged the rectum for me. I saw the patient about an hour later, and found him pale and with a feeble pulse. No blood passed *per urethram*, or by the catheter.

On October 8th the patient was improving; no further hæmorrhage had occurred. On the third day the rectal plug was removed; this operation, by distending the anus, caused some disturbance of the wound; the catheter also got blocked, and urine began to escape by the drain opening left at the front of the wound. The catheter was therefore removed, but it was not thought advisable to pass a fresh one for fear of disturbing the urethral suture. For some days the urine passed almost entirely by the perineum, and the deep stitches were therefore removed to prevent the risk of extravasation taking place in the deep part of the wound. The margins did not gape, and although a few drachms were passed *per anum* on one or two occasions, no appreciable quantity passed into the rectum. On the eleventh day he began to pass his water *per urethram*, and the perineal wound rapidly healed, so that on the nineteenth day he was practically well. He remained in the hospital another twelve days, and has since resumed his occupation as a collier.

I received a note regarding him from his doctor some weeks ago, in which he tells me the man remains well, and passes his water naturally, the only trouble consisting in the fact that at times he needs to pass his urine at once when the bladder is full. This slight defect has apparently existed ever since the lithotomy operation, and is, I think, probably due to the scar in the prostate.

As will at once be recognised, the operation performed in this case is a modification of Mr. Lawson Tait's operation of perineorrhaphy, the H incision allowing of lateral approximation of sufficient perineal tissue between the rectum and urethra to get an efficient barrier between the two canals. Although some complications arose, and the primary union I hoped for was not obtained, yet the result was, in my opinion, a gratifying one, as I think anyone will admit who has had experience of dealing with these very troublesome cases.

The advantages which I would claim for the method are the following:

1. The production of a sufficient mass of perineal tissue between the rectum and urethra, gained by the lateral vertical incisions.

2. The opportunity given of widely separating the edges of the cut mucous surfaces meeting at the fistula.

3. The possibility of remoulding the two canals.

As regards my own experience of treating this condition, I may say that I have twice had the opportunity of operating by other methods on another patient. On the first occasion, I performed a suprapubic cystotomy to remove a recurrent phosphatic calculus. I kept the wound open as a drain, and afterwards performed a plastic operation by paring the edges of the fistula and suturing through the dilated anus. The operation much reduced the size of the fistula, but it did not entirely close. A second attempt at suture by the same method was also unsuccessful. I attributed this to the extreme tenuity of the edge of the fistula, and the impossibility of bringing a sufficiently deep raw surface into contact, a condition which is satisfactorily met by the method I now advocate.

It may be remarked that the new method, when the case does not heal by first intention, is not widely different to the old plan of slitting up the fistula, and laying the rectum and wound into one, and then plugging while the wound heals by granulation. I would submit, however, that there is an essential difference, namely, that by the new method the separated mucous-lined canals are much more widely separated, that the lining membrane is inverted, and that the possibility of the two mucous surfaces again becoming continuous is reduced to a minimum. The latter result also is much the less likely from the much more rapid healing which can take place. Again the prompt suture of the divided sphincter ani is a manifest advantage and comfort to the patient.

II.—Growth of Rectum.

The second case which I have to bring to your notice is also one depending on the modification of some of the recognised operations for removal of growths of the rectum. Only a certain number of cases suitable to the method are likely to be met with, but for such as may occur I think the operation has much to recommend it, as I hope the recital of the following case will show.

M. A. C., aged 49, a housekeeper. Her father died at the age of 72; her mother was alive, aged 76. One sister died of consumption, and a brother from some complaint of the bowels at the age of 50. The patient had never been very strong, but had only been under regular medical treatment on two occasions, once for varicose veins, and once for hæmorrhoids. She had not suffered from habitual constipation. Her present illness commenced eight months before

[1] Read at a meeting of the South Eastern Branch of the British Medical Association held at St. Thomas's Hospital.

she came under treatment with relaxation of the bowels, and since then she had habitually passed watery motions. She has occasionally passed blood; this she has attributed to the hæmorrhoids. She has suffered from prolapse on and off for years. She has been troubled with sickness after food more frequently of late, but she seems to have been a chronic dyspeptic. These symptoms have been attended by progressive weakness, inability to do her work, and slight loss of flesh.

The patient was a thin, sallow woman, and complained of extreme weakness, frequent sickness, and constant diarrhœa. On examination *per rectum*, under an anæsthetic, well-marked mixed piles were found, and on the anterior wall, about 2 inches from the anus, a definite sessile papillary growth with broad base, which could be drawn down to the anus with a clamp. There were no signs of other visceral disease.

Operation.—On August 29th, 1893, the patient was anæsthetised, and the following operation was performed. The anus was forcibly dilated, a circular incision made at the junction of the skin and mucous membrane, and the mucous membrane and piles were freed from the external and internal sphincter muscles by dissection with scissors. Thus far the operation was the typical one performed by Mr. Whitehead for hæmorrhoids. The sphincters were now divided towards the vaginal wall to obtain increased space, the muscular and areolar coats of the rectum divided by a circular incision, and the dissection was carried upwards around the whole rectum for another 2½ inches until a point above the limits of attachment of the growth was reached. The peritoneal cavity was not opened. The freed portion was then divided, and the bowel brought down and sutured to the cut margin of the anal skin with silk. The incision into the perineum was closed with two silkworm gut sutures, which also retained the anterior ends of the sphincters in apposition. A large tube was placed in the rectum to prevent the accumulation of flatus, and the wound was dressed with bicyanide gauze.

The after-course was uneventful. Retention of urine necessitated the use of the catheter for a few days. The wound healed steadily. On the tenth day the deep perineal sutures were removed. After the eighteenth day complete control of the motions returned, and she got up. She steadily improved, and left the hospital well one month after the operation.

After a short holiday she resumed her work, which she has continued to do, and she and her medical attendant consider that she is stronger and better than she had been for years.

The growth removed was papillary in character with a broad base, occupying an area of 2 by 2½ inches on the anterior wall of the rectum. Careful examination showed that it had not infiltrated the whole thickness of the rectal wall; in fact the muscle was scarcely affected, hence the prognosis is a comparatively good one.

As to the nature of the growth, microscopical examination shows it to be identical in structure with the ordinary polypoid growths or adenomata. Experience has shown, however, that such growths are common precursors of typical columnar epitheliomata, and therefore a guarded prognosis only can be made. In this particular instance the free removal of the tumour should, however, give the patient a good chance, whatever the actual nature of the growth may be.

The mode of operation adopted, however, is the point of interest in this case, and I think it offers the following advantages:

1. It leaves the sphincters as nearly as possible intact. If the growth were lateral or posterior, the posterior extremity of the sphincter might be divided towards the coccyx.

2. The union of the rectum to the skin is preferable to uniting it to a strip of mucous membrane left covering the sphincter flaps made when the anus is divided both anteriorly and posteriorly; and any existing piles are radically cured by the same operation.

As to the indications for such a procedure I take it that they consist in limited extent of the growth, and in the pre-existence of rectal prolapse after defæcation, this the cardinal indication for the complete Whitehead's operation for hæmorrhoids, allowing the portion of the bowel brought down to the anus to be sutured there without undesirable tension.

CASE OF PERFORATION OF THE INTESTINE DURING ENTERIC FEVER TREATED BY LAPAROTOMY.

By ALFRED PARKIN, M.S., M.D.Lond., F.R.C.S.,
Senior Surgeon to the Victoria Hospital, Hull.

This case is of interest on account of the discussion on the operative treatment of perforations of the stomach and intestines at the Bristol meeting of the British Medical Association.

A female, aged 32, came under the care of my partner, Dr. Sherburn, on August 19th, 1894. She had been ill about a week with indefinite symptoms, but a few days previous to being seen diarrhœa came on, and continued throughout the illness. She was wildly delirious on the 20th and 21st, and on the 26th distinct rose spots appeared on the abdomen; the temperature remained at the level of 103°, the pulse 130, and the respirations varied from 26 to 36.

The condition of the patient remained the same until September 3rd, which would correspond to the end of the third week, when she was suddenly seized at 10 A.M., with acute abdominal pain, continuous, and referred to the umbilicus. At 10.15 A.M. she was sick, and when seen half an hour later she was in a collapsed condition, with face drawn, lips blue, and extremities cold. The abdomen was no longer doughy but hard, less distended, and tender to touch. The bowels were opened twice involuntarily, the motions being formed, and it seemed as though the contraction of the abdominal muscles had been the cause of this. The liver dulness, which before had extended from the sixth rib to the margin of the thorax in the upper line, had now disappeared. Pulse imperceptible, respirations quick and shallow, temperature 101°. An injection of morphine and atropine was given at once, and every effort made to overcome the collapse. These efforts were so successful, that on returning at noon the patient seemed as well as before the perforation, only the absence of liver dulness and slight abdominal rigidity indicating what had happened.

Chloroform was given followed by ether, and a small incision made below the umbilicus. On opening the peritoneal cavity a considerable quantity of gas escaped, without much smell, followed by a few ounces of turbid yellow fluid. The small intestine was traced throughout its whole length, the position of many ulcers being indicated by the brilliant injection and the surrounding thickening of the intestinal walls. About 2 feet from the cæcum there was a large ulcer, the floor of which displayed a small perforation not bigger than a pin's head, through which the intestinal contents were oozing. The ulcer was folded longitudinally on itself and sewn up with a Lembert's continuous silk suture, not without difficulty on account of the congested state of the gut, which would scarcely hold the silk. No other perforation being found, the peritoneal cavity was well irrigated with weak carbolic, a Keith's tube inserted into the pelvis, and the wound sewn up.

On recovering from the anæsthetic the patient said she had no pain, and was quite comfortable; in every way her condition was better than before the operation. She was sick twice during the night, and the next morning her pulse had fallen to 120, the temperature was normal, the abdomen flaccid, not distended, and moving readily with respiration. She was fed with nutrient enemata every four hours, and with peptonised milk, beef-tea, and brandy by the mouth. Her condition remained quite satisfactory, with no symptoms of peritonitis until the third night after the operation, when she again became delirious, the temperature rising to 102°. At 1 A.M. on the 6th she tried to get out of bed, and then complained of the abdominal pain having suddenly returned. The abdomen became rapidly distended, collapse supervened, and death took place ten hours after the return of the pain, exactly three days after the operation. Before death the temperature rose to 105°.

A very limited *post-mortem* examination was allowed. There was no peritonitis around the sutured gut, but close to the cæcum there was a large ulcer with an extremely thin floor devoid of peritoneum, and around this there was evident peritonitis. The portion of the gut operated upon was quite tight, and withstood considerable pressure from injected fluid. The ileum for 3 inches close to the cæcum was ulcerated all round, so that only islets of mucous membrane were left. It was not possible to remove the whole of the intestine, large and small, to make certain that no second perforation had taken place, but none could be found by pulling out various portions of the intestine through the wound.

This case adds one more to the list of 20 such cases which have been operated upon, with so far only 1 recovery. There is no doubt that perforation in the course of enteric fever is almost invariably fatal, and any recovery from such a complication can only be regarded in the light of an accident unless surgical treatment be adopted. The obscurity in the diagnosis is often great, but in this case the symptoms were pronounced.

Although the patient was in the height of a severe attack perforation was evidenced by sudden collapse, alteration in the character of the abdomen, and by complete disappearance of the liver dulness. Curiously enough, the perforation causing these symptoms could only be regarded as of the smallest possible size. The treatment adopted in the first

place to overcome the shock was so successful that no one, on seeing the patient two hours after, would have diagnosed the condition except by careful examination of the liver dulness. The operation itself was conducted under light anæsthesia, the patient herself saying afterwards that she was conscious most of the time of what was going on, and it did not in any way depress the patient. Closure of the perforation by a purse-string suture was out of the question on account of the friability of the intestinal walls; longitudinal suture only was possible. The liver dulness was noted five hours after the operation to have returned down to a point one inch from the margins of the ribs.

The rapid onset of peritonitis, following an attempt to get out of bed, pointed to the conclusion that a second perforation had taken place; but, as none was found at the *post-mortem* examination, one must conclude either that it had been overlooked, or that the peritonitis had started from the second ulcer, from the base of which the peritoneum had already disappeared. The condition of the sutured bowel was in every way satisfactory, and it would have doubtless been better to have sutured the second ulcer at the same time, or to have scarified its base; the serious condition of the patient, however, necessitated a speedy termination of the operation.

The most noticeable feature at the operation was the appearance of the intestine, each ulcer being plainly indicated by a zone of brilliant injection, corresponding to its base, in the centre of a thickened œdematous portion of the gut, a condition quite different from the usual *post-mortem* appearance.

Although the patient was prostrated by a three weeks' illness, there was nothing in the abdominal wound, or in the sutured portion of the gut, to indicate any want of repairing power. The return of the delirium indicated that the course of the pyrexia had not yet ended; and the extensive ulceration of the intestine was a further proof of the intensity of the attack.

It is much to be regretted that, in a case promptly diagnosed and operated on only two hours after perforation had occurred, the result should have been so disappointing.

A FURTHER NOTE ON THE TREATMENT OF ABDOMINAL HYDATID DISEASE BY EVACUATION WITHOUT DRAINAGE.

By C. J. BOND, F.R.C.S.,
Surgeon to the Leicester Infirmary.

THE BRITISH MEDICAL JOURNAL for April 11th, 1891, contains an account of a method of treating abdominal hydatid cysts by incision and evacuation of the cyst contents, and the return of the adventitious cyst into the abdominal cavity without drainage. Since that was written Dr. Thomson, of Brisbane, and Dr. Gardner, of Melbourne, have reported cases, and the method seems to be recognised and practised in Australia. Judging, however, from the absence of published reports, I do not think that many cases have been so treated in England, and, as I feel convinced that the principle is sound, I am induced to record the following case which I have lately treated, and which gives further evidence of the safety of the proceeding:

A short time ago I opened the abdomen of a male patient, aged 36, who had suffered for some years from a swelling the size of a cocoanut in the right flank; the patient was in other respects healthy, and the symptoms produced were those of pain and pressure. One large and two smaller hydatid cysts were first found; the larger cyst contained clear fluid and daughter cysts, the smaller ones pultaceous material with chalky deposit; these three omental cysts were removed entire, the adhesions to colon and mesentery, though extensive, being separable. On further exploration, two more cysts were found in the liver on the under surface, one near the anterior edge and a larger one deeply placed near the transverse fissure. After packing the peritoneal cavity around, both cysts were incised and the pultaceous laminated material which formed their degenerated contents evacuated: some of the chalky *débris*, however, was very adherent to the inner wall and was left; the interiors of the cysts were then thoroughly wiped out with carbolic lotion (1 in 20), rubbed over with iodoform, and left quite dry. No attempt was made to close the opening in either cyst, and the abdominal wound was closed without drainage. Recovery was rapid, the temperature remaining normal.

As I previously ventured to point out, the advantages of this method are very great: not only can deeply placed cysts be thus dealt with, which it would be very difficult or impossible to drain, but, in addition, a primary union and a rapid recovery are substituted for a tedious convalescence, with all the risks attending the drainage of a large cavity, and an open wound; the experience of this case further shows that not only may living cysts be so treated, but also those in which, following the death of the parasite, the contents are partly solidified.

At the present time it is no doubt safer to treat by the older method cysts in which suppuration has occurred, but even in these it may eventually be possible to thoroughly scrape and antisepticise the interior, after evacuation of the pus, and then to close the wound.

In conclusion, also, I would suggest, in suppurating cysts, or in abscess of the liver, that an exploratory abdominal section should be the first step, in preference to the introduction of a needle, for in this way it is sometimes possible to ascertain and locate the presence of a small area of adhesion to the diaphragm or abdominal wall over a suppurating cyst or abscess, and the latter can then be incised and drained through this area by means of a second incision between the ribs or through the abdominal wall.

Since this was written I have operated on two more cases of liver hydatids by the method of evacuation without drainage, with rapid convalescence in both instances.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

AN OPERATION FOR THE RADICAL CURE OF HERNIA.

MR. GREIG SMITH, in pointing out the difference of the kinds of adhesions, has explained the reason why a most unscientific operation which I do for the radical cure of hernia gives me such excellent results. Briefly described, when the operation is deliberately undertaken I make a vertical incision, and take great care to keep outside the peritoneum. Then search for the ring, invaginate the sac on my finger, keep it there by means of a large Spencer Wells forceps, and stitch up in a jumble the opening in the abdominal wall (namely, muscle, fibrous tissue, and periosteum; I like my needle to scrape the bone), then the skin incision. Such is the operation I do in a femoral hernia. In a strangulated femoral hernia I insert a flat broad and thick director through the opening on the femoral vein side, and pass it right round the sac, keeping outside if I possibly can (I never nick Gimbernat's ligament), reduce the hernia, and stitch up in the above way.

In inguinal I do the same thing, that is, keep outside the sac, do not bother about separating the sac from the cord, pass the director into the abdomen on the outer side of sac, reduce the hernia, ligature the neck of the sac, and leave it lying on the inner side of the canal, so as not to squeeze the cord so tightly, and stitch up carefully in the same clumsy fashion. Judging from results the operation has been very successful in my hands. I have done nineteen (femoral) radical cures and seven strangulated hernia (four femoral and three inguinal), with one death, which was due to gangrene of the bowel. None of these patients wear trusses, as they do not need them. I have done these operations during the last three years, and got the hint for this clumsy fashion of stitching from Lawson Tait and Martin (of Berlin), both of whom respect the peritoneum very little. All these operations were done without antiseptics, and some in very unhygienic surroundings.

Ashton-under-Lyne. FREDERICK W. MANN, M.B.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE LONDON FEVER HOSPITAL.

CASES OF ŒDEMA OF THE UPPER EYELID DURING SCARLET FEVER.

[By Sidney Phillips, M.D.Lond., F.R.C.P., Senior Physician to the Out-Patients, St. Mary's Hospital; Senior Physician to the London Fever Hospital.]

Case I.—H. N., a girl, aged 12, was admitted on September 5th, 1892. She had a very severe attack of scarlet fever, with considerable exudation on the tonsils and nasal discharge, a temperature of 104° for some days, together with noisy delirium. On September 14th the temperature had fallen to 100°, but rose again on September 15th to 104°, and on September 16th there was a discharge from the left ear, and the left upper eyelid became red and œdematous, so that she could not raise it. On September 18th the otorrhœa ceased, but the mastoid process became very tender on pressure, and the swelling of the lid considerably increased. There was no protrusion of eyeball or conjunctival injection, but the œdema extended slightly over the cheek of the same side; on September 21st the swelling began to subside, and gradually passed off, but some local fluctuation developing near the outer margin of the lid, an incision was made on October 10th, giving exit to pus, after which she got quite well, and left the hospital cured a week or two later.

There had been a small quantity of albumen in the urine when the patient was in the acute stage of the fever, but none when the aural and eyelid symptoms began.

Case II.—W., W., aged 8, admitted May 11th, 1892, under my care with an attack of scarlet fever of moderate intensity, went on without anything noteworthy till May 20th, when the left ear began to discharge. On May 29th the glands of the neck enlarged and became tumid, and his temperature rose to 105.6°. There was one-third albumen in the urine on the next day with blood, though the temperature was a degree lower; and on June 2nd there was again a rise to 104°, and pain about the ears, though discharge from them was free. After this improvement ensued, and by June 9th the albuminuria had passed away entirely. He had during the nephritis some little general dropsy, and after this had subsided his left upper eyelid suddenly swelled up and became blue and livid, so that he could not open the eye; and the conjunctiva became injected. There was nothing on the right side of this sort, but a good deal of earache, and the temperature rose to 104.6°. There was some tenderness over the mastoid and complete deafness. By my direction my then house-physician, Mr. Collier, perforated the membrana tympani on the left side, and let out pus, and the œdema of the lid at once went down, and soon passed completely away.

Here the œdema was quite distinct from the dropsy of nephritis, and was synchronous in appearance and disappearance with the appearance and disappearance of the ear trouble.

Case III.—V. S. was admitted on November 4th, 1891, with a temperature of 103.2°, and symptoms of a moderately severe attack of scarlet fever, which had subsided by November 12th, when the temperature was normal. On November 13th it rose to 100.8°, on November 14th to 102.2°. The right eyelid became tense and œdematous; the conjunctiva on this side became injected, and boracic fomentations were ordered. The œdema continued, though the temperature gradually fell to normal by November 20th. On November 23rd it began to rise again, and on November 26th was 100°, when the tympanic membrane became ruptured, and otorrhœa ensued. There had been no pain before this, though the hearing had become defective. After this the œdema of the lid subsided, as well as the conjunctival injection, and the boy progressed towards recovery, though on November 30th the temperature ran up to 104°, coincidently with an acute inflammation of the lymphatic glands of the neck. He was discharged quite well on January 4th, 1892. In this case there was never any albuminuria.

Remarks.—Œdema of the lids in scarlet fever may occur from nephritis as part of general dropsy, but in the above cases albuminuria was absent or had passed off when the œdema appeared; the œdema was unilateral, and the eyelid became livid and tense, and not white and doughy, as in renal dropsy. Œdema of the lid as a complication of scarlet fever is not mentioned, so far as I know, in the textbooks; and, apart from this fact, I wish to record these cases at the present time, as they seem to be of the same nature as the five cases of plastic cellulitis of the orbit brought before the Ophthalmological Society by Mr. Lawson, and recorded in the British Medical Journal of December 22nd, 1894. In the discussion that ensued at the Society considerable doubt was expressed as to the etiology of the disease. In all the three cases I have reported above the œdema was associated with suppuration in the middle ear; and I feel sure, from observation of the cases at the time, that the association was more than a coincidence. I observed that before the tympanic membrane ruptured, or when discharge from the ear became less free, the œdema increased, and in the most severe case the mastoid process became very tender, and it became a question whether trephining over it would be required. Mr. Hulke mentioned at the Ophthalmological Society that he had seen cases of the same sort after influenza and measles, in both of which complaints suppuration in the ear is very prone to occur, and in one of Mr. Lawson's cases he ascribed the cellulitis to a previous tonsillitis, which may possibly have led to blocking of the Eustachian tube. It seems most probable that one of the suggestions made by Mr. Hulke as to the causation of the cellulitis—namely, thrombosis of the cavernous sinus—is the correct one, at any rate in most cases, for suppuration in the middle ear may set up thrombosis in the inferior petrosal sinus, extending into the cavernous sinus.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Tuesday, January 22nd, 1895.

Varieties of Intestinal Obstruction Dependent on Gall Stones, with a Series of Cases.

Mr Mayo Robson read this paper. He remarked that the usually accepted form of obstruction was only one of four varieties of intestinal obstruction depending on gall stones, which he proposed to classify as follows: (1) The form dependent on local peritonitis in the region of the gall bladder leading to paralysis of the bowel. Two illustrative cases were related, both of which yielded to general treatment without operation. (2) Volvulus of the small intestine dependent either on the violence of the colic caused by an attack of cholelithiasis, or on the contortions induced by the passage of a large concretion through the small intestine. Two cases were related in which the author performed laparotomy and untwisted the volvulus, recovery following in each case. (3) Mechanical obstruction due to the passage of a large concretion through the small intestine. Two instances were given in which enterotomy, with removal of the concretion, was followed by recovery. (4) Obstruction depending on adhesions or on stricture, the result of past gall-stone attacks or of healing fistulæ. As this form was specific only in the antecedent cause, instances were only referred to and not related, since cases of this kind could be more fully discussed in a paper dealing with the subject generally. Mr. Robson, in answer to questions addressed to members of the staff or to the registrars of a number of large metropolitan and provincial hospitals, had received communications from institutions representing about 80,000 patients, and out of this number only four cases of intestinal obstruction from gall stones had been recorded during the past twelve months, proving that this form of obstruction was far from common, and all the four cases coming under the third form described in his paper seemed to prove that it was the commonest.

MR. ARBUTHNOT LANE was familiar with the first class of cases described by the author. He had operated on a patient in a moribund condition, and found recent lymph on the gall bladder and duodenum from this cause. He had recently seen a case of mechanical obstruction due to a gall stone, in which, owing to medical treatment being persisted with too long, operative interference, which in an earlier stage would have been successful, was rendered useless.

MR. BARKER thought the excellence of this paper, so complete in itself, rendered discussion somewhat difficult, especially as very few surgeons had had such an extensive experience in the class of cases described by Mr. Mayo Robson. He asked whether in the cases of mechanical obstruction of the intestine by gall stones diarrhœa had been present. Some sixteen years ago he had made a *post-mortem* examination on a lady, a patient of Sir William Jenner and Sir John Erichsen; death was due to impaction of a large gall stone in the ileum near the ileo-cæcal valve, and diarrhœa had been a prominent symptom for a considerable time. He considered cases of impaction of gall stones in the intestine to be very rare; there was no specimen illustrating it in the museum of University College Hospital. He quoted a case successfully operated upon by Mr. T. Smith. He had very serious doubts about the propriety of needling or of crushing a stone impacted in the small intestine, and would prefer to open the bowel. With regard to the author's plan of closing the opening in the gut by a continuous catgut suture for mucous membrane and a continuous silk suture for the peritoneum, he agreed that it was most desirable, when the condition of the patient allowed, as the inner suture would preserve the outer from contamination, but he did not consider it absolutely necessary. He had recorded[1] a case of acute intestinal obstruction due to volvulus of the small intestine, accompanied by peritonitis with effusion, which recovered after operation. There was nothing to show the mechanism of the volvulus, and he had always been puzzled by it. Since hearing the paper it had occurred to him that possibly the volvulus was analogous to those described by the author in Class 2.

MR. EVE referred to the case of intestinal obstruction due to gall stone, which he had brought forward at the last meeting of the Clinical Society.[2] He thought the author's classification of the varieties of obstruction depending on gall stones clear and most satisfactory. Von Winiwarter had recorded a case in which a calculus in ulcerating out of the gall bladder had broken into two; one half passed into the intestine, and gave rise to mechanical obstruction, and was successfully removed; the other half remained in the fistulous track between the gut and the gall bladder, and set up fatal peritonitis. This case belonged to Class 1. He had come across cases of hernia associated with intestinal obstruction, in which after relief of the hernia the symptoms continued, and on opening up the abdomen the cause was found in a gall stone above the hernia. These were examples of cases under Class 2. He agreed that acute intestinal obstruction due to gall stone impaction was extremely hard to diagnose; in his case at the London Hospital he had been able to detect the stone in the left iliac fossa when the patient was under chloroform before he operated. If the calculus was found near the ileo-cæcal valve, he thought it quite safe to press the calculus, if movable, on into the colon, as he had only been able to find one case of impaction of a gall stone in the large intestine. He quoted Mr. Clutton's case[3] of a woman, aged 70, in which this manipulation was most successful. In cases coming under the surgeon late the calculus might be adherent to the mucous membrane, and the bowel deeply congested. Under these conditions he would remove the stone by enterotomy, and keep the bowel near the wound; the track being packed with iodoform gauze. In this way general peritonitis might be avoided. This plan was very successful in certain cases of appendicitis. He stitched the mucous coat with a continuous catgut suture, and the peritoneal coat with the interrupted Lembert suture. There was a specimen in the Hunterian Museum of the Royal College of Surgeons of a very large gall stone impacted in the upper part of the large intestine. He referred to the possibility of cases of acute obstruction due to impacted gall stone recovering if left alone. Of 20 cases collected by Mr. Treves, none of which had been operated on, 14 died and 6 recovered. He commented on the improvement in the results of operation; before 1889 8 cases had been operated on, and 1 only (Mr. Clutton's) had recovered. Since 1889 18 cases had been operated upon, with 9 recoveries.

MR. E. W. WILLETT described a specimen in St. Bartholomew's Hospital museum of a large calculus impacted in the intestine, and referred to a case of satisfactory removal of an impacted gall stone from the intestine, but in which the patient died from a second concomitant cause of acute obstruction—internal hernia.

MR. J. J. CLARKE, in 800 *post-mortems*, had met with one instance of acute obstruction due to a gall stone. The calculus measured 1 by 2 inches, and was impacted in the middle of the small intestine.

THE PRESIDENT was anxious to obtain statistics as to the results of removal of biliary calculi from the intestine by operation. He had for some years been engaged in amassing evidence on this point, and had found that the mortality of cases operated upon was a little over 50 per cent. He considered that the question of operative interference for mechanical obstruction by gall stones was still *sub judice*. Personally he was inclined to the opinion that perhaps more cases would recover if left completely alone than if the calculus was successfully removed by operation. Many cases, even in a most desperate condition, recovered when left alone. He instanced two parallel cases recorded in his *Archives*. One was left alone, and after passing the stone recovered; while the other was operated upon and died. If the rule was established that operation was necessary in these cases it would have to be done by practitioners having neither the experience nor the skill necessary for success. He laid stress on the fact that in this class of operation experience was especially needful. In one of the author's cases a volvulus was untwisted by operation, and the calculus was passed by the bowel. Cases occurred in which gall stones remained a considerable time in the small intestine, gave rise to intermittent attacks of obstruction, and were ultimately passed by the bowel. The question of operative interference or palliative treatment by waiting was a nicely balanced one, and must be answered by an accumulation of statistics.

MR. MAYO ROBSON, in reply, said that the more desperate cases might recover if left alone. Laparotomy in such cases was an extremely dangerous operation, but cases ought not to be allowed to become so desperate. In the early stages of obstruction due to impaction by gall stones it was very difficult to make a diagnosis from internal hernia, constriction by bands, etc., in which operative interference was imperative. His cases of volvulus associated with gall stones would not have recovered if they had been left alone. He had avoided bringing up statistics, as, owing to the recent great advance in abdominal surgery, the statistics of a few years back would not be a fair guide for the practice of the near future. He quite agreed that if the operation was performed by other than experienced and competent surgeons the results would be very bad indeed. In the four cases of volvulus he had met with, peritoneal effusion was present in all; two were in the small intestines and both were associated with gall stones. Diarrhœa was not present in his cases of gall-stone obstruction. Needling a stone through the already damaged intestine wall was to be avoided; a small incision into the bowel was much more satisfactory. In his experience gall stones in the intestine were seldom palpable through the abdominal wall owing to the accompanying distension. He preferred removing the stone by enterotomy to pushing it on into the colon, and, unless the bowel was considerably damaged, did not think it necessary to fix it near the wound.

THE Royal Prussian Academy of Science has granted Professor A. Kossel a sum of 1,500 marks (£75) to enable him to continue his researches on the chemistry of the cell nucleus.

DONATIONS AND BEQUESTS.—The late Mr. W. F. Rawdon, of Clifton, York, has by his will bequeathed £1,000 each to the Middlesex Hospital (female cancer ward) and York County Hospital, and £2,000 to the York Dispensary.

[1] Clinical Society's *Transactions*, vol. xix, p. 149.
[2] BRITISH MEDICAL JOURNAL, January 19th, p. 139.
[3] Clinical Society's *Transactions*, vol. xxi, p. 99.

HARVEIAN SOCIETY OF LONDON.

GEORGE EASTES, M.B., F.R.C.S., President, in the Chair.

Thursday, January 17th, 1895.

ANNUAL MEETING.

PRESIDENT'S ADDRESS.

THE PRESIDENT delivered his address, taking as his subject "Evolution in Treatment from 1831 to 1895." In the former year the Society was founded by ten members, among whom were Anthony Todd Thomson and Marshall Hall. After giving a sketch of the progress made in all departments of intellectual activity during the last sixty years, the President went on to show that the followers of medicine had taken their full share in it. All branches of medicine had participated in the vast strides of recent years, but it was impossible for him to survey more than a minute part of the wide domain. He therefore selected the division of prevention and treatment of disease. But even here he must restrict himself to a portion only of the subject, namely, the evolution in some of the opinions held as to treatment which had occurred within the lifetime of the Society. After referring to the great importance of correct diagnosis, he said that in the practitioner's daily warfare with disease and suffering, treatment should ever occupy the foremost place. The advance made in recent years in diagnosis was the burden of Dr. Cheadle's admirable presidential address in 1893. Following him, but *longo intervallo*, he (the speaker) would chronicle some similar items respecting the prevention and treatment of disease. In 1831 preventive medicine, except in the case of vaccination, was non-existent. Nurses and medical practitioners went from case to case without attempt to avoid the spread of infection. But to-day notification, isolation, and disinfection were rigidly enforced, and the sanitary defects of an infected house were remedied. One consequence of all this preventive activity had been the well-known decrease in the zymotic death-rate of England and Wales, which from an average of 3.46 in the twenty years 1846-66 fell to 2.43 in the following twenty years. This was a decrease of 30 per cent., though the general death-rate fell only 3 per cent. in the same period. Since 1886, too, the decline in the zymotic death-rate had been accentuated. But a similar result obtained wherever preventive measures were adopted. In India, for example, "whereas in 1865 not one single town had a supply of pure water, in 1894 nearly all the largest cities and cantonments had well-planned waterworks, completed or in progress," with the result "that the death-rate among the British troops had been reduced from 69 to 15 per 1,000." This beneficial change might be partly "attributed to more rational methods of medical treatment, and to improved nursing," but doubtless was chiefly due to lessened prevalence of epidemic diseases brought about by better sanitation. Passing to the subject of treatment, the development which it had undergone since 1831 was so vast that it might almost be described as a revolution. The change was apparent in two directions: (1) Methods of treatment common at that date had since fallen into disuse; (2) other methods then unknown were now constantly employed. A good example of the former change was shown by our present management of pyrexial diseases. Heroic remedies, such as bleeding, purging, mercury, antimony, and depletion by semi-starvation diet, were formerly ordered even by a physician so acute and cautious as Sir Thomas Watson for pleurisy, pneumonia, and similar febrile diseases, on the ground, apparently, that a derangement, however slight, would proceed to a fatal issue unless combated by these powerful remedies. Nowadays inflammatory ailments were regarded as having a course resembling the sea-tide, in that the process came to a height, and then as naturally subsided into good health again, unless the disease were so severe that in spite of every attention, irretrievable damage or death itself occurred. In consequence of this change of view, the treatment of to-day was less heroic, but more efficacious. It consisted of rest in bed, careful nursing, suitable dietary, and remedies to reduce and keep down temperature, with the accredited treatment of any serious symptom if it arose, of which thermometry would probably give early indication. The upshot was as rapid an abatement of the feverishness as under the former *régime*, subsequent convalescence shortened because the level of debility reached had not been so deep, and mortality reduced. To account for the good results of modern expectant treatment, the curious theory of change of type of disease was invented. It had never, however, been proved to be a correct interpretation of the phenomena witnessed, and, he believed, should be discarded. Men's habits had changed; less alcohol was drunk, and the population, which fifty years since was chiefly agricultural, had, under the influence of the rural exodus, become markedly urban, and entered the fevered rush of modern town life. But he thought it quite possible that for this change of treatment some thanks were due to the heresy of homœopathy, which was, in a sense, a protest against the overtreatment that at its inception it encountered everywhere. *Fas et ab hoste doceri:* practitioners saw that patients recovered under treatment by infinitesimal doses, and, therefore, naturally concluded that recovery would equally ensue with no medication at all, but with simple nursing and careful dieting. This view reached its climax when Gull and Sutton, before the days of salicin and its derivatives, treated acute rheumatism with strict nursing and dieting and the administration of peppermint water as a placebo. The pendulum of treatment for this particular disease thus swung from over-medication to no medication at all; since then he believed it had reverted to the happy mean between the two extremes. There was, however, another side to the question. Do we now unduly neglect the heroic remedies of the past—venesection, for example? There was, too, fifty or sixty years ago, less recognition than in the present day of the immense control exerted by mind over matter, of the intellectual and other powers of the brain over the body. Another distinguishing feature of modern treatment was its definiteness in aim and precision of application, qualities that had grown slowly but surely as knowledge generally had advanced, but which, in the case of surgery, had been fostered by the introduction and adoption of anæsthetics and antiseptics. No discovery of ancient or modern times had proved more beneficent to mankind in general than that of anæsthetics. Unfortunately no statistics existed for an accurate computation of the cases in which local or general anæsthesia was induced, even in one city, for the purposes of diagnosis, surgical operations, or obstetric cases. He had considered the point well, and thought that a daily average of 100 cases, or about 30,000 in the year, was much below the mark for London alone, with inhabitants exceeding 5,000,000 in number. If anything resembling such a rate was maintained elsewhere, there must be more than one million inductions of anæsthesia yearly among civilised peoples. Prevention, either as asepsis or antisepsis, pervaded, whenever it was applicable, all branches of modern treatment, and the former was, according to some authorities, as efficacious as the latter, if only it were thoroughly applied. In no department of medical work were antiseptic precautions more necessary or valuable than in the region of obstetric practice. The wholesome principle of prevention, moreover, was capable of wider application. Not only might infection and inflammation be warded off, but the disastrous results of many diseases might be prevented or mitigated by timely care: as by proper feeding after enteric fever to avert perforation, or by continued rest in bed during rheumatism to obviate cardiac complications. But not even to anæsthetics and antiseptics combined was due all the precision of modern treatment. He believed a very large part of its progress might be traced to the teachings of Mr. John Hilton, who first taught systematically the true significance of pain and its interpretation, and placed the principle of treatment of diseased parts by physiological rest on a basis which, since it was founded on the general laws of physiology in health and disease, would be as enduring as treatment itself. The President then proceeded to indicate briefly the effects to the public and to the profession respectively of the progress that treatment had undergone. To the public it had been advantageous in every way in consequence of the incidence of illness being less frequent, its accompanying pain and sorrow mitigated, duration shortened, and results less disastrous. Amongst these results was a lowered death-rate, especially from infectious diseases, which notoriously cut off in their youth or prime those who, with life before them, were amongst the most valuable items of a population. Upon the profession, in this country at any

rate, the effects of the steady progress had been many and far-reaching, and were divisible into three classes, affecting them (1) in their preparation for the conflict with disease, (2) whilst engaged in that conflict, and (3) in the results thus accruing to them. With more to learn and examinations ever increasing in severity, the intellectual status of members of the profession generally had risen and was rising. The unskilled "tinker of deteriorated human pots and pans" of past days had become the cultured "wise physician skilled our wounds to heal" of to-day. The widening sphere of science and art had, however, become too extensive for any single mind to grasp it thoroughly in all directions, and was largely accountable for the specialising that now flourished everywhere. The rapid growth of this tendency was well shown by the fact that when the British Medical Association met in 1833 in Bristol in the second year of its existence, its whole business was transacted in one general meeting: but last year, at the meeting in the same city, the papers and discussions were divided amongst ten sections, whilst for the scientific work of the approaching meeting in London fifteen sections had been provided, and there were, he knew, those who desired even that number to be increased. One point in reference to modern progress he wished much to emphasise—namely, that our increasing mastery over disease gave added zest to work, and the more frequent recovery of patients augmented much our "pleasures of life." The President concluded as follows: "And although there is on one side a lessened number of cases of illness, and lessened average length of illness—which remark applies both to medicine and surgery—yet other cases that formerly died at an early stage of disease, or after accident, now pass through an illness to health, so that our work is possibly not diminished but merely displaced. It is not, I opine, from improvements in treatment, but from other causes, especially overcrowding of our ranks, and consequent over-competition for practice, from which the profession as a body suffers: but, even were it otherwise, were our means of livelihood actually restricted by the very advances in our art that we ourselves have made, yet we must remember that the self-sacrificing 'struggle for the life of others' has in no branch of human labour been more apparent than in the ranks of medicine, nor here has it ever shone more brightly than at the present moment. May the same generous spirit continue through all time to animate those who practise the divine art of healing."

HUNTERIAN SOCIETY.

Charters J. Symonds, M.S., F.R.C.S., President, in the Chair.

Wednesday, January 9th, 1895.

Operative Treatment of Perityphlitis.

The President read a paper on this subject founded on twenty-three cases which had come under his care for surgical treatment. The cases were necessarily divided into two groups: (1) those in which operation had been performed in the quiescent stage for relapsing typhlitis, and (2) those in the acute, suppurating condition. The first group included six cases. The following are briefly the notes of each: Case A. This case is reported in full in the Clinical Society's *Transactions* for 1885. The patient had had several attacks of colic during the six months before the removal by operation of a calculus from a cavity outside the appendix. The peritoneal cavity was not opened. The author now exhibited the calculus, removed in July, 1883, and stated his belief that this was the first case of perityphlitis operated upon in the quiescent stage. The calculus was composed of calcium phosphate and fæcal matter, and the question was whether such a calculus could have formed in six months. In two other of the six cases a calculus was also found on operation. In one, Case B, there had been symptoms of colic for two years. The calculus rested in a cavity outside the appendix, and presented a laminated appearance, similar to that of Case A. Case C. A calculus of similar size and form was removed from a cavity in the iliac fossa. In this case the cæcum was adherent to the abdominal walls, and a fæcal fistula resulted from sloughing of the intestinal walls, and still persists. The patient had suffered from typhoid fever one year and enteritis three months before admission. Before operation there was a small area of exquisite tenderness in the lower part of the right rectus muscle. The symptoms in these three cases were of three, six, and twenty-four months' duration respectively from the first attack. Case D, a female, had had two attacks, the first twelve and the second two months before admission, with an ill-defined right iliac swelling, and pain on walking. The abdomen was opened, the appendix removed, and perfect recovery resulted. Case E, a girl aged 8, who had had a first attack five years ago, when 3 years of age. With quiet and care she had no second attack till 1893. The patient came under Mr. Symonds during a third attack, when a tumour could be felt at the brim of the pelvis. The appendix at the operation was found hanging down into the pelvis, and adherent to the rectum. It was removed, and the patient did well. Case F, a student, who had had two attacks, and in whom at operation a mass of white lymph was found adherent to the iliacus muscle, and to two coils of ileum. The appendix and omentum were removed, and recovery resulted. Thus in these six cases four had had two attacks, one had had great pain and inability to work after a first attack, and in one the attacks had been frequent. The author would ask the questions: Ought we to operate after one attack, even if severe? Ought we to advise operation after a second attack? And, thirdly, if in suppurating cases the appendix could not be found, should the peritoneal cavity be opened if necessary in order to find and remove the appendix? The author next detailed the method of closure of the divided appendix. Operation had been performed in seventeen acute cases. It was important to estimate the initial severity. If the attack was not very severe or very sudden the prognosis was good so long as the swelling continued firm. Many cases recovered from the first and second attack. Mr. Symonds drew attention to the fact that the quantity of pus was in no way proportionate to the amount of swelling, and narrated one of his cases where the swelling was enormous, reaching above the umbilicus, and contained only one drachm of foul pus. The usual symptoms were sudden onset of pain, with or without sickness, or diarrhœa, with or without pain, with or without sickness, with subsequent development of tumour. Case G, a female, experienced sudden pain in the right hypochondriac and inguinal regions, one month after confinement. The temperature varied between 99° and 102°. On the tenth day there was a well-defined swelling in the right inguinal region, with hectic symptoms. An incision yielded 1 oz. of pus, and an entire detached appendix, contained in a large cavity. Mr. Symonds said that 5 out of the 23 cases presented hectic temperature with anorexia and gradual development of swelling. Of these five cases all but one recovered, and in that case the abscess ruptured on the thirteenth day. This patient was at first not very acutely ill, but was suddenly taken with severe pain, and diarrhœa and collapse. The author advised operation, where a tumour existed, which continued to increase in spite of rest, and where the temperature rose and the tumour continues to increase in size. In another group of cases there might be an abscess in an abnormal position. Reference was next made to a fourth group of cases where with abdominal distension and septic pyrexia no tumour was palpable. The author pointed out the great value of the presence of slight œdema over the loin as an indication of the presence of deep seated suppuration. In two cases a large abscess had been completely masked by the abdominal tympanites. He therefore advised operation where the symptoms were severe and persisted, if abdomen were tympanitic. As to the justifiability of operation during the early stages of the disease, he pointed out that in two of his cases operation had been performed twenty-two and twenty-nine hours after the onset of symptoms. In one, purulent peritonitis was found, and death resulted. The other was admitted into hospital in collapse, and operation revealed a localised abscess, which was drained with good result. Mr. Symonds considered that the danger of operation was much increased by the removal of the appendix when an abscess existed. In none of his cases of abscess was the appendix searched for.

Remarks were made by Dr. Cotman, Dr. Fortescue Fox, Dr. F. J. Smith, and Sir Hugh Beevor; and the President, in reply, said in his opinion the less opium given the better. In a few cases he advised pulv. Doveri grs. v, t.d.s. He

firmly believed that every case which suppurated never recurred.

LARYNGOLOGICAL SOCIETY OF LONDON.

ANNUAL GENERAL MEETING.

FELIX SEMON, M.D., F.R.C.P., President, in the Chair.

Wednesday, January 9th, 1895.

ELECTION OF OFFICES AND COUNCIL.

THE reports of the Council, Treasurer, and Librarian having been received and adopted, the officers and council for the year 1895 were elected, as stated in the BRITISH MEDICAL JOURNAL of January 19th, page 140.

CASES, ETC.

Dr. W. HILL showed (1) a patient with two elongated Moriform Tumours, springing symmetrically from the posterior border of the septum. In a similar case he had found great difficulty in removing the growths by snare, scissors, and knife. The cases were rare. (2) A patient, aged 30, whom he had treated for Tuberculous Disease of the Nasal Fossa by scraping, and the application of trichloracetic acid, and other means, with success. Two years later a lupoid condition of the skin covering the left ala had developed.—Dr. HODGKINSON (Manchester) exhibited a Throat Mirror for laryngoscopic purposes, in which quartz was substituted for glass. He also showed a Magnifying Laryngoscope, consisting of a throat mirror of a plano-convex shape, the convex side being silvered, while lenses of various focal length could be adapted to the forehead reflector.—Dr. PERCY KIDD showed a patient suffering from Partial Stenosis of the Larynx, associated with Syphilitic Disease of long standing. The larynx was invaded by several polypoid outgrowths and much thickening. He proposed to attack these growths with the forceps after tracheotomy had been performed.—Dr. LAW showed a woman, 62 years of age, who had been subject to Œdematous Swellings which affected sometimes the soft palate and pharynx, and sometimes the skin of the arms and other parts. No cause, dietetic or other, could be traced. The swellings began as little hard isolated lumps under the skin, which caused great irritation. Redness and œdema appeared later. When occurring in the mucous membrane of the soft palate considerable obstruction was caused, almost threatening suffocation. The swellings soon passed off, but were apt to recur without warning in any part of the body. Brocq, Riehl, Unna, Crocker, Pringle, and others had reported similar cases in which the tongue or mucous surfaces of the eye, throat, or stomach had been affected by the disease, which had sometimes been called "Quincke's disease." Strübing had described similar conditions under the name of "angio neurotic œdema."—The PRESIDENT exhibited (for Dr. ARTHUR HENNIG, of Königsberg) a series of Oil Studies, much enlarged from Nature, of Diseased Conditions of the Larynx and Nose.—Dr. SCANES SPICER showed a patient upon whom he had operated several times for Suppuration of the Antrum. Ordinary methods having failed, a double opening was made into the nasal as well as into the buccal cavity, and by that means the antrum had been kept free from septic processes by irrigation and thorough drainage.—Mr. BUTLIN showed a patient from whom he had removed a Tumour from the Back of the Tongue in the year 1889. There was now a prominent lump far back on the left half of the tongue. The structure of the tumour when removed was found to be that of the thyroid gland.—Dr. DUNDAS GRANT showed a patient, aged 30, with Hoarseness limited to the Lower Register of the Singing Voice.—Dr. WILLCOCKS exhibited a patient who had suffered from Hoarseness and Fixation of One Cord, with swelling of the corresponding arytenoid cartilage, which came on quite suddenly some months after a severe injury. No cause could be discovered. Dr. BRONNER and Mr. STEWART expressed the opinion that the condition was one of perichondritis, causing mechanical interference with the movement of the cord.

DR. FRANCISCO BEATO ALEXANDRE DE FIGUEIREDO MAGALHAES, Viscount de Gomici, has had the title of Count de Figueiredo Magalhaes conferred on him by the King of Portugal.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

T. S. CLOUSTON, M.D., President, in the Chair.

Wednesday, January 16th, 1895.

OPERATION FOR PERFORATED GASTRIC ULCER.

DR. LUNDIE showed a case after operation for perforated gastric ulcer. The patient, a young woman, suffered for about two years from pain in the region of the stomach. On October 20th, 1894, she was seized with severe pain. A feeling of stiffening followed. Examination showed that a burst of some kind had taken place into the peritoneum. With Dr. Aitken's help Dr. Lundie operated. A perforation was found well round on the anterior surface of the stomach, about the size of an eyelet hole in a boot. This wound was stitched up. There was extreme collapse during the washing out. After the patient was put to bed, however, she quickly rallied. The operation was performed ten hours after the accident, and there were already signs of general peritonitis. After operation there was no further trouble from peritonitis.

REMOVAL OF VERMIFORM APPENDIX.

Mr. CAIRD showed a case after removal of the vermiform appendix. The patient, a young man, complained of pain in the left iliac region. On cutting down, a piece of omentum was found lying over the appendix, and pieces of flaky lymph covered it. The appendix was hooked to the surface and removed, and the wound stitched. Six weeks had elapsed since the operation, and the patient had made a good recovery.

CASES.

Mr. CAIRD showed a case after resection of Gangrenous Gut, in which the operation had proved thoroughly successful.—Dr. BYROM BRAMWELL showed (1) three cases of Pseudo-hypertrophic Paralysis. Of these, two were boys of the same family. (2) A very characteristic case of Congenital Syphilis, and drawings and photographs illustrative of the same disease.—Dr. C. W. MACGILLIVRAY showed (1) a patient whose infraorbital nerve had been excised for Facial Neuralgia. (2) A case in which Excision of the Condyles of the Humerus had been performed for Unreduced Dislocation of the Elbow, with Fracture of the External Condyle. The patient, a boy of 9 years of age, fell when playing football, and dislocated his elbow. His parents took him to a bonesetter, who reduced the dislocation, as he said. But as the arm remained stiff the boy was brought to the infirmary. Even under chloroform the dislocation could not be reduced. Excision of the condyles of the humerus was then performed, and the boy could now put his hand up to his face and to the back of his head. Dr. NORMAN WALKER showed a case of Lupus.

EXHIBITS.

Mr. CATHCART showed several casts illustrating Venereal Warts. He also showed a water-colour drawing of Copaiba Rash. The patient in this case had got a copaiba mixture from a chemist for the purpose of curing a gonorrhœa. Mr. Cathcart also exhibited and described a simple Apparatus for producing a Constant Suction from the Bladder or other cavity. The apparatus acted quite as well when air got into the tube, and so it had an advantage over the ordinary siphon.

SURGERY OF THE INTESTINE.

Mr. CAIRD described some cases illustrating the surgery of the intestine. He first discussed various points in an operation upon a hernia where part of the bowel had become gangrenous. He described different methods of cutting, cleaning, and stitching the gut. He went on to discuss methods of operation in the case of tumours of the intestine. If the tumour were small and close at hand, Mr. Caird thought primary resection might be done. Where there was anything of the nature of gangrene going on, the sooner the surgeon got to work the better. He would do well to operate leisurely and carefully, and to take the greatest care that the peritoneum was not contaminated.

Mr. CATHCART, Mr. STILES, and Mr. WALLACE took part in the discussion on Mr. Caird's paper.

Aneurysm perforating Superior Vena Cava.

Dr. Alex Bruce read a paper on a case of aneurysm which perforated into the superior vena cava. The patient was a stonemason, who came for treatment in August, 1894. He was short of breath, and had a bad cough. He had contracted syphilis eighteen years previously, and a scar was visible under his tongue. His face was very swollen and cyanosed, and there was cyanosis of the upper part of his body, extending down to the point of attachment of the diaphragm. Below this point the skin was natural. The external jugular veins were swollen, but did not pulsate. The veins of the axillæ were also swollen and tender. A very remarkable murmur was audible; it was louder in the systole and faded away in the diastole. A week after admission he had a bad attack of breathlessness, becoming almost black in the face. Next day Dr. Bruce noted that the point of maximum intensity had risen from the third to the second costal cartilage. On the 15th the man complained of being much more "stuffed up." On the 17th marked œdema of the glottis developed. He was bled, and next day he was better; both the œdema and the dyspnœa had diminished. He died from an attack of increased œdema glottidis. *Post mortem*, a great deal of thickening was found in front of the aorta. There was a large aneurysm extending from the aortic valves to the innominate artery. It had grown forwards and to the right. The vena cava was firmly bound down by a mass of fibrous tissue, which passed from the aneurysm to a dark mass behind. When the superior vena cava was exposed it was found that there were two minute perforations in it from the aneurysm. The two openings were evidently different in date. The right azygos vein was enormously dilated. The lungs showed a moderate degree of stonemason's interstitial pneumonia.

Dr. Byrom Bramwell and Dr. Gibson took part in the discussion.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

W. Thornley Stoker, P.R.C.S.I., President, in the Chair.

Friday, January 4th, 1895.

A Series of One Hundred Cataract Extractions.

Mr. J. B. Story read a report of a series of 100 operations for senile cataract, including both complicated and uncomplicated cases. Only 2 eyes out of the 100 were lost, both by wound infection. In 8 cases the vision obtained was less than $\frac{6}{60}$, and 3 cases, though surgically successful, remained with only perception of light owing to pre existing disease of other portions of the eye. In 42 cases simple extraction was done (without iridectomy). Forty-six combined extractions were done, and 12 extractions after preliminary iridectomy. Mr. Story dwelt upon the importance of thorough asepsis as the principal factor in determining the result of a cataract extraction, and stated that his experience as yet was not sufficient to enable him to decide upon the comparative merits of the simple operation and the extraction combined with iridectomy. So far as the present series was concerned, the results were slightly better in the cases where no iridectomy was done, although in 12 per cent. of the cases prolapse of the iris occurred. All these cases of prolapse turned out well, and obtained good sight, but the dangers of prolapse would always be a drawback to the universal adoption of the simple operation for all cases. The section advocated was the 3 mm. flap as proposed by De Wecker, and first performed in this country by Mr. Story in 1879. In the present series no conjunctival flap had been made, but Mr. Story had since reverted to a conjunctival flap, and aimed at making it now in all cases.

Mr. Swanzy thought that as the operations were done by different operators and by different methods, the deductions from the good results would not be so valuable as they otherwise would have been. He thought that the cases of wound infection were too many. He had done 270 operations, not taking into account traumatic cataracts, and had only had 2 cases of suppuration, both of which had occurred in the first 100 cases. The method of antisepsis employed was as follows: The eyelids were everted, and the eyes thoroughly washed with 1 in 10,000 corrosive sublimate. Any solutions, as those of atropine or eserine, were made up with the same solution. The instruments were sterilised by boiling and then put into a bath of weak carbolic lotion, from which they were taken. The dressings were also dipped in corrosive sublimate solution, and oil silk put over them to prevent them drying. On the whole, he preferred not having a conjunctival flap. He did not understand what the preliminary iridectomy was done for in 12 of the cases. He never did it except to ripen a cataract. He always used the "combined" in preference to the "simple" operation.

Mr. A. H. Benson also spoke.

Mr. Story, in reply, said there were only 6 of the operations not done by himself. The antiseptics employed by Mr. Swanzy were much the same as his, except that corrosive sublimate solution was used instead of boiled boric acid solution. Three cases of preliminary iridectomy were done to ripen the cataract.

Restoration of the Lower Lip after Excision for Cancer.

Mr. John Lentaigne described a method of restoring the lower lip and the soft parts covering the chin which he had employed in four cases of advanced cancer of these parts, with exceptionally satisfactory results from an æsthetic point of view, and, so far as he had been able to learn, without any recurrence of disease. The operation consisted in removing the diseased tissues in a square piece between vertical incisions—one on each side and a horizontal incision below parallel to the free border of the lip. These three incisions must be carried through perfectly sound tissues only, and at least a quarter of an inch of apparently sound tissue should everywhere lie between them and the nearest margin of the diseased mass. In this way the position of the incisions would vary with the extent of the disease. The flap which was to form the new lip was then taken from the tissues under the chin, and on the upper part of the front of the neck by prolonging the two vertical incisions downwards as far as might be necessary, and dissecting off the quadrilateral flap betwen them. This was then drawn upwards to form the new lip and front of the chin, and was fixed *in situ* by wire sutures, a drainage tube having first been inserted in the middle line at the centre of the lowest part of the flap, so as to allow of free drainage from the pouch under the chin. The head should be bent towards the sternum, and fixed in that position until the flap becomes firmly adherent in its new position. When preparing his paper Mr. Lentaigne had learnt, for the first time, that the principle of the operation was not new; it had been long before introduced by Chopart. The advantages of the operation were that it allowed of a very thorough removal of the disease, while at the same time it gave a very perfect result from an æsthetic point of view, and it allowed of an effective exploration of the submental and submaxillary spaces—a step which should always be thoroughly carried out in all cases of advanced cancers of the lower lip.

The President said that he had never seen a better restoration of the lip than the one then exhibited, which was done by Mr. Lentaigne by this method.

Mr. Thomson thought that where the disease extended well down towards the chin the method would be excellent.

Remarks were also made by Mr. Kendal Franks and Mr. F. Nixon: and Mr. Lentaigne, in reply, said the operation was only required where the whole lower lip was diseased. The material used for dressing was gauze and wood wool, which was changed as soon as it was soaked, and then a flannel bandage with starch, which fixed the part. The incision need not extend much below the border of the chin if the disease was not very extensive. It must in all cases, however, cross the border of the chin in order to get the flexible skin of the neck.

LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

T. Kilner Clarke, M.A., F.R.C.S., in the Chair.

Friday, December 14th, 1894.

Pulmonary Valvulitis with Large Deposit of Fibrin.

Dr. Churton showed this specimen. The pulmonary valve alone was affected. A mass as large as the last phalanx of

the thumb was attached to the cusp of the valve, projecting into the artery. This had caused a very loud systolic roaring *bruit* in the second left space during life, but had prevented any regurgitant *bruit*. The patient was a woman, aged 30, who on June 22nd, 1894, apparently had biliary colic. On June 25th rigors, which continued at irregular intervals; on July 10th miscarriage in fifth month; on July 29th pain and swelling in knees, ankles, and temporo-maxillary joints. On July 31st admitted into Leeds Infirmary with pyrexia, enlarged spleen, and pulmonary signs, and the cardiac *bruits* mentioned. She died on August 7th. Pulmonary infarcts, chiefly in right lower lobe, a little recent lymph around aorta and pulmonary artery, vegetations upon adjacent endocardium and pulmonary artery, as well as on cusps of valve, spleen soft, 18ozs. in weight. The gall cyst contained several calculi.

PERFORATION OF VERMIFORM APPENDIX IN A CHILD.

Dr. CHURTON showed specimens from this case, a child, aged 2½ years, previously healthy, but not judiciously fed. November 25th, 1894, slight diarrhœa; November 26th vomited dinner during the night; November 27th, feverish, looked ill, eyes sunken, vomited everything, occasional colicky pain; November 28th, tender in right iliac fossa, obscure swelling there, pains continued. December 1st, abdomen larger, not tender except in cæcal region; December 2nd, admitted into infirmary; strong visible peristalsis every five or ten minutes in coils of small intestine; nothing felt in rectum or pelvis; pulse 100, temperature 99°. Operation declined until December 5th. Incision by Mr. Mayo Robson, found 2 ounces of pus in ileo-lumbar fossa. December 6th, decided improvement in everything but pulse, 145; bowels acted spontaneously; evening, pains returned: pulse, 150. December 7th, died at 7 A.M. Necropsy: Perforation of appendix half an inch from tip. Thick inflammatory mass lying between ileum and cæcum. Small intestine: first 5 feet normal size; last 2 feet formed a loop gently adherent to right wall of pelvis; mucous membrane quite smooth for half an inch at point of kinking and obstruction; above and below valvulæ conniventes conspicuous. Intermediate intestine distended; contiguous coils adherent by butter-like inflammatory material; no general peritonitis. Death had resulted from the obstruction.

HÆMORRHAGE INTO PONS.

Dr. CHURTON exhibited a pons from a woman, aged 40, in which hæmorrhage had occurred into the posterior part, finally rupturing into the fourth ventricle. Gradually increasing coma; contracted pupils; vomiting; ascending temperature; resistance to passive extension of elbows, etc.; twitching movements in all limbs; lastly, Cheyne-Stokes breathing, were observed during life. Even when coma seemed complete, the eyes followed a light downwards, but in no other direction. Death occurred in fifteen hours. Chronic nephritis, atheroma of ventricles and basilar and other lesions were found.

HYDATID CYST OF BRAIN.

Dr. BARBS showed a brain with hydatid cyst in the fourth ventricle, which had proved fatal by rupture. The cyst was the size of a large walnut, and the cavity of the fourth ventricle was symmetrically distended to accommodate it. It was taken from a man, aged 30, who had been found insensible in the street. He lived twenty-four hours after admission in a state of complete insensibility. At first the limbs were the seat of paroxysms of violent twitching, but towards the end they became flaccid and motionless. The temperature had risen to 107° at death. The pupils were contracted, the reflexes exaggerated, the breathing was regular throughout. Pulse rose from 72 on admission to 132 at death. Beyond occasional headache, and an epileptic seizure in October, 1893, there had been no symptoms pointing to intracranial disease. The fundus oculi could not be examined during life, but after death the optic discs were found to be normal.

SUPPURATIVE PYLEPHLEBITIS.

Dr. BARBS showed a specimen removed from the body of a lad aged 20. In June, 1894, he was attacked with typhoid fever, which seemed to be running a favourable course except for the occurrence of occasional rigors. All the stigmata of the disease were present. The temperature was still above normal on the forty-third day of his disorder, when signs of fluid were observed at the base of the right lung. Pus stained with bile and of offensive odour, was found on exploration, but incisions failed to evacuate any considerable quantity. Eventually an enormous collection of pus formed in the right pleural cavity, which was incised, but without success. At the *post-mortem* examination tracts of stinking suppurations were found corresponding to the ramifications of the portal vein, which was completely closed at the portal fissure. The right colic vein also contained pus. The intestine was normal, except that some coils of the ileum were adherent to each other. There was no ascites and no hepatic enlargement. The retroperitoneal glands were enlarged and occasionally caseating. There was acute tuberculous pleuritis of the left lung.

MISCELLANEOUS SPECIMENS.

Dr. WARDROP GRIFFITH showed (1) a Liver presenting the Signs of Acute Yellow Atrophy. It weighed 34 ounces, and, when fresh, the reddish-yellow mottling was well seen. There was extensive atrophy of the liver cells. The patient was a woman, aged 26, unmarried, and the symptoms were ushered in by deep jaundice: this was followed by delirium and diminished pigmentation of the urine. (2) A Growth (malignant) involving the left side of the Pons, and causing right hemiplegia with complete paralysis of the motor and partial paralysis of the sensory part of the cranial nerve. He also showed the Small and Large Intestine from a case of Cancrum Oris. The mucous membrane presented an immense number of raised flattened nodules, varying in size from one-fifth to half an inch.—Dr. GIBSON showed a Cancerous Liver with microscopic specimens.—Dr. GORDON SHARP showed a convenient form of Microtome.—Mr. ARCHBOLD SMITH showed a Calcification of the Mesenteric Glands.—Specimens were also shown by Mr. WALKER illustrating the Anatomy of the Middle and Internal Ear.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

F. PAGE, M.D., President, in the Chair.

Thursday, January 10th, 1895.

RUPTURE OF INTESTINE.

MR. WILLIAMSON showed a man after operation for ruptured intestine. Just after dinner the man fell, striking the abdomen on a chair. Two hours later hæmatemesis occurred. He was admitted to hospital thirty hours after the accident. On opening the abdomen, the intestines were found covered with firm lymph. At the junction of duodenum and jejunum there was found a protrusion of mucous membrane the size of the thumb nail. The edges of the wound were unfolded and sutured, and the abdomen washed out with a saline fluid; no drainage employed. Recovery was uninterrupted.

UTERINE FIBROIDS.

Mr. WILLIAMSON also showed a married multipara, aged 47. She had suffered from hæmorrhage for two years. The uterine and ovarian arteries were ligatured, the tumour excised, the opened cavity of the uterus disinfected by the thermo-cautery, and two flaps of uterine tissue and peritoneum made and sutured together, and the uterus replaced in peritoneal cavity. Two weeks after operation a fibroid the size of a walnut escaped from the vagina.

Mr. RUTHERFORD MORISON showed a series of fibroids illustrating different methods of operating by vaginal hysterectomy: extraperitoneal treatment of the pedicle: intraperitoneal, leaving uterus and ovaries intact: intraperitoneal, removing tubes, body of uterus, and tumour; and total hysterectomy.

Dr. HUME showed a patient, aged 50, who had a tumour of moderate size, accompanied by no hæmorrhage, but by very severe pain. Extensive adhesions were found between the tumour, the bowel, and the omentum. On separating these both tubes were found distended with pus, and were removed. The tumour was drawn forward, surrounded by a permanent elastic ligature, and treated extraperitoneally.

This he regarded as the safest, though not the ideal, method.

The PRESIDENT referred to two cases shown by him at the last meeting, the extraperitoneal method being employed in one.

Dr. G. MURRAY said fibroids in women approaching the menopause should not be operated on. Apostoli's treatment checked the hæmorrhage, and might tide the woman over the menopause.

Dr. HUME had had little success from Apostoli's treatment. He still believed in removal of the ovaries, and gave details of cases recently treated in this way.

CASES.

Dr. D. DRUMMOND showed: (1) Patient who up to fifteen years ago was a heavy drinker. He had been left with a cirrhotic liver, which was practically cured. The liver and spleen were both very large, and adherent to the abdominal wall, so that the anastomotic circulation is established in the abdominal wall, and the portal circulation relieved. (2) Man, aged 28, who came in May with a heart beating 200 per minute; he was nervous and breathless; the symptoms came on after a fright. There were no murmurs. He had now aortic and mitral insufficiency and pericardial thrill. There was never any rheumatism till December 27th, 1894.—Dr. HUME showed: (1) Woman after Cholecystotomy. The gall bladder was distended and contained calculi, and a large one was removed from the cystic duct by incision. (2) Patient with Trophic Changes following Nerve Injury. In April she received an incised wound on the inner side of the upper arm. In December was admitted with tips of three outer fingers gangrenous, wasting of muscles of forearm and thumb and the interossei. The median and ulnar nerves were found divided and sutured.—Dr. A. E. MORISON had recently met with a case of Injury to the External Popliteal Nerve caused by a blow on the head of the fibula. There was complete paralysis of all the muscles supplied by the torn nerve, and sensation was also absent. He cut down on the nerve, and found a clot of blood in the sheath, but no division of the nerve itself, as had been expected. In a short time recovery was complete.—Mr. RUTHERFORD MORISON showed two cases illustrative of Thiersch's method of Skin Grafting.—The PRESIDENT showed a Tumour of the Omentum removed from the abdomen of a man. It was the size of an adult head, and consisted chiefly of clotted blood.

BRITISH GYNÆCOLOGICAL SOCIETY.—At a meeting on January 10th, Professor T. SAVAGE, President, in the chair, Dr. MANSELL MOULLIN showed a specimen of Tubal Gestation, removed before rupture of the cyst, in a woman aged 35. A mass the size of an orange was removed, consisting of ovary and dilated tube. The latter contained an ovum, with an embryo of twelve weeks' growth. There was recent hæmorrhage into the sac, but no rupture had occurred. Recovery was uneventful. After some remarks from Dr. BANTOCK, Dr. LEITH NAPIER said this case demonstrated the possibility (denied by Tait) of the diagnosis of tubai gestation before rupture occurred. Rupture usually took place before the end of the twelfth week: hence this case had probably gone on nearly as long as it was possible. Hæmorrhages might of course occur before rupture took place. The discussion was continued by Dr. R. T. SMITH and the PRESIDENT, and Dr. MANSELL MOULLIN replied.—The TREASURER (Dr. Mansell Moullin) presented his annual report, which was highly satisfactory. The PRESIDENT moved the adoption of the report, and that the best thanks of the Society be given to their able Treasurer. This was seconded by Dr. BANTOCK, and carried unanimously.—The EDITOR of the journal (Dr. Leith Napier) presented a report of the work of the year, and gave an account of the alterations made and proposed in the journal to increase its efficiency and popularity. On the motion of the PRESIDENT, seconded by Dr. GODSON, the report was adopted, and the thanks of the Society were given to Dr. Napier.—The result of the ballot for the election of officers was then declared. Dr. MACNAUGHTON JONES moved a vote of thanks to the retiring officers for their valuable services. This was seconded by Dr. R. T. SMITH, and carried by acclamation. On behalf of the retiring officers, Dr. LEITH NAPIER and Dr. HEYWOOD SMITH replied.—The PRESIDENT then delivered his valedictory address, in which he briefly reviewed the year's work. A hearty vote of thanks to the President for his address was moved by Dr. ROUTH, seconded by Dr. BANTOCK, and carried unanimously.

NORTH-WEST LONDON CLINICAL SOCIETY.—At a meeting on January 9th, Mr. F. DURHAM in the chair, Mr. JACKSON CLARKE showed a case of Erythematous Ulceration of the Extremities in a boy. The CHAIRMAN commented on the case.—Dr. GUTHRIE showed two children, brother and sister, suffering from Hereditary Congenital Spastic Paralysis. There was a third child similarly affected, and two were healthy. The mother was healthy. The father, who was also shown, had a spastic gait, exaggerated knee jerks, and ankle clonus.—Dr. NATHAN showed a boy with a Patch on his Head showing atrophic skin and sparsely covered with hair. This had been taken erroneously for ringworm. It existed at birth, and was doubtless a nævus which had undergone spontaneous cure. He also showed a Nævus of the Pinna which had been treated successfully by electrolysis.—Dr. HARRY CAMPBELL showed a case illustrating the Barrel-shaped Chest of Emphysema.—Mr. JACKSON CLARKE showed a case in which Osteotomy both of the Femur and of the Tibia had been performed according to Macewen's Method. The result had been good.—Mr. GORDON BRODIE showed a case of Exophthalmos without enlarged thyroid and accelerated pulse. The sternum was enlarged, and its upper edge projected inwards. The cranial bones were also enlarged. Remarks were made by Dr. CAMPBELL, Mr. JACKSON CLARKE, Dr. COALL, and Dr. CAGNEY.—Dr. H. CAMPBELL showed a case of Recovery from Myelitis, and he advocated the use of blisters to the spine in this and other acute conditions. Dr. COALL also spoke of the efficacy of blisters and ergot in acute myelitis.—Mr. JACKSON CLARKE showed a case of Hæmatoma of the Pinna. There was no associated psychosis.—Dr. ATKINSON (for Mr. MAYO COLLIER) showed a case of Hallux Rigidus, and also a case of Polypus of the Frontal Sinus.

BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION.—At a meeting on January 11th, 1895, Dr. W. M'N. WHISTLER, President, in the chair, Dr. WOLFENDEN showed a case of Epithelioma in a man, aged 48, treated by Laryngofissure. The diseased parts were freely removed, after which it was intended to leave the patient in Butlin's position and take out Hahn's cannula; but, owing to difficulty of deglutition, the latter was replaced with great advantage, and the patient took his food in the author's position for the dyspnœa of laryngeal phthisis, that is, lying on the belly with the head low and feet high. He made a good recovery; the tube was removed and he returned to business; since then the breathing had become more stridulous through contraction and cicatrisation of the parts, the right side of the larynx having fallen in, owing to removal of portion of the thyroid cartilage. The glottic chink was now wavy and not very large. Papillomata had recurred upon the surface of the left ventricular band, and had been removed endolaryngeally. The question to be decided now was whether it was desirable to open the larynx again and clear away the affected tissues of the left side, or to limit any further interference to the insertion of a tracheotomy tube. In the discussion which followed, Mr. L. BROWNE entirely agreed with Dr. Wolfenden's suggestion to do no more than a simple tracheotomy, and subsequent speakers concurred in this view.—Dr. WOLFENDEN also read notes of two cases of apparently congenital web formation of the pharynx. In neither of them was there any history of diphtheria, or antecedent ulceration, or of syphilis, nor did the patients appear to suffer any inconvenience.—Mr. JAKINS read notes of a case of Pulmonary Phthisis complicated with Epithelioma of the Pharynx in a woman, aged 33. In the pharynx was seen a large cauliflower growth which extended downwards from a level with the posterior pillars of the fauces. The root of the tongue was free. Microscopically, sections presented all the characters of an epithelioma. The sputum contained tubercle bacilli. *Post-mortem* examination showed that the growth extended to the œsophagus, causing stricture, as seen in the specimen exhibited. The right lung was infiltrated with tubercle.—Mr. WILKIN showed a case of Syphilitic Laryngitis associated

with Gumma of the Apex of the Right Lung. The case improved greatly under an antisyphilitic treatment.—Dr. Dundas Grant showed the case of a teacher, aged 33, who had suffered for over two years with Hoarseness affecting the lower register. Above the F of the first treble space, where the transition into the upper register took place, her voice was perfectly clear. Laryngoscopically, no abnormality was seen except visible loose vibrations of the inner portion of the cords of the lower register, the approximation of the posterior third being imperfect. Dr. Grant looked upon it as a nervous affection of the internal thyro-arytenoid muscle.—Mr. L. Browne gave a brief demonstration, illustrated by lantern slides, of Microphotographs of the recognised varieties of the Klebs-Loeffler Bacillus. Short clinical notes were given of each of the cases from which the microphotographs had been prepared, so as to emphasise their respective and relative diagnostic and prognostic significance.—It was decided, in accordance with the expressed wish of more than three-fourths of the Fellows, to include Otology in the work and title of the Association.

Cambridge Medical Society.—At a meeting on December 7th, 1894, Mr. Hyde Hills, President, in the chair, the President showed a Portion of a Large Fibroid Tumour, which he had removed with the *écraseur*.— Mr. Wherry showed a case of Remarkable Recovery from a Gunshot Wound in a young man who shot himself accidentally seven weeks ago. Holding a gun by the muzzle, in the right hand, a charge of small shot entered the arm at the level of the axillary fold, and shattered the humerus into many fragments, not injuring the artery or trunk nerves. The bone fragments removed made up 2½ inches of the entire shaft of the humerus; these were extracted through the large aperture of entrance, very slightly touched with a knife for convenience of delivery. The exit wound was made free for removal of shot. No splints or bandages were used for five weeks, only Stromeyer's cushion and shawl wrappings. When healthy granulations appeared the drainage tube was removed, and light splints applied, so that good bone union resulted. Mr. Wherry had reported a similar case many years ago, in which Stromeyer's cushion was used; recovery ensued, with a useful limb.—Dr. Latham read a paper on the Administration of Salicylates in Acute Rheumatism. In 1885 he formulated the following seven rules:—First, the true salicylic acid obtained from the vegetable kingdom must be employed. Secondly, give the acid without any alkali or base. A very good form is to mix 100 grains with 15 of acacia powder and a little mucilage. Allow the mass to stand and harden, and then divide into thirty pills. Thirdly, place the patient fully under the influence of the drug, that is, let him have sufficient to produce cerebral disturbance. To an adult he generally administered three doses of 20 grains (six pills), at intervals of an hour, and, if the head remained unaffected, a fourth dose at the end of another hour; and then repeated the 20 grains every four hours, until the physiological effect of the remedy showed itself. In the majority of cases from 80 to 100 grains were enough. In severe cases 140 to 150 might be required. Afterwards about 80 grains a day were sufficient; and, as the temperature declined, 60 or even 50 grains would be sufficient to produce cerebral disturbance. Fourthly, give the patient from 40 to 80 grains daily for ten days, after all pain and pyrexia have passed away. Fifthly, let the patient's diet consist entirely of milk and farinaceous food for at least a week after the evening temperature had been normal. Sixthly, take care to maintain a daily and complete action of the bowels. Calomel was the best purgative, from 2 to 5 grains at night, followed in the morning, if necessary, with a saline draught. Seventhly, let the patient be enveloped in a light blanket, and with no more bedclothes than are sufficient to keep him from feeling cold. The causes of failure with this remedy were: (1) Insufficient doses at the commencement. (2) The non-administration of purgatives such as calomel. (3) Feeding with substances other than milk, such as beef-tea, broths, etc., especially in the earlier stages. If after giving full doses of salicylic acid and calomel, and dieting the patient on milk exclusively, the symptoms did not yield, one had probably to deal, not with acute rheumatism proper, but with gonorrhœal rheumatism, septicæmia, or some other disorder of the joints, for which salicylic acid was of little avail.

Bradford Medico-Chirurgical Society.—At a meeting on January 8th, Dr. Samuel Johnston, the President, in the chair, Dr. T. W. Hime introduced a discussion on the Prevention of Tuberculosis. In cases of phthisis the great danger arose from the expectoration becoming dry, and being blown about as dust. To prevent this Dr. Hime advocated the use of portable spittoons. Handkerchiefs should be avoided, and if used should not be washed with other clothes. Cases of phthisis should not be treated in the wards of general hospitals; special hospitals for tuberculous cases should be provided. The public should be educated with regard to the importance of using spittoons, especially in schools, workshops, hotels, lodging houses, prisons, and barracks. Other measures recommended were notification of cases of tuberculosis, the disinfection of infected houses, and the watering of streets before they are swept. Alluding to the little that was done in England for the suppression of tuberculosis, attention was drawn to the fact that in Belgium there was compulsory notification of tuberculosis in animals, and in Denmark £3,000 a year was voted for carrying out experiments on animals affected with tuberculosis. In conclusion, Dr. Hime emphasised the fact that tuberculosis was not spread by vaccination. The paper was discussed by Drs. Johnston, Major, Goyder, Horrocks, Kerr, H. Bronner, Drury (Halifax), Bell, and T. C. Denby; and Dr. Hime replied.

Nottingham Medico-Chirurgical Society.—At a meeting on January 2nd, Dr. Tew, President, in the chair, Dr. Bell Taylor showed ten patients, aged 44 to 78, upon whom he had operated for Cataract, in most cases on both eyes. Dr. Taylor also read a paper on the Accidents which are Apt to Occur during and after the Operation of Cataract Extraction. He described the earlier methods of operating, and pointed out the frequency of accidents resulting from them. The various methods adopted by Beer, Waldau, and von Graefe were mentioned. Dr. Taylor preferred to use a modified Graefe's knife of his own design, and for many years past had been accustomed to operate without iridectomy. A cataractous lens was sometimes larger than normal, and this condition greatly increased the difficulties of the operation. Escape of vitreous might take place when that medium was abnormally fluid or when the tension of the globe was increased. As a result there might be detachment of the retina or choroid or extreme collapse of the eyeball. In the case of excessive tension of the eyeball a preliminary iridectomy should be done. Inflammation and even suppuration might occur sometimes; but these accidents were not necessarily more frequent in the aged. On the appearance of inflammation leeching, cold, or astringents should be used. Remarks were made by the President and Messrs. Cattle and Laws.

Folkestone Medical Society.—At the annual business meeting, held on January 16th, the following members were elected to hold office for the ensuing year:—*President:* Dr. Fitzgerald. *Vice-President:* Dr. Tyson. *Committee of Management:* Drs. P. Lewis, Dodd, and Yunge Bateman. *Library Committee:* Drs. F. Eastes, Perry, and Chubb. *Secretary and Treasurer:* Dr. Cecil Latter.

The Medical Profession in Paris.—According to a list just published by the Préfecture de Police there were in Paris on December 31st, 1894, 2,153 doctors of medicine and 84 *officiers de santé*. There were 69 surgeon dentists. The number of pharmaceutical chemists is given as 960, and that of midwives as 1 090.

St. Petersburg Military Medical Academy.—The total number of students in the St. Petersburg Military Medical Academy in the academic year 1893-94 was 578. Of these 148 received the licence to practise. 67 of them with the note "cum laude." The teaching staff consisted of 21 ordinary and 11 extraordinary professors, 11 prosectors, and 77 *privat docenten*. In addition to the medical qualifications conferred by the Academy diplomas were granted to 1 woman as *accoucheuse*, and to 290 as "midwives." The precise difference between an *accoucheuse* and a midwife is, unfortunately, not explained.

REVIEWS.

A Treatise on Hygiene and Public Health. Edited by Thomas Stevenson, M.D., F.R.C.P., and Shirley F. Murphy. Vol. III—Sanitary Law. London: J. and A. Churchill. 1894. (Roy. 8vo, pp. 464. 20s.)

In their preface the editors say that they have deemed it preferable to place the work of compiling this volume "in the hands of gentlemen of recognised legal ability, each of whom is officially engaged in the administration of the law in that part of the United Kingdom to which his article relates." The names of these authors are for obvious reasons not disclosed. The book consists of three parts, 328 pages being devoted to the law relating to public health in England and Wales, including the metropolis, 82 to Ireland, and 21 to Scotland. Sanitary legislation it must, however, be remembered has generally had its origin in England, and various Acts relating to it have been subsequently extended to or imitated for the other portions of Great Britain, so that much that is written as regards England applies more or less exactly to the other countries also.

The book is written with the object of presenting "in an intelligible form so much of the law relating to public health as is likely to be serviceable to members of the medical profession who may be concerned in its administration." With this object in view an account is given of the various authorities who are now charged with the administration of this branch of the law; and then the powers and duties of sanitary authorities under the different heads likely to be of interest to the medical profession. Certain miscellaneous subjects, such as burial and vaccination, are dealt with in greater or less detail. The various statutory enactments relating to the different headings seem to have been collated with care, and their effect is set forth generally with accuracy. The actual words of the statutes are, however, not always given, and where they are the book does not show it. For use in a court of justice, or for advising with reference to proceedings to be instituted there, the book would have been a safer guide if the actual words had been set out; and except for such a purpose many of the subjects treated in the book might with advantage have been discussed more concisely than they are. The authors have, too, in many instances been tempted by their official position to digress into administrative details. The parts specially concerning members of the medical profession, such as that dealing with the appointment and duties of medical officers of health, are well written and probably not too elaborate. But a great deal of the other matter would be more readable if it were less diffuse.

After the book must have been written, and while it was passing through the press, several alterations in the law were effected by legislation last year. A note at the beginning of the volume points these out, and so will save the careful reader from error. It is unfortunate, however, that the corrections could not have been made in the text. As a whole the book may be welcomed as a trustworthy index to our sanitary laws, though it does not pretend to supersede the standard legal treatises on the subject.

The Urine in Health and Disease, and Urinary Analysis. By D. Campbell Black, M.D., L.R.C.S.Edin., Professor of Physiology in Anderson's College Medical School. London: Baillière, Tindall, and Cox. 1895. (Cr. 8vo, pp. 260, 73 figures. 7s. 6d.)

This handbook, which is intended to meet the wants of such as are fully occupied in practice, is divided into three parts: the first has for its province the anatomy and physiology of the kidney, and includes some of the chemistry of normal urine, which is dealt with in the second part at considerable length, while the remaining part—more than half of the book—is occupied by the description of the abnormal bodies occurring in the urine under various pathological conditions. The tables for analysing sediments and calculi are arranged in a convenient form, and the presence of figures representing the appearance of urinary crystals will be useful in facilitating their recognition.

The last chapter records the changes produced in the urine by various drugs administered by the mouth, and describes briefly the methods of detecting their presence.

The figures are somewhat rough in execution, and in most instances the magnifying power employed is not mentioned. In Plate vi this omission is somewhat misleading, as the ova of bilharzia hæmatobia are highly magnified, and appear almost as large as the mature worm without there being any indication as to the real relation in size between them.

The impression left on our mind is that the book contains much that will be useful both to student and practitioner but that it is unequal; parts are treated with more than sufficient detail, while others, such as the pigments of the urine, hardly receive their fair share of description.

Atlas of the Diseases of the Skin. In a series of illustrations from original drawings, with descriptive letterpress. Fasciculi v and vi. By H. Radcliffe Crocker, M.D., F.R.C.P. Edinburgh and London: Young J. Pentland. (21s. nett each fasciculus.)

Fasciculus v. of this work gives a plate pourtraying pemphigus foliaceus, an excellent and instructive illustration of pityriasis rosea, a most interesting representation of unilateral ichthyosis hystrix, and a plate showing two examples of circumscribed sclerodermia, one of them a severe case—a disease which at the best is extremely difficult to represent in a drawing. A plate devoted to moles shows types of the unpigmented convoluted and the pigmented mole. Three excellent plates illustrate the appearances presented by ringworm of the head, including kerion.

Fasciculus vi contains a good plate of urticaria pigmentosa, a plate illustrating two cases of eczema, one of them an extremely exaggerated form of eczema of the arm, a remarkable and very important plate under the name of hydroa herpetiforme (of which are given as synonyms dermatitis herpetiformis, herpes gestationis), a plate showing the usual features of psoriasis, another showing the developed form of that remarkable disease xeroderma pigmentosum, and a plate illustrating two cases of sarcoma cutis, one of them melanotic sarcoma. The high character of the work is fully maintained in these fasciculi.

Beitrag zur Kenntniss der Gynaekomastie. Von Dr. Hugo Schaumann. [Contribution to our Knowlege of Feminine Breasts in Males] *Verhandlungen der Physikalisch-Medicinischen Gesellschaft zu Würzburg.* Würzburg: Stahel's Royal Bavarian University Press. 1894.

The Physico-Medical Society of Würzburg issue a publication which deserves more attention than it has hitherto received in the United Kingdom. It records excellent work, and is in literary form something between a medical serial and the transactions of a Society. Each pamphlet which it issues is practically a monograph. Some of the more original have been noted in our Epitome. Dr. Schaumann's paper is of another type common amidst these *Beiträge*, for it is chiefly a careful collection of the work of others. The sanction of a learned Society sufficiently indicates that it is no mere compilation. This monograph is a most useful syllabus of its subject. The development of a breast of the female type, or the inflammation of the rudimentary breast in a man, is a pathological question of great interest. Indeed, the surgeon should be well acquainted with every possible form of mastitis beyond the common type associated with lactation. This is not always the case, for only a few years since a hospital surgeon published an elaborate clinical paper on some cases of tenderness of the breast in girls about puberty, a condition which he described as very rare—in his experience—if not previously unknown!

On Septic and Auto-intoxications as Causes of Disease. By Wm. Carter, M.D., F.R.C.P. Liverpool: T. Dobb and Co. 1894. (Demy 8vo, pp. 18. 6d.)

The pamphlet before us contains an address delivered by Dr. Carter, of Liverpool, to the Birkenhead Medical Society in March, 1894. Its main purpose was to impress upon medical men the importance of the minutest inquiry and search in cases of possible septic poisoning before admitting that the

diagnosis is beyond their comprehension. This exhortation is enforced by the records of two very remarkable cases which fell under the author's observation. The symptoms in these cases were much alike, and chiefly consisted in loss of strength and flesh, with persistent fever of a hectic character. In both cases a long time elapsed before any clue to the diagnosis was obtained, so long a time that both patients came to extremities, being prostrate and emaciated.

The primary cause of the malady in each case turned out to be ulcerations of small dimensions in the upper nostril. A spot of blood, seen by chance upon a handkerchief, fortunately put the author upon the right tack, and no sooner were the ulcerations cleansed than the patients rapidly recovered. We need not hesitate to say that the detection of the cause in these most obscure cases was very creditable to the author's penetration and persistent vigilance.

We at once began to ask ourselves what patients we had allowed to die with little septic ulcers in their noses, or like crannies of the body, which we had failed to detect.

Dr. Carter's pamphlet will be read with interest, and with no less profit. We strongly commend it to our readers, for they will find in it other valuable matter besides that to which we have referred.

THE CARLSBAD TREATMENT FOR TROPICAL AILMENTS AND HOW TO CARRY IT OUT IN INDIA. By LOUIS TARLETON YOUNG, M.D., B.Ch., B.A., Surgeon-Major Her Majesty's Indian Army. Calcutta: Thacker, Spink, and Co. 1894. (Cr. 8vo, pp. 118.)

DR. YOUNG writes on a basis of six years' practical experience of the Carlsbad treatment both at Carlsbad and in India. He describes the Carlsbad life and regimen and details all the therapeutical resources of the place. He gives an account of the chemical composition and therapeutic action of the waters and salts, and indicates the conditions in which they are likely to prove beneficial. His notes upon tropical and malarious maladies, functional and structural, which are likely to yield to the Carlsbad treatment are carefully compiled, and he does not omit to mention those conditions and diseases of tropical origin and otherwise for which the Carlsbad plan is unsuitable or harmful. He also supplies useful and sound advice on the regulation of life and diet in the tropics with a view to the preservation of health and the avoidance of frequent absences from India, which in these days of the depreciated rupee are so ruinous. The object and scope of the work exclude elaborate pathological and clinical dissertations, but enough has been written to furnish a safe and serviceable guide to the capabilities of Carlsbad and to indicate how and at what cost of time and money these may be taken advantage of by the tropical invalid, or if the *res angusta* forbid resort to the famous Bohemian spa, how and for what complaints the Carlsbad cure can be imitated on the hills or plains of India and elsewhere.

NOTES ON BOOKS.

Die Behandlung der Gonorrhoe nach neuen Grundsätzen. [The Treatment of Gonorrhœa on New Principles.] Von Dr. JOSEF ROSENBERG. (London: Williams and Norgate. 1895. Demy 8vo, pp. 56. M. 1.)—The author of this pamphlet starts with the assumption that in a large number of the cases of gonorrhœa in which complications, such as epididymitis, cystitis, and prostatitis, occur the complication is the consequence of injections used in the ordinary way for the cure of the urethritis. Dr. Rosenberg has therefore invented a new syringe, the chief peculiarity of which appears to be that the bore of the nozzle is conical, the base of the cone corresponding with the tip of the nozzle. An elaborate description of this instrument, aided by illustrations and various mathematical formulæ, occupies many pages and at the end of it all we learn that Dr. Rosenberg thinks powders better than fluids even when used with his own syringe. So he has invented a powder blower, which he calls an "exsiccator," and this in turn is minutely described with the help of formulæ as before. With this exsiccator and a powder, which is said to be equally applicable to acute and chronic cases, the author states that in more than 300 cases, in which he made over 10,000 insufflations, neither epididymitis nor cystitis nor posterior urethritis ever occurred.

Studies on the Ectoparasitic Trematodes of Japan. By SEITARO GOTO. The Journal of the College of Science, Imperial University, Japan. (Tokyo, Japan: Published by the University. 1894. Imp. 8vo, pp. 274.)—No better evidence of the remarkable transformation which the last few years have witnessed in Japan could be adduced than this and kindred works—now not a few—which have been issued lately by the Japanese scientific press. Although the present work, referring, as it does, only to a class of parasites which has no representative in man, has only an indirect interest for the medical profession, we cannot forbear to express our admiration for the scientific spirit of the writer, the thoroughness with which he has done his work, the erudition he has brought to bear on it, the capital English in which he writes, and, above all, for the beauty and elaborate detail of the illustrations. These illustrations, twenty-seven in number and many of them in colours, were produced in Japan, and are quite equal, if not superior, to the very best which Europe can show.

Formulaire des Stations d'Hiver, des Stations d'Eté, et de la Climatothérapie. Par le Dr. DE LA HARPE. Professeur de Balnéologie à l'Université de Lausanne. (Paris: Librairie J. B. Baillière et Fils. 1895. Fcap. 8vo, pp. 316. F. 3.)—This is a companion volume to the author's *Formulaire des Eaux Minerales de la Balnéothérapie et de l'Hydrothérapie*, and it is furnished with an introduction by Dr. A. Labat, in which he generously admits that the southern English winter coast resorts, Bournemouth, Torquay, Penzance, etc., are too much overlooked. Like the former work of Professor de la Harpe, it contains a great deal of sound information well arranged and condensed into a remarkably small space. It is divided into three parts. The first deals with climatology and climatotherapy; the second is devoted to a brief description of the various frequented winter and summer climate resorts; and the third considers the therapeutic application of change of climate. It is a brief and useful compilation.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CLEFT PALATE OBTURATOR.

THE engraving represents a suction plate and cleft palate obturator, so made that the patient can easily renew the rubber flap, as it is only gripped between the gold plates, forming the slot between the dotted lines. The upper surface is smooth gold, without projections to hinder the tongue's movements; but it is lined underneath, where shown in dark shade, with vulcanite. Mr. N. Stevenson, M.R.C.S., L.D.S.Lond., by whom the apparatus has been contrived, believes that the combination will secure strength and toughness, with the least weight and thickness. It is in his opinion the nearest possible approach to perfection.



REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

SPECIAL COMMISSION OF THE "BRITISH MEDICAL JOURNAL."

XXXV.—EXETER, DEVONSHIRE.

As we walked up the road that led to this house we were struck by its venerable appearance, and the master afterwards told us that the middle block was built in 1701. The old house has a history, and is decorated in some places with full length portraits of some of its former benefactors; it has fallen from its high estate of a city charity to its present position of the workhouse of the union. The house is licensed for 550, and contained 227 inmates at the date of our visit. We were conducted over the house by the matron.

THE SICK AND INFIRM

are located partly in the house, but the great majority are in a separate building. In the house there are two wards; 10 beds for women and 10 for men; in the infirmary there are 52 beds for women and 49 for men. The walls of two wards in the infirmary had, at the doctor's suggestion, been smoothed and painted in two colours: the others were colour-washed; there could be no doubt as to the superiority of the paint as a wall surface. The wards are decorated with pictures and plants.

The wards are on two floors, and hold six, nine, or twenty beds. There are no day rooms, except one in connection with the men's infirm ward in the house.

VENTILATION, WARMING, AND LIGHTING.

There are some Tobin's tubes, but of too small calibre to be of much service. In many of the wards the windows are cross, and the ventilation is chiefly by means of the windows and by apertures in the ceilings. There is an open stove in each ward, standing out a few feet into the room, and on the top of each is a bright copper boiler. The long stove pipe was fenced by a wire casing, and served for airing clothing. The lighting is by gas. The supply of hot water, instead of being laid on over the whole building, is obtained from local boilers.

THE PATIENTS.

It appeared to us that there were an unusually large number of both men and women in bed, considering the time of year. We were sorry to see the children among the adults: there were enough of boys and girls both to justify separate wards. Among the adults there was rheumatism (the legs much contracted), dropsy, paralysis, ulcerated legs, and many cases of old age, some of the old people being apparently very helpless. Among the children cases of ophthalmia, scrofula, phthisis, debility, and a big boy whose home was wretched and degraded, and who returned time after time with his mother to the house in a condition which made it necessary to place him in the infirmary.

THE LYING-IN WARD,

holding nine beds, is on the ground floor, close to the entrance. A confinement had only just taken place, so we did not visit this ward. There is no second ward for the labour, but the medical officer, Dr. Woodman, told us that the ward was very well appointed and satisfactory.

THE ISOLATED PATIENTS

on the women's side are placed in a ward at the end of this passage. The ward is shut off by a door, and a recent alteration has been made by which these patients have their own airing court, and there is a separate closet and bath room. This ward, holding six beds, was unoccupied when we visited the infirmary. On the men's side is a similar ward used for the offensive as well as for the lock cases. The appearance of this ward was not so satisfactory as that of some of the others. The bedding, of straw or chaff, was thin and untidy in appearance; these poor bedridden men want at least a sufficient padding over the laths of the bedstead. The ward had only one window, and looked crowded; it was not so well ventilated as the larger wards. There are no small wards for the isolation of a patient with erysipelas or for quarantining. All infectious patients are removed to the sanatorium.

THE WARDS,

though old-fashioned in their appointments, had an air of homely comfort; some of the bedsteads are wide and some narrow, and the bedding is flock; in the painted wards on the men's side there are spring mattresses. We noticed a plentiful supply of comfortable basket chairs, the high back forming an effectual screen. Cupboards were few and far between; in these same wards were some lockers for clothing and personal possessions. At each bed head is a zinc tray and card holder, presumably for the medicine, but with no bottle in it, sometimes a brush and comb. At the foot of each woman's bed was a scarlet and black check shawl, to be used as a wrap when sitting up. The matron told us that each patient had a separate towel. We thought that the wards were crowded, since they served as day rooms also.

THE NURSING.

The large number of sick and helpless patients in the infirmary is nursed by two nurses, who are husband and wife. Both are without hospital training, but are experienced in workhouse nursing; the man was formerly surgeon's steward on board a large passenger ship; the female nurse attends the confinements. In each ward are the usual ward tenders, who of necessity do much of the nursing. The wards in the house are under the matron, and are tended by the inmates. There is no night nurse: in the large female ward in the infirmary an inmate is on duty during the night, three of the patients being quite helpless. We are never in favour of employing a married couple as nurses, as it limits the selection.

THE BATHS

are adjoining the wards on each floor; in most cases they are encased and placed against the wall; the water is heated in the ward boilers. The closets open off each ward; the flush was moderately good. There are no slop-sinks, nor do we remember to have seen washing-up sinks. Commodes stood in the wards for night use.

CLASSIFICATION.

The only classification is among the imbeciles; for these there is a department in the house. They have their wards (14 beds for men and 14 for women), day rooms, and airing courts. These are certified patients, and they looked well cared for. There were single wards and rooms for violent patients and for epileptics; these separation wards are heated by hot water. Besides these imbeciles we saw some feeble-minded paupers engaged in work in the house, and some were in the infirmary.

THE NURSERY

was in the house, not far from the matron's quarters. Here, as at St. Thomas's, we saw toys and pictures, a nursery boat, and a fine wooden horse, and the room was cheerful and bright. The three infants were in the charge of an old pauper. One—a bottle-fed baby—was a poor-looking little thing; and we were sorry to see the objectionable tube bottle in use. These little ones are fed and cared for by their mothers, and the matron said that she had reason now to think that the children did always get their full allowance of food. They have new milk, but this milk is only delivered to the workhouse once a day.

RECOMMENDATIONS.

The medical officer has been pressing upon the attention of the guardians the defects which are evident from this report, and we would add our suggestions to his. The first thing to be improved is the nursing: in quality it may be satisfactory, but there is not enough of it. So many patients in bed means a large amount of helplessness and infirmity, and we could see that some of them required as much attention as an infant. The irresponsible and ignorant nursing by paupers can never be satisfactory, and at night, when all supervision is removed, it is an entirely unknown quantity!

We would therefore urge upon the Board the substitution of trained for untrained nurses, and the employment of a sufficient staff to supersede entirely the aid of paupers, except so far as their services may be needed for scrubbing and cleaning. Increased space is required for isolation, not only in the case of infection, but that the doctor may be able to place a patient alone for a time if such treatment shall seem to him desirable. A small ward for the actual labour should be added to the lying-in ward. Day rooms are much needed for the use of the patients when up, especially for the men, that they may have a place for smoking in other than the ward. When these improvements are complete, and we hope that these suggestions will not be summarily dismissed, we trust that the Board will be able to place all the sick and infirm in the infirmary, that it may be separated from the house management, and be worked under a hospital matron, herself a trained nurse; the hospital might then be available for the training of probationers in workhouse nursing.

THE STATE OF CONGESTION AT THE BATH WORKHOUSE.

At the last meeting of the Board one of the guardians stated that the house was so overcrowded that aged men and women were improperly placed in the infirmary, eight decent women were sleeping in the back ward with the worst characters, and men and boys were so mixed up together that evil consequences had arisen and might arise again. This same guardian pointed out the grave responsibility of the Board in allowing such a state of things to exist. We are glad to see that the new Board is acting in a more businesslike way than its predecessor, and, instead of wasting time in acrimonious dispute, has referred the matter to the Hospital Committee to consider and report upon.

PETERBOROUGH AGAIN.

SOME of our readers will remember that the above Board treated our Commissioner with scant courtesy when our representative attended on the Board day to ask permission to visit on behalf of this JOURNAL. Peterborough, indeed, carried off the palm for incivility in dealing with a courteous request. The reason thereof may be read between the lines of the medical officer's report, which now lies before us. The new infirmary buildings are ready, but there seems to be some delay in making them fit for the inmates. In the meantime, seven cases of measles are under treatment. In reply to a query from the Board, Dr. Cane says; "I beg to state that, owing to the unfurnished and incomplete condition of the new infirmary wards, there are no means of isolating or classifying cases, and also that the inadequacy of the nursing staff prevents proper nursing when any large outbreak of illness occurs." It seems, from a further perusal of this report, that there is only one nurse; for Dr. Cane writes that "he strongly advises the appointment of an assistant nurse or probationer, to work under the nurse; at present the nurse has to superintend both day and night nursing at considerable inconvenience to herself," and he might have added, danger to her patients. On October 27th the new buildings were reported as complete (see report of meeting on that date), and the furnishing committee was appointed. We are not surprised that the medical officer's report, to quote the words of the chairman, "reads like an implied censure."

NEWTON ABBOT.

THE medical officer (Dr. Culross) in his report has still to call the attention of the Board to serious defects in the machinery of the house. "The laundry," he says, "is quite inadequate, and, as a consequence, the supply of clean bed linen, clothing, etc., was, and had been, constantly below what was required. The infirmary is full, and there is no room for any fresh cases in the sick wards. There is urgent need for an isolation ward on the male side, at present a case of scabies had been kept for days in the receiving ward." We are glad to read that Dr. Ley said that if they did not listen to their medical officer the responsibility rested entirely on the guardians; and, on his motion, the report was referred to the Visiting Committee.

BEDFORD.

ONE of the first acts of the newly-elected guardians at Bedford has been the appointment of a committee to inquire into the irregularities which are said to have taken place in the management of the workhouse. Considerable effort was made to exclude from the committee those who had from the first drawn attention to the alleged infractions of the rules, but in the end they were appointed, and as it was decided to employ a shorthand writer, we may at last hope to know something definite as to the internal working of this institution.

BEDMINSTER, BRISTOL.

WE are glad to see that this Board has appointed a committee to inquire into and report upon the existing arrangements for the nursing of the sick. The medical officer's report shows that there are 72 beds in the infirmary, and there is no night nurse. We trust that this state of things will soon be a thing of the past.

DURHAM.

WE have received a communication from the master of this workhouse infirmary. He traverses our statements about the nursing and the lying-in ward. With regard to the former, he does not apparently understand what is meant by a trained nurse. A nurse may have gained experience, as is the case with the nurses at Durham, where they have been, as he says, sixteen years; but that is not the same as a nurse who has been trained in a hospital, and such cannot be called trained nurses. With regard to the lying-in ward, the master states that there is a lying-in ward having a labour ward with two beds, and a separate ward with ten beds. We are glad to hear it; but the lying-in ward described in the report was shown as being used for that purpose. He objects to our Commissioner pointing out defects that he says are under the consideration of the Board; but as we find that matters under the consideration of boards are often suspended for so long a time, we feel it our duty to draw attention to them.

PAUPER NURSING AT PRESTON.

THE medical officer, Dr. Williams, has addressed a request to his Board to appoint a committee of inquiry into this practice, which, as he aptly says, "is a curse." On the understanding that the Nursing Committee would shortly meet, when the subject would be discussed, he withdrew his notice; but we trust that the matter will not be allowed to drop. We feel confident that Dr. Williams, having so graphically described pauper nursing, will not let the matter rest until he has abolished the "curse."

NOTES ON HEALTH RESORTS.

XIX.—SOUTH AFRICA AS A HEALTH RESORT.

By Surgeon-Colonel HAMILTON, M.D., A.M.S., P.M.O. South Africa.

As many delicate people are advised to go to South Africa for the benefit of their health, I have thought that the following practical hints may be of value to them, and also to the physicians who recommend the journey.

I will divide the subject into two parts. First, what is called the "round trip," that is, the voyage to Natal (Durban) *viâ* Cape Town, and back; and, secondly, a period of residence in South Africa.

As regards the "round voyage" there are many things to be taken into consideration. For a professional man, worn out by long months or years or toil at his work in the law courts or consulting room, who needs a total rest from brain work, and who is a good sailor, nothing can be better than a trip to the Cape and back.

Much has been written in praise of the fine vessels belonging to the "Castle" and "Union" lines, and, on the whole, they quite deserve what has been said in their favour, but still there are points to be considered regarding health and comfort on board of them.

In the first place, the choice of a cabin is a most important item, and for bachelors the deck cabins are far superior to those below, as their ports can be kept open in the heaviest weather. The greatest drawback to the ships of these two lines is the fact that the cabins are nearly all situated on the main deck and that the ports are too near the water, necessitating their being closed when there is any sea on. The deck cabins are free from this objection, and, as the weather, after passing Madeira, is mostly warm, plenty of fresh air is an immense advantage. There is another great objection to the cabins on the main deck, namely, the system that exists on nearly all these vessels of closing the ports quite unnecessarily early for the purpose of washing the decks. On the voyage out, morning after morning the steward came in and screwed up the scuttle in my cabin at 1 or 2 A.M., and it was never again opened till the decks were finished, about 7.30 or 8 A.M. This I believe was quite unnecessary; but there was continuous friction between the stewards and the "deck," and it seemed impossible to get things altered for the better. It is only necessary to consider what this means in a hot night on the "line." The air became foul to a degree in the cabins, prevented sleep, and caused nausea to many. Further, it should be remembered that cases of tubercle of lung, shut up in such an atmosphere, are not only injured themselves, but may infect the inhabitants of the same or neighbouring cabins. This is a matter which only requires to be well considered by the owners to demand correction.

For those who are not in a hurry and who can afford the time, it is advisable to take passage in the "intermediate steamers," which take a few days longer on the voyage, but are not crowded. Of these the four "G's," as they are called, of the Union line are by far the best—namely, the *Guelph*, the *Goth*, the *Greek*, and the *Gaul*, all splendid vessels, and carrying their ports well above water, as the cabins are on the upper deck.

The table on all the vessels is excellent, and no difficulty is ever experienced in getting anything considered necessary

by the medical officer of the ship. The liquors are fairly good, but are exceedingly dear, quite up to and in some cases above London retail prices; whereas the companies getting all liquors "out of bond" could afford to sell them at least 25 per cent. below the prices now charged.

Another point worth noting is the necessity for persons engaging cabins for the "round voyage" to see that they secure the same berths for the homeward voyage. It frequently happens that a passenger takes his berth in London, supposing that he has secured it for the entire voyage, but on arrival at Cape Town he learns to his disgust that not only his, but all the best cabins, have already been let by the agents there, and he has to put up with some uncomfortable berth over the screw, or one of the dark inside cabins. It is, then, necessary, that on taking and paying for his ticket a passenger should have a written promise to have the same berth for the whole voyage, and this can, of course, be arranged by telegram by the head office.

As regards clothes, it is most advisable to have a supply of light flannels for wear in the tropics, with canvas shoes, and a good sun-resisting hat or helmet. The next question to consider is the advisability of stopping at Cape Town or going on to Durban. If a passenger is a good sailor and prefers the sea he may complete the trip by ship all the way, but this generally means having bad weather on the coast voyage, with a heavy swell when lying three days at Port Elizabeth, one at East London, and three at Durban, with the same at the other ports on the way down. Again, the steamer has to stay three or four days at Cape Town coming out and going home, and lying in the docks under a blazing sun and with the air thick with coal dust is to be avoided.

I would then advise the traveller to take his ticket to Cape Town and back, disembarking there and waiting for the return journey of the steamer. The Cape Town hotels are, however, to be avoided during the summer months, as the heat is very great, and when a south-wester blows the air is full of dust and sand, making life the reverse of comfortable. There are several good suburban hotels, the best of them being the "Vineyard" at Newlands—easily reached by train in twenty minutes from Cape Town—situated close under the mountain, surrounded by magnificent trees, and in the centre of lovely scenery. The charge is 12s. 6d. a day inclusive—food excellent, with milk, butter, eggs, fruit, etc., all grown on the ground. The traveller can then either make trips to the mainland or remain on the peninsula till the return of the steamer. The latter is the more advisable, as railway journeys in South Africa are not comfortable in the summer, the carriages being small and the food procurable at some of the stations being vile in the extreme.

Delightful trips may be made from Newlands round the mountain *viâ* "Houts Bay" to Wynberg, Constantia Nek, the various farms and vineyards, etc., and when the steamer comes in there is ample time to arrange for re-embarkation.

As regards residence in South Africa, there can be no doubt that the climate is, in many places, the finest in the world, and that cases of tubercle do well if not sent out too far advanced. When there is fever and the lung is breaking down South Africa is not advisable. The high table land called the "karoo" is the best part for delicate lungs, and no doubt many people will live there for years who could not last more than a few months at home. The great drawback to South Africa as a health resort, once you leave the peninsula, is the miserable hotel accommodation and the want of suitably cooked food. As an officer suffering from tubercle of the lungs said to me lately: "All the good I derived from the climate was undone, and more than undone, by the absolute starvation I had to put up with. The food was never decently cooked, at all events not suitably for a person in bad health, and I could not remain to be starved to death." This is by no means a solitary case, and where a residence in the highlands of South Africa is desirable, none but persons who can rough it should come out, unless they are in a position to bring out their own servants, and are prepared to be put to heavy expense for the necessaries of existence.

The greatest curse of South Africa are the servants. The natives of the place (nearly all black or coloured) are untrustworthy, given to pilfering, cheeky, and unreliable, and even imported Europeans are soon infected, and take on the ways of the place. All the necessaries of life are exceedingly dear, as the import duties run from 15 to 300 per cent. on all imported articles, and the shopkeepers require at least 50 per cent. on an average for their wares above London retail prices, while some articles of daily use, such as kerosene oil, are four times London retail price; bread is more than double, tea about double, and so on.

The curse of South Africa is the country liquor, on which there is no excise whatever, the Dutch farmers having forced the Government to take it off. The result of this is that a bottle of brandy can be bought for 6d., and a bottle of wine for 2d.; in other words, a 2 pound loaf and a bottle of spirits are convertible, the result being utterly detrimental to the best interests of the colony.

A REPORT

ON THE

POSSIBLE CONVEYANCE OF CERTAIN WATERBORNE DISEASES, ESPECIALLY TYPHOID FEVER, BY OYSTERS AND OTHER MOLLUSCS.

II.

The Oyster Supply: "Foreigners" and "Natives."—Variations in the Oyster Crops.—Oyster-beds and Sewage.

THROUGH the courtesy of a member of one of the largest firms of oyster merchants, who has shown the greatest readiness to offer every facility for a searching inquiry, we are enabled to give some trustworthy information as to the conditions of oyster culture in general and of the Kentish and Essex fisheries in particular.

We need not remind our professional readers that the effect of eating stale or otherwise unwholesome oysters would not be the gradual development of enteric fever after an incubation of eight to twelve days, but the speedy onset of sickness, diarrhœa, or even choleraic symptoms. But we have to meet the contentions of two parties, assertions mutually destructive but equally erroneous: first, that the danger is not in native but in foreign oysters, since many of those brought from France, Portugal, and above all from America, must be dead and even putrescent on reaching this country; and secondly, that no one could knowingly eat a stale oyster. Now it is perfectly true that a large proportion—from 15 to 40 or more per cent.—of "foreigners" do die on the passage, but then such oysters are rarely sent directly into the market; they are laid out in beds to fatten for from six to twelve months, and dredged out as required, in the same way as the natives; the so-called foreigners are already domiciled if not naturalised in this country. But large numbers of dead oysters are daily consumed by the public—oysters that have died in the fishmonger's shop or supper room, recognisable, at any rate for a few days, only by an expert or an epicure.

A fallacy to which great currency has been given of late is that the neglect of some beds, and the over-fishing of others, has to a great extent led to the destruction of the "native" strain, necessitating the importation of oysters of other varieties, species, or even genera, which do not adapt themselves to our climatic conditions. As a matter of fact, the native population, so to say, was never so great as now, but the demand has grown beyond all possibility of supply, and the scarcity of real natives is only relative and apparent. Dredging, while it cannot exterminate the young oysters, is the best means for keeping the beds clean, and its suspension for a few years, with the idea of giving the beds a rest, has frequently been followed by their complete failure. The oyster lies naturally on its flat shell, in which position only can it expel any sand or mud that may have accumulated between the valves, and unable to burrow or leap like the cockle, etc., its sole power of movement consists in resuming that position if by any means it have been thrown on to its convex side. Loose sands and soft mud they find equally untenable, preferring above all a firm clay bed lightly covered with clean sand, unless they can attach themselves to the rocky shelves of some sheltered cove. It is, however, impossible to predict whether any given ground will be favourable for oyster culture or the reverse, and many thousands of pounds have been sunk in vain endeavours to stock appa-

rently eligible sites, as by the late Frank Buckland, who strove to extend the Whitstable beds to Reculvers.

Again, the crop varies locally in the most unaccountable way: this year, for instance, Whitstable natives are scarce in the extreme, while the Colchester beds are yielding returns far above the average. That an abundant supply of food, diatoms and infusoria, should be conducive to fattening is obvious enough, but the conditions favourable to the deposit of "spat" or spawn are far from being understood: certain it is that certain localities are found to be best fitted for breeding grounds and others for fattening. From the former, as well as from well-known foreign stations, the immature oysters are brought in the early spring and are laid down, the several species for the most part separately, in the fattening beds marked out by stakes, and let to the grower by the municipal, port, or other owner of the foreshore, being usually in sheltered bays or in salt water creeks or straits. Rock of some kind is almost indispensable on breeding grounds for the attachment of the spat or young oysters, which may often be seen adhering to other shells, to anchors, or like objects, of which the Dutch—the most scientific of oyster growers—take advantage by spreading loose tiles over the sand. On wide foreshores, where the ebbing tide would leave the beds dry and exposed in winter to the frost, it is usual to lay the oysters in "pits," or basins excavated and fenced; but where this is not the case pitting is not to be recommended, since the shallower the water the warmer it is as a rule.

The chief varieties of oyster cultivated on our shores, the shells of which can be distinguished one from another without difficulty by an expert, are (1) the natives, (2) their close rivals the Dutch, (3) the French, and (4) the larger North Sea, or deep sea as they are sometimes called, with (5) the deformed and unsightly Portuguese, and (6) the American East Points and Blue Points, specifically or generically different, much coarser, and mostly used for cooking.

"A certain admixture of fresh water, though by no means necessary, seems to be specially favourable to fattening and delicacy of flavour, although an excess causes rapid deterioration, as is seen in the Baltic, which is now more brackish than it was in the remote past. This fact is closely connected with the immediate question, the possible access and imbibition of sewage. It has been asserted, on the one hand, that the smallest dose of sewage would be immediately fatal, at any rate if the animal did not firmly close its shell on the approach of the poison. But, on the other hand, many oyster beds are situated at or near the mouths of rivers or fresh water creeks, or on the shores of enclosed arms of the sea, into which is discharged the sewage of large towns or numerous villages. It is clear, therefore, that the statement must be taken with some qualification.

We have it already on the admission of one who in the course of fifty years' practical and active work in the oyster fisheries of the British Isles as well as of the coasts of Holland, France and Spain, has acquired a knowledge almost unrivalled, that he has seen baskets of oysters from the celebrated beds on the "sunny side" of Dublin Bay deposited for several days at the mouth of the Liffey, when the water was fouler that that of the Thames at its very worst, and in which they could not have lived for as many weeks. He has also seen on the coast of Devon an iron sewer pipe which, having been broken and displaced, was at last raised and removed, lined throughout with oysters. Those only on the bottom were killed by the sewage during the temporary reposition of the pipe, but the rest remained uninjured.

Whether the living oyster can serve, like some insects and annelids, as a host for the typhoid bacillus is a question to be answered only by the results of bacteriological research, as is that of the limits of salinity the microbe can resist; but whilst the oyster grower has regard to the purity of the water and cleanness of the bed solely as affecting the bivalve itself, irrespective of the consumer; while in some localities sewage does find its way into highly suspicious proximity to the beds, and the animals are eaten raw with more or less of the water enclosed, so long the possibility of infection cannot be excluded.

As regards the Medway, however, a recent inspection of the beds made for us tends to show that the danger is *nil*. There are no beds in the channel of the river itself, where they might—indeed, would—be exposed to contact with the sewage, however dilute, nor are there in the muddy strait between the Isle of Sheppey and the mainland. They are confined to salt water creeks on either side, receiving no streams or drainage from the adjacent shores, and with no houses, or at most one or two, in sight.

LITERARY NOTES.

Der Samariter is the title of a new fortnightly journal devoted to the organisation of first aid, the care of the sick and convalescent, and the interests of the various Samaritan societies and kindred bodies. The journal is published in Munich, under the editorship of Dr. H. Kohler, Secretary of the Munich Voluntary Aid Society.

Professor Bernhardt Fraenkel, of Berlin, has recently pointed out that the little wedge-shaped cartilage in the aryepiglottic fold, generally known by the name of Wrisberg, was really first described by Morgagni, in his *Adversaria Anatomica*. It was subsequently rediscovered—apparently quite independently—by the celebrated Dutch anatomist Peter Camper (1770). Dr. Fraenkel therefore thinks it would be well to drop the eponymous designation and call the cartilage simply "cuneiform," as was proposed by Cuvier.

The first volume of a new edition (the tenth) of Sir John Erichsen's *Science and Art of Surgery* has just appeared, and the second will be published in a few weeks. As the work has now fairly earned its right to the title of a classic, a few particulars concerning it may be interesting. The first edition was published in 1853, in one volume of 950 pages, with about 250 figures. It was gradually enlarged in subsequent editions, but continued to be published in one volume till 1869, when the fifth edition appeared in two volumes. In the earlier editions the whole of the work was done by Sir John Erichsen singlehanded; in the eighth and ninth editions his old pupil and friend, the late Mr. Marcus Beck, was associated with him; and in the preparation of the present edition he has had the assistance of Mr. Raymond Johnson. The work has been translated into German by Dr. Thudichum of Halle; into Italian by Dr. Antonio Longhi, of Milan, with copious notes by Dr. Carlo Gallozzi, of Naples; and into Spanish by Drs. Benavente and Ribera, of Madrid, with notes by Dr. Creus y Manso. The sale of the work has been extraordinarily large, considering its size and price, and the necessarily limited number of readers for whom it is intended. Nearly 40,000 copies have been sold in this country alone; the last edition, of 6,000 copies, was exhausted in less than six years. It has been largely reprinted in the United States, where it was first published in 1859, and for many years it was one of the chief textbooks in the various medical schools. During the Civil War, the United States Government issued a copy of the American reprint to every medical officer in the army. As this was done without the consent of the author and without acknowledgment of any kind either to him or to his publishers, he naturally felt aggrieved, and addressed a letter on the subject to Mr. Adams, then American Minister to this country; this was published in the *Times* of December, 1866, but led to no result. The enthusiastic reception which Sir John Erichsen received when he visited the States some years later obliterated all trace of the annoyance which this incident had caused him. The Spanish translation of the work has had a very wide circulation in South America, so that Sir John Erichsen may fairly claim that his teaching has reached a larger number of students of surgery both in the Old World and the New than that of any other author of his time. This is a measure of success of which any man might well be proud, and is a higher honour than the distinction which his Sovereign has somewhat tardily bestowed upon him.

The Secretaries of the Metropolitan Counties Branch ask us to make it known that a meeting of the Branch Council for the election of members will be held in March, and that intending members should forward their applications to Mr. Andrew Clark, 71, Harley Street, before February 20th.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, JANUARY 26TH, 1895.

THE RECONSTITUTION OF THE UNIVERSITY OF LONDON.

TUESDAY last was a day memorable in the history of the movement to secure a teaching university for London. For the first time in the entire decade during which this question has been afoot, it may be said to have attained to a position at once generally satisfactory, and containing promise of a successful issue. Lord Rosebery's assurances to the influential deputation which waited on him in the morning, as reported in another column, may, in view of the events of the afternoon, be regarded as tantamount to an undertaking on the part of the Government to introduce in the coming session of Parliament a Bill appointing a Statutory Commission, with power to remodel the University of London on the lines recommended by the late Gresham Commission, but with ample powers also to revise the details of the Commissioners' scheme as they may deem advisable after hearing representations from the various bodies concerned in it.

We urged the desirability of this course being taken when the Gresham report was first issued, more than a year ago, but for many months there seemed little hope that the desired point would be reached. In common, as we now believe, with the great mass of those interested in educational progress in the metropolis we recognised the value of the report without being blind to its defects. We recognised that it embodied the outlines of a sound and feasible plan for giving London a university capable of encouraging good professorial teaching without jeopardising the high standard of attainment hitherto required for a London degree, or precluding the maintenance, as far as the altered circumstances of the time require, of the system of non-residential degrees which it would now be a hardship to abolish. At the same time we felt bound to point out that the scheme was not free from error and that unless amended in certain points of detail it might prove seriously detrimental to the London medical schools and to the interests of medical education generally.

In this there was nothing surprising. The conditions of medical education at the present day are a somewhat intricate subject, and to men not intimately acquainted with its working mistakes were easy to make. Even Royal Comissioners cannot be expected to be infallible, and prudence would in any case dictate that even so carefully drawn a scheme as theirs should not be passed into law until the views of those who would be actually called upon to work it had been taken, and due attention paid to them.

But, as often happens, the men of moderate counsels found themselves between two sections of extremists: on the one hand there was a body of irreconcilables among the existing graduates bitterly opposed to any change in the constitution of the University that would, as they expressed it, "alter the value of their degrees:" and on the other was a small but exceedingly active group apparently bent upon "rushing" the Commissioners' scheme into law without allowing time or opportunity for criticism or revision. Whether the latter section was really convinced of the absolute perfection of the scheme, or whether it acted under the influence of panic, dreading the proverbial danger of delays, we cannot pretend to say. Fortunately for the interests of London education, the two extreme sections sufficiently neutralised each other, and the Government cautiously held its hand in the matter during the year. In the interval thus allowed for reflection more sober counsels have prevailed; the moderation displayed by the Senate of the present University, largely aided, we believe we may add, by the tact and personal authority of Professor Huxley in the meeting of delegates held on Monday last, have brought the supporters of the scheme, including even King's College, into line, and the course of action we originally proposed has been urged upon, and frankly accepted by, the Lord President of the Council.

The absorption of one set of extremists was speedily followed by the final overthrow of the other. The day upon which Lord Rosebery received successive deputations from the supporters and opponents of the scheme was by an accidental coincidence that fixed for the meeting of Convocation, in which the party headed by Dr. Collins and Dr. Napier tried for the second or third time to obtain a majority in support of their views, and once more failed. As Lord Rosebery had warned the leaders of the party earlier in the afternoon, henceforth they can only be regarded as a body of private individuals, and the official voice of Convocation must be regarded as in favour of such a modification as the Gresham Commissioners suggested and all the leading educational bodies in London have now in principle approved. We have, therefore, a fair ground for hope that the present year will witness the passage of a Bill appointing a Statutory Commision with the extended powers we have above indicated.

Now that at last a prospect is opened up of seeing it carried into effect, it may be as well to recall what, in general terms, is the constitution recommended by the Gresham Commission. It was an attempt to reconcile many conflicting schemes and interests, while at the same time importing into the constitution of the University the principle that the teachers in London colleges and medical schools should have a considerable share in the conduct and general policy of the University. The scheme in fact gives teachers practically full powers in most academic matters.

The necessity for according representation to so many bodies and interests led the Commission to recommend a very large Senate, consisting of nine members appointed by the Crown or Government department, nine by Convocation, five by the medical corporations in London, six by

legal bodies, four by bodies representing applied science, two by University College, two by King's College, one by the City and Guilds of London Institute, one by the Mercers' Company, one by the Corporation of London, and two by the London County Council. These, with a Chancellor to be elected by Convocation, would make a Senate of sixty-six members, a body far too large for effective academic work. The executive power in academic affairs is a body unknown to the present University, termed the "Academic Council." Apparently it is the intention, while giving supreme power to the Senate, to leave the practical direction of studies and examinations to the Academic Council, whose advice is also to be sought by the Senate in other matters of importance.

The Academic Council is derived from the teachers. With the exception of the Chairman, who is to be the Vice-Chancellor, nominated by the Senate, all its members, fifteen in number, are to be elected by the faculties, a specified proportion by each. The faculties consist of professors and other teachers appointed by the University and of "recognised" teachers in the various university schools. By "recognised" teacher is meant a teacher in any school of the University who is recognised as a university teacher by the Academic Council. Of the fifteen elective members of the Academic Council, four each are to be appointed by the Faculties of Arts and Science, three by the Faculty of Medicine, two by the Faculty of Law, and one each by the Faculties of Theology and Music.

The duties assigned to the Academic Council are, as we have said, varied and important. It is to have the duty of regulating the teaching examinations, and discipline of the University, and of advising the Senate on many points, among others, with regard to the expenditure of funds on new buildings, on the endowment of professorships, and as to the remuneration of University teachers appointed in connection with the colleges of the University, or otherwise. It would advise also upon the appointment of examiners for internal students and upon the assimilation or identification of examinations for the internal and external students.

The Academic Council is to be advised by Boards of Studies. There would be a Board of Studies for each Faculty, elected as to three-fourths of its number by the Faculty and as to the remainder by the Academic Council. A Board of Studies is empowered to report on its own initiative to the Academic Council upon any matter connected with the degrees, examinations, or teaching in the subjects of its Faculty. The Academic Council is required to consult the Board of Studies on questions affecting the curriculum and examinations, and may send the report of the Board of Studies to a full meeting of the Faculty, but is expressly exempted from the obligation to adopt the opinion either of the Board or of the Faculty. Without going into further detail, which may be found in the report of the Commissioners,[1] it will have been made sufficiently clear that the power and influence of the Academic Council within the University would be, at least in regard to internal students, including all medical students of London who sought the degrees of the University, supreme in fact if not in theory.

[1] London: Eyre and Spottiswoode. Edinburgh and Glasgow: J. Menzies and Co. Dublin: Hodges, Figgis and Co. 6d.

ANTISEPTIC AND ASEPTIC SURGERY.

Upon the almost universal adoption of antiseptic surgery there has followed a phase of surgical thought which appears at first glance to be somewhat in conflict with the theory and practice introduced by Sir Joseph Lister. Perhaps it would be more correct to say that the difference is rather a matter of detail in practice than in fundamental theory. The recent publication of two works[1] by surgeons who are representatives of the two schools affords a convenient opportunity for considering the reasons by which surgeons in thorough accord as to the truth of the germ theory of disease and the value of Lister's work have been led to differ as to the best means of preventing wound infection and its serious evils. Although there may be but very little difference between antisepsis and asepsis, and doubt may exist as to whether the results obtained by the former can be improved, each method has its own eager and exclusive advocates. Whilst Dr. Schimmelbusch believes that the weapons which we use to-day against offensive organisms are no longer those which were first chosen, Mr. Cheyne still holds to the Listerian method as being the simplest consistent with certainty. The controversy promises to be a long one. The so-called aseptic method has found strong supporters both in Germany and in France, but it is not likely that English surgeons will abandon a method which during a quarter of a century has afforded them so many brilliant results. It is very satisfactory to be presented just now with two works in which the points at issue are so ably and temperately discussed.

Mr. Cheyne, in this his latest work on antiseptic surgery, deals at full length with the treatment of both fresh and infected wounds, of the different forms of ulcer, and of acute and chronic abscess. The book will be found a useful guide by those who intend to carry out the Listerian method, and who are convinced, as the author is, that at present no other method is capable of giving better results. This method has of course developed, and its details have been modified from time to time. In some points the practice of Mr. Cheyne differs from that of his teacher. But these modifications serve to perfect the method and to simplify and render less inconvenient both to patient and surgeon the application of chemical agents for the purpose of destroying infective organisms. Such agents are, it is argued, thoroughly effectual in surgical practice, as the micro-organisms which usually cause mischief are readily destroyed by them. Moreover, they must be considered as being to some extent indispensable, as both antiseptic and aseptic surgeons agree that it is only by dissolved chemical germicides that the pyogenic organisms which abound in the skin can be conveniently rendered inert.

Dr. Schimmelbusch's work on the aseptic treatment of wounds has in the course of a short period gained a wide reputation on the Continent, and the second edition of which the book under review is a translation, appeared

[1] *The Treatment of Wounds, Ulcers, and Abscesses*, by W. Watson Cheyne, M.B. Ed., F.R.S., F.R.C.S., Professor of Surgery in King's College; Surgeon to King's College Hospital, etc. Edinburgh and London: Young J. Pentland. 1894. (Crown 8vo, pp. 197. Price 3s. 6d.) *The Aseptic Treatment of Wounds*, by Dr. C. Schimmelbusch, Privat-Docent and Assistant-Surgeon in Professor von Bergmann's University Clinic at Berlin; with a Preface by Professor Bergmann; translated from the second German edition by Alfred Theodore Rake, M.B., B.S. Lond., F.R.C.S. Eng., Registrar and Pathologist to the East London Hospital for Children; formerly Surgical Registrar to Guy's Hospital. London: H. K. Lewis. 1894. (Crown 8vo, pp. 266, illustrations 36. Price 5s.)

within a few months after the first. Dr. Rake deserves many grateful acknowledgments for having brought this book under the notice of English readers, and also for the skill with which he has overcome the difficulties inherent in the work of translating. He has, with the aid of Mr. Leathes, whose services are fully recognised in the translator's preface, produced a lucid and very readable book, which presents scarcely a single indication that it is but a German treatise in an English form. Apart from its interest as an exposition of the principles and technical details of the so-called aseptic method, this work will be found serviceable from the amount of instruction it gives on matters relating to pathogenic organisms, to germicides, and to wound infection, which every practical surgeon ought to know. The translated volume, though small, is complete. It is introduced by a genial preface by the author for English readers, includes also a few introductory remarks by Professor von Bergmann, and concludes with an excellent bibliography and full index.

The difference between aseptic and antiseptic treatment with regard to the object and principles of these methods is not very evident. Dr. Rake thinks that there is a distinction in the two practices, which is fairly well indicated by the two words. In aseptic surgery, he states, the great object aimed at is that everything which comes into contact with the wound shall be absolutely free from pathogenic or putrefactive germs. Mr. Cheyne, however, it seems to us, has the same object in view when he states that in order to obtain healing by first intention the surgeon should, above all, provide for the absence of pyogenic organisms. The chief and, indeed, the sole point of difference between the Listerian method and the method practised by von Bergmann, is apparently the choice of the germicide, chemical agents being relied on in the former, and heat, though not exclusively, in the latter. Many pathogenic organisms, especially those which form spores, resist the action of chemical agents, and are readily killed by steam or boiling water. Consequently, Schimmelbusch argues, the use of chemical agents must be considerably restricted, whilst heat, because of its germicidal energy, and also of its power of penetration and its range of applicability, must be most widely made use of. Mr. Cheyne, on the other hand, argues that pyogenic organisms are quickly killed by certain chemical agents, which, as a matter of fact, do not interfere with the progress of the wound, and that attempts to prevent infection would be almost hopeless if the surgeon had to deal with spore-producing germs. The risks of error in the aseptic method, he holds, are so great that he would strongly dissuade anyone from attempting to employ it.

To the objection, however, that the aseptic method can only be successfully carried out except by a skilled bacteriologist, the reply might be made that Mr. Cheyne himself believes that a thorough practical acquaintance with bacteriological work is of the first importance to the surgeon.

Most surgeons, working with a thorough conviction of the truth of the germ theory, will, we think, find it advisable to vary their practice according to circumstances, and to trust in most instances to a combination of both methods. Heat is certainly a simple, ready, and very effectual agent for the purifying of instruments, but the absence of germicidal agents from dressings cannot be regarded as free from risk. The method so lucidly described by Schimmelbusch is really a combined one, and it is acknowledged that a succession or combination of different methods must often be employed. There seems to be no reason for setting up one method against the other, or for asserting that the transformation of antisepsis into asepsis has had a great influence on surgical art.

POOR-LAW INFIRMARIES AND CLINICAL MEDICINE.

We are not sorry to see that the proposal to throw open the large Poor-law infirmaries under proper restrictions to senior medical students is again under discussion, and that the subject is being raised on this occasion, not by the medical profession or by teachers in the medical schools, but by philanthropic persons of experience, who are convinced that the change is a reform to be desired in the interests of the patients themselves. We referred last week to an interesting expression of opinion from the chaplain of Guy's Hospital, who spoke also from experience gained in a similar capacity at a Poor-law infirmary. We publish in another column this week a letter from Miss Louisa Twining, whose authority to speak upon the subject will be generally recognised. Of the two great reforms which our experienced correspondent considers are now necessary, that placed first is "the admission of outside medical men and students." To those who know anything of the inner life of a hospital or infirmary there can be no doubt that the proposed reform would be very greatly to the advantage, psychical and physical, of the patients; and it is to be hoped that this fact may be taken by those self-constituted friends of the poor, who are always so anxious to stand in the way of the advancement of medicine, as counterbalancing the opinions of medical teachers that the concession would have a favourable influence upon the progress of clinical medicine and surgery.

The objections which can be brought against the proposals were pretty fully threshed out before the Lords' Committee on Metropolitan Hospitals, and the opinion formed by that Committee was clearly stated in their report. The Committee state that the opinions almost unanimously expressed to them by a great number of witnesses, both medical and lay, was that by the exclusion of the medical profession and of medical students from the infirmaries a most valuable field of study and of practice was closed, while their admission under proper conditions and limitations to the infirmary wards would produce nothing but good results to medical science and to the public. There can be, we imagine, little doubt as to the correctness of the further opinion that the infirmaries afford a field for the study of precisely those chronic and intermittent cases which are those which the young practitioner will most frequently encounter when he enters into private practice. Yet these are the very cases for the study of which the wards of a general hospital afford least opportunity. With regard to the other parties to the arrangement, the report states that it had been shown that "nothing checks any tendency to dull routine and to the habit of careless diagnosis to which men are subject who have a constant succession of similar cases to deal with, so much as the presence of a class of students." The Committee expressed their hearty concurrence in these views, and added that there was sufficient evidence to prove that, where a system of clinical classes of students was carried out under proper regulations, the patients had no objection to students at their bedside.

Difficulties no doubt exist in giving effect to these views, but difficulties are made to be surmounted. These very difficulties have, in fact, already been surmounted, for at the Birmingham Sick Asylum, a Poor-law institution analogous to the infirmaries in London, there is a staff of resident medical officers and a visiting physician and surgeon. Students are appointed as clinical clerks, and are placed in charge under the medical staff of a certain number of beds. These clinical clerkships are held for six months, and they have been found to be not only of great value from the educational point of view, but also to confer many benefits on the patients. The principle contended for has been to a certain extent admitted even in London, for students can now attend in the hospitals and small-pox ships of the Metropolitan Asylums Board, and we venture to hope that it will not be long before some similar arrangement will come into force in the Poor-law infirmaries. Any scheme which tends to bring Poor-law administration more into touch with the daily life of the outside world is for that reason alone deserving of support, even if there be not, as there are in this instance, many other arguments in its favour.

Owing to Dr. Jameson's approaching departure it has been found necessary again to alter the date of his lecture at the Imperial Institute, which will now be given on January 28th.

We regret to learn from a Reuter's telegram of the death of Dr. Alfred Loomis, of New York. Dr. Loomis, who was one of the leading physicians in New York, was well known in this country especially for his writings on diseases of the kidneys.

At the fourth ordinary meeting of the Edinburgh Royal Society on January 21st, under the presidency of Professor Sir William Turner (Vice-President), Dr. George Lovell Gulland read a paper on "The Absorption of Carbohydrates from the Intestines," which was the result of researches carried by Dr. Noël Paton and Dr. Gulland.

A DISCUSSION ON PNEUMOCOCCI.

The next meeting (on February 5th) of the Pathological Society of London will be devoted to a discussion on pneumococci, with relation especially to immunity. Dr. Washbourn will open the discussion, and well-known pathologists have been asked to take part in it. Any speakers who may wish to contribute to it should give notice to Dr. Newton Pitt, 24, St. Thomas's Street, S.E.

THE LOCAL GOVERNMENT BOARD INSPECTOR IN CORNWALL.

It is satisfactory to us to note that Dr. Fuller and Lord Courtenay are working at this county, and that their recommendations are the same as those made in this Journal. We have before us a report of the inspections at Falmouth and at Truro, in which the condition of the sick as reported by our Commissioner receives confirmation. We are also impressed by the promptitude with which the department is issuing its instructions to the various boards, founded on the reports of the inspectors.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

The arrangements for the lectures at the Royal College of Surgeons before Easter are as follows: The Arris and Gale Lectures will be given by Mr. W. G. Spencer on the Central Nervous Mechanism of the Respiration on Monday, Wednesday, and Friday in the week beginning February 18th. The next course will be given on the same days of the week, beginning February 25th, by Mr. C. B. Lockwood on Traumatic Infection. On March 11th Professor Charles Stewart will commence a course of six lectures on a Revision of the Endoskeleton in the Physiological Series in the Museum of the College. On March 25th Mr. Joseph Griffiths, of Cambridge, will begin a course of three lectures on the Testis; and in the week beginning April 1st Mr. J. H. Targett will give the Erasmus Wilson Lectures describing Recent Additions to the Museum of the College.

SMALL-POX IN IRELAND.

Sixty-one cases of small-pox, as compared with 78 in the preceding seven days, were admitted to the Hardwicke and Cork Street Hospitals, Dublin, last week. Sixty-two were discharged, 7 died, and 176 remained under treatment. The disease appears to be spreading through the country. Cases have been reported from Birr, Longford, Newry, Gorey, and Drogheda. In all these instances the sanitary authorities are doing everything to prevent the spread of the disease.

THE EYESIGHT OF RAILWAY SERVANTS AND SEAMEN.

At the request of the Committee of the British Medical Association appointed to promote the efficient control of the eyesight of mariners and railway servants, the President of the Board of Trade has consented to receive a deputation at 3 P.M. on February 1st, to lay before him the views of ophthalmic surgeons on the tests of the eyesight of men thus employed. The deputation will consist of the members of the Committee of the Association, supported by the President of the Council of the Association, the President of the Ophthalmological Society, and other well known ophthalmic surgeons.

BLUNDERING BUMBLE.

There seems to be some want of co-ordination in the machinery at the Stepney Workhouse to judge by the evidence given at a coroner's inquest on the death of a pauper. This poor man asked to see a doctor in the night. With the curious want of promptitude that hangs like a cloud over the transactions of Poor-law officials, this request was not telephoned to the doctor responsible for the care of the inmates. To make matters worse, the report of the man's condition does not seem to have come to the proper quarter until three or more days had passed: and when at last the doctor and patient were brought together, it was to find the poor man dead in the lavatory. Our readers can fill in for themselves the tale of suffering that this poor man went through as he crept about in his dying condition with no one to see that he had such care as his condition demanded. Again we say we are beginning to understand why the poor shrink from the workhouse.

HARVEIAN SOCIETY OF LONDON.

At the annual meeting of this Society on Thursday last, January 17th, the retiring President, Mr. G. Eastes, gave the annual address, of which we publish an abstract elsewhere. The report of the Council showed that the membership of the Society had now reached 449, and that the financial position of the Society had become increasingly satisfactory. Votes of thanks to the retiring officers were proposed, to which Mr. Eastes, Dr. William Hill, and Dr. R. Boxall, the retiring Secretary, replied; a similar vote to Mr. Cripps Lawrence, the Treasurer, was also acknowledged by that gentleman. Mr. Eastes declared the ballot for officers to have resulted in the unanimous election of the members nominated by the Council—a list of whose names was published in the British Medical Journal of January 19th, page 140—and gave up the chair to Sir John Williams, the President elected for the ensuing year. The rest of the evening was devoted to a *conversazione*. The walls of the room were covered with numerous views of British and

foreign health resorts contributed by members of the Society and others, and a large collection of illustrated medical books of past centuries was also on view. The Etruscan and Roman antiquities collected by Mr. William Oppenheimer, and including medical, surgical, and pharmaceutical objects excited marked attention throughout the evening, and was much admired.

CHOLERA AND FILTERS.

A CURIOUS example of the perversity which converts means intended for the prevention of disease into agencies for its dissemination is afforded by the circumstances attending the outbreak of cholera among the troops at Lucknow last summer. We have already stated that there was reason to believe that the outbreak would turn out to have been due to a most extraordinary piece of laxness, to use no harsher term, with regard to the filtration of water supplied in barracks. It is now authoritatively announced that the result of the inquiry into the cholera outbreak in the East Lancashire Regiment last hot season in India proves beyond doubt that the disease was propagated by the agency of the ordinary barrack-room filter. The filtering medium generally used is sand, and this was the case in the East Lancashire. The sand used was taken from the Mobi Ghât, on the River Gumti, and was teeming with cholera germs, cholera having been prevalent in the native quarter during the hot weather. When the first company affected moved out into camp, the filter was passed on to another, which was at once stricken with the disease, and so on.

BATH AND ITS GUARDIANS.

THE Board is marking time, and it shows as much skill in keeping on the same spot, whilst there is a delusive sound of movement, as a squad of recruits. Week after week, the various manœuvres known to the "old committee hand" are resorted to, in order to postpone the inevitable fate of building a new infirmary; the last shuffle of the feet is to request an overcrowded county asylum to relieve the Board of 140 imbeciles and accommodate these in their new wards, which cannot be completed for two years. The Local Government Board states that the necessary staff for nursing the infirmary is a superintendent nurse and eight nurses; the Board thinks that two less than this number is sufficient, and this because the medical officer had stated that 96 per cent. of the cases in the infirmary were not acute cases, as an explanation to the Local Government Board of the time he gave to the infirmary. It was resolved to write a letter to the department on these two points—the number of nurses and the attendance of the medical officer. The reporter might have added, after the manner of *Punch*, "business done, none."

TO BLOW OR WASH?

IN these days of warfare against dirt why don't we wash our noses? Surely they get quite as dirty as our teeth, which we brush so laboriously every day. The civilised nose is, in fact, one of the dirtiest organs of the body; for, so long as civilisation, which mostly means crowding, involves the breathing of dirty air, the nose, which is the organ by which the air receives its first preliminary purification, must become loaded with all sorts of nastiness. The man with a cold, who is always sneezing and slobbering with his handkerchief, is not a pleasant companion; but, for all that, by dint of much "running," his nose at least is washed, and is cleaner within than that of the fine lady who has trained herself never to use the highly-decorated little bit of lace which she carries about and calls a handkerchief; for in that nose condense and accumulate the soot, the dust, and the microbes of our far from cleanly cities. People who suffer from nose diseases have of course to apply various lotions, the efficacious part of many of which is the water they contain, and this they commonly do either by placing the fluid in the palm of the hand and snuffing it up—a process which only draws it through the more open lower passages of the nose; or by means of a nasal douche or syringe, a process somewhat more effectual but also more irksome. The simple plan is to plunge the face into a basin of clean water, cold or tepid, and take slight sniffs, in and out, while under water. By practice it will be found that before the face has to be withdrawn for breath, water can be drawn in and out of the nose several times, filling and emptying the nasal cavities every time, without using any force and without drawing the water into the throat or causing any choking. The state of the water after the performance indicates the necessity for this little operation.

MUCH DANGER AND LITTLE GLORY.

IN commenting at the beginning of the football season upon the large number of casualties which were occurring in connection with football matches in this country, we ventured on the estimate that football was more dangerous than foxhunting, which we are assured, upon a good authority, possesses all the glory of war, and only five and twenty per cent. of its danger. We were, however, hardly prepared for the results of statistics of so many of the football casualties which occurred in the course of the week in which Thanksgiving Day took place in America, as the Philadelphia *Medical News* has been able to collect. In this list are 4 deaths and 14 cases of severe injury, including such cases as insanity from head injury, fracture of the leg, effusion on the brain, 5 cases of fracture, the seat of which is not mentioned; a case in which a player was taken from the field unconscious and is not expected to live, but of which no further details are given, and a case of severe injury to the spine, which is also expected to end fatally. We are told that in a game between "teams" of two of the leading seats of learning in the country, 7 men out of 22 had to be taken from the field, a far larger proportion of casualties than at Waterloo or Gravelotte. This is a crisp way of putting it, and draws attention in a striking manner to the dangers that attend this game when played as it sometimes is.

BALDNESS AND INDIGESTION.

THE cause of baldness is a question which has a personal interest for many people in these days when the "new man" finds it almost as difficult to keep his hair as the "new woman" does to find a husband. The theory of the bald-headed man generally is that his exceptionally active brain has used up the blood supply which should have nourished his scalp; but those whose crop of hair still stands untouched by the scythe of time unkindly hint that this explanation is of a piece with Falstaff's excuse that he had lost his voice by "singing of anthems." Then there is the theory of the hat, which we are told makes for sanitary unrighteousness in two ways—allowing no ventilation, and by its hard rim cutting off part of the blood supply from the scalp. Again, there is seborrhœa, which prepares the way for fungi that blight the hair. It would have been wonderful if that pathological scapegoat, indigestion, had not had this particular misdeed laid to its charge. We are not surprised, therefore, to read in an American contemporary that dyspepsia is the great cause of baldness. This is how the mischief is done: "Nature," we are assured, "is very careful to guard and protect and supply the vital organs with the proper amount of nutriment: but when she cannot command a sufficient quantity of blood supply for all the organs, naturally she cuts off the supply of parts the least vital, like the hair and nails"—just as one of our "splendid paupers" discontinues his subscription to a hospital in view of the death duties. The hair, in fact, dies that the nobler parts may live up to a proper standard of physiological efficiency. The best way to escape baldness is therefore to be careful in our diet and above all to avoid irregularity in meals—a counsel of perfection which the busy man too often

finds it impossible to follow. We are not prepared to deny that indigestion may have something to do with baldness, but the part it plays is probably altogether secondary. We know of no evidence that baldheaded men are more dyspeptic than their neighbours, and women, who suffer much—chiefly through their own fault—from digestive troubles, are very seldom bald. The increasing prevalence of baldness might, with at least as much plausibility, be ascribed to the general betterment in our social condition that is taking place. The late Prince Consort (who himself lost his hair early) held that baldness is a sign of breeding; heredity, therefore, rather than indigestion would account for its frequency in the upper ranks of society. On the other hand hairiness and anarchism often go together, as if the bomb-throwing brotherhood had determined to throw off even the mild tyranny of the barber with other forms of government.

QUARANTINE AND COLONIAL ECCENTRICITIES.

IN Europe this country has been the leader in the crusade against the attempt to diminish the spread of infectious diseases by the imposition of old-fashioned quarantine, but it must be confessed that the course pursued on this question by many of our smaller colonies must be a matter of surprise and some natural irritation to other nations, who cannot understand the large measure of local autonomy possessed by British colonies even in matters affecting international interests. Mauritius, a British colony, still enforces quarantine of the most antiquated type, so that even Reunion, a neighbouring French colony, has been moved to invite the British colony to come to some rational understanding on the subject. As an example of the absurdities which are perpetrated, a correspondent informs us that a sailing vessel which arrived at Mauritius recently without any disease on board was quarantined because the bill of health was antedated one day, and this although the ship was seventy-three days out from Cardiff. The same correspondent reminds us that the large epidemic of small-pox which occurred in the island some six years ago was originated by a man suffering from the disease who was concealed in a ship when it arrived. He afterwards succeeded in escaping into the island. Instead of attempting to enforce an impracticable policy of exclusion, the colonists would be better advised to seek a remedy for the local sanitary deficiencies, which alone can be responsible for the fearful death-rate which prevails on the island. This has been for the whole island within recent years as high as 40.9 per mille, and in some localities half as high again. The deaths exceed the births by some 2,000 a year, and this in a population of 370,000 tells a terrible tale. It is little wonder that Mauritius has a worse reputation as a military station than the West Coast of Africa.

THE MECCA PILGRIMAGE AND INDIAN MOHAMMEDANS.

THE meeting held last month under the auspices of the Mohammedan Literary Society of Calcutta, at which Mr. Ernest Hart delivered the address on Cholera and the Meccan Pilgrims, briefly reported in the BRITISH MEDICAL JOURNAL of January 19th, p. 164, is, we learn, likely to have important practical results. It is the intention of the Mohammedans in Calcutta, an intention which is now being carried into effect, to form a committee to put the facts and statements brought to the notice of the meeting into the form of a document, which will be addressed to the Porte and to the Sultan by the Orthodox Mohammedans. It is intended that the Committee should not cease its functions with the despatch of this document, but should take continuous and detailed action. It would appear that the great Mohammedan community of India has now for the first time been thoroughly stirred to take measures with the view of preventing the fearful mortality from cholera which occurs among the pilgrims to Mecca, and thus to relieve Europe from the consequent dangers of diffusion. The serious interest taken in the matter is shown by the large number of representative Mohammedans who had attended the meeting. These included, in addition to Prince the Hon. Sir Jehan Kadir Mirza, K.C.S.I., who presided, the Nawab of Murshidabad, the Hon. Moulvie Jubbar Khan Bahadur, Shuje-ul-Mulk, Assufuddowlah Nawab Syed, Zainul Abidin Feroz Jung, of Murshidabad, and other leading zemindars and magnates, as well as leading ulemas and theologians.

SIR JOSEPH FAYRER.

A MEETING of medical officers serving at Netley was held on January 16th, under the chairmanship of Surgeon-Major-General Giraud, P.M.O. Sir Joseph Fayrer, among the other offices which he held, was a member of the Senate of the Army Medical School, and the meeting, which was held to consider the best form which a testimonial should take, resolved to obtain a portrait, to be painted for the officers' mess at Netley, and that a replica should be presented to Lady Fayrer. A Committee was appointed, consisting of Director-General Sir William Mackinnon (President); Surgeon-Major-General C. H. Giraud, A.M.S.; Deputy-Surgeon-General H. Cayley, I.M.S.; Brigade-Surgeon-Lieutenant-Colonel J. L. Notter, A.M.S. (Honorary Treasurer); Brigade-Surgeon-Lieutenant-Colonel E. J. Fairland, A.M.S.; Brigade-Surgeon-Lieutenant-Colonel Kenneth McLeod, I.M.S; and Surgeon-Captain W. W. Webb, I.M.S. (Honorary Secretary). Subscriptions are invited from officers of the Army Medical Staff and Indian Medical Service, as well as from other friends of Sir Joseph Fayrer and admirers of his long and useful official career. Subscriptions are to be limited in the case of officers serving at home or in the Colonies to 10s. 6d., and in the case of those serving in India to 10 rupees.

SIR ARTHUR MITCHELL, K.C.B.

SIR ARTHUR MITCHELL, who has just retired from the Commissionership of Lunacy in Scotland, has been connected with the Board since its formation, thirty-seven years ago. His influence upon its policy has been greatly beneficial. His name is particularly identified with the Scotch system for caring for the insane in private houses, upon which he published a book in 1864. For some years before 1871 he was Morrison Lecturer on Insanity to the Royal College of Physicians of Edinburgh, and at about the same time was Rhind Lecturer on Archæology to the Society of Antiquaries. In 1878 he was made Professor of Ancient History to the Royal Scottish Academy, and within recent years he has acted as Honorary Secretary of the Meteorological Society. It will thus be seen that he is a many-sided man, and his tact and energy and broad sympathy, not less than his wide knowledge, rendered him an ideal incumbent of the office which he held.

THE SICK POOR IN PROVINCIAL WORKHOUSES: EXETER.

EXETER Workhouse serves one of the larger unions where the number of the sick fully justifies the organisation of a separate infirmary, under a management distinct from that of the house for the able-bodied. We wonder how long it will be before this reform, long in force in London and one or two great cities, will be generally adopted in the provinces. Every hospital under Poor-law management should be a training school for workhouse nurses; half of the difficulties that now arise over the trained nurse—difficulties which inspire the objections to the introduction of the trained nurse in some quarters—arise from the fact that the nurse has been trained under conditions very different from those under which she is called upon to work in the infirmaries; the other half from the friction between the professional standards of the nurse and doctor, and the untrained officialism of the workhouse authorities. But this separation of the hospital department is a counsel of perfec-

tion; there are other reforms which Exeter might adopt in the meanwhile. More nursing is urgently needed, a large enough staff both by day and night to enable the services of the paupers to be entirely dispensed with, except for such work as is done by the ward maids of a hospital. The infants should never be under the charge of a pauper. We know the objection that is always urged, that "this multiplication of officials is costly." Perhaps, to begin with; but it is a truism that good organisation is more economical in the long run. If the able-bodied pauper is fit for such skilled work as the service of the sick, he or she is fit to earn a living outside the house: if the sick pauper is properly nursed, the cure is more rapid, and the rates are thereby relieved: if the infant pauper is reared and trained under healthful conditions and proper supervision, the risk of his burdening the rates as a permanent charge is much diminished. We recognise all that has been done of late in the way of improvement at Exeter, and we are anxious only to strengthen the hands of those guardians, who, we are convinced, are really desirous of improving the condition of the sick and infirm under their charge.

THE CONFUSION OF TONGUES.

THE date of the ninth International Congress of Hygiene and Demography, which is to be held at Madrid in 1897, has now been fixed from October 11th to 18th. The Spanish Government has sanctioned the use of no fewer than six official languages, namely, Spanish, Portuguese, French, Italian, English, and German. At this rate international congresses bid fair to be excellent object lessons in the "confusion of tongues."

AN ANXIOUS INQUIRER.

THE *Star* last week, with a great air of learning and impartiality, in an article headed "Science and Antitoxin," propounded a series of "straight questions that will want straight answers." Our contemporary confidently claims our support in its demand for an accurate and duly classified record of the results of the treatment of diphtheria in the hospitals of the Asylums Board by the antitoxic serum. It is perhaps a little late to claim our support in obtaining such information, seeing that we have all along insisted on the importance of publishing all the facts, including those to which the *Star* particularly refers. These are that the age should be recorded in every case, and whether it be an example of laryngeal or of faucial and pharyngeal diphtheria, that it should be stated whether the statistics include all the cases or only a selection of them: that the number of diphtheria patients admitted to the hospitals during the period should be stated, showing the number treated with and without antitoxin inoculations: and, finally, the number of deaths among inoculated and non-inoculated patients. These, of course, are the elementary points as to which information is desirable, and there is no doubt at all that the statistics and reports of the medical superintendents of the hospitals will deal adequately with all these matters, and with a great many others which require to be elucidated. To demand that these returns should be made weekly appears to be somewhat unnecessary. So far as statistics can settle the value of the new method of treatment, they will be as instructive, or more instructive, if issued once a month or once a quarter. Statistics dealing with brief periods of time are liable to lead the inquirer astray in the case of diphtheria, as of all other infectious diseases. Still we are glad to find our contemporary showing signs of returning to a more reasonable state of mind. For some time past it has reminded us rather of Don Quixote. It will be remembered that that excellent but somewhat eccentric knight was reduced to the unhappy state which led him into the exploits that have afforded matter for the inextinguishable laughter of so many generations by the perusal of various romances, the names of which are duly set out in the first chapter of his immortal history. He read them so often and so long that at last he began to take romance for fact. A very similar fate has befallen our contemporary, and we would seriously invite it to consider whether it might not provide itself with some good commonsense Sancho Panza, really acquainted with the facts of things as they are. If it would give up tilting at windmills it would soon find plenty of employment for its energy in the reform of real abuses. The present is a case in point. The grand parade which is made of these "straight questions" must be taken as a suggestion that the medical superintendents are suspected of wishing to conceal facts unfavourable to antitoxin treatment. They could not if they would, and they would not if they could. For our part we have published, or have in preparation for publication, every case received down to the time of writing; and the statistics from foreign sources, which have been so largely quoted by our medical contemporaries in other countries, have not been selected, but have been published in these columns from time to time, as they have become available.

HOSPITAL IRREGULARITIES AND THE HOSPITAL SATURDAY FUND.

AT the meeting on January 19th, when the Board of Delegates of the Hospital Saturday Fund, divided the sum of £17,600 among 165 participating institutions, a report from the Distribution Committee was read, in the course of which it was stated that the Committee had carefully considered the official report of the Committee of Inquiry with regard to the Chelsea Hospital for Women, and were of opinion that a lamentable condition of affairs for the year 1893 had been disclosed. They hesitated to recommend the removal of the institution from the list, as they hoped and believed that great efforts were being, and would be, made, to restore and justify public confidence. The Committee recommended a grant being made in accordance with the "plan of award," but that the amount—namely, £95 1s. be not paid over until the authorities of the hospital had fully satisfied the Board of the Hospital Saturday Fund that the requirements and reforms mentioned in the official report had been carried out. The Committee strongly approved the action of Dr. Louis Parkes, medical officer of health, in calling public attention to the matter. The Distribution Committee also recommended that a sum be set aside equal to a grant to the Queen's Jubilee Hospital on the usual "plan of award;" that the sum—namely, £63 13s., be paid to the hospital when the serious charges made in the press had been met and publicly refuted to the satisfaction of the Board of the Hospital Saturday Fund, and when the following appointments had been made by the governors of the institution—namely, treasurer, Finance Committee, and House Committee of not fewer than six members meeting weekly. The Board of Delegates approved the recommendations of the Committee in regard both to the Chelsea Hospital for Women and the Queen's Jubilee Hospital.

THE MATTEI REMEDIES IN COURT.

AT the Worksop County Court lately a Mrs. Blakely, who gave her address at "The Mattei Depôt," Newcastle Avenue, Worksop, sued a number of persons for sums of money which she alleged were due to her for medicines supplied. According to the report in the *Nottingham Guardian* evidence was given to the effect that the plaintiff had represented herself as a doctor, and a young lady who appeared for her said that she herself had made up the prescriptions, but that they did not, according to her belief, contain poison. Judge Masterman adjourned the case in order to have the alleged medicines analysed, and observed that if the law allowed unlicensed persons to dispense medicine it was a source of danger to the public at large. Anxiety upon this point in this particular case was, as will be seen, relieved by the analyst's report. When the hearing of the case was resumed a solicitor who appeared for Mrs. Blakely withdrew all the

cases. The judge said that the analysis made by the analyst showed that the contents of the bottle handed to him at the previous court consisted only of tap water, although he added that it was not proved before him that the liquid in the bottle really was the medicine dispensed. There is nothing in the report before us to show that the plaintiff was an accredited agent of the proprietor of the remedies which, as we were told recently, owe their varicoloured electric properties to vegetable electricity, but the similarity to be noted between the results of analysis in this case and of analysis of the "genuine" article seems to suggest that this may have been the case. The plaintiff's solicitor admitted that his client had no cause of action, but we presume that the credulity of the public is not yet exhausted, and that a commercial undertaking which can survive the exposures which have already taken place, and the effect of an article by the English agent published in a monthly periodical, and commented on recently in these columns, will survive the results of the legal inquiry at Worksop. People who really believe these stories about green and blue vegetable electricity in a bottle almost seem to deserve their fate. As the Tichborne Claimant noted in his diary: "Some people has plenty money, no brains; other people has plenty brains, no money; people with plenty money, no brains, are made for people with plenty brains, no money."

THE INFIRMARY MATRON UNDER THE POOR LAW.

Miss Mollett, late matron of the Chelsea Infirmary, now matron of the Southampton Hospital, read a paper before this body on the above subject. The paper would have carried more weight with the audience had the tone been more judicial, for a question of such moment must be argued on abstract principles, and not from the standpoint of individual bias or experience. The intention of the paper was to urge on the Local Government Board the wisdom of removing the matron's department from the rule of the medical superintendent, and making it independent, subject to the control of the guardians. The discussion that followed was joined in by many infirmary matrons, and some of medical superintendents present; but the point of the evening was made by Miss Wilson, President of the Midwives' Club, who quoted the new rules under which the Workhouse Infirmary at Birmingham is worked. The matron there has the control of the nursing and domestic department under the guardians; experience, it was stated, showed that the arrangement worked well. A resolution was proposed and seconded in favour of this change, which received a certain amount of support from the meeting. It is intended to send a copy of it to the Local Government Board. Such a change in the order of things is probably impending, and if safeguarded, as in a hospital, by a strong medical authority represented by a visiting staff and a medical advisory board, it will probably tend to increase the efficiency of these large infirmaries.

HOSPITALS AND THE RATES.

At the weekly meeting of the London County Council held on January 15th, Lieutenant-Colonel Ford moved:

That it be referred to the General Purposes Committee to consider and report as to the sufficiency or otherwise of the general hospital accommodation for the poor in that part of London south of the Thames; and as to the desirableness of the Council contributing out of the rates to the funds of the London hospitals, the ratepayers to be represented by the nominee of the Council on the governing body of each hospital receiving such financial assistance.

After a brief discussion, in the course of which the proposer appears to have displayed an astonishing want of acquaintance with the subject, the motion was negatived; and there the matter stands. Nevertheless this abortive proposition, productive of nothing at the moment, is an indication of the direction in which the thoughts of some are drifting. It is being plainly driven in upon those who watch the inner workings of the cosmos which we call London, that for a large majority of its inhabitants "home" affords no accommodation for sickness, and that hospitals are an absolute necessity. The help afforded by our general hospitals has, to a large extent, been accepted of the people as a heaven-sent gift, and like such gifts has often been received with more of criticism than of gratitude. But with increasing difficulty in supporting these charities, and with the rapid growth of populous districts devoid of hospitals, their necessity and the large place they fill in our municipal economy has become apparent. In fact, the socialism of the Poor-law is creeping upwards, and as the efforts which we and others have made to improve the lot of the pauper sick have gradually succeeded, the difficulty has forced itself into prominence that the non-pauper sick are in very many instances less well off. Hitherto the general hospitals have done much to take off the edge of this injustice, but every improvement in medicine and surgery emphasises the contrast between hospital treatment and treatment in the homes of the poor. Artisans and the smaller ratepayers will not unnaturally ask that they shall be as well treated as those whom their rates support, and thus the problem comes, or soon will come, up for decision: How are these people to be provided for? Are the infirmaries to be enlarged and thrown open to all, or can the hospital system be extended to meet the increased demands upon them; and if this latter cannot be done by charity should the State, or the county councils, or the sanitary authorities, aid them by subventions? And behind this question looms the further one whether we shall so kill the goose that lays the golden eggs, and by aiding from the rates choke off the contributions of the charitable.

LONDON POST-GRADUATE COURSE.

The Spring term of the London Post-Graduate Course will commence on Monday, February 4th, and we are requested to state that it is particularly desired that all who may intend to join any of the classes of the course should immediately enter their names by letter addressed to the secretary, Dr. Fletcher Little, 32, Harley Street, W., from whom full prospectuses can be obtained. The arrangements for the various classes must be made a little in advance, and if a sufficient number of entries are not made it may be necessary to abandon certain of the classess. Instruction will be given at Great Ormond Street (Children), at Queen Square (Nervous Diseases), at Moorfields (Eyes), at Blackiriars (Skin), at Bethlem (Mind), at the London Throat Hospital (Throat and Ear), at the Laboratory, King's College, in Bacteriology; and in General Medicine and Surgery, at Cleveland Street Sick Asylum.

THE CHELSEA HOSPITA FOR WOMEN.

We called attention last week to the unsatisfactory nature of the action taken by the Board of Management of the Chelsea Hospital for Women with regard to the selection of the acting medical staff. The Board of Management invited and obtained the assistance of an Advisory Committee consisting of Sir William Broadbent, Sir William Priestley, Sir Walter Foster, and Mr. Henry Morris. The applications of the various candidates were considered by this Committee, who sent in a report containing a list of the names of those candidates who fulfilled the conditions laid down in the advertisement inviting candidates to apply for the several offices. This report contained also an intimation of the opinion of the Committee as to the candidates that they recommended for the various offices. The Board of Management, as we are informed, entirely disregarded these recommendations and reappointed the staff appointed last August under the circumstances which have already been sufficiently described in these columns. In consequence of the course taken by the Board of Management, Sir William Broadbent and Sir William Priestley have declined to accept the office of con-

sulting physician to the hospital. We learn also that Mr. Jonathan Hutchinson has resigned the office of consulting surgeon to the hospital. It will be remembered that last September Dr. Robert Barnes retired from the office of consulting physician and Sir Spencer Wells from that of consulting surgeon. Mr. Jonathan Hutchinson, who had also tendered his resignation, consented to withdraw it conditionally on the nominations to the medical staff lately made being not confirmed at a special general meeting, and an influential committee of medical men being appointed, with a free hand to nominate a new staff. Mr. Hutchinson's resignation at the present time indicates very clearly his opinion as to the unsatisfactory character of the last step taken by the Board of Management.

INSANITY AND CRIME.

A CASE was heard recently at the Central Criminal Court which illustrates very well the mode of procedure in the case of a person of unsound mind who is charged with crime. The counsel for the defence said he desired the issue to be tried whether the defendant was of sound mind and fit to plead to the indictment. The jury was accordingly sworn to try this issue. Counsel then stated that the defendant was 67 years of age. His mind had been affected for a considerable time. Some twelve months ago steps were taken with a view of having him certified as a person of unsound mind, and his son was advised that that was a proper course to take. Unfortunately, the counsel added, the son did not act upon the advice given, but had his father looked after in the hope that the state of his mind would improve, but it did not improve. Medical evidence was given to the effect that the defendant was of unsound mind, and Dr. Savage stated that as long ago as January, 1894, eight months before the charge was made against the defendant, he had been prepared to certify him as of weak mind, and had advised that he should be made a ward of the Court of Chancery. The jury found that the defendant was insane, and unfit to plead to the indictment; and the Recorder said that the defendant would be detained during the Queen's pleasure. The case has a useful moral for the public. Had his friends acted upon the medical advice given to them, the crime would never have been committed, and this unfortunate man would not have had to have spent his declining years in Broadmoor.

THE HISTORY OF THE MICROSCOPE.

THE annual meeting of the Royal Microscopical Society was held last week, when the President, Mr. A. D. Michael, delivered the annual address, which was devoted to a historical sketch of the Society. It was founded on September 3rd, 1839, when a meeting was held at a house in Wellclose Square, where Mr. Edwin Quekett, Professor of Botany at the London Hospital, then resided; and among the seventeen gentlemen who attended were Mr. N. B. Ward, the inventor of the Wardian Case, which has not only been an ornament of many town houses, but was the means of introducing the tea plant into Assam and the cinchonas into India; Mr. Bowerbank Mr. Lister, the father of Sir Joseph Lister, and the creator, as has been said, of the modern microscope; Dr. Farre, and Dr. George Jackson. The Society was formally started on December 20th, 1839, with Richard Owen as the first president. Shortly afterwards John Quekett became secretary, an office which he retained almost till the time of his death. At the moment when the Society was founded it was made a matter of reproach to this country that it did little for microscopical research, and Schleiden attributed this deficiency to the want of good instruments. The President sketched the history of the Society through the presidencies of Dr. Lindley, the botanist: Professor Thos. Bell, the zoologist; Dr. Bowerbank, Dr. George Busk, Dr. Carpenter, Dr. Lankester, Professor W. Kitchen Parker, all deceased, and of others who are still living; and traced its influence upon the improvements made in the microscope in this country until microscopes of British manufacture attained their present position as the best in the world. At John Quekett's death certain members of the Society subscribed to purchase for its collection a curious microscope which had belonged to Quekett and had been made by the celebrated Benjamin Martin about 1770 for George III. Out of this subscription grew the Quekett medal, designed to be given to eminent microscopists, but which, as a matter of fact, owing to certain difficulties which arose, had been presented only on a single occasion. The recipient of this unique honour was Sir John Lubbock. Mr. Michael expressed a very confident belief that the microscope was still susceptible of improvement in spite of opinions sometimes given to the contrary. Similar opinions had been expressed before, and even in 1829 Dr. Goring, then a great authority on the subject, published his opinion that "microscopes are now placed completely on a level with telescopes, and like them must remain stationary in their construction." Less than a year afterwards Lister's epoch-making paper on the Improvement of Achromatic Compound Microscopes appeared, and the work of improvement had been going on ever since.

MEDICAL LIFE PEERS.

DR. EDUARD ALBERT, Professor of Clinical Surgery, and Dr. Hermann Freiherr von Widerhofer, Professor of Children's Diseases in the University of Vienna, have been created life members of the Austrian House of Lords. The other representatives of medicine in the Austrian Upper House are Dr. Ernst Ludwig, Professor of Medical Chemistry, and Dr. Schneider, both of whom are also members of the Aulic, or Privy, Council. It may be mentioned that the Austrian Herrenhaus is composed of princes of the Imperial family, nobles with the hereditary right to sit, archbishops, and life members nominated by the Emperor.

OYSTERS AND TYPHOID FEVER AND CHOLERA.

IN the course of the special local inquiries with regard to the occurrence of cholera in England in 1893, the Inspectors of the Local Government Board encountered certain facts, with regard to the condition under which oysters undergo their final process of preparation for the market, proving that these conditions were of such a nature as to favour the contamination of these molluscs with sewage. There were also some grounds for suspecting that certain sporadic cases in inland parts were associated with the consumption of oysters and possibly of other molluscs. When these facts were brought together in the report on "Cholera in England during 1893," which has been prepared by Dr. Thorne Thorne, C.B., the Chief Medical Officer to the Local Government Board, it became clear that it would be desirable for the Board to give special attention to the subject. In consequence, the President of the Board has approved the institution of an inquiry into the conditions under which oysters are raised for the market, in connection in particular with the process of fattening. Some preliminary information for the purposes of this inquiry has already been brought together by Dr. Bulstrode, one of the medical inspectors of the Board, and the information already in the hands of the Board is quite sufficient to prove that in certain localities oysters are fattened under conditions, in regard to the possibility of sewage contamination, which are of such a nature as to favour the dissemination of water-borne diseases through their consumption. We understand that Dr. Thorne Thorne's report on "Cholera in England during 1893" is now in the press, and it is to be hoped that it may be issued at an early date after the meeting of Parliament.

MADAME RODSTVENNAIA-CHANIAVSKAIA has undertaken to contribute 12,000 roubles (about £1,200) a year for ten years to the school of medicine for women which it is proposed to establish in St. Petersburg if the school is opened during 1895.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

XXXVII.—Dr. Charles L. Fraser, F.R.C.S. (Berwick-on-Tweed) sends us the following report of two cases of diphtheria treated by antitoxic serum supplied to the British Medical Journal by Dr. Klein:

Case I.—D. S., aged 6, was first seen on December 12th, 1894. On this day and for the next three days her temperature was 100°, respiration 18, and pulse 120. A thin membrane covered both tonsils, uvula, fauces, and partially the soft palate. Treatment consisted of topical application of various kinds without any result.

On December 16th she was a good deal worse. Respiration was stridulous, temperature 101°, pulse 136, and very soft; the membrane was thicker and more extensive, the voice very hoarse and whispering. At 4.30 P.M. I injected ℥xl of antitoxic serum, little doubting but that I should be called upon to open the trachea before next morning. On Monday 17th, at 11 A.M., the pulse was 120, the temperature 98°, and the respiration 20. About 6.30 P.M., on December 16th, two hours after the injection, she seemed powerless, and could not raise herself, continually asked to be lifted higher, and felt "sinking down a bit." About 10 P.M. this feeling had passed off, and she seemed quite cheerful again. After this she slept, which had not happened for four nights previously; but about every hour she awakened, and began to cough and spit up bloody-looking material and membrane. The mother noticed that what was now coughed up was very much thicker than what had come any time before, and, of course, the bloody tinge was superadded.

On inspection I noticed the left tonsil clear of membrane; in the other situation it was freely coming off, leaving raw-looking patches which showed no signs of new formation. Breathing was not at all stridulous; it was quieter, and the mother told me "the croupiness" passed off at midnight. A copious secretion was being constantly shed by the nose and mouth. At 1 P.M. antitoxic serum injected ℥ xx. On December 18th the temperature was normal, the pulse 100, and the respiration 18. The membrane had disappeared from the tonsils, fauces, and other visible situations, but a copious expectoration was being hawked up from the trachea, slightly tinged now and again with blood. The glandular enlargements about the angle of the jaws were very much reduced and softer. The child looked much better. On December 19th the temperature was normal, the pulse 96, and the respiration 18. The blood-tinged, creamy-looking substance was still coming freely from trachea and larynx, but not quite in such quantities. The tonsils and throat were quite clear of membrane and not much inflamed. The glandular enlargement had decreased very much.

The case progressed daily so well that no further notes were taken, and on December 29th I found her sitting in bed playing with her toys. Her mother says her appetite is very keen, and that the bowels act regularly. I wish to note, however, that the skin was covered with a roseolous eruption, and this seems interesting from the fact that the next case was found in exactly the same state.

Case II.—H. A., aged 9, was first seen on December 15th, 1894. His throat was very much inflamed. The temperature was 100°, the respirations 20, and the pulse 104. On December 16th both tonsils, the uvula, fauces, and palate were deeply congested with fragmentary yellow patches scattered irregularly here and there; these had not the appearance of follicular tonsillitis. The glands at the angle of the jaw and the submaxillary glands were much enlarged. The breathing was quite easy. At 5 P.M. antitoxic serum ℥xl was injected. On December 17th the temperature was 99.4°, the pulse 100, and the respiration 18. The congestion of throat was much less, the yellow patches had gone entirely, leaving their seats slightly more congested than the surrounding mucous surface. The glands were softer. On December 18th the temperature was normal, the pulse 92, and the respiration 16. The child breathed quietly. Beyond swelling and injection of the tonsils there was nothing to be noted in the throat. The glandular enlargement was very much reduced. He complained of great weakness and prostration. The pulse was very easily compressible, but otherwise he was doing very well. On December 19th he had improved in every respect: the redness of the throat was much less, the swelling gone. The case continued to improve daily, and no further notes were kept, but on December 29th he was covered from umbilicus downwards with the same roseolous eruption as in Case I. Its appearance has not in the least affected their general health more than the discomfort of a slight itchiness generally does. They are cleanly kept and well looked after.

The diagnosis was verified in these cases by bacteriological examination.

A third case occurred close by where the other two lived, but so sudden was the dyspnœa that the patient died before I reached the house.

THE DOSE OF SERUM.

Dr. R. B. Sidebottom (Glossop) writes: I see, from the British Medical Journal of January 19th, that Dr. A. MacGregor, of Aberdeen, meets with a similar difficulty as myself as regards the dose of serum administered according to the age of the patient.

On January 15th I was called to see a child, aged 8 months, suffering from diphtheria. Both tonsils and uvula were covered with large patches of membrane, and there was a good deal of mucous discharge from both nostrils, which obstructed the breathing considerably. The movement of the chest walls was good, and there seemed no indication of the membrane extending down the larynx. Temperature was 104°, pulse very rapid; urine scanty (unable to obtain a specimen). The child had distinct hydrocephalus, and was teething.

I injected 20 minims of Dr. Aronson's antitoxin at the angle of the scapula (the remainder of a supply I had in hand); the temperature came down to 101°, and a rose-coloured rash appeared all over the body. When giving the child some milk it vomited, and a quantity of membrane came from the throat and down the nostrils.

I obtained a supply of Professor Behring's antitoxin the following day, and, some membrane still remaining, I injected 15 minims under the skin in front of the mamma; the rose-coloured rash increased. The child's breathing improved, and it fell into a comfortable sleep. Temperature came down to 99°, and the case looked hopeful. On January 17th, during the night, the child had convulsions at intervals, and died the following day. Uræmia, complicated with hydrocephalus, seemed to be the cause of death in this case.

The question I should like to have answered is this: In a child so young was it desirable to use a larger quantity of the serum at the first operation, or should a smaller dose have been repeated? Professor Behring's instructions were that the whole contents of the tube, containing about ℥ij, should be used; but this quantity, I concluded, was meant for an adult.

COMMITTEE OF THE CLINICAL SOCIETY.

The Committee appointed by the Clinical Society "to investigate the clinical value of the antitoxin of diphtheria," consists of Drs. Church, Stephen Mackenzie, Coupland, Pasteur, Hale White, Sidney Martin, Washbourn, E. W. Goodall, and H. P. Hawkins. Sir Joseph Lister who was invited to join the committee, finds, unfortunately, that he is unable to serve.

THE ANTITOXIN TREATMENT ABROAD.

Germany.—By an Imperial Order dated December 31st, 1894, the diphtheric antitoxin (serum antidiphthericum) is included in the list of recognised remedies, and the sale of it is permitted to pharmaceutical chemists under the Imperial Order of January 27th, 1890.

France.—The Minister of Marine, acting on the advice of the Superior Health Council of the Navy, has directed that a sufficient provision of antidiphtheric serum should be held in readiness for treating three cases in the five port hospitals, and in the naval institutions not in ports; also that medical officers of the navy in the different coast islands should have this quantity ready at hand. Applications are to be sent into the Navy Ministry Office, and will be forwarded to the Pasteur Institute.

THE INDIAN MEDICAL CONGRESS.

ANTI-CHOLERAIC INOCULATION IN INDIA.

M. HAFFKINE gave a brief sketch of the work which he had done in India during 1893 and 1894. He observed that it was ten years since Robert Koch had visited Calcutta for the purpose of investigating the causes of cholera, and the researches since carried out in various parts of the world had resulted in showing that no other microbe than the comma bacillus was constantly associated with the disease, and that this microbe was not to be found under any other circumstances. Cholera as a natural disease was unknown among animals, and a man in the average state of health possessed a high degree of resistance. Artificial infection of healthy men remained in a large proportion of cases without effect, but the toxic power of the comma bacillus on animals was shown by the fact that a minimal quantity of the comma bacillus introduced into the abdominal cavity produced a fatal effect. Injection into a muscular tissue had a lighter result, and important disturbances of health followed injection into a circulating system. The disease in animals, however, did not present the symptoms peculiar to cholera. Animals, it had been shown, could by previous treatment with attenuated cholera virus be protected from artificial infection which otherwise would prove fatal, but the question whether it was possible to protect men could not be solved. Were an experiment to be performed on 100 men by causing them to swallow cholera vibrios, probably not more than 5 or 10, or at most 20, would show symptoms of the disease, and about half of those affected would die. Experiments conducted by bacteriological investigators on themselves or on voluntary subjects for experiments, showed that great individual differences in susceptibility existed. Experiments of such a nature could not obviously be carried out on a scale sufficient to afford grounds for reliable conclusions. The method pursued by M. Haffkine had been not to infect, but to save, during an epidemic, or when an epidemic was approaching, the method followed being based on knowledge gained from laboratory experience. By comparing the fate of the treated individuals with that of the non-treated, there was reason to hope that a conclusion might eventually be reached as to the effect of the preventive treatment. After briefly citing the observations of Ferran, Metchnikoff, and Gamaleia, M. Haffkine stated that the method which he had worked out for transforming the cholera virus, which was very liable to alter in virulence into a vaccine of fixed nature, was based on the cultivation of the cholera bacillus in the peritoneal cavity of guinea-pigs. His researches resulted in the elaboration of a method which yielded two sets of cholera virus of different intensity, capable in an absolutely safe manner of protecting animals against all forms of infection by the cholera virus fatal to them. The harmlessness of these viruses was ascertained in the first place by experiments on himself and on various persons connected with his laboratory. Having reached this point, it was impossible to proceed further without proceeding to the country where cholera was endemic. The first difficulty encountered there was to induce masses of inhabitants to undergo the treatment in large bodies, a condition necessary for the work. At first there could be no choice of conditions. It required a year's persistent work and inoculations of many thousand volunteers in distant parts of the North-West Provinces and Oudh and the Punjab, among all classes of the population, before it became possible to direct the operations to such points of the country and to such classes as presented the conditions answering the scientific requirements of the problem.

The assistance afforded by Professor Hankin and his laboratory had been invaluable, but owing to various reasons, among others the difficulty of obtaining the necessary animals, the method could be carried out during this early nomadic period only in an unsatisfactory manner. At first, and until the fear of the operation had been dissipated, it had been found necessary to employ very small doses in order to avoid alarming the public mind. In fact, at Delhi inoculations were only allowed to be commenced on the conditions of reduced doses of vaccine being used: two accidents in themselves unconnected with the operation which attended the first set of inoculations having created a prejudice. The total number of persons inoculated in Upper India was 22,603. Since then 9,563 persons had been inoculated in Bengal, Behar, and Assam, bringing the total number of persons inoculated in India to 32,166. About two-thirds of this number had been subsequently inoculated with the second vaccine from five days to two months after the first. Notes were taken of every case. In the case of soldiers the fact of inoculation had been entered in the medical history sheet, in the case of prisoners in the gaol ticket, the principals of schools had kept a list of the inoculated children, and many Civil surgeons preserved in their offices a record of the inoculated civil inhabitants. For various reasons, however, it was not found possible to perform preventive inoculations in a place where cholera actually existed until March 11th, 1894, when, with the co-operation of Dr. W. J. Simpson, the health officer for Calcutta, and with the aid of the Indian medical inspectors of the Health Office, 1,000 people were inoculated in the most affected part of the city. M. Haffkine then described the method in which the value of the inoculations was tested. In an endemic area, he observed, each house might comprise within its walls an experiment group. By inoculating a certain number of these houses in infected quarters there was a probability of cholera appearing in some of them, and allowing of comparisons between the inoculated and non-inoculated members of the house who were otherwise under similar conditions of food, water, soil, social conditions, etc. During 1894, 3,478 persons in Calcutta had submitted themselves to inoculation. In 13 houses, containing 181 people, cholera appeared from 2 to 180 days after the inoculations had been carried out. The number of persons inoculated in these houses was 85, and among them one case which was fatal occurred, a percentage of 1.18. Among the 96 non-inoculated persons there were 15 cases of cholera and 11 deaths, or 15.63 per cent. of cases and 11.63 per cent. of deaths.[1] In August, 1894, an epidemic of cholera occurred among 872 soldiers in Cawnpore; 75 of these had been inoculated by M. Haffkine 13 months previously: 19 cases with 13 deaths occurred among these soldiers, all the cases and all the deaths among the non-inoculated. M. Haffkine then stated briefly the results of the inoculations made in Gaya Gaol. These have already been stated in some detail in the columns of the BRITISH MEDICAL JOURNAL by Surgeon-Major R. Macrae.[2] In Lucknow the results were much less satisfactory. The bare facts are given in the following table:

Table showing number of Inoculations, Cases, and Deaths at Lucknow.

	Number	Cases.	Percentage of Cases to Strength.	Deaths.	Percentage of Deaths to Strength.
Non-inoculated ...	[illegible]	120	18.75	74	12.34
Inoculated	122	18	13.53	12	9.77

With regard to the Lucknow cases M. Haffkine observed that the cases of failure might be due in part to the lapse of time and in part to the weakness of the vaccine used, which produced only a feeble reaction. The time was not yet ripe nor were the facts sufficiently numerous to permit final conclusions to be drawn beyond this: That the harmlessness of the inoculations whether in the presence or absence of cholera was now definitively established.

Table showing the Total Number of Persons on whom observations have been made in Calcutta, Gaya, Cawnpore, and Lucknow.

	Number.	Cases.	Percentage of Cases to Number.	Deaths.	Percentage of Deaths to Number.
Non-inoculated ...	1,735	174	[illegible]	124	[illegible]
Inoculated	500	21	4.20	12	2.4
Total	2,235	195	—	136	—

[1] The case of a child suffering from diarrhœa at the time of the inoculation, who developed typical cholera within an hour of the treatment is not included in the above statistics.

[2] BRITISH MEDICAL JOURNAL, September 22nd, 1894.

These figures not only showed that the inoculations were harmless, but displayed a difference in the occurrence which, if interpreted at all, could only be interpreted in favour of the inoculations.

Ophthalmology in Bengal.

Lal Madhub Mookerjee, Teacher of Ophthalmology in the Calcutta Medical School, in the course of the retrospect of ophthalmology, said that as a crude art it was as ancient in Oriental literature as the Hindu Sastras. In the Dark Ages Asiatic practitioners recognised and dogmatised about most of the disorders of the eye known to ophthalmic surgeons of recent date. It was, indeed, a fact to the credit of the ophthalmic art in the East that its older practitioners in Bengal and throughout Asia had treated systematically and successfully such diseases as conjunctivitis, iritis, keratitis, ulceration of the cornea, non-specific and specific ophthalmia, granular lids, ectropion and entropion, cataract in its various forms, the causes of faulty vision.

But, while Oriental medical literature had its place in the archives of the learned, the bulk of Oriental practitioners were illiterate, and their practical knowledge, good as it often was, was gained by a species of discipleship and governed rather by tradition than by written precept.

The history of modern ophthalmology in India dated from the establishment of the Medical College in Bengal in 1835. Prior to this a number of surgeons of the old Honorable East India Company's service had opened dispensaries in various stations in Bengal, notably in Calcutta, where the poor had their ailments gratuitously treated, and often at the entire cost of these doctors. In these outdoor infirmaries, as they were called, there were a few beds for operation cases, and here Western medicine gained many of its earliest disciples, who became useful and distinguished practitioners.

In 1851 Dr. Martin was appointed to the Chair of Ophthalmic Medicine and Surgery, and in him ophthalmology found an able exponent. His successors were Drs. Archer, Macnamara, Cayley, and Jones. Mr. Macnamara had given India the first work of eye surgery based on Indian experience, and his work was still a valuable guide to students. For the last thirty years nearly 300 operations had been performed yearly in the Eye Hospital Medical College. The results obtained by Mr. Macnamara by the linear extraction without iridectomy which bore his name, and by Mr. Cayley with a modified operation founded on the methods of Macnamara and von Graefe, had been brilliant; for of the hospital cases, which were quite unselected, Macnamara's method gave 87 per cent. of cures, and the modified von Graefe's 77 per cent. In the private practice of these surgeons from 90 to 95 per cent. of cures was the average. The speaker said that in his own operative work he had been guided by the experience gained during his association with Professors Macnamara, Cayley, and Jones. In describing it he insisted upon the necessity for cleansing the hands and face of the operator, as well as the eyes and eyebrows of the patient. Iridectomy was performed if the pupil did not respond sufficiently to atropine, if the lens was hard and large, or if there was adhesion of the pupil. When the lens required to be removed by the curette, if the iris were injured, or if the patient were unable to remain sufficiently quiet to prevent prolapse of the iris. The speaker then gave particulars as to the number of cases in which vitreous was lost in cataract operations, and the final results as to vision. There were 122 cases, of whom 89 recovered good vision, 5 fair vision, and 28 cases failed.

In the Eye Hospital the results of Professor R. C. Sanders, the present ophthalmic surgeon, had been an average of 76.13 successes during the past six years, but in a single year the average had reached the high figure of 95.56. In recent times the prevalence of diabetes in Bengal had added largely to the occurrence of cataract. Turning then to the subject of ophthalmia neonatorum the speaker observed that Bengal was a land of mendicants, of whom some 60 per cent. were totally blind. The blindness in 40 per cent. was due to ophthalmia neonatorum. If only the native midwives could be trained sufficiently in the simple hygienic laws of the lying-in room to obtain reasonable cleanliness of the infant immediately after birth, the number of blind mendicants might be enormously reduced. Granular conjunctivitis was another disorder extremely common in Bengal, which was certainly due to unhygienic conditions. In conclusion he touched upon the great increase of errors of refraction and accommodation, so that it was common to find boys and girls of from 12 to 16 years old decorated with spectacles. The teaching of ophthalmology in India was still very defective. There were immense numbers of patients, but there was a lack of scientific appliances, and the courses of lectures, both theoretical and practical, were insufficient. The exclusion of non-official practitioners from holding office in public hospitals was a great drawback to the real advancement of the medical profession in India.

The Need of a Sanitary Service for India.

Dr. W. J. Simpson, Medical Officer of Health for Calcutta, read a paper upon the need of a sanitary service for India, to which we have already alluded; but it will be interesting to reproduce here, in his own words, the outlines of the scheme which he proposed:

"1. The complete separation of the sanitation of the army and of the military cantonments from that of the civil population.

"2. The special sanitary training of students in the medical and veterinary colleges and schools of India; and the affording to other classes of students facilities for obtaining, when desired, special training in sanitary engineering and architecture in the engineering colleges and technical schools.

"3. The compelling of each municipality or combination or group of municipalities or local authorities to appoint a health officer after a certain date; such officer's appointment, pay, leave, dismissal, etc., being subject to the approval of the Sanitary Commissioner.

"4. The formation on every municipal board of a small but special sanitary committee with a medical man, and, when possible, the civil surgeon as president, and the compulsory setting aside annually of a certain sum of money to be placed at the committee's disposal for sanitary work only.

"5. The appointment of the civil surgeon on a proper remuneration with defined powers as chief consultant health officer of the district, and in those places in which he is not available either owing to overwork or other cause, the appointment of a special district health officer.

"6. The placing of the local and district health officer in close relationship with the sanitary commissioner of the province.

"7. The placing of the provincial sanitary commissioners in touch with the Imperial Sanitary Office.

"8. The representation of health matters on the Imperial Council."

Indian Systems of Medicine.

A very interesting and able paper on this subject was read by Brigade-Surgeon-Lieutenant-Colonel T. H. Hendley, C.I.E., Residency Surgeon, Jeypore. He observed that a very high antiquity had been claimed for Indian medicine, but that this claim had been disputed on the ground that even the most ancient text contained traces of Arabian sources. The first date which could be approximately fixed was that before the eighth century A.D., the commentaries of Charaka, who might be spoken of as a physician, and Susruta, who might be regarded as a surgeon, were in existence. Both these writers, and other early commentators, had insisted that without a knowledge of books, coupled with practical dissection, no one could be a proper practitioner. These sound views, as Surgeon-General Balfour had pointed out, afforded an explanation why the ancient system of Hindu medicine was so complete, and had been so permanent in its character.[3] Hindus from an early period, however, had given up the dissection of bodies, merely on the ground that it occasioned ceremonial uncleanness, although Manu had laid it down that the individual might quickly be purified from such ceremonial uncleanness. The Hindus held a humoral doctrine, believing that diseases were due to aberrations in varying degrees of the three humours—air, bile, and phlegm—and endeavoured to restore the balance by dieting or the elimination of the corrupted humours by means of emetics, purgatives, and bloodletting. There was a further division into sthenic and asthenic diseases, which needed cool remedies or

[3] "The Vydian and the Hakim."

the reverse. The Yunani, or Greek, system, practised by Mohammedan hakims or physicians, was the second important division of medical practice in India. This system was founded mainly on Galen, who attributed disease to disproportion in the four states of the constituent elements—the hot, the cold, the moist, and the dry—or to some unnatural condition of the organs. He believed in the putrefaction of the humours which called for elimination. On the whole the practice of excessive purging and bloodletting were more characteristic of this than of the Hindu (Vaidic) system, though both believed in starving out the disease. The practitioners of both shared the prejudice so long common in Europe against surgery, which they left to Jarrahs, rude uneducated surgeons, to barbers, quacks, and old women of both sexes. This indifference had its root in the neglect of anatomical study. The consequences of this neglect even in the present day were terrible to contemplate. Certain instances which had come under the speaker's own knowledge were quoted, and he added that in a remote part of India the stumps of amputated limbs have been thrust into boiling oil to check the hæmorrhage, a practice abandoned in Europe since Ambroise Paré first used or revived the use of the ligatures. The Parsees did not appear to have exercised much influence on the practice of medicine in India. They believed a good deal in washing and spells, but the Zend Avesta contained a section which laid it down that a man must not first operate on his coreligionists, and that, if he lost three patients in succession, he was unfit to practise the arts of healing at all: if his three patients recovered, he was considered qualified. The Zend Avesta also contained a scale of fees as follows: A priest was to be healed for a holy blessing, the master of a house for the value of an ox of low value, the lord of a borough for an ox of average value, the head of a town for one of high value, and the chief of a province for the worth of a chariot and four. The fees for healing the wives of the above, from the master of the house upwards, were the cost of a she ass, a cow, a mare, and a she camel respectively. The practice of the medical art was often hereditary among the Parsees, and there were men practising in the present day on the strength of knowledge acquired from their fathers. Some of the old Parsee books, however, contained passages which showed considerable insight: thus all bodily secretions were considered to be impure, as containing the germs of disease and cleanliness and personal purity formed one of the chief commands of the Zoroastrian religion. With these ideas it was not surprising that the Parsees were appreciative of the conditions of modern sanitation. The native practitioners, however, did not have it all their own way, since there was a firmly-rooted belief in the power of religious teachers to cure disease. Moreover, there were many outlying villages and many frontier districts where there was only the village buneah or purveyor, the dhai or nurse, and the old men and women in the neighbourhood who had an accumulative knowledge of simples and folklore. The belief in spells and charms and in the prayers of religious persons operated to prevent cases coming to the dispensaries for treatment before it was too late, and the state of things thus produced the quack, who, whether Vaidic, Yunani, or European, had a magnificent field. Every post brought quantities of European and American quack literature. Indecent as much of this was, it was outdone by the pamphlets describing the Vaidic remedies. The worst of it was that much of this rubbish was accompanied by certificates from men holding diplomas from the licensing bodies, who ought to know better. Moreover, the sale of patent medicines, so-called—a large number of them really quack products—unfortunately formed part of the business of many medical halls in the large towns. The failure of both the main medical systems of India—the Vaidic and the Yunani—was traced by the speaker to the neglect of anatomy and the growth of superstition. A letter was quoted from the principal of the Sanskrit College at Jeypore, in which it was stated that medicine is now nowhere taught in India in the vernacular, so that students have to spend much time in the study of Sanskrit. Only books were used, and there was no general practical education, the teacher holding that a knowledge of anatomy was not required in medical cases, as it was only necessary for treatment to be acquainted with the symptoms of the different diseases as laid down in books. That a prejudice against Western medicine and surgery existed could not be denied, and Brigade-Surgeon-Lieutenant-Colonel Hendley discussed the means which might be taken to break down this prejudice. He thought that an attempt might be made to lessen the prevailing ignorance of anatomy and physiology by giving popular lectures or demonstrations illustrated by magic lantern pictures, by exhibiting anatomical models in the museums, by encouraging the publication in the vernacular of simple works on the subjects indicated and on hygiene, to be illustrated by rough drawings or coloured pictures, which were better understood than more elaborate designs. Further, in practice and in conversation the objects held in view in the course of treatment adopted should be explained, and the patient assured that the drugs did not contain anything prejudicial to religion or caste. The Jains rejected medicines unless they were given in dry powders, and many Hindus and Mohammedans feared that alcohol might be administered to them in some form or other. Practitioners of rational medicine, therefore, should be careful to have no secret remedies. Everything was to be gained by publicity and discussion. The Western physician, also, on his part, should study more carefully the diet of the Indian in health as well as in sickness; should eschew the use of patent medicines and written formulæ, and show that he understood the action and combination of drugs, in which all Indians had great faith. Finally, great efforts should be made to put down quackery in the indiscriminate sale of so-called patent medicines and quack remedies, and a Medical Act should be obtained under which only qualified persons should be allowed to practise European medicine, so that the art might at all events be presented in its true colours. He believed that there would be a strong feeling among Indians that no one should be allowed to practise as practitioners of the native systems who had not passed a fair test, which would in time be gradually made more difficult.

THE UNIVERSITY QUESTION IN LONDON.

DEPUTATIONS TO LORD ROSEBERY.

IN FAVOUR OF THE SCHEME FOR ONE UNIVERSITY.

AT mid-day on January 22nd Lord Rosebery, who was accompanied by Mr. Bryce, President of the Board of Trade, Mr. A. H. Dyke Acland, Vice-President of the Committee of Council, and Lord Reay, received a deputation, consisting of Sir Henry Roscoe and Professor Rücker, representing the Professorial University Association; Mr. Stanley Boyd, Dr. Fred. Taylor, Dr. Isambard Owen, Dr. S. Coupland, Dr. T. W. Shore, Mr. Henry Page, Dr. Payne, and other representatives of the medical schools; Mr. Thornton, the Royal Asiatic Society: Sir J. Russell Reynolds (President) and Dr. Allchin, the Royal College of Physicians; Mr. J. Whitaker Hulke (President), the Royal College of Surgeons; Principal Wace and Sir William Priestley, King's College; Professor Whitehouse, Cheshunt College; Dr. Agar Beet, Richmond College; Principal Cave, Hackney College; Principal Pryce, New College; Sir J. E. Erichsen, Sir George Young, and Professor Ramsay, University College; Sir Julian Goldsmid, Sir W. S. Savory, and Mr. Anstie, Q.C., the Senate of the University of London; Professor Silvanus P. Thompson, the Committee of Graduates, and Annual Committee of Convocation of the University of London.

The deputation was introduced by the Right Hon. T. H. HUXLEY, who said that the object of the deputation was to request Lord Rosebery as the First Minister of the Crown to listen to an exposition of their views as to the best means of organising into a university the institutions for teaching and learning which existed at present in London, and to request the Government to take the steps necessary in order to bring about that result. Differences of opinion must of course exist as to the detailed measures which should be taken to introduce order into what, without disrespect he thought, might be termed chaos, that is, into the educational institutions of London. Some sixty years ago the attempt was

made to found a university in London; the projectors did not obtain what they desired to have, but in its place a something which, though it had done a vast amount of good work for general professional education, was not that which they wished to have—namely, a teaching and learning corporation. What was established was a purely examining body. Since 1888 two Royal Commissions had occupied themselves with the question of reconstructing the position of educational affairs in London, and he thought it might be said that it would probably be impossible for the ingenuity of man to devise any opinion upon that topic which had not been brought before one or other of these Commissions. Professor Huxley briefly recalled the action of the Senate and Convocation of the University, and concluded by saying that whatever differences of opinion might exist as to matters of detail, the deputation was of one mind in desiring two things—first, the formation of one organic whole, the University of London, by the voluntary co-operation of the various institutions for learning, teaching, and examining, which at present independently coexisted in London; secondly, the appointment of a statutory authority as the indispensable instrument for effecting the desired organisation.

Sir Julian Goldsmid briefly supported the views expressed by Mr. Huxley, and added that he believed that the Senate were unanimously of opinion that nothing should be done in any way to diminish the facilities now possessed by external students.

Dr. Allchin, on behalf of the College of Physicians, and Mr. Hulke, President of the Royal College of Surgeons, as well as Sir George Young, as representing University College, briefly expressed their concurrence.

Dr. Wace said that King's College accepted the proposals of the last Commission though the relation of the Academic Council to the Council of King's College and to its professorial chairs might gravely compromise the position of the College.

Principal Cave, Dr. Frederick Taylor, Professor Silvanus Thompson, and Mr. Thornton having also spoken,

Lord Rosebery said that he was extremely indebted to the deputation, which was remarkable both from the individual character of its members and from the vast and varied educational interests which they represented. The present seemed to be a favourable opportunity, and one that ought not to be postponed for the appointment of a Statutory Commission. He took it that there was general agreement that this Statutory Commission should in principle be guided by the Report of the Commission on the Draft Charter of the Gresham University, but should be to a large extent unfettered in respect to details. It appeared to be the general opinion also that the Statutory Commission should be open to hearing representations from the various interests concerned, and that there was a hope that compliance with this second requirement would go far to do away with all opposition arising within the present University. The Government would take full heed of these views, but if it were to proceed with the legislation required for the appointment of a Statutory Commission it would be absolutely necessary that this legislation should not meet with any long or obstinate Parliamentary resistance.

Mr. Huxley having thanked the Prime Minister, the deputation then withdrew.

In Opposition to the Scheme.

Later in the day Lord Rosebery, who was accompanied by Lord Reay and Mr. Bryce, received the two deputations to present views opposed to the scheme. The deputation included Mr. Bompas, Dr. Collins, Q.C., Mr. Littler, Q.C., Mr. Joseph Walton, Q.C., Dr. Sansom, Dr. Baines, Dr. Snow, Dr. Macevoy, Dr. Napier, Dr. Heber Hart, Mr. H. S. Taafe, and Dr. Bryant.

Mr. Fletcher Moulton, Q.C., M.P., in introducing the deputation, said that the scheme might be broadly described as a proposed union between a teaching university to be formed in London and the existing University of London so as to make a university which would be both a teaching and an examining university. While he had not the slightest hostility to a teaching university, he felt that those who favoured the scheme were forgetting the interests of those who had formed the great bulk of the graduates of the University of London in the past, namely, those candidates who were unable to reside at educational institutions in London.

Mr. Bompas, Q.C., said that the deputation for which he spoke represented 900 graduates of the University of London, who believed that if a teaching university were required it should be separate from the present University. The examinations of the University were valuable because they were perfectly impartial and open to students in all parts of the empire without distinction. The new institution proposed would be governed by a senate appointed on different principles, and would have for its object local teaching instead of imperial examination. There were many members of Parliament who would strive by every lawful means, and at every stage, and in every way to prevent this destruction of of a great institution.

Dr. Collins said that he represented the Gresham Scheme Amendment Committee. Their objections were based not on considerations connected with narrow vested interests, but on the interests of higher education. He asked for such substantial modifications of the scheme as would secure the impartial character of the examinations, and not give an advantage to the collegiate over the non-collegiate students. The proposed new institution might be popular in London, but it would be intensely unpopular in the country at large. Dr. Napier, Mr. Taafe, Dr. Heber Hart, and Dr. Sansom having also spoken,

Lord Rosebery, in reply, pointed out with regard to the observations of Dr. Collins that there was nothing in the report of the Commissioners to prevent the Statutory Commission, should it be called into existence, from founding an examination of a separate kind for non-collegiate students. A guarantee might be given that the standard of imperial examination should be maintained without compromising the idea of a single university for London. The other deputation headed by Mr. Bompas had gone a good deal further in insisting on the incompatibility between a teaching and an examining university, but as a matter of fact he knew of no university in England, Scotland, or Wales which did not combine teaching and examination. After expressing the opinion that it was undesirable that the mere anxiety to maintain a high standard of examination should be reckoned a solid obstacle to carrying out the recommendations of the Commission, Lord Rosebery gave an undertaking that if a Commission were appointed it would be by statute, and that every opportunity would be given for discussion in Parliament. The deputation then withdrew.

MEETING OF CONVOCATION.

An extraordinary meeting of Convocation, adjourned from May 8th, 1894, was held at the University Building on January 22nd. Mr. E. H. Busk, Chairman of Convocation, presided. There was a full house and brisk discussion; and the majority of those present affirmed a resolution in favour of the enlargement and reconstruction of the present University, with safeguards for the retention of its present privileges by the University.

Professor S. P. Thompson, D.Sc., proposed *seriatim* the three following resolutions, recommended by the Annual Committee, all of which were finally adopted:

1. That Convocation is of opinion that there should be one university in London, and not two; and that the interests of higher education will be best served by such an enlargement and reconstruction of the existing University as will (while retaining its existing powers and privileges, and without interfering with the efficient discharge of its present duties as an examining body for students from all parts of the British Empire), enable it to promote learning, scholarship, and research as a teaching university for London.

2. That Convocation, while desiring to express generally its approval of the proposals contained in the report of the Royal Commission, is of opinion that power ought to be given to the Statutory Commission to vary the details of the scheme, and that it ought to be made an instruction to the Commissioners, before framing the statutes and regulations, to confer with duly accredited representatives of the senate and of Convocation as to the modifications which may be desirable.

3. That a Special Committee of nine members, including the Chairman of Convocation, be nominated to prepare for presentation to the Statutory Commission, when appointed, a memorandum of points in the scheme of

the Royal Commission in which modification is desirable, and with power to confer with such said Statutory Commission, and with any Committee of the Senate.

In speaking to the first of these resolutions, he said they were opposed by two parties; one was against reform, on the ground that reform would play into the hands of the teachers. If those persons had their way the University would remain a purely examining body, whilst another university would come into existence and grow, and the present University would have to "brand other people's herrings," and die of inanition. The other opposition party would accept the inevitable as to reconstruction of the University, but considered that the safeguards offered to the University and Convocation were not sufficient. There were points in which the scheme of the Gresham Commission might certainly be amended with advantage; but if the Statutory Commission might be permitted to confer with the bodies affected, Convocation might joyfully accept the inevitable. The probationary period of reconstruction would probably last ten years; and the University, beginning that period as a mere examining body, would end it as a teaching university. The number of external students who obtained their degrees after private study varied. Thus about one-half the B.A.'s were external students, one-eleventh of the B.Sc.'s, but as many as 17 of the 25 LL.B.'s of 1894 were external students. The bringing of the University into line with the teaching bodies would raise its prestige. London would then obtain the university facilities enjoyed by Paris, Berlin, Strasburg, and other foreign cities. He enjoined all present to emphasise those points on which they all agreed, not those on which they might differ.

Dr. W. H. ALLCHIN seconded the first proposition.

Mr. H. M. BOMPAS, Q.C., moved as an amendment:

That, in the opinion of Convocation, it is essential that in any enlargement or reconstruction of the University of London, its existing powers and privileges should be retained unimpaired, the efficient discharge of its present duties should not be interfered with, and the high standard of its degrees should be maintained.

He said that if the Gresham Committee's report were adopted, it would entail reconstruction of the University with two-thirds of its Senate representing the teachers of London, and the affiliation thereto of no college unless it were a London teaching body. The University so reconstructed would teach Londoners and examine people from elsewhere. He feared the value of the degrees would be lowered, as the present impartiality of the examinations could not be maintained between the internal and external students. Even the matriculation examination might be materially altered under the new scheme. The University would cease to be imperial and become a local University, locally conducted. Was any foreign university framed on the lines of examining and giving degrees to both internal and external students? He did not think a Gresham teaching university in London would do the present University any harm.

Dr. T. B. NAPIER seconded the amendment. Unlike its proposer, he believed the University could be so modified as to fulfil well its function as a teaching university for London, if the reconstruction were carried out on the lines already proposed by Convocation on several occasions. The Gresham scheme would destroy the work of the University so far as it consisted in the examination of external students. The balance of power in a Gresham University would be with the teachers of the London schools, who would have no anxiety to cater for external students. The minimum of concession which would satisfy him would be that in the government of the University the teachers of London should not have this predominance.

Dr. R. SISLEY said that London medical students had a great grievance, in that they could not without very hard work obtain the M.D. degree, as could students in other cities in which were medical schools.

Mr. J. FLETCHER MOULTON, Q.C., also supported the amendment. He had known learning in its hardest and easiest forms (as obtained from private study or with help in college), and teaching in its hardest and easiest forms; and as the result of much thought he had come to oppose the Gresham scheme. What good would be obtained by the union of the examining University of London with a teaching university? Simply that the new body would start with the prestige of the present University, as if a wealthy man were to buy a business, and stamp his poorer goods with the good stamp of the former firm. The result must be an endeavour to bring their external students to London to be taught by the teachers of the University. But what harm would be done to their University? Those who were studious, but poor, all over the country, and were now stimulated to work by the hope of the University degree would be sadly disappointed. Amongst such were the great body of teachers in schools just below the great public schools, who obtained the University degree because it was a real stamp of high attainments.

Dr. ANDREW THOMSON thought that if the amendment were carried the result would be largely to destroy the University.

Mr. W. BRYANT said that if another university were established in London it would soon starve the present University, a catastrophe which might now be avoided by the carrying of the original resolution. External students always had been and would still be under a disadvantage as compared with the favoured students in colleges. It must be so. All the greater honour to the external students who took a degree. As to the examinations, the teachers of each college would look after one another and see that there was no favouritism to internal students.

Professor S. THOMPSON, in replying, said that the establishment of a teaching university would provide students with facilities for learning which they did not now possess. He would not wish the scheme for the external students to remain as it was now proposed, but would not destroy the scheme on their account alone.

On the division 206 votes were given for the proposition and 175 for the amendment; the first proposal of the Annual Committee was therefore carried.

Professor S. P. THOMPSON proposed the second of the above resolutions.

Mr. H. H. COZENS-HARDY, M.P., in seconding it, said that he considered the Academic Council according to the Gresham Commissioners' recommendations was too exclusively the representative of the teachers.

Mr. J. FLETCHER MOULTON, Q.C., proposed as an amendment:

That Convocation is of opinion that the scheme embodied in the report of the Gresham Commission does not contain adequate securities for maintaining unimpaired the present work of the University as an impartial Examining Board for students from all parts of the Empire, and the high standard of its degrees.

Dr. W. J. COLLINS seconded the amendment.

A division was taken on the resolution, for which 157 voted, while 133 voted against it. The resolution was therefore declared to be passed.

Professor S. P. THOMPSON, in introducing the third proposal of the Annual Committee, said that he was desirous that the Committee should fully represent the various shades of opinion held by Convocation in regard to this question.

Dr. T. B. NAPIER seconded the proposal, which was carried unanimously.

Professor THOMPSON named the following as the nine members of the Committee: The Chairman of Convocation, Mr. Cozens Hardy, M.P., Mr. Bompas, Q.C., Dr. T. B. Napier, Mr. W. T. Thiselton Dyer, Dr. W. H. Allchin, Mr. J. Stanley N. Boyd, the Rev. Alfred Cave, and Professor S. P. Thompson. Mr. Bompas and Dr. Napier were willing to serve if it were recognised that their being on that Committee did not otherwise fetter them in any external opposition they might take to the scheme of the Gresham Commissioners.

The Committee was unanimously appointed.

The special meeting was then made a general meeting of Convocation, and, after the transaction of some business, adjourned.

THE REGISTRATION OF MIDWIVES.

AT a meeting of the Edinburgh Branch of the British Medical Association held on January 14th, a report (the text of which was published in the BRITISH MEDICAL JOURNAL of January 19th, p. 149) was presented by the Committee appointed at last annual meeting regarding the proposed legislation for

the registration of midwives. After a good deal of discussion, the report was unanimously recommitted to the same Committee, with the addition of Dr. William Russell, for further consideration and report.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

DUBLIN BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians (by permission of the President and Fellows) on Thursday, February 14th, at 4.30 P.M. The annual dinner will also take place the same evening in the College at 7.30.—JOHN MOLONY, Honorary Secretary, St. Patrick's Hospital, Dublin.

SOUTHERN BRANCH.—The next meeting of the South Wilts District will be held in Salisbury on Wednesday, February 13th. Further details in a later issue. Members intending to be present to communicate with the Honorary Secretary, H. J. MANNING, Laverstock, Salisbury.

LANCASHIRE AND CHESHIRE BRANCH.—A special and general meeting of this Branch will be held in Liverpool about the end of February. Applications for membership, and all communications, should be addressed at once to the Honorary Secretary, JAMES BARR, M.D., 72, Rodney Street, Liverpool.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—A meeting of the members of this District will be held at the Norfolk Hotel, Arundel, on Wednesday, February 6th. Mr. Walter Blaker, of Bognor, will preside. Meeting at 3.15 P.M. Dinner at 5.15 P.M., at the Norfolk Hotel, 6s., exclusive of wine. Papers will be read by Professor Spencer: On Delivery in certain cases of Impaction of the Trunk of the Fœtus. Mr. Walter Blaker: On the Treatment of Acute Rheumatism by Salol.—FRANK HINDS, Honorary Secretary, 14, The Steyne, Worthing.

BATH AND BRISTOL BRANCH.—The third ordinary meeting of the session of this Branch will be held in the Medical Library of University College, Bristol, on Wednesday evening, January 30th, at half-past 7 o'clock, Nelson C. Dobson, F.R.C.S., President. Dr. Michell Clarke will exhibit the following cases in the Students' Room at 7.15 P.M.:—Diplegia with Mild Athetosis in an Infant; (2) Progressive Muscular Atrophy; (3) Retrocolic Spasm; (4) Paralysis of Right Fifth Nerve, with affection of some Oculo motor Nerves. The following communications are expected:—B. M. H. Rogers, M.D.: The Administration of Nitrous Oxide as a Preliminary to Ether Anæsthesia. T. Fisher, M.D.: Alcoholic Disease of the Heart. W. H. C. Newnham, M.B.: A Case of Successful Operation for Ruptured Tubal Pregnancy. J. Michell Clarke, M.D., and Mr. C. A. Morton: A Case of Cerebral Tumour in which a Large Area of the Skull was Removed for Relief of Intracranial Pressure; the patient to be exhibited. J. G. Swayne, M.D.: Cases of Induced Premature Labour for Diseases of the Mother not causing Obstruction to Delivery. A. E. Aust Lawrence, M.D.: A Series of Fifty Cases of Abdominal Section. J. P. Bush: A Case of Resection of Intestine treated by Murphy's Button.—E. MARKHAM SKERRITT and W. M. BEAUMONT, Honorary Secretaries, Clifton.

DUNDEE AND DISTRICT BRANCH.

A MEETING of this Branch was held at Dundee on January 10th; Dr. R. SINCLAIR, President, in the chair.

Amendment of the Medical Acts.—This question was considered, and general approval of the draft Bill was expressed, the details of which it was thought should be left to the Parliamentary Bills Committee. The PRESIDENT pointed out that the Medical Act of 1858 dealt mainly with education and registration. Since 1858 a *Register* of legally qualified practitioners had been in existence, and had been kept with tolerable accuracy and regard for the public interest and the self-respect of the medical profession. Registration, however, did not confer an exclusive right to practise the healing art. In a free country, such as this, it would be little less than an insult to the intelligence of the nation, and its unceasing and proper demands for personal liberty, to propose that the practice of medicine should be exclusively in the hands of any body of men and women, however endowed by natural gifts and education and by Parliamentary sanction. But no one should be able, by the false assumption of medical titles or colourable imitations of them, to lead his neighbours to suppose that he was legally qualified. There was no getting over the plain every-day fact that the sick man was quite entitled to choose his own guide to the wished-for recovery. Section 40 of the Medical Act of 1858 was the one to which attention was mainly directed in the present discussion, and which had been subjected to most criticism in recent years as inadequate for its purpose. Two points in regard to Section 40 were now clear. One was that it would have been much stronger if the besetting sin of the Parliamentary draughtsman—namely, prolixity of language—could have been avoided; the other was that recent decisions in the law courts had shown, contrary to general expectation—to quote from the words of two eminent members of the English bar, Mr. Muir Mackenzie and Mr. Costelloe—"that the false assumption of a medical title or description to which Section 40 applies is an offence, even though there may be no actual false pretence of registration." To prohibit the use of well-known and recognised titles, such as "Doctor of Medicine," "Physician," "Surgeon," and so on was not enough. The new Bill would require to interdict many others which were equally misleading—"Oculist," "Aurist," "Medico-herbalist, "Medico-electrician," etc. He moved the following resolution:

That in the opinion of the Dundee and District Branch of the British Medical Association, it should be made punishable as an offence for a person who is not in fact by the possession of a recognised diploma legally qualified to practise medicine or surgery, to assume any title or designation which leads the public to believe that he is qualified, or possesses the skill necessary, for practising any particular branch of medical or surgical treatment.

The motion was carried *nem. con.*

Grant in Aid of Local Ambulance Lectures.—It was announced that, on the initiative of the Branch Council, application had been made for a grant in aid of the local ambulance lectures, and that the Lord Provost's Committee had recommended a grant of £30, which would enable the Ambulance Association to pay the lecturers a reasonable fee.

EDINBURGH (LOTHIANS AND FIFE) BRANCH.

A GENERAL meeting of this Branch was held in the Royal College of Physicians, Edinburgh, on January 14th, Professor ANNANDALE, President, in the chair. There was a large attendance of members.

Confirmation of Minutes.—The minutes of the nineteenth annual meeting of June 14th, 1894, and of the adjourned meeting of June 28th, 1894, were read and approved.

New Members.—The following were elected members of the Branch: George A. Berry, M.B., Edinburgh; Thomas F. S. Caverhill, M.B., Edinburgh; Frank Dendle, M.B., Lochgelly; W. W. Ireland, M.D., Polton; Jessie MacGregor, L.R.C.P. and S., Edinburgh; R. B. Mitchell, M.D., Rosslynlee; Thomas M. Burn-Murdoch, M.B., Edinburgh, S. W. Prowse, M.B., Edinburgh; James Scott, M.B., Edinburgh; Allan T. Sloan, M.B., Edinburgh; and Charles C. Teacher, M.B., Edinburgh.

Deaths of Members.—Reference was made to the loss which the Branch had suffered through the death of Mr. T. Bairstow, L.R.C.P. and S.Edin., and of Dr. George Leslie, of Falkirk.

Amendment of Medical Acts.—A report was presented by the Committee appointed by the Council to consider and report upon the draft Bill to amend the Medical Acts in respect of unqualified practitioners. The report, which approved generally of the last draft submitted by the Parliamentary Bills Committee, was unanimously adopted.

The Case of Dr. Allan.—It was unanimously resolved that the Branch take combined action with the practitioners in the Lasswade district in Dr. Allan's interest. It was remitted to the existing Branch Committee to take further steps towards awakening the interest and sympathy of the profession at large. Subscriptions will be received by the Honorary Treasurer of the Branch, Dr. Underhill, 8, Coates Crescent, Edinburgh.

Winter Joint Meeting.—The winter joint meeting was fixed for February 15th in the Royal Infirmary, Edinburgh.

[For the proceedings respecting the registration of midwives see p. 222.]

EAST YORK AND NORTH LINCOLN BRANCH.

THE third winter meeting was held at Hull on January 15th, DR. ROCKLIFFE, President, in the chair.

Cases.—DR. LOWSON showed a man, aged 38, who had recovered after operation for acute Appendicitis, with an abscess which had ruptured into the peritoneal cavity and caused general peritonitis.—MR. HOWLETT showed (1) an infant with Macroglossia; (2) a girl with a Horny Sore on a finger the result of caustics, which had destroyed the extensor tendon.

Pathological Specimens.—DR. FRANK NICHOLSON and MR. EVANS showed a Uterus with a sloughing Fibroid, removed for intraperitoneal hæmorrhage.—DR. PARKIN showed two Vermiform Appendices removed for purulent inflammation.

Amendment of Medical Acts.—The draft of the Medical Acts Amendment Bill was read and unanimously approved.

Papers.—DR. WYLLIE read a paper on two cases of recovery from Cerebellar Tumour.—DR. ROE read notes of a similar case.—DR. PARKIN read a paper on the Operative Treatment of Acute Appendicitis, and showed a boy, aged 7, who had recovered after removal of a sloughing appendix with an abscess which had caused general peritonitis.

GIBRALTAR BRANCH.

THE second ordinary meeting of this Branch was held at the Colonial Hospital on January 10th, Surgeon-Major-General LEVER, President, in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The Forthcoming Annual Meeting and the President-Elect.—The SECRETARY read a letter from Sir J. Russell Reynolds requesting that he might be furnished with the names of those members of the Branch who intend to be present at the annual meeting of the Association to be held in London in July and August of the present year.—On the motion of the CHAIRMAN, it was resolved that in replying to this letter the Secretary be asked to convey to Sir J. Russell Reynolds an expression of congratulation from the Gibraltar Branch on the occasion of the honour recently conferred on him by her Majesty the Queen.

New Members.—The following gentlemen were elected as members of the Branch: Surgeon-Lieutenant-Colonel W. E. Webb, A.M.S.; Surgeon-Captain J. Evier Black, A.M.S.; Surgeon J. D. Menzies, R.N., H.M.S. *Sharpshooter*; Surgeon W. E. Marshall, R.N., H.M.S. *Gleaner*.

Communications.—The following communications were read and freely discussed: A Case of Separation of the Lower Extremity of the Humerus, with some remarks on the treatment of such cases, by Surgeon-Major T. A. PERRY MARSH; Clinical Notes on (*a*) an Exceptional Case of Bone Necrosis, (*b*) A Case of Small-pox *in Utero*, by Surgeon-Captain W. G. MACPHERSON; Exhibition of a large Solid Tumour (Spindle-celled Sarcoma) of the Ovary, removed by laparotomy, with remarks on the operation, by WILLIAM TURNER, M.D., Surgeon to the Colonial Hospital.

SPECIAL CORRESPONDENCE.

PARIS.

The Bitter Cry of the Doctors.—Height of Buildings in Paris. Mountain Sickness.—Sickness in the Dahomey Campaign.—General News.

THE medical papers lament over the medical crisis which is observed to exist in England, France, Germany, and Belgium. It is said that the position of medical men in France becomes from day to day more difficult. Many have brilliant careers and make large fortunes, but the majority lead a struggling life. The *Progrès Médical* believes the principal cause of this to be an abuse of the Mutual Aid Societies. The flourishing condition of these societies, according to the same authority, is mainly due to the self abnegation and devotion of their medical officers. These societies realise thousands and thousands of pounds; their members are certain of help in time of need, and the medical officers live a life of hard work for almost nothing; well-to-do members of these societies are attended by their medical men day and night at an expense of 3 or 4 francs a year.

The London Building Act, put into practice January 1st, 1895, has not passed by unnoticed this side of the Channel. It is recognised to be of great sanitary importance. In France the height of the houses has been regulated for more than a century. The decree of April 10th, 1783, confirmed by the law of 1792, fixed the height of houses in streets 30 feet wide at 50 feet; in streets not so wide at 45 feet. In the principal French towns the height was fixed by local authorities by the regulation of July 24th, 1874; houses in streets less than 7.80 metres wide were limited to 12 metres in height; in streets 7.80 metres in width they are allowed to be 15 metres high; in streets 9.75 metres in width the houses may reach 18 metres; in those 9.75 metres wide 20 metres; in streets still wider the houses may be still higher. M. Trelat wishes to see the streets one and a-half times wider than the houses are high. Other sanitarians consider that this is too much, and that if the height of the houses and the width of the streets are equal nothing more can reasonably be asked for.

According to an interesting paper recently published in the *Revue du Cercle Militaire*, mountain sickness (*mal de montaigne*) only occurs at a heighth above 3,600 or 4,000 metres. The symptoms are a feeling of heaviness, giddiness, general lassitude, and an unconquerable desire to sleep. It is in reality a form of asphyxia; only those who are fatigued fall victims to it. Soldiers are never allowed to lag behind in the Alpine marches and manœuvres. Those who from torpor wish to stop are roused by every possible means.

The following are the health statistics during the Dahomey campaign: In the marine infantry the sick were 90 per cent., in the flotilla 80 per cent., in the marine artillery 74 per cent., among the Spahis 62 per cent., the foreign legion 35 per cent.; the average proportion of sickness was 56 per cent.

The administration and treasury of the Urban Ambulance Organisation has been handed over to the city of Paris. Two new stations will be created similar to that of the St. Louis Hospital.

Eighteen people have been arrested at Limoges for practising abortion. They have been engaged in their abominable practices more than twenty years.

ROME.

The Closing of the Roman Foundling Hospital.—The New Ospedale degli Innocenti at Florence.—The Health of the Pope.—Longevity.

THE old foundling hospital of Rome has been permanently closed, chiefly on account of the high mortality of the foundlings. It was founded by Innocent III at the close of the twelfth century, as a part of the hospital of Santo Spirito on the banks of the Tiber. It was at first placed under the control of Guido of Montpellier, the founder of the order of Hospitalers; and the immediate care of the inmates was entrusted by him to the nuns of St. Tecla, who followed the rules of his order. The nuns in the beginning looked after the patients of Santo Spirito also, but later on the foundlings alone were entrusted to their care; they were finally abolished in the seventeenth century. A few months ago the government of the Brefotrofo was transferred from the Hospitals Committee to the Provincial Administration. As soon as this change had taken place, the Marquis Berardi, President of the Provincial Administration, formed a Committee consisting of scientists, among whom were Professors Bonfigli and Celli, and some members of the provincial Council. The Committee found that the hospital was not only ill-adapted to its requirements, but that it was also dangerous to the health of the children. They advised that the hospital should be closed as quickly as possible, and that the foundlings should be removed to other institutions in the country. The recommendations of the Committee were sanctioned by the Council, and for the future the children will be sent to institutions at Viterbo, Orvieto, and Palestrina. In Rome itself a building has been taken near St. Peter's for the temporary reception of

the foundlings. Within the next few years the building, as well as the greater part of Santo Spirito, will be destroyed. This step is necessary in order to complete the embankment of the Tiber—an excellent work from the public health point of view, although from the archæological and picturesque many persons think it anything but desirable.

The Prince of Naples opened a new hospital for sick infants at Florence on January 12th. The hospital consists of two pavilions, divided by two corridors, one for ordinary and the other for contagious diseases. The first consists of four wards, one each for artificial nursing, observation, sucklings, and the weaned. The second pavilion, which is totally disconnected from the first, consisting of six wards, is for the reception of infants suffering from syphilis, ophthalmia, and thrush. The chief peculiarity of the hospital is that it contains two incubating rooms in which the temperature varies from 68° to 86° F., for the reception of the prematurely born and feeble. These rooms are provided with electric thermometers, which ring when the heat exceeds the required temperature, and they are also provided with hydrometers. These incubating rooms are said to be the only ones of the kind in Italy.

The Pope was taken ill with a slight cold on January 11th, which confined him to his apartments for a few days. The venerable Pontiff had quite recovered on January 16th, on which date he resumed his daily audiences.

There is at the present time living in a garret in Turin a woman named Orsola Porna, who was born at Ceres in 1794, who has just attained the age of 101. The old lady enjoys good health, preserves all her teeth and hair, and walks briskly. At the beginning of the new year, there died at Gangi, Sicily, a man named Salvatore Scavuzzo, who was born on May 24th, 1784. He is said to have been quite well in health up to a few days before his death, and was accustomed to ride on horseback for some hours daily.

CORRESPONDENCE.

THE GENERAL MEDICAL COUNCIL AND THE OBSTETRICAL SOCIETY.

SIR,—I am glad that Sir John Williams has drawn your attention to the astonishing resolution of the General Medical Council dated December 3rd, 1894. As an ex-President of the Obstetrical Society, and one who had much to do with the founding of the Society's examination for midwives, I had contemplated addressing you on this subject myself, but I refrained from doing so because I feared that, in view of what seemed to me the outrageous coupling of the work of a scientific society such as the Obstetrical, even contingently, with such words as "infamous in a professional respect," I might have been tempted to write without the temper and moderation which Sir John Williams has shown.

Had the General Medical Council taken the trouble to hear both sides of the question, it could have easily ascertained that in instituting this examination, the Obstetrical Society was acting from what, according to its lights, it considered the highest possible motives; that its examinations had been eminently successful; and that the Society had only undertaken this work provisionally, and that it had frequently expressed itself as not only willing but anxious to discontinue it as soon as the Government had legislated on the matter.

Personally, I cannot see how the certificate it grants can possibly be objected to; every year I issue a still more important-looking parchment to such students as have achieved honourable mention in my class, which might quite as well be branded as a colourable imitation of a diploma.

It appears pretty plain that "some enemy hath done this thing," and that the Council has been thoughtlessly induced to lend a willing ear to the representations of the case put before it by the small, but active, section of the profession which aims at the impossible, and hopes to abolish midwives altogether.

If the Council had done the Obstetrical Society the justice of pointing out in what way it wished its certificate altered, there cannot be the smallest doubt that its wishes would have received the most respectful consideration, and that its wording would have been immediately changed. Instead of doing this it fulminated, without any warning, the insulting resolution complained of.

I am now told that the Council had directed some communication to be made to the Society, which it never received. If that is so, surely some explanation should be given of how such important documents should have been suppressed, and have failed to reach their destination.—I am, etc.,

W. S. PLAYFAIR.

George Street, Hanover Square, W., Jan. 19th.

SIR,—Sir John Williams, in his letter to you, it seems to me, misinterprets the intention of the General Medical Council in passing its recent resolution relative to the wording of the certificate granted to midwives by the Obstetrical Society. The managers of that Society have, like many other bodies, doubtless with the best intentions, been issuing documents which, so far as phraseology is concerned, are not distinguishable from diplomas issued by duly constituted licensing corporations. The Council more than a year ago called the attention of these societies and bodies to the error they were guilty of, but no heed was taken, save by one or two of them, hence the recent action of the Council. The resolution passed by that body is neither more nor less than "a warning," expressed this time in terms so distinct as to compel attention; and this warning does not imply necessarily any censure on the men who in the past—some of them, without doubt, thoughtlessly and in ignorance of the interpretation which the public would put on the document—signed the certificates now declared to be improper.

It is rather late in the day for Sir John to suggest a conference with the General Medical Council, after the Society's ignoring the first warning given by the Council, nor could a judicial body, as the Council is, confer on a subject which might be brought before it for judgment at any time.

The managers of the Obstetrical Society should do as others have done who, without due consideration, have in the past issued certificates which, however satisfactory to the women who obtained them, were manifestly misleading to the public, and calculated to inflict injury on duly qualified practitioners, and that is to state in the certificates we issue simply that So-and-so has been trained in midwifery and nursetending, and that she has passed a satisfactory examination in these subjects.

To such a certificate neither the General Medical Council nor the profession can object. Of course to any who have other objects in view than the education of women as midwives and monthly nurses, such a certificate would be unsatisfactory, but the profession have no sympathy with such, and the public, especially the poor, have good reason to dread the results of these efforts.—I am, etc.,

January 20th. M.D.

SIR,—The proceedings at the meeting of the "Midwives' Institute," reported in the BRITISH MEDICAL JOURNAL of January 12th, followed by the letter of Sir John Williams on January 19th, exhibit in a remarkable and regrettable way a spirit of disloyalty, if not subordination, towards the recognised governing body of our profession, that is, the General Medical Council.

Too much importance should not be attached to the "Midwives' Institute," but when we find that the distinguished President of the Obstetrical Society, Dr. Herman, at a meeting of the "Institute" (under the patronage of a layman) so far forgot himself as to "assert" that the General Medical Council "would not dare" to enforce their late resolutions, we think it is time that all law-abiding members of the medical profession should rally round the Council, and support it in its efforts to maintain the honour and dignity of the profession, and to secure the observance of the Medical Acts, framed in the interests and for the protection of the public.

Apart from Dr. Herman's statements the proceedings of the Midwives' Institute require no further notice.

Sir John Williams's letter demands more attention. The glorification of the Obstetrical Society, in which he indulges, is in no way to the point. Neither is his reference to the legal advice under which the condemned diplomas were framed, nor even their asserted resemblance to those granted

to brewers—which we regret we have not observed. The point is that the Obstetrical Society's diplomas have been designated by the General Medical Council as "colourable imitations of diplomas conferring a legal right to admission to the *Medical Register*, and both contravene the spirit of the Medical Acts, and are calculated to deceive the public."

Sir John Williams would lead your readers to suppose that the above condemnation of the Obstetrical Society's diplomas came as a surprise, that it was the first notification received that the Society's diploma was objectionable.

This is certainly misleading. The first warning from the Council was issued so long ago as November, 1892.

The second warning is dated "June, 1894." The Lancashire and Cheshire Branch placed before the General Medical Council at its session, May, 1894, an original document issued by the Obstetrical Society, as well as others of a similar character, and after consideration of them, the Council resolved:

That in the opinion of the Council, to issue to any person not legally qualified for registration, any certificate of competency or other document, so framed as to bear a colourable resemblance in appearance or phraseology to a diploma conveying a right to act as a medical practitioner is a proceeding which directly contravenes the spirit of the Medical Acts, and is, accordingly, liable to be visited with the condemnation of the Council.

And, further:

The President is therefore requested to repeat a warning given already to certain institutions, etc.

Sir John Williams admits that the Obstetrical Society received these "warnings" (he calls them "communications"), how, therefore, can he state that the Obstetrical Society "was ignorant of any objection to its certificate on the part of the General Medical Council?" The position cannot for one moment be maintained.

It is no doubt regrettable that "all the obstetric physicians of note in London" should be "contingently branded with infamy," but it is ten times more regrettable that men holding positions of honour and influence in the social world should not loyally and disinterestedly conform to the ruling of the General Medical Council. The suggestion that the "two bodies" (the General Medical Council and the Obstetrical Society) should have "conferred" is certainly naïve, but it would be a somewhat unusual proceeding. Sir John has an exaggerated idea of the importance of the society he so labouredly defends in its "travail."—I am, etc.,

WILLIAM HUGH HUGHES, Chairman,
COLIN CAMPBELL, Honorary Secretary,
Lancashire and Cheshire Branch Committee.

Manchester, Jan. 21st.

SIR,—In the BRITISH MEDICAL JOURNAL of January 19th, Sir John Williams attempts to justify the action of the Obstetrical Society in granting bogus diplomas which purpose to qualify their holders to practise midwifery. He speaks of their granting "certificates" to candidates. We need not waste time over the term used when speaking of the form of "certificate" granted: that is, whether it is called diploma, certificate, parchment, etc. The point is, What power does the holding of this certificate carry with it? Evidence has been sent in to show that the holders of this "certificate" practise midwifery; that they vaccinate; that they treat medical diseases in women and children; and that they actually dispense and supply medicines to patients. It is more the acts done that we complain of than the three-feet diploma. Anyone who has followed this grave question can see that the objects of the Council of the Obstetrical and other persons and societies, which traffic in the sale of these certificates, has been and is to establish an inferior and independent order of midwifery practitioners.

Let me quote, for Sir John Williams's information, Clause 6 of the first Midwives' Bill of 1890. It shows the true meaning of the attempt, and is as follows:

"A person registered under this Act shall be entitled *to practise midwifery* in any part of England and Wales, for gain; and from and after the first days of January, 1891, a person shall not be entitled to recover any fee or charge in any court *for the performance of any midwifery operation*, or for any *midwifery attendance, or advice*, unless she be registered under this Act."

It may be said that this clause was amended in the second Midwives Bill. Theoretically it was, but practically it was not, because while the second Bill proposed to confine the duties of this so-called midwife to "natural labours only," its promoters actually refused to insert a clause providing any punishment against a "midwife" who conducted labours other than natural. What therefore was the good of their definition?

I notice that Sir J. Williams makes no reference to the £1,230 16s. made by this Obstetrical Society—which he states is composed of "all the obstetric physicians of note in London"—by the sale of "certificates," during the last few years.—I am, etc.,

Liverpool, Jan. 19th. ROBERT REID RENTOUL.

OYSTERS AND TYPHOID FEVER.

SIR,—For some time past occasional comments have appeared in the medical and general press referring to the supposed origin of some enteric fever attacks by the ingestion of oysters. The incubation period of this disease being so variable it seems almost impossible to be absolutely certain that any food or drink taken, whatever may have been its character, was the real cause of the malady. Amongst the enteric patients now under treatment in this hospital—some twenty-four in number—I find that in the adult class one male admitted in the second week of the disorder ate three or four oysters on the eighth and fourteenth day respectively prior to attack. Several other inmates of the same ward also state that they had partaken of the molluscs before admission. For particulars as to the number eaten and time before indisposition occurred I append the following table:

Sex.	Stage of Disease.	Time previous to Illness.	Number Taken.
Male	End of 2nd week	5th day	12
,,	Middle ,, ,, ,,	12th and 14th day	6 on both occasions
Female	,, ,, ,, ,,	Regularly for weeks up to 12th day	12 generally
,,	,, ,, 1st ,,	14th day	6
,,	,, ,, 2nd ,,	9th day	9
,,	,, ,, 1st ,,	7th day and frequently previously	6 usually, more or less

Of course in the class of cases that come under my observation many are drawn from quarters of London still close, dirty, ill-ventilated, and with a general insanitary environment; but of those in the above list the majority at least were fairly well-to-do, and their position would comprise provision for decency, cleanliness, wholesome and abundant food, and a proper supply of cubic space. The occupation of those referred to includes a barmaid, cook, actress, milliner, linen draper's assistant, private coachman, and corndealer.—I am, etc.,

W. GAYTON,
Metropolitan Asylums Board, North Western Hospital, Haverstock Hill, N.W., Jan. 20th. Medical Superintendent.

SIR,—I have read with much interest Sir William Broadbent's article on the transmission of enteric fever poison through the medium of oysters. So many cases have now been published that it seems almost unnecessary to adduce further evidence; but the following case appears to me to be of some interest and importance. Twelve months ago I was attending a patient with enteric fever who with two friends had a fortnight previously partaken of oysters. One of the party escaped with an attack of gastro-enteritis; the two others had enteric fever, which in the case of one proved fatal from hæmorrhage. The victims resided in different localities, and no other source of infection could be discovered.—I am, etc.,

Reigate, Jan. 22nd. H. LEEDS HARRISON.

SIR,—I am attending a young gentleman who for the last ten weeks has been suffering from enteric fever. The case, as you can see, was a protracted one, and presented various phases of clinical interest; but the chief object of my note is the etiology of the disease in its connection with oyster eating.

It appears that my patient and a friend each partook of

half-a-dozen oysters in a city restaurant; after a lapse of eight days both were attacked almost simultaneously with typhoid fever; they live in different districts, and each was attended by different medical men. All other causes of typhoid are nugatory, and in this instance oyster eating is the etiological factor beyond all reasonable doubt.—I am, etc.,

J. WHEELER O'BRYEN, M.D., L.R.C.P., etc.

Sydenham, S.E., Jan. 18th.

SIR,—Since my residence in Rome I have seen many cases of typhoid fever following on eating oysters, and it is my practice to warn my friends and patients of the danger they incur by so doing.—I am, etc.,

Rome, Jan. 14th. CHARLES SPURWAY.

A UNIVERSAL LANGUAGE FOR USE AMONG MEDICAL MEN.

SIR,—The question mooted in the BRITISH MEDICAL JOURNAL of January 19th by Mr. C. M. Jessop is one of great and growing importance; perhaps you will allow me to discuss it with a little more detail and from a different point of view.

That some sort of understanding should be arrived at as soon as possible in the interest of science will probably be conceded by all, but what are the conditions which can guide us in our choice? The universal language must be, I think, one which is or has been actually spoken and written; if it possesses a rich and varied literature it will have a better chance of being cultivated by the more refined classes of society; it must be clear and precise; it must lend itself to oratory, that is, it must be not only an elegant and expressive language, but also must be heard distinctly at a considerable distance; it it is already widely known amongst medical men and if it is of advantage to them in their ordinary work, so much the better.

Ancient Greek is the type of a perfect language—rich, euphonious, flexible, precise, but it is unfortunately much too difficult to learn perfectly.

A strong case can be made out in favour of Latin, but, in spite of many advantages, it does not appear probable that Latin will ever regain its lost position as a universal language; difficulties would arise as to the pronunciation, and besides it is, on the whole, more advantageous to a medical man to know and speak well one or two modern languages besides his own than to push the study of a dead language to the degree of perfection which would be necessary for the purpose we have in view.

German is important to us on account of its rich medical literature; it is easy to read but rather obscure and difficult to understand; although noisy it does not carry far owing to the accumulation of consonants. Our choice, therefore, becomes practically restricted to English and French.

English is a simple and convenient language, probably the best in the world for written intercommunication; it is much more difficult to understand and to speak than to read and write. As a means of international oral communication English is decidedly inferior to French. The pronunciation is very difficult, and the clear emission of the sounds appears to be a matter of considerable effort even to politicians and preachers. Let an Englishman speaking French fluently go to the Théâtre Français and to the Chambre des Députés, and then to the Lyceum and the Houses of Parliament; he will soon convince himself that French can be heard distinctly at a much greater distance than English—a vital consideration in the choice of a universal language for medical men assembled in congress.

French is already the universal language of the Diplomatic Body. It is, as far as I can judge from frequent intercourse with foreigners, much more widely spread than English among medical men in Russia, Germany, Spain, Italy, South America, Greece, Turkey, etc. I hear that Professor Manassein, of St. Petersburg, strongly advises the adoption of French as an international language for the Moscow Medical Congress, and I believe that his proposal has every chance of being accepted. No language can compare with French for clearness and precision; the literature is very attractive and truly cosmopolitan. French is already well known in England, and it is positively rare to find an educated medical man who has not a fair knowledge of it; most of them would become excellent scholars with very little trouble.

I will conclude by the two following propositions: (1) It is highly desirable, in the interest of science, that a general agreement should be arrived at with regard to an international language for medical men. (2) No language, dead or living, fulfils the necessary conditions as well as French.—I am, etc.,

Harley Street, W., Jan. 18th. J. KESER, M.D.

THE LATE SURGEON-MAJOR PARKE.

SIR,—As Deputy Provincial Grand Master of the Freemasons of North Connaught, I would wish, through your columns, to inform those members of the profession who belong to the Order that the Memorial Masonic Hall about to be erected in Carrick-on-Shannon, the native town of the late deeply-lamented Surgeon-Major Parke, has not as yet been commenced, owing to the funds so far collected being insufficient for the purpose. I feel certain that every member of the medical profession would wish that the name of one whose services were so distinguished, both in the field and with the Emin Pasha Relief Expedition, should be permanently kept in memory: and this being distinctly a Masonic memorial, I would ask physicians and surgeons being Freemasons to contribute. Small donations thankfully received by me, or Surgeon-Lieutenant-Colonel Bradshaw, Carrick-on-Shannon. All subscriptions duly acknowledged, and lists published.—I am, etc.,

FRANCIS E. CLARKE, M.D., M.R.C.P.I.

Boyle, Ireland, Jan. 17th.

POOR-LAW INFIRMARIES.

SIR,—Your allusion to the correspondence in the *Times* on "Free Homes" induces me to refer once more to the subject, and, with your permission, to add a few words upon it. With reference to my friend Mr. Bowden's letter, I may say that I have been told of persons who have been in a good London infirmary, and stated that they preferred it to a hospital. It is obvious that the different character of the cases admitted into the two institutions accounts for the smaller number of medical men engaged for their treatment, but it is a growing conviction that they are too few in the Poor-law infirmaries; and, with regard to the admission of advanced students, I can only say the delay in granting this long-desired reform is a matter of surprise to all who understand the subject, and desire to see our State and rate-supported institutions turned to the best account. Doctors desire it, and patients would like the change and variety produced by it in their somewhat monotonous lives. For very many years past I have at every opportunity urged the hastening of two reforms—the admission of outside medical men and students, and the appointment of women inspectors for Poor-law infirmaries, especially with regard to the nurses and their work.—I am, etc.,

Tunbridge Wells, Jan. 21st. LOUISA TWINING.

P.S.—I should like to say that the last seven years have seen a considerable advance in all respects in the infirmary with which Mr. Bowden was acquainted formerly.

MEDITERRANEAN FEVER.

SIR,—In referring to Mediterranean fever in a late issue of the BRITISH MEDICAL JOURNAL, I was solely desirous of finding a proper place for this very important disease in the nomenclature of diseases. It causes an immense amount of days' sickness and invaliding, and yet, sooth to say, there is no nosological heading under which to put it. And so at present it may be returned as simple fever, or remittent fever, or enteric fever, according to private opinion.

I cannot help thinking that if medical officers who have had to do with this affection would only—like Brigade-Surgeon-Lieutenant-Colonel Macartney—corroborate the necessity of a step being made in this detail, the end would be obtained. I do not, however, like the word "pseudo-enteric," but would use the local name, bracketed under enteric fever, and, as far as naval interests lie, that happens to be Mediterranean fever.—I am, etc., MELITA.

January 19th.

SIR,—Your correspondent "Melita" and Brigade-Surgeon-Lieutenant-Colonel Macartney urge that Mediterranean fever should be classed with enteric fever, on the plea that the

strong resemblance between enteric fever and Mediterranean fever is now generally recognised. The strong resemblance between typhus and enteric fever delayed the recognition of their essential differences, and caused these two distinct diseases to be confounded. The same occurred with measles and rötheln. Classification should be founded on essentials, not on apparent resemblances. Mediterranean fever is not infectious, does not produce the same lesions as enteric fever, and is not associated with the same micro-organism. The symptoms and course of Mediterranean fever, though resembling those of enteric fever, show differences by which the two diseases may be distinguished. If, as I believe, the two diseases are etiologically and pathologically distinct, it would be a retrograde step to classify them together.

I agree with the suggestion that the term "typhomalarial fever" should be erased from its present position under "Enteric Fever" in the *Nomenclature of Diseases*, for I do not consider that the term should be applied to a modification of enteric fever. But to officially class Mediterranean fever with enteric fever would only delay the recognition of the true nature of the former. If, as Brigade-Surgeon-Lieutenant-Colonel Macartney suggests, Mediterranean fever is really enteric fever, the one name is sufficient; if, however, they are distinct diseases, they should not be classed together.—I am, etc.,

J. Edward Squire, M.D., M.R.C.P.

Harley Street, W., Jan. 22nd.

ACUTE ATAXIA.

Sir,—In reply to Dr. Dawson Williams's letter in the British Medical Journal of January 12th I regret that I have been quite unable to fix the date of the mother's infection. She has been married nearly seven years, and has had three children; the first was born six months after the marriage and the last about two years ago. The children, with the exception of the last one, appear to be quite healthy. There have been no miscarriages. A new and close interrogation failed to elicit any reliable evidence whatever of past syphilitic manifestations in the mother. One interesting fact ascertained is that the father was in a lunatic asylum for nine months up to within exactly thirty-six weeks of the birth of the last and syphilitic child. I have not been able to see the father, nor as yet to find out the form of disease necessitating his stay in an asylum. The syphilide in the child seemed to be the only fact which could be brought into any etiological relation with the nervous disease in the mother; yet the syphilitic origin of the malady, although possible and even probable, did not appear either to Mr. Mann or myself to be susceptible of proof.—I am, etc.,

Leeds, Jan. 22nd. E. F. Trevelyan.

THE ABUSE OF CLUBS.

Sir,—Never was there a more opportune chance of striking a blow at the abuse of clubs, etc., than the present. All that is wanted is union; and we should take a lesson from trades who by combination have so greatly improved their status. Is it not scandalous that the members of the hardest profession on earth, both to enter and practise, should contract at such low fees as 2s. 6d. or 3s. a head? What other calling would offer their services on similar terms, and why should we? And now we are to have juvenile clubs, women's lodges, even admissions to friendly societies of infants!

The remedy lies in a nutshell. Let us unite, and then we can make our own terms with the public, because they cannot do without medical aid, and we are masters of the situation.

I trust these words will arouse my brethren to action.—I am, etc., Alex. D. H. Leadman, L.R.C.P.E.

Pocklington, Yorks., Jan. 20th.

Sir,—Before subscribing to the fund mentioned in your leading article on The Clubs and Friendly Societies in the South of Ireland, I should like to know what is the minimum fee asked for and also what is the wage limit to be. It is, I think, most important that some information should be given on these points. Were I satisfied as to the adequacy of the fee claimed, I should at once send a subscription to the treasurer; but, on the other hand, if it be true that the members of the medical profession in Cork are willing to attend a man, his wife, and family for 7s. per annum, then I most certainly shall not subscribe to the fund. By so doing I should probably increase the difficulties and hardships of club practice in England.—I am, etc.,

January 20th. M.D. (A Club Doctor).

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

Mr. F. J. Spilsbury has been appointed Surgeon and Agent at Anderby and Chapel, and Mr. Geoffrey Cross, at Skegness, both January 19th.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel I. A. Irving is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* W. H. B. Clapp, retired, December 16th, 1894. Brigade-Surgeon-Lieutenant-Colonel Irving was appointed Assistant Surgeon, April 1st, 1871; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; and Surgeon-Lieutenant-Colonel, April 1st, 1891. He has no war record in the *Army Lists*.

INDIAN MEDICAL SERVICE.

Surgeon-Lieutenant-Colonel Herbert Boyd, Bengal Establishment, has retired from the service January 15th. He was appointed Assistant Surgeon, October 1st, 1869, and became Surgeon-Lieutenant-Colonel from October 1st, 1889. He was with the Jowaki Afridi Expedition in 1877-78 (medal with clasp); in the Afghan war in 1878-79, including the capture of Ali Musjid and the operations in the Khyber Pass (medal with clasp); and with the Hazara Expedition in 1888 (clasp).

Surgeon-Lieutenant-Colonel T. C. H. Spencer, Madras Establishment, has also retired from the service from December 31st. His commissions were contemporaneous with those of Surgeon-Lieutenant-Colonel Boyd. Surgeon-Lieutenant-Colonel Spencer served in the Rumpa Rebellion in 1879-80.

The retirement from the service is also announced of Surgeon-Lieutenant-Colonel Patrick Murphy, of the Bombay Establishment, from January 17th. His commissions also bear the same date as those of Surg.-Lieut.-Colonel Boyd. Surgeon-Lieutenant-Colonel Murphy served in the Egyptian war of 1882, and was at the battle of Tel-el-Kebir, receiving the medal with clasp and the Khedive's bronze star.

THE VOLUNTEERS.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated January 23rd: George Halley, M.B., and David Allan Carruthers, M.B., 1st Forfarshire Artillery; John Edward O'Connor, M.B., 1st Volunteer Battalion the Leicestershire Regiment; Henry Percy Jon, 4th (Nottinghamshire) Volunteer Battalion the Derbyshire Regiment.

Surgeon-Captain J. T. Thomas, 1st Devonshire Artillery (Western Division Royal Artillery), is now appointed Captain in the same corps, January 23rd.

Surgeon-Captain J. E. Norman, 1st Newcastle-on-Tyne Artillery (Western Division Royal Artillery), has resigned his commission from January 23rd.

Surgeon-Lieutenant H. E. H. Matthews, 4th Volunteer Battalion the Manchester Regiment, has also resigned his commission, from the same date.

Surgeon-Lieutenant W. Sandeman, M.B., 2nd Volunteer Battalion the Highland Light Infantry, is promoted to be Surgeon-Captain, January 23rd.

Mr. Herbert William Crosse, M.B., is appointed Acting-Surgeon to the 1st Cadet Battalion the Norfolk Regiment, January 23rd.

The Volunteer officers' decoration has been conferred upon the following: Surgeon and Honorary Surgeon-Major W. S. Batten, M.D., retired, 2nd Volunteer Battalion the Worcestershire Regiment; Surgeon-Lieutenant Ezekiel Rouse, 4th Volunteer Battalion the Devonshire Regiment; Surgeon-Major W. A. F. Bateman, 3rd Volunteer Battalion the East Surrey Regiment; and Surgeon and Honorary Surgeon-Major J. H. Paul, M.D., retired, 1st Tower Hamlets Volunteer Rifles.

VOLUNTEER MEDICAL STAFF CORPS.

Mr. John Robert Wham, M.B., is appointed Surgeon-Lieutenant in the London Companies, January 23rd.

MOVEMENTS OF MEDICAL OFFICERS.

The *Broad Arrow* and *Naval and Military Gazette* have attempted to forecast the probable postings of administrative medical officers on the retirement of Surgeon-Major-General Bradshaw in March next. As we have already notified, Surgeon-Major-General T. Walsh will probably move from Madras to Simla in succession to the post of Principal Medical Officer of India. If an Indian medical officer is nominated to the Madras Army Corps, it is not likely that Surgeon-Major-General Walsh, who belongs to the Army Medical Staff, will be succeeded by any officer of his department. Surgeon-Colonels Markey and Hamilton are high up on the list for promotion. As the former has completed an Indian tour, he will probably be brought home; this would leave the latter officer eligible on promotion to removal from the Cape to one of the Indian army corps. Surgeon-Colonel Gore is on the spot for filling the vacancy made by Surgeon-Major-General Warren's retirement in May next by age. It is believed that the latter officer will scarcely (if an officer of the A.M.S. should get the Bombay Army Corps) wish to serve under his junior in India if given a limited extension; and with the full period of two years he is ineligible for Simla, as he could not even then hold that billet for three years, the period on which the Indian Government insists.

The *Broad Arrow*, in forecasting these movements, allows for selection, remarking that all the officers named have excellent records of service,

and have already administered with signal success large districts and commands, so that the question of supersession owing to deficient ability and merit may be put aside. There is one contingency in these movements, and that is that Surgeon-Major-General Walsh may not wish to prolong his Indian service beyond five years. This period he will complete next year.

BOARDS ON RATIONS.

SURGEON-MAJOR writes that he lately knew of a case in which the opinion of the medical officer on a board on meat was treated with contempt, and asks, what was the use of consulting him? Just so; a certain number of military officers are now supposed to be trained as experts in the examination of butchers' meat; then why consult a medical officer? It is the old story of boards trying to protect themselves by calling in a medical witness; we presume in this case he "attended," and was not a member of the board. The absurdity and iniquity of the "attending" business is that the medical officer's opinion need not be recorded. Were he a member he could always add a rider if he disagreed with the other members.

SURGEONS ON PROBATION.

In the early part of last year a question was referred from the Army Medical School at Netley to headquarters in London as to whether the surgeons on probation were or were not entitled to a salute by non-commissioned officers and privates. This point was decided in the negative. There has for some time back been a proposal to alter the title of the army medical candidate from "surgeon on probation" to "acting surgeon-lieutenant." As to the need for this alteration some difference of opinion exists amongst the staff at Netley, the professors being, it is stated, adverse to any change of designation. Some abbreviation in the existing title would be a distinct gain.

THE ARMY MEDICAL STAFF AND THE INDIAN ARMY CORPS.

It is now announced that the principal medical officers of the army corps will each get Rs. 2,000 per month. The secretary or "personal assistant," as he will be called if of the British service—will get Rs. 150 extra per month; if of the Indian service, consolidated pay of Rs. 600 per month. This clearly shows that the surgeon-major-generals of the Army Medical Staff who may be nominated to the principal medical officerships will lose Rs. 500 each month, and, with the rupee at 1s. 1d., will, although ranking with major-generals, get less pay than brigadier-generals. In short, a surgeon-major-general, at the present rate of exchange of the rupee, would be better off at home than in India. The misfortune that has come on the Army Medical Staff in the new organisation was foretold in these columns long ago. It is regrettable.

MEDICO-LEGAL AND MEDICO-ETHICAL.

DISPENSING APPRENTICES.

NEMO writes that he has a message boy who is giving him great satisfaction, and who would like to be apprenticed to the drug trade, and our correspondent inquires whether, with the qualifications L.R.C.P.&S.E. and L.F.P.S.G., he could take the boy as an apprentice and give him a certificate at the end of his apprenticeship.

*** Such an apprenticeship would not confer any special qualification, either as chemist or druggist or otherwise.

NOTICE OF DISSOLUTION OF PARTNERSHIP.

SCIPIO writes: In case of a partnership being dissolved, how is a medical practitioner to let his patients know of the fact—by a letter in the local newspapers or by an advertisement?

*** When impracticable to notify personally the dissolution of partnership the most unexceptionable mode is to transmit an autograph note, or *facsimile* thereof, on notepaper to the *bonâ-fide* patients of the practitioners referred to, and not to send "a letter in the local newspapers or by an advertisement," either of which would be a most unethical proceeding.

AN INJUDICIOUS CIRCULAR.

A. E. I.—Professionally regrettable and ethically reprehensible as is the ill-advised, self-assumed, vindicatory, but, in fact, self-laudatory, circular issued, we do not regard it as sufficiently grave to call for more than a passing protest in the hope that wiser counsels will prevail.

FEES AND CONDUCT MONEY FOR MEDICAL WITNESSES.

HOUSE-SURGEON.—A witness who has been served with a subpœna and been given an adequate sum for conduct money is bound to attend the court and give evidence on the day named. He is entitled to the scale fee for his day's attendance, whether called into the witness box or not, and entitled to a further fee for each subsequent day on which he attends in obedience to the subpœna. If sufficient notice of adjournment is given to prevent his attending the court, no fee is payable for days on which he is so not required to attend. Whether the notice given was reasonably sufficient would be a question to be decided by the taxing officer.

MEDICAL SERVICES AND PREFERENTIAL CLAIMS.

ERICA inquires if the amount of indebtedness due for medical services is a preferential claim to be paid in full should a patient become bankrupt or compound with his creditors.

*** We believe that such a debt is not preferential, and do not entitle the creditor to be paid in full.

INQUIRY BY CORONER'S OFFICER.

DISTRICT MEDICAL OFFICER.—A medical practitioner is not obliged to give any information relating to his patients to a coroner's constable nor to anyone else except in the witness-box. If subpœnaed to give evidence, he must, when a witness, tell what he knows, but not previously. A refusal to give information may sometimes cause an inquest to be held unnecessarily; but that probably will concern those summoned as jurors more than the witnesses.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

SMALL-POX AND VACCINATION IN 1894.

XIV.—ASTON MANOR.

ALREADY Dr. Henry May has got his report for last year printed and circulated in respect of Aston Manor, and has some interesting things to say concerning small-pox in the district during the past two years. In 1894 there were notified 202 cases, with 13 deaths, a mortality rate of 6.5 per cent.; but this rate was made up of 2 in the vaccinated and 32 in the unvaccinated patients. Moreover, in persons under 15 years of age, no deaths occurred among 29 vaccinated children (*younger persons entirely escaping attack*), whilst among 18 unvaccinated patients of the like age period 5, or 32 per cent., died. Whether the total cases or the 80 per cent. treated in hospital be taken, the result is immensely in favour of the vaccinated. Dr. May regards the escape of Aston Manor from further spread as probably due to three main causes: first, efficient general infantile vaccination; secondly, much revaccination performed; and thirdly, prompt isolation; and he significantly adds that if the antivaccination movement is pandered to there must undoubtedly in the future be much more general isolation of small-pox practised, with ever increasing difficulties as to questions of site. Only one mild case of small-pox came to light in a revaccinated individual. Aston Manor adds one more to the list of towns showing the need for efficient vaccination, only one-third of the vaccinated patients having more than three marks. The Aston guardians are deserving of credit for the part they have played in enforcing the law of vaccination amid much that is discouraging.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 8,806 births and 4,407 deaths were registered during the week ending Saturday, January 19th. The annual rate of mortality in these towns, which had been 18.9 and 20.1 per 1,000 in the preceding two weeks, further rose to 21.7 last week. The rates in the several towns ranged from 12.9 in Plymouth, 14.4 in Cardiff, and 15.1 in Leicester to 29.3 in Bolton, 30.7 in Sunderland, and 33.4 in Wolverhampton. In the thirty-two provincial towns the mean death-rate was 22.9 per 1,000, and exceeded by 2.9 the rate recorded in London, which was 20.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.6, while it averaged 1.7 per 1,000 in the thirty-two provincial towns, and was highest in Newcastle-on-Tyne, Salford, and Gateshead. Measles caused a death-rate of 1.3 in Newcastle-upon-Tyne, 1.5 in Leeds, 1.8 in Portsmouth, and 3.3 in Gateshead; and whooping-cough of 1.2 in Blackburn, and 1.4 in Preston. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 63 deaths from diphtheria in the thirty-three towns included 31 in London, 6 in Birmingham, 4 in West Ham, and 3 in Liverpool. Two deaths from small-pox were registered in Birmingham, and 1 in London, but not one in any other of the thirty-three large towns. There were 32 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, January 19th, against 16, 23, and 28 at the end of the preceding three weeks; 6 new cases were admitted during the week, against 8 in each of the preceding two weeks. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,830, 1,778, and 1,713 at the end of the preceding three weeks, had further declined to 1,652 on Saturday last; 154 new cases were admitted during the week, against 116, 126, and 130 in the preceding three weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, January 19th, 971 births and 817 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.8 and 25.5 per 1,000 in the preceding two weeks, further rose to 28.3 during the week under notice, and exceeded by 5.6 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 13.7 in Perth to 31.8 in Greenock. The zymotic death-rate in these towns averaged 3.5 per 1,000, the highest rates being recorded in Greenock and Aberdeen. The 415 deaths registered in Glasgow included 24 from measles, 13 from whooping-cough, 2 from scarlet fever, and 1 from small-pox. Two fatal cases of small-pox, 13 of measles, and 3 of diphtheria were recorded in Edinburgh, and 3 of diphtheria in Leith.

ZYMOTIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal zymotic diseases in London during each week of the fourth quarter of 1894. The fluctuations of each disease and its fatal prevalence as compared with that recorded in the corresponding weeks of recent years can thus be readily seen.

Small-pox.—The deaths referred to small-pox, which had been 11, 37, and 43 in the first three quarters of last year, declined to 5 during the three months ending December last, and were 35 below the corrected average number in the corresponding periods of the preceding ten years 1884-93. Of these 5 deaths, 3 belonged to Marylebone, 1 to Paddington, and 1 to St. George Hanover Square sanitary areas. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 56, 123, and 93 at the end of the preceding three quarters, had further declined to 16 at the end of December last; 79 new cases were admitted during last quarter, against 168, 559, and 427 in the preceding three quarters.

Measles.—The fatal cases of measles, which had been 788, 1,745, and 459 in the first three quarters of last year, further declined to 300 during the three months under notice, and were fewer than half the corrected average number. Among the various sanitary areas of the metropolis measles showed the highest proportional fatality in Hackney, Poplar, Greenwich, Lee, Lewisham, Woolwich, and Plumstead.

Scarlet Fever.—The deaths referred to this disease, which had been 276, 286, and 228 in the preceding three quarters, further fell to 175 during the three months ending December last, and were rather fewer than half the corrected average number in the corresponding periods of the preceding ten years. Among the various sanitary areas this disease showed the highest proportional fatality in Fulham, Bermondsey, and Rotherhithe. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals, which had been 2,070, 2,042, and 2,058 at the end of the preceding three quarters, were 1,865 at the end of December last. The number of cases admitted into these hospitals, which had been 2,800, 3,144, and 3,075 in the preceding three quarters, further declined to 2,748 during the three months ending December last.

Diphtheria.—The fatal cases of diphtheria in London, which had been 728, 652, and 641 in the first three quarters of 1894, were 653 during the three months under notice, and were 170 above the corrected average. Among the various sanitary areas this disease showed the highest proportional fatality in Fulham, St. George-in-the-East, Limehouse, St. Saviour Southwark, St. George Southwark, Camberwell, Woolwich, and Plumstead. The cases of diphtheria admitted into the Metropolitan Asylums Hospitals, which had been 839, 917, and 1,143 in the preceding three quarters, further rose to 1,229 during the three months ending December last, and 521 patients remained under treatment at the end of the year.

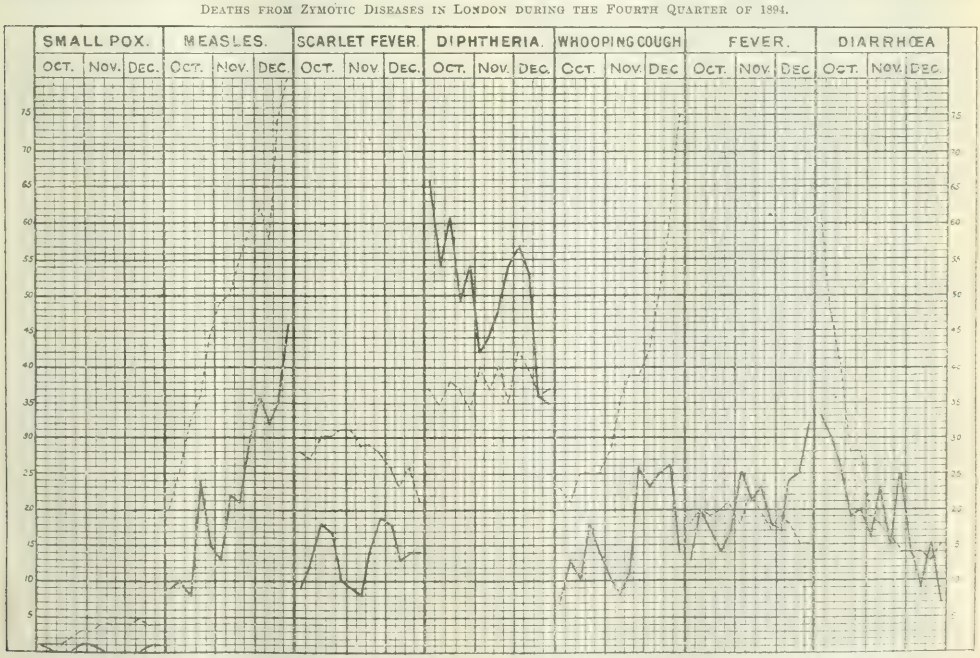
Whooping-cough.—The deaths referred to this disease, which had been 932, 608 and 349 in the preceding three quarters, further declined to 205 last quarter, and were less than half the corrected average number. The highest proportional fatality of this disease was recorded in St. Luke and Battersea sanitary areas.

Fever.—Under this heading are included deaths from typhus, enteric fever, and simple and ill-defined forms of fever. The deaths referred to these different forms of "fever," which had been 145, 131, 111 in the preceding three quarters, rose to 266 during the three months ending December last, and were 25 above the corrected average. Of these 266 deaths from "fever," 265 were certified as enteric fever, and 1 as ill-defined fever. Among the various sanitary areas the highest proportional fatality of "fever" was recorded in St. James Westminster, St. Giles, Strand, Bermondsey, and Lewisham. The Metropolitan Asylums Hospitals contained 104 enteric fever patients at the end of December last, against 92, 72, and 99, at the end of the preceding three quarters: 183 new cases were admitted into these hospitals, against 179, 141, and 172 in the preceding three quarters.

Diarrhœa.—The 254 fatal cases of diarrhœa registered in London during last quarter were 75 below the average; this disease showed no marked excess in any of the sanitary areas.

In conclusion it may be stated that the 1,858 deaths referred to the principal zymotic diseases in London during the fourth quarter of 1894 were 721, or nearly 30 per cent. below the corrected average number in the corresponding periods of the preceding ten years, 1884-93, owing principally to the exceptionally low mortality from measles, scarlet fever, and whooping-cough. Among the various sanitary areas the lowest zymotic death-rates were recorded in St. George Hanover Square, Marylebone, Hampstead, London City, St. Saviour Southwark, St. Olave Southwark, and Wandsworth; and the highest rates in Fulham, St. Luke, Limehouse, Bermondsey, Battersea, Greenwich, Woolwich, and Plumstead.

DEATHS FROM ZYMOTIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1894.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding week of the preceding ten years 1884-93.

THE PUBLIC HEALTH OF EDINBURGH.

AT a meeting of the Edinburgh Town Council on January 22nd it was reported that there were 298 cases in the City Hospital for Infectious Disease, that there was a very severe epidemic of measles (317 new cases last week) and scarlatina (110 cases last week) in the city, and that all zymotic diseases were very prevalent. It was further reported that in the

City Hospital last year the mortality had been only 6·20 per cent. of the number admitted, which it was stated was less than almost any hospital in this country. Seven fresh cases of small-pox were reported for last week, and 2 deaths. There were 13 deaths from measles, and 1 from scarlatina. Leith reported 2 new cases of small-pox.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

MEDICAL GOVERNOR.—The Council of the Senate have appointed W. B. Ransom, M.D., of Trinity College, to be a governor of the High School, Nottingham, for five years.

DEGREES.—At a congregation, on January 17th, the following medical degrees were conferred:—*M.B.*: G. B. Woodrooffe, Caius; A. K. Gordon, King's; W. H. Allen, Christ's; H. W. Beedham, Christ's. *B.C.*: A. K. Gordon, W. H. Allen, H. W. Beedham, and G. E. W. Cotter, Trinity.

SHUTTLEWORTH SCHOLARSHIP.—A scholarship on this foundation in Botany and Comparative Anatomy, value £55 a year for three years, will be awarded in March, 1895. Candidates must be medical students of Cambridge of not less than eight terms' standing, and must be prepared to migrate to Caius College if they are not already members thereof. Candidates are to send their names to one of the tutors of Caius College by March 1st.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the First Examination of the Board in the subjects indicated at the quarterly meeting of the Examiners, under the "Five Years' Regulations":

PART I. *Chemistry and Physics.*—G. W. Alltree, King's College, London; F. S. G. Bayly, St. Thomas's Hospital; V. T. C. Bent, Guy's Hospital; F. M. Bingham, St. Thomas's Hospital; C. E. Blackstone, Middlesex Hospital; W. F. Boyle, Charing Cross Hospital; E. W. Browne, St. Thomas's Hospital; E. H. Ballieu, St. Mary's Hospital; J. G. Churton, University College, Liverpool; W. E. Cooper, University College, London; S. D'A. Corbett, St. George's Hospital; W. A. C. Cox, St. Mary's Hospital; V. J. Crawford, Guy's Hospital; H. E. Crawley, Oxford University; W. C. C. C. Davies, St. Mary's Hospital; J. T. De Cotéau, Guy's Hospital; Q. B. De Freitas, King's College, London; R. E. Drake-Brockman, St. George's Hospital; H. L. Driver, St. George's Hospital; G. M. Eastment, Middlesex Hospital; A. R. Evans, University College, Cardiff; E. O. Faulkner, St. Mary's Hospital; T. B. Fawley, Yorkshire College, Leeds; F. R. Featherstone, Guy's Hospital; T. H. Glaze, Mason College, Birmingham; B. Gowing, Yorkshire College, Leeds, and Firth College, Sheffield; C. P. Grindle, St. Mary's Hospital; F. H. Hand, St. George's Hospital; H. N. Horton, Middlesex Hospital; E. Hudson, Owens College, Manchester; N. A. A. Hughes, Yorkshire College, Leeds; J. W. Illius, St. Bartholomew's Hospital; H. S. Langdon, Middlesex Hospital; Cecil Lees, Charing Cross Hospital; A. M. Macintosh, St. Mary's Hospital; E. Merry, London Hospital; R. Mitchell, Guy's Hospital; A. S. Morley, St. George's Hospital; B. Moss-Blundell, St. Thomas's Hospital; C. H. Newton, St. Thomas's Hospital; R. G. Newton, Oxford University; A. S. Oxley, St. Thomas's Hospital; H. A. Parker, St. Thomas's Hospital; R. G. Patch, St. Thomas's Hospital; N. Pern, St. Thomas's Hospital; N. R. Phillips, London Hospital; S. C. Pritchard, King's College, London; J. J. Rodil, Guy's Hospital; C. M. Row, University College, London; E. R. Row, Guy's Hospital; W. H. Rutherford, St. Thomas's Hospital; A. A. Smith, Guy's Hospital; H. Smith, Mason College, Birmingham; H. C. Sturdy, Guy's Hospital; P. Tatchell, St. Bartholomew's Hospital; A. F. Tredgold, London Hospital; A. L. Vaughan, St. Bartholomew's Hospital; P. Vosper, King's College, London; A. F. Weston, St. George's Hospital; and N. Williams, Otago University and Guy's Hospital.

PART II. *Practical Pharmacy.*—A. Brown, King's College, London; C. B. Horsbrugh, University College, Bristol; H. R. Humby, St. Bartholomew's Hospital; W. H. McMullen, King's College, London; S. Mason, St. Bartholomew's Hospital; S. Page, Mason College, Birmingham; A. G. Reid, London Hospital; F. J. W. Sass, St. Mary's Hospital; G. S. Simpson, Guy's Hospital; C. A. Sprawson, King's College, London; R. Storrs, St. Bartholomew's Hospital; P. Tatchell, St. Bartholomew's Hospital; A. F. Tredgold, London Hospital; N. Unsworth, St. Thomas's Hospital; and L. E. Whitaker, St. Bartholomew's Hospital.

PART III. *Elementary Biology.*—W. H. Agar, University College, London; H. St. A. Agate, St. Mary's Hospital; J. Ainscow, Owens College, Manchester; F. E. Anley, Charing Cross Hospital; E. C. Austin, St. Mary's Hospital; J. M. Barlet, St. Mary's Hospital; H. C. Batchelor, Guy's Hospital; J. H. Beasley, Mason College, Birmingham; A. M. Brind, Mason College, Birmingham; E. Bullen, St. Mary's Hospital; H. B. Carr, Guy's Hospital; D. P. Chapman, Charing Cross Hospital; F. Coleman, Charing Cross Hospital; W. A. C. Cox, St. Mary's Hospital and School of Science, Cheltenham; A. M. Dowsell, St. Bartholomew's Hospital; F. A. Davies, Mason College, Birmingham; G. Dewick, St. Thomas's Hospital; M. Doubble, Charing Cross Hospital; L. C. Driscoll, Charing Cross Hospital; W. F. Fenner, St. Paul's School, London; S. W. Garne, Charing Cross Hospital; W. R. P. Goodwin, St. Mary's Hospital; W. E. Grabouil, St. Mary's Hospital; H. Hipwell, Middlesex Hospital; J. E. Humphreys, Charing Cross Hospital; E. S. Jones, University College, Cardiff; J. A. Kilpatrick, University College, Cardiff; E. B. Kirkconnel, Owens College, Manchester; A. B. Kirkman, Guy's Hospital; W. A. Lamboru, Middlesex Hospital; C. Lees, Charing Cross Hospital; A. Lister-Kaye, Guy's Hospital; H. E. D. Lloyd, St. Bartholomew's Hospital; P. Mellersh, Owens College, Manchester; M. M. Meslin, St. Bartholomew's Hospital; G. D. Mew, St. Mary's Hospital; A. C. Newport, Charing Cross Hospital; W. H. Passmore, Charing Cross Hospital; H. L. Pinches, St. Paul's School, London; T. B. Rhodes, Mason College, Birmingham; I. J. Roche, Charing Cross Hospital; D. P. Rockwood, University College, London; C. M. Row, University College, London; H. M. Scott, Charing Cross Hospital; J. E. Simpson, University College, London; P. N. Smith, St. Mary's Hospital; S. J. Smith, Charing Cross Hospital; P. Southam, Mason College, Birmingham; G. B. A. Speirs, St. Mary's Hospital; F. H. Sprague, St. Mary's Hospital; G. W. Stone, St. Bartholomew's Hospital; H. C. Tayler, St. Mary's Hospital; W. A. Thompson, Owens College, Manchester; G. P. Tonge, St. Paul's School, London; P. L. Vawdrey, St. Bartholomew's Hospital; A. D. B. Von Rosen, St. Mary's Hospital; C. B. Wagstaff, Charing Cross Hospital; H. V. Wells, St. Mary's Hospital; B. B. Westlake, Guy's Hospital; A. F. Weston, St. George's Hospital; L. E. Whitaker, St. Bartholomew's Hospital; T. R. Wilshaw, Mason College, Birmingham; and H. C. Woodcock, St. Mary's Hospital.

PART IV. *Elementary Anatomy.*—F. B. Alderson, Firth College, Sheffield; E. C. Barnes, London Hospital; W. H. I. Bathurst, King's College, London; J. B. Bradley, Mason College, Birmingham; J. F. E. Bridger, St. Mary's Hospital; H. S. Clogg, University College, Cardiff; R. S. Cocke, King's College, London; F. A. Davies, Mason College, Birmingham; E. B. Dowsett, Guy's Hospital; W. V. C. Francis, Westminster Hospital; S. W. Garne, Charing Cross Hospital; B. Gowing, Firth College, Sheffield, and Yorkshire College, Leeds; W. G. Hamilton, St. Bartholomew's Hospital; G. A. Herklots, University College, London; R. J. Hogan, London Hospital; W. B. Hope, Guy's Hospital; J. G. Humphreys, Charing Cross Hospital; E. S. Jones, University College, Cardiff; J. Jones, University College, London, and Mr. Cooke's School of Anatomy and Physiology; N. H. Joy, St. Bartholomew's Hospital; T. D. Kelly, Guy's Hospital; J. McClintock, King's College, London; D. McIntyre, Owens College, Manchester; A. R. McLachlan, Guy's Hospital; M. M. Martin, St. Bartholomew's Hospital; G. D. Maynard, St. Mary's Hospital; C. F. B. Moggridge, St. Thomas's Hospital; A. G. Oliver, University College, Cardiff; N. R. Phillips, London Hospital; A. G. Reid, London Hospital; A. Ricketts, University College, London; W. E. Ruttledge, University College, London; A. L. Scott, St. Bartholomew's Hospital; S. J. Smith, Charing Cross Hospital; T. W. Smith, Charing Cross Hospital; G. W. Stone, St. Bartholomew's Hospital; H. Stuart, University College, London; A. M. Thomas, Guy's Hospital and Durham University; D. J. Thomas, London Hospital; N. Unsworth, St. Thomas's Hospital; W. H. Unwin, Charing Cross Hospital; J. F. Walker, London Hospital; C. B. Wagstaff, Charing Cross Hospital; T. R. Wilshaw, Mason College, Birmingham; and E. Yoxall, Mason College, Birmingham.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, January, 1895.—The following candidates passed in:

Surgery.—R. B. Allen, St. Mary's; C. M. Beadnell, Guy's; W. S. Dibbs, Leeds; A. Douglas, Birmingham; R. H. Hayes, Guy's; P. S. Kesteven, St. Bartholomew's; W. A. Montgomery, St. Thomas's; A. T. Petyt, Leeds; E. P. Staples, St. Mary's; T. Stevens, Charing Cross; G. S. Taylor, Manchester; J. M. Troup, King's.

Medicine, Forensic Medicine, and Midwifery.—H. W. Clark, St. Mary's; T. S. Colin, Manchester; L. C. Dillon, King's; W. MacLellan, St Mary's; G. P. C. Prior, King's; J. H. Whitaker, Belfast.

Medicine and Forensic Medicine.—O. W. Gange, University College.

Medicine and Midwifery.—A. H. Trevor, Guy's.

Medicine.—M. T. Archdall, Charing Cross; T. Watts, Manchester.

Forensic Medicine.—T. Morris, Liverpool.

Midwifery.—W. J. H. Dawson, St. Thomas's; P. S. Kesteven, St. Bartholomew's.

To Messrs. Allen, Archdall, Clarke, Dillon, Douglas, Hayes, MacLellan, Morris, Prior, and Stevens, was granted the diploma of the Society, entitling them to practise Medicine, Surgery, and Midwifery.

OBITUARY.

ROBERT A. GOODSIR, M.D.

ON January 17th at Edinburgh Robert Anstruther Goodsir, one of the few remaining links with the past, died at the age of 71 years. Few men had in his time played so many parts. His grandfather was a Scotch clergyman: his father a skilful Scotch physician, who had four sons, one the great Edinburgh anatomist Goodsir, another the subject of the present notice, a third also a member of the medical profession, the fourth a clergyman.

Robert Goodsir began life in a London banking house, but soon returned to Edinburgh to follow medicine like his two brothers. He must have been a notable student, for he was a President of the Edinburgh Royal Medical Society. His brother Harry was surgeon in Sir John Franklin's ill-fated expedition of 1845. In 1849 Robert, anxious if possible to learn something of the fate of his brother, joined the Dundee whaler *Advice* as ship's surgeon. When he returned from his voyage he published an account of it; but a few months later, in 1850, he again s cted for the Arctic regions as surgeon on board the *Lady Franklin*. The net result of this voyage was the discovery of Franklin's winter quarters for 1845-46.

Still later he started for Australia on gold intent. The

ship was wrecked off the Needles; all were rescued and ultimately reached land. Again he adventured, and after several vicissitudes reached the gold fields, but did not make a fortune. He became squatter, he was this and that, he was in perils oft, but enjoyed all. He sojourned in the South Seas, he travelled in Siberia, in Russia, and in many lands, and ultimately settled in Edinburgh some ten years ago. There his circle was small but choice, and there was no choicer spirit in it than Robert Goodsir. He was a man of inexhaustible alertness of mind, and he had stories rare and many which he told in first rate style. Often he promised to set them down, but we fear he has gone without doing so, and the world is by much the poorer, for his writing would have been of a kind not often seen now.

PHILIP GEORGE PHILPS, M.R.C.S.ENG.

THE death is reported of Mr. Philip G. Philps at the age of 51. The deceased took the diplomas of M.R.C.S.Eng., L.S.A., in 1864, and practised for some twenty-four years in Peckham. About six years ago he changed his residence to Kensington. Soon afterwards he had a severe attack of influenza, from which he never seems to have completely recovered. He suffered ever afterwards from various heart troubles. Mr. Philps leaves a widow, three daughters, and a son.

MUCH regret has been felt in Bristol respecting the sad death of Mr. CHARLES WHITEFIELD, M.R.C.S., L.S.A. The circumstances stated at the inquest were tragic. Mr. Whitefield was of a highly nervous temperament, and was worried by his practice not proving so good as he expected. This was accentuated by pressure from his landlord for rent due at Christmas. He paid part of the amount, but next morning was horrified by the entry of the bailiffs, and felt the degradation, as he regarded it, so keenly that he at once took a large dose of prussic acid and died immediately. The coroner's jury regarded it as a case of temporary insanity, and expressed great sympathy with the widow, on whose behalf a local fund has since been opened. Public feeling ran so high about the matter that the landlord's house was mobbed, and an effigy supposed to represent him carried through the streets. Hundreds of people attended Mr. Whitefield's funeral.

MEDICAL NEWS.

ON May 15th Professor von Dittel, the distinguished surgeon of Vienna, will complete his 80th year. A committee has been formed to arrange for the proper celebration of the occasion. A medal, bearing the likeness of the *Altmeister* is to be struck in his honour.

THE will of Dr. William Withers Moore, F.R.C.P., D.C.L., formerly President and President of Council of the British Medical Association, late of Burgess Hill, Sussex, was proved on January 12th by his eldest son, William Withers Moore, the surviving executor. The testator gave all his real and personal estate equally among his children. Estate duty was paid upon a net capital of upwards of £53,000.

DRY METHODS OF SANITATION.—A discussion on this very important practical subject will take place at the sessional meeting of the Sanitary Institute on Wednesday, February 13th, at 8 P.M. The subject will be introduced by Dr. G. V. Poore, whose excellent and entertaining volume on *Rural Hygiene* is largely occupied with the description of practical methods of dealing with the disposal of refuse and excreta in country places by the "dry" system. The chair will be taken by Sir Thomas Crawford, K.C.B. Visitors wishing to attend can, we are informed, obtain tickets on application to the Secretary of the Sanitary Institute, Margaret Street, Regent Street, W.

MEDICAL VACANCIES.

The following vacancies are announced:

CANCER HOSPITAL (FREE), Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary, at the rate of £50 per annum, with board and residence. Applications to the Secretary by February 4th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's Inn Road, W.C.—House Surgeon. Applications to the Secretary by February 12th.

DEWSBURY AND DISTRICT GENERAL INFIRMARY, Dewsbury.—House-Surgeon, doubly qualified. Salary, £80 per annum, with board and residence. Applications to the Chairman of the House Committee, by February 6th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer, doubly qualified. Salary, £80 per annum, with board and lodging. Appointment for one year. Applications to the Chairman of the Medical Board, by February 6th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Registrar and Pathologist. Appointment for six months, which may be renewed. Honorarium of 25 guineas a year is attached to the appointment. Applications to the Secretary by February 1st.

LONGFORD UNION.—Medical Officer for the Workhouse. Salary, £80 per annum. Applications to the Clerk of the Union before 11 o'clock on January 26th.

NEATH URBAN DISTRICT COUNCIL.—Medical Officer of Health for the Borough. Salary, £30 per annum. Applications to Edwin C. Curtis, Town Clerk, by February 5th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Junior House-Physician; doubly qualified. Appointment for six months. No salary, but board and lodging (including washing) provided. Applications to the Secretary, 27, Clement's Lane, E.C., by February 13th.

PARISH OF ROUSAY AND EGILSHAY.—Resident Medical Officer. Salary, £5 per annum. Applications to the Inspector of the Poor, Rousay, by January 31st.

ROYAL SOUTH LONDON DISPENSARY.—Surgeon in Ordinary to visit patients at their own homes. Honorarium, £25 per annum. Applications to the Committee of Management, at the Dispensary, St. George's Circus, S.E., before January 31st.

SALFORD ROYAL HOSPITAL.—House-Surgeon. Salary, £100 per annum with board and residence. The Junior House-Surgeon is a candidate, and in the event of his being appointed, there will be a vacancy in the post of Junior House-Surgeon. Salary, £50 per annum, with board and residence. Candidates must be doubly qualified. Applications to the Secretary by February 2nd.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—House-Surgeon, doubly qualified. Salary, £100 per annum, with board, lodging, and washing. Appointment for two years, subject to direction of the General Committee. Applications to the Secretary of the Infirmary, Lloyds Bank, Limited, Staffordshire, by February 6th.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds.—Honorary Assistant Medical Officer. Applications to the Chairman of Committee by February 4th.

UNIVERSITY OF EDINBURGH.—Additional Examiners in Natural History and Clinical Surgery. Period of office four years. Salary, £75 per annum in each case, with £10 per annum for travelling and other expenses in the case of an additional examiner not resident in Edinburgh or the immediate neighbourhood. An additional allowance is made to the Examiner in Natural History for examining for Graduates in Arts. Applications to L. J. Grant, Interim Secretary, University Court, University of Edinburgh, by February 6th.

WIRRAL CHILDREN'S HOSPITAL, Woodchurch Road, Birkenhead.—House-Surgeon. Salary, £50 a year, with board, lodging on the premises, and washing. Applications to P. W. Atkin, Honorary Secretary, 25, Lord Street, Liverpool, by January 30th.

MEDICAL APPOINTMENTS.

AITKEN, C. J. H., M.B., C.M., appointed House-Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

AMBROSE, Alexander, M.D., LL.D., B.A., B.Ch., D.P.H.Cantab., appointed Medical Officer of Health for the Urban District of Buckhurst Hill

BAILEY, W. H., M.B.Lond., M.R.C.S.Eng., appointed Medical Officer for the East Dulwich District of the Parish of St. Giles Camberwell.

BARROW, V. E., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Sampford Peverell District of the Tiverton Union.

BROOKSBANK, Hugh J., B.A.Cantab., appointed House-Surgeon to the Victoria Hospital for Children, Queen's Road, Chelsea.

BRYCE, William H., M.B., C.M., appointed House-Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

CHILD, Edwin, M.R.C.S., L.S.A., reappointed Medical Officer of Health to the New Malden Urban District Council.

COPELAND, F., M.R.C.S., L.R.C.P., appointed Junior House-Physician to the Westminster Hospital.

ELAM, George, M.D.Dub., B.S., M.R.C.S., L.R.C.P., appointed Honorary Surgeon to the Invalid Asylum, Stoke Newington, *vice* C. A. James, M.R.C.S., L.R.C.P., D.P.H., appointed Consulting Surgeon.

ELLIOTT, J., M.D., B.Sc.Lond., appointed Honorary Physician to the Chester General Infirmary, *vice* Mr. Dobie, resigned.

ELLIS, H. D'Arcy, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Brierley Hill Urban District Council.

HODGES, James, M.R.C.S.Eng., L.S.A., appointed Senior Medical Officer to the Suffolk General Hospital.

JACOB, E. L., M.R.C.S.Eng., appointed Medical Officer of Health for Leathernead.

JAMES, Brindley J., M.R.C.S.Eng., L.R.C.P.L., appointed Medical Referee to the Hammersmith District of the Royal London Friendly Society, and Medical Officer to the St. Mary's Training College, Brook Green, Hammersmith.

KINGSTON, P. J., M.R.C.S., L.R.C.P.Lond., appointed an Honorary Medical Officer to the Yeovil and District Hospital and Dispensary, *vice* R. Aldridge, M.D.Edin., M.R.C.S., resigned.

LAWFORD, John Boaring, F.R.C.S.Eng., appointed Ophthalmic Surgeon to St. Thomas's Hospital.

MACNAB, Robert, M.D.Glasg., F.R.C.S.Edin., appointed Honorary Consulting Medical Officer to the Suffolk General Hospital.

MAHOOD, A. E., M.B.R.U.I., M.Ch., appointed Medical Officer for the Northam District of the Bideford Union.

MORTEN, Miss Honnor, appointed Lecturer on First Aid and Hygiene, under the Technical Education Board of the London County Council.

OLIPHANT, Frank, M.B.Edin., appointed Junior House-Surgeon to the Chesterfield Hospital.

PEARCE, A. Chaning, M.B.Lond., appointed House-Physician to the Victoria Hospital for Children, Queen's Road, Chelsea.

STEPHENS, Edward, L.R.C.P.Edin., L.M., reappointed Medical Officer of Health to the Chard Rural Sanitary District, and Medical Officer for the Ilminster District of the Chard Union.

STOCKER, Mr. J. W., appointed Medical Officer for the No. 6 District of the Romford Union.

THOMSON, J. A. M., L.R.C.P., L.R.C.S.I., appointed Medical Officer of Health to the Bradford-on-Avon Rural Sanitary Authority, *vice* William Adye, M.D.Edin.

WALKER, H. Secker, F.R.C.S., appointed Lecturer on Ophthalmology and Otology at the Yorkshire College, Leeds.

WHITE, Octavius, M., M.R.C.S., L.S.A., appointed Medical Officer to the Royal Naval College, Eltham.

MORRISON, J. T. J., M.A.M.B., B.C.Cantab., F.R.C.S.Eng., appointed Assistant to the Chair of Surgery in the Mason College, Birmingham.

ERRATUM.—The notification of the appointment of Mr. C. W. Vine, last week, should have read "appointed Relieving Officer to the Portsea Island Union," instead of District Medical Officer.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Percy Kidd: On a Successful Case of Paracentesis Pericardii. Dr. E. Cautley: The Treatment of Empyemata in Children, based on an Analysis of Eighty-six Cases.

TUESDAY.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. —Dr. Seymour Taylor: Cases of Thoracic Aneurysm.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, 3 P.M.—Lecture by Dr. Gowers.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Card specimens at 8 P.M. by Messrs. Hodge and Ridley, Mr. Lawford, Dr. Argyll Robertson, Mr. Marcus Gunn, and Mr. E. Clarke. Papers: M. Darier: Subconjunctival Injections of Mercury. Mr. Jessop: Two Cases of Diphtheritic Ophthalmia Treated by Klein's Antitoxin. Mr. Wray: Removal of the Lens in High Myopia with a Case of —23 D. Dr. G. Ogilvie: A Case of Double Optic Atrophy with Peculiar Visual Fields. Dr. G. Mackay: Eyesight and the Public Services.

HARVEIAN SOCIETY, 8.30 P.M.—Mr. Frederick Treves: A Series of Cases of Removal of the Appendix for Relapsing Typhlitis.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. C. Bucknill: A Case of Cow-pox in Man. Mr. Keetley: On Intestinal Affections requiring Surgical Treatment. Card specimens by Dr. Abraham, Messrs. Keetley and Bidwell.

WEST KENT MEDICO-CHIRURGICAL SOCIETY, 8.15 P.M.—Dr. Morgan Dockrell: Cutaneous Syphilis.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

DEANE.—On January 8th, at Scothorne Villa, near Lincoln, the wife of Samuel R. Deane, surgeon, etc., of a son.

MARRIAGE.

PRINCE—WILTSHIRE.—On the 15th inst., at Bradwell Church, Great Yarmouth, by the Rev J. F. Hastings, B.A., brother-in-law of the bride, assisted by the Rev. John Walker, M.A., rector of Bradwell, Hugh Tennant, second son of the late Thomas Tennant Prince, of Laurel Lodge, Barnet, to Edith Alice, third daughter of Charles Henry Wiltshire, of Bradwell House, Great Yarmouth.

DEATHS.

CARPENTER.—On December 28th, 1894, at Stann Creek, Brit. Honduras, Amelia Carpenter, the beloved wife of P. T. Carpenter, Esq., M.R.C.S. Eng., assistant colonial surgeon, of peritonitis.

HICKS.—On January 17th, 1895, at Oakhurst, Rexhill, in his 58th year, John Abernethy Hicks, L.F.P.S. & L.M.Glasg., L.S.A.Lond., son of the late John Hicks, surgeon, of Emsworth, Hants, and son-in-law of the late Charles Davenport, surgeon, of Abridge and Chigwell Row, Essex. Interred at Epping, Essex.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. F., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL EYE HOSPITAL, Southwark. *Hours of Attendance.*—Daily, 2. *Operation Days.*—Daily.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 2; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 1.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—Tu., W. Th., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

PAKEHA wishes to know the books necessary to read for the M.D.Durh. practitioners degree, and will be obliged for the information.

T. C. P. desires to learn whether there is on the South Coast a convalescent home, open to receive patients from any part, where a young lady in reduced circumstances can be received for a few weeks on payment of a small sum weekly.

DR. F. PERCY JAMES, Member B.M.A. (Oulton House, near Leeds), asks (1) Is there a home anywhere in the South of England where an orphan girl, aged 15, with commencing phthisis pulmonalis, would be admitted? Her brother could pay a small sum per week (5s.). (2) Is there any home for deaf and dumb children (of the working class)?

TREATMENT OF TAPEWORM.

"BOMBAY" writes: Could any of your readers kindly inform me of the best method of destroying the tapeworm? Pomegranate and male fern in 3j doses on an empty stomach have been administered. The male fern always expels the worm, but it always returns.

FEVER HOSPITALS.

M.O.H. writes that the urban district council for which he acts as medical officer intend to build a fever hospital. He asks to be referred to any authority who would be able to furnish him with information as to the structure, probable number of beds, staff, etc., required. The district contains about 10,000 inhabitants, more than half of the middle class.

PLACENTAL HÆMORRHAGE.

DR. WALTER DICKSON (Hungerford, Berks) writes: In the report of an interesting discussion, at the annual meeting, on Dr. Smyly's paper on The Treatment of Uterine Hæmorrhage during the last Two Months of Pregnancy, while the treatment of placenta prævia has received very wide consideration, I do not think the same can be said of placental haemorrhage arising from other causes than faulty implantation. Yet such cases seem to occur not infrequently in practice entailing weeks or months in the recumbent posture, and ending in stillbirth and a more or less prolonged puerperium. Also one may be unable to find any renal, cardiac, or syphilitic affection that would indicate appropriate treatment, and it is usually longer in our charge, and calling for almost as much attention as the unavoidable variety. It is a subject that seems to be dealt with very briefly in the textbooks, and one would be glad to have opinions through the BRITISH MEDICAL JOURNAL.

ANSWERS.

E.H.C.—The question is not stated with sufficient precision, as our correspondent does not indicate whether the gentleman practising dentistry who is not qualified as a dentist is qualified as a medical practitioner.

L.R.C.S.I., L.R.C.P.I., will find the information he requires in the Educational Number of the BRITISH MEDICAL JOURNAL, published on September 1st, 1894.

J. G. might consult *Lunacy Law for Medical Men*, by Charles Mercier, M.B.; London: J. and A. Churchill, 1894, 5s., which was reviewed in the BRITISH MEDICAL JOURNAL of January 5th, 1895, p. 23.

W. J. T.—We are informed that at the present time the examiners for entrance to the Army Medical Staff are:—Surgery: Sir William Mac Cormac. Medicine: Dr. Allchin. Anatomy: Mr. G. H. Makins. Science: Dr. T. W. Shore

CAISSON.—Dr. C. T. Williams's work on *Aëro-Therapeutics* (London: Macmillan and Co., 1894, 6s.) contains a brief discussion of caisson disease, which our correspondent might consult in the first place.

INCOME TAX.

M.D.—The fact that the joint income of husband and wife exceeds £500 deprives a married couple from obtaining the abatement from the Inland Revenue. The author of *Income-Tax: How to Get it Refunded* (6, Chichester Road, Paddington), holds this practice of Somerset House to be illegal.

THE COST OF COTTAGE HOSPITALS.

A MEMBER.—Burdett's *Cottage Hospitals* (J. and A. Churchill; 14s.) will afford the information required. The cost of erecting a hospital such as he mentions, and of furnishing it, should not exceed £200 a bed. Furnishing alone is estimated at £25 to £35 a bed; the cost of maintenance averages £48 9s. a bed.

MASTURBATION IN THE YOUNG.

DR. HEYWOOD SMITH (Harley Street, W.) writes: In reply to your correspondent "Alpha," who writes in the BRITISH MEDICAL JOURNAL of January 19th on this subject, both as to the age of the patient and the treatment of this terrible trouble, I write to say that the youngest case I ever saw was a child aged 2 years, brought in its mother's arms to the Hospital for Women many years ago. The child was ailing and fretting, and its expression bordered on imbecility. I first of all ringed the clitoris, passing a silver wire through it and twisting it over a penholder. This had the desired effect for a time as it prevented the child touching itself for a fortnight. At the end of that time, however, she began the old habit again, when I removed the ring and gave bromide of ammonium and tincture of Indian hemp, with the result that the child got quite well, the expression becoming quite rational.

MR. ALEX. D. H. LEADMAN (Pocklington) writes: "Alpha" should try painting the clitoris and meatus with a 20 per cent. solution of cocaine; and if he will write to me I can supply him with several details too lengthy to occupy your space.

M.R.C.P. writes: Masturbation, judging from the testimony of intelligent anxious parents, can undoubtedly occur in a little girl aged 8 or younger. It may probably occur as early in childhood as sucking the thumb, and with as little vicious intention. In the BRITISH MEDICAL JOURNAL, 1889, vol. ii, p. 1315, I referred to successful treatment by means of a "cage," secured in its place by lock and key, and worn at night or when the child is alone, so as to render the practice impossible. When any suitable case comes under my notice I continue to recommend such an appliance with good results. To prevent the mischievous first departure caution should be adopted in regard to leaving little girls alone with big boys. Children, especially little boys, should not sleep with unworthy nurses.

EXAMINATIONS IN PHYSIOLOGY.

MEMBER B.M.A.—It is no doubt quite possible that a candidate would get through the physiology part of the primary examination of the F.R.C.S Eng. without having been through a proper course of experimental physiology. But it would be exceedingly improbable; and it would be as unwise for a candidate to attempt the task as to try and get through his anatomy without dissecting. The tendency at all physiological examinations nowadays is to pay very great attention to the practical work, and to insist as far as possible on the candidates having performed themselves the experiments of which they write or speak.

CARIOUS TEETH AND THE PUBLIC SERVICES.

ODONTOBLAST.—If the teeth of a candidate for the Medical Service are extensively diseased, or if several be wanting, or if there be any affection of the jaws which would interfere with mastication and, perhaps, speech, he would be declined. If, however, he were to reappear with his mouth fitted for mastication by the dental art, he would probably, if there were no other physical objections, and no indication of delicacy of constitution, be accepted. Each case would be decided on its own merits.

NOTES, LETTERS, Etc.

IGNORANCE OF TROPICAL DISEASES.

WE have received a communication from the Secretary of the School of Medicine, Edinburgh, with regard to a sentence in the leading article published in the BRITISH MEDICAL JOURNAL of December 29th, under the above heading. The sentence in question referred "to the general absence in the English medical schools of any provision for teaching or acquiring even a rudimentary knowledge of the important subject of tropical disease." The Secretary points out that a course of lectures, thirty in number, on diseases of the tropics and climatology, is given by Dr. Felkin in the School of Medicine, Edinburgh. We were aware of Dr. Felkin's praiseworthy effort to systematise instruction in diseases of the tropics; but one swallow does not make a summer, and the fact that a course of lectures is given in Edinburgh does not invalidate our statement as to the general absence of any such provision in English medical schools.

OXYGEN LOCALLY IN TREATMENT OF WOUNDS AND ULCERS.

MR. GEORGE STOKER (Hertford Street, W.) writes: I have not had the privilege of reading Dr. Campbell Black's pamphlet from which he quotes. It is possible, no doubt, that some of the same reasons that led Dr. Campbell Black and others to suggest chlorides, peroxide of hydrogen, and other oxidising agents, led me to use oxygen and ozone: but, to borrow a commercial metaphor, they have dealt with the agents of the firm, who have failed to supply their wants, whilst I have dealt with the principal, and have had all my wants supplied. The treatment was first suggested to me by repeated observations of wounds exposed to pure air, and without any dressing. I venture to believe I am the first to have either suggested or practised my system, and I will feel grateful if anyone can point out to me where the records of a similar system and of cases cured thereby are to be found.

Food Poisoning.

Dr. J. F. Boyes (Jersey) writes: In your article of January 12th relating to the above subject it was stated that soup was left all night in the vessel in which it was made, covered loosely by a lid. Possibly this covering of the soup in the vessel may have caused ptomaine generation. That, at least, was my experience in making essence of beef. The fresh beef was put into a covered earthen vessel with a little water, and this was put into the oven at night and allowed to remain all night. The oven was sufficiently warm to stew it, but as the fire died out towards morning it became cool and the beef essence was quite cold when taken out. Now, on all occasions when this was tried the beef essence became quite tainted; but if it was made from the same beef in the daytime when the oven was hot, and was then taken out warm and allowed to cool, all was right. In many cookery books it is directed to pour the food that is cooked out of the vessel into another clean one, and not allowed to cool in the vessel in which it was cooked. Possibly in the case stated the seasoning in the soup may have hidden any slight putrefactive taste.

Income-Tax.

Messrs. A. Chapman and Co. (The Income-Tax Repayment Agency, 6, Chichester Road, Paddington), write: We shall feel obliged by your giving us a small place in the British Medical Journal to remind your readers that the time for claiming a refund of income-tax for the three years ended April 5th, 1894, is fast growing short, and that any delay now may cause the refund for the first of these three years to be forfeited. The claims can be made for a refund of the duty paid or deducted on pay, salary, wage, or pension, rent of houses and land, interest on mortgage, on British, Colonial, and foreign stocks, dividends of all companies, even when declared "free of tax;" in full, if the income hitherto has been less than £150, or on £125, if it has hitherto been less than £400. For the current year the limit of exemption is £160 instead of £150; £160 are allowed free on incomes not exceeding £400, and £100 are allowed free on incomes over £400, but not exceeding £500. A claim can also be made for the past three years on life insurance premiums to the extent of one-sixth of the total income. In many cases a refund is still obtainable if the profits for the past year have not reached the amount of the assessment, but this refund can only be obtained for that year.

The Use of Ox Marrow.

Dr. Charles W. Chapman (Weymouth) writes: Having some reason to believe in the value of ox marrow I would urge that it should be used fresh and uncooked. It can be taken on bread for many weeks continuously without difficulty, as I have found in a patient under my care. As marrow is obtainable in the smallest village I see no excuse for ordering "preparations" of it. From the commercial success of the innumerable prepared foods it is evident the profession has not sufficiently recognised the great value of freshness in articles of food. Dr. Barlow at the College of Physicians put the matter of freshness very pithily when he spoke of fresh milk as "living food." There seems, however, in the eyes of some people a peculiar fascination for foods in bottles or tins with a mysterious name.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(**A**) Mr. C. N. Arnold, Salisbury; C. F. M. Althorp, M.B., Bradford; Dr. J. Althaus, London; Mr. A. Atkinson, London; Messrs. D. Appleton and Co., New York; Mr. P. T. Adams, Maidstone; Army Medical Corps; Mr. M. Andrews, London; Dr. A. Alexander, Buckhurst. (**B**) Mr. W. B. Benham, Oxford; Mr. W. H. Brown, London; Dr. R. Broadbent, Leicester; Dr. T. L. Brunton, London; Bombay; British Gynecological Society, the Secretary of, London; Mr. H. L. Barnard, London; British Laryngological Association, the Honorary Secretary of, London; Dr. J. Barr, Liverpool. (**C**) Messrs. A. Chapman and Co., London; Mr. H. B. Collins, Kingston-on-Thames; Mr. E. Child, New Malden; R. K. B. Crawford, M.B., Keswick; Mr. W. B. Cosens, London; Mr. F. Copeland, London; Mr. F. Conner, London; Dr. F. E. Clarke, Boyle; Mr. A. Cargill, Edinburgh; Dr. C. W. Chapman, London; Mr. S. A. Clarke, Walthamstow; Mr. E. H. Corder, Worcester; Mr. E. E. Crisp, Stafford; Carliol; Messrs. A. J. Cambridge and Co., London; Mr. T. A. Colt, Portsea; Curiosity; Dr. E. Clarke, London; Cataract. (**D**) Mr. T. H. Drinklehurst, Weymouth; Mr. A. E. Davis, Blyth; Mr. W. Dalton, Blackpool; E. Duthie, M.B., Aberdeen; Mr. E. Daunt, Bexley; Mr. W. Dickson, Hungerford; Mr. M. J. Dawson, Leeds; Dunedin; Mr. A. Douglas, Birmingham; Mr. A. M. Dow, Leeds; Mr. D. L. Davies, Criccieth; Mr. S. R. Deane, Lincoln. (**E**) Dr. G. Elam, London. (**F**. Fair Play; Mr. J. Freeland, London; R. W. Fell, M.B., Crook; Mr. M. Flynn, London; Mr. J. R. Forrest, Bristol; Sir Joseph Fayrer, London; Dr. R. Ferguson, Dublin; Mr. H. A. Fotherby, London. (**G**) Mr. F. G. Gardner, Warrington; G. F.; Mr. J. Gould, Hatherleigh; Dr. W. Gayton, London. (**H**) Dr. G. E. Harrison, London; Mr. H. C. Hamilton, Puerto de la Luz; Mr. E. W. Hoare, Cork; Dr. W. M. Hutton, Edinburgh; H. C. F.; T. F. Haydon, M.B., Marlborough; House-Surgeon; Mr. A. W. Harrison, London; Mr. J. A. Hicks, Bexhill-on-Sea; Mr. W. H. Hughes, Ashton-under-Lyne; Mr. L. de C. Harston, Pirbright; Dr. T. P. Harvey, St. Leonards-on-Sea. (**J**) Dr. J. H. Johnstone-Lavis, Monte Carlo; Mr. F. P. James, Leeds; Mr. G. T. James, London; J. L. (**K**) Mr. A. Kinsey-Morgan, Bournemouth; Dr. N. K. H. Kane, Kingston Hill; Mr. J. R. Keith, Aberdeen; Mr. I. H. G. Kerr, London. (**L**) Laryngological Society of London, the Secretary of, London; Dr. R. Lee, London; Dr. C. Latter, Folkestone; Mr. A. D. H. Leadman, Pocklington; Mr. H. Littlewood, Leeds; L.R.C.S.I., L.R.C.P. J. Leishman, M.B., Aberdeen; Mr. J. Lawrence-Hamilton, Brighton. (**M**) R. W. Marsden, M.B., Manchester; Messrs. Maw, Son, and Thompson, London; Mr. W. Marriott, London; Medicus; W. McWalters, M.B., Newton Stewart; M.D., Club Doctor; Melita; Mr. F. Morley, Portsmouth; Dr. D. Mackintosh, Forres; M.D.; Member; Microscope; M.B.; Medical Officer of Health; Mr. B. F. Meadows, Hastings. (**N**) Mr. R. Newstead, London; Mr. E. F. Neve, Brighton; Dr. T. Nicholson, Hull. (**O**) Opinion; J. Owen, M.B., Swansea; Dr. J. W. O'Bryen, London; F. Oliphant, M.B., London; Odontoblast. (**P**) Mr. W. T. Perkins, London; Plymouth Medical Society, the Secretary of, Plymouth; H. W. Pigeon, M.B., Hull; Dr. R. Philip, Edinburgh; Mr. R. W. Parker, London. (**R**) W. Russell, M.B., Paisley; Mr. C. Ruffy, London; G. Rose, M.B., Aberdeen; Mr. N. Redhind, Hull; Mr. G. W. Richardson, Durham; Mr. R. N. Ramsay, Edinburgh; Mr. H. Rix, London; Mr. A. Ravenhill, London; Dr. R. R. Rentoul, Liverpool; Dr. Ryan, London; Mr. S. T. Rake, Chepstow; Mr. A. Roche, Dublin. (**S**) Mr. J. Startin, London; Mr. W. G. Stevens, Renfrew; Spero; Mr. N. Stevenson, London; W. C. Sharpe, M.B., Matlock Bridge; Mr. W. F. Sheard, London; Dr. H. Smith, London; Scipio; Messrs. Street and Co., London; Society of Apothecaries, the Secretary of, London; Mr. R. Slecte, Liverpool; Dr. W. Smith, Sutton; Dr. R. Saundby, Birmingham; Swansea Medical Society, the Honorary Secretary of, Swansea; Mr. G. Stoker, London; Dr. J. E. Squire, London; Mr. R. B. Sidebotham, Glossop. (**T**) Dr. S. Tidey, Florence; J. C. Thresh, M.B., Chelmsford; Miss L. Twining, Tunbridge Wells; T. C. P.; W. E. Tressider, M.B., Nottingham; Mr. W. G. Ternan, Dublin. (**W**) Mr. O. M. White, Eltham; Messrs. Warrick Bros., London; Dr. H. W. Webber, Rickmansworth; Mr. G. E. Williamson, Newcastle-on-Tyne; Mr. H. S. Walker, Leeds; Mr. H. White, Manchester; Dr. Hugh Woods, London; Mr. E. W. Wallis, London; Mr. C. E. G. Wright, Edinburgh; etc.

BOOKS, Etc., RECEIVED.

Notes on Medical Nursing. By the late Dr. J. Anderson. Edited by Ethel F. Lamport. Second Edition. London: H. K. Lewis. 1895. 2s. 6d.

The Droitwich Brine Baths as Therapeutic Agents in Various Diseases. By W. H. Tomlins, L.R.C.P., M.R.C.S. London: H. K. Lewis. 1895. 1s.

A Handbook of the Diseases of the Eye and their Treatment. By H. R. Swanzy, M.B. Fifth Edition. Edited, under supervision of the author, by Louis Werner, M.B. London: H. K. Lewis. 1895. 10s. 6d.

On Respiration in Singing. By Dr. Joal (of Mont Dore). Translated and Edited by Dr. R. N. Wolfenden. London: F. J. Rebman. 1895. 5s.

Probationary Curative Detention of the Alleged Insane. By Dr. Norman Kerr. London: John Bale and Sons. 1894.

Transactions of the Pathological Society of London. Vol. 45. London: Smith, Elder, and Co. 1894.

Les Nouvelles Méthodes dans le Traitement de la Diphtérie. Par Dr. de Cresantignes. Paris: Société d'Editions Scientifiques. 1895. Fr. 2.

London Temperance Hospital. Registrar's Report of the Medical, Surgical, and Ophthalmic Cases admitted during the year 1893. By Dr. L. Wilde. London: J. Vincent and Son. 3s. 6d.

The Galenical Preparations of the British Pharmacopœia. By C. O. Hawthorne, M.B. London: J. and A. Churchill. 1895. 4s. 6d.

Allgemeine Physiologie: ein Grundriss der Lehre vom Leben. Von Dr. M. Verworn. Jena: Gustav Fischer. 1895. M. 15.

Elektrophysiologie. Von Dr. W. Biedermann. Erste Abtheilung. Jena: Gustav Fischer. 1895. M. 9.

Lehrbuch der allgemeinen und speciellen pathologischen Anatomie. Von Dr. E. Ziegler. Erster Band. Allgemeine Pathologie. Jena: Gustav Fischer. 1895. M. 11.50.

The Last Abbot of Glastonbury and his Companions. By F. A. Gasquet, D.D. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1895. 7s. 6d.

How to Live in Tropical Africa. By Dr. J. Murray. London and Liverpool: George Philip and Son. 1895. 5s.

*** In forwarding books the publishers are requested to state the selling prices.

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N.B.—It is against the rules of the Post Office to recieve letters at *Postes Restantes* addressed either in initials or numbers.

CLINICAL OBSERVATIONS

ON THE DISRUPTION OF IMPACTED BILIARY CALCULI, INCLUDING THREE CASES IN WHICH A GALL STONE IN THE COMMON DUCT WAS BROKEN UP BY THE NEEDLE.[1]

By T. PRIDGIN TEALE, F.R.C.S., F.R.S.,
Consulting Surgeon to the Leeds General Infirmary.

The surgical attack upon distended gall bladder and obstruction of bile ducts by gall stones is so recent that it is easy to trace many of the various steps which have led to the position in which the subject stands at the present day. I well remember one of the earliest operations, being present when the surgeon, I am not sure whether it was Mr. McGill or Mr. Robson, having opened a distended gall bladder and removed therefrom several calculi, discovered to his dismay that there were others lower down in the cystic duct which could not be seized by forceps. After a few minutes' consideration he began to manipulate the obstructing calculi by the fingers in the peritoneal cavity, and to the delight of all present succeeded in pressing them back into the gall bladder, where they could be seized by forceps and removed.

Some little time after, a similar case occurred to myself. A calculus was lying in the commencement of the cystic duct, so that about a fifth of its bare surface could be felt from the gall bladder, but the gall stone itself was too large to pass upwards through the entrance to the gall bladder by any amount of pressure short of actual crushing. Whether I tried to crush it or not I cannot remember, as the crushing of calculi in the ducts was then in its infancy, but this is what I did. Finding that I could, with the nail of the forefinger, break off bit by bit the surface of the calculus, I set to work and removed it piecemeal.

More recently, about two years ago, I dealt with a similar case in a more rapid manner. After removal of several calculi from the gall bladder, I felt the surface of another in the commencement of the cystic duct, which was far too large to be thrust backward into the gall bladder. Having at hand a No. 1 trocar I punctured the exposed surface from the open gall bladder whilst fixing the calculus with the thumb and forefinger in the abdominal cavity, and thus rapidly broke up and extracted the stone. There is no need to detain you with the more generally prevalent practice of crushing the impacted calculus by squeezing by the fingers or by forceps through the wall of the duct. A further method has been for some years suggested, but to what extent it has been put in practice I am not able to say—that is, to break up the calculus by an acupuncture needle traversing the wall of the duct. The structure of most biliary calculi is such that if the calculus be pierced by a needle it breaks or splits up into fragments, which may often then be easily crushed into smaller fragments by the finger and thumb. This was the method adopted in the three cases which follow, two of which recovered, the third ending fatally.

Case I.—February 10th, 1893. Mr. W., aged 62, a patient of Dr. Dickey, of Colne, "had suffered from jaundice for eight months, having had no previous attack. He had suffered frequent severe paroxysms of pain, which latterly occurred every week, and were accompanied by shivering and rises of temperature to 103° and 104°. Shortly before the operation these attacks were so intense that it was thought he might die in one of them. He himself felt that he could not stand any more, and therefore he decided upon submitting to operation. He was weak and worn to a skeleton."

The operation proved to be difficult. The abdomen was small and shrunken, and the liver was large and thick-edged. The gall bladder was shrivelled and empty, deeply seated behind the thick edge of the liver, and could only be discovered after considerable search. It was clearly impossible to gain anything through the gall bladder. At last, after further careful search in the neighbourhood of the duodenum, the tip of the finger discovered, in what seemed to be the position of the common duct, an oval body of the size of a haricot bean. It could not be grasped by the finger and thumb, nor by forceps. Pressure seemed for a time to make no change in the rounded body; but, after many attempts with the tip of the finger to crush it, it seeemed to have a crack in the middle. Then I attempted to break it up with the acupuncture needle, puncturing it many times. At last it seemed to disappear, and could not be recognised either by myself or by Mr. Hartley, who was assisting me. This being the first case I had treated in this way, as a precaution a drainage tube reaching to the subhepatic space was inserted. His progress after the operation was satisfactory. About three weeks after the operation he had an attack of pain and collapse, and about this time bile first appeared in the evacuations, and the jaundice began gradually to fade. Again, seven weeks after the operation, there was a second severe attack of pain, which was relieved by morphine. Dr. Dickey, suspecting that the pain might be from the passing of a portion of gall stone, had the evacuations examined, and about half a gall stone was discovered and seen by him; unfortunately, it was not preserved. From the day of the operation all rigors ceased, and the only attacks of pain were the two which seemed to be associated with passing of fragments. The patient is now stout and well.

Case II.—January, 1894. Mrs. X., aged 35, a patient of Mr. Bowman and Mr. Green, of Ripon, had been deeply jaundiced for nearly three months, having never had any severe paroxysms of pain. As she was losing condition, and was beginning to suffer from irritation of the skin, it was decided to explore, especially as a lump could be felt in the region of the gall bladder. In this operation I was assisted by Mr. Jessop and Mr. Hartley. The gall bladder was moderately distended, and contained several very hard calculi. On examining further a calculus was detected, about half an inch in diameter, in the early part of the common bile duct. The calculus proved to be extremely hard, of such a degree as I have never observed in a biliary calculus. After ineffectual attempts to crush between the fingers I made attempts to traverse the calculus with a strong acupuncture needle. These were at first unsuccessful because of the stony hardness of the calculus. At last it was transfixed, and then it broke up, so that we were all convinced that it was reduced to several fragments. The gall bladder was stitched to the surface, and a drainage tube was passed down to the seat of acupuncture. After the operation there was a profuse flow of bile through the opened gall bladder. Severe abdominal pain set in early, and she died on the third day. As there was no *post-mortem* examination, I am not able to explain the rapidly fatal result, but I am inclined to attribute it in some way to the difficulty of the manipulations caused by the stony hardness of the calculus.

Case III.—Mrs. D., aged 40, a patient of Mr. Hillaby, of Pontefract, had suffered from complete jaundice for months, when I visited her in February last. As she was not suffering very acutely, and was not much worn down, it was decided to wait a few weeks, in the hope that, if the cause of the jaundice were a gall stone in the common duct, it might spontaneously escape.

In April there had been no amendment; she had become greatly emaciated, and was suffering intolerably from irritation of the skin, the skin of the legs being covered with small sores and scabs from scratching.

On April 25th, 1894, the abdomen was opened, and from a moderately distended gall bladder several calculi were removed. On searching further we discovered in the common duct a gall stone apparently about half an inch in diameter. This could be easily fixed between the thumb and finger, and after transfixion by the acupuncture needle was felt to break up, the fragments being further broken by crushing by the finger and thumb. After this it was very difficult to detect any lump or swelling in the site of the obstruction. The opening in the gall bladder was stitched to the wound, but no drainage tube was inserted into the abdomen. Her progress, as far as the wound was concerned, was perfectly satisfactory. Bile began to flow from the gall bladder in

[1] Read before the Leeds and West Riding Medico-Chirurgical Society on Friday, January 11th.

small quantity, 2 or 3 ounces a day. She at once lost the irritation of skin, had good nights, to which she had long been a stranger, enjoyed her food, and gained flesh. The subsequent course of this case is most peculiar and difficult to explain. Two points became clear. She at once lost almost completely the irritation of the skin, and the sores resulting from it rapidly healed. Indeed, the night after the operation was the first restful night she had had for some time. The second point was that she very soon began to thrive and gain flesh. Also within an hour or two after the operation she vomited fluid tinged green, from which we inferred—wrongly as it turned out—that the flow of bile into the bowel was re-established. Notwithstanding all this, the jaundice continued, the urine was generally deeply tinged with bile, and the evacuations continued to be of the tint of pale brown paper, not clearly containing bile. And yet—and this is the curious point—℥ij or ℥iij of bile daily escaped from the opening in the gall bladder. At the end of a month, by daily syringing of the gall bladder numerous fragments of calculus, evidently portions of the gall stone broken up by the needle, regurgitated from the common duct, were washed out, along with two or three small oval calculi which must have descended from the hepatic ducts. Four facts at this period seem to be clear: (1) That the calculus in the common duct had undergone complete disruption by means of the needle and crushing; (2) that the fragments had failed to escape along the duct into the bowel, but had worked their way backward into the gall bladder; (3) that the passage from the bile tracts into the bowel was not free; (4) that, although there was an escape for bile through the open gall bladder, only a small proportion of the normal quantity of bile made its way through this biliary fistula. The puzzle of the case seemed to be this: Seeing that there is an obvious escape for bile through the established biliary fistula, and that apparently no bile passes into the bowel, why do we not have an escape of 20 or 30 ounces instead of 2 or 3 through the biliary fistula? And seeing that there is a vent for the bile, why does not the jaundice disappear?

At the end of eight weeks I thought it right to reopen the abdomen, in order to make sure that there was no fragment of calculus still impacted in the common duct. A careful search failed to detect a trace of any gall stone or hardness, or suspicion of a fragment, either in the cystic or common duct. And a further examination of the hepatic ducts failed to discover any source of obstruction in them. This second operation was attended with no drawbacks. The jaundice continued, the small flow of bile continued, she was restful, rarely had a trace of the irritation of skin, gained flesh, and, on leaving a month afterwards, was able to walk about.

On January 3rd, 1895, Mr. Hillaby reports "that she can go about and walk a mile. The jaundice, which had almost vanished, had again become marked. At times there is itching of skin, but never so distinct as before the operation. Flow from the fistula, variable. There is always some fine biliary *débris* washed out when the fistula is syringed."

The case remains as much a puzzle as ever.

From the foregoing cases we may fairly infer that the use of the needle is a very valuable addition to our means of dealing with impacted biliary calculi, and may prove to be an important substitute for the crushing forceps. Where the gall stone will yield to the crushing effect of the thumb and forefinger, this is probably the best and safest method. But when the finger crushing fails, then I expect that the needle will prove to be more certain and less dangerous than either the use of crushing forceps or removal of the calculus by incision of the duct.

MEDICAL LEGISLATORS IN BELGIUM.—In the last Belgian Parliament there were two representatives of the medical profession in the Senate in the persons of Professor Crocq, of Brussels, and Dr. Soupart of Ghent, and three in the Chamber of Representatives, namely, Drs. Thiriar, of Soignies; Heynen, of Neufchateau; and Delvaux, of Dinart. In the new legislature there are still only two medical senators, namely, Drs. Van den Corput, of Brussels, and Thiriar, of Soignies, but the number of medical members of the lower house has risen to four. These are Drs. Heynen and Delvaux, who have been re-elected, and Drs. Gillard and Rouvaux, of Namur.

ON THE CLINICAL CONFUSION BETWEEN DISTENSION OF THE GALL BLADDER AND MOVABLE KIDNEY.[1]

By HENRY MORRIS, M.A., M.B., F.R.C.S.,
Surgeon to the Middlesex Hospital.

PERHAPS it does not on first thought seem that there is much resemblance between an enlarged gall bladder and a movable kidney. Yet experience shows that the one is often confused with the other, and that, too, by most capable clinicians. Much more frequently the enlarged gall bladder is mistaken for a movable kidney; but occasionally the opposite error is made. Not rarely the two abnormalities coexist, and then one may be diagnosed and the other overlooked. I have now seen both present in the same person so many times that I have come to the conclusion there is in some instances a causal relationship between them.

If we inquire in which sex gall stones and enlarged gall bladder are generally found the answer is not uncertain; women are much the most frequently affected. A glance at the surgical registrar's (Mr. Leopold Hudson) reports of my own hospital shows that in the four years 1890-93 10 patients suffering from gall stones were under surgical treatment, and of these 9 were females. So also of movable kidney. During the same period there were 19 patients with movable kidney subjected to nephrorrhaphy, and of these 17 were women and 2 men. It is true that a third male patient, making the twentieth case of movable kidney, was also under treatment within this time, but in him the mobility of the kidney had been caused by a large retroperitoneal abscess due to caries of the seventh, eighth, and ninth dorsal vertebræ, and the kidney was pushed forwards by, and moved upon the front of the abscess. Dr. Hare's figures are almost the same as these, for out of 23 cases of movable kidney 20 were in women. Thus we see from these few figures—and a larger number of cases will but confirm the statement—that both enlarged gall bladder and movable kidney are from seven to nine times more frequent in women than in men.[2]

The question as to which kidney is more frequently movable hardly affects the matter under consideration, but it is pretty certain that the right kidney is nearly thirteen times more often movable than the left.[3]

We have then these three noticeable facts: (1) That movable kidney and enlarged gall bladder are each much more frequently met with in women than in men. (2) The right kidney is many times more frequently movable than the left; and (3) movable kidney and enlarged gall bladder often occur in the same person. Another point is that though most of the women with movable kidney, and also those with biliary troubles, have borne several children, some of my patients were barren married women, or single women who had never been pregnant.

Now, can we piece these facts together to explain the association of the two states in the same person? I think we find the explanation in tight lacing, or, as no woman ever admits to have tight-laced, I will say in the time honoured fashion of wearing corsets. Lacing, I believe, causes displacement and mobility of the kidney; and it also causes displacement of the liver, kinking of the gall ducts, and the formation of gall stones as the result of obstruction to the ready flow of the bile in the ducts.

I think, too, that whereas the downward pressure of the liver induces mobility of the kidney, the mobility of the kidney in turn reacts upon the gall bladder, and causes its distension by dragging upon the duodenum and the bile ducts and thus obstructing the passage of the bile. In this way we can understand how it is that women are frequently the subjects at once of distended gall bladder and movable right

[1] A Paper read before the Metropolitan Counties Branch, North London District, January 10th, 1895.

[2] Landau's tables show 273 women and 41 men out of 314 cases of movable kidney.

[3] Of 173 cases, according to Landau, in which the side is noted 152 were right and 12 left kidneys, and in 9 both kidneys were movable.

kidney. That only a few women who tight lace get either an enlarged gall bladder or a movable kidney does not invalidate the argument, because the shape of the thorax of some, the amount of fat in others, and the natural strength of the visceral connections in others, may frustrate the injurious effects of lacing.

There are, of course, other causes of movable kidney and of biliary calculi; and several reasons, anatomical and mechanical, have been propounded to explain why the right kidney is so much more frequently movable than the left.

But a more important practical question is, "What symptoms are there common to movable kidney and enlarged gall bladder that the one comes to be often mistaken for the other? There are several. Both enlarged gall bladder and movable kidney may present as a tumour in the right hypochondriac and umbilical regions. Either tumour may be capable of being pushed back into the loin or over to the left of the median line. In both cases the tumour is more or less firm, or elastic, and smooth. In both cases it may be either very tender or not at all so. In either case it may be, or seem to be, round or oval, or shaped like an egg, a pear, or an orange, or a sausage. I have known each to present a smooth, firm, and rounded projection on its surface; in the case of the kidney due to a cyst beneath the front of the capsule; in the gall bladder to a calculus in a pouch in its anterior wall. Both may have either a resonant or a dull note on percussion in front. Both give rise to various dyspeptic symptoms—nausea, sickness, flatulence, pain after eating, and constipation. Either may give rise to paroxysmal attacks of severe colic, the maximum intensity of which is referred to the situation below the ribs on the right side of the abdomen. In enlarged gall bladder these attacks are due to the sudden impaction of a gall stone in the cystic duct; in movable kidney, to kinking or rotation of the ureter or renal vessels. Either may give rise to jaundice, gastric and intestinal catarrh, or even peritonitis, though neither does so in the usual run of cases. With either there may be considerable displacement of the colon and small intestine; or adhesions, and matting together of the intestines and omentum in front of the tumour, may occur. In neither case does the condition of the urine often help us, and sometimes it actually misleads, as there may be albumen in the case of distension of the gall bladder or bile in the case of movable kidney.

There are some conditions of the gall bladder which render the confusion all the more probable; (*a*) the enlarged gall bladder is sometimes so much elongated and so curved that it assumes the reniform outline; (*b*) it can in some cases be pushed quite back into the loin and there felt with the fingers pressed into the iliocostal space; (*c*) the liver in some instances is so much displaced towards the pelvis that the gall bladder if enlarged gets doubled back beneath the liver and is felt more as a loin tumour than as an abdominal one. Conversely there are some conditions of the kidney which cause it to resemble an enlarged gall bladder. (*a*) The kidney in some instances is tilted as on an inclined plane from behind forwards, with its lower end just behind the anterior abdominal wall, and then in position and direction it closely simulates the gall bladder; (*b*) the kidney is sometimes adherent to the right lobe of the liver as well as to the gall bladder, the adhesions allowing of free movements of the kidney across the umbilicus as well as back into the loin, yet not without dragging on the liver.

As illustrating some of the points just mentioned, I may refer to three cases briefly related in my Cavendish Lecture, delivered in 1893, and published in the *Lancet* on June 17th, 1893. To these cases I might add about a dozen others. I will however select six cases, to show the clinical confusion between the two affections. I might also, did time permit, quote cases to show how patients who have recovered from dropsy of the gall bladder, gall stones, or cholecystitis, have subsequently suffered from hydronephrosis or pyonephrosis in a movable right kidney, and how in these cases the mobility of the kidney had almost certainly preceded the biliary troubles, and had very probably been the cause of them.

Case I. *Suppurative Cholecystitis: Cholecystotomy.*—A. M., aged 31, was admitted into the Middlesex Hospital under Dr. Finlay on September 24th, 1891, for violent pain in the abdomen, accompanied by vomiting, which had continued for three days; no jaundice. There were great tenderness and pain and distension of the abdomen, the maximum intensity of which was in the right iliac region. There was slight dulness in the right iliac fossa, but nothing abnormal could be felt in the pelvis on vaginal and rectal examination. She had the facial aspect of intense pain; temperature 99.4° F., pulse 160 and extremely weak, respirations 30, tongue coated, bowels confined, and she had not passed urine for several hours. She stated that, eleven years before, she had been in the hospital for an attack very similar to the present. Except small-pox when 8 years old she had had no other illnesses.

A consultation was called for the following day to consider the question of an exploratory operation; but her pulse at the time of consultation was so weak and rapid and her condition altogether so extremely bad that an operation, it was thought, would kill her right off. She was ordered half a grain of opium every six hours, ʒ ij of brandy daily, and nutrient enemata.

The course of the case during the next fortnight was one of slow but unexpected improvement. The bowels acted, the general abdominal pain and tenderness diminished. As the flatulent distension subsided one could make out a distinct hard swelling in the abdomen to the right of the umbilicus, and extending into the right iliac region; it had a well-defined edge, and gave a dull note on percussion (see Fig. 1). It was tender and at times the seat

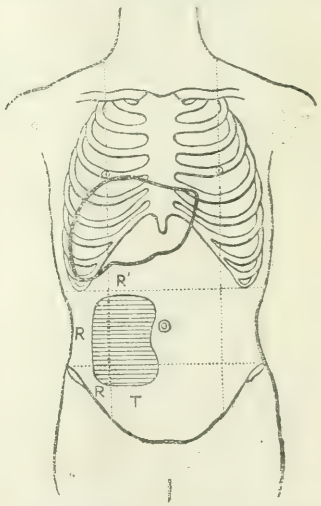


Fig. 1.—This diagram shows the tumour; R, R', indicate the areas of resonance; T, the tympanitic area.

of great pain. Various opinions were expressed as to the nature of the swelling.

October 12th, 1891.—On the eighteenth day after admission she was sufficiently strong to undergo an exploratory operation. When the patient was under the anæsthetic the swelling could be readily felt through the right loin, whilst in front the lower edge of the liver and what was taken for gall bladder were felt, and neither seemed to be involved in the tumour. An incision was made in the linea semilunaris, and the swelling examined with the hand in the abdominal cavity. Even then it was impossible to define the limits or connections of the tumour owing to its being completely surrounded by recent very vascular adhesions. The uterus and pelvic organ were free, and the right kidney was felt for but could not be found; the left kidney was readily discovered.

As the swelling was elastic and cystlike, and appeared to be retroperitoneal, and as the adhesions bled freely at every point detached, an attempt was made to reach the tumour from the loin. The edges of the abdominal wound were held together by temporary silk sutures clipped by long pressure forceps. An incision as for exploring the right kidney from behind was made in the loin. No sign of a right kidney was discovered, and the colon, and small intestine carrying before them the peritoneum, bulged into the wound.

It was thus made clear that the tumour was within the peritoneal cavity, and too deeply placed for successful manipulation from the loin, so the patient was replaced on her back, and the tumour was separated from some of its adhesions; whilst doing this it gave way, and 20 ounces of thick yellow fœtid pus escaped. Little or none of the pus escaped into the peritoneal cavity, which was well protected by flat sponges and by the detached adhesions which formed a kind of capsule for the tumour. During the escape of the pus two facetted gall stones were removed. On pulling upon the walls of the collapsed cyst the tumour was proved to be the gall bladder. The right kidney could now be felt high above its normal situation, having been pressed upwards by the great distension of the gall bladder. The cyst and peritoneal cavity were separately well irrigated with hot water. The gall bladder was sutured to the upper angle of the abdominal wound, and drained. The abdominal and lumbar wounds were closed with sutures, a glass drain tube being inserted at the lower angle of the former, and a rubber drain tube at the lumbar wound.

She rallied slowly after the operation, and had a great deal of abdominal pain for thirty-six hours. The glass tube was removed from the abdominal wound on the second day, and the drain tube from the lumbar wound on the fifth day. She then rapidly convalesced. The last sutures, those holding the cyst wall to the abdominal wall, were removed on the eleventh day, and when she left the hospital, on November 16th (thirty-five days after the operation), the opening into the cyst had contracted down to the size of a fine probe, and no bile or mucus was escaping from it. The orifice of the fistula was almost concealed by the puckered folds of the surrounding skin. The fæces and urine were quite natural, and the patient was in good general health.

June 17th, 1894. Came to see me with a slight ventral hernia.

January 1st, 1895. Came again to report that she had kept quite well since the operation.

Case II.—Mrs. T., aged 50 (about), a widow and the mother of a grown-up son and daughter, came to me on April 28th, 1892, accompanied by Sir J. Russell Reynolds, and a note from Dr. Goldsmith, of Bedford. Some six or seven years before she had been seized with an acute pain in the back, and was unable to turn in bed without assistance, and even when assisted, movement caused intense suffering. About this time she discovered a swelling in the abdomen, just below the right costal margin, and soon afterwards she had an attack of jaundice, and the swelling became much bigger. Vomiting and shivering also occurred at this time. The jaundice soon ceased but the swelling persisted, and she had since frequently suffered from abdominal pains, dyspepsia, flatulence, and costiveness, and had become very despondent and nervous about her health. For some time before I saw her she had been complaining of a burning sensation in the right groin, and of a feeling of bearing down in the urethra as though something was forcing its way through the passage. She had vague sensations of fulness, referred to the outlet of the vagina, which I believe were due, so far as they were not neurotic, to the pressure of a pessary which she was wearing, though she had no present uterine displacement.

She had been told, by one of her medical attendants, some year or two ago, that the swelling was connected with the kidney, and the reason for her coming to see me was because a provincial medical friend, who had examined her, and who has himself done some excellent work in the surgery of the kidney, was of opinion that she was suffering from movable kidney.

On examining the abdomen, I found a smooth, uniform, rounded, very hard, movable tumour in the right hypochondriac and lumbar regions. It was felt immediately beneath the parietes, but could be pressed back into the loin, and somewhat beyond the middle line to the left. It moved up and down freely on respiration, and it gave us the impression of being connected with the under surface of the liver. Moreover, when pushing the swelling towards the median line of the abdomen, and dipping the finger tips of the right hand deeply into the loin from the front, and those of the left hand into the ilio-costal space behind, I could distinctly make out the kidney, and found it to be movable in what I have described as the "cinder-sifting" manner, that is, movable in the plane behind the peritoneum, but not capable of forward displacement like a "floating" kidney. My diagnosis was a distended and movable gall bladder, and in this Sir J. Russell Reynolds agreed with me.

On August 20th, 1892, Sir J. Russell Reynolds being present, I performed cholecystotomy through the linea semilunaris, and removed forty-nine biliary calculi, which were tightly packed in the gall bladder like bricks in a wall (see Fig. 2). The gall

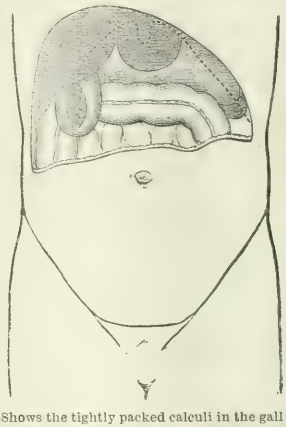


Fig. 2.—Shows the tightly packed calculi in the gall bladder.

bladder was stitched to the abdominal wound. She left London for her home in the country on September 8th, 1892. A slender sinus persisted, through which a very little watery mucus unstained with bile escaped. Through this sinus a small biliary calculus was passed in July, 1893. In October, 1893, two more calculi came away. The larger of the two was extracted by Dr. McDermott, of Kingstown, Dublin; the other escaped spontaneously.

On November 23rd, 1893, I removed, when she was lying on the sofa in my consulting room, ten calculi from a sac-like subcutaneous pouch into which the fistula led. After this the fistula closed, but two months ago it reopened and discharged a little fluid for a day or two, but no stone escaped. It is now healed, and on January 6th, 1895, she wrote: "My general health is good. I can walk well, and all the pain and sensations I complained of have ceased since the operation."

Case III. *Dropsy of Gall Bladder; Cholelithiasis: Movable Right Kidney: Cholecystotomy.*—Miss C., aged 56, was seen with Dr. Harbord, of Bedford Square, in January, 1893. She was supposed to be suffering from an enlarged, painful, and movable kidney. For two years she had had a painful movable swelling in the right side of the abdomen, which had caused her grave distress, and was associated with vomiting, indigestion, and loss of weight. She had been obliged to keep a good deal to her bed, and of late the swelling had increased in size, and been more painful. Her urine was always normal. She had never had jaundice. There was tenderness in the right hypochondrium. The right kidney could easily be made out; it was somewhat enlarged, and was very movable, but was not tender, and did not account for the whole of the swelling. It seemed to me that the greatest tenderness was over the gall bladder, which I thought was enlarged, with its

lower end moving in the arc of a circle, and independently of the kidney.

January 25th, 1893. I advised an operation, which was accepted, and so, in presence of Dr. Harbord and Dr. Elam who kindly assisted me, I explored the abdomen through an incision in the upper part of the linea semilunaris, and found the gall bladder distended to the size of a large pear, and free of adhesions. A quantity of green inspissated fluid and two square gall stones agglutinated together were removed from the gall bladder. A third calculus was extracted from the cystic duct after breaking it into two parts with a pair of forceps.

The gall bladder was stitched to the edges of the abdominal wound and a drain tube was placed within the gall bladder. Fine silk sutures fixed the peritoneal and muscular coats of the gall bladder to the parietal peritoneum and then five silkworm sutures transfixed the skin and the whole of the coats of the gall bladder.

The patient made an excellent recovery but with a fistula. Her general health improved materially, she lost all her pain and resumed an active life, but the discomfort of a very profuse escape of bile caused much annoyance. There were, however, no ill effects from lack of bile in the intestinal tube, no emaciation, and no absence of bile in the fæces.

April 7th, 1893. Saw her with Dr. Elam. A narrow biliary fistula still remained. As she would not consent to any operation to close the fistula an apparatus, precisely on the model of the urinal I had made many years ago for lumbar renal fistula, was suggested by Dr. Elam and made by Mr. Bailey, of Oxford Street. This has answered admirably in her case, collecting the bile which escapes and thus keeping her skin dry and her clothes clean. No operation on the kidney has been required.

Case iv. *Cholecystotomy for Dropsy of Gall Bladder; Choledectotomy for Impacted Calculus; Nephrorrhaphy of Right Kidney.*—Mrs. E. S., aged 48, a very short, slender woman, older looking than her years, was sent to me February 21st, 1894, by Dr. Golding Bird Collet, of Worthing. She was in much suffering, and her pinched, worn face showed it, and she described her life as not being worth living as it was. For a long time she had had undue frequency of micturition, and imperfect control over the sphincter ani. For the last ten years she had been "liverish" but never jaundiced. For the last three years had suffered much abdominal pain, and Dr. Collet for some considerable time had been aware of a very movable tumour in the right side of her abdomen and right renal region, *but which at times quite disappeared.* Dr. Collet had always found the urine normal, and had never seen reason to suspect gall stones. The seat of the pain had always been the movable tumour. The patient stated that the amount of pain, and the distinctness of the tumour were not associated with any variation in the frequency of micturition, or in the amount of urine passed, as is so often observed in cases of intermittent hydronephrosis. There was a very movable and enlarged swelling in the right lumbar and iliac regions. The outline of it was not reniform: there was resonance over the front of it; it could be pushed quite back into the loin, and it did not descend on deep inspiration. The liver was much tilted and depressed downwards, so that its front edge was as low as the iliac crest, and it could not be pushed up so as to get the upper edge of the swelling free. Whilst I felt sure the kidney was movable, I was in some doubt about the swelling being entirely renal. I re-examined her on the day before the operation specially with the thought of a distended gall bladder: but I came to the conclusion that the swelling would probably prove to be a movable hydronephrotic kidney, partly overlaid by the very downwardly-displaced liver.

On February 23rd, Dr. Collet being present, I made an incision in the right loin down to the kidney, which was so excessively movable that it was difficult to keep it in contact with my finger whilst I was exposing it. It was of normal size and appearance. Having closely inspected the kidney, and pressed it all over between my finger and thumb, I next felt along the upper part of the ureter, and, in doing so, came upon a hard oval-shaped concretion the size of a nutmeg. It was situated in the iliac fossa, along the line of the ureter, but was covered by more tissue than the ureter is, and was not resting on the posterior wall of the pelvis, as a calculus in the ureter would be. My next thought was of a concretion in the appendix cæci, then of gall stone, but the situation was more in favour of the appendix concretion than of the gall stone. One thing was pretty evident, that whatever the nature of the mass it was tightly fitted in a tubular cavity. However, on cutting on to it in the depth of the loin wound, some glutinous white fluid escaped, and a typical gall stone was seen. This at once gave the clue to the nature of the abdominal swelling, so a sponge was packed in the wound, the edges of which were held together by temporary sutures, and the patient was turned over on to her back.

An incision along the right linea semilunaris soon exposed the upper surface of the liver, greatly tilted downwards. The index finger was hooked round the anterior edge of the liver, and when the liver by this means was well raised an enlarged gall bladder of the shape of an orange was brought into view. On tapping it, a large quantity of white glairy fluid like white of egg escaped, but there was no calculus in the gall bladder. Some omentum and transverse colon, which were slackly adherent to it, were detached from the front of the gall bladder, so that the index finger could be passed along the cystic duct to its lower end, where the calculus was found tightly jammed. I exposed the incision I had already made in the posterior wall of this duct and enlarging it sufficiently, removed the gall stone through it.

Seven or eight Lembert's sutures closed this opening, and the omentum, previously detached from the gall bladder, was stitched over the line of incision in the duct. The trocar puncture in the gall bladder was enlarged, and the edges stitched to the parietal peritoneum and skin. The rest of the abdominal wound was closed in the usual manner. A drain tube was placed in the gall bladder. To show how much the liver and gall bladder were displaced downwards, I may mention that the incision in the abdominal wall was made more than an inch lower than usual, and yet that the gall bladder had to be sutured to the lower angle of the incision, the liver itself being beneath the rest of the incision. Generally, in my experience, the gall bladder has to be fixed at or near the upper angle of the parietal wound and when contracted it cannot always be made to reach ev that.

As I was draining the gall bladder itself, and had securely closed my incision in the cystic duct, I did not drain the peritoneum. After closing the wound in the back of the peritoneum with catgut sutures I fixed the kidney to the fascia and deep muscles of the loin, and closed the lumbar wound as usual. There was a free escape of bile all the next day, then none for three days: subsequently a little bile continued to escape till the fistulous orifice was pared with a tenotome and the surfaces brought together by wire sutures. It then closed completely and finally, and the patient returned home quite well on March 29th, and has remained well since.

Case v. *Dropsy of Gall Bladder Treated for Movable Kidney: Cholecystotomy.*—Mrs. S., aged 42, had been treated by her country medical attendant for movable right kidney, and was wearing a belt which had been ordered by a physician in a large northern town to keep the supposed wandering organ in place. I saw her in consultation with Dr. Leonard W. Sedgwick on February 13th, 1894. She had been seized by a severe attack of pain whilst dining out the evening before, and this had not entirely passed off. She was in bed, and immediately the abdomen was examined, an elongated, very hard sausage-shaped tumour was felt. It extended under the margin and seemed attached to the under surface of the liver. The lower end of this long tumour moved freely, and could be pushed across the median line to the left of the umbilicus: it could also be pushed far back into the right loin. The right kidney could be felt on deep inspiration by bimanual examination, when the fingers of the hand in front were dipped behind the movable sausage-shaped tumour. This kidney moved in a vertical plane fairly freely, but not excessively freely; it did not float forwards at all, and any lateral movement it had could not be well ascertained because of the tumour in front of it.

The history of the case was that severe abdominal pain first came on suddenly twelve years before when on board ship, and without being provoked by any cause known to her. A second attack occurred two years later, and others at long intervals up to two years ago, when they began to recur ver

often; for some time past the pain had been almost constant. The pain was described as having always been in the right hypochondrium, and as lasting for a few hours, but of late it had continued many days at a stretch. She was suffering a great deal and constantly, and could feel the "hard lump," and thought it was aggravated by the "state of her liver," and at the time of the periods. She has always been of a rather constipated habit. The urine was quite normal.

On February 15th, Dr. W. Sedgwick being present, I made an incision in the right semilunar line over the tumour, exposed the gall bladder, which was drawn out upon the surface and opened, a large quantity of thick mucus and two gall stones being removed. One of the stones was black, smooth, and facetted on one surface, and had been lying in the gall bladder; the other, like a nutmeg in shape and colour, was partly in the cystic duct. The cut edges of the gall bladder were united to the upper end of the abdominal wound, and the operation completed in the usual way.

She made an excellent recovery. The sutures were removed on the eighth and tenth days. A large quantity of bile escaped daily from the third day after the operation, yet the motions showed no lack of bile in them, and there were no constitutional ill effects.

On March 14th an attempt was made to close the fistulous opening into the gall bladder by inserting a silver wire suture after freshening the mucous surface, but without success; subsequently a modified Hainsby's truss was worn, and later cotton wool and collodion were tried.

Though now free of pain and in excellent health, the escape of bile still goes on, and there is this interesting fact about it, that during the day the discharge is slight, as it is also in the early part of the night, but in the early morning and until breakfast has been taken the flow is considerable. It would seem that during the hours whilst there is food in the upper bowel the bile finds its way into the intestine, but that during the hours of storage, whilst the small intestine is empty, the bile finds an easy exit through the fistula, which it thus tends to keep open.

Case vi.—A. T., aged 45, a housewife, married; has had four children. For the last thirteen years has suffered from "displacement of the womb." Six years ago was very ill for two or three weeks. Her doctor told her that she had an internal abscess, and she passed a lot of matter by the bowel. Soon after this time her medical man discovered that she had a lump in her right side, and he told her that she had gall stones. During her illness she had sharp shooting pains in the "stomach" on the right side directly under the ribs, and this was shortly followed by jaundice. For three years she suffered from periodical attacks of violent pain, but on the first occasion only did she have jaundice. She never remembers having passed a stone by the bowel. She had been seen in the out-patient department by one of the assistant physicians, who sent her into my ward as a case of movable kidney.

Patient is a highly neurotic woman, who on admission was complaining of swelling on the right side of the abdomen, with occasional violent attacks of pain. On examination there is a tumour about the size and shape of a pear, immediately below and projecting from under the right costal arch. The swelling is smooth, with an even, somewhat elastic surface; it is slightly movable in a horizontal direction, descends freely on inspiration, and is tender on palpation. It lies slightly external to the right semilunar line. *There is resonance over the tumour, and also above it (as indicated in Fig. 1).* Urine 1022, no albumen, copious deposit of lithates. At a consultation of four members of the staff two were of opinion that the "lump" was a movable kidney.

December 6th. An incision was made in the right semilunar line and the abdominal cavity opened. A much distended gall bladder was found, which was drawn up to the surface, and ℥ iijss of ropy white mucus were withdrawn. The bladder contained no bile. A large calculus was found in the cystic duct, which was pushed up into the gall bladder and removed. The stone was the size of a peach stone, single and unfacetted. The opening in the gall bladder was stitched to the abdominal wound.

December 26th. Wound healed soundly, except for a fistula discharging a quantity of normal bile. Edges of fistula pared and a hare-lip pin inserted. It was peculiar in this case that though there was no absence of bile in the fæces before the operation, yet yeast-like stools were passed for some days afterwards. It is possible these were due to some inflammatory swelling of the common bile duct or to the temporary blockage of the duct by thickened mucus.

December 31st. Flow of bile increased.

January 11th. Only one or two drops of bile in the dressings during twenty-four hours. The fistula has since closed.

It now remains to consider how we can diagnose the one class of cases from the other. The first and most important thing is to bear in mind that the enlarged gall bladder as well as the kidney is a frequent cause of *movable* abdominal tumour. This is far from being sufficiently recognised. The second is, always to inquire if there has been a distinct attack of jaundice. The third is that the tumour caused by an enlarged gall bladder can in almost all cases be invariably felt, whereas a movable kidney (unless also enlarged) cannot. The latter is sometimes easily detected, at others not at all. An enlarged gall bladder is always easily felt by pressure on the front of the abdomen.

Fourthly, the fact that the size of the tumour varies from time to time goes for nothing in the diagnosis, unless it is clear that with the diminution of the swelling there invariably follows a marked increase in the quantity of urine voided. Movable kidneys are frequently of smaller size than normal, and are often degenerated in texture as well as diminutive in size; but for all that they have a tendency to swell from vascular turgescence, or, if hydronephrotic, from accumulation of urine; owing to their shifting position they are also more palpable at one time than at another. A distended gall bladder also will vary in size if the cystic duct is blocked by a calculus which from time to time slips back into the gall bladder, and thus opens the channel for the escape of the pent-up bile or mucus. But with few exceptions there is always evidence of some swelling as long as the cause of the obstruction remains unremoved. Fifthly, a gall bladder with calculi feels much harder than a movable kidney.

A sixth feature is the range and character of the mobility. However free the movements of a gall bladder, they take place in the arc of a circle the centre of which is a point beneath the edge of the right lobe of the liver. Around this point the free or lower extremity can be moved to the left and to the right of a vertical line drawn through the axis of the swelling, and further in the direction towards the left than towards the right. It can be pushed upwards and it can be also pushed backwards; but unless the liver, as a whole, is unduly mobile[4] the gall bladder cannot be pushed downwards towards the pelvis though it descends a little on deep inspiration.

The kidney, on the other hand, moves bodily from place to place within the limits of its loose connections; it will go up or down or inwards towards the median line or beyond it, and it has an especial tendency to slip, like a greasy mass, beneath the finger tips upwards and backwards, into its normal position—unless prevented from doing so by the pressure of the other hand on the abdominal wall above it. The kidney, in other words, has a tendency to spring back into its proper position in the loin; whereas the enlarged gall bladder, though it can, in many cases, be pushed so far back into the loin that its free end can be readily felt in the ilio-costal space behind, has the tendency to spring back again to its position in the front of the abdomen.

In presence of a distended gall bladder it is generally possible to grasp the kidney, or at any rate its lower extremity between the two hands by pushing the tumour forwards and towards the median line with the back of the finger tips of the right hand, and at the same time pressing forwards the loin with the fingers of the left hand. In this way the two organs are separately distinguished at the same moment. The kidney may likewise be thus found to move independently of the tumour formed by the gall bladder. This can often best be accomplished with the patient lying on the left side.

In the descriptions of the symptoms of movable kidney too much stress is apt to be laid upon an undue hollowness and resonance, with diminished resistance, in the loin. These are very unreliable symptoms (1) because in some positions of

[4] The whole liver is sometimes movable to a very remarkable extent.

the trunk and thighs there is much hollowness in the ilio-costal space when the kidney is in its proper place; (2) the mass of muscle and fat in this region often prevents a tympanitic note being elicited when the kidney is displaced; and (3) the natural position of the kidney is so much under cover of the lower part of the thorax that hollowness of the loin and resistance in the ilio-costal space have no bearing upon it naturally.

Another diagnostic feature to which too much importance has been attached is the relation of the colon to the tumour. Normally the colon is on the outer side of the right kidney and the transverse colon below and behind the gall bladder; and Ziemssen pointed out that if the gut is inflated with air, the kidney is pushed backwards and the gall bladder upwards. But it is so common for the ascending colon and the hepatic flexure of the colon to be considerably displaced inwards and downwards, especially when either of these affections exists, that the result of inflation is very misleading. The so displaced colon on becoming inflated will push the kidney upwards, just as, in the natural position of the viscera, it does the gall bladder.

Aspiration of the swelling has sometimes been proposed as a means of diagnosis; but apart from the danger attaching to this procedure (unless the tumour is adherent to the parietes) there is the further objection that the character of the fluid withdrawn may afford no assistance at all. In many cases the contents of a distended gall bladder are of a dropsical nature, very like the fluid of a hydatid cyst; in other cases it is glairy mucus quite unstained by bile; and in others again it is pus.

In the doubtful cases an exploratory incision is the only means of positively deciding the diagnosis; and as this is quite free of risk it should be early resorted to, with full confidence that if the tumour be an enlarged gall bladder the earlier it is dealt with by operation the better for the patient; and that if it be a movable kidney nephrorrhaphy will relieve the symptoms and prevent hydronephrotic changes which shortly destroy the kidney.

ON THE PATHOLOGY OF THE GOUTY PAROXYSM.

By J. B. BERKART, M.D.,
Late Physician to the City of London Hospital for Diseases of the Chest.

According to the prevalent doctrine, the urates deposited in a joint are the immediate cause of the gouty paroxysm; while those that circulate in the blood determine, as shown by their rise and fall, all other symptoms preceding and accompanying the attack. In the belief of many, however, uric acid possesses a morbific influence far exceeding those limits and produces not only by its actual or assumed presence, but even by the mere "tendency to its formation,"[1] a variety of functional derangements and anatomical lesions which, by their common etiological factor, become part and parcel of the ubiquitous gout.

Views such as these involve of necessity important practical consequences, and it is therefore not unreasonable to ask upon what evidence they are founded. It is clear that the mere association of two phenomena, however constant it may be, does not prove *per se* that the one in particular is the cause of the other. But, strangely enough, the more recent literature on the subject is almost completely silent on the point here referred to. Only Sir Alfred B. Garrod[2] raised the question, whether the deposit may not after all be a consequence of the process; but as he could not find uric acid in the blister fluid from an inflamed part, while he readily detected it in that from a healthy spot, he inferred that the vessels destroyed it,[3] and upon the teleological ground that the object of the inflammatory process was to rid the system of the impurity, he replied in the negative. All other writers have assumed the pathogenic properties of urates as an axiom and have started with this foregone conclusion; so that the truth or the fallacy of the principle at issue can only be tested by the accounts of the action, which are variously given, of the alleged *materia peccans*.

From the theory, which Sir Dyce Duckworth[4] adopts, it does not necessarily follow, that uric acid is at all concerned in the causation of a gouty paroxysm. Indeed, he himself claims for it only a subordinate share. Gout, he maintains, is an "alimentary neurosis," and the essence of the disease lies in a peculiar derangement of innervation. The irritation of a hypothetical centre produces the local symptoms, but this result may also ensue in the absence of the uric acid.

In the opinion of Sir Alfred B. Garrod,[5] uric acid has chiefly a mechanical effect. Though he casually speaks of it as a "poison," which bears to the big toe a similar relation as strychnine does to the spinal cord, yet the whole drift of his views on the matter tends to convey the impression, that the morbific substance mainly acts by its mass. When the urates, he explains, in some way or another accumulate in the blood; and when the blood, for some reason or another, loses the power of holding them in solution, they are then deposited in an articular cartilage, which is specially predisposed to their reception either by an acid reaction, or by the residues of former injury or disease. Their infiltration, he insists, precedes; their crystallisation within the interstices of the tissues provokes, the inflammatory changes.

Without discussing the numerous propositions by means of which Sir Alfred B. Garrod arrived at his conclusion, it suffices to say that the objective signs of a typical attack of gout are absolutely inconsistent with his assumption of their origin. The great swelling around the joint, the extensive collateral œdema, the distended and prominent subcutaneous veins, and the desquamation of the epidermis point to a more serious disturbance in the deeper structures of the part than can ever be produced by a primary chondritis, due, as supposed, to the gradual arrest in only minute quantities of a perfectly aseptic material.

But Sir Alfred B. Garrod himself has roused suspicion as to the tenability of his teaching. Referring to the formation of a tophus in the ear, he states that the urates are in all probability at first contained in a clear fluid, which by gradual reabsorption becomes more and more opaque till it is finally converted into the chalky mass; and that this true gout of the ear takes place as a rule unperceived, and is rarely attended by pain, because the cartilage is a non-vascular tissue, and as such not prone to inflammatory reaction. All this will of course be readily assented to. But that being so, what reason is there for supposing that the same process in the same tissue produces, when it passes in a closed cavity, results altogether different from what it invariably does when it passes openly and under our eyes? Granted that, considered as organs, the ear and the joint are not quite comparable. But the joint as such does not necessarily alter the conspicuous effects of urates, as is amply shown by the fact that not infrequently bulky deposits in it, fully crystallised as postulated, are found quite by accident, when during life there never was the least trace of the local symptoms of gout.

Theories, however, proverbially die hard. To save one of them, another is generally invented. In the face of the incontestable facts just alluded to, it was intended to rescue the one in vogue by assuming an *arthritis divitum* and an *arthritis pauperum*. In the former, uric acid is said to have its typical mode of manifestation, not so in the latter. The reason given is that, in the one, it is derived from the ingesta, and in the other, from the disintegration of the existing tissues. But the time, let us hope, is past when the luxuries of the table were immediately and bodily transported to the liver, to be there at once converted, by the deranged functions of that organ, into lithates, and discharged into the circulation to exact a cruel punishment for a slight indiscretion. So far as is known at present, every trace of the nature of the ingesta is lost this side the mucous membrane of the intestinal canal; and whenever uric acid is found, it is the result of cell activity. Meanwhile this much is certain, that the poor, whose ill fate compels them to the most frugal habits, have typical gout with uratic deposits. But whether such deposits ever occur without symptoms in

[1] Jonathan Hutchinson, The Relations which exist between Gout and Rheumatism, *Transactions* of the International Medical Congress, 1881, vol. vii.

[2] Alfred Baring Garrod, *A Treatise on Gout and Rheumatic Gout*. Third Edition. 1876.

[3] *Op. cit.*, p. 279.

[4] Sir Dyce Duckworth, *A Treatise on Gout*.

[5] *Op. cit.*

the rich and luxurious is unknown, as the latter are not subjected to *post-mortem* examinations.

Pfeiffer[6] and those with whom he agrees attribute to uric acid an indefinite kind of chemical action. But the validity of their view may easily be estimated from a brief statement of it. With the hackneyed help of a reduced alkalinity of the blood and of an acidity of the tissues, the urates are, this time in the intervals between the attacks, removed from the system, and deposited in the skin and other parts around as well as within the joint. The storage of the impurities is generally effected without the least inconvenience, and there is only the report of one case, in which a sharp twinge in the big toe announced the arrival of the uric acid immediately after the exhibition of a few drops of acid. The cleansing once effected, there is a feeling of physical well-being and of mental vigour. The urates themselves are completely inert in their respective recesses, and are, "not unlike dust, mere matter out of place." But this arrangement is disturbed by the return of the blood to its normal state of alkalinity. The deposits are redissolved and eliminated by the kidneys. Yet by the act of their solution they acquire an affinity to the tissues which have hitherto given them shelter, and thus cause the gouty paroxysm. The process, though extremely painful, is nevertheless salutary in the end, inasmuch as it carries off an injurious material from within or around a joint. Unfortunately, universal experience is opposed to at least this part of the theory, since the tophaceous masses increase with each attack instead of diminishing, as they ought to do on the above hypothesis.

The microscopic examination of gouty tissues led Ebstein[7] to believe that uric acid behaved like an acid or alkali, and produced necrosis of the parts with which it came into contact. He inferred this much from his observation that the parts of the cartilage, of the skin, and of the kidneys where the urates were deposited presented a perfectly homogeneous appearance without any trace of structure, and without a vestige of a nucleus; while only in some of them was there a small cell infiltration at the periphery.

But the results of the experiments, which Ebstein performed to prove his theory, are neither convincing in themselves, nor are they in any way applicable to gout in man. The foci of degeneration in the parenchymatous organs of cocks, which he had slowly poisoned by subcutaneous injections of bichromate of potash, or the ureters of which he had ligated, need not necessarily have arisen in the manner alleged; and it would indeed be more than hazardous to fasten arbitrarily upon one circumstance, when there are at the same time other circumstances equally, if not better, able to account for a given effect. At all events, in man, large quantities of uric acid are formed and excreted without any of the supposed consequences, unless every pathological change associated with that substance were immediately attributed to its agency. No argument in this respect can be drawn from the few cases of leukæmia which are reported to have been complicated with gout; for the presence of the presumed *materia peccans* is not in dispute, and, in the abstract, it matters little whether its mass is comparatively small, as in gout, or comparatively large, as in leukæmia. Moreover, trustworthy observers, such as Ranvier[8] and Rindfleisch,[9] have stated that the cartilage cells were normal, notwithstanding their uratic infiltration; and Litten[10] could only find fatty degeneration in a few of them.

But do the facts, to which Ebstein was the first to call attention, really admit of no other interpretation than the one which he has put upon them? On carefully examining a series of microscopic preparations of gouty tissues it will be seen that what he calls "necrosis" is not the result of a sudden destruction such as in this instance the acid or the alkali would be expected to produce; but these changes are the later or rather degenerative stage in a process of slower evolution. To obtain an idea of the nature of this process it is perhaps advisable to study its features as they appear in fibrous tissue—whether in that of ligaments or tendons; or in that of metaplastic origin in cartilage or bone; or in that due to hyperplasia of the intertubular stroma of the kidneys. It will then be found that, at the periphery of the uratic infiltration, the fibres contain a variable number of either elliptical, cubical, or polygonal cells, each with a distinct nucleus and a granular protoplasm. The distribution of those cells may be diffuse over larger or smaller areas of irregular shape; if so, their arrangement is generally this: that not more than two or three of them are contained within one space; subsequently, however, the cells are fused, and become polynuclear and giant cells (Fig. 1b); while at a later stage they undergo



Fig. 1.—Section of tophus in the medullary cavity of the first metatarsal bone. A. A. A. Hyaline areas; B.B. nests of giants cells; C. vascular space in fibrous tissue.

hyaline degeneration, from which a few here and there escape, so that the whole mass is converted into a fine network, the meshes of which are for the most part filled with the hyaline substance.

As a rule there are distinct groups of endothelium, more or less separated from each other, which appear either as longitudinal tracts (Fig. 2*a*) or, according to the direction of the

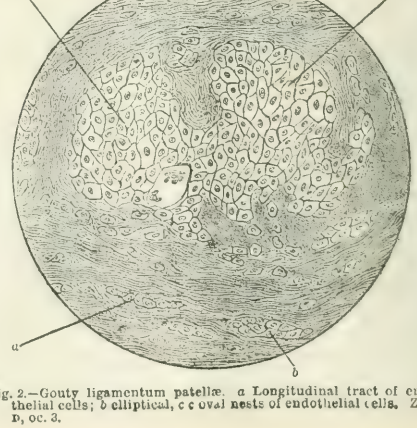


Fig. 2.—Gouty ligamentum patellæ. *a* Longitudinal tract of endothelial cells; *b* elliptical, *c c* oval nests of endothelial cells. Zeiss D, oc. 3.

[6] E. Pfeiffer, *Verhandlungen d. Congr. f inn. Med.*, 1889, etc.
[7] W. Ebstein, *Die Natur u. Behandlung der Gicht*, 1882.
[8] Ranvier, *Manuel d'Histologie pathologique*, 1889.
[9] Rindfleish, *Lehrb d. pathol. Gewebelehre*, 1886.
[10] M Litten, Ein Fall von schwerer Gicht, etc., *Virchow's Archiv*, Bd. lxvi., 1876.

ection, as elliptical (Fig. 2 *b*), oval (Fig. 2 *c*), or round nests. So far as I was able to make out, they seldom attain any considerable size; and the one represented in Fig. 2 *c* is the largest that I have seen. But it is not improbable, that they coalesce by progressive proliferation (as they appear to have done in Fig. 2 *cc*), and thus assume greater dimensions. The reason of the uncertainty on this point lies in their proneness to degeneration. Scarcely are they formed when the central elements lose their nuclei, become homogeneous (Fig. 3 *a*), and take no stain except eosin, picric acid, and acid



Fig. 3.—Tophus from the medullary cavity of the first metatarsal bone; *a*, nests of endothelial cells partially preserved; *b*, *c*, *d*, advancing stages of degeneration; *e*, vessels, Zeiss 16 mm., apochrom.

green. The degeneration proceeds from the centre to the periphery, and Fig. 3 *b c d* show how, gradually, layer after layer becomes involved, till at last every cell is destroyed and nothing is left but a perfectly homogeneous mass (Fig. 3 *c*). Generally, however, the outmost cells are more resistent be-

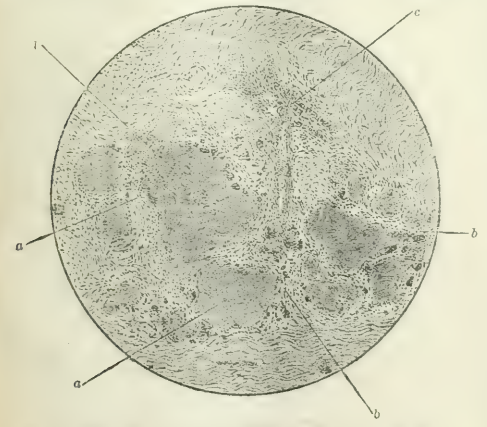


Fig. 4.—Gouty ligamentum patellæ. *a* Hyaline foci with fissures; *b* proliferating capillaries; *c* new formed vessel. Zeiss A, oc. 2.

cause younger; they either retain their shape, or are fused and contain several nuclei, or by the pressure upon them become spindle-shaped or cylindrical.

The homogeneous masses from which the uratic deposits have been removed present a more or less finely striated appearance, and at a more advanced stage also small fissures (Fig. 4). They are not altered by acids or alkalies, nor by alcohol and ether, are slightly swelled by the prolonged action of ammonia, give no amyloid reaction, and behave to stains as already mentioned, so that there is little doubt as to their hyaline nature. The larger and largest foci generally met with have in all probability arisen from the subsequent and gradual infiltration of the fibrous tissue (Fig. 3) by which the smaller were isolated at first.

Concurrently with the endothelial proliferation, a considerable vascularity arises in the remaining portions. Large well-developed and gaping vessels, as well as vascular spaces permeate them everywhere (Fig. 3 *e*) (Fig. 1 *c*). The latter more especially are apt to become cavernous where the resistance of the surrounding tissues is diminished, as in the new-formed synovial fringes, and at the free articular surface of metaplastic cartilage, so that there is often abundant hæmorrhage, parenchymatous as well as into the cavity of the joint. The uratic deposits, so far from avoiding the proximity of blood vessels, as supposed by Sir Alfred B. Garrod and maintained as a dogma by Charcot,[11] are at times found just in their very walls, and a glance at Fig. 4 *b* will show the proliferating capillaries, going towards and encircling the degenerating foci, an occurrence by no means unusual.

The degeneration, however, tends to a more and more complete disintegration. Over large portions of the tissues every vestige of fibre or cell may disappear, and nothing is then visible but rough-looking and knobby masses which stain either diffusely or not at all, and are separated from each other by wide channels. But even before this state is reached, the parts may soften and form cysts, at the periphery of which an abundant infiltration of leucocytes represents a line of demarcation.

While the characters of this process, thus rapidly sketched, are common to it wherever it occurs, they are yet subject to slight modifications, due to the structures in which it originates. I have already mentioned that its starting point in the kidney is the hyperplastic interstitial tissue, and the foci which there arise are generally a mixture of proliferating endothelium with the epithelium of the tubules. They are often seen lying in rows, like beads, along the medullary portion, and are apt to coalesce, whereby they may attain the size of a pea or a bean. The whiteness of the uratic infiltration strikingly contrasts with the darker colour of the surrounding parts.

When present within the bone, the tophaceous growths have their favourite seat in the epiphysial line, and extend hence upwards towards the subchondral region. They often contain small fragments of cartilage, more or less altered, yet sufficiently distinguishable as such. The fact that in the centres of the more distant trabeculæ there may be well preserved parts of cartilage, and also islets of it surrounded on all sides by fatty marrow, renders it probable that the disease has started from cartilaginous remnants which have escaped ossification. It seems to me not impossible that such minute enchondromata were at the bottom of those first attacks of gout which boys are said to have had in public schools, but who, though weighted with the *damnosa hereditas*, could not have had much opportunity of indulging in the alleged exciting cause.

The changes in the articular cartilage are generally more advanced at the margin, close to the insertion of the ligaments, than at the horizontal surface exposed in the cavity of the joint. They vary in different individuals, according to the predominance of the changes in either the cells or in the matrix. I have already alluded to the occasional occurrence of metaplasia, which may be so complete as to leave only a few capsules to show the former existence of the articular covering. More frequent is the simple proliferation of the cells, by which the capsules become distended in the directions of their greater axis—transversely in the flat superficial, vertically in the intermediate layers. As the deposition of the urates proceeds from the centre, where the

[11] Charcot, *Leçons Cliniques sur les Maladies des Vieillards*, 1874.

degeneration begins, towards the periphery, there often appears a free border which has been the fruitful subject of speculation.

The foregoing account of the manner in which Ebstein's necrotic foci arise is obviously incompatible with the supposition that they are due to the action of an acid or an alkali; nor is there the least ground for assuming that uric acid could produce them by any other yet known property. There is indeed a report that, in a dog, sarcomata developed from the exhibition of uric acid;[12] but there is no evidence that they had not existed before. Certain it is that neither the earlier nor the later stages of the process are in any way peculiar to gout; but that they occur in other forms of diseases in which the alleged *materia peccans* has never been suspected nor has ever been demonstrated. Those changes in the bone and cartilage, *minus* the uratic deposits, are described by Ziegler[13] as the constant anatomical substratum of arthritis deformans, and it would be superfluous to insist on the frequency with which hyaline degeneration occurs in general.

None of the theories, which were thus briefly reviewed, affords any proof that uric acid is the cause of gout. Perhaps the time has now arrived when the test tube may cease to be the sole arbiter in deciding on the nature of the disease; and if the anatomical lesions obtain an equal share in the matter, it will be found that the *rôle* of the uric acid is one of a humbler kind than that which it has hitherto been assumed to play.

Before attempting, however, to delineate the pathology of the gouty paroxysm, it will be advisable to state at the outset that the term will here be limited to the series of symptoms which are accompanied with an actual deposit of urates in the affected parts. But this deposit in itself does not constitute gout. Till uratic infiltration is admitted as a general pathological process, analogous to cretification for instance, or to siderosis, it is impossible to comprise under the same heading, or to regard as equivalent one case with intense inflammatory symptoms of the joint, and another in which the morbid material accumulates *in loco*, without the least sign of nutritive disturbances. So long as gout is considered to be a clinical entity, so long is it necessary to reserve that name for the combination of certain phenomena *plus* uratic deposits.

Clinical observation and anatomical research plainly show that all gouty paroxysms are not of the same nature. All forms of disease of the joints—from the simple serous synovitis to the most destructive changes of the organ—may be or become gouty by the addition of urates. This view has long since been urged by Mr. Hutchinson,[14] who stated that gout was invariably rheumatism at first. But its adoption was probably hampered partly by the introduction of a additional unknown quantity; partly by the simplicity of his doctrine that all affections of the joints which arise from "cold" are "rheumatism," and those which arise from "diet" are "gout."

Most frequently, and perhaps most intimately, uratic deposits are connected with a form of panarthritis which chiefly affects the smaller joints of the extremities—the lower more so than the upper, and there again by preference the ball of the big toe. Indeed, the anatomical substratum of the typical gouty paroxysm closely corresponds to the lesions known as arthritis deformans. In both instances the disease probably originates in some kind of atrophy of the substance of the bone. But their more ostensible starting points are, as a rule, the margin of the cartilage, and also the periosteum and the osseous tissue at the spot where the synovial membrane is reflected from the capsule; and in their progress not only the several constituents of the joint, but also the tendons, the surrounding soft parts, and occasionally the adjoining portion of the shaft are involved in the hyperplasia and heteroplasia, so that, besides a gouty arthritis, there may be a gouty periarthritis and a gouty periostitis.

It was, however, not meant to convey by speaking of a "corresponding substratum" that therefore arthritis deformans and gout were identical. Any such idea would be altogether erroneous, and could not for a moment be entertained, considering the clinical manifestations peculiar to each of them. But their points of contact and their points of difference will be at once apparent from the nature of the gouty paroxysm. The very essence of this process—that which immediately induces all the symptoms of the gouty attack—is a necrosis of some parts of the tissues close to or within the joint, following upon the degeneration above described. This mortification in miniature is the primary cause of the pain, of the afflux of blood, of the engorgement of the subcutaneous veins, of the hyperæmic swelling, of the extensive collateral œdema, and of the desquamation of the epidermis. For all and the several of these phenomena, there are the analogues, which arise with proportionately greater intensity from the sudden destruction on a larger scale. Judging by too rigid a standard of general pathology, it would at first sight seem unlikely that all those phenomena could arise from the sudden decay of a nodule of cartilage, or of small parts of fibrous tissue, removed as these are from the contact with the outer atmosphere. Circumstances, however, are here peculiar and complicated. The abnormal and newly-developed vascularity above alluded to, as well as the extensive endarteritis of pre existing vessels, necessarily contribute to modify the effect; and the engorgement of the superficial veins sufficiently indicates the considerable disturbance in the circulation of the deeper structures. Moreover, it is not improbable that when the tissues are soaked with serum, the saprophytic organisms which exist upon the toes,[15] exert some kind of influence, and help to produce the erysipelatous inflammation, which leads not only to the desquamation of the cuticle but occasionally also to the shedding of the nail. Such circumscribed mortification, with the consequences just mentioned, is apt to supervene upon arthritis deformans in all stages of its progress; and this complication is the more readily intelligible since the deformities of the joints are themselves only the resultant, so to say, of an atrophy on the one hand, and of a regenerative but atypical hyperplasia on the other, the former distinctly preponderating.

The degeneration and the necrosis of the tissues are in their turn the result of a profound disturbance of nutrition. The existence of a more or less advanced cachexia is generally admitted, though not described by that term. Sir Alfred B. Garrod speaks of a low state of health as being favourable to the occurrence of the paroxysms. Sir James Paget[16] refers to a scrofulous condition in the later stages; and French physicians draw up a formidable list of illnesses through which the unfortunate individual must pass from the cradle onward till the final declaration of the lurking mischief. Constitutional and local causes have doubtless worked together towards the same end. There is (1) the alleged heredity, which, for obvious reasons however, signifies only that the ascendants had painful diseases of the joints. There is (2) the "habitus" of the patients. Some of these are said to be well developed and muscular, some are unusually obese, but a great many are emaciated, and betray at once the serious nature of their disease. In several cases—one that of a most abstemious man—I have noticed a distinctly cretinoid condition, and it is, therefore, not improbable that there is a local disposition on the part of the osseous system. In another the big toe had to be amputated on account of the complete disorganisation of the joint by what was at first supposed to be a sarcoma, but which at the operation was found to be true gout; and by the kindness of Mr. Shattock I was enabled to examine a piece of the first metatarsal bone. (3) All have diseases of the cardiac muscles; occasionally there is atrophy, generally degeneration succeeding hypertrophy, sometimes with—oftener without—valvular lesions. In the cases which I have examined histologically there were chronic myocarditis with and without fatty infiltration; hyaline degeneration and extensive fragmentation of the fibres with hæmorrhages between them. (4) All of them have chronic endarteritis especially marked in the smaller and smallest vessels. (5) In the vast majority of the gouty there are various diseases of the kidneys, amongst which granular atrophy preponderates. Ebstein is positive that the renal organs may be perfectly normal; but he bases his

[12] Lécorché, *Traité théorique et pratique de la Goutte*, 1881.
[13] Ziegler, *Virchow's Arch.*, Bd. lxx.
[14] *Loc cit.*
[15] Maggiora; Contributo allo studio dei microfiti della pelle del piede *Giornale della R. Soc. d'Igiene*, 1889.
[16] Sir James Paget, *Clinical Lectures and Essays*.

opinion upon one case, in which Cruveilhier[17] merely stated "*rien de bien remarquable*," which may mean anything; and upon another of Bramson,[18] in which the kidneys were not specially mentioned, but in which there was considerable anarsarca. Changes in the proper secreting structures would probably be found on microscopic examination in all cases which at first sight appear to be normal.

Objections may be raised to the view above expressed as to the prevailing feature of gout being one of degeneration, by pointing to cases in which for years attacks had annually occurred twice and oftener; in which the diagnosis was ultimately confirmed by *post-mortem* examinations; yet in which there was no marked failure of health till close upon the end. But such objections are groundless, since the clinical phenomena and the alleged etiological factors upon which, in the absence of tophi, the diagnosis has entirely to rely, are neither severally nor collectively the infallible guides which they are supposed to be. The deposits of urates which are found in the circumstances afford *per se* no indication as to the time, at which they had taken place; but their scantiness would certainly allow the inference that they were formed only shortly before death; for, unless it be assumed that the deposits may be redissolved and reabsorbed—which for various reasons appears unlikely—it is impossible to interpret otherwise than above suggested the cases which may be said to bear upon this point. In one of them, Case 12 for instance, reported by Sir Alfred B. Garrod, the disease commenced at the age of 22, and after numerous attacks during thirty years there was but "a good sprinkling of urates."

The constitutional and local causes which induce degeneration and necrosis of the joint and its surrounding parts are at the same time responsible for the abnormal quantity of the uric acid, which before and during the paroxysm circulates in the blood. A brief excursion into physiology and pathology of this substance will confirm this view.

Uric acid is a normal constituent of the urine, and is not, as was formerly supposed, an antecedent to, or an imperfect form of, urea, but a product *sui generis*. The quantity excreted in 24 hours depends primarily upon an unknown individual peculiarity, and varies considerably amongst different persons in perfect health, so that it is always relatively large in some, and always relatively small in others. Precisely the same occurs, without any assignable reasons, in every person from day to day, as may be seen by continuous series of observations conducted for some time under identical conditions.

Nor is there a definite ratio between uric acid and urea. The normal fluctuations of the nitrogen of uric acid to the total nitrogen, eliminated in 24 hours, range in the widest possible limits, from 1:23 to 1:122.[19] It is therefore manifestly absurd to construct elaborate theories upon the fact, that at a given period of the day, the quotient of urea by uric acid deviated from a fictitious standard.

The average amount discharged in 24 hours is from 0.5 to 1.0 gramme. It is increased by highly nitrogenous food and diminished by vegetable diet; but here also the result is largely determined by idiosyncrasy. By an excessive consumption of meat it has been forced up to an unusual degree;[20] but it must be borne in mind that this result was obtained only by way of experiments which may be once performed but could not possibly be continued for any length of time.

Of the influence which alcoholic drinks have upon the quantity of uric acid very little is known, notwithstanding the confident assumptions in the matter. The only systematic inquiry into this subject is that by August Hermann,[21] who took daily from two to three bottles of wine—Burgundy, Rauenthaler, and Dalmatian—and thereby produced an average increase of not more than 0·04 gramme per diem. So slight an augmentation is insignificant, and Hermann himself attaches no importance to it. But he lays stress on the irregularity of the excretion as shown, on the first day, by a rise of from 0·684 gramme to 0·812 gramme, and by a fall on the third day to 0.643 gramme. As such sudden transitions occur also with a perfectly normal diet,[22] nothing can therefore be inferred from them for the present.

Almost every organ in which uric acid was once found, whether in man or in birds, was in its turn supposed to be the main seat of its formation. According to the view which now prevails, uric acid is derived from the nucleine of all tissues, but more especially from that of the leucocytes. This theory of Horbaczewski's[23] best tallies with known facts. There is an increase of uric acid in all forms of leucocytosis, physiological and pathological, as well as in leukæmia. The same takes place from the disintegration of tissues, especially when accompanied by a regenerative supply of white blood corpuscles, as has been observed for instance in carcinoma of several organs—the liver,[24] the stomach, the uterus, and the œsophagus.[25]

But uric acid is equally formed in dead tissues before active putrefaction sets in. Indeed, Horbaczewski made his experiments with a mixture of blood and splenic juice, which was kept in an incubator. Demme[26] found it in three cases of gangrene of the lower extremities, in which there was no mention of gout, and Bender[27] relates that it was deposited upon the face and the internal organs of the exhumed corpse. Mr. Silcock lately showed me specimens of uratic deposits in the degenerated cartilage of a large choudroma of the lower end of the femur, which had for years been kept at St. Mary's Hospital for the purpose of histological demonstration. Nothing is known of the history of the case, but Mr. Silcock has for several successive terms examined sections of the tumour, and has not noticed the infiltration before.

An overproduction of uric acid in consequence of luxurious habits of life and indulgence in drink is quite possible, but as yet not proved. Such condition, however, could not constitute a "uric acid diathesis," if that term has any meaning; nor could the morbid phenomena, which are supposed to accompany it, be attributed to its product, as is constantly done. Still less is there ground for assuming that, under ordinary circumstances, what is formed is not excreted; considering that, under apparently the most unfavourable conditions, as for instance in leukæmia, enormous quantities of it are freely and completely discharged.

Yet a retention of uric acid does take place, as is shown by the presence of that body in the blood in several forms of disease. The theory of Sir Alfred B Garrod that it arises at first from a functional derangement, and, later on, from anatomical lesions of the kidneys, has been disputed upon the grounds that in some cases of gout the organs were normal; and that in spite of an extensive destruction of their tissues, as in granular atrophy, the average daily quantity was eliminated—statements to the contrary being based upon analyses by faulty methods.

But those objections are unfounded, because the excretion of uric acid is not a mere mechanical process, such as filtration, but a particular organic function of the renal epithelium, which, in its turn, depends, for the due performance of its task, upon the integrity of the cardiac muscles. So long as the energy of the heart is not impaired, so long as compensation is perfect, the renal epithelium is able to completely effect the removal of the uric acid, but it fails to do so, when, from transient or permanent causes, the circulation is seriously deranged.

And, indeed, such retention occurs to a larger or less extent in all forms of diseases in which the heart is affected[28] especially with the commencement of cachexia,

[17] Cruveilhier, *Anatomie Pathologique*, 1829-35. T 1, livr. 4.
[18] Bramson, *Zeitsch. f rotim. Med* Bd iii. 1845.
[19] Salkowski, Über die Grösse der Harnsäureausscheidung, etc., *Virchow's Arch.*, Vol. 117, 1889.—C. Dapper, Über Harnsäureausscheidung b. gesunden Menschen, etc., *Berl. k lin. Woch.*, No. 26, 1893.
[20] Johannes Ranke, *Grundzüge d. Physiologie d. Menschen*, 2nd aufl., 1872.—Ernst Schultze, Über d. Einfluss d. Nahrung auf d. Ausscheidung d. amidartigen Substanzen, *Inaug. Dissert.*, Bonn, 1890.
[21] August Hermann, Über d. Abhängigkeit d. Harnsäureausscheidung von Nahrungs und Genussmitteln, etc., *Deutsch. Arch. f. klin. Med.*, Bd. xlvii., 1888.

[22] Compare the fifth day of observation in Emanuel Formánek's Ueber d. Einfluss kalter Bäder, etc., *Hoppe-Seyler's Zeitsch f. Physiol. Chemie*, Bd. xix, H. 3, 1894.
[23] I. Horbaczewski, Untersuch. üb. d. Entstehung d. Harnsäure im Säugethierorganismus, *Sitzungb d. k. k. Acad. d. Wissensch. in Wien.*, xcviii. Abth, iii., p. 301. *Idem*, C. Abth., iii., p. 78.
[24] Lécorché, *op. cit.* Horbaczewski, *loc. cit.*
[25] Von Noorden, *Lehrb. d. Pathol. d. Stoffwechsels*, 1893.
[26] Demme, *Die Veränderungen d. Gewebe durch Brand*, Frankfurt, 1857
[27] Hoppe-Seyler, *Handb. d. physiol. u. pathol. chemische Analyse*, 5th edit., 183.
[28] Von Jaksch, Ueber d. klin. Bedeutung d. Vorkommens d. Harnsäure im Blute, *Prager Festschrift*, 1890.

although the excretion by the kidneys remains approximately within the normal limits.[29] Not only is uric acid then found in the blood itself, but also in the morbid transudations. In the pleuritic effusion from acute pneumonia or tuberculosis; in the ascites from cancer, or cirrhosis of the liver, and from the various changes in the kidneys; and in the fluid of ovarian cysts and hydroceles in decrepit individuals—in all of them uric acid has been detected even in considerable quantities.[30] The greater part of it has doubtless been brought there; some of it may have formed *in loco*, as was plausibly argued by Dr. Ord,[31] perhaps by the action of a ferment upon the leucocytes, as suggested by von Noorden.[32]

All the elements, the combination of which generally leads to transudations rich in urates, exist in full force in the case of gout. There are, on the one hand, a leucocytosis of polynuclear and small lymphatic corpuscles, as also disintegration of the tissues and various organs which tends to an excessive formation of uric acid; there are, on the other, chronic myocarditis, fatty infiltration or similar degenerative changes of the cardiac muscles which conduce to its retention. Hence from the inflammatory serum which bathes the decaying and dead parts of and around the joint, the specific contents are precipitated, so that the uratic deposits are an epiphenomenon, and not the cause of the gouty paroxysm.

CASE OF ENCYSTED STONE IN THE BLADDER, WITH RUPTURE OF THE CYST, PERITONITIS, AND DEATH.

By WILLIAM ROYDEN, M.A., M.R.C.S., L.R.C.P.,
Burgh St. Margaret, Great Yarmouth.

A RETIRED tradesman, aged 64, had suffered from hæmaturia on and off for nearly ten years. He had no real pain, and, to use his own expression, "if he had not seen the blood in his urine he would not have known that he suffered from any bladder trouble." The blood appeared suddenly, lasted for some days, and disappeared suddenly, and recurred perhaps four or five times in a year.

In September, 1894, I saw him for the first time, and sounded him, but detected no stone. The bleeding had then been going on for a week, and finding after a few days it still persisted and that he was steadily losing flesh and strength, he was visited by Mr. Cadge, of Norwich. At this time the urine had become offensive, it contained a fair amount of dark blood intimately mixed with the urine, but no coagula, very little albumen, no muco-purulent deposit, but small gritty particles of phosphatic matter were discovered. Mr. Cadge sounded, but found no evidence of stone, only a hard smooth bladder, and slight enlargement of the prostate, but not enough to impede the use of instruments. The bladder was washed out with warm water. Three or four weeks after this the patient was seized with sharp pain, and voided a small piece of phosphatic concretion. The pain subsided, but recurred in a short time, and again he passed some phosphatic grit and was relieved. His general health gradually improved; he left his bed, and was able to walk out. The urine became clear and healthy, with only now and then a little blood. In October, however, pain at the end of the penis and vesical tenesmus came on, and persisted for several weeks. Then ensued the fatal seizure. I was suddenly called, and found him in a state of collapse, unable to pass any water, with distended abdomen and all the signs of peritonitis. I passed a soft catheter, and drew off only a little very offensive urine, and tried to wash the bladder out with a few ounces of boracic water, but none returned. His collapse increased, and he died in a few hours.

The necropsy showed acute peritonitis; the bowels were glued together by recent lymph, and there was a quantity of offensive fluid—apparently urine and serum mixed—free in the abdominal cavity. The bladder was flaccid and empty, the muscular walls were of average thickness, the mucous membrane was rather dark in colour. The examination was made under difficulty, and I was not allowed to remove the parts. With the finger, however, the interior of the bladder at first felt smooth and empty, but presently I detected at the lower fundus a small sac with a communication which admitted the tip of the finger unwillingly. In this sac were a quantity of concretions, the largest of which was about the size of a marble; this was composed of white phosphates, loosely compacted into a stone, and had no uric acid nucleus. The sac was apparently composed of mucous and peritoneal coats only, and at its bottom was a round hole through which the urine had escaped to set up the fatal peritonitis.

REMARKS.—The occurrence of encysted stone would not by itself call for special notice, but I have never seen or heard of spontaneous rupture of a portion of the containing sac. Mr. Cadge tells me that he has repeatedly observed fatal peritonitis, the starting point of which was the thin walls o a sac which contained fœtid urine—urine which was probably not regularly changed, and which eventually produced inflammation and even sloughing of the mucous and serous walls of the sac. But he has never seen actual perforation with the escape of urine into the peritoneal cavity.

[29] Von Noorden, *op. cit.*

B. Naunyn, *Uber die Chemie d. Transsudate*, etc. Reichert and Du Bois *Arch. f. Anat. und Physiol.*, 1865.

St. Thomas's Hospital Reports, 1872; On the Relation of Gout to Uric Acid

[32] *Op. cit.*

NOTE UPON A FORM OF CATARRH FOLLOWING RESIDENCE ON THE SUMMIT OF BEN NEVIS.

By A. CAMERON MILLER, M.D.EDIN.,
Fort William, N.B.

THE meteorological observatory on the summit of Ben Nev is was definitely equipped and "staffed" in October, 1883, since which time a regular rotation of officers has been established at intervals of every three months or so. The staff complement ordinarily consists of three individuals, two of whom are engaged in taking and recording observations, the third being told off chiefly for culinary and household work. All three are, as a matter of course, exposed to the rigours and inclemencies of the climate on the top of the mountain, and are thus subject to conditions that, *prima facie*, might be expected to favour the occurrence of catarrhs and inflammations. But experience shows quite a different result. The observatory staff while in actual residence on the summit has been remarkably free from all kinds of ailments during the eleven years that have elapsed since the opening.

The subsequent residence at low level, however, renders the members of the staff peculiarly liable to an affection which they have accustomed themselves to designate as the "Ben Nevis cold." This closely resembles, in most of its features, what we are in the habit of recognising as an influenzal catarrh. The attack generally commences in about forty-eight hours after the patient has taken residence at the low level. First, feelings of shiveriness are experienced, followed by *malaise* and disinclination to exertion of any kind, stuffiness of the nasal passages, sore throat, hoarseness, sometimes cough, coryza, and occasionally tenderness of the conjunctiva and lachrymation. The temperature does not show much disturbance; usually it does not rise above 100° in the evening, although the symptoms become aggravated in the afternoon. Gradually, for a period varying from ten days to three weeks, the patient gets rid of the objective symptoms of the attack. During the whole period he feels uncomfortable and disinclined for work, and this condition persists for some time after the coryza has disappeared. One attack does not seem to have the least protective influence, as recurrences take place in the same individual time after time, but intermissions do occur. Post-primary attacks may be as severe as a primary attack, and an attack following upon one month's residence on the summit may be as severe as an attack following the usual three months' residence. The period of the year seems to exert no special influence, summer attacks being quite as severe as those noted in winter. Certain individuals of the staff seem to be more susceptible than others; and an individual suffering from an ordinary cold at the low level, on mixing with the staff in residence on the summit, almost surely infects them with

catarrh, which, however, seldom endures longer than twenty-four hours.

The history of the interesting condition here sketched points with little doubt to germ influences in the lower atmosphere. At the summit of the mountain organisms do not exist, or, if they do exist, only in innocuous numbers. At the low level they relatively thrive, and, seizing upon the "virgin soil" of a renewed and susceptible mucous surface, they set up the irritative and mildly toxic phenomena described.

In a paper read before the British Medical Association in 1889 the present writer pointed out that, under certain circumstances, advantage might be derived from high level residence in the treatment of tuberculous conditions; and the subject of this note he considers to have a bearing on his views.

TWO CASES OF RAPIDLY SPREADING GANGRENE OF THE UPPER AND LOWER EXTREMITIES: AMPUTATION: RECOVERY.

By J. TERRELL WILLIAMS, M.R.C.S., Etc.,

Senior Honorary Surgeon, North Lonsdale Hospital, Barrow-in-Furness.

Mr. R. Jones's interesting case, published in the British Medical Journal of November 3rd, 1894, has induced me to report two cases recently treated in the North Lonsdale Hospital.

R. W., aged 53, of somewhat intemperate habits, fell while under the influence of drink and dislocated his shoulder (not for the first time). The condition of the shoulder was not discovered until the following morning, when the local doctor reduced the dislocation by manipulation. Within a very few hours the hand was cold, shrivelled, and dark in colour, and deprived entirely of feeling. On admission to the hospital on August 21st, three days after the injury, the hand was black, cold, and shrivelled, at intervals up the forearm and arm, and on the pectoral muscle and in the axilla were large purplish black spots, covered with bulke containing black fluid. Pulsation could be felt high up in the axilla, but not in the radial or brachial artery. The patient was unwilling to have the arm removed at this time; however, after a few days' delay the condition of general gangrene became so marked that he was even anxious to be rid of the offensive odour and pain in the shoulder, which had become very severe. I removed the arm at the level of the insertion of the deltoid. He made an excellent recovery. The artery was firmly plugged from the axilla down to the hand; the veins were uninjured.

W. D., aged 26, was admitted on July 12th. Seven days earlier his thigh had been crushed between buffers. At the time his doctor did not think seriously of the case, so little mark was there of severe injury, and there was no fracture of bone or lesion of skin. As is usual in this district poultices were freely applied for two or three days, when it was noticed that the leg had lost all sense of feeling, had become black, cold, and covered with huge bulke, and exhaled a most offensive odour. On admission to the hospital the limb was evidently in an active state of putrefaction up to 3 inches above the knee. The general condition also was most desperate. The temperature was 104° F., the pulse very weak, and the face had a most anxious expression. However, I determined to give him the chance of removing the limb. This I did high up in the upper third of the thigh. He made a rapid recovery, and left the hospital on August 13th. Both popliteal artery and vein were ruptured just below Hunter's canal.

Remarks.

I have never before known gangrene follow luxation at the shoulder, notwithstanding the fact that I have seen a great many such injuries, and not rarely have had to use considerable force in their reduction. As I have mentioned in this case, neither the knee nor heel was called in to help in the reduction. In the second case, it is rather remarkable that bone and skin escaped injury while both artery and vein were ruptured. Very little blood had escaped, although the rent in the artery was fully half an inch in length, while the vein was torn open for fully 2½ inches.

I may here relate the sequel to a case in which the superficial femoral was tied for popliteal aneurysm, and the external iliac for aneurysm of the femoral on the same side. The case was reported in the British Medical Journal about two years since. I have since tied the femoral in the same patient on the other leg for popliteal aneurysm, about twelve months since. He made an excellent recovery, has been at work ever since, and is now in good health.

I wish to place this case on record, as I should imagine there are not many cases in which a man has survived the ligation of three principal arteries.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

SUICIDAL GUNSHOT INJURY.

A case of determined suicide which occurred here recently presents two remarkable features, which may prove interesting to some of your readers.

A. R., aged 38, a powerfully-built man, standing fully six feet, shot himself twice with small cartridge shot from a sporting gun. In the first instance he placed the barrel quite close to his left side nearly at right angles with his body. The charge penetrated the abdomen, 4½ inches below the left nipple and 2 inches to the inner side, smashing the seventh and eighth ribs. The charge mainly buried itself in fatty tissues of the neighbourhood. A probe passed through the wound, led down about six inches in the direction of the transverse colon and stomach. The skin all around the wound was charred. No immediate fatal effect following, the man proceeded to load the gun with another similar cartridge. This time he placed the muzzle of the gun in his mouth, and is believed to have pushed down the trigger with a long clay pipe. The roof of the mouth was blown away. The malar bone and zygomatic arch were completely shattered, and the left side of the face likewise blown away, making an enormous wound. The brain was completely disorganised, and all the cranial bones on that side smashed into some twelve or fourteen pieces, which were lying more or less quite loose in the cerebral cavity. Although the terrific force succeeded in producing such terrible destruction, it nevertheless failed to produce any external lesion of the scalp. The whole scalp covering the calvarium was intact, there being an utter absence of external injury beyond that already mentioned on the left side of face, although the cranial bones on that side and in front were so freely broken up and loose. Neither was there any *contrecoup* wound on the right side or back from the first shot on the left side, which although very severe did not prevent the man from loading and firing again. I believe the case in some respects to be unique.

Through the courtesy of my friend and neighbour, Dr. Forrest, I was permitted to make the examination and send this report.

Thomas P. Harvey, M.D., L.R.C.P.Lond., etc.

St. Leonard's-on-Sea.

TRANSVERSE PRESENTATION IN CONTRACTED PELVIS: PODALIC VERSION: DELIVERY BY FORCEPS.

On December 14th, 1894, at 8 A.M., I was called to Mrs. M., aged 42, in labour with her twelfth child. The pains had come on about 2 A.M., and the membranes had just ruptured. Examination showed the os nearly fully dilated, a shoulder presentation in the right acromio-anterior position, and prolapse of the left arm and a loop of the cord into the vagina. Podalic version was effected without delay, the trunk and limbs delivered, and a loop of the cord liberated. The uterus contracted, but the head refused to pass the brim. It became fixed; the cord was pressed upon; inspiratory efforts were made by the child, and the funic pulse ceased. Vigorous traction was combined with suprapubic pressure, and kept up for nearly half an hour, but without avail. The head remained fixed in the brim. A basilyst was sent for, but, whilst awaiting its arrival, the idea occurred to me to swing forward the trunk of the child out of the way, and put on forceps on the head. This was done, albeit with great difficulty. The head was compressed, and delivery effected in a few minutes with comparative ease. The placenta followed in ten minutes; the uterus contracted firmly, and there was practically no hæmorrhage. The uterus was syringed out with 1 in 5,000 corrosive sublimate. There was no rise of temperature, and the patient made an uninterrupted recovery.

Her history as regards previous labours was significant. She had been married over twenty years, and in that time had had twelve children. The first six labours were all easy, and apparently normal. The seventh and ninth were difficult, and called for turning, but the child was in each case born

alive. The eighth—nine years ago—was tedious, but the child came head first and living. The tenth and eleventh were difficult, and necessitated not only turning, but embryulcia.

There was no visible deformity about the pelvis. It was not typically osteomalacic. The interspinous diameter measured 10 inches, and the intercristal 11 inches. Internally the only diameter which appeared to be markedly shortened was the antero-posterior of the brim, which, estimated roughly, was not more than 3¾ inches.

Barnsley. C. Crawford Aitken, M.B., C.M.Edin.

RUPTURE OF LIGAMENTUM PATELLÆ.

Captain J. B. D., aged 36, on July 10th, 1892, tripped on the stairs owing to a carpet being imperfectly laid, and, making a violent effort to recover himself with his left leg, fell with this limb doubled under him. He attempted to rise, but fell again, as the right knee was powerless.

Staff-Surgeon May and Surgeon Barnes, R.N., who saw him shortly afterwards, were satisfied that there was no fracture of the knee-pan, but that the tendon was completely torn from its tibial attachment and the bone drawn up. The limb was placed in side and back splints in the extended position, and next day the patella, which was now drawn up for 4 inches, was returned to its place and retained *in situ* by a pad and strips of plaster. The thigh and leg to near the ankle were enveloped in plaster-of-paris bandages, and the extended limb flexed on the abdomen in a McIntyre's splint and Salter's swing.

I relieved Staff-Surgeon May in charge of the case on July 31st, and continued the same line of treatment, strengthening the plaster bandage as required. On August 17th the patient was allowed upon crutches for a short time daily with the sound foot raised on a patten, while the injured limb, still enveloped in the plaster bandage, was supported by a sling passed round the neck and under the foot.

On August 23rd the bandage was removed, and a gutta-percha splint encasing the knee joint substituted. This was taken off for a short time daily, while passive motion of the joint, the patella being fixed the while, was done. The knee-pan at this date was in normal position, and could be moved laterally. There was some thickening at the site of rupture, where the reparative process was still going on.

By September 6th passive motion of the joint and massage of the limb had restored flexure to about 25 degrees, and improved the wasted condition of the muscles. This treatment was followed until the end of November, when flexure was nearly normal. The use of the splint was gradually discontinued from this time, and finally abandoned about two months afterwards. Fifteen months after the date of the injury the patient was able to commence a six weeks' riding course at Canterbury Cavalry Depôt; this was completed without difficulty.

In August, 1894, two years after the accident, the patella was drawn up three-fourths of an inch. Active or passive flexion of the joint was as easy and complete as on the uninjured side. He could kneel on either knee with equal facility. There was still some want of confidence in the limb, but this was gradually wearing off.

These results are, I believe, in a great measure due to the prompt restoration of the patella to its original position by Staff Surgeon May, and to the lengthened time, nearly six weeks, during which the limb was rigidly fixed, together with the further period for which a special splint was worn. Temporary stiffness of the joint and wasting of the limb had to be reckoned with as consequences of this treatment, but both conditions were ultimately overcome by passive motion and massage.

J. N. Stone,
Fleet Surgeon.

Medical Students in Paris.—At the close of the academic year 1893-94, the total number of students in the Medical Faculty of Paris was 5 141 being an increase of 621 as compared with the previous year. Of the whole number 2,977 were French and 685 foreigners. Among the former there were 21 women, among the latter 128. There were also 322 foreign students not proceeding to the doctor's degree in the ordinary course, and, therefore, not included in the numbers just given.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

HULL ROYAL INFIRMARY.

CASE OF SLOUGHING INTRAMURAL UTERINE FIBROID RUPTURING INTO PERITONEUM: HYSTERECTOMY: DEATH.

(Under the care of Dr. Frank Nicholson and Mr. Evans.)

Mrs. C. H., a widow, aged 31, and the mother of several children, the youngest being 4 years old, was admitted under the care of Dr. Frank Nicholson on the afternoon of January 8th, 1895. Some four years ago, after the birth of her last child, she had some pelvic inflammation, and a vesico-vaginal fistula, which had been subsequently successfully operated upon and cured. With this exception she had enjoyed fair health, her monthly periods being regular, not excessive, and usually lasting three days. About a month before admission she was laid up for a week with severe abdominal pain and vomiting, but this to a large extent subsided, and she was considerably better, though not well till four days before admission, when she was suddenly seized again with very severe abdominal pain and vomiting, which continued until her admission.

On admission the temperature was 101·2°, the pulse quick, and the abdomen greatly distended, tympanitic, and very tender everywhere. The tongue was slightly coated, and the bowels had acted the day before. There had been vomiting for three days, but none on the day of admission. The uterus was somewhat fixed from what appeared to be old pelvic inflammatory trouble, and there was thickening in both fornices.

Dr. Nicholson diagnosed acute peritonitis depending upon some pelvic mischief, the exact nature of which was not very certain, and asked his surgical colleague to perform laparotomy, and be guided in the subsequent steps by the conditions found at the operation. This Mr. Evans kindly consented to do, undertaking the operation that evening, about four or five hours after the patient's admission, assisted by Dr. Lowson. An incision, 6 inches long, passed through a thick layer of fat and exposed the linea alba. On opening the peritoneum the small intestines were seen distended to about 1½ inch in diameter, congested and dull, with commencing deposit of lymph, the interstices occupied by slightly adherent dark blood clots of a very offensive but distinctly putrefactive (not fæcal) odour. Clearing the clots away with the fingers, the left hand passed into the pelvis, felt the uterus with a prominent and rather flaccid tumour attached to the left side of the fundus, and about 1½ inch in diameter; the left broad ligament being also thickened. It at first gave the impression of a cornual fœtation, but on bringing it into view and sponging away clots, it appeared black and sloughy, and was evidently an intramural fibroid and the source of the hæmorrhage. A sound introduced into the uterus did not enter the tumour. It was decided to remove the uterus and tumour as they could not be separated, so the broad ligaments having been first ligatured in segments and divided to facilitate the lifting of the uterus out of the pelvis, hysterectomy with extraperitoneal treatment of the pedicle was performed with the aid of Koeberlé's *serre-nœud* and transfixing pins, the appendages being also removed and the peritoneum copiously washed with boiled water and made as clean as possible, a glass drainage tube being left in the wound. The patient bore the operation fairly well, but shortly afterwards suffered severely from shock. She vomited occasionally some grumous fluid, and was treated with stimulating enemata and sipping of hot water, but never rallied, dying twenty hours after the operation.

Post-mortem Examination.—Abdomen greatly distended, intestines matted together and to the omentum, with abundant lymph. A small clot lay in the left iliac region, and some fluid blood in the pelvis; the whole amounting to about 3 ounces. Examination of the tumour and uterus showed it to be an intramural fibroid, the size of a pipe bowl, which had evidently sloughed, bled internally and then ruptured into the peritoneum, setting up acute peritonitis.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

J. W. Hulke, F.R.C.S., F.R.S., President, in the Chair.

Friday, January 25th, 1895.

Detachment of Retina in the Course of Granular Kidney.

Dr. S. West read notes of two cases. (1) A woman, aged 22, had suffered from headache, vomiting, and failure of sight for nine months, and ten days before being seen in the hospital became quite blind. She had had a severe attack of acute nephritis seven years previously, from which she had apparently never completely recovered. She presented the conditions of granular kidney, and had marked albuminuric retinitis. Six days after admission she developed general purpura, which disappeared in a few days. Five days later detachment of the retina occurred, not hæmorrhagic. This rapidly spread till it involved the whole periphery except the upper segment. Three weeks after this a hæmorrhage occurred behind the orbit, which caused great pain and entirely resolved. She ultimately discharged herself from the hospital a month later, in much the same general condition as on her admission, but Dr. West thought she could not have lived long afterwards, though he was not able to ascertain her death. (2) A man was in good health, he asserted, till two months before, when vomiting and headache attacked him. No history of previous illness. Six days before admission his eyesight began to fail, and in those few days he became blind. The case presented characteristic features of granular kidney, and albuminuric retinitis in a marked degree was present. Seventeen days later detachment of the left retina was discovered, but there were no symptoms to point to any great eye mischief. The patient rapidly lost strength, diarrhœa set in which still more increased his asthenia, and he died a few days later. Attention was directed: 1. To the existence of the disease. The occurrence of marked symptoms in granular kidney, showing first that the disease had existed for some time, and that it was in an advanced stage, and, secondly, that it had reached its termination. 2. To the suddenness of onset of symptoms in granular kidney, which was most strikingly seen in failure of vision, so that a patient might become blind in but a few days and continue so after the first defects of vision had been noticed. 3. To the hæmorrhagic tendency, illustrated in one of these cases by purpura and retro-orbital hæmorrhage. 4. To the detachment of the retina—a very rare occurrence in granular kidney.

Dr. S. Coupland always considered retinal detachment a grave symptom of granular kidney. It was frequently the first symptom that directed attention to the condition of the kidneys, and he thought patients rarely lived twelve months after that discovery. It seemed to usher in the last stage of the renal affection.

Dr. Hale White agreed with Dr. Coupland as to the gravity of retinal detachment in these cases. He had had in Guy's Hospital an exceptional case of albuminuric retinitis, with no loss of vision. The man improved much, went out, and returned again for another ailment; his eyes being then examined, nothing whatever amiss could be detected in them. This, as far as he knew, was the only case of the kind that had been noted anywhere. He had seen a child with peculiar eyes, with a malady quite unconnected with Bright's disease, in which the condition of the retina was not distinguishable from that of albuminuric retinitis.

Dr. S. West considered the prognosis very grave in cases of albuminuric retinitis. This condition usually produced no change of vision, even for a long time after its supervention, and was only distinguished by ophthalmoscopic examination.

Novel Form of Malingering: Chronic Self-inflicted Ulceration of the Throat.

Dr. Felix Semon described the case, which was that of a spinster lady, aged 36, who had had chronic ulcerated throat without interruption for four years, although treated by many advisers. On examination the mucous membrane of the soft palate, uvula, arches of the palate, tonsils, and posterior wall of the pharynx were one mass of infiltration or ulceration; elsewhere the mucous membrane was bright red, denuded of epithelium, or covered with whitish discoloured shreds. A fortnight later, after she had taken iodide of potassium, the condition was much the same, whilst the details had considerably altered. The affection abruptly terminated with almost parallel borders both above and below where the parts would cease to be accessible to the patient herself. Dr. Semon expressed the conviction that the affection was self inflicted by means of nitrate of silver or nitric acid. It appeared that years ago the patient had blistered her breast and blackened her face under the eyes in order to induce sympathy. The patient refused to go for a week into a home, where she would be under supervision, and the observer saw her no more. On inquiry, however, he learned that the throat remained much in the same condition, whilst the details of the affection varied from day to day.

Remarks were made by the President, Dr. Guthrie, Mr. Joseph White, Dr. Wilberforce Smith, Dr. Hale White, and Mr. Pearce Gould; and Dr. Semon, in reply, said that in hysteria there was often anæsthesia of the pharynx; he did not know if it had existed in his case. The throat, at any rate, was not hurt by the touch of the probe.

Association of Respiratory Paralysis with Cardio-pulmonary Symptoms in Diphtheritic Paralysis.

Dr. Pasteur read a paper on this subject, which was based on an analysis of 32 cases treated at the North-Eastern Hospital for Children, Hackney; 26 out of the 32 patients were between 2 and 6 years of age. Of the 32 cases 19 died. In 17 of these there were bulbar crises. In 5 cases, in which the diaphragm had been paralysed for two or more days, there was an extreme degree of collapse of the lungs after death, especially of the right base, which in two cases sank entire in water. In other cases, in which the paralysis had been of very short duration or non-existent, there was little or no pulmonary collapse. The extent and degree of collapse appeared to be directly proportionate to the duration and degree of the paralysis. In conclusion, the more salient points touched upon were summarised as follows: (1) The mortality in diphtheritic multiple paralysis was probably higher than current opinion would lead one to suppose. (2) Death took place by asphyxia. (3) The fatal symptoms were, in the large majority of cases, of sudden onset, and suggested a bulbar origin. (4) Recovery from a bulbar crisis was exceptional. (5) Paralysis of the diaphragm was comparatively frequent, and might occur either acutely, as part of the bulbar crisis, or might develop immediately as part of the peripheral paralysis; (6) The supervention of respiratory paralysis very seriously increased the gravity of the prognosis. (7) Whenever paralysis of the diaphragm, or other part of the chest wall, was long continued (two or more days), collapse of the adjacent lung was very liable to occur, and might give rise to definite physical signs. (8) The base of the right lung was more liable to be affected in this way than the left.

Dr. Guthrie agreed with Dr. Pasteur that diphtheritic paralysis was a serious disease, often ending fatally. As such it was recognised in France, but not in this country. There was certainly the well-known case of extensive pulmonary collapse, reported years since by Dr. Irvine Pearson, and brought for several weeks to hospital, which eventually recovered, by sheer good luck apparently. But that was not the usual termination. The officers of the Metropolitan Asylums Board now issued a paper warning all convalescents from diphtheria of the risk of paralysis which they ran. He could not agree with the author that collapse of the lung depended on paralysis of the diaphragm or chest wall. Paralysis of the diaphragm might occur without lung collapse. There was no action of the diaphragm in sleep, and rarely any at all in women, but they had no pulmonary collapse. The lung itself seemed to possess a certain power of expansion. The muscles of the small bronchi were in part dilators, in part contractors of the tubes. He thought pulmonary collapse was probably due to paralysis of the former set of muscles, so that air was cut off from the alveoli. When an empyema was opened the lung was usually found collapsed, but it expanded again, probably in consequence of the action of the dilators of the tubes. Diphtheritic paralysis

was generally thought to be an ascending peripheral neuritis, which might spread to the nerve trunks, and possibly to the centres themselves. The nerve was dependent for its integrity on the integrity of the cell from which it sprang; and he thought the affection was central rather than peripheral. Often the symptoms would quickly come and go, as with other cases due to affections of the nerve centres. And because no changes were detected in the nerve centres after death, one could not say that they were not affected. Had Dr. Pasteur noticed the cases of spasmodic abdominal pain referred to the epigastrium, or occasionally to the larynx? Cases of the kind had been noticed by French authors, who said that when there was a rapid pulse, with vomiting, in this affection death was probable within forty-eight hours.

Dr. Sidney Phillips thought that diphtheritic paralysis was not regarded lightly in England. Many such cases died of cardiac failure, which did not occur in any other illness. He believed that children affected with paralysis of the diaphragm almost always died. In one of his cases paralysis occurred as late as nine weeks after the diphtheria. Another case came in with diarrhœa, caught diphtheria in hospital, and was sent out "cured;" but a month later it had general diphtheritic paralysis, entered another hospital, and there died. Cases such as this should be remembered in the compilation of the statistics of the treatment by antitoxin. Cases might be reported as cured before sufficient time had elapsed to say that they had avoided paralysis. The reporters should have waited a few weeks longer before reporting. Many cases of so-called lung collapse were, he believed, really cases of spasm or paralysis of the bronchial tubes; such cases were occasionally breathing quite well the next day. He had seen two cases of unilateral paralysis of the chest wall.

Dr. Pasteur, in reply, said he had simply insisted on the relationship between paralysis of the chest wall and collapse of the lung beneath, as he believed the former would favour, even if it would not by itself produce, the lung collapse. The collapse was always present beneath the paralysed part of the wall, not elsewhere. It would be curious if the bronchial muscles were affected in the region beneath the affected muscles of the chest wall. Paralysis of the diaphragm occurred in two forms, as part of a peripheral paralysis and in connection with bulbar trouble. The poison might apparently act in either of those two directions. He was sure that recovery had occurred in some of his cases of diaphragmatic paralysis, and he believed that Dr. Phillips's cases were those of the acute type which hardly ever recovered. He had rarely seen the symptoms of abdominal pain mentioned by Dr. Guthrie. No cases of early cardiac failure were included in his paper, as these occurred at the end of the primary disease. His paper was based on cases in which the paralysis supervened after three or four weeks. As to whether the lung trouble was due to collapse or not he still had an open mind.

MEDICAL SOCIETY OF LONDON.

Sir William Dalby, M.B., F.R.C.S., President, in the Chair.

Monday, January 28th, 1895.

Paracentesis Pericardii.

Dr. Percy Kidd read a report of a successful case. A painter, aged 34, was admitted on June 6th, 1894, into the Brompton Hospital in a severe paroxysm of dyspnœa. The pulse was very tense, the urine of low density, containing a small quantity of albumen, and there were signs of hypertrophy and dilatation of the left ventricle. There was œdema of the lungs and a small pleural effusion. The diagnosis was granular kidney with uræmic asthma. The asthmatic attack was rapidly relieved by a hypodermic injection of morphine, and some improvement was effected by a subsequent course of nitro-glycerine. A fortnight later the legs became œdematous, the dyspnœa was worse, and the pleural effusion had increased. Paracentesis of the right pleura yielded 63 ounces of rose-coloured fluid, and the patient again improved. After an interval of three weeks 40 ounces of similar fluid were removed from the right pleura. Temporary relief was obtained by leeching. On August 7th the patient's condition was much worse in every way, and signs of pericardial effusion were recognised. Paracentesis pericardii was performed in the fourth intercostal space on the left side close to the sternum, and 5 ounces of sanguineous fluid were withdrawn. Considerable improvement followed for forty-eight hours, but on August 10th a second tapping became necessary, and this time the puncture was made in the fifth intercostal space on the left side, 2 inches from the sternum. Sanguineous fluid to the amount of 28 ounces were removed, with great relief to the patient. The excretion of urine rose from 50 ounces to 97 ounces the day after the second puncture. Improvement continued for a month, but ultimately the heart began to fail. A third tapping of the pericardium was attempted with a negative result, and the patient sank gradually six weeks after the second paracentesis pericardii. *Post-mortem* examination revealed hæmorrhagic pericarditis, the pericardial cavity being obliterated by adhesions, mostly of recent date, pleuro-pericardial adhesions, hypertrophy and dilatation of the left ventricle, and small granular kidneys. Attention was directed to the severe character of the case, the quantity and quality of the fluid removed from the pericardium, the situation of the punctures, and the good effects of the operation manifested, especially by the relief of dyspnœa and by the copious diuresis that ensued. Reference was made to Dr. Samuel West's paper on the subject in vol. lxvi. of the Royal Medical and Chirurgical Society's *Transactions*, and his conclusions were quoted and endorsed.

Dr. Sansom observed that, although the operation was undoubtedly to be recommended under the circumstances in which it was resorted to by the author, it must not be forgotten that there were many difficulties. The actual effusion was but a small part of the process. There was what the late Dr. Sturges used to call pancarditis, associated with pronounced pericardial adhesions. It behoved them to weigh the conditions and the prospects seriously before deciding.

Mr. Marmaduke Sheild dissented entirely from Dr. West's proposition that paracentesis pericardii was an easy and safe operation. Even in the most highly skilled hands it was often impossible to distinguish clearly between pericardial effusion and adherent pericardium, and if the needle were introduced under a mistaken impression it was easy to wound a vein on the surface of the heart, causing the death of the patient by hæmorrhage into the pericardium. He advocated making a small incision through the skin in order to allow the trocar to be introduced gradually without the effort of pushing it through the skin. It was also important to introduce the trocar obliquely. An anæsthetic was generally required in children, and this constituted another source of anxiety.

Dr. Carr recalled a case in which there was great extension of pericardial dulness during life, and the question of tapping was discussed and rejected. On *post-mortem* examination he found there was pus and lymph at the back of the pericardial sac, but in front the heart was adherent throughout to the chest wall. Had paracentesis been attempted, it would have been impossible to avoid wounding the heart.

Dr. Ewart had had several cases of paracentesis, of which one in particular proved very satisfactory. The patient was a man suffering from valvular disease of the heart, with intense œdema, dropsy, etc., from whose pericardium he withdrew 20 ounces of bloody fluid with the greatest relief. He had also performed this operation on patients with rheumatic pericarditis and effusion. When the collection was purulent it seemed to him to be indispensable that the case should be dealt with on surgical principles, making as large an opening as possible, and when one could make sure of the diagnosis this rule might perhaps be extended to the simple cases of effusion.

Dr. Kidd briefly replied.

Treatment of Empyema in Children.

Dr. Cautley read this paper. He referred to Solis Cohen's statement that absorption of pus from the pleural cavity was practically a myth, and observed that the late Dr. Sturges was of opinion that resection of rib was necessary, and that the small mortality of empyema in children was due to improved treatment in this respect. Dr. Sutherland went even further, and insisted on the necessity of washing out the cavity. He had analysed a series of 84 cases, with a mortality of 16.6 per cent. There was considerable danger in leaving these cases to themselves, though in a certain proportion of

such cases, either left alone or treated by aspiration, absorption took place. Of 12 cases treated by aspiration only 1 died, 1 ruptured externally, and 1 discharged through the lung. Of 35 treated by incision and drainage, 7 died; while of 33 treated by resection and drainage, 6 died. A comparison of the two latter tables showed that the average age was practically the same, the mortality almost the same, and the duration of the after-treatment only differed in the matter of one or two weeks in favour of resection. Five out of six cases under 2 years of age treated by resection died. An analysis of the fatal cases showed that in a large proportion death was not due to anything connected with the wound. The object of treatment was to remove the pus, to prevent reaccumulation, to procure complete re-expansion of the lung, and to leave behind no deformity. Although it was possible for small effusions to be absorbed, in every case in which pus was present the only sound treatment was its evacuation. It might be conceded that aspiration was sometimes useful and might cure cases in which the pneumococcus was the primary cause. The disadvantages of aspiration were that thick effusions would not pass through the cannula; that it was impossible to remove all the contents of the cavity, thus leaving behind a focus of irritation; lastly, that pus rapidly reaccumulated afterwards. Moreover, there were certain dangers if the operation were performed too rapidly. On the other hand, it was useful in cases of urgency, in cases of thin seropurulent fluid, and in cases of double empyema. The advantages claimed for resection were: better drainage; the boundaries of the cavity could be explored, and loose adhesions broken down; there was less danger of hæmorrhage; the chances of recovery were better, and that recovery was more rapid. None of these advantages were proved by the experience of the present series of cases, and it was sometimes a distinct disadvantage to break down adhesions. The disadvantages of resection were that it was more severe, and, judging by the mortality, ought never to be employed in children under 2 years of age; that there was greater liability to pyæmia and deformity of the chest. It ought to be had recourse to in cases in which the tube could not be inserted without it, and when drainage was imperfect, or for the cure of old sinuses. The tube should be short, and only left in for a short time. Empyemata did not heal by granulation from the bottom, but by expansion of the lung, ascent of the diaphragm, and contraction of the chest wall. The tube should always be removed as soon as the discharge becomes serous and scanty. If left in longer it only became a source of irritation. He had notes of a number of cases of double empyema, the treatment of which was practically the same, allowing a few days between the operations.

Mr. Morgan urged that surgical procedures would be attended with a larger measure of success if brought to bear at an earlier date. Success might occasionally follow the use of the trocar, but it was a deceptive instrument, and often jeopardised the patient's chances of ultimate recovery. In his opinion, as soon as pus was discovered it ought to be evacuated. Hitherto he had believed resection with drainage to be the best procedure, and the author's conclusions in this respect surprised him greatly. He usually washed out the cavity with warm water, adding an antiseptic if the pleural contents were foul.

Mr. Morison, of Hartlepool, agreed that the sooner pus was evacuated the better, and the formation of a bronchial fistula did not interfere with surgical treatment. Aspiration was only of use in cases in which for some reason thorough evacuation was temporarily impossible. He usually employed chloroform; but it was very important to keep the patient on the back, for he had seen serious results follow turning the patient on the side. He had operated altogether in 35 cases of the kind at ages ranging from 7 months to 9 years. He always explored with a hypodermic needle before operating. Thirty-three of the 35 were treated by incision and drainage, and in 2 cases only did he resort to excision of rib. Irrigation was harmful by setting up irritation, which subsequently led to contraction of the chest. Two of the 35 cases died, being a mortality of 5·7 per cent. The average time in healing was thirty-one days.

The Congress of the British Institute of Public Health will be held this year in Hull.

LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

A. G. Barrs, M.D., F.R.C.P., in the Chair.

Friday, January 11th, 1895.

Relation of Death from Measles to House Conditions.

Dr. Spottiswoode Cameron read a paper on this subject. He said 1,770 cases of measles were heard of by the Leeds Sanitary Authority in 1891-2-3. He divided the actual houses in which these cases occurred into two groups. In those in which a death occurred there was an average of 1.88 person to a room; whereas in those in which all the cases recovered the number of inmates to a room was 1.56. Dealing with the "case houses," he divided them into 557 "death houses" and 834 "recovery houses;" 17.5 per cent. of the former had a through draught, while 21.5 of the recovery houses were throughs, that is, as 100 to 120. Of the death houses 24.4 per cent. were entirely severed from the sewers, of the recovery houses 27.5, or as 100 to 113. Water-closet houses were 17.2 per cent. of the death and 33.6 of the recovery houses, or as 100 to 195. Disregarding the question of a through draught, and the nature of the closet accommodation, but taking into account the cleanliness and general absence of nuisance, 19 per cent. of the death houses were fairly free from sanitary defects and 24 of the recovery houses; these numbers were as 100 to 128. On the whole the conclusion seemed warranted that where measles had attacked a family fresh air, provided by a through draught, tended to recovery; but that overcrowding, dirt, structural, and other insanitary conditions assisted to bring about a fatal result.

Dr. Churton referred to notes of fifty instances, where houses, demonstrated to be in an insanitary condition had contributed cases of various ailments to the different charitable institutions of the town, and in which such contributions had ceased on the houses being put in a satisfactory condition.

Mr. Teale referred to the influence of insanitary conditions on puerperal fever and scarlet fever, which in his opinion were formerly much more fatal.

Mr. Woodcock, speaking from personal experience, said the sanitary conditions prevailing in back-to-back houses were much more satisfactory than in through houses when occupied by people of the same social scale, largely on the ground that in the latter the front door was habitually kept shut, and the front room used only on very special occasions.

Dr. Chadwick gave Mr. Woodcock his cordial support, and stated that hitherto comparisons between the sanitary conditions of back-to-back houses and through houses were stultified by the relative poverty of those who lived in the former.

Dr. Hellier and the Chairman also spoke.

Impacted Biliary Calculi.

Mr. T. Pridgin Teale read a paper on the disruption of impacted biliary calculi, which is published at page 237.

The Chairman spoke of the difficulty of making a diagnosis in some cases, and referred to the case of a man he had seen with jaundice and a distended gall bladder. The patient was operated on, and died soon after. At the *post-mortem* examination no definite cause for the obstruction was found.

Dr. Churton thought severe pain was more often associated with calculus in the cystic duct than in the common duct. He referred to a specimen Dr. Chadwick had shown at the last meeting, in which there was a calculus in the common duct (the patient had been jaundiced for five years). He spoke of the value of small doses of pilocarpin for the relief of the irritation of the skin associated with jaundice. This had been a prominent symptom in Mr. Teale's third case before the operation.

Mr. Littlewood thought the method of crushing a stone with the fingers or forceps outside the ducts would be easier, and not more risky than needling. He showed a case of Dr. Churton's in which he had done this a month ago for an impacted stone in the cystic duct.

Mr. Cant (Lincoln) related a case in which he had attempted to break up a biliary calculus in the intestine by means of a needle, and had failed. It was removed by incising the bowel. The patient did well for a week, and then

died rather suddenly. No *post-mortem* examination could be obtained. He thought probably the peritoneal adhesions had given way, and referred to Mr. Greig Smith's recent paper on the weakness of some of these adhesions.

Mr. Ward related 2 cases he had operated on with well marked symptoms, in which he could find nothing to account for the biliary obstruction; the patients had, however, been relieved since the operation. He thought Mr. Teale's method of needling was a safe procedure, and better than crushing from outside the ducts with forceps.

Mr. Teale replied.

Cases, etc.

Cases, pathological specimens, etc., were shown by Mr. Ward, Dr. Barbs, Dr. Chadwick, Mr. Littlewood, Dr. Gordon Sharp, and Dr. Churton.

MIDLAND MEDICAL SOCIETY.

T. F. Chavasse, F.R.C.S.Edin., President, in the Chair.

Wednesday, January 16th, 1895.

Cases and Specimens.

Dr. Leslie Phillips showed a case of Pityriasis Rosea, presenting some unusual features. When first seen nine months previously the circinate patches involving the trunk, thighs, and arms had faded characteristically, but had left irregular-shaped patches of the eruption symmetrically placed at the sides of the neck, anterior and posterior folds of the axillæ, and over the prominences of the hips. This efflorescence was indolent, rose-brown in colour, dry, finely desquamative, and slightly raised above the surface of the skin, especially at the margins of the patches. Twice during the time the man had been under the observation catarrhal jaundice had occurred.—Dr. Purslow showed a Fœtus from a case in which decapitation had been necessary to complete delivery. The case was one of impacted shoulder presentation. The midwife, in her attempts at delivery, had torn the arm completely away at the shoulder-joint.

The Treatment of Post-partum Hæmorrhage.

Dr. Malins opened a discussion on the treatment of *post-partum* hæmorrhage. The natural manner in which hæmorrhage was arrested after delivery was pointed out. Considerable stress was laid upon the prophylactic treatment, and the treatment of so-called "flooders." The order in which the treatment was enjoined after delivery of the placenta was: (1) Manual stimulation, external and internal; bimanual compression also of the uterus in a position of anteflexion was noticed. (2) The application of cold and heat. (3) The use of ergot by mouth and hypodermically. (4) The application of astringents, such as iron, by injection; swelling and torpor; and the use of vinegar. (5) Duhrssen's method of plugging the uterus. (6) Transfusion. The details of the above methods were considered, and the relative importance and advantage of each pointed out from the speaker's experience.

Mr. Alfred Freer said the most dangerous cases were those in which the hæmorrhage took place between the birth of the child and the expulsion of the fœtus, and in such cases separation and removal of the placenta was of the utmost importance. Women who indulged in beer excessively were often "flooders," and a purgative course of treatment before labour seemed an admirable prophylactic. Vinegar and water had in his hands been of great service in some cases, and he preferred it to iron, which if used should be in very dilute solution. Neutral iron alum was to be preferred to the perchloride.

Mr. A. H. Evans said that *post-partum* hæmorrhage was very rare in well conducted labours. The worst cases were those in which, in the absence of a medical man there had been only an imperfect delivery of the placenta. The passage of the hand into the uterus, and a thorough cleaning away of all coagula, was a very important item in the treatment. He called attention to distension of the urinary bladder as an occasional cause of difficulty in contraction of the uterus, and alluded to the importance of a quick pulse after delivery as a warning of impending hæmorrhage.

Dr. Purslow found that the most troublesome cases occurred in primiparæ after the application of forceps under chloroform for protracted labour. He insisted upon the importance of never losing the manual control of the uterus after delivery, and always gave a dose of ergot after delivery.

Dr. Donovan said the child should always be made to advance by forceps if the uterus, when contracting forcibly, was not capable of advancing it. Exhaustion and uterine inertia were thus avoided. When the head was delivered the advance of the body might be retarded and the uterus thus given time to contract. Ergot should be given as a routine treatment after the birth of the child.

Dr. E. Underhill laid stress on the importance of anticipating if possible the occurrence of hæmorrhage by a careful inquiry into the history of previous confinements. The uterus should be grasped with the hand immediately the child was born. He urged the importance of supporting the strength of the patient and the administration of easily assimilated food in cases of weakness.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Professor Sheridan Delépine, M.B., President, in the Chair.

Wednesday, January 16th, 1895.

Pathological Specimens from Horses.

Mr. J. B. Wolstenholme showed microscopic specimens from a case of Biliary Cirrhosis in a horse, the condition having presented no symptoms during life. He also showed a horse's stomach studded with the Larvæ of Œstrus Equi.

Carcinoma of Bladder.

Dr. A. J. Wilkinson showed a specimen of epithelial carcinoma from the bladder of a man, aged 62, who died of independent cardiac disease. There was pain and hæmorrhage for sixteen days before death, but prior to this no symptoms were present. The growth infiltrated the bladder walls, especially at the fundus, and there was also a large tuberous growth projecting into the organ. There were no secondary growths in any other part. The points of interest in the case were the wide extent of the growth consistent with clinical latency; the fact that infiltrating and non-ulcerating primary carcinoma in hollow organs not normally sensitive often failed to produce pain; the sudden and serious hæmorrhage owing to the superficial vascularity, which appeared to be a superadded element; and the absence of any decided cachexia, the disease occurring in an organ in which absorption is at a minimum, and diffusion of the growth rarely occurs at an early stage.

Perforation of Cæcum from Stercoral Ulcer.

Mr. Southam showed a specimen of perforating ulcer of the cæcum from a male, aged 67, who for some months had suffered from symptoms of incomplete intestinal obstruction. Shortly after admission death took place very suddenly, and at the necropsy a stercoral ulcer was found on the posterior wall of the cæcum, with a small perforation at its centre. The appendix was healthy, but the cæcum and colon were distended with hardened fæces, apparently due to atony of the bowels, for no cause of obstruction was present below.

Pathological Changes in Chronic Rheumatic and Chronic Gouty Hands.

Dr. E. S. Reynolds mentioned some points of difference in the pathological changes found in the hands in cases of chronic rheumatism and chronic rheumatoid arthritis (classed together) as compared with those found in the hands in chronic gout. In chronic rheumatic conditions, as a rule, the lesions are found in symmetrical joints to an equal extent, and the deformities produced were similar, though the last was not always the case. In chronic gout, on the contrary, the changes in the hands were found in asymmetrical joints to an extent differing much on the two sides, the resulting deformities being totally different. These points were illustrated by a series of lantern slides.

Epidemiological Society.—At a meeting on January 18th, Mr. Shirley Murphy, President, in the Chair, Fleet Surgeon Preston read a paper on Epidemic Diseases in the Royal Navy. It was impossible, he said, to study their history without regard to the great improvement in the diet and con-

sequent increase of resisting power that had taken place during the last hundred years, beginning with the introduction of lime juice and other reforms in 1795, the substitution of iron tanks for wooden water casks, and, more recently, of distilled water fresh daily. Not less important was the general use of tea, coffee, or cocoa in place of rum. Before 1825 half a pint of raw spirit had been served out to everyone; it was then reduced to 4 ounces, and at present even that was issued freely diluted to those men over 20, who applied for it personally, and no sale or barter was allowed. Prior to 1795 the service was continually exhausted by scurvy, sloughing ulcer, dysentery, and typhus: it was impossible to keep a fleet at sea for many weeks together, and the mortality in long voyages was awful. After giving a history of scurvy, plague, yellow fever, influenza, cholera, small pox, and epidemic pneumonia in the navy, Fleet-Surgeon Preston went on to urge that better ventilation—especially the adoption of Harding's apparatus, which could be worked with closed hatches—and increased cubic space would go far towards reducing the sickness from epidemic pneumonia and other causes, but the 168 cubic feet now allowed on the *Lion* was too little to keep growing lads in health. He called attention to the clauses by which all premises, buildings, whether permanent or temporary, and vessels, the property of Her Majesty's Government, were exempted from the operation of the Public Health, Diseases Notification, and like Acts, and from the jurisdiction of the sanitary authority, as of the greatest danger to the community. Infectious disease might be thus concealed, and spread beyond the walls of the dockyard or offices, while clerks and artificers were likely to carry infection to their homes. Some modification or amendment of the law seemed to him imperatively needed.

Sheffield Medico-Chirurgical Society.—At a meeting on January 17th, Dr. Porter in the chair, Dr. Arthur Hall showed the following cases: (1) Acute Myelitis, with almost complete paraplegia, analgesia, acute bed sores, loss of knee-jerks and plantar reflexes in a girl aged 12, terminating in complete recovery: (2) Aneurysm of Arch of Aorta just above the root of the left lung in a woman aged 45: (3) Tertiary Syphilitic Eruption on Face: Periosteal Swelling of Tibia in a young married woman with no history of syphilis; (4) Tuberculous Eruption of Skin.—The President showed a Cystic Tumour of the Right Kidney, which had been aspirated during life, and the fluid from which contained abundant crystals of cholesterin and blood *débris*. From a microscopic section it appeared to be of a sarcomatous nature.—Mr. Pye-Smith showed (1) a Zwancke's Pessary Encrusted with Phosphates, which he had removed from a woman, aged 73, who had worn it continuously for over twelve years. It had ulcerated through the bladder and also through the posterior vaginal wall, but not into the rectum. It was easily removed after dividing it with compound bone-cutting forceps, but the patient sank and died twelve days afterwards. (2) A Cirrhosed Liver removed from the body of a child aged 22 months. There was no alcoholic history. The other viscera were healthy. The liver weighed under 12 ounces, and presented a well-marked hobnail appearance. Microscopic sections confirmed the diagnosis.—Dr. Wilkinson showed Hydatid Cysts of the Liver and a Primary Sarcoma of Kidney with secondary growth causing fracture of femur.—Dr. Caley read brief notes of a Case of Convulsions, probably due to poisoning by camphor.

Swansea Medical Society.—At a meeting held on January 8th, Dr. Joseph Davies, President, in the chair, Dr. J. A. Rawlings gave an address on the Use of Tents. The carbolised sponge tent was described as the "ideal plug" in cases of incomplete abortion attended with profuse hæmorrhage, but where the cervix was not sufficiently dilated to effect removal of the ovum or remains: one drawback to its use was the difficulty that sometimes attended its withdrawal. The tupelo tent was spoken of favourably. Dr. Rawlings strongly emphasised the risks accompanying the use of the different kinds of tent, and stress was laid upon the necessity of strict antiseptic precautions. A case was related in which acute metritis followed the use of a laminaria tent and proved fatal in five days.—A discussion ensued in which the President and other members of the Society took part.

Nottingham Medico-Chirurgical Society.—At a meeting held on Wednesday, January 16th, Dr. J. S. Tew, President, in the chair, Dr. Carroll read a paper on House Sanitation, and gave a lantern demonstration. All the details of house construction as far as they concerned the health of the inmates were fully dealt with. There were thirty-nine slides shown of the various defects and remedies in house construction. Models of drain pipes, grease and other traps, short hopper and slop waterclosets (Duckett's) were shown. The President, Messrs. Hunter, Watson, Tresidder, and Peskitt spoke; and Dr. Carroll replied.—Dr. Watson showed two specimens of Extrauterine Fœtation.

Manchester Medico-Ethical Association.—At the annual meeting held on January 25th, 1895, the following gentlemen were elected as office-bearers and Committee for the year 1895: *President:* S. Woodcock, M.D. *Vice-President:* J. B. Brierley, M.D.; C. G. L. Skinner, M.D.; A. Stewart, M.D.; A. W. Stocks. *Treasurer:* D. Lloyd Roberts, M.D. *Secretaries:* F. H. Collins, M.D.; John Ferguson. *Committee:* E. V. Brown, M.B.; F. J. W. Cox, M.D.; Richard J. Dearden; Joseph Foster; Alfred Godson, M.D.; A. Helme, M.D.; James Holmes, M.D.; Walter E. Husband; E. T. Milner, M.B.; W. E. S. Scott, M.D.; W. Thorburn, B.S.; J. Watson, M.D.

Plymouth Medical Society.—The following are the office-bearers for 1895: *President:* Mr. William Square. *Vice-Presidents:* Messrs. E. M. Russel-Rendle, Connell Whipple (Plymouth), and T. Leah (Stonehouse). *Honorary Treasurer:* Mr. J. Elliot Square. *Honorary Librarian:* Mr C. E. Russel-Rendle. *Honorary Secretary:* Mr. Reginald H. Lucy.

REVIEWS.

Headache and Other Morbid Cephalic Sensations. By Harry Campbell, M.D., B.Sc.Lond., Physician to the North-West London Hospital. London: H. K. Lewis. 1894. (Roy. 8vo, pp. 410. 4s. 6d.)

Headache is a symptom of many diseases and morbid states. Sometimes it is the only subjective symptom, and in such cases is the cause of much grievous mental disability. As such it is well worthy of clinical study; but we could wish that Dr. Harry Campbell had exercised the art of compression and selection a little more than he has done. The ordinary medical reader, whose time is limited and interests many, will be rather repelled than attracted by a bulky volume of over 400 pages. The anxiety to recognise the work of earlier investigators and writers is very laudable, but it may be carried to an extreme. Dr. Campbell, indeed, appears to have made a most exhaustive collection of notes of cases and of the literature of the subject, and to have sent them to the printer with comparatively little digestion. With this reservation, we have nothing but praise for a book which shows much research and a good deal of insight.

It is significant of the present tendency of medical thought that Dr. Campbell is able to suggest various forms of toxæmia as the causes of headaches which not many years ago would certainly have been attributed to reflex neuroses. The work contains an elaborate classification of the causation of headache and a discussion of its symptoms, which errs—if it errs at all—by a somewhat minute subdivision of the subject. If this be a fault, it is at any rate a fault in the right direction, and its value appears when Part IV—that which discusses the treatment of headache—is reached. The remarks on drugs appear to be, on the whole, extremely well considered, and their use is rightly relegated to its proper place—that is to say, a treatment directed to the relief of a symptom and not to the removal of a cause. The completeness and bulk of the work, which militate against it as a book to be read, only increase its value as a book of reference.

Diseases of the Skin, a Manual for Students and Practitioners. By W. Allan Jamieson, F.R.C.P.Ed. Fourth Edition, Revised and Enlarged with Woodcut and Nine Coloured Illustrations. Edinburgh and London: Young J. Pentland. 1894. (Demy 8vo, pp. 680. 21s.)

We have much pleasure in welcoming another edition of Dr. Jamieson's well written and useful book. When the first edition was published, in 1888, he considered that there were signs "that the wave of advancing dermatology had been for the time slackening," and that the opportunity was favourable to gather the disconnected threads, and to present them in a concrete form. The additions which he has been obliged to make in this latest edition would indicate that there has been very little slowing of the wave, and that the pause in the rate of advance must have been very short lived. Already the author has seen the necessity of making large additions to the work. The chapters on lupus and ringworm of the scalp have been to a great extent rewritten. Sections devoted to the hygiene of the hair and nails, to the agency of micro-organisms, to Darier's disease, hydrocystoma, erythema induratum, lichen neuroticus, epidemic exfoliative dermatitis, corns, elephantiasis, epithelial cystadenoma, sarcoma, mycosus fungoides, and actinomycosis, have been incorporated. Three new illustrations, representing pityriasis maculata, xanthoma diabeticorum, and mycosis fungoides replace others less useful or less typical.

The characteristic features of the work remain unchanged, and have been sufficiently noticed in our reviews of the previous editions. We do not doubt that this edition will meet with the same appreciative regard that has led, in so short a time, to the exhaustion of the previous editions.

First Aid to the Injured, and Management of the Sick. By E. J. Lawless, M.D., D.P.H. Edinburgh and London: Young J. Pentland. 1894. (Crown 8vo, pp. 276, 49 illustrations. 3s. 6d.)

Although there are already many handbooks on this subject, we have not yet met with one better adapted to the purpose for which it is mainly intended—the instruction of regimental bearers and members of brigade bearer companies—than Dr. Lawless's volume. It will also be found useful by those attending the St. John Ambulance classes, if they have sufficient time at their disposal to study a larger work than the official handbook.

The description of the human body is lucid and concise, and the directions for rendering first aid are clear and practical, the improvised methods of treatment being specially dwelt upon.

The first part concludes with the details of stretcher and waggon drill, and original diagrams help to make some of the difficult movements more readily understood.

The second part, dealing with the management of the sick, begins by explaining to the volunteer bearer what his duties are on the march, in billets, and in the field, and goes on to indicate the ambulance arrangements for a division and the duties of the bearers placed respectively at the collecting station, dressing station, and field hospital, concluding with the duties of hospital orderlies, and some very good hints on the actual management of the sick and wounded and sick-room cookery.

A series of questions, with the correct answers appended, will be found useful, not only to those preparing for examination, but as a means by which the learner himself can test his own progress.

The Prevention of Epidemics and the Construction and Management of Isolation Hospitals. By Roger McNeill, M.D., D.P.H., Medical Officer of Health for the County of Argyll. London: J. and A. Churchill. 1894. (Demy 8vo, pp. 260. 10s. 6d.)

There is much to be said in favour of Dr. McNeill's work. The author has had considerable experience of isolation hospitals, both in London and in Scotland, and has studied the literature of the subject, so that he is able to give many practical hints, and many useful quotations and references. The defects are incompleteness and want of due proportion of parts. For example, we are told all about the rules of the Hastings Sanitary Aid Association, yet these rules can scarcely be regarded as models of their kind, since they prescribe daily fumigation of sick rooms with wood smoke, and final disinfection by burning a quarter of a pound of sulphur, and a scarlet fever convalescent is conditionally allowed to re-enter the family circle at the end of the fifth week. *Per contra*, vaccination is scarcely referred to, and, in spite of the constant allusions to the investigations and views of the English Local Government Board, not a hint is given of its present attitude with regard to small-pox hospitals, or even on the all-important question of the aërial convection of small-pox. From various passages it may be inferred that the author does not accept the conclusions which Mr. Power and other authorities have formed upon this subject, but they have to be taken into account as the current official doctrine, and the omission greatly detracts from the practical usefulness of the manual so far as concerns authorities on this side of the border who may be intending to erect hospitals.

Upon the construction of hospitals Dr. McNeill writes clearly and well, though many would hesitate to endorse his preference for wards perched upon arches, after the Ealing pattern, and would be content with an impervious basement as fulfilling all practical requirements. The plans of a number of typical hospitals are given in some detail in the appendix. It is not clear why those of the Sheffield Fever Hospital were selected, since they violate two of the canons upon which emphasis is very properly laid in the text. Two-storey wards within 40 feet of the boundary would not be sanctioned now, for reasons which Dr. McNeill himself makes clear. The chapter on disinfection is less satisfactory from the point of view of the medical officer of health in search of practical directions.

On the whole, the work is to be recommended, on the ground of its suggestiveness, to those who are already familiar with hospitals for infectious diseases rather than to those who need to be authoritatively informed upon the subject in all its bearings. To the latter it might in some respects prove an unsafe guide.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AN IMPROVED BEDPAN.

The inventor of the improved bedpan noticed in the British Medical Journal of January 5th, page 24, desires us to point out an additional advantage he claims for the device. He states that after use the edges of the special paper are gathered together, grasped in the hand of the attendant, and thus removed from the room in a cleanly and inodorous manner. The whole can then be treated either by being placed in a destructor, or where this apparatus is not available it may be treated by burial or disinfection. Further, he desires to point out that by this plan no water is required either for diluting the excreta or for washing the pan. There is thus no contaminated water to be disposed of, a matter of great importance in cases of cholera or enteric fever.

Munificent Donations to Medical Charities.—Mrs. Anne Towry Hall, of Lowndes Square, in memory of her late husband, Major Charles Hall, of the 1st Life Guards, has made contributions of £2,000 each to Guy's Hospital, the Royal Hospital for Incurables, and the Chelsea Hospital for Women, and eight separate donations of £1,000 each to Addenbrooke's Hospital, Cambridge; the Cancer Hospital, Brompton; the Eastern Counties Asylum for Idiots, Colchester; the Hospital for Consumption and Diseases of the Chest, Brompton; the Hospital for Women, Soho; the Metropolitan Convalescent Institution, Walton-on-Thames; the Middlesex Hospital and Westminster Hospital—a total of £14,000.

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA.*

I.

FROM A PRESCRIBER'S POINT OF VIEW.

By T. LAUDER BRUNTON, M.D., D.Sc.Edin., LL.D.Hon. Aberd., F.R.C.P., F.R.S.,

Lecturer on Pharmacology and Therapeutics, and Assistant Physician to St. Bartholomew's Hospital, London.

The Scope and Objects of the "British Pharmacopœia."—Redundancies and Deficiencies.—Solubility and Compatibility.—Prescribing Difficulties and the Increase of Proprietary Preparations.—Pills and Granules.—A Complicated Poultice.—Dosage.

The announcement that a new edition of the *British Pharmacopœia* is in preparation naturally leads every one who is interested either in the administration or preparation of medicines to ask what changes are likely to be made in it so as to make it more useful or more convenient. The object of the *Pharmacopœia* is thus stated in the preface to the edition of 1867. "It is intended to afford to the members of the medical profession and those engaged in the preparation of medicines throughout the British Empire, one uniform standard and guide whereby the nature and composition of substances to be used in medicine may be ascertained and determined." From the definition thus given by the General Medical Council, it is evident that the scope of the *British Pharmacopœia* is very wide indeed, whether we regard the number of practitioners and chemists whom it is intended to help, and who must be numbered by tens of thousands, or the extent over which its influence will spread—and this is no less than an empire on which the sun never sets, or the number of people whose health and lives it is intended to safeguard—and these are to be numbered by hundreds of millions.

It is not my intention here to speak of the *British Pharmacopœia* in its relation to the enormous part of the British Empire which lies outside of Great Britain and Ireland, nor of its use by pharmaceutical chemists and dispensers, but only of its use to the prescriber. The medical profession has much cause to thank the General Medical Council for the unification of the London, Dublin, and Edinburgh *Pharmacopœias*; but, notwithstanding the time and labour that have been expended upon the *British Pharmacopœia* in successive editions it is still far from perfect, and much more may still be done in the way of rendering it useful to the medical man. He it is for whom the book is primarily intended. It is a work issued by the General Medical Council as a standard and guide to the members of the medical profession, and only secondarily to chemists and pharmacists. This is seen by the fact that the latter have no direct voice in the preparation of the *Pharmacopœia*, and have only been called in to give advice when required. Yet in the consulting rooms and libraries of doctors in general the *British Pharmacopœia* is generally conspicuous by its absence, so much so that one is often tempted to ask who have bought up the thousands of copies issued by the General Medical Council.

But while comparatively few medical men possess a *British Pharmacopœia*, nearly every one has got either Squire's *Companion* or Martindale and Westcott's *Extra Pharmacopœia*, or both, and it may be worth while to inquire why it is that these works enjoy so much greater a popularity than the *British Pharmacopœia*. One reason probably is that they give less, and another that they give more than the official publication. They give less because they leave out the methods of preparing the various substances which no medical man or dispensing chemist ever dreams of making, and they give more, inasmuch as they supply useful information about the preservation of medicines and different modes of prescribing them in a more or less agreeable form, as well as hints, or even fairly full statements about their action and uses. Thus, if we turn to such a common article as chloroform in the *Pharmacopœia*, we find that the greatest part of the space allotted to it is taken up by an elaborate description of how to make it. This is of no use to either dispensing chemists or to medical men, for they both purchase their chloroform from well-known firms who manufacture it on a large scale. But no hint is given of the advisability of keeping it in a dark place, although the advisability of keeping it cool is mentioned. On turning to ether, we again find a long process for making it, but not a word is said about keeping it in a cool place away from lights or fire, so as to avoid the possibility of an explosion or conflagration. Under collodion we find mention of the inflammability of the liquid, but nothing about the necessity of keeping it at a distance from fire or light on account of the inflammability of its vapour, although the neglect of such a precaution has before now cost an unfortunate patient her life. This precaution is brought prominently forward by Martindale, and is also mentioned in the *American Pharmacopœia*. These are only a few examples from a very large number, and the constant occurrence of directions for preparing substances which no medical man is ever likely to prepare not only makes the work more bulky, but is an actual annoyance to many men who consult it and find there the presence of so much that they do not want, along with the absence of what they do want. It might therefore be suggested that a useful alteration in the new edition of the *Pharmacopœia* would be to omit directions for the preparation of substances which are never prepared by medical men or by dispensing chemists, and at the same time to give fuller directions than at present for the proper keeping of medicines, so that they may not lose their efficacy or become actually harmful by keeping in stock, although originally they may have been perfectly good.

As the *Pharmacopœia* is intended as a guide whereby the nature and composition of substances to be used in medicine may be ascertained, it is only fair on the part of the medical practitioner, for whose benefit it has been compiled, to ask that it should give certain directions as to the result of mixing various drugs. Thus, under the headings of perchloride of iron and iodide of potassium we find long descriptions of their mode of preparation, but there is no suggestion that the practitioner who combines these two ingredients for the benefit of a rheumatic and anæmic patient will get free iodine produced by the mixture, and thus, in all probability, irritate the stomach of his patient. It is natural also that he might like to know that borax, although it has got a faintly alkaline reaction, may act as an acid, and that the mixture of glycerine of borax and bicarbonate of sodium may cause such effervescence as to blow out the cork or burst the bottle either in the patient's pocket, or in transit through the post, to the great damage of Her Majesty's mails. A similar remark may be made about the subnitrate of bismuth. It is quite fair to expect a man to know that if he mixes bicarbonate of sodium with a strong solution of sulphate of magnesium he will very likely convert the whole into a paste, for these drugs have been in use for centuries; but a table of solubilities would be most valuable, not only in the case of remedies of recent introduction, but of old remedies where the solubility of unusual compounds is not known so well. One may know in a general way that alkaloids are precipitated by tannin, but it is almost impossible for anyone to be certain, without actual experiment, whether the tannin in a vegetable infusion will be sufficient to precipitate a small quantity of an alkaloid. For example, most men do not know whether the strychnine out of ten drops of tincture of nux vomica will be precipitated by the tannin in an ounce of infusion of gentian, nor can this knowledge be obtained from ordinary textbooks. A body such as the General Medical Council, entrusted with the preparation of the *Pharmacopœia*, is the proper body to have experiments made to settle such questions.

Another important point in solubility, and one which would be very useful were the *Pharmacopœia* to give it, is the quantity of various substances contained in cold water after they have been once dissolved by heat; for example, sulphonal dissolves in 500 parts of cold water and in 15 of hot; but I cannot find any information as to whether a quantity of it remains in solution after it has once been dissolved, or whether it all separates out on cooling. The same informa-

tion regarding other solvents would be very useful. Thus, Squire mentions under the head of Compound Tincture of Chloroform that "The original *British Pharmacopœia* instructions read, 'dissolve the hydrochlorate of morphine and oil of peppermint in the spirit,' and when it was discovered that it would not dissolve, the word was changed to 'diffuse,' but by gently warming the three together a solution is at once obtained which does not precipitate on the addition of the other ingredients."

A second useful alteration in the *Pharmacopœia*, then, would be the introduction of a very complete table of solubilities, not only of substances actually contained in the *Pharmacopœia*, but of those likely to be formed by admixture with other drugs, and also of the amount of substances which remain in solution in a cold solvent after they have once been dissolved by heat.

But one of the great advantages, and perhaps the chief advantage which the two books I have mentioned possess over the *British Pharmacopœia*, is that they give the practitioner some idea of how to administer the medicine he desires in a form in which it can be taken by the patient. On looking up copaiba, for example, we find no directions regarding its administration in the *Pharmacopœia*, except that its dose is ½ to 1 drachm, and the directions regarding the oil are equally scanty. The probability is that the practitioner who trusted entirely to the *British Pharmacopœia* for his preparations of the drug would administer either the one or the other in a form that his patient could not or would not take, so that the patient would either fail to be cured or would go to seek advice elsewhere. In Squire's *Companion*, on the other hand, we find ample directions for covering the disagreeable taste, and also the information that both balsam and oil can be put into capsules. It would be a great boon, both to practitioner and patient, if the new edition of the *Pharmacopœia* could utilise some of the space which might be gained by cutting out useless directions for making drugs by putting in useful directions for prescribing them. Such directions are becoming all the more necessary on account of the old system of apprenticeship falling into disuse and of many men writing out prescriptions which are dispensed by the chemist instead of dispensing their own medicines. The practical knowledge which medical men formerly gained, either in the course of their apprenticeship or by making up medicines in their own dispensary, enabled them to put together mixtures which were by no means unpalatable to the patient. But one who simply prescribes is handicapped by not knowing whether the components of his mixture will not produce a heavy precipitate, a disagreeable colour, or an abominable taste, and he has no chance, like the dispenser of his own medicines, of rectifying his mistake when the medicine is made up, for it goes direct to the patient instead of being seen, tasted, and approved of by the doctor himself. It is to a great extent in consequence of these difficulties that so many proprietary preparations are now prescribed, because such preparations, containing, as many of them do, useful drugs, are made up in such a way as to be not unpleasant, even if not actually agreeable to the patient. It would be a great benefit to the prescriber if the General Medical Council were to help him in his difficulty, and give him some directions to guide him in the way of making his medicines agreeable. We have already in the *Pharmacopœia* several syrups intended for this purpose, but we might have also an elixir, such as that of the United States *Pharmacopœia*, and perhaps other aids as well.

But it is often almost impossible to make the taste of medicines agreeable, and if they are in solution the patient feels on his palate the full force of their disagreeable taste. The only way of getting over this difficulty is to give the medicine in the form of a pill or capsule or cachet. We have in the *Pharmacopœia* no mention whatever of wafers or cachets, nor are capsules official, although all these are most useful aids in the administration of disagreeable medicines. Their introduction would surely be a step in the right direction.

Another complaint that patients make when the pills of the *Pharmacopœia* are prescribed (dosed as most of them are to 5 grains) is that the pills are so large that they cannot swallow them. It might be worth while for the Pharmacopœia Committee to consider whether it might not be advantageous to increase the standard strength of the pill mass so that 2½ grains at the outside would be a sufficient dose. But even pills of 2½ grains are comparatively large, and many people will swallow granules the size of a pin's head when they will not take a pill. Especially is this the case with children and with people who are much away from home, and who object to carrying bulky medicines in their pockets. In this respect the preparations of some of the French pharmacists are worthy of imitation. These consist of small granules of sugar of milk, each the size of a pin's head, each containing a definite dose of a powerful medicine, such as half a milligramme ($\frac{1}{120}$ of a grain) of strychnine or atropine, or a milligramme ($\frac{1}{60}$ of a grain) of arsenious acid, digitaline or morphine. As a means of prescribing active medicines these granules are most convenient, and the only disadvantage is that people may mistake them for homœopathic medicines to their own great disadvantage. Thus, a patient for whom I prescribed arsenic in this form thought the granules so innocent-looking that he took more than I advised him, and in ten days came back with well-marked symptoms of arsenical poisoning. These granules are, of course, only adapted for the administration of powerful drugs in small doses, and such drugs are already beginning to be much used in the form of small compressed tabloids, which can either be taken internally or dissolved in a drop or two of water, and injected hypodermically. The use of such tabloids obviates one of the great difficulties of hypodermic injections, namely, the tendency to decompose, or to alter in strength. They also afford a ready means of measuring out the dose accurately. The larger tabloids, such as those of soda mint, are also so convenient for carrying about, that it would be useful to have something of this sort also in the new edition of the *Pharmacopœia*.

Besides omitting the descriptions of things that are not made by medical men or dispensers, the new *Pharmacopœia* might be improved by the revision of the directions for things that might be made. Thus, under the head of cataplasma conii, we find that an ounce of hemlock juice is to be evaporated to half its volume, and this mixed with half a pint of boiling water and a quarter of a pound of linseed meal. I have never made this poultice myself, nor do I know of anyone who has ever made it, but if such a poultice has been made, it would be interesting to learn who evaporated the hemlock juice and who made the poultice, because if the chemist evaporated the juice and made the poultice it would be cold before the patient got it, and if the juice were evaporated at home there would probably be no proper dish to evaporate it in. Any ordinary person would simply have used a little less boiling water or a little more linseed meal and left the hemlock juice without evaporation.

The enema assafœtidæ is one of the most useful remedies in the whole *Pharmacopœia*, but probably it is very rarely indeed made by the pharmacopœial method. Instead of the assafœtida being rubbed up with distilled water, a little of the tincture is simply mixed with the water and the mixture injected.

Although such an innovation would be warmly welcomed by many a medical man it is, perhaps, too much to hope that in the forthcoming edition of the *Pharmacopœia* we should find some indication of the actions of medicines such as are contained in the two other works I have already mentioned. But in regard to dosage it would certainly be a distinct advantage if the maximum quantity to be given in a day was indicated, as well as that for each individual dose. It might also be made compulsory, as in the German *Pharmacopœia*, for the medical man, when prescribing a quantity larger than the ordinary, to indicate the fact that he is aware of what he is doing by drawing the chemist's attention to this by means of a mark of exclamation. This proceeding necessarily lessens the risk of the patient getting an overdose by misadventure on the part of the prescriber.

It is very easy to suggest alterations in the *Pharmacopœia*: it may be very difficult to carry such suggestions into practice. Those I have made, even if they should be approved, cannot be carried out without the employment of skilled labour, and much experimental work necessitating the expenditure of a good deal of time and of money. Yet what

body can do this so well as the General Medical Council? And if it can produce a *Pharmacopœia* better than any other existing one, the medical profession, not only in the three kingdoms but over the world-wide British Empire will repay its labours with gratitude.

A REPORT
ON THE
POSSIBLE CONVEYANCE OF CERTAIN WATER-BORNE DISEASES, ESPECIALLY TYPHOID FEVER, BY OYSTERS AND OTHER MOLLUSCS.
III.

Sewage on Oyster Beds.—The Essex Coast Oyster Fisheries.

The access of crude sewage to oyster beds constitutes a standing danger, although years may pass without any actual or recognisable injury resulting, for the presence of enteric evacuations, the vitality of the microbes, and their retention in the body of the animal or in the water enclosed between its valves are doubtless indispensable. A difference, however, should be made between breeding grounds and fattening beds, for if the oysters have been laid out for several months remote from all chance of defilement, it matters little under what conditions they were prior to their removal. This distinction, however, is not strictly observed in practice, the breeding ground being frequently resorted to for supplying the demands of excursionists and other less fastidious customers.

These remarks apply especially to the Essex coast, the favourite resort of Londoners of the middle class. The estuaries of the Deben, the Orwell, the Stour, the Colne, the Blackwater, and the Crouch are tidal reaches out of all proportion to the volumes of the rivers, and receiving the more or less crude sewage of towns with populations up to 35,000 and 60,000. The Colne, one of the smallest, takes the sewage of Colchester, and provides one of the largest breeding grounds, although the deposition of sewage on the foreshores is palpable. Brightlingsea, the centre of the fishing industry, stands at the mouth of St. Osyth's Creek. Here a biological station was established last summer but had to be moved to another point, for though in close proximity to the oyster beds, the foulness of the water was such that few marine forms could live in it. It is true that these oysters are not sent up to London until they have been laid down elsewhere, but the "Colchester native" is not usually offered to the ordinary excursionists. The best fattening beds for Colne-bred oysters are in the Pyfleet, or the strait between Mersea Island and the mainland. Unless, perhaps, at its eastern mouth, opposite Brightlingsea, there can be no question of pollution here, for it is really an arm of the sea, and receives no drainage from either side.

So much cannot be said of the beds at Tollesbury; the crude sewage of Maldon is discharged ten miles higher up, but the conditions of the Blackwater are such as to exclude all thoughts of self-purification. Still more open to suspicion are the famous beds of Burnham-on-Crouch, the produce of which is esteemed as scarcely inferior to that of Whitstable. Burnham, though little more than an overgrown village, has had its full share of typhoid, and a sewer discharging between oyster beds on either side. The sewage, received in a sort of catchpit, is supposed to filter upwards through sand to the pipe sewer, in which it accumulates while the rising tide closes a valve which opens during the ebb. But apparently with a view to superseding the necessity for cleaning the filter, direct communication was some time ago opened up between the tank and the outfall sewer by pipes laid in the bed of the filter, until the sewer was nearly, and if the valve had not been defective would have been completely, closed with sludge. It is worthy of note that during the past season the cases of typhoid fever in this district have been chiefly among dredgers and others engaged in the oyster fishery. Again, there is considerable fishery carried on along the coast, and at Southend there is a common practice to moor the oyster boxes to the pier or a groyne while awaiting sale. In the year 1890, when 340 cases of enteric fever occurred in the town up to the end of October only, a well known local practitioner declared that he had fished up fæcal masses within a few feet of such boxes. Enteric fever is, indeed, endemic in the place, and, so far as we can get at the facts, there were last year over 120 cases, a few of which were alleged to be "imported," but how many more were "exported," that is, went home during the incubation period or early stage of the disease, there are no means of knowing.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

THE AGE MORTALITY OF CASES OF DIPHTHERIA TREATED WITH ANTITOXIN.

For comparison with the table published in the British Medical Journal of January 19th, giving the deaths at various ages of the cases of diphtheria treated with antitoxin reported by Professor Widerhofer and Dr. Goodall, we have looked through all the similar cases which have from time to time been reported in our pages, down to and including the issue of January 26th, and have tabulated the results in like form. The following is the result:

	Cases Treated.	Deaths.	Percentage of Deaths.
Under 1 year	4	2	50.0
1 to 2 years	8	3	37.5
2 „ 3 „	6	1	16.6
3 „ 4 „	12	1	8.3
4 „ 5 „	10	3	30.0
5 „10 „	23	9	39.1
10 „15 „	15	2	13.3
Above 15 years	16	1	6.2
Total	95	22	23.1

Professor Widerhofer's totals give a mortality of 24 per cent., Dr. Goodall's of 19.4 per cent., and the total of the various cases reported at different times in the Journal a mortality of 23.1 per cent.

No one of the three groups of cases is, however, sufficiently large to be of much value in regard to age mortality, but it certainly is rather surprising to note the very heavy loss of life among the general cases at ages between 5 and 10, amounting to 39.1 per cent., compared with the very trivial mortality at that period of life in Widerhofer's and Goodall's cases, namely, only 5.4 per cent.

XXXVIII.—Dr. Ewart Duthie, Resident Physician, Aberdeen City Hospital, sends in the following report of a case under the care of Dr. Matthew Hay:

J. K., aged 4½ years, was admitted with diphtheria on December 24th, 1894, being the second day of the disease. He was a strong, well-nourished child, and presented on admission the following symptoms: On both tonsils a yellowish patch, throat reddened, breathing slightly impeded, croupy cough, and glands at the angle of the jaw slightly enlarged. Temperature 99° F., pulse 120, respiration 30. The same evening a culture was taken from the throat; a poultice was applied to the neck, and tr. digitalis mij, tr. ferri perchlor. mij prescribed three times daily. The throat was sprayed and brushed with a gargle consisting of pot. chlorat., liq. calc. sacch., ess. menth. pip., and glycerine. Next morning the patches on the throat were somewhat reduced in size, but the breathing was still impeded; pulse 116, respiration 24, temperature 97°. At 4.15 P.M. 5jss of Klein's antitoxin was injected into the back with due antiseptic precautions. On the following day, at 5 A.M., the breathing was much distressed, the alæ of the nose acting, and there being recession of the lower intercostals; pulse 140, respiration 28, temperature 98°. An emetic dose of vin. ipecac. was administered, which was followed by vomiting and some relief of breathing. At 10.30 A.M. the breathing was more impeded, sibilant in character, croupy cough, lips and cheeks much cyanosed; pulse 115, respiration 25. At 2 P.M. dyspnœa very urgent, pulse small, and very fast, 172; and tracheotomy was immediately performed, with relief of breathing. At 4 P.M. the

child was much better, face normal in colour; pulse 160, respiration 40. At 7 P.M. temperature rose to 100°; at 10 P.M., 102°; at 1 A.M., 98°.

On December 27th, at 4 A.M., temperature 102.6°, normal at 11 A.M.; child much improved, looks brighter, takes milk and brandy with relish. At 8 P.M. temperature 101°, pulse 120, respiration 36. On December 28th throat quite clean, child altogether improved, quite happy playing with its toys. This continued for the next two days, temperature varying from 97° to 99°, but on January 1st the child became drowsy, and showed disinclination to be disturbed or to take food; at 8 P.M. temperature 102.2°, pulse 144, respiration 30. Next day the child brightened up again, and temperature fell to 99°. On January 3rd, at 4 A.M., the breathing was somewhat obstructed, and there was slight cyanosis about the lips and cheeks. At 11 A.M. the cannula was removed, and some diphtheritic membrane was seen in the wound; the child was cyanosed. Examination of chest showed only a few moist *râles* over both lungs.

Another drachm of Klein's antitoxin was injected into the back; breathing stopped during injection, but the child was brought round by artificial respiration and brandy. An hour afterwards the child improved, the face regained somewhat of its normal colour, but the breathing still much obstructed. The child tried to cough but could not; it continued much the same during the evening, and died the same night. From December 26th the child lay in a steam tent. There was no albuminuria, and no reaction at the point of injection. The culture from the throat was examined microscopically by Dr. Dean, Pathological Laboratory, Aberdeen University, who found the characteristic diphtheritic bacillus.

This is the only case in this hospital which has as yet been treated with Dr. Klein's antitoxin, but several cases have been treated with Aronson's antitoxin. All of these cases, except three, were of such a character that they would probably have recovered under ordinary treatment.

One of the three cases was sent in as membranous croup, and no membrane was ever visible in the pharynx, although there were obvious symptoms of laryngeal obstruction. This child died about one day after the injection of antitoxin, but the child had been ill for several days before the injection was made.

In another of the three cases the condition of the child on admission was such that all previous experience indicated that it was almost certain to die. The injection of the antitoxin, which was made on the sixth day of the disease, was followed within twenty-four hours by a marked improvement, and the child ultimately made a good recovery.

The last of the three cases was also admitted in a serious condition. Antitoxin was injected on the third day of the disease, and was followed by improvement in the general condition of the patient, temperature, pulse, etc., and by a diminution in the membrane on the fauces; but distinct signs of obstruction of the larynx began after a couple of days to manifest themselves, and so increased as to necessitate tracheotomy. The child eventually made a good recovery. Without detailing the course of symptoms of this case it may be stated that the impression was given that the antitoxin had been serviceable in neutralising the effect of the diphtheritic virus on the body generally, and had materially promoted the recovery.

XXXIX.—Mr. O. C. Maurice (Marlborough) reports the following case:

A girl, aged 4, on December 19th, 1894, was at a large gathering of school children in Marlborough, where there was much diphtheria. On December 20th "she seemed to have a cold." On December 21st I was called in at 9.30 A.M. She was pale; breathing through her mouth. A dirty-looking membrane covered both tonsils. The palate was red and swollen. The glands in the neck were enlarged. Temperature 101° F.; pulse 148 per minute, regular and strong; respiration 30 per minute. A cultivation was sent up to the Clinical Research Association. Antitoxin ʒjss was injected into the back. Iron, brandy, and port wine administered. At 8.30 P.M. the pulse was 140, temperature 100°, respiration 20. The throat was much the same.

On December 22nd at 9 A.M. the pulse was 125, temperature 99, respiration 20. The throat was rather more covered with a white membrane, but the child, to all appearances, was better. At 2.30 P.M. the pulse was 120, temperature 99.4°, respiration 26. The throat was a little cleaner and less red and swollen. At 6.30 P.M. the pulse was 124, temperature 99.2°, respiration 18. The heart sounds were good. The throat was the same.

On December 23rd there was marked improvement; only a few shreds of membrane remained. The pulse was 118, temperature normal. The report from the Clinical Research Association stated that the diphtheria bacillus was present. On December 24th there was no membrane. The pulse was 108, temperature 98.8°. On the 25th the tonsils were slightly swollen; the pulse was 108. There was steady improvement afterwards.

On January 2nd there was slight erythema of the ankles and elbows; this soon passed off. There were very slight traces of albumen occasionally, after the injection, in the water—namely, December 29th and January 1st, and a very heavy deposit of urates.

XL.—Dr. T. H. Haydon (Marlborough) reports the following case:

A girl, aged 10. On December 29th she had slight sore throat in the morning. She was first seen about 6 P.M. Her face was flushed, her breathing thick, breath very offensive. Temperature 103.8°, pulse 146. The glands of the neck were swollen and tender on both sides. The tongue was slightly furred, no rash. The tonsils were swollen, the fauces red and œdematous. White membrane was visible chiefly over the posterior part of both tonsils.

On December 20th the throat had been syringed every three hours with chlorine water, and the child was taking a mixture containing liq. ferri perchlor. every four hours. The membrane had spread to the front of the tonsils and sides of the uvula and was thicker. The breath was very offensive. Temperature 101.6°, pulse 120. 12 noon.—Diphtheria antitoxin ʒj. mxv. was injected beneath the skin between the shoulders. Medicine discontinued. Throat syringed twice more during the day. 5 P.M.—Temperature 101.2°, pulse 120.

December 31st.—Temperature reached 100°, pulse 128. Fauces less swollen, membrane less extensive and thinner. No pieces had come away. The child was taking food (milk and beef-tea) well and seemed better. The urine showed a copious deposit of urates with a trace of albumen.

January 1st.—Temperature 99.4°, pulse 108. Herpes on lips. The glands were much less enlarged, the fauces were less swollen, only a little exudation was left on the posterior part of the tonsils. Some of it was scraped off and sent for examination. The throat was syringed at night.

On January 2nd there was very little swelling of the tonsils, the fauces were quite clean, the glands palpable. Temperature normal, pulse 110. The child was bright and swallowed well.

January 3rd.—Progress good. The urine contained no albumen.

January 17th.—There had been no complications.

On the first night I inoculated a tube and despatched it to the Clinical Research Association, but I had some difficulty in getting the swab to the back of the throat. The report on this cultivation was negative. I therefore sent up some of the membrane detached on January 1st, the second day after the injection of antitoxin. The report on this was as follows: The membrane showed 1, spirilla; 2, leptothrix; 3, cocci; 4, short thick bacilli; 5, large thick bacilli; nothing characteristic of bacillus diphtheriæ. The culture showed 1, bacillus diphtheriæ; 2, cocci.

XLI.—We are indebted to Mr. Crawley M. Perry, House-Surgeon, for the following case of laryngeal diphtheria at the General Hospital, Tunbridge Wells, treated with antitoxin prepared by Dr. Klein, under the care of Dr. Ranking:

S. W. S., a boy, aged 4 years, was admitted at 12 noon on December 6th, 1894. He had complained, on December 2nd, of headache; on December 3rd of sore throat, and vomited once. His mother noticed that he had a croupy cough.

On December 4th he was worse. A medical man was called in, and noticed slight laryngeal stridor. There was no enlargement of the glands at the angle of the jaw. The temperature was 102°.

On December 5th the temperature was normal, the breathing better, but the cough still croupy. Two white spots were to be seen on the left tonsil. That evening his condition was worse; there was stridor and slight recession of lower ribs.

On December 6th he was sent to hospital. Up to this time there had been no albumen in the urine. When he was admitted the cough was troublesome, markedly croupy. There was some inspiratory laryngeal stridor, and slight recession of the lower ribs. The glands at the angle of the jaw were slightly enlarged, as well as the glandulæ concatenatæ on each side. The tonsils were inflamed and swollen. There was a small patch of membrane on the inner side of the right tonsil, and two patches on the corresponding surface of the left tonsil. The child was very restless and the facies bad. The temperature was 97.8°, the respiration 20, and the pulse 120. Urine, specific gravity 1030, acid, turbid, with urates, no albumen. He was ordered liq. hyd. perchlor. ♏xx, and tinct. ferri perchlor. ♏v every two hours. The throat was directed to be mopped with liq. hyd. perchlor. and glycerine, ää every hour. During the day his condition improved. Food was taken well.

On December 7th, in the morning the improvement was maintained. The patches on the left tonsil had coalesced, but the patch on the right tonsil had not increased. The membrane was apparently separating; cough much looser; recession of the ribs was very slight. The urine was free from albumen. During the afternoon he slept quietly without stridor. In the evening the cough was worse, and there was slight stridor. The glands at the angle of the jaw were smaller.

On December 8th the cough was rather better, but still croupy. The glands at the angle of jaw were unchanged. The right tonsil was quite clean. The patch on the left was altered in character, having become more "creamy." At 9 P.M. the cough was much worse; there was increased stridor and more recession of the ribs. The general condition was worse. Temperature 99.4°; respiration 30; pulse 130.

On December 9th, at 3.30 A.M., the child's condition was as follows: Cyanosed. Marked stridor with both inspiration and expiration, deep recession of lower ribs, and also of episternal and supraclavicular spaces. The urine contained a trace of albumen. Temperature 99.6°; pulse 162. Tracheotomy was performed, with instant relief to symptoms. At 11 A.M. it was reported that he had slept for two hours. He was quiet and comfortable, took food well, and swallowed easily. Temperature 99°; respiration 30; pulse 132. At 3.50 P.M., the child appeared less well, and was very restless. Temperature 100.4°; respiration 38; pulse 118. One drachm and quarter of Klein's serum injected subcutaneously between the scapulæ. The child immediately fell asleep. At 8 P.M. the cough was less. He was taking food well. Temperature 101°; respiration 44; pulse 132. At 9.30 P.M. a small piece of membrane was expelled from the tube after a severe fit of coughing. The tube was blocked. Temperature 101.6°.

December 10th, 9.30 A.M., he had passed a very good night. He had coughed up several small pieces of membrane from the tube. The patch on the tonsil was unchanged. The child was much brighter. The mixture was stopped. Temperature 100.4°; respiration 32; pulse 120. At 1 P.M. much membrane was ejected, and two more pieces at 9 P.M., and one at midnight. During the day he slept for several hours and took food well. At 6 P.M. temperature normal; respiration 29; pulse 107. The urine was free from albumen. At 8 P.M. the child was playing with toys.

From this time recovery was uninterrupted. The tonsils were clean and the glands had gone down on December 12th. The tracheotomy tube was finally removed on December 13th. On December 17th there was a trace of albumen in the urine, but this was never found again.

The tracheotomy wound soundly healed by December 24th. The child was kept under observation until its discharge on January 6th.

No paretic symptoms have appeared up to the date of writing (January 22nd). The diagnosis was confirmed by bacteriological examination.

REMARKS BY DR. RANKING.

It is difficult to estimate the exact value of antitoxin in this case. Tracheotomy was performed in consequence of expiratory stridor supervening upon the inspiratory stridor. The glottis was evidently almost completely obstructed probably by a piece of loosened membrane. No obstruction existed below the opening in the trachea, only blood-stained froth being ejected from the wound. Without tracheotomy a fatal issue was inevitable. No untoward symptoms followed the antitoxin.

XLII.—The following is a summary of two cases of diphtheria treated by Roux's antitoxin by Dr. LOGAN, Assistant-Physician Infirmary for Children, Liverpool, in October, 1894:

CASE I.—F. W., aged 4 years, presented white membrane on the tonsils, pharynx, and uvula, which contained Loeffler's bacilli. After two days of local treatment the membrane disappeared; but by the fifth day it had returned as bad as ever, with considerable general depression and restlessness. In the evening of that day ♏xx of antitoxic serum were injected. The child passed a good night, and next morning was lively and made a fair breakfast. About noon only a few islands of membrane remained. On the third morning after injection only a doubtful speck the size of a pin head remained, the child in every respect had improved, and the case proceeded to complete recovery.

CASE II.—G. M., aged 6, had had a sore throat of several days' duration. It was found to be covered as to tonsils and pharynx with thick white membrane. The glands were enlarged. Loeffler's bacilli were found. I injected ♏xx of Roux's serum, and ordered a gargle, etc. In two days only slight improvement had occurred; the voice became husky. A second injection of ♏xx was given. Next day there was very distinct improvement, the tonsils being clear and only a few streaks remaining on the pharynx; the last of these was seen on the third day following the second injection. The day before the final disappearance a measles-like rash developed all over the body, but disappeared in a few days, and the child made a complete recovery.

THE ANTITOXIN TREATMENT ABROAD.

Germany.—In the *Prager medicinische Wochenschrift*, 1895, Nos. 1-3, Professor Ganghofner, of Prague, gives an account of the results which he has obtained by the serum treatment. The mortality in cases of diphtheria treated without serum showed an average of 49 per cent. between 1887 and 1894; in the latter year alone, before the use of serum, it was 43 per cent. The number of cases in which the diagnosis of diphtheria was established bacteriologically, and in which the serum was used, was 110. In 34 of these cases Schering's serum, and in 76 the Höchst preparation, was employed. As no difference in effect was noted, all the cases were counted together. Of the 110 cases, 14 (or 12.7 per cent.) died. In 44 of the cases intubation was performed, and of these 6, or 13.6 per cent., died. In 17 of the intubated cases the patients were infants of two years or under; of these 4, or 23.3 per cent., died. The mortality among children of this age period not treated with serum was 59 per cent. in 1894 and 72 per cent. in 1893. In 12 cases which came under the serum-treatment, when obstruction of the larynx was commencing, the dyspnœa was at once relieved, so that intubation was not required; on the other hand, of 8 cases which came under treatment at a time when the supply of serum had failed, intubation was required in 7, and of these 5 died. Of the 66 cases in which intubation was not performed, 8, or 12.1 per cent., died. As regards the effect of the serum on the local process, Professor Ganghofner's personal impression was that it was arrested more rapidly than the appearances in the throat would have led one to expect. As a rule, on the day following the injection there was some extension of the pseudo-membranous formation, on the second day there was sharp delimitation of the false membrane on the reddened mucous membrane, and on the third it disappeared or became detached. As showing the greater efficiency of the remedy the earlier it is used, Ganghofner gives the following figures: Of 3 cases treated on the first day of the disease, all, or 100 per cent., recovered; of 30 treated on the second day, 28, or 93.3 per cent., were cured; of 35 treated on the third day, 32, or 91.4 per cent., recovered; of 18 treated on the fourth day, 14, or 77.7 per cent., got well; of 9 treated on the fifth day, 6, or 66.6 per cent., were cured.

France.—The sum collected by the *Figaro* for serotherapy now amounts to 611,674 francs (nearly £25,000). M. Osiris has given 40,000 francs (£1,600) to the town of Nancy towards the establishment of a serotherapeutic institute.

Russia.—A circular of the Russian Custom House Department, dated December 21st, authorises the importation of Behring's and Roux's serum into Russia.

Austria.—Dr. Germonig has made a communication to the Medical Association of Trieste on 224 cases of diphtheria treated with Behring's antitoxin. According to the writer, the mortality from diphtheria in the civic hospital of Trieste before the use of the serum in the years from 1886 to 1894 was 60 per cent. of all cases admitted. In the tracheotomy cases it was 85.5 per cent., and in the others 44.5 per cent. Of the total number of cases, 224, treated with the serum, in 105 the fauces were affected, in 68 the larynx, and in 2 the uvula. The mortality was only 20.3 per cent. The author contrasts this with the previous mortality, 60 per cent., in the same hospital before the antitoxin treatment was used. As a proof that the epidemic was not of a mild form, of 65 cases treated in the old manner and at the same time in the hospital, 33—that is, 50.7 per cent.—died. A bacteriological examination was made in only a few cases for want of time and suitable means, but in the cases examined the Loeffler bacillus was always found. The writer divides the cases into three categories: the mild, the less grave, and the grave, including the septic. The mild were those in which the tonsils only were affected with slight glandular enlargement in children over 4 years of age; the less grave, those in which the exudation extended to the arches and to the uvula, the glandular swelling more pronounced, and the general symptoms more severe; the grave, those in which there were large exudations, with large glandular swellings, besides all cases in which the larynx and nose were affected; but, above all, those cases were considered most grave in which adynamy, anorexia, cyanosis, etc., were present. The number of mild cases was 31, and all were cured; the less grave 103, with only 1 death; the grave 90, of which 49 were cured and 41 died. Thus, out of a total of 224 cases, 182 were cured and 42 died. Two-thirds of the cases were treated within the first three days of the illness; three-fourths were under 6 years of age, and half under 4 years. The writer observed a rapid detachment of the membrane after the injections; in the majority of cases the membrane disappeared in from three to six days. In all the cases frequent thermometric observations were made. He observed in a number of cases an increase of temperature after the injection, and then a rapid diminution to normal within twenty-four to forty-eight hours. The fever was rarely protracted beyond the third day, excepting in the croupous form, when it remained elevated a longer time. Urticaria was observed in 26 cases after injection. Albuminuria was present in 111 cases. It was recognised before injection in 27. In the 65 cases treated without the serum it was found in 33. In 64 cases of laryngeal diphtheria intubation was necessary in 44 cases and tracheotomy in 2. Before the antitoxin treatment, in 27 cases of intubation 7 only were cured, that is, 25 per cent.; with the serum treatment 20 were cured out of 44, that is, 45 per cent.

Italy.—The Chief Council of Health for Italy, at their meeting held in Rome on January 22nd, discussed the question of the supply of antitoxin and drew up rules for its preparation and supply. The rules are to the following effect: That the manufacture of the serum be granted to all laboratories where they have sufficient means and where they can guarantee good faith for the manufacture; that the premises have all the necessary conditions so that the result may be satisfactory; that proof be given of the goodness of the serum for immunising the horses and of the efficacy of the antitoxin obtained from them; after the authorisation of the Minister of the Interior is obtained the laboratory is to be under the inspection of the sanitary officers.

The Municipal Council have established a laboratory in connection with the abattoir for the supply of the serum. The expenses of the laboratory have already been sanctioned by the Council and the culture of the antitoxin will be under the control of Dr. Gualdi, the Director of the Office of Hygiene, assisted by Dr. Barteanelli, who has recently returned from Paris, where he was sent by the municipality to study and report on the treatment as carried out by Roux. The serum will be provided gratuitously to the poor, and a small fee will be charged to those who can afford to pay it. In the meantime until the horses now being immunised are ready to supply the fluid Dr. Gualdi has obtained in case of need a considerable quantity from Behring's establishment. Rome is still comparatively free from diphtheria. Within the last few weeks a few cases have been published in the papers which were cured by injections of antitoxin.

United States.—The Bureau of Medicine and Surgery of the Navy Department has ordered Passed Assistant Surgeon Cordeiro to study the subject of the therapeutic value of the antitoxin treatment of diphtheria, and to report to the department.

A delegation from Philadelphia, consisting of Dr. Beiller, Commissioner of Public Safety; Dr. Shakespeare, of the State Bacteriological Department; and Drs. Ford and Heiser, members of the Philadelphia Board of Health, on January 12th visited the laboratories and stables of the New York Board of Health for the purpose of inspecting the preparation of antitoxin. The visitors were escorted by Drs. Biggs, Parks, and Beebe, who showed them the various processes. The Board of Health has appointed as inspectors to furnish antitoxin to the medical profession of the city Dr. Densell, of the Bureau of Contagious Diseases, and Dr. Huddleston, of the Bacteriological Department.

According to the Denver papers, to Denver belongs the distinction of being the first place west of the Missouri River to test the merits of the antitoxin in a severe case of diphtheria. Antitoxin of Berlin manufacture has been tried in two cases, one mild and one severe, both of which recovered. At the instance of the Arapahoe County Medical Association, enough antitoxin has been imported and brought to Denver to treat seven cases, the expenses being defrayed in part by contributions from the members of the Association.

THE BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

In a recent report to the Chairman and Council of the British Institute of Preventive Medicine, the director, Dr. Armand Ruffer, states that the Institute now has 21 horses, of which number 18 are ready to yield the diphtheria antitoxin serum. In order to minimise the difficulty of obtaining the serum in an aseptic state a special room has been fitted up at the farm where the horses are kept, and in it all the necessary manipulations will be performed. Working in conjunction with Mr. Nolan, Dr. Ruffer has been able to concentrate the serum to perfect dryness without the loss of any of its properties. This dried serum can be dissolved in a very small quantity of distilled sterilised water. Investigations are now going on with a view of isolating the curative substance. The results obtained from the use of the serum prepared by the Institute are stated to have been satisfactory. Dr. Matthews, medical superintendent of the Fountain Hospital, Tooting, reports that during October and November, 1894, 123 cases of diphtheria were admitted. Of these, 38 died, a mortality of 30.8 per cent. None of these cases were treated with antitoxin. During December and January 61 cases recognised clinically as diphtheria were treated with the antitoxin; of these, 10 died, a mortality of 16.3 per cent. The patients thus treated were almost exclusively children of 10 years and under, this limitation being necessary owing to the supply of serum being limited. Of the 61 cases recognised clinically as diphtheria, the specific bacillus was found in 55. All the 10 deaths occurred among these 55 cases, giving a death-rate among them of 18.1.

Dr. MacCombie, of the South-Eastern Hospital, reports that from January 1st, 1894, to November 20th, 1894, the average diphtheria mortality varied in different months from 38.0 per cent. to 23.0 per cent., the average for the whole period being 25.6. Since November, when the serum treatment was commenced, 102 cases of diphtheria have been admitted, and 15 have died, a mortality of 14.7 per cent.

At the North-Western Hospital Dr. Gayton reports that he has treated 43 cases with only 2 deaths, but only 7 of these cases were severe, the bacillus was demonstrated in all of them.

From the Western Hospital Dr. Bruce reports 68 cases with 10 deaths, a mortality of 14.7 per cent., but 4 of the cases under treatment are still in a critical condition. We hope to

refer more fully to these statistics from the Asylums Board's hospitals at an early date.

The following arrangements have been made for the sale of the curative serum and the bacteriological examination of cases of diphtheria or suspected diphtheria: (1) The serum may be obtained by any registered medical practitioner either from the Director of the British Institute of Preventive Medicine, 101, Great Russell Street, London, W.C., or from Messrs. Allen and Hanburys, Plough Court, Lombard Street, E.C., at the price of 1s. 6d. for 30 c.c. (nearly ℥j). (2) Purchasers will be understood to give an undertaking that the serum is for use in the United Kingdom or the British Colonies. (3) On receipt of 1s. in stamps a special sterilised box for the transmission of membrane will be sent to any medical man. The fee for examination of the membrane will be 2s. 6d., but for this fee, whenever the bacillus has been isolated, the examination will be repeated without extra charge until the patient has been found to be free from diphtheria bacilli.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XXXVI.—OLDHAM, LANCASHIRE.

The chairman of the Oldham Board of Guardians himself responded to our request to be allowed to visit the workhouse infirmary, and courteously acted as our guide through the sick quarters and such other parts of the house as we wished to see. The workhouse is situated on the outskirts of the town, of which the staple industry is cotton weaving. The bulk of the inmates are drawn from the town, but the union embraces also some of the agricultural population. The house is well situated as regards air and light, and the infirmary proper stands to the side of the main building and at some little distance from it.

The Infirmary

is built on the pavilion scheme, and consists of three blocks of two floors each; these are connected by a light iron bridge on the first floor level; there is no covered ground floor passage. Two blocks are for male patients and one for female, each block holding about 90 beds. The wards vary in size from 6 beds in the small wards to 25 in the large wards. The staircases are wide and open, communicating with spacious landings. The surface of the walls is glazed brick. The heating is by means of central fireplaces, one or more according to the size of the ward, the flue passing under the floor. The lighting is by gas. The wards are ventilated by large windows, which face each other in the large wards, and by Tobin tubes. The cubic space, judging by the eye, is ample, as there is wide space from bed to bed, and in the middle of the ward.

Classification.

The patients are not strictly classified into medical and surgical cases, nor are the wet cases kept apart (this is not necessary where the sanitation is good), but the lock cases are in a separate block apart from the hospital, under the charge of the children's hospital nurse, and the imbeciles are cared for in separate wards attached to the main building. One ward in the hospital is set apart for male phthisical patients. The cases treated are such as may be found in the wards of a general hospital, and the medical officer informed us that, with the resources at his disposal, he should be prepared to do any operation, or to carry out any treatment he considered necessary.

The Wards

are fitted with all appliances for nursing: the bedsteads are hospital size; the material of the beds varies. In the male ward we found some spring mattresses; on the female side the beds are flock, but in the lock wards, for special cases in the general wards, straw is used. Each floor has its own bathroom, with hot and cold water supply, lavatories, and waterclosets; also a small scullery attached and nurse's room. There are no day rooms, but one ward in each block is used for convalescents. The men smoke in the wards. The wards are in telephonic communication with each other and with the master's quarters.

The Lying-in Ward

is an eight-bed ward on the first floor in the female block, exactly the same style of ward as those for the other patients. We were surprised to find no labour ward, and this we think should not be omitted from a modern hospital. A poor woman should have more privacy at such a time than the doubtful seclusion of screens, and the expectant patients are better able to face their trial if spared the knowledge of all the details of another's case.

The Nursing Staff

in these blocks consists of a charge nurse and two probationers for each block, under the supervision of a superintendent nurse, lately promoted from the post of senior nurse to the entire charge of the infirmary. At night one charge nurse and two probationers are now on duty, assisted by wardsmen and women. This is an increase on the amount of night nursing which prevailed until recently, but we cannot but regard the night staff as still insufficient.

The superintendent nurse is the midwife; the probationers are kept in training for two years, and six of them have just completed that period. We had not an opportunity of learning from the medical officer what course of instruction is pursued, but we understand that he has only recently been appointed.

The Children's Hospital.

intended for the reception of patients from birth to 16 years of age, is a separate building complete in itself. At the time of our visit there were 57 patients under treatment, cases of hip-joint disease, excision of the hip, spinal disease, hypertrophied heart, rheumatic fever (recovering), strumous disease of the glands, tuberculosis—such cases, both acute and chronic, as are to be found in the wards of a general hospital for children. In the same building, and included in the above-mentioned number, are the children with their mothers who are in quarantine. Before the newly-admitted children are passed into the schools or the body of the house, they undergo quarantine in this block for a fortnight, and are under the care of the nurse of the hospital. The appointments of the block are good, the cots and bedsteads suitable, the wards and day rooms airy and cheerful, with toys and books for the amusement of the patients.

There is one Nurse

on duty; besides her charge of the sick children she is responsible for the families in quarantine and the lock patients in the separate block. When we consider that the quarantining of the families includes the handling and cleansing of children who are often in a filthy condition when admitted, and who may have some contagion about them, we can hardly regard this as a good distribution of offices; it might introduce a most troublesome and expensive epidemic among the little patients. The quarantine department also appeared to us to be dangerously close to the children's wards; it is under the same roof.

There is no night nurse in this block, nor has the nurse any skilled assistant. She informed us that her nights were of necessity frequently disturbed, and we wondered how those recumbent cases and the child with hypertrophied heart were handled at night by the pauper women.

The Infirm and Old

are lodged in the house; there is no paid attendant in this department, only pauper help. This part of the house looked older than the infirmary buildings.

The Infants

are in the house with their mothers; we understood that the system was that the mother should have the entire charge of her child until it was old enough to pass on into the schools. We asked the chairman whether there was any supervision over the feeding and rearing of these babes; he replied that

there was no special officer, but that no reason for altering the present system had arisen, nor was there any ground for supposing that the food issued for the nursery was tampered with. Our impression as we passed among the infants was that it would pay to have a responsible nurse in the improved *physique* of the little ones; it is the period when the foundations of a healthy constitution are laid, or the tendency to disease accentuated.

The Imbeciles

and fit cases are in separate blocks under the care of day and night attendants; their wards are somewhat crowded, especially if a case of sickness has to be nursed there. The chairman informed us that the Board is endeavouring to improve this department; but there is some disagreement between themselves and the Local Government Board over the details of the scheme, and the whole matter is at a standstill.

Diet.

We were in the house at the dinner hour. The food for all the departments is prepared in the kitchen; it is carved and divided on a heated table, and despatched in jacketed tins; the nurse informed us that it reached the infirmary quite hot. The sick diets are in the hands of the medical officer.

The Airing Courts

for the hospital are the gardens in front of the blocks, with grass plats and flower beds, or the courts behind the pavilions. The convalescent children were playing on the terrace in front of their hospital.

The Nurses

are lodged at the schools, so that they sleep quite away from their patients. The superintendent nurse has her quarters in the hospital. There is no resident medical officer. Pauper help is used to a limited extent. The beds of the convalescents and of the simpler chronic cases are made by the inmates. They fetch, and carry, and do the cleaning, but they do not meddle with the patients. A wardsman or woman is on duty in each ward during the night.

Recommendations.

The structure of the hospital is modern, and well adapted for its work, except in the particular noted in the lying-in ward, which is a blot, and might, we believe, be altered without much expense. We would recommend, further, the removal of the quarantine department to a safe distance from the children's ward, and the placing it under another officer. We would suggest, also, an increase of the nursing staff, especially for the children. There is valuable material here for the training of probationers, which should be utilised, and the most is not done for the children while they are not nursed at night. The appointment of a night superintendent for the hospital and of a responsible attendant for the nursery is also desirable.

"PAUPER NURSING IN PRESTON."

Dr. Thos. Pimley (Preston) writes with reference to a paragraph under this heading in the British Medical Journal of January 26th, to state that Dr. Williams is not the medical officer, but a guardian of the Preston Union. He adds that there is no pauper nursing at the workhouse infirmary, but a staff of trained nurses; this has existed for some years. Paupers who have convalesced and are strong enough assist the nurses in the menial work only.

STOCKPORT.

We are glad to see that at last this Board is taking steps to relieve the overcrowding in this house. It will be remembered that when our Commissioner visited in the summer of last year the house was then overfull, and in the winter the congestion must have increased, especially in the infirmary, where the condition of the sick as represented in our report was such as could hardly be credited in these days. At the last meeting of the Board a resolution was proposed and adopted "to erect temporary wards for the sick and infirm in accordance with plans which have been submitted to the Local Government Board." This action has been taken none too soon for the comfort of the inmates or the credit of the new Board.

OKEHAMPTON.

Mr. George L. Fulford, Clerk to the Okehampton Union, writes to us with reference to the report on the workhouse infirmary of that union, stating that when applied to by our Commissioner for a copy of the diet schedule he replied that there was "no fixed dietary for the sick inmates in the workhouse, but they are allowed such food and nourishment as the medical officer from time to time orders." The inquiry made was as to the existence of the "dietary sheet for the sick;" it appears that no such dietary scale exists.

CORK SOCIETIES MEDICAL OFFICERS' INDEMNITY FUND.

All the medical officers of those societies in Cork which have refused to accept the rules adopted by the profession, have voluntarily resigned these societies, and are determined not to take them up again until the rules are complied with.

The total income so resigned is nearly £1,000 per annum. A deduction must be made from this for medicine, which was in some cases supplied by the medical officers. Taking the rate for medicine at 5s. yearly per member, the net income resigned would be over £700 per annum. The greater number of medical officers of societies so resigned are young men, whose chief practice was dependent on those societies; and it is for the purpose of making good this loss that the indemnity fund is being raised.

It will also be available for aiding financially in any other way that may be deemed necessary the prosecution of the campaign against the clubs that have refused to accept the rules.

For it must be remembered that not only have these medical officers resigned, and their resignations been accepted, but the societies are being parcelled out amongst three or four medical men who have been imported for the purpose of preventing the medical profession from obtaining its fair and reasonable demands from the societies.

As we have already announced, the Council of the British Medical Association at its last meeting adopted a resolution strongly condemning the admission of unsuitable persons as members of medical clubs and friendly societies, and expressing its deep sympathy with those medical men who have been compelled to resign their positions in connection with such organisations in Cork. The Council further resolved to render to the profession in Cork all the assistance in its power, and invited the members of the British Medical Association to subscribe to the indemnity fund which has been opened in Cork. The subscriptions should be sent to Dr. Denis Dempsey Donovan, treasurer, 51, King Street, Cork, to whom cheques should be made payable. The following subscriptions have been received:

	£	s.	d.		£	s.	d.
Dr. N. J. Hobart, Cork ...	20	0	0	Dr. J. Macmahon, Cork ...	10	0	0
Professor E. R. Townsend, M.D., Cork	20	0	0	Dr. Oscar T. Woods, Cork...	10	0	0
Dr. P. J. Cremin, Cork ...	20	0	0	Dr. C. O'Conner, Cork...	5	0	0
Mr. J. G. Curtis, F.R.C.S.I., Cork	20	0	0	Dr. D. J. O'Mahony, Cork	5	0	0
Professor S. O'Sullivan, M.D., F.R.S.I., Cork ...	20	0	0	Dr. P. T. O'Sullivan, Cork	5	0	0
Dr. W. D. Donovan, Cork...	20	0	0	Dr. N. H. Runciman, Cork	5	0	0
Professor H. Corby, M.D., Cork	20	0	0	Dr. P. Tracey, Cork	5	0	0
Dr. T. Gelston Atkins, Cork	20	0	0	Dr. M. J. Murphy, Cork ...	5	0	0
Dr. J. Cotter, F.R.C.S.I., Cork	20	0	0	Dr. R. Dalton, Cork... ...	5	0	0
Professor C. Yelverton Pearson, M.D., F.R.C.S. Eng., Cork	20	0	0	Dr. M. O'Connell, Cork ...	5	0	0
Dr. H. R. Townsend, Cork	20	0	0	Dr. P. J. Daly, Cork... ...	5	0	0
Dr. W. Ashley Cummins, Cork	20	0	0	Dr. D. Flynn, Cork	5	0	0
Dr. Arthur W. Sandford, Cork	20	0	0	Dr. H. Hobart, Cork ...	5	0	0
Dr. E. Magner, Cork ...	20	0	0	Dr. N. J. Townsend, Cork...	5	0	0
Dr. J. Guisani, Cork ...	15	0	0	Dr. E. Murphy, Cork ...	5	0	0
Dr. Philip Lee, Cork ...	10	0	0	Dr. C. Roche, Cork... ...	5	0	0
Dr. P. B. Moriarty, Cork...	10	0	0	Dr. E. W. Allsom, Cork ...	5	0	0
Dr. P. Hayes, Cork... ...	10	0	0	Dr. T. Callaghan, Cork ...	5	0	0
				Dr. M. Cahill, Cork... ...	1	1	0
				Dr. P. Dee, Cork	1	1	0
				Dr. J. O'Meara, Cork ...	1	1	0
				Mr. H. T. Butlin, F.R.C.S. Eng., Harley Street, London	5		0
				Dr. A. Hargreave, Tralee co. Cork	1	1	0
				Dr. W. P. Herringham, Wimpole Street, London	1	1	0

The annual meeting of the Medical Defence Union will be held at the rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, W., on Wednesday, February 6th, at 5 P.M.

The minutes of the General Medical Council for the year 1894 have now been issued in a complete form. This issue forms volume xxxi of the minutes, and is published at the price of 12s. It can be obtained either from Messrs. Spottiswoode and Co., or at the office of the General Medical Council, 299, Oxford Street, London, W. The volume contains seventeen appendices, and we have already indicated its general character, but Mr. Miller, the Registrar, has now provided a general index to the volume.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, FEBRUARY 2nd, 1895.

SANITATION IN WAR.

Colonel Maurice, in an article in the *United Service Magazine* for February on the War between China and Japan, points out that in reference to the sanitary conditions of the mass of human beings now assembling round Pekin, "a medical question of the greatest general interest needs to be answered. It is, within what time after the warm, moist weather sets in ought we to expect actual illness to follow upon the hopeless sanitary neglect of vast disorderly congregations of men, with many neglected animals, collected around that city?"

It appears that, in anticipation of an assault on Pekin by the Japanese, the Chinese are collecting round that city half a million of men, who have next to no discipline or organisation, and hardly any knowledge of what these words mean; whilst everywhere they show by their filthy habits that they have not the faintest idea of the most ordinary military or sanitary precautions. He surmises that, so long as the dry cold weather lasts, no danger will ensue from the gathering of this host about Pekin, but he pertinently asks what will happen when the snow, which has been fouled by hundreds of thousands of men and animals, melts in the spring? And he concludes that as soon as the warm moist weather sets in the consequence must be a frightful outbreak of pestilence of a malignant type.

The geographical position of Pekin, situated in a sandy, alluvial plain, in 40° N. latitude, places it, as it were, on the boundary line of sub-tropical disease. The extremes of climate are great, 0° F. to 104° F.; the mean annual temperature is 52° F.; the mean winter range is 12° below freezing. The rainfall, which occurs chiefly in July and August, is less than 16 inches. These physical and climatic conditions so far warrant the anticipation that disease both of the tropical and temperate zone characters may be expected; and considering the ignorance of, and disbelief in, the efficacy of sanitary precautions, intensified by naturally filthy habits, impure drinking water, and squalor of living, the demoralisation of defeat, the crowding of vast numbers of men in insanitary dwellings, and the absence of discipline and moral control, it may well happen that diseases such as fevers, dysentery, diarrhœa, cholera may at any time rapidly assume a virulent and epidemic type, destructive to life and fatal to the prospect of successfully resisting the attack of the gifted nation which within so comparatively recent a period of their history have adopted the ideas and practical methods of Western nations, and who day by day are proving how vain it is for ignorance and barbarism to resist them.

Colonel Maurice's question, then, is easily answered. All past experience teaches that when human beings are collected in masses and kept for any length of time under such noxious influences as he describes, the Nemesis of neglect of simple hygiene is quick to punish those who defy her laws and ignore her teaching, and very probably, could the actual state of matters be known, he would find that the penalty is already being exacted, though no doubt when heat and moisture are added, thawing the snow, saturating the ground, and fouling the water with the products of decomposing organic matter, and diffusing the germs of disease, ochletic and zymotic maladies will rapidly, within a few days or at most weeks, become more prevalent and destructive, and his vaticination will speedily be realised in the spread of fever, bowel complaints, and other diseases.

In his brief but graphic account of the present and prospective conditions of Pekin and its environs, Colonel Maurice gives a description of conditions which will inevitably entail the direful results to which he looks forward, and it is a duty of all who speak with authority and experience on such questions to emphasise the warning and endorse the recommendation he has given to all who can do so without neglect of duty, to make their escape—the sooner the better—from the surely impending evil which in some form may break out at any time.

A recent issue of the *Daily Graphic* contains a striking sketch of the method adopted by the Japanese of disposing of the slain after a battle. The bodies of the dead are placed in light cases, and are cremated in a large fire kindled for the purpose. It would appear from this that the Japanese have acquired from their European instructors in military organisation and tactics wise sanitary ideas as to the best methods of disposing of their dead. It would probably be generally admitted by sanitarians that however religious belief or other motive may influence the disposal of the dead, during a pestilence or after a great action the safest method is by cremation if it can be properly carried out.

In 1871 the battlefields of the Franco-Prussian war brought this question into prominence. The French Government was then urged to apply cremation to bodies dead on battlefields, but it would not appear that this has been subsequently adopted to any extent in recent wars. Cremation, however, as a popular method of disposing of the dead, would seem to be gaining ground slowly. Gotha was the first European Government that authorised the practice. In most European countries it is, under certain restrictions, tolerated rather than encouraged, and whilst the conditions exist for burial under due sanitary precautions there is absolutely no necessity, from that point of view, for cremation, but for the slain after a great battle, in crowded populations and great cities, in any locality where pestilence may prevail, and where the number of dead may be much in excess of the earth's space that would be available for the disposal of disintegrating bodies, there cannot be a doubt that cremation, properly carried out, would be a most effective sanitary proceeding, and its adoption worthy of due consideration.

It is not surprising, viewing the advanced conditions of

the Japanese social and military systems of the present day, that they should have adopted this procedure, and, so far as we may judge, it seems to be done decently and with due respect to the dead.

Much might be said, no doubt, from the sentimental aspect of the question. But it must be remembered, however the process is brought about, that the body has to be resolved into its original elements, and obviously, if the number of dead be excessive, it is desirable that this process should be effected with the least danger to the living. Dr. Parkes pointed out that neither affection nor religion can be outraged by any method of disposal of the dead which is done with the proper solemnity and respect to the body—the earthly dwelling place of the departed. The question is one to be considered entirely from a sanitary point of view.

With respect to the common methods of disposing of the dead after battles—burying them in trenches, often but too shallow, so tainting the air, soil, and subsoil water—it is to be remembered that the results of this method might continue for years to be a source of disease. Whilst it is quite admitted that a body placed at a certain depth below the soil, in proper and suitable earth, is gradually disintegrated and resolved into its constituents, this is not the case where numbers are crowded together in insufficient space, in soil perhaps not suited to the purpose.

The only doubt with reference to the cremation of the dead on the battlefield would be whence the necessary amount of fuel would be forthcoming; but of course, given a sufficiency of that, so as to ensure complete cremation, no better sanitary method of disposing of the dead could be found.

Whatever sentiment may say upon the subject the result is the same ultimately, whether it take place in a few hours under the influence of heat, or whether it take place in a few years under the influence of natural processes—the resolution of the body into its constituent elements. We are, therefore, inclined to commend the proceedings of the Japanese, always assuming that the process is completely and thoroughly effected, and to express a conviction that other nations would do well to follow their example in times of war or pestilence, whatever may be their custom of disposing of the dead under ordinary conditions.

GENERAL PARALYSIS.

The old proverb—It is the pace that kills—finds nowhere a more striking illustration than in this disease which, under the hurry, anxiety, and excitement of modern life, is becoming more and more common. For some unexplained reason the affection is more common in this country than in many others, and is, comparatively speaking, infrequent in Scotland. This has been explained by Northern patriots as another illustration of the harmlessness of whisky as compared with beer, a fallacious argument, for the onset of general paralysis may have been preceded by no excesses, and, given other factors, may occur in total abstainers. But while much with regard to the etiology remains obscure, one factor is almost always to be traced, namely, hard work under conditions of excitement and responsibility.

Among the educated classes it is men, and occasionally women, in the prime of life, whose careers are arrested at the point when success is almost in their grasp. Among skilled artisans too, it is often the industrious earnest man who is singled out—the man who is always anxious about the quality of his work, and will work all night, if allowed, [illegible] and there are many, though not so large a number as is usually imagined, in whom previous excess appears to have caused the onset of symptoms; but in many cases this conclusion is due to a confusion between cause and effect, since in most cases of general paralysis a certain amount of moral perversion is symptomatic of the early stage of the disease. The disease is practically confined to the first half of adult life, and those who have stood the strain until they are 50 need have little fear of being attacked by this terrible complaint.

The name of the disease gives little guidance to the symptoms met with, and many different clinical groups are classed under the same head. One feature, unhappily, is common to them all—the progressive character of the paralysis and the absence of any hope of recovery, medicine being powerless at present to do more than delay the inevitable result. In all forms, also, when the disease is once established, there is gradual steady failure of the physical and mental powers of the patient, until finally the paralysis becomes complete, and death closes the scene.

There is probably no disease of such gravity in which the onset is more insidious. On looking back, when the physical weakness, etc., have become marked, and the disease has declared itself, symptoms are remembered lasting for years past, which by themselves seem trivial, and are looked on as mere accentuation of personal peculiarities, but which, taken together, have the gravest significance. "Restless, unwonted activity, mental and physical, is of frequent occurrence; a feeling of superabundant energy, for which there appears no adequate relief; often undue irritability, which will not brook control or contradiction; an unreasonable demand upon the time and indulgence of others; waywardness, fickleness, or outbursts of furious passion upon trivial pretexts in those who had previously been more self-controlled and amiable; a growing change in the disposition and character, usually signalised by perversion of some one or more of the moral sentiments, a fact of primary import from the medico-legal point of view." Such is the description of the symptoms found grouped in most early cases, given some years ago by one of the greatest living authorities.[1] The occurrence of some of these symptoms separately is common in healthy persons, but when several of them occur together, and persist, a close watch should be kept for any more definite signs. These usually occur from the physical side. There is no longer the power of executing finely co-ordinated movements, "the right hand has lost its cunning," tremulousness of the facial muscles of expression becomes prominent, and a similar tremulousness affects the muscles of articulation, so that the speech can scarcely be distinguished from the thick slurring speech of intoxication, for which it is frequently mistaken. The subsequent course of the disease varies remarkably in different cases. In many there is mental excitement, with the development of delusions of grandeur, followed ultimately by dementia, and the description of this classical form is too well known to require further comment. But in a considerable number of cases met with in practice

[1] Bevan Lewis, *A Textbook of Mental Disease*.

this phase of mental exaltation and of delusions is absent, and the only mental change is the perturbation already described as belonging to the initial stage, and the gradual uneventful failure of the mental powers which is an invariable symptom of the disorder. Neurologists frequently see such cases both in hospital and private practice, and their number appears to be rapidly increasing. In this type of case the course of the disease appears to be somewhat less rapid, but the fatal termination is rarely delayed beyond four or six years from the time when the disease manifested itself.

In its nature as a degenerative structural disease general paralysis comes into the same pathological group as locomotor ataxy, etc., and although there are few diseases which have been as carefully studied by a host of painstaking and able observers, and although the morbid changes have been more thoroughly worked out than in almost any other disease, it is still a reproach to medical science that power to prevent or cure these conditions is not at present within our grasp.

THE "BRITISH PHARMACOPŒIA."

While it would be ungrateful not to recognise the debt which the medical profession in the United Kingdom owes to the General Medical Council, and especially to its Pharmacopœia Committee, of which Sir Richard Quain was for so many years the active chairman, it must, we think, be admitted that, if the *British Pharmacopœia* is to serve in the future as a useful guide, it must at the approaching revision undergo important modifications. The last revision dates from 1885, and in 1890 an *Addendum* was published containing a number of new drugs and preparations. At the last meeting of the General Medical Council some discussion took place as to the lines which should be followed in the preparation of the next edition, and at the next meeting of the Council in May the constitution of the Pharmacopœia Committee is to be reconsidered. At that meeting the question of associating with Professor Attfield, who acted as editor of this last revision, one or more persons conversant with other than the pharmaceutical aspects of the work of editorship will be considered, and there is a strong feeling both within and without the Council that there should be one or more medical editors. Other important questions will arise or have arisen, and already, in view of the proposed extension of the operation of the *British Pharmacopœia* to the Colonies and India, official inquiries have been made. Already many replies have been received, and it is hoped that the medical and pharmaceutical authorities in Greater Britain will continue and extend the assistance already given.

The *British Pharmacopœia* ought to be the *vade mecum* of the British practitioner, but it is to be feared that at the present day this is hardly the case. The volume by successive accretions has swollen to unnecessary proportions, the strength assigned to the various preparations does not appear to be based upon any logical principle, and the dosage is a source of bewilderment to the student, and of unnecessary worry and uncertainty even to the experienced practitioner. The fact is that as a work for medical men the *British Pharmacopœia* in its present form is both redundant and deficient. It seems to be desirable, upon all these points, and upon many others which might be enumerated, that the opinions and needs of the medical profession should find expression. The General Medical Council, as on former occasions, has applied for the assistance and advice of the medical corporations and of the Pharmaceutical Society, but it seems desirable that before the meeting of next May some opportunity should be afforded to the general body of the profession for a discussion of the many points in which the *Pharmacopœia* touches their interests and the daily difficulties of practice. We have therefore made arrangements for the publication of a series of articles dealing with various departments of the subject in a systematic manner, and we publish to-day the first of these, an article by Dr. Lauder Brunton on the *British Pharmacopœia* from a Prescriber's Point of View, which will form a general introduction. Other articles will follow upon the foreign *Pharmacopœias*, upon the chemistry of the *Pharmacopœia*, on the criteria for the admission of new drugs, and upon other matters of practical importance. The Therapeutic Committee of the British Medical Association has already commenced inquiries upon various points, among which we may mention an investigation as to the obsolete and needless remedies and needless details as to preparations at present contained in the *Pharmacopœia*. Upon this subject we hope to have the opportunity of publishing a report from the Committee at an early date.

The Scottish Universities Commissioners held a meeting in Edinburgh on January 21st, at which eight members were present.

The Library of the Royal College of Surgeons of England will be closed on February 13th, 14th, and 15th, on account of the Hunterian Festival.

The Friday evening discourse at the Royal Institution on Friday, February 8th, will be by Dr. G. Sims Woodhead, who has taken for his subject the Antitoxin Serum Treatment of Diphtheria.

We understand that Mr. Bland Sutton, F.R.C.S., Assistant Surgeon to the Middlesex Hospital, has accepted the post of Surgeon to Out-Patients at the Chelsea Hospital for Women, and that he will have charge of three beds.

The late Dr. Robert Anstruther Goodsir, who died at Edinburgh a fortnight ago, has, by his deed of settlement, left the residue of his estate to the trustees for the Goodsir Memorial Fund, which was established in commemoration of his brother, the late Professor John Goodsir, for many years Professor of Anatomy in the University of Edinburgh.

We have received from a correspondent a circular purporting to be issued by an accident insurance company, offering to effect an insurance against accident for persons who will subscribe to the British Medical Journal through the company at certain special rates. We desire to state that we know nothing of this company, or of the arrangement proposed in the circular.

The next meeting, on Tuesday, February 5th, of the Pathological Society of London will be devoted to a discussion upon pneumococci, with relation especially to immunity. Dr. Washbourn will open the discussion, Dr. A. E. Wright will contribute some notes on the bacteriology and pathological chemistry of pneumonia, and several members have already promised to take part in the debate. A series of microscopical slides of the various appearances of pneumococci under different conditions will be shown.

OYSTERS AND TYPHOID FEVER IN AMERICA.

At a meeting of the State Fish and Game Commission held in Albany on January 4th, the State Oyster Inspector presented a report in which he stated that he had fully investigated the subject of the possibility of oysters becoming contaminated with typhoid fever germs while undergoing the "floating process," and that he had found but one stream, situated on Staten Island, where such danger existed. He was ordered by the Commissioners to demand a discontinuance of the use of this stream.

ARGON.

On the afternoon of January 31st, at a meeting of the Royal Society held in the theatre of the University of London, Professor Ramsay read the long-expected paper containing in some detail the evidence upon which he and Lord Rayleigh base their discovery of a new element as a constituent of the atmosphere. The theatre was crowded by an audience which received the statement with much warmth. As is already known, the conclusion is based mainly on the observation that atmospheric nitrogen when sparked with oxygen or passed over heated magnesium leaves a residue, while nitrogen chemically prepared leaves no residue, or a residue so small as to be within the limit of experimental error. This residue is a gas possessing properties which, as Dr. Armstrong, the President of the Chemical Society, observed in the subsequent discussion, are most remarkable. It is the most inert body known, and so far as has yet been ascertained cannot be made to combine with any other body. Lord Rayleigh and Professor Ramsay have for this reason given it the name Argon (*αν εργον*). It is, they hold most strongly, either an element or a mixture of elements. Its atomic weight is probably 39.6, its density 19.9 (oxygen 16, nitrogen 14). Its freezing point is −189.6, that of nitrogen being −214. Argon freezes into crystals at first transparent then opaque. Mr. Crookes subsequently described his spectroscopic observations. Argon possesses a double spectrum, in this respect resembling nitrogen and certain other elements. Mr. Crookes expressed a very definite opinion that the spectroscopic evidence was strongly in favour of the view that argon was in reality a new element.

INAUGURATION OF THE ABERDEEN STUDENTS' UNION.

The first meeting of the Joint Committee appointed by the Aberdeen University Court, Senatus, Town Council, General University Council, and Students' Representative Council to consider as to the inauguration of the Mitchell Hall and the Students' Union took place in Marischal College on January 26th. Nineteen of the twenty-six members of the Committee were present. It was the unanimous finding of the Committee that the inauguration ceremonies should take place in the course of the week beginning October 25th, 1895. A letter was read at the meeting from Dr. Mitchell, the generous donor of the Mitchell Hall, expressing his ready concurrence with any plans that might be made.

NAPOLEON'S MEDICAL ESTABLISHMENT.

Sir Charles Dilke in his early Republican days astonished the House of Commons with a formidable list of the physicians, surgeons, and apothecaries attached to the Court. As most of these appointments are purely honorary the House was not so much scandalised by the prodigality of Royalty in the matter of medical advice as the austere advocate of retrenchment expected it to be. Queen Victoria seems to interpret the text, "In the multitude of counsellors there is safety," in the same manner as Sir Walter Raleigh in *Kenilworth*, namely, as meaning that the safety is more for the counsellors than for the counselled. From a list which we have come across in a French paper Napoleon the First, in choosing his medical advisers, appears to have had regard to quantity as well as to quality. His Physician-in-Ordinary was Corvisart, with a salary of £1,200, and an allowance for "office expenses" of £160 a year. Then there were Halle, with a salary of £600; Lafranque, Guilloneau, Lerminder, and Bayse, each of whom was "in waiting" for three months with £320 a year each. Besides these were Malet, Le Dieux, Pinet, and Audry as Consulting Physicians, each with a salary of £120. Then came the surgeons: Boyer, Surgeon in Ordinary, with £600 a year; Yvan, with £480; Horeau, Varcillaud, Lacournère, Ribes, each "in waiting" for three months in the year, and each drawing a salary of £240. Besides these there were Jouan, with £240; Lossonfade, with £180 and apartments at Saint-Cloud; Pelletan, Percy, Sabattier, and Dubois as Consulting Surgeons, each with £120. There was a dentist, Dubois, with £240, and a *pédicure*, or corncutter, Tobias Koenig, with £96. Then came the apothecaries: Deyeux, with £320 a year; Clarion, with £200 and apartments at Saint-Cloud; Rouyer, Cadet, each with £120; Oruelle, with £72; Lecœur, with £60; and Boudouard, the dispensary attendant, with £40. Napoleon was not an ungrateful patient; Dr. Antoine Dubois, who gave his name to the Hospice Dubois, received as his fee for attending the Empress Marie Louise at the birth of the King of Rome the sum of £4,000 and the title of Baron.

WORK FOR THE LADY GUARDIANS.

We would direct the attention of lady guardians to the clothing of workhouse inmates, which is often insufficient. In more than one house, to our certain knowledge, the women are only allowed a cotton dress, and one petticoat, often of very thin flannel, underneath. From a house in the neighbourhood of a northern city we have information that the old men over 50 are not allowed a singlet, even though accustomed to wear one before coming in; and this, unhappily, is not an isolated case. In this department the lady guardians can step in, and, by making inquiries of the inmates and by personal investigation, can bring the matter before their Board and have a sufficiency of clothing provided for these old people, who need more rather than less clothing. Where there are no lady guardians we would suggest to our medical brethren that they should investigate the clothes worn by the old and and infirm under their care, and when insufficient order more to be issued to them. To strip an old man of his singlet and then send him to pick oakum or chop wood in a shed is—shall we say, "not very humane."

TETANUS ANTITOXIN.

The British Institute of Preventive Medicine now possesses a horse immunised against tetanus, and is ready to supply a certain amount of tetanus antitoxin. The price of this will be 2s. 6d. for 1 gramme of dried serum, or 2s. for 10 c.cm. of liquid serum. This supply is limited to the United Kingdom and Colonies, and it is made a condition that none is to be sent to foreign countries under any circumstances whatever. Applications should be made to the Director of the Institute, 101, Great Russell Street, London, W.C.

MIDWIVES AND BABY-FARMING.

An inquest was lately held at Fulham on the body of a child which died two days after birth. The mother, a young domestic servant, was confined at the house of a certificated midwife. Two hours after its birth, the child was taken away by the woman who had been engaged to nurse it, and had already been paid four weeks in advance for doing so, and two days afterwards the child died. According to the report in the *Daily Telegraph*, evidence was given that while the mother was in this establishment five women were confined, and that there were five more women waiting; also that it was the custom to send the children away at once as it was necessary for the mothers "to have perfect quiet;" that the midwife who ran this institution

"had some nice nurses she could recommend," and that she received 10s. a piece from these nurses for the introduction; that she had been mixed up in the Acton baby-farming case; that one nurse had received from her a child, aged 10 hours; another, aged half an hour; another, 1 hour; another, 14 days old; and that all these children had died; also that since 1893 she had sent five children to Wales, and that four of these were dead, etc. The jury did not think the evidence sufficient to justify a verdict of manslaughter, but, we think quite properly, asked the coroner to lay his notes before the Treasury. When the regulation of baby-farming was under discussion in the Legislature it was thought hard that an honest woman taking in one child to nurse should have to be registered, so that loophole was left open. The result is that instead of a few baby-farms we find a number of unregistered nurses of single babies, together with a central emporium for the distribution of these unfortunate infants, unregistered and untouched by law because infants are never kept there. Now the interesting point is that this woman is a certificated midwife, and those who object to the registration of midwives will hold up their hands in horror and exclaim that this is the sort of thing that registration will produce. Those, however, who think differently about registration, will see a different teaching in this case; they will see that if registration were enforced and the practice of unregistered midwives were suppressed, a woman so misbehaving herself could at any moment be deprived of her livelihood, and that no amount of voluntary education or examination, without a law behind it making it compulsory could have the slightest influence on such misdeeds. If those who oppose the registration of midwives will boldly maintain that none but fully qualified doctors, male or female, shall attend confinements, then we shall understand their position, and also the difficulties thereof.

UNIVERSITY OF WALES (PRIFYSGOL CYMRU).

The final preliminary meeting of the University Court was held at Shrewsbury on January 25th to complete the statutes and organisation of the University. The meeting was a long one, the Court sitting, with brief intervals, from 10 A.M. to 10 P.M. A full draft of statutes was definitely approved and ordered to be submitted, after necessary legal revision, to the Crown for approval. Some further regulations as regards the matriculation examination were enacted and arrangements made for the appointment of matriculation examiners for June next. An offer from the Gilchrist Trustees to establish a studentship in education was accepted. Lord Aberdare was unanimously elected, subject to Her Majesty's approval, the first Chancellor of the University; Dr. Isambard Owen was elected Senior Deputy Chancellor, and Mr. A. C. Humphreys-Owen, M.P., Junior Deputy Chancellor. Mr. Ivor James, Registrar of the University College at Cardiff, was appointed Registrar, and Mr. C. Maynard Owen, LL.M., of 11, Victoria Street, Westminster, Solicitor to the University. Appointments were also made to the Theological Board.

THE SICK POOR IN PROVINCIAL WORKHOUSES: OLDHAM.

Our Commissioner's report of the workhouse infirmary at Oldham describes a fairly well-appointed hospital of modern structure, where pauper nursing has been discarded almost entirely in favour of trained nurses, and where the training of probationers for Poor-law work is carried on. We hope that at no very distant date every large infirmary will be a training school for such nurses, who will thus learn their work under the conditions to which they will afterwards be subject. Where so much has been done it may seem invidious to notice defects, but they are such as may be easily remedied, and perhaps only need to be pointed out. There are still too few nurses on duty at night; one charge nurse and two probationers for three blocks, each containing over 90 patients, cannot be considered sufficient. The children's hospital seems to be under-staffed by day as well as by night; there were 57 patients in this department at the time of our Commissioner's visit, and the nurse had charge also of the families in quarantine, and of the female lock patients in a separate block. This is too much for any one nurse; children require more nursing than adults, and it is an unsatisfactory combination of duties. It is an oversight, moreover, not to teach the probationers the handling of sick children, a very special and valuable part of a nurse's training. And why is there no nurse on night duty in this block? The absence of a labour ward is a common defect, but one which ought not to be found in a modern infirmary; perhaps the guardians may see their way to alter this, as well as to increase the nursing staff.

SCOTTISH LUNACY COMMISSION.

The Queen has been pleased, on the recommendation of the Secretary for Scotland, to approve of the appointment of John Fraser, M.B., M.R.C.P.E., at present a Deputy Commissioner of the Board of Lunacy for Scotland, to be a full Commissioner in the room of Sir Arthur Mitchell, K.C.B., M.D., etc., retired. Dr. Fraser graduated at Edinburgh with First Class Honours in 1870. He is a member of the Royal College of Physicians of Edinburgh; he was formerly Medical Superintendent of the Fife and Kinross District Asylum, and in 1877 he was appointed a Deputy Commissioner in Lunacy, an office which he has filled with zeal and efficiency, and in such a way as to call for the respect and regard of his colleagues in the Lunacy Office, as well as the Poor-law officials with whom he has come in contact. The Secretary for Scotland has at the same time recommended John Francis Sutherland, M.D., to be Deputy Commissioner in Lunacy for Scotland, in the room of Dr. Fraser, thus promoted. Dr. Sutherland is a distinguished graduate of the University of Edinburgh, where he took the degree of M.D. in 1880, receiving a gold medal for his thesis. He is at present medical officer to H. M. Prison in Duke Street, Glasgow; consulting medical officer to H. M. Prison, Barlinnie; and in 1894 he was appointed Secretary of the Departmental Committee on Habitual Offenders, Vagrants, and Inebriates. He is the author of "Hospitals, their History, Construction, and Hygiene," "Breakdown of the Hospital System," "The Treatment of Dipsomaniacs," "Habitual Offenders," and many other able papers.

STORE PRICES.

We have received from a correspondent a copy of the issue of the price list of the Civil Service Co-operative Supply (Limited), 28, Haymarket, London, S.W., dated December, 1894. On the second page we find the following announcement:

NAMES OF PROFESSIONAL MEN WITH WHOM BENEFICIAL ARRANGEMENTS HAVE BEEN MADE BY THE SOCIETY.

SURGEON.

[Here follows the name and address of a F.R.C.S.]

DENTISTS.

[Here follow the names and addresses of four dentists.]

STOCK AND SHARE BROKERS.

Members can obtain particulars on application at the Secretary's office.

Next there follows the name of a ship, yacht, and insurance broker, an art designer, a civil engineer, and patent agent, then there is the heading "Architect," with the note, "Particulars may be obtained on application to the Secretary." Next we have a sanitary surveyor and ventilating engineer, next an expert in landscape gardening and forestry. At the bottom of the page is the notice, "Full particulars as to special terms can be obtained from the Secretary." It is interesting to note that the names of the stock and share brokers are not given. The rules of the Stock Exchange, we

believe, forbid advertising by members of that body. Surely it is not too much to ask that the medical profession should be as sensitive on the point of honour as the stockbrokers. The architect, also, appears to think it well that his name should not have a place in this trade circular. The appearance of the name of a Fellow of the Royal College of Surgeons of England in such a connection will not be altogether agreeable, we should apprehend, to the other possessors of this diploma. In the issue of the price list dated last June the names of two surgeons appeared, and we hope that the disappearance of the one may shortly be followed by the disappearance of the other and by the cessation of any arrangement of this nature, which certainly does not conduce to the good reputation of the profession in the eyes of the public.

PRESCRIBING BY CHEMISTS.

The *Morning*, of January 23rd, reports another fatal result of this mischievous practice, carried on to a large extent by some chemists. At the inquest held by Dr. Danford Thomas it was shown that the medicine contained chlorodyne, and was of a highly improper nature for a person suffering from disease of the heart and kidneys. The chemist who supplied it excused himself by stating that he would not have given the medicine if the facts of the case had been known to him, but that excuse rather aggravates the indiscretion. Nothing can justify such a haphazard distribution of patent medicines, which is quite as objectionable as the worst form of nostrum-mongering. The exceptional privileges conferred upon chemists in regard to the supply of poisons and patent medicinal preparations would be misapplied if they fail to exercise the caution in supplying dangerous articles which their superior education and special qualification are supposed to ensure. This is a matter of importance in connection with the increasing demands of chemists for recognition as something more than ordinary tradesmen, and it will be well for those who are active in their endeavours to promote the well-being of the pharmaceutical body to direct their attention to the discountenancing of practices which are calculated to obstruct progress in that direction.

WORKHOUSE ADMINISTRATION: A HUMANE CIRCULAR.

A circular, dated January 29th, has been issued by the Local Government Board to the various newly-elected guardians drawing their attention to certain points connected with workhouse administration. No new rules or regulations are put forward in it, but it is a circular of considerable importance in that it is a public reminder that the official tone in dealing with workhouse inmates should be one of kindness to, and consideration for, the infirm, the aged, and the sick, which guardians will do well to note. It is pointed out that whilst workhouses were in the first instance provided chiefly for the relief of the able-bodied, and their administration was therefore intentionally deterrent, the sick, the aged, and the infirm now greatly preponderate, and that this change in the character of the inmates has made necessary a change in the spirit of the administration. Attention is drawn to that most important general order issued in January, 1893, under which authority was given to every member of a board of guardians to visit the workhouse at any reasonable time, and to the desirability of using this power in the way of surprise visits, so as to ascertain the real character of the administration. The appointment of visiting committees is recommended, and also of committees of ladies to examine those parts in which women and children are maintained. Classification is enjoined together with such further subdivision of the classes as may be possible with regard to moral character and behaviour. Under the head of nursing, the circular says that while in many workhouses an adequate standard of efficiency has been attained, "there are many workhouses where the present nursing arrangements have not been brought to the standard of modern requirements, and the Board must strongly urge upon the guardians that this matter should receive their most careful consideration .... The guardians should be satisfied that the nursing staff, by day and by night, is in numbers fully equal to the proper [illegible] of the sick, they should also be careful when they make appointments of nurses, that the persons appointed are by training and experience fully equal to the responsible duties which they have to discharge." The care of imbeciles, and of children, and the desirability of sending the latter to the public elementary schools and to Sunday schools of their own denomination are touched upon, as also are the questions of dietaries and of clothes.

PERSONAL DISINFECTION IN LONDON.

The work of disinfection in London is making steady progress under the new regulations imposed by the Public Health (London) Act, 1891. The number of districts now provided with steam disinfecting apparatus has increased since last April from 16 to 22, and the number of sanitary authorities providing shelters whilst the disinfection of homes is proceeding has increased from 13 to 22 out of the 40 sanitary authorities. Somewhat different views have been taken by the several sanitary authorities who have provided a shelter as to the character of the accommodation required. In some instances the accommodation is provided for use by night, but in others only day accommodation has been considered necessary. The time occupied in the removal of infected articles to the disinfecting station, in their disinfection and in their return extends to several hours. The time occupied in the purification of the room, often the only room of the family, extends to many hours. It is obvious that the use of the shelter by night must be contemplated in any arrangements made. The provision of baths, as Mr. Shirley Murphy points out, is another consideration which must be borne in mind, for opportunities for personal cleanliness are very necessary for those coming from infected houses.

TOBACCO IN ILLNESS AND CONVALESCENCE.

Tobacco is to some worthy persons what the Pope is to Exeter Hall, what the "New Woman" is to Mrs. Lynn Lynton, what science is to Mr. Stead, what untaxed ground rents are to Progressive County Councillors. It is not altogether a bad thing that there should be red rags of this kind with vigorous bulls always ready to charge them. These onslaughts bring a little salutary excitement into our lives, and make us more appreciative than we otherwise might be of the pleasures we are so strongly urged to deny ourselves. If tobacco has been violently denounced, it has had ardent defenders. Most advocates, however, have been content with vindicating the comforting herb from the aspersions of its enemies. The most recent of them, however, Dr. Ludwig Jankau, of Munich, drops the apologetic tone, and stoutly maintains that tobacco is not merely permissible, but is actually indicated in the case of the sick and convalescent under certain conditions. After surgical operations, for instance—except those on the abdomen or bladder—smoking is beneficial if the patient feels the desire for it. In diseases of the eyes and mouth tobacco should be forbidden; but in such cases the patient is not likely to wish to smoke. In peritonitis, typhlitis, and perityphlitis smoking is also likely to be harmful. In organic disease of the heart mild tobacco may be allowed in moderation to patients who have been smokers from early life. In the early stage of phthisis smoking is often useful, owing to its undoubted bactericidal power; Dr. Jankau thinks it retards the development of the disease. He thinks the disinfectant properties of tobacco also make it of service in syphilitic affections of the mouth, but the quality of course should be of the mildest. In the subjects of nervous disease no general rule can be laid down; sudden withdrawal may do harm, and the practitioner should regu-

late the quantity of tobacco consumed rather than forbid the use of it altogether. Dr. Jankau attaches great importance to the filtration of tobacco smoke through cotton-wool. On the whole, apart from certain well-defined conditions, Dr. Jankau thinks the best practical guide in determining whether a patient should be allowed to smoke or not is the presence or absence of desire for tobacco. As regards the best time for smoking, Dr. Jankau has made experiments which have convinced him that the best time, at least for convalescents, to smoke is not immediately after a meal, but two or three hours later. Another favourable time is towards evening, when the physiological rise of temperature takes place. Most smokers hold with Calverley that tobacco is "at close of day possibly sweetest," so that for once hygiene and the habit of the natural man are in agreement.

SCOTTISH BRANCH OF THE QUEEN VICTORIA'S JUBILEE INSTITUTE FOR NURSES.

The sixth annual report of this excellent institute for providing trained nurses for the sick poor in their own houses has just been issued. The Scottish Council is made up of a President (H.R.H. Princess Louise, Marchioness of Lorne) and eight members appointed by Her Majesty, eight members are recommended for appointment by eight public bodies, eight by the subscribers, and a member each by associations employing not fewer than six Queen's Nurses. On October 31st 1894, the Scottish Council were directly responsible for 33 nurses, of whom 14 were undergoing hospital training and 13 six months' district training. During the year 21 nurses have, on completion of training, been engaged from the home by local committees; 10 nurses have been removed from the roll for various reasons There are now 51 associations affiliated to the institute, and constituting the Scottish branch; 8 new affiliations have taken place during the year, and 2 have withdrawn from affiliation because they wished to retain nurses who are not Queen's Nurses. In Edinburgh and Leith 55,621 visits were made by the nurses of the institute. The income amounted to £1,583 and the expenditure to £2,046, and the deficiency of £463 was made up from a reserve fund. During the year courses of lectures on hygiene, obstetrics, and fevers have been given to the nurses by physicians in Edinburgh.

LOW TEMPERATURES AND PHYSICAL LAWS.

Professor Dewar is continuing his investigation on gases at temperatures near their boiling point, and in the course of a lecture at the Royal Institution, delivered on January 18th, communicated some of his latest results from this new field of investigation. There can be no doubt of the great interest attaching to his work; the value of his investigations of course depends on the fact that by means of the increased facilities he has at his command the range of inquiry is widened to an extent never before obtained. It is not that he has managed to produce liquid air even in large quantities that gives his work its value, but that he is able to obtain by its means sufficiently low temperatures to conduct inquiries into general physical laws at such low limits, thereby immensely widening the range of inquiry from which generalisations may be drawn. His latest work has been on phosphorescence and photographic action at the temperature of boiling air, that is, about 190° C. below the freezing point of water. At such a temperature he finds that many of the commonest objects, such as cotton, leather, silk, feathers, and even flowers, acquire the power of phosphorising. With regard to photographic action, on the contrary, he finds that while a sensitive plate does not entirely lose its sensibility to light, yet its capacity for chemical change under its influence is immensely weakened. Such are his main results, and their value, of course, consists in the facts which they afford for explanation of molecular hypotheses. Regarded in this light, they may even have direct bearing on more purely medical and physiological questions, but we could wish that the science of physiological chemistry was in a more fit condition to receive their full benefit.

RECTAL EXAMINATION OF THE UTERUS AND ITS APPENDAGES.

Everyone knows the freedom with which air may be made to distend the vagina when a patient is examined in the genupectoral or in the semiprone position; but we doubt if it is generally recognised that when a patient is placed in the genupectoral position, the thighs being vertical, the insertion of a tube through the anus so as to allow air to enter the rectum causes this viscus to become distended, the small intestines falling out of the pelvis into the abdominal cavity, and the rectum filling like a balloon with air, the anterior surface applying itself broadly over the posterior surface of the uterus and the left broad ligament. Immediately after filling the rectum with air the tube is to be removed, and if then the patient be placed in the ordinary dorsal position and a bimanual examination be made *per rectum* and abdomen, the finger is felt to enter the large cavity of the rectum without the customary resistance, the communication with the upper bowel between the utero-sacral folds is readily found, and the finger is conducted behind the broad ligament, when, on using the outside hand in assistance, uterus, broad ligament, ovaries, and tubes are at once palpated directly through the rectal wall without resistance and with startling distinctness. According to Dr. Howard Kelly, in the *American Journal of Obstetrics*, May, 1894, the true pelvic viscera are thus seen, as it were, to be skeletonised in the pelvis, lying so clearly exposed to touch that the minuter surface peculiarities, fissures and elevations, and changes in consistence can be detected more rapidly and with far less effort than under ordinary conditions.

KISSING AS A CURE FOR DYSPEPSIA.

Some months ago we called attention to an attempt on the part of the Orange (New Jersey) Board of Health to "put down" kissing as a London magistrate of bygone days tried to "put down" suicide. While allowing that in kissing it might sometimes happen that *medio de fonte leporum surgit amari aliquid* in the form of inoculable disease, we ventured to back human nature against hygiene. The matter excited a good deal of interest at the time, and the possibility of infection being conveyed by the lips has, we hope, been impressed on the public mind to an extent sufficient at least to protect children against the kisses of amiable but tuberculous strangers. *Cassell's Saturday Journal* has thought it worth while to get the opinions of "several leading physicians" on the subject. The replies of these authorities are interesting, but we have not space to deal with them in detail. Sir William Moore and Mr. H. A. Reeves look at the question from a thoroughly scientific point of view; and Dr. Norman Kerr, while "trusting and believing that kissing will last as long as the world standeth," is also fain to admit its possible danger. On the other hand, Sir Benjamin Ward Richardson has "never seen an instance of affirmative evidence on the point;" and Mrs. Louisa Atkins, while admitting that local disease may be transmitted by kissing, is doubtful about the communicability of general diseases. Sir Richard Quain has, it seems, paid no attention to the spread of microbes for kissing, being fully occupied, it may be presumed, with less frivolous matters. Decidedly the most interesting reply, however, is that vouchsafed by Dr. A. E Bridger. This "leading physician" expresses the opinion that "in the act of kissing we encounter only beneficent organisms." He adds that "the advantages of kissing outweigh its infinitesimal risk, for it provides us with microbes useful for digestion." We must congratulate Dr. Bridger on having discovered a remedy for dyspepsia, which has at any rate the merit of acting *jucunde*. His teaching can hardly fail to make kiss-

ing even more popular than it is. It will probably be found that the "beneficent organisms" required flourish in greatest abundance on the lips of the young and comely, and in carrying out the treatment sufferers will doubtless be eager to abjure the vile heresy of homœopathy by kissing only persons of the opposite sex. The dose of "microbes useful for digestion" will be cheerfully taken both before and after meals, and at other times *pro re natâ*. Here is a new opening for commercial enterprise. There is pretty sure to be a run on "microbes useful for digestion." Could not stock farms of suitable subjects be formed where the beneficent organisms" might be reared under the most favourable conditions, so as to ensure a constant supply of high quality? If this vision were fulfilled it might come to pass that mankind might be delivered from the dragon of dyspepsia, which now levies so heavy a tribute from us.

AN INGENIOUS TOY.

A TOY has recently been brought out which will possess interest to all who have studied colour vision and the physiological side of optical science. It is extremely simple, consisting of a flat circular disc mounted as a top. One half of the disc is white, the other black. On the white half are drawn in different positions small segments of black circles concentric with the circumference. If one were asked to prophesy what would be the result of the fusion of black and white colour sensations which occurs in spinning the top, one would possibly say grey. But the remarkable fact is nevertheless true that the rings appear coloured—red, yellow, blue, and violet. On reversing the top, the order of the colours is reversed. The top is the invention of Mr. C. E. Benham, who calls it the artificial spectrum top. His explanation of the phenomenon is not, however, satisfactory. The top has been shown at the Physiological Society, but the assembled physiologists failed to advance any explanation at all. Colour sensations as the result of mixing black and white are not altogether unknown to physiologists, but there has never been any good hypothesis advanced to account for them. The subject demands renewed and careful study, and we shall await with interest a scientific reason for this curious phenomenon, which any of our readers can see for themselves if they purchase the top. The price is only one shilling. It can be obtained of Messrs. Newton and Co., 3, Fleet Street, E.C.

A MEDICAL POET.

DR. THOMAS GORDON HAKE, who recently passed away in his 86th year, was a member of our profession who had acquired a very considerable reputation as a poet among those specially qualified to judge. He took his doctor's degree at Glasgow in 1831, and became a Member of the Royal College of Physicians of London in 1859. For many years before his death however, he had ceased to practise. His first work, *Yates*, a prose epic, was published in 1839. Among his subsequent productions were "Madeline," "Parables and Tales," "New Symbols," "The Pirmedes," "Legends of To-morrow," "The Serpent Play, a Divine Pastoral," "Maiden Ecstasy," and the "New Days." Two years ago he published *Memoirs of Eighty Years*, and in 1893 he was granted a Civil List pension of £65 a year "in recognition of his merits as a poet." Dr. Hake was related to the late General Gordon, and was an intimate friend of Dante Gabriel Rossetti and other members of that gifted family, and of Mr. Swinburne, Mr. Theodore Watts, and other men of distinction in literature and art. So warm an admirer of his poetry was Mr. D. G. Rossetti that for the only time, we believe, in his life he played the part of reviewer, to make his friend's work known to lovers of poetry. Dr. Hake may be said—though in a different sense from Keats—to have been a poet's poet, for, greatly as his poetic gift was appreciated by such judges as we have named, he never succeeded in gaining the public ear. There was a depth of thought, an inwardness of feeling, and a restraint which, while appealing strongly to reflective natures and earning the approval of a critical judgment, leave the ordinary reader comparatively unmoved. There is nothing distinctly traceable to his medical training in Dr. Hake's poetry, which is rather the expression of a deeply religious mind full of the enthusiasm of humanity than of an imagination inspired by the wonders of Nature or a love of scientific truth. A good idea of his style and cast of thought may be got from the selection of his poems which was published about a year ago with a prefatory note by Mrs. Alice Meynell.

FOOTBALL AND ALBUMINURIA.

DR. MACFARLANE, of the Albany (New York) Medical College, has recently made a series of observations on the urine of football players which are of considerable interest, showing that in the urine passed immediately after a game albumen and tube casts were present in every one of the twenty players examined. It is well known that after severe exercise, long marches, or severe runs, albuminuria has pretty often been found; and, in proportion as one accepts the results of the more refined and delicate tests, so does the presence of small quantities of albumen in the urine seem to pass the boundary between pathology and physiology, and tend to appear as a not uncommon occasional constituent. In these cases of Dr. Macfarlane's the test employed was Heller's test, with cold nitric acid; and, in the majority of them, the line of opacity was very well marked, in most of them being from one-sixteenth to a quarter of an inch in thickness. The specific gravity in five cases only was above 1025, and in no case above 1030. Sugar was absent in all cases. The striking thing, however, was the presence of tube casts, which were found in every case, mostly of the granular, but sometimes of the hyaline, variety; and in a few cases blood casts. There was blood in the urine in several cases, besides those in which there were blood casts. Finally, Dr. Macfarlane propounds two questions: (1) Can such a condition be repeated twice or oftener a week without doing to the kidneys some damage, which, although it may go for years unrecognised, will eventually lead to serious renal change? (2) Is it not dangerous for men whose kidneys may have been weakened by previous disease—as scarlet fever—to subject themselves to such a violent strain? These questions can be answered only by prolonged and careful observations, but there is no doubt that the subject opened up is one of considerable interest and importance.

CHARITY AND TAXATION.

DURING the last epidemic of cholera in Kieff Christians eagerly asked to be admitted to the Jewish Hospital, which thus rendered important services to the inhabitants of the stricken town. The *Jewish Chronicle* announces that the Russian Minister of the Interior, has now ordered that a sum of 17,946 roubles shall be paid to the Jewish Hospital in "view of its excellent management and of its great service at the time of the cholera epidemic." There is a certain picturesque completeness about the further order as to the source from whence this grant is to be drawn. It is to be paid out of the fund formed by the tax on Kosher meat.

DR. A. S. DOGEL, Professor of History and Embryology in the University of Tomsk (Siberia), has been awarded the Baer Prize by the St. Petersburg Academy of Sciences for his researches on the Nervous System. The prize consists of a gold medal, with a sum of 1,000 roubles. An American scientific society has also made a grant of 250 dollars to Professor Dogel towards the expense of publication of his work.

DONATIONS AND BEQUESTS.—The late Mr. C. W. Savage, who died at Westbury-upon-Trym on Dec. 6th, 1894, has by his will bequeathed £200 to the Bristol Royal Infirmary, £200 o the Bristol General Hospital, £100 to the Bristol Children's Hospital, and £100 to the Bristol Eye Hospital.

THE FIRST
INDIAN MEDICAL CONGRESS.

[FROM OUR SPECIAL CORRESPONDENT AT THE CONGRESS.]

The first Indian Medical Congress has been opened, and is proceeding under impressive and favourable conditions. Upwards of 700 members have been enrolled. The leading medical men from all parts of the great Indian Empire are in attendance. A fine building has been placed at the disposal of the Congress by the liberality of the Brotherhood of St. Xavier, where a spacious hall is provided for the general meetings, with adequate rooms for the sections, and an excellently arranged and interesting museum. The time chosen for the meeting and the place alike justify the wisdom and tact of the promoters of the Congress. Many had expressed doubts whether the difficulties raised by the vast distances to be traversed and the preoccupations of the medical officers of the army and civil medical services might not prove to be insuperable obstacles to the success of the gathering; but, as Surgeon-Colonel Harvey said in his opening address, difficulties are only spurs to successful effort when encountered with ability and courage, and they have so proved on this occasion. Lord Elgin, the Viceroy and Governor-General of India, and Sir Charles Elliott, the very able and sympathetic Lieutenant-Governor of the great province of Bengal, have wisely given their hearty and cordial support to the project, and have accepted the offices of Patron and Vice-Patron respectively. The hospitalities accorded to the members, delegates, and visitors have been profuse, graceful, and picturesque. The Governor-General, who is singularly diffident and even shy, has been less prominent in this respect than was anticipated; but his admirable address at the opening was marked by friendliness and largeness of view, tempered, of course, by the caution of a great official whose hands are tied by higher powers at home, conscious of a highly depleted exchequer, and under the pressure of the economical screw, which is just now being applied with extreme pressure, and which the medical service is always the first to feel. The extreme hardship of the prolonged terms of service which the medical officers are compelled to serve—beyond those of any other department—and which adds to their mortality and invaliding, already beyond that of the combatant departments, whether in peace or war, is not justified, but is only apologetically excused by the lowness of the public exchequer and the consequent necessity of coining their blood into drachmas. The short-handed condition of the service, which throws extra work on the officers, overwhelms them with official reports and writings and leaves them little time for study or clinical investigation of their cases in any thorough and scientific manner; the bareness, nay, the miserable poverty of their clinical equipments; the dearth of hospital and school laboratories for such studies of disease and treatment; the want of microscopes and clinical apparatus—these are all signs of the poverty of this country (so often erroneously regarded as typical of wealth). There is no great perception of the vital importance of some of the latter direful needs among the majority of the elder heads of the departments, and, of course, among the lay chiefs there is absolute indifference and a plentiful ignorance. One hears with distress some men in the higher places in the medical department sneering at "bacilli" and speaking with the covert contempt of uninstructed blindness and of the ancient ignorance of the schools of half a century ago of "bacteriology" as something new fangled and doubtful in its utility. Of the fact that microscopic examinations of the blood and tissues of the diseased body and chemical clinical study are as essential now as "feeling the pulse" and "looking at the tongue" were in the days when they went to school many men of official leading here are still not only ignorant, but incredulous.

Between want of funds, therefore, and want of knowledge, the services fare badly, and it is not surprising that the keynote of Lord Elgin's address was "the surprising cleanliness of the native" (save the mark!) as though washing a floor or brightening a pot with poisoned road dust meant cleanliness, or as though cleaning the outside of the platter meant saving of life. To this also must have been, in large measure, due the singular dictum that the best evidence of scientific conviction was to tolerate eternal postponement and delay, and that inert patience was the test of robust assurance. These paradoxes are better adapted as official excuses than as the watchwords of progress. So long as great official personages make them central points of the pronouncements at great assemblies aiming at medical progress, we must expect that barrenness of medical research, that notable absence of contributions to life-saving knowledge, which has so long been and still is the reproach of Indian medicine, great as are the abilities of its overworked medical men, and beneficent as have been the results there of the applications of preventive medicine.

Dr. Harvey and Dr. Simpson, the medical officer of Calcutta, who have been the leading promoters of this Congress, are men of another type, and, as will be seen from their addresses, they are fully alive to the necessity of affording to medical officers a better equipment—microscope, clinical equipments, and apparatus for really scientifically studying by, and treating their patients otherwise than by mere rule of thumb. Professor Hankin and Dr. Haffkine, the eminent Russian pupil of M. Pasteur, will also produce results which may serve to show the value of methods and opportunities of original research.

Mr. Ernest Hart took the opportunity of a short speech which he was called upon to make in thanking the Viceroy to sound this note. No doubt it will be heard further, and the greatest service which this Congress can render is to open the eyes of the Government and municipalities of India to the great need there is of a larger encouragement of the progressive medicine of to-day, and of the younger men who are best qualified to practise and to further it. At present India has made few of the contributions which might have been expected of her to our new knowledge either of preventive medicine, of clinical medicine, or the curative art and therapeutic resource.

Eight hundred medical men, or, to speak exactly by the book, 799 practitioners, took out their tickets as members of the Congress. Not only have these included a very large proportion of the leading European and native practitioners of Calcutta and its neighbourhood, but men have come from the furthest parts of India, at great cost of time, fatigue, and money, to attend the meetings and take part in the proceedings. From the North, as far as distant Cashmere, delegates have travelled on a continuous journey occupying as much as twelve days, from a distance of upwards of 1,200 miles, parts of which had to be traversed in tongas, over rough roads and through mountain passes. Representatives are present from Travancore in the far South. Most of the leading medical notabilities from Native States are present, including such men of European reputation as Hendley from Jeypur, Lawrie from Hyderabad, Lethbridge, the distinguished Inspector-General of Gaols, Owen, Rowe, King, Watt, Hankin from Agra, Tuohy from Lahore, Warburton from the Punjab, and others whose names are not less known.

The great hall was crowded at the opening ceremony, and presented a curiously picturesque appearance, no small proportion of the members wearing the native costumes. These were all qualified and registered medical practitioners, some of them members of the Indian Military and Civil Medical Services, educated in England, and all the others educated and examined on the English medical system in the Calcutta University or in the Colleges of Lahore, Bombay, and other great centres. On the dais were the Viceroy and Lieutenant-Governor, with a brilliant staff, and many of the leading members of the Viceroy's Council. General Brackenbury, General Lance, and other civilian members have followed the proceedings with deep and sympathetic interest. The Calcutta newspapers such as the leading paper the *Englishman*, the *Statesman*, the *Indian Daily News*, and papers in other parts of the country such as the *Pioneer*, have not only reported the proceedings with great ability and at great length so far as they related to matters of public interest not purely technical, but have also commented upon their purport and importance with intelligent sympathy. The difficulty of reporting the sectional proceedings has been very great

owing to the multiplicity of sections and the absence of adequate arrangements for furnishing abstracts of the papers or report of the interesting, but sometimes desultory discussions. With an improvised organisation, and without any adequate supply of shorthand writers with whom Calcutta is but imperfectly supplied, I have found it very difficult to obtain simultaneously a fair record of all that has been done in all the Sections, and to select from the material matter best suited to interest and instruct European readers. I may say, however, that the most important events of the Congress have been the addresses delivered at the general meetings by Surgeon-Colonel Harvey, Dr Crombie, Dr. Watt, Dr. King, and other of the sectional presidents. Surgeon-Colonel Harvey's address was a model of tact, penetrating judgment, and skill in dealing with important though thorny subjects in medical administration, and it had the great advantage of being independent and suggestive without giving any offence. It was delivered with vivacity and fluency, and kept the attention enchained throughout. I have reason to know that it has attracted the serious attention of the leading members of Government, and is likely to produce valuable results.

Dr. Crombie devoted himself to the critical discussion of the distinctions, all-important in India, between the varieties of malarious fever, malarious remittent and typho-remittent fevers, distinctions, however, which are so inadequate and so incomplete as evidently to demand much more accurate and scientific clinical research than it has yet been possible for Indian physicians amidst their overwhelming official labours and private avocations to bestow upon them. Dr. Crombie showed Laveran's bodies from preparations obtained in Italy during his recent visit to the Roman Congress, and confirmed, from his own experience, the statements of Italian and other European observers as to their universal presence in the blood of patients in India. As upwards of 4 millions of deaths occur annually in India from malarious fevers that empire offers a vast field for the further observation of the life-history of these bodies and their relation to the causation and prevention of this extremely fatal class of a disease which Mr. Ernest Hart, in the elaborate address dealing minutely with this subject, subsequently declared to be mainly conveyed by drinking water, and therefore to be eminently preventible. This view of the question has not yet been much considered in India but it will henceforth claim, and is even beginning at once to receive, the earnest attention of the profession and of the Government. The addresses of Dr. Watt on the Indigenous Medical Plants of India, and of Dr. King on the Hygienic Conditions of the Country were most valuable contributions to knowledge.

In the sections the most important scientific papers were undoubtedly those of Dr. Simpson Professor Hankin, and Dr. Haffkine, Dr. Simpson has added to his already great reputation as a sanitarian, combining the rare qualities of great administrative power, successful organising capacity, and unusual ability in original research. His address on the sanitary organisation of India included suggestions for a remodelling of the sanitary services which were at once clear, practical, and evidently suitable to the conditions of the Empire. A resolution was passed in the section earnestly recommending them to the Government, to the municipalities, and the people of India, and it cannot be doubted that a commission will be issued by the Government to consider how far, and in what way, these all-important suggestions can be carried into effect. Professor Hankin's reports on his investigations on the causations of cholera and of the recent outbreak at Cawnpore were excellent examples of skilful research carried out with great labour and under great disabilities from climate and from insufficient assistance, by accurate scientific methods of investigation to absolutely conclusive results. He has demonstrated beyond doubt the immediate causal connection between the cholera bacillus and every outbreak which he has yet investigated. He has shown that those who have described maimed, deformed, and anomalous vibrios, and have confused the doctrine and the issues of this important question, have, in fact, been dealing with degenerate comma bacilli, and he has furnished a most complete refutation and answer to the mistaken views of which Dr. Cunningham, of Calcutta, has been the chief exponent. Oddly enough, Dr. Cunningham, who is the chief Government scientific official, did not put in an appearance at the Congress, and contributed nothing to its proceedings. This was generally regarded as unfortunate, to say the least. Dr. Haffkine's statement of the work which he has been carrying on during the last two years continuously, devotedly, and with self-sacrificing enthusiasm, of which there are indeed but few parallels, was modest, accurate, and full of important matter. He has been suffering from fever and exhaustion, the result of long and toilsome journeys under a burning sun, in malarious districts, and in an inaccessible mountainous region. He obeys everywhere the call to cholera-stricken districts or to places where cholera is endemic or where its outbreak is expected as an occurrence of seasonal regularity. I will not anticipate here the record of his noble service, undertaken and carried out amidst circumstances of danger and of laborious hardship without fee or reward in the pure love of science, and desire for public usefulness. Such services to humanity cannot be adequately described or rewarded; they are the noble examples of that self-sacrificing devotion of which physicians and researchers in preventive medicine have so often given evidence, but rarely on so great a scale. He is one of the most distinguished pupils of M. Pasteur, although a Russian by birth, and does honour to his great master and the school of research which he has created in France.

Finally, I must mention the extremely valuable paper of Dr. Hendley, the eminent and learned physician who has found time, as resident physician at Jeypur, not only to render services to technical education and to Indian art, which have made his name imperishably famous in the records of Indian history, and of which brilliant evidence was afforded in the unique exhibition shown at the Imperial Institute, but also to create a great sanitary system in Jeypur, of which I shall presently give you the details, and to make learned and scientific contributions to the literature of medicine. His paper on The History of Medicine was a masterly production.

Prior to the meeting of the Congress the Mohammedans of Calcutta, headed by the President of the Mohammedan Literary Society, Prince the Hon. Sir Jehan Kadir Mirza (now a great political and social body taking the leading position among the Mohammedans of India), had approached Mr. Ernest Hart on the subject of his studies on the prevention of cholera outbreaks among the pilgrims to Mecca, and while he was away at Darjeeling the Honorary Secretary, Mr. A. M. F. Abdur Rahman, an eminent Mohammedan barrister, who has himself made the pilgrimage, asking him to meet them and to explain in detail his conclusions and suggestions. As the apathy and inaction of the Mohammedans have hitherto proved a main obstacle to the measures necessary for the sanitation of Mecca, and of the quarantine stations and pilgrim stations of the pilgrimage, Mr. Ernest Hart readily assented. A great assemblage of Mohammedans was present at the Madrissa Hall to hear his address. Upwards of a thousand filled the great hall in every nook and cranny. As a large proportion of them did not understand English the address was translated into Hindustani sentence by sentence by Mr. Abdur Rahman. The flower of the nobility and gentry of the Mohammedan community as well as the most learned ulamas and moulvis were present. A more picturesque scene has seldom been seen. The princes and leading members of all the great Mohammedan families in Calcutta and its neighbourhood were present in their jewelled robes and turbans, pious hadjis and learned priests, as well as representatives of every order of the community, and interspersed with them a handful of Europeans. Some exception was taken by the Vice-President of the Society to Mr. Ernest Hart's proposals as to the purification of the polluted waters of that most sacred well El Zem Zem, the well of Hagarth, but otherwise general acceptance was shown to all the leading propositions, and it was resolved that steps should be at once taken towards the formation, as Mr. Hart has suggested, of a committee to consider the proposals which he made, and to take the best means of carrying them into effect in the manner most acceptable to the religious customs and opinions of the orthodox Mohammedan community.

A most highly influential and representative committee, in-

cluding the Princes of the Oudh and Mysore family, two of the Nawabs of Murshidabad, three Shamsul ulamas, six hadjis and moulvis, and others belonging to both the Sunni and Shia sects of the Mohammedan community of Bengal, was formed. This committee has at once proceeded to prepare petitions to the Sultan, and schedules for reports to be regularly made to them by intelligent persons who have made, or who will during this year and the next, pilgrimages to Mecca. These reports it is proposed to digest and transmit from time to time to the Porte, with suggestions and petitions relating to any abuses, neglects, or sources of peril to the life and health of the pilgrim. Communications are being prepared to the leading Mohammedans at other leading Indian centres, of which Mr. Ernest Hart will be the bearer in the course of his return journey to England, which will be made as quickly as possible now that he has accomplished to an unhoped-for extent the leading objects of his labour during his winter holiday.

I must now close this letter, and hope in my next to give further details of the closing scenes and highly important results of this great and most successful Congress. It has been the first Medical Congress ever held in this great Empire, and has been avowedly mainly modelled upon the lines and precedents of the annual meetings of the British Medical Association, which have been well adapted to the purposes of India, and in some respects surpassed. The final results on subjects which I have mentioned, and on others such as the Contagious Acts Amendment Bill, or as it is technically known, the Cantonment Acts Bill, and as to the immediate institution of a new laboratory of preventive medicine in Calcutta and the general encouragement of scientific research, are likely to be abiding results of Mr. Ernest Hart's visit here and of the general proceedings of the Congress.

Calcutta, December 27th, 1894.

PROCEEDINGS OF SECTIONS.

Filarial Disease.

Surgeon-Major J. Maitland, M.D., called attention to the prevalence of elephantiasis and other forms of filarial disease in India, particularly along the coasts, and of the importance of the subject to medical officers in connection with examination of native candidates for the services. He did not enter into many questions associated with the subject of filarial disease, referring his audience to Manson's articles in Davidson's *Hygiene and Diseases of Warm Climates* for a fuller account. His object was, he said, to bring forward certain recently observed facts having a special bearing on points of treatment. Dr. Maitland had recently found the parental form of filaria nocturna in the course of operations in three cases: (1) In a case of inflammatory induration remaining after traumatic lymphangitis of an upper arm, and recorded in the British Medical Journal of April 21st, 1894. The thickened tissue was excised, and found to contain parent filariæ. (2) A similar though apparently non-traumatic case, in which the indurated tissues also contained parent filariæ. (3) A case of enlarged femoral glands on both sides; those on one side were excised and found to contain filariæ; on the day following the operation the embryo filariæ, which had hitherto been present in the blood, had disappeared and did not return. He also operated on (4) a case of varicose groin glands on one side, with filariæ in the blood and recurring attacks of fever and pain. The glands were excised and the attacks of pain and fever ceased, but no parent worms were found. (5) similar to the last but no filariæ in the blood: glands excised, but without benefit. (6) Similar to the last two; glands were excised; ultimate result unknown. Dissection of the glands in the third case and of the tissues from the third case showed that the parent filariæ were lying in minute capsules, coiled up about each other, the sexes in association. In the first case the exact nature of the tissue in which the worms lay was not ascertained. Altogether 17 worms were found—12 females, 5 males. From his experience of these cases Dr. Maitland concluded that with antiseptic surgery there was no danger attending removal of filarial lymphatic varices; but he deprecated excision in all cases in which there was evidence of extensive varicosity of a large part of the lymphatic system, and in cases in which the disease was giving rise to no inconvenience. The existence of chyluria and the presence of chylous fluid in the varix, therefore, contraindicated operation. With this proviso he advocated excision in cases in which the lymphatic glands were enlarged and varicose, and in which filariæ were found in the blood; in cases in which the glands were enlarged and varicose, and in which no filariæ were found in the blood; in cases in which filariæ were not found in the blood, but in which inflammation was suddenly developed in a part in which there was reason to believe parent filariæ might be lodged. Surgeon-Major Maitland concluded a very interesting and practical paper by describing a method of covering the testes with sound skin after removal of elephantiasis scroti. He dissected up the skin of the thighs for 2 or 3 inches at the edge of the wound, burrowed under it, as it were; then, bringing the thighs together, he stitched the pockets thus formed over the testes as high up as the root of the penis. The penis he advised to be covered with grafts (Thiersch's method), the organ being closely covered with grafts half an inch square, kept in position by a dressing of boracic ointment on lint.

Burmese "Kwe-na."

Assistant-Surgeon Arthur H. Nolan, Civil Surgeon, Lower Chindwin District, Upper Burmah, after describing a characteristic case of the disease known by the Burmese as "kwe-na," which he had under treatment at Gangaw in 1889, refers to others from the Yeu district, where in places it is extremely prevalent, and is much dreaded by the natives. It is said to be acquired by contagion, generally by accidental inoculation through a pre-existing wound or ulcer or by insect bite. The natives distinguish between the primary sore and secondary eruption. They also recognise its contagious nature, and in its treatment use and abuse mercury. Assistant-Surgeon Nolan gave a detailed account of the various types of eruption, and pointed out their correspondence with those of West Indian yaws, with which he believed the disease to be identical. Apparently kwe-na was rare or unknown in Lower Burmah. In Upper Burmah it was perhaps confined to Yeu, Shewbo, Katha and Upper and Lower Chindwin. The author recommended the establishment of a special but inexpensive hospital for the treatment of this disease, and indicates Yeu or Shewbo as suitable locations. This paper was an important condition to geographical pathology, showing that yaws was by no means so confined in its distribution as it was at one time supposed to be.

The Prophylaxis of Malarial Fevers.

Surgeon-Major N. Duncan, M.D., B.S., F.R.C.S., dealt with the prevention of malarial fever by drugs and "other ingesta." After detailing the somewhat contradictory results of Continental, American, and English surgeons in this important line of inquiry he gives his own experiments with arsenic, quinine, and cinchona febrifuge. The experiments were on a sufficiently large scale to yield reliable results. He concluded that arsenic had no prophylactic virtue as against malaria, but that both quinine and cinchona febrifuge were decidedly beneficial, diminishing the liability to fevers by more than one-half. He urged "that in all campaigns involving a sojourn in a malarious district prophylactic issues of either of these drugs should be ordered."

Nasha Fever.

Dr. Lawrence Fernandez said that although nasha fever—the nakra of the North-West Provinces—was well known to native practitioners it was not mentioned in European text-books. Fever of a remittent type was preceded and accompanied by congestion of the Schneiderian membrane. Other symptoms were constipation, *malaise*, frontal headache, pains in the back, often very severe in the neck, flushed face, heat and fulness of the head, and contracted pupils. The symptoms persisted for from three to five days and then subsided spontaneously. An ill-defined, patchy, rose-red eruption was sometimes seen along with slight bronchial catarrh, not to be confounded with the similar symptoms in measles. Prognosis was favourable, although in rare cases sudden subsidence

of the nasal swelling was followed by high fever, delirium, coma, and death. One attack predisposed to another, so that there might be a weekly, fortnightly, or monthly recurrence. Between the months of April and August was the usual season for the appearance of this disease. It did not attack children before puberty nor adults after 50. Quinine did not influence it, but opium was said to be beneficial. Repeated attacks might cause hypertrophy of the mucosa. Sometimes the author employed opium, tartar emetic, saline purgatives, and puncture of the swelling; usually purges and astringent applications sufficed.

Dr. NARESH CHANDRA MITRA (Ranchee) said that the disease might be defined as "a congestive fever with the local manifestation of congestion or turgescence of the blood vessels of the Schneiderian membrane of the septum nasi." The swelling of the Schneiderian membrane was of the size of a pea and was painless. Puncture gave great relief, but lunar caustic or the milky juice of "arkand" were to be preferred.

LEPROSY.

Dr. M. B. CARLETON, M.A., Superintendent, Subathu Leper Asylum, Punjab, described at considerable length the ordinary symptoms of leprosy. Cases in India might often be diagnosed by the results of pressure as regards tingling and formication. To walk barefoot out of doors was with most of them impossible, and with all painful, so intolerable did the pricking become. Considering how universally the people of India went barefoot, this was important in making a diagnosis. From a diagnostic point of view the author attached much importance also to tenderness of the spine on pressure. In all his cases he found the interscapular space sensitive to pressure. In no case was this peculiar tenderness observed above the interscapular spot, the cervical and first dorsal vertebræ being quite free from it. Lepers suffered from cardiac weakness, a hill-man being almost a prisoner in his own village from his inability to climb the hills. The author was convinced that the disorder was mainly functional. The destructive effects of leprosy in both forms of the disease were described in the paper with great fulness and accuracy. As regards treatment ichthyol and resorcin, as recommended by Unna, had not succeeded. He had tried europhen to a limited extent, but so far it had not met his expectations. The statistics of several leper asylums were appended to the paper.

CONTAGIOUS PEMPHIGUS.

Assistant-Surgeon SOORJEE NARAIN SINGH, Teacher of Materia Medica and Therapeutics, Temple Medical School, Bankipur, said that, although the contagious pemphigus of young children was well known to those who had given special attention to these subjects, its comparative rarity was no doubt the cause of its existence not being generally recognised. He related instances of the disease affecting several children in quick succession in three families. There was nothing in the circumstances to account for the spread of the disease in these families except contagion. Out of 12 cases, 1 was fatal.

RADICAL CURE OF CHRONIC DYSENTERY IN ITS REPEATING FORM.

Dr. HENRY GALLAY, Surgeon-Major of the French India Colonies, related 8 cases as examples of the curative effects in chronic dysentery of large enemata of solution of nitrate of silver in distilled water (a scruple of the crystalised nitrate to a litre of distilled water). He used the same process as that indicated by Dr. Le Dantec against acute dysentery. The patient was placed on his right side with the left thigh bent; an enema of tepid water was given first, and when this had acted the solution of nitrate of silver, to which 20 to 30 drops of laudanum had been added, was thrown up. The patient tried to retain it for a few minutes, two, three, or five minutes being the maximum; sometimes it was evacuated in two efforts, the second evacuation being separated from the first by a few hours' interval. The only immediate ordinary consequence of the washing was a sensation of stricture at the lower part of the rectum, which passed away after a quarter of an hour at most. Often from the first washing the amelioration was complete, but at any rate it could be relied upon to follow the third or fourth washing. To secure, however, permanent relief, it was necessary to continue the treatment, and the author recommended a course of sixty washings.

THE NATURE OF "REMITTENT FEVER."

Mr. N. M. KATRAK, L.M. and S., observed that in statistical returns a very large number of cases of fever were attributed to "remittent fever." Thus, in the city of Bombay in 1893-94, 21 deaths were attributed to enteric fever, 831 to simple continued fever, 262 to ague, and 4,739 to remittent fever. Again, among European troops in India the admissions for enteric fever were 1,362 and for remittent fever 22,749; among the native troops, 33 for enteric fever and 54,347 for remittent fever. As to its real nature no definite opinion had been arrived at. It had been spoken of as modified typhoid, as typho-remittent fever, and other similar terms. The speaker believed that it was neither typhoid fever, nor, properly speaking, a malarial fever, but a distinct type of fever. He had frequently received from patients a history of exposure to sewer gas from two to four days before the onset of the fever. The attack was not ushered in by shivering or rigor. The temperature rose at first to about 101° F., and continued to rise, with slight variations, until the fifth day, when it sometimes touched 105°. It then continued, with variations of a degree or two, and ended by lysis. The time of continuance of the fever varied. It was in some cases eleven, in others fourteen, in others twenty-two, and in others, again, twenty-eight days. There was no eruption, no abdominal tenderness or gurgling, and the stools were healthy. The nature of this type of fever had been discussed at a series of meetings of the Grant College Medical Society in Bombay, and a Committee had been appointed, which, it was hoped, might be able to obtain materials for a final judgment.

RESPIRATORY AFFECTIONS IN NORTHERN INDIA.

The importance of respiratory affections in the mortality of Northern India was the subject of a paper by Brigade-Surgeon-Lieutenant-Colonel T. H. HENDLEY, C.I.E. He said that in the general returns published by authority no deaths were attributed to respiratory affections, whereas the death-rate from fevers was stated to be enormous. This was no doubt the case, but in many instances the true cause of death was probably some disease of the lung, generally either pneumonia or pleurisy. He had been brought to this opinion by observations made in the *post-mortem* room in Jeypore. Between January, 1888, and August, 1894, 336 bodies were examined at the Mayo Hospital there, and one or both lungs were adherent to the chest wall, or showed the characteristic appearances of pneumonia of one or both lungs in 129 cases. In 38.4 of these 129 cases the signs of old lung disease were very marked. In the eleven years 1882-92, over 10,000 persons were treated in the Mayo Hospital for diseases of the respiratory system. There were 935 cases of pneumonia with 93 deaths. The people did not apply at the dispensaries if they were suffering from slight coughs or a little fever, but 57.7 per mille of all the patients treated in the dispensary of the Jeypore State suffered from respiratory affections. In 1892, 106.77 per mille of all the patients treated in the Rajputana gaols were entered as examples of disease of the respiratory system. These statistics were sufficient to prove that a large amount of lung disease existed in India, and favoured the view that a separate entry should be made in all Indian vital statistics for respiratory affections.

CARLSBAD FOR ANGLO-INDIANS.

Surgeon-General Sir JOSEPH FAYRER contributed a paper on the advantages to be derived from the use of the thermal waters of Carlsbad by Anglo-Indians. A visit to Carlsbad was especially to be recommended to those who, after protracted residence in India or other malarial countries, suffered from occasional recurrence of malarial fever, with consequent derangement of functions, and even alteration in the normal condition of liver, spleen, and other abdominal viscera; who, without suffering from any positive disease, were failing in health, had impaired diges-

tion, distended condition of the abdomen, increasing fatty deposit in the omentum, and a tendency to fatty degeneration of the muscular system generally, who found themselves languid and depressed, unequal to much physical or mental exertion, showed indications of incipient anæmia, suffered from dyspnœa, from rheumatic or gouty pains, irregular action of the bowels, congestion of the portal system and distended hæmorrhoidal vesse'ls—a state of things perhaps in some cases aggravated by excesses or irregularities of diet, or the neglect of due precautions as to the quantity or kind of alcoholic stimulants. As a matter of fact, almost every European not the subject of organic disease who had spent many years in India would do well to avail himself of the resources of Carlsbad, whether he were returning to India from furlough or retiring to spend the remainder of his life at home. The therapeutical value of the waters of Carlsbad depended chiefly on the sulphate of soda, which had a gentle purgative action. Further, the carbonate of soda it contained neutralised acid, and the chloride of sodium and other constituents, together with the carbonic acid, conferred on the water its solvent power, and materially contributed to the solution of various exudations and secretions. Bathing was also an essential part of the treatment. The general effect of the water was to promote defæcation and diuresis, so causing the absorption of fat, and such a modification of metabolism as promoted a favourable influence on the blood formation, improved digestion and nutrition.

Alkaline Saline Waters in Malaria.

Surgeon-Major L. T. Young, Civil Surgeon, Umbala, said even a superficial inspection of the internal organs in a number of cases of malaria, after death, would show that malaria caused congestion of these organs and catarrh of the mucous membrane. The dietetic errors to which Anglo-Indians as a class were so much addicted no doubt contributed to produce this condition of congestion, and in particular were largely to blame for many cases of Bright's disease, but acute desquamative nephritis was not a rare complication of severe malarial fever, and was often in its slighter degrees overlooked, but gradually assumed a chronic form. Malaria might cause catarrh of all the mucous membranes, but gastric and intestinal catarrh was the most important derangement. The habit of taking long drinks and large meals during the hot weather favoured dilatation of the stomach, its glandular structure degenerated, and the gastric juice secreted became imperfect in quality. The general conditions of the abdominal organs of a malarial patient resembled to some extent that of an animal in which the splanchnic nerves had been cut. Electric stimulation of the splanchnic area and bandaging of the abdomen temporarily rectified this condition in animals, the former by contracting the arterioles, and the latter by mechanically preventing passive congestion. The electrical stimulation and tight bandaging of the abdomen was found clinically to be very effectual, and hot salt baths, about 104° F., of half an hour's duration, were also useful by withdrawing the blood to the skin, thus giving the internal organs a temporary respite. After referring to malarial atrophy of the heart, and to malarial paralysis, which he said he had found to be due in most cases to spinal pachymeningitis, he turned to inquire how the conditions might be ameliorated, removed, or prevented by alkaline saline mineral waters. Neuenahr was very mild and suitable for the weakest and most debilitated cases, Marienbad for the strongest and most robust cases only, while Carlsbad occupied an intermediate position, and was thus, on the whole, the most generally suitable. The constituents of the waters of the three places were very similar though the quantities varied. The speaker then proceeded to discuss the therapeutic action of the sulphate, carbonate, and chloride of sodium, which were the active constituents of these waters. He sketched the action of Carlsbad water on the alimentary canal, the liver, the mesenteric glands and lacteals, the genito-urinary system, the circulatory system, the skin, and the nervous system, and observed in conclusion that all the organs concerned in the digestion of food, in the elimination of waste products, and in the purification of the blood were beneficially affected, congestions were removed, and the results of recent inflammation dissipated. He described the method of using the artificial Carlsbad water in India, and mentioned various contra-indications to the use of alkaline saline mineral waters, adding that atony of the stomach was liable to be produced if the water were given too hot, for too long a period, or to very debilitated subjects. Failure of the good appetite, which patients taking Carlsbad salts properly always developed, and heartburn were contra-indications for arresting the treatment.

Uses of the Hill Climates of India.

Dr. A. J. Weatherly, Civil Medical Officer, Kurseong, discussed the cases which were likely to be benefited by a hill climate in India. Patients suffering from dysentery, whether acute or chronic, did not do well in the hills, especially in the rainy season, but after complete recovery from the dysentery they might regain strength in the hills. Slight cases of congestion of the liver would do well, but acute cases badly. So also did cases of advanced phthisis. Phthisical patients should be sent from India to the Karoo lands of the Cape. Organic heart disease was not benefited by the hills, and the benefit to be derived in rheumatism was very uncertain. All malarial diseases and fevers which showed their malarial nature by yielding to quinine, if there were no advanced organic disease, did well in the hills; and cases of enormous splenic enlargement from malarial poisoning might rapidly recover, though splenic enlargement with marked anæmia was better treated by a long sea voyage. Functional diseases of the stomach and gastric catarrh were benefited by residence in the hills, but it was risky to send cases of diarrhœa in adults, especially when the rains were beginning, though children, especially young infants suffering from diarrhœa, ought to be sent at once to the hills if the weather was hot in the plains. He suggested that the hills might be more used as temporary halting places when, either owing to the season or the state of the patient's health, a voyage to Europe was not immediately procurable. Hill diarrhœa and dysentery and other similar complaints were mainly due to failure to take precautions by means of proper clothing against catching cold.

Diabetes in India.

Dr. K. G. Bose said that diabetes was responsible for a very high mortality in some parts of India. He believed that one-tenth of the mortality of Calcutta was due either to diabetes or its consequences, and said that in one street alone, with a population of barely 1,000 persons, he knew that 30 persons were suffering from the disease. Acute and chronic diabetes were both observed, but the latter much the more frequently. It was necessary, however, to recognise that phosphatic diabetes might be a serious, even an acute, disease, and Dr. Bose quoted a case in which death ensued in three days. In diabetes mellitus, as observed in India, loss of the knee-jerk was an early symptom. Various nervous disorders were frequently noticed, and senile changes appeared early. Albumen had been found in 56 out of 250 specimens observed, but he was not inclined to attach much prognostic importance to its presence. With regard to the etiology of the disorder, Dr. Bose quoted 2 cases, one in a child in which the disease followed rapidly after severe falls. The disease was more common among the inhabitants of towns than among the villagers. Among zemindars and talookdars, who led an indolent life, diabetes was a common complaint. It was true that the Hindus lived largely upon vegetable diet; but the theory that diabetes could be attributed to an excess of starch in the food did not bear examination. The Jains, who were great starch and sugar eaters, and the Sadhus, Jogees, and the Chowbays of Muttra, who lived upon sweets, did not suffer from diabetes. He advanced evidence to show that occupation had no influence in the development of diabetes, and that the custom of early marriage could not be held responsible. On the other hand, disturbances appeared sometimes to be a direct and immediate cause of diabetes. As to hereditary influence, the evidence was not clear, and the rapid succession of cases in a single family had led him to suspect the contagiousness of the disease. He insisted upon the association of dyspepsia and diabetes among natives of India, and believed that the changes in the habit of life, the greater luxury, and increased indulgence in food were responsible in some degree at least

for the increase which had taken place. In treatment of diabetes he recommended milk, butter milk and curds, and skim milk. Removal to the cool air of the hills of Darjeeling was often followed by great amelioration.

ON THE PREVALENCE OF ANKYLOSTOMA DUODENALE IN MADRAS.

Surgeon-Captain C. H. WILLIAMS, M.D., I.M.S., in a paper on this subject, said that in 50 *post-mortem* examinations this parasite was found in 26 (52 per cent.). The conclusion the author drew was that whereas the parasite was very commonly present amongst the poor who came to the hospital in Madras, any actual disease produced by it was rare. Certain ulcerative lesions in the upper part of the small intestine might have been caused by it in one case, and, possibly, certain cirrhotic lesions of the liver, pancreas, and kidneys in others.

ON MYCETOMA.

Assistant Surgeon J. E. BOCARDO, L.M.and S., Bo., after alluding to Carter's classical work on mycetoma, and that of Lewis and Cunningham, and the more recent investigations of Bassini, Boyce, and Surveyor, and the culture and inoculation experiments of his own, drew the conclusion from an extensive experience (131 cases) at Hyderabad, Sind, that the disease was mycotic; that the ochroid and black forms were specifically distinct from each other; that one form never passed into the other; that both forms were acquired through wounds of the surface, such as were inflicted by thorns, etc; that complete excision was followed by permanent cure; that imperfect excision was followed by relapse; that the relapsed disease was of the same character—ochroid or black, as the case might be—as the original disease. This excellent paper concluded with some useful statistics bearing on the relationship of the disease to age, sex, occupation, etc.

CLINICAL FEATURES OF BERI-BERI.

Surgeon-Major BASU, M.D., read a paper based on the experience of an outbreak of what appeared to have been beriberi in the Mymensing Gaol during September and November, 1889. There were 19 cases in all, with a mortality of 9. He reviewed the opinions of Indian authorities on the subject of beri-beri, thereby revealing a strange difference of opinion among them. He did not allude to the writers on Japanese, Chinese and Brazilian beri beri. He gave an excellent summary of the confusion there seemed to have been at the time in medical circles in Calcutta as to the nature and diagnosis of the epidemic of dropsy which appeared there in 1877-79. The paper concluded with a description of the leading symptoms of the Mymensing cases. It was somewhat difficult to decide from this as to whether the disease really was beriberi or some other disease; judging from the mortality, the occasional paresis of motion and sensation, the œdema, and the mode of death, probably this diagnosis was correct.

THE SEASONAL PREVALENCE OF CHOLERA IN THE PRESIDENCY OF MADRAS.

Surgeon-Lieutenant-Colonel W. G. KING, D.P.H.Aberd., said that a study of the statistics of the decade 1881-1891, during which conditions affecting life and health in the Madras presidency were normal, indicated that the months of December, January, and February, presented for the whole area the highest rate of cholera mortality. The months of June, July, and August presented another rise, but not to so high a point. The intervening months of September, October, and November, showed diminished mortality, and the months of March, April, and May, gave the lowest figures of the year. Thus there were, when the year was divided into quarters, two periods of high mortality separated by two periods of low mortality. When, however, the figures for the whole presidency were analysed it was found that the districts included in it could, in respect of cholera mortality, be divided into two sets—one in which the maximum mortality occurred in the quarter, June, July, and August, and the other in the quarter, December, January and February. The first set of districts were subject to the influence of the south-west monsoon, and the last of the north-east monsoon. The second group of districts were more populous and crowded, and yielded higher death-rates for their cholera months, and were thus unduly represented in the presidential total. It thus appeared that the prevalence and mortality of cholera were governed by the two monsoons with which the Madras Presidency was visited. Temperature *per se* could not be a dominant factor because the maximum of one set of districts occurred in the hot weather, and of the other in the cold. Conveyance of germs by aërial currents was a plausible theory, and supported by a superficial view of aggregates, but it had been disproved by careful observation. The districts that received the most direct and potent impact of the monsoon current were not those which showed most cholera. It was, the author believed, the effect which the rainfall, brought by these monsoons, caused upon the level of the subsoil water, and the fluctuations to which that was consequently subject, which constituted the dominant factor of the seasonal intensification of cholera; or, in other words, furnished the conditions most favourable for the development of the cholera poison, and for its entry into the human system through the agency of water, and perhaps of the lower stratum of the atmosphere.

CHOLERA AND ITS TREATMENT.

From a considerable experience of cholera among the coolies employed on tea estates in Assam, Dr. BUNGA CHUNDRA SEN had been led to recognise three types of the disease—the mild, the ordinary, and the severe. He had found that the result of treatment depended chiefly upon the type. His experience had led him to believe that water was the chief agent of cholera infection, and many striking instances of outbreaks caused by contamination of rivers and tanks had come under his notice. The treatment which he had found most efficacious had been the use of opiates and astringents in the evacuation stage, and small doses of strophanthus and brandy in the state of collapse. He had found a drink composed of diluted sulphuric acid and syrup of lemons good for allaying the urgent thirst of cholera. He considered attention to the water supply to be the main element in preventing cholera.

Dr. A. MITRA Chief Medical Officer, Kashmir, had had the opportunity during two severe epidemics of cholera in the Kashmir Valley in the years 1888 and 1892 of testing on a large scale the various methods of treatment which had been recommended for cholera, including a host of nostrums. These were found to fail without exception. 16,845 cases received medical aid, of which 11,712 died, or nearly 70 per cent. The treatment followed by himself at the cholera hospital at Srinagar consisted in the use of opiates and astringents in the evacuation stage, and diffusible stimulants in the collapse stage. The death-rate was 50 per cent. The salol treatment gave a mortality of 56 per cent., Sorbeer's method of 58 per cent. in the early stage and 68.7 per cent. in the collapse stage. Other plans were tried with no better result. The general conclusion was that no known system, plan, or means of treatment offered much hope of materially reducing the case mortality of cholera, but that careful study of each case, sedulous nursing, and skilful management of the various complications occurring during the reaction stage would save many lives.

MALARIAL INFLUENCE IN ABORTION AND SENILITY.

Dr. ARTHUR JOHN WEATHERLY, Civil Medical Officer at Kurseong, adduced figures taken from the records of his experience in Africa, Florida, and India, which showed the effect of malarial poisoning in causing abortion. In the unhealthy parts of these countries abortions were to labours at term as about one to two (about one to five is the usual proportion). Dr. Weatherly found, moreover, that this was not due to the systemic disturbance of malarial fever, for the abortions often did not take place during an attack of fever; and in many cases the effect of malaria was only manifested by the habit of aborting. Sterility was, he believed, more frequent in malarial districts than in others; if women lived too long in a malarial district the sterility became permanent, but if they left before they had lived too long there, they might become pregnant. He observed that the same thing was well known to the natives to hold good of their sheep and cattle. They sent their stock inland to breed, and only brought them down into the malarial district for the purpose of fattening. The administration of quinine to pregnant

women in malarial districts rather tended to ward off abortion than to bring it about.

Reposition of Prolapsed Funis.

Dr. Harvey described a very simple apparatus for replacing a prolapsed funis. It consisted of two loops of tape, an upper and a lower, stitched together. The cord was put through the lower loop. The upper loop was carried up into the uterus on a rod of any kind: a bit of bamboo, a catheter, or a stilette. The introducer was taken out during a pain, and the tape left behind.

Symphysiotomy.

Dr. Dimmock, Professor of Midwifery at the Grant Medical College, Bombay, related a series of cases of symphysiotomy. In his first case there was very free hæmorrhage from the anterior fourchette and afterwards an abscess in the abdominal wall. But the bones united well. To lessen the danger of septic infection, Dr. Dimmock resolved in future to perform the operation subcutaneously. This he did. In all he had operated in thirteen cases. The method of subcutaneous symphysiotomy was as follows: Antiseptic precautions are, of course, observed throughout. A catheter is put in the urethra, and this is held down by an assistant. A sharp-pointed tenotomy knife is inserted obliquely, from just above the base of the clitoris, at the point of division of the labia majora, down to the under surface of the symphysis. In withdrawing the knife, the incision is enlarged subcutaneously by pressing the knife against the symphysis. Then a strong blunt pointed bistoury is put into the incision and the symphysis divided from below upwards. The pubic bones generally separate half an inch at once, and yield still more during the passage of the child. There is usually free spouting of venous blood through the small incision, but this quickly ceases. The wound is sealed with collodion and antiseptic wool. Sometimes there is a hæmatoma of the labium, but this is quickly absorbed. Dr. Dimmock said that should he again operate by the open method, he thought greater freedom would be gained by making the skin incision transverse instead of vertical. In some of Dr. Dimmock's cases the pelvis was osteomalacic, and the amount of room gained made it possible for the child to be delivered by craniotomy.

The Treatment of Abortion.

Dr. M. N. Obdebar read a paper on this subject, with especial reference to two points: the giving of ergot and the use of the curette. He thought that the administration of ergot before the os was dilated was harmful; that it produced uniform contraction of every part of the uterus, including the os internum, and thus delayed dilatation and therefore expulsion. He advocated strongly the use of the curette in cases in which the secundines did not come away after a fair trial had been given to rest and plugging. He thought it perfectly safe, that it lessened the chances of septicæmia and endometritis, favoured involution, and hastened recovery.

The Poison Lore of the Hindus.

Dr. N. Subramanya Aiyar read a short paper giving a summary of what was known concerning the myths and facts respecting poisons amongst the Hindus. Most of the vegetable substances mentioned were unknown to fame in the medico-legal world, whilst the antidotes seemed in some cases of too simple a nature to counteract the effects of a powerful drug. The author urged the establishment of an organisation for the systematic investigation of Hindu medical science in general and of Indian poisons in particular, as well as the formation of a museum of all indigenous drugs, and an Oriental library of medicine instituted at some convenient centre in India, with which branches in all the important towns in India could be affiliated.

Poisoning by Seopolia Lurida.

Surgeon-Captain Macnab read an account of the poisoning of eight men belonging to a native regiment through their eating the stalks and leaves of seopolia lurida in mistake for those of a harmless plant known as tambaku sag. About fifteen minutes after first eating the herb they said they began to experience a feeling of constriction in, and dryness of, the throat, soon amounting to an inability to swallow, rapidly succeeded by a sense of muscular weakness and tremors, so marked that they found themselves without sufficient strength to continue breaking and eating their chapatties. They then became giddy and unable to stand; delirium supervened, and they finally became unconscious. They could not answer questions, and had a half-vacant half-wild expression. In none was there any collapse; the pulse was rapid; the mouth dry; four vomited spontaneously. They were not seen for three hours. The treatment consisted mainly in giving emetics and keeping the men moving about. The one least affected was able to return to his regiment the next day, and the others on the day following. The symptoms thus closely resembled those of poisoning by belladonna. The stem was solid and succulent, whereas the stem of the tambaku sag was hollow. This would seem to be the chief difference in the appearance of the two plants, which in other respects closely resembled each other.

Quinine Poisoning.

Dr. Ernest Roberts reported the case of a married woman, aged 35, a Eurasian, to whom he was called about an hour after she had taken a quantity of quinine, which it was ascertained must have been between 5 and 6 drachms. She was lying on her bed totally unconscious, the body surface was cold and of a pale livid hue; the temperature was 95°, the respirations slow, shallow, and almost imperceptible, the pulse 45, thin and small; the pupils were widely and equally dilated, and did not respond to light; the tendon reflexes were not obtained. There was no response to external stimuli; at long intervals she groaned. During the next few hours she vomited "coffee ground" stuff several times, and did not show much evidence of rallying till the next day, when it was found that she was slightly deaf and totally blind. The hearing was completely restored within a week with the return of general functional activity, but the blindness remained absolute for two weeks, when there was some perception of light. About a fortnight later a certain amount of indistinct distant vision was recovered. In the course of the next two months the vision improved in distinctness; colour vision began to return about the sixth week, but even after some months her vision was very far from being completely restored. On examination with the ophthalmoscope in the early days there was a blur or haze over the whole retinal field, and distinct congestion chiefly marked in the macula. In a week from the onset the retinal veins and arteries became well defined and contracted, and the optic discs became distinctly pale, the pupils remained widely and equally dilated, and insensitive to light. The changes in the appearances subsequently were very slight, and at the end of five or six months there was still some degree of retinal anæmia, though the disc had regained its normal tint.

Cataract Extraction.

Surgeon-Major G. H. D. Gimlette, M.D., I.M.S., described certain variations in the methods of operating and the reasons for them. Beginning historically with the old flap extraction he described its abandonment and its revival made possible by modern antiseptic methods. The operation of Von Graefe, its aims, its advantages, and its modern modifications were described in order, and a picture of Liebreich hypnotising his patient by a quiet monologue while extracting the cataract by the help of one instrument only, was described as a familiar sight. The controversy about iridectomy was fully described, and the author, in his summing up, appeared to incline towards iridectomy. The operation in two stages was commended in many cases but was not always applicable, and the methods of maturing the lens artificially were described. The delivery of the lens in its capsule, as practised by many Indian surgeons, was thought to be more often possible in India than in Europe on account of the greater frequency of over-ripe cataracts. In describing his own results Dr. Gimlette stated that the most successful cases were those in which he removed the lens in its capsule without iridectomy: the next best were those in which the lens was extracted in its capsule with an iridectomy; the worst results were those in which the capsule was ruptured without iridectomy; this method the author had definitely abandoned. No man, he observed in conclusion, must lay down an unyielding rule for himself, since success depended on varying the method according to the needs of the case.

MAHER CHUND, Rae Bahadur, Honorary Assistant-Surgeon to His Excellency the Viceroy, described the operation in use at the Civil Hospital, Amritsar. It consisted in removal of the entire lens in its capsule by manipulation by the lower segment section without iridectomy. The advantages claimed for the lower operation were its greater facility; spasm of the superior rectus during the cutting of the section did not hinder its completion; there was less risk of escape of vitreous, as the parts were more exposed and the manipulations easier to perform; spasm of the superior rectus tended to make the incision gape in the upward section but not in the lower. The advantages of not doing iridectomy were insisted on, and Dr. Maher Chund discussed the advantages and disadvantages of his method of delivering the lens in its capsule. The operation itself was not described. By not rupturing the capsule there was less risk of iritis, no need of a secondary operation to remove opaque or wrinkled capsule, and an immature cataract could be removed without the risk of iritis or the need of secondary operations. On the other hand, it was a more difficult operation, and required more delicate manipulation than could be acquired by all; there was some risk of prolapse of vitreous by improperly used pressure, and a larger incision was necessary. If the capsule burst during delivery of the lens it must be removed; this was done by iris forceps either at the time or within two or three days by reopening the wound.

Surgeon-Major C. J. BAMBER, I.M.S. (civil surgeon, Rawalpindi) strongly advocated strong antiseptic solutions. He had been led by his experience to use a solution of corrosive sublimate, 1 in 2,000, for washing the eye and instruments. after the operation, powdered iodoform and boracic acid were dusted into the eye. He had had no suppurations since using this method.

Surgeon-Captain G. H. FINK, I.M.S., said that the question whether iridectomy should be performed in cataract extraction or whether the pupil should be kept intact must be decided according to the requirements of each case; if the cataract were a large nuclear one, if there were signs of irritability in the eye, or a glaucomatous tendency, a portion of the iris was removed; in other cases, that was in the greater number, no iridectomy was performed. Again, the nature of the cataract determined the method of dealing with the capsule; if fluid or cortical, or of the Morgagnian form, it was extracted without laceration of the capsule. After extracting a cataract, it was his practice to test the patient's vision immediately by holding up fingers to count, in order to satisfy himself, and to calm the anxiety of the patient. In from 1 to 2 per cent. of the cases it was found that the patient could not count fingers, where the operation had been a success. Careful examination revealed a deep-seated opacity in the hyaloid membrane, densest at the centre, and fading off towards the periphery. If this was found, the membrane was divided by the cystotome, leaving the vision unimpaired. A small loss of vitreous might result at the time, but by this procedure Dr. Fink claimed that secondary operations were rendered unnecessary. To the membrane thus divided he applied the term "hyaloid cataract," and discussed its origin and probable cause at some length.

CONJUNCTIVITIS IN GAOLS.

Dr. A. RAGASINGHAM, Assistant Medical Officer, Convict Hospital, Colombo, narrated certain cases which might be taken as typical of the disease as met with in Ceylon prisons, as the gaol was the largest in the island. The cases varied very much in intensity, as the simplest as well as the more severe came under treatment at once. An analysis of 750 cases was given. Almost all the cases were in males, and were worse amongst those carrying on certain trades, such as masonry, stonecutting, and brickmaking; the average duration of stay in hospital was 5·37 days, the maximum being 76, and the minimum one day. The cases were most frequent in April, and least frequent in October. A certain number were self-induced by the application of the juice of croton or castor oil seeds, or lime. Hypertrophy of the follicles of the lids seemed to be more common than in temperate climates, and there was greater tendency for swelling of the lids and chemosis to occur. The ordinary treatment in most cases was boric acid, with the addition sometimes of sulphate of zinc to increase the effect; in severer cases perchloride of mercury solution or nitrate of silver was applied by the surgeon himself. Alum was not much used on account of its tendency to cause perforation of the cornea where the epithelium had been abraded. Ice was found very useful and soothing where there was much congestion.

CASES IN SURGICAL PRACTICE.

Surgeon J. A. CUNNINGHAM, M.D., I.M.S., read this paper.

CASE I.—A peculiar partially encysted stone removed from the bladder of a girl, aged 13, through a vaginal incision made downwards on a staff from the urethra. The body of the stone was moulded to the shape of the bladder, which it quite filled, and had markings on the surface of the vesical blood vessels. It was attached by a narrow neck to a cauliflower projection, the surface of which was rough, soft, and very friable. The body of the stone was composed of urates with a coating of phosphates; the projection consisted chiefly of phosphates. The patient recovered.

CASE II.—A large stone weighing 6 oz. 3 drs., which quite filled the bladder of a man, aged 45, successfully removed by lateral lithotomy and crushing. It was broken up without difficulty, and easily removed through the wound.

CASE III.—This was one in which 12 calculi were removed from the urethra by forceps, and 23 from the bladder by lateral lithotomy. The collection weighed 460 grains. The patient, a male aged 20, made a good recovery.

CASE IV.—A complete removal of an ulcerated and bleeding goitre from a female, aged 35. The patient was discharged on the twenty-fourth day.

CASE V.—The subject of this was a lad, aged 18, who was trephined for a simple depressed fracture in the left parietofrontal region. Immediately after the receipt of injury, a fall of between 20 and 30 feet, he became unconscious and breathed stertorously. After removal of the depressed portion of bone the intact dura mater was pricked, and exit thus given to a quantity of clear cerebro-spinal fluid. When last heard of he was physically quite well, but mentally childish.

The author described a peculiar disease of the external genital organs of the female prevalent in the hills around Simla, in many respects resembling elephantiasis.

CLINICAL REMARKS ON THE TREATMENT OF SOME BONE DISEASES.

Surgeon ARTHUR NEVE, F.R.C.S.Edin., in discussing the treatment of inflammatory affections of bone, put in a plea for—

1. Early drainage of the bone by drilling or trephining to save necrosis, etc.

2. Early subperiosteal resection to prevent pyæmia, exhaustion by discharge and prolonged suppuration. The average resection healed in ten weeks soundly and without deformity.

3. Osteoplastic operations for spicula necrosis or to close old cavities.

4. Gelatine grafts as a scaffolding for organising blood clot in aseptic bone cavities.

5. Epiphysial bone grafts to fill gaps in the continuity of a long bone.

RADICAL CURE OF INGUINAL HERNIA.

Dr. HENRY GALLAY gave the results of 38 operations for the radical cure of inguinal hernia performed at the Pondicherry Hospital in the course of two years. One-half of these were complicated cases, and in 4 the operation proved fatal, death being due in one to tetanus, in the second to peritonitis, in the third to prolonged suppuration, and in the last to asphyxia after the return into the abdominal cavity of a large mass of intestine and omentum which for a long period had rested in the scrotum. In 12 of the successful cases the wound had healed by first intention, and had completely closed before the end of the third week: in 20 cases cicatrisation had been delayed, and in 2 there had been free suppuration. The method employed in every instance was that devised by Bassini. Fourteen patients whom the author had seen since the date of discharge from the hospital remained quite free from any indications of recurrence. The interval in the earliest case had been twenty-one months, and in the most recent case six months. In most of these patients the hernia had been a large one, and the patients since the

operation had followed occupations necessitating much muscular effort.

Rhinoplasty.

Assistant-Surgeon I. M. Shah, L.M., since 1885 had performed 228 rhinoplastic operations. In 224 of these cases the nose had been criminally mutilated, this form of injury from malice, jealousy, and revenge being peculiar to Orientals; women are the usual victims. A full description was given of the different forms of this injury and of the operative measures applied to each. The Indian or forehead-flap method was held to be by far the best way of repairing a nose. The chief objection to this method is the permanent and unsightly scar on the forehead. This, however, in India is readily screened by some head-dress or by a mark of red gum worn as a religious observance on the forehead. The Tagliacotian or Italian method was discarded as being irksome to the patient and unsatisfactory in its results. The nasal method, or repairing the nose from the nasal tissues, is applicable in a limited number of cases, as when the loss is small and confined only to the tip and adjacent bridge of the nose, the septum and columna being almost entire. The cheek-flap operation is necessitated when the defect of nose is unilateral, that is, when one alar portion is wanting or when there is some obstacle in forming a forehead-flap.

Intralaryngeal Tumour.

Surgeon-Major J. Smyth, M.D., related the following case. A Brahmin youth, aged 18 years, who had been almost voiceless for about a year, presented when examined with the laryngoscope by the author a firm-looking, lobulated, pale-red tumour, about the size of the last phalanx, between the vocal cords, having its origin, apparently, from the base of the epiglottis below the anterior insertion of the vocal cords. This growth was removed by a wire *écraseur*, so made that the wire when drawn home retreated quite within the tube, and fitted it so closely that any tissue in its grasp was sure to be cut clean through. About half the tumour was removed at the first operation, and the remaining portion after an interval of three weeks. The patient was quite well when last seen about two years later. There were then no signs of recurrence, and the voice, though a little hoarse in the morning, was usually quite clear.

Some Difficult Cases of Chloroform Administration.

Surgeon Arthur Neve, F.R.C.S.Edin., pointed out that, for all practical purposes, ether is not available as an anæsthetic in India. This fact should enable the profession there to regard the chloroform controversy without bias. It is not reasonable, in his opinion, to declare that because chloroform is the only available general anæsthetic in India it is therefore the best in a cool climate. Although since 1875 there have been upwards of 6,000 administrations of chloroform without a single direct or indirect death in the Kashmir Mission Hospital, not a year passed without instances of dangerous symptoms due to one or other of the following causes: (1) Primary syncope from fear; (2) laryngeal spasm; (3) secondary syncope from shock due to insufficient chloroform, and also from a proper dose acting on non-oxygenated nerve centres; (4) tertiary (sometimes secondary) syncope connected with vomiting; (5) apnœa from (*a*) mechanical causes, (*b*) spasm of the larynx, (*c*) the toxic action of an overdose (relative or absolute) on the nervous centres.

Fabricated Wounds and Injuries.

Akbar Khan, I.M.S., dealing with this subject, said injuries were not infrequently fabricated in India for the purpose of simulating an assault in support of a false charge or to avert suspicion. These injuries are made by different weapons in different ways, but are usually incised wounds. Contused fabricated wounds are very rare. The self-inflicted incised wounds are in most instances slight, and often consist in a series of small superficial cuts. They are never found on vital parts, and are generally directed from below upwards in the lower part of the body, and from above downwards in the upper part. Attempts are sometimes made to simulate ecchymosis by applying to the skin the juice of marking nuts or chitta. Such applications, however, usually produce blistering or a vesicular eruption easily distinguished from ecchymosis. The author, notwithstanding a long and careful study of this subject, finds it very puzzling and trying to distinguish a fabricated wound from a genuine one, and holds that extreme caution is necessary in giving a decided opinion in a court of justice on this intricate matter.

The Varieties and Differential Diagnosis of Primary Venereal Sores.

Surgeon-Major J. Carter Battersby, A.M.S., discarding altogether the nomenclature "hard and soft" as erroneous and misleading, would divide all primary venereal sores into three classes—one of syphilitic sores, the second of non-syphilitic, and the third of mixed or doubtful, in which the ulcer appears first as a non-syphilitic venereal, or so-called "soft sore," and after a time develops the characteristics of a true syphilitic lesion. The class of syphilitic sores includes, besides the hard Hunterian chancre, a single circular sac about the size of a sixpence, which is soft from the beginning and throughout its entire course. The mixed sore, which begins as an ordinary non-syphilitic venereal ulcer, and finally becomes indurated and followed by secondary symptoms, is due, in the author's opinion, to the existence of a double poison manifesting itself in the one individual, contracted probably at the same time, or, it may be, at different periods.

DR. JAMESON, C.B.

On January 24th Dr. L. S. Jameson, C.B., Administrator of Mashonaland and Matabeleland, was entertained at dinner at the Hôtel Métropole, London, by his contemporaries at University College, including the medical and surgical staff of the hospital at that time. The chair was taken by Mr. Christopher Heath, at present the Senior Surgeon to the hospital, and among those present were Sir J. Russell Reynolds, Sir John Erichsen, Sir John Williams, Dr. Bastian, Dr. Gowers, Dr. Coupland, Mr. A. J. Pepper, Mr. Barker, Sir J. R. Andrew Clark, A.M.S., and others, to the number altogether of over 100.

The Chairman, having given the toast of "The Queen," which was duly honoured, proceeded to propose the health of the guest of the evening. He said that the meeting was one of old friends called together to congratulate Dr. Jameson on his achievements in South Africa. He was not, indeed, the first medical man who had distinguished himself as an explorer and leader of men, for on the same continent Dr. Livingstone had preceded him, and in the Arctic regions Dr. Rae had made important discoveries, while in the sphere of pure diplomacy the name of Sir Rutherford Alcock, now the senior Fellow of the Royal College of Surgeons, would be remembered. Dr. Jameson's life in Africa for the first ten years had been that of a successful medical practitioner, and the estimation in which he was held in that capacity was proved by the fact that the Free State Parliament passed a special resolution in order to secure his professional attendance on Sir Henry Brand, probably a unique piece of legislation. In 1888 he gave up medical practice, and went to Buluwayo, where he carried out the difficult and delicate negotiations with Lobengula for the cession of Mashonaland with complete success. Later on at the time of the Boer Trek, when there was undoubtedly an intention to force a passage into the Chartered Company's territory, Dr. Jameson, by his tact and powers of conciliation, succeeded in averting a conflict. He again gave splendid proof of his capacity for organisation during the preparations for the conduct of the late Matabele war. Though the whole responsibility of the expedition rested on his shoulders, he found time to visit the wounded and to take part in the performance of certain operations.

The toast was drunk with enthusiasm.

Dr. Jameson, in reply, after referring to the gratification which he felt by the presence of so many of his fellow students and his old teachers, said that he had rather drifted out of the profession than deliberately left it. In fact it would be truer to say that the duties of the doctor had become merged in those of the administrator. He recognised the debt which he owed to the training received while the occupant of various resident posts in University College Hospital. Especially during the last two years of his time

there, when he occupied the position of resident medical officer, had he learnt what he considered to be the main elements of success for anyone who attempted to govern or administer: first, never to make any promise the fulfilment of which could not be ensured; secondly, to believe that one's own opinion was not the only opinion worth considering, but to listen to that of others. If those two principles were recognised and acted up to it would be good for those who were governed, for the man who governed, and for those to whom he was responsible. After recalling some reminiscences of the time when he was dresser (under Mr. Buckston Browne as house surgeon) to Sir John Erichsen, house physician to Sir Russell Reynolds, and the successful competitor of Mr. Pepper for the office of house-surgeon under the late Mr. Marshall, he referred to his recent experiences in Matabeleland. "Whatever the country might think" he said, "of the methods of our procedure in Matabeleland, I am anxious that the members of the profession to which I have the honour to belong should understand what took place. I myself, previous to our troubles last year, always hoped that the Matabele question would be settled without having recourse to force. I knew that Lobengula had always said that he would never fight with the 'white man,' and I believed that he had absolute control over his people. I therefore believed that we should come through all our difficulties without any conflict. I was egotistical enough to think that, had I been at Pretoria when the trouble began, I should have been able to stave off any conflict. But I was two hundred miles away, and I will give you as short an account as I can of what happened. When I arrived I found on both sides of the road the Matabeles carrying off their goods in preparation for a fight. But the year before the same thing had happened, and I then took up a firm position and settled matters. I thought I might do the same thing again. It turned out I was wrong. As I went up to Victoria and saw the kraals burning in every direction I knew that only two things were possible: either we must abandon two thousand people, who would certainly have lost their all including every white man, and there would have been such a butchering of Mashonas as had never been heard of before; or we must use force—we must go to Buluwayo. When the war was over, after the settlement, I went over the whole facts, and I heard the same account from everyone. I found I was right in regard to the king. He never wanted to fight; but I was wrong with regard to the nation. The head men had entirely the upper hand of the king. There were only two people who did not want to fight—Lobengula himself and one of the Indunas who had paid a visit to England. So I wish you to know to-night that we adopted the only possible method we could adopt. We were driven into the country. During the three preceding years we had done everything we possibly could to avoid such a thing as a conflict. No one could be more ready than I am to condemn any attempt to bring on a war with these unfortunate races."

The health of the Secretaries, Dr. RADCLIFFE CROCKER, and Mr. QUARRY SILCOCK was given by Dr. POORE, and acknowledged by those gentlemen.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE FRIENDLY SOCIETY.

THE usual quarterly meeting of the Executive and General Committee of this Society was held at 429, Strand, on January 16th, at 5 o'clock.

There were present the CHAIRMAN (Dr. de Havilland Hall) in the chair, Dr. James B. Ball, Mr. Fredk. Wallace, Dr. Major Greenwood, Mr. J. Brindley James, Dr. J. W. Hunt, Mr. F. S. Edwards, Mr. Edward Bartlett, Dr. A. S. Gubb, Dr. W. Knowsley Sibley, Dr. F. J. Allan, Mr. R. S. Charsley, and Dr. G. W. Crowe.

The report of the Executive Committee for the year 1894 was presented, and shows that the Society has made excellent progress during the twelve months. The number of effective members had increased from 1,486 to 1,528, and the funds have largely grown in all three branches of the business. A sum of £5,000 has been paid from the Sickness Fund as a bonus to the members in that branch, but notwithstanding this heavy draft upon it the Sickness Fund has increased from £33,903 14s. 8d. to £35,160 3s. 4d. The total net result of the year's working is an increase of the funds from £71,523 3s. 3d. to £78,743 3s. 5d.

The Society is now a subscriber to the Royal Medical Benevolent College, and the votes thus obtained will be used to assist members of the Society or their relatives who may be seeking to obtain the benefits of the College. At present only one such candidate is known, namely, the son of a member who was accidentally killed in May last, but full discretion is left with the Chairman (Dr. de Havilland Hall) to help any other eligible candidate (being a member or relative of a member of the Society), and the Secretary will be glad to hear of any such case.

Prospectuses and other particulars can be obtained on application to Mr. F. Addiscott, Secretary, Medical Assurance Society, 33, Chancery Lane, London, W.C.

DEATHS UNDER ANÆSTHETICS.

A.C.E. MIXTURE.

FROM a report which has been placed at our disposal we learn that the patient who died under an anæsthetic at the Middlesex Hospital on January 3rd was a very muscular man, but fat and of alcoholic habits. He had been admitted on the previous evening for the removal of suppurating glands in the neck. The anæsthetic, which was freshly-prepared A.C.E. mixture, was administered on an ordinary flannel inhaler. The patient struggled most violently and had to be restrained. After a little chloroform had been sprinkled on the inhaler the struggling subsided. The A.C.E. mixture was then resumed. After about two minutes the muscular rigidity became less marked. A little later the breathing became shallow and the pupils, which had been contracted, began to dilate. The anæsthetic was discontinued, but the face became paler, and the radial pulse could not be felt. Finally, respiration stopped, the face later becoming very cyanosed. The operation had not been commenced, and the anæsthetic had not been given more than five minutes. The head was immediately lowered and artificial respiration started. Hypodermic injections of ether and enemata of brandy were given; hot applications were made to the chest and amyl nitrite held to the nostrils, but no signs of animation appeared. Artificial respiration was discontinued after an hour. At the *post mortem* examination the right ventricle was found to be very dilated, and there was marked fatty infiltration of its wall. The left ventricle was also dilated, and its wall had undergone some fibrosis. The lungs were emphysematous, and these organs, together with the kidneys, brain, and spleen were markedly congested.

LITERARY NOTES.

WE understand that a work entitled *The Insane and The Law* is now in the press, and will shortly be issued. It is from the pen of Mr Pitt Lewis, Q.C., who it will be remembered took an active part in the discussion on "Criminal Responsibility of the Insane" at the annual meeting of the British Medical Association at Bristol, 1894. He has had the advantage of the co-operation of Dr. Percy Smith, Medical Superintendent of Bethlem Royal Hospital, and of Mr. J. A. Hawke, Barrister-at-Law, and Fellow of St. John's College, Oxford. The book will deal with: (1) Detention and Treatment; (2) Maintenance; (3) Responsibility, both Civil and Criminal; and (4) Capacity, including that (*a*) as a witness (*b*) to make a will. The subjects will be treated in a way to make the book of value both to the legal and to the medical profession. It will contain a table of cases giving legal references to all the reports in which the cases may be found.

The first volume of the eighth German edition of Ziegler's well-known *Textbook of Pathological Anatomy* has appeared. It consists of the portion on general pathology, and forms a large volume of 746 pages, with 458 illustrations, many of these being coloured. Dr. Donald MacAlister is engaged on the third English edition, which will be entirely rewritten, and include the advances made in the science since 1885.

ERRATUM.—The name of the German translator of Sir John Erichsen's *Science and Art of Surgery* is Dr. Oskar Thamhayer, not "Thudichum," as given in the BRITISH MEDICAL JOURNAL of January 26th.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Dublin Branch.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians (by permission of the President and Fellows) on Thursday, February 14th, at 4.30 P.M. The annual dinner will also take place the same evening in the College at 7.30.—John Molony, Honorary Secretary, St. Patrick's Hospital, Dublin.

Lancashire and Cheshire Branch.—A special and general meeting of this Branch will be held in Liverpool about the end of February. Applications for membership, and all communications, should be addressed at once to the Honorary Secretary, James Barr, M.D., 72, Rodney Street, Liverpool.

South-Eastern Branch: West Sussex District.—A meeting of the members of this District will be held at the Norfolk Hotel, Arundel, on Wednesday, February 6th. Mr. Walter Blaker, of Bognor, will preside. Meeting at 3.15 P.M. Dinner at 5.15 P.M., at the Norfolk Hotel, 6s., exclusive of wine. Papers will be read by Professor Spencer: On Delivery in certain cases of Impaction of the Trunk of the Fœtus. Mr. Walter Blaker: On the Treatment of Acute Rheumatism by Salol.—Frank Hinds, Honorary Secretary, 14, The Steyne, Worthing.

South-Wales and Monmouthshire Branch.—The next meeting of this Branch will be held at Aberdare on Thursday, February 28th. Members desirous of reading papers, etc., are requested to communicate with Dr. Sheen, Cardiff, not later than February 12th.—A. Sheen, M.D., and D. Arthur Davies, M.B., Honorary Secretaries.

Southern Branch: South Wilts District.—The next meeting of this District will be held at the County Hotel, Salisbury on Wednesday, Feb. 13th, at 2 P.M. Papers will by Dr. Evans, Mr. Willcox, and Mr. Coates. Luncheon at 1 o'clock, at 2s. 6d. a head. Members intending to be present should communicate with the Honorary Secretary, H. J. Manning, Laverstock, Salisbury.

Southern Branch: South-East Hants District.—An ordinary meeting of this District will be held on Tuesday, February 12th, at 9 P.M., at the Portsmouth Medical Library, 5, Pembroke Road, Portsmouth. Dr. Mumby, delegate to the International Congress of Hygiene, will give his report, illustrated by lantern slides.—C. C. Claremont, Honorary Secretary, Elm Grove, Southsea.

Metropolitan Counties Branch: South London District.—The next meeting of this District will be held at the Evelina Hospital for Children, Southwark Bridge Road, at 4 P.M., on Thursday, February 14th. Cases of clinical interest from the wards of the hospital will be shown and demonstrated on by the members of the staff. All practitioners, whether members of the Association or not, will be heartily welcomed.—H. Betham Robinson, 1, Upper Wimpole Street, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A meeting of this District was held at the London Temperance Hospital, Hampstead Road, on January 19th, at 4 P.M. Dr. Cleveland presided.

Paper.—Mr. Henry Morris read a paper on the Clinical Confusion between Distended Gall Bladder and Movable Kidney, which is published at page 238. A discussion followed, and Mr. Henry Morris replied.—The meeting expressed its hearty thanks to Mr. Henry Morris for his instructive paper.

Clinical Cases.—A number of very interesting cases were shown by Sir B. W. Richardson and Dr. Collins.

Votes of Thanks.—Votes of thanks were passed to the hospital for the kind hospitality afforded; to the Staff of the hospital; and to the President.

NORTH OF IRELAND BRANCH.

The winter meeting was held at Belfast on January 25th. The President (Dr. Dempsey, J. P.) occupied the chair, and forty members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Amendment of Medical Acts.—The Draft Bill of an Act to Amend the Law relating to Unqualified Persons who Practise Medicine and Surgery was considered, and it was moved by Dr. St. George seconded by Dr. J. A. Lindsay, and passed unanimously that it be approved of.

Medical Reform.—A communication from the South-Eastern Branch was then read, and it was moved by Professor Sinclair, seconded by Dr. Lindsay, and passed unanimously:

That, in the opinion of the members of this Branch, the medical profession is at the present time helpless in the face of quackery, unqualified practice, prescribing chemists, and other abuses. That it is necessary for the welfare of the profession that some active and effective combination, analogous to the Incorporated Law Society, should exist to safeguard the rights and interests of medical men. That the existing great and wealthy society is the British Medical Association, and that the Council of the British Medical Association should be empowered by the members to proceed against offenders, deal with abuses, and redress grievances.

Civil Rights Defence Committee.—A letter from this Committee regarding subscriptions was read.

Club Practice in Cork.—Mr. R. M. Fraser, M.B., moved and Mr. John Fagan, F.R.C.S., seconded the following resolution, which was passed unanimously:

That the Honorary Secretary be instructed to forward to the Honorary Secretary of the Cork Branch a resolution expressing the sympathy of the members of this Branch with the medical practitioners in Cork in their efforts to combat the abuse of club practice in that city.

New Members.—The following were elected members of the Branch:—Dr. Victor G. L. Fielden, Great Victoria Street, Belfast; Dr. Alex. Jamieson, M.A., My Lady's Road, Belfast; Dr. J. B. Johnson Gilford; Dr. Wm. C. Steen, Malone Road, Belfast; Dr. A. Fullerton, University Road, Belfast; Dr. D. P. S. Hill, Larne; and Dr. Darling Lurgan.

Communications.—Dr. Palmer (Armagh) read notes of (1) Two Successful Cases of Excision of the Wrist-Joint for Disease; and (2) a case of Amputation through the Hip-joint for "Ivory Exostosis" of the Femur, and showed a large Fibroid Tumour, weighing 4 lbs., removed from the Thigh of a Child, aged 3 years.—Dr. John Macormac read a paper on Lesions of the Facial Nerve and their Treatment, and showed cases.—Dr. J. Campbell Hall (Monaghan) read a paper on Antitoxin in the Treatment of Diphtheria, and a discussion followed in which Drs. Mitchell, Kevin, Calwell, Darling, Fleming, Fulton, Lindsay, St Clair Boyd, Bingham, and the President (Dr. Dempsey) took part.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The fourth ordinary meeting of this Branch was held on January 10th, the President Mr. H. Langley Browne, in the chair. Thirty-three members were present.

New Member.—Dr. Edwin Morton, of Redditch, was elected a member of the Branch.

Papers.—Dr. Foxwell read a paper on the Nature of some Forms of Dyspnœa.—Dr. T. Sydney Short read a paper entitled Observations on the Treatment of Epilepsy.

Cases and Specimens.—Mr. Barling showed a girl, aged 18, upon whom he had performed Arthrectomy of the Ankle-Joint five months previously for Tuberculous Arthritis. The disease was of two years' duration. The divided tendons and ligaments were sutured, and in six weeks there was sound and solid union. At the present time there was a little tendency to raising of the inner border of the foot, but the patient walked firmly and without pain, and there was free mobility of the joint.—Dr. Purslow showed a large Ovarian Dermoid Cyst which he had removed five days previously. The cyst contained yellow turbid fluid, which was found on microscopical examination to contain fat globules and cholesterine crystals; there were several large masses of sebaceous material, a few hairs, and one tooth. The wound had healed by first intention and the patient was making a good recovery.—Dr. Deanesly showed a greatly Dilated Stomach, the result of a simple stricture of the pylorus. The calibre of the latter at its junction with the duodenum was abruptly reduced to the size of a crow quill for a length of not more than half an inch. The strictured portion, which involved the whole circumference, was not thickened or in-

durated, and the peritoneal covering was quite smooth; it had not yet been microscoped. The stomach held 7 pints, and its lower border reached to the left groin. Complete pylorectomy could have been easily effected during life, but operation was declined. The patient was a woman, aged 60, who had had dyspeptic trouble for twenty years. For the last twelve months she had washed out the stomach daily with great relief.—Mr. CHRISTOPHER MARTIN showed an Anencephalic Monster delivered in Nottingham by Mr. Charles Martin. The mother had had several children previously, all well formed. There was no history of deformities on either the mother's or father's side. The child seemed to to have been retained *in utero* ten months and a-half. The delivery took place 320 days after the commencement of the last menstrual period, and six months after quickening. The child was a female, and weighed 10 lbs. All its finger nails had grown considerably beyond the ends of the fingers. The face presented. The broad shoulders became impacted in the pelvis, and caused great difficulty in delivery. The child was living until shortly before its birth. The only abnormal symptoms noticed during pregnancy by the mother were the excessive and irregular fœtal movements.

PROCEEDINGS OF THE COUNCIL.

AT a meeting of the Council, held in the Council Room, at the office of the Association, 429, Strand, W.C., on Wednesday, January 16th, 1895:

Present:

Dr. J. WARD COUSINS, President of the Council, in the chair.

Mr. H. T. BUTLIN, Treasurer (London).

Dr. JAMES BARR, Liverpool.
Dr. R. W. BATTEN, Gloucester.
Dr. M. BEVERLEY, Norwich.
Mr. LANGLEY BROWNE, West Bromwich.
Dr. J. S. CAMERON, Leeds.
Mr. ANDREW CLARK, London.
Dr. H. R. CROCKER, London.
Dr. G. W. CROWE, Worcester.
Dr. E. H. DICKINSON, Liverpool.
Dr. J. LANGDON H. DOWN, London.
Brig.-Surg.-Lieut.-Col. E. F. DRAKE-BROCKMAN, London.
Dr. W. A. ELLISTON, Ipswich.
Dr. W. FINLAY, Aberdeen.
Sir B. WALTER FOSTER, London.
Dr. BRUCE GOFF, Bothwell.
Dr. W. GORDON, Exeter.
Dr. O. GRANT, Inverness.
Dr. H. HANDFORD, Nottingham.
Mr. J. D. HARRIES, Shrewsbury.
Mr. J. H. HEMMING, Kimbolton.
Dr. C. HOLMAN, London.
Dr. J. B. ISAAC, Crowthorne.
Mr. ARTHUR JACKSON, Sheffield.
Mr. T. VINCENT JACKSON, Wolverhampton.
Mr. T. R. JESSOP, Leeds.
Mr. EVAN JONES, Aberdare.
Mr. N. C. MACNAMARA, London.
Mr. H. J. MANNING, Salisbury.
Dr. J. W. MILLER, Dundee.
Sir W. MOORE, K.C.I.E., London.
Mr. R. H. B. NICHOLSON, Hull.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. C. PARSONS, Dover.
Dr. F. M. POPE, Leicester.
Dr. A. W. SANDFORD, Cork.
Dr. R. SAUNDBY, Birmingham.
Dr. E. MARKHAM SKERRITT, Clifton.
Mr. NOBLE SMITH, London.
Dr. R. SOMERVILLE, Galashiels.
Mr. H. STEAR, Saffron Walden.
Dr. A. R. URQUHART, Perth.
Mr. T. J. VERRALL, Brighton.
Mr. F. WALLACE, Upper Clapton.
Mr. JOSEPH WHITE, Nottingham.
Mr. A. WINKFIELD, Oxford.
Dr. W. L. WINTERBOTHAM, Bridgwater.

The minutes of the last meeting having been printed and circulated, and no objection taken, were signed as correct.

Read letters of apology for non-attendance from Dr. Long Fox (President), Dr. Roberts Thomson, Professor G. H. Philipson, Dr. Barron, Mr. George Eastes, Dr. Glascott, Mr. Jordan Lloyd, Mr. Jones Morris, Dr. Bridgwater, and Dr. Sheen.

The President of Council apologised for the absence of the President-elect, who was unwell.

Resolved: That the Council desire to place on record their deep regret at the loss of their valued colleague, Dr. Withers Moore, Vice-President of the Association. For more than thirty years Dr. Moore had been a member of the Association, and during the whole of that period had taken an active interest in its affairs. His work for the Association and the esteem in which he was held by the members of the South-Eastern Branch, combined with his position in the profession, led to his election to the office of President at the meeting in Brighton in 1886. The esteem and confidence of his colleagues was subsequently shown by his election to the responsible and honourable position of President of the Council in 1890. These posts he occupied with activity and ability and to the great advantage of the Association. By the death of Dr. Withers Moore the Council lose not merely an active and useful member of their body, but a colleague whose opinion was invariably that of an honourable and upright gentleman. The loss of such men cannot be too deeply deplored.

The resolution was put and carried unanimously, the Council standing.

Resolved: That a letter be forwarded to the relations of Dr. Withers Moore, together with a copy of the foregoing resolution.

Read correspondence with Dr. Garrett Horder upon the arrangements of the programme for the annual meeting.

Resolved: That a reply be sent to Dr. Garrett Horder that the Council would take his suggestions into consideration.

Read communications from Lord Stamford, President of the Civil Rights Defence Committee, with a letter from the Solicitor to the Association.

Resolved: That the opinion of the solicitor be taken as to whether a grant can be legally made from the funds of the Association towards the Civil Rights Defence Committee for the purpose of the Anderson appeal.

Read letter from Major-General Graham asking for assistance in circulating report of Civil Rights Defence Committee.

Resolved: That the General Secretary be directed to see Major-General Graham, and to ascertain from him exactly the mode in which he wants assistance.

Read communications from the Incorporated Society of Medical Officers of Health, asking the Association to join a deputation to the Local Government Board, with resolutions, particulars of which are as follows:

Resolutions.

1. That in the opinion of this Society it is detrimental to the best interests of the public health and the efficient carrying out of the laws relating thereto that medical officers of health should be appointed for limited periods, and on a precarious tenure of office.

2. That it is desirable that similar provisions to those of the Public Health (London) Act, 1891, sec. 103 (1) (2) b. and c., should apply to all medical officers of health in England and Wales.

3. That copies of these resolutions be sent to the Sanitary Institute, the British Institute of Public Health, and the British Medical Association, with the request that they will co-operate with this Society in endeavouring to obtain an amendment of the present law.

4. That a joint deputation be formed to wait on the Local Government Board.

5. That this Society be represented by the President, and the presidents of the Branches.

Resolved: That the President, the President-elect, the President of Council, and the Treasurer, together with the Vice-Presidents and Honorary Secretaries of the Public Health Section, be appointed to join with the Incorporated Society of Medical Officers of Health in a deputation to the Local Government Board.

A deputation waited upon the Council from the Cork and South of Ireland Branch, consisting of Professor Corby, Dr. Cummins, and Dr. Philip Lee, to represent the difficulties existing between the medical profession of Cork and the clubs and benefit societies for the following reasons:

1. To explain the exact position of the contending parties at present in Cork.

2. To ask for the advice and assistance of the General Council with regard to such medical men as may come to take up this work of the societies in Cork.

3. To discuss the possibility of extending the movement against the admission of improper persons as members of societies, and of enlisting further support, both moral and material, in aid of those who have resigned their positions, and are, therefore, unable to maintain themselves.

The deputation was introduced by Dr. Sandford, the representative of the Cork and South of Ireland Branch on the Council of the Association.

After hearing the deputation, it was

Resolved: That the Council of the British Medical Association receive most cordially the deputation from the South of

Ireland Branch, and much regret to hear of the unfortunate contention which has occurred within the area. The Council strongly condemns the admission of improper persons as members of medical aid societies. They deeply sympathise with those medical men who have been compelled to resign their positions, and unanimously resolve to render them all the assistance in their power.

Resolved unanimously: That notice be given in the Journal that a fund has been opened by the South of Ireland Branch for assisting the medical men in Cork who have resigned their positions, and that subscriptions be received from members of the Association towards this fund. Copies of the foregoing resolutions were ordered to be sent to the Branches in the United Kingdom.

[Subscriptions must be forwarded to the Honorary Treasurer, Dr. Donovan, 51, King Street, Cork.]

Resolved: That 157 candidates of the 160 whose names appear on the circular convening the meeting be and they are hereby elected members of the Association.

Read letter and correspondence with the solicitor upon the subject of the incorporation of Colonial Branches.

Resolved: That counsel's opinion be taken on the subject.

Read communication from Professor Horsley, President of the Medical Defence Union, upon the subject of the registration of companies dealing in drugs and quack medicines.

Resolved: That the President of Council be empowered to inquire into the matter, and take whatever action in his opinion seems desirable.

Resolved. That the minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain a recommendation of a grant of £20 for the expenses of the Committee on Railway Servants' and Mariners' Eyesight; letter from the Sub-Editor suggesting that a grant be made to Dr. Patrick Manson to investigate into the malarial parasite in the West Indies, and a recommendation that a grant of £150 be made towards his expenses; the report of the auditors for the quarter ending December 31st last; and the accounts for the quarter ending December 31st last, amounting to £8,029 5s. 1d.

Resolved: That the minutes of the Premises and Library Committee of the 15th inst. be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain an estimate for £130 for putting No. 3, Harvey's Buildings in tenantable repair, the report of the Librarian on the attendance in the Library, and the report of the architect as to various sites.

Resolved: That the minutes of the General Practitioners Committee of the 15th inst. be received and approved, and the recommendations contained therein carried into effect.

The minutes of the General Practitioners Committee contain the abstracts of the minutes of the Council appointing them, with instructions, together with a list of the subjects it was decided to consider and report upon.

Resolved: That the minutes of the Medical Charities Committee of the 15th inst. be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Medical Charities Committee contain a recommendation that abstracts of the various annual reports of the Committee be sent to the Branches for consideration, and asking them to report to the Committee as to abuse of hospitals in their respective districts, and as to the remedies they would suggest.

Resolved: That the minutes of the Inebriates Legislation Committee of November 1st last be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Inebriates Legislation Committee contain a recommendation that a letter be sent to the Home Secretary urging upon him the importance of several amendments to the existing Inebriates Act.

SPECIAL CORRESPONDENCE.

PARIS.

The Sick Poor in Lyons.—Overcrowding of Paris Dwellings.

The Lyons General Council has called a special meeting to discuss the question of gratuitous medical help which cannot be dealt with in August. This is one of great importance, inasmuch as the Lyons hospitals refuse to receive except as pay patients those who are not inhabitants of Lyons. The neighbouring communes are expected to pay for their indigent sick treated in the Lyons hospitals. M. Lagrange attacks this decision, stating that the Lyons hospitals have always been considered as general hospitals. They have received, he affirms, several legacies bequeathed for this express purpose. The conclusions furnished in M. Lagrange's report will, it is expected, be combated by the General Councillors of the city of Lyons. It is believed that the discussion will occupy three meetings.

Dr. Bertillon, chief of the Paris Statistical services, has quite recently published statistics on the overcrowding of Paris dwellings, in accordance with the facts established by M. Lagneau. Fourteen per cent. of the Paris population live in overpeopled dwellings; strangely enough, this overcrowding is at the outskirts of the city of Paris. With the exception of the Passy and Batignolles districts, overcrowding and increased mortality are co-existent; poverty is evidently a factor in both. In 541,790 Parisian dwellings, rented at less than £20 and free from taxes, there are nearly 400,000 inhabited each by one or two tenants, and therefore not overcrowded. In order that the house tax be equitably applied, M. Bertillon considers that the number of tenants in a single dwelling should be taken into account. The proportion of a single tenant having a room to himself is greater than in other capitals.

BERLIN.

Munificent Donation to the Academy of Science.—A Collective Police Investigation of the Serum Treatment of Diphtheria.—Honours for Dr. Behring.—German Surgical Congress.

A gift of 1,500,000 marks (£75,000) has come to the German Royal Academy of Science from a widow lady, Frau Wenzel. The sum is to remain as a foundation and the interest used to assist scientific inquiries of importance. Gifts of money from private persons for educational and scientific purposes are very rare in Germany, and it is to be hoped that Frau Wenzel's munificence may set a good example for future donors.

The president of the Berlin police publishes a circular asking the medical men of Berlin to co-operate in collecting authentic material of the results of the serum treatment. This would seem to be a step in the right direction if forms to be filled in were sent out to the Berlin practitioners—a simple proceeding in these days of admirable directories; but the Berlin police have no notion of making things so easy for the doctors. The circular says: "Those practitioners of Berlin who have the intention of assisting this collective inquiry by their practical experiences are invited to write them in the forms, which are placed at their disposal free of charge in the office of the Sanitary Committe in the building of the Police, entrance III, room 268, during the hours of 9 to 3 daily." Here comment seems superfluous.

The Grand Duke of Mecklenburg-Schwerin, who is staying at Cannes, has bestowed the Cross of the Order of the Griffin on Professor Behring, who is at present at the same place, and has several times been the guest of the Grand Duke.

This year's German Surgical Congress will meet in Berlin from April 17th to 20th. The President, Professor Gussenbauer, draws the attention of surgeons to the collective inquiry on anæsthetics, which is not yet closed, and requests that material may be sent to Professor Gurlt, of Berlin.

CORRESPONDENCE.

POOR-LAW INFIRMARIES AND CLINICAL MEDICINE.

Sir,—As one who has for many years worked for the opening of Poor-law infirmaries for the teaching of medical students, I would like to offer a few remarks on the subject of your able article which appeared in the British Medical Journal of January 26th.

Nine years ago, after much labour, the Cork Union Hospital (1,200 beds) was recognised by the Royal University, and its wards thrown open to medical students. Many guardians were adverse to the innovation at first, but, as the subject was more fully understood, prejudices gave way and opposition ceased. The guardians have ever since assisted us in every way by granting us all modern instruments and appliances,

and assisting us as far as possible to put our hospital on a par with other modern clinical hospitals. They have had no cause of complaint, for only good has resulted to the patients from the influx of outside life. The students have been welcomed both by the patients and medical staff. Their aid is invaluable at operations with such a limited staff (two visiting and two resident doctors to 1,200 beds).

In an institution which contains such a mass of clinical material, students cannot fail to profit by the great variety of disease, and by the comparison of different stages of the same disease, or when different recognised methods of treatment are carried out on several similar cases side by side. As the cases in these institutions come from the labouring classes, the students are enabled to see the same class of disease which they will afterwards treat when they become dispensary doctors, which many of them do.

There are many other phases of the subject which I would like to enter into, such as the introduction of trained nurses, a few of whom we have succeeded in obtaining, etc., but I do not like to trespass further on your space. I am fully convinced that everything which tends to open up these institutions and modernise the management of their hospitals would benefit both the patients and the public at large by reducing the rates.—I am, etc.,

Cork, Jan. 28th. W. ASHLEY CUMMINS, M.D.

THE ABUSE OF CLUBS.

SIR,—In reply to a letter signed "M.D. (a Club Doctor)" in the BRITISH MEDICAL JOURNAL of January 26th, I wish to state that the tariff laid down for medical attendance for a member and his family in the rules adopted by the profession of the City of Cork for the regulation of club and society practice is as follows: minimum yearly fee 7s. 6d. if member's income is under £100; minimum yearly fee 15s. if member's income is under £200 and over £100. No one whose income exceeds £200 to be attended as a society patient. Medicine is extra, and the rate for this in Cork is 5s. per annum, so that the rate for medical attendance and medicine (generally included together in England) is: minimum yearly fee 12s. if income is under £100; minimum yearly fee 20s. if income is over £100 and under £200. It is well to remember that this is the minimum fee, lower than which is not allowed, but higher than which may be, and in many cases is, required by the medical officer.

It must also be borne in mind that in Ireland the great majority of society members whose incomes are under £100 are of the labouring and poor artisan class and the labourer's rate of wages in Cork varies from 15s. to 18s. per week, while the corresponding class in England receive from 18s. to 25s. or 30s. per week.

We must also remember that the club rate of payment here has in many cases been considerably lower than the minimum now fixed, and that the clubs would not consent to even this moderate scale, and were able to import medical men to take them up at a reduction on the original low rate. Thus, in the Ancient Order of Foresters the rate for medical attendance for member and family was 6s. per annum. On the medical officer insisting on this rate being increased to comply with our rules, a medical man newly arrived in Cork tendered for and got the club at the rate of 5s. per annum.

In the Irish National Foresters the rate for medical attendance and medicine for a member and his family was previously 8s. per annum. Deducting 5s. from this as the rate for medicine, we have left only 3s for medical attendance, this being considerably less than 1d. per week for medical attendance for member and family! Low as this rate is, a doctor hailing from the East End of London came and took them up at it on the former medical attendant resigning when the society refused to comply with our rules.

You will be surprised to learn that the Cork clubs have during the course of this struggle persistently represented in the city papers that we are forcing on them a much higher scale of payment than that paid by the corresponding clubs in England or in other towns in Ireland.

Of course in drawing up our rules we had regard to the condition of things prevailing here, and did not intend to make them applicable to other places. This is perhaps the safest way to regulate the clubs, as local circumstances and wages have to be taken into account.

In conclusion, however, I can safely affirm that if a general code of rules is formulated for clubs in Great Britain and Ireland, and if the medical officers are prepared to resign their positions as we have done, in the event of their clubs not accepting these rules, we on our part will be willing to accept these rules (making exception in favour of five or six small societies who have agreed to abide by our present code), and will join heartily in this much needed movement.—I am, etc.,

PHILIP G. LEE,
Honorary Secretary, South of Ireland Branch, B.M.A.

January 28th.

THE GENERAL MEDICAL COUNCIL AND THE OBSTETRICAL SOCIETY.

SIR,—The brief report of my remarks at the meeting at the Midwives' Institute was not revised by me. The resolution which the General Medical Council has passed, and coupled with a threat, applies to a very small matter, namely, the form and wording of the certificate which the Obstetrical Society gives to midwives. The resolution is the first intimation that the Society has had that the General Medical Council sees anything objectionable in that certificate. I have no doubt that in these matters the Obstetrical Society will be willing to comply with the wishes of the General Medical Council, when it knows what those wishes are.

But some people present at that meeting thought that the resolution indicated an intention on the part of the General Medical Council to try and stop altogether the examination and certification of midwives. This was what I said I did not think the General Medical Council would "dare" to attempt. The word "dare" was not happily chosen. I should rather have said that I did not think the General Medical Council would be so unwise, so unmindful of the public good.—I am, etc.,

Harley Street, W., Jan. 28th. G. ERNEST HERMAN.

THE CHAIR OF PHYSIOLOGY AT OXFORD.

SIR,—My attention has been drawn to a paragraph in the BRITISH MEDICAL JOURNAL of January 19th which seemed to indicate that I might be a candidate for the Waynflete Professorship, and it is probably in consequence of this that I have received many communications on the subject. Would you, therefore, permit me to state that I neither have, nor have had, any intention of offering myself for the Oxford Chair?—I am, etc.,

University College, London, Jan. 29th. E. A. SCHAFER.

THE TREATMENT OF OBSTRUCTION OF THE BOWEL BY ELECTRICITY.

SIR,—I find that in my paper on the above subject, which appeared in the BRITISH MEDICAL JOURNAL of January 26th, I accidentally omitted to state the length of time for which the electricity was applied. Allow me to state that in both cases I made the current act for twenty minutes.—I am, etc.,

Harley Street, W., Jan. 26th. JULIUS ALTHAUS, M.D.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE KENSINGTON MURDER.

[SPECIAL REPORT.]

THE trial of Reginald Treherne Bassett Saunderson for the murder of Augusta Dawes in the Hol and Park Road, Kensington, on November 25th last, took place on January 30th, before Mr. Justice Wills, at the Central Criminal Court. Mr. Charles Matthews and Mr. Horace Avory prosecuted on behalf of the Treasury, and Mr. C. F. Gill and Mr. A. L. Gill represented the prisoner.

At the commencement of the proceedings, Mr. C. F. Gill said that he had received an intimation from the Treasury authorities that they were satisfied the defendant was not in a fit condition to plead. From the time that the prisoner's father instructed Messrs. Wontner for the defence, they had been unable to obtain any information from the accused, and it was quite clear from the certificates of several medical experts who had examined the young man that he was not fit to plead.

Mr. Justice Wills said that the proper course would be to empanel the jury to try the question as to whether the accused was unable to plead to the indictment.

Evidence was then given as to the prisoner's mental condition. Dr. George Walker, medical officer of H.M. Prison at Holloway, examined by Mr. Avory, said that the prisoner had been under his observation in Holloway Gaol since December 8th last. He examined the prisoner on his arrival at the prison as to his mental condition, and at the last

session of the Court he was of opinion that he was in a fit condition to plead. Since that time, however, the mental condition of the accused had very much deteriorated; he had been behaving like a man of unsound mind, and had been very violent.

Mr. Justice Wills: The principal question we are now concerned with is whether the accused has sufficient understanding to plead and conduct his defence—to explain what is going on and give assistance. What do you say to as that?

The Witness: I do not think he is in a fit condition; he is quite unable to do that.

Mr. Justice Wills (to the jury): I suppose, gentlemen, you do not require to hear more evidence? I have read the depositions in this case, and nobody who has done that can have the slightest doubt as to his mental condition. If he is not intellectually competent to understand what is going on and give assistance and information to those who have to defend him, of course he ought not to be tried.

Mr. Avory: I have witnesses in attendance.

Mr. Justice Wills: I do not think there is any doubt in the matter.

The Foreman of the Jury: We should like to hear another witness.

In reply to Mr. Gill, Dr. Walker said that the accused had been examined by Dr. Forbes Winslow while in the prison; he had behaved so violently that they had been compelled to put him in a "strait waistcoat" and confine him in a padded cell. He was very liable to excitement and paroxysms of violence.

Dr. Edgar Sheppard, examined by Mr. Gill, said that he had great experience in dealing with persons of unsound mind. He had been instructed by the Treasury authorities to examine the accused, and on January 8th he had an interview with him for about an hour. He examined the prisoner again within the last day or two, and he was of opinion that he was not in fit state to take his trial. He had all along been of the opinion that he was of unsound mind, but when he first saw him, although his history pointed to imbecility and eccentricity from his childhood, yet he (Dr. Sheppard) thought he would be able to plead. Since seeing him on January 28th, he had altered his opinion, as the mental condition of the accused had very much deteriorated, and he was now quite incompetent to plead.

In answer to Mr. Avory, the witness said the prisoner got very much worse between January 8th and 28th.

Mr. Justice Wills (to the jury): Do you desire further evidence? These witnesses are responsible gentlemen who speak under a strong sense of public duty.

The Foreman: We find that the prisoner is insane and not fit to plead.

Mr. Justice Wills: The order is that the prisoner be detained until Her Majesty's pleasure is known.

The prisoner was then removed in custody.

URGENT SUMMONS IN BAD WEATHER.

Member writes: Dr. A. has long been medical adviser to a certain family. He receives an urgent summons to attend one of its members, but probably owing to bad weather refuses point blank. He is again summoned by telegraph but takes no notice, and Dr. B. is called in, who prescribes for the patient. The day after Dr. B. has seen the patient Dr. A. calls unexpectedly. Ought Dr. B. under the circumstances still call on his patient?

*** Under the circumstances related Dr. B. would, in our opinion, have acted wisely in renewing his visit to the patient, and courteously expressed his willingness to retire from the case seeing that the usual family adviser was able to attend, and have then been guided in his subsequent relation to the patient according to the wishes of the family.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

On January 29th, by decree of Convocation, the degree of Doctor of Medicine was conferred on J. S. Burdon Sanderson, M.A., F.R.S., Fellow of Magdalen College, lately appointed Regius Professor of Medicine. It was decreed also that during the vacancy in the Waynflete Professorship of Physiology Professor Sanderson should continue to discharge the duties of that Chair.

UNIVERSITY OF CAMBRIDGE.

Addenbrooke's Hospital.—Dr. Lloyd Jones, Research Student of the British Medical Association, and late Demonstrator of Pathology in the University, has been appointed by the medical staff to the post of Pathologist to Addenbrooke's Hospital.

Appointments.—Dr. Clifford Allbutt has been elected a member of the General Board of Studies; Dr. L. E. Shore, Demonstrator of Physiology, has been appointed an additional member of the Special Board for Medicine; Dr. Ransome, F.R.S., Dr. Thorne Thorne, F.R.S., Dr. Stevenson, F.R.S., and Dr. Lane Notter, have been appointed Examiners in State Medicine for the current year.

Walsingham Medal.—It is proposed that this medal, given annually by the High Steward for research in biology, including physiology, shall in future be open to graduates of the University up to the standing of Master of Arts.

Matriculations.—The matriculations of the present term bring up the total number of freshmen to 894.

UNIVERSITY OF EDINBURGH.

The following gentlemen were on January 26th formally admitted to the degrees of M.B. and C.M.:

W. G. Alexander, G. H. Drury, M. McLarty, A. J. M. Paget, T. Roberts, and J. M. Taylor.

Dr. J. Beard began, on January 9th, a course of lectures and demonstrations on Comparative Embryology; Dr. Robert Muir, on January 14th, a course on Pathological Bacteriology; and on the 23rd Sir Douglas Maclagan began his usual Public Health lectures.

SOCIETY OF APOTHECARIES OF LONDON.

The Society of Apothecaries of London has printed a list of the Licentiates in Medicine, Surgery, and Midwifery who received the diploma during 1894. The list contains 131 names. A list of "errata" is appended containing the names of eight Licentiates whose names were struck off the list during 1894.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S ANNUAL REPORT.

The fifty-sixth annual report of the Registrar-General of Births, Deaths, and Marriages, which has just been issued, deals with the vital statistics of England and Wales for the year 1893. Although the earlier publication of quarterly returns somewhat discounts the interest attaching to the principal statistical facts of the year, the report now published contains a large amount of detailed information relating to the causes of death and the age at death necessary to the true appreciation of the death-rate. With regard to the marriage-rate, it showed a further decline from that recorded in the three preceding years, and was slightly below the average of the previous ten years, 1883-92. The birth-rate did not exceed 30.8 per 1,000 of the population, and with two exceptions, was the lowest on record. The mining and manufacturing counties, as usual, yielded the highest birth-rates, their populations containing a larger proportion of young married people than the rest of the country.

The death-rate in 1893 was equal to 19.2 per 1,000 persons living; this rate was very slightly higher than that recorded in the preceding year, but corresponded with the mean annual rate in the ten years 1883-92. The lowest county death-rates were recorded in Westmorland, Berkshire, Buckinghamshire, and Dorsetshire, and the highest rates in the East Riding of Yorkshire, Staffordshire, London, and Lancashire. With regard to the age at death, it appears that, compared with the average annual death-rates in the preceding ten years, the rates at age groups below 35 years and above 75 years were generally below the average, while at ages between 35 and 75 years they showed an excess. With reference to infant mortality, or the proportion of deaths of children under 1 year of age to registered births, the rate was equal to 159 per 1,000, and was higher than in any year since 1870. This exceptionally high rate was mainly due to the very fatal prevalence of summer diarrhœa.

With regard to the assigned causes of death in England and Wales during the year under review, the death-rate from zymotic or specific febrile diseases showed a further increase upon that recorded in recent years, and exceeded the rate in any year since 1880. The mortality from influenza, which had attained its maximum in 1891—namely, 574 per million living—and had fallen to 534 in 1892, further declined to 325 in 1893. Compared with the average of the ten preceding years there was a decline in the mortality from measles, scarlet fever, and whooping-cough, while there was an increase in that from small-pox, diphtheria, enteric fever, and diarrhœa. The deaths from small-pox, which had been 49 and 431 in 1891 and 1892, further increased to 1,457 during 1893. Of the 1,457 persons who died from this disease, only 150, or 10.3 per cent., were described as having been vaccinated; 253, or 17.4 per cent., were returned as not vaccinated; and with respect to the remaining 1,054, or 72.3 per cent., no statement as to vaccination appeared in the medical certificates. It is to be greatly regretted that medical practitioners in so large a proportion of cases omit to give this very desirable information.

Although there was a marked decline in the mortality from influenza in most parts of the country during 1893, as compared with that recorded in the three preceding years, in some parts of England and Wales, and especially in London, the disease was still fatally prevalent. The deaths directly attributed to influenza during 1893 in England and Wales, which had been 4,523, 16,686, and 15 737 respectively in the three years 1890-91-92, numbered 9,669 during 1893. The Registrar-General estimates that the excess in the mortality

rom diseases of the respiratory organs attributable to influenza, and the mortality directly referred to this disease, represent a loss of not fewer than 125,000 lives during the four years 1890-93.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,849 births and 3,797 deaths were registered during the week ending Saturday, January 26th. The annual rate of mortality in these towns, which had increased from 18.9 to 21.7 per 1,000 in the preceding three weeks, declined again to 18.7 last week. The rates in the several towns ranged from 11.3 in Leicester, 13.5 in Brighton, and 14.6 in West Ham to 23.7 in Wolverhampton, 24.1 in Preston, and 28.0 in Liverpool. In the thirty-two provincial towns the mean death-rate was 19.5 per 1,000, and exceeded by 1.9 the rate recorded in London, which was 17.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.3 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, and was highest in Preston, Sunderland, and Wolverhampton. Measles caused a death-rate of 1.2 in Portsmouth, and 1.8 in Sheffield and in Newcastle-on-Tyne; scarlet fever of 1.8 in Wolverhampton; whooping-cough of 1.2 in Plymouth and in Wolverhampton, and 1.6 in Gateshead; and "fever" of 1.1 in Halifax. The 56 deaths from diphtheria in the thirty-three towns included 29 in London, 6 in Birmingham, and 3 in Manchester. Two fatal cases of small-pox were registered in Birmingham and 2 in Liverpool, but not one in London or in any other of the large towns. There were 35 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last. January 26th against 23, 28, and 33 at the end of the preceding three weeks; 8 new cases were admitted during the week, against 8 and 6 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,779, 1,713, and 1,653 at the end of the preceding three weeks, was 1,662 on Saturday last, January 26th; 186 new cases were admitted during the week, against 130 and 154 in the preceding two weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, January 26th, 914 births and 698 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 21.8 to 23.3 per 1,000 in the preceding three weeks, declined to 24.2 last week, but exceeded by 5.5 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 19.2 in Leith to 27.3 in Glasgow. The zymotic death-rate in these towns averaged 3.2 per 1,000, the highest rates being recorded in Edinburgh, Greenock, and Glasgow. The 365 deaths registered in Glasgow included 25 from measles, 13 from whooping-cough, 5 from scarlet fever, 2 from diphtheria, and 1 from small-pox. Two fatal cases of diphtheria and 10 of measles were recorded in Edinburgh, and 1 of small-pox in Leith.

SANITARY INSPECTORS' ASSOCIATION.

A general meeting of the Sanitary Inspectors' Association for Scotland was held at Linlithgow on January 26th. The member of Parliament for the county (Captain Hope) presided at the outset, and gave an address on the Scottish Parish Councils Act, and pointed out some defects of this measure. Mr. R. E. Graves, H.M. Inspector of Factories for Glasgow and the West of Scotland, read a paper on the Sanitary Provisions of Factories and Workshops Legislation. Mr. James Brand, C.E. (Wigtownshire), read a paper on the Sanitary Aspects of the Parish Councils Act.

EDINBURGH PUBLIC HEALTH.

The measles epidemic continues to grow; 366 cases were notified last week; in the same period 20 cases of diphtheria, 13 of typhoid, and 78 of scarlatina, and 7 of small-pox were reported; 15 deaths were due to zymotic diseases.

DUTIES OF MEDICAL OFFICER OF HEALTH.

M.O.H., who is thinking of applying for an appointment as such in an urban district which has 3,500 inhabitants, asks what the duties would be, and whether water analysis is included among them, and what practical book should be studied.

*** One of the smaller manuals of *Public Health* (Parkes's, Whitelegge's, or Wilson's) would be suitable. The duties of the medical officer of health will be found described therein. They are officially defined in an Order of the Local Government Board, dated March, 1891, a copy of which could no doubt be obtained on application to the Board. Water analysis is not one of the duties prescribed, but some knowledge of analysis of water and food is desirable.

OBITUARY.

We have to record the death, on January 17th, of Mr. John Abernethy Hicks at the age of 58. He was the second son of the late Mr. John Hicks, of Emsworth, Hampshire, a pupil of Abernethy, and came of a family of whom many members had practised in that neighbourhood during the last century and a-half. Mr. Hicks, who was apprenticed to his father's successor, subsequently entered the Westminster Hospital and the Grosvenor Place School of Medicine, but shortly obtained a commission as acting assistant-surgeon for the Crimean war, and served throughout the campaign, receiving the English and Turkish medals. He afterwards resumed his studies in London, and obtained the diplomas of L.S.A. and L.F.P.S. and L.M. of Glasgow. In 1866 he settled in practice at Chigwell Row, Essex. One of his sons is in medical practice at Bexhill, and it was there that Mr. Hicks died, after a lingering illness due to multiple sarcoma.

Professor Jakob Gottstein, of Breslau, the well-known laryngologist, died on January 11th. He was born at Lissa, in Posen, in 1832, and taught in the University of Breslau for more than a quarter of a century. He was a leading authority in his special province, and his *Handbuch des Krankheiten des Kehlkopfes*, the first edition of which was published in 1883, is one of the best on the subject.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

Fleet-Surgeon R. H. More, M.D., has been placed on the Retired List, with permission to assume the rank of Deputy Inspector General of Hospitals and Fleets, January 27th. He was appointed Surgeon, October 13th, 1862; Staff-Surgeon, February 19th, 1876; and Fleet-Surgeon, April 29th, 1883. He served in Bermuda Hospital through the severe epidemic of yellow fever in that island in 1864. He was awarded Sir Gilbert Blane's gold medal in 1883.

Staff-Surgeon John J. Dinnis has been appointed to the *Undaunted*; and Staff-Surgeon Richard E. Biddulph, to the *Inflexible*, both dated January 29th.

INDIAN MEDICAL SERVICE.

Surgeon-Captain F. H. Burton-Brown, Bengal Establishment, is appointed to the medical charge of the 43rd Goorkha Rifles.

Surgeon-Captain A. J. Macnab, Bengal Establishment, from officiating, is appointed to the medical charge of the Corps of Guides.

Surgeon-Colonel R. Harvey, D.S.O., M.D., Bengal Establishment, will not avail himself for the present of the leave granted him until the settlement of the medical appointments consequent on the approaching retirement of Surgeon-Major-General W. R. Rice, C.S.I., M.D., and the carrying out of the Army Reorganisation Scheme.

It is stated that Surgeon-Colonel J. Cleghorn, of the Bengal Establishment, is to succeed Surgeon-Major-General W. R. Rice when the latter vacates the appointment of Surgeon-General with the Government of India.

Brigade-Surgeon John Charles Whishaw, Bengal Establishment, retired, died at Mentone on January 20th, at the age of 62. He entered the service as Assistant-Surgeon, July 23rd, 1858, and became Surgeon, and subsequently Surgeon-Major, twelve years thereafter, retiring February 15th, 1886, with the honorary rank of Brigade-Surgeon.

Deputy-Surgeon-General Charles Julian J. Jackson, M.D., Bengal Establishment, died at Nice, after a long illness, on January 16th, aged 64 years. He was appointed Assistant-Surgeon August 4th, 1855, and became Brigade-Surgeon January 10th, 1881, retiring from the service with the honorary rank of Deputy-Surgeon-General March 31st, 1887.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant Peter M. Kerr, M.B., having resigned his Volunteer medical appointment, ceases to be an officer of the Army Medical Reserve, January 30th.

Surgeon-Captain T. McC. Fraley, 1st East Riding of Yorkshire Volunteer Artillery, to be Surgeon-Captain, January 30th.

THE VOLUNTEERS.

Surgeon-Major A. O. Wiley, 1st Volunteer Battalion the Prince Wales's Own West Yorkshire Regiment, has resigned his commissi with permission to retain his rank and uniform, January 30th.

Surgeon-Captain D. W. Giffard, 1st Volunteer Battalion the Royal Sussex Regiment, has also resigned his commission, January 30th.

VOLUNTEER MEDICAL STAFF CORPS.

Mr. Herbert William George Macleod, M.B., is appointed Surgeon-Lieutenant in the London Companies, January 30th.

SANITATION AND MARCHES.

In a note on Colonel R. C. Hart's book, *Reflections on the Art of War*,[1] which appears in the *Pioneer*, it is stated that the sections on marches and sanitation are a little disappointing. Transport, nowadays, whether we fight in Europe, Africa, or Asia, is a very weighty consideration, and is a branch of the art of war which requires as much "reflection" as any of the other subjects discussed by Colonel Hart; while the space for sanitation is hardly in proportion to the importance of the subject discussed. Military writers might, we would add, safely leave sanitation to be dealt with by the Army Medical Department. Lord Wolseley, in the *Soldier's Pocket Book*, dubs the sanitary officer as a "useless functionary." If so, how is it the authorities have invariably appointed such a functionary with an army taking the field?

[1] London: William Clowes and Son. 4s. 6d.

MEDICAL NEWS.

Dr. Douglas Argyll Robertson has been elected a Corresponding Fellow of the New York Academy of Medicine.

The Duke of Cambridge will preside at the biennial festival dinner of the National Hospital for the Paralysed and Epileptic, Albany Memorial, on April 2nd.

Medical Students in Switzerland.—The total number of students of medicine in the five Swiss Universities in the current winter semester is 1,016. Zürich heads the list with 316; Lausanne stands lowest with 97.

The French Society of Dermatology and Syphilography, which was founded on June 22nd, 1889, has just been recognised by the Government as "an establishment of public utility."

Edinburgh Students' Representative Council.—A meeting of this Council was held on January 26th. It was reported that the Inter-University Conference was to be held on February 15th. The Amusements Committee reported that the students' night at the Lyceum Theatre on January 18th had resulted in a profit of seventeen guineas, of which seven were recommended to be given to the field fund.

Increase of the Medical Profession in Germany.—In November, 1894, the total number of medical practitioners in the German empire was, according to official statistics, 22,287, being an increase of 666 as compared with the foregoing year. During the last eight years, 1887-1894, the number of medical practitioners in Germany has increased by 32 per cent., whilst the general population has grown only by 10 per cent. during the same period.

Presentation.—Dr. W. P. Bothamley, upon the occasion of his resignation of the post of medical officer of the eighth district of the Hackney Union, was entertained at dinner and presented with a handsome silver fruit and flower stand by the officers of the Hackney Union. The presentation was made by Mr. J. Owen-Perry, Clerk to the Guardians, who said that the gift was a token of the friendship and esteem felt by the officers for Dr. Bothamley, who had shown himself a capable and zealous officer and a kind and sympathetic medical adviser of the sick poor.

American Jottings.—A Bill is now before the Alabama State Legislature providing that all patent medicines shall have the formula printed on the bottle. A strong "lobby" is working against the Bill.—The Academy of Medicine in Washington, D.C., is the name of a new medical society recently formed in the administrative capital of the United States. The President is Dr. T. L. McDermott.—The Chicago College of Physicians and Surgeons is to be absorbed by the University of Illinois. The University trustees have recommended the purchase of the College for an amount not to exceed 160,000 dollars.—A Bill has been introduced into the New York Legislature providing that, when the terms of the coroners now in office expire, there shall be only one coroner for New York. He is to be a judicial officer exclusively, to sit without a jury, at a salary of 10,000 dollars (£2,000). The duties of investigation, etc., are entrusted to the coroner's physicians, of whom there will be six instead of four.—The investigations of the Lexow Committee have revealed that two hundred professional abortionists ply their nefarious trade in New York. It appears that they have been protected by the police, and, as an example of the tax which the guardians of the law have levied on these criminals, it is stated that one abortionist paid hush money to the tune of 2,825 dollars (£565) in instalments within a period of six weeks.—The New York College of Physicians and Surgeons has received two very large gifts, one of 350,000 dollars from Cornelius, William, Frederick, and George Vanderbilt, who each contributed 87,500 dollars, and one of 200,000 dollars from William D. Sloane. The Messrs. Vanderbilt specify that their gift is to be used in the enlargement of the main college building and also of the Vanderbilt Clinic, and the Sloane gift is for the purpose of erecting a new maternity hospital to be connected with the present one and form a part of it. Mrs. Sloane, who is a sister of the Vanderbilts, agrees to furnish funds for the maintenance of the new hospital after it has been built and equipped by her husband. This last gift of Mr. and Mrs. Sloane will make their total donations to the College over 1,000,000 dollars, and the same is true of the Vanderbilt contributions.

Jubilee Congratulations to Dr. Nevins.—At the ordinary meeting of the Liverpool Medical Institution, held on January 17th, the members congratulated Dr. John Birkbeck Nevins on the completion of his jubilee year of membership of the Society. The motion was made by the President, Mr. Chauncy Puzey, F.R.C.S., who said Dr. Nevins was a distinguished student at Guy's Hospital, and took the M.B.Lond. in 1841, afterwards becoming medical tutor at Guy's. Since he had been in Liverpool he had led a busy and useful life in connection with the Medical School, the Eye and Ear Infirmary, the School for the Blind, and other charitable and scientific societies. Dr. William Carter, in seconding the resolution, said that Dr. Nevins, although a man of strong convictions, and impelled to bear a part in many controversies, had never made a personal enemy. The resolution was carried by acclamation in an unusually large meeting. Dr. Nevins, who seemed to be in the best of health and of mental and physical vigour, expressed in most happy terms the pleasure the resolution afforded him. He related some interesting reminiscences of the Institution when he first joined it, referring especially to two of the members of that day who have left their mark, in different ways, in the annals of medicine—Dr. Duncan, the first medical officer of health in the kingdom, and Mr. Higginson, the originator of the well-known syringe. Dr. Nevins is now for the second time President of the Literary and Philosophical Society. His active sympathy with many schemes of charity and benevolence is widely known; he has been most successful as Secretary of the Medical Benevolent Fund, an office he has filled for many years, and he was appointed Consulting Physician to the Stanley Hospital at its inception, now nearly thirty years ago.

MEDICAL VACANCIES.

The following vacancies are announced:

ALNESS PAROCHIAL BOARD.—Medical Officer. Salary, £20 per annum. Applications to Alexander Campbell, Inspector of Poor, Alness, Rossshire, by February 8th.

BIRMINGHAM CITY ASYLUM, Rubery Hill, near Bromsgrove.—Junior Assistant Medical Officer. Salary, £80 per annum, with board, etc. Applications to Medical Superintendent.

CANCER HOSPITAL (FREE), Fulham Road, S.W.—House-Surgeon Appointment for six months. Salary, at the rate of £60 per annum, with board and residence. Applications to the Secretary by February 4th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's Inn Road, W.C.—House Surgeon. Applications to the Secretary by February 12th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road.—Resident Medical Officer; doubly qualified. Appointment for twelve months. Salary, £90 per annum, with board, lodging, and washing. Anæsthetist; medical women are eligible for this post. A small honorarium is given. Applications, on forms to be obtained at the hospital, to be sent to the Secretary by February 11th.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House-Surgeon. Salary, £100 per annum, with furnished apartments, board, and washing. The present Assistant House-Surgeon is an applicant. Candidates must state whether in the event of his being elected they would be willing to accept the post of Assistant House-Surgeon, salary £80 per annum, with furnished apartments, board, and washing. Applications endorsed "House-Surgeon" by February 7th.

DERBYSHIRE ROYAL INFIRMARY, Derby. — Honorary Physician, Honorary Surgeon, Honorary Consulting Dental Surgeon. Applications to Walter G. Carnt, Secretary, by February 18th.

DEWSBURY AND DISTRICT GENERAL INFIRMARY, Dewsbury.—House-Surgeon, doubly qualified. Salary, £80 per annum, with board and residence. Applications to the Chairman of the House Committee, by February 6th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer, doubly qualified. Salary, £80 per annum, with board and lodging. Appointment for one year. Applications to the Chairman of the Medical Board, by February 6th.

GLASGOW MATERNITY HOSPITAL.—Indoor and Outdoor House-Surgeons. Applications to Arthur Forbes, Secretary, 146, Buchanan Street, Glasgow, by February 6th.

HOSPITAL FOR WOMEN AND CHILDREN, Leeds.—House-Surgeon. Must reside close to the hospital, and not engage in private practice. Salary, £75 per annum. Applications to the Secretary of the Faculty.

KENT AND CANTERBURY HOSPITAL, Canterbury.—Surgeon. Applications to the Secretary by February 19th.

NEATH URBAN DISTRICT COUNCIL.—Medical Officer of Health for the Borough. Salary, £30 per annum. Applications to Edwin C. Curtis, Town Clerk, by February 5th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Junior House-Physician; doubly qualified. Appointment for six months. No salary, but board and lodging (including washing) provided. Applications to the Secretary, 27, Clement's Lane, E.C., by February 13th.

PARISH OF DALRY, Galloway.—Medical Officer. Must reside in Dalry. Salary, £40 per annum. Applications to Alexander Kirk, Inspector of Poor, Dalry, Galloway, by February 2nd.

PARISH OF ST. PANCRAS.—Assistant Medical Superintendent of the St. Pancras (separate) Infirmary, Dartmouth Park Hill. Doubly qualified. Age not to exceed 35 years. Appointment for two years, but eligible for re-election. Salary, £120 for the first year, and £135 for the second year, with apartments, rations, and washing. Applications to Alfred A. Millward, Clerk to the Guardians, Guardians' Office, Vestry Hall, St. Pancras, N.W., by February 7th.

RADCLIFFE INFIRMARY, Oxford.—House-Surgeon; 'doubly qualified. Appointment for six months. Salary at the rate of £80 a year, with board, lodging, and washing. Applications on printed forms, to be obtained from the Secretary, to be sent to the Secretary by February 15th.

RIPON: DISPENSARY AND COTTAGE HOSPITAL, Ripon.—Resident House-Surgeon and Dispenser; unmarried. Salary, £70 per annum, with board and lodging. Appplications to F. C. Wise, Honorary Secretary.

SALOP INFIRMARY, Shrewsbury.—House-Surgeon. Salary, £100 per annum, with board and residence. Applications to the Board of Directors by February 11th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—House-Surgeon, doubly qualified. Salary, £100 per annum, with board, lodging, and washing. Appointment for two years, subject to direction of the General Committee. Applications to the Secretary of the Infirmary, Lloyds Bank, Limited, Staffordshire, by February 6th.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds.— Honorary Assistant Medical Officer. Applications to the Chairman of Committee by February 4th.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Surgeon. Must reside within two miles of the Hospital. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by February 16th.

THROAT HOSPITAL, Golden Square.—Clinical Assistants. Applications to Greville Macdonald, Dean.

UNIVERSITY OF EDINBURGH.—Additional Examiners in Natural History and Clinical Surgery. Period of office four years. Salary, £75 per annum in each case, with £10 per annum for travelling and other expenses in the case of an additional examiner not resident in Edinburgh or the immediate neighbourhood. An additional allowance is made to the Examiner in Natural History for examining for Graduates in Arts. Applications to L. J. Grant, Interim Secretary, University Court, University of Edinburgh, by February 6th.

WEETSLADE URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £10 per annum. Applications to William Webb, Clerk to the said Council, 23, Newgate Street, Morpeth, by February 5th.

MEDICAL APPOINTMENTS.

AULD, Archibald, M.B., C.M.Glasg., reappointed Medical Officer of Health for the No. 3 District of the Pontefract Union.

BASSETT, W., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Newport Branch of the South Wales Clerks' Association.

BUTLER, A., L.R.C.S., L.R.C.P., appointed Medical Officer to the Walsham-le-Willows District of the Stow Union.

COATES, C. M., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of the Creech St. Michael District of the Taunton Union.

CURRIE, John, M.B.Lond., appointed House-Surgeon to the Beckett Hospital and Dispensary, Barnsley, *vice* Sidney Frederick Barber, L.R.C.P.Lond., M.R.C.S.Eng., resigned.

GUNN, F. W., M.D., B.S., L.S.Sc.Durh., M.R.C.S., L.R.C.P., L.S.A., A.K.C., appointed Medical Officer to the No. 4 District, Morpeth Union.

HOBSON, Lewis J., M.D.Lond., B.S., F.R.C.S.Eng., Harrogate, reappointed Honorary Consulting Physician to the Royal Bath Hospital and Rawson Convalescent Home, Harrogate.

HYNES, Alfred M., M.R.C.S.Eng., L.R.C.P.Edin., appointed Surgeon to Collingwood Dock, Bridewell, Liverpool, *vice* M. A. Wade, L.K.Q.C.P.I. and L.R.C.S.I., resigned.

LINDEN, Henry C., L.R.C.P.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Harptree (No. 3) District of the Clutton Union, *vice* W. F. Lovell, M.R.C.S.Eng.

LOWE, Mr. L., appointed Second Assistant to the Medical Officer of the Workhouse and Infirmary of the Parish of Paddington.

RBITH, W. R., M.B., appointed Assistant Medical Officer for the Workhouse of the Aston Union.

ROBERTS, C. G., M.A.Camb., M.B., B.C., reappointed Medical Officer of Health to the Halstead Urban Sanitary District.

WATTS, Mr. F., appointed Medical Officer for the No. 3 District of the Yeovil Union.

WEBER, F. Parkes, M.D., M.R.C.P.Lond., appointed Physician to the German Hospital, Dalston.

WILLIAMSON, Dr., appointed Medical Officer for the Northern Division of the Lancaster Union, *vice* Edwin Brownlow, L.R.C.P., L.R.C.S.Edin.

YEARSLEY, P. Macleod, F.R.C.S.Eng., appointed Clinical Assistant to the Ear Department of the Westminster Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. R. Marcus Gunn: Clinical Examination of the Eye. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. W. R. H. Stewart: Examination of the Ear.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 40, Leicester Square, 8 P.M.—Mr. H. Mummery: On Photo-micrography and its application to the Study of Dental Histology. Casual Communications: Mr. W. E. Harding and Mr. A. R. Colyer.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Frederick T. Roberts: The Combinations of Morbid Conditions of the Chest (11. Lettsomian Lecture).

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Hyslop: Hypochondriasis.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. J. W. Washbourn: Researches on the Pneumococcus, with Special Reference to Immunity. Dr. A. E. Wright: Notes on the Bacteriology and Pathological Chemistry of Pneumonia.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, 4.30 P.M.—Lecture by Dr. Dundas Grant on the Diagnosis of Diseases causing a Discharge from the Ear.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Erythema, its Causes and Varieties. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Choroidal Affections, with Cases.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown by Drs. Remfry, Macnaughton-Jones, and Mr. Butler-Smythe. Dr. Probyn-Williams and Mr. Lennard Cutler: Some Observations on the Temperature, Pulse, and Respiration during Labour and the Lying-in. Annual meeting. Election of officers and Council. The President (Dr. Herman) will deliver the Annual Address.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, 3 P.M.—Lecture by Dr. Beevor.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Mr. Paget: The Surgery of the Chest.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Tooth: Anatomy of the Spinal Cord. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. John H. Morgan: Congenital Defects in Lower Extremities. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. John Hopkins: Cases in the Wards.

HARVEIAN SOCIETY, 8.30 P.M.—Mr. Frederick Treves: A Series of Cases of Removal of the Appendix for Relapsing Typhlitis.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: The Microscope and Methods of Cultivation. Practical Work: Examination of Cultivations.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Clinical Cases only will be shown; each member will receive a card of agenda before the meeting.

ROYAL INSTITUTION, 8 P.M.—Dr. G. Sims Woodhead: On the Antitoxin Serum Treatment of Diphtheria.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Hyslop: Melancholia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ELAM.—On January 17th, at 96, Manor Road, Stoke Newington, N., the wife of George Elam, M.D., of a son.

REECE.—On January 28th, at 31, Holland Villas Road, Kensington, W., the wife of Richard J. Reece, M.D., of a son.

WILSON.—On January 22nd, at 481, Wandsworth Road, S.W., the wife of George D. Wilson, L.R.C.P., L.R.C.S.Edin., of a son.

MARRIAGES.

BROATCH—JONES.—On January 13th, at St. Peter's, Bayswater, by the Rev. H. G. Rosedale, M.A., George T. Broatch, M.B., Surgeon, R.N., to May Willis, elder daughter of the late George Jones, Esq., of Aughton, Lancashire.

MORRIS—DAVIES.—At the Congregational Church, Pershore, Worcester, by the Rev. J. H. Feck, pastor, assisted by the Rev. J. Ceridfryn Thomas, B.Sc., Weston-super-Mare, brother-in-law of bridegroom, Sylvanus Glanville Morris, M.B., of Upper Cwmtwrch, Swansea, and youngest son of the late Mr. John Morris, Nantgaredig, to Mary Emily (Amy), eldest daughter of the late Mr. John Davies, merchant, Penrheol, Carmarthen, and granddaughter of the late Rees Protheroe, Esq., Carmarthen, now of Gore House, Pershore.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor atthe Office of the Journal, and not to his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

I. M. S. would feel thankful for information as to where old examination papers in military law (as set by the War Office) can be obtained.

Peter Lowe's Surgery, 1654.

C. J. S. T. writes, asking if we can give any idea of the value of Peter Lowe's *Discourse of the Art of Chirurguie*, 4th edition, in good order.

*** We find that the copies of the first edition are very rare; those of later date are common. The value of a good copy of the 4th edition will probably be from 30s. to 40s.

Morphine Urticaria.

A Member of the British Medical Association will feel grateful to anyone who would suggest a remedy for the intolerable itching and nettlerash caused by the exhibition of morphine and opium. A list of the preparations of opium which do not cause itching would be very acceptable to a victim of this unbearable symptom.

ANSWERS.

Dr. W. J. Sheard.—The quotation, which runs "medio tutissimus ibis" is from Ovid's *Metamorphoses*, Book ii, line 137.

Medicus.—The paragraph referred to was, we may reasonably hope, due entirely to the want of judgment of some individual reporter, for which the surgeon in question cannot, of course, be held responsible.

House Surgeon.—The answer to the question propounded depends upon the by-laws of the hospital and the custom of the profession in the particular town.

M.B.—We fear that we must not take the responsibility of advising our correspondent as to the subject he should choose for a lecture to a literary society. Magic lantern slides for the illustration of various departments of physiology can be obtained from Mr. Wood, 74, Cheapside, E.C.

Ph.C.—For the L.R.C.P.Lond. and M.R.C.S.Eng. the instruction on dispensing must be given by a registered medical practitioner, or by a member of the Pharmaceutical Society of Great Britain, or the pharmacist to a public hospital, infirmary, or dispensary.

J. C.—Orotava as well as the other resorts in Teneriffe have, of course, developed greatly since 1887, and the accommodation for visitors has much increased. The summer would be a good time to commence residence in Teneriffe; but Laguna is more appropriate for summer residence than Orotava. Information as to cost of living, etc., might be obtained by writing to Camacho's Hotel, Santa Cruz.

The Hair.

The chapters on the hair in Mr. Malcolm Morris's *Diseases of the Skin* (Cassell and Co.), and Dr. Crocker's work on the same subject (H. K. Lewis) would no doubt answer our correspondent's purpose.

Convalescent Home on South Coast.

Dr. A. G. Welsford (Dover) writes: In answer to the query of "T. C. P." in the British Medical Journal of January 26th, I may mention that he will find the Home of Rest, Shanklin, I.W., will meet his requirements. This beautiful home was built by Mrs. Harvey, of Shanklin, and is managed by the Girls' Friendly Society. Accommodation is provided for a limited number of persons not members of the Society at a slightly increased rate. The Lady Superintendent, if applied to, will give every information. From personal knowledge of the Home I can recommend it.

Treatment of Tapeworm.

Dr. Rolf Creasy (Windlesham) writes: In answer to "Bombay," let his patient eat a dozen or two of fresh olives before breakfast each morning for a few weeks. This simple treatment has often proved efficacious in removing the head of tapeworm after male fern has failed.

Infant Insurance.

Insurance.—The reports of the Select Committees on Friendly Societies, 1875 and 1888, contain a large amount of information upon this subject. Indices to these reports can be obtained from Eyre and Spottiswoode, East Harding Street, London, E.C., for 7½d. The valuation reports of the Prudential Assurance Company might also be consulted with advantage.

Club Rates.

Member.—We know of no sliding scale of club rates according to earnings. Few, if any, clubs recognise a sliding scale at all, and the usual subscription of the members for medical attendance is far too small. Our correspondent is quite right in refusing to accept 5s. per annum per member irrespective of earnings. It is to be wished that the profession generally would adopt such a plan. The rate quoted as a minimum is too small, as it is incredible that anyone earning a "living wage" cannot afford to contribute at least twopence per week out of his earnings for medical attendance in sickness.

Charitable and Provident Institutions.

Fair Play.—It is difficult to understand how a "charity" can be self-supporting, but both charities and self-supporting institutions frequently advertise weekly the work they do, the former to attract subscriptions, and the latter new members. There is no harm in doing this so long as the names of the medical staff do not appear in the advertisement. Our correspondent seems to find fault with the indirect advertisement of medical practitioners, but this is a very wide field, as all successful professional work among the public is in a sense indirect advertisement of the practitioner; it would be a great gain to the profession if every form of direct advertisement could be done away with. With regard to this dispensary there is no evidence in the annual report contained in the newspaper cutting tending to prove that its work is in any way comparable with that of the institutions condemned in the columns of the British Medical Journal.

Fever Hospitals.

Dr. William Gayton (Medical Superintendent to the Metropolitan Asylums Board, North-Western Hospital, N.W.) writes: If your correspondent, "M.O.H.," will peruse *The Prevention of Epidemics and the Construction and Management of Isolation Hospitals*, by Dr. Roger McNeill, medical officer of health for the county of Argyll, published very recently by J. and A. Churchill (10s. 6d.), he will, I think, find the information he seeks, or at least a greater portion of it.

Dr. Francis W. Clark (M.O.H. Borough of Lowestoft) writes that he will be happy to furnish "M.O.H." with hints as to the arrangements, etc., of a new fever hospital, if he will communicate with him direct.

NOTES, LETTERS, Etc.

A Dispensary Advertisement.

Correspondent sends us a cutting from the *Manchester Evening News* in which appears an advertisement of the "Manchester and District Dispensary." The advertisement appears of an ordinary character, and there would be no reason to comment on it, except for the fact that at the end of it appears: "Physician, Dr. J. Mitchell. Hours, 10 to 1 and 6 to 9." As it is somewhat unusual for an individual practitioner to be advertised in this way, it makes it necessary to scrutinise this institution a little more closely, and it would be interesting to know a little more about the character of its committee and its rules and regulations.

The Best Medical Books.

Dr. W. R. Parker (Kendal) writes: Allow me to suggest through your columns that some one should bring out a sixpenny or shilling index to the best medical and scientific works, after the plan of Messrs. Swan Sonnenschein and Co.'s "The Best Books." I made this suggestion two or three years ago to the above firm, and have received two or three replies from them at different times, giving me to understand that they thoroughly appreciated the suggestion, and would act upon it shortly. But year after year passes by, and the work does not appear. I therefore suggest that some one else should take the matter in hand. The index should probably be re-edited annually, and published just before the commencement of each winter session. If trustworthy, it could not fail to be of the greatest service to medical men, medical students, and science students generally.

A Circumcision Specialist.

A correspondent sends a copy of a curious circular issued by a "specialist operator" for circumcision. We have already commented on this document, which appears to be sent out broadcast to all such proud parents as think fit to announce their new responsibilities in the "Birth" column of the *Times* and other papers. The nuisance, however, still goes on. If this advertiser limited his attention to the babies not much harm would be done. At confinements there generally are doctors, and so as regards the infant advice is at hand. But the advertiser seems rather to aim at the father. Special attention is drawn to the fact that age is no disqualification. The advantages of circumcision are open to all, as also are the evils arising from its neglect. Probably it is thought that with an increasing family the poor father will not be in the brightest condition, so it is ingeniously suggested that "every invalid or victim of some obscure nervous disorder should not neglect this, as it will materially assist in restoring him to health." The odd thing is that it should pay to send such circulars; one might imagine that only one out of a sackful would ever lead to "business," but the human mind, when it turns to sexual concerns, is a weaker thing than most people would believe, and is very prone to go astray.

"TO BLOW OR WASH."

MR. W. SPENCER WATSON (Henrietta Street, W.) writes: I read with surprise the paragraph with the above heading in the BRITISH MEDICAL JOURNAL of January 26th. Whether the directions are intended for all or only for persons suffering from intra-nasal disease is not quite clear, but in any case I should strongly oppose the habitual use of a nasal douche of the kind indicated. In the first place, no nasal douche should be "cold" or even "tepid," as there recommended; it should always be of a temperature of about 90° F., or even higher. 2. The habitual use of a nasal douche, except in cases in which there are retained secretions in the form of hard, dry crusts, is very irritating, and I am convinced very injurious both to the Schneiderian and the olfactory membranes. Most people find douches not only irksome but painful. They are often the cause of chronic nasal catarrh, and sometimes lead to deafness from the catarrhal inflammation extending into the Eustachian tubes. 3. The same cleansing effects can be obtained by the pleasanter and safer method of spraying, and unless there is chronic intranasal disease or some unusual intranasal obstruction, by the use of the time-honoured domestic pocket-handkerchief. Primitive man must have used, and the less cultivated man of modern times still employs, an even simpler method, and, I believe, with results not inferior to those derived from the use of the handkerchief, so far as intranasal cleanliness is concerned, though with a want of æsthetic decorum which is perhaps to be deprecated. Let us then be just to modern civilisation, and thankful even to the humbler appliances with which she has supplied us. Let us go on blowing our noses in moderation, and without fear of the consequences, and leave the process of thorough washing to the cetacea and other marine animals to whom such methods are appropriate and convenient.

P.S.—A douche, besides being warm, should always contain in solution some saline substance such as common salt. It is thus much less irritating and more effectual as a cleansing agent.

H. S. writes: You say in your article in the BRITISH MEDICAL JOURNAL of January 26th that in order to cleanse the nose we ought "to plunge the face into a basin of clean water, cold or tepid, and take slight sniffs in and out while under water." With all deference to this advice, I beg to recommend that a single fold of a pocket handkerchief should be wrapped round the little finger, which should be dipped in water about an inch, and then gently inserted with a screwing movement into each nostril twice. In this way the nose will be more effectually cleaned out than by merely putting the nose under water and sniffing. I consider sniffing to be objectionable, as by this means the dirt in the nostrils is conveyed through the posterior nares to the throat, which surely cannot be advisable. My simple process should be repeated four times a day.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Autopsy; Mr. H. F. Aveling, London; Dr. J. Althaus, London; A. J. P. (**B**) Mr. W. Barnett, Weston-super-Mare; Mr. R. N. Blakiston, London; Dr. F. Beach, Kingston Hill; Birmingham and Midland Counties Branch of the British Medical Association, the Secretary of, Birmingham; Mr. H. T. Baldwin, Alberta, Canada; Dr. G. B. Barron, Southport; Mr. A. A. Baillon, London; Dr. A. G. Bateman, London; Dr. M. Brenning, Charlottenburg; S. Boyd, M.B., London; Dr. T. L. Brunton, London; A. J. Brown, M.B., Wakefield; Mr. P. T. B. Beale, London; Mr. A. E. Bertie-Smith, London. (**C**) D. Crawford, M.B., Liverpool; Mr. S. R. Canton, London; Dr. F. H. Collins, Manchester; Mr. R. Creasy, Windlesham; Dr. E. Crossman, Hambrook; F. Clark, M.B., Lowestoft; Dr. W. A. Cummins, Cork; C. M. D. J.; Mr. E. H. Corder, Worcester; Dr. C. C. Claremont, Portsmouth; J. A. Codd, M.B., Wolverhampton; A Country Member. (**D**) Dr. C. Dawson, Leeds; Mr. H. Davies, Pontypridd; Dr. L. G. Dillon, Seaham; Delta; W. Davidson, M.B., Bournemouth; J. Donelan, M.B., London. (**E**) Epping Natural Mineral Water Co., London; Dr. G. J. Eady, Enfield; Ergotin; Mr. H. H. Eagle, London. (**F**) Sir Joseph Fayrer, London; Mr. F. Forsaith, London; Messrs. Ferris and Co., Bristol; Fairplay. (**G**) Mr. T. H. Goodwin, Newcastle-on-Tyne; Dr. W. Gayton, London; C. Gordon, M.B., Lichfield; Mr. H. Gülich, London; Dr. F. W. Gunn, Widdrington; Mr. P. G. Garrett, Pendleton. (**H**) Dr. F. Hinds, Worthing; Dr. H. L. Harrison, Reigate; Mr. A. Hynes, Liverpool; Dr. J. S. Hinnell, Bury St. Edmunds; Mr. H. Nelson Hardy, London; Mr. H. Hartigan, Edinburgh; Dr. A. Hill, Wroughton; H. S.; Dr. L. Hepburn, London; Dr. L. J. Hobson, Harrogate. (**I**) I. M. S.; Irishman. (**J**) W. D. Johns, M.B., Bournemouth; Mr. A. Jennings, Truro; Mr. S. G. S. Jones, Farnham: Jeyes Sanitary Compound Company, Ltd., London; Mr. F. Jackson, Barnstaple. (**K**) G. W. E. Kerr, M.B., Inverness. (**L**) Mr. G. R. Lake, London; Mr. W. Lake, Guildford; Dr. T. G. Lyon, London; H. Lund, M.B., Manchester; J. R. Logan, M.B., Liverpool; Dr. Fletcher Little, London. (**M**) Dr. G. Mackay, London; Member; Mr. G. Marks, London; A. Macphail, M.B., Glasgow; H. G. Maclagan, M.B., Melbourne (Derby); Mr. T. L. Montgommery, Penrith; Dr. J. Macnamara, London; Middlesex Hospital, House Surgeon, London; Melita; Mr. A. F. Merton, Liverpool; Mr. J. McNicoll, Poole; A Member New to Country Practice; T. T. Macklin, M.B., St. Mary's (Scilly Isles); Dr. T. Maguire, Stratford; M.D.; Mr. T. Maltby, London; Dr. J. Murphy, Sunderland. (**N**) A. Nobbs, M.B., Morpeth; Dr. A. Newsholme, Brighton; National Hospital for the Paralysed and Epileptic, Secretary-Director, London; L. F. Nash, M.B., London; Mr. R. J. Newstead, London. (**O**) Mr. G. P. O'Connor, Edinburgh; Dr. K. Osada, Osaka, Japan; Odontological Society of Great Britain, the Secretary of the, London. (**P**) Mr. C. M. Perry, London; Pakeha; Ph. C.; Mr. J. H. B. Pinchard, Taunton; Mr. J. O. Perry, London; T. W. Parry, M.B., Youlgreave; Dr. W. R. Parker, Kendal; Professor J. Penberthy, London; Dr. A. Patterson, Glasgow; T. Pimley, M.B., Preston; Mr. F. T. Paul, Liverpool; Dr. C. Pinkerton, Southport. (**R**) Dr. E. S. Reynolds, Manceester; Mr. G. Rogers, Bristol; Mr. R. C. Radcliffe, Blackburn; Dr. F. A. Roberts, Leeds; Mr. C. S. Redmond, Gateshead; Rad. Sarsæ; Dr. G. Buchanan, Glasgow; Mr. C. E. Richmond, Manchester; Dr. R. R. Rentoul, Liverpool; Mr. W. Randall, Bridgend. (**S**) Mr. W. E. Sells, London; Mr. P. L. Slater, London; B. Squire, M.B., London; Mr. F. F. Schacht, London; Messrs. Street and Co., London; Dr. M. T. Sadler, Barnsley; Messrs. Squire and Sons, London; Dr. M. Skerritt, Bristol; Mr. J. C. Swinburne-Hanham, London; Mr. E. D. Shirtliff, Malvern; Society of Apothecaries, the Secretary of, London; Scratch; Mr. R. Sisley, Southwold; Sceptic; Sheffield Medico-Chirurgical Society, the Secretary of, Sheffield; Professor Schäfer, London; Dr. J. F. Sykes, London; Mr. B. Sykes, Leeds. (**T**) Mr. H. E. Tuley, Louisville, U.S.A.; Mr. G. L. Tulford, Okehampton. (**U**) Unwritten. (**V**) Variola. (**W**) W. W. J.; Mr. E. Wilson, Exeter; Dr. G. H. Weston, Southampton; Dr. A. Welsford, Dover; Mr. W. R. Williams, Preston; Mr. G. Walker, Wimbledon; Mr. H. T. Wharton, London; W. S. Watson, M.B., London; Mr. H. White, Manchester; Dr. N. S. Wade, Victoria (B.C.); Dr. H. Woods, London; Dr. F. J. Waldo, London; Mr. E. Wilson, Exeter; W. W. P.; Dr. B. Walker, Kirkby Stephen; Dr. A. E. Wynter, Beckenham. (**Y**) Mr. P. M. Yearsley, London; etc.

BOOKS, ETC., RECEIVED.

The Dissemination of Infectious Diseases by Boarding Schools. By Dr. C. Dukes. Rugby: A. J. Lawrence. 6d.

Autobiography. By James Beart Simonds. London: Adlard and Sons. 1894.

On Some Symptoms which Simulate Disease of the Pelvic Organs in Women; and their Treatment by Allo-piesto-myo-Kinetics (Massage) and by Auto-piesto-myo-Kinetics (Self-movements of Muscles) under Pressure). By A. Rabagliati, M.A., F.R.C.S. London: Bailliere, Tindall and Cox. 1895. 7s. 6d.

Bread, Bakehouses, and Bacteria. By Dr. F. J. Waldo and D. Walsh, M.B. London: Baillière, Tindall and Cox. 1895. 2s.

The Local Government Annual, 1895. London: S. Edgecumbe-Rogers. 1s. 6d.

The Local Government Act, 1894. Abstract of Clauses of the Act, with Full Index and Explanatory Note. Fifth Edition. London: S. Edgecumbe-Rogers. 1d.

Die Entstehung organischer Formen. Von Dr. C. Boegle. Munchen: J. F. Lehmann. 1895. M. 1.20.

Colour Vision. Being the Tyndall Lectures Delivered in 1894 at the Royal Institution. By Captain W. de W. Abney, C.B., D.C.L., F.R.S. London: Sampson Low, Marston and Co. 1895. 12s. 6d.

The Report of the Department of Pathology of University College, London. December, 1894. Volume IV. Edited by Professor V. Horsley and Dr. V. Harley. London: Langley and Son.

Die Grundzüge der Tropenhygiene. Von Dr. K. Däubler. Munchen: J. F. Lehmann. 1895. M. 4.

Physiologische Studien aus Instituten der Universität Budapest Redigirt von Dr. A. Bokai, Dr. F. Klug, und Dr. W. Goldzieher. Sonderausgabe vom "Ungarischen Archiv für Medizin," III Band, Heft 2. Wiesbaden: J. F. Bergmann. 1895. M. 5.

Ueberschau ueber den gegenwärtigen Stand der Ohrenheilkunde. Von Dr. F. Bezold. Wiesbaden: J. F. Bergman. 1895. M. 7.

Hand-Atlas der sensiblen und motorischen Gebiete der Hirn- und Rückenmarksnerven. Von Professor C. Hasse. Wiesbaden: J. F. Bergmann. 1895. M. 12.60.

Mnemotechnik der Receptologie. Von Dr. C. T. Huetlin. Wiesbaden: J. F. Bergmann. 1895. M. 1.

*** In forwarding books the publishers are requested to state the selling prices.

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N.B.—It is against the rules of the Post Office to recieve letters at *Poste Restantes* addressed either in initials or numbers.

CLINICAL REMARKS
ON
CASES OF ACROMEGALY AND OSTEO-ARTHROPATHY.

By GEORGE R. MURRAY, B.A., M.B.Camb., M.R.C.P.Lond.,
Heath Professor of Comparative Pathology in the University of Durham; Pathologist to the Hospital for Sick Children, Newcastle-on-Tyne.

Cases of true acromegaly are rare, and only a small number of them have as yet been recorded in this country. Two cases which have come under my observation present certain features which are worthy of record. A third case, which has some of the characters of pulmonary osteo-arthritis, is also of interest from the unusual nature of the enlargement of some parts of the extremities which has taken place. The notes of these cases are unfortunately very short and incomplete, for the patients were only seen a few times and continuous observations could not be made. All these cases resided in the county of Durham.



Fig. 1.

Case I.—T. W., aged 34, married, and the father of four healthy children, four years and a-half before he came under treatment, while at work in the gasworks, accidentally inhaled an overdose of coal gas and was unconscious for six hours. He recovered from the immediate effects of this, but had never felt quite well since. Six months later he began to have attacks of pain in the fingers, the proximal interphalangeal joints of the middle and ring fingers in each hand being chiefly affected. The pain sometimes lasted only a few minutes, at others as much as an hour, and at times extended up to the shoulder. For about two years the patient's friends had noticed that his face had altered in appearance owing to an increase in the size of the nose and sinking in of the cheeks. He thinks that possibly the hands had increased in size somewhat even before that time. He began to feel languid and disinclined to work. The feet also gradually increased in size, so that he was obliged to get larger and larger boots. It appears probable that he had syphilis seventeen years ago.

His father had died after a "stroke." His mother died of "jaundice." One brother died of "abscesses." One sister died from a "strain," two are living.

He complains of aching pains in the hands, worst at night and in damp weather. He has no headache, tinnitus, nor deafness. He is languid and disinclined to work, and would willingly lie in bed all day if he was not obliged to work for his living. The memory has failed somewhat, and his temper has become irritable. He complains of weakness of the legs, but the arms feel as strong as ever. All these symptoms improve very much when he becomes heated at his work as a fireman. His appearance is striking, and at once suggests the nature of the disease to anyone who is familiar with the general features of acromegaly. This is well shown in Figs. 1 and 2, from photographs kindly taken for me by Dr. R. Bolam. The forehead is low and deeply wrinkled transversely. The margin of each orbit is prominent, and the palpebral fissure is narrow, giving the whole face an expression of great anxiety and depression of spirits. The nose is large and thickened in all dimensions. The lips are thick and heavy, the lower lip being more affected than the upper. The chin is wide and rather mas-



Fig. 2.

sive. The upper incisor teeth are separated from each other. When the mouth is closed the lower incisors project in front of the upper. The tongue and uvula are both distinctly enlarged, the ears are thickened, the hands are increased in size. The enlargement involves both hard and soft structures alike; the consistence is firm, and there is no "pitting" on pressure. The fingers are rather like sausages in shape, and the palms are broad. The thenar and hypothenar eminences are large and broad. The hands are closed with difficulty. If the fingers are extended after they have been flexed the middle finger of the left hand remains flexed till a few seconds have elapsed. The arms do not appear to be increased in size. The feet are considerably enlarged; this change is most marked in the first and second toes. The circumference of the neck has increased by 1 inch. The thyroid gland can be felt and is not diminished in size. An

area of dulness can be detected over the upper part of the sternum. There is marked kyphosis in the upper dorsal region of the spine. There is some enlargement of the right clavicle and of the upper ribs on the same side. There is less perspiration now than there was formerly. The amount of urine is stated to be rather less than usual; the specific gravity is 1030. The urine does not contain albumen or sugar.

Dr. A. S. Percival has been kind enough to examine the eyes, and finds the following condition: Vision $\frac{6}{9}$ with difficulty. The fields of vision are slightly contracted above, due to the exaggerated prominence of the eyebrows and the swelling of the eyelids. On examination with the ophthalmoscope a linear streak of pigment is seen lying above a retinal vessel, which is probably the site of a hæmorrhage. Nothing else of interest is to be seen.

Measurements of the Patient.

	Inches.
Length of hand from lower fold of wrist to end of middle finger	7½
Length of middle finger from palmar fold at base ...	3½
Dorsal length of middle finger from base of first phalanx ...	4¼
Palmar length of little finger	2½
Circumference of hand (without thumb) at head of metacarpal bones...	9
Circumference of middle finger	3½
Circumference of thumb	3
Circumference of little finger	2¾
Circumference of wrist immediately below extremities of ulna and radius	7½
Circumference of wrist at level of styloid process	7½
Circumference of forearm at the middle	10
Circumference of arm at the middle	10
Length of nail of middle finger	⅝
Length of nail of thumb	⅝
Breadth of nail of middle finger	⅝
Breadth of nail of thumb...	⅝
Greatest length of foot	10
Circumference over heel and instep	13
Greatest circumference of foot	11½
Greatest width of foot	4
Circumference of great toe	4½
Circumference of little toe	2½
Length from top of forehead to tip of chin	8½
Length from top of forehead to upper part of nasal bones ...	2½
Length from upper part of nasal bones to tip of nose ...	2½
Greatest width of alæ nasi	2
Distance from tip of nose to point of junction with upper lip ...	1¼

For several weeks this patient was treated with thyroid extract, and after three weeks the languor had diminished and the neuralgic pains had disappeared. These symptoms, however, returned afterwards while he was still taking the extract, so that it is doubtful if the temporary improvement was due to this remedy. Dr. Byrom Bramwell[1] has also observed some improvement in the symptoms of one case of acromegaly while taking thyroid extract, though in another case the symptoms were aggravated, while the administration of pituitary extract was followed by improvement.

CASE II.—J. T., a widow, aged 34, who had had five children, four years before she came under treatment first noticed that she was becoming "stout" and began to feel constantly languid and weary. In the morning there was often some swelling beneath the eyes. The face gradually altered in appearance as all the features became enlarged. The nose became larger and the lips thicker, and so great was the change that even friends who had not seen her for a time failed to recognise her again. The hands also increased in size and the skin became coarse. Not long afterwards a prominence appeared in the lower cervical region of the spine.

The patient complained of a pain in the head, which shot through it from the suboccipital region to the root of the nose, of a constant craving for food, and of excessive thirst. She had a great dislike to seeing strangers, which might be accounted for by her altered looks. In appearance she was prematurely aged, and her face constantly wore an expression of anxiety and weariness.

All the features were large and coarse. The nose was notably enlarged and thickened. The brows were large and heavy, and the lips considerably thickened. The lower jaw did not appear to be larger than normal. The hands at once attracted attention by their large size. The enlargement was general and uniform, but the forearm did not show any increase in size. The shoulders were large and massive, and the muscles connected with the shoulder-joint unusually well developed. There was a distinct prominence of the spine in the lower cervical region, owing to a curve in the spine which had its concavity forwards. The upper ribs on the right side were unduly prominent, the second and third being distinctly larger and thicker than the corresponding ribs on the opposite side. The feet did not exhibit any special enlargement. The urine, passed in large quantities, had a specific gravity 1040, and contained a considerable amount of sugar. The pulse varied between 100 and 132; it was regular but feeble. No menstruation had occurred during the last two years. Dr. A. S. Percival kindly examined the eyes, and found that the defective sight was chiefly, if not entirely, due to errors of refraction. The pupils reacted sluggishly both to light and to accommodation. There was no defect of the field of vision. There was a slight peripheral contraction of the field for green. On examination with the ophthalmoscope there was no evidence of optic nerve atrophy nor any abnormality to be observed. Dr. T. Coke Squance has kindly informed me that this patient subsequently died in the Sunderland Infirmary, pulmonary phthisis being the immediate cause of death. Dr. Squance has already described[2] the *post-mortem* changes which he found in this case. There was considerable hypertrophy of the pituitary gland; the thyroid gland was enlarged, and weighed nearly 2 ounces. The thymus was persistent and the left lobe hypertrophied.

In these two cases the symptoms of acromegaly were so well marked that the appearance of the face and hands at once indicated the nature of the disease. The two patients resembled each other very much in appearance and might have been taken for brother and sister. Cases of acromegaly frequently have a kind of family likeness to each other, as the changes which take place tend to obliterate the special characters of each feature of the face and so bring about a similarity to a common type. The improvement of the symptoms in the first case while the patient was at work in front of a hot fire is interesting, though I have not seen it mentioned in the description of any other case. Polyuria is not an unusual symptom in acromegaly, but the association of diabetes with acromegaly is not so common, though it has been noted twice by Marie and once by Strümpell.[3] The enlargement of the pituitary, thyroid, and thymus glands in the second case is similar to that which has been described in other cases.

CASE III.—F. W., aged 40, single, a painter, first noticed that the terminal phalanx of each thumb was enlarged and the nail discoloured six years before he came under notice. Soon afterwards the terminal joint of the left middle finger and the same joint of the right ring finger became enlarged and painful; the toes began to increase in size about the same time. The finger-joints continued to enlarge slowly to the present time. He thought that during the last two or three years the nose had enlarged and the face changed in appearance. He was under the impression also that the lower jaw was rather larger than it was twelve months before. When 20 years old he had an attack of gonorrhœa. When about 27 or 28 he had phthisis and was sent to South Africa, after which the disease appears to have been arrested, though he has had to take several voyages since to maintain his health.

The nose appears to be slightly enlarged and thickened, otherwise the appearance of the face does not indicate any special change, though the patient himself thinks that there is some enlargement of the ears and chin. The circumference of the head and also of the neck has not increased. The terminal phalanx of the right ring finger is enlarged, and the nail is broadened, discoloured, and grooved longitudinally. The terminal joint of this finger is enlarged and semiflexed. The enlargement of the joint is fairly uniform and is soft on the extensor aspect. The circumference measures 2¾ inches, whereas the corresponding joint on the left measures an inch and a-half in circumference. The thumbs are considerably enlarged, and the nails are broad, discoloured, and grooved. The terminal phalanx, nail, and joint of the left middle finger are enlarged in the same manner as on the right ring finger, the circumference of the joint being 2¼ inches, half an inch greater than that of the

[1] *Atlas of Clinical Medicine*, vol. ii, p. 3.

[2] BRITISH MEDICAL JOURNAL, November 4th, 1893, p 993.

[3] *Acromegaly*, P. Marie and Souza-Leite, Sydenham Society's Translation, p. 53.

same joint of the right middle finger. These enlargements are shown in Fig. 3, from a photograph taken by Mr. R. C. Ruddock,



Fig. 3.

of Newcastle. In the palm of each hand there is a band of Dupuytren's contraction, which is connected with the ring finger on the right and with the middle finger on the left; thus the contraction has developed in connection with the fingers in which the enlargement of the terminal joints has taken place. There is some enlargement of the feet, and larger boots are now worn in consequence. The metatarso-phalangeal joint of the left great toe is enlarged. The phalanges of this toe are enlarged, especially in a vertical direction. The phalanges of the other toes appear to be somewhat enlarged also. On the right there is a similar enlargement of the toes, but it is not so marked as on the left. In other respects the feet do not look larger than usual.

There is an area of dulness on percussion over the apex of the right lung in front. There are, however, no signs of active disease, so that this is probably the site of the tuberculous disease detected twelve years ago, which became arrested after a sea voyage to the Cape.

The chief features in this case are the peculiar enlargement of certain terminal phalanges and joints in association with Dupuytren's palmar contractions and old pulmonary disease. The case is a peculiar one, and differs in many ways from both acromegaly and hypertrophic pulmonary osteo-arthropathy as described by Marie.[4] Mr. Jonathan Hutchinson, who has been kind enough to examine the patient, has expressed the opinion[5] that it is a case of pulmonary osteo-arthritis, complicated by a tendency to gout, due to his occupation as a painter, and evidenced by the development of Dupuytren's contractions in the palms.

THE LETTSOMIAN LECTURES

ON THE

COMBINATIONS OF MORBID CONDITIONS OF THE CHEST.

Delivered before the Medical Society of London.

By FREDERICK T. ROBERTS, M.D.,

Professor of Materia Medica and Therapeutics at University College; Physician and Professor of Clinical Medicine at University College Hospital; Consulting Physician to the Brompton Hospital for Consumption and Diseases of the Chest.

Lecture II.

VI.—Combinations in Acute Cases.

a. Acute Conditions Supervening on Chronic.—Dr. Roberts said that there was a natural disposition to accept an acute condition as the whole of a case, whereas the acute changes might merely have supervened on chronic changes. In this connection he referred (1) to the presence of certain conditions of the chest walls already enumerated in the first lecture which impeded respiration; to (2) pleuritic adhesions; to (3) the occurrence of acute diseases as complications of chronic diseases, as for instance (*a*) acute bronchitis, disseminated broncho-pneumonia, dry pleurisy or pleurisy with effusion in the course of phthisis; (*b*) acute bronchitis in chronic emphysema; and to (4) the occurrence of acute pulmonary congestion with œdema, of hydrothorax, of embolism, and of acute endocarditis as complications of chronic valvular disease.

With regard to (2) he spoke as follows:

Pleuritic Adhesions in Acute Diseases.

The importance of pleuritic adhesions in relation to acute diseases of the chest is so manifest that I make no apology for discussing this point in some little detail. In the first place, it is interesting to note that when a local adhesion exists, the history of which is quite unknown, the corresponding limitation or undue prominence of signs of a bronchial catarrh may reveal its presence and site, and I have known this happen again and again in the same case. I have a strong impression that an apical adhesion may in this way prove a real source of danger, by predisposing to repeated irritation of the upper part of the lung, and thus laying the foundation for tuberculous infection.

A far more important condition to be noted in its association with acute affections of the chest is the existence of a unilateral basic adhesion, extending more or less upwards, the signs of which may or may not have been previously evident. There is generally a history of some acute illness, be it only known by the expression "congestion of the lungs," and of course the practitioner may be aware of all the facts of the case. This condition always acts as a predisposing cause for the special implication of the lower part of the affected lung, which is embarrassed by the adhesion, and even when the patient has merely a slight cold, but still more if he has a definite bronchitic attack, the signs usually become so marked and out of proportion over the corresponding base, that anyone who is not aware of the combination is very likely to attach far greater importance to them than they deserve, and to diagnose a serious congestion of the lung (which in a certain sense may be correct), or an actual pneumonia which does not exist. Therefore whenever moist *râles*, in more or less acute cases, are heard only or in marked excess over one base, other signs of pneumonia being absent, the possibility or even probability of an adherent pleura being the explanation should always be borne in mind.

There is one class of case to which I particularly wish to refer in connection with basic pleuritic adhesion. The tendency of this condition is not only to embarrass the lung, and probably to damage its structure to some degree, but also to retain secretions or any morbid products which may be formed in the bronchial tubes or air vesicles. I frequently meet with cases in which *râles* due to such accumulation are constantly present at one base, varying in their amount from time to time. Indeed, sometimes in association with a general agglutination they are heard extensively over one side, and I have ventured to give to these adventitious signs the term "adhesion *râles*." Now it occasionally happens in course of time that without any obvious increase in the physical signs, indicating either pneumonic consolidation or pulmonary destruction or suppuration, more or less acute general symptoms set in, much like those of phthisis, which increase in severity, until sooner or later the patient succumbs. Local symptoms may develop or increase, but not in proportion, and there is often only a small amount of muco-purulent expectoration. Sometimes signs indicating secondary progressive implication of the lung tissues in an upward direction supervene, but they do not point to anything like a cavity. No doubt many of these cases become actually tuberculous, and they would be classed as "basic phthisis," but certainly not all; at any rate, I have met with some in which experienced bacteriologists could not detect any tubercle bacilli in the sputum. I have a strong opinion, however, that the grave results in all these cases are really due to micro-organisms, probably of different kinds, which gain access with the inspired air into the base of the lung, where they find a suitable nidus in the retained secretions and morbid products, in which they grow and flourish and multiply, producing toxins which are absorbed, and by degrees poison the patient. Whatever may be the explanation, the practical lesson is that a basic adhesion accompanied with the persistent presence of *râles* is a condi-

[4] *Loc. cit.*, p. 71.

[5] *Clinical Journal*, June 27th, 1894, p. 148.

tion never to be overlooked or underrated, and one that decidedly predisposes to acute changes of a grave nature. There is still another point worthy of notice relating to a pleural adhesion involving the lower part of one side—namely, that, should another definite attack of acute pleurisy with effusion, or of pneumonia, supervene, then the state of things within the chest, as well as the progress of events, may be very curious indeed. It sometimes becomes under the circumstances decidedly difficult to interpret accurately the meaning of the physical signs, which are quite unintelligible apart from the recognition of the previous pleuritic conditions; and the difficulty is all the greater if, as I have known happen, a pericardial effusion is added to the troubles.

I now wish to say a few words with regard to acute conditions occurring in cases where one lung is universally adherent. Should a well-marked attack of bronchitis develop under such circumstances, the signs on the two sides are likely to be quite different, and the embarrassed lung will probably suffer much more seriously than the opposite one. In these cases, also, definite pleurisy with effusion, or a pneumonia, may develop on the healthy side, and this is obviously a very awkward and dangerous combination, though not necessarily fatal.

The relation of a generally adherent lung to acute tuberculous changes is extremely interesting and important. Unquestionably an acute phthisis, with rapid destructive changes, may develop in connection with a lung which has been known to be generally adherent for a long period, but which, until that time, had given no apparent trouble; or it may start on the healthy side. In some of these cases, however, careful inquiry will show that there have been slight symptoms, of longer or shorter duration, indicating that the lung has been affected, and upon this condition the acute changes supervene, which may run a very rapid course. Another tuberculous process, which may possibly complicate the general chronic pleuritic condition, is what may be described as an outburst of miliary tuberculosis in the corresponding lung, while the opposite one is practically free. I have known such an event occur, accompanied with very peculiar symptoms and indefinite physical signs, matters being only satisfactorily cleared up at the *post-mortem* examination.

Associated Conditions of Air Tubes and Lungs.

The term "congestion of the lungs" was, Dr. Roberts continued, often used in the most vague way possible, but it should be recognised that congestion did in reality play an important part as a complicating condition in acute croupous pneumonia, especially when both lungs were involved; in "broncho-pneumonia," in "capillary bronchitis," and in acute miliary tubercle. Pulmonary paralysis was a condition of lung which he believed really existed, and was an important factor in determining a fatal issue in certain cases.

Secondary Effects of an Acute Disease.

Under this head he referred briefly to the occurrence of acute inflammatory effusions into the pleura or pericardium, or both; of dropsical effusions into these cavities; and to the embarrassment of the right heart produced in a case of pronounced emphysema by an attack of bronchitis, or in a healthy person by an attack of capillary bronchitis or broncho-pneumonia. The same observation applied to acute croupous pneumonia, with this additional circumstance, that the myocardium might undergo acute degenerative changes. Conversely secondary lesions in the lungs might follow certain acute conditions of the right heart—for example, malignant endocarditis, or pulmonary thrombosis.

Combinations of Acute Inflammatory Conditions.

Under this heading subjects arose for consideration of the first practical importance.

(a) Tracheo-bronchitis.—Inflammation of the trachea was often a prominent element in acute bronchitis, and responsible for its earliest symptoms.

(b) Pleuro-pneumonia.—A certain amount of pleuritic exudation was an almost essential concomitant of pneumonia reaching the surface, but there was in addition a class of cases in which pleuritic effusion and pneumonic consolidation developed simultaneously or succeeded each other.

(c) Broncho-pneumonia might be regarded as a combination of acute inflammatory affections of the respiratory organs.

(d) Bronchitis with Lobar Pneumonia.—Not only was some degree of bronchitis often associated with lobar pneumonia, but extensive bronchitis with abundant purulent expectoration might be associated with definite lobar pneumonia, which was then very liable to be overlooked.

(e) Diphtheritic membrane, itself a form of inflammation extending down the air passages, might give rise to other inflammatory conditions, as well as to secondary pulmonary changes.

(f) Pericardial and *cardiac* inflammations were liable to complicate each other, a subject which had been well discussed in the Lumleian Lectures by Dr. Sturges, whose untimely death was so deeply deplored.

(g) Complicated Cases.—As examples of cases presenting an extreme degree of complication, Dr. Roberts instanced cases in which there was more or less pleuro-pneumonia on both sides; in which pericarditis supervened on a pneumonia or pleuro-pneumonia; or in which there was a complication of pleurisy and pneumonia, perhaps double, with pericarditis, endocarditis, myocarditis, and a mediastinitis thrown in. The class of cases last mentioned, he continued, "may be associated with acute rheumatism when, though very grave, they are not necessarily fatal; with influenza; or with some obvious internal septic or pyæmic condition. Rarely, however, it is impossible to trace them to any definite or tangible cause, and then they can only be attributed to some special morbific agent introduced from without in various ways. The inflammatory lesions sometimes progress with remarkable rapidity, not only in individual organs, but from one structure to another. The products may become very abundant, and show a marked tendency to changes of a low type. Occasionally these cases present remarkable changes within a very short period, fresh outbursts apparently taking place after the inflammation has begun to subside.

"The direct causative relation of micro-organisms to all acute intrathoracic inflammatory diseases is at the present time a favourite doctrine. Whatever one may think of this doctrine from a general point of view, it is impossible to ignore the influence of these organisms in the cases now under consideration, for there does not seem to be any other explanation of their history, while the extension of the inflammatory process by their agency can be easily understood. I need not on the present occasion discuss the nature of these microbes, but I may mention the well-known fact that pneumococci have been found in pleural and pericardial effusions associated with pneumonia."

Tuberculo-Inflammatory Conditions.

Dr. Roberts next referred to cases in which a tuberculous condition, perhaps not previously recognised, became complicated with lobar or more limited pneumonia, with disseminated lobular pneumonia, or with signs pointing to pleuro-pneumonia. Such patients might be able to go about, though with a temperature of 103° or more; these conditions, which sometimes followed a profuse hæmoptysis, were very liable to be misinterpreted. Recovery from the complicating acute condition might take place, but the phthisical changes remained. On the other hand, such cases were more likely to terminate in acute phthisis.

Miscellaneous Conditions.

Under this heading Dr. Roberts mentioned the more or less grave disorders of the respiratory and circulatory functions produced by such causes as poisonous inhalations, toxic causes, the typhoid state, extreme cold, partial suffocation, and certain nervous derangements.

VII.—Accidental Lesions or Complications.

In this class were brought together cases in which suddenly or very acutely some definite lesion occurred within the chest, as the direct result of some morbid state previously existing, but perhaps quite latent. Among such lesions which produced sudden death he enumerated rupture of the heart, bursting of an aneurysm, effusion of blood or pus into the pericardium, blocking of the pulmonary artery. The important sudden lesions not immediately fatal which were

to be borne in mind were pneumothorax; the bursting of an abscess or collection of pus, especially of an empyema into the lung, or of a pulmonary abscess into the pleura, or a mediastinal abscess in different directions; some lesion leading to mediastinal and subcutaneous emphysema; rapid and extensive cardiac or pulmonary thrombosis; rupture of a cardiac valve or septum; certain forms of hæmorrhage with grave hæmoptysis; changes affecting an aneurysm, especially its rapid enlargement or extension in certain directions, or its communication with the superior vena cava; and rupture of an œsophageal pouch, which, however, was an extremely rare event.

VIII.—Sudden or Acute Disorders of Function.

The conditions referred to under this heading were: (*a*) Respiratory disturbances, especially bronchial asthma, cardiac dyspnœa, laryngeal disorders due to interference with intrathoracic nerves, and functional disorders of the diaphragm; (*b*) cardio-vascular (palpitation, weakness of cardiac action, angina pectoris); (*c*) dysphagia due to functional disorder of the œsophagus; (*d*) "neurotic exaggeration." With reference to asthma, Dr. Roberts observed that, though it was recognised that the subjects of this disease were usually of the emphysematous and bronchitic type, it should be remembered also that rigidity of the chest walls, adhesions of the upper part of the lung, and other complications might predispose to, and increase the difficulties of the patient during the attacks.

IX.—Morbid Conditions Originating from the Abdomen.

Extreme tympanites, ascites, very large abdominal tumours, and pregnancy afforded familiar illustrations of the way in which accumulations of various kinds within the abdominal cavity might interfere with the functions of the diaphragm and the thoracic contents. Further, an enlarged spleen or liver or a renal tumour might have the same effect; as also that rare occurrence, hernia of the stomach, or other abdominal structure through the diaphragm.

Clinical Lessons: Investigation of Chest Cases.

Turning, then, to the application of the facts and opinions expressed up to this point, Dr. Roberts proceeded to discuss certain points relating to the clinical investigation of chest cases. He said:

1. My first proposition, which needs to be emphatically urged in these days of hurry and bustle, is that every thoracic case is worthy of at least a fair amount of study and consideration, and that it is our duty to try to determine as fully and as accurately as possible what are the actual conditions which in various combinations we have to take into account. Certainly, considering the vital importance of the structures with which we are concerned, no case ought to be dealt with in the casual and "free-and-easy" sort of style which is but too common.

A chest case would, I suppose, be ordinarily understood to signify one in which symptoms of some kind and degree attract notice to this region. If these should happen to be of a pronounced character—be they sudden, acute, or chronic—no doubt they would receive, as a rule, adequate consideration; and it may be observed in passing how often serious combined morbid changes are thus brought to light by some accidental event, or, it may be, by what looks like a mere passing functional disorder. Should they, however, be slight or indefinite, then comes the special danger of superficialness or actual neglect of investigation. Over and over again have I found some apparently trivial symptoms to be the earliest revelation of various associated changes, not uncommonly of a pronounced and serious nature, of which it may be of the highest importance to the patient to be fully aware, if only from a preventive point of view.

2. The next point which I wish to enforce is that every chest case should be approached with an open, I may say a "comprehensive," mind, and an unbiassed judgment, both as regards structures and diseases. At any rate, it is most dangerous to have a too definite or preconceived idea as to this or that organ being affected, the supposed nature of the complaint as expressed in a name, and the conditions which we expect to find. Of course we cannot help having often a general impression as to the kind of case which comes before us, and indeed its very aspect, or the most cursory examination, may tell us its nature positively up to a certain point. Not uncommonly, however, this is not so, for either the case does not present any distinctive features whatever on superficial observation, or we find to our astonishment that it is absolutely different from what we anticipated. We must always be prepared, moreover, to meet with combinations of morbid conditions, affecting several structures it may be, for which we were entirely unprepared, even in cases which are apparently clear and simple, and sometimes we are confronted with such a complex or curious state of things that only a clinical observer fully acquainted with the particulars I have indicated, is likely to understand it in the least. In dealing with sudden or acute cases we have to be specially on our guard against a too narrow conception of their nature and combinations, otherwise we shall be ever in danger of making most grave and irreparable blunders; but even in chronic and ordinary cases the same principle must guide us as a general rule, if we wish to avoid serious errors in diagnosis.

3. I now proceed to look at the clinical investigation of chest cases from the more positive point of view in its bearings upon my subject. I suppose we are all agreed that we ought to avail ourselves of every means which we can employ in such investigation, and to study intelligently all the clinical signs which are thus presented for our interpretation in any individual instance. At the same time, the different methods and signs should be regarded in their due proportion, both in relation to the facility of carrying out the former and the means which we have immediately at our command for doing so, and the actual or relative value of the phenomena upon which our diagnosis has to be founded. We must be especially careful in these days of progressive and aggressive science not to neglect the old methods which have served us in such good stead in the past, and without which we absolutely cannot get on, or to allow them to be entirely supplanted by others of recent introduction, which after all can only afford a limited kind of information, and some of which are by no means always reliable or easy of application.

Taking a comprehensive view of the immediate investigation of a patient supposed to be suffering from some chest affection, the process may be summed up as including:

1. Systematic physical examination of the thorax and its contents, by the more simple methods commonly recognised under this expression.

2. Intelligent inquiry as to the presence or absence of symptoms, subjective and objective, local, general, and remote, so far as they are directly associated with, and the result of, thoracic conditions, and the methodical study of any such phenomena which happen to be present.

3. The employment in appropriate cases of special methods, and amongst these would come the use of the different instruments and other apparatus which are available for clinical purposes in relation to the thoracic structures.

I desire to offer a few practical remarks with regard to each of these divisions in their relation to the investigation of combined morbid conditions associated with the chest.

1. *Physical Examination.*—I have placed physical examination first for the following reasons: It is, in the first place, obviously the only means by which we can gain any reliable information whatever as to the presence and nature of the combinations of morbid changes affecting the chest and its contents, of which I have been speaking; and, therefore, it constitutes the most advantageous starting point of our clinical investigation in a large number of instances. It is by the simpler methods commonly included under the expression "physical examination" that we recognise distinctly and positively the physical changes, or even sometimes the functional disorders, upon which symptoms depend. Without proper physical examination it is impossible, in a large proportion of instances, even to get an approximate idea as to the state of things in connection with this region; and obviously it is only in this way that we can acquire anything approaching definite and precise information about the various combinations of conditions which present themselves in numerous individual cases.

Secondly, it is very important to remember that combinations of thoracic morbid conditions are not uncommonly

detected by physical examination which are not revealed by any symptoms whatever, or, at any rate, none of sufficient moment to attract attention. Therefore it is a safe rule thus to investigate the chest more or less in every case which comes under our professional observation. I believe it would be a very good plan, especially under particular circumstances, if individuals would present themselves for examination from time to time, just to see what is the condition of their important organs. Now and then, but only exceptionally, one does come across a wise person who thinks it worth his while and money to be thus overhauled, and, on the whole, these are about the most satisfactory cases to be met with in practice. The only opportunity, however, one usually gets of investigating from this aspect is in relation to life insurance, when we do sometimes discover very remarkable and unexpected morbid changes; and when an individual is about to take some important step in life, to which I need not more definitely refer.

Thirdly, physical examination often reveals readily and positively pronounced organic conditions in various combinations, which at once explain all the clinical phenomena observed, making the case perfectly clear and simple; and amongst these conditions it may detect one which demands immediate treatment. Moreover, we may thus discover some particular disease, or speedily get a general idea of the kind of case we have to deal with, and then, if we possess adequate knowledge, we understand what conditions we have further to look for under the particular circumstances. Again, physical examination may bring to our notice a certain change which we feel sure cannot be an independent one, such as a want of free entrance of air into, or actual collapse of a lung, or a striking displacement of the heart, and may thus indicate the direction which our investigation should take, in order to find out the cause or causes of such change, whereby we may be led to the discovery of most important diseases.

There is one point that I wish specially to notice in this connection. It is often stated that certain conditions within the chest cannot be detected by physical examination with any certainty, or, at any rate, only exceptionally. I more especially allude to pleuritic and pericardial adhesions. Such a statement I strenuously dispute, and I maintain that these changes, as well as others more or less obscure, may frequently be demonstrated as parts of a case, if they are duly borne in mind and properly looked for, and if their signs are intelligently appreciated.

In the next place I desire to say a few words as to the general principles upon which physical examination of the chest should be conducted in order to be of any real service in demonstrating the presence and nature of the various combined conditions. Concisely stated, it must be always systematic; and as thorough and comprehensive in all respects as the circumstances of the case permit, with due regard to the state of the patient. An unmethodical examination, or one limited to the upper part of the chest, and perhaps the cardiac region, is by no means adequate in any case, and such a mode of procedure habitually adopted is certain to lead to many disastrous results.

There is one tendency against which it is necessary to warn in this connection, and that is the practice of always looking for some special condition, such as lung consolidation, a pleural effusion, or disease of a cardiac orifice or valve, and, should either of these be found, fixing upon it and ignoring everything else. Of course it is essential to be thoroughly familiar with the signs of such simple conditions, and to be able to recognise them positively; but we must never forget that in a large number of cases they are mixed up in every conceivable way. And here it is important to notice that the signs of particular physical conditions are often greatly influenced by their association with others, which indeed may obscure them altogether, or they intensify these signs, or modify them in various ways. For example, the effects of pronounced pulmonary emphysema in obscuring other serious diseases, which has been already alluded to, must always be borne in mind, and the same remark applies to not a few cases of bronchitis. Marked pleuritic conditions may also render it almost impossible to determine definitely what changes involve the corresponding lung. Of course in every case the heart and great vessels ought to be separately and systematically examined. Moreover, should any exceptional disease be suspected or discovered, such as an aneurysm or solid tumour, it is well to have a definite and special plan of examination, which can be methodically carried out in such cases.

While it should be the rule in relation to physical examination of the chest to aim at finding out all the conditions present in a particular case; on the other hand, much discretion is required not uncommonly in carrying it out, as in cases of an acute and complicated nature, where sudden grave lesions or disorders supervene on chronic diseases, or in advanced phthisical or cardiac cases. Under such circumstances our investigation should be as brief and as little disturbing to the patient as possible, even though we are not able to make out to our satisfaction the exact state of things, and in some instances we had far better omit physical examination altogether in the meanwhile. It is remarkable, however, what we may find out even then without disturbing the patient to any appreciable degree, if we go about the examination in the right way, and make good use of our eyes and hands.

The more simple methods of examination just alluded to, namely, inspection and palpation, are also often of the greatest service in the detection of certain associated physical conditions of the chest, especially when employed together, and for definite purposes, and I do not think that they are at all utilised to the extent that they might be.

There is one other point that is worth noting, namely, the essential value of certain special signs in the detection of a particular and unusual condition which happens to form part of a more or less complex case. Thus, the "bell sound," or the "succussion splash" may be the only evidence under such circumstances of the pleural conditions with which these signs are severally associated.

A READY MEANS OF PROCURING AND TRANSMITTING DIPHTHERIC DISCHARGES FOR EXAMINATION.

By D. J. HAMILTON, M.B.,
Professor of Pathology University of Aberdeen.

Considerable difficulty is often experienced in removing diphtheric discharge, false membrane, or slough from the tonsil or fauces and in transmitting these expeditiously in a pure state to the laboratory where they are to be examined. What I find usually happens is that the discharge is put into the first bottle which comes to hand and hence is much contaminated before it reaches the laboratory. The discharge which is most likely to contain the bacillus, namely, that overlying a slough or false membrane, moreover, cannot always be scraped off owing to the medical attendant being unprovided with a proper instrument for the purpose. Delay is also caused owing to the bottle having to be packed up, etc.

With the object of overcoming these difficulties I have adopted the following method of collecting and transmitting the discharges—a method which promises not only to be satisfactory, but which at the same time is so simple of application that any practitioner, however preoccupied, can readily make use of it:

An ordinary three-quarter inch wide test tube is fitted with a tight plug of cotton; into this plug of cotton is inserted the end of the cedar wood handle of a small goat's-hair brush. The handle should not come quite through the plug, but be securely tied to the superfluous cotton at the mouth of the tube. The brush should be so long that it reaches close to but is not in actual contact with the deepest part of the tube. If it is desired to prevent evaporation, the end of the tube should be covered with a loose caoutchouc cap. This, however, is usually unnecessary, as the time occupied between the removal of the discharge and its transmission is never likely to exceed twenty-four hours. The tube with the enclosed brush is now sterilised in the hot-air chamber, and a printed label with spaces for the name of the patient, date of removal, duration of disease, name and address of practitioner attached. The tube is made to fit into a small padded box to which an address label is attached. All that the

practitioner has to do is to withdraw the plug with the attached brush, to which it forms an excellent handle, while the mouth of the tube is held downwards, to scrape off some of the discharge from the affected parts with the brush, to replace the cotton plug and attached brush in the tube, and send off the box with enclosed tube by post.

In starting a culture on blood serum or other basis the brush which contains the secretion is rubbed over the surface of the medium.

The advantages which the method seems to possess are: (1) That the discharge is removed by and received in sterilised instruments; (2) that the brush is an excellent means of collecting the discharge, and does not alarm the patient by its appearance; (3) that everything being ready for sending off by post no time is lost in transmission; (4) that the brush is again an excellent instrument for spreading the discharge over the surface of the culture basis; and (5) that the cost of the apparatus is trifling. These sterilised tubes could be kept by local apothecaries, and be had on a moment's notice. They are of small bulk, so that they can readily be carried about when required.

REMARKS ON MILK DIET IN THE SEVERE INTESTINAL DISEASES ACQUIRED IN THE EAST.

By GEORGE THIN, M.D.

During a long experience of the management of certain climatic disorders of the intestine by exclusive milk diet, my attention has been much directed towards minimising the difficulties inseparable from the treatment. Many persons have a strong dislike to milk, and I am often met by the statement that the patient "has never been able to take milk in his life." One sufferer from a severe form of psilosis prefaced her statement of her case by telling me: "It is no use prescribing milk for me. I can neither take it nor digest it. All the medical men whom I have consulted have soon satisfied themselves that this is correct, and have been obliged to give me something else." For cases like that one, I have found the use of aërated milk[1] of inestimable value. So far, I have only twice failed to succeed in getting a patient to go on exclusive milk diet. In one case, which was neither severe nor well marked, the diarrhœa did not rapidly yield, and the treatment was abandoned after a short trial: and another patient, who was doing extremely well, gave it up for, I am afraid, no better reason than caprice, with disastrous results.

Another and sometimes a serious difficulty in connection with milk diet is the quantity of fluid which the patient must swallow. Many patients, especially when convalescing, take as much as 6 to 8 pints daily and even more without any difficulty, but there are others in whom the necessary quantity of milk suited to the case produces a constant feeling of distension accompanied by troublesome flatulence. There are also cases in which the patient is very ill, and his life in great danger, in which it is impossible to get him to swallow sufficient milk to sustain life. During the past summer I had a case of this kind under my care. A man who had been for two years suffering from chronic diarrhœa acquired in Bombay, complicated with fistula and an unhealthy condition of the mucous membrane of the rectum, on which Mr. Herbert Allingham found it necessary to operate, fell into a low typhoid condition. The difficulty of getting him to swallow sufficient milk was so great, and his repugnance to it apparently so invincible, that the treatment was abandoned for three days, during which time an endeavour was made to support him on beef-juice. His condition became rapidly worse; there was incessant diarrhœa, the motions being passed involuntarily; the tongue was hard, dry, and cracked, the teeth covered with sordes, and the pulse quick and thready. We considered the chances of recovery to be very small; he seemed, indeed, to be rapidly sinking, but I was satisfied that if he were to be saved at all it could only be by milk, and accordingly exclusive milk treatment was resumed. He could swallow only such small quantities at a time that it was found impossible to get him to take more than 2½ pints in twenty-four hours. The typhoid condition and incessant diarrhœa continued without improvement for forty-eight hours, and it became evident that unless more milk could be assimilated it was hopeless to look for recovery.

I then directed part of the milk to be evaporated to one half its bulk, and by giving him this evaporated milk he was able to take at once the equivalent of 3½ pints in twenty-four hours, which proved sufficient to arrest the threatened collapse. Gradually, after a time, his condition began to improve, and he eventually consumed in natural and evaporated milk the equivalent of 9 pints daily. He made a perfect recovery, and in five months was shooting grouse in Scotland.

I afterwards prescribed evaporated milk with excellent results in another serious case of wasting from long-standing chronic diarrhœa acquired in India. The patient, who had found it extremely difficult to swallow more than 3 pints of fluid a day, was able, by taking a certain proportion of his milk evaporated, to consume the equivalent of 5 pints, gradually lost his diarrhœa, and was able to digest solid food and gained strength proportionately. Other patients, not in the same immediate danger, have been allowed the option of taking part of their milk evaporated, and some of them have thriven on the concession. Others have had no difficulty in taking, and have preferred to take, the milk in its natural state.

The two severe cases alluded to above were examples of the chronic intestinal catarrh (not dysentery) which is common in India, and which is often described under the name of "tropical diarrhœa." At the present time I have under my care a typical case of psilosis (*vulgo* "sprue") of long standing, which is steadily progressing towards recovery by the help of evaporated milk. By using part of the milk prepared in this way the patient is now able to take sufficient nourishment to enable the diseased bowel to recover. He has been under medical treatment more or less continuously for a number of years, but I gather from what he tells me that his occasional attempts to get well by milk diet were abandoned because he could not take sufficient milk to maintain the required minimum of strength. This induced him to supplement his diet by other articles of "invalid" food, and these invariably after a time brought on a relapse.

To evaporate milk properly for patients like these is a matter of some care. A simple apparatus has been made for me by James Allen and Son, 21, Marylebone Lane, W., consisting of a small regulating spirit lamp, with a wire stand for holding an enamelled pan, containing the milk, at a convenient height from the flame. The heat may be increased or diminished at will by the regulator on the lamp. The milk should be heated rapidly, but must not be allowed to reach the boiling point; and in this pan 10 ounces can be reduced to 5 in half an hour. It must be stirred continuously after it gets warm and until it has become cold to prevent a skin forming. If the cream is allowed to come to the top the milk takes longer to evaporate, and the taste is not so good. When the evaporation is properly effected the cream remains mixed in the milk as usual, but, of course, rises on standing. The milk should therefore be stirred before being drunk. Evaporated in this way it has a richer taste and looks richer than ordinary milk, but is not unpalatable. It gets sour more quickly than fresh milk. The process consumes a good deal of time and requires constant attention.

Whilst writing about the treatment by milk, I may make a few remarks in connection with one of the diseases for which it is the remedy. There is a note in the *Times of India* of September 12th which states "that Surgeon-Captain Dyson has traced that the disease known at Darjeeling as 'hill diarrhœa' and in the Straits and China by the peculiar name of 'sprue,' is due to the presence in the water of small particles of mica." Psilosis, or "sprue," has been often written about as identical with "hill diarrhœa" of India, and I am not sure that, under the influence of Indian medical literature, I have not myself done so at one time.

The affections known by these names have a feature in common, namely, the passing of frequent motions of a light

[1] See papers by Surgeon-Major Goldsmith, British Medical Journal, vol. ii, 1893, p. 12, and the writer, British Medical Journal, vol. ii, 1893, p. 64.

yellow colour, which, after all, is the usual colour of motions which are rapidly driven along the small and large intestine. I had, however, at one time a patient suffering from typical psilosis, whom I sent to spend a month with her brother, an army surgeon of long experience in India. When he brought her back to me he said: "The disease from which my sister is suffering is new to me. I have not observed it in the parts of India in which I have served, and it is not 'hill diarrhœa,' of which I have seen hundreds of cases." Typical psilosis occurs in Ceylon, and I have seen well marked examples in patients who have returned from that island. I have not met with evidence to show that it occurs at all commonly in Bombay or Calcutta. Cases of severe wasting diarrhœa from these parts of India about which I have been asked to give an opinion have so far been none of them cases of psilosis. Typical examples of the two distinct affections—the common chronic diarrhœa of India, and psilosis of the tongue and small intestine—are related in a paper presented by me to the Royal Medical and Chirurgical Society, and published in the seventy-fifth volume of the *Transactions* (1892).

As regards the presence of mica in the drinking water as a cause of this disease, I should regard the theory as improbable. I am not familiar with the distribution of mica in the world, but to prove it to be the cause of psilosis it would have to be found not only in Ceylon, but in the drinking water in the Straits Settlements, Hong Kong, the whole China coast, and at least several widely distant parts in the interior of China, in Java, and the Phillipine Islands, in all of which places psilosis is very common. In the *Encyclopædia Britannica* I find it stated that mica is found in Finland, New York, Canada, Shetland, Sutherland, Ross-shire, Inverness, Skye, Fifeshire, New York, and Greenland, from all of which parts no case of psilosis has yet been reported. The only place where psilosis is common, and in which the presence of mica is noted, is Ceylon. Besides there are facts connected with the clinical features of this disease which cannot be reconciled with the mica theory. Patients who have been for a long time quite well are subject to relapses from chill and error of diet, although they have returned to England, where no case of this disease has ever been known to arise. Nay more, the disease may show itself in an unmistakable form for the first time after a patient has returned to England. An extraordinary instance of this occurred in the case of a patient who consulted me last summer. A lady, who had returned from China seventeen years before, developed unmistakable symptoms of psilosis, which had existed for nearly two years to a slight extent before its nature was detected. The development of all the characteristic symptoms to a degree of considerable severity led to the disease being diagnosed, and under the treatment appropriate to the cure of psilosis she has made a good recovery. Although she had not enjoyed robust health after her return from China, suffering particularly from anæmia, she had never had symptoms of "sprue" until two years ago.

The proximate cause of psilosis is not known, but the probability that it consists in some organic ferment, very possibly a bacterium, is strong, and I think it likely that the curative action of milk diet is not due to any special therapeutic virtue of milk, but to the fact that it does not contain the pabulum in which this ferment can live. It is impossible otherwise to account for the fact that not only do the soothing foods which are so useful in other forms of diarrhœa not cure this form, but they will often bring on at once a severe relapse. I have often known arrowroot bring back diarrhœa and sore mouth after the patient had not had either symptom for several weeks. The same thing applies, in my experience, to beef-tea and bread, and severe and persistent relapses were produced in two patients by a raw, newlaid egg. It seems to me impossible to account for these facts otherwise than by assuming that in the egg, beef tea, arrowroot, and I may add wheaten bread, a ferment can multiply with a rapidity that cannot be attributed to any inorganic substance.

UNIVERSITY OF JURJEFF.—The report of the University of Jurjeff (still better known probably by its old name of Dorpat) for 1894 show that on December 1st the total number of students was 1,546, of whom 754 belonged to the medical faculty.

CANNABIS SATIVA SEU INDICA: INDIAN HEMP.

By R. COWAN LEES, M.B., C.M., F.F.P.S.G.,
Glasgow.

IT has always been difficult to understand why the resin of this plant should alone be recognised in the *British Pharmacopœia*, more especially when we find it stated in works on the physiological action of this drug that in India several preparations are used by the natives to produce its stimulating and exhilarating effects, amongst which watery infusions are specially mentioned.

During a short visit to India some years ago my attention was drawn to the fact that several modes of using the herb were employed by the natives—modes not capable of extracting much, if even any, of the resin. So far as I could observe, watery infusions were commonly used, but whether in combination with other substances or not I am not in a position to state. This fact, however, led me to try what benefits might be derived from the use of a preparation of the plant, not depending on the resin alone.

Messrs. T. and H. Smith, who first obtained the resin in a state of comparative purity, state that "it is a brown amorphous solid, burning with a bright white flame, and leaving no ash; powerful in its action when taken internally, and that two-thirds of a grain act as an active narcotic, whilst 1 grain produces complete intoxication"; but the question might be advisedly asked, Is it completely freed from its essential oil? As a matter of fact, it is found that when the extract is kept for some time it becomes hard and brittle, and less potent in its action, a circumstance which goes a long way to prove that such a condition is the result of loss of volatile oil from the resin, and pharmacists are advised to "lay aside and not employ for medicinal use that which has become old."[1]

We are told by Pently and Trimen that "both Hindus and Mohammedans use this herb, either by smoking—with or without tobacco in combination with other substances—or by simple infusion in water."[2] Gunjah—guaza of our London market—has but a faint taste, with a peculiar but not unpleasant narcotic odour. These properties depend in a great measure on the volatile oil and resin. The latter some consider the more important constituent of the plant.

In the watery infusion employed by the Hindus and Mohammedans as mentioned above, we can conceive of little, if any, of the resin being dissolved and held in solution, whilst, on the other hand, much of the volatile oil might be dissolved by the water, together with other constituents of the plant. Dr. Personne regards the volatile oil as the sole active principle, and in proof of this he states that "when the volatile oil is inhaled, a distinct sensation of shuddering with motor excitement, followed by prostration and syncope, is experienced." Again, Dr Preobraschersky has found a volatile alkaloid—most plentiful in the flowering tops—and which he considers somewhat similar in its action to nicotia or nicotine.

Feeling somewhat satisfied that water was capable of dissolving at least a portion of this volatile oil, and knowing that watery infusions of the drug were used for intoxicating and stimulating purposes in India, I had prepared for me a strong aqueous extract of the flowering tops of the female plant of the usual strength of liquid extracts, and from its use I have obtained good and satisfactory results. It possesses the anodyne and soporific action generally ascribed to the resinous extract, although in a modified degree. It has the characteristic odour of the hemp has a beautiful deep amber colour, is miscible with water, and hence there is no difficulty in combining it with other liquids, and it presents no unseemly immiscible mixture repellent to a patient.

Liquor cannabis indicæ in my experience gives all the beneficial effects without the drawbacks of the tincture, avoiding those extreme exhilarating conditions bordering on intoxication, which are sometimes met with even when using a medium dose of the latter. It does not seem to in-

[1] *Squire's Companion to the British Pharmacopœia.*
[2] *Medicinal Plants*, vol. iv, page 231.

terfere with the secretion of mucus from the bronchial glands—a circumstance which renders it superior to opium in those cases suitable for its use, whilst in pulmonary affections generally it acts most favourably as a soporific and anodyne.

My greatest experience has been in the treatment of phthisis pulmonalis, and here I cannot speak of it too highly, for whilst it most perceptibly relieves the cough, it aids the patient by its stimulating and exhilarating qualities, supplying a remedial agent, in a manner which in my opinion no other drug can so beneficially do. In indigestion with constipation, and also in many of the affections of children, especially where nervous symptoms are present, it has also done good service. I do not presume for one moment that it will displace opium in those cases where severe pain is a prominent symptom, but I feel sure that in many cases where opium is at present used it may be substituted with great advantage.

The dose which I commonly use is half a fluid drachm for an adult, but it may be increased to a drachm in many cases, whilst for children corresponding doses to age may be adopted, though I have noticed that children are somewhat less susceptible to it than adults.

I may state that the fluid aqueous extract from the flowering tops of the female plant already referred to, has been prepared for me by Messrs. Rankin and Borland, pharmaceutical chemists, Kilmarnock, and I may further add that to avoid as far as possible the presence of the resin in the extract, the use of heat is entirely avoided in the preparation. Messrs. Park Davis and Co., of London, have likewise prepared a liquor for me which I have also found suitable. Many other firms have sent me samples which were miscible with water, but I found on examination these were only tinctures acted upon by alkalies, and gave the disagreeable reactions of the resin.

I trust that having found this preparation beneficial in my own practice, and feeling satisfied that it is one which may be successfully used in many of the more common ailments affecting the chest, other medical men will be induced to give it a trial, and if proved by them equally beneficial, it may in future find a place in medical therapeutics.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

FIBRO-SARCOMA OF PERITONEUM; REMOVAL; RECOVERY.

G. C., married, aged 34, was first seen on August 29th, 1894, when she complained of abdominal pain, worse on exertion, loss of flesh, anorexia, and a lump on the right side of her abdomen, which she had first noticed three weeks earlier, when it was the size of a shilling. The family history was unimportant. She had had good health up to three years ago, when she contracted typhoid fever, which left her weak and unable to work for some time. Since the attack, at intervals varying from one to three months, she had had pain in the right lumbar and iliac regions coming on suddenly, lasting a few days attended with constipation, sickness, and general *malaise*. On examination nothing abnormal could be made out on careful inspection, but on palpating the abdomen a rounded swelling the size of a duck's egg was readily felt, having its centre 2 inches to the right of the umbilicus. It felt hard and slightly nodular, appeared fixed to the abdominal wall, dull on percussion, and slightly tender. On dipping the ulnar sides of the hands on each side of it and then turning them in so as to get under the growth it could be lifted up with the abdominal wall and the edges of the hands very closely approximated. There was no pain or tenderness over McBurney's point. Examination by the vagina and rectum revealed nothing abnormal. A diagnosis of tumour of the abdominal wall—possibly tuberculous or sarcomatous—was made, and operation advised. The growth was found to increase slightly in size. Mr. Mayo Robson saw the patient on October 9th, 1894, and confirmed the diagnosis. On October 14th, assisted by Drs. Douglas and Vassalli, an incision 3 inches long was made over the growth, dividing the skin, subcutaneous tissue, and external oblique muscle. On cutting through the internal oblique the growth was cut into, and was found to be solid, infiltrating the deeper part of that muscle, and apparently enclosed in an indefinite capsule. The peritoneum was opened above the growth, and a large flat sponge inserted. An omental adhesion was divided. The growth with peritoneum and muscles was snipped round with scissors and removed. The peritoneum and muscles were brought together by interrupted silk sutures, and a double cyanide and blue wool dressing applied. The patient recovered without a bad symptom. On microscopical examination the growth proved to be a fibro-sarcoma.

J. A. Hutton, M.D., B.S., M.R.C.S, L.R.C.P.
Scarborough.

THE CONTROL OF HÆMORRHAGE IN AMPUTATION AT THE SHOULDER.

Not having seen a description of the following method of controlling hæmorrhage in amputations at the shoulder-joint, I should like to draw attention to it, as others, like myself, may find it useful, especially in the country, when a skilled assistant may not be at hand:

The upper flap is first made by transfixion, reflected, all bleeding points secured, and the head of the humerus disarticulated. I then pass a strong notched needle through the lower flap, just under the surgical neck of the humerus, and hitch on to it a stout catgut ligature, which is drawn through and tied tightly over the inner edge of the flap, including the axillary vessels, skin and muscle. The lower flap is then cut out, the artery being now completely under control, the vessels tied, and the temporary ligature removed.

Having adopted this plan in two cases with most satisfactory results, I think it may be worth mentioning, although probably such a simple and effectual means of controlling hæmorrhage in this operation may have been already described.

Seaham, co. Durham. L. Gerald Dillon, M.D.

REPORTS

ON MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE ROYAL HOSPITAL, RICHMOND, SURREY.

A CASE OF DEATH FROM MUSSEL POISONING.

(By Edward B. Hill, B.A., M.B., B.C.Cantab., M.R.C.S., House-Surgeon.)

The patient was a very stout, powerful man, aged 49, by trade a cellarman at a local brewery. It appears from the history I obtained from his friends that he went to work as usual on the morning of January 8th. He was seen by a fellow workman between 11 and 12 on the same morning, and appeared to be in his usual health; soon after this he was seen coming out of the stores, his face "fiery red." He said that he had eaten some mussels, and that his hands and legs were itching. He then asked for a doctor to be sent for, as he thought he had been poisoned, remarking that he felt very bad. Before a doctor arrived he was put in a cab and removed to this hospital. On his admission, a little before 1, I examined him, and found that life was already extinct. I applied artificial respiration and injected stimulants, but there was no result. His face was extremely livid in appearance, and there was a quantity of frothy fluid oozing from his nose and mouth, the pupils were equal and normal in size.

I made a *post-mortem* examination and found the organs fairly healthy. The sinuses and veins of the brain were very much engorged with blood, but the brain itself was healthy. There was an abnormal amount of fat surrounding the heart, and the myocardium was pale, soft, and friable. The lungs were congested but otherwise healthy. The stomach was

distended, and it contained a quantity of masticated undigested mussels, mixed with about a pint of white looking fluid, which I found on examination to be milk, which he had taken after eating the mussels. The mucous membrane of the stomach showed no signs of inflammation.

The intestines and other organs of the body were healthy with the exception of the liver, which was enlarged and fatty. There were no signs of any foreign body either in the trachea or air passages. I noticed this especially, as from his livid appearance when I first saw him I thought that possibly he might have vomited, a piece of a mussel having subsequently become lodged in the trachea or larynx.

From the evidence of the fishmonger who sold the mussels it appeared that the deceased had often bought mussels previously from him. He also stated that the mussels were the best South Dutch.

The case is an interesting one, and somewhat remarkable from the fact that the symptoms of poisoning came on almost immediately after eating the mussels, death taking place in about one hour from the commencement of the symptoms.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. PAVY, M.D., F.R.S., President, in the Chair.

Tuesday, February 5th, 1895.

DISCUSSION ON THE PNEUMOCOCCUS, ESPECIALLY WITH RELATION TO IMMUNITY.

DR. J. W. WASHBOURN, in opening the discussion upon the pneumococcus, gave a brief outline of the subject, and entered more fully into the details of his own investigations. He stated that Friedländer's pneumococcus was only of accidental occurrence, and that the pneumococcus of Talamon and Fraenkel was the real cause of the disease. The pathogenic properties of the pneumococcus in the human subject were mentioned. In addition to causing acute lobar pneumonia it was the cause of some cases of lobular pneumonia; other bacteria, especially streptococci, being the frequent cause of the latter disease. Many cases of pleurisy, empyema, meningitis, and otitis occurring independently of pneumonia, were caused by the pneumococcus, so too were secondary affections during pneumonia, such as ulcerative, endocarditis, joint affections, etc. Cases of empyema and pleurisy due to pneumococcus presented constitutional symptoms similar to those of pneumonia. Though the pneumococcus was frequently present in the nasal and other secretions from healthy individuals, this was no argument against its pathogenic *rôle*, for the same occurred in diphtheria. The peculiarities of the cultures of the pneumococcus were described. He considered the reaction of the medium and the temperature the most important factors. The cultivations rapidly lost their vitality; exceptions, however, had from time to time been recorded. In one case he found a broth culture alive and virulent twenty-three days, and in one, an agar culture, alive and virulent sixty-four days after being sown. This was possibly due to a spore formation, as believed by Emmerich, whose experiments were described. The short vitality of the pneumococcus rendered investigation difficult. The method of Arkbarow and Foà of preserving the vitality in sealed tubes was described. The author himself had adopted a method used by Pfeiffer for cultivating the pneumococcus on the surface of agar covered with blood. Experiments were quoted to show that on the medium it retained its vitality and virulence for as long as fifty days. Fraenkel and Reiche independently used the same method. The morphology of the pneumococcus was described, and the conditions under which long chains are formed was discussed. A mention was made of an epidemic of septicæmia hæmorrhagica occurring during the course of the experiments, and leading at first to difficulties. A modification of the pneumococcus in the blood of immune animals described by Arkbarow was probably due to a similar epidemic. The pathogenic effect produced by inoculation of the pneumococcus in different animals was described. Special mention was made of the author's own extensive experience in the case of rabbits. Intraperitoneal and subcutaneous inoculation were both employed. After the former peritonitis usually ensued; sometimes with very virulent cultures no peritonitis was noticed, although the animals died of general infection. Peritonitis sometimes ensued after subcutaneous inoculation. The local effects produced by the latter were described, and it was shown that a serous, fibrinous, or purulent exudation might arise according to the virulence of the culture or the susceptibility of the animal. Sometimes an animal died of marasmus a long time after inoculation. No cocci were then found in the blood, but in some cases there was a parenchymatous nephritis. A comparison was made with the observation of Fraenkel and Reiche upon nephritis in pneumonia. In some cases pleurisy and pneumonia followed intraperitoneal or subcutaneous inoculation. The course of the fever and the occurrence of cocci in the blood after inoculation were described in detail. It was not until the temperature began to fall that the blood became crowded with cocci. The varying virulence of the pneumococcus was described and the different varieties mentioned. The author himself was unable after frequent attempts to obtain a variety existing as a constant type. He considered that the one variety would pass into the other by frequent passages. Of the various methods of producing immunity the author had generally used that of Dr. F. Klemperer, of previous injections with water broth cultivations. The immunity did not occur until 20 days after injection and disappeared after the 51st. The experiments of others with the blood serum of immune rabbits were described and the author mentioned his own experiments. He quoted a number of experiments showing that the blood serum, when injected with virulent cultivations, protected. In other cases the serum was not protective, and this was due either to the rabbits not being perfectly immune or to the fact that the serum was removed at the wrong date. When an immune animal was inoculated shortly after the removal of protective serum it died, but if inoculation were deferred, the animal was not affected. The growth of the pneumococcus in the protective serum was described. The serum remained clear in contrast to what occurred in normal serum. The cocci, which often formed long chains, remained alive, and experiments were quoted to show that the virulence was retained. The experiment of Klemperer with the serum of patients recovering from the effects of pneumonia was described. The author had made but a few experiments, and was only able to prolong the life of the inoculated rabbits. The serum removed by a blister from patients in the acute stage of the disease, injected either simultaneously or previously to inoculation, exerted a deleterious effect, and caused death earlier than in the controls.

Professor A. E. WRIGHT said: Diseases which are due to bacterial infections may be classed into three great categories. They may be either "septicæmias" or "local inflammatory processes," or "intoxication processes." In the case of septicæmias the bacteria are found free in the blood when the disease is at its height. In the case of "local inflammatory processes" the bacteria are constantly present in the inflamed tissues, but they do not necessarily invade the blood. In the case of intoxication processes, the bacteria elaborate their poisons only upon the inner or outer surface of the body. The bacteria themselves do not invade the tissues. Now croupous pneumonia is primarily a "local inflammatory process." And the lesions which characterise it are the result of an acute phagocytic reaction of the organism in response to a bacterial infection of the lungs. The infecting bacteria are generally the pneumococci of Fraenkel. Now the emigration of white blood corpuscles into the alveoli of the lungs is entirely comparable with the emigration of white blood corpuscles into the subcutaneous tissues which constitutes an ordinary abscess. The white blood corpuscles which emigrate are in both cases polynuclear white blood corpuscles; and the subcutaneous abscess, equally with the pneumonia, may be the result of a pneumococcal infection. There are, however, important clinical differences between an attack of croupous pneumonia and a subcutaneous abscess. We need not refer to the obvious differences which result from the fact that the emigration of white blood corpuscles in pneumonia directly interferes with the aëration of the blood. Nor need we refer to the fact that the emigration of white blood corpuscles in pneumonia is a much more acute process.

But we may turn our attention to the more important clinical difference which consists in the fact that pneumonia runs a definite course and terminates by crisis. There is nothing comparable to this in the clinical history of a subcutaneous abscess. If we would understand pneumonia, we must therefore understand what is the meaning of the "pneumococcal fever," and of its termination by crisis. The crisis must evidently mark some critical event in the conflict between the organism and the bacteria. Now in all probability the crisis does not mark the occurrence of any local change in the inflamed lung. As far as we know, nothing occurs in the lung at crisis which is at all comparable to what occurs in a subcutaneous abscess when its contents are turned out. And even if there was a distinct local change of this kind, it would not bring about the phenomena of crisis. We must therefore look beyond the local inflammation if we are to explain the occurrence of crisis. And it is evidently possible that pneumonia may be something more than an inflammation of the lungs. It is possible that the pneumococci may also invade the blood stream. If this were so the symptoms of pneumonia would be the symptoms of a secondary septicæmia superadded to the symptoms of a local inflammatory process. Such secondary septicæmias supervene even upon subcutaneous abscesses, where there is a whole chain of impeding lymph glands to form an obstacle to the spread of bacteria into the blood. There are evidently much fewer obstacles in the way of the passage of the pneumococci from the lung into the blood stream. And, again, we know that infection with the pneumococcus invariably produces a septicæmic infection in rabbits. In other words, the rabbits develop all the symptoms of pneumonia, with the exception only of those which are referable to the local inflammatory process. Again, we have other evidence which would lead us to suspect that a septicæmia occurs in man in connection with an attack of croupous pneumonia, for the crisis which terminates an attack of pneumonia is very similar to the crisis which we meet with in connection with spirillum fever, and spirillum fever is a typical septicæmic infection. And if we could succeed in understanding what occurred in the organism in the crisis of spirillum fever we should probably not find it difficult to understand what takes place in the organism in the crisis of what we may now provisionally call "pneumococcal fever." I have therefore searched the admirable monograph of Vandyke Carter for any data that appeared to throw a light upon this question of the pathology of the crisis. And, when we read between the lines of Vandyke Carter's observations, and when we endeavour to interpret what we read in the light that Metchnikoff and his pupils have given us, we are, I believe, enabled at least to guess—and such a guess is of course only valuable in as far as it may subserve future research—as to the nature of the processes which are associated with the occurrence of crisis. We learn the following facts from Carter: When spirillum fever is at its height we have an enormous proliferation of white blood corpuscles in the blood. We have also a number of free spirilla in the blood at the height of the fever. When the crisis supervenes the white blood corpuscles diminish rapidly in the blood, and *pari passu* with their diminution we have a complete disappearance of the spirilla from the blood. This diminution of white blood corpuscles and disappearance of spirilla is in nearly all cases associated with an excessive turgidity and tumefaction, and tenderness of the spleen or liver. Now this triple phenomenon of a diminution of the white blood corpuscles, a disappearance of the bacteria from the blood, and the tumefaction of the internal organs, especially the spleen and liver, can be experimentally produced. We need only, as Werigo has shown, inject bacteria or particulate matter of any kind, such as carmine grains, into the blood, and we shall immediately produce our triple phenomenon. Almost all the polynuclear white blood corpuscles disappear from the blood in the course of the next few minutes, and on killing the animal we find the bacteria or particles we have injected in the internal organs, chiefly in the spleen and liver, and along with them we find our polynuclear white blood corpuscles. And we further find that many of our particles or bacteria are lodged in the interior of our polynuclear white blood corpuscles; and we thus see that the disappearance of white blood corpuscles from the circulating blood, the disappearance of the bacteria, and the tumefaction of the internal organs, are all manifestations of a phagocytic reaction which eliminates these intrusive elements from the circulating blood. We have now to apply these facts to the pneumonic crisis. During the height of the fever we have an enormous increase of the circulating blood corpuscles, especially of the polynuclear white blood corpuscles. When the crisis occurs we have a very rapid fall in their numbers. In the first of a series of cases recorded by v. Limbeck the white blood corpuscles in the circulating blood diminished from 22,000 to 6,400 when the crisis occurred; and if our hypothesis is true we should find that this diminution of white blood corpuscles, which goes hand in hand with the critical fall of temperature, was associated with a process of phagocytosis, and with an elimination of pneumococci from the blood. I have unfortunately not had an opportunity of studying this question on man. I imagine that it is somewhat difficult to study, as the crisis is generally the prelude to convalescence. But from what I have seen of the course of "pneumonic fever" in rabbits, I think that it is probable that the critical decrease of temperature is accounted for by a process of phagocytosis. I placed under the microscopes a number of specimens which, I think, show conclusively that a critical fall of temperature in pneumonic fever is in some cases, at least, associated with an extensive phagocytic reaction on the part of the white blood corpuscles. Whether that phagocytic reaction constitutes the essence of the crisis is a matter which future research will no doubt determine. We may now pass on to the pathological chemistry of pneumonia, and I have very little that is new to add to what I published three years ago in a lecture[1] in which I gave an account of the research work I was privileged to do at the laboratories of the Conjoint Colleges. I desire, however, to repeat myself, for what I had occasion to state in that lecture appears to me to be confirmed by my subsequent researches, and I believe that it is the key to the understanding of many of the phenomena of pneumonia. We shall suppose that the pneumonic fever has terminated with the crisis and that it is over. And we shall suppose also that the local inflammatory process has also come to an end. Our patient is, however, not well yet, and it is not with him merely a question of recovering the strength he has lost. He has not simply to convalesce, he has also to undo all that the local inflammatory process has done; he has to reabsorb into his system and then to excrete substances which are contained in the enormous mass of white blood corpuscles which is filling up the alveoli of his lungs. And as the albuminous substance of these white blood corpuscles has to be absorbed into his blood, it concerns us to study what this albuminous substance is, and what effect it will have upon his blood. The answer to these questions can be given in a single sentence. Almost the entire substance of the white blood corpuscles consists of a nucleo-albumen, and this nucleo-albumen is identical with the nucleo-albumen originally prepared by Wooldridge from the white blood corpuscles of the thymus gland. It is hardly necessary to say that the injection of this albuminous substance was shown by Wooldridge to be followed by intravascular thrombosis. It is only necessary to take a pneumonic lung and to make an extract from it with a solution whose alkalinity is comparable to that of the blood plasma, and to inject this solution into the blood of a dog in order to kill the animal instantaneously with intravascular thrombosis. I have performed the experiment six times with the same invariable result; and we need not scruple to believe that the quantity of this nucleo-albumen which is absorbed from the pneumonic lung is sufficient in some cases to produce intravascular thrombosis. Two grammes of the nucleo-albumen are about sufficient to produce intravascular thrombosis in a dog, and if we allow that 500 grammes, or even 250 grammes of white blood corpuscles may have emigrated into the lungs, and if we allow ten days for the complete absorption of this exudation, we arrive at a daily absorption (for the main mass is absorbed, not expectorated) of 50 to 25 grammes of nucleo-albumen. When, therefore, intravascular thrombosis occurs during the resorption period, we need not be surprised at it; and we ought evidently to test the condition of blood coagu-

[1] *Lancet*, February and March, 1892.

labilit during the resorption period, and when we find that it is excessively high we ought to administer citric acid and alcohol, or anything else that may be effective in reducing the coagulability of the blood. And we ought also to warn the patient against increasing his blood coagulability by any excessive muscular effort such as would lead to an accumulation of carbonic acid in the blood. On the other hand, it is possible that the absorption of the nucleo-albumen from the lungs may take place so gradually that its absorption may present no analogy with the sudden injection of nucleo-albumen into the blood in Wooldridge's experiment. We should then have nothing to fear in the direction of intravascular thrombosis. We should have to deal instead with the symptoms which result from a slow injection of nucleo-albumen into the blood. And these symptoms are a diminution of blood coagulability which is analogous to the diminution of coagulability which results in animals from an injection of peptone. Such a diminution of blood coagulability might be expected to be accompanied in man as it is in the peptone dog with diarrhœa. Perhaps many of the critical diarrhœas may be explicable in this manner. And in addition to these symptoms we have others in connection with the urine. We have an excretion of peptone or albumose and an excretion of an excessive amount of uric acid. And we explain these things to ourselves in the following way: The nucleo-albumen disappears from the blood rapidly. If it did not it would accumulate and we should have an increased instead of a diminished blood coagulability. We must surmise that it disappears because it is broken down into simpler chemical substances. And these simpler chemical substances are in all probability, as I suggested three years ago, an albuminous substance which is excreted as albumose and nuclein, which, as Horbaczewski showed, is excreted from the system as uric acid. I need not now summarise again all the evidence upon which I based that theory. Suffice it that my friend, Dr. C. J. Martin, of Sydney University, has called the theory in question with regard to the breaking down of the nucleo-albumen into albumose; and I have therefore been led to reinvestigate this question experimentally, with the result that reinvestigation has only confirmed me in the view I originally put forward.

Dr. M. A. RUFFER had carried out no special work on the pneumococcus, but he might ask Dr. Washbourn certain questions which his paper opened up. What was the exact effect of the protective, or, as he preferred to name it, curative serum? Did it contain what Behring calls an antitoxin, or did it act upon the micro-organism itself? In most infective diseases the serum was rendered curative, but did not contain an antitoxin; in the case of typhoid Sanarelli had shown this for guinea-pigs; nor had Klemperer succeeded in obtaining in serum an antitoxin against cholera. He would ask again, Whether the fluids of an animal dead of pneumonia contained an antitoxin? In the case of diphtheria the pleuritic effusion, urine, milk of an animal dead of the disease, contained sufficient antitoxin to save hundreds of others; nevertheless it died. In an animal dead with diphtheria another poison is present which is unaffected by any quantity of antitoxin. The urine of a child dead of diphtheria contains sufficient antitoxin to save the life of many guinea-pigs. Roux had shown, however, that the urine may be used to transmit the disease to animals, for it contained a poison not destroyed by the antitoxin in it. As to phagocytosis, he had seen it very beautifully in sections including the edge of pneumonic patches when just about to consolidate.

Dr. WASHBOURN, in reply, could not say on what the curative properties of the serum depended. It was difficult to obtain a reliable toxin with which to test the possible action of an antitoxin. The toxin obtained as a glycerine extract from animals dead of the disease was not very potent, and unsatisfactory. There were probably two kinds of poisons, one within the pneumococcus the other shed outside it; the action of the serum might differ in some relationship with this. Klemperer had found that the fluids of animals dead after pneumococcus injection afforded no protection. The author had inoculated animals with pneumococcus, killed them after five hours by bleeding; and though the serum contained no pneumococci it was inert, whence he concluded that it contained at that stage no antitoxin. He criticised Professor Wright's view that the respiratory trouble in pneumonia was due to the presence of white corpuscles in the lung; for when the crisis arose the rapidity of respiration at once sank, though the condition of the lung remained. He had never found pneumococci in the blood save in very small numbers, and such cases were fatal; so that he did not accept Professor Wright's theory as to the cause of the crisis. He suggested that the fall of temperature, observed by the speaker named, in rabbits after inoculation with pneumonic lung, may have indicated not a crisis, but a subnormal temperature which presaged death. (Professor WRIGHT observed here that the fall of temperature was not below the normal.) Finally, he did not think the danger of thrombosis in acute pneumonia was great.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

D. ARGYLL ROBERTSON, M.D., F.R.S.E., President, in the Chair.

Thursday, January 31st, 1895.

TWO CASES OF DIPHTHERITIC CONJUNCTIVITIS TREATED BY KLEIN'S ANTITOXIN.

MR. W. H. JESSOP read this paper. The first case was that of a boy, 19 months old, who had membrane on the upper and lower palpebral conjunctiva of the left eye, and a patch of membrane on the left side of the uvula; one lymphatic gland over the parotid was enlarged, and there was albumen in the urine. Three injections of Klein's antitoxin were given, 1½ drachm in all; the membrane disappeared in five days, and was not followed by conjunctivitis or other conjunctival change. There was no local treatment except distilled water. The second case was that of a male child, 8 months old. There was membrane on the palpebral conjunctiva of both eyes; the parotid lymphatic glands were enlarged; there was a muco-purulent discharge from the nose. Two injections of Klein's antitoxin, 1 drachm in all, were given, but there was no local treatment. The membrane disappeared in four days.

Dr. HAYWARD examined the membrane in both cases, and found large quantities of Loeffler's bacillus. The cases were interesting from their rarity and from their being the first published ones treated by antitoxin.[1] The membrane was well marked in both cases, and only affected the palpebral conjunctiva. The complete and rapid disappearance of the membrane must be attributed to the antitoxin, as there were no other cases on record which have been cured so rapidly and completely.

The PRESIDENT asked whether there were any subsequent paralytic affections.

Dr. HABERSHON asked for the dates of appearance of the membrane and of the injections, as it was said to be useless to inject antitoxin more than 48 hours after the appearance of the membrane.

Mr. MACKINLAY had had a case lately which he had treated by Mr. Tweedy's method, quinine internally and externally; it had recovered, but not so quickly as Mr. Jessop's.

In reply, Mr. JESSOP said it was too soon yet for paralytic symptoms to appear; it was uncertain how long the membrane had been present, as the history was not very definite on that point. He had used the injections as soon as he saw the cases.

REMOVAL OF THE LENS IN HIGH MYOPIA WITH A CASE OF − 25 D.

Mr. C. WRAY read this paper. He thought that the operation was not applicable in the case of children with less than 10 D, or in adults with less than 12 D of myopia. The objects of the operations were three in number: (*a*) to prevent detached retina; (*b*) to arrest or prevent retino-choroidal changes; and (*c*) to enable patients with the highest grades of myopia to work at reading distance if unable to do so. He presented statistics of myopia of 123 patients with 246 eyes: thirty-eight cases, including three cases of detached retina, had V. less than $\frac{6}{9}$ths in one eye, whilst ten had V. less than $\frac{6}{6}$ths in both eyes. His figures, he considered, admitted of three deductions: That the vision was invariably less in the fourth decade than in the third; that retinal detachment is less to

[1] But see Dr. Copper's case, BRITISH MEDICAL JOURNAL, December 8th, 1894, p. 1310.

be feared than the changes in the retina and choroid, and that it is not necessary to regard every myope of 12 D and upwards as hopelessly drifting towards detached retina and blindness. He had seen a case of retinal detachment after the removal of a lens in a case of myopia of 30 D, and considered detachment comparatively frequent after operation. The author did not agree with Perinaud in considering the operation a failure, because in Perinaud's case the removal of the lens was not followed by prevention of myopia, and considered the operation was a success if it prevented progressive change in the fundus, and enabled patients to work at reading distance when unable to do so with glasses. He pointed out that in myopia of low degree, associated with zonular cataract, the crescent is at times out of all proportion to the amount of myopia; and the presumption was that this was due to amblyopia, and on this conviction it was a common thing to remove zonulars when the patients could see $\frac{6}{6}$, and J 4, but regretted that hospital reports do not furnish the subsequent history of these cases. After having referred to amblyopia with zonular cataract, it was pointed out that myopes of over 10 D very seldom see more than $\frac{6}{9}$, and in the fourth decade $\frac{6}{12}$, and the question arose, Should this amblyopia be regarded as a reason for operation, seeing that some of the results, especially those of Pflüger, Schirmer, Thier, von Hippel, and Fukala have been extremely brilliant, although the results on the whole vary between very wide limits as in other cases of extraction of the lens. As regards the prevention of changes in the choroid and retina, the only case that would appear to bear upon the point is Meyer's, in which, after the removal of a lamellar cataract from a myope, the fundus changes are said to have progressed, and, judging from the statistics at Mr. Wray's disposal, more rapidly than they would have done in all probability in the natural course of events. The point on which there is unanimity is that the patients were able to work much better after the operation, and some were enabled to follow vocations which had previously been impossible. If, however, vision—as appears to to be the case—is practically sure to get worse, it would seem wise not to wait until the nutrition of the macula has been seriously impaired. Floating opacities in the vitreous, especially if in any number, would probably negative operation, whilst diminished tension should certainly do so.

Mr. Spencer Watson said he should hesitate to remove a clear lens in a case of myopia; he did not see why removing the lens should stop the progress of myopia. He had removed the lens in a highly myopic eye, but it was cataractous. There must always be the danger of a diffluent vitreous.

Mr. Marshall had seen 2 cases of removal of the lens for high myopia. The result hardly recommended the operation; in one detachment of the retina followed, in the other the eye suppurated.

Mr. Hodges had 1 case which was not yet completed.

Mr. Rockliffe had had 1 case in which acute iritis followed the operation.

Mr. Doyne thought it possible that the amblyopia might be increased by the operation.

Mr. Lang had operated in one case in which V.=$\frac{6}{9}$; after needling V.=$\frac{6}{12}$ with a simple cylinder. The case did well for a time, but after some months the retina became detached; the retina of the other eye was also detached. His experience was unfavourable; in 2 out of 5 cases there had been detachment of the retina.

Mr. Wray, in reply, said he brought the case forward to elicit the opinion of the Society. That opinion seemed unfavourable; it was less favourable than that of many Continental surgeons who had performed this operation.

Eyesight and the Public Services.

Dr. Mackay (Edinburgh) read this paper. His object was to express an acknowledgment and to elicit an opinion. The acknowledgment was that the recognition of the importance of good eyesight in the public services was due to the action of members of this Society. The opinion to be elicited was whether the visual examinations were conducted in a satisfactory manner. In 1863 Professor Longmore devised the now familiar army dot test card; in 1886 a committee of this Society drew up the existing rules which were accepted by the Government of India, and subsequently by the War Office; finally, a pamphlet was issued in the same year by Sir J. Fayrer and Mr. Macnamara, which supplied an indispensable *vade mecum* to ophthalmic specialists, and was an invaluable guide to occupation to many of the educated youth of the country. Coming to present facts, it would be found that there was a great difference between the method of fixing the standard recommended by this Society and that generally regarded as sufficient by laymen or those not engaged in ophthalmic practice. The chief difference is that the one includes an estimation of the refraction of the eye, the other does not; the result of this is that some candidates may be passed with a latent error so great that a time may come when their vision without glasses may fall below the standard, and they may have a difficulty in continuing their duty. This neglect of refraction is costly to the employer and a cause of hardship to the employed. The condemnation of the visual examinations for the public services as at present carried out involves the exclusion of lay examiners for this duty. The present opportunity of bringing the subject forward was taken because the employment of lay examiners of vision for mariners and on railways was to be made one of the subjects of representation by a deputation of ophthalmic surgeons to the President of the Board of Trade. The deputation had been organised by the Committee of the British Medical Association for promoting the efficient control of railway servants' and mariners' eyesight.

Mr. Doyne had found the published instructions as to testing of vision for the army were of no value whatever; they would be good if they were carried out, but the standard was not adhered to. The test for the army was far easier than that given in the book.

Mr. McHardy said that for the Royal Navy candidates must have full normal acuity of vision, no latitude whatever being allowed. He thought that there was great hardship in testing vision without regard to the refraction in overworked boys with temporary spasm of the accommodation. On the other hand, candidates with much hypermetropia might be accepted and become useless after some years. The examination should be made by experts, and should include an estimation of the refraction.

Fleet-Surgeon Preston said that in the navy two standards of vision were in use: for the executive, including the fighting element and engineers, full normal vision was required in ordinary daylight, while for the civil element, including surgeons, chaplains, and paymasters, much more latitude was allowed. Full normal vision meant every letter in the test types; two or three in a line were not accepted. Cases of hypermetropia and astigmatism were rejected. Colour vision was tested by coloured bunting, Holmgren's wools, and tinted glasses. The estimation of refraction meant the employment of specialists, and this meant extra cost.

Mr. Bickerton cited the case of the *Vanguard*, which was lost owing to the look-out man with defective sight giving notice of a vessel ahead seen by no one else.

Mr. Priestley Smith said ophthalmic specialists understood normal vision to be $\frac{6}{6}$ (Snellen) in a good light. A diminished light soon reduced it to $\frac{6}{9}$ or $\frac{6}{12}$. A discrepancy between their verdict and that of the naval examiner might thus arise. As regards refraction, the printed regulation said that the candidate must be emmetropic in both eyes, and he had hitherto regarded a moderate hypermetropia as a disqualification. He now learned that the examiner was satisfied with normal acuteness of vision and did not test the refraction.

Messrs. Critchett, Ridley, and Lang also spoke.

The following resolutions were proposed by Dr. Stephen Mackenzie, and carried:

1. That in the opinion of this Society no examination of eyesight is complete or satisfactory which depends mainly upon an examination of the form vision by means of test types and dots and omits consideration of the refraction of the eye.

2. That this Society hereby appoint the President of the Society (Dr. Argyll Robertson), Mr. Power, Mr. Nettleship, Mr. Lawson, Mr. Couper, Dr. Brailey, and Mr. Hartridge to accompany the deputation of the British Medical Association to the Board of Trade on February 1st at 3 P.M. to give expression to the foregoing resolution.

Card Specimens.

The following were shown:—Messrs. Hodge and Ridley: Intraocular Melanotic Sarcoma with Peculiar Characteristics,

Mr. Lawford: Unusual Arrangement of the Retinal Vessels.—Dr. Argyll Robertson: A specimen of Filaria Loa.—Mr. Marcus Gunn: (1) Peculiar Lenticular Changes following Old Injury of Eyeball; (2) Prolonged Hypermetropic Congestion of Optic Discs closely simulating Papillitis.—Mr. E. Clarke: A case of Pulsating Exophthalmos.—Dr. J. Hayward: Microscopical specimens and cultivations of Loeffler's Bacillus.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

R. D. Purefoy, F.R.C.S.I., President, in the Chair.

Friday, December 21st, 1894.

Specimens.

Dr. W. J. Thompson exhibited a living specimen of Spina Bifida. The points of interest were: (1) Situation of spina bifida in dorso-lumbar region; (2) paralysis of lower extremities only with eversion; (3) coincident development of the hydrocephalus; (4) an enormous nævus on a former child of the same family. Remarks were made by Dr. Alfred Smith, Mr. Croly, Dr. Macan, and the President, and Dr. Thompson replied.—Dr. Alfred Smith showed two ovarian tumours. (1) A large Papillomatous Cyst, removed from a patient, aged 52; recovery good. (2) A small Ovarian Tumour removed from a patient, aged 32. The patient was ailing for the past twelve months, complained of great pelvic pain, and of severe pain down the right leg, which caused her to walk very lame. There were many attacks of hysterical convulsions, the seizure occurring chiefly when the patient was alone. On examination under ether, a tumour the size of a fœtal head was jammed in the pelvis; it could not be shoved out, being hitched under the promontory of sacrum. Operation easy: recovery uneventful. Patient could now walk about the ward without lameness. There had not been any recurrence of the convulsions. The operation was performed on November 28th. Remarks were made by Dr. Macan, Dr. Smyly, and the President, and Dr. Smith replied.—Dr. J. H. Glenn exhibited a Glandular Proligerous Cyst of the Right Ovary removed from a patient, aged 28. The operation was performed on July 10th, 1894, and she was discharged on August 14th, 1894. —Dr. F. W. Kidd exhibited two Uteri removed by vaginal hysterectomy. (1) Patient, aged 58, operated on November 8th. During convalescence only once did the temperature touch 100° F.; that was on the evening of operation. After removal of the womb endeavours were made to remove a small infiltrated extension on vaginal wall, but on account of profuse hæmorrhage this was only partially successful. Clamps were removed early on morning of 10th, patient allowed up on the 28th, and left hospital on December 4th. When examined before leaving, there was no trace of the infiltration on the vaginal wall to be felt, no discharge whatever, and wound nicely healed. (2) Patient, aged 53, operated on November 10th. Went out well on December 3rd. Temperature never touched 100°. Result excellent on leaving hospital.

Report of the Rotunda Hospital.

The report of the Rotunda Lying in Hospital for 1892-1893, by W. J. Smyly, M.D., Master; J. H. Glenn, M.B., and H. Tweedy, L.R.C.S.I., Assistants, was presented. During the year ending November 1st, 1893, 1,288 patients were confined in the hospital, and 2,105 at their own homes; total, 3,393 cases relieved.

Abortion.—Forty-one women aborted, 18 of whom required no assistance. In 3 the uterus was emptied by the finger alone, and in 19 the uterus was curetted after the removal of the ovum. One patient only was plugged.

Cross Births.—There were 3 cases of transverse or oblique presentation. In 1 cephalic version was performed by external manipulation before the membranes had ruptured, and the child was expelled alive by the natural efforts. The other 2 children were dead and macerated. One was delivered by bipolar version and the other by internal version. All the mothers did well.

Placenta Prævia.—There were 8 cases with 1 death, the result of pulmonary embolism. In 3 cases the children were born dead. Two cases were left to the natural forces of labour. Forceps were applied in 1 instance, and in the remaining 5 cases turning and bringing down a leg through the cervix; then leaving the woman to be delivered by the natural process. In some instances the foot remained protruding through the vulva for hours before the pains were excited, but there was no hæmorrhage.

Accidental Hæmorrhage.—Twelve cases with 2 maternal and 6 fœtal deaths. In 3 cases no special treatment was required. In 3 version alone was adopted, while the remaining 6 cases were plugged and bound with a tight binder. Version was performed subsequently in 3 of these cases as further treatment. The vaginal plug, when efficiently applied before the rupture of the membranes, stopped the hæmorrhage in every instance, and had the further advantage of inducing labour pains and causing the rapid dilatation of the os.

Post-partum Hæmorrhage.—There were 24 cases of *post-partum* hæmorrhage. Six were traumatic, due to lacerations of the cervix—in 3 the rents were closed by suture and in 3 plugged with iodoform gauze. The others were atonic, namely, 6, the placenta or membranes had to be removed manually; 2 plugged with iodoform gauze; and all douched with hot water. The perchloride of iron was not used in any case. One patient with a submucous myoma died.

Deformed Pelves.—There were 10 cases of contracted pelvis; 8 were flattened pelves, and 2 generally contracted flattened pelves. The measurements were taken with Skutsch's pelvimeter or Dr. Bullit's modification of the same. Four of these were delivered by forceps—1 by perforation, 2 by induction of premature labour, and 3 by symphysiotomy.

Version (November, 1892, to November, 1893).—Version was performed 11 times. In two instances external version was accomplished. In one of them a transverse presentation was changed into a vertex, in the other a head was converted into a breech as part of the treatment in *ante partum* hæmorrhage. The indications for version were—Prolapse of cord, 1; craniotomy, 1; oblique positions, 2; placenta prævia, 5; accidental hæmorrhage, 3. Forceps were used in 45 cases, 27 of which were primiparæ.

Symphysiotomy.—This operation was performed 3 times with 1 death. All the infants survived.

Eclampsia.—There were 9 cases during the year. The mortality was—in mothers, 2; in infants, 5. The urine in every case was found highly albuminous. In no case was the number of fits so high as in previous years, partly due no doubt to the different treatment adopted. Chloroform was administered as sparingly as possible, and, in the later cases, hypodermic injection of morphine was adopted with satisfactory results.

The report was discussed by Dr. Macan, Dr. Atthill, Dr. Alfred Smith, Dr. Glenn, Dr. Parsons, Dr. Croly, and the President, and Dr. Smyly, replying, dealt with the treatment of deformed pelvis. He considered pelvic deformity a contraindication to the use of the forceps. When a case of pelvic deformity in pregnancy was met with, the first thing to decide is whether premature labour should be induced. In suitable cases he would prefer induction to symphysiotomy. If the latter improved he might adopt it for the sake of the child, but in the present state he would not. When given a woman in the commencement of labour, he would divide them into those cases in which he could not possibly get a living child *per vias naturales*, and those in which he might. In the first case under 6 cm. was an absolute indication for Cæsarean section. Between 6 and 7 cm. there was the choice between Cæsarean section, symphysiotomy, and perforation. At present he would prefer Cæsarean section. Taking now those cases above the point in which one might hope for a living child, he preferred the expectant method to prophylactic version, because the latter must be done at the commencement of labour. If prophylactic version were performed symphysiotomy was put out of the field, because the child would be dead if it failed to come through. Symphysiotomy was the end of the *rôle* that begins by waiting. If the head did not mould, forceps must be tried, or, failing them, there was the choice between symphysiotomy and perforation. He shrank from perforation on moral grounds. It would be too late to perform version. He admitted Dr. Macan's objection to symphysiotomy. The number of assistants required prevented its being used in general practice.

CLINICAL SOCIETY OF MANCHESTER.

S. Buckley, F.R.C.S., President, in the Chair.

Tuesday, January 15th, 1895.

Cases.

Mr. Whitehead exhibited a lad, aged 18, whose Scapula he had Excised for Necrosis due to acute Suppurative Periostitis. The head of the humerus had also been removed, but the rest of the arm preserved. The interest of the case mainly depended upon the remarkable power the muscles had retained; in fact, there were very few of the ordinary movements absent, and the power of the muscles was stated to be rapidly increasing.—Dr. Lloyd Roberts mentioned a case of Extirpation of the Uterus for Malignant Disease; also a case of Removal of a large Uterine Polypus.—Dr. Bury showed (1) a case of Monoplegia Following an Injury. A man, aged 62, ran a large splinter of wood into the left palm. Since then he had had several attacks of clonic spasms affecting the left arm, and unattended by loss of consciousness. When examined three months after the accident there was complete paralysis of the left fingers and thumb, and partial paralysis of the left wrist. The cutaneous sensibility and the reflexes were quite normal. Dr. Bury considered it probable that the "attacks," which simulated Jacksonian epilepsy, and the paralysis, were the results of a functional disturbance of the cortical centre for the arm, and that the case might be regarded as an example of a "traumitic neurosis." (2) A man, aged 32, who presented evidence of syphilitic lesions of various parts of the nervous system, left hemianopsia, partial paralysis of the left third cranial nerve and of the left side of the tongue, together with weakness of the flexors of the right thigh. All the deep reflexes were exaggerated, and the superficial reflexes were unequal on the two sides, but there was no disturbance of sensation.

Society of Medical Officers of Health.—At a meeting on January 21st, Dr. R. Lovett, President, in the chair, a discussion on the relation between female factory labour and infant mortality was opened by Dr. Porter (M.O.H. for Stockport), who maintained that the high death-rate of infants in the manufacturing towns was to be ascribed rather to their insanitary surroundings, and especially to the midden charged with liquid and solid excrement, often leaking, sometimes built against the wall of a house, and always emitting a sickening stench. The infant death-rate in question where middens existed was always higher, in Crewe four times, than in other parts of a town, and in such areas in Stockport the death-rate of the legitimate was 225, and of the illegitimate 594 per 1,000 born. He did not believe that the practice of insuring infant lives had any influence. A deputation had recently urged on the Home Secretary the extension of the period after confinement during which women should not be allowed to work from one month to three. This he considered needless and impracticable. He thought a rest of a month before confinement more necessary. The great mortality in the first month of infancy from premature birth was the result of working in the later months. *Crèches* had been tried with very little success, whether in the factory or elsewhere. The mothers would sooner leave their babies with a near neighbour they knew than with strangers at a distance. The only remedy he saw was the extension of the Infants' Life Protection Act to all caretakers except near relatives, and registration, annual licenses, inspection of their houses, and notice to the coroner of all deaths among the children.—Dr. Reid said Mr. Asquith's figures were misleading, for in the case of Wolverhampton, instead of comparing the two decades 1871-80 and 1881-90, he had arbitrarily taken the years 1885 and 1893, which were respectively those of the lowest and highest mortalities on record, and had ignored the fact that within the last ten years two industries had sprung up in that town—galvanising and japanning—in the former of which women were largely and in the latter exclusively employed, whereas previously the sole industry was iron and labour confined to men. Again, the alleged increase in the general death-rate, which Dr. Porter said he (Dr. Reid) had ignored, was wholly due to the increase in the deaths of children included in the total and not observed at other ages. He advocated three months' abstention from work, since the infant would then have passed the most critical period, whereas it was not worth a woman's while to begin nursing for a single month, and the husbands of these women were mostly themselves factory hands earning regular wages, and able to spare the wife's 15s. for a few weeks now and then.—Dr. Turner maintained that the mortality from infantile diarrhœa was wholly a question of septic artificial *versus* aseptic breast feeding. In Old London, insanitary as it was, infantile diarrhœa was unknown because feeding bottles were not invented. At Much Hadham, a large village in Hertfordshire, where the children were invariably breast-fed, the opening up of an ill-conceived combination of cesspits and sewers led to a serious outbreak of diarrhœa, which the infants escaped even when their mothers were attacked.—Drs. Spottiswoode Cameron, Reginald Dudfield, and others having spoken, Dr. Porter replied. He did not deny that female labour was a factor, but believed it to be only one of many in the causation of an excessive infant mortality, and he deprecated exaggeration and the advocacy of measures, however desirable, which could not be carried out in practice.

Liverpool Medical Institution.—At a meeting on January 31st, Mr. Chauncy Puzey, President, in the chair, Mr. Richard Williams showed a young child with well-marked Glioma of the Right Retina. Enucleation of the eyeball was to be performed on the following day.—Mr. Damer Harrisson described a case of wound of the Internal Carotid Artery; the common carotid was tied, and the patient recovered.—Dr. Caton described an early case of Acromegaly, occurring in an Irishwoman, aged 27. The thyroid was small. After three months' treatment by rest, tonics, and good food, she appeared to be worse rather than better. About the beginning of November, 1894, three tablets, each containing 2 grains of pituitary body, were given daily. After this her condition showed great variability; sometimes she was much better. On December 18th, 1894, in view of the analogy between acromegaly and myxœdema, thyroid tablets were alternated with the pituitary tablets. From this time improvement was rapid; all pain, headache, and œdema disappeared. Vision became perfect, the visual fields normal. The hands and feet diminished in size, as also did the lower lip. Her facial expression changed, muscular strength increased, and she became as cheerful and active as she was three years ago.—Mr. Banes showed a young seaman on whom he had operated five years previously for Leprosy in the Ulnar Nerve. The man was of dark complexion, his mother being partly of Indian blood. He had complained of great loss of power in the right arm. There was a long cylindrical swelling occupying many inches of the ulnar nerve; there was loss of sensation over the area supplied by the ulnar nerve. The nerve was exposed and very carefully split longitudinally, and a long core, looking like old blood clot, was removed. On microscopical examination this substance was found to contain the bacilli of leprosy. The man regained power in the arm and the feeling returned, so that at present he could use one arm as well as the other.—Dr. T. B. Grimsdale read a paper on Pregnancy complicating Fibroid Tumour of the Body of the Uterus. He related a case in which he had terminated pregnancy at the fourth month by rapid dilatation of the cervix with Hegar's dilators and extraction of the fœtus and placenta at one sitting. The result was quite satisfactory; there was no hæmorrhage. In this case the fibroid was larger than an adult head, and the abdomen at the fourth month of gestation was distended as it should have been at full term. Dr. Grimsdale discussed the various methods of treatment adopted in these cases, and suggested some lines on which treatment should be regulated. He thought that the treatment he had adopted in his case would be applicable to a considerable number of cases of this description. Drs. Briggs, J. Gemmell, and Imlach made remarks.

An International Congress of Hydrology and Balneotherapy will be held at Ostend this year; the exact date still remains to be fixed. The Congress will occupy itself with the discussion of the two following questions: (1) The Treatment of Pulmonary Phthisis at the Seaside; (2) the *Technique* of Sea Bathing.

REVIEWS.

THE CONTAGIOUS DISEASES ACTS. Professor Stuart's Reply to Sir William Moore, and the Speech of the Secretary of State for War on the Army Estimates. London: British Committee of the British, Continental, and General Federation. 1895. (1d.)

THIS pamphlet, issued by the well-known Committee who oppose the Contagious Diseases Acts, is from the pen of its Treasurer, Professor STUART, M.P. It is a reprint of a reply to an article by Sir William Moore in the October number of the *Humanitarian*. Sir William's outspokenness on such matters is well known, and he ought to consider it a compliment to his trenchant article that it has called forth the heavy artillery of Professor Stuart.

We, for our own part, are rather sick of this controversy, when it is merely based on a weary and barren wrangle over statistics, embracing the period since the Acts were first passed. We have long held, and often reiterated, that by themselves the ratios per thousand of army admissions from venereal diseases are of dubious value, because they are unequal, in that simple venereal ulcers have sometimes been included and at others excluded; comparison between things unequal must therefore be misleading. It is also notorious that through the see-saw of politics the Acts themselves during their enforcement were most unequally administered. We therefore demur to their value or otherwise resting on a mere statistical argument, and we rather wonder the opponents of the Acts should condescend to discuss it, seeing they declare their opposition does not rest on mundane expediency, but flows direct from the highest region of ethics and morals.

With rare exceptions, the medical profession simply views venereal diseases as it does any other contagious affections, as diseases to be combated and controlled by all lawful scientific means. The profession seeks to destroy the germs of syphilis by the same or similar means as those used against anthrax, cholera, or diphtheria. It is even a greater scourge than these diseases, in that it extends to hapless children, who surely can have no moral responsibility in contracting it from their parents or nurses. The profession of medicine, therefore, cannot have part or lot in an agitation which would foster a disease they seek to combat. To them all disease is alike a physical and material evil of environment, to be overcome by every natural weapon which Providence has placed in our hands or heads.

THE YEAR BOOK OF TREATMENT FOR 1895; a Critical Review for Practitioners of Medicine and Surgery. London, Paris, and Melbourne: Cassell and Co. (Crown 8vo, 480 pp. 7s. 6d.)

THE eleventh issue of this useful *Year Book* is of the same character as previous publications. The general aim of the annual is to give within a reasonable compass a fair summary of the new material contained in medical periodical literature during the previous year. Such a task could not be carried out by any one hand, since the aim of the work is to present not a mere collection of cuttings and abstracts, but a considered review in which only the more solid contributions to the various departments of medicine and surgery are noticed. To this end the Editor has secured the services of a large staff of contributors, who have for the most part selected and arranged their material with skill, so that each article may be read as a consecutive essay. The new names among the contributors are those of Dr. Coupland, who has undertaken the section on Diseases of the Heart and Circulation; Mr. William Rose, who contributes the article on General Surgery; and Dr. Whitelegge, who has written a very brief, but at the same time extremely interesting, note on Public Health and Hygiene. The task of dealing with the subject of the treatment of Diphtheria by Antitoxic Serum has been divided between Dr. Sidney Phillips, who has written a well-arranged article on the general subject, and Mr. Edmund Owen, who has a somewhat critical note on the influence the method is likely to have on the surgical treatment of diphtheria. The volume contains a classified list of new books, new editions, and translations, and an index not only to the subjects treated, but also to the authors quoted. We may safely say that this volume is one of the best published, within anything approaching the same compass, in any language.

ON CHOREA AND CHOREIFORM AFFECTIONS. By WILLIAM OSLER, M.D., F.R.C.P., Professor of Medicine Johns Hopkins University, etc. London: H. K. Lewis. 1894. (Cr. 8vo, pp. 134. 5s.)

WHEN we take into consideration the fact that chorea is a common disease, and the further fact that it has for generations excited the interest and curiosity of physicians, it must be confessed that we know singularly little about it. Its etiology is obscure, its pathology unknown, its prognosis doubtful, and its treatment empirical and unsatisfactory. The motto which Dr. OSLER quotes from Bouteille's *Treatise*, published in 1810, is still applicable: "Everything is extraordinary about this disease; its name is ridiculous, its symptoms strange, its character doubtful, its cause unknown, and its treatment problematic." We may therefore be grateful to Dr. Osler for having presented us with an excellent essay on chorea, which occupies rather more than half of the book before us. It is founded in great part upon the casebooks of the Infirmary for Diseases of the Nervous System, Philadelphia; but an additional series of cases is drawn from the practice of John Hopkins Hospital. Dr. Osler thus rests his conclusions in part upon the published results of his predecessors, in part upon his own observations.

Perhaps the most important section of the essay is that which deals with the after-history of the heart in patients who have had chorea. Dr. Osler succeeded in finding 140 patients two or more years after they had been under treatment for chorea at the infirmary mentioned. The results for a first series of these cases were published in 1887.[1] The complete results given here are highly interesting. They appear to show that the proportion of cases of chorea in which the complicating endocarditis lays the foundation of organic heart disease is much larger than has hitherto been supposed. The heart was normal in only 51 cases, in 72 there were signs of organic heart lesion, and in the remaining 17 there was cardiac disturbance, which might reasonably be regarded as functional. A very significant fact is that no fewer than 66 per cent. of the cases which presented organic heart disease at a date two or more years subsequent to the attack of chorea, gave no history of rheumatism. The relationship between chorea and rheumatism is a problem as yet unsolved, but such an observation as that just quoted certainly militates against the view that chorea is only one of the rheumatic states; and Dr. Osler puts forward as a tentative conclusion the opinion that "very probably the cause of chorea will be found to be a poison allied to, but not the same as, that of rheumatism."

The book before us also contains two short essays upon choreiform affections, the one on habit spasms and tic, the other on chronic progressive chorea (Huntington's chorea). It is much to be regretted that the term "chorea" has been applied to these disorders. Neither class has any true connection with chorea minor, and both are as far asunder as the poles. Dr. Osler's account of chronic progressive chorea is valuable, but the essay on habit spasms is perhaps of still greater value; for it is, we believe, the first attempt to reduce this very heterogeneous and puzzling class of cases to order. It is, moreover, the most complete presentment of the facts which has hitherto been made in the English language, most of the literature on the subject having been contributed by French writers.

The book, though small, is one which will well repay perusal, and it cannot fail to add to Dr. Osler's already high reputation.

[1] *Amer. Journ. of Med. Sci.*

OWING to some defect in the heating apparatus, the Deaconess Hospital, Cleveland, Ohio, caught fire on February 1st, and three patients and one nurse were burned to death.

NOTES ON BOOKS.

Transactions of Societies.

We have recently received the annual volumes of the Transactions of various medical societies. *The Transactions of the Clinical Society of London* (London: Longmans, Green, and Co. 1894. Roy. 8vo, pp. 378. 15s. 6d.) have now reached the twenty-seventh volume. The present volume is rather more bulky than some of its predecessors, and contains the full text of the papers read before the Society from October, 1893, to May, 1894. All these papers were noted at the time in the reports published in the British Medical Journal, but the full text will be valuable for consultation, the more so as several of the papers are illustrated by lithographs. Among these we may notice especially the curious coloured lithograph of the effect produced by transillumination of the antrum of Highmore in a case of empyema. The patient was taken into an absolutely dark room, an electric lamp placed in his mouth, the lips closed over the handle, and the button pressed, which allowed the current to reach the lamp. The drawing shows that there was brilliant illumination of the cheeks and of the red margin of the lips, and the margin of the alæ nasi. Across the root of the nose there is a bright bar of light. The lower margin of the orbit on the unaffected side is brilliantly illuminated, while on the opposite—the diseased side—there is absolute darkness. The outlines of the upper part of the head and the upper margins of the orbits are just visible.

The *Transactions of the Ophthalmological Society of the United Kingdom* for the session 1893-4, form the fourteenth volume of this valuable series. (London: J. and A. Churchill. 1894. Demy 8vo, pp. 320. 12s. 6d.). The volume opens with the Presidential Address by Dr. Argyll Robertson, on "The Contributions of Ophthalmology to General Medicine," and the papers read before the Society are classified upon an anatomical basis. The volume contains six coloured plates.

The *Transactions of the American Ophthalmological Society* (Hartford: Published by the Society. 1894. Royal 8vo, pp. 246. 1.50dols.), contain reports of the papers read at the thirtieth annual meeting held at Washington in May, 1894. There are a few good coloured plates, and several rather striking freehand drawings.

The nineteenth volume of the *Transactions of the Edinburgh Obstetrical Society* (Edinburgh: Oliver and Boyd. 1894. Royal 8vo, pp. 248. 8s. 6d.) contains a record of the proceedings of this Society during the session 1893-4. It opens with the valedictory address of the retiring President, Professor A. R. Simpson, which contains an interesting sketch of the growth of the Society. The papers are classified under three heads: obstetrics, gynæcology, and pediatrics, though there is in reality only one which belongs to the last-named category. The volume includes the report of the Royal Maternity and Simpson Memorial Hospitals for one quarter. It is provided with an excellent index.

The proceedings of the ninth session of the Association of American Physicians are contained in vol. ix of the *Transactions* (Philadelphia: Printed for the Association. 1894. Roy. 8vo, pp. 312. 3 dols.) The first pages of the volume are occupied by a historical address containing much curious information on the rise and fall of the licensed physician in Massachusetts, 1781-1860. It was delivered by the President, Dr. Reginald Fitz, on the first day of the meeting of the Association, May 29th, 1894. The volume contains numerous valuable papers together with reports of the discussions upon them.

The forty-fifth volume of the *Transactions of the Pathological Society of London* contains the report of the proceedings for the session 1893-4. The value of this series is too well known to call for lengthened comment, but we are glad to note that the volume contains some really excellent full-page illustrations reproduced by a photographic process, which in the case of bones especially has yielded most excellent results. (Price 10s. 6d.)

Annuals.

We have received the *Local Government Annual and Official Handbook* for 1895, the fourth year of publication. It is issued from the office of the *Local Government Journal* by Mr S. Edgecumbe-Rogers, and claims to be the only complete Local Government directory. The information, it is stated, is drawn entirely from official sources. The publication has been delayed in order to include information about the new urban and district councils. The information about London authorities is full, and the work on this score alone will be useful for reference. It would be more handy for this purpose if the advertisements were not so often printed on pages which bear editorial matter on one side. The price of the volume is 1s. 6d.

Mr. John Lane has issued the thirty-first annual edition of *Herbert Fry's Royal Guide to the London Charities* (London: Chatto and Windus. 1s. 6d.). The value of this excellent compilation is well known to most residents in London, and the information given appears to be accurate and adequate.

Hospital Reports.

The twenty-second volume of the new series of *St. Thomas's Hospital Reports* (London: J. and A. Churchill, New Burlington Street. 1894. 8s. 6d.) is edited by Dr. T. D. Acland and Mr. Bernard Pitts. It contains an excellent photograph of the late Dr. W. B. Hadden, and a short appreciative notice of his too brief career. Following upon this is a notice of the life and work of Mr. George Rainey, for many years the Curator of the Museum of St. Thomas's Hospital. The article is illustrated by a photograph from a drawing made by his son, Mr. W. Rainey, R.I. The volume contains fewer original papers than most previous issues, and a large part of it is occupied by the usual statistical and descriptive reports on the work of the various departments of the hospital. These deal with the years 1892 and 1893. Two years have been included in order to bring the volume better up to date, and it is proposed to publish the reports for 1894 in the next volume. Among the original papers is one by Dr. Sharkey on Bronchiectasis, illustrated by some excellent drawings and microphotographs. There is also a paper on the Treatment of Hallux Valgus, by Mr. Clutton; an article on the Removal of the Uterine Appendages for Uterine Myoma, by Dr. Cullingworth; a paper on Sterilised Surgical Dressings and Sterilised Water, by Mr. E. White, F.I.C.; and notes of several interesting cases by Mr. W. H. Battle, Dr. Walter Tate, and Mr. Cuthbert Wallace.

The Reports of the Medical and Surgical Registrars and the Pathologists to the Middlesex Hospital have been issued in a volume which is published by Mr. H. K. Lewis (2s. 6d.). In addition to the usual statistical tables, Dr. Wethered, the Medical Registrar, and Mr. Leopold Hudson, the Surgical Registrar, have added particulars of the more interesting cases. The Pathological Report, by Dr. A. F. Voelcker, contains notes on all the 248 *post-mortem* examinations made during the year.

The *Registrar's Report on the Medical, Surgical, and Ophthalmic Cases admitted during the year 1893 into the London Temperance Hospital* has been compiled by Dr. Leonard Wilde upon the same general principle as that followed at other hospitals. This is the second volume of the series, and if in future issues the same system of classification is followed so as to render the results directly comparable, a very valuable mass of statistics will gradually be accumulated. So far as appears alcohol was only administered in two cases: one of these was in *articulo mortis* at the time when she received an enema of brandy after an operation for strangulated hernia; the other was a case of septicæmia in a chronic alcoholic man, who was given a few doses of rectified spirits of wine for a few hours before his death. We do not notice any distinct statements as to whether all the other patients were treated without alcohol; we assume that this was the case, but we would suggest that a precise statement on this point should be made in future issues. No publisher's name is given, but the price of the volume is stated to be 3s. 6d.

The Seventy-second Annual Report of the Montreal General Hospital for 1893-4 consists mainly of routine reports, lists of subscribers, etc., but appended is a statistical report of the medical superintendent, which it must be confessed compares very unfavourably with the reports of the two London hospitals to which we have just referred. This is no doubt the fault rather of the board of management than of the

medical superintendent. As it is, the meagre details given are of little value even for statistical purposes.

The first number of the *Manhattan Eye and Ear Hospital Reports* is edited by D. B. St. John Roosa, M.D.: J. E. H. Nichols, M.D.; W. W. Gilfillan, M.D.; J. A. Booth, M.D.; and W. C. Phillips, M.D. (New York: Meridan Gravure Co. 1894. Demy 8vo. pp. 144.) It contains brief practical records of many interesting cases of diseases of the throat, ear, and nose. Some fourteen out of twenty-three articles are devoted to these subjects. The following amongst other subjects are noticed: cyst of the epiglottis; microtia; tuberculosis of the pharynx and of the thyroid gland; cork splints for deflection of the septum; torticollis following adenotomy, etc. Several of the cases are illustrated in a very satisfactory manner. The publication of reports of this character would be a credit to any special hospital, and seems preferable to the undue multiplication of textbooks.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CYTOS' GERM MALT FLOUR AND BREAD.

Among many important improvements which have been recently made in the preparation of flour and bread, there is probably none which has had more useful results than that of malting the wheat germ. This operation has the effect of rendering the bread made from flour so treated more pleasant to the palate, and at the same time more digestible. Marshall's germ flour and bread are products of this kind, which are sold under the registered trade-mark "Cytos'," and they will be found of such excellent quality as to merit approval. Both flour and bread may be obtained of bakers and confectioners—from Messrs. W. Marshall and Sons, Victoria and Haven Mills, Grimsby, and 39, Hamfirth Road, Stratford, Essex.

DEATHS UNDER ANÆSTHETICS.

Chloroform.

We are indebted to Mr. Walter J. Hill, Senior Resident Officer of the Bristol Royal Infirmary for the following account of a case of death under chloroform which occurred recently in that institution. The patient was a woman, aged 55, who was admitted with spasmodic closure of the jaws due to a carious wisdom tooth. On January 14th, two days after admission, chloroform was administered by the Junior House-Surgeon, auscultation had revealed nothing abnormal in the chest. A Skinner's mask was used, and during the struggling stage, which was somewhat violent but not prolonged, the anæsthetic was given very cautiously. Struggling having ceased, the administration was continued until anæsthesia was induced, the time from the commencement being about four minutes, and the amount of chloroform poured on the mask 3 drachms. The corneal reflex was then just absent, the pupils moderately contracted, the respirations and pulse regular. The patient was then wheeled from the anæsthetic room to the theatre immediately adjoining, the transit occupying less than twenty seconds. Directly she was lifted on to the operating table it was noticed that the respiration had stopped, and that the face was very slightly cyanosed. The pulse was almost simultaneously noticed to be absent. The head and shoulders were at once drawn over the end of the table, the mouth opened, and the tongue pulled out with tongue forceps. Artificial respiration was commenced, and violent percussion over the heart employed. A nitrite of amyl capsule was crushed before the mouth at the commencement of artificial inspiration, a hypodermic injection of ether and a brandy enema were administered, and finally electrical stimulation and acupuncture of the heart were resorted to. Artificial respiration was continued steadily for twenty-four minutes, but the patient did not recover. The *post-mortem* examination showed that the heart muscle was pale and soft, the heart empty, the tricuspid orifice dilated, and the aortic valve slightly atheromatous. The apices and anterior borders of the lungs were emphysematous. The left upper wisdom tooth was carious, and there was ulceration around it. The cervix uteri was the seat of carcinoma.

THE FIRST
INDIAN MEDICAL CONGRESS.

[FROM OUR SPECIAL CORRESPONDENT AT THE CONGRESS.]

AFTER THE CONGRESS.

At the close of the Congress I am happy to be able to report that not only has it been a substantial scientific success and a brilliant social function, but that it leaves a solid result of valuable public work well carried out. Officialdom is of course universally prevalent in India, and nine men out of ten at the Congress were in the official employment of the Government either as civil or military servants. Independent opinion hardly exists, or where it exists it has no means of organisation. Collective representations of any kind are prohibited to Government servants, and to any members either of the civil or military departments. Hence the peculiar interest and value of this Congress, where for the first time many hundreds of official medical men were gathered together. Where any question of reforms or protest arose, they were unable to express their opinions otherwise than by hearty applause, and thus it fell upon the unofficial members present to give form and expression to such views. The experience of Mr. Ernest Hart in the conduct of congresses and meetings of the kind was available for overcoming these difficulties, and at his suggestion resolutions were moved and adopted at the final general meeting of the Congress which gave form and permanent expression to the various conclusions arrived at after discussion. In moving the resolutions subsequently addressed to the Viceroy concerning the odious proposals of the Cantonments Amendment Bill referred to in his address, Mr. Hart only gave expression to the universal feeling of burning resentment and indignation in the minds of every medical officer, civil and military, throughout India. The same feeling is privately expressed by all the leading members of the Viceroy's Council, civil and military. It is felt that a gross insult has been hurled most unnecessarily at the heads of the medical officers of India, and a painful humiliation inflicted gratuitously upon the Government of India. A copy of these resolutions has been officially forwarded to the Viceroy. It was felt, however, that it would place him in a painful position to have to make a public reply on a subject on which his personal opinions would be on the one side, and his official duties as the officer charged with carrying out the orders of the Secretary of State of India on the other. The position is felt throughout India to be humiliating.

The resolutions have been transmitted to the Secretary of State of India at home, and it is hoped that the Parliamentary Bills Committee of the British Medical Association will take action.

The newspapers are still lively with echoes of the Congress. There is great unanimity among men of all shades of opinion in condemning the insulting clauses of the Cantonments Amendment Bill. The *Pioneer of Allahabad*, a very important and leading journal, expresses this indignation in very clear and striking language. Everywhere one hears similar opinions. Inspector-General Dr. Lethbridge, medical member of the Viceroy's Council, has, it is reported on good authority, placed his resignation in the hands of the Viceroy rather than be a party to so offensive, insulting, and unnecessary a proceeding. A deputation consisting of Surgeon-Colonel Harvey, President of the Medical Congress; Surgeon-Major-General Rice, the Chief Medical Officer of the Indian

Army; Dr. Simpson, M.O.H. Calcutta, Secretary; and Mr. Ernest Hart had an interview with the Home Secretary, Sir Antony MacDonnell, and represented to him on Monday, January 4th, the gratuitous character of the humiliating proposals.

It was pointed out that the departmental order of the Government was all that was necessary and the power would be with the Government of enforcing if necessary its own order on its own officers. To say that any officer disregarding the orders of the Government should be liable, not to dismissal or punishment by that Government, but to punishment by fine or imprisonment at the hands of a petty magistrate was an unheard-of outrage on precedent and propriety. The other clause of this most foolish and irritating Bill is equally humiliating to the Government of India. It is deeply resented, and if the Bill be persisted in something like a Cabinet crisis may be expected. Nor is any good end effected which might not as surely be carried out by a simple mandate to the Government to see that the provisions of the existing Act and the orders thereunder are strictly observed. There will be great difficulty in forcing the Bill through the Council if the Secretary of State for India persists in making himself the tool of the insulting vengeance of a few triumphant Radical faddists.

The result of the interview of the deputation with Sir A. MacDonnell is not yet known, but it is stated that he endeavoured to arrange amendments which will relieve the medical profession of the stigma of being specially singled out for insult and menace. The general feeling, so far as I can gauge it, is one, however, of irritation and anger and unqualified condemnation of a proceeding so uncalled-for; and I expect that the Bill will be referred home for reconsideration.

Other more agreeable topics are the favourable reception by the Home Secretary of the requests for further and better organised encouragement of study of preventive medicine. One such centre already exists at Agra under the direction of Professor Hankin, who, however, *more Indico*, is loaded with other irrelevant work. A new centre, Sir A. MacDonnell announced, is in course of organisation at Lahore, for the great province of which it is the capital, and he regarded very favourably the institution of a suitably equipped and officered centre for these studies, so essential to the efficiency of the medical officers and the welfare of the troops and people of India, in Calcutta for the province of Bengal.

Dr. Simpson's proposals for the improved organisation and extension of the sanitary service of India were very favourably received.

Sir A. MacDonnell pointed out that the Government of India was already moving actively in that direction, and had spent, with great advantage to health, large sums in improving water supplies and other sanitary works, and they were anxious, within the limits of their inadequate general resources, to go still further in the same direction.

Mr. Ernest Hart was the principal spokesman at the request of the deputation. Surgeon-Colonel Harvey, Surgeon-Major-General Rice, and Dr. Simpson, powerfully reinforcing his statements.

On the general issue of the Congress the papers are highly congratulatory, and especially as to the addresses of Colonel Harvey, and that on the last day. I have already sent you the favourable opinion expressed as to the former. As to the latter, I shall only allow myself to quote the final opinion expressed by the *Englishman*:

"It was peculiarly fitting that the session of the Indian Medical Congress, on Saturday, should have been concluded with a deliverance by Mr. Ernest Hart. His most exhaustive address on "The Past, Present, and Future of the Medical Profession in India," was a sort of stock-taking after the business of the week. There are few men living better qualified to deal with questions relating to the general well-being of the medical profession than the genial doctor. He laid particular stress on the importance of bacteriological research in the medicine of the future. He believes that if the Government of India were to encourage preventive measures more than at present they would be amply reimbursed in the time to come. Many medical men will profit greatly by a perusal of the careful detail prepared by Dr. Hart in this address, regarding many points in the *technique* of this fascinating yet wonderfully simple study, and we can imagine that many will set to work with all the enthusiasm of a Virchow, and that, ere the next Indian Medical Congress, some valuable advances in the study of micro-pathology will have to be recorded to the credit of India."

Bacteriology at the Congress.

The papers on bacteriological subjects communicated to the Congress made up in quality what they lacked in number, and may be said to mark an epoch in the history of Indian bacteriology. Hitherto Indian bacteriologists have been particularly successful in obtaining negative results, and such originality as they have shown has expended itself chiefly in the production of ideas about "blue mists" and "aerial miasms," which were regarded as explanations of the origin of cholera epidemics. At last a change for the better seems to have occurred. The sages of Calcutta are still supposed to disbelieve in the microbes of most diseases, but none of them ventured to defend their positions. The numerous "species" of vibrios isolated by Dr. Cunningham, which this investigator has cultivated with such assiduity during many years, were referred to by Professor Hankin in a discussion as "a lot of degenerated cholera microbes," and, so far as I know, no attempt was made to controvert the suggestion.

Results of the Anticholeraic Inoculations.

The first paper in order of interest was one by Professor Haffkine, containing a summary of the results hitherto obtained in connection with his anticholeraic inoculations. Professor Haffkine interrupted his work in Assam in order to be present at the Congress. The paper commenced by giving an account of the various attempts that have been made by different authors to vaccinate against cholera. He then described the enormous difficulties he had to combat in order to introduce his own method into India. His allusion to the assistance he had obtained from the Government Laboratory in Agra was greeted with applause. After inoculating in Agra, Aligarh, Lucknow, Cawnpore, and other towns in the North-West Provinces, he proceeded to the Punjab, where many thousand natives submitted themselves to the process. Always, however, the cholera seemed to disappear wherever he went, giving him no chance of putting his method to a test. At the invitation of Dr. Simpson, the municipal health officer, he proceeded to Calcutta, where he inoculated the inhabitants in many of the bustees or villages in the suburbs of that town. Here the first proofs of the validity of the inoculations were obtained, accounts of which have already appeared in the British Medical Journal. At the invitation of Surgeon-Colonel Harvey, he went to Gaya Gaol on the appearance of cholera among the prisoners, and here again evidence was obtained that those prisoners who had been subjected to the treatment were protected against the disease. As for the Lucknow epidemic, it was an actual fact that the virus that had to be employed in inoculating these soldiers fifteen months previously was less both in quantity and quality than that used on later occasions throughout India. Professor Haffkine terminated his address by pointing out that the immunity hitherto shown by the inoculated might on the one hand be due to a series of accidents, but it might also, which was more probable, be due to an actual increased power of resisting the disease. In the discussion which followed, Surgeon-Colonel Harvey, the President of the Congress, stated that Professor Haffkine appeared to have proved the validity of his method so far as an immediate protection is concerned. It remained however to be proved whether the inoculations conferred a sufficiently permanent protection for them to be permanently practically useful. Drs. Lawrie and Cooper took exception to this view; the former being of opinion that the effect of the inoculations was likely to be of the same nature as the partial immunity conferred by erysipelas against anthrax, and the latter objecting to the "unjust aspersion thrown on the delta of the Ganges by regarding it as the home of cholera." Dr. Simpson and Professor Haffkine gave effective replies to these criticisms.

The Bacteriological Test of Cholera.

Two papers, contributed by Professor Hankin and by Drs.

Haffkine and Simpson dealt with the question of the value of the bacteriological test for the cholera microbe, and contained results that promise to be of interest to European observers. Professor Hankin pointed out that many European investigators had found in water microbes resembling the cholera microbe; some observers had regarded these as degenerated forms of the cholera microbe; others had supposed that they were harmless microbes indistinguishable from that of cholera by any known laboratory test, and that consequently such tests were of no value as indicating the fitness of water for drinking purposes during a cholera epidemic. With the help of several civil surgeons, and of the Sanitary Commissioner in the North-West Provinces, Professor Hankin has carried out several series of observations of well water from different localities during and after epidemics. The results showed that in nearly every case during the epidemic the cholera microbe was to be detected in the water, and was found to be in a virulent condition. After the cessation of the epidemic it was still to be met with, but showing various signs of degeneration. It had little or no power of killing guinea-pigs, and only formed minute colonies when grown on solid food media. In other cases it refused to grow on agar at all. Water from the same wells was examined at intervals of one, two, and three months after the cessation of the epidemic. After each interval a smaller number of the wells was found to contain a vibrio, till three months after the cessation of the outbreaks the vibrios were extremely rare. In localities in which no cholera had appeared vibrios were rarely met with. The Sadr Bazaar in Lucknow in every year had remained free from cholera, however much might have been present in the surrounding town and cantonments. Seventeen wells were examined in different parts of this bazaar, and the cholera microbe was detected in only two, though at this time it was present in nearly every well in the adjoining town, where cholera had been prevalent a month previously. In Cawnpore different results were obtained, in that during the epidemic the microbe, which was universally present in nearly every well, already showed signs of degeneration, and within a month of the cessation of the epidemic it had nearly completely disappeared. In the cook-house belonging to a regiment stationed in Cawnpore the cholera microbe was met with in a state of full virulence in some milk on the floor and on some chopped meat. Since the cholera microbe was not present in any of the wells in the neighbourhood, it was most probable that it had been imported into the cook-house by the "cook's mates," who had unrestricted access to the town. If this sort of thing was allowed, it was no wonder that several cases of cholera frequently occurred in British troops whenever the disease was prevalent in a neighbouring town. The authors said they were unable to understand why hitherto Indian authorities had thought it necessary to invoke the aid of blue mist to explain the appearance of cholera when this sort of thing was going on. Professor Hankin terminated his address by pointing out that his researches proved that the bacteriological test for the cholera microbe was likely to be of use in India at all events. They also tended to reconcile the discordant results obtained by European observers.

This important paper was followed by one by Drs. Haffkine and Simpson, which confirmed it in every respect. These observers had examined the water of a number of tanks. They found that the cholera microbe was almost universally present in cases in which the disease existed at the time. They found that after the cessation of the disease it rapidly vanished. Where no cholera had recently existed it was, on the other hand, scarcely ever found. The cholera microbe was detected in the dejecta of some cows that were suffering from diarrhœa in a village near Calcutta. It was also present in the water they were drinking. Another interesting observation relates to the possibility of aërial infection in cholera. In a house in which cholera existed at the time the air was drawn through a peptone solution for two hours. No cholera microbes developed. At the present day such an experiment would be considered superfluous in Europe. In India, on the other hand, such experiments are still necessary owing to the prevailing ignorance of the essential characteristics of the cholera bacillus.

Microbes of Indian Rivers.

In the Section of Public Health Professor Hankin read a paper on the Microbes of Indian Rivers. Various rivers had been examined in the North-West Provinces, and it had been found that their water was remarkably free from microbes. A series of weekly observations had been made of the water of the Jumna at Agra during the whole of the past year, and the results had been arranged in the form of a table curve. On the same diagram were shown the results obtained by Proskauer for the Spree, and by Frankland for the Thames. From this it appeared that the Jumna generally contained as many hundred microbes in a cubic centimetre as the other rivers contained thousands. Sometimes as few as 300 microbes per cubic centimetre were counted (in the hot weather); only in the rains did the number go up to 9,000 on one occasion. A parallel series of observations were made of the water furnished by the Agra waterworks. The results obtained were identical with those obtained by the same process of water filtration in Europe. Consequently it was probable that the results obtained for the unfiltered river water were not due to any error in the *technique*. Professor Hankin explained this scarcity of microbes in Indian rivers by supposing that the rate of destruction is far greater than in Europe, both owing to the greater strength of the sunlight, and owing to the fact that the rivers examined flow in shallow layers over sandbanks, and are thus exposed freely to the purifying influences of air and light. It must also be remembered that the great bulk of the water consists of melted snow. Possibly this destruction of microbes is the reason why cholera is not transmitted by drinking its water, although many corpses of those dead of cholera are thrown into rivers. Professor Hankin went on to suggest that it might be possible to throw sewage into such rivers. The idea was rather roughly handled by the meeting, and numerous cases were quoted in which river water had clearly transmitted cholera in India. Professor Hankin attempted to defend his suggestion by pointing out that he had only intended to advise such method of sewage disposal in the case of rivers having the characters he had described.

Chemical and Bacteriological Examination of Water.

Dr. Davies (Meerut) read a paper on this subject dealing with the different processes capable of being used in India. He exhibited a very ingenious portable bacteriological laboratory made of kerosine tins. We should have thought it would be better to discard the steam steriliser and the hot steriliser in favour of an autoclave. Such a plan would not, however, be so cheap as that exhibited by Dr. Davies.

Disinfection of Wells.

Professor Hankin read a paper on "The Disinfection of Wells." He described his experiences with lime as a disinfectant. Though it has in one or two cases been used with apparent success in checking the progress of cholera epidemics, it cannot be recommended as a general mode of dealing with the subject of epidemics, first, because it is of no use unless it is perfectly fresh, and, secondly, because it kills frogs. These animals appear to be very common in wells in India. He thinks that though they may be useful scavengers while they are alive, their presence is the reverse of desirable after their death. In one or two cases the natives complained that the water acquired a putrid taste some days after the addition of lime to the well. This may have been due to a decaying frog. He now prefers to use potassium permanganate. So far as his present experiments go this substance appears to have almost a specific action on the microbe of cholera. In some wells in the village of Balrampur, whose water contained from 3,000 to 10,000 microbes per cubic centimetre, including the cholera microbe, this microbe completely vanished on the addition of permanganate. This fact is remarkable, in that when their water was examined three days after treatment it still contained from 2,000 to 3,000 microbes per cubic centimetre. In the town of Shahgunj, during a cholera epidemic, half the wells were treated with permanganate, and the other half were not medicated. In each case the cholera microbe vanished from the water after the addition of permanganate. Professor Hankin contented himself with saying that the microbe had vanished from the water. He made no definite statements as to whether this

had any effect on the course of the epidemic. We shall look forward to further communications on this subject with interest.

Immunity.

Dr. Cooper (Bombay) made a communication on the subject of Immunity. He dealt with the theory of alexocytes, recapitulating the work that has hitherto been done on the subject, but contributing no new facts.

Enteric Fever in India.

An animated discussion took place in the Section of Military Medicine on the question of enteric fever among troops in India. Dr. Rankin (Calcutta) strongly condemned the system of burying night soil in trenches. He advocated the cremation of all dejecta that could possibly contain the typhoid bacillus instead of burying them in the ground, where they might possibly reproduce, and either by means of dust or human intercourse get into water supplies. In the course of the discussion a resolution was passed unanimously condemning the Macnamara filters in use among the troops in India, and recommending that they should be abolished. Allusion was made to the difficulty of preventing soldiers eating all sorts of food of questionable origin in the bazaars.

Both in the paper by Mr. Ernest Hart and in that by Dr. Simpson frequent allusions were made to the necessity of increasing the facilities of studying bacteriology in India. There is an immense field of work and the practical results that are likely to accrue to it would be immediate and valuable.

The Work of the Congress.

The following is from the *Englishman* of January 5th: "Addressing a special meeting of the Calcutta Medical Society, held in the operation room of the Medical College yesterday evening, Mr. Ernest Hart reviewed the work of the Congress, which he described as one of unexampled success. He believed that it would open out a new era in Indian medicine by the relations which it had established between the profession and the Government. For the first time the flower of the profession, European and native, had spoken in unison, and had been listened to with respect by the local authorities, the Government, and the public. The lessons to be learned from the Congress were many and invaluable. Notwithstanding many disadvantages, the medical gentlemen of this great city had reduced the average mortality to 25 per mille, and that of the European population to 15 per mille. Having achieved this, they would, he thought, certainly be able to do much more, and reduce the mortality of the whole of Bengal to these figures when sanitary knowledge was diffused among the people and assimilated by them, and when some of the great engineering works in prospect were carried out. Meanwhile, the 'tea-kettle policy' was all-powerful, and if the people could be persuaded to boil their water and their milk thoroughly, and to take clean food, the mortality of the province would be reduced to something like that of Calcutta. He advised them to establish laboratories, and learn how to examine food substances efficiently with their own hands. Unless they could use the microscope, unless they could analyse water and other matter, and find out what were the bacteria contained in these substances, they could not be called sanitarians, and had no knowledge of practical preventive medicine. An incorrect diagnosis was the secret of most failures."

Calcutta, January 8th.

PROCEEDINGS OF SECTIONS.

The Possibility of a Special Sanitary Service for the Mufasal.

Surgeon-Captain A. H. Nott, M.B., Civil Surgeon, Hazaribagh, drew attention to the great amount of sanitary work which was required among the villages in the interior of the districts. In very few of the districts of this province did the urban population, living in municipalities, amount to over 5 per cent. of the total population, and in many it was much lower than this. It could not be denied then that the State owed something to this vast majority of its subjects living in the multitudinous villages in the rural areas of these districts. These requirements, so far as they affected the medical services, might be grouped under three heads: 1. The duty of affording them much more extended opportunities of obtaining medical aid of a modern character. 2. The provision of an efficient and well-controlled system of vaccination. 3. Purely sanitary work which, up till now, had hardly been attempted outside municipalities. The great difficulty of organising an efficient sanitary service appeared to be the expense. The plan proposed by the author for obviating this difficulty was based on the belief that it was better in time of peace to alleviate the widespread ills that affected 150 000,000 people than to give a highly-trained European medical attendance to 100,000 or less native soldiers whose ailments were as a rule of comparatively trivial importance.

The plan suggested was that in time of peace the treatment of the native army should, to a very considerably greater extent than at present, be placed in the hands of subordinate medical officers. He would propose that one-half of the present number of commissioned medical officers in military employ should be set free from their present duties, leaving at least sufficient to have one medical officer always present in each station where there were native troops alone, who should have charge of all the officers and their families, and should visit frequently all the native hospitals, and personally perform the more important duties which were liable to be abused by subordinates, such as examining recruits and passing men for sick leave, etc. If this were done, even allowing for the usual percentage for sick and ordinary furlough, between fifty and sixty officers would be set at liberty for the proposed sanitary service.

Sewage Farming.

Mr. J. Nield Cook, in a long and careful paper on Sewage Farming in Madras and the Suitability of the System for India, gave much information on this subject. In 1857 the Royal Sewage Commissioners laid it down as an axiom that "the right way to dispose of town sewage is to apply it continuously to land." However, considerable difficulties were experienced in putting the principle into practice. The heavy soils found in most parts of England, the abundant rainfall throughout the greater part of the year, the low temperature during the winter months, when vegetable life was practically at a standstill, and the difficulty and expense of acquiring suitable lands of sufficient extent in the natural direction of the drainage prevented the application of the sewage to the land becoming in any sense general. In 1875 the Committee appointed by the Local Government Board to inquire into the various methods of sewage disposal reported "that land irrigation is not practicable in all cases." The object of this paper was to show that the adverse conditions which prevented the general adoption of this method of disposing of town sewage in England were for the most part absent in India. A trial extending over a quarter of a century had been made in Madras, where the local conditions were in no way exceptionally favourable, and had proved that an almost unlimited amount of sewage could be disposed of by the land, and, further, that the produce of the farms found a ready market and realised a handsome profit.

The idea of adopting land irrigation as the means of disposing of the sewage in Madras was conceived by Mr. Standish Lee, the municipal engineer, in the year 1869. The first experiment, however, was a failure owing to the retentive nature of the soil and the fact that the site of the farm was periodically submerged by salt water. The next experiment, however, which was made in 1870 at Krishnapett, near the seashore, was much more successful. Half the land taken up consisted of pure sea sand, the remainder of land which had been reclaimed with rubbish and covered with a thin stratum of sand. Here no difficulty was encountered, the soil being porous, and permitting the great desideratum of sewage farming—free downward percolation. Heavy crops were soon raised, amounting in 1871-72 to about 69 tons of grass per acre. Since then a number of farms had been started.

The author pointed out that successful sewage farming was to a considerable extent dependent on physical conditions. The surface soil around Madras consisted of white and grey sand, with thin layers of clay at irregular intervals. At no part were there any considerable elevations of the surface, the maximum heights being from 20 to 24 feet above

mean sea level, while many portions of the town were only 2 to 6 feet above that level. Hence pumping was necessary, which at first was done by manual labour. Now, however, for the principal farm steam power was employed, a centrifugal pump having been found to answer best. The system of irrigation which had been found to answer best was to flood the beds heavily every three or four days. The men in charge of the farms said they put on about 4 inches at a time, but the amount really was more than appeared, because a good deal of the sewage sank into the ground before it began to lie on the surface. The younger the grass the more sewage it was found to take; it should not be irrigated for two or three days before it is cut, and afterwards the ground should be allowed to lie fallow for the best part of a week. The contractor reckoned to cut a crop every forty-five days, which gave eight crops a year. The method of irrigation by blocking the channels with earth and bleaching them seemed primitive, but it suited the native cultivator, who was very skilful with it, so no attempt had been made to introduce iron or wooden stoppers. The porosity of the soil, and the great evaporation under the influence of the Indian sun, were great factors in the success of sewage farming, and explained the enormous quantity of sewage which could be absorbed. At times, however, when there were heavy rains, sewage was running to waste untreated. Some complaints of nuisance had been made. There was an ammoniacal smell from the sewage wells and main carriers at times, but apart from this the author considered that the air over the farms seemed perfectly fresh and wholesome. The Sanitary Commissioner for Madras, however, appeared to have had a bad opinion of the Madras sewage farms.

Among the conclusions which the author drew were the following:

1. Barren land could be acquired at a moderate cost in the vicinity of most Indian towns.

2. No matter how barren the land was, if it were permeable, it could be utilised for sewage farms.

3. Sewage farms in India could be laid out at small cost.

4. Owing to growth being continuous, more crops could be raised in India than in Europe, and sewage could be satisfactorily disposed of throughout the year.

5. Owing to the temperature of the soil being particularly favourable to nitrification and growth in the presence of sufficient water, the crops were very heavy.

6. Owing to the scarcity of good forage, during a great part of the year there was usually a good market for grass and hay.

7. Owing to the exclusion of diseased cattle from the farms, grass and hay were not liable to infection with disease germs.

8. The system was suitable to parts of India where the ground was permeable and the rainfall not excessive. It could be carried on profitably, even where the flatness of the land necessitated the use of pumps, and should yield a much higher profit where the natural slope of the land permitted them to be dispensed with.

Unhealthy Tracts in Bengal.

Dr. GREGG stated that, with the exception of the tract of country laying at the base of the Himalaya mountains known as the Terai, the special region of malaria, the most unhealthy part of Bengal was the triangular piece of country which lay in the hollow, which was bounded by the high banks of the rivers Ganges and Madhimati on the north and east, the elevated laterite soil districts of the Sonthal Parganas, Birbhum, Bankura and Midnapore on the west, and the tidal swamps of the Sundarbans, which formed the upper northern boundary of the Bay of Bengal, on the south. The area of this triangle was from 15,000 to 16,000 square miles, and it contained a population of over 11,000,000. No part of this low-lying tract of country had an elevation of more than 60 to 70 feet above the mean sea level. Drainage was therefore an extremely difficult matter, and to this, in addition to a water supply tainted with malarial poison, must be attributed the great unhealthiness of the district. The author spent the month of August last in making a laborious inspection of the locality with results of showing among other things the extraordinary difference in the malarial death-rate between the general population and the inhabitants of gaols in the same localities, being 45.82 per mille among the former against only 1.3 per mille among the latter. Speaking generally, the greatest unhealthiness prevailed amongst the unfortunate people who inhabited the undrained and badly-watered villages, and a remarkable immunity was enjoyed by their more fortunate brethren who resided along the banks of rivers, and on drained sites which were also provided with a good water supply. It appeared from careful inquiry that neither the quantity nor the quality of the food used by the peasants could be held responsible for the terribly unhealthy state in which the greater portion of them were.

The author agreed with the opinion of the late Raja Degamber Mitter, who pointed out that "the cause of fever, whether in its endemic or epidemic form, was in the village itself and amidst human habitations, not in the ricefields in its neighbourhood." Professor von Pettenkofer, of Munich, had said the same thing. In his own words, "the dwelling ground of the people has much more to do with the origin of the disease than has the surrounding district or land." "There can be no doubt as to the abnormal humidity of the subsoil being at the root of malaria. It is not the subsoil of the jheels and paddy fields that is to be looked to for its proximate and exciting cause, but that of the fever-stricken villages themselves." "What is required is not large expenditure of money, but a careful, constant, and minute attention to the drainage of the villages." The author thought that to improve the health of the people living in these unhealthy tracts it was also necessary to provide them with good drinking water, which at present, owing to obstructed drainage, was for the most part obtained from marshes, tanks, and wells which were impregnated with the germs of malarial poison. In all the villages he inspected he was told by the villagers, who were extremely intelligent, that if they could only be supplied with good water their health would be vastly improved. It was, however, impossible to improve the drinking water supply until an effectual system of drainage was provided to carry off the surplus and impure surface water.

Dairy Produce in India.

Surgeon-Captain P. W. O'GORMAN, Civil Surgeon, Midnapore, gave a careful account of the dairy produce of India. Its main object, however, was to show the horrible surroundings in the midst of which milk was produced and manipulated, to insist on the efficacy of milk as a distributor of disease, and to urge the necessity of legal regulation of the whole business. The details given of the treatment of milch cows in India, especially by the wholesale milk suppliers in Calcutta, were horrible in the extreme, as also were the descriptions of the insanitary and filthy conditions amid which the milking was carried on. The author urged legislative interference in the interests of both natives and Europeans, better inspection, the encouragement of European private enterprise in dairy farming, and that in the meanwhile everyone who valued his life should boil his milk.

On the Unhealthiness of the Presidency Division of Bengal.

Assistant-Surgeon KHURGESHUR GHOSE, L.M.S., said that it was well known that during this century important geographical changes had taken place in Lower Bengal from the rivers having shifted their beds, and in some cases taken new routes. These changes had done material injury to the health of the Presidency division of the province of Bengal. The result had been, among others, that many rivers and rivulets had silted up, by which the drainage of the country had been affected, and the subsoil moisture had been increased to a great extent, giving a favourable soil for the growth of rank vegetation. Road making had also interfered with natural drainage.

Again, although there were many good tanks all over the country, they had not increased in proportion to the increase of population, and the consequence was that the poor people were obliged to drink any water available, however impure it might be. This want of pure drinking water was very general, and was keenly felt by the people all over this division of Bengal. Another cause of ill-health was the growing tendency to plant orchards all round the homesteads, which interfered much with the passage of air and light.

Lastly, there was the scanty and unwholesome food used

by the people. The wages had increased, but the increase was not adequate, and the difficulty of getting proper food was greater than formerly. The author concluded by making many useful suggestions, such as opening out silted-up river beds, improving surface drainage, filling up holes, ditches, and cesspools, repairing old tanks and constructing new ones, sinking good wells, provided with pumps, discouraging the cultivation of jute and encouraging that of food grains, reserving sufficient pasture lands in every village, and encouraging the diffusion of sanitary knowledge in regard to the importance of pure water, pure air, and dry, well ventilated homes.

The Calcutta newspapers contain many accounts of the lavish hospitality shown by residents in Calcutta. The final function was a *conversazione* given by Surgeon-Colonel Harvey and Mrs. Harvey, which was attended by the members of the Congress and by a large number of members of the European and native society in Calcutta, including the Viceroy of India, the Lieutenant-Governor of Bengal, the Commander-in-Chief, and the Governor of Ceylon. In addition to the more ordinary forms of amusement provided on such occasion, certain special objects of interest suitable to the occasion were provided. Specimens of microbes of various kinds were shown by Surgeon-Captain Drury, assisted by Surgeon-Major Dutt and Surgeon-Captain Saunders, Dr. Alcock, and others. Surgeon-Captain Evans gave a chemical demonstration, and the Rev. Father Lafont one in electricity, and Mr. J. C. Bose a demonstration in ocular electricity.

Surgeon-Colonel Harvey earned many encomiums for his conduct as President, and on this head our Aberdeen correspondent writes: The many friends who link Colonel-Surgeon R. Harvey, M.D., D.S.O., with the Aberdeen Medical School, not only on his own account, but on that of his father, Professor Harvey, will be specially glad to learn from Professor Robert Reid that no resolution was more warmly received at the recent Indian Medical Congress than that in which he was thanked for his conduct at the Congress. Professor R. Reid, in a communication to the Aberdeen papers, is enthusiastic in praise of the lavish hospitality displayed to the members of the Congress by the citizens of Calcutta, both British and native. Professor Reid is also proud of the number of Aberdeen graduates who held distinguished positions and contributed valuable and important papers to the Congress.

DEFECTIVE EYESIGHT IN RAILWAY SERVANTS AND SEAMEN.

DEPUTATION TO THE PRESIDENT OF THE BOARD OF TRADE.

On February 1st a deputation from the British Medical Association and the Ophthalmological Society of Great Britain waited upon Mr. Bryce, President of the Board of Trade, to urge the adoption of more accurate tests for eyesight in the examination of railway servants and mariners. The President was accompanied by Sir Courtenay Boyle, Mr. Ingram Walker, Mr. Hopwood, Mr. Garnham Roper, and Mr. Moggridge. The deputation comprised John Ward Cousins, M.D., F.R.C.S.; C. N. Macnamara, F.R.C.S.; C. E. Fitzgerald, M.D. (Dublin); G. Anderson Critchett, F.R.C.S.Ed.; Priestley Smith, M.R.C.S. (Birmingham); David Little, M.D. (Manchester); W. M. Beaumont, M.R.C.S. (Oxford); T. H. Bickerton, M.R.C.S. (Liverpool); J. B. Lawford, M.D., F.R.C.S.; and G. Mackay, F.R.C.S.Edin. (Edinburgh), representing the British Medical Association; and D. Argyll Robertson, M.D., F.R.C.S.Edin.; G. Lawson, F.R.C.S.; Henry Power, F.R.C.S.; Edward Nettleship, F.R.C.S.; W. A. Brailey, M.D.; and Gustavus Hartridge, F.R.C.S., representing the Ophthalmological Society.

Mr. Macnamara, in introducing the deputation, said he thought it would be hardly possible to assemble a more influential body of gentlemen practising ophthalmic medicine and surgery than those who formed the deputation. They recognised the fact that railway and marine authorities had not insisted upon proper precautions being taken to exclude men with imperfect eyesight from being employed as signallers and in moving railway trains and vessels; and having applied and failed to move those authorities to take steps to improve that condition of things, they deemed it their duty to come before him (Mr. Bryce) as President over that department of Government which was more directly concerned in safeguarding the travelling public, in the hope that he might see his way to rectify what they believed to be very considerable defects in the system of testing eyesight. A great part of the lives of the gentlemen comprising the deputation had been spent in matters connected with eyesight. Colour vision, refraction, etc., were matters which daily occupied their minds, and therefore they came as practical men. They had arrived at the conclusion that the testing of the eyesight of railway servants and sailors was not such as to exclude men with imperfect vision, and that such a condition of things might lead at any moment to serious accidents. The difficulty was by no means an insuperable one, and the plan which they advocated had already been adopted in various branches of the public service, such as the army and the Indian railways.

Dr. Argyll Robertson said it was unnecessary for him to adduce arguments in favour of a stricter examination, as the principle had been already conceded, and the Board of Trade on the one hand and the railway companies on the other had issued a series of regulations with the view of effecting such examinations. But in some respects there was more to be desired. It was desirable, first, that the tests should be adequate and uniform; secondly, that the tests should be skilfully employed; and, thirdly, that the tests should be employed at regular intervals. The tests should elicit three conditions: (1) The acuteness of vision possessed by the applicant, (2) the condition of refraction of the candidate's eyes, and (3) their acuteness of colour perception. The acuteness of sight should be ascertained, as had been pointed out in most of the regulations issued, by the use of Snellen's test types, which were constructed on scientific principles, and were adapted, not merely for the literate, but for the illiterate also. There was no necessity for recourse to the dot system of types, because Snellen had among his types some specially constructed for those who were unable to read. By keeping to the one series of types the standard would be a uniform one, which he thought was of considerable practical importance. He laid special stress upon the condition of refraction of the eye, as there was no notice whatever of it in most of the regulations issued. It was a point of considerable importance, because the candidate might come up with an error of refraction, and pass all the tests which he might be set with flying colours, and yet in the course of a few years, in consequence of the error of refraction, he might be incompetent for his work. The error of refraction was a congenital condition—just as people were born short sighted there were some who were born far-sighted. With regard to colour sense it was obvious that it required very careful attention, but he was glad to say that the regulations issued by the Board of Trade were very satisfactory on that point.

Mr. Bryce asked if it was suggested that there was anything unsatisfactory in the regulations as to the test for acuteness of vision.

Dr. Argyll Robertson said the standard exacted was not sufficiently high. The regulations, as far as they went, were upon true lines. For the skilful employment of such complicated and scientific tests as were desirable, it would be advisable that the examination should be conducted by medical men, and medical men who had had a certain amount of training in ophthalmology. He advocated this on two grounds: First, because, even though the candidate might have sufficient sight to pass all the tests applied by a lay examiner, there might be other conditions present which, though at the time they did not particularly impair the sight, would certainly in the course of time tend to render the candidate's vision imperfect. There might be the commencement of cataract, for example, which would be overlooked unless a skilful examiner were employed; there might be the results of old inflammatory affections, the presence of which would indicate that he would be liable to a return of similar disease; and there might be other conditions at the back of the eye. All those conditions might be readily detected by an experienced observer, but would escape a lay examiner altogether. Another point was, that

by appointing a thoroughly efficient examiner the confidence of those who were examined and of the public would be increased.

Mr. Nettleship said he agreed with Dr. Argyll Robertson that the examinations should be conducted by medical men. He thought very great stress should be laid not only on the necessity of having a high standard of sharpness of vision for long distances, but upon the care and uniformity with which those tests were applied. It would be desirable in future to have the examinations conducted by as small a number of examiners as possible and in as small a number of centres as possible. He laid great stress also on the importance of persons being re-examined at certain intervals.

Mr. Anderson Critchett said that many railway companies imagined that they were insuring the safety of the public by the adoption of the dot test at 15 feet, and did not appreciate the fact that by that test men might be admitted who possessed only one-third of normal vision.

Mr. Mackay said the question was often asked, What proof is there that accidents have happened from defective vision? But that was not the point. The deputation wished to show that the system of examination adopted at the present time was fallacious, that it did not secure the safety desired, and that by entrusting the examination to lay examiners the fallacy must be perpetuated. Another objection often raised was that the cost of employing really skilled persons to sift out all men who were, or were likely to become, insufficient in sight, would throw too much burden upon the railway companies; but where so important a question as the safety of the public was concerned, he did not think the question of expense need be found too great a bugbear. The manager of the North-Eastern Railway had grasped the situation, and had issued an admirable general order with reference to the examination of eyesight on that line, and had appointed a competent medical man at each extremity of the line. Normal vision had been adopted as the standard, and there had been no serious difficulty in getting men.

Mr. Bickerton said that no boy or man should be allowed to enter the mercantile marine until his form vision and colour vision had been adequately tested and proved to be sufficient. He advocated the granting of eyesight certificates to seamen. Every sailor had to sign on at the Board of Trade, and before being allowed to do so he should be obliged to produce the certificate of eyesight. To add an eyesight certificate to the discharges which a sailor was bound to keep would entail no difficulty. The method of testing for colour blindness or any defect of vision should be carried out by medical men in a room specially set apart for the purpose and fitted with artificial light, which light should be of the same power all the year round. The testing-room should be open daily in large seaport towns. He emphasised the fact that there was no guarantee whatever that every officer in whom colour blindness had been detected by the Board of Trade was not at sea at the present moment. The existing regulations did not arrest colour-blind boys at their entrance of sea life, while they admitted colour-blind sailors, even when detected, to continue sea life and take complete charge of vessels.

Dr. Brailey said that every sailor on whose eyesight the safety of a ship depended should have sufficient form and colour vision, and it was very difficult to find what objection the Board of Trade could have to taking the matter up. From the returns of the International Marine Conference it seemed that it might have, first, on account of the difficulty of getting sufficient sailors; and, secondly, that certain men would be excluded from the sea whom it was desirable should not be excluded. The first objection might be met by scheduling a certain class of men on board all vessels who alone should act as look-out men. With regard to the second objection, that objection principally applied to fishermen and such like. It would be a very difficult thing if every fisherman had to pass a certain test for form and colour, but he did not see any difficulty why vessels of a certain tonnage should not be obliged to carry men who had passed the test, and why men on vessels of a smaller size should not be exempted. It was very important that every test should be an international matter, and other countries, he thought, were no more backward in taking up the matter than England. But even if other countries refused to participate, he did not see why England should not start regulations on her own account, which others would be bound to follow, and in that way England would not only benefit by bringing into existence a superior class of seamen, but it would benefit everybody who went down to the sea in ships, on business or pleasure.

Mr. Bryce, in reply, acknowledged the very great weight and influence of the deputation. The Board of Trade, he said, had shown due diligence in dealing with the matter. They had for some time past applied the examination to master mariners and to mates, but they had no statutory powers to go further. The railway companies had not been remiss in the matter. In order to show practical urgency for further action it was necessary to prove that accidents were occurring owing to the defective application of vision tests. It was certainly very remarkable that so few or no accidents on sea or on land had been so far traceable to that cause. After what the deputation had said, the Board would watch that element of danger still more carefully, and if it should turn out that an accident occurred through the fault of a person who had not been tested, or who, having been tested, was nevertheless found unfit, that would be a very strong argument for revising the regulations. It would be paying a very poor compliment to the deputation if he were at once to express a final opinion on matters which deserved to be very carefully considered by the highest technical authorities he could obtain in the department. The railway companies would no doubt read what had passed at that interview. All the leading railway companies had shown a commendable desire to do what they could, and now required their surgeons to apply tests to the eyesight. The companies applied substantially the same tests as were applied on the State railways of the Continent, and therefore there was no reason to think that the work would be better done by the State. It was possible they did not examine as to refraction; but, if the examination did not fully cover that, he was perfectly certain the companies would apply that test also. With regard to the marine side of the question, they had no power to apply that test to all persons entering the merchant service. He was glad to say that here also the great lines had set a good example; the Cunard, the White Star, etc., were subjecting their men to very careful tests. With respect to the suggestion of an international agreement made by Dr. Brailey, it would be very difficult to bring it about; but our merchant marine was so much the most important in the world that anything England might do would of itself have great importance, and the matter would be very carefully considered. The Board were extremely sensible of the benefit which would be derived from the representations the deputation had made, and, although there were other aspects than those they had presented which had to be considered, nothing they had said would be forgotten or fail to produce its due effect, in the first instance on the Board, and also, he had no doubt, on the minds of all those who would read what had been said.

Mr. Macnamara having thanked the President, the deputation withdrew.

The sixth Congress of Alienists and Neurologists of France and French-speaking countries will be opened at Bordeaux on August 1st next under the presidency of Professor Joffroy, of Paris. The questions proposed for discussion are: 1. The Thyroid Gland and Exophthalmic Goître (to be introduced by M. Brissaud). 2. Psychoses of Old Age (to be introduced by M. Ritti). 3. Epileptic Impulses from the Medico-legal Point of View (to be introduced by M. Parant).

International Congress of Otology.—The fifth international Congress of Otology will be held at Florence on September 23rd and four following days under the presidency of Professor Vittorio Grazzi. Those wishing to take part in the proceedings are requested to communicate with Dr. T. Bobone, San Remo, the Honorary Secretary and Treasurer of the Congress.

The next meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at the County and City Asylum, Powick, near Worcester, on February 21st, at 3 P.M. Dr. Cooke will read a paper on Twenty Years' Work at the Asylum, and papers by Dr. Bond on Atrophy and Sclerosis of the Cerebellum, and by Dr. McClaughry on Influenza and Insanity will also be read.

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA.*

II.

A COMPARISON OF SOME OF THE NATIONAL PHARMACOPŒIAS.

By D. J. LEECH, M.D., F.R.C.P.,

Professor of Materia Medica and Therapeutics in the Victoria University, Manchester, and Senior Physician to the Manchester Royal Infirmary.

In most Continental States, and in America, formularies have been published setting forth the composition and, to a greater or less extent, the method of preparation of the medicinal substances ordinarily used, in order that the drugs prescribed by medical men and supplied to the public may always have the same composition.

From time to time all these formularies or *Pharmacopœias* have been revised, and alterations and additions have been made in accordance with the growth of medical and pharmaceutical knowledge. There has been, in fact, in the various *Pharmacopœias* a process of evolution. At the present time it may be of some interest to compare the works resulting from this evolution with each other and with the *British Pharmacopœia*, which has likewise undergone periodic revision. The earlier formularies were not recognised legally, but now in most countries laws have been passed for the production and periodic revision of a *Pharmacopœia*. The authority responsible for carrying out such laws is by no means the same in all States.

In France the Ministers of Public Instruction and of Agriculture and Commerce nominate a commission for each new edition of the *Pharmacopœia*. In Germany the care of the *Pharmacopœia* devolves by law on a commission consisting of members of the Imperial Health Department and others selected by the Imperial Chancellor. In Switzerland the Federal Council itself appoints a suitable commission for the production of a new edition of the *Pharmacopœia*. In all these, and indeed in most other European countries, the *Pharmacopœia* receives the direct sanction of the Government, or one of its departments, before it is officially promulgated. In England, although no definite sanction is required, the *Pharmacopœia* as issued according to the Act of Parliament by the General Medical Council is recognised as the legal authority; and in America, where the *Pharmacopœia* originates in the profession itself, it seems to receive no legal sanction save that it is adopted as a standard of authority by the Government and by a number of the States. In early times the *Pharmacopœia* was almost entirely the work of physicians, who were doubtless aided in details by apothecaries or pharmacists, though the aid of the latter was not always recognised.

But the increasing separation of pharmacy and medicine and the specialisation of the former, together with the fact that the *Pharmacopœia* as a State production has an aspect other than medical, led to the pharmacist being joined to the physician in the production of the *Pharmacopœia*. The *British Pharmacopœia* of 1867 was, indeed, prepared by two able representatives of pharmacy under the direction of Sir Richard Quain and four other members of the General Medical Council; and the Swiss *Pharmacopœia*, before the issue of the present edition, was the work of the Pharmaceutical Society of Switzerland. But in other countries mixed committees of medical men and pharmacists have been commissioned for the compilation of the National *Pharmacopœia*. The present French *Codex*, for example, issued in 1884, was drawn up by a Commission of 22, of whom 13 were pharmacists, 6 professors of the Medical Faculty of Paris, and 3 special Government officials.

The Commission appointed by the Board of Health for compiling the new Austrian *Pharmacopœia* consisted of four physicians and four pharmacists, but the list of the drugs and preparations first proposed was submitted to the professors in the hospitals in Vienna for suggestions as to omissions and additions before the Commission proceeded to edit the new edition. It may be pointed out that in the preparation of the 1885 edition of the *British Pharmacopœia* a still better plan was adopted for obtaining suggestions from the outside. The universities and medical corporations were directly appealed to, and the General Medical Council acknowledges in the preface the important suggestions and assistance received from several of the medical authorities, from scientific bodies, from medical practitioners, and from pharmacists. In the production of three of the most recent *Pharmacopœias* there is evidence that the efforts made in various countries to ensure accuracy and efficiency in respective formularies are increasing. For the production of the last German edition (1890), for example, a Commission, which included twelve representatives of clinical and practical medicine, pharmacology, pharmacognosy, applied chemistry, and pharmacy, in addition to medical members of the Imperial Board of Health, was appointed in 1887. Binz of Bonn, and Jaffé of Königsberg, represented pharmacology; Gerhardt of Berlin, and Bruns of Tübingen, medicine; Schmidt of Marburg, chemistry and pharmacy; Hilger of Erlangen, applied chemistry and pharmacy; Flückiger of Strassburg and many well-known pharmacists, pharmacognosy. The President issued a circular to all specialists connected with the subjects of the *Pharmacopœia*, asking for suggestions. Then an abstract of these was made, and also of everything bearing on suggested changes and additions for the new edition, which had appeared since the last issue of the *Pharmacopœia* in special works and periodicals. The tests for each drug were most carefully considered, and, after three years' work, a *Pharmacopœia* unsurpassed in accuracy was issued.

The last Swiss *Pharmacopœia* was drawn up by a commission of pharmacists, medical men, veterinary surgeons, and chemists appointed by the Federal Council. They commenced their work in 1889, and produced in 1893 a *Pharmacopœia* in every respect excellent, but specially so in the accuracy and practical utility of the tests for drug purity.

Delegates from the medical and pharmaceutical associations, universities, and medical schools, together with representatives from the army and navy medical departments, were called together under Dr. Amory in 1890 at Washington to prepare the last edition of the *American Pharmacopœia* issued in November, 1893. In the Committee selected for the practical work of drawing up the new *Pharmacopœia*, we find that pharmacology and chemistry are ably represented, as well as medicine and pharmacy. The criticisms and remarks bearing on the defects of the last edition had already been collected by a previous committee. In addition to this, suggestions were received from the various American medical pharmaceutical and scientific associations, and from specialists in the subjects connected with the *Pharmacopœia*, among whom were several of the leading American chemists. The result of the labours of this Commission is a *Pharmacopœia* of which Americans may well be proud. It differs from all others in giving the reason for the tests described.

It is interesting to note the extent to which successive editions of a *Pharmacopœia* reflect the increase in knowledge acquired in medicine and pharmacy. In almost all cases the number of substances possessing marked pharmacological properties increase, whilst those whose reputation has been founded on popular use apart from careful investigations, and whose pharmacological action is very slight or not capable of being clearly ascertained, gradually dwindle in number. There is, too, for the most part, a very marked decrease in the complexity of Galenical compounds and a tendency to the increase of those in which the amount of the active principles present can be ascertained. One *Pharmacopœia*, however, is an exception, and serves as an example to show the extent to which polypharmacy and the use of out-of-the-way remedies was at one time carried in the concoction of compounds. The tinctura vulneraria of the French *Codex* contains eighteen different ingredients, and the *électuaire thériacal*—a modern descendant of the old theriacum, includes fifty-eight ingredients, among which may be mentioned bitume de Judée, opoponax, and terre sigillée (Armenian bole). In all other formularies now in use there is a tendency, more or less marked in successive editions, to limit the medicines included to those whose

chemical composition is known, and whose pharmacological and real therapeutic influence has been investigated. As a consequence of this, successive editions of the various formularies have approximated in the character of their contents. Nevertheless there is still a considerable difference between them, chiefly owing to the want of unanimity which prevails as to the exact purpose for which a *Pharmacopœia* is intended.

In some *Pharmacopœias* it has been deemed right to include all drugs commonly, or even occasionally, used, without any consideration of their probable or possible value. There are in the French *Codex* 2,039 items, concerning the actual value of a large number of which there is no reliable information.

The German *Pharmacopœia* goes to the other extreme. It contains just under 600 items; the Galenical compounds are comparatively few in number, and are reduced in complexity as far as possible.

The same may be said of the Italian *Pharmacopœia*, in which the drugs and preparations also number 600; yet both contain more medicinal agents, of the definite effects of which we have some knowledge, than the French *Codex*.

The Swiss and American *Pharmacopœias* are larger than the German, one containing rather more than 800, the other nearly 1,000 items.

But in both cases this enlarged number is not due to retention of old combinations of doubtful value, but to the introduction of a greater number of new methods of administration than occurs in the German *Pharmacopœia*.

To this attention will be drawn further on, but one or two other points must first be referred to.

In the inclusion of formulæ for simple remedies which are not usually prepared by the pharmacist, and of others which chiefly serve to indicate the method in which a medicine may be administered, the French and English *Pharmacopœias* differ from all others which have recently appeared. The French *Codex* goes very far in this direction. It includes a series of tisanes, or non-medicinal drinks, for the sick room, also chocolate, simple and vanilla. There is even a form for making antiscorbutic beer. It describes the method not only for making mustard and other poultices, but the process for giving a mustard foot bath. It gives, too, directions for preparing all kinds of baths.

Other *Pharmacopœias*, especially the best of those most recently published, such as the Swedish, Swiss, Italian, German, and American, entirely exclude such items. The Swedish *Pharmacopœia* of 1888 gives its reason for this exclusion; the others simply omit them.

In the older editions of the *Pharmacopœias* of both countries we find minute directions for the preparation of almost all the agents which are employed in medicine, but now there is a tendency in most countries to omit specific directions for the preparation of those substances which are made commercially and not by the druggist. This is well seen in the Addendum issued by the General Medical Council in 1890, where no detailed method of preparation is given for paraldehyde, acetanilide, hydrobromate of homatropine, etc.

In some of the newer *Pharmacopœias*, as the German and the Swiss, even a general account of the method of production is omitted when the detailed account is not given; thus, for example, neither the Swiss nor the German give any indication of the origin of hydrobromate of atropine such as we find in the *B. P.* supplement. There is a curious difference of opinion apparently amongst the compilers of *Pharmacopœias* as to the instances in which it is desirable to give or omit methods of preparation. Thus the Swiss and Italian compilers give detailed account of the making of acetanilide. In the *British Pharmacopœia* there is a general indication of its origin, whilst in the German there is simply a description of the drug. Such differences are found in a large number of instances.

In the number and character of the Galenical compounds the older *Pharmacopœias* differ considerably from those most recently issued. A few only of these differences can be here alluded to. The *British Pharmacopœia* contains special directions for making twenty-eight infusions and twenty-six decoctions, the German for 1 infusion and 1 decoction, the American for 4 infusions and 2 decoctions, the Swiss for 1 infusion only. In the last two, however, general directions are given for preparing infusions and decoctions. In the *British Pharmacopœia*, again, there are 20 different varieties of pills, in the American 15, in the Swiss 8, in the German 3, but in the last-named there are general directions for compounding pills.

The small number of decoctions and infusions in foreign as compared with the *British Pharmacopœia* is worthy of notice. These preparations manifestly are not looked upon with favour anywhere but in this country, and there is some reason to believe that even here they are really not much dispensed, their place, when ordered, being for the most part taken by concentrated infusions, which are nearly allied to the liquid extracts. This last form of preparation seems to be growing in favour. The new German *Pharmacopœia*, indeed, only contains 4, whilst there are 13 in the British, but the German is singularly poor in its Galenical compounds. The new Swiss edition includes 17, whilst the American, which is rich in Galenical compounds, has 90 different kinds of liquid extracts.

The number of pill formulæ contained in the American *Pharmacopœa* is small when we consider that it contains nearly 1,000 items as compared with 900 in the British, and when we see how small a number of pill forms are thought necessary in other *Pharmacopœias* the question may arise whether we gain by retaining so many in our own.

Many foreign *Pharmacopœias* are much richer than the British in preparations for making medicines pleasant. Whilst the *British Pharmacopœia* contains only 17 syrups, even the German contains 18, whilst the American includes 32, the Swiss 34, and the French 60, and many of the formulæ, too, given are better adapted to cover the taste of nauseous medicines than those we have. It may be pointed out further that the newer *Pharmacopœias* contain pleasant and convenient forms for giving medicines, such as elixirs and pastilles, the adoption of which has long been advocated by many pharmaceutists in this country. In two there are directions for dispensing medicines in granules. On the other hand, confections, which are cumbrous forms of giving medicines pleasantly, find no favour abroad, few *Pharmacopœias* containing more than one or two such compounds, whilst in our own 6 are included.

The opinions of compilers of *Pharmacopœias* as to the advisability of indicating the dose in which the preparation should be given is manifestly not uniform, three distinct plans with regard to doses being followed. The American, the Austrian, the Belgian, the French, and the Swedish *Pharmacopœias* do not give any doses. The Swiss and the German *Pharmacopœias* only give the maximum individual and daily dose in the case of more active remedies. The *British Pharmacopœia* sets forth what are said to represent the average doses. It is worthy of note, however, that the maximum doses of the Swiss and German *Pharmacopœias* are usually distinctly less than the higher of the two doses given in the *British Pharmacopœia*.

All countries except Great Britain now use the metric system in their *Pharmacopœias*, the Americans having adopted it in their most recent edition. But, whilst in the European *Pharmacopœias* liquids as well as solids are weighed, in America the system of measuring fluids employed in the making of compounds has been adopted, the cubic centimetre being employed as the unit of measurement. It will be interesting to ascertain how far this plan has succeded in America; for, if it has been found to work well, the desirability of Great Britain following the example of America in this respect will have to be carefully considered.

To one other point of difference between the various *Pharmacopœias* it may be well, in conclusion, to draw attention. It has been very properly said that a *Pharmacopœia* is not a book to teach students chemistry or any other scientific subject, but is only compiled for the purpose of leading to uniformity in the composition of medicines supplied to the public. Nevertheless, most *Pharmacopœias* contain a certain amount of extraneous information, chiefly chemical, having no practical bearing on the preparation of drugs or on the estimation of their purity. The various formulæ which are given for chemical and organic substances, for example, may be useful for the student, but can hardly be said to serve any other good purpose. And the same remark might be made with regard to some of the statements bearing on the physical and chemical properties of drugs. The new German and Swiss *Pharmacopœias*, which are espe-

cially accurate in the account they give of the tests of drugs, omit entirely all allusion to these extraneous matters; they do not give a single chemical formula or even mention an atomic weight. It is perhaps a question worthy of consideration whether some of the superfluous information given in many *Pharmacopœias* might not with advantage be replaced by more specific directions with regard to the method in which drugs should be kept in order to prevent the deterioration which under some conditions they are apt to undergo.

ROYAL COLLEGE OF PHYSICIANS.

The ordinary quarterly comitia of the College was held on Thursday, January 31st, Sir J. Russell Reynolds, Bart., President, in the chair.

The President announced that in accordance with a resolution passed at the last comitia, he had nominated as a committee to assist in the revision of the *Pharmacopœia* Sir A. Garrod, Drs. Brunton, F. Roberts, J. M. Bruce, F. Taylor, Leech, Tirard, and Hale White, and that the Committee had already held several meetings. The President also referred to the deputation to the Prime Minister, a few days since, of delegates in favour of the appointment of a Statutory Commission to give effect to the recommendations of the Royal Commissioners on the proposed new Gresham University, in which he and Dr. Allchin had represented the College.

The following gentlemen were admitted Members: Thomas Vincent Dickinson, M.D.; John Fawcett, M.D.; Laurence Humphry, M.D.; Ernest Graham Gordon Little, M.D.; John Porter Parkinson, M.D.; Arthur Ransome, M.D.; Whitley Bland Stokes, M.B.; Sydney Russell Wells, M.B.; Leonard Wilde, M.D.

The Licence was granted to 139 gentlemen, of whom only four did not come before the Conjoint Board.

Diplomas in Public Health were granted conjointly with the College of Surgeons to the following gentlemen:

E. Ferrand, L.R.C.P.Edin. and M.R.C.S.Eng.; J. W. Gill, L.R.C.P. and M.R.C.S.; E. H. Heiby, L.R.C.P. and M.R.C.S.; G. Jones, M.B. and B.Ch. Oxon., L.R.C.P., M.R.C.S.; R. F. H. Jones, L.R.C.P. and M.R.C.S.; R. T. Meadows, M.D. and C.M.Edin.; S. G. Moore, M.B. and Ch.B.Viet.; H. W. Newton, L.R.C.P. and M.R.C.S.; A. Paine, M.B. and B.S.Lond.; C. Paine, M.B.Lond.; W. Russell, M.B. and C.M.Aberd.; H. Simmons, M.B. and B.S.Durh., L.R.C.P., M.R.C.S.; G. A. Wilkes, L.R.C.P. and M.R.C.S.

Communications from the Royal College of Surgeons were read relating to matters concerning the two Colleges jointly.

A letter from Mr. W. H. Baillie was read, offering for the acceptance of the College a portrait of his grandfather, Dr. Matthew Baillie, by Hoppner, and also one of Dr. Edward Jenner, by Lawrence; both gifts were unanimously accepted, and the best thanks of the College were returned to the donor.

A letter was read from Sir R. Quain, presenting to the College a very handsome silver two-handled cup (which was placed on the table before the President), to be used at the dinners of the Fellows' Club. The gift was accepted, and the best thanks of the College returned to Sir R. Quain.

The President, on behalf of Dr. Theodore Williams presented to the College a pencil drawing of the great Dr. Mead, by a contemporary, Dr. Stukeley, who was also a Fellow of the College; the drawing was lately in the possession of the Rev. Bentinck Hawkins, a brother of the late Dr. Bisset Hawkins.

The present was accepted with thanks.

Dr. Gee moved, and the Treasurer seconded, a vote of congratulation to the President, on the baronetcy which had been conferred upon him since the last meeting of the College; and the President having briefly acknowledged the vote, the following were elected Councillors in place of those retiring by rotation; namely, Drs. Hensley, Gervis, Ord and Cavafy.

The President then invited an expression of opinion from the Fellows as to the propriety of invitations being issued to the members of the British Medical Association, to a *conversazione* in the College on the occasion of the annual meeting in London in July.

On the motion of Dr. Theodore Williams, seconded by Dr. Gee and supported by the Treasurer, it was resolved that the College should give a *conversazione*, and it was left to the President to nominate a committee to make all the arrangements.

A report from the representative of the College on the General Medical Council was received, and the best thanks of the College were awarded to him for it.

The quarterly report of the Finance Committee, and the annual report of the Examiners for the Licence were received and adopted.

A report from the Committee of Management was received and adopted, and the thanks of the College were voted to the donors of books presented during the past quarter.

A report from the Weber Prize Committee was received, and the following regulations respecting the award were adopted:

1. That the prize founded by Dr. Hermann Weber, in memory of the late E. A. Parkes, M.D., be termed the "Weber-Parkes" prize.
2. That the prize be awarded triennially to the writer of the best essay upon some subject connected with the etiology, prevention, pathology, or treatment of tuberculosis, especially with reference to pulmonary consumption in man. That in making the award the College have regard to careful collection of facts and original research.
3. That the value of the prize be 150 guineas, or such sum as the interest accrued on the capital, after payment of expenses, will permit.
4. That a bronze medal be awarded to the holder of the prize, and a similar medal, to be distinguished as the second medal, to the essayist who comes next in order of merit.
5. That an Adjudication Committee be nominated on each occasion by the President from among the Fellows of the College, and that it be the duty of such Committee to select the particular subject for competition.
6. That the same Committee which selects the subject shall adjudicate upon the essays sent in upon that subject, the President having power to fill up any vacancies which may have occurred meantime in the Committee.
7. That the adjudication be made every three years at some time previous to St. Luke's Day, when the prize and medals will be presented to the winners. If, in the opinion of the judges, no essays are presented of sufficient merit to entitle either the prize and first medal or the second medal respectively, that then, in either or both events, the corresponding award or awards be not made, and the sum assigned for the same be added to the capital amount.
8. That the subject for the next ensuing competition be selected and advertised within a period of three months from the last presentation; or, failing any award, from the day on which the prize would have been presented had an award been made; and that the competing essays be delivered to the Registrar on or before July 1st in the year of the award, or on the recommendation of the judges the prize may be awarded to the author of any original work on the subject during the preceding three years.
9. That the competition be open to members of the medical profession in all countries; the essays to be typewritten, and in English, or, if written in a foreign language, to be accompanied by a translation into English.
10. That each essay bear a motto, selected by the writer, who shall insert his name within a sealed envelope having the motto on the cover; the envelope being transmitted with the essay to the Registrar, who shall return the unsuccessful essays to their authors.
11. That the prize essay become the property of the College, and that the College may grant its author permission to publish it, if he so desire.
12. That the medals shall present on the obverse the bust of the founder; on the reverse a design relating to the prevention and treatment of pulmonary tuberculosis, with the inscription (exergue) "Prevention and Cure of Tuberculosis"; and that the name of the recipient and the date of the award be placed on the edge of the medal.

An Association for the Protection of the Public Health has been formed at Frankfort-on-the-Main.

Presentation.—A presentation of a purse of sovereigns was recently made to Mr. Arthur Hooley, M.R.C.S., of Cobham, Surrey, by a number of friends and residents in the neighbourhood.

University of Yale.—The annual catalogue of Yale University shows a total number of students of 2,350, being an increase of 148 over last year. The number of students registered in the department of medicine is 104.

The seventh Congress of the German Gynæcological Society will be held in Vienna in Whitsun week. The chief subjects on the programme of discussions are the following: (1) Rupture of the Uterus (to be introduced by Professors Fritsch and Sänger); (2) Endometritis (to be introduced by Professors von Winckel, Ruge, Doederlein, Bum, Wertheim, and Fehling).

Another Grand Old Man of Medicine.—We have an addition to the list of grand old men of medicine to make in the person of Dr. Westbrook Farrier, of Bideford, Me., U.S.A., who, as we learn from the New York *Medical Record*, is still in active practice at the age of 98. He is said to be in the habit of visiting his patients daily on a bicycle. Like other grand old men, Dr. Farrier has his own special theory as to the reason of his length of days. His particular *elixir vitæ* is winter green tea, of which it is needless to add he is a strong advocate.

THE MEDICAL DEFENCE UNION.

The annual general meeting of this Union was held on February 6th at 20, Hanover Square. In moving the adoption of the report, the President, Mr. Victor Horsley, congratulated the Union on having passed through the most successful year of its existence. The membership had increased by 781, a number greater by 200 than the increase of any previous year. The guarantee fund had during the year increased by nearly £1,000, and now amounted to over £5,000. During the year every liability had been discharged out of the income and the most rigid economy observed; the heavy liabilities of the previous year had been cleared off and a handsome surplus remained. The work of the Union during the year had been singularly successful. The very existence of the Union had of recent years caused a diminution in the cases of blackmailing, and this year the prompt action of the Union had so crushed the assailants in every case that not in one instance during 1894 was there any necessity for going into court. Much trouble had arisen with public bodies in regard to the Notification of Diseases Act, and aspersions and actions for damages had been raised against members of the profession arising out of their certificates. The Union had won every case of this kind. As regards the prosecution of unqualified persons, for the first time a bone-setter had, in an action by the Union, been successfully prosecuted, with the notably efficient co-operation of the Sheffield District Branch, and damages and costs obtained. Also in all the other prosecutions of quacks by the Union penalties and costs had been recovered. The year 1895 would be one of great importance to the Union. The present Articles of Association were inadequate; their revision had been committed to a committee, which had already agreed upon certain fundamental principles of revision. It had been thought by some members of the British Medical Association that the Association should afford its members some of the advantages offered by the Union. In 1887, however, it was shown on high legal authority that the money of the Association could not be diverted to the defence of the individual members. Moreover, the present subscription was not adequate for this purpose. The Association was yearly saving money, and had invested capital. Some of this surplus, it was suggested, might be employed in the prosecution of quacks. A simple plan whereby this might be accomplished had been devised, and Mr. Horsley hoped it would receive the warm support of both the Association and the Union. The plan was that the Union should be in a measure affiliated to the Association, and without losing its present successful independent power of working for the defence of its members, it should also operate as a department of the Association. For this purpose it was proposed that the Association should grant a subsidy to the Medical Defence Union of a considerable sum, say of £1,000 or £1,500 a year, under the condition that it was to be expended in the prosecution of quacks; further, that to properly provide for the administration that a certain number, say six members of the Council of the Association, should be placed on the Council of the Union, and that the latter should be known as the British Medical Defence Union. This plan seemed to him to be extremely practical, because although the Medical Defence Union had all the experience and machinery for the prosecution of unqualified persons, and although it had ample funds for the defence of its individual members, it naturally had not means sufficient to deal with the evil of quackery as completely as could be wished.

Dr. Bridgwater seconded the adoption of the report, and the resolution was unanimously adopted after some discussion.

The retiring members of the Council, Drs. Danford Thomas, Hallwright, and Horder were re-elected, Drs. Lucas Benham and Justin Macarthy, who were also nominated, failing in their candidature.

On the motion of the Chairman, Mr. Hardy, C.A., was appointed auditor to the Union. A sum of £50 was voted for the travelling expenses of provincial members of the Council during the year, and a vote of thanks to the President concluded the business.

CORK SOCIETIES MEDICAL OFFICERS' INDEMNITY FUND.

The following additional subscriptions have been received:

	£	s.	d.
Dr. J. Ward Cousins, Portsmouth	2	2	0
Dr. R. Byrne, Cork	2	2	0
Dr. P. O'Brien, Cork ...	2	2	0
Dr. T. J. Murphy, Cork ...	2	2	0
Surgeon-Captain Crooke Lawless, M.D., A.M.S., Dublin	2	2	0
The Editor, *Medical Press and Circular*	2	2	0
Dr. W. Edmunds, Lambeth Palace Road, London ...	1	1	0
Dr. A. Finegan, Mullingar	1	1	0
Dr. Scanlon, Cork	1	1	0
Dr. Cahill, Cork	1	1	0

The subscriptions should be sent to Dr. Dennis Dempsey Donovan, treasurer, 51 King Street, Cork, to whom cheques should be made payable.

LITERARY NOTES.

Messrs. Cassell and Co. have in the press a fourth and revised edition of Dr. Burney Yeo's *Manual of Medical Treatment*, which will be issued at an early date. The work has had an exceptionally favourable reception from the medical profession, as is shown by the fact that three large editions have been exhausted since its first appearance at the end of 1893.

The Boston Society for Medical Improvement, at its annual meeting on January 7th, appropriated a certain sum from its reserve funds for the support of the *Index Medicus* on condition that similar steps should be taken by other societies and institutions in Boston and other cities.

Dr. Badour, of Palaiseau, a retired medical officer of the French army, suggests *hippopyrrhin* as an appropriate name for the diphtheria antitoxin. In this dainty device of philological ingenuity is enshrined, it appears, a double-barrelled compliment—to the horse (*ἵππος*) and to M. Roux (*πυρρός*=red=*roux*). The new name has, at any rate, the recommendation that, like mercy, it is twice blest—it blesses him that gives and him that takes.

The American Public Health Association has decided to issue a quarterly journal in place of the annual volume of *Transactions*. The Association has already issued nineteen large volumes, embracing the reports, papers, and discussions of its annual meetings. Besides these it has published the results of the labours of one of its committees in a separate volume, under the title of *Disinfection and Disinfectants*, which embodies much original matter. Moreover, it has published the Lomb Prize Essays, over 100,000 copies of which have been distributed in the United States. Many of its papers and reports have also been widely circulated in pamphlet form. The title of the new periodical is *Journal of the American Public Health Association*, and from the appearance and contents of the first (January) number, which is now before us, we venture to predict that it will at once take rank as one of the most valuable publications dealing with sanitary matters now in existence.

The Student, a bright little journal conducted by members of the University of Edinburgh, in its issue of January 17th, contains an appreciative notice of Dr. Andrew Smart. It is claimed for him that his delineations of certain organisms which he discovered in the course of investigation on the character of a destructive epizootic disease imported from Russia, which he was commissioned to make by the municipal authorities of Edinburgh, were the first ever made. The cattle plague had spread over the United States, and a committee of American pathologists was appointed to examine Dr. Smart's report as soon as it appeared. To this committee, according to *The Student*, "we are indebted for the earliest complete and unequivocal pronouncement of a germ theory of disease," and the theory enunciated by the Commission avowedly rests on the foundation of Dr. Smart's work.

The *Phonographic Record of Clinical Teaching and Medical Science*, No. 3, is chiefly occupied by a clinical lecture by Mr. Christopher Heath on Lateral Curvature of the Spine. This is so admirable in its vigorous onslaught on the misusers of instruments, that we should grudge its limitation to shorthand readers but for the fact that this initial publication is quite compatible with future reproduction in the medium by which alone knowledge can be conveyed to most members of the profession. Dr. Gowers concludes his account of the treatment of Infantile Paralysis, considering the use of massage, electricity, and the prevention of deformities.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, FEBRUARY 9th, 1895.

CONTROL OF EYESIGHT IN SAILORS AND RAILWAY MEN.

The reply of the President of the Board of Trade to the deputation which waited on him on February 1st was, as will be seen from the report published in another column, satisfactory up to a certain point. Mr. Bryce courteously acknowledged the weight and influence of the deputation, and that they discharged a public duty in making representations to the Board of Trade. He pointed, in evidence of the interest which his department took in the matter under discussion, to the new regulations concerning the eyesight of the mercantile marine issued last year. He promised that the representations made to him should have careful consideration, and especially that in official inquiries concerning the causes of disasters at sea and railway accidents, the question of bad eyesight as a possible cause should be followed up still more carefully than in the past. Naturally he did not commit himself to full agreement with the requirements expressed by the deputation, and it seems hardly likely that these will be practically fulfilled unless by further action and pressure from without.

It is acknowledged that in the interest of public safety all persons employed in the movements of railway trains and vessels should possess eyesight amply sufficient for the discharge of their duties. The deputation urged that this end can be attained only by subjecting all persons to certain tests which must be correct in principle, skilfully applied, and repeated at regular intervals. These tests, in the opinion of the deputation, relate to the acuteness of form vision, to colour perception, and to the refraction of the eye. The importance of good form and colour vision is obvious without argument. The question of refraction is not quite so simple. Myopia, of course, disqualifies at once, for it is revealed when the candidate's vision of distant objects is tested. With hypermetropia the case is different; a youth with moderate hypermetropia may see distant objects perfectly, but the effort of accommodation which this costs him will in a few years become difficult, and in a few years more impossible. Glasses would give him perfect sight, but these are inadmissible, and he becomes permanently and increasingly inefficient in the matter of eyesight. This can be foretold with certainty at the age when boys commence their training for the sea, and it seems only fair, in their own interest, that such candidates should be rejected. We note, in passing, that the Royal Navy, according to the printed regulations, requires a candidate to be emmetropic in both eyes. It was stated at the meeting of the Ophthalmological Society last week that, strange to say, in practice this regulation is neglected—the refraction is not tested.

To what extent are these alleged requirements fulfilled at present? Looking first at the mercantile marine, the new Board of Trade tests introduced last year, with the exception perhaps of the dot test, are admittedly good in principle, but they fall short in several ways. Thus, they take no note of the candidate's refraction. More important than this, they are only enforced when he applies for a second mate's certificate, so that he may be, and sometimes is, rejected as ineligible after wasting years in training; while ordinary seamen, though constantly employed as lookouts, are not tested at all. Another shortcoming is the absence of provision for repeating the tests at fixed intervals of time. Again, there appears to be no adequate provision for preventing officers who have failed to pass the eyesight test from following their calling, as though they were fully competent. According to the evidence submitted, boys who are colour blind and defective-sighted are still being trained and bound apprentice for the sea, and colour-blind and defective-sighted men are still acting not only as deck hands but as officers and pilots.

With regard to railway servants it must be noted that considerable reforms in the desired direction have been introduced lately. The report of the Committee of the British Medical Association issued in 1892 showed that the test for colour vision employed on fifteen English railways, on nearly all the Scotch, and on more than half the Irish, consisted simply in requiring the candidate to name certain coloured objects. The fallacy of this test has been pointed out over and over again by experts, and by none more emphatically than by the Committee on Colour Vision appointed by the Royal Society. Since that time the Board of Trade has communicated with all the railway companies on this subject, and the correspondence published last year shows that a large number of the companies are willing to adopt, or have already adopted, Holmgren's test. It appears, however, that a good deal still remains to be done. There are still companies which employ no test of any kind and among the others there is no uniformity of practice or of standard. There is no general system relating to periodic re-examinations, fallacious tests are still in operation, and, more important still, many companies, while they have nominally adopted satisfactory tests, entrust the carrying out of these to persons who are quite without the requisite technical knowledge. The Royal Society Committee expressly recommended that the testing should be entrusted to examiners certificated by a central authority, and, further, that the tests in use and the mode of conducting examinations at the different testing stations should be inspected periodically by a scientific expert appointed for that purpose by the central authority. The recommendation of the Committee of the British Medical Association was nearly to the same effect, namely, that the examiner should in every case be a qualified medical man certified as fit for the work by an ophthalmic surgeon. As we have said, some of the railway companies are now doing all that can be desired in this matter, and it seems not too much to ask that the others should be brought into

line with them. Whether this can be accomplished without statutory powers is perhaps doubtful, but we note that a large number of companies have already expressed willingness to adopt any system which the Board of Trade may decide to recommend.

We cannot derive much satisfaction from Mr. Bryce's remark that few disasters by land or sea have been distinctly traced to defective vision. We think, with the *Times*, that he takes too small account of the many accidents for which no other intelligible explanation has been given, and of which this is an extremely likely one. In too many cases the death of the engine-driver or the look-out man has made it impossible to ascertain the cause of an inexplicable oversight, and until lately the point has usually been neglected, even where investigation might have cleared it up.

Whatever be the immediate result of last week's deputation to the Board of Trade, good service has been done by the Committee of the British Medical Association in bringing the matter prominently forward with such care and thoroughness. To Dr. George Mackay, the Honorary Secretary of the Committee, special recognition is due for his untiring labours.

THE INDIAN CANTONMENT ACTS AMENDMENT BILL.

We have stated on previous occasions that much alarm and indignation have been aroused through the length and breadth of India by the introduction of this short Bill to the Legislative Council. Protest has been made, alike by the press and by the medical profession, against the drastic character of its three short sections, but it is the third clause which has chiefly roused our own profession. It is stated that the objectionable measure was forced upon the responsible Government of India by the Secretary of State in an impolitic and autocratic manner. It is not our intention to discuss the politics or ethics of measures of this nature, but rather to warn the public and the medical profession of the grave consequences to the community at large, and the practice of medicine in particular, which would follow if certain proposed enactments should unfortunately become law.

The Bill under discussion is a concrete embodiment of these dangers; and it is therefore with great satisfaction that we are enabled to confirm the correctness of the announcement that the Bill will either be withdrawn as a whole, or that at least its more objectionable parts will not be persevered with. Its abandonment is clear evidence that its authors and abettors saw it was indefensible before the bar of public opinion; but that does not lessen the gravity of the general indictment against them.

The three sections in the Bill are, or were, as follows:

1. Title and extension to the whole of British India at once.

2. Prohibition of the examination, licensing, or regulation of public women in any cantonment.

3. Compulsory examination of women for certain purposes by any public servant forbidden under penalties of fine and imprisonment.

Public opinion in India has declared the first section in its peremptoriness to menace the independence of the Executive Government, who are denied discretion in the application of a new law. The second has been declared unnecessary, inasmuch as compulsory examination is already forbidden under Section 354 of the Penal Code; and by prohibiting the Government of India from making any rules on the subject it would cast a slight and indignity on its executive authority.

But we leave these matters, sufficiently serious in themselves, to be fought out in political quarters, and direct attention to the third clause. This penal clause has no meaning except as a gratuitous menace to the medical profession, and an insult to the medical servants of the State, who, it is implied, will not obey orders except under threat of fine and imprisonment. It was indignantly condemned in the recent Medical Congress and by the profession throughout India.

Mr. Ernest Hart, now on a tour in India, quickly grasped the full significance of the penal proposals and vigorously exposed them; and the Parliamentary Bills Committee of the British Medical Association are prepared to take like action at home, should they be recklessly revived. The full consequences to medical officers of liability to criminal prosecution may not be apparent on the surface, but are by no means deeply hidden.

It is needless to say the treatment of diseases of venereal origin requires careful local as well as general diagnosis; medical officers, therefore, when called upon to prescribe for such diseases in women in cantonments, must, if the treatment is meant to be successful, include in their diagnosis examination of diseased parts, not only at the commencement but during the progress of the treatment; yet, such elementary professional duties towards a patient might prove a snare under the proposed enactment, and lead to criminal prosecution and ruin.

This is no groundless fear. Abandoned women in collusion with designing blackmailers upon false evidence—only too easily procurable in India—would have any unfortunate medical officer within reach at their mercy. A criminal prosecution might then easily be set in motion, and would probably find unscrupulous abettors to aid it. Imagine public servants, trying to do their duty to a patient in accordance with the dictates of ordinary humanity and the moral obligations of an honorable profession, menaced by such detestable possibilities! How could a medical man venture to examine an unfortunate suffering woman, who had come for treatment in absolute good faith, with such a monstrous penal enactment over his head? It is past comprehension how enlightened and humane men could propose such legislation, striking at the very root of all confidence and sympathy between the medical man and his patient. We sincerely trust this deplorable attempt at legislation has been finally shelved; but, if not, medical officers in India may rely upon the united and uncompromising opposition of the profession against it.

There are certain agitators to whom it seems useless to point out that the control of venereal diseases is a most important factor in the health and efficiency of the British Army in India. Such considerations are brushed aside in favour of the settled conviction that it is just and right to inflict pains and penalties on the male victims of these diseases. Now it appears that, with the same callousness, the wretched women victims are to be made to suffer like

pains by this mixing up of the treatment of their diseases with penal enactments, whereby the door of mercy and kindness is to be cruelly closed against them.

"INSANE ON ARRAIGNMENT."

When the youth, Reginald Saunderson, who stood charged with the murder of a woman at Kensington in November, was brought up for trial at the Central Criminal Court last week, he was found insane on arraignment, and was thereupon ordered by the Court, in the usual course, to be detained until Her Majesty's pleasure should be known. There was no attempt whatever to deny the fact that the accused did actually commit the crime with which he was charged; and, indeed, in proof of its commission there was the letter in his own handwriting received by the police a few days after the murder, and beginning, "Dear Sir,—The murder that was committed I did it, just to the right of the door of the gentleman," etc., together with much other evidence in corroboration, so that the only question remaining for inquiry was the question of the mental condition of the accused—a question into which, in a case of murder, it is not in the province of the coroner's jury nor in that of the committing magistrate, nor even in that of the grand jury, to inquire. The accused therefore stood for trial at the Central Criminal Court, and a true bill had been found by the grand jury. It would appear that in the ordinary course the trial would have taken place at the January sessions of this Court, but, in compliance with an application from the prisoner's counsel, it was postponed to the present sessions.

Upon the accused being brought into court the first step in the ordinary course was to "arraign" him—a legal term which Hale, in his quaint diction, tells us "is no other than *ad rationem ponere* (and in French *ad reson*, or abbreviated, *a resn*), that is, to call to account." Before, however, the accused was called upon to plead his counsel stated to the Court that he had received an intimation from the Treasury authorities, who were conducting the prosecution, to the effect that the accused was not in a fit condition to be called upon to plead.

This statement was at once confirmed by the counsel acting for the Treasury, and thereupon the Judge, Mr. Justice Wills, directed that a jury should be impanelled to try that issue. The special statute under which this course is taken is the statute passed in the year 1800, which in the second section enacts that "if any person indicted for any offence shall be insane, and shall upon arraignment be found so to be by a jury lawfully impanelled for that purpose, so that such person cannot be tried upon such indictment," the Court shall thereupon direct such finding to be recorded, and shall order the person so found to be kept in strict custody until the royal pleasure be known. When a person, therefore, is said to have been found insane on arraignment, and to have been ordered to be detained, in consequence, during Her Majesty's pleasure, what is meant is that the person has been found insane in the manner above indicated.

In the case now under consideration, as soon as the jury had been sworn to try the issue whether the prisoner was of sound mind and fit to plead, Dr. Walker, the medical officer of Holloway, was called and examined by Mr. Avory, one of the prosecuting counsel. He said, in the course of his evidence, that at the last sessions, when the case might have been tried, he was of opinion that the prisoner was in a fit condition to plead, but, he went on to say, that since then the prisoner's condition had very much deteriorated, and that at the present time he thought that the prisoner was not in a fit condition to plead, or to give instructions for his defence, and that he was quite unable to understand what was going on.

Mr. Justice Wills, upon this, observed to the jury that he did not suppose they would require to hear any more evidence, and went on to say that he had read the depositions, and that no one who had read them could entertain the slightest doubt as to what the conclusion must be. If the jury desired to hear any more they could do so, but the result would be that the prisoner would be taken care of. Some of the jury having expressed a wish to hear further evidence, Dr. Edgar Sheppard was called. He stated that he had been instructed by the Treasury authorities to examine the prisoner before the previous sessions of the court, and that he had been placed by the Treasury authorities in possession of the facts of the case; and he concluded his evidence by stating that he was quite sure that the prisoner was not fit to plead.

Upon this the jury expressed themselves satisfied, and they found as their verdict that the prisoner was insane and unfit to plead to the indictment and inquisition. Whereupon Mr. Justice Wills made the usual order for the prisoner's detention during Her Majesty's pleasure.

It will be observed that the jury arrived at their verdict upon the evidence laid before them by the prosecuting counsel, although the counsel for the accused stated in the course of the proceedings that the accused had also been examined by other physicians who might all have been called had the jury so wished.

Cases of this description are now invariably taken charge of by the Public Prosecutor, or, in other words, by the Treasury solicitor, who, whenever the circumstances appear to require it, obtains independent medical reports as to the mental condition of the accused, and then takes care that these reports are fully laid before the Court whether they tell in the prisoner's favour or against it. This is in conformity with the mode of procedure which was introduced in the year 1884. In that year the Attorney-General (Sir Henry James), being moved thereto by the Home Secretary (Sir W. Harcourt), instructed the Public Prosecutor (the Treasury solicitor) to take charge of all capital cases and to see that all the evidence, whether for or against the accused, is brought fully before the jury; and, in those cases where the insanity of the accused is alleged or suspected, to cause full inquiry to be made and to secure the attendance of the necessary witnesses. And it was in conformity with these instructions that Dr. Sheppard was engaged by the Public Prosecutor to examine Saunderson in conjunction with the medical officer of Holloway Prison, with the result which the report of the trial shows.

This mode of procedure affords a striking contrast to that which was pursued in Bellingham's case in 1812. Bellingham shot Mr. Spencer Perceval on May 11th of that year. On May 15th he was tried before Sir James Mansfield, Baron Graham, and Mr. Justice Grose. Before he was called upon to plead his counsel applied for a postponement of the trial

on the ground that the prisoner could be proved to be insane if sufficient time were allowed for the production of witnesses, who were then at Liverpool. This application was refused, and the trial proceeded, and the prisoner was sentenced to death, and was executed on the 18th.

Under existing statutes there are four stages at which the question of insanity may be considered, in the case of a person charged with a capital offence :

1. Whilst under committal for trial or under remand (47 and 48 Vict., cap 64, sec. 2, subsections 1 and 3).

2. On arraignment (39 and 40 Geo. III, cap. 94, section 2).

3. At the trial (46 and 47 Vict. cap. 38, sec. 2).

4. After trial and sentence (47 and 48 Vict. cap. 64, sec. 2, subsection 4).

In cases of murder, however, there is great disinclination to interfere at the first stage, because it is the wish that, whenever practicable, the matter should be decided in open court at the second or third stage. In connection with this matter there is one other point which may be noticed. It is only in those cases which are taken charge of by the Public Prosecutor that any absolute certainty can be felt that proper and sufficient inquiry as to the mental state of the accused will be made before trial; and one reason for this doubtless is that, in cases which are not capital, it is considered that if the prisoner should be found after sentence to be insane, he can at any time be so certified, and can then be removed to a criminal asylum. This we say is one reason but it is scarcely a sufficient reason. In the present instance, as we have seen, the Public Prosecutor, being satisfied in his own mind that the prisoner was not mentally in a fit condition to plead, conveyed an intimation to that effect to the prisoner's counsel, and also placed freely at his disposal the evidence upon which that opinion had been arrived at. If it be suggested that a much simpler course would have been to obtain medical certificates of the prisoner's insanity, and upon those certificates to remove him before trial from prison to a criminal lunatic asylum, it must be borne in mind, that in grave cases public feeling is much more thoroughly satisfied by everything being done in open court as in the present instance.

The Belgian Government has appointed a Commission to inquire into the present state of the law concerning the exercise of the healing art in that country, and to indicate such amendments as may seem to be required.

The annual oration before the Hunterian Society will be delivered at the London Institution on February 13th at 8.30 P.M. by Dr. Patrick Manson, who will speak on the subject of the malarial parasite, and give a demonstration.

The first step towards carrying out the new regulations for the publication of the Transactions of the Royal Medical and Chirurgical Society has been taken by the issue of Part I of volume 78, as a paper-covered pamphlet of 88 pages. It is published for the Society by Longmans, Green, and Co. (5s. nett), and contains the first five papers read this session.

ST. GEORGE'S HOSPITAL.

The quarterly board of St. George's Hospital has sanctioned the expenditure of a sum not exceeding £10,000 on further reconstruction and extension works. The present main operating theatre, which has become inadequate for the increasing work of the hospital, will be removed, and replaced by two of similar size provided with all the most modern improvements, and constructed throughout of unabsorbent materials. The floor and amphitheatre will be in white marble terrazzo; the instrument cupboards and other fittings entirely of metal and glass. Anæsthetising rooms and lavatories of similar construction will adjoin each theatre. The works will include an extension of the chapel and board room, and the provision of a more commodious nurses' dining room. A further large expenditure was sanctioned for the rebuilding on an enlarged scale of the Nurses' Home.

CORONERS' INQUESTS IN LONDON.

A deputation is shortly to wait on the Lord Chancellor in support of the amendment of the law relating to coroners' inquests in the county of London. The deputation will consist of the members of the Public Control Committee of the London County Council. There are twenty-one changes sought, six of which have been suggested by the Death Certification Committee. It is hoped to do away with a striking anachronism which still continues in London and elsewhere in the shape of franchise coroners' districts. These are an inheritance from the past and appear now to have no justification whatever.

ABERDEEN UNIVERSITY EXTENSION FUND.

A meeting of the Executive Committee appointed in connection with the Aberdeen University Extension was held in the Town Hall on January 26th. A statement was submitted of the contributions towards the extension scheme up to date. In August, when the Committee last met, and before the issuing of the new appeal, the contributions subscribed were £35,014. The result of the fresh appeal has been disappointing, only £2,043 having been subscribed. The meeting resolved to communicate directly with the alumni who have not yet been reached, or who have not yet responded to the appeal. It is sincerely to be hoped that a generous response may be made by the graduates of the University in order to allow the extension to be completed with all celerity.

THE VENTILATION OF THE HOUSE OF COMMONS.

The opening of Parliament is usually the signal for a series of attacks on the ventilation of the House of Commons, and the present session makes no exception to the rule. We are told in some detail and with authoritative precision that the present arrangements are all wrong, and that the atmosphere of the debating chamber is actually impregnated with sewer gas. Into the general question of the structural plan on which the sanitation of St. Stephen's has been built up, we need not now enter. It was carefully considered by a Select Committee of the House of Commons in 1891, and, after the removal of some obvious defects, was passed as sound by the best hygienic experts. But we are glad to be able to assure our readers that there is no foundation for the present scare, and that our M.P.'s are in no danger of wholesale poisoning by the products of decomposition. For, after a careful review of all the facts, and consultation with Mr. Prim, the able and courteous superintendent of the ventilation of the House, we share his opinion that under no possible combination of circumstances can sewer gas find its way into the air served up for the consumption of our legislators.

DEFORMITY AND MORAL DETERIORATION.

Misfortune, as experience teaches us, does not always strengthen and ennoble a man's character. Irritable intellectual men are not improved by any deformity or disease which handicaps them in life. M. Victorien Sardou, the famous French dramatist, has recently written in the *Chronique Médicale* on two great men of the early nineteenth

century—Byron and Talleyrand—who were none the better for suffering from club-foot. The French diplomatist's infirmity had a great share in making him a man of intrigue. It seems that his dread, not only of the buffets of fate, but of the physical buffets of enemies, was only too well grounded. Under Napoleon, an adventurer of the worst reputation—the Marquis de Maubreuil—extorted, no doubt by threats of violence, some promise from Talleyrand. The promise was something which never transpired, but which seems to have been aimed at the life of the Emperor. After the Restoration, when Talleyrand was present at a royal funeral service, de Maubreuil, reproaching him for having failed to keep his promise, struck him a blow on the face which knocked him down. M. Sardou appears to think that Talleyrand's infirmity may have been the cause of his suffering from similar indignities on other occasions; as a successful dramatist, he must know his countrymen, and if this is his idea of their chivalry of character, we have nothing to say. He is mistaken, however, if he fancies that George Gordon Noel, Lord Byron, was the sort of person that could be kicked with impunity; the noble poet would have found an effective weapon of defence in his club-foot, if he had not preferred to use his fists, as he had learned to do from Jackson, the great Mentor of boxers in the early days of the century. Byron himself boasts that he was a "hard hitter for his height," and cites the testimony of his instructor to his pugilistic prowess. That his deformity was throughout his life a sore sting in his flesh there can be no doubt, and that it warped his moral nature and distorted his outlook on life, no one familiar with his writings—notably *The Deformed Transformed*—will be disposed to deny. The secret of its influence was, however, wounded vanity, not dread of personal violence from those whose feet were not deformed. We have his own authority for this view, for is it not on record that when someone was flattering him about his mental endowments he replied, "If this" (pointing to his head) "puts me above other men, this" (pointing to his foot) "puts me immeasurably below them?"

MEDICINE IN THE FRENCH CABINET.

The new French cabinet includes two members of the medical profession, Dr. Chautemps, Minister for the Colonies, and Dr. Gadaud, Minister of Agriculture. Dr. Chautemps, who was born in 1850, graduated in Paris, and became a member of the Municipal Council of that city in 1884. He was successively Secretary, Vice-President, and President of that body. He became a member of the Chamber of Deputies in 1889, and has been prominent in debates on economic and maritime questions. Dr. Gadaud was elected Senator for the Dordogne department in 1891. He is 54 years of age, and was formerly Mayor of Périgueux. It may be mentioned that there were also two members of the medical profession in M. Dupuy's cabinet, namely, Drs. Lourties and Yiger.

THE LONDON WATER QUESTION.

The Water Committee of the London Council, it is known, have been actively engaged since the appearance of the last report of the Royal Commission on the Metropolis Water Supply in investigating the scheme therein proposed by the water companies to supply the future wants of the metropolis by a large increase in the amount of water abstracted from the Thames and Lee, coupled with the formation of a vast system of reservoirs. The Committee, after searching inquiry upon this point, do not hesitate to say that such a scheme is not the proper method to meet the future wants of London, and that any further capital expenditure on works in the Thames and Lee valleys for the supply of London should be regarded as of a temporary character, and should be restricted to such improvements as may be for the time indispensable. In investigating other sources of supply, they find that the necessary additional supplies as regards quality, quantity, and relative expense can be far better obtained and furnished by taking the water by gravitation from other available sources. In view of the result of their investigations, they will shortly ask the Council to pass a resolution for the preparation of a scheme as soon as possible for the necessary additional supplies from a purer source, with a view to an application to Parliament for necessary powers. When we call to mind the various pollutions which these rivers undergo from laundries, tanneries, breweries, fellmongers' yards, and paper mills, from the floating population on barges, house boats, etc., and last, but not least, the direct sewage and slop pollutions from towns and villages, and effluents from sewage works at various places, the decision of the Committee seems almost a foregone conclusion.

A GALLANT HOUSE-SURGEON.

By the fall of a wall at Bridgnorth recently several cottages were knocked down, several persons killed under the ruins, and one child entombed. The task of extricating this child was one of great difficulty and danger owing to the unstable condition of the ruins. Among those who were present was Mr. W. W. Pitchford, House-Surgeon to the Bridgnorth Infirmary. At considerable risk to himself Mr. Pitchford got down into the cellar of the adjoining cottage, and, mounting the cellar steps, succeeded in cutting a hole through the partition on a level with the child and through this gave her encouragement and administered to her some nourishment, of which she stood in need. At the inquest held upon two children who were killed the coroner spoke in warm terms of praise of Mr. Pitchford's gallant conduct. The greatest praise was, he said, due to him for the bravery he displayed. The jury added a rider to their verdict conveying their thanks to all who took part in the work of extrication, but particularly to Mr. Pitchford.

DERBYSHIRE ROYAL INFIRMARY.

On January 21st a recently framed revision of the rules relating to the constitution of the medical staff and the general administration of this institution was considered and ratified at a special meeting of the governors. The most important change was an increase in the number of the members of the visiting staff, an addition having been recommended of one honorary physician and of one honorary surgeon to the former staff, which consisted of three physicians and three surgeons. Each of these additional medical officers, it was proposed, should, though attending only to out-patients, hold the title of full physician or surgeon. According to the revised rules every candidate for the office of physician must be a graduate in medicine of one of the Universities of the United Kingdom, or a Fellow or Member of one of the Royal Colleges of Physicians of the United Kingdom; and every candidate for the office of surgeon a holder of the diploma of one of the Royal Colleges of Surgeons of the United Kingdom, or a graduate of surgery of one of the Universities of the United Kingdom. It was also proposed to appoint a consulting dental surgeon and a clinical assistant. The alterations, which were almost unanimously adopted, with some modifications, seem to be very liberal and quite free from any reasonable objection from a strictly professional point of view. The revision was made by a mixed committee of medical and lay governors, and the new rules were favourably received, with a single exception, by the members of the medical staff who were present at the meeting. An amendment that the age for retirement should be 60 instead of 65 years, was adopted after an intimation from Dr. Greaves that such change would be acceptable to the medical staff. The revised rules appear to ensure to the medical staff a full and proper share in the administration of this charity. Under these circumstances it is to be regretted that a discordant note was struck by a physician who is much esteemed by his medical colleagues and who has been for many years a loyal and valued

friend of the Derbyshire Royal Infirmary. A proposal made by this gentleman that the revised rules should be submitted for correction and alteration to two experts was defeated by a large majority. Such a result must be considered as satisfactory, as it is difficult to conceive how the opinion of a so-called expert on any matters of internal hospital administration, though perhaps useful in cases of doubt and dispute, could possibly improve on the almost unanimous opinion of lay governors and medical men. It was indeed pointed out by one of the governors that many members of the revision committee possessed such large experience as to render a reference of this kind quite unnecessary. We are glad to be informed that the author of this suggestion felt the force of the arguments against it, and gracefully marked his further confidence in the institution for which he has done so much by a generous addition to his contribution to its funds.

THE DIFFICULTIES OF GENERAL PRACTICE.

THE General Practitioners' Committee, appointed recently by the Council of the British Medical Association, held a meeting on January 15th, at which the subjects to be first considered by the Committee were discussed. The Committee was appointed to inquire into the grievances, wants, and requirements of general practitioners as they are found to exist in the Branches of the Association, and to ascertain in what way the influence and organisation of the Association can be most usefully employed for the amelioration of these grievances, and for promoting the welfare of general practitioners. The President of Council, Dr. Ward Cousins, was elected Chairman of the Committee, on the motion of Dr. Saundby, seconded by Dr. Parsons. The other members of the Committee present were Dr. Bruce Goff, Mr. Parkinson, Mr. Nicholson, and Mr. Wallace. The lists of subjects for consideration and report is a long one, and includes the following subjects: (1) Cheap anonymous dispensaries; (2) midwives; (3) pay wards of hospitals; (4) lack of competent assistants; (5) insecurity of local sanitary appointments; (6) inadequacy and uncertainty of retiring pensions of Poor-law officers; (7) alteration of Memorandum of Association so as to permit funds to be used for medical defence and prosecution of quacks, bonesetters, and prescribing chemists; (8) underselling for public appointments; (9) relations of consultants to general practitioners. The importance of the subjects selected will not be disputed, and many of them undoubtedly press for an early solution. We believe that the Committee are fully impressed by the seriousness of the task before them, and that it is their intention to hold several meetings for the investigations of the subjects before the next meeting of the Council.

THE GENERAL HOSPITALS OF GLASGOW.

THE reports of the three general hospitals of Glasgow have now been published—the Royal, the oldest of the three, which last year celebrated its centenary, the Western, and the Victoria. It is interesting to summarise the main facts of the three reports. During the year the three hospitals accommodated 11 427 indoor patients, and treated 45,197 outdoor patients—a total of 56,624 patients. If to these figures are added those of the Sick Children's Hospital, as we may be considered entitled to do, since, so far as disease is concerned the latter is a general hospital also, an addition of 596 indoor and 6,973 outdoor patients has to be made, bringing the total up to 64,193. It is scarcely permissible to compare this with the population, since the general hospitals of Glasgow draw their patients from a much wider area than the city of Glasgow. Still one may note that, according to Dr. Russell's estimate for 1894, the population is 684,148. The bed provision is a total for the four hospitals of 1 212, or 582 in the Royal, 400 in the Western, 150 in the Victoria, and 80 in the Sick Children's Hospital. The total ordinary revenue of the four institutions was, in round numbers, £46,000, and the ordinary expenditure £62,000, and the excess over the four institutions of ordinary expenditure over ordinary revenue fully £16,000. In all these hospitals great additions or improvements are either in progress or in contemplation. In the Royal Infirmary the reconstruction of the pathological department at a cost of £8,000 is contemplated. In the Western Infirmary a new pathological building, new laundry and washing house, new machinery for heating and ventilating are in process of construction at an estimated cost of £30,000, while new dispensaries and operating rooms are contemplated to cost, with fittings, probably £20,000 more. To the Victoria Infirmary a new pavilion has been added, and an additional ward has been opened in the Sick Children's Hospital.

HOSPITAL FOR INFECTIOUS CASES IN DUBLIN.

THE question of providing a suitable hospital for infectious diseases on a site outside the city has been occupying the attention of the Public Health Committee and the boards of guardians in Dublin. At a conference of representatives from these bodies, the following resolution was adopted:

That, having heard Sir Charles Cameron and Dr. Stafford, Local Government Inspector, and having given the question of the prevention of the spread of infectious diseases every consideration, this conference is of opinion that, in the interests of public health, provision should be made for the isolation of such infectious diseases by the erection of one or two hospitals, to be wholly devoted to the reception of such cases, such hospitals to be erected in some rural district distant from any populous centre, and thereafter no infectious disease to be received into any of the hospitals at present existing in Dublin.

There are two principal hospitals in Dublin—the Cork Street and the Hardwicke—for fever cases. Since they were built their immediate neighbourhood has become more populous; but they are both institutions of high efficiency, and they have done great service on many occasions in stemming the course of epidemics. It is not likely that their work will be interfered with by the proposed new arrangement; but no new hospitals for contagious diseases ought to be erected within the city, and the Public Health Committee seems determined that this shall not be permitted.

A NEW ANTISCIENCE SHRIEKER.

THE *Saturday Review* of February 2nd has an article entitled "The Antitoxin Boom," which must have startled many of those who still read that once famous journal. The discoverers of the new remedy are lumped together under the polite designation of "a gang of foreign medical adventurers;" the treatment is spoken of as "the cure of corruption by corruption," and "a monstrous piece of quackery;" and it is said that "there is no reason to suppose that when the medical and the lay press realise that they have been made tools of to swell the proceeds of foreign quackery, the antitoxin cure will escape the discredit that overwhelmed the Koch consumption cure, Dr. Ferron's (*sic*) cholera inoculation in Spain, the Haffkine method of dealing with this disease in India, or the abominations promoted by that prince of charlatans, Dr. Brown-Séquard." Of serious argument there is hardly a trace—only some juggling with figures and one or two obvious criticisms which have been urged in our own columns and elsewhere ever since the discovery was announced. The rest is mere "swearing at large," as silly as that which the *Echo* and the *Star* are wont to indulge in, and even more vulgar. The *Saturday Reviler* (as John Bright called it) in its better days was often wrong-headed enough, but it would have disdained to rant to the gallery. A *Saturday Shrieker* is a thing to make the judicious grieve. As the article may derive a fictitious importance from its appearance in a periodical which long bore an honoured name, it is necessary to insist on the fact that the *Saturday Review* is not what it was when Douglas Cook was editor, and Lord Salisbury, Sir William Harcourt, and Professor

Freeman were among its contributors. Like Bottom, it has been "translated." It would be waste of time to argue seriously with a writer whose method of dealing with the question is to treat M. Roux's statistics as a kind of arithmetical puzzle and simply ignore the large and ever growing body of evidence from many other quarters. We are accused of "raving about the antitoxin cure;" yet there is hardly anything in the writer's criticisms, such as they are, which he might not have found in our columns. We have all along been careful to check premature or exuberant enthusiasm; we have insisted on the necessity of the greatest caution in testing observations; we have pointed out the numerous fallacies which have to be guarded against in estimating the value of the remedy; and we have published from week to week reports of cases treated with the new remedy in this country, and every particle of evidence bearing on the question which has come to our knowledge with absolute impartiality. If this is what the *Saturday Review* means by "raving," it is possible that it may take its own extraordinary deliverance on the subject to be argument. There is one point in the article on which it is necessary to speak seriously. The reviewer implies that the antitoxin treatment is being exploited by "the gang of foreign medical adventurers" aforesaid for their own pecuniary benefit, and he adds that "a surgeon of eminence has started a fund to purchase a supply of their nostrum." "The price of an adult dose," it is added, "is now 24s., which would work out at about £200 a pint, or about 1,000 per cent. profit on the cost of production." Now the charity that thinketh no evil may be disposed to consider the writer of these outrageous misstatements as only crassly and shamefully ignorant. May we venture to suggest, however, that in future he should follow the advice given to Polonius, and "play the fool only in 's own house." Such stuff can hurt only the paper which gives it the hospitality of its columns. The *Saturday Review*, in conclusion, says it prefers to be "scientific, not humanitarian," but hints at the terrible things it could say if it would on the latter aspect of the antitoxin treatment. Let not our contemporary lay that flattering unction to its soul: in this matter at least it is neither "scientific" nor "humanitarian," unless, indeed, it be scientific to denounce high-minded seekers after truth as vulgar swindlers, and humanitarian to oppose an honest endeavour to mitigate one of the worst scourges of humanity.

THE SICK POOR IN PROVINCIAL WORKHOUSES: TOTNES.

The report of our Commissioner's visit to Totnes Workhouse will be found in another column. This house is built in several detached blocks on the side of a hill, an arrangement which may have its advantage under an adequate staff of officers, but it offers practical inconveniences. There are three nurses, one of them being a man, who is responsible for all the male patients, whether in the "infirmary" (the lowest block), the annexe, or the "hospital," which is divided from the infirmary by the able-bodied block and the intervening gardens, and yet we read in the report of a recent meeting of the Board of Guardians that, in the master's opinion, the male nurse has not enough to do, and that his duties might include the care of the schoolboys out of school hours. We may seek the explanation of this unusual leisure in the fact that all the nurses of the Totnes Workhouse are untrained, and are authorised to rely on "ward tenders," who do much of the nursing, that is, that they do not know how to bestow that constant attendance and watchful care which are required to make the sick comfortable, and that their standard is yet farther lowered by reliance on pauper nurses. The proposed doubling of parts is the bane of workhouse organisation, where the authorities, in country districts at least, have not yet learned that subdivision and definition of duties, and the filling of the posts so defined by specially trained persons, are the secret of efficient and economical working. The sanitary arrangements require thorough overhauling, and more baths are imperatively necessary. Proper provision should also be made for the imbeciles, including suitable means of restraint; they are now allowed to mix with the other patients. We understand that the guardians are at present considering the necessity of further day-room accommodation, and we trust that these other no less urgent matters will shortly receive due consideration.

THE QUALIFICATIONS OF WORKHOUSE NURSES.

The guardians of the Bideford Union either do not understand the proper qualification of a nurse, or they are peculiarly unfortunate in the wording of the advertisement by which they hope to obtain one. For a woman who has undergone a proper training, £20 a year does not seem a too attractive stipend, but we may let that pass. We feel a doubt, however, whether the guardians are really aiming at a nurse, and whether a modern Sarah Gamp may not be in their mind's eye, for not only does the advertisement say she is to "understand midwifery," but she is to "make herself generally useful under the direction of the board of guardians and the matron." This is a term which covers many tyrannies, and possibly is the origin of what, in servants' language, is called a "general." Under it a nurse may be turned into a serving maid, may be made to assist the cook, and pass her time in weighing dumplings, as we have known to happen, may be occupied in bathing the inmates on the "house" side, and may be turned into a sort of assistant labour mistress without authority. For a nurse to have to make herself "generally useful" is for her to become particularly useless as regards her proper function. But then, of course, the Bideford guardians do not want a nurse, for they ask the applicants to state their present occupation!

SMALL-POX IN IRELAND AND SCOTLAND.

We regret to learn that cases of small-pox have occurred in several Irish towns. As we have already stated, the disease has appeared in Drogheda, Dundalk, and Newry, and in the last-named town there have been about a dozen cases. Revaccination is being pushed on, and the people show the greatest anxiety to conform to the recommendations of the sanitary authorities. In Dublin the returns show that the disease is practically stationary, the tendency being rather to a diminution. Nevertheless, 171 cases were under treatment a week ago, and the deaths since the beginning of the outbreak have reached over 100. The Roman Catholic Archbishop, Dr. Walsh, has addressed a letter to his clergy in which he points out the necessity of revaccination, and he has made an order that no child shall be admitted to school during the continuance of the present epidemic who has not been vaccinated, or who has not been revaccinated if 7 years old. In regard to parochial confirmations, he says: "It is hereby made a binding rule of this diocese that during the continuance of the epidemic, and until further notice, no one, child or adult, shall be admitted to any such confirmation, or to the instructions in preparation for it, who has not been vaccinated, or who, having reached the age of 7, has not recently been vaccinated." The effect of this order will be most beneficial, and it is certain that the great crowd of persons who, although they have been once vaccinated are at present unprotected, will be much reduced in numbers. Small-pox has been present in Glasgow for some time. One case was in the Belvedere Fever Hospital on December 8th, 1894, and that number had increased to 4 by the middle of January, and to 10 by the end of that month. Since February 2nd, however, and in the course of only three days 11 new cases have been admitted to the hospital, where there are now 28 cases in all. All the fresh cases are believed to be traceable to a rag store in one of the poorer districts of the city. In Govan 1 case has been reported, and a female tramp from Glasgow has been found affected with small-pox in a model lodging-house in Auchterarder. At a meeting of

the Edinburgh Town Council on February 5th it was reported that there were 350 cases of infectious disease in the city hospitals, of which 25 were small-pox. Only six cases of small-pox were notified last week, and one since mid-day on February 2nd. The present accommodation in the city hospitals is entirely inadequate to their necessities. Thus there were 336 intimations of measles made last week, and not a fringe of these could be received had that been necessary. In addition there were 51 cases of scarlatina; 12 deaths last week were due to zymotic causes.

A SPECIMEN OF THE "NEW HUMOUR."

An indignant correspondent invites our attention to what he calls "an infamous lie" respecting that much-injured innocent, the medical student. In an article by Mr. G. B. Burgin, which appeared in *The Idler* a short time ago, it is stated that students in the dissecting room "may be seen cutting up a specimen and their lunch simultaneously," and the writer expresses wonder that "they don't mix things sometimes." Our correspondent, who lives abroad, may perhaps be excused for not quite understanding the "new humour," which is nothing if not playfully imaginative. It must also be admitted that the new humourist too often seasons his inventions not with Attic salt, but with a coarser home product better adapted to the somewhat dull intellectual palate of the public for which he caters. It would be as absurd to take the kind of thing we have quoted seriously as it would be to treat Mr. W. S. Gilbert's topsy turvy extravaganzas as pictures of real life, or Mr. Oscar Wilde's laborious mutilations of other men's wit as epigrams. Mr. Burgin has, perhaps, been misled by a too literal interpretation of a piece of student "chaff" in Conan Doyle's *Under the Red Lamp*. There is, indeed, a legend that a distinguished professor of physiology, in a moment of profound abstraction, was once about to swallow the dead body of a frog instead of a sandwich, when he was saved from this catastrophe by a vigilant assistant. Even that diligent student of anatomy, Bob Sawyer, who found that nothing gave him such an appetite as dissecting, did not try to make Mr. Pickwick believe that he satisfied the pangs of hunger in the dissecting room. The medical student of the present day is, it is true, grievously burdened with work, and has little time for the amenities of life; still, he respects its decencies. We assure Mr. Burgin and any elderly spinsters whom his little joke may have scandalised that the medical student of to-day contrives, as Falstaff says, to "live cleanly as a gentleman should do." He does not lunch, like a scientific ghoul, among fragments of anatomised humanity, and, for the benefit of other new humourists, we may add that he does not generally sleep on an operating table or shave with a dissecting knife.

AN EXAMPLE TO CITY SHERIFFS.

Dr. Tempest Anderson, J.P., as Sheriff of York, held an official reception on January 16th, at which nearly two thousand persons were present. The *Yorkshire Herald* gives a glowing account of the various attractions provided, one of them being an address by the sheriff, with lantern illustrations, from photographs, of a number of points connected with the past, present, and future sanitary government of the city. The idea is an excellent one, and seems to have been most happily carried out. The lecturer explained the necessity of proper by-laws, framed with due regard to levels, open space around houses, and dimensions of rooms, and showed the disastrous consequences of want of adequate supervision in times gone by. He dwelt forcibly on the importance of preserving and properly utilising open spaces, and prearranging the lines of streets and dwellings in growing suburbs, in order to avoid the blockings of access to future building areas by narrow and misdirected thoroughfares. In the outskirts, where land was still to be had at a moderate price, every new cottage should have a garden of a quarter of an acre, on Dr. Poore's principle that the proper place for the allotment is round the house. Every new house should have three bedrooms, one for the parents and two for the children, boys and girls; and bedrooms intended for two persons ought not to be of less capacity than 1,600 cubic feet. Dr. Tempest Anderson's timely advocacy, in such telling fashion, of modern hygienic principles ought to strengthen the hands of the Corporation of the ancient city, who, it was implied, have not been allowed by the citizens to secure the full sanitary powers which they sought from Parliament.

ACCOMMODATION FOR IMBECILES.

There can be no doubt that the treatment of imbeciles, especially those of the juvenile class, is totally different from that required for the insane, and nothing can be worse for them than to be kept in a workhouse where no education of any sort is given them. Mr. Jenner-Fust, Local Government Board inspector, has made some important remarks on this interesting subject. He found in the course of his visits that the Toxteth Board of Guardians had 82 imbeciles crowded into a space only capable of properly accommodating 61, and that nothing could at present be done to relieve this pressure. He considers it highly desirable that more adequate provision should be made for this afflicted class, since they are not fitting subjects for lunatic asylums, and recommends that a number of boards of guardians should combine in making common provision for them. The first thing to be done is to separate the children from the adults, and to place the former in an institution where they can be educated and trained. To neglect this duty is a short-sighted policy, for not only are the untrained imbecile children of no use in the world, but there is always a fear that they may be led away and develop criminal propensities. If the boards of guardians do not care personally to undertake this duty, then the county council of Lancashire, which has already done so much in providing for the insane, should take steps to erect an institution fitted with appliances for the education and training of the children. With regard to the adults, it is advisable that they should be placed together in one establishment. This has already been done in the metropolitan district with great success; and surely the public spirited men of the north will do everything in their power to provide for this afflicted class in Lancashire.

MEDICAL REMUNERATION.

It is said, "The labourer is worthy of his hire," and in most vocations of life this seems to be accepted as true. When, however, the facts of professional life are taken into consideration, and we estimate by this rule the ordinary earnings of practitioners of medicine, it is necessary to confess, either that medical skill and knowledge are worth very little, or that gross injustice is too frequently meted out to members of our profession. From every side come reports of continual lowering of medical fees, and while in the case of the working classes the public have been treated *ad nauseam* to comments and articles on the "living wage," we look in vain throughout the daily press for any sympathy with the underpaid doctor, or for timely admonition, that it is hardly in accordance with public policy that the doctors of the community should have their remuneration reduced below this. One of the most disheartening sides of this state of affairs is the apparent apathy displayed by many practitioners, who would be thought to be gravely affected by the lowering of fees, and in this alone is the chief extenuation of the callousness of the public; for the latter might naturally urge that if members of the class most affected seem to be satisfied, there can be little occasion to agitate for reform. This apathy and apparent content can only be accounted for on the theory that such individuals have other sources of income, which enable them to take starvation professional wages without demur. Two reports of friendly societies lie before us; one is from the *Lincoln Gazette* of January 26th, and refers to the

Oddfellows' Medical Institute. Dr. Johnston, the senior medical officer, appears to be quite satisfied, and gives a glowing description of the present state of the institution. Among the details he mentions that the medical officers (two in number) and dispenser have received between them £500 17s., and that the drug bill was £161 5s. For this remuneration 6,934 visits appear to have been made in 1894, 24,173 consultations were given to members, 288 accidents attended to, 297 teeth extracted, and 31,431 prescriptions dispensed. It can hardly be denied that the members of this Institute have had their money's worth, but when £500 is the full remuneration paid to two qualified practitioners for all this work, and out of this has to be deducted the salary of the dispenser, we cannot congratulate the medical officers on the high estimate placed on their services, judging from the rate of payment, particularly when we are told that the bare cost of the drugs supplied comes to nearly a third of this sum. Still more gloomy is the story told by the *Ardrossan and Saltcoats Herald* of January 25th. From it we learn that Dr. Beveridge, as a result of an agitation amongst the members of the "Hurlford Fig Tree Lodge of Free Gardeners," has just intimated his willingness to accept members at 2s. per annum instead of 2s. 6d., which had previously been paid. "Everybody seems pleased," says our contemporary, "with the concessions so willingly made by Dr. Beveridge."

SYMPHYSIOTOMY IN ENGLAND.

At the annual meeting of the Obstetrical Society last Wednesday, Dr. Walter Griffith showed a patient upon whom he had performed symphysiotomy on October 19th, 1894, at Queen Charlotte's Hospital. She was 32 years of age, and a primipara. There was pelvic contraction, the true conjugate being 3½ inches. The patient made an excellent recovery, and when exhibited was able to jump down from a chair. She was in very good health, and perfectly able to attend to her work. Dr. Griffith commended Tarnier's practice, in so far as the distinguished French obstetrician's method of performing symphysiotomy was concerned, but did not agree with the theory that the forceps and induction of premature labour ought to be discarded.

THE GERMAN MEDICAL CONGRESS.

The value of antitoxin serum in the treatment of diphtheria is one of the principal subjects set down for discussion at the German Medical Congress to be held at Munich from April 2nd to 5th. The subject will be introduced by Professor Heubner, of Berlin, and Professor A. Baginsky, of Berlin, will read a paper on the subsidiary effects of the serum. The other subjects selected for special discussion are the therapeutics of iron, to be introduced by Professors Quincke, of Kiel, and Bunge, of Basel; and the pathology and treatment of typhlitis, to be introduced by Professors Sahli, of Bern, and Helferich, of Greifswald. An exhibition of apparatus, instruments, and preparations will be held during the Congress.

CORONER'S INFORMATION.

Difficulties frequently arise between coroners and medical witnesses. The fee payable to a medical witness for giving evidence at a coroner's inquest is not large, and the trouble involved and time wasted may be considerable. Many practitioners, therefore, are glad to escape the duty of attending, when they can do so; but to others the fee, though small, is a consideration. It is the duty of a coroner to hold an inquest in all cases where the cause of a death is not apparent, and where there may be any reason to suppose that there has been or may have been any suspicious circumstances attending such death. It is also his duty, as a public official, to be saving of the public money, and not to waste it by holding unnecessary inquests. An informal preliminary inquiry is consequently often held by the coroner or his officer, in order to determine whether an inquest is to be held or not; and for this purpose the officer collects such information as he can from the various people who are supposed to be able to give it; this practice is no doubt convenient, but it is not recognised by law. The coroner's officer has no more right to demand information from a potential witness than a solicitor's clerk has when he serves a subpœna. Both often obtain the information they want, either because the person interrogated thinks he is bound to answer, or because he has no objection to telling what he knows; but anyone is at liberty to refuse to say anything till such time as he is regularly brought into the witness box. Medical practitioners who would prefer not being obliged to attend as witnesses may sometimes save themselves time and trouble by explaining to the coroner's officer that the circumstances are such as to make an inquest unnecessary; but if they consider that their information should properly be given in the form of sworn evidence, they need not tell the officer anything, and the coroner is exceeding his duties and his powers if he makes any reflection on their conduct in so keeping their own counsel. A medical practitioner who attends a man in his last illness has the duty thrown upon him by law of giving a certificate as to the cause of death. Where he is able to give such a certificate no case for holding an inquest, except under very special circumstances, can possibly arise. It is only where there is no certificate, either because the medical attendant finds himself unable conscientiously to say what the cause of death really was, or because no doctor was in attendance, that any question as to holding or not holding an inquest ordinarily has to be considered. Where the medical attendant has declined to give a certificate there must usually be at least a *primâ facie* case for inquiry, and it should be for him, and not for the coroner, then to determine whether the conclusions derived from his observation of the case are to be given privately to the coroner or to the public through the jury, and so probably through the press. All medical men who have attended a suspicious case have practically in their own hands the decision of the question, inquest or no inquest. Public security demands the fullest investigation in all cases where there may be any suspicion of foul play, and it would be a misfortune if it should ever be supposed that such an investigation had been burked by a private inquiry by the coroner, by which the holding of a regular inquest had been avoided. In cases where a certificate of death has not been given, it is generally more desirable that medical evidence showing that the death was natural should be given in public.

THE PAST AND PRESENT PREVALENCE OF LEPROSY.

About a year ago a number of questions on subjects connected with leprosy were proposed by a subcommittee appointed to deal with the residue of what was known as the "Prince of Wales's Fund for Leprosy Investigation." Certain prizes of moderate amount were offered for the best reports on the subjects named. Ten essays have been received, and we understand that some of them are considered to be of very high merit. In the essays sent in, seven out of the ten questions proposed have been dealt with; three of the essays discuss the topic of the decline and final extinction of leprosy in the British Isles, and two of these treat the subject at great length, and supply much new information. Essays which are also considered to be very valuable have been received on leprosy in Iceland, at the Cape, in Australia, and in China. The adjudicators, Sir Joseph Fayrer, Sir Guyer Hunter, and Mr. Jonathan Hutchinson, will, we understand, probably make their award at an early date.

Dr. William Slimon, of Bow, E., has been placed by the Lord Chancellor on the Commission of the Peace for the County of London.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

THE ANTITOXIN TREATMENT AT THE METROPOLITAN ASYLUMS BOARD HOSPITALS.

WE last week published a summary of the report presented to the Council of the British Institute of Preventive Medicine by Dr. Armand Ruffer, its Director. This document included reports from the medical superintendents of various hospitals of the Metropolitan Asylums Board to which antitoxin had been supplied by the Institute, giving the results of its use in cases of diphtheria during the months of December, 1894, and January, 1895. The total number of cases dealt with in these reports amounted to 268, but the reports admit neither of comparison among each other nor with the reports from other hospitals.

We believe that up to the present—in fact, until the Royal Colleges are prepared to supply the serum—the various medical superintendents have used this mode of treatment, as they would any other therapeutic method, on their own responsibility, acting in accordance with their general professional duty of doing their best for their patients, and that the Asylums Board does not accept any responsibility in the matter until the serum from the Royal Colleges is brought into use.

We venture to urge that some central organisation should be at once established with the object of ensuring that each observer shall note the same points, and shall record them in the same manner.

At the last meeting of the Metropolitan Asylums Board, it was resolved that it be referred to the General Purposes Committee to consider a scheme for proper statistical returns as to the results of the treatment in the Board's hospitals. It seems a pity that the preparation of such returns should have to wait until the official serum is ready. The Asylums Board has, with most praiseworthy independence of hostile criticism, decided that the sick poor in its charge shall have the benefit of new discoveries. But besides the treatment of its own sick, the Board owes something to the public. No organisation in the world should be able to give so quick an answer as to the value of a mode of treatment as the Asylums Board. We would urge that at the earliest possible date uniform statistics should be collected, and should be published month by month, giving for each hospital the numbers treated, the age distribution, and the mortality for each age group. The following are some of the points on which information is required, and although not exhaustive, is offered as a compromise between the schemes too elaborate for practical work and those more sketchy plans which would be of but small scientific value:

The results of bacteriological examination.

The source of the serum used.

The day of the disease on which the treatment was commenced.

The date of each administration and the quantity given.

The alterations observed in the membrane, the pulse, the temperature, and the general condition, and the time when such alterations occurred.

The date of tracheotomy or intubation if required.

The date and character of such complications as erythema, joint pains, albuminuria, hæmaturia, and of such sequelæ as paralysis.

Post-mortem condition, especially of kidneys, in all cases which die of diphtheria.

To some it may seem that the registration and transmission to the central authority of such details is a heavy burden to lay upon men whose strength and energy are taxed to the uttermost in dealing with the desperate cases thrown upon their hands in times of epidemics. To this we would answer, clerical help must be provided. If it is worth while to apply a treatment, it must be worth while to know whether that treatment is successful. So far as we can see, the results are good. Of this we want to be sure, and every case treated and not recorded is in this respect wasted to the world.

CARLISLE FEVER HOSPITAL.

XLIII.—DR. JAMES MACDONALD sends us the following notes of a case of diphtheria treated by serum antitoxin under his care and that of Dr. Lockie.

H. F., aged 26, was admitted on July 30th, 1894, on the second day of illness. There were small patches of membrane on both tonsils, tending to spread, considerable œdema of the uvula, enlargement of the cervical glands, and much discomfort in swallowing. The pulse was 80, temperature 99°.

On July 31st, 9 A.M., the pulse was 72 and the temperature 99·2°. The throat condition was much as above, with, in addition, some filmy exudation on the right anterior pillar of the fauces; the urine contained a trace of albumen. Aronson's antitoxin (mxv) was injected; the subsequent course of the temperature was as follows: 11 A.M., 99.2°; 12 noon, 98.4°; 1 P.M., 98 6°; 2.30 P.M., 100°; vespere temperature 100.6°, pulse 70; albumen was absent from the urine; there had been some spread of deposit on the left tonsil; the œdema of the uvula was much greater, but the patient stated that he felt much more comfortable.

On August 1st the patches were disappearing, but there was still considerable œdema present. The pulse was 60 and the temperature 99°; the urine did not contain albumen. Aronson's antitoxin (mxv) injected. Subsequent course of temperature: 11 A.M., 98°; 1 P.M., 98.4°; 3 P.M., 99.4°; 5.30 P.M., 99°; vespere pulse 60, temperature 99.8°.

August 2nd. General improvement. Some shallow excoriations appeared on the anterior pillars of the fauces, and persisted till the 8th, when the throat was quite clear; no albumen during this period.

August 10th. On this date a return of albuminuria was noted, in quite appreciable amount, lasting till the 17th, when it disappeared. On the last mentioned date palatal paralysis was observed, a troublesome condition which persisted till September 27th, when convalescence was established. Treatment both topical (boracic spray) and constitutional (iron) was also employed from time to time.

The injections were given on the third and fourth mornings of the disease, and it is noteworthy that each injection was followed by an initial fall of temperature, succeeded by a moderate rise towards evening; that the effect on the local lesion was not striking, and that albuminuria which was present prior to the first injection disappeared after the injection, to reappear again in ten days.

The sequential paralysis confirmed the diagnosis.

XLIV.—Dr. WILLIAM HARDMAN (Blackpool) sends us the following report of a case:

R. P., a farmer's son, aged 14, was in his usual good health until January 8th, 1895, when he was seized somewhat suddenly with stupor, headache, faintness, and general and severe *malaise*. Next day he was worse. On the 10th he also vomited everything, and was constantly delirious. In addition his right lower lip was observed to be swollen a little. I saw him at 8.30 P.M. of that day. He was evidently very ill; constantly delirious and "seeing things;" very restless; trying to get out of bed, etc. The temperature was 104°, the pulse 100 and markedly dicrotic. On examining the lower lip, which was swelled, a diphtheritic patch of the size, but not the shape, of a shilling was found on the inside. It was quite insensitive, and he had no pain. There was no sore throat and no other patch. I prescribed salicin g. x 4tis horis. Next morning (the 11th) he was worse and the patch was larger. Sordes were showing on the teeth and lips. I cauterised the patch with concentrated carbolic acid, and administered sod. salicylate with tr. sumbul every hour. 8 P.M. Temperature 102.3°; no sweating.

January 12th, 9.30 A.M. Temperature 98.2, pulse 108. More dicrotous; breath and body smell very offensively. Patient no better, pulse weak, more dicrotous. Port wine 3j 4tis horis. Urine 1014. Distinct trace of albumen. Salicylate of soda 4tis horis. 9 P.M. Temperature 100.3°. Another small patch on the inside of the cheek. No extension of the original patch; some snuffling and obstruction of nose; delirium; subsultus.

January 13th, 10.30 A.M. Temperature 102.4°, pulse 108. Tongue quite dry, obstruction of nose worse, pulse very weak,

hands almost cold; urine, one-third albumen. Add tr. myrrhæ to mixture; *B. p.* hyd. c. cret., gr. ij. 4tis horis. 8.30 P.M. Temperature 101.3°. Discharge from nose, urine very smoky, no rash nor itching of the skin.

January 14th, 9 A.M. Temperature 101.5°, pulse 134. Patient worse. 8.30 P.M. Complained of slight sore throat; right posterior pillar of the fauces, tonsil, and part of velum covered with membrane, and there was also some on the pharynx extending upwards out of sight; urine almost black; tongue dry, baked looking; delirium, etc., as before.

January 15th, 8.40 A.M. Pulse 128, respiration 38, temperature 101.4°. Worse; subsultus constant; semicomatose; aphonic; croupy stridulous breathing. Urine: albumen one-third. The disease had evidently extended to the larynx. The boy was of rather a dark colour. I injected 10 c.cm. of antitoxin into the back and the same amount into the abdomen. 8.30 P.M. Temperature 103°, pulse 108, respiration 32. All medicines were stopped when the injection was made—in fact, the night before.

January 16th. Temperature 101.4°, pulse 104. The patient had had a much better night. He was quite conscious; delirium gone: stronger; still aphonic and stridulous; membrane on the roof of the mouth and fauces; tongue not so dry, and cleaner.

January 17th. Temperature 103°, pulse 102, respiration 28. Not a bit delirious; flushed; voice returning; has hawked up a good deal of dirty, stringy, shreddy stuff from the throat and larynx. The membrane has disappeared from the fauces and roof of the mouth; tongue nearly clean; belly, as all along, somewhat tumid; no enlargement of splenic dulness; no glandular enlargement in the neck; lung sounds normal. R salol gr.v 4tis horis.

January 18th, 9 A.M. Pulse 100, temperature 102°, respiration 28. Better; urine normal in colour; still a considerable amount of albumen; tongue moist, clean; nose quite free now; hardly any bad smell now; no stridor; pulse not dichrotous; no delirium. Boy sleeps much better. I injected 10 c.cm. antitoxin.

My records for January 19th and 20th have been mislaid, but there was again a sharp rise of temperature as after the first injection.

January 21st. Temperature 103.5°, pulse 104; improving.

January 22nd. Morning temperature 104.2°; 8.30, 100°; pulse 92.

January 23rd. Temperature 102°.

January 24th. Temperature 100.6°. After this became normal, and convalescence commenced; appetite enormous. Examined urine a day or two after; quite free from albumen.

Remarks.—A somewhat irregular form of the disease, but a very malignant case. The patient was as weak and ill the third day of the disease as if he had been ill weeks. The pulse was as dicrotous as the third or fourth week of a bad typhoid. There was not the slightest glandular enlargement. The case occurred in an isolated village, and there is not another case there. The delirium ceased soon after the first injection, the dicrotism of the pulse soon after. The temperature rose smartly after each injection, but he rapidly improved in spite of this. I was much impressed with the active stimulant or restorative effect of the injection, and attribute the rise of temperature to this. Dr. Armand Ruffer reports on the specimens of membrane and hawkings I sent him: "Loeffler's bacilli in large quantity." Therefore the nature of the case is beyond dispute. In conclusion, I desire to express my grateful thanks to the British Institute of Preventive Medicine, through whose generous co-operation the boy's life was probably saved.

ANTITOXIN IN DIPHTHERIA.

Mr. William Frazer, F.R.C.S.I., M.R.I.A., etc. (Harcourt Street, Dublin), writes: This disease is fortunately not of frequent occurrence in Dublin. The first case I met for some time was a boy aged 5 years. It was severe from the onset; tonsils and uvula thickly covered with tenacious exudation, throat much swollen externally from ear to ear, pulse above 140, and in fact a most unpromising attack from its commencement. I used perchloride of iron freely locally, and until I could obtain antitoxin serum from the British Institute of Preventive Medicine through Messrs. Allen and Hanburys, and feel greatly indebted for its speedy transmission. My friend Dr. Myles, of this city, saw the little patient with me. We injected 10 c.cm. in the morning and 7 c.cm. same evening. After this the child steadily improved, and is convalescent. I believe this is the first occasion that antitoxin was employed in Dublin, and nothing could be more successful or satisfactory than its effects.

AFTER-EFFECTS OF THE REMEDY.

Dr. Ganghofner (*Prager med. Woch.*, Nos. 1-3, 1895) in a number of cases has observed urticaria, erythema (on the seventh to ninth day after injection), pains in the limbs, slight fever; albuminuria, in his experience, is not more frequent in cases in which serum is used than in others. In not one of the 33 cases treated with serum on the first two days of illness did albuminuria occur. This seems to Ganghofner to show that the timely use of the serum actually prevents renal complications.

In the *New York Medical Journal* of January 12th Dr. Lindsay Porteous reports 2 cases in which the injections caused urticaria; in one of these (a man between 30 and 40) there were extremely severe pains in the limbs, lasting some days. He mentions another case in which a girl, aged 16, was injected by way of prophylaxis; on the fourth day after injection she was attacked with a small red rash, which caused great irritation and continued a few days. Porteous thinks it is not any poisonous ingredient in the serum of certain horses, but some idiosyncrasy on the part of the patient, that is responsible for the secondary effects. The amount of the serum has nothing to do with the production of rash, etc. His opinion is that a smaller dose should be given at a time, but given more frequently, thus keeping up the antitoxic action continuously, and reducing the pain of injecting a large quantity at once.

In the New York *Medical Record* of January 19th Dr. A. Seibert reports a case in which some after-effects of a kind hitherto, as far as he knows, unrecorded, followed the use of the serum. The patient was a girl, aged 6½. On the second day of illness 20 c.cm. of antitoxin, prepared in the New York Pasteur Institute, were injected, and the same quantity on the following morning. Other treatment was used at the same time, and the child was practically cured in three days. The bacteriological report of the Health Department stated that Loeffler bacilli were present. Nine days after the injection, and five days after apparently complete recovery, a rash came out on the face and extremities, in some places resembling measles, in others scarlatina. Two days later this rash had disappeared, but there was high fever (104.9° F.), with nausea, chill, headache, and general *malaise*. Posteriorly to the sterno-mastoid large numbers of hard, swollen lymphatic glands could be felt between the deeper muscles of the neck. There was no succulent infiltration of the tissue around the lymphatic glands, but great tenderness, and the head was kept in an opisthotonic position. The throat was absolutely clean; there was a trace of albumen in the urine. The infiltration of the cervical glands began to subside on the following day, but a second febrile attack occurred a day later, and a second erythematous eruption appeared with pain in the wrists, knees, elbows, ankles, and hip; the joints were tender and slightly swollen, but not reddened as in acute rheumatism. All these symptoms ceased within two or three days. The secondary effects lasted altogether seven days. Seibert thinks the two eruptions and the other symptoms were due to the injection of two doses of 10 c.cm. of antitoxin within twelve hours. He has no information as to the relative strength of the New York preparation, but thinks the 20 c.cm. injected were much more powerful in their after-effects than Behring's weakest serum (No. 1). In 14 other cases which Seibert has treated with antitoxin no after-effects appeared.

THE ANTITOXIN TREATMENT ABROAD.

France.—On and after February 10th the Pasteur Institute will supply prepared serum to pharmaceutical chemists, who, according to law, have alone the right to sell it to the medical profession and the public. In future, therefore, the serum will be procurable only from the chemists. The serum required for the treatment of poor patients will be supplied gratuitously in Paris through the machinery of the Assistance

Publique, and in the provinces through that of the similar organisations established by law.

Belgium.—On January 17th the first supply of serum was obtained in the serotherapeutic service of the Parc Léopold, Brussels, from horses which had been in process of immunisation since November 17th, 1894. The serum, when a sufficient supply is available, will be distributed gratuitously to members of the medical profession who may wish to use it. The Provincial Council of Liége has placed at the disposal of the Permanent Antitoxin Committee a sum of £200 to be applied to the organisation of a service for the distribution of serum to diphtheria patients in the province. On the return of Drs. Barbier and Malvoz from Paris, where they proceeded at the request of the Committee to study the method of preparing the serum at the Pasteur Institute, two horses were at once purchased and immunised. The serum will be supplied gratuitously, but the Committee "counts on the generosity of well-to-do persons who employ the serum." One tube will be supplied to any medical practitioner on demand, but all requests for a further supply must be accompanied by specimens of membrane from the patient's throat, and no serum will be sent unless the bacteriological test gives a positive result.

Austria.—Dr. Pertat (Pathologist to the Municipal Hospital at Trieste) in discussing Dr. Germonig's paper, an abstract of which appeared in the British Medical Journal of February 2nd, said that in the last three months he had made 82 necropsies on persons dead of diphtheria. About 30 of them were treated with Behring's fluid. From the pathological conditions found he considered the present epidemic a very severe one. From the continuance of the membrane from the fauces to the trachea in the great majority of cases not treated with Behring's serum, and the fact that in the cases treated with the antitoxin which afterwards died he never found diphtheritic membrane in the trachea, he was able to tell from the anatomo-pathological appearances when injections had been made during life. The greater worth of this fact was seen in November, when there was a want of serum, the former gravity of the cases, and the diphtheria of the trachea and fauces again appeared. He was not yet in the position to reply with certainty to the question as to the cause of death in patients treated with the serum. One can believe the impossibility of cellular reintegration if the damage of the cells in the tissues was very great, the serum only being able to neutralise the toxin, but not to regenerate the tissues or to neutralise the deleterious actions of other micro-organisms which associate themselves with the first pathogenic invasion and follow in their own soil. On the other hand he had not observed in the organs any special damage which from its great gravity or frequency could arouse the suspicion of a connection with the treatment; this was accentuated especially in the kidneys and the place of injection.

Dr. von Liebmann said it did not seem to him to be mathematically proved that the Loeffler bacillus was the specific pathogenic agent of diphtheria. If the serum, through some unknown mechanism, had a therapeutic value, he did not think in the present state of the question it should be used for immunisation.

Dr. G. Fano had had 98 cases of diphtheria under his care in 1894; he treated 19 of these with Behring's fluid, and there was only 1 death. The greater number of these cases were grave, because on account of the scarcity of the serum the mild cases, with very few exceptions, were treated without. He had not observed any bad consequence from the use of the serum. He thought that the multiform exudative erythema, the urticaria with fever, pains in the joints, and prostration, were not derived from the immunising substance contained in the serum, but from other heterogeneous substances, which perhaps in the future would be eliminated. He concluded with Virchow's words that "it was the duty of the physician to treat diphtheria with antitoxin."

Russia.—The St. Petersburg Hospitals Commission has expressed a unanimous opinion in favour of the serum treatment being employed in the hospitals of that city, and the necessary steps for the purpose have already been taken. Careful observations of the effect of the treatment are being made in the clinics of Professors Filatoff and Tscherinvff and in the St. Wladimir Children's Hospital. Dr. Gabritschevsky, who worked for some time in Paris under Dr. Roux, has undertaken the preparation of the serum in Professor Tscherinoff's Bacteriological Laboratory.

Canada.—The *Montreal Medical Journal* for January complains that duty is charged on antitoxic serum imported into the Dominion. A few of the first importations were admitted free, but the officials have decided that a duty of 50 per cent. shall be levied in future. Our contemporary goes on to say: "The taxing, and that heavily, of nearly all instruments, appliances, and apparatuses used in the investigation and treatment of disease is a matter that has been repeatedly brought to the notice of the Canadian Government, but without any result. Such a tax is a great hindrance to the advance of the profession. It is not only felt by practitioners in their private work, but also by hospitals. All suffer—the rich as well as the poor."

THE COLONIAL PETITION OF RIGHT.

Our readers will remember that we have from time to time referred in the British Medical Journal to the case of Dr. H. Lionel Smith against the Government of Western Australia, arising out of a most unjustifiable act, by which the former Governor of the Colony dismissed Dr. Smith from a Civil Service appointment upon a charge of the grossest professional misconduct, now admitted on all hands to have been without foundation. After long delay and accumulation of costs, Dr. Smith secured a verdict in his favour from a Colonial jury, which the Colonial Government, however, sought to set aside by the cool assertion that whether they were right or wrong, a civil servant could claim no redress against the executive. Upon this high prerogative ground they appealed to the Chief Justice of the colony and its Supreme Court, but without success. The Colonial Government resolved to appeal in the last resort to the Judicial Committee of the Privy Council, but in view of the hardships that had already been inflicted on Dr. Smith by dragging him for years from one court to another, they were very properly put on terms by the Privy Council to pay in any event the costs incurred by Dr. Smith in defending the final appeal.

It is a curious example of the law's delay. The wrong done to Dr. Smith was in 1888, and his ultimate petition of right was presented in 1889, but the verdict was only obtained in September, 1891. The decision of the Supreme Court of the Colony was delayed until January, 1893, and the decision of the Privy Council was not announced until the beginning of the present month. The result of the appeal has been to bring about a declaration of the most uncompromising character by the highest tribunal, that as a general rule all servants of the Crown hold their offices absolutely during the pleasure of the Crown, and that even the Colonial Office regulations—upon which, in our view of the case, Dr. Smith relied—give colonial civil servants no remedy whatever against any dismissal, however iniquitous.

The Privy Council has decided that if a Civil servant in a Crown Colony is wrongly dismissed he can do nothing whatever but appeal to the Secretary of State—an appeal which may at any moment be rendered practically hopeless if the high officials of the Colonies choose to send a biassed statement of the case through the channels open to them. Where there is representative Government in the Colony even this independent tribunal is not available, and there is apparently nothing to be done but to agitate in the Colonial Parliament—a course as obviously futile as it would be for a discharged Civil servant to attempt to raise a debate in the House of Commons.

The result is, so far as Dr. Smith is concerned, that he obtains no redress, and will have to pay his own costs of the Colonial proceedings, although he is relieved from the costs of the appeal. He has cleared his character of the imputation of misconduct, but he will not get the damages the jury awarded him, nor, so far as we understand, any other form of compensation or redress. We do not hesitate to say that, although this result must now be taken to be according to the law of England, it is, both in its public and in its private bearings, a grave scandal, to which we invite the serious attention of Lord Ripon.

At a previous stage, Lord Ripon courteously replied to our inquiries by a statement in which, without going into the

case so far as it was *sub judice*, he indicated the view that at least those civil servants, medical or otherwise, who hold permanent, as distinguished from acting appointments in the Colonies, were entitled to the protection of the Colonial Office regulations.

It now appears by the judgment delivered by Lord Hobhouse that this is not the case. We are interested in the question not merely by reference to this case, but by reference to the general position of the large number of medical men whose livelihood in their colonial homes is largely dependent upon the tenure of official appointments hitherto supposed to be secure from arbitrary determination.

Without going into any personal questions suggested in the present case, it is perfectly well known that the executive officers of Colonial Governments are not always above the suspicion of personal rancour and partisanship, and that in these comparatively small communities, cliques and individual quarrels assume importance. We venture to appeal to the Colonial Secretary to issue some distinct statement as to the security of tenure of medical or other officers holding colonial appointments. That they can only hold them during good behaviour is admitted, but that they should be subject to the absolute caprice of a Colonial Secretary or an Acting Governor is a state of things which no one can consider tolerable.

FOUNDATION OF AN INDIAN BRANCH OF THE NATIONAL HEALTH SOCIETY.

A drawing room meeting was held at the residence of the Lieutenant Governor of Bengal, Calcutta, on January 2nd, for discussing means for diffusing sanitary knowledge among the women of India, when it was decided to establish a branch of the National Health Society. There were present several native gentlemen of rank and note, and an unusually large number of native ladies. Among the European ladies present were Lady Elliott, Mrs. Macpherson, Mrs. Douglas White, Mrs. Macgregor, Dr. Staley, Mrs. Donaldson, Mrs. Grant, and others.

Sir Charles Elliott, in opening the proceedings, said it was very gratifying to Lady Elliott and himself that the invitation had been responded to by such a large assembly. He then introduced Mr. Ernest Hart, asking him to explain the constitution of the English Society, of which he proposed to establish a branch, and the nature of the assistance required for carrying on its work.

Mr. Ernest Hart, who was warmly received, said that it gave him the greatest satisfaction to be able to put before so influential an audience, gathered together in so important a house as Belvedere, and under the auspices of the well beloved and noble ruler of the Province and of Lady Elliott, who has been the life and soul of this movement, a brief statement of the work done by the National Health Society in England, and the manner in which it had been done, and the hopes which the Society entertained in regard to India. Before taking any decided steps they had had the advantage of the advice and assistance of persons occupying prominent positions in India, and especially of some ladies who had worked here practically. The people of England had proceeded on the principle of self-help, and of not leaving everything to officials. That principle had actuated the National Health Society, of which it was now proposed to establish a branch. This Society commenced from very small beginnings, and the first thing which it undertook was the writing and revising of publications, cheap and simple, small tracts on great subjects, penny documents, sometimes halfpenny documents, intended for circulation on the larger scale either by purchase or gift. Among other subjects, these writings dealt with pure water, how to obtain it, what it does, and the mischiefs done by impure or polluted water. This was a great subject with the people of England; but it was one of far greater moment in India. Mr. Hart said he had been reproached with having a policy of great expenditures, but really the policy which he urged upon the meeting and which he desired to have repeated in every village in India, was a very simple matter, which might well be named the policy of the tea kettle. If they could but bring home to the minds of every villager and every house mother, every magistrate and every priest the vast importance of such homely measures as boiling their water and boiling their milk they would render an inestimable service to the country. It was annually reported in every public document as to the health of Bengal that whereas in the great undrained plains the people were weak, pallid, suffering from liver complaints, and perishing by hundreds of thousands from ague and other diseases, in the gaols, where they occupied the same position except that the place was better drained and better managed as to water supply, etc., the great mass of that mortality ceased. In some districts in Bengal there were as many as 55 deaths per 1,000 annually from malarious fevers, while in the gaols there were but 2 deaths annually among an average population of 4,000. Practically, therefore, the whole of that mortality could be stopped by boiling the water and draining the land. That was, however, only one sort of tract. There were many others on every side of the health question, an abundant series of which he had brought out with him. He did not, however, consider that they would all be suitable for their purposes here, they would require revision and adaptation to the circumstances of life in India, and probably this would be one of the first works undertaken by the Society. This would require funds, and it would also require the practical cooperation of those acquainted with the varying conditions met with in different parts of the country. Mr. Hart concluded his interesting and instructive address by hoping that this Society, commenced under such favourable auspices, had a great future before it.

Sir Charles Elliott then read the following resolutions, which were taken together:

That this meeting approves of the work done by the National Health Society of England, and approves of the proposed extension of it o India for the spread of health knowledge among all classes of the population.

That this meeting considers that European and Indian ladies can render good service to the community by taking part in the work, and that it is desirable that mixed representative committees be formed for the purpose in Calcutta and other centres.

That a preliminary committee for Bengal be now formed, with power to add to its number, and to adopt a permanent constitution to raise funds to carry on the work, such committee to include Lady Elliott, Surgeon-Lieutenant-Colonel Harvey, Drs. Joubert, Simpson, and Gregg.

Dr. Simpson supported the resolutions, and heartily advocated the propagation of information and knowledge in sanitary matters in the homes of India, whatever might be done by municipalities or by the Government, but the main thing was private sanitation and the personal hygiene of the home.

After speeches by various gentlemen present, several of whom stated that the proposal to boil the water was but the revival of an old Oriental custom, the resolutions were put and carried by acclamation.

The Lieutenant Governor moved a vote of thanks to Mr. Ernest Hart for his interesting address, which was also carried by acclamation.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

Meetings of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, April 3rd, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election. Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

DUBLIN BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians (by permission of the President and Fellows) on Thursday, February 14th, at 4.30 P.M. The annual dinner will also take place the same evening in the College at 7.30.—J OHN MOLONY, Honorary Secretary, St. Patrick's Hospital, Dublin.

LANCASHIRE AND CHESHIRE BRANCH.—A special and general meeting of this Branch will be held in Liverpool about the end of February. Applications for membership, and all communications, should be addressed at once to the Honorary Secretary, JAMES BARR, M.D., 72, Rodney Street, Liverpool.

SOUTH-WALES AND MONMOUTHSHIRE BRANCH.—The next meeting of this Branch will be held at Aberdare on Thursday, February 28th. Members desirous of reading papers, etc., are requested to communicate with Dr. Sheen, Cardiff, not later than February 12th.—A. SHEEN, M.D., and D. ARTHUR DAVIES, M.B., Honorary Secretaries.

SOUTH OF IRELAND BRANCH.—A meeting of the Council of the Branch will be held on Saturday, February 16th, in the School of Art, Nelson Place, Cork, at 5 P.M.

SOUTHERN BRANCH: SOUTH WILTS DISTRICT.—The next meeting of this District will be held at the County Hotel, Salisbury on Wednesday, February 13th, at 2 P.M. Papers will be read by Dr. Evans, Mr. Willcox, and Mr. Coates. Luncheon at 1 o'clock, at 2s. 6d. a head. Members intending to be present should communicate with the Honorary Secretary, H. J. MANNING, Laverstock, Salisbury.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—An ordinary meeting of this District will be held on Tuesday, February 12th, at 9 P.M., at the Portsmouth Medical Library, 5, Pembroke Road, Portsmouth. Dr. Mumby, delegate to the International Congress of Hygiene, will give his report, illustrated by lantern slides.—C. C. CLAREMONT, Honorary Secretary, Elm Grove, Southsea.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place at Maidstone on Friday, March 15th, Dr. F. J. Plomley in the chair. Gentlemen who wish to read papers or exhibit specimens are requested to communicate with the Honorary Secretary not later than February 21st,—EDWARD GROUND, Honorary Secretary, 1, Ashford Road, Maidstone.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting of this District will be held at the Evelina Hospital for Children, Southwark Bridge Road, at 4 P.M., on Thursday, February 14th. Cases of clinical interest from the wards of the hospital will be shown and demonstrated on by the members of the staff. All practitioners, whether members of the Association or not, will be heartily welcomed.—H. BETHAM ROBINSON, 1, Upper Wimpole Street, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at the Town Hall, Hackney, on Thursday, February 21st, at 8.30 P.M. The chair will be taken by Dr. Daly, Vice-President of the District. Agenda: Minutes of last meeting. Letter from Mr. Dickson. Letter from East Kent District, South-Eastern Branch. Mr. Swinford Edwards will read a paper on Some Improvements in the Treatment of Rectal Disease. Visitors will be cordially welcomed.—H. E. POWELL, Honorary Secretary, Glenarm House, Upper Clapton.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the Swan Hotel, Stafford, on Thursday, February 28th. The President, Dr. Charlesworth, will take the chair at 3.30 P.M.—GEO. REID, Honorary Secretary, Stafford.

EDINBURGH, STIRLING, KINROSS, AND CLACKMANNAN, AND DUNDEE AND DISTRICT BRANCHES.—A conjoint meeting of the above Branches of the British Medical Association will be held at Edinburgh on Friday, February 15th. The meeting will be open to all members of the British Medical Association. A Medical Congress will be held in the large Surgical Theatre, Royal Infirmary, at 4 P.M., when patients, specimens, apparatus, etc., will be exhibited and discussed. A demonstration on Cranio-Cerebral Topography will be given by Professor Chiene, F.R.C.S., at 3.30 P.M. Museum in University Surgical Theatre, and special demonstrations in side rooms from 3.15 P.M. onwards. Thereafter the members and their friends will dine together in the West End Café, 129, Princes Street, at 6.30 P.M., Professor Annandale, President of the Edinburgh Branch, in the chair. Dinner tickets, 4s. Notice of patients, specimens, or apparatus for exhibition should be sent to the respective Secretaries that suitable arrangements may be made, of which a detailed programme will be issued to the members later.—R. C. BUIST, M.D., Annfield House, Dundee; C. J. LEWIS, M.D., Stirling; R. W. PHILIP, M.D., 4, Melville Crescent, Edinburgh, Honorary Secretaries. P.S.—Intimation should be sent regarding the dinner before the 12th to Dr. R. W. Philip, Edinburgh.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—An ordinary general meeting of the Branch will be held in Milnes' Library, Union Street, Aberdeen, on Wednesday, February 20th, at 8 P.M., the President, Professor Stephenson, in the chair. Business: Minutes, Nominations, etc. Professor Stephenson: The Ethical Aspects of the Pharmacy of To-day. Professor Finlay: Two Cases of Renal Disease, with specimen. Professor Ogston and Dr. Don: A Case of Diphtheria treated by Antitoxin.—C. THISELTON URQUHART, and J. SCOTT RIDDELL, Honorary Secretaries, Aberdeen.

HALIFAX, NOVA SCOTIA, BRANCH.

A REGULAR meeting of this Branch was held on January 10th, Dr. MILSON (President) in the chair.

Anderson Appeal Fund.—The SECRETARY read a letter of acknowledgment of £2 from the treasurer of the Anderson Appeal Fund.

Communications.—Dr. E. KIRKPATRICK read a paper on Sympathetic Ophthalmia, showing a very interesting case illustrating his remarks.—Drs. M. A. B. SMITH and CAMPBELL reported a case of Crossed Hemi-anæsthesia, and read report on the case submitted by Dr. A. Starr, of New York. A prolonged discussion followed.

OXFORD AND DISTRICT BRANCH.

A GENERAL meeting was held on January 25th in the Radcliffe Infirmary, Dr. HUTCHESON (President) in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—Mr. J. Burnet Yelf was elected a member of the Branch.

Amendment of Medical Acts.—A resolution was carried:

That this Branch expresses a general approval of the draft Bill to amend the law relating to irregular practice.

Medical Aid Associations.—Dr. COLLIER brought forward the subject of medical aid associations, upon which there was a long discussion. The following resolution was carried:

That the Council of the Branch be asked to draw up a list of the medical aid associations in the district which would come under the definition given by the General Medical Council.

Choice of President-elect.—Mr. H. P. Symonds, of Oxford, was elected President-elect.

YORKSHIRE BRANCH.

AT a special meeting of this Branch, held at York on January 9th, the following resolution was passed:

The Yorkshire Branch of the British Medical Association, feeling that a great injustice has been done to Mr. Anderson, that the matter is of serious importance to the medical profession, and that it sympathises sincerely with Mr. Anderson in his difficulty, hereby resolves to contribute the sum of £10 towards his expenses.

SPECIAL CORRESPONDENCE.

PARIS.

Medical Aid for the Sick Poor at their own Homes in Paris.—The Health of Paris.—The Dental Art applied to Relics.—General News.

IN 1893 the expenses of the Home Gratuitous Medical Help Service were £399,767 8s.; the expenses of 1895, it is estimated, will be less by £8,040. M. Bompard, a municipal councillor, considers that the economical changes proposed are exaggerated, and asks whether they are the result of a well-organised reform or of the Public Assistance budget being in a bad way. He is inclined to believe that the latter is the more probable cause. The Maternity Service is the one which has to bear the brunt of this economical reform. Separate visits, frequently at a considerable distance one from the other, render the question more complicated. The medical men in question have sent a petition to the Société Médicale des Bureaux de Bienfaisance stating that their Lyons *confrères* receive £95 per annum for doing less than their Paris colleagues, and they ask that their salaries be

raised a third. In consequence of the divergence in the opinions put forward by the Conseil de Surveillance, the Conseil Supérieur of Public Assistance, and the Municipal Council, M. Bompard proposes the easy but unsatisfactory course of deferring the question. Notwithstanding these medical administrative difficulties, the sick poor are well cared for. M. Straus and his colleagues of the Sixth Commission have greatly contributed to the improvement that has taken place. Owing to the facts brought before the Municipal Council by M. Straus this body has voted this year £4,000 to be devoted to succour poor women about to become mothers; the sum has been distributed among twenty arrondissements in proportion to the indigent population in each district. The question of furnishing remedies to the sick poor treated in their homes at a reduced price is also gone into by M. Bompard. In the Sixth Arrondissement a prescription dispensed by an ordinary dispensing chemist costing 1s. 3d. dispensed by the chemist of the Maison de Secours costs 7½d. It is only in a very few arrondissements that special dispensing chemists for the poor are established. The organisation of the Maisons de Secours movement is to be extended and improved; their number is now limited to forty-seven. M. Bompard devotes a few pages to describe their origin and development; he believes that they will play an important part in the gratis home medical help scheme. Dispensing chemists and druggists and dispensaries should be attached to them. The decision of the General Council on this subject is awaited.

It is stated that the public health of the French capital has never been so satisfactory as it is at the present moment. The average mortality during 1894 has been lower than the average mortality of the last ten years. Last year 48,992 deaths were registered; in 1893, 52,955; in 1892, 54,536; in 1891, 52,262; in 1890, 54,566; in 1889, 54,083. Thus in 1894 the average mortality is 4,725 lower. With the exception of a short epidemic of typhoid fever and small pox, this form of disease has been rare during 1894, during the last six months especially so. The deaths from typhoid fever in 1894 were 695; in 1893, 570; in 1892, 692; from small-pox, 173 deaths in 1894, 260 in 1893. Measles caused most deaths during May, afterwards the cases were quite exceptional in 1894; the deaths were 988; in the previous years they were 677 and 909. Scarlet fever 149, the previous years 177 and 158. Whooping-cough 248 instead of 508 and 334. Diphtheria 1,009, instead of 1,266 and 1,403. Deaths from lung diseases have been considerably less, and have notably contributed to the lowering of the death-rate. An increased birth-rate accompanies this lowered death-rate, which proves that it is not owing to depopulation.

The Pope is a *collectionneur* of saintly relics, and greatly desired a portion of the bones of Saint Martial the Apostle of Aquitaine, quietly resting in the Limoges Cathedral. His skeleton it appears is in a complete state of preservation, and greatly prized by the canons of Limoges Cathedral. The Pope's wishes were finally expressed in the form of a command. Science stepped in in the person of Dr. Magitot, the well known dentist, who suggested that a tooth should be extracted and sent to Rome. This was done by Dr. Magitot, surrounded by the Bishop of Limoges and all the cathedral dignitaries. A description of the operation was drawn up in the presence of the august assembly and signed by all present; two copies of it have been made in order that the bishop, the fabric, and the brotherhood, may each possess a record.

A telegram from Senegal states that cholera has broken out. At the Colonial Office news has been obtained of two doubtful cases at Kayes, but the origin has not yet been definitely ascertained. A report from the chief of the health service will soon be forthcoming.

The National League of Physical Education will hold its third congress at Paris on Wednesday, April 17th.

LIVERPOOL.

Small-pox and Vaccination.

The Medical Officer of Health for Liverpool (Dr. E. W. Hope) has presented to the Health Committee a report on the prevalence of small-pox in certain parts of the city, chiefly in the parish of Toxteth Park, during the past three or four months.

It appears from the report that the disease was first introduced into the squalid parts of Toxteth Park by some tramps from Yorkshire, and that it became apparent that there was an undue proportion of unvaccinated persons in the district. The guardians of the poor for the parish do not appear to have been successful in carrying out the requirements of the vaccination laws; and according to the two last published annual returns of the Local Government Board the number of children born during the two years referred to, and not finally accounted for as regards vaccination, are about three and a half times as numerous in the Toxteth Park district as they are in the parish of Liverpool.

The district sanitary inspector, acting on instructions, reported 230 unvaccinated persons in a few streets. Even when attention was called to these persons a somewhat inexplicable delay arose in effecting vaccination and in two instances the children, after the lapse of thirteen days and seven days respectively, after attention had been called to them, were attacked with small-pox and removed to the hospital.

Dr. Hope points out that the incidence of small-pox and its confinement to the Toxteth district are remarkable. Out of a total of 236 cases dealt with from September 1st, 1894, to January 20th, 1895, no fewer than 192 occurred in the Toxteth district, and 11 out of the remaining 44 cases which occurred in other parts of the city were proved to be directly infected by intercourse with Toxteth cases.

As illustrating the beneficial influence of antecedent vaccination on the course of the disease it is pointed out that among the 151 persons who were vaccinated the deaths amounted to 5 per cent., while among the unvaccinated the mortality was five times as great.

Dr. Hope's able report demonstrates conclusively that the prevalence of small-pox in the district must be attributed to the lax administration of the vaccination laws, and is one more illustration, if such is needed, of the protective efficacy of vaccination. The precautions taken by the sanitary authority of Liverpool to prevent the introduction of infectious diseases are of a very complete and efficient kind. The only effectual safeguard against small-pox is, however, vaccination and revaccination, and it may be asked: Why should the carrying out of this important preventive measure be left to the several boards of guardians? All other sanitary measures are under the control of the sanitary department, and it would probably conduce to efficiency if the all-important measure, of vaccination were also undertaken by the same central authority.

CORRESPONDENCE.

A UNIVERSAL LANGUAGE FOR USE AMONG MEDICAL MEN.

Sir,—I venture to think most persons who have considered the best means of supplying the acknowledged want of a universal language, not only for scientific use, but also for general purposes, will agree with Dr. Jessop that Latin offers the best solution of the difficulty. I regret I cannot agree with Dr. Keser that the objections to its readoption, which he shadows forth in the British Medical Journal of January 26th, are so formidable as he would have us believe, while the arguments in its favour greatly outweigh anything that can be urged against it. As regards its utility to science in the period of its more general use, English-speaking medical men need scarcely be reminded of the tracts *De Motu Cordis* or *De Podagra*, to name but two out of the mass of writings that at once suggest themselves in which the medical world was made acquainted with important discoveries in physiology and progress in clinical medicine in the very words of the illustrious authors themselves.

Latin, being the only tongue which, while dead as the distinctive speech of a nation, is widely diffused in the languages and literature of the civilised world, possesses overwhelming advantages by excluding the possibility of international jealousy; for Greek is not a dead language, but exists scarcely so much changed from classic times as is the English of our day from that of Chaucer. Dr. Keser appears

to lose sight of the fact that while European nations might consent to make French the official language of a congress together with one or two other European tongues, there is at least one country standing in the front rank of modern science where, though French is cultivated for obvious reasons, its permanent installation as the universal language of medicine would be viewed with the greatest displeasnre.

Another strong point in favour of Latin is that it is already the more or less perfectly acquired universal language of the higher schools. It is because it is taught in such a senseless way as to rarely stick in the minds of those who slave at it that there is any question of its being the universal language. As Lord Dufferin lately pointed out, a boy who commences the study of a modern tongue generally fulfils the expectation that he will express himself with some fluency in simple sentences in a year or two, while the average Latin student cannot as a rule ask for the commonest necessaries of life in the tongue to which he has devoted years of study. Not only this, but usually within a few years of, perhaps, a creditable examination, some misquoted scraps of verse, with other *débris*, alone remain to show to what a point the classic flood was once compelled to rise.

The objection to Latin on the score of differences of pronunciation is a very slight one, and actually in course of being removed, since the older English universities are taking steps to introduce the Continental method. If an international society were once formed for the promotion of Latin as the official speech of medicine, it would be a matter of slight difficulty to draw up a standard of pronunciation.

It would be absurd to expect those who may thus adopt Latin to speak or write like Cicero or Livy. A modest standard would be not only more easily attained but more generally intelligible. What is required is not an attempted classical structure, but one in which the position of the words would be more akin to that of modern speech.

A Latin textbook on the lines of those for modern languages, with "up to date" examples for translation, dialogues, etc., and a polyglot phrase book specially adapted to the needs of medical men would soon be supplied if the demand were to arise.

In the hope that some steps may be taken at the meeting of the Association this year to re-establish Latin as the official speech of medical science, I am, etc.,

JAMES DONELAN, M.B.,
Upper Wimpole Street, W., Jan. 29th. Physician Italian Hospital.

SIR,—It seems to me that Surgeon-General Jessop's letter, that appeared in the BRITISH MEDICAL JOURNAL of January 19th, contains more spirit than judgment. That it should be necessary for "a youth to be able to reply in good Latin to questions asked at a preliminary examination, and at the same time evince sound scientific knowledge in the subjects submitted," seems to me to be expecting a little too much, especially when Mr. Jessop goes on to say that if he cannot do so "it is evidence that medicine should not be his vocation." I think we are all more or less acquainted with men who are good and clever scientists who could not master a foreign language however much, in an ordinary way, they applied themselves to do so. I was myself acquainted with several men at Cambridge who failed more than once in the classical part of their "little go," and yet took high places (when they had eventually managed to scrape through), in the Natural Science and Mathematical Triposes. One man would have undoubtedly taken a much higher place than he did in the Natural Science Tripos if he had not been kept back by repeated failures in the Latin paper of his "little go." There are some men, especially perhaps students of Nature, that cannot master languages, and to say that these men are not to be allowed to succeed in medical science simply because they happen to have a natural defect in being able to acquire a language, is preposterous.

I do not understand what Mr. Jessop means by saying that "the practice of medicine and surgery is purely one of charity (whether or not fees are received from those who can pay), to enable creatures (biped and quadruped) to do their duty to their fellow beings, etc." The medical profession is undoubtedly an ideal one, but is it dishonourable to make it a means of livelihood? Surely not. Is it only for those that are born with a golden spoon in their mouths that can aspire to become medical men? No, sir, such a thing would be not only ruinous to the medical profession—many of our greatest men having sprung from the realms of neediness and poverty—but it would be indescribably bad for the world at large.—I am, etc.,

T. WILSON PARRY, M.A., M.B.Cantab.
Youlgreave, Jan. 24th.

SIR,—In his plea for the adoption of French as the official language of medicine, Dr. Keser seems to ignore the sentimental difficulty, yet the "sentimental grievance" is a factor that must always be reckoned with in practical politics. It is true that the editors of the *Deutsche medicinishe Wochenschrift* have given their vote for the adoption of French as the official language of the next Congress, but can they guarantee a like absence of national jealousy in this matter among their countrymen? The omens seem to me to be against it. I believe I am right in stating that the German Government refuses to recognise French as the sole official language of diplomacy, and it is well known that all words savouring of a Gallic origin were carefully weeded out of the vocabulary of the German drill sergeant not many years ago. French is the official language of *Cordons Bleus* even more than it is of diplomacy; yet one of the first acts of the present Kaiser on his accession was to have the language of the culinary department thoroughly Germanised. It is probable, therefore, that the Germans will not go to Canossa in this matter of language.

Where, then, is a language to be found at once suitable as a *lingua franca* of medical science and free from objections on the score of national susceptibilities? Greek will, I venture to think, be left by general consent to Professor Blackie and Dr. Achilles Rose. It is pretty clear, therefore, that if we must clothe ourselves with an international language, Latin's our only wear. It served for centuries as the official language of science, and it is excellently adapted for the purpose by reason of its conciseness and precision. If learnt as a living tongue, as it is in Roman Catholic colleges, it is not at all difficult to master sufficiently for all purposes of exposition and debate. The difficulty as to pronunciation on which stress is laid by Dr. Keser would easily be got over, as it is in the Catholic Church, by the adoption of a uniform system. A beginning in this direction was made several years ago in this country by the late Professor Munro of Cambridge.

One advantage of Latin would be that we should all be on the same footing. Probably most Englishmen at least share sturdy Samuel Johnson's objection to placing himself at a disadvantage with regard to a foreigner by speaking in a language in which he was certain to appear inferior rather than in one in which they were both equally good or equally bad.

Another advantage which occurs to me as likely to accrue from the adoption of Latin is that it would tend very considerably to shorten the length both of the papers and the discussions.—I am, etc.,

January 30th. TERES MINOR.

THE ABUSE OF CLUBS.

SIR,—Mr. Leadman, in the BRITISH MEDICAL JOURNAL of January 26th, urges us to unite against the ever-growing evils of club and hospital abuse, and he truly adds that the remedy lies in a nutshell. Unfortunately, this nutshell is very hard to crack. The medical profession is waking up to the fact that these remediable abuses and evils are increasing to such a pitch as to seriously threaten its means of livelihood. Progress is, however, slow. Very few men in practice seem to be alive to any but immediate and personal interests, and public spirit among us is conspicuous usually by its absence. Everybody has his own axe to grind, and as soon as any prominent official of one of our defence unions becomes dissatisfied, he forthwith secedes and forms a new one. At the present time we have the edifying spectacle of the attempt made by the medical profession to combine resulting in the formation of four distinct defence unions, all with the same objects, and all opposed to amalgamation.

It will be some time before we realise that the welfare of the profession means the welfare of the individual, but until we do realise this, and until the general practitioner becomes convinced that no one is going to help him if he will not

bestir himself, progress will necessarily be slow. Each individual member of the medical profession is responsible for the continuance of the abuses of which he complains, unless he actively sets to work to remedy them as far as he can, and unless he does his best to promote measures of reform. At a District or Branch meeting of our Association any motion which bears on the question of reform is usually placed last on the agenda list, and so keen an interest do general practitioners take in these matters that very often the room is half emptied before the discussion comes on. Under these circumstances I fail to see that we have anybody but ourselves to thank for the slow progress of reform.

There are two things that we can do now to promote combination among ourselves. The first is to increase by individual persuasion the membership of our Association, so that in time it may include every member of our profession; the second is to promote amalgamation between the various defence unions, and eventually to incorporate them in our Association. When the British Medical Association has the same power that the Incorporated Law Society has in dealing with matters affecting professional interests, we shall be able to stamp out a good many abuses. The Association possesses an excellent organisation, its Council is elected by the members, and is thoroughly representative, and it is therefore the body that can best deal with these matters. The General Medical Council must always remain a purely judicial body, and we therefore want an active and representative body that can itself deal with such matters as hospital and club abuse, gross quackery, personal misconduct, and others. The General Medical Council is analogous to the High Court of Justice. We want a body in our profession analogous to the Incorporated Law Society, which has done so much to advance the professional interests of solicitors.

A local committee, composed of some members of the East Kent District, during the last year has been engaged in bringing this matter before the Association. We have fully explained our views both by letters and pamphlets to the secretaries of every District and Branch in the United Kingdom, requesting each one to bring this important matter before his District or Branch, and to forward the result of its consideration to the Council, so that the Council may know what are the wishes of the members. The proposal has been favourably received whenever it has been discussed. A practical step towards reform will be made by members taking an active interest in the matter, and by bringing forward a resolution dealing with this proposed extension of the Association's work in those Districts or Branches of which the secretaries have not yet taken action. Let the proposal in each District be discussed purely on its own merits.

I shall be pleased to send to any member who will send me a postcard a copy of the pamphlet we issued last year, which deals fully with this matter. On the whole the outlook is hopeful. Of late years the medical profession has been realising that it can do something to check the discreditable evils which now oppress it, and certainly much advance towards organisation and union is being made.

Our gratitude is due to the far-seeing founders of the British Medical Association which has already done much for us, and which is destined, I trust, to increase widely its sphere of usefulness. If a real union is ever to be effected it will be through the medium of our Association, which is large enough to merge all individual interests.—I am, etc.,

Dover, Jan. 26th. Arthur Welsford, M.D., F.R.C.S.

Sir,—Having had great experience in club practice, I have formulated the following terms on which only I can accept clubs:—

1. Members must be in good health at time of entry.
2. Doctor's fees, 1s. 1d. each member per quarter.
3. Prescribing and minor surgery provided.
4. Fractures and dislocations to be paid for extra, fee 10s.
5. All instruments required to be paid for extra.
6. Medicines, supplied by chemist, to be paid for at 6d. per bottle; member to find bottle.
7. When ill, member must attend at consulting room from A.M. and P.M., Sundays excepted, except in urgent cases.
8. Members too ill to leave home must send a request to be visited before 10 A.M.
9. Night calls (10 P.M. to 8 A.M.) to be paid for extra, fee 5s.
10. Complaints attributable to intemperance or immorality to be paid for extra.

It is a mistake for the "doctor" to supply medicine, as the patient is apt to look upon him as a sort of superior chemist.—I am, etc.,

January 26th. W. W. H., M.D.

ALLEGED EXCEPTIONS TO COLLES'S LAW: IS CONGENITAL SYPHILIS INFECTIOUS?

Sir,—The recurrent discussions on the alleged exceptions to the so-called "law" of Abraham Colles do not seem to bring us any nearer to a settlement of the question at issue, notwithstanding the fact that competent observers from time to time record cases in which the evidence seems, to themselves at least, conclusive that they are dealing with an exceptional case. All such evidence is, however, declared faulty in one way or another, and acquired syphilis is invoked as an explanation.

Even Colles himself rejected an apparent exception to his preconceived view because the mother, in giving him an account of the case, stated that other women occasionally suckled her child. In his "Remarks" Colles says:[1] "In this case there was a very strong *presumption* that the infant was infected by some of those women who were allowed occasionally to suckle her child." (Italics are my own.)

Apart from the circumstance that my own experience furnishes me with at least one exception to Colles's law, I judge on general grounds that exceptions to such a so-called rule ought to, and do, occur, for the laws of health and disease are hard and fast only in textbooks. But I am not about to defend either Colles's law or the alleged exceptions thereto. My desire is to raise an important side issue, namely, is congenital syphilis infectious now-a-days? The particular teaching, to which Mr. Jonathan Hutchinson has given the term "Colles's law," is worded as follows: "I have never seen or heard of a single instance in which a syphilitic infant (although its mouth be ulcerated), suckled by its own mother, had produced ulceration of her breasts." These words, however, form only part of a sentence, the remainder of which is "whereas very few instances have occurred where a syphilitic infant had not infected a strange hired wet-nurse, and who had been previously in good health." I think the whole sentence ought to be taken together, when speaking of Colles's law.

I am desirous of finding out how far this further dogma of Colles is correct, and whether my experience, which is quite opposed to Colles's, is exceptional or accords with that of other observers. During some ten years' work in the out-patient department of the Children's Hospital at Shadwell—a large and rich field for observation—I scarcely remember to have seen a single reliable case of infection by a congenitally syphilitic infant. Yet the number of children suffering from manifestations of inherited syphilis is enormous; in the poor districts of East London it is an everyday practice for women, when they can get a day's work, to hand over their infants and young children to the care of some friendly neighbour. I have many and many a time seen a woman suckling a neighbour's child alongside her own, glad enough in this way to earn a few pence for the accommodation or to oblige a poor friend, not over-particular whether the nurse child was diseased or not, and quite ignorant or regardless of the consequences, which Colles predicted as almost a matter of course. In the matter of "dry nursing" the case is even stronger, for these syphilitic babies are handed about, kissed and hugged, fed out of the same spoon or cup, or bottle with other babies and children in no way related to them; yet, as just stated, I scarcely remember a single case of infection brought about in this way. Certainly among the nurses in the wards of the hospital, although a large number of severe cases has passed through their hands, no case of infection has occurred up to the present time.

Speaking of these infected babies, Colles says "the readiness with which the disease is communicated by contact cannot be exceeded in this property by any other disease with which I am acquainted." And again: "The child will infect the most healthy nurse, whether she suckle it or merely handle it and dress it."

Colles gives several instances in which whole families

[1] This and any subsequent quotation are taken from the works of Abraham Colles. Edited by Dr. Robert McDonnell. New Sydenham Society's Edition, chap. xiii, *Syphilis in Infants*, pp. 252-290.

have been infected by a syphilitic infant. I have searched for years among my out-patients without result, or with very little result. I wish to know the experience of other workers on this point. Perhaps a condition of syphilisation is being gradually brought about, whereby the intensity of the poison is being slowly attenuated; or are the earlier recognition of the disease in parents and its more thorough treatment responsible? In other words, has inherited syphilis changed in type since Colles laid down his law? and is this the reason why so few exceptions to this law are found? If children do not infect those who are not related to them, it is not surprising that the mothers who have borne them should escape.—I am, etc.,

Welbeck Street, W., Jan. 22nd. R. W. PARKER.

OFFICIAL DISCOURAGEMENT OF ORIGINAL RESEARCH IN INDIA.

SIR,—In what Mr. Ernest Hart describes as the "official discouragement of original research" in India, in his address before the Medical Congress at Calcutta, he undoubtedly speaks the sentiments of all members of the Indian Medical Service who are qualified to offer an opinion on the subject. The feeling amongst them that scientific ambition is, as a rule, treated with official indifference and neglect, and that work in medical research, be it ever so valuable, will lead to neither promotion nor honour, is widely spread and is only too well founded. The chief causes in India which result in so little, comparatively, being done, notwithstanding the abundance of material and the presence of so many willing and competent medical officers, are, first, the conviction that voluntary work in research is not likely to receive encouragement or recognition from Government, and secondly, that every medical officer of any account has already as much official and routine duty on his hands as he can well attend to; many, indeed, are overburdened.

Scientific research requires a great deal of time, and he has none to spare for it. He knows that if he takes it up of his own accord and prosecutes it conscientiously his official work must suffer, with the result that the head of his department falls foul of him. Scientific research also often involves some expense, but the medical officer has as little money as time to spare, and he knows but too well what asking for Government aid means.

One cause of the indifference of the Indian Government to any scientific work in which the commercial element is in its favour is not immediately apparent is the fact that the interests of true science in the form of original research, medical or other, are practically unrepresented in the councils of the Empire, or amongst the heads of departments. The simple truth is that nobody in authority cares for medical research or understands its need and value. There is, no doubt, a certain amount of talk about it periodically, but little or nothing is done. The absence of sincerity from all this talk can be fully realised only when the means are asked for to assist in carrying out any of the recommendations and suggestions so freely made on the subject in Government orders and resolutions.

A question is sometimes asked, but never satisfactorily answered, Why was the East India Company more liberal in its recognition of scientific work than the Indian Government in its present form is? It may be that because private enterprise was originally the soul of the old Company, the tradition was kept up of patronising the same quality in its servants. In England, as we know, private enterprise does everything in the matter of science, and Government practically nothing. In British India it is the same story, with this difference, that in that country there is little or no independent enterprise capable of undertaking scientific research, while Government servants are neither assisted nor encouraged to do so.

Exclusiveness and jealousy undoubtedly exist, and when combined with ignorance of and indifference to scientific research on the part of the governing authorities and departments, who alone have power to reward and encourage it, one need not be surprised at the condition of affairs so well described by Mr. Hart.—I am, etc.,

January 11th. LATE BOMBAY MEDICAL SERVICE.

CREMATION OF THE SLAIN IN BATTLE.

SIR,—This mode of disposal of the killed in battle seems new to modern Europe where burial in pits is always practised, which is, of course, a much more expeditious method of disposal, especially where the death roll is heavy. But in countries where carrion-eating birds and beasts abound there is always the risk of disinterment, unless the graves are deep or well covered with stones. Such ghastly exhumation has been known to occur in India, and it may possibly be to avoid it that the Japanese practise cremation.

There is little doubt cremation was often resorted in ancient and even mediæval battlefields, where fuel happened to be handy; this is disclosed in many tumuli in which remains obviously subjected to the action of fire are found under masses of earth and stones.

With fuel plentiful and the number of dead limited cremation of the slain would be a highly sanitary method of disposal, particularly in sieges, where the same ground is occupied for a length of time.—I am, etc.,

February 5th. ARMY DOCTOR.

ON THE CLINICAL CONFUSION BETWEEN DISTENSION OF THE GALL BLADDER AND MOVABLE KIDNEY.

SIR,—As bearing on Mr. Morris's paper in the BRITISH MEDICAL JOURNAL of February 2nd, will you allow me to refer to a paper of my own on the same subject read before the Pathological and Clinical Section of the Birmingham Branch of the British Medical Association on January 30th, 1891?

In this paper I pointed out that the occasional difficulty of diagnosis between a distended gall bladder and tumour or enlargement of the right kidney was explained by the fact that in most of these cases of difficulty the enlarged gall bladder was resting on the anterior surface of a slightly displaced kidney, and, on double palpation, a tumour was found of considerable size, reaching from the loin behind to the abdominal wall in front. *Primâ facie* such a tumour would naturally be expected to be an enlargement of the kidney. But when formed in the way I have described—apart from the help afforded by a careful study of symptoms—the real nature of the tumour may often be ascertained and its constituents differentiated by finding, on careful palpation, some independent movement of the gall bladder and the kidney on which it is resting.

The paper was illustrated by cases, and short reports were published in the Birmingham *Medical Review* for 1891 and in BRITISH MEDICAL JOURNAL of March 7th, 1891 (p. 529). I cannot remember at present whether the paper was published *in extenso*.—I am, etc.,

Birmingham, Feb. 2nd. JOHN W. TAYLOR.

THE GENERAL MEDICAL COUNCIL AND THE OBSTETRICAL SOCIETY.

SIR,—As Sir John Williams and Dr. W. S. Playfair seem to be working up an agitation against the Statutory powers of the General Medical Council, it is well if we ask them to seriously consider their position, especially as Dr. Playfair refers to the General Medical Council's "insulting resolution." Section 29 of the Medical Act, 1858, empowers the General Medical Council to judge any registered practitioner who may be charged with what is known as "infamous conduct in any professional respect." This is a great power to place in the hands of any Council. It is only equalled by the power given to a bishop to suspend, or inhibit, a clergyman found guilty, or to that given by the Benchers of the Inns of Court to disbench, or disbar, a barrister. It is a power not given to solicitors, for, although the Law Society has a "Discipline Committee," the case must be tried before the judges in the Queen's Bench Division. This medical court is a supreme court; its judgment is final; and against its judgment there is no power of appeal to the judges of another court unless malice can be shown against the General Medical Council. This point of law has been decided in the case of Allbutt *v.* the General Medical Council, 23 Q. B. D., 1889, before Lord Justice Lopes, and in Leeson *v.* the General Medical Council, 43 Ch. D., 1889, before Mr. Justice Bowen.

The reason why Parliament has given the General Medical Council so great powers is that it is difficult for any person who is not a medical practitioner to properly define what infamous conduct "in any professional respect" means. As late, however, as February, 1894, in the appeal case of Allison *v.* the General Medical Council, the Master of the Rolls said he would adopt the definition of Lord Justice Lopes as to what constitutes "infamous conduct," who said: "If a medical man in pursuit of his profession has done something with respect to it which would reasonably be regarded as infamous by his professional brethren of repute, that would be evidence of infamous conduct in a professional respect. The question was not whether that which the medical man had done would be infamous if done by someone outside the medical profession. The conduct must be infamous in a professional respect. There must be conduct which if done by a medical man in his profession might be infamous conduct in a professional respect." Lords Justice Lopes and Justice Davey concurred. Now does Dr. Playfair still insist on branding the conduct of the General Medical Council in the matter of selling bogus diplomas as "insulting"? Would he dare to address any of the Civil judges in this gross manner? How does he consider his offensive language will influence other practitioners to pay due respect to the General Medical Council? I hope the Council will mark publicly their disapprobation of this conduct. I have resigned my "Fellowship" of the Obstetrical Society, and my advice would be to others to act similarly.

Dr. Playfair refers to a "small" section of the profession who wish to abolish midwives. Let me state that up to June, 1894, 8 medical societies, with 932 members, have passed resolutions against this diploma-mongering; and 19 Branches of our Association, with 2,392 members. Does this spell "small"? He also thinks our efforts "to abolish midwives" impossible. Are we not gradually abolishing bonesetters, and also all persons with a single qualification? As an outcome of his efforts I notice that the following medical staffs of hospitals have refused to admit male medical students for clinical instruction: The British Lying-in, the Clapham Maternity, and the City of London Lying-in. Does he wish to provoke retaliation in this? As an outcome of his efforts we have medical examining bodies admitting for final examination students who have conducted only six labours. Does he approve of this dangerous state so that his pet pupil midwives may be educated? As an outcome of his efforts we have now the following so-called charities conducting confinements for the following fees: Clapham Maternity, 5s.; Brighton and Hove Lying-in, 5s.; Tower Hamlets Dispensary, 3s. 6d.; Gloucester Lying-in, 5s.; Bristol Lying-in, 6s. 6d.; St. John's the Divine, 2s. 6d.; East End Mothers' Home, 3s. 6d.; St. Paul's Maternity, 5s.; and the Frome Home for Trained Nurses, 7s. 6d. All these compete with practitioners, who spend five years in education and about £800; and with the result that many have to conduct a confinement for a fee of 4s. 6d. Does he approve of this state of affairs?

As to Dr. Playfair's cry that a judicial body like the General Medical Council should have communicated with him and others before make the life-saving and public interest rule, it is only equalled by a person who is tried in a court complaining that the judge did not consult him before delivering his verdict. But let him remember that documentary evidence was laid before the General Medical Council.—I am, etc.,

Liverpool, Jan. 26th. ROBERT R. RENTOUL.

MEDITERRANEAN FEVER.

SIR,—Before replying to certain remarks of Dr. Squire in the BRITISH MEDICAL JOURNAL of January 26th I feel I must ask him to keep in view the fact that I plead in the first place for a place in the nomenclature for Mediterranean fever and secondly that I think the best place would be under enteric fever, but bracketed distinct. I have been reminded that the fever known as Mediterranean is also prevalent in India. I would call the latter variety Indian fever (thus avoiding a thoroughly scientific name till it is forthcoming) and place it too bracketed under enteric fever. This would injure no returns and allow of proper comparison.

I cannot agree with Dr. Squire that it is a retrograde step to classify Mediterranean fever under enteric fever: First, because the former disease has at present "no place at all" in nology and to locate it, bracketted separately, under its n rest relative, would be an advance. Secondly because I think the proposed position under enteric fever has more in its favour than Dr. Squire will allow. The analogy given of the old confounding of typhus and enteric fever is hardly apposite, as Mediterranean fever and enteric fever differ in nothing like the same degree. I believe Mediterranean fever may be infectious, that it is clinically often practically indistinguishable from enteric fever proper. As to the state of the intestine at most we can say that Peyer's patches are not apparently affected. The treatment is the same. I beg to combat the view that it is inadvisable to move in the matter of nosology till a truly scientific name can be given to Mediterranean fever and its allies, for in the meantime are we not rendering useless the returns of simple fever, of remittent fever, and of enteric fever by their curious intermixture with this peculiarly important disease?—I am, etc.,

January 26th. MELITA.

*** This correspondence must now cease.

CASTRATION FOR PROSTATIC HYPERTROPHY.

SIR,—In connection with the above subject I have not hitherto seen the suggestion of any alternative proceeding—I mean one not involving a "cutting" operation. It seems to me that "bistournage" or subcutaneous torsion of the spermatic cord, so as to cut off the blood supply of the testis, causing its subsequent atrophy, would be as effectual in man as it is in animals, and secure the prostatic atrophy aimed at with equal certainty. This proceeding would be much more readily adopted by the patient, in that it is merely a manipulative operation and free from the objection of "cutting" and deprivation of organs, so naturally repugnant to his mind. I have as yet had no practical experience of this operation, but shall certainly try it on the first opportunity, and would recommend it to other operators.—I am, etc.,

Manchester, Jan. 26th. C. E. RICHMOND.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A SURGEON-CAPTAIN, A.M.S., who has just returned from India on completion of tour, wishes to obtain an exchange abroad again next trooping season (1895-6). Please apply, stating terms, to "Medical Staff," c.o. Messrs. Holt and Co., 17, Whitehall Place, S.W.

THE NAVY.

STAFF-SURGEON OTWAY P. BROWNE, B.A., M.B., has been placed on the retired list of his rank, January 19th. His commission as Surgeon dates from October 1st, 1872, and that of Staff-Surgeon twelve years later. From the *Royal Navy List* we learn that he was Surgeon of the *Kestrel* in 1879, and was present at the attack and destruction of the piratical stronghold of Terabus, coast of Borneo. He was Surgeon of the *Flirt* in 1882 in the Niger expedition of that year, when several piratical villages were destroyed and severe punishment inflicted on the river pirates. As Surgeon of the *Flirt* in the Niger expedition of 1883 he was present at the shelling and destruction of Ida; landed with bearer party accompanying bluejackets and marines, disembarked to clear the bush of natives prior to the occupation of the town. He was also present at the bombardment of Abo, a notorious piratical town, and was the senior medical officer in charge of boats, landed under fire, when several men were shot (mentioned in despatches). He was Staff-Surgeon of the *Caroline* in the Skena expedition, British Columbia, in 1888.

INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT COLONEL J. A. HOWELL, Bombay Establishment, is permitted to retire from the service from February 22nd. He was appointed Assistant Surgeon, April 1st, 1869, and became Surgeon-Lieutenant-Colonel from April 1st, 1889. He served in the Afghan war in 1880, in medical charge of the 24th Bombay Infantry, and received the medal granted for the campaign.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL B. W. WELLINGS retires on retired pay, February 6th. He was appointed Surgeon, September 30th, 1874; Surgeon-Major, September 30th, 1886; and Surgeon-Lieutenant-Colonel, September 30th, 1894. He served in the Afghan war in 1880 with the Southern Afghanistan column (medal); in the Egyptian war of 1882, when he was present at the battle of Tel-el-Kebir (medal with clasp and Khedive's bronze star); and in the Soudan campaign in 1885 (clasp).

THE VOLUNTEERS.

SURGEON-MAJOR A. WILSON, 2nd Volunteer Battalion the Northumberland Fusiliers, is promoted to be Surgeon-Lieutenant-Colonel, February 6th.

Surgeon-Major W. T. COLBY, M.D., 2nd Volunteer Battalion the Princess of Wales's Own Yorkshire Regiment, is also promoted to be Surgeon-Lieutenant-Colonel, February 6th.

M. SAMUEL GEORGE DAVIDSON, M.B., is appointed Surgeon-Lieutenant to the 4th (Deeside Highland) Volunteer Battalion the Gordon Highlanders, February 6th.

ARMY MEDICAL SCHOOL, NETLEY.

THE sixty-ninth session was brought to a conclusion on January 31st, when the prizes gained by the surgeons on probation for the Army Medical Staff and Indian Medical Service who had been attending the courses of instruction were distributed by Mr. W. H. Russell, LL.D., who said that having followed the field in nine campaigns he might be taken to be one who felt a large interest in the work of the Army Medical School. He mentioned the names of many distinguished men connected with that hospital whose acquaintance he made on the plateau of the Crimea, and also of Sir Joseph Fayrer, who, in addition to his medical duties at the defence of the Residency at Lucknow, fought with distinguished ability as a soldier. He laid stress on the different conditions under which surgeons would have to perform their duties in future as compared with the past; and he congratulated the Army Medical School that the Government had opened its tight fist and granted an accession to the funds of the school.

The final positions of the gentlemen then recommended for commissions in the British and Indian armies were determined by the marks gained in the London competitive examination added to those awarded at Netley. The combined marks are shown in the following lists:

ARMY MEDICAL STAFF.

	Marks.		Marks.
*Harrison, W. S.	5,052	Staddon, H. E.	3,983
Howell, H. A. L.	4,931	Whitehead, J. H.	3,877
† Lawson, D.	4,386	Murison, J. A.	3,837
Steel, E. B....	4,316	Tomlinson, L. P....	3,746
Profeit, C. W.	4,261	Perry, S. J. C. P.	3,614
Kiddle, F.	4,183	Heaton, A. F.	3,552

* Gained the de Chaumont Prize in Hygiene, and the Martin Memorial Gold Medal for Medicine.
† Gained the Montefiore Second Prize in Surgery.

INDIAN MEDICAL SERVICE.

	Marks.		Marks.
*Milne, C. J.	5,635	Morgan, E. J.	4,138
Stevens, A. F.	4,971	Ward, A. E. F.	4,3[illegible]
†Bensley, C. H.	4,845	Carr, W.	4,313
Watling, F. H.	4,768	Hamilton, J. A.	4,252
‡Evans, S.	4,681	McDonald, J. H.	3,945
McMillan, J. D.	4,534	Wall, F.	3,922
Gwyther, A.	4,506	Matthew, C. M.	3,758

* Gained the Herbert Prize of £20 for General Proficiency, the Montefiore Medal and Prize of 20 guineas for Surgery, and the Maclean Prize for Clinical and Ward Work.
† Gained the Parkes Memorial Medal in Hygiene.
‡ Gained the Pathology Prize presented by Sir W. Mackinnon, K.C.B.

ADMINISTRATIVE POSTS IN INDIA.

THE probable movements of administrative medical officers, owing to Surgeon-Major-General Bradshaw's retirement in March, are at present unsettled. There is some doubt whether Surgeon-Major-General Walsh has accepted or will accept the succession to Simla. As decidedly able officers are close on promotion to Surgeon-Major-General's rank, it is to be hoped that the right man for the right place will be nominated by the Selection Board for the Simla berth, in case Surgeon-Major-General Walsh should elect to come home on expiration of his foreign tour. The fitness of Surgeon-Colonel Hamilton, with considerable Indian service, and in time past Viceroy's Honorary Surgeon, as well as the testimony to his ability of Lord Methuen commanding the Home District, of which Surgeon-Colonel Hamilton was P.M.O, should receive the attention it deserves.

HOSPITAL SHIPS IN THE 18TH CENTURY.

THE following note concerning hospital ships in the eighteenth century which appeared in a recent number of the *Westminster Gazette* may be of interest to some of our readers.

"Admiral Rooke had five hospital ships with his fleet at Cadiz in 1702, their names being the *Antelope*, *Princess Anne*, *Jeffreys*, *Smirna* (*sic*), and the *Sarah* and *Betty*. The latter ship had ordnance stores and a master gunner on board. So great a demand arose for these ships that in the next year, 1703, an order was issued from the Admiralty to engage additional ships 'that be supplied with sheets for seamen who shall be in them from time to time as mete, in fevers, and such other distempers as the small-pox, a certain number of nurses to be borne for the keeping of the sick and wounded therein.' Another injunction sounds curiously to our ears; 'Cradles were also to be provided for the sick men.' These, no doubt, were much the same as our 'cots' of the present day.

"The doctors were not to be paid until they had 'produced certificates of their having delivered to Commissioners for Sick and Wounded Seamen' journals of their practice.'

"On their return to England, towards the end of 1703, these hospital ships were returned to their owners; the surgical instruments, called 'medical instruments' in the order, were sent to the Apothecaries' Hall, but it was subsequently considered advisable to supply them to the Commissioners for Sick and Wounded Seamen and exchange of Prisoners at War,' and in January, 1704, the Company of Surgeons were requested to 'view the surgeons' chests furnished by H.M. Shipps.'"

THE INDIAN ARMY CORPS.

UNDER the new scheme one surgeon-colonel will be reduced and the work of three districts thrown on one administrative medical officer, in order to help to provide the pay for the newly-created post of the Principal Medical Officer of the Bengal Army Corps when the Fourth Army Corps is established. This may, no doubt, be economy but whether it will lead to efficient army medical administration has yet to be seen.

MEDICAL OFFICER TO THE NEW GOVERNOR OF BOMBAY.

SURGEON-MAJOR MARTIN, who is Medical Attendant to Lord Harris, will occupy the same position on the new Governor's (Lord Sandhurst's) Staff. Surgeon-Major H. Martin, M.B., belongs to the Army Medical Staff.

THE MEDICAL STAFF CORPS.

THE new *Manual* for the corps differs from the older edition in the following respects: 1. The drill is based on the infantry drill book. 2. The recently-formed clerk's branch is included. 3. An examination for promotion to second class staff sergeant finds a place and includes the following subjects: pay duties, warrants, financial instructions, and modes of recording soldiers' services.

NEPHRITIS IN THE FRENCH ARMY.

A PAPER by Dr. Fauvechon in the *Archives de Médecine Militaire*, January, 1895, enters into the question of the frequency of nephritis in the French army. Taking the records from 1878 to 1891, it would seem that the deaths from that cause in 1890 and 1891 were considerably greater in number than in preceding years, partly, perhaps, in consequence of an alteration of the law of enlistment, but no doubt also from the presence of influenza. It is interesting to note that, while the acute disease is far more common in France than in Algeria or Tunis, showing thereby the etiological influence of cold, the reverse is the case in regard to the chronic form, pointing to the effect of malaria in the production of Bright's disease. The influence of cold in the production of nephritis is shown by its monthly curve, which corresponds pretty closely with that of the diseases of the cold season, more especially with that of throat affections (anginas), which it follows with about a month's interval. Of the 10 cases during seventeen months in Dr. Fauvechon's regiment, having a mean strength of 967 men, it is interesting to note that 6 occurred between May 20th and May 30th after exposure to chill during marches.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A SINGLE QUALIFICATION M.R.C.S.ENG.

A CORRESPONDENT refers to our observations (and thinks there is some confusion on the subject) under the above heading, in reply to "Spero" in the BRITISH MEDICAL JOURNAL of January 5th.

Our correspondent proceeds to say that, as he understands it, the last Medical Act ordered an appointed day (June 30th, 1887), "by which date all single diplomas were to be registered; the owners of which were to take the same status and advantages as those of the double. And it was distinctly stated that they were to be entitled to practise medicine, surgery, midwifery, etc., and to recover for the same. Where, then, is infamous conduct?"

Our correspondent then refers to the fact that the suggestions of "Spero" cut both ways, as there are numbers of persons registered who have a medical diploma only.

We think our correspondent must be under some misapprehension as to the provisions of the Medical Act, 1886. The Act prescribes an appointed day (June 30th, 1887), on and after which a person shall not be registered in respect of any qualification unless he has passed such qualifying examination in medicine, surgery, and midwifery, as in the Act is mentioned.

Section 24 provides that the Act shall not increase or diminish the privileges in respect of his practice of any person who on the day preceding the appointed day is a registered medical practitioner, and such person shall be entitled on and after the said appointed day to practise in pursuance of the qualification possessed by him before the said appointed day in medicine, surgery, and midwifery, or any of them, or any branch of medicine or surgery according as he was entitled to practise the same before the said appointed day, but not further or otherwise.

DISPENSING APPRENTICES.

RAD. SARSE writes: In your last issue a correspondent (Nemo) asks a question respecting the possibility of his messenger becoming a chemist. The answer states that an apprenticeship or time spent with a medical man does not qualify as a chemist, which is quite correct; but it might be interesting to "Nemo" to know that if his messenger remains with him for three years he will be eligible at 21 years of age to present himself at the examination of the Pharmaceutical Society, which is all that is required. He would also have to pass a preliminary examination in English, Latin, and arithmetic, he could take this at any time. As a good many chemists' errand boys qualify as chemists, I think there should be but little difficulty in the case "Nemo" mentions, and would suggest that he write to the Secretary, 17, Bloomsbury Square, for a syllabus of examinations.

A *LOCUM TENENS* AND INDEPENDENT PRACTICE.

ANOTHER MEMBER.—The statement that A. commenced practice in the village referred to with the full consent of B., his former principal, is so exceptional and professionally suicidal a policy, that we fail to comprehend it; and alike difficult to understand is the alleged interviewing of C. in relation to his assumed dissatisfied patients. Moreover, be the opinion of the several practitioners whom he (A.) consulted on the subject what it may, we cannot ignore the apparent fact that, in the absence of a restraining bond, he availed himself of his acquired knowledge as a *locum tenens* to settle as an independent practitioner

in the near neighbourhood of and to the prospective detriment of B. and C. If such be the case, it is scarcely necessary to add that, in so doing, he failed to fulfil the great but simple moral law to do unto others as he himself would wish to be done by. In response, therefore, to the specific question as to whether A. would be justified in professionally attending any person in the village in which B. and C. practise, we would simply counsel him to be guided by the dictates of conscience, instead of seeking extraneous opinions.

CHEMISTS AND PROFESSIONAL ETIQUETTE.

A. F. B. writes: A. and B. are two medical men residing in adjoining villages. B. gets the chemist resident in the village where A resides to receive messages for him, and in return allows him to dispense his medicines, for which he pays him. A states that his patients, on going to the chemist's shop, are solicited by the latter to employ B., and A. finds several have done so. Has A. any remedy, and is B. acting professionally?

*** It is to be feared that A. has no remedy for this. If the chemist, acts thus, at B.'s instigation, B.'s conduct under such circumstances would be most unprofessional.

SPECIAL FEES.

Ergotin.—If our correspondent will consult the *Medico-Chirurgical Tariffs*, under the headings of Detention, Letters of Adviser, and Consultants, in the Explanatory Notes, he will, we think, have little or no difficulty in forming a fairly just conclusion as to what his fees should be in each of the cases to which he refers. Should he, however, be unable to do so, and will forward to us a rough itemed statement of his proposed charges (to be subsequently totalled for transmission to the patients), we will endeavour to assist him by a careful examination, and, if need be, revision thereof.

ATTENDANCE ON THE CLERGY.

A Member in Country Practice.—Our correspondent will find an answer to his three several questions in relation to attendance on clergymen in chap. ii, sec. 7, rule 1 of the *Code of Medical Ethics*, or in the *Medico-Chirurgical Tariffs*, p. 9, and 4th edition, published by Mr. H. K. Lewis. Lest, however, he should not possess either, we quote the rule for his guidance.

"Doubt and misconception having long existed in regard to the question of professional charges to the clergy, it will not, it is hoped, be deemed foreign to the subject of medical ethics, or otherwise inexpedient to remark in respect to charges for professional attendance on the clergy, beneficed or unbeneficed, and their families, that there is no special general rule other than the simple unwritten one (a time-honoured and true Samaritan principle, alike applicable to other classes) by which the faculty have long been self guided, namely, although fully and justly entitled to a commensurate remuneration for professional services, accordant to the patient's position in life to, nevertheless, make a greater or less reduction, according to the circumstances of the individual case, to such as may fairly be classed among the 'poor clergy' (beneficed or unbeneficed), specially so-called in contradistinction to the well-endowed and independent clergy, which latter should be charged as ordinary and not exceptional patients."

MEDICAL ETIQUETTE.

M.R.C.S., L.R.C.P. writes: A. has been attending Mrs. J. for some months for malignant disease of the bowels, and about a month ago had a consultation with B., who confirmed A.'s diagnosis. The other day the patient's brother, residing in a town some miles away from here, brought over his medical attendant to see A.'s patient unknown to A., and he, C., has taken the case entirely into his own hands, and has not mentioned a word to A. about the matter, and has, moreover, told the patient's husband that the patient has no malignant disease, and is only suffering from weakness. Has C. treated A. in an ethical and professional manner? The patient has since died, and on being asked by the husband to give a death certificate, I declined on the ground that I was not the last practitioner in attendance on the deceased.

*** Inasmuch as the practitioner implicated in the above proceeding, to whom a copy of this note was forwarded by our correspondent, had failed to deny its truthfulness or to offer any expression of regret, we are reluctantly constrained to hold him answerable not only for a flagrant contravention of the well understood medico-ethical rule in relation thereto, but of the moral law which inculcates the principle of doing unto others as we would wish to be done by.

A CARD.

Inverness.—Inasmuch as we have repeatedly expressed our views as to the most effective mode of checking unprofessional advertising, we deem it unnecessary to reiterate them. As a warning to others, we give professional publicity to Dr. L.'s advertisement in the columns of the British Medical Journal.

CARD.

DR. LEACH, late of Manchester Southern Hospital and Manchester Maternity Hospital, begs to inform the Residents in BEAULY and District that he has acquired the Practice held by the late Dr. Corbett. Beauly, 21st January, 1895.

MEDICAL HANDBILLS.

M.Brit. M.A.—A very objectionable handbill has been received emanating from 103, Southgate Road. The name of the person responsible for its issue does not appear thereon, but the bill contains the words "specialist in midwifery." This specialist in midwifery, it would appear from the handbill, which, it is stated, is largely distributed in his neighbourhood, advertises to attend such cases at rates ranging from 10s. 6d. It might be as well to ascertain the name of this "specialist," and whether it appears in the *Medical Register*.

"COVERING CERTIFICATE."

Delta writes that in pursuing some inquiries against an unqualified practitioner, he has made the discovery that a neighbouring practitioner has given a certificate of death in the case of a child attended by the unqualified person, and which child had never been seen by the qualified practitioner in question.

*** Assuming that our correspondent can establish the facts, a statement of them might be sent to the President of the General Medical Council.

PARTNERSHIP BETWEEN MEDICAL MEN AND LAYMEN.

Dunedin.—Our correspondent's proposal from a business point of view would seem fair enough, but in reply to his query "whether such an arrangement is in accordance with professional ethics and etiquette," it can only be answered in the negative. It is not in accordance with professional ethics for any partnership arrangement to be made between medical men and members of the outside public, even where the partnership in question is, as it necessarily must be, of a dormant character and strictly limited as to time.

MEDICAL TESTIMONIALS USED AS ADVERTISEMENTS.

Carliol.—A correspondent sends us a cutting from the *Carlisle Patriot* of January 18th, containing an advertisement of a chiropodist, who for this purpose has made use of testimonials given by local practitioners. It is not to be supposed for a moment that these gentlemen could have suspected that their testimonials would be used in this way; but the incident only shows how careful medical men should be in giving testimonials which can so readily be used in this unscrupulous fashion by advertising and other irregular practitioners.

J. L.—In view of the fact that A. had advised B. to seek admission to a hospital, and that D. (a hospital surgeon) was admittedly ignorant at the time of examining him (B.), that the latter was A.'s patient, we fail to see that the case described by our correspondent constitutes, as alleged, one of hospital abuse; for we not unnaturally assume that D. would expect to be professionally remunerated for his trouble in the matter by his lady patient C.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,366 births and 4,000 deaths were registered during the week ending Saturday, February 2nd. The annual rate of mortality in these towns, which had been 21.7 and 18.7 per 1,000 in the preceding two weeks, rose again to 19.7 last week. The rates in the several towns ranged from 11.8 in Croydon, 14.6 in Portsmouth, and 16.0 in Birmingham to 28.3 in Salford, 26.5 in Preston, and 27.9 in Liverpool. In the thirty-two provincial towns the mean death-rate was 20.2 per 1,000, and exceeded by 1.2 the rate recorded in London, which was 19.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.4 per 1,000, while it averaged 1.5 in the thirty-two provincial towns, and was highest in Wolverhampton, Bolton, and Salford. Measles caused a death-rate of 1.1 in Gateshead, 1.0 in Preston, and 1.7 in Bolton; scarlet fever of 1.0 in Salford; and whooping-cough of 1.2 in Plymouth, 1.3 in Salford, and 1.7 in Brighton. The mortality from "fever" showed no marked excess in any of the large towns. The 70 deaths from diphtheria in the thirty-three towns included 45 in London, 3 in Birmingham, 3 in Manchester, and 3 in Blackburn. Two fatal cases of small-pox were registered in London, but not one in any other of the thirty-three large towns. There were 51 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, February 2nd, against 38, 32, and 35 at the end of the preceding three weeks; 21 new cases were admitted during the week, against 8, 6, and 8 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,713, 1,653, and 1,632 at the end of the preceding three weeks, was 1,583 on Saturday last, February 2nd; 160 new cases were admitted during the week, against 130, 154, and 188 in the preceding three weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 2nd, 873 births and 480 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.3 and 24.2 per 1,000 in the preceding two weeks, further declined to 23.9 last week, but exceeded by 4.2 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 13.5 in Leith to 26.5 in Glasgow. The zymotic death-rate in these towns averaged 2.1 per 1,000, the highest rates being recorded in Greenock and Aberdeen. The 254 deaths registered in Glasgow included 21 from whooping-cough, 15 from measles, 7 from scarlet fever, and 2 from diphtheria. Ten fatal cases of measles were recorded in Edinburgh and 9 in Aberdeen.

COMPULSORY NOTIFICATION IN SCOTLAND.

In the forty-eighth annual report of the Board of supervision of the Poor, Scotland (now replaced by the Local Government Board, Scotland), a statement is made showing the cost of notification in Scotland. This information, when taken along with Mr. Ernest Hart's pamphlet "Compulsory Notification in England and Wales in 1892," affords valuable information, and it is to be hoped that the Local Government Board, Ireland, will supply similar information.

The Scottish report shows that the Notification Act has been adopted by 84 county and district local authorities and 74 burgh local authorities, having a total population of 3,274,983 persons. To these must be added the populations of Edinburgh, Dundee, and Greenock (which have local Notification Acts) of 478,765. Thus it is shown that while the population of Scotland was in 1891, 4,025,647, the Notification Act is applied to 3,753,749 persons—that is, the Act applies to 93.2 per cent of the entire population. Twenty-four local authorities availed themselves of the power to extend the Act, 16 authorities adding measles, and 8 measles and whooping-cough; 69 local authorities also extended the Act temporarily to include cholera.

In 139 of the above local authorities from whom information was obtained it is shown that, during the year ending December 31st, 1892, 28,393 cases of infectious diseases were notified, there having been 2,243 deaths among these, or 7 8 per cent. of deaths to cases notified. Besides these notifications, under Section 6 of the Act, 15,966 cases of measles were notified to 22 local authorities; 1,369 cases of whooping-cough to 7 local authorities, 72 cases of choleraic diarrhœa to 18 local authorities, and 71 cases of British cholera to 11 local authorities. Thus there was a grand total of 46,371 cases notified, and 3,090 deaths among these.

As regards the cost of notification in fees to medical practitioners, this amounted in 1892 to £5,311 11s. As bearing upon the prominent question—Should measles and whooping-cough be made notifiable diseases?—the Board points out that it is their plan to approve the inclusion of these diseases for a period of twelve months, and then to call for a report from the medical officer of the local authority.

In Appendix B is given a summary, arranged in 30 counties, of each of the infectious diseases notified, and the death-rates. Thus in small-pox the death-rate was 71.0, cholera 33.3, diphtheria 25.6, membranous croup 43.1, erysipelas 4.2, scarlet fever 3.2, typhoid 12 6, typhus 8.2, relapsing fever 22.6, continued fever 5.5, puerperal fever 54.0, whooping-cough 10.5, measles 4.3, choleraic diarrhœa 11.1, British cholera 5.6 per cent. of cases notified.

In another table in the appendix important statistics are given showing that in the 30 counties, of 46,371 cases notified, 37,083 cases were treated privately, with 2,436 deaths, giving a death-rate of 6.6, while 9,288 cases were treated in hospital, with 654 deaths, giving a death-rate of 7.0.

Mr. Ernest Hart, in his pamphlet, points out that the parliamentary return issued in May, 1892, shows that in March, 1892, the Act applied to 23,992,711 persons, out of a population of 29,002,525, or to 83 per cent. of the population. He further shows that in 1892, 181,461 cases were notified, at a cost of £21,357, while he estimates that if the Act were applied to the entire population of England and Wales it would cost £24,718, estimated at 210,000 cases notified.

A point which must be noticed is that in Scotland, with a population of 4,025,647, the total number of cases of puerperal fever notified was 239, with a death-rate of 54.0 per cent.; while in England and Wales, with a population of 29,002,525, only 973 cases of puerperal fever were notified, with a death-rate of 56.6 per cent. There is little doubt but that a large number of cases of puerperal fever are not notified when we take into account the total number of births, the number of miscarriages and abortions, criminal and otherwise.

The above facts are of public interest as showing that the time must soon arrive when the system of notification shall be put into active operation over the United Kingdom as a whole.

THE GREENING OF PEAS.

The question are French preserved green peas, now extensively sold by grocers, injurious by reason of their copper colouring, has formed a subject of inquiry at the Bristol Police Court. Dr. Paul of London, Dr. Dougall of Glasgow, and Dr. Blagg of Clifton, gave it as their opinion that the phyllo-cyanate of copper formed in the husk of the pea when treated with sulphate of copper in the course of manufacture is insoluble in the digestive juices and harmless; this conclusion being the result of experience and experiment. On the other hand, the view of the Bristol city analyst that copper amounting to 1 part in 8,500 is injurious and is extracted in digestion was supported by Dr. Stevenson of the Home Office, who was called to support the case for the prosecution. Neither gentleman could point to a specific case of injury having resulted from the use of such peas, but the mischief they believed resulted was in the nature of irregularity of the bowels and weakened nerve power. Dr. Stevenson found no difficulty in dissolving the phyllo-cyanate (although it was unaffected by strong hydrochloric acid) in dilute HCl to which pepsine had been added, and also in pancreatic ferment rendered alkaline by carbonate of soda, these processes being akin to those in digestion. The Home Office adviser admitted that, though these peas had been sold openly through the country, nothing had been, as far as he was aware, done by a Government department to check their sale, but, now the question had been raised, he said a conference of public analysts would be held. The Bench this week held it not proved the peas were injuriously coloured, and dismissed the summons, which was against a leading Clifton grocer.

CERTIFICATION OF WORKHOUSE LUNACY CASES.

Deputy writes: I am deputy to a district medical officer, who also holds a workhouse appointment. The dual appointment prevents him from issuing lunacy certificates for patients in, and restrained at, the workhouse. The relieving officer has ignored my official relation, and has sent an outsider to furnish all necessary certificates. Is he justified in passing me over, and is the medical gentleman when so engaged by him acting in conformity with medical ethics?

*** We are unable to see how the dual appointment prevents the medical officer of the workhouse from certifying" cases there for removal to an asylum, there being no law or regulation to that effect, and if called upon by the magistrate he can himself undertake this duty. We cannot see that being deputy to a district medical officer would give any claim to certify for workhouse cases, or that the medical practitioner who certified the cases referred to has infringed ethically in any way.

CANVASSING FOR PAROCHIAL MEDICAL APPOINTMENTS IN SCOTLAND.

Poor Law writes from Scotland, and asks for our opinion as to the propriety of canvassing for a vacant appointment there by calling personally, accompanied by a solicitor, on 400 electors, and receiving proxies before the advertisement in reference to the appointment appeared. He states that in these cases the candidate who first calls generally secures the necessary votes.

*** Calling in the way described on 400 different electors appears to be throwing an uncommon energy into the matter. As canvassing is not prohibited by regulation, we are unable to say that any material error has been committed. There are strong objections to canvassing of any kind before an appointment is declared vacant, but this we do not understand to have been done in this instance.

W. E.—The following are the opening words of the 5th Clause of the Infectious Disease Notification Act, 1889: "The local authority of any urban, rural, or port sanitary district may adopt this Act by a resolution passed at a meeting of such authority." The Infectious Diseases Prevention Act, 1890, may be adopted by the local authority of any urban or rural sanitary district (either in whole or in part) by a resolution passed at a meeting of such authority.

Variola asks what action can be taken (apparently by the sanitary authority) in the case of a large butcher's shop, the walls of which are covered with arsenical paint.

*** The sanitary authority have no specific powers in such a case, and it is doubtful if they can interfere, beyond cautioning the butcher. Probably the protests of customers would be effectual.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

The professors and teachers of science in Oxford have resolved to establish a memorial in connection with the University Museum and the services of Sir Henry Acland to the School of Medicine in Oxford. While expressing general sympathy with the appeal to the public for a memorial to Sir Henry Acland in connection with the Sarah Acland Memorial Home, it was felt that a personal memorial in the museum was desirable. Further consideration of the proposal will be the subject of discussion at a meeting to be held shortly.

UNIVERSITY OF CAMBRIDGE.

Degrees.—At the Congregation, on January 31st, the following medical degrees were conferred:—*M.D.*: F. E. Batten, Trinity; E. G. Trevithick, Trinity. *M.B. and B.C.*: H. C. Goodman, St. John's; E. F. Henderson, St. John's; T. E. Sandall, St. John's; A. V. Clarke, Caius; W. S. Sheppard, Christ's.

Clinical Teaching.—A discussion on the subject of the relations between the University and Addenbrooke's Hospital was held in the Arts School on January 26th, the chief point being the fact that the Regius Professor of Physic has no connection with the hospital. Several members of the staff pointed out the difficulties attending any proposal to make University professors *ex officio* physicians to Addenbrooke's, which is an independent corporation, governed by a special Act of Parliament. Unless the present staff were displaced, or new posts created—and to both of these courses obvious objections were stated—the alternative was to build and endow University wards at considerable expense. The Vice-Chancellor was willing, however, to confer with the hospital authorities on the matter, and this he will probably be empowered by the Senate to do. The *de facto* connection is already strong, all the members of the staff being graduates of the University, and five of the University teachers holding hospital appointments.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The following gentlemen, having conformed to the By-laws and Regulations, and passed the required Examinations, were at the quarterly meeting of the College, on January 31st, admitted Licentiates:

Andrews, H. A., St. Bartholomew's
Ashton, J., St. Mary's
Astbury, T., Birmingham
Badcock, E. R., London
Bagshawe, A. W. G., Cambridge and St. George's
Barber, M. C., Bristol
Barford, P. C., St. Bartholomew's
Barker, G. C., St. George's and King's College
Barrett, J. W. C., Birmingham
Best, F. H. de G., St. Bartholomew's
Bloomfield, H. W. G., St. Bartholomew's
Bousfield, A., King's College
Brakenridge, F. J., St. Thomas's
Brewerton, E. W., St. Bartholomew's
Bromet, E., Cambridge and St. Thomas's
Brooks, W. P., Charing Cross
Bryant, C. H., Newcastle and Guy's
Burrell, L. C., Cambridge and Guy's
Candler, G., Cambridge and St. Thomas's
Chapman, W., Birmingham
Charsley, G. W., Oxford and Birmingham
Christmas, R. W. S., Charing ro
Clay, D. L., Manchester
Clay, F. E., Westminster
Cole, G., King's College
Collier, H. W., Guy's
Collings, D. W., St. Bartholomew's
Connell, W. T., Kingston, Canada

Constable, J. C., Guy's
Cotter, G. E. W., Cambridge and St. Mary's
Crossley, R., Manchester
Cummings, A. P., Leeds
Cunliffe, T. V., Manchester
Currey, E. F. N., St. Bartholomew's
Daniel, E. G. C., Cambridge and St. Thomas's
Davidson, G., St. Thomas's
Davis, H. J., Cambridge and St. Thomas's
Dawes, C. D., St. George's
Dillon, R. W., St. Thomas's
Dockray, J. S., Manchester
*Duke, R. E., University College
Eder, M. D., St. Bartholomew's
Ensor, C. A., Guy's
Escombe, W., Charing Cross
Evans, E. G., Guy's
Every-Clayton, L. E. V., Guy's
Finch, H. J., Westminster
*Fleming, C. E. S., Bristol
Flint, T. B., Manchester
Forrester, W., Calcutta and St. Thomas's
Fry, A. C., Guy's
Gibbes, L. N., St. George's
Giles, L. T., Cambridge and St. Bartholomew's
Greenway, C. M., Guy's
Greenwood, A. C., Middlesex
Hampton, T., St. Bartholomew's
Hancock, G. C., Westminster
Handley, W. S., Guy's
Harding, L. N., Cambridge and St. Mary's
Hayes, R. H., Dublin and Guy's
Hedges, C. E., Cambridge and St. Bartholomew's
Henderson, R., Guy's
Hinds, H. A., Guy's
Hodge, A., Manchester
Home, A. L., St. Thomas's
Hooper, A. W., St. Thomas's
Horner, W. E. L., University College
Horseman, F., Leeds
Horton, J. H., Guy's
Hortwich, D., Birmingham
Hosford, J. S., University College
Hughes, B. M., St. Bartholomew's
Hughes, R., St. Thomas's
Hughes, R. T., Manchester
Hugo, J. H., St. Bartholomew's
Jackson, F. S., Manchester
Jacob, F. H., King's College
James, S. P., St. Mary's
Jeffery, C. C., Charing Cross
Jones, R. L., University College
Kearney, C. J., Guy's
Kettlewell, G. D., London
Knight, H., St. Thomas's
Leon, G. A., London
Levy, O. L., Munich, Berlin, Freiburg, and Westminster
Lewis, G., London
Lonnon, F., Charing Cross and St. Thomas's
Mackintosh, J. S., St. Bartholomew's
Mausergh, W., Manchester
Mathews, C., St. Mary's
Mayne, W. S., University College
Messiter, F. G., Birmingham
Millward, F. V., Cambridge and St. Thomas's
Morison, H. B., Durham and Middlesex
Morrison, A., University College
Morrison, D., University College
Newington, C. W. H., St. Bartholomew's
Norris, F. B., Cambridge and St. Bartholomew's
Oliver, R. S., King's College
O'Malley, E. D. J., Middlesex
Parkinson, W. G., Leeds
Penn, H., Guy's
Phillips, J., University College
Portis, R. L., Oxford and St. Bartholomew's
*Power, H. R., St. Mary's
Quait, A. W., St. Thomas's
Reeves, A., Guy's
Rigby, H. M., London
Roberts, C. D. D., Birmingham
Robertson, F. W., St. Bartholomew's
Robinson, C. H. J., Middlesex
Robson, T. S., Guy's
Rogers, F. E., London
Rost, E. R., St. Mary's
Rykert, A. F., Toronto
Salter, A., Guy's
Schibler, A., Zurich, Lausanne, Berne, and London
Sharpin, W. A., St. George's
Shepherd, A. E., Middlesex
Smith, G. U., King's College
Snoad, P. E., St. George's
Stenhouse, J. W., Edinburgh
Stokes, F. W., University College and Durham
Storrs, E. G., King's College and Leeds
Sullivan, D. V., Kingston, Canada, and University College
Taylor, H. S., University College
Thomas, T. M., Guy's
Tinley, W. E. F., St. Thomas's
Tregenza, W., Sheffield and University College
*Vallance, H., Guy's
Waite, J. E., University College
Watts, B., Sheffield and London
Webb, A. L. A., University College
Weeks, C. C., University College
Welch, E., Leeds
Wells, T. H., Middlesex
White, A. T., Westminster
Williams, R. B., St. Thomas's
Zumbado, F., Durham and Guy's

* Candidates who have not presented themselves under the Regulations of the Examining Board.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The quarterly Examinations for the Triple Qualification in Edinburgh took place in January with the following results:

First Examination.—Four Years' Course—Of 25 candidates, the following 10 passed: G. S. Foulds, J. Shechan, A. J. Rencontre, M. Caldwell, C. Bouchier-Hayes, J. Kennish, M. F. H. Gamble, W. L. Brown, J. E. Harburn, and H. A. Lakhani. Of 7 candidates entered for the respective divisions, 2 passed. Five Years' Course—Of 17 candidates, the following 6 passed: Florence McCarthy, G. Potts, C. H. G. Lyall, H. E. Beamish, J. Buckley, and F. P. Walsh. Of 6 candidates entered for the respective divisions, 2 passed.

Second Examination.—Four Years' Course—Of 39 candidates, the following 21 passed: G. O'Toole, W. A. G. Farquhar, H. Hartigan, G. H. Gill, H. A. Lakhani, P. Hcaney, J. W. Reese, J. Kennedy, M. P. O'Brien, J. G. Mylan, W. A. McDonald, M. Higgins, T. W. Mason, D. U. Hanly, A. J. Young, R. J. Erskine, D. Walker, J. A. Benson, J. D. Power, A. G. Johnson, and C. P. Windle. Of 15 candidates entered for the respective divisions, 11 passed. Five Years' Course—Of 4 candidates, the following 2 passed: Grace Harwood Stewart and J. G. Parker.

Final Examination.—Of 133 candidates, the following 60 passed, and were admitted L.R.C.P.E., L.R.C.S.E., and L.F.P. and S.G.: G. J. Branson, L.S.A.; W. H. Mackay, W. J. Reid, T. A. Beadle, E. F. Jamison, J. C. Ramsay, J. Munro, E. E. Willis, G. W. Pickering, J. S. Montgomery, Janette Frances Agnew Wallace, J. H. D. Stephenson, R. F. Yencken, P. J. Pugh, J. Worthington, Theodosia Caroline Green, Eleanor Lydia Mitcheson, H. E. Fellowes, J. A. Kilvington, H. G. Parker, G. H. Wilson, I. Abd-el-Said, J. K. Gibson, E. E. S. J. Galbraith, Eleanor Agnes Montgomery, H. Reid, J. H. Moore, D. D. Wickson, J. C. Bhuttacharjie, G. W. Beesley, J. D. Power, A. Crerar, G. Munro, Mary Buchanan Lee, Mary Janet Dodds, Lillias Jane Thomson, S. Carter, F. W. Allkin, G. S. R. Stritch, M. P. Corkery, G. Gibson, H. R. Irvine, W. C. Millea, P. C. B. Swanseger, D. M. Atkinson, R. T. Nariman, A. A. Sakir, J. A. Sanderson, R. H. Ross, A. P. Dias, C. V. Chisholm, P. Kattray, J. Moore, O. Sapara, J. F. Neville, Henrietta Kate Cornford, J. W. T. Gilbert, L.S.A.; J. W. Shiels, A. L. Smith, and M. Breen. Of 12 candidates entered for the respective divisions, 4 passed.

OBITUARY.

We have to record the death on January 30th, in his 78th year, of Mr. David Kent Jones, M.R.C.S., L.S.A. In 1841 he commenced practice at Llangefni, Anglesea, and continued to practise in North Wales up to 1874, when he removed to the South to fill the post of District Surgeon to the Dowlais Iron Company, at Fochriw. While there he was run over by some coal trucks, and so seriously injured that amputation had to be performed above the knee-joint. Subsequently he went to practise in the colliery village of Deri, where he was joined by his son. While in North Wales he acted as Honorary Secretary of the North Wales Branch of the British Medical Association for a period of over twenty-two years, having commenced office when the Association was known as the Provincial Medical Association. In 1875-6 he was President of the Branch. For twenty years he was deputy coroner for the county of Anglesea, his brother, W. Jones, being the coroner. Mr. Kent Jones was a man possessed of many good qualities, and his loss is deeply felt by many friends and patients.

Mr. Charles Arthur, who has been for twelve years Dispenser to the Edinburgh Royal Infirmary, died on February 2nd from pneumonia after four days' illness. He compiled a *Pharmacopœia* of the Edinburgh Royal Infirmary, which has met with much success. He was 42 years of age.

Dr. Hiegnet, Surgeon-in-Chief of the Civil Hospitals of Liége, and a member of the Belgian Academy of Medicine, who died recently, had a considerable reputation as a surgeon. He was also an enthusiastic defender of the interests of his profession, and he was the author of a book in which the abuses of the hospital system in Liége were freely exposed.

Dr. Paul Liebrecht, who recently died at Buenos Ayres, was a graduate of the University of Liége, where he had been assistant under Professor von Winiwarter in the Surgical Clinic. He was the author of valuable papers, among which may be mentioned one Excision of Goitre, and another Ligature of the Abdominal Aorta with Complete Statistics of all the Cases Published. He translated into French Koenig's *Treatise on Surgical Diseases*, and was an active contributor to the *Journal d'Accouchements* conducted by Dr. Charles, of Liége.

Dr. Le Monnier, member of the French Senate for the Sarthe department, who died recently, was born in 1814, and took his doctor's degree in 1838. He practised for many years at Chateau du Loir. From an early part of his career he took a prominent part in politics, and his republican opinions brought him into such disfavour with Napoleon III. that he was dismissed from his post of physician to the local hospital, and imprisoned at Nantes for eighteen months. Six years later he was banished, and remained in exile till the amnesty of 1859. He was elected a member of the Chamber of Deputies in 1874, and a member of the Senate in 1882. He was a devoted practitioner and an honest politician. The latter quality seems to be sufficiently rare in France to constitute a distinction in itself.

Professor Ed. Külz, of Marburg, the distinguished physiologist, died suddenly on January 13th of perityphlitis from perforation. He was born in 1845, studied medicine at Berlin and Marburg, taking his Doctor's degree in the latter University in 1867. He remained at Marburg as a teacher during the rest of his career, first as *Privatdocent*, becoming Extraordinary Professor in 1877. In 1879 he succeeded Nasse as Director of the Physiological Institute. Among his works, the most important are his *Beiträgen zur Pathologie und Therapie des Diabetes* and *Beiträgen zur Kenntniss des Glycogens*,

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

SPECIAL COMMISSION OF THE "BRITISH MEDICAL JOURNAL."

XXXVII.—TOTNES, DEVONSHIRE.

WE fancy that this house must be unique in construction. It is built on the side of one of the steep hills of this lovely country, and clambers up the slope in sections. It stands a little way out of the pretty little Devonshire town, and commands a magnificent view over the surrounding country. The grey stone of the locality, of which it is built, and the small windows, give a prison-like aspect to the exterior.

The house stands on a terrace reached by a long flight of steps. The first section contains the wards for the old and infirm; a climb up the hill takes us to the quarters for the able bodied; above this is the hospital; and a further climb will bring us to the isolation hospital, which crowns the hill. There are, in addition, two detached annexes; in the eastern one are a ward and a day room for infirm men, in the western one is the laundry. The eastern annexe opens on to the stonebreakers' yard; the other intervening spaces between the lines of building form the gardens or airing courts for the various departments.

As our visit was specially to the sick the acting matron conducted us first to the hospital. This building is set on arches, above which is a pleasant terrace round the wards. Here we found some of the patients on benches, enjoying the sunshine and perhaps the view. A few creepers and nasturtiums gave a cheerful look to the exterior. The hospital is in two detached buildings for male and female patients, 18 beds for the men and 28 for the women. In one female ward there was a patient with chronic rheumatism, another with bronchitis; in the second ward a woman with complete paralysis, another with internal tumour, a patient recovering from bronchitis, a case of old age, in all six in bed; several women were up in the day room, or out on the terrace.

THE MALE PATIENTS

were mostly in the day room or on the terrace; one man was in bed suffering from extreme weakness after bronchitis. In this block there are 9 beds in each ward, and there is less crowding than in the female ward. We found idiots all over the place; there is no classification. In the eastern block are 10 beds and a day room, the latter with its cushioned seats, table and cheerful fire, was the most comfortable room in the place. Here all the men were up. The ward is reached by three steps up from the day room; we could not discover the structural reason for thus raising the floor of the inner room, but it seriously curtailed the cubic space, as the pitched roofs of both were on a level.

THE INFIRMARY

is in the first section, near the gateway, and contains male and female wards. There are 18 beds for women and 17 for men on the first floor, where also is the lying-in ward. There are no day rooms. The beds are close together, and when they are all occupied, and the weather such that the inmates cannot get out, the atmosphere must be anything but wholesome. The walls are painted and have a smooth surface, the roof is pitched, with cross beams. In the men's ward there are two open fireplaces; in the women's there is a tortoise stove and one open fireplace; there is a large boiler beside the fireplace, with pipes from it taken round the ward, to increase the warmth in winter. Gas is used for lighting throughout the buildings. There were very few armchairs in the wards; in the male hospital day room was an ancient wooden arm chair with a thin cushion on the seat.

There were three men in bed in the infirmary, one was laid up with a "bad leg;" in reply to a question, we were informed that the leg was "just bandaged." The other patients in bed were cases of senility. The usual group of listless old men was seated on benches round the fire. There was a similar group in the women's ward, and one patient in bed. The bedsteads are narrow and low, with straw or flock bedding; we did not observe any pulls with which the patients might assist themselves when in bed.

THE LYING-IN WARD

is partitioned off from the end of this ward; it holds four beds. All sound must be transmitted from one ward to the other. We saw a convalescent patient with her two weeks' babe, and an old pauper in charge. There are no appliances of bath or water, and the closet is common to the lying-in ward and the infirm ward.

THE NURSING

is divided among three, a male and two female nurses; the head female nurse is in the infirmary, and she is the midwife; the assistant female nurse is on duty in the hospital; the males nurse is responsible for all the men, sick and infirm; none of these are hospital trained. There is no night nurse. A "ward tender" is appointed to each ward, and these seemed to do much of the nursing; they are mostly old people.

THE SANITARY ARRANGEMENTS

are of the old style; there is a closet for each block in the hospital, rinsed by the turning of a tap; that for the women is small and inconvenient; there is much more space on the men's side. The fixed bath on the women's side appeared to us to be most unsuitable for use by sick or old people; the raw edge of the metal, turned outwards at a right angle, is unprotected, and might be dangerous. The men's bath is movable. The water is pumped up, requiring the entire labour of one pauper. The water for the fixed bath is heated in a boiler in the hospital kitchen. In the infirmary there are movable baths; the closets are of the same style, and open immediately from the wards. We found no single closet sweet, and the urinal, also rinsed by tap, was in a foul condition. We came to the conclusion that the baths were not often used.

ISOLATION.

The isolation block holds eight beds; it was empty at the time of our visit. It is divided into four wards with whitewashed walls, and there is a small kitchen and closet. The straw bedding is destroyed after each case, though, as we saw the bedding left by the last patient, a man with itch, there seems to be some lack of promptitude in carrying out this detail. We would suggest that an old stuffed screen, offering a good soil for germs, should be added to the next bonfire. This building is the only means of isolation. The matron informed us that when a patient is isolated "watchers" are sent from the house to take charge, or he is nursed from the infirmary.

THE NURSERY

is in the able-bodied part of the house; one little inmate was the sole occupant, in the care of a pauper. Ancient wooden cradles were in use and there was a dreariness and inattention to the needs of child life only too common in our workhouses. There are no bathing arrangements. The infants are kept here till they are three years old. The mothers feed their infants and look after them in the nursery.

THE DIETS

include meat daily, which is roasted on two days in the week; it is distributed in wooden trays with metal covers from the house kitchen.

BELLS OF COMMUNICATION

ring from the wards to the master's or porter's rooms; the receiving wards in front of the building and the tramps' quarters ring to the porter's lodge. The doctor, who lives about a mile from the house, is fetched by messenger.

RECOMMENDATIONS.

We understand that the guardians propose building day rooms, with bathrooms underneath, for the infirmary block; this will be a great improvement. We would suggest that the alterations should include a new lying-in ward, at a greater distance from the old people; also that the sanitary appliances all over the house be brought more into harmony with modern ideas. We believe that there is an ample supply of water, as there is a mysterious ever-flowing spring which could doubtless be utilised. New bedsteads of a more comfortable pattern for the old people, more arm chairs, the brightening of the hospital day rooms, especially the men's, would conduce to the comfort of the inmates. Above all, a staff of trained nurses, with one on duty at night, is most essential.

MEDICAL NEWS.

We regret to learn of the death of Mr. Burroughs, of the firm of Burroughs, Wellcome, and Co., from pneumonia, at Monte Carlo on February 6th.

The Duke of Cambridge will preside at the festival dinner of the Hospital for Sick Children, Great Ormond Street, at the Hôtel Métropole, on May 17th.

The Morrison prize for meritorious attendance on the insane, consisting of a silver medal and a sum of money, has just been awarded for the present year by the Royal College of Physicians of Edinburgh to Mr. James Will, chief attendant of the Barony Parochial Asylum at Woodilee, Lenzie.

The Outbreak of Puerperal Fever in St. Pancras.—According to a report in the *Times* of an inquest held at the St. Pancras Coroner's Court, on February 5th, five deaths from puerperal fever had occurred in the practice of one midwife. Into the merits of the particular case we do not propose now to enter, as a verdict of manslaughter was returned against the midwife in question, who was then committed for trial.

Departmental Inquiry on Inebriates.—The Scottish Departmental Committee on Vagrants and Inebriates concluded the reception of evidence at several sittings in London last week. Among the medical witnesses examined were Sir James Crichton Browne, Dr. Hoffman, Dr. Nicolson of Broadmoor, and Dr. Norman Kerr. Sir Charles Cameron, Bart., M.P., presided as Chairman of the Committee; Dr. Farquharson, M.P., and the Secretary (Dr. J. F. Sutherland) were also present. The Committee expects to meet in London in March or April to prepare their report.

Edinburgh Royal Infirmary Samaritan Society.—The sixteenth annual report of the Society has just been issued. This admirable and well-managed Society exists for the purpose of "assisting the families and dependents of patients being bread-winners, of giving clothing, travelling expenses, or other needful help to patients on leaving the infirmary, of endeavouring to procure work for them, and generally of befriending and being of use to them as far as possible." With a very small outlay, only £414, a large amount of most excellent work has been done. There was a deficit of £16.

On February 1st a dinner was given in the hall of the College of Guy's Hospital to Mr. Wordsworth Poole, who on the following day proceeded to Zomba to undertake the duties of Government medical officer to the British Central African Administration in the Shiré Highlands to the south of Lake Nyassa. Mr. R. Clement Lucas, the surgeon to whom Mr. Poole acted as dresser, occupied the chair, and a large number of friends and fellow students of Mr. Poole were present. In reply, Mr. Poole said that the district to which he would be medical officer was that administered by Mr. H. H. Johnston, and was some 500 miles in length and 200 in breadth.

MEDICAL VACANCIES.

The following vacancies are announced:

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's Inn Road, W.C.—House Surgeon. Applications to the Secretary by February 12th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road.—Resident Medical Officer; doubly qualified. Appointment for twelve months. Salary, £60 per annum, with board, lodging, and washing. Anæsthetist; medical women are eligible for this post. A small honorarium is given. Applications, on forms to be obtained at the hospital, to be sent to the Secretary by February 11th.

DERBYSHIRE ROYAL INFIRMARY, Derby. — Honorary Physician, Honorary Surgeon, Honorary Consulting Dental Surgeon. Applications to Walter G. Carnt, Secretary, by February 18th.

GENERAL INFIRMARY, Leeds.—Resident Casualty Officer. Salary, £100 per annum, with board, lodging, and washing. Applications to Mr. Littlewood, Secretary of the Faculty, General Infirmary, Leeds, by February 20th.

KENT AND CANTERBURY HOSPITAL, Canterbury.—Surgeon. Applications to the Secretary by February 18th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months. Board and washing provided, but no salary. Appplications to C. W. Carver, Honorary Secretary, by February 12th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Junior House-Physician; doubly qualified. Appointment for six months. No salary, but board and lodging (including washing) provided. Applications to the Secretary, 27, Clement's Lane, E.C., by February 13th.

PARISH OF LOCHS, Island of Lewis. Medical Officer. Knowledge of Gaelic indispensable. Salary, from Parochial Board, £135 per annum, free house, and garden. Applications to Inspector of Poor by February 18th.

RADCLIFFE INFIRMARY, Oxford.—House-Surgeon; doubly qualified. Appointment for six months. Salary at the rate of £80 a year, with board, lodging, and washing. Applications on printed forms, to be obtained from the Secretary, to be sent to the Secretary by February 15th.

RATHDOWN UNION.—Medical Officer to Workhouse and Fever Hospital. Salary, £200 per annum. Applications to the Chairman of the Board of Guardians. Election on February 26th.

SALOP INFIRMARY, Shrewsbury.—House-Surgeon. Salary, £100 per annum, with board and residence. Applications to the Board of Directors by February 11th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Board, lodging, washing, etc., provided, but no salary. Applications to the House-Surgeon by February 13th.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Surgeon. Must reside within two miles of the Hospital. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by February 16th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Fourth Assistant Physician, must be Fellow or Member of the Royal College of Physicians of London, not practising pharmacy and midwifery. Applications to the Secretary before February 26th.

MEDICAL APPOINTMENTS.

Alexander, S. R., M.D.Lond., M.R.C.S., appointed Medical Officer and Public Vaccinator for the No. 1 District of the Faversham Union, *vice* John J. Boswell, M.D.Lond.

Broster, Arthur E., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer for the Brassington District of the Ashbourne Union.

Buck, Lewis A., M.R.C.S.Eng., L.S.A., appointed Resident Medical Officer for the Workhouse of the Bolton Union.

Burland, H., F.R.C.S., L.R.C.P., appointed Medical Officer to the Finedon Urban Council.

Donald, Archibald, M.A., M.D., C.M.Edin., M.R.C.P.Lond., appointed Obstetric Physician to the Manchester Royal Infirmary, *vice* D. Lloyd Roberts, M.D.St.And., L.R.C.P.Lond., resigned.

Hall, Alfred, M.R.C.S.Eng., reappointed Medical Officer for the Calton District of the Ashbourne Union.

Henry, R. Wallace, M.B., B.Ch.Dubl.Univ., appointed Senior House-Surgeon to the Birmingham and Midland Eye Hospital.

Hickman, J. E., L.R.C.P.Lond., M.R.C.S.Eng., appointed Resident Medical Officer to the Guest Hospital, Dudley, *vice* Percy Tempkton, L.R.C.P.Lond., M.R.C.S.Eng., resigned.

Hutton, E. R., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the 2nd Tottenham District of the Edmonton Union.

Kemphorne, A. E., M.R.C.S., L.S.A., appointed Medical Officer for the No. 5 District of the Bethnal Green Union, *vice* A. E. Schmidt, L.R.C.P., L.R.C.S.Edin.

Littleton, Philip Richard, M.R.C.S.Eng., reappointed Medical Officer for the Ashbourne District of the Ashbourne Union.

McLennan, Donald U., M.D.Edin., appointed Medical Officer of Health for the Widnes Urban Sanitary District, *vice* John McN. O'Keeffe, L.R.C.P., L.R.C.S.Edin.

Masson, G. B., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Fineham District of the Downham Union.

Owen, Arthur Deaker, M.R.C.S., L.R.C.P.Lond., L.S.A., appointed Divisional Surgeon, Metropolitan Police, *vice* V. Holberton, M.R.C.S., resigned.

Powell, Rhys, L.R.C.P.Lond., L.S.A., appointed Medical Officer and Public Vaccinator for the Merthyr Cynog District of the Brecon Union.

Robertshaw, Walter M., M.B., C.M.Edin., reappointed Medical Officer of Health to the Stocksbridge Urban District Council.

Robertson, Mr. J. G., appointed Medical Officer for the 3rd District of the Royston Union.

Seville, C. F., M.B.Lond., appointed Medical Officer to the Helston Dispensary.

Steen, Robert H., B.A.R.U.I., M.B.Lond., appointed House-Physician to the Brompton Hospital for Consumption and Diseases of the Chest.

Swan, R. Jocelyn, M.R.C.S.Eng., L.S.A.Lond., appointed Consulting Surgeon to the London Tramways Company, *vice* George Millson, L.R.C.P., M.R.C.S., resigned.

Tait, Mr. W. B., appointed Medical Officer for the 5th District of the Ashton-under-Lyne Union.

Wearne, Walter, M.R.C.S.Eng., L.S.A., appointed Medical Officer to the Helston Dispensary.

Wood, E. Stanley, L.R.C.P., L.M., M.R.C.S.Eng., appointed Factory Surgeon for Cambridge and District, *vice* F. Russell Hall, M.R.C.S.Eng., deceased.

DIARY FOR NEXT WEEK.

MONDAY.

London Post-Graduate Course, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Lachrymal Affections.

London Throat Hospital, Great Portland Street, 8 P.M.—Dr. Edward Law: Examination of the Throat and Nose.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Clinical evening. Dr. L. Guthrie: Case of Unusual Mal-development of Skull unassociated with Cerebral Symptoms. Mr. Swinford Edwards: Some Cases after High Excision of the Rectum by Kraske's Method. Mr. Buckston Browne: Case of a Cork in the Adult Male Bladder. Dr. Outterson Wood and Mr. E. Cotterell: Two Cases of Right Hemiplegia, with Epilepsy, treated by Trephining. Mr. H. Allingham: (1) Case of Pyloroplasty. (2) Case of Enteroplasty. (3) Case of Gastroenterostomy. Mr. C. B. Keetley: Case of Rare Deformity of the Toes. Dr. W. S. Colman: Case of Pseudo hypertrophic Paralysis with Knee-Jerks Preserved.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Hysterical and Religious Mania.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Dr. F. Taylor: The Causation of Ægophony.

LONDON SKIN HOSPITAL, 40, Fitzroy Square, W., 8 P.M.—Mr. James Startin: On some Uncommon Affections of the Skin.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Seborrhœa. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Stanford Morton: Retinal Affections.

THE SANITARY INSTITUTE, Parkes Museum, Margaret Street, W., 8 P.M.—A discussion on Dry Methods of Sanitation to be opened by Dr. George Vivian Poore.

NORTH-WEST LONDON CLINICAL SOCIETY, 8.30 P.M.—General meeting for election of officers. Clinical Demonstration.

HUNTERIAN SOCIETY, 8 P.M.—Annual general meeting and election of officers. 8.30 P.M.—Annual Oration by Dr. Patrick Manson: "The Malaria Parasite: Demonstration."

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, 3 P.M.—Lecture by Dr. Gowers.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, 5 P.M.—Cases and specimens will be exhibited by the President (Dr. Felix Semon), Dr. A. A. Kanthack, Dr. Scanes Spicer, Mr. Charters J. Symonds, and Dr. Herbert Tilley.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. Dr. Donald Hood: Angina Pectoris.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND, St. Bartholomew's Hospital, 4 P.M.—Specimens will be shown by Mr. Hubert Higgins, Mr. F. G. Parsons, and Professors Wardrop Griffith and D. J. Cunningham. Papers will be read by Professors D. J. Cunningham and C. S. Sherrington.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Beevor: Cerebral Localisation. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. Thomas Barlow: Rickets. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. Jonathan Hutchinson: Cases in the Wards.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Mr. J. W. Hulke (The President): The Hunterian Oration.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Address by the President. Dr. Macnaughton Jones: Specimen of Intrauterine Fibroid.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY, Great Northern Central Hospital, 8.30 P.M.—Clinical evening. Cases will be shown by Drs. E. S. Tait, Scott, and Galloway, Mr. Morton, and others.

SOUTH-WEST LONDON MEDICAL SOCIETY, Suffolk Hotel, Upper Richmond Road, East Putney, 8.30 P.M.—Dr. Cullingworth will give a demonstration of Tube Cases, illustrated with magic lantern slides.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: Examination of Air, Soil, and Water. Practical Work: Plate Cultivations.

HUNTERIAN SOCIETY, First Avenue Hotel, 7 P.M.—Annual dinner of Fellows, etc.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Craig: Acute Mania.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

ORD.—On January 29th, Mildenhall, Suffolk, the wife of George William Ord, M.R.C.S., L.R.C.P., of a son.

DEATH.

DAVAR.—On January 29th, at Davos-Platz, Switzerland, Framroz S. Davar, M.D., M.R.C.S. Eng., of Bombay, aged 31.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. F., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4. Th., 3.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Tu., 2.30.

ROYAL EYE HOSPITAL, Southwark. *Hours of Attendance.*—Daily, 2. *Operation Days.*—Daily.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2, Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Tu., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—Tu., W. Th., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

P. M. W. asks for suggestions in the treatment of obstructive jaundice of six months' standing, which has not yielded to any of the usual remedies—olive oil has been tried. The patient, who is aged 66, has œdema of the lower limbs, which is beginning to give anxiety.

RUBBER TYRES.

A YOUNG MEMBER asks for information as to the use of rubber tyres in place of iron tyres for the wheels of a victoria, and also as to the most satisfactory make and form to use in London thoroughfares.

SUPPOSED DEATH FROM SEWER POISONING.

MEMBER writes: A child, aged 2, on the night of January 7th presented the following symptoms: Vomiting, sore throat, slight rash; no symptoms of malignant scarlet fever. The child vomited and purged violently during the night, and died suddenly early next morning after an illness of twenty-four hours' duration. A hole in the corner of the room in which the child lay communicated with the sewer and through it sewer gas came. *Post-mortem* examination discovered nothing but gastro-enteritis. Was death due to sewer poisoning? Are there any pathognomonic *post-mortem* signs in death caused by sewer-gas poisoning, or any records of such? Could bacteriological examination decide?

ANSWERS.

FAIR PLAY has omitted to send his name.

J.S.J.M.—Particulars as to the regulations of the University of Durham for degrees in medicine will be found in the Educational Number of the BRITISH MEDICAL JOURNAL, published on September 1st, 1894. We cannot attempt to appraise the relative value of university degrees.

A COUNTRY MEMBER might select some fundamental problem in physiology, like the circulation of the blood, respiration or digestion, for the popular lecture he is to give. Huxley's *Elementary Physiology* would give the details suited for a popular audience. Magic lantern slides or a few simple experiments would add to the attractiveness of such a lecture.

IRISHMAN.—Our correspondent will find particulars on the method of preparing organic liquids extracted from glands in an article by the late Dr. Brown-Séquard, published in the BRITISH MEDICAL JOURNAL, vol. i, 1893, pp. 1145 and 1212. Further information is contained in a leading article published on p. 1279 of the same volume. The fluids are prepared by Messrs. Bouty, 119, rue d'Aboukir, Paris; and the English agents are Messrs. Roberts and Co., 78, New Bond Street, W.

MEMBER can obtain histological slides from Mr. H. K. Lewis, 136, Gower Street, W.C. The books usually read for the Intermediate M.B. London and Primary Fellowship Examinations in Physiology are for general physiology the textbooks of Foster, Landois and Stirling, or Waller; for histology, Quain's *Anatomy* or Schäfer's *Essentials*; for physiological chemistry, Shea's *Appendix to Foster's Physiology* or Halliburton's *Essentials*. There does not appear to be a single book embracing all the subdivisions of the subject.

UNREGISTERED DENTISTS AND ANÆSTHETICS.

E.H.C.—The precise point of the case described in our correspondent's letter does not appear to have hitherto been brought before the General Medical Council and we cannot say what interpretation the Council would put upon their covering resolutions in this connection. A person not registered as a dentist is not forbidden by the law to practise dentistry so long as he does not hold himself out to be a registered dentist or a surgeon dentist. To give chloroform for an unregistered person practising dentistry does not appear to be a clear case of covering of unqualified practice. We should be disposed to recommend our correspondent to bring the case to the notice of the President of the General Medical Council, who would no doubt cause inquiry to be made on the legal aspects of the subject.

INSANITY AFTER HYSTERECTOMY.

DR. E. D. SHIRTLIFF (Malvern) writes: In connection with Dr. Lawrie's article on hysterectomy followed by insanity, I would like to mention that a few days ago a lady, in whose house I was attending, mentioned to me that she knew of a lady who had had her uterus removed for uterine tumour, which removal was followed by mental derangement. My informant could not tell me the end of the case as she lost sight of the patient. I do not know either the patient's temperament or antecedents.

CARBOLIC ACIDS NOS. 1 AND 2.

DR. K. OSADA (Osaka, Japan).—The commercial varieties of carbolic acid in general use are known by numbers. No. 1 carbolic acid is of the same degree of purity as absolute phenol, but occurs in solid acicular crystalline masses. One part of either absolute phenol, or No. 1, will make a perfect solution in 14 parts of water at 56°F. These acids have no disagreeable odour and are best adapted for surgical and medical use. No. 2 carbolic acid is in crystals and makes a clear solution in 18 parts of water. It is suitable for many surgical purposes and as it has no disagreeable odour and is less costly than No. 1 is adapted for use in the sick room. "Carbolic acid Nos. 1 or 2 Calvert" would refer to the acid manufactured by F. C. Calvert and Co., Manchester, England.

RULES OF FORESTERS' COURTS.

G.W.—A Foresters' Court might resolve not to pay sick allowance except on the certificate of their own medical officer, but it would be *ultra vires* to enact a rule that members should only be attended by the latter in illness. A sick member could not decline to see the club surgeon if sent officially by the court, but the duties of the latter would only have reference to ascertaining the genuineness of the illness, and he could have no right to interfere in the treatment of the case if the member were under the care of a legally qualified practitioner. If a sick member under the care of a private practitioner put no obstacle in the way of the club surgeon coming to visit him he would, we apprehend, be able to recover from the court any sick pay due to him, notwithstanding rules made to the contrary.

HOME FOR PARALYSED PATIENT.

M. T. S.—From our correspondent's description the case seems very unpromising for treatment, and we know of no institution, except the Poor-law infirmaries, into which such a case would be received. The duration and mode of onset are not stated. At the National Hospital for the Paralysed and Epileptic there is a male ward and also a female ward, in which patients who cannot afford to pay for treatment at home are received on payment of £1 1s. a week, but admission is, we believe, restricted to cases in which there is a prospect of permanent benefit. The Secretary of the hospital, Mr. B. B. Rawlings, whose courtesy to the profession is well known, might be able to afford some information.

PRACTICE IN GERMANY.

C. M. D. J.—In Germany a lad who intends to enter the professions of the Church, law, or medicine must attend a gymnasium (upper school), and pass an examination in general knowledge—Latin, Greek, German, French, divinity, mathematics, physics, history, and geography. After passing this examination the student may be accepted as an ordinary full student of a university. At the end of the fourth semester (second year) he can pass the first State examination (*Tentamen Physicum*), which embraces anatomy, physiology and physics, chemistry, botany and zoology. In the tenth semester he may pass the State examination. In most universities the degree of M.D. can be obtained at the end of the eighth semester (fourth year)—that is, before the *Staats Examen* can be passed. The degree of M.D. does not in itself confer a licence to practise in the German Empire. We believe that the Universities of Leipzig, Göttingen, Heidelberg, and some others do not grant the degree of M.D except to persons who have passed the State examination. The fee for the *Tentamen Physicum* is £1 16s.; for the final State examination £10 6s. The fee to the university for the M.D. degree varies between £15 and £25.

NOTES, LETTERS, Etc.

ERRATUM.—The price of Dr. Campbell's book on *Headache*, published by Mr. H. K. Lewis, was, by a clerical error, stated to be 4s. 6d. in the review published in the BRITISH MEDICAL JOURNAL of February 2nd. The price should have been given as 12s. 6d.

MEDICAL MEN AND TRANCE EXPERIMENTS.

DR. W. ELLIOT RISDON (Chancery Lane, W.C.) writes: I noticed in a weekly paper that two medical men, whose names were given, were assisting to manage a "Trance" experiment at the Royal Aquarium. The unfortunate subject was to be hypnotised and kept without food or drink for eight days, and in the meantime (of course always in the interests of science) reports signed by the medical men were presumably to be issued. At all events one such report was published containing a note of the number of respirations, the rate of the pulse, and the condition of the pupils. In the case under notice the experiment, by the advice of the professional attendants, terminated abruptly owing to symptoms of heart failure, but I see the management hope to get a more suitable victim forthwith.

Surely it is time that members of the medical profession refused to associate themselves with experiments on a public platform the obvious aim of which is simply and solely to attract the public in spite of the pretence of scientific value with which these exhibitions are always invested.

I venture to think that the medical men in question, if they are not satisfied as to the uselessness, not to say danger, of an inhibition of the mental processes for a lengthened period might devote their attention to the subject in the wards of a hospital. When they have arrived at

any result, valuable or otherwise, they may be sure of an attentive hearing at one or other of the societies or in the columns of the medical press. By so doing they would not only earn the gratitude and esteem of their medical brethren but relieve themselves from any suspicion of unworthy motives.

THE UNIVERSITY OF LONDON.

DR. RICHARD SISLEY (York Street, W.), writes: The report in the BRITISH MEDICAL JOURNAL of January 26th gives an erroneous impression of what I said of the Convocation of the University of London, and I ask you to allow me to state briefly the substance of what I said. London medical students are at present at a disadvantage as compared with those who go to the Scottish Universities. The degree of the University of London is too hard for the majority of them; some recognise this from the first, and do not attempt to get it; others give up trying after repeated failures. In the case of the Scottish Universities a man of ordinary ability and of fair industry is sure to get a medical degree; in London this is not the case. At the end of their period of study, and after they have had a clinical experience which it would be impossible for them to get in Scotland, many London students who have worked hard have to start in practice without a medical degree. The fact that the degree of the London University is much more difficult to get than a degree at a Scottish university is a real hardship on the ordinary London medical student, because his inability to get a medical degree may place him at an unfair disadvantage in practice if he has to compete with a man who, although he has had less experience, is still a "Dr." whilst he is a "Mr." It would not do to lower the standard of the examination of the University of London, nor would the University be benefited by adopting the Gresham scheme, and uniting with certain "theological" colleges.

OXYGEN AND OZONE IN THE LOCAL TREATMENT OF WOUNDS.

MR. H. NELSON HARDY, F.R.C.S. (Dulwich Grove, S.E.), writes: Mr. George Stoker will find the information he requires in my article on Oxygen and Ozone published in the *Medical Magazine* for June, 1894, and also in a pamphlet on *Ozone, its Commercial Production and Applications*, by M. Emile Andreoli.[1] Ozonised water has been used for some years in several of the Paris hospitals for the local treatment of wounds, and in May, 1892, at the Lariboisière the victims of the dynamite explosion at Verey's were so treated.

THE INDIAN MEDICAL SERVICE: A BITTER CRY.

EXPERIENTIA DOCET writes: You will be deserving of the everlasting gratitude of young medical men contemplating a career in India if you will inform them of the following facts, which I make after some years' personal experience in India:

1. The value of the rupee is now 1s. 0½d. (one shilling and a-halfpenny), and is likely to be less.

2. Two hundred pounds a year in India equal 320 rupees a month.

3. It is absolutely necessary to keep a horse, owing to the relaxing climate.

4. Private practice, except in the very large towns like Bombay and Calcutta, would not pay one's house rent.

5. A medical man, even as a bachelor, cannot live in anything like decent comfort, all reasonable expenses included, for less than 10 rupees (equal to 10s. 5d.) daily; while for a married man without capital it would be impossible; he would be much better off as an assistant in England.

6. The mortality amongst Europeans is just double what it is at home, and when cholera breaks out the deaths are one in two of those attacked.

7. There are no poor houses in India where a destitute man may seek a refuge.

8. Life in India is not only one of exile but it is mostly glamour, and of the artificially exalted order, without any real substantial advantages that can be compared with home life.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. J. Althaus, London; Mr. J. A. Atkinson, Starbeck; Mr. A. W. Aldrich, Mildenhall; J. Arnott, M.B., Brampton; Mr. H. Ashton, Oldham; Mr. C. E. Ady, London; A. B.; Dr. C. J. Ayres, London. (**B**) Mr. W. Barnett, Weston-super-Mare; Mr. W. B. Benham, Oxford; Dr. A. Bruce, Edinburgh; Mr. A. Bird, Dudley; Messrs. Blackie and Son, Glasgow; Dr. R. Baker, Sirdarpore; Mr. T. Blair, Leeds; Mr. C. E. R. Bucknill, London; Dr. A. G. Bateman, London; Dr. R. J. A. Berry, Edinburgh; Mr. W. J. Black, Edinburgh; Mr. E. Bracey, Birmingham; Mr. S. Basham, Newcastle-on-Tyne; Mr. H. G. Barling, Birmingham; Mr. L. A. Bidwell, London. (**C**) J. A. Codd, M.B., Wolverhampton; Mr. R. A. Chudleigh, Wimborne; Mr. J. B. Coombe, Clevedon; Mr. C. E. Crisp, Stafford; Dr. J. Michell Clarke, Clifton; *Clinical Journal*, the Editor of the, London; Country G. P.; Mr. H. N. Custance, London; Mr. W. B. Cosens, London; T. Carter, M.B., Stamford. (**D**) J. Donelan, M.B., London; Mr. E. Davies, Vochriw; Mr. E. F. Drake-Brockman, Nottingham; Dentist; G. H. J. Dinsmore, M.B., Coldstream; Dr. H. M. Duncan, London; Mr. H. Dickinson, Coventry; Professor Dunstan, London. (**E**) Dr. G. Elam, London; Mr. Earton, London; Experientia Docet; Mr. W. Eustace, Arundel. (**F**) Mr. W. Falconer, London; Messrs. Fletcher, Fletcher, and Co., London; Mr. S. Felce, London; Mr. G. H. Fosbroke, Worcester; Mr. C. E. S. Flemming, Freshford; Dr. S. Floyd, Swansea; Mr. W. Frazer, Dublin; Mr. G. Fisher, Guildford; Dr. H. Fox, London; Mr. J. A. Franklin, London; Mr. R. W. Fell, Durham; Mr. T. Fletcher, Warrington. (**G**) G.; Mr. R. H. Grenfell, London; Mr. Galloway, Aberdeen. (**H**) Mr. A. Hart, London; Dr. J. A. Hayward, London; R. W. Henry, M.B., Birmingham; Dr. G. Henderson, Coldstream; Mr. J. A. Hedges, Leighton Buzzard; Dr. J. Haddon, Hawick; Mr. B. W. Hogarth, Kendal; Mr. C. T. Hayes, Sheffield; E. B. Hill, M.B., Richmond; Mr. G. E. Hebblewaite, Winchester; Dr. W. W. Hardman, Blackpool; D. J. Hamilton, M.B., Aberdeen; Mr. M. M. Harvey, London; Hunterian Society, the Honorary Secretary of the, London. (**I**) Inquirer. (**J**) Miss G. B. Jacobi, London; J. B.; Mr. A. Jackson, Sheffield; Jeyes' Sanitary Compound Company, London; J. Jameson, M.B., Dublin. (**K**) Dr. J. Kertesz, Buda-Pesth; Dr. L. Kidd, Enniskillen; Mr. F. W. E. Kenneir, Horsham; Messrs. Kilner Brothers, London. (**L**) Mr. C. J. Lucas, Dublin; Mr. C. S. Loch, London; Mr. H. K. Lewis, London; Laryngological Society of London, the Secretary of the, London. (**M**) Dr. D. Macgregor, Jedburgh; Mr. J. H. Mawson, Hollingwood; Dr. H. W. G. Mackenzie, London; Dr. W. J. Morton, New York; Member; Mr. S. V. Mercier, London; M.D.; Mr. W. L. Morgan, Oxford; Dr. H. C. Major, Bradford; Member of the B.M.A.; Dr. J. Murray, London; Mr. J. Macdonald, Carlisle; A. E. Mahood, M.B., Appledore; Mr. J. H. Marsh, Macclesfield; Dr. L. Y. Minter, London; Dr. J. M. Martin, Blackburn; M.D. Lond.; G. S. Macgregor, M.B., Glasgow. (**N**) Dr. J. Neil, Oxford; Mr. Nyland, London. (**O**) Dr. W. Ogle, Derby; Oxon. (**P**) Mr. F. T. Paul, Liverpool; Dr. R. Philip, Edinburgh; Mr. T. Partridge, Stroud; Mr. H. E. Powell, London; Professor J. Penberthy, London; Mr. T. Price, Manchester. (**R**) Dr. H. B. Robinson, London; Royal Academy of Medicine in Ireland, the Secretary of the, Dublin; Royal College of Surgeons of Edinburgh, the Secretary of the, Edinburgh; Messrs. Reynolds and Branson, Leeds; Mr. A. Ravenhill, London; Dr. G. Rankin, Warwick; Dr. R. R. Rentoul, Liverpool; Dr. J. Reynolds, London; Dr. W. E. Risden, London; Dr. J. Robertson, St. Helens; Mr. C. B. Rossiter, Liverpool; W. M. Robertshaw, M.B., Stockbridge. (**S**) South-Eastern Branch of the B.M.A., the Secretary of the, Maidstone; Dr. C. Spurway, Rome; Mr. C. H. Shears, Liverpool; Dr. S. A. K. Strahan, Northampton; Mr. R. J. Swan, London; R. H. Shaw, M.B., New Mills; Sydney and New South Wales Branch of the B.M.A., the Secretary of the, Sydney; Dr. J. Shaw, London; Mr. W. H. Stainer, Swindon; Surgeon-Major; Mr. P. Smith, Birmingham; Mr. F. J. Spilsbury, Alford; Mr. G. W. Speth, Margate; W. Slimon, M.B., London; Mr. P. Smith, Birmingham; Mr. C. G. Symonds, Wolverhampton; Mr. J. Swinburne-Hanham, London; South-West London Medical Society, the Honorary Secretary of the, London. (**T**) Mr. J. W. Taylor, Birmingham; Tact. (**U**) Mr. S. Udale, Lincoln. (**V**) Mr. R. H. Vereker, Taunton. (**W**) Dr. F. Winslow, London; R. M. Williams, M.B., Menai Bridge; S. L. B. Wilks, M.B., Skipton; Dr. H. Worthington, Middlestown; Dr. J. Wilson, Glasgow; Mr. A. Winkfield, Oxford; Mr. E. S. Wood, Cambridge; Mr. J. Wilson, Dublin; Dr. G. Wade, Melrose; Dr. E. J. Walker, Manchester; Dr. J. Williams, Cardiff; Dr. F. J. Waldo, London; Mr. E. Wilson, Exeter. (**Y**) Young Member; etc.

[1] London: Alabaster, Gatehouse, and Co., Paternoster Row.

BOOKS, ETC., RECEIVED.

Lehrbuch der Histologie des Menschen einschliesslich der mikroskopischen Technik. Von A. A. Böhm und M. Davidoff. Wiesbaden: J. F. Bergmann. 1895. M. 7.

Modern Methods of Investigating Female Pelvic Disease. By M. Flynn, F.R.C.S. Leicester: John Richardson and Co. 1894. 1s.

Die Vergiftungen durch Schlangen. Monographisch bearbeitet von Dr. M. Brenning. Stuttgart: Ferdinande Enke. 1895.

Atlas of Diseases of the Skin. By Dr. H. R. Crocker. Fasciculus VIII. London and Edinburgh: Young J. Pentland. 21s.

Diseases of the Eye. By Dr. C. E. Shaw. London: J. and A. Churchill. 1895. 3s. 6d.

An Atlas of Illustrations of Pathology. Compiled (chiefly from original sources) for the New Sydenham Society. Fasciculus IX. Diseases of the Testis (Part I). London: The New Sydenham Society. 1894.

Kelly's London Medical Directory, 1895. London: Kelly and Co. 1895. 6s. 6d.

*** In forwarding books the publishers are requested to state the selling prices.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Post Office Orders should be made payable to the British Medical Association at the West Central Post-Office, High Holborn. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to recieve letters at *Postes Restantes* addressed either in initials or numbers.

A REPORT
ON
THE DISINFECTION OF TUBERCLE-INFECTED HOUSES.[1]

BY
SHERIDAN DELÉPINE, B.Sc., M.B., Professor of Pathology in the Owens College, Manchester.
& ARTHUR RANSOME, M.D., F.R.S., Professor of Public Health in the Owens College, Manchester.

In our preliminary report, published in the BRITISH MEDICAL JOURNAL of November 4th, 1893, we gave an account of the origin of the present inquiry, its first object being to test the value of the method then used by the municipality of Manchester for disinfecting rooms in which tuberculous patients had lived.

TABLE I.—*Virulence of Fresh Human Tuberculous Sputum in Small Quantities.*

Number of Experiment.	Date.	Animal.	Quantity of Sputum.	Seat of Inoculation.	Number of Days after Inoculation.	Degree of Tuberculosis.
			c.cm.			
4	May, 1892	Rabbit	$\frac{1}{10}$	Peritoneum	9	0
3	,,	,,	$\frac{1}{10}$	,,	55	Slight I
62	May, 1893	Guinea-pig	Under $\frac{1}{10}$	Subcutaneous tissue.	21	III
63	,,	,,	$\frac{3}{5}$	,,	52	IV

TABLE II.—*Virulence of Recent Cultivations of Bacillus Tuberculosis Hominis. Experiments made with Pure Cultivations obtained from Two Cases of Tuberculosis (Five Different Cultivations Used).*

Number of Experiment.	Date.	Animal Used.	Seat of Inoculation.	Quantity of Bacilli.	Number of Days after Inoculation.	Degree of Tuberculosis.	Remarks.
184	Mar. 1894	Rabbit	Eye, anterior chamber	Very small	12	Well-marked local, I	
182	,,	Guinea-pig	Subcutaneous tissue (leg)	,,	9	II	
73	July 1893	,,	,,	Less than $\frac{1}{10}$ c.mm.	12	II	There is absolutely no instance of failure, and the amount of tuberculosis is, in all cases but one, proportional to the number of days the animals were kept alive after inoculation.
74	,,	,,	,,	,,	13	II	
149	Feb. 1894	,,	Pillar of fauces	Very small	14	III	
77	July 1893	,,	Peritoneum	Less than $\frac{1}{10}$ c.mm.	16	II	
180	Mar. 1894	,,	Pillar of fauces	Very small	21	III	
183	,,	,,	Subcutaneous tissue (leg)	,,	24	III	
40	Mar. 1893	,,	,,	,,	26	III	
150	Feb. 1894	,,	,,	,,	26	III	
181	Mar. 1894	,,	Subcutaneous tissue (ear)	,,	27	III	
13	Dec. 1892	,,	Subcutaneous tissue (leg)	,,	53	IV	

[1] This report was presented to the Scientific Grants Committee of the British Medical Association shortly before the last Annual Meeting of the Association, but owing to the great pressure of matter from that meeting publication has been unavoidably postponed.

We have since extended the inquiry to other methods of disinfection, and have also studied the influence of certain natural agents on the virulence of the bacillus of tubercle.

Three series of experiments were undertaken in the first place, in order to make sure that our methods were trustworthy.

TABLE III.—*Virulence of Recent Cultivations of Bacillus Tuberculosis Avium. Experiments made with Fresh Pure Cultivations of Tubercle Bacilli obtained from a Tuberculous Fowl (Three Different Cultivations used.)*

Number of Experiment.	Date.	Animal used.	Seat of Inoculation.	Quantity of Bacilli.	Number of Days after Inoculation.	Degree of Tuberculosis.
75	July, 1893	Guinea-pig	Subcutaneous tissue (leg)	$\frac{1}{2}$ c.mm.	14	I (II?)
76	,,	,,	,,	,,	33	I
41	Mar., 1893	,,	,,	1 c.mm.	35	II
78	July, 1893	,,	Peritoneum	$\frac{1}{2}$ c.mm.	52	II (III)*
14	Sept., 1892	,,	Subcutaneous tissue (leg)	Large quantity (several c.mm.)	101	0

* In this case there was a well marked induration of the inguinal glands on the twenty-eighth day, and for some time before that date.

TABLE IV.—*Effect of Drying on the Virulence of Pure Cultivations of Bacillus Tuberculosis Hominis. Two different Specimens were used; the Infected Papers were kept in Closed Capsules in the Dark.*

Number of Experiment.	Date.	Animal Used.	Seat of Inoculation.	Quantity of Bacilli.	Number of Days Bacteria kept Drying before Inoculation.	Number of Days after Inoculation.	Degree of Tuberculosis.	Remarks.
	1893.			c.mm.				
89	July	Guinea-pig	Subcutaneous tissue (leg)	$\frac{1}{2}$	13	14	I	In these 2 cases disinfection by sulphurous acid had been attempted without success.
90	,,	,,	,,	$\frac{1}{5}$	13	14	I	
60	April	,,	,,	2	16	20	III	—
129	Nov.	,,	,,	$1\frac{1}{2}$	130	30	0	—
127	,,	,,	,,	$\frac{1}{2}$	130	36	0	—
128	,,	,,	,,	1	130	36	0	—
86	July	,,	,,	$\frac{1}{2}$	9	46	III	In these 2 cases disinfection by sulphurous acid had been attempted without success.
87	,,	,,	,,	$\frac{1}{5}$	9	46	IV	
61	April	,,	,,	2	16	64	III	—

All the experiments in which disinfection was attempted without success might be added to this list, which, however, has been limited to the cases in which, apparently, the influence of drying alone had been at work. Experiments 89, 90, 86, and 87 have been introduced to show the virulence of the cultivations used in Experiments 127, 128, and 129.

(1) The first set of experiments consisted in the subcutaneous and intraperitoneal inoculation of sterilised products (including paper), the animals being kept in cages identical with those used for the other experiments, and disinfected in the same way. These experiments were numerous, and amongst them might also be included several recorded in the following tables. In no case was tuberculosis produced, even after keeping the animals for several months under observation, so that it may be safely assumed that, under the conditions observed in the pathological laboratory, no secondary infection of wounds has occurred.

2. Subcutaneous, submucous, intraperitoneal, and intraocular injections were made of non-tuberculous products, including (1) inflamed tissue from the floor of an ulcer, and

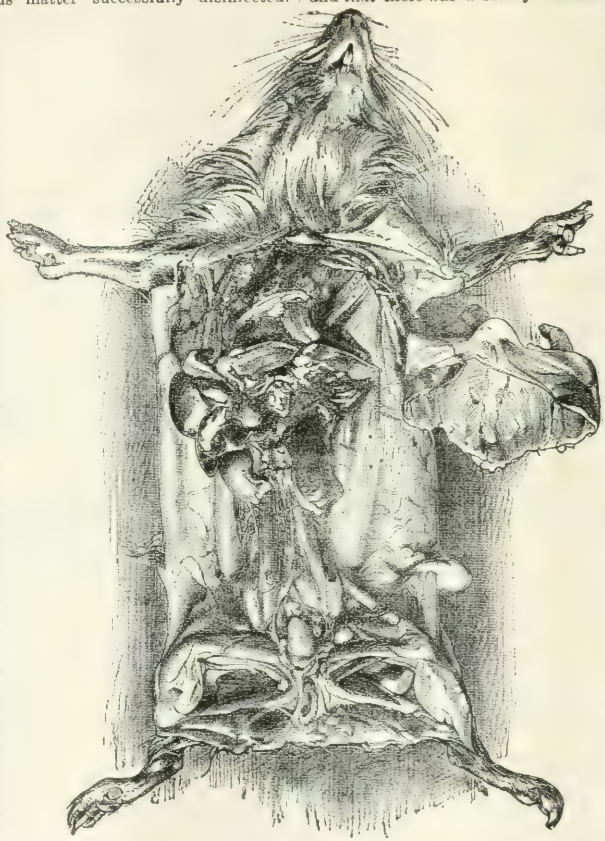
also portions of an enlarged lymphatic gland; (2) pus; (3) degenerated adrenals; (4) sputum; (5) cultivations of other bacteria.[2] Nothing resembling tuberculosis was obtained in any of these experiments (over 25), even in cases kept under observation for many weeks or months. In these are not included the results of inoculation with tuberculous matter successfully disinfected.

3. In two cases in which septic organisms were inoculated at the same time as the tuberculous matter, once accidentally, suppuration and intense œdema of the whole limb followed rapidly after inoculation, and the swollen part was found to be tender. In both these cases the guinea-pigs ultimately recovered; at the end of two weeks they had distinctly swollen inguinal glands, but when they were killed later on they were free from tubercle. In none of the other cases did anything similar occur after inoculation; this shows that in our experiments this source of fallacy (namely, microbic antagonism) may be excluded.

4. A few experiments were undertaken only to show that quantities of fresh tuberculous sputa, smaller than those used in the disinfection experiments, were capable of producing tuberculosis. With the exception of a rabbit (No. 4 Expt.) that died accidentally soon after being inoculated, all the others became tuberculous.

For facilitating the tabulation of results, Roman numerals have been used to indicate the degrees of tuberculosis described in more detail by one of us.[3] No. I shows the production of local lesions only. No. II invasion of lymphatics not contiguous with the point of inoculation (the spleen may conveniently be included in this stage). No. III invasion of the viscera. No. IV recurrent invasion of lymphatic glands. These different degrees of infection are seen in the diagrams on page 354.

5. Tables II, III, IV, and V deal with experiments intended at once to serve as control tests, and to indicate the extent of the disease produced at various intervals after inoculation. In Table II the virulence of fresh pure cultivations is shown. It will be seen that in all cases tuberculosis was produced, and that there was a steady increase in the extent of the lesion according to the number of days the animal was allowed to live after inoculation, and this was noted whatever the seat of inoculation. Tuberculosis was already quite distinct in nine days.



Experiment 205 A.—Dissection of a guinea-pig inoculated thirty seven days before it was killed with $\frac{1}{15}$ c.c. of a tuberculous sputum. This minute drop of muco-pus had been spread on sterilised paper so as to cover an area of about $\frac{1}{2}$ c. square, and kept in a closed capsule—that is, not ventilated—for twenty-five days. Before the end of the first day it was quite dry. With this paper the left leg was inoculated just below the inner aspect of the knee, strict precautions being taken to prevent the contamination of the wound with other microbes. It will be noticed that on the inoculated side the popliteal, the superficial and deep inguinal, the sublumbar ganglia are enlarged and cheesy and that the retrohepatic glands and the spleen are also distinctly affected. It is difficult in this illustration to see the state of the lungs and liver, which were also tuberculous. There is no evidence of any affection of the popliteal, superficial or deep inguinal, and of the sublumbar glands on the right side, so that, according to the nomenclature adopted, this animal would be in that stage of tuberculosis described in the tables as Degree III.

Table III shows that it is important, in experiments on disinfectants for tuberculous products, to deal with the human tubercle bacillus only. Cultivations of avian bacillus give slight results as compared with those recorded in Table II. After the first weeks there is a tendency towards recovery; thus after 100 days a guinea-pig, having shown distinct signs of the disease on the twenty-eighth day, had recovered entirely, as was proved by the *post-mortem* examination.

Table IV shows the modifications in the virulence of pure cultivations of the bacillus tuberculosis hominis produced by drying in the dark, in closed capsules. Moderate desiccation slightly retards the first manifestations of tuberculosis, prolonged drying may ultimately kill the bacillus; thus after 130 days the virulence was in three experiments altogether destroyed. This will be found to be of importance later on, as in all the experiments on disinfectants dried products have been used.

Table V gives the results of similar experiments made with sputum. After fifty-four days' keeping, the sputum was still very virulent.

We turn next to the experiments on the action of certain disinfectants on the bacillus.

Tables VI and VII give the results of experiments on the action of euchlorine on sputum and on pure cultivations of the bacillus. In no case had these specimens been kept more than 16 days; in 77 per cent. of the cases in which guinea-pigs were used the disinfection was of no value beyond slight retardation of the action of the virus.

We would also call attention to a possible source of error

[2] Many of the experiments recorded in this paper were made by one of us for other purposes than those of this investigation; they have, however, been included in the following tables on account of their important bearings on the question before us; this applies specially to Sections 1 to 5 and Tables IX, X, and XI.

[3] Delépine, BRITISH MEDICAL JOURNAL, September, 1893, and March, 1894, also *Medical Chronicle*, May, 1894.

TABLE VI.—*Effect of Euchlorine on Tuberculous Sputum previously dried. (Three Specimens of Sputa found Virulent in Control Experiments were used.)*

No. of Experiment.	Date	Animal Used.	Seat of Inoculation.	Quantity of Sputum.	No. of Days Drying before Inoculation.	Application of Euchlorine.		Results.		Remarks.
						Distance from Place where Gas was Generated.	Length of Application.	No. of Days after Inoculation.	Degree of Tuberculosis Obtained.	
48	April, 1893	Guinea-pig	Skin of leg	$\frac{1}{16}$ c.cm.	16	10 feet	2 hours	23	0	In all these experiments it is doubtful whether the capsules were always carefully protected from sunlight as they usually passed through several hands. It is therefore possible that even the few cases of immunity may be due to this cause and not to the disinfectant.
47	,,	,,	,,	,,	16	6 feet	,,	28	II	
46	,,	,,	,,	,,	16	1 foot	,,	46	II	
53	,,	,,	,,	,,	16	6 feet	,,	50	II	
9	June, 1892	,,	,,	1 c.cm.	?	?	,,	80	0	
54	April, 1893	,,	,,	$\frac{1}{16}$ c.cm.	16	12 feet	,,	97	IV	
52	,,	,,	,,	,,	16	1 foot	,,	118	IV	
1	May, 1892	Rabbit	Peritoneum	1 c.cm.	?	?	,,	48	0	
5	June, 1892	,,	,,	,,	?	?	,,	76	0	

TABLE VII.—*Effect of Euchlorine on Pure Cultivations of Bacillus Tuberculosis Hominis previously Dried.*

No. of Experiment.	Date.	Animal Used.	Seat of Inoculation.	Quantity of Sputum.	No. of Days Drying before Inoculation.	Application of Euchlorine.		Results.		Remarks.
						Distance from Place where Gas was Generated.	Length of Application.	No. of Days after Inoculation.	Degree of Tuberculosis Obtained.	
49	April, 1893	Guinea-pig	Skin of leg	Under 2 c.mm.	16	1 foot	2 hours	30	III	Grouping Tables VI and VII together it will be seen that out of 13 experiments on guinea-pigs tuberculosis was produced in 11 (77 per cent. failures.)
50	,,	,,	,,	,,	,,	6 feet	,,	34	III	
57	,,	,,	,,	,,	—	12 feet	,,	43	IV	
51	,,	,,	,,	,,	,,	10 feet	,,	53	IV	
55	,,	,,	,,	,,	,,	1 foot	,,	74	IV	
56	,,	,,	,,	,,	,,	6 feet	,,	84	IV	

TABLE VIII.—*Effect of Sulphurous Acid on Pure Cultivations of Bacillus Tuberculosis Hominis previously Dried.*

No. of Experiment.	Date.	Animal Used.	Seat of Inoculation.	Quantity.	No. of Days Drying before Inoculation.	Application of Sulphurous Acid.		Results.		Remarks.
						Distance from Source.	Length of Application.	No. of Days after Inoculation.	Degree of Tuberculosis Obtained.	
89	July, 1893	Guinea-pig	Skin of leg	$\frac{1}{2}$ c.mm.	13	5 feet	4 hours	14	I	It is possible that during the time the glass capsules were out of the laboratory some may have been exposed to sunlight. A pound of sulphur was used for 825 cubic feet of space. In 66 per cent. of these experiments the sulphurous acid failed to disinfect.
90	,,	,,	,,	,,	13	7 feet	,,	14	I	
88	,,	,,	,,	,,	9	4 feet	,,	45	0	
91	,,	,,	,,	,,	13	6 feet	,,	45	0	
86	,,	,,	,,	,,	9	7 feet	,,	46	III	
87	,,	,,	,,	,,	—	5 feet	,,	46	IV	

mentioned in the column of remarks in Table VI, namely, the action of light, which will be found later on to have some significance.

Table VIII gives similar observations made with sulphurous acid, and pure cultivations of the bacillus. The specimens had never been kept more than 13 days. A pound of sulphur was used to 826 cubic feet of space, and yet we have to note 66 per cent. of failures, as well as the possible influence of light to account for the successes.

We have to acknowledge the kindness of Drs. Tatham and Paget who gave us the opportunity of testing this question in a practical manner, that is, in infected houses, and under circumstances most favourable to the success of the method.

Tables X and XI give the results of experiments under-

TABLE IX.—*Effect of Soluble Products of Combustion on Tuberculous Sputum previously Dried.*

No. of Experiment.	Date.	Animal Used.	Seat of Inoculation.	Quantity	No. of Days Drying before Inoculation.	Application of Solution.		Results.		Remarks.
						Strength.	Length of Application.	No. of Days after Inoculation.	Degree of Tuberculosis Obtained.	
152	Feb., 1894	Guinea-pig	Skin of leg	½ c.cm.	1	Solution full strength	3 hours	31	II	—
155	"	"	"	"	2	"	1 hour, slow drying afterwards	33	III	100 per cent. of failure to disinfect.

TABLE X.—*Effect of Chlorinated Lime Solution (Strength 1-10 and 1-100) on Tuberculous Sputum previously Dried.*

No. of Experiment.	Date.	Animal Used.	Seat of Inoculation	Quantity	No. of Days Drying before Inoculation.	Chlorinated Lime.		Results.		Remarks.
						Strength.	Length of Application.	No. of Days after Inoculation.	Degree of Tuberculosis Obtained.	
189 II	March, 1894	Guinea-pig	Skin of leg	½ c.cm.	35	$\frac{1}{10}$	1 minute 4 brushings	22	0	In all those experiments in which the sputum had been kept thirty-five days dry, it was found that the control inoculations gave positive results. In two cases, 191 II and 192 II, the experiment with disinfected paper was made on one side of the body, and that with non-disinfected paper prepared in the same way on the other side of the body (see 191 I and 192 I, Table V).
190 II	"	"	"	"	35	$\frac{1}{10}$	"	22	0	
191 II	"	"	"	"	35	$\frac{1}{10}$	"	23	0	
192 II	"	"	"	"	35	$\frac{1}{10}$	"	23	0	
154	Feb., 1894	"	"	½ c.cm.	2	$\frac{1}{10}$	5 minutes	33	0	
153	"	"	"	"	2	$\frac{1}{10}$	1 dipping slow drying for 17 hours	57	0	

TABLE XI.—*Effect of Filtered Chlorinated Lime Solution on Pure Cultivations of Bacillus Tuberculosis Hominis.*

No. of Experiment.	Date.	Animal Used.	Seat of Inoculation	Quantity	No. of Days Drying before Inoculation.	Chlorinated Lime.		Results.		Remarks.
						Strength.	Length of Application.	No. of Days after Inoculation.	Degree of Tuberculosis Obtained.	
105	July, 1893	Guinea-pig.	Skin of leg	½ c.mm.	14	$\frac{1}{10}$	1 dipping slow drying	11	0	
102	"	"	"	"	14	$\frac{1}{10}$	"	25		
103	"	"	"	"	14	$\frac{1}{10}$	"	33	0	
101	"	"	"	"	14	$\frac{1}{10}$	"	36	0	
106	"	"	"	"	14	$\frac{1}{100}$	"	36	0	
104	"	"	"	"	14	$\frac{1}{100}$	"	42	0	No infection

taken by one of us; they show the effects of solutions of common chlorinated lime of strengths of 1 in 10 and 1 in 100. These were tried both in the laboratory and in houses, on pure cultivations and on sputum. In every instance the disinfection was complete; there was no case of transmission of disease even after a single application of the solution either with the brush or by dipping the infected paper in the disinfectant and allowing it to dry afterwards.[4]

Table XII shows the effect of simple ventilation in the dark. So far as these experiments extend they show that ventilation diminishes but does not destroy virulence. In no case, even after twenty-eight days of exposure to moderate currents of air, did it entirely destroy the power of the microbe, and, as we have already shown, simple drying is in itself enough to reduce and ultimately entirely destroy the virulence of tuberculous products.

Tables XIII and XIV. These experiments, made both with sputum and pure cultivations, show the remarkable disinfecting power of sunlight. They complete an investigation begun by one of us some years ago.[5] We have evidently

[4] The strong (1 in 10) solution is very unpleasant to use owing to the rapid evolution of chlorine. Dr. Paget, who at the request of one of us very kindly tried it on the large scale, thinks that, on this account, it cannot be generally used; the weaker solution is, however, quite efficient and more free from objection. See *Med. Chronicle*, May, 1894. S. Delépine, On the Disinfection of Rooms.

[5] Ransome, *Proceedings of the Roy. Soc.*, vol. xlix, November, 1890, On Certain Conditions that Modify the Virulence of the Bacillus of Tubercle.

Table XII.—*Effect of Ventilation on the Virulence of Tuberculous Sputum. Specimen of Two different Sputa were used, the Infected Papers were Kept in the Dark, and in Closed Capsules when not Subjected to a Current of Air.*

No. of Experiment.	Date.	Animal Used.	Seat of Inoculation	Quantity of Sputum.	No. of Days Sputum kept Drying before Inoculation.	Ventilation.		Results.		Remarks.
						No. of Days.	Amount.	No. of Days Animals kept after Inoculation.	Degree of Tuberculosis.	
170	March, 1894.	Guinea-pig	Subcutaneous tissue of leg	½ c.cm.	17	3	Good	24	II	Sputum not broken up after being dried.
160	Feb., 1894.	,,	,,	,,	9	,,	Moderate	32	III	Sputum broken up.
203	June, 1894	,,	,,	⅒ c.cm.	25	2	Good	37	III	Sputum not broken up.
8	June, 1892	Rabbit	Peritoneum	1 c.cm.	45	28	Moderate	86	Slight	—

In none of these experiments did the temperature rise above 30° C.

Table XIII.—*Effect of Sunlight on the Virulence of Tuberculous Sputum. Specimens of Four Different Sputa were used, the Infected Papers, when not exposed to Sunlight and to Air, were kept in Closed Capsules in the Dark.*

Number of Experiment.	Date.	Animal Used.	Seat of Inoculation.	Quantity of Sputum.	Number of Days kept Drying before Inoculation.	Ventilation.		Maximum Temperature (Centigrade).	Sunlight.		Results.		Remarks.
						Number of Days.	Amount.		Diffuse in Days.	Radiant Hours.	Number of Days Animal kept after Inoculation.	Degree of Tuberculosis.	
186	March, 1894	Guinea-pig	Subcutaneous tissue (leg)	½ c.cm.	82	3	Good	About 30°	3	3 bright afternoons	4*	0	All these sputa were known to be infectious in control experiments.
187	,,	,,	,,	,,	,,	,,	,,	,,	,,	?	,,	0	
188	,,	,,	,,	,,	,,	7	,,	31.0°	7	15 hours	,,	0	
189 I	,,	,,	,,	,,	35	,,	,,	,,	,,	?	22	0	
190 I	,,	,,	,,	,,	,,	2	Slight	15.5°	,,	Short time	,,	0	
202	June, 1894	,,	,,	1 c.cm.	25	1	Moderate	30.0°	1	9 hours	37	0	
156	February, 1894	,,	,,	½ c.cm.	4	3	,,	10.0°	3	1 hour	46	0	
21	June, 1892	,,	,,	½ c.cm.	45	28	,,	?	28	?	80	0	
7	,,	Rabbit	Peritoneum	1 c.cm.	,,	,,	,,	?	,,	?	86	0	

* Time insufficient.

Table XIV.—*Effect of Sunlight on the Virulence of Pure Cultivations of Bacillus Tuberculosis Hominis. One Culture only was used, and the Papers, after being Infected, were treated exactly as in Experiments recorded in Table XIII.*

Number of Experiment.	Date.	Animal Used.	Seat of Inoculation,	Quantity of Bacilli.	Number of Days kept Drying before Inoculation.	Ventilation.		Maximum Temperature (Centigrade).	Sunlight.		Results.	
						Number of Days.	Amount.		Diffuse in Days.	Radiant Hours.	Number of Days Animal Kept after Inoculation.	Degree of Tuberculosis.
85	July, 1893	Guinea-pig	Subcutaneous tissue (leg)	½ c.mm.	9	4	Good	40°	4	13	43	0
98	,,	,,	,,	,,	13	—	Bad	36°	2	6½	78	0
97	,,	,,	,,	,,	,,	—	,,	40°	6	18½	150	0
110	August, 1893	,,	,,	,,	24	24	Slight	?	9	?	140	0

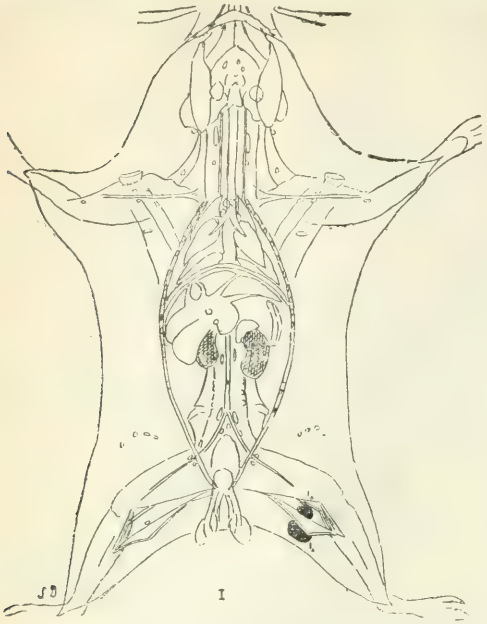
not reached the minimum exposure that will suffice for the purpose, for in no instance was there any infection even after only one day of exposure with nine hours of sunlight. The experiments were carried on at different seasons of the year, but the temperature never rose above 40° C., and in only two instances did it exceed 30°.

Conclusions.

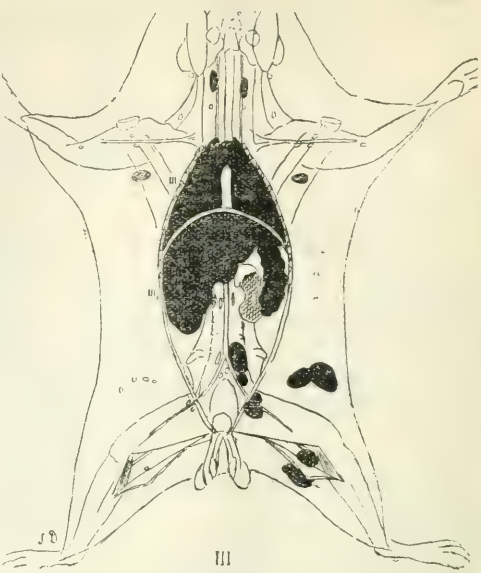
Putting aside the numerous experiments which have been made for the purpose of testing (1) the virulence of the tuberculous products used in the experiments; (2) the influence of collateral factors (such as dryness, ventilation, heat, etc.), we may sum up the results obtained in the following way:—

1. The disinfection of rooms which have been contaminated with tuberculous products cannot be obtained by means of the fumigation methods such as are generally used at present. Sulphurous acid, chlorine, and euchlorine, as used under supervision by experienced municipal disinfectors, have proved practically useless. This only confirms the results obtained by Koch and his pupils in the case of a number of other organisms.

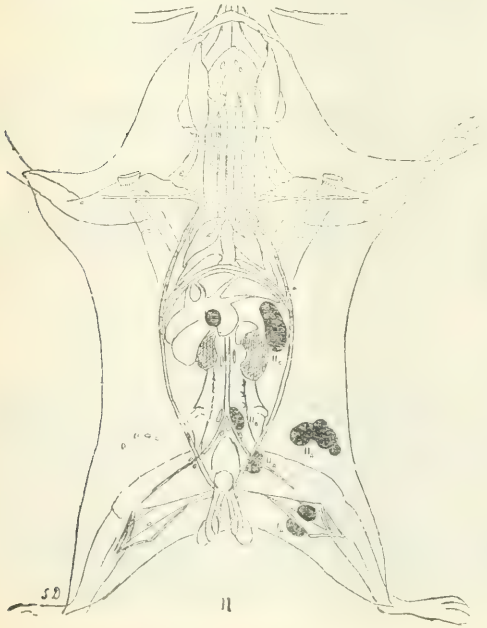
2. The only other method of disinfection which seemed to promise more satisfactory results was the direct application of a solution of chlorinated lime to the walls to be disinfected. This method has given so far satisfactory results, but is attended with discomfort on the part of those who have to



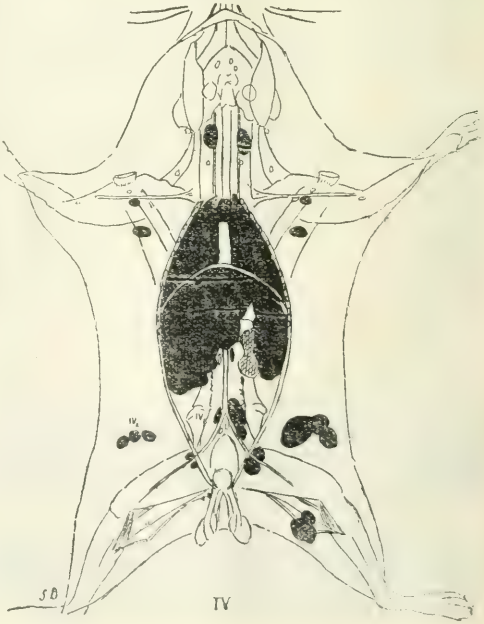
I



III



II



IV

Table V.—*Effect of Drying on the Virulence of Tuberculous Sputum. Specimens of Six Different Sputa were used; the Infected Papers were kept in imperfectly-closed Capsules in the Dark.*

Number of Experiment.	Date.	Animal Used.	Seat of Inoculation.	Quantity of Sputum.	Number of Days the Sputa were kept Drying before Inoculation.	Number of Days after Inoculation.	Degree of Tuberculosis	Remarks.
1911	Mar. 1894	Guinea-pig	Subcutaneous tissue (leg)	c.c. $\frac{1}{2}$	35	28	II	Distinct retardation of the process.
1921	Mar. 1894	,,	,,	$\frac{1}{2}$	35	23	I (II ?)	,,
151	Feb. 1894	,,	,,	$\frac{1}{2}$	1	31	III	No marked retardation.
126	Dec. 1893	,,	,,	$\frac{1}{2}$	54 (drying very slow)	37	II (III ?)	Distinct retardation.
205 a	June 1894	,,	,,	$\frac{1}{10}$	25	37	III	,,
205 b	June 1894	,,	,,	$\frac{1}{10}$	25	—	III	,,
58	April 1893	,,	,,	$\frac{1}{10}$	16	43	III (IV ?)	,,
10	June 1892	,,	,,	Very small	A few days	45	0	Result not explained.
12	June 1892	,,	,,	$\frac{1}{2}$	,,	80	III (IV ?)	Distinct retardation.
6	June 1892	Rabbit	Peritoneum	1	,,	84	Local	—

carry out the disinfection.[6] It must be remembered that the experiments of Schill and Fischer are unfavourable to the use of perchloride of mercury.

3. Light is, in the case of the tubercle bacillus, as it has been proved by several observers to be in the case of other organisms, the most important natural disinfecting agent.

The four diagrams on page 354 show the lymphatic ganglia and viscera affected at various intervals after inoculation. In all cases the skin on the inner aspect of the left knee was inoculated with tuberculous matter. Each diagram corresponds to one of the degrees adopted by S. Delépine for descriptive purposes. The degree being indicated by the figure at the foot of the diagram (I, II, III, IV). In each diagram the tuberculous glands are black and their size is given approximately (a little less than half natural size).

ON SOME CASES RESEMBLING SCARLATINA WHICH OCCURRED IN THE PARISH OF FULHAM.

By ROBERT LEE, M.D., F.R.C.P.

Soon after publishing a letter addressed to the Chairman of our Sanitary Committee in the Parish of Fulham, Mr. J. R. Hill, on some doubtful cases of scarlatina, I received two letters—one from Dr. Samuel Wilks, the other from Sir George Johnson—which I think are of sufficient importance and interest to justify me in publishing them to the profession, and this the more particularly so, as it seems as if we are likely to meet with cases, such as those I have described, of very doubtful nature, resembling in some respects scarlatina and diphtheria, yet differing from them in origin, clinical symptoms, and the course of the disease. Some of us have had the impression in Fulham that drain air was the cause of the trouble, and that it becomes a matter of great importance to ventilate the drains through pipes of such height as to carry the sewer gas out of danger to those who might inhale it, instead of by openings in the middle of roads. Whether this view be true or not requires further observation.

In my letter to Mr. Hill the chief points in the cases were briefly stated: The disease began in one case on March 31st, 1894. "The next day the tonsils were both swollen, and the left side ulcerated, the colour being greyish and somewhat of diphtheritic appearance" . . . . "On the next day, the left ulcer was healing, the right ulceration increasing." Two days later the throat healed, and the day following the patient was well enough to go out. His wife, on the evening of the next day, began in exactly the same way as the husband, but two days after an eruption singularly like that of scarlatina appeared on the face and neck. She was convalescent at the end of the week. Others in the house suffered in the same way. This will give a slight idea of the nature of the cases referred to in the accompanying letters.

Dr. Wilks's letter was as follows:

"Dear Dr. Lee,—Many thanks for your interesting pamphlet. Such cases suggest whether various modifications of specific disease may exist. This I think unlikely, and therefore probable that there are other specific forms of disease not yet recognised.

"When I was a student, Addison discoursed on common continued fever. This now contains at least four different diseases.

"Some years ago I published a number of cases with symptoms I had not before observed, and suggested that the disease was new. Under the name of "plague" I do not think we necessarily have the same disease as the Plague of London or the Plague of Athens. These are gone as is the the sweating sickness. If all these infectious diseases are due to morbific germs I suppose fresh ones might appear and others depart just as the different blights affecting the vegetable world. I believe new or hitherto unrecognisable blights do certainly appear. The last epidemic of influenza was not exactly like the preceding.—Yours faithfully,

(Signed) "Samuel Wilks."

I have made no mention in my letter to Mr. Hill of two cases detailed to me by the physician of one of our largest hospitals, where the first case was supposed to be diphtheria, the second case scarlatina, and were notified accordingly. The two patients were nurses, and the first case was nursed by the second. In my friend's opinion neither were cases of scarlatina or diphtheria. The great point of importance is whether the conditions of this great city are such that we cannot avoid the development of organic poisons of more or less fatal effect.

Sir George Johnson's letter shall now be given:

"11, Savile Row, W. November 6th, 1894.

"Dear Dr. Lee,—I have read your remarks of cases of sore throat etc. with much interest. My belief is that the first case was the result of sewer poisoning, and the subsequent cases were caused by infection from the first. It is, I think, evident that they were not cases of scarlet fever. I suppose that sanitary defects within the house were looked for.

"I am sending a paper of mine from which you will see that I have traced various forms of disease to sewage poison.—Yours very truly,

(Signed) "George Johnson."

These two letters were to me very satisfactory, coming as they do from men of such character and experience. I need hardly point out that as there are heavy penalties imposed on the members of the profession for not certifying contagious or infectious cases, there is a great danger that an opinion may be too rashly formed, and patients sacrificed in a very serious manner.

From a study of medical literature from the time of Dr. Willis to the present day it is probable that the view will be taken that some diseases which disappeared years ago are coming back. On this point I may at some future time have the pleasure of offering some remarks.

At a meeting of the Court of Governors of the University College of South Wales, a suggestion of the Senate to establish a public health department was approved, and a deputation was appointed to wait upon the Chancellor of the Exchequer with the view of obtaining a grant of £100,000 for new college buildings, which it is expected will cost altogether about a quarter of a million.

This difficulty can be overcome (S. D.)

A CASE OF PUNCTURE OF THE BASE OF THE BRAIN BY THE SPOUT OF AN OIL CAN, IN WHICH THERE WAS LOSS OF MEMORY OF PREVIOUS EVENTS.[1]

BY

HORACE M. ABEL, B.A., M.R.C.S., L.R.C.P., House Surgeon to the Peterborough Infirmary.

& W. S. COLMAN, M.D., M.R.C.P., Registrar to the National Hospital for the Paralysed and Epileptic, etc.

The following case presents features of such interest from a surgical, medical, and psychological point of view, that it seems desirable to place it on record. We have to thank Dr. Kirkwood, under whose care the case was admitted, for permission to make use of the hospital notes.

The patient, G. T., a sober well-conducted railway fireman, aged 36, was brought to the Peterborough Infirmary at 4 A.M. on October 28th, 1893, with the broken end of an oil feeder protruding from his right cheek, a little behind the angle of the mouth. It was stated that, in stepping from the tender on to the footplate of his engine with the oil feeder in his hand, he slipped and fell forwards, the spout of the oil can being driven forcibly into his face. He was then quite senseless, but partially recovered consciousness in a few minutes. When he was being placed on the stretcher someone suggested a coat for his head, and he was sensible enough at that time to say that his own coat was on the engine, so that the loss of memory, afterwards so conspicuous, was not then present.

He reached the hospital less than an hour after the occurrence of the accident, and was seen at once by one of us (A.). He was then quite conscious, and tried to answer questions. There were frequent twitching and jerking movements of the limbs, most marked on the left side, the legs being drawn up and the body bent forwards, as if he felt obliged to sit up. There was no hæmorrhage from mouth, nose, or ears. The metal spout of the oil can was firmly fixed in the base of the skull, and required firm traction with forceps to relieve it from the grasp of the bone, and then, owing to its tapering shape, it was easily removed by the fingers. It passed upwards and towards the middle line, and the concavity of the spout was directed from the middle line. The end of the oil can was firmly plugged by bone from the base of the skull, so that it was converted into a blunt instrument in its passage through the brain. No hæmorrhage followed its removal. The wound was cleansed and a simple iodoform dressing applied. The track was entirely outside the cavity of the mouth.

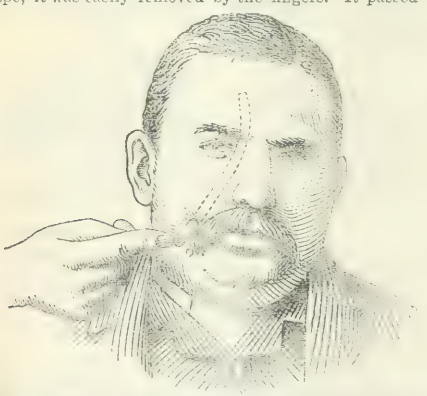


Fig. 1.—Diagram (from a photograph taken a year after the accident,) indicating the probable course of the tin spout. The direction was not vertical but inclined backwards.

After removal of the tube the violent jerking movements ceased, a few occasional twitchings only remaining. There was now marked paralysis of the left side of the face, with inability to close the left eye completely, complete paralysis of the left arm, while the leg was comparatively little affected. No hemianæsthesia could be made out. He had become drowsy and confused, and unable to give replies to any but the simplest questions.

At 10 A.M. (six hours later) he was still half unconscious, and had passed his urine into the bed during the night. His pulse was 82, and his temperature had risen to 102°. The pupils were contracted, the right being slightly smaller than the left. They both reacted to light. There was still well-marked paralysis of the left face and arm, and the left leg was weaker. No anæsthesia on the left side. On the right side there was complete anæsthesia of the right eyebrow and of both eyelids, and of the right cheek for an uncertain distance below the lower eyelid. (The patient's mental dulness rendered accurate testing of his sensation extremely difficult.) In the course of the following week the conjunctiva of the right eye became congested, and three weeks later a small ulcer formed on the cornea, which healed without much trouble. Taste and smell were normal on both sides.

Further Course Summarised.—After a few days power began to return in the left side, first in the lower limb; afterwards, but to much less extent, in the upper limb. The face showed little paralysis when at rest, but on any emotional disturbance the paralysis of the lower part of the face of the usual "cerebral" type was very pronounced. The anæsthesia of the right side of the face remained unaltered. The temperature ranged between 99° and 101° for the first week, the maximum being touched on the sixth day. After the seventh day it was normal. The highest pulse rate was 84, the lowest 68; it was usually 80 per minute.

Mental Condition.—During the first fortnight he was drowsy, and slept heavily, but could be roused to answer questions. His answers were often ludicrously incorrect, but he evidently understood the questions. He was very apathetic, and for many days passed his urine in bed. He could not recognise his wife or his old comrades, and he had also difficulty in recognising common objects and their uses. Thus on one occasion he drank his own urine from a vessel, under the impression it was water, and several times he got pieces of ice out of his ice cup, and declared they were sweatmeats. This failure to recognise, that is, to recall previous mental images for the purpose of comparison with present ones, was strikingly shown by his failure for weeks to recognise a fellow workman who met with an accident, and was brought into hospital and placed in the bed next to his. But what was most remarkable was that the whole of his life for twenty years before the accident was wiped out from his memory. He asserted that he had never worked on the railway, and that he was a farm labourer. He had, however, been on the railway for nearly twenty years, and previous to that had worked on a farm. All memory of the accident was gone, and has never returned. After he left the hospital some previous events did return, but, as will be seen later, after the lapse of a year there were still five years of which he could remember nothing.

He was able to leave his bed at the end of eight weeks, and at the end of three months was able to return home with very fair return of power in the leg, but little in the arm. He was kept under observation from time to time. No change developed except some increase in weakness of mind and in irritability of temper.

Nearly a year after the accident one of us (C.) again carefully examined him, and found his condition to be as follows: There was hemiplegia on the left side affecting the arm chiefly, but there was also distinct loss of power in the face and leg. He could walk several miles, but required to take frequent rests. The arm was kept a little flexed at the elbow, and the fingers were semiflexed into the palm. From time to time slow rhythmical simple movements of flexion were noticeable in the fingers. These lasted for several minutes at a time. They consisted in a repetition of the same simple movements. There were no complex co-ordi-

[1] Read at the meeting of the South Midland Branch of the British Medical Association at Peterborough, October 4th, 1894.

nated movements such as are seen in athetosis. They were not associated with any unusual sensation such as giddiness, and they did not annoy the patient. No loss of power could be detected after the twitching. There was no anæsthesia. The slightest touches were felt, and localisation was perfect. Sensation to pain, heat, and cold was quite normal on this side, and his muscular sense was accurate.

On the right side there was no motor paralysis, but there was definite loss of sensation to all forms of stimuli on the right upper eyelid, forehead, and anterior part of the scalp, corresponding with the distribution of the supraorbital and nasal nerves (see charts). There was also complete anæsthesia



Fig. 2.

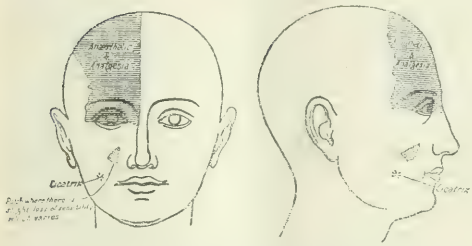


Fig. 3.—G. T., eleven months after injury.

of the cornea. On the right cheek about 1½ inch external to the angle of the nose was a small patch with ill-defined borders where sensation was blunted to both tactile and painful impressions. There was no anæsthesia in the district supplied by the third division of the fifth nerve, and the muscles of mastication acted as powerfully on this side as on the other. Taste and smell were unaffected. Vision was normal. On ophthalmoscopic examination the fundi were found to be quite natural. Perimetric charts showed some general contraction of the fields of vision for white (and proportionally for red, green, and blue), but no hemianopic defect. In all other physical respects the patient was quite healthy, except that he had become very fat. His mental condition was extremely interesting. On the whole he was somewhat indolent and apathetic, and there was very little control over his emotions. He laughed or cried at the slightest provocation, and was as likely to do one as the other at any remark which was made, and the emotional disturbance did not seem to be the expression of any mental pain or pleasure. His irritability of temper was said to have increased, and he was often hasty in his language, although not violent.

Condition of Memory.—There still remained a gap in his memory, although a smaller one than that which existed when he was in hospital; then, it will be remembered, there was entire oblivion of all events for twenty years prior to the brain injury. At this later period, however, he was able to recall the more striking events of his life up to five years before the accident—after which all is perfectly blank until about two months afterwards—when he is able to recollect some incidents of his life in the hospital, and he could recall his life in general from then to the time of examination, although he could not trust his memory on small matters. We were unable to trace the development of this partial return of memory, but it seems to have been in part due to the habit of his "mates" of coming in and talking to him of the past and continually reminding him of occurrences which were likely to have made an impression on him. There was still extreme difficulty in retaining in his memory any passing events. If he went out for a walk by himself he was unable to find his way back, and often failed to recognise his own house when he was outside, and there was also frequent failure to recognise common objects and their uses, although nothing now occurred so marked as his not recognising the nature of urine and of pieces of ice referred to in an earlier note. There is thus present in a modified degree the condition described by Hughlings Jackson as "imperception," and by Munk and others as mind blindness. There was no aphasia at any time, and no difficulty in expressing himself; it seemed to be the ideas that were wanting, and not the words in which to express them. His reasoning processes were fairly orderly, but as owing to the blanks in his memory he often argues from false premisses, he arrives at ludicrously incorrect conclusions. For example, he occupies one of the houses built by the railway company for their servants, and, as he has no recollection of working for them for five or six years, he argued that he had no right to be there, and insisted with unnecessary warmth that his wife should pack up and leave the house before they got into trouble for being there. This mental condition is increasing latterly. At first there was merely failure to remember and recognise, now he takes action rather impulsively on the strength of false or imperfect memories.



Fig. 4.—Exact outline (natural size) of Ieeder spout after removal. The dotted line represents the position of the cheek wound; from A to B measures 6½ inches.

Localisation of the Injury.—From the facts that the mouth was uninjured and that the fifth nerve was injured behind the sphenoidal fissure, it would seem that the oil can must have passed up from the scar under the zygoma to the base of the skull, perforating the great wing of the sphenoid bone. It will be remembered that the concavity of the spout was directed outward, so that the point, after passing through the bone, would pass at first almost at right angles to its previous direction, and then the whole instrument would be pushed bodily some distance into the centrum ovale (following the same kind of movement as that of a sound being passed round the curve of the urethra and then pushed bodily into the bladder). From its length it is certain that it could not have reached the cortex by this route. The

symptoms also point to an injury in the region of the internal capsule. The paralysis, at first almost confined to the face and arm, would indicate, according to Horsley and Beevor's experiments on the monkey, that the anterior fibres of the motor tract were injured, and the absence of hemianopia and of any left-sided sensory symptoms show that the posterior end of the capsule was uninjured. On taking a skull and passing the original feeder spout in the direction above described, it was found to plunge into the brain and to injure the capsule near the genu, as we suppose it to have done in the present case.

Note on Mental Condition.—The loss of memory for events occurring hours or days before an accident involving injury to the head has been frequently observed, and two extremely interesting papers have been published by Mr. Joseph Bell[1] and Sir William Savory.[2] We are unaware, however, of any case in which there has been so prolonged a period sponged out from recollection as in this case. The symptom does not appear to have any localising value.

With regard to the other mental symptoms, the inability to fix in his memory and to recall visual images of things presented to him now, and his impulsive acting on this imperfect representation of facts would suggest some defect in an interruption of free communication between the higher sensory and motor centres of the man's brain. In the absence of a necropsy to confirm our localisation of the lesion, and to exclude other unsuspected ones, it is impossible to make more than a guess at the physical cause for the psychical condition. The injury we have seen reason to believe was about at the genu of the internal capsule, and would doubtless become more extensive from inflammatory softening during the first few days, so as to encroach on the anterior limb of the internal capsule, of whose functions little is known. Its size increases in animals as we ascend the scale of cerebral development, and it has been proved by Flechsig and others to contain fibres uniting the frontal lobe with the opposite cerebellar hemisphere. Many of the other fibres have been traced back to the grey matter of the pons, but their ultimate destination is unknown. This case would seem to suggest that they form a connection between the anterior and posterior parts of the brain in which motor and sensory processes are probably predominantly represented. The failure to recognise objects (imperception) has for twenty years been held by Dr. Hughlings Jackson to be specially characteristic of lesions in the right occipital lobe; may not the symptoms in our case be due to a cutting off of this connection between this sensory storehouse and the centres for initiating volitional motor which are almost certainly in the anterior part of the brain?

[1] *Edin. Med. Journ.*, 1883.
[2] *Lancet*, vol. ii, 1882.

A CASE OF IDIOPATHIC PERNICIOUS ANÆMIA IN WHICH ARSENICAL PALSY HAD BEEN INDUCED TREATED BY BONE MARROW.

By ALFRED G. BARRS, M.D.Edin., F.R.C.P.Lond.,
Physician to the General Infirmary at Leeds; Professor of Materia Medica and Therapeutics in the Yorkshire College, Victoria University.

The following case of pernicious anæmia, although the only one in which bone marrow has been given under my personal observation, seems to me to be worthy of record at the present moment because it illustrates amongst other things how, in pernicious anæmia, arsenic, though given till arsenical palsy is induced, may fail entirely to affect the blood state, and how the blood state may be entirely removed and perchance cured by the administration of a hæmopoietic tissue, namely, bone marrow.

For arsenic in efficient doses to fail to influence, to some extent at least, the course of pernicious idiopathic anæmia is, in my experience, quite exceptional. As a rule, its administration results in marked improvement if not actual cure for the time being, to be followed very soon by relapse, in which, strange to say, the drug frequently fails to be of the smallest benefit, and the patient ultimately succumbs to his disorder. This curious behaviour of arsenic seems to me to be quite characteristic of the disease; its failure in relapses is frequently as signal as its success in the first period of the disorder, in which, as I have said, it seems to effect a complete cure.

The patient whose case is narrated below was, when admitted to the infirmary, to all appearances at the point of death. It was consequently thought desirable to push the administration of arsenic, in spite of the constant vomiting which was such a marked feature of the case in its early stages, until large doses had been reached. This was done, until in a month, although the anæmia had not advanced, well-marked palsy was induced. Nervous manifestations are known to occur in pernicious anæmia.[1] I have myself seen a case in which the knee-jerk was absent, and returned under treatment by arsenic, the patient making a complete recovery, only to relapse and die in a few months. There can be no doubt, I think, that the distribution and character of the palsy in the present case point clearly to the arsenic administered as its cause.

This case is the second I have seen in which arsenic given in medicinal doses has produced profound and long-standing palsy. The first will be found very briefly recorded in the British Medical Journal for 1893, vol. i. p. 239. The boy whose case is there given has not yet recovered the proper use of his limbs, and it is now fully two years since the arsenic was given which produced his paralysis. Such disastrous results, although occurring with very great infrequency, must give us pause, and make us ever watchful for the earliest signs of arsenicism in cases in which large and increasing doses of the drug are being used.

In my own cases no warning of impending danger was given by the occurrence of gastro-intestinal irritation. The arsenic seemed to go direct to the nerves without affecting the stomach or intestine, much in the same way as alcohol will get to them without affecting the liver. I have now made it a rule to watch carefully the knee-jerk in all cases in which arsenic is being administered, as I believe the failure of this reflex to be a sure index of its deleterious effects upon the nervous system.

The administration of bone marrow in cases of anæmia was first suggested in this country by Dr. Dixon Mann.[2] He used a glycerine extract of marrow, and gave it (1) to a boy suffering from hæmophilia, (2) a girl suffering from long-standing anæmia (chlorosis), and (3) a man the subject of profuse hæmatemesis, and in all with good results. But it was not till Professor Fraser published his case in June of last year,[3] that any example of idiopathic pernicious anæmia successfully treated by bone marrow had been recorded.

In what manner bone marrow or its extract after undergoing the process of digestion proceeds to effect the marked changes in the blood which are shown to have been effected in the cases recorded by Professor Fraser and myself, I am at a loss to explain, unless it be by assisting in the effort which the marrow, according to some recent observations of Dr. Muir,[4] seem to make in pernicious anæmia to supply the deficiency of hæmocytes. I ought to mention that in October last I saw, with Mr. Kershaw, of Pudsey, a case of pernicious anæmia in which bone marrow failed to do good; and in November last Dr. Honeyburne, of Idle, asked me to see with him a patient suffering from profound idiopathic anæmia in which the marrow could not be taken. In the latter case the nature of the anæmia was not at all clear, the case being much complicated by a great enlargement of the liver and some enlargement of the spleen without leucocytosis.

W. R., aged 43, a miner, was admitted on April 21st, 1894, and is still (November 6th, 1894) in the infirmary. He was admitted with extreme pallor, feebleness, restlessness, insomnia, and at times much delirium. He presented no malarial or syphilitic taint, and there was no evidence of plumbism or other acquired toxæmia. During the twelve months before admission he had been unable to work through increasing feebleness, great shortness of breath on even quite trivial exertion, and vomiting. He stated that he had lost flesh, though he was still fairly stout, even to corpulency. He had never lost any blood. He was a short, thick-set man, well nourished, the subcutaneous fat being abundant.

[1] On the Association of Disease of the Spinal Cord with Pernicious Anæmia, by H. M. Bowman, M.D., *Brain*, Part lxvi, 1894, p. 198.
[2] *Lancet*, March 10th, 1894, p. 599.
[3] British Medical Journal, June 2nd, 1894, p. 1172.
[4] *Journal of Pathology and Bacteriology*, February, 1894, p. 354

He looked profoundly ill. There was intense pallor of the whole surface, the colour of the skin being that of old wax. There was no jaundice. The mucous membranes were almost devoid of their natural blood tint. There was some œdema of the legs. The bones and joints presented no peculiarities. He was very restless, partly from great shortness of breath, and partly from mental disturbance. He was at times dull, stupid, and apathetic; at others fretful, querulous, incoherent, and delirious. He was breathing 36 in the minute, and the smallest exertion, such as turning in bed, increased the rate. The respiratory system was normal on physical examination. The pulse was 128, regular, small, easily compressible, and very feeble. There was visible pulsation in the neck. The cardiac impulse was very faint and quick. The apex beat was in the fifth interspace, 4 inches from the middle line; at the same point a well-marked systolic thrill could be felt. The cardiac dulness was not increased. A soft, systolic, blowing murmur was heard at the apex, base, and over the vessels of the neck, but not at the angle of the left scapula. Blood drawn from the finger looked pale to the naked eye. The red corpuscles were reduced to 18 per cent. There was marked poikilocytosis with a few megalocytes. The pupils were normal and active, and vision good. The discs were very pale. The remains of an extensive hæmorrhage were seen in the right fundus, and of a much smaller one in the left. He made no complaint of headache, but his mental state was so dull and confused that it was very difficult to ascertain his subjective condition. The knee-jerk was present. The tongue was pale and dry. There was great thirst, and appetite was bad. The breath was foul. He was quite unable to take food on account of almost constant vomiting. There was no hæmatemesis. The vomited matters contained free hydrochloric acid. There was obstinate constipation, and the abdomen was rather full. Nothing abnormal was found by physical examination. The urine was of a bright sherry colour (not dark) and clear, specific gravity 1018; it contained no albumen, no sugar, and no blood. He was at once ordered liquor arsenicalis, m 10, t.d.s.; milk, champagne, and ice, and such other food as he could take.

The intention was to give arsenic in increasing doses, until a maximum dose, to be determined by his inability to take it, was reached. In this way the drug was administered till May 25th (34 days), so far as vomiting would allow. The largest dose ever reached was one of 19 minims, and the largest quantity taken in any 24 hours was 75 minims. For 24 or 48 hours it would occasionally be impossible to give any arsenic whatever. It may be taken that the amount of arsenic given was always the largest his condition would permit.

In spite of these large doses, the drug made no very obvious effect upon his disease. From April 21st to May 25th, during which time, as before said, he was taking arsenic with more or less regularity, there were periodic remissions of vomiting and delirium, but beyond this there was no amelioration in his fundamental condition. The blood count showed no material change, and his aspect and shortness of breath were in no degree improved. Delirium and restlessness were more or less constantly present.

On May 22nd it was observed that he was almost completely helpless in his legs, and that the knee-jerk was gone. About this time a marked change was noticed in the colour of the skin, especially of the hands and feet. In addition to his original pallor, there was to be observed a very striking pigmentation of the skin, with small blackish-brown spots, not raised above the general level and quite smooth, except on the soles of the feet, where the pigmentation was associated with much horny thickening of the surface affected. (He presented, in fact a very good example of hyperkeratosis and pigmentation due to arsenicism.)

On May 25th the weakness of limbs was much more marked, and he was quite unable to feed himself, and standing was an impossibility. His colour had improved a little, and there had been no vomiting for three days; 75 minims of liquor arsenicalis were being taken in twenty-four hours. On ophthalmoscopic examination, the hæmorrhages seen on April 21st, 1894, had disappeared; the discs were very pale. A blood count was made, and the red cells found to be reduced to 18 per cent. of normal. The lower extremities were œdematous and the knee-jerks still absent. He complained of rather severe pains in the hands and feet, and there was some blunting of the tactile sense in the ends of the toes. The administration of arsenic was abandoned on this date, it being quite evident that multiple peripheral neuritis had been induced by it.

On June 4th the weakness was still extreme, and he was unable to sit up in bed on account of the uselessness of the trunk muscles. There had been no vomiting since May 24th. He was ordered to take three ounces of fresh bone marrow daily.

On June 11th his appearance was much improved. The former dirty waxy colour of the skin had largely disappeared, and the mucous membranes had a distinct blood tinge in place of their former white colour. His mental colour was also more satisfactory.

The weakness of the limbs was unaltered, and the knee-jerk was still absent. There was marked wasting of the intrinsic muscles of the hands, with characteristic wrist and foot drop. Sensation was unimpaired, but he still complained of numbness and tingling in the fingers, and the calf and forearm muscles were very tender on squeezing. The pulse was 104; there was much beating in the neck, and the systolic murmur was still audible at the apex but not in the back. The blood examined on this date showed an increase of the red corpuscles to 30 per cent., and marked poikilocytosis.

On June 15th he described himself as feeling half as well again as he did on admission (April 21st), and he certainly looked much better, owing mainly to marked increase in natural colour of the skin and mucous membranes. There was still pain in the limbs, and the paralytic condition was but little improved. The blood cells were found to have increased to 40 per cent., and the hæmoglobin stood at 45 per cent.



On June 20th the general condition was still further improved, but the paralysis had not changed, and the knee-jerks were still absent. The blood count showed 56 per cent. of red corpuscles.

On June 27th the blood count showed 70 per cent. of red corpuscles. He had taken bone marrow daily without inconvenience and without impairing his appetite for ordinary food, which he was taking in abundance.

On July 4th there was still no improvement in the paralysis; the knee-jerks were still absent, and there was some pain in the limbs. The blood corpuscles had increased to 80 per cent.

On July 25th he was still taking the bone marrow. There was some improvement to be noticed in the condition of the limbs, and he could use his hands to feed himself for almost the first time since the end of May, though the hands were still "dropped," and the fingers flexed and crowded together; the knee-jerks were still absent; the blood count showed red corpuscles 95 per cent. of normal number.

On August 10th the blood showed a normal (100 per cent.) number of red corpuscles; the poikilocytosis had entirely disappeared, and for the first time the corpuscles formed good rouleaux. The arsenical pigmentation had almost disappeared, but there was no material improvement in the paralysis.

On August 27th all the muscles of the arms reacted to faradism, but the muscles of the legs did not react. With

galvanism K. C. C. was more marked than A. C. C. in all the muscles of legs. The systolic *bruit* had disappeared and the blood count was quite normal.

On September 11th the patient was using his fingers much better than he had done, and they looked much less helpless. The knee-jerks were still absent. He could feed himself a little better, but was still quite unable to stand. The feet were still pointed, but the wrist drop had almost gone.

To-day (November 16th, 1894) he is still quite helpless in his legs, the feet are pointed and the knee-jerks absent. The hands are more useful than they were, but they are still very weak and wasted. His aspect in all other respects is that of a robust healthy man, except that his rosy complexion is is just a little childlike in character. The blood examined to-day looks perfectly natural, forms good rouleaux, and shows a normal number of red corpuscles of natural shape and colour. The photographs here reproduced show very well the condition of his limbs on November 16th, 1894. He is still taking the bone marrow.



The following is the method by which the marrow is prepared. Three ounces of fresh bone marrow (as much red as possible) are made up into a paste, with port wine 1 ounce, glycerine 1 ounce, and gelatine 5 drachms. A little care is required in making the paste, to keep the gelatine and the marrow sufficiently fluid for them to be thoroughly mixed. The gelatine should be soaked in sufficient water to soften it, and then should be melted with the glycerine, the mixture being kept in a mortar previously made hot with boiling water, while in another mortar, made hot in a similar manner, the marrow and wine are mixed. Then the contents of the two mortars should be thoroughly incorporated and allowed to set. The hospital butcher seems to have no difficulty in supplying the marrow free from bone spicules.

I wish to express my thanks to my house-physician, Mr. W. W. Stoney, M.B.(Vict.), and to Messrs. Crawshaw and Dearden (clinical clerks), for their great assistance in keeping the clinical records of the case from which the above narrative has been abstracted.

REMARKS ON THE RELATIONSHIP OF INFLUENZA AND EPIDEMIC PNEUMONIA.

Read at the Autumn Meeting of the Northern Counties of Scotland Branch of the British Medical Association.

By BRODIE CRUICKSHANK, M.A., M.D.

Nairnshire was first invaded by influenza in the autumn of 1891. Whole households were prostrated by a disease with which we were unfamiliar. Most of the cases recovered slowly, but many developed pneumonia. After a period of great activity for three months the disease disappeared, leaving a legacy of debilities of various kinds, chiefly phthisis and neurasthenia.

During the following May and June we had a recrudescence of the epidemic. The cases were few in number, but severe, and a large proportion was complicated with pneumonia.

The winter of 1892-93, and the summer of 1893, passed without an outbreak; but in the middle of October, 1893, the disease started afresh in a most violent manner, and continued for nearly six months. I shall direct your attention, in some detail, to this last outbreak, as it was marked by a large number of cases of pneumonia, and forcibly impressed my mind with the contagiousness of that disease.

Isolated cases occurred all over the county, but in one particular valley, and on one side of that valley, almost every house had one or more victims. The infected district was on the right bank of the River Nairn, all along the level valley, and the slopes of the hillsides facing the north. The area extends, for about four miles from north to south, and for about one mile from east to west, and contains the village of Cawdor, with about 200 inhabitants, and two small hamlets, besides farmhouses and cottages occupied by crofters and labourers. The district is purely agricultural, and the people are fairly well off, and, as a rule, comfortably housed; its sanitary condition, if not perfect, compares favourably with that of neighbouring districts, while the bracing air and general salubrity of Nairnshire are everywhere well known.

The disease for the first three months attacked chiefly aged persons and adults; then the children suffered most, so much so that the public school at Cawdor had to be closed, as the attendance had diminished to less than half the average. During the epidemic I was called upon to treat 64 cases of pneumonia, single or double, and of these 15 proved fatal. The mortality was chiefly amongst aged persons, although 3 strong healthy adults died of double pneumonia. In one authority I find hemiplegia mentioned as a rare complication of pneumonia. Curiously enough I met with three cases of this complication, and all the patients died. Two of them were aged men, but the third was a robust man who had actually passed the crisis, and seemed in a fair way to recovery before paralysis supervened.

Pleurisy was not met with in many cases. Empyema followed in one of the pleuritic patients, who, after operation and a tedious convalescence, made a complete recovery.

Notes were kept of the ages of the patients, but nothing seems deducible therefrom, as the cases were pretty evenly distributed over the different decades. As might be expected, the mortality was greatest in advanced life. About two-thirds of the cases were males.

The evidence of the contagious nature of the disease was most convincing. In many instances two or more members of one family were attacked, not simultaneously, but one after the other. One man sickened with pneumonia (double), and died on the eighth day. He was nursed by his wife, who showed symptoms of the disease two days before his death, and also fell a victim. Another man died of double pneumonia; three weeks afterwards five of his children showed the usual signs and symptoms—dulness, tubular breathing, gelatinous sputa, etc. They all recovered. In one family, consisting of an aged father, two daughters, and two sons,

all the members except one daughter were attacked, and one died.

The following clinical picture fairly describes the type of disease which was met with. The onset was sudden, commencing with intense headache, a rigor, and rapidly attained pyrexia. Vomiting and diarrhœa were often present. Pain was not an urgent symptom, and some cases might have been overlooked had I not made a point of carefully and repeatedly examining the chest. The sputum was of a gelatinous consistency and transparency, very tenacious and viscid, and could not be poured out of the spit-cup. During the first few days it was often lemon-coloured, or slightly marked with rusty streaks; in some cases, however, it was not even tinged with colour. Tenderness over the liver, pain at the nape of the neck, with a tendency to jaundice, were met with in a few patients.

The disease, with few exceptions, was limited to one lung, and very frequently the physical signs were first detected at the apex or over the upper and middle lobes. It was noteworthy that these signs appeared most frequently at the angle of the scapula, and gradually spread over the whole lung. Consolidation with tubular breathing came on rapidly. The disease pursued the usual course of croupous pneumonia. Some cases recovered after the usual crisis, some after one or more fresh invasions, and 15 ended fatally. The peculiarities of the disease in this epidemic were the seat of invasion, the comparatively light tint and extreme tenacity of the sputa, the tenderness over the liver with tendency to jaundice, and the gastric complications.

Of late years our ideas as to the nature of pneumonia have undergone great evolution. In my student days it was regarded as a non-specific disease dependent usually on cold and damp, the constitutional disturbance being considered as secondary to the local inflammation, and undoubtedly some cases occurring sporadically come under this category. Of late years, however, this view has largely lost ground, and it has become more and more recognised that in its sudden onset, the course of its symptoms, and its relatively constant duration pneumonia partakes more of the character of a specific fever with inflammation of the lung as its most prominent local manifestation.

Bacteriology points to the same conclusion, for a definite microbe has been found in the sputum of those suffering from epidemic pneumonia, a rod-shaped organism named after its discoverer, the bacillus of Friedlaender.

This fact is rendered probable also by the frequency with which pneumonia occurs in epidemics, and by the fact that it is certainly at times contagious.[1]

My own recent experience leads me strongly to adhere to the modern view that pneumonia is generally a disease of a specific and contagious nature.

Does not such an epidemic as I have described teach us, as general practitioners, that something might be done, by isolation and disinfection of sputa, to limit the number of victims of this disease? The resultant mortality exceeds that of small-pox, yet the disease is not notifiable; nor does it seem to awaken any great feeling of alarm in the community. Visits of inquiry and condolence go on, the subtle contagion is inhaled, and so the evil spreads.

In conclusion, let me briefly glance at the relationship that seems to exist between epidemic pneumonia and the pneumonia that occurs as a sequel to influenza. I am convinced that, in the simultaneous occurrence of these diseases, there is something more than coincidence. Previous to the appearance of influenza, in 1891, pneumonia was a very rare disease in Nairnshire. During that epidemic cases were very frequent. Last winter influenza again appeared, and in its train the remarkable series of cases of pneumonia to which I have called your attention.

It will not be denied that in clinical features the two diseases are indistinguishable; and it is suggestive to read that Dr. Klein found the bacillus of Friedlaender—the microbe supposed to be pathognomonic of epidemic pneumonia—in large numbers in the sputa of many cases of pneumonia following upon influenza.

[1] In the reports of the Local Government Board several epidemics are described, notably one in Middlesbrough, by Dr. Ballard, and one in Scotter, Lincolnshire, by Dr. Parsons. A few years ago Dr. Bruce, Dingwall, published, in the British Medical Journal, an interesting series of cases that occurred in his district.

No fact is better established than that pneumonia does not occur in all, or even in a very large proportion, of influenza patients; and my attention has been drawn to a series of over sixty cases that occurred last winter at Fort George Barracks, not one of which showed any signs of pneumonia.

From the foregoing remarks, the conclusion would seem to be that epidemic pneumonia is a specific contagious disease caused by a definite microbe, and that an attack of influenza leaves a patient in a state peculiarly favourable for the reception and growth of this micro-organism; in other words, pneumonia occurring as a sequel to influenza is in reality epidemic pneumonia grafted on influenza.

FURTHER NOTES ON THE TREATMENT OF A CASE OF EXOPHTHALMIC GOITRE.

By DAVID OWEN, M.R.C.S., L.S.A.,
Manchester.

In the British Medical Journal of December 2nd, 1893, I recorded a marked case of exophthalmic goitre of twenty years' duration, for which thyroid feeding had been prescribed. The patient, in the course of a few months, had been practically restored to health, all the symptoms having subsided, a hypertrophied heart, the result of long-standing palpitation, alone remaining. I then stated that the patient had, through a mistake of his wife, taken a quarter of a pound of thyroid on two consecutive days. This statement caused Dr. Hector Mackenzie to write to me, and draw my attention to the fact that the two-lobed gland only weighed 80 grs., so that a quarter of a pound would mean twenty whole glands. On reinvestigating the matter, I found that the patient had not been supplied with thyroid at all, but with thymus. This fact was made certain by a microscopic examination kindly undertaken by Mr. S. Wansbrough-Jones, Children's Hospital, Pendlebury.

It should be well known that butchers, though well acquainted with the thymus—those in this locality knowing the cervical part as the neck-berg, and the thoracic part as the heart-berg—are ignorant of the existence of the thyroid gland. This can be accounted for both by its small size and its great resemblance to muscle, being distinguished, however, from the latter by its greater firmness and freedom from attachments. On the other hand, the thymus is much larger, and occupies a prominent position in front of the trachea; and, being much paler than the surrounding structures, is easily distinguished from them.

Although the spontaneous improvement and even cure which is known to occur in this disease renders a single observation as to the use of a remedy unreliable, yet in this case the improvement seems to be the result of the administration of the thymus, as its discontinuance was followed by a return of the symptoms.

In January, 1894, the thymus was discontinued, much against the wish of the patient, who had acquired great faith in its efficacy. At first after it was left off no change was observed, but afterwards he felt less capable of exertion, and complained of palpitation being easily produced. On March 20th the outlines of the thyroid, which had become imperceptible whilst under treatment, could be distinctly felt and seen. The pulse rate when he entered the room was 110, but after ten minutes' rest had fallen to 84. The thymus was afterwards resumed with great benefit.

I saw the patient last on July 25th, when the improvement in his condition was very remarkable. Although he had been engaged in most laborious work twelve hours daily for several weeks, he felt perfectly well. He has gained greatly in flesh; though formerly very thin, he is now well nourished. Before treatment he was not a day without palpitation, and the slightest exertion fatigued him. He has now been perfectly free from palpitation for six months, and does not feel tired even after a heavy day's work. The pulse is 72, though before taking thymus it was constantly over 120. The eye symptoms have disappeared; the thyroid swelling is no longer present; melancholia is replaced by a feeling of well-being. He has taken one lobe of neckberg—the cervical portion of the thymus—three or four times a week. He states that he

has several times discontinued the gland for a time, but, finding himself getting worse, has resumed it, always with immediate benefit. For the last two months he has taken one lobe a week.

Apart from the association of improvement in this case with the administration of thymus, there are other reasons why the same treatment is justifiable in a similar case. Dr. Charles Macalister, in the British Medical Journal of April 8th, 1893, has shown that thymus, like thyroid, can have a therapeutic action after having been swallowed. It is quite possible that there may be some oppositeness in action between the two glands.

In thyroidism and in Graves's disease, in which most likely there is hypersecretion on the part of the thyroid gland, there is usually loss of flesh, whilst what is known of thymus points rather to its function being to prevent emaciation, as is evidenced by its enlargement in hibernating animals, in whom the thymus persists throughout life. Landa's experiments show, too, that there may be oppositeness between two vascular glands. He observed that although the simultaneous extirpation of thyroid gland and spleen did not produce myxœdema, this disease was set up when only the thyroid was removed.[1] The probability that thymus may be found useful in exophthalmic goitre is further supported by the fact that during infancy, when the thymus is active, this disease is almost unknown, the liability to it being greatly increased after the atrophy of the thymus.

According to Fagge, out of the six or seven necropsies on cases of exophthalmic goitre made at Guy's Hospital since 1868, in two the thymus was found to be enlarged. In these two the hypertrophy might be the result of a physiological attempt to provide an antidote in a disease which does frequently undergo spontaneous cure, possibly as a result of the action of the thymus.

In the Journal of July 21st, 1894, Dr. McNamara refers to the fact established by the experiments of M. Kaufmann, that the internal secretion of the pancreas has an inhibitory influence on the formation of sugar in the liver. The secretion of the thymus may be found to exert an analogous influence on the secretion of the thyroid.

[1] *Centralbl. f. inn. Med.*, No. 12, 1894.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A COMPLICATED MIDWIFERY PRESENTATION.

I was called to a case of midwifery recently, and found on vaginal examination a hand, a foot, the funis, and the vertex presenting. The hand (which I made out to be the right, and which seemed larger than normal) was situated to the right of the symphysis pubis. Behind and at the upper part of the right side of the hollow of the sacrum was the foot, though on a higher level than the hand. Entwined around these was the funis, which had no pulsations; and a little further up than the foot, in the left occipito-anterior position, was the vertex, partially engaged in the brim of the pelvis. The possibility of twin pregnancy suggested itself, but of this, however, I could not find any confirmation. This was the woman's fourth confinement, all her previous ones having taken place without any hitch. Her age was 26. I could not get any exact history of how long the membranes had been ruptured; the pelvis was roomy. The pains were so strong and frequent that I could not get an opportunity of passing my hand past the presenting vertex. Failing this, and as labour was not progressing, I tried by pushing up the leg and the arm with the funis to engage the head in the brim, but without success. Traction on the foot and version were tried with similar want of success owing to the whole presentation being tightly jammed into the opening of the pelvis. These attempts occupied an hour. I then went for my principal, Dr. Anderton, and in a very short time returned with him, when we found that labour had made rapid progress, notwithstanding that the presentation was still as described above. The hand was outside the vulva, and the head was well engaged in the pelvis. The forceps were applied, and delivery was completed in a couple of minutes. The child, which was dead, lay in the following position. The right arm was extended at full length above the head, and the right leg was flexed up along the body, reaching over the right shoulder; entangled around these was the funis. The child was full time and fully developed, and the mother stated she felt it move a couple of hours previous to sending for me. The largeness of the hand was due to œdema, the result, no doubt, of pressure, which also, acting on the cord, produced asphyxia.

R. Hill Shaw, M.B., B.Ch. Univ.Dubl.

New Mills, Derbyshire.

THE STEAM TENT.

From the reports of cases of diphtheria under the antitoxin treatment, I observe that some practitioners still use steam in a tent in the treatment of the laryngeal form.

I used to follow the same practice, until an intelligent mother assured me that her child, suffering from laryngeal diphtheria, was invariably worse when in the steam tent.

I could not disregard her conclusion, and examined the effect of steam in the air both theoretically and practically. I read an account of my conclusions at a meeting of the Lancashire and Cheshire Branch some fifteen years ago. A report appeared in the British Medical Journal at the time, but I may here mention what I found to be the bad effects of steam in the air.

1. *On the Lungs.*—We lose more heat by breathing in dry air than in moist air; therefore, steam in the air will increase the temperature of the body.

2. *On the Skin.*—A moist air prevents the insensible perspiration, and we find it standing in drops on the skin, which tends to prevent loss of heat by the skin.

3. *On the Temperature of the Room.*—Where the steam is got from a kettle on the fire, the kettle prevents the heat radiating, and so if set on the fire when the air in the room is heated, the steam will soon saturate it, the excess being deposited in the room; as the heat is prevented radiating, or if the fire gets low, the temperature of the room will fall, and the moisture which the air held falls and covers the whole room, which tends to reduce the temperature still further. Thus an equable temperature cannot be maintained in the room, and as the steam in the air prevents loss of heat, both by the skin and lungs, it must be specially injurious in all bronchial affections.

In laryngeal diphtheria, where we wish to get more oxygen into the little patient's lungs, what reason can be assigned for putting in steam instead?

Hawick, N.B. John Haddon, M.D.

SPONTANEOUS FRACTURE OF RIBS.

I notice in the British Medical Journal of January 12th a case recorded of spontaneous fracture of the eighth and ninth ribs on the left side in an anæmic woman just previous to the onset of labour, which reminds me of two instances of similar accidents that came under my observation many years ago.

The first happened in the City of Dublin Hospital about the year 1849 to a young woman during a severe paroxysm of coughing. There were one or more ribs broken, but I cannot now remember their exact position. The case was under the care of the late Professor Charles Benson, to whom I was clinical clerk.

The second was in my own practice in the West Indies, and happened to a black woman of Herculean frame, who in a long pain during parturition fractured the eighth and ninth ribs on the left side. I was present when the accident occurred, and the loud report I heard when the bones gave way prove, I think, that although the ribs were large, solid, and fixed, they were not strong enough to resist the powerful action that was being exerted by this unusually muscular woman.

John Freeland,
Government Medical Officer, Antigua, West Indies.

Woburn Place, W.C.

M'Gill University.—The number of students in the Medical Faculty of the M'Gill University, Montreal, this session is 400, being an increase of 50 as compared with the session of 1893-94.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

STATION HOSPITAL, SANGOR, CENTRAL PROVINCES, INDIA.

A CASE OF GUNSHOT WOUND OF THE SKULL INFLICTED BY THE NEW MAGAZINE (LEE-METFORD) RIFLE BULLET.

(By Surgeon-Captain F. J. W. Porter, A.M.S.)

Corporal W. H., 2nd Battalion Scottish Rifles, was travelling from Jubbulpore to Sangor on escort duty, and, when near Bhopal, he was shot with a magazine rifle bullet. As far as can be ascertained, he was lying asleep on his back, with his left arm lying across his face and head.

When admitted into the station hospital, two days afterwards (May 14th, 1894), he was found to have the following wounds:



Tracing of right ear showing accurately the position of the bullet wound in relation to it. Taken by tracing the outline of the parts with oil and stamping a piece of tissue paper over them.

1. In a line with and about 3 inches above the tip of the left internal condyle was a small circular wound.

2. On the front of the arm and a little higher up than the other was another wound, similar in shape, but a very little larger. These were probably caused by the same bullet, which had passed on the inner side of the humerus, and had not injured the great vessels or nerves.

3. On the face, 1 inch below the inner angle of the left eye, and passing through the nasal process of the superior maxillary bone was a small depressed wound.

4. About the centre of the right half of the soft palate was a circular patch of ecchymosis, which apparently had been caused by something which had perforated it.

5. At the back of the skull was another wound, circular in shape and larger than the face one. It was situated at the posterior border of the right sterno-mastoid, on a level with a line dropped vertically from a little below the centre of the pinna, with the patient lying supine.

Attached is a tracing showing the position of the last wound.

There was some ecchymosis of the left ocular conjunctiva and of the tissues round both the head wounds. There was deviation of the tongue to the right and wasting of the muscles of that side. Sense of taste, however, was normal. His voice was weak and husky, and, on laryngoscopical examination, there was found to be paralysis of the right vocal cord. It did not move either on deep inspiration or during phonation, but the left cord moved across the middle line towards the other one, but could never be accurately approximated to it. There was difficulty in swallowing liquids, owing to their passing into the larynx, and there was tenderness in the right side of the neck. Free discharge of fœtid pus from nose, which was irrigated frequently and iodoform blown in.

By May 28th the head wounds were practically healed, and there was no discharge from the nose. Up to May 21st there had been no rise of temperature, but on the evening of that day it rose to 101.4°, and the arm became much swollen up as far as the axilla. Some pus oozed from the wound in a line with the internal condyle. This was enlarged and a tube inserted. Pus continued to run away, and on June 1st I introduced my little finger and examined the cavity which existed. Lying near the wound on the anterior and inner surface of the humerus, which at this time had healed, an irregular body was felt. A pair of dressing forceps were introduced, and it was extracted. It was found to be one of the wads of a magazine cartridge, and, when compared with a fresh one, it corresponded.

After this the wound healed rapidly, and he was discharged on July 10th, the paralysis of the tongue and vocal cord remaining unimproved, but otherwise in good health.

Remarks.—This case I think interesting for the following reasons: 1. The severity of the injury to be followed by recovery. The bullet must have passed some very important vessels, etc., in the neck, and must have gone very close to the base of the brain. I think there is no doubt that if the same injury had been inflicted by a Martini bullet, the case would not have terminated so favourably. 2. The rapidity with which healing took place. But for the fact that one of the wads lodged in the soft tissues of the arm, and induced suppuration, the patient could have been discharged from hospital on May 28th, or sixteen days after the infliction of the injury. His detention in hospital was solely due to the trouble in the arm. 3. The cause of the paralysis of the vocal cord. One can readily understand the paralysis of the right side of the tongue on the assumption that the hypoglossal nerve on that side had been cut by the bullet; but seeing that the recurrent laryngeal nerve comes off low in the neck, it is difficult to understand it being damaged by the bullet, unless we suppose it had taken some abnormal course. 4. The difficulty of deciding which of the wounds were those of entrance and which were exit. I think the presence of the wad just beneath the skin on the anterior and inner surface of the arm would tend to show that the bullet had first entered the arm, and then travelled through the face and neck. It was intended to ask the man who had fired the shot in which direction he had fired, but unfortunately he committed suicide in his cell shortly after the news of his conviction and sentence had been received.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Tuesday, February 12th, 1895.

The Causation of Ægophony.

Dr. Frederick Taylor read this paper. The author endeavoured to show that: (1) Ægophony is no more than, nor different from, ordinary musical discord or dissonance. (2) This discord is the result of beats occurring between the higher harmonics of the note uttered by the patient. (3) The beats constituting the discord are audible because the higher harmonics are reinforced, while the fundamental tone and lower harmonics are suppressed. (4) Both the reinforcement and the suppression are due to modifications of the bronchial tubes, which cause them to resonate the higher harmonics and not the lower. It was pointed out that discord as a factor in ægophony had not been sufficiently recognised by writers, and that the late Dr. Stone, in his Croonian Lectures, confined his attention almost entirely to the high pitch of the morbid sound. Discord was favoured by (1) the pre-

existence of high harmonics in considerable force, such as was known to be the case with syllables containing the vowels "e" and "i"; (2) by reinforcement of the higher harmonics; and (3) by suppression of the lower harmonics and fundamental tone. The last two conditions could be effected by modifications of the resonating qualities of the bronchial tubes, such that they would resonate very high tones and would not resonate the lower normal tone. It was argued that such an alteration in the resonating qualities of the tubes was a sufficient explanation of ægophony without the necessity of conceiving that liquid in the pleural cavity cut off the lower tones. It was shown that there was no ground for believing that liquid cut off lower notes and transmitted higher, or that higher notes were in general more penetrating than lower notes. It was shown, further, that the familiar sounds, such as nasal voice, the Punch and Judy voice, and others, with which ægophony was compared, did not depend on transmission of sound being affected by a layer of fluid, but on differences in the resonating spaces. Some remarks were then made on the position in which ægophony was usually heard, with observations of twenty-one cases, from which it was shown that ægophony was not always limited to the upper part of the area of dulness. The occurrence of ægophony in the absence of pleural liquid was then discussed, and a case was quoted showing its appearance in pneumonia with plugs or casts of fibrin in the bronchial tubes. The conclusion was that, though ægophony was most frequent in the presence of liquid because the liquid compressed the lung, it might be produced by alterations in the bronchial tubes independent of liquid.

Dr. THEODORE WILLIAMS had listened with great satisfaction to the truly scientific paper on ægophony. The discussion of physical signs was now somewhat stifled. The introduction of the exploring syringe had led to less care being taken in physical examination, and had in some degree diminished the importance of physical signs as a means of diagnosis. He was inclined to agree with the view that ægophony was due to reinforcement of the higher and suppression of the lower harmonics. He inquired whether the author considered ægophony commoner in women and children; he himself thought that this probably was the case. As to the part played by the bronchial tubes and by the effusion on the production of ægophony, he was of opinion that the former acted as resonators. However, in cases of mediastinal new growth, where very various degrees of pressure were brought to bear on the bronchial tubes, he had never heard of ægophony being present. If ægophony was due to pressure exerted by the fluid effusion, the question arose, Why was it so transient? Dr. C. J. B. Williams had thought that ægophony was not obtained if the layer of fluid between the chest wall and the lung was more than an inch thick. He agreed that the area of ægophony was below the upper limit of dulness. He had not found ægophony of much practical value in diagnosis, and therefore had not paid any special attention to it lately.

Dr. MAGUIRE did not consider ægophony of any value as a physical sign in practical medicine. He agreed that ægophony was a morbid modification of the voice sounds, but did not consider the author's explanation correct. Throughout the paper there was an underlying current of confusion between resonance and consonance which were essentially different. Musical dissonance or discord was very different from an ugly noise; ægophony was an ugly noise, not discord. The harmonics of any one note uttered by a patient never produced discord. The chord of the seventh was a product of the harmonics of any fundamental note, but in no sense of the word was it a discord, except in so far as it produced in the musical mind a feeling of expectancy which could only be relieved by the sequence of the resolving chord, as it was called. Consonance had reference only to one tone, whereas ægophony was present with all the tones uttered by a patient. Consonance did not occur in the bronchial tubes, and he did not think it possible that any alteration they might undergo would lead to the production of harmonics. Ægophony was sometimes heard over a large vomica, and by raising the voice a disagreeable noise like ægophony could be got from the phonograph. In both cases it was not a question of harmonics but of a confusion of tones of different *timbre* though of the same pitch.

Dr. SANSOM considered that ægophony was of some value as a physical sign, since it indicated the upper level of the effusion. He admitted that ægophony occurred in other conditions than pleural effusion. He asked the author what his opinion was as to the explanation put forward by Barthez, that is, that ægophony was due to vibrations occurring in stretched and expanded lung tissue near the upper margin of the effusion. Probably the one and the same explanation did not hold good for all cases; sometimes ægophony might be due to vibrations of fibrin inside the bronchi. Ægophony and bronchophony occasionally ran into each other.

Dr. SCHORSTEIN expressed his admiration of the substance of the paper while dissenting from the conclusions. It was impossible to produce discord from one note or from its harmonics. Recently he had obtained ægophony from a patient while singing the note "Ah," one note only with its harmonics, therefore ægophony was not due to discord. The musical term "discord," and the colloquial use of the word discord, had been somewhat confused. The notes of a bassoon or of bagpipes, though disagreeable to many ears and so discordant in the popular sense of the term, were not discords from a strict musical point of view. Ægophony was rare even in pleural effusion; as far as his experience went it was only present in 10 per cent. of cases of pleural effusion.

Dr. J. E. SQUIRE said that with water in the external auditory meatus, the voice sounds became altered, as in ægophony, from the passage of sound vibrations through the fluid. With regard to the transient character of ægophony, he mentioned a case of chronic pleural effusion with well-marked ægophony.

Dr. TAYLOR, in reply, admitted that a sharp enough distinction between resonance and consonance had perhaps not been drawn. The point he especially wished to bring out was the method of suppression of the lower harmonics. The fact that they were suppressed in ægophony was shown fifteen years ago by Dr. Stone.[1] With regard to the theory of the causation of ægophony suggested by Barthez, this view demanded that ægophony should occur at the upper limit of the effusion, and this the observations he had that evening brought forward showed was not necessarily the case. He did not believe vibrations of fibrin in the bronchi ever gave rise to ægophony. The alteration of voice sounds produced by water in the external auditory meatus did not support his thesis as to the causation of ægophony. Mediastinal growths started chiefly from the roof of the lung, and, by rapidly obstructing the bronchi, cut off communication with the larynx, and this accounted for the absence of ægophony. He had, however, once heard an approach to ægophony in a patient who afterwards turned out to have a new growth inside the thorax. As regards the sex and ages of the patients in whom ægophony was heard, the twenty-one cases he brought forward were all males except one. There were very few children among them, but it was not a point to which he had paid any special attention. He had heard ægophony continuously for more than a fortnight. Probably in pneumonia it was more commonly present than found, since careful and exhaustive examination was frequently undesirable. He did not think ægophony disappeared when the layer of fluid separating the lung from the chest wall became more than one inch thick. In one of his own cases where seven pints of serum were removed from the pleural cavity, ægophony was well marked over the lower two-thirds of the back before paracentesis was performed.

The PRESIDENT remarked that the distribution of the full text of the paper before this meeting had considerably improved the discussion. He gave notice that the next meeting of the Society (on February 26th) would be devoted to a discussion on the affections of the nervous system in the early (secondary) stage of syphilis. The proceedings would be opened by a brief introductory sketch of the subject, but the greater part of the meeting would be given up to the discussion.

[1] Croonian Lectures, *Lancet*, vol. ii, 1879.

DONATIONS AND BEQUESTS.—The late Miss Emma Jane Parker Willis, of Great Baddow, Chelmsford, has by her will bequeathed £5,000 to the Essex and Colchester Hospital, and £2,500 to the Chelmsford Infirmary and Dispensary.

CLINICAL SOCIETY OF LONDON.

J. W. Hulke, F.R.C.S., F.R.S., President, in the Chair.

Friday, February 8th, 1895.

Clinical Evening.

Cystic Hygroma in an Adult.

Mr. Godlee showed a man, aged 41, who since boyhood had had a large swelling of the neck, side of face, and sublingual region that occasionally became acutely inflamed and threatened suffocation. Part was solid, but the greater part was composed of variously-sized cysts, some of which projected into the floor of the mouth. In November, 1890, Mr. Godlee removed some of these large cysts through the mouth with subsequent relief to the patient. In November, 1894, the patient returned with a swelling below the zygoma extending over the ramus of the jaw and behind it. He had taken iodide of potassium and arseniate of soda without benefit. Mr. Godlee considered the case to be one of cystic hygroma, combined with nævoid structure. It was the only case of the kind he had seen in an adult.

General Psoriasis Cured by Thyroid Extract.

Dr. Albert Wilson showed a woman who had suffered from psoriasis, which gradually became general. She was treated with thyroid extract—15 grains three times a day—and in less than three months was quite well, the skin being clear and supple and hair having commenced to grow. There was no depression whilst she was under treatment.

Progressive Muscular Atrophy with Argyll-Robertson Pupils.

Dr. James Taylor exhibited this case. There was much wasting of the upper limbs, especially in the muscles about the shoulders on both sides. The trapezius was wasted even in its upper part—the *ultimum moriens* of Duchenne—unequally on the two sides. When the patient first came under observation there was much fibrillary twitching in the muscles, but this had now ceased. There was also the condition of pupils which still persisted, namely, a loss of reaction to light, while the reaction during accommodation was active. The knee-jerks were active; there was no atony, and no lightning pains or other sensory disturbance. There was a history of a chancre twenty years ago.

Congenital Dislocation of the Hip Treated by a New Method.

Mr. Arbuthnot Lane showed a boy and a girl, in both of whom the head of the femur was removed from its movable position on the dorsum ilii to a secure position below the anterior inferior spine of the ilium, to which it was sewn, with the result that the lordosis was lessened, and the walking powers of the patients were increased to very little below the normal. The advantage was not equally great when (as in the girl) there was a double dislocation. The operation was not intended to supplant that of replacing the head of the bone in the acetabulum whenever that was feasible. The new articulation lay in front of the transverse axis around which the pelvis rotated—namely, that passing through the two acetabula, so that the lumbar curve and forward projection of the abdomen ceased.

Mr. Bowlby remarked that one patient walked as a child with congenital dislocation walked; whilst in the other the thigh seemed almost ankylosed in the position of external rotation.

Mr. Wallis said that the boy's father thought his walking powers had been much improved by the operation. He noticed that the boot had been raised; was this since the operation? He believed that most of the movement in the girl occurred at the spine, not at the new joint.

Mr. Eve had done Hoffa's operation of replacing the dislocated bone in the acetabulum two years ago, and thought the joint was better than that in Mr. Lane's cases. By dividing the great trochanter, and turning it upwards with its muscular attachments, he came down upon the joint without dividing many muscles.

Mr. Godlee thought the head of the bone (in Mr. Lane's cases) was above the level of the great trochanter.

Mr. Morgan had seen the case before operation, which was certainly severe. He doubted if it was worth while going through so much to obtain comparatively so little benefit. He thought the girl's walk no better than that of a child with congenital dislocation who had undergone no operation, though it might still improve.

Mr. Stanley Boyd had had cases of Hoffa's operation, in which at first there was no improvement, but where the power of walking was now returning. In another case he could not replace the bone in the acetabulum, and then tried ineffectually to put it beneath the anterior inferior spine; the case eventually became an everted dorsal dislocation, and the child after some weeks began to walk.

Mr. Makins described the case of a child, aged 6 years, with great lordosis, and inability to walk. He had performed double subtrochanteric osteotomy, and the child was soon able to walk.

Mr. Lane, in reply, said that in his patients the bone had been dislocated on to the dorsum ilii, where it had free play, and the improvement since the operation was very great.

Syphilitic Stenosis of Pharynx.

Mr. Battle exhibited a man, aged 24, who had had tertiary ulceration of the pharynx, resulting in a contraction opposite the base of the tongue, so that the opening would not admit anything greater than a No. 12 catheter. It was surrounded by a dense cicatrix, and the epiglottis had disappeared. He divided the margin with scissors and passed a dilator frequently. He had never seen another case with such extreme contraction. Dilatation was still required.

Lateral Rotation of Bodies of Vertebræ without Curvature.

Mr. Battle apologised for the title of this case, which he exhibited. Three or four months ago there was rotation of the bodies of the lumbar vertebræ without lateral curvature, but lateral lumbar rotation had since developed with compensatory curvature higher up.

Mr. Gould was unable to see how there could be rotation of the bodies of the vertebræ without some form of lateral curvature.

Mr. Battle said there had been no deviation from the straight line when first he saw the case, and then the bodies of the lumbar vertebræ were evidently rotated.

Symmetrical Intermittent Parotitis with Xerostoma.

Mr. Battle said there had been a dry mouth for five years, with intermittent parotitis every three or four weeks for the last two years. The mouth had been dry at the time of the menopause, both at the tongue and on the mucous membrane of the cheeks. There were no teeth left, those used being artificial. There was no blockage of Steno's ducts, as saliva flowed from each. The submaxillary glands had now become enlarged.

Extreme Displacement of the Heart due to Basic Cavity of the Left Lung.

Dr. A. T. Davies showed this case, that of a woman, aged 33. When she first came under observation the impulse of the heart was in a line with the posterior axillary fold. Since then the displacement had increased, and the impulse was still nearer the spine, being below the left scapula. The signs of a contracting cavity at the base of the left lung still existed, but symptoms due to it had disappeared.

Green Urine due to Indigo.

Dr. Archibald Garrod showed a specimen of urine from a child who had sucked a piece of carpet coloured with indigo. The green coloration was due to the combination of the yellow tint of the urine with the blue of indigo. On passing the urine through filtering paper it lost much of its green tint, whilst the paper was stained blue. The indigo was, therefore, in suspension. Some years ago a favourite treatment for epilepsy was indigo to the extent of 6 drachms a day. Those patients had green alkaline urine.

Empyema.

Dr. S. West showed this case. The patient was a boy, aged 15, who had had an empyema (left) operated upon seven years ago. Another empyema had recently formed on the

same side. This had been opened in the mid-axillary line, and 12 ounces of pus removed. No tubercle bacilli were found in the sputum. The boy had since recovered. Dr. S. West had never seen another similar case of recurrence of an empyema.

Psoas Abscess.

Mr. Barker exhibited this case, which was one of the earliest upon which he had operated. After washing out the cavity thoroughly with water sterilised by boiling, he had injected a small quantity of iodoform emulsion. The patient had had no recurrence, and was now as well as possible with an angular curvature of the spine. In another case with cervical caries there had been no trace of recurrence of the abscess, which had been opened and treated in a similar way in June last.

Congenital Dislocation of the Shoulder Backwards.

Mr. Eve showed this case. The patient was an infant. The head of the humerus was on the dorsum of the scapula, beneath the acromial process. The baby had been delivered with instruments, and on the following day the arm was found to be paralysed. The electrical reaction of the muscles around the joint was normal, whilst the muscular wasting was not great. Two cases of the kind had been described by Mr. R. W. Smith, which were due to malformation of the joint, and the dislocation was bilateral. He (Mr. Eve) thought the cause of the malformation in his case was malformation of the joint.

Dorsal Dislocation of the Hip Reduded after Five Months by the Open Method.

Mr. Spencer exhibited this case. The patient was a boy, over whom a roller had passed. His hip had been said to be reduced by a doctor, but dislocation was very evident five months subsequently. The dislocation was on to the dorsum ilii near the iliac spine. By division of muscles the head of the bone had been replaced in its joint, and fixed there. There was now no shortening, but slight abduction and rotation outwards.

MEDICAL SOCIETY OF LONDON.

Sir William Daley, M.B., F.R.C.S., President, in the Chair.

Monday, February 11th, 1895.

Clinical Evening.

Case of Unusual Malformation of Skull.

Dr. Guthrie showed a lad, aged 4, who presented in a marked degree the deformity of the skull known as scaphocephalon. When first seen at 10 months of age the fontanelle was already quite closed. The child was above the average intelligence, and could speak distinctly. The remarkable feature of the head was its great length antero-posteriorly, this diameter measuring 8 inches, and the circumference 21 inches. There was at one time some asymmetry, but this had since disappeared. There was no other instance of the malformation in other members of the family, but he pointed out that the malformation was tolerably common, and was to be seen in the heads of Scotchmen of the present day. He did not think it could be described as a pathological condition, seeing that the premature ossification of the sagittal suture did not prevent the full development of the brain.

Rectal Cancer.

Mr. Swinford Edwards showed (1) a man, aged 61, who had had cancer of the rectum involving its entire lumen for 4 inches. On February 24th he performed left inguinal colotomy, and on March 9th he carried out coccygeal extirpation of the rectum, removing close upon 5 inches of the bowel. The patient left the hospital on April 15th, the bowels acting well through the artificial anus, and there had been neither prolapse nor recurrence. (2) A woman, aged 50, who had had cancer occupying the entire circumference of the rectum for some 2 inches. It extended to within 3 inches of the anus below, and its upper limit was on a level with the middle of the sacrum. He made an incision reaching from rather above the middle of the sacrum to within an inch of the anus in the midline. The coccyx was then exposed, isolated, and removed. As the growth evidently extended to a higher level, the attachments of the sacro-sciatic ligaments on the left side were divided, and a piece of sacrum was removed. The posterior aspect of the bowel having been cleared, it was isolated about two inches above the anus, and clamped by rubber tubing and forceps, and the gut divided below. The dissection of the bowel was then carried upwards. It was found necessary to freely divide the peritoneum, and ultimately the bowel was cut away and the peritoneal wound closed. The severed ends of the bowel were approximated with a Murphy's button in end-to-end anastomosis. The operation lasted over an hour, and much blood was lost, but there was not much shock. The patient did well, and had since gained 3 stone in weight. The bowels acted well, but she had not much control over them. So far there had been no indications of recurrence.

Mr. Clutton remarked that Kraske's operation did not seem to be always necessary, and it was often possible to remove these carcinomata high up the rectum by another method. He himself made a free incision beside the coccyx from the anus, dividing all the tissues, opening the peritoneal cavity freely, then introducing a hand and seizing the sigmoid flexure or rectum, which was pulled down and attached to the anal margin, sweeping away the whole of the rectum from that point downwards. He usually did a preliminary inguinal colotomy, in order to divert the fæcal current. Kraske's operation was, he thought, particularly unnecessary in women, adding, as it did, needlessly to the shock of the intervention.

A Cork in the Male Bladder.

Mr. Buckston Browne said he had been consulted by a gentleman, aged 54, who had been troubled with nocturnal incontinence of urine, to check which he had recourse, on one occasion, to a small cork, which he inserted into the urethra. The following morning the cork could not be found in the urethra or in the bed. Vesical symptoms soon followed, and some time later he had consulted the author, who managed, not without difficulty, to remove the body by means of a lithotrite, after having cut it into fragments.

Mr. Swinford Edwards asked whether the lithotrite was used with the bladder full or empty. In dealing with a floating substance such as cork, it would obviously be best to have an empty bladder.

Mr. Browne, in reply, said he always operated with the bladder just as he found it, and that was generally empty.

Right Hemiplegia with Epilepsy, Treated by Trephining.

Dr. Outterson Wood showed (1) a girl, aged 3 years, who had developed paralysis of the right side after a fall.[1] (2) A girl, aged 12, who had been paralysed from birth after delivery by instruments. On admission, there was considerable rigidity of the right hand and arm and legs, with wasting of the leg and inversion of the foot. The tongue was protruded to the left, and the lower facial muscles showed weakening. The first epileptic seizure took place in April last, and had been repeated at irregular intervals ever since, down to the time of the operation. There was a well-marked aura with a feeling of numbness and tingling in the right thumb. The girl had greatly improved in general health, and there had been no recurrence of the fits since the operation, which was performed on September 21st. The hand and arm were now less rigid and she could walk better.

Mr. Cotterell said, in respect of the second case, that beyond the fact that the dura mater was slightly thickened, the brain, etc., appeared to be perfectly healthy.

Mr. Bidwell asked if any of the cortex had been removed in the second case. In any event, he thought it was too early to affirm that she was cured.

Colotomy: Enteroplasty: Resection of Artificial Anus.

Mr. H. Allingham showed a patient, aged 47, who, after an attack of acute dyspepsia about eight years ago, had been subject to occasional attacks of intestinal obstruction. In presence of an acute attack of ten days' standing he had opened the abdomen in the left inguinal region and made an aperture in the gut. As the obstruction was not relieved thereby he subsequently made another opening over the

[1] British Medical Journal, January 5th, p. 10.

cæcum, and as even then he could not discover any obstruction in the neighbourhood he examined the small intestine *seriatim* and ultimately discovered a stricture at a spot corresponding to the junction of the ileum with the jejunum. He performed enteroplasty, and, a month later, he resected the artificial anus, using a Mayo Robson's bobbin. The result had been satisfactory.

Gastro-enterostomy.

Mr. Allingham also showed a patient, aged 41, who had suffered for about a year with gastric trouble, accompanied by loss of flesh and constant vomiting. He opened the abdomen and found a large mass surrounding the pylorus. He therefore performed gastro-enterostomy, and the result had been excellent, the patient having since gained 2 stone in weight.

Pyloroplasty.

Mr. Allingham also showed a patient, aged 34, who had had an acute attack of gastric trouble about seven years since, and suffered from constant vomiting. On opening the abdomen he found great dilatation of the stomach caused by a stricture of the pylorus consequent upon a local ulcer. He performed pyloroplasty with a perfectly satisfactory result.

Mr. Bidwell pointed out that some very brilliant results had been obtained by Loreta's operation, which, he urged, was a simpler procedure than that adopted by the author. He had twice performed gastro-enterostomy by Halstead's method of stitching with satisfactory results so far as the operation was concerned.

Mr. Allingham, in reply, said the plan he had adopted seemed to him to be safer, and to involve less risk of cicatricial contraction. He had used Mayo Robson's bobbin in a large number of cases with exceedingly satisfactory results. It acted as a splint to the parts, and prevented, for some days at any rate, any dilatation or contraction, which stitching could never do.

Pseudo-hypertrophic Paralysis with Retention of Knee-Jerk.

Dr. Colman communicated the case of a boy, aged 10, with well-marked symptoms of pseudo-hypertrophic paralysis, special stress being laid on the fact that the knee-jerk, which some weeks since was actually exaggerated, was even at the present time decidedly "brisk."

OBSTETRICAL SOCIETY OF LONDON.

G. E. Herman, M.B.Lond., F.R.C.P., President, in the Chair.

Wednesday, February 6th, 1895.

Specimens.

Dr. Remfry: Case of Absence of Uterus and Breasts.—Dr. Griffith: A patient on whom Symphysiotomy had been performed.—Mr. Butler Smythe: Pellet-like Bodies contained in an Ovarian Dermoid Cyst.—Dr. W. Duncan: Microcephalic Fœtus, with only one palpebral fissure and no nose.

Some Observations on the Temperature, Pulse, and Respiration during Labour and the Lying-in.

Dr. R. J. Pugyn-Williams and Mr. Lennard Cutler contributed this paper. They first considered the effect of labour on the temperature, pulse, and respiration. Temperature: They found that their results coincided with those of Dr. Giles, published in the *Transactions*, 1894. Pulse: (1) Rate: They considered the low rate of the pulse after delivery, as given in the textbooks, exaggerated. In 100 cases of normal labour observed in connection with this point, they found that in 76 the rate was diminished, in 11 it remained stationary, and in 13 it was increased after the end of the third stage. In this series the average decrease between the rates during the first stage and half an hour after the end of the third was 11 beats per minute, from 89 in first stage to 78 after delivery. Parity and the length of the labour had some influence on this fall; and after the administration of chloroform during labour, it was common to find the pulse remaining high after delivery. In 19 cases of *post-partum* hæmorrhage there was an average rise of 19 beats per minute (78 during labour, 97 after delivery). (2) Tension, as estimated by tracings made with Dudgeon's sphygmograph, was usually above normal during labour, but was occasionally low, notably in one case, in which delivery was followed by considerable hæmorrhage. Respiration: After delivery there was, on the average, a fall of 1 respiration per minute—23 during labour, 22 after delivery. After the administration of chloroform this decrease was not observed. Lying-in:—Temperature: The writers found that the average temperature of 100 cases varied between 98° and 99°, being higher in the evening than the morning. The highest average temperature was reached on the first day, and was higher in primiparæ than in multiparæ. Rupture of the perineum had no appreciable effect on the temperature during the puerperium. Pulse: (1) Rate: They did not agree with the statements in the textbooks that the pulse was normally very slow during the first week, but found that the average rate of 100 cases was never lower than 72. The pulse rate was faster in the morning than in the evening throughout this series. (2) Tension: In a few cases the tension was diminished by delivery, but in the majority it was increased. Whatever might be the tension of the artery during labour, and whether it rose or fell after delivery, within twenty-four hours it had always increased so much that it was at least as great as, and generally greater than, the tension during labour. This increased tension might persist throughout the puerperium, and commonly lasted longer in multiparæ than in primiparæ. Respiration: The rate of respiration was found to vary between 20 and 22 per minute. It tended to follow the pulse-rate in being higher in the morning and not the temperature, which was higher in the evening.

Annual Meeting.

The annual general meeting of the Society was then held.

The reports of the Honorary Treasurer (Dr. Potter), the Honorary Librarian (Dr. John Phillips), and the Chairman of the Board for the Examination of Midwives (Dr. Champneys) respectively, were read and adopted, and a vote of thanks passed to each gentleman.

The President then delivered his valedictory address.—Dr. Gervis proposed, and Dr. Hayes seconded, that a vote of thanks be accorded to the President for his address, and that it should be published in the Society's *Transactions*. This was carried unanimously.

The report of the scrutineers of the ballot was read. It was to the effect that the list recommended by the Council had been adopted, with the exception that Dr. Cullingworth was elected Chairman of the Board for the Examination of Midwives instead of Dr. Percy Boulton.

A vote of thanks to the retiring officers and other members of Council was passed.

The following are the officers for 1895: *President:* Francis Henry Champneys, M.A., M.D. *Vice-Presidents:* *James Duncan, M.B.; *John H. Galton, M.D.; Peter Horrocks, M.D.; *Thomas Cargill Nesham, M.D. (Newcastle-on-Tyne). *Treasurer:* John Baptiste Potter, M.D. *Chairman of the Board for the Examination of Midwives:* Charles James Cullingworth, M.D. *Honorary Secretaries:* William Duncan, M.D.; W. Radford Dakin, M.D. *Honorary Librarian:* John Phillips, M.A., M.D. *Other Members of Council:* Thomas Rutherford Adams, M.D. (Croydon); Fletcher Beach, M.D. (Sidcup); Robert Boxall, M.D.; Archibald Donald, M.A., M.D. (Manchester); Lovell Drage, M.D. (Hatfield); Willoughby Furner (Brighton); William John Gow, M.D.; Walter S. A. Griffith, M.D.; Gerald S. Harper, M.B.; *Constantine Holman, M.D.; John D. Malcolm, M.B., C.M.; *David Ritchie Pearson, M.D.; *William Rivers Pollock, M.B., B.C.; Leonard Remfry, M.A., M.D.; John Henry Salter (Kelvedon); John Bland Sutton; *James Henry Targett, M.B., B.S.; *Walter W. H. Tate, M.B. Those gentlemen to whose name an asterisk is prefixed were not on the Council, or did not fill the same office last year.

Scarlet Fever and Milk Supply.—An epidemic of scarlet fever has broken out in South Hornsey which has been traced with strong probability to milk drawn from various farms in Derbyshire and Staffordshire. Within the first few days over 200 cases were reported.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, February 6th, 1895.

T. S. Clouston, M.D., President, in the Chair.

Discussion on Cardiac Therapeutics.

A discussion on this subject was opened by Professor T. R. Fraser, with a paper on the Remedies Employed in Cardiac Affections, and their Indications. While by no means undervaluing the various and valuable remedial agents used in these affections, Professor Fraser took strophanthus as his typical remedy, because he had most fully studied its effects, and had found it the most efficient member of the group. It acted primarily on striped muscle, whereas digitalis was more effective on non-striped fibres. He referred to experiments in which weak solutions of the drug were sent through the frog's heart, with the result of producing great and prolonged contraction. It was a more powerful cardiac tonic than digitalis: it caused a rise of blood pressure, but this was chiefly through the heart, inasmuch as its contractile action on the arterioles was very much less than that of digitalis. In the healthy subject it seldom had much diuretic effect. Its value in diseased conditions was best seen in cases of mitral disease, and those with regurgitation and much œdema were pre-eminently benefited by it. In mere stenosis there was less call for pure cardiac tonics, because with rest, diet, and general treatment, hypertrophy of the ventricle and compensation were in time established, and the equilibrium of the circulation restored. But in regurgitation through the mitral orifice, with great anasarca, excellent results were obtained from strophanthus. The frequency and irregularity of the cardiac contractions were reduced, and very marked diuresis was produced. Thus from 24 ounces of urine per diem before treatment, it was found after a few 5-minim doses of strophanthus that the quantity was doubled, and after three or four days' treatment it rose to 100, 110, or even more, ounces. In this respect it was superior to digitalis. The length of the systole was increased, and pulse tracings taken before and during treatment showed very marked changes. Professor Fraser illustrated the various points by quoting from notes of cases, and showing a large number of pulse tracings. With regard to aortic disease, the most suitable cases were again those of regurgitation. In relation to changes in this valve and in the vessels generally, the value of iodide of potassium was emphasised. Angina was not always to be treated with nitro-glycerine or nitrite of amyl. Probably the most successful drug was opium. Here also the value of strophanthus had to be carefully considered as supplementary. Sometimes there were angina pains with no tenseness of vessels, a condition he was unable to explain. Strophanthus was not without value in murmurs which were of mere functional significance. Strophanthus had far less cumulative action than digitalis, and it caused very little gastro-intestinal disturbance. It was often desirable to combine various drugs with a view to more effective action on the heart. The nitrites might be combined with strophanthus, or caffeine, or iodide of potassium, and so on. Professor Fraser briefly indicated some of the other morbid conditions where the question of cardiac tonics was important, for example, enfeebled heart from pyrexia, weakness of the myocardium pure and simple, fevers, etc. He indicated three conditions in which in his opinion help from cardiac tonics could not be looked for: (1) Steatosis or other degeneration of the heart muscle to any marked degree, that is, to such a degree that the tonic had not sufficient muscle on which to act. (2) Such obstruction to the circulation from stenosis, that no amount of increased cardiac contraction could produce compensation. (3) Where degenerated myocardium and stenosis combined were so marked that compensation could not be produced, although neither the condition of the myocardium nor the amount of the stenosis separately was sufficient to prevent the establishment of compensation by the aid of cardiac tonics. After alluding to some other drugs that had been found of service—convallamarin, erythrophlœin, helleborein, caffeine, etc., Professor Fraser concluded by urging the great necessity of selecting that cardiac tonic which each had proved for himself, and of studying all the indications for its proper place and use, and what was of even greater importance, the question of rest, diet, and all other aids to treatment.

Dr. George W. Balfour said Professor Fraser's paper was in substance a pæan in praise of strophanthus, and to that extent he could not join in the song, because he still continued to use digitalis, and still found it a very serviceable weapon—that in short he could get "the heart to do anything he liked" by its aid. He began his professional life in veterinary medicine, and he had thereby had opportunities, which he would not have missed, of watching the effects of drugs, which no amount of experiments on animals could have equalled. Indeed the latter were, for many reasons, far too often perfectly fallacious. He advocated larger doses of digitalis where there were dilated chambers that one wished contracted; these doses to be given frequently for a short time. If untoward cumulative effects were seen, the drug could be stopped and resumed again. The combination of the infusion of digitalis with iodide of potassium gave him excellent results, especially in cases where the arteries were old or atheromatous. Similarly digitalis could be combined with other drugs with much advantage. But there were many other things of great service besides cardiac tonics, and we were too apt to forget or ignore these. He quite agreed with Professor Fraser in regard to rest, diet, and general constitutional treatment. Many heart cases required no cardiac tonics—for example, most of the group called palpitation. Digitalis was an indigenous drug, it had special feeding or tonic properties which no other drug had to the same extent; its so-called cumulative action was often a delusion, since this very action was, if it really existed, only the result of one of its most valuable properties when it was being misused or overused.

Sir Thomas Grainger Stewart agreed with Dr. Balfour in that he got best results from digitalis, but perhaps it was that they did not use, and could not get to use, such pure specimens of strophanthus as Professor Fraser had made in his own laboratory. But undoubtedly in grave emergencies, where very rapid action was needed, strophanthus was superior to digitalis. He would like to add to Professor Fraser's remarks that he thought we ought not to give cardiac tonics in changes in the valves of an active inflammatory nature, where, for example, a valve was crumbling. He could not understand the terror of some of their English brethren regarding the use of digitalis in aortic lesions. He was a firm believer in combining other remedies with digitalis, for example, caffeine, iron, arsenic, strychnine, etc. He urged the great importance of using mechanical aids to relieve an embarrassed heart. Thus, aspiration of one or both pleural spaces gave incomparable relief. It might be that only a few ounces of fluid were drawn off, yet the help was remarkable. Sometimes the area of dulness might be very slight, and yet when the aspirator was used a large amount of fluid came off. Probably in such cases the diaphragm was depressed and flattened.

Dr. Affleck said every cardiac case required to be considered *per se*. Failing compensation often meant that other organs had become diseased, and that therefore pure cardiac remedies failed. His experience on the whole was in favour of digitalis. At the same time, if we had a purer strophanthus, they would undoubtedly find it of greater service in emergencies, as Sir Thomas Grainger Stewart had rightly said. Strophanthus and strychnine combined were of great service in bad pneumonia. Rest stood in the forefront of all remedies, particularly in cases of aortic regurgitation. Diet also was of the utmost importance, often much more so than drugs. Regarding dyspnœa, dry cupping back and front gave great relief where there was pulmonary engorgement. Bleeding to a slight extent was often helpful in mitral disease; it might be by leeches, wet cupping, or venesection. As to the insomnia of cardiac disease, he always returned to morphine and chloric ether, 30 minims of each. Paraldehyde was also good. The condition of the heart in acute diseases—for example, fever, pneumonia, and conditions where pyrexia was pronounced, often called for careful consideration as to the place of cardiac tonics. In some of these conditions the cardiac danger was often *the* danger. This danger was often intensified by the imprudent use of antipyretics at the outset of such acute diseases. But when the crisis threatened, then came the time for cardiac tonics. Cardiac failure in delirium tremens also called for note, because of the sudden collapse that sometimes occurred. It might

be, and often was, that on *post-mortem* examination nothing cardiac could be found to cause this sudden collapse. In this case cardiac tonics were demanded from the very outset.

Dr. Underhill referred to: (1) The heart trouble of rheumatism in children; (2) the heart trouble of and after influenza; and (3) the heart trouble in anæmia. In regard to the first there was often an insidious onset, slight fever, slight debility, at first nothing perceptible in the heart, then a slight impurity growing to a marked murmur, and then you might have the whole gamut of rheumatic troubles in the heart and elsewhere. In such cases the first factor of treatment was rest, prolonged rest, it might be for months or years, not necessarily lying in bed. For example, here was a child with slight pains, faint murmur, in six or eight weeks dyspnœa, and death in six months. He quite concurred in the importance of diet and combinations of drugs. He stood by digitalis almost entirely. Another important question was the heart of growing boys and girls at puberty. Often disturbed states were due to overwork, without any history of rheumatism. Here, again, rest was the thing, not of necessity lying in bed, but a quiet life, no competitive games; the child might go about as usual, but must avoid all strain. He urged the importance of the use of opium in angina, if there were no kidney complications.

Dr. T. R. Ronaldson referred mainly to two points connected with cardiac disease and its treatment, which specially interested him when he looked back on an experience of nineteen years in general practice: (1) With regard to the frequency of the various kinds of heart disease. From lectures and hospital practice he expected to find that a large proportion of heart cases would be of rheumatic origin. He had had a considerable number of such cases, but he had only had one death from endocarditic valvular lesion. This was the only case he had watched from start to finish. He had comparatively few cases of acute rheumatism, and these were almost all mild, and rapidly cut short by salicylate of soda without the occurrence of cardiac lesion. The only other patient in whose case he had recognised the onset of rheumatic valvular disease still lived, and was one of the 3 cases of obstinate acute rheumatism he had met with. On the other hand, he had found that the most frequent and most important variety of heart ailment was that called senile heart. He practically knew nothing whatever about it when he left hospital, but year by year it had forced itself on his attention, both as regards its frequency and the importance of its early recognition and careful treatment. (2) As to the treatment of cardiac disease, when he began practice he knew the value of rest, of mercurial purges for the removal of dropsical fluid in cavities and tissues, but beyond that his main aim was to strengthen the force pump by direct cardiac tonics. His experience had since taught him that while in suitable cases cardiac tonics were helpful, there was a much larger field than he had ever dreamed of for helping the heart by shielding it from direct and reflex nervous disturbance, and by making its work easier. He described cases illustrating these points, cases of cardiac asthma brought on by indiscretion of diet, of high arterial tension, of obesity, and of dropsy, the relief of which proved of immense value. The whole management of the case with regard to diet, rest, the use of tobacco, alcohol, etc., in addition to the question of cardiac tonics, became increasingly important in his experience. As to the respective merits of digitalis and strophanthus, the former had been his sheet anchor, although he had also used the latter with great advantage. It seemed to him that if Professor Fraser and they were to compare notes profitably, they must have a preparation of the same strength and value. He believed that strophanthus had certain advantages over digitalis, and that in the future it would more and more take the place of digitalis.

The discussion was adjourned till February 20th.

MIDLAND MEDICAL SOCIETY.

T. F. Chavasse, F.R.C.S.Edin., President, in the Chair.

Wednesday, February 6th, 1895.

Cases.

Mr. Astley Prosser showed a patient with a Number of Growths in the Subcutaneous Tissue of Both Arms and Thighs, which had been noticed for nine years. They were probably myxofibromata or fibrolipomata.—Mr. Haslam showed a man, aged 36, the upper part of whose Left Thigh had been Crushed by the Wheels of a Railway Delivery Waggon. There was no fracture of bone, but no pulsation could be felt in the femoral artery, or in the posterior tibial; the limb was cold and pale. The limb was elevated and kept warm. The diagnosis was a rupture of the inner and middle coats of the common femoral artery. There was never any sign of impeded venous return, nor was there any amount of extravasated blood at the seat of injury, and to these two facts the successful issue of the case was to be largely attributed. The patient was now well and able to work, and a feeble pulsation could be felt in the posterior tibial artery. The accident occurred eleven months ago.—Mr. Barling showed a boy, aged 11, who was admitted to the Birmingham General Hospital, April 14th, 1894, with a very extensive Compound Depressed Fracture of the Right Side of the Head. He was deeply unconscious, and was operated on without an anæsthetic, an area of depressed bone, about 2½ inches square, being removed from the right side. From this a fracture ran horizontally round the forehead, and was lost in the bone of the left side of the head. A large quantity of blood was liberated by stripping the dura mater from the bone of the vault of the skull. The next day it was discovered that the right arm and leg were paralysed, and to some extent the left side of the face. The boy was still unconscious, and remained so for eleven days, during which time he had to be fed with a nose tube. On the twenty-first day he noticed things going on round him, shook hands when asked to do so, but with his left hand. He was unable to speak, or to produce any sound except a grunt; could not protrude his tongue; he could understand written and spoken words, and could write with his left hand. The left side of his face was still inactive, but the right arm and leg were much better. On the thirty-fourth day he spoke for the first time, very indistinctly, and with a nasal twang, and it was then discovered that his soft palate was paralysed on both sides. There was now a steady improvement of the paralysed parts all round, and he was discharged eight weeks after the injury practically well. The wound healed by first intention. At the present time the boy was emotional and easily irritated, but the only distinct remnant of his paralysis was a slightly nasal voice.—Dr. Carter showed a man, aged 29, with complete Paralysis and Atrophy of the Left Deltoid and Supra- and Infra-Spinati. Four years ago he was injured in that shoulder and adjacent part of the neck from a fall, and up to an attack of small-pox last year the limb had not been so strong as before the injury, but no marked wasting was observed. On his recovery from the small-pox, which was very severe, he found that he had lost the power of raising his left arm. Neither of the above-mentioned muscles reacted either to faradism or galvanism. Dr. Carter considered that the lesion was in the left anterior cornu of the cervical cord, and though directly due to the influence of small-pox, might possibly have some remote connection with the injury of four years ago. Dr. Carter also showed a case of Persistent Brachialgia in a man 60 years of age, supervening on an injury to, and amputation of, the third finger upwards of a year ago.—Mr. E. Luke Freer showed a boy with Relapsed Talipes Equino-varus, which he had treated by tenotomy and manipulation and massage. The feet now showed little if any deformity, and the boy walked well.

An Unusual form of Anæmia.

Dr. Douglas Stanley read a paper on a form of disease frequently called splenic anæmia—a term likely to cause confusion. The cases were characterised by a marked reduction in the number of red blood corpuscles, the white being unaltered, or else also reduced. There were frequently poikilocytes and even poikiloblasts present. The hæmoglobin was also reduced. The spleen was greatly increased in size and the liver frequently enlarged. There was no affection of the lymph glands. Marked asthenia, passing into marasmus, was observed, and in some cases there was pigmentation of the skin, which might occur in local patches. The duration of the disease might extend over many years, and during its course there were acute attacks, during which the patient was greatly prostrated, might become of a yellow olive colour,

and the temperature might rise to 105°. During such an attack the urine was of a dark brown-red colour and contained large quantities of pathological urobilin. When such an attack passed off there was a slow restoration to the former condition. The pathological basis seemed to consist in severe hæmolysis, probably due to the absorption of products from the intestine. *Post mortem* sclerosis of the spleen and pancreas was found, with marked changes in the suprarenals. The prognosis was always bad, although the duration might be long. The treatment which had done most good seemed to be intestinal antisepsis. Extract of suprarenals (freshly prepared) produced a marked increase in the number of red blood corpuscles.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

PATHOLOGICAL AND CLINICAL SECTION.

E. MALINS, M.D., in the Chair.

Friday, January 25th, 1895.

ALCOHOLIC PSEUDO-TABES.

DR. KAUFFMANN showed a man, aged 40, in fair general health, but having the appearance of a beer drinker, and owning to a history of long-continued excessive drink. He presented much ataxia of the legs, a little of the hands, walked with feet wide apart, and Romberg's symptom was marked. There neither was nor had been any pain or tenderness. The sensation in the feet was imperfect, the floor feeling to him "like a lot of shavings," and touch impressions were slowly and inaccurately realised. There was comparatively little loss of muscular power, though some wasting was perceptible in the calves, and the peronei and tibiales were weak. There was and had been no interference with the functions of the bladder or rectum. The pupils were normal. The patient was admitted to hospital with pneumonia in November, 1894. Before this there was no paralysis or weakness. On recovery he felt feeble and weak in the legs, and never recovered. From that time to his present admission into hospital, three weeks ago, he went on drinking, and living poorly. Great and rapid improvement had occurred in the general condition and in the signs of local disease.

HYDATID OF BRAIN.

Dr. DOUGLAS STANLEY exhibited a brain showing a large hydatid cyst from a boy, aged 12, who showed some paralysis of the left ocular muscles, the left fifth and seventh nerves, and feebleness of grasp on the left side, and some left foot-drop. The superficial reflexes were very active, the knee-jerk was lost on the right side, increased on the left. There was also left ankle clonus. *Post mortem* there was a well-marked hydatid cyst, about the size of a large hen's egg, in the right cerebral hemisphere. It was single, and no other cyst was found in any other organ.

ABSCESS OF CEREBELLUM.

Dr. DOUGLAS STANLEY also showed an abscess formed in the left cerebellar lobe of a man aged 31. There was a history of pain with redness and swelling behind the left ear fourteen years previously. There had never been any discharge from the left ear, but the man was deaf on that side, had headache, some vomiting, double optic neuritis, some left internal strabismus, variable in amount, and some slight swaying to the left side in walking. The symptoms had come on recently. He died somewhat suddenly with respiratory failure.

Mr. L. P. GAMGEE showed a specimen of acute abscess of the cerebellum from a patient aged 11. There was a history of a discharge from the left ear for eight years, and a swelling had been forming over that mastoid process for fourteen days. The patient was taken suddenly ill with vomiting the day before admission. On admission the temperature was 101°, pulse 100, respiration 20. There was great retraction of the head; some pus in the left ear; no swelling over the internal jugular vein; no paralysis, but the patient was semicomatose, and there was double optic neuritis. The mastoid antrum was opened and found full of pus and granulation tissue, and the temporo-sphenoidal lobe was explored, but no pus found. Death occurred twenty minutes after the operation, and at the *post-mortem* examination an acute abscess of the cerebellum was found.

SPECIMENS.

Mr. JOHN W. TAYLOR showed: (1) A specimen of Small Fibroma of the Left Ovary successfully removed from a single woman, aged 32. The patient had complained of ovarian trouble for six years, and of severe pain in the left side, not dysmenorrhœal, for nine months. (2) A Kidney of the right side, removed by abdominal nephrectomy for enormous saccular dilatation of the ureter. The patient made a slow but good recovery.—Mr. WILLIAM THOMAS exhibited an improved Tracheotomy Tube. In such instruments sufficient provision was not made for easy removal and replacement, and especially for perfect cleansing of the inner tube, and some twenty years ago he had inner tubes constructed of two halves hinged together and regulated by a screw. The instrument exhibited was similar, with some minor improvements suggested by experience.—Mr. GEORGE HEATON showed a Femur from a case of Scurvy Rickets. The shaft of the bone was completely separated from the lower epiphysis, and lay loose in a cavity filled with fluid blood and blood clot surrounded by the separated periosteum. The bone itself was small and deeply blood-stained throughout. The epiphysis was healthy. The parts were removed from a patient aged 18 months, who showed well-marked evidences of the disease. The child had since the age of 8 months been reared almost exclusively on a proprietary infants' food.—Mr. CHRISTOPHER MARTIN showed a Calculus which had been impacted in the right ureter of a young married woman with a tuberculous history and numerous tuberculous glands. She came complaining of constant severe pain in the right side of the pelvis of some weeks' duration. Bimanually there was found, to the right side of the uterus, a tense oval swelling as large as an orange, very tender, and with obscure fluctuation. It was fixed to the lateral pelvic wall. It was diagnosed as a tubal or ovarian abscess. Suddenly, however, the pain was relieved, and the patient soon afterwards passed, *per urethram*, two cylindrical calculi, each about two-thirds of an inch long and one-third of an inch thick. The urine became loaded with pus. On examination, the pelvic swelling had disappeared. At the same time, all the patient's symptoms were relieved. Evidently the calculi had been impacted in that portion of the right ureter which pierces the base of the broad ligament to the side of the uterus. An abscess of the ureter had formed, and finally had discharged with the calculi into the bladder.—Mr. J. T. J. MORRISON showed a specimen of a Peritoneal Cyst he had removed from the inguinal canal.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on February 1st, Dr. BANNING, President, in the Chair, Mr. BUCKNILL related a case of casual Cow-pox, which occurred in a man, aged 34. He noticed a papule on the flexor surface of his left forearm two days after milking two cows; other spots followed, and the pocks presented a most typical appearance. The vesicles contained clear fluid. During the first few days after the inoculation the patient complained of severe headache and general *malaise*; there was a deposit of urates in his urine, and swelling and tenderness of the axillary glands. One of the cows was found to be suffering from bovine variola, and presented a number of dried-up pustules on the teats. All efforts to trace the origin of the disease proved abortive. The patient had four excellent marks of primary vaccination, and was revaccinated after this disease, but, as was fully expected, without result.—Mr. KEETLEY read a paper on some Intestinal Affections requiring Surgical Treatment. After referring to twenty cases in which he had operated, he said the delay in calling in the aid of the surgeon was accountable for the high mortality of such cases in his opinion. The general attitude of patients towards operations was now changed, and there was seldom any difficulty in obtaining their consent to a laparotomy. He specially deprecated the administration of opium before a certain diagnosis had been arrived at, and recommended the administration of chloroform to facilitate the diagnosis. With regard to intestinal tumours, he attributed their late diagnosis to the practice of treating obscure abdominal symptoms without making a

thorough examination. He reviewed the various methods of performing intestinal anastomosis, and gave the preference to Maunsell's. Finally he related a successful case of a removal of a tumour of the ileo-cæcal valve. Mr. Edwards mentioned a case of excision of the rectum by Kraske's method, in which he attempted to join the cut ends by means of Murphy's button. The anastomosis was not successful, but the patient made a good recovery. Dr. Chapman doubted whether it was any use to operate on cases of intestinal cancer, on account of the risk of recurrence. Mr. Bidwell could not agree with Dr. Chapman, and referred to two cases of removal of intestinal cancer, one from the cæcum the other from the sigmoid flexure, which were alive four and two years respectively after the operation. He referred to twenty-nine laparotomies which he had done, in none of which was there any peritonitis, although four deaths occurred from other causes. He agreed with Mr. Keetley in recommending Maunsell's method of intestinal anastomosis, and related a case where he had recently successfully resected 5 inches of small intestine by the method. For lateral anastomosis he recommended Halstead's method, and referred to two cases of gastro-jejunostomy, which he had performed by that method. After remarks by Dr. Roberts and Dr. Clemow, Dr. Maunsell described his method of anastomosis; he advised the use of a piece of sponge over which was passed a safety pin as an intestinal clamp. Mr. Keetley replied.

Bradford Medico-Chirurgical Society.—At a meeting on February 5th, Dr. A. Bronner, Vice-President, in the chair, Dr. Wood showed (1) a Ruptured Lung; (2) a Liver from a case of Suppurating Hydatids; frequent aspiration had been practised followed by abdominal section and drainage. For six weeks all went on well, the cyst draining satisfactorily, three days before death signs of peritonitis set in. *Post-mortem* examination: A large cyst was found in each lobe of the liver, not communicating with the cyst which had been drained. (3) A Heart showing Embolus in the Pulmonary Artery; this was taken from the body of a woman who had her leg broken in a railway accident, there being bruising of the femoral and tibial veins.—Mr. Horrocks showed (1) a Sarcoma of the lower end of the Femur; the growth was of three months' duration. (2) A Stomach showing a perforating Gastric Ulcer. Mr. Mercer related the early history of the case. For three years a woman had symptoms of gastric ulcer. Early one morning before taking food a sudden attack of severe abdominal pain caused the patient to swoon. Gastric perforation was diagnosed and abdominal section was performed the same evening by Mr. Horrocks. A perforation of the stomach on its anterior surface near the cardiac end was found. A fusiform piece of the stomach wall around the perforation was cut out with scissors and the opening closed with sutures. The peritoneal cavity was sponged out and drained. On the eleventh day the patient died of general peritonitis.—Dr. Rabagliati showed (1) specimen of Suppurating Ovary; (2) an Ovary and Tube showing inflammatory changes and cystic formation.—Dr. Wood read notes of a case of Bullet Wound of the Thorax, in which, although both lung and pericardium were injured the patient made a good recovery. No surgical interference was attempted.—Dr. H. Bronner related his experience in the use of Increasing Doses of Bromides in cases of Obstinate Epilepsy, the dose being regulated by the frequency of the attacks. In one case the bromide produced a rash which closely simulated scarlet fever, and in another case marked loss of memory came on necessitating the leaving off of the medicine.

Wigan Medical Society.—The annual meeting was held on February 7th, when the following gentlemen were elected office-bearers for the ensuing year: *President:* William Mitchell Roocroft, M.R.C.S.Eng. *Committee:* William M. Roocroft, E. H. Monks, jun., C. M. Brady, R. H. Cowan, M. Benson, J. P. Molyneux, W. C. Barnish. *Treasurer:* E. H. Monks, jun. *Secretary:* William Berry, F.R.C.S.I. The annual dinner was held afterwards, and a good muster of members and visitors was present.

REVIEWS.

Meteorology, Practical and Applied. By John William Moore, B.A., M.D., M.Ch.Univ. Dublin, F.R.C.P.I., Fellow Royal Meteorological Society, Diplomate in State Medicine, and ex-Scholar of Trinity College, Dublin. London: F. J. Rebman. 1894. (Cr. 8vo, pp. 468, 4 plates, 72 illustrations in text, and numerous tables. 8s.)

This is a good and a pretty book, and one which appeals specially to the medical profession, being the work of an accomplished physician. Among the merits of the book may be mentioned the minute and generally clear descriptions of the numerous meteorological instruments, which are very copiously illustrated. The methods of using them are carefully described, and practical difficulties noticed, as, for example, in the directions given for the management of the ordinary Mason's hygrometer, and the exclusive use of pure soft water for moistening the wet bulb; or in the account given of the method of reading the indications of an ordinary barometer. The country practitioner who contemplates setting up a meteorological station will therefore find this little book of great assistance in beginning his undertaking.

Patriotic pride is gratified by the knowledge that our own countrymen have had more than their share in the development of modern meteorology. Indeed, one of them may be claimed as its father. "The earliest known journal of the weather was that kept at Oxford by the Rev. William Merle, Fellow of Merton College.....during the seven years 1337-1344." His *Considerationes Temperiei*, lately translated and published by Mr. G. J. Symons, seem to have anticipated to some extent the methods of Gilbert White, of Selborne. Again, "The service of daily weather charts and forecasts, which was inaugurated by the late Admiral Fitzroy in 1861, has been amplified and improved since then; but to him belongs the credit of organising a system of weather study which now extends over the whole civilised world." In no other country, we believe, is there anything approaching the number of voluntary observers working gratuitously in the cause of meteorology. The whole parliamentary grant for meteorological purposes is only about £15,300; but the number of perfect rainfall returns published by Mr. Symons, almost all from his voluntary correspondents, amounted in 1891 to no fewer than 2,799—2,091 in England, 168 in Wales, 359 in Scotland, and 181 in Ireland. In England alone there is, on the average, one observer for every 25 square miles.

About ten pages are devoted to an account of the work of the British Meteorological Office, but no fewer than 55 (pp. 39-93) to the history, organisation, and work of the United States Weather Bureau, for which the author acknowledges his obligation to Mr. Mark W. Harrington, its chief. Large as this appropriation is, it may perhaps be justified when we consider the great elaboration of the Bureau, the immense extent of territory, so various in soil, climate, and surface, over which it extends its supervision, and the useful results which are obtained. In the British Isles, though some of our Midlanders may occasionally consult the published forecasts with a view to agricultural operations or to excursions of pleasure, we mostly regard them as being specially useful to our numerous sailors and fishermen, and to few others. The limited area of our islands, and the unavoidable absence of meteorological stations to the west and north of us also detract from the certitude and value of many forecasts. In the States the conditions are very different. The interests of navigation have not the supreme importance; but agriculture is on a much greater scale, and land storms, floods, early frosts, blizzards assume formidable proportions. Against their ravages the forecasts of the Bureau are often a great safeguard. These, and great benefits to science, are purchased at a cost to the nation of more than ten times the small amount our own Government bestows for the like purposes.

The chapter on fog and mist is extremely good, and contains a summary of Mr. Aitken's recent work on this subject. Of this a leading point is his proof of the impossibility of producing fog in a vacuum, the "free surfaces" afforded by dust particles being necessary for condensation. The subject of atmospheric electricity, including thunderstorms, is not

quite so fully discussed. Perhaps this may be accounted for by the fact that thunderstorms are much less frequent in Ireland (the home of the author and the scene of his meteorological labours) than they are in England.

Among the many valuable generalisations scattered through Dr. Moore's pages, perhaps none are more important than that quoted from Mr. R. H. Scott, "That the distribution of the plants of most importance to mankind, such as the cereals, depends chiefly on the summer temperature, while that of animals is more dependent on the winter temperature."

Speaking of the effect on climate of the configuration of the surface of the ground, Dr. Moore says, of course rightly, that when the surface slopes away from the sun the rigour of the climate is intensified. But exception may be taken to some of the examples he gives. Thus the climate of Northern Germany cannot fairly be called a rigorous one for its latitude, and if it were so the fact could hardly be accounted for by its northward slope, which is so gentle and imperceptible as to be practically non-existent. In this connection, too, may be mentioned the curious fact that the line of perpetual snow is very much higher on the northern than on the southern slope of the Himalaya, higher indeed, as Dr. Moore himself says, by more than 4,000 feet. The statement is applicable to the Alps also, on a smaller scale; and in both cases the phenomena are attributed to the action of a moist southerly wind (in the Alps called the Föhn) which first deposits its moisture in snow on the southern slopes, and then drops from the mountain crest into the northern valleys as a warm dry current. This subject of the climate of slopes is interesting medically, but difficult; in England the northern seaboards of West Somerset and North-Eastern Wales are remarkably warm in winter; and the same is affirmed of the districts of Moray, and of the Aird near Inverness, both of which slope more or less northwards.

The volume is full of suggestive matter for the physician, who may be consulted about residential or temporary health resorts. For example, Dr. Moore calls attention to the fact that evaporation from wet earth is greater than from a uniform surface of water. Accordingly it is a matter of practical experience that some old moated houses are not particularly troubled with damp or fog. The air of Venice is drier than might have been supposed; and though we talk familiarly of insular as opposed to continental climates, and though the expression is a convenient one, and generally correct, yet many islands in various parts of the world suffer from the extreme of aridity with its concomitants. Such is the case of Socotra and of the Cape de Verds.

The last three chapters of the book are devoted to an investigation of the influence of season and of weather on disease. Influenza, Dr. Moore concludes, is absolutely independent of season and weather, differing therein from "epidemic bronchial catarrh." This may be true, but it does not apply to the complications and sequelæ of influenza. Cholera flourishes most in calm weather, with high barometer and thermometer. Diarrhœa becomes epidemic in the British Isles when the subsoil temperature at a depth of 4 feet reaches 56° F., and remains at or above that height. Atmospheric temperature is of comparatively little consequence. Diarrhœa prevails most on loose soil, such as sand, mould, or fine gravel, or on made ground, including town refuse. The evil influence of density of building depends chiefly on the obstruction of air. Excessive wet and complete dryness of weather are both unfavourable to the spread of diarrhœa.

The difference in the seasonal prevalence of enteric fever and of typhus is well brought out, and almost amounts to a complete contrast. In Dublin the mortality from the former is highest in December and lowest in June: that from the latter is highest from February to May, and lowest in October. Measles and scarlatina also are similarly differentiated; a temperature above 50° seemingly favours the spread of scarlatina; but both high and low temperatures are adverse to the spread of measles.

The author winds up his book with a discussion on pneumonia and bronchitis, from the meteorologist's point of view. He shows that the curve of bronchitic mortality is identical for London and Dublin, the maximum occurring early in February the minimum in August, and the concomitant and probable cause of high mortality being cold wet weather. Pneumonia follows a somewhat different law; its maximum occurs somewhat later, and is less distinctly marked; and its minimum in August does not sink quite so low. Dr. Moore accounts for the facts by two considerations: the admixture in the returns of pythogenic with ordinary pneumonia, and the production or aggravation of the latter by the cold dry winds of spring.

NOTES ON BOOKS.

Kelly's London Medical Directory, 1895. (London: Kelly and Co., Limited. 1895. Cr. 8vo, pp. 520. 6s. 6d.).—The seventh issue of *Kelly's London Medical Directory* is more bulky than previous volumes, in this respect agreeing with most other publications of a like nature. The increase in bulk is due partly to the new names added and partly to the addition of additional societies, institutions, and publications. The volume appears to maintain its reputation for accuracy, and is undoubtedly a compilation valuable to residents in London and the suburbs.

Hints on Nursing the Sick. By Florence Stacpoole. (London: Allman and Son; and sold by the National Health Society. Paper covers, pp. 16. 1d.)—This little pamphlet on nursing is obviously not a work intended for nurses, but aims rather at that great multitude of people who, some time or other in the course of their lives, have to nurse. It is, as it calls itself, a book of hints, and mostly the hints are good. Some time or other, when it is recognised that one object at least of education is to fit people for the work of life, and that, however many other duties woman may take upon herself, one at least is always likely to be the tending of the sick, such books as this will cease to be necessary, for the elements of nursing will then be taught in all the schools. At present, however, while the home nursing of the mass of the working people lies in the hands of untrained mothers and sisters, sometimes quite little children, who are often not only ignorant of what is right but prejudiced in favour of what is wrong, a short creed of dogmatic teaching, such as the little book before us, must often prove of great service, and will be most useful to those in charge of the sick.

Housing the People: an Example in Co-operation. By Sir H. Gilzean-Reid, J.P. (London and Paisley: Alexander Gardner. Crown 8vo, pp. 90. 1s.)—This little book gives a brief account of attempts which have been made in other countries to provide accommodation for workmen and their families on co-operative principles, and sketches the history of the movement, which was set on foot by the author in Edinburgh in 1861. The story told is an interesting one. The feeling left on the mind of the reader will, however, no doubt be that there is an undue amount of discussion on general principles, and that the details given with respect to the Edinburgh Co-operative Building Company are somewhat meagre.

Temperature Charts. Prepared by D. T. Lainé, M.D. (Philadelphia: W. B. Saunders. 50 cents per pad of 25 charts.)—These charts are designed for registering conveniently the temperature in Brand's treatment of enteric fever by baths. Each chart lasts for four days, and contains columns for the registration of the temperature, pulse, and respiration sixteen times in the twenty four hours. The number of baths, their duration and temperature, are provided for in separate columns, and space is allowed for notes on the bowels, urine, and feeding of the patient. Each chart measures 13 inches in length by 8¾ inches in height, and on the back has a printed summary of "the method of Brand in the treatment of typhoid fever." The charts are elaborate and only fitted for use in special cases.

Wann dürfen Gonorrhoische heirathen? [When may a Man who has suffered from Gonorrhœa Marry?] Von Dr. Edmund Saalfeld. (Berlin: Gustav Fischer. 1894. Cr. 8vo, pp. 24. 60 pfg.)—This small pamphlet, which deals with the difficult question as to when a man who has suffered from gonorrhœa may be allowed to marry, is based chiefly upon the writings

of Nöggerath, Sänger, A. Martin, and Finger, whose opinions on the various points involved are freely quoted. The main conditions which, in the author's view, should be fulfilled before permission to marry is granted are the absence of gonococci and of pus cells from the urethral secretion and the absence of urethral stricture. We have found nothing new in the pamphlet, but it may be useful as a summary of the views of various distinguished German authors on the subject of which it treats.

The Practice of Medicine. By M. Charteris, M.D., Professor of Therapeutics and Materia Medica, Glasgow University. Seventh edition. (London: J. and A. Churchill. 1894. Fcp. 8vo, pp. 728. 10s.)—The advances recently made in bacteriology are nowhere more evident than in the recent editions of medical textbooks. It is for this reason that so many of the new editions present so many changes to the accustomed reader—changes which he cannot be but glad to see. In this, the seventh edition of Dr. Charteris's well-known little volume, great changes have been made, all of which have been necessitated by recent advances. Thus, a new classification of specific infectious diseases has been adopted, and in many instances the sections which deal with these and other diseases have been entirely rewritten. The book has in consequence been slightly increased in size, but is still concise enough to be of use, not only to students, but to busy medical men. We have satisfied ourselves that the revision has been conscientiously carried out, and we can confidently recommend the volume to the class of readers for whom it is intended.

Murdered Millions. By George D. Dowcott, M.D. (London: Morgan and Scott. Cr. 8vo, pp. 92. 1s.).—This is a rhapsody, and to those who incline to sober facts will seem hard reading. Yet the aim is good. As a means of saving the soul, missionaries find it useful to save the body, and for that purpose they require some proper medical education. This is, as we all know, an expensive thing; and, as some know, is apt to upset many early ideas. It has, therefore, been thought desirable to keep the missionaries to themselves, and to establish for them in New York a fully-equipped medical missionary college. This book, with its sensational title, which, however, seems to apply to spiritual rather than actual murder, is intended to draw attention to the scheme.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW FORM OF ŒSOPHAGEAL BOUGIE.

Mr. A. W. Mayo Robson, F.R.C.S., Senior Surgeon, Leeds General Infirmary, Professor of Surgery in the Victoria University, writes: I have on several occasions found that where it was impossible to pass an ordinary œsophageal bougie through a pharyngeal stricture, it has been easy to pass a urethral bougie *à boule* of small size, and gradually to increase the size of the instrument passed up to No. 16, "English scale," after which the ordinary œsophageal bougie could be employed. Acting on this idea, I asked Messrs. Rausche, of Bond Street, Leeds, to make me œsophageal bougies of this pattern. The sizes found most useful are: (1) 3 to 18 mm. circumference; (2) 9 to 24 mm.; (3) 15 to 30 mm.; (4) 20 to 40 mm. The smallest size is made without the bulbous extremity, and tapers gradually to the point. Having found them extremely useful in narrow œsophageal and pharyngeal strictures, both spasmodic and organic, I have no hesitation in introducing them to the profession, as I feel sure other surgeons will find them a great boon in similar cases.

THE APPROACHING REVISION
OF
THE BRITISH PHARMACOPŒIA.

III.

THE CHEMISTRY OF THE *BRITISH PHARMACOPŒIA.*

By WYNDHAM R. DUNSTAN, M.A., F.R.S., Sec.C.S.,
Lecturer on Chemistry at St. Thomas's Hospital; Professor of Chemistry to the Pharmaceutical Society.

A *Pharmacopœia* should contain sufficient accurate information about the chemical properties and impurities of medicinal substances to enable the medical practitioner to prescribe them, the manufacturer to produce them of standard quality, the pharmacist to test and dispense them; and lastly, to enable the public analyst to satisfy himself that, as sold, they are of the nature and quality intended by the prescriber.

Judged by this standard, and in the light of the chemical knowledge of to-day, the *British Pharmacopœia* of 1885 is now deficient, and lags far behind certain foreign *Pharmacopœias*, notably, those of Germany and the United States. Anyone possessing a general acquaintance with modern chemistry cannot fail to recognise that a number of the descriptions of chemical substances and many of the tests contained in the last edition of the *British Pharmacopœia* belong to a bygone age. The chemistry needs to be completely revised and brought into line with the present state of chemical science.

Dr. Lauder Brunton has already drawn attention to the small extent to which the *British Pharmacopœia* is consulted by the medical practitioner. By the chemical manufacturer and the public analyst this official publication, which might be their standard work of reference, is too often treated with disrespect. It is well known that some of our leading manufacturers are easily able to produce substances of superior quality to that demanded by the *British Pharmacopœia*, and that in the majority of cases the tests for purity given in the *Pharmacopœia* are not made use of in actual practice, but are replaced by others which are more delicate and trustworthy.

It will not be necessary for me in this article to go into the great detail which would be requisite in order to bring out these points. All I need do now is to indicate generally the directions in which the chemistry of the *Pharmacopœia* needs revision, limiting myself in each case to one or two illustrations of the prominent defects, and then to point out some of the ways in which the book might be brought up to date and made more useful. But before doing this I would call attention to a very important aspect of the chemistry of the *Pharmacopœia* which renders it extremely undesirable that it should any longer remain in its present antiquated condition.

If statistics were obtained, I think it would be found that the present *Pharmacopœia* is comparatively seldom purchased either by a medical practitioner or by a medical student, but that nearly every pharmacist and pharmaceutical student is the possessor of a copy. As a teacher of medical students, I may comment on the condition of affairs which makes it virtually impossible to use the *British Pharmacopœia* as a "text" for illustrations of chemical principles without being obliged to draw attention to its antiquated statements and inaccuracies, yet most teachers of chemistry in medical schools will agree that this is at present the case. The lecturer on pharmacology is, I understand, in much the same position. The net result is that the medical student, forced to ignore its chemistry, obtains all the other information he needs in the excellent textbook of Mitchell Bruce. The pharmaceutical student is compelled to know the *Pharmacopœia* almost by heart, and the high standard now demanded in the chemical examinations of the Pharmaceutical Society renders it difficult for him to retain his respect for a book the chemical deficiencies of which he must be fully aware, especially if he is proceeding to the higher qualification.

I lay some stress on this educational aspect of the *Pharmacopœia*, for I conceive it to be a most important one. Without converting it into a textbook or a treatise, and without increasing its present size, it might be so compiled as to furnish an accurate basis for both chemical and pharmaceutical instruction.

Passing now to more particular criticism—the descriptions of chemical substances are often so inadequate as to afford no clue to the real nature of the substances described, and, as a matter of perhaps subsidiary importance, the phraseology is not infrequently clumsy and sometimes ungrammatical. The formulæ for chemical substances are not consistently employed, whilst many of them are obsolete and without significance. To mention a few out of many instances of these several defects. "Liquor antimonii chloridi" is described as "a heavy liquid usually of a yellowish red colour." As a matter of fact, the pure substance, easily procurable in commerce, is colourless, but no allusion is made, even under "characters and tests," to the colour being due to the presence of impurity in the form of perchloride of iron. Such archaic descriptions as those of "dialysed iron," "this solution of dialysed iron, so called, is a solution of highly basic ferric oxychloride or chloroxide of iron, from which most of the acidulous matter has been removed by dialysis"; of "menthol" and "camphor" as "stearoptenes"; and of "glycerine" as "a sweet principle $C_3H_5(HO)_3$ obtained by reaction of fats and fixed oils with aqueous fluids, and containing a small percentage of water," might be replaced by more modern and precise definitions. The descriptions of the alkaloids need complete revision. According to the description given in the present *Pharmacopœia*, "aconitine," one of the most poisonous of the alkaloids, may be a mixture containing but little aconitine, whilst the "characters and tests" are such as to preclude the possibility of its being the pure alkaloid.

With regard to the use of chemical formulæ—the formula $C_2H_3C_2H_5O_2$ is given as the equivalent for the names "acetic ether" or "acetate of ethyl," from which one might conclude that a chemically pure product is intended; this is followed by a description of a process of preparation which is unsatisfactory for the purpose of obtaining the pure substance, because certain essential details are omitted. From the "Characters and Tests" it is apparent, however, that a pure product is not intended, although a definite formula is assigned in the description; the specific gravity must be "about" .900, the boiling point "about" 74.4° C., and one part should dissolve in "about" ten parts of water.

When we turn to "amylic alcohol" we find no formula given as a substitute for the name, and in the descriptive paragraph it is stated to be "amylic alcohol $C_5H_{11}HO$, with a small proportion of other spirituous substances," whilst under "Characters and Tests" there is the ambiguous statement "when pure its specific gravity is .818." Again, "phenol" is represented by the antiquated and now misleading formula HC_6H_5O, and it is described as "an acid," which it is not. This is clearly not a mere slip, as the formula given is made to correspond with the formulæ of the organic "acids" included in the *Pharmacopœia*, and in the case of "chromic acid" and "arsenious acid" it is especially pointed out that each of them is "an anhydride (not a true acid)." "Carbonate of ammonium" is represented by the formula $N_2H_{11}C_2O_5$, instead of the more intelligible $(NH_4HCO_3, NH_2NH_2CO_2)$; and "butyl chloral hydrate" by the empirical formula $C_4H_3Cl_3O$, which might as well be omitted, since it affords no clue to the nature of the compound. Again, taking examples from the *Addendum* of 1890, whilst "saccharin" and "antipyrin" are accorded the distinction of structural formulæ, this is not the case with "sulphonal" or "phenacetin."

Some uniformity should in future be observed in introducing formulæ, and these formulæ should be useful and intelligible at a glance. The misleading practice should be abandoned of using chemical formulæ as the equivalents of the names of substances which subsequent statements indicate (often obscurely) are not required to be pure, and therefore do not correspond with the composition expressed by the formula. This practice has led to much misunderstanding.

A great portion of the *Pharmacopœia* is at present taken up with minute accounts of the methods of preparing substances, many of which are now quite obsolete. A whole page is devoted to a remarkable account of a method of preparing a solution of ammonia, which no one would now attempt to carry out in the antiquated manner so minutely described. The same criticism applies to the long process described for the preparation of "aconitine," and to many other processes the accounts of which occupy much space.

A very considerable reduction in the size of the *Pharmacopœia* could be effected by omitting altogether descriptions of processes for the preparation of commercial chemicals, and thus room would be made for the inclusion of more useful information, as, for example, the tables of exact solubilities suggested by Dr. Brunton. Provided the description of a particular substance is complete and exact, and trustworthy tests for its purity are given, it is surely of no consequence how it has been prepared.

The tests for purity in the present *Pharmacopœia* are usually extremely vague, and frequently inadequate. No indications are given as to the nature of the impurities detectable by the tests described, and in many instances doubt may arise as to whether the test recommended is intended to identify the drug or to prove the absence of an impurity. Much space could be saved in revising this important department of the *Pharmacopœia* if in the cases of metallic salts and certain other substances it were merely stated that they should be free from certain specified impurities, the actual tests for which might be given once and for all in the *Appendix*. Tests for "chlorides," "sulphates," etc., are now repeated over and over again. Moreover, in those cases where perfect purity is not needed, a limit of impurity should be fixed and the percentage given, so that the present vague phraseology, abounding in the words "nearly," "almost," "about," etc., might be entirely abandoned.

The purity of organic compounds can often be fixed by reference to a stated boiling point or melting point, but the manner in which these points are to be determined must be exactly described. At present melting points and boiling points are alluded to in a haphazard manner, and no account is given of the precautions which should be taken in determining them.

Benzoic acid is asserted to be "not chemically pure," but the melting point given is that of the pure acid. In some cases the boiling points and melting points are too low to be compatible with the proper purity; whilst the boiling points of some important liquids are not given at all, for example, chloroform, pure ether, and absolute alcohol.

Now that there is a disposition to regard the *Pharmacopœia* as a legal standard of reference for the purity of all drugs mentioned in it, especially in connection with prosecutions under the Sale of Foods and Drugs Act, great care and discrimination should be shown in the selection of proper tests, so that on the one hand they will not unnecessarily hamper the manufacturer, and, on the other hand, they will act as safeguards against impurity and adulteration. Numerous examples could be given of the unsatisfactory character of many of the present tests. In the case of so important a drug as "citrate of iron and quinine," so far as tests go, there is no necessity that it shall be made from anything like pure quinine; indeed it has been stated on excellent authority that it is possible to produce a substance answering to all the tests now given in the *Pharmacopœia*, but containing little or none of this alkaloid. "Liquor potassæ" might be made with "soda", and yet answer the tests given. Alcohol is not required to be free from impurities other than water. Cane-sugar syrup might pass as honey; vinegar might contain a certain proportion of free sulphuric acid, etc.

Some of the more important and typical substances, which it is not possible to do more than mention here, whose chemical descriptions and tests need revision, are: Hydrochloric, citric, tartaric, lactic, phosphoric, salicylic, and acetic acids; iodide and bromide of potassium, calomel, ammoniated mercury, carbonate and subnitrate of bismuth, ether, phenol, acetanilide, glycerine, borax, yellow wax, linseed, sulphate of beberine, atropine, sulphate of atropine, and pepsin, etc.

Apart from the entire overhauling of the descriptions and tests for definite chemical substances, great improvements might no doubt be made in the preparation and manner of testing such products as tinctures and extracts, many of which now require considerable modification, in the light

of modern chemical and pharmacological knowledge. But, as Dr. Lauder Brunton has remarked, these improvements "cannot be carried out without the employment of skilled labour and much experimental work requiring the expenditure of a good deal of time and of money."

I have already exceeded the proper limits of this article, although I have not nearly exhausted the subject, especially in connection with suggestions for reform. I must, however, in conclusion, urge the adoption of the metric system of weights and measures, now familiar to every medical practitioner and pharmacist from his student days; the old weights and measures might if necessary still be included within brackets.

REPORTS ON THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XXXVIII.—CREDITON, DEVONSHIRE.

Our request to be allowed to visit the Crediton Workhouse was met by a demand for our credentials; we produced the commission from the Editor of the British Medical Journal, backed by the sanction of the President of the Local Government Board, and these were considered sufficient.

The Workhouse

is a small one, licensed for 280 inmates; there were 80 in the house the day we visited, and of these very few were able-bodied.

The Sick

are in the house on the first floor, in two wards, the nurse's room being between them; there were eight men and nine women under the care of the nurse, and a woman with puerperal fever in the lying-in ward. The wards are small and crowded, the beds are placed against the wall; and indeed we did not see that the feet could be brought into the room without encroaching too far on the passage way. The bedsteads are narrow and low, and the bedding looked thin and insufficient. There is a stove in the middle of each ward, the flue being carried into the chimney. There was very little air of comfort in the wards, the best feature about them being the windows, which were large and brought near to the floor.

The Patients

were mostly up; in the female ward was a helpless girl, deformed and dumb; she was in bed; there were also a case of paralysis and an imbecile; the others were up. Among the men the cases were apparently all old age. One man—an offensive case—was placed apart in a small room on the ground floor; it was a comfortless stone-paved room, but the doctor said that it was the best that he could do under the circumstances. The patients, doubtless, had the necessaries of life, but none of the special care due to the sick. The beds were untidy; there were unemptied chambers about, and there was an apparent want of cleanliness. There were a few armchairs in the wards.

The Lying-in Ward

was above the female ward; it was one room containing four beds. An inmate was in charge of the woman with puerperal fever. The doctor had previously told us that he trusted that the patient would make a good recovery, but that if another woman was in labour he should have to keep her in the house, as he had no separate wards at his disposal.

An Infectious Hospital

stands in the grounds, in our opinion too close to the main building. It is a two-storeyed building, self-contained. It has stood empty for some time, and the master stores his seed potatoes on the ground floor. This practice can hardly be too strongly condemned; an infectious hospital should be kept scrupulously clean, and ready for use at any time. A lock case would be put there if necessary, or any other disease which required isolation. We conclude that a case of infection in the town would be sent there.

The Sanitary Arrangements

are a disgrace to the place. Off the men's ward is a triangular closet, the water being turned on from a tap; the pan was foul and unwholesome. The women's was a shade better; but earth closets would be far more sanitary. There was one bath room on the women's side, made by taking off a corner from the girls' dormitory. The water is heated by a fire in the bath room, lighted, so we were informed, twice a-week; on other days hot water for infirmary use is brought over from the house kitchen.

Classification

is practically *nil*. We saw idiots in the wards. There is no ward for the children, and no means of isolation for lock cases, except the above-mentioned infectious hospital. The scanty space allotted to the sick department renders subdivision impossible.

The Nurse

has been trained in workhouse nursing, but not in midwifery. There is no night nurse. All the nursing arrangements seemed to us to need attention; there was an air of carelessness about the work.

Recommendations.

It appeared to us that more space was needed for the sick; this might be obtained either by taking in more wards from the house part, or of course (and this would be the better plan) by building. The nurse told us that in winter the wards were quite full, and that there were many patients suffering from acute chest complaints. The wards are far too crowded and insufficiently ventilated for the satisfactory treatment of such cases. Small isolation wards are imperatively needed. We would also suggest that the infectious hospital be retained only for its original intention. Then a night nurse is needed, not of necessity fully trained. This workhouse might be organised as a centre of medical relief for the district. There is no hospital nearer than Exeter, and the Crediton house, with a staff of nurses for indoor and outdoor work, and an ambulance to bring the sick from the villages, would do much towards solving the problem of rural nursing.

NURSING AT THE PRESTON UNION WORKHOUSE INFIRMARY.

Mr. W. Roger Williams, F.R.C.S.Eng. (Preston), writes: I have only just had my attention called to Dr. Pimley's statement (in the British Medical Journal of February 2nd) that there is no pauper nursing at the Preston Union Workhouse Infirmary. The following facts will enable your readers to judge what amount of weight there is in this denial. The average number of beds occupied is about 200. These are distributed in over a dozen widely separated wards. There is accommodation for 50 additional beds. The paid nursing staff numbers only six (four nurses and two probationers). Of these, two are supposed to be engaged in night duty, so that only four are available for day duty. Of the latter, one is in charge of the infectious cases, and the other (who is also superintendent nurse) occupies herself with the numerous midwifery cases. There remain, therefore, only two nurses to attend to the daily requirements of the remaining 170 or more inmates. Surely this speaks for itself. Comment on my part would be superfluous. Is the numerous pauper helps employed in this infirmary do not do most of the nursing, who does it? Will Dr. Pimley kindly explain? Under these circumstances I have lately recommended the Board to bring the nursing staff up to something like its proper standard by the addition to it of three nurses and two probationers. This seems to me to be a reasonable and moderate request, although I have not been able to induce the Board so to regard it.

THE WEST OF ENGLAND BOARDS OF GUARDIANS.

Our contemporary, the *Local Government Journal*, says some severe things of some of the Boards in Devonshire and Cornwall—and with justice. It is only necessary to read the reports of the meetings to see what a low conception of duty influences the actions of these public bodies. The official inspector condemns lying-in wards, nurseries, sick wards; he points out the absence of night nurses, the inefficient nursing by day, the want of trained nursing, and the neglect of the infants; but bumbledom dies hard in the West of England, and the guardians wonder what all the fuss is about. Our readers will remember in what spirit our Commissioner's report on Liskeard was received. An attempt was made to wash out the ugly blots by jeers and ridicule. This Board now has the lash of our contemporary round its shoulders, and if ever a Board deserved a castigation for failure in its duty to the poor in the workhouse it is that which sits in the little Cornish town.

Whilst we are on the subject of Cornwall we would note that the

Cornish Telegraph has a leader on the action of the Penzance Board in rejecting the motion to appoint a trained nurse to the infirmary. The Local Government Board forwarded a strongly-worded recommendation that the present nurse should be superannuated and a trained nurse be advertised for, but the Board were led by members who, talking upon a subject of which they had no knowledge, caricatured the trained nurse, and so secured a majority. We are glad to see that the local press so ably conducts the education of the Board on this question, and we trust that the disastrous resolution may be reconsidered.

THE HOLBORN UNION INFIRMARY.

WE are much surprised to learn, through the evidence given at an inquest held on the death of an inmate in the above infirmary, that one of the night nurses is responsible for eight wards, holding 401 patients. We had hoped better things of an infirmary that has recognised the need of a staff of trained nurses; but one nurse to 400 men is worse than nothing, as it begets a feeling of misplaced security which is not justified by the style of nursing. We cordially agree with the rider appended to the verdict, that the jury considered that both the medical and nursing staff were insufficient.

TRAINED NURSES WANTED.

STOCKPORT is again advertising for nurses for the infirmary; we are glad to see that the hospital nurses are required to be trained, and another point we note in the advertisement, that the nurses will be required to take day or night duty, as required. We see another advertisement for a trained nurse, with midwife's experience, for the Madeley Union. We note with regret that the salary offered is only £25; such a scale of payment will not secure the services of a full qualified midwife and hospital trained nurse, and the result is that a half-trained or "experienced" woman will offer to take the lower salary, and be appointed to the detriment of the patients under her care.

BRIDGEND AND COWBRIDGE UNION.

DR. RANDALL, the medical officer, has sent a letter to the Board in which he makes certain recommendations indicating a sad state of inefficiency, both in the structure and the administration of the infirmary department. No day rooms, no wards for isolation, no classification of the feeble-minded, no suitable accommodation for the infants, staircases and lobbies not lighted during the night, sanitary appliances insufficient. In administration, an inadequate staff of nurses, no night nurse; dreary wards, insufficient clothing, monotonous diet, want of outdoor seats, and of recreation. We are sorry to see that these moderate suggestions are met with a jeering remark from the vice-chairman (Mr. S. Lewis), who evidently lacks the discriminating faculty so necessary in public life.

THE BUCKINGHAM UNION INFIRMARY.

THE Local Government Board has drawn the attention of the Buckingham guardians to the condition of their workhouse and the necessity of erecting new vagrant wards and also a new detached infirmary large enough to contain not only those suffering from actual sickness, but also the infirm and feeble of both sexes. In the meantime they are advised to make various alterations in the present structures.

In regard to these present structures the following jottings from the inspector's report may be of interest. Of the old men's day room and the young women's day room it is said: "Both these two are very bad buildings, small, ill-lighted, and ill-ventilated." "Next to the female dining-hall is the old women's day room—a poor room with a stone floor into this room at the time of my visit were crowded the able-bodied, and old women, girls, and infants." In the female sick wards there is "no bath-room accommodation, a portable bath being used. No hot water is laid on. There is a water-closet in the passage adjoining. In the same way the male sick ward has no bath room and no hot water laid on.... It is, moreover, very ill-ventilated and ill-proportioned, and is very full." "There is no sitting-room accommodation for the sick of either sex, and their wards are filled with beds." "The walls of the workhouse, and indeed the whole building, are said to be very damp. There is believed to be no damp course, and the walls are ill-built.....The bath-room accommodation is altogether deficient. The only bath rooms available for the main building are two detached bath rooms in the yards, one on each side. The soil pipes are all inside the house, with common D traps. The guardians say that the water-closets have been improved; I was unable to find much trace of this. At any rate, the following five water-closets are all still on the tap system, and should be amended," etc. Under these circumstances it is quite easy to agree with the Local Government Board that a new infirmary is necessary, and that it would be well "to consider very seriously whether it would not be better and more economical in the end to build a new workhouse."

EAST GRINSTEAD INFIRMARY.

THE medical officer (Dr. Hartigan) has presented a report on the infirmary to the Board, dealing with the same old story of imperfect classification, insufficient supply of hot water, carelessness in the cooking and serving of the diets, and want of suitability in the feeding vessels, no real nursing in the proper acceptance of the term, and no night nursing. We read that the chairman, after his first feeling of surprise, felt inclined to laugh at these statements, as the "Visiting Committee and the inspector were frequently going over the house, and it was impossible that such things could exist under such circumstances." How far the chairman is justified in laying such a flattering unction to his soul the readers of our reports can judge for themselves, but we have no hesitation in saying that such inspection is worthless, or worse than worthless, as it enables the Board to shelter itself behind a stack of reports that are not worth the paper they are written on. We are glad to read that a member said that the Board was bound to accept the statements of the medical officer until they were disproved, and the same member succeeded in having the matter referred to the Visiting Committee, with power to act in supplying remedies for the smaller matters referred to

THE PETERBOROUGH GUARDIANS AND THE MEDICAL OFFICER

WE see from a report of the last meeting that the medical officer is urging the Board to prepare the new buildings with all speed for the accommodation of the sick, which in the winter—especially in one of such severity as this—are always an increasing quantity. The guardians are inclined to blame the medical officer for his memorandum on the subject; indeed, one member of the Board calls him to order, forgetting that the Local Government Board lays it as a duty on the workhouse medical officer to report to his Board on the condition of the sick under his care, and to draw attention to any defects in the management. This order is emphasised and enlarged upon in the new circular issued by the department. Though the Board may try to salve its conscience by comparison with other Boards, or by an appeal to their friend the inspector, no impartial observer can come to any other conclusion but that a period of over three months spent in considering the furnishing of wards, is not promptitude to be praised. Some evil spirit seems to have taken possession of the Board, which hinders it from seeing that, in following the advice of the medical officer, they are availing themselves of the services of an expert especially provided to advise them.

DISCUSSION AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

As announced in our report of the last meeting of this Society, the first general discussion under the new rules will be held on February 26th, the subject chosen being "Affections of the Nervous System occurring in the Early (Secondary) Stages of Syphilis." It will be opened by the President, Mr. Jonathan Hutchinson. By the term "early" it is designed to comprise the first two years. Special attention will be asked to the following topics:

1. The state of general diminution of sensation which has been alleged (Fournier) to attend the exanthem stage of syphilis.
2. Certain rare cases of general paresis of both motion and sensation which are met with in secondary syphilis, and from which complete recovery may take place.
3. The early recurrence of arterial disease which may influence the nervous system secondarily: (a) in reference to the brain; (b) in reference to the spinal cord.
4. A group of not very infrequent cases, in which a rapidly-developed form of paraplegia occurs early in syphilis, and from which, although it may be for a time almost complete, partial recovery often takes place.
5. The occasional occurrence of paralysis of single nerves (unsymmetrically).
6. The influence of syphilis in producing recurring herpes.
7. The general differences between affections of the nervous system in late and in early stages of syphilis.
8. The parallelism between certain affections of the brain and spinal cord in secondary syphilis, with acute inflammation of the eye and ear occurring in the same stage.
9. The parallelism between these syphilitic affections of the nervous system and those of somewhat similar character which have been observed after the acute exanthemata.

Many distinguished physicians and neurologists have been invited to take part in the discussion, which it is hoped, although designed to afford opportunity for criticism and the expression of opinions, will result in a useful collection of facts. The recital of single cases will be acceptable, but contributions to pathological knowledge are specially desired.

LITERARY NOTES.

MR. CHARLES ROBERTS, F.R.C.S., referring to the article entitled A New Antiscience Shrieker which appeared in the BRITISH MEDICAL JOURNAL of February 9th, calls attention to the fact that the *Saturday Review* has recently changed hands, and that an entire change of staff has followed the change of proprietorship. He adds that as a medical reviewer and contributor for more than twenty years to the *Saturday Review* before the transformation of character which it has recently undergone, he is anxious to repudiate articles like one which we felt it our duty to criticise. Possibly the change of editorship may be accountable for the remarkable change of front with regard to the antitoxin treatment on the part of the *Saturday Review* since November 17th, when, as another correspondent points out, it published an article strongly condemning the "faddists" who oppose it.

A French translation of Dr. Goodhart's *Student's Guide to Diseases of Children* has just been published by O. Doin. The translators are Dr. G. Variot, Physician to the Children's Department of the Trousseau Hospital, and Dr. Follenfant. Médecin-Major of the Second Class in the French Army. Dr. Variot also contributes an introduction and numerous notes to the work.

A *Life* of the late Dr. John Rae, the famous Arctic explorer, is in preparation by his widow.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, FEBRUARY 16th, 1895.

BRAIN AND MIND.

I.—Studies in Development.

The research on cerebral localisation, which for some time after Broca's discovery of the habitual lesion of aphasia stood in the van of medical progress, has of late years been somewhat overshadowed, and a new departure for investigating more especially the seat of conscious actions has for some time past appeared desirable. A preliminary communication on a new mode of research into these intricate matters has just been made by Professor Flechsig, of Leipzig, in an address delivered by him on his election as Rector of that University.[1]

Professor Flechsig is well known by his studies on the evolution of the nervous centres in the fœtus, and the successive and gradual formation of the myeline sheaths of the central nerve fibres, which he has carried on with singular patience for many years consecutively. They have afforded him a new and important means of recognising peculiarities of organisation in the central nervous system, where other modes of research appeared to encounter insuperable difficulties. He was thus able to show that certain fibres and sets of fibres, which in the adult are so intimately welded together that they seem to be identical, are plainly distinguished from each other during certain phases of embryonic life, inasmuch as some of them are still naked axis cylinders, while others have already become covered with a sheath of myeline. Strands which follow peculiar laws of evolution must occupy a separate place in the general plan of arrangement of the nervous centres, as it is impossible to assume identity where differences amounting to several months are encountered in the development of nerve fibres. It is well known that the evolutional doctrines of the school of La Salpêtrière were considerably modified by these researches, the importance of which was fully acknowledged by Charcot in his lectures on cerebral and spinal localisations.

By pushing these researches systematically Flechsig was eventually led to his novel conclusions about the centres serving conscious actions. While the lower level of the brain appeared to be completely developed at birth, he found that the child, more especially when prematurely born, enters the world with altogether immature hemispheres, the fibres of which are almost entirely devoid of myeline sheaths, and therefore essentially different from those of the adult. At birth the child, indeed, resembles Goltz's dog from which the hemispheres had been removed. It is not the mere machine which Flourens believed an animal to be after such an operation; for physical wants, more especially hunger and thirst, can still throw the whole body into commotion and stir up all its several mechanisms, while after the satisfaction of such wants the animal returns to rest and an apparently dreamless sleep. In the same manner the newly-born child cries at once, in order to get his wants and impulses satisfied, after which he relapses into "unconsciousness," thus showing the power and independence of physical impulses, which have nothing whatever to do with mental actions; indeed, their rule extends late into life, and many persons appear never to proceed much beyond the stage in which purely physical impulses govern the conduct of the individual.

While therefore the lowest level of the brain is fully matured at the time of birth, only few nerve paths are found to exist in the hemispheres of the infant; and such as are there are exclusively intended for connecting sentient parts of the interior of the body and some external sense organs with the cortex. One sensory path after another advances from the surface of the body towards the cortex; the first in order being the olfactory sense, which is of so much importance for the proper selection of food; and the last being the sense of hearing. All regions of the grey surface, which pathologists have shown to be connected with sensations, are thus seen to be the endings of sensorial paths in the cortex, in other words, the internal terminal planes of the sensorial nerves. Destruction of these internal sensorial organs leads to blindness, deafness, etc.

It is only after these sensorial paths have been completely built up that a new development is seen to commence in an inverse direction. Some of them begin to advance towards the lowest level of the brain, the spinal cord, and the origin of the motor nerves; and thus one internal sensorial plane after another becomes supplied with conducting paths carrying volitional impulses to the motor mechanisms, that is, the muscles of the peripheral sense organs. First of all in this respect comes the sense of touch, which in man receives nearly a quarter of a million of perfectly isolated conducting paths, the surfaces of the skin. This abundant development of the internal organs of touch has a considerable influence upon the shape of the human cerebrum, as well as upon its intellectual capacities. The internal terminal planes of the external senses enter now into connection with the lowest mechanisms serving physical impulses, by paths which effect a mutual influence between external sensorial impressions and sensual feelings. While this is more particularly the case with the olfactory organ, an exception is made for the auditory centre, which does not show any very evident relation to the lower impulsive centres, in accordance with the higher and more ideal character of auditory impressions.

The area in the upper frontal and anterior parietal region which appertains to the sense of touch thus appears to constitute a portion of a large and connected cortical field, in which the body is, as it were, reflected in its whole extent, and from which all movements serving for the satisfaction of bodily requirements may be voluntarily elicited.

A proper interpretation of sensorial impressions is a func-

[1] Gehirn und Seele. Rede des antretenden Rectors, Leipzig.

tion of a different group of areas in the cortex. These can also be strictly defined by the examination of the infantile brain only; and are then found to constitute two-thirds of the entire substance of the cortex, while only one-third of it is in direct communication with sensorial paths. Although these higher or mental or thinking centres, as distinguished from the internal senses, are seen to spread in different directions over the cortex, they have a common structural type, namely, that of the five layers. These centres are (1) the frontal brain proper, situated immediately above the eyes; (2) a large portion of the temporal lobes; (3) a considerable area in the posterior parietal region; and (4) the island of Reil. We have thus four large and well-defined areas in the human brain which are not directly concerned with sensorial impressions from without or within, nor with motor impulses, but the activity of which is entirely directed inwards. Anatomically these areas have been found to possess a definite peculiarity, which clearly points to their mental nature, inasmuch as they remain immature and completely devoid of myeline for several months after birth, in opposition to the sensorial centres which have then already arrived at maturity.

It is only after the internal architecture of these latter has been completely finished that a new movement is seen to spring up in the mental centres; for now innumerable fibres begin to advance from the sensorial into the mental areas, and conducting paths proceeding from the former enter into communication with each other, and terminate close together in the cortex. These mental centres are, therefore, mechanisms which co-ordinate the action of the different internal and external senses, so as to become higher units, and associate sensorial impressions of different kinds, so as to become carriers of *coagitation*, as the prophetic genius of the Latin language has termed the act of thinking.

While, therefore, this hypothesis flows directly from anatomical observations on the development of the infantile brain, Professor Flechsig has found it to be confirmed by clinical experience in mental diseases. The centres of associations, as he prefers calling the mental areas, are found to be pathologically altered in those diseases of the mind which we know best, such as general paralysis, where the microscope shows us changes in cell after cell, fibre after fibre, and where the consequences of such pathological alterations may be clearly traced. Morbid irritation of these areas causes confusion of thoughts and insane delusions, while their destruction is followed by loss of the power of utilising the past, and foreseeing the consequences of actions. Experience, knowledge, principles, the higher sentiments, and language are all swept away when poisons or other injurious influences decompose or destroy these mental centres.

SUICIDE IN ENGLAND.

Whether it be that man is more impatient than woman, that his troubles are greater, or that he shrinks less than she does from the unknown, at any rate suicide is far more frequent among males than females.

In Dr. Westcott's book on suicides he states that from early times down to the present the proportion between male and female suicides has been remarkably constant, both in our own country and throughout Europe, three males to one female being the prevailing rate in the majority of States reckoned in their entirety.

From the last report of the Registrar-General just issued it appears that in 1893 the same proportion held good in England, the number of suicides among males being nearly three times as great as among females.

We are accustomed to look on women as the great sufferers at the period of the grand climacteric, and to allow much for their condition at that time; but in both men and women alike the period intervening between 45 and 55 years of age is that in which the largest number of suicides takes place, and as at other ages in men, far more frequently than in women. Early suicides are, in proportion to the total numbers, in each sex much more common in females than in males, those in girls below 15 years of age actually exceeding in number those in boys of that age, and those between 15 and 20, although slightly more numerous among males than females, being, in proportion to the total suicides of each sex, far more common among females than males. As to the modes adopted for putting an end to their existence, there are some which seem not to be at all in favour among women. Only 3 women, for example, committed suicide by gunshot wound as against 248 men; only 78 by knife as against 373 men. Hanging also only destroyed 134 women, whereas 572 men hanged themselves, which is much more than their proportion taking male suicides as three times as common as those among females. In drowning, however, and in poisoning, the women have more than their proportion, and in suicide by jumping from a height far more still.

Westcott says that the female sex is the especial patroness of death by drowning in every country, twice as many women as men drowning themselves in Europe every year. This proportion, however, does not seem to hold good in England, according to the Registrar-General, for his Report for 1893 gives 363 male suicides by drowning to 218 female.

As to the poisons taken, probably much depends on what is most readily obtained, but when we find that 117 people faced the horrors of death from poisoning by carbolic acid, 40 from oxalic acid, and 19 from strychnine we must believe that the commonly given verdict of insanity must have been often well deserved. Only 63 persons appear to have chosen the more gentle death by opium, and only 1 by chloral.

It is a sad inventory. The world must seem hard and hopeless indeed to tempt 112 people under 20 years of age to throw up the fight and seek oblivion. That it is hard, however, and life a thing not to be desired, appears also to be the teaching of experience to many, for we find that 342 people, after struggling on for 65 years and upwards, ended their days by suicide, and that 6 old people of over 85 had no longer patience to wait for an end so long delayed.

ARGON.

It seems to have been very generally expected that the semi-public meeting held by the Royal Society in the theatre of the University of London would have afforded the spectacle of a pitched battle between the believers and the unbelievers in the existence of a hitherto unknown constituent of atmospheric air. No meeting, however, could

have been more harmonious, and a little consideration might have shown those who anticipated a storm, as it appears to have satisfied some of the gentlemen who might have been expected to create one, that scientific men of the standing and experience of Dr. Ramsay and Lord Rayleigh would be hardly likely to come before such a gathering without having very weighty, if not practically irrefutable, evidence at their command to support their case. That evidence, as presented to the meeting, appears to prove conclusively that atmospheric air contains a substance which has hitherto remained unrecognised, and whose most striking peculiarity is an altogether exceptional chemical inertness. It is a remarkable and very interesting fact that Cavendish must have isolated argon in his well-known experiments to determine the composition of the air. But although he obtained a small, irreducible, gaseous residue, and duly recorded the fact, neither he nor down to the present time those who came after him, investigated the matter further.

This, however, was not the starting point of Lord Rayleigh and Dr. Ramsay. The nitrogen obtained by well-known processes from chemical compounds containing it had been found to differ from nitrogen obtained from air in that the former was always lighter than the latter by a constant quantity—about ½ per cent. By a process of elimination it has been made perfectly clear that this difference is not due to contamination by any known impurity, and the conclusion was ultimately arrived at that it was to be accounted for only by the presence in atmospheric nitrogen of a substance of higher density than pure nitrogen.

Without entering into an account of the elaborate experiments rendered necessary to deal adequately with the problem, it is not possible to do justice to the admirable manner in which the investigation was conducted by the authors of the paper, but the statement of the main facts must have been amply sufficient to satisfy the student of chemistry, and, indeed, to satisfy anyone accustomed to weigh scientific evidence, that the case is proved in so far as the existence of the new body and the recognition of some of its main properties are concerned apart from what views may be held by various authorities in regard to its atomic or to its molecular constitution (should it possess the latter), or as to whether, in the strict sense of the term, it is a chemical "element."

By passing over red-hot magnesium in suitable apparatus, by a repetition of Cavendish's experiment of "electric sparking" through the atmospheric nitrogen in presence of excess of oxygen and an alkali, and by resorting to Graham's method of diffusion through long lengths of clay piping, not only has conclusive evidence been obtained of the presence in atmospheric nitrogen of a gas heavier than oxygen or "chemical" nitrogen, but the body itself has been isolated. Its density, arrived at up to the present by indirect means only, is stated at 19.9 or 20; its solubility in water at two and a-half times that of nitrogen; while its spectroscopic characters, investigated by Mr. Crookes, are quite distinct from those of nitrogen.

All attempts to induce chemical combination of argon with other bodies have hitherto failed, thus placing a most serious difficulty in the way of the elucidation of its true chemical nature. It would appear that argon, in its inertness, stands in a most curiously isolated position, but it would be a great mistake to assume that because of this apparent inertness it may not play important and very energetic parts under conditions as yet undetermined. Whatever differences there may be upon points of detail, the whole scientific world will join in congratulating Dr. Ramsay and Lord Rayleigh upon their brilliant work and their remarkable and probably most fruitful discovery.

We understand that the *Medical Register* for 1895, as well as the *Dentists' Register* and the *Medical Students' Register*, will very shortly be issued, and that, as soon as the final revision is complete, the volumes will be obtainable through the Council's publishers, Messrs. Spottiswoode and Co., either direct or through the booksellers.

Sir John Erichsen, Bart., F.R.S., Sir J. Russell Reynolds, Bart., F.R.S., and Sir John Williams, Bart., M.D., will be entertained by their colleagues, friends, and pupils at a dinner to be given at the Criterion Restaurant on Wednesday, March 13th. The Chair will be taken by Lord Reay, G.C.S.I., Vice-President of University College. Further particulars can be obtained from Dr. Poore, 30, Wimpole Street, W., or Mr. W. A. Meredith, F.R.C.S., 21, Manchester Square, W.

UNITED OPHTHALMIC HOSPITALS IN DUBLIN.

The Governors of St. Mark's Ophthalmic Hospital and of the National Eye and Ear Infirmary in Dublin have agreed to carry out an amalgamation of these institutions. A joint committee has been appointed and steps are being taken to raise a minimum sum of £10,000. No building operations are to be undertaken until that sum has been received. Should it not be realised within three years then the agreement becomes void and the subscriptions are to be returned, but the period may be extended for two years by mutual agreement.

THE PAY WARDS OF THE GREAT NORTHERN CENTRAL HOSPITAL.

At the annual meeting of the Great Northern Central Hospital on Friday, February 22nd, Dr. Glover has given notice that he will move the following resolution: "That this meeting of Governors of the Great Northern Central Hospital regrets the recent changes in the administration of the hospital by which pay patients have been admitted to its wards to be attended gratuitously by the honorary staff, and is of opinion that such a system is not likely to conduce to the welfare of the hospital or the advantage of the poor, for whom such institutions exist, and should, without further delay, be abandoned."

INTOXICATING TEMPERANCE DRINKS.

Mr. A. W. Stokes, analyst for Paddington, reports an analysis of 8 temperance beverages. Hop ale, non-alcoholic stout, lemonade, ginger beer, and ginger stout were found to be unintoxicating, only mere traces of alcohol—ranging from 2 to nine-tenths of 1 per cent. of proof spirit—being present; but a sample of ginger wine contained 10 per cent., or about twice the alcoholic strength of beer sold in public houses. The excise authorities would do well to exercise the closest supervision over beverages of this class in the interests of the revenue and of the public health.

DEATHS FROM SYPHILIS.

It is not altogether without interest, in regard to recent events, to note the ages of those who die of syphilis. According to the last report of the Registrar-General, just issued, 1,190 males died of syphilis in England in 1893. Of these, 928, or 77.9 per cent., were under 5 years of age. During the same period 964 females died of the same dis-

ease, of whom 745, or 77.2 per cent., were under 5 years of age. Various as may be the views held regarding the propriety of legislative interference with the propagation of this disease, and as to the efficacy of such means as have hitherto been proposed for that purpose, it is clear that no consideration of the subject can be complete which does not recognise the large comparative incidence of the mortality on the early years of life, the great preponderance with which the punishment falls upon the infants.

SEWAGE AND WATER AT ALDERSHOT.

Not without reason are the County Council of Surrey anxious regarding the danger which arises from the imperfect manner in which the sewage from the North Camp at Aldershot is dealt with by the military authorities. In July, last year, Dr. Seaton, the medical officer of health, sent in a report relating to the pollution of the Blackwater by the sewage from the North Camp, and this was forwarded to the War Office with a request that a remedy might be found for a condition of affairs which was dangerous alike to the troops and the inhabitants. On August 3rd a question was asked in the House of Commons, to which Mr. Campbell-Bannerman replied that steps had been taken to dispose of the sewage at a place sufficiently remote from habitations. Again the Clerk to the Council has written, and again the War Office has replied that measures are "under consideration." Having regard however to the fact that these palavers have led to nothing, and that no permanent means of improvement, by the removal of dangerous conditions existing at the North Camp Sewage Farm appear as yet to have been even settled, the Sanitary Committee has recommended the Council to bring the matter again under the notice of Parliament. We understand that samples of water forwarded from Aldershot to Netley for examination are reported to contain typhoid bacilli, and there is no doubt that the bacillus coli has been isolated by culture from the water of the Bourlay reservoirs. The presence of the last-named bacillus is distinct proof of pollution by sewage. It is also said that the same organisms have been found in a tank in the lines supplying certain barracks. What the precise relation between the so-called "sewage farm" and the water may be is not quite clear, but while it remains the fact that Aldershot is suffering from a general sewage defilement, while its drinking water shows evidence of sewage pollution, if not actual typhoid contamination, and its sewage runs into a marsh to the detriment of the whole neighbourhood, there can be no doubt of the urgent necessity for immediate inquiry and reformation.

THE NEW INEBRIATES BILL.

Replying to a question in the House of Commons recently, Mr. Asquith is reported to have stated that the Bill had been prepared, and would be introduced into the House of Lords. The Chairman of the Inebriates Legislation Committee of the British Medical Association has received from the Home Secretary an acknowledgment of the receipt of a memorial, regretting Mr. Asquith's inability to bring in this promised Bill last session, and detailing anew several amendments which have repeatedly been laid before the Home Secretary. These amendments on existing legislation comprised power of involuntary therapeutic detention, provision for the poor, curative treatment instead of imprisonment for criminal inebriates, the abolition of the present necessary appearance of voluntary applicants before two justices, the inclusion under the Inebriates Acts of intoxication by morphine and other narcotics, the returning of an escaped patient under the Acts by any authorised person direct back to the home from which he had escaped, and power to a licensee to appoint a permanent deputy. In addition, as a sequel to a recent notorious case of mismanagement, it was suggested that either no one should be allowed to have inebriate resident patients, or that power should be given of governmental inspection of all institutions and houses where inebriates are treated. It is not known how many of the excellent recommendations of the late Departmental Committee have been incorporated by Mr. Asquith in his proposed measure, but it is believed that in some form the power of compulsory detention will be embodied, with an appeal to a jury or other court of review by the alleged habitual drunkard. It is also understood that some provision will be incorporated for reformatories where magistrates may have the option of sending police-court inebriates instead of to a short term of imprisonment. The great difficulty will be in the raising of the needful cost, whether from local or national funds, as well as in determining whether the new institutions will be under Governmental or municipal management or conducted on voluntary lines with pecuniary grants from public funds or payment for the care and treatment of the patients. As the Scottish Departmental Committee are to meet for the consideration of their report in March, it however can hardly be anticipated that Mr. Asquith's measure will be introduced into Parliament before the Scottish report shall have been received and considered. This will probably postpone the introduction of the Government Bill till April at the soonest. Meantime the members of the profession would do well to keep urging the great need for amended legislation on their Parliamentary representatives.

THE SICK POOR IN PROVINCIAL WORKHOUSES: CREDITON.

We cannot congratulate the Crediton guardians on the state of their workhouse; the sick are lodged under the same roof as the able-bodied; the wards are crowded (we quote from the report, which will be found in full in another page), the bedsteads narrow, the bedding thin and insufficient; the sanitary arrangements are a disgrace to the place, classification practically *nil*, the infectious hospital used as a storing place for seed potatoes. We are not surprised that the Board were reluctant to admit our Commissioner; they would probably have refused had they not felt that refusal was equivalent to the admission of abuses. We wish workhouse authorities would learn that the institutions under their care are not private property, to be guarded from the public eye as jealously as a Turkish harem: when every ratepayer and every properly-introduced outsider is as free to visit as at one of our great hospitals, we shall have the best guarantee that the management is as free from grave abuses. As it is, the voice of the medical officer or of a solitary guardian more enlightened than his fellows, is often raised alone in a constantly disregarded appeal for some elementary sanitary precaution, some absolute essential of good nursing; there is no public opinion to back him, he is outvoted, and the subject dismissed. We shall be told that Crediton is no worse than its neighbours. Possibly not; as these reports have shown, there are many houses left in our remoter country districts where the arrangements are almost mediæval, but the sooner the guardians are made aware that this state of things is not to be tolerated, the better it will be for the country at large.

PROPHECY AND DYSPEPSIA.

Mr. W. S. Lilly, in the last of his interesting lectures on the Four Great Humourists, dealt with Carlyle. He referred by way of excuse for some of the prophet's less amiable traits of character to the fact that he was a "martyr to dyspepsia." Of this there can be no doubt, for Carlyle's diary and letters are full of his digestive troubles, and the "secret of his life," about which much has been written, was simply that his mental outlook was jaundiced by "bile." Mr. Lilly goes on to propound the theory that all prophets are and must be "dyspeptic"; he finds it "hard to imagine a eupeptic prophet." This pathological hypothesis no doubt ex-

plains the readiness of prophets to clothe themselves with curses on the slightest provocation. It is not, however, exactly an edifying reflection that when Savonarola denounced the iniquities of Florence his stomach may have been struggling with some refractory food stuff, or that Milton's *Areopagitica* may have been inspired by a similar derangement. Carlyle himself would have scorned so ignoble a view. It is true he refused to admit a supposed portrait of John Knox as genuine on the ground that it was impossible to conceive of him as a "eupeptic-looking" person, but we rather demur to the inclusion of that iconoclastic reformer among the prophets. The "prophets" for whom Carlyle felt most respect were the serene, tolerant, large-minded men like Shakespeare, Cervantes, and Goethe, and no man had a fiercer contempt for the peevish dissatisfaction with things in general which is often the effect of dyspepsia. He reverenced health so much that he said he felt inclined to take off his hat when he met a healthy-looking man in the street. It is certain that any prophet who may have been afflicted with dyspepsia has had his effectiveness more or less crippled thereby. Balzac was of opinion that love and greatness are incompatible; and when instances of great men who had been slaves to that passion were quoted to him, he replied: "How much greater they would have been if they had conquered it!" So it may be said of the dyspeptic prophets: Granting that they were great, how much greater they would have been with a better digestive apparatus!

THE PROPER SIZE OF ISOLATION HOSPITAL DISTRICTS.

One of the first questions to be considered in connection with the establishment of isolation hospitals is the maximum distance which patients can be conveyed with convenience and safety. As regards small-pox hospitals more particularly, it is important to secure a secluded but accessible site, not too near to centres of population, and to make it serve as large a district as possible, in order to avoid needless multiplication of these institutions. This is desirable on many grounds, among them being the difficulty of obtaining suitable sites, and the cost of maintaining each hospital in a state of constant efficiency and readiness. To small authorities, having the control of small funds, the temptation to shut up an empty hospital is almost irresistible, and precious hours or days are lost in reorganising it when each new outbreak occurs. On the other hand, there are limits, determined mainly by consideration for the patients' welfare, largely also by convenience of transit, and to some extent by the natural objection of the patients' friends to distant removal, to the radius of the circle for which the hospital can be regarded as an efficient centre. There are many points besides mere numbers to be taken into account, such as the configuration of the country, the condition of the roads, and the possibility of dealing more conveniently with the remoter districts at some alternative centre. It need scarcely be said that it is more particularly in the severe and advanced cases that extreme distance is likely to militate against removal. There is great difference in this respect among the diseases ordinarily treated in such hospitals. Small-pox patients bear transit well, even for long distances, contrasting in this respect with cases of enteric fever. Comfortable ambulances, properly constructed and equipped, are of course essential in any case. At a recent meeting of the Midland Branch of the Society of Medical Officers of Health, Mr. Fosbroke contributed some valuable notes of his experience as county medical officer for Worcestershire with regard to this matter. His conclusion was that, assuming the locality to be non-mountainous, the roads good and suitable ambulances (with attendant nurses) to be provided, patients suffering from ordinary infectious diseases may without harm be removed as far as eleven or even twelve miles. He gave particulars of nearly five thousand patients, 242 of whom had been removed not less than seven miles. Most of them were cases of scarlet fever, and the rest small-pox, diphtheria, and in a few instances enteric fever. In confirmation of his views he referred to the well-known experience of the Metropolitan Asylums Board. The point is one of practical importance at the present time, and those who, like Mr. Fosbroke, have had opportunities of studying it upon a large scale, have it in their power to render a material service to the public by placing on record their experience, as he has done.

THE DISINFECTION OF SMALL TENEMENTS.

The Public Health (London) Act of 1891, like the Infectious Diseases Prevention Act of the previous year, requires sanitary authorities to provide temporary shelter for families who have to leave their dwellings for the purpose of disinfection. The Vestry of St. George, Southwark, have had this duty under consideration, and the report furnished by their medical officer of health, Dr. Waldo, affords conclusive evidence of the necessity for some provision of this kind. In many instances efficient disinfection of premises has been impossible, the inmates having no place to go to during the process of fumigation of the rooms. Within the last two and a half years, it seems, in this parish alone 526 infected tenements of three rooms or less, occupied by 2,428 infected persons, have for this reason been left without the usual fumigation. It is now proposed to erect a building for the temporary accommodation of persons displaced for the disinfection of their tenements in close proximity to the disinfecting station, upon a site which in that and other respects appears to be suitable and convenient. The vestry have now before them a clear statement of the consequences of the delay which has already occurred, and, as Dr. Waldo points out in the report, there is now a further inducement to prompt action in the Equalisation of Rates Act of last last year, which places at the disposal of the parish a sum exceeding £4,000 per annum, available primarily for the purposes of the Public Health Act.

GAS POISONING AND COLD WEATHER.

An inquest was recently held at Monkwearmouth with regard to the deaths of two little girls, aged 7 and nearly 6 years respectively, and of a domestic servant, aged about 20, who died from poisoning by carbon monoxide. They went to bed, the children about 7.30 P.M., the servant about midnight, and at 7 A.M. the following morning when the room was entered the servant and the elder child were lying dead in bed and the younger child was insensible. Medical assistance was called to the younger child, and artificial respiration was commenced, at first with promising results, but the child had a relapse about 12.30, and died at 1.5. Dr. Medlin, who was first called, said that the air of the room had a peculiar odour, but there was no suspicion of coal gas, and the gas fittings and pipes were perfect. There were the remains of a fire in the grate, and it was thought possible that the register of the grate might have become shut down during the night, and that thus the atmosphere of the room, which measured 14 feet by 9 feet, and was 10 feet high, might have become charged with the products of combustion from the fire. In this case both the *post-mortem* appearances, ascertained by Drs. Medlin and Stobo, and the other circumstances of the case seem to leave little doubt that death was due, as found by the jury, to poisoning by carbon monoxide. The most essential piece of evidence concerns the colour of the blood, which was found of a cherry red colour. As regards the source of the carbonic oxide, the evidence as reported is hardly so clear. There was no distinct proof that the flap in the chimney had become shut during the night, and it seems somewhat improbable that if it had become shut the irritating substances present in the smoke of an ordinary coal fire would have failed to awaken any of the three persons sleeping in the room. It seems just possible that the carbonic oxide was due to coal gas from a leak in the main outside the house. This supposition is at any rate not excluded

by the reported evidence. There was no smell of coal gas, but this can be accounted for by the fact that coal gas is deprived of its smell in passing through earth. The case occurred just in the weather during which suction of ground air into a house is most active. The constant explosions occurring in junction boxes under the streets show sufficiently how dangerous the ground air of a town may at any moment become. An admixture of even 5 per cent. of deodorised coal gas to the air of a room would be sufficient to cause death. It is probable that cases of poisoning occurring in this way are more frequent in this country than is supposed. The air of sewers and drains is undoubtedly often poisonous from the presence of coal gas, partly or wholly deodorised. From this point of view the sewer gas of popular imagination is perhaps not altogether a figment. How difficult the diagnosis may be in cases of poisoning by deodorised coal gas is well shown by a case reported by Pettenkofer, in which the symptoms were mistaken for those of a very infectious form of typhus fever. A striking illustration of the possibility of the indraught of gas in the way mentioned above was afforded by the facts brought up at an inquest held on February 11th on two inmates of St. Nicholas's Almshouse, Bristol. An old woman and her grand-daughter were found dead in bed and some of the aged inmates were in a fainting condition. It appeared that a large gas main nearly 20 feet from the almshouse had been cracked, as was thought by the frost, and that the gas must have travelled through the soil and so obtained entrance to the air of the almshouse.

MAJOR OPERATIONS IN MIDWIFERY.

The triumphs of the earlier ovariotomists over ancient prejudices about peritonitis not only effected great advances in abdominal surgery, but led later on to the restoration of two discredited obstetrical operations. Without the introduction of antiseptics failure would have been inevitable. The success of hysterectomy, with modern precautions, involved its obstetrical modification known as Porro's operation, and greatly encouraged the restoration of the old Cæsarean section. The latter proceeding was reintroduced with remarkable success in German and other Continental schools a few years back. The boldness of Morisani and other Italian obstetricians resuscitated another operative procedure, and showed that it was a sound surgical proceeding. Both these revived operations are designed to save the child, the mother, and the mother's uterus. Pinard claims admirable results in symphysiotomy in 1894. Dr. Walter Griffith observed last year that though he had charge of 3,000 cases of pregnancy annually at two great institutions in London he had not come across one where the necessary conditions for symphysiotomy were present, namely, the patient in labour, a moderate degree of contraction (the conjugate about 3 inches), the fœtus alive, and delivery not effected by a proper application of the forceps. Shortly afterwards, however, he operated on a suitable case with the best results. The patient was free from the worst complication to be feared after symphysiotomy, for there was no sign of lameness, the pelvic girdle having reunited firmly. To carry out satisfactorily in private this operation, which has yielded good results when performed in lying-in hospitals, remains, we believe, scarcely possible. The enthusiasm of Continental obstetricians, who would discard the forceps and the induction of premature labour for symphysiotomy, must certainly be tempered. No doubt the child may be killed by the forceps; hence as was remarked the other evening at the Obstetrical Society the forceps may practically be the same as craniotomy when pelvic contraction is too great for the handy use of that instrument. The forceps, on the other hand, is not very difficult to manage, and practitioners, as experience has shown for years, save hundreds of infants' lives by its use. Beuttner, of Berne, has just brought forward valuable statistical evidence in favour of the induction of premature labour in cases of contracted pelvis. The forceps and induction of labour are more likely to be popular in general obstetric practice than a step so serious as division of the symphysis. Yet symphysiotomy has been re-established, and in certain cases it is clearly the right course to pursue in order to save mother and child.

DIPHTHERIA, SORE THROAT, AND SEWAGE-POLLUTED SOIL.

The very careful report on diphtheria drawn up by Dr. Mair, Medical Officer of Health to the Croydon Rural District, shows well the various influences at work in the production of an epidemic, and the necessity of a very complete sifting of the data before arriving at a conclusion. The infectious nature of the disease, and the difficulty of dealing with an epidemic without proper means for isolation, were shown by the frequency with which more than one case occurred in a house, sometimes as many as four or even six cases occurring in the same dwelling. Out of twenty-seven houses affected in Mitcham and the adjoining part of Merton, twenty-one, or 80 per cent., sent children to the Singlegate school; but in the case of nine of these houses, the persons first affected did not attend school, which, with other facts, pointed to the probability that the school was a part of an infected area rather than itself a centre of infection. Nevertheless the sanitary condition of the school was bad. The "offices" were defective, and the position of the building was such that regurgitation of sewage took place from the main sewer into the drains under the school, and thence into the yard by means of the gullies, whenever the contents of the sewer were "headed back" at the sewage works, by no means an infrequent occurrence. But sewage had been found to regurgitate in other premises besides those of the school; and having every reason to believe that the drains in the district were anything but watertight, Dr. Mair concluded that, owing to frequent "heading back," the sewage had very often regurgitated into a large number of house drains, and thence into the soil near houses, and that in consequence the soil of the locality had become largely tainted with sewage. Considering that the pollution of the air of the houses in the district by ground air drawn from such a sewage-tainted soil would render the population liable to chronic throat disease, such as would render them more than usually susceptible to diphtheria, he examined the throats of all the children attending the Singlegate school, with the result that of the 518 examined nearly 47 per cent. had unhealthy throats. Chronic tonsillitis was the prevailing sign of abnormality, but there was a large number of very pronounced granular throats.

PROPOSED REBUILDING OF THE ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

The Committee of the Royal Infirmary attended as a deputation at the February meeting of the Newcastle City Council, with the object of obtaining a site for a new infirmary. The deputation was introduced by Alderman Stephens, the Chairman of the House Committee, and the first speaker was Professor Philipson, Vice-Chairman of the House Committee and Senior Physician to the Infirmary. He was followed by Mr. Bailey, representing the working men of the district; by Mr. Page, one of the surgeons; by Mr. Woods, the Treasurer; and by Mr. Watson-Armstrong, who spoke for the general body of governors. The site in question is situated on the Leazes, adjacent to the beautiful Leazes Park, and consists of eight acres of grass land. It has been obvious for many years past that a new infirmary for Newcastle is a necessity. The old building has been added to again and again, but now no further additions are possible. The working of the institution has, of course, become exceedingly difficult in consequence of the scattered disposition of the various departments. The question of the site was, however, the great difficulty,

and strong differences of opinion arose, some maintaining that the present site was the most suitable, whilst others were as strongly opposed to it. When, however, plans for a new building on the present ground were drawn by the architect, it was found that it would be exceedingly cramped, and that it would unavoidably be brought close to the roadway on the north and to the railway on the south. Further, it was found that extensions could not be made in the future, and the work of the hospital could not be carried on during the period of building. The staff then suggested the site on the Leazes to the Committee, which gives sufficient space, is central, open, and elevated in position, and can be well drained. The Leazes is a part of the large town moor, and although the citizens are naturally jealous of seeing any part of this free space built upon, it is felt that an exception may well be made in favour of a new infirmary. Should the site be granted, it will not be long before a hospital is erected worthy in every way of the town, and of the large and populous district of which it is the centre. At the same time the work can be carried on as at present until the new quarters are ready for occupation. Of the different sites suggested that on the Leazes is the only central one, and is consequently the only one to which the men employed in the large factories do not object on account of distance. Once a patient is in a hospital he is much better off in a well planned modern building, situated on a great stretch of park land, than he would be in an old structure close to a great railway, adjoining a large cattle market, and in the heart of the town. The occasional difficulty of the slightly increased distance is met by the good ambulance service which already exists in the large works, and any extra time occupied in arriving at the hospital will be more than compensated by increased comfort during the patient's stay. The deputation was courteously received by the Council, and the question will be taken up at the next monthly meeting.

ABERDEEN UNIVERSITY LIBRARY.

Since his accession to the office of Librarian to Aberdeen University, Mr. P. J. Anderson, LL.B., has devoted great industry to the development of the usefulness of the library. He has succeeded in bringing many of the departments into touch with what is newest both in general literature and in science. Mr. Anderson now issues a special appeal to the alumni of the University for help in the following scheme: "The University Library Committee are desirous of making the University Collection as representative as possible of (1) books or pamphlets written or edited by alumni of the University: (2) books or pamphlets relating to or printed in the northern counties of Scotland." The sum set aside from the general library funds for these purposes is very small, and so the Committee confidently appeal to former students and friends of the University to present to the library copies of any publications they may edit or write. All such, however small, will be gratefully received and acknowledged. The medical side of Aberdeen University ought to be able to gratify Mr. Anderson in this praiseworthy effort to collect the contributions to literature, science, and art of those who once were students at King's or Marischal's.

FRESH OUTBREAK OF SMALL-POX IN MARYLEBONE.

A local outbreak has again occurred in the district of Marylebone under the following circumstances. On January 6th a young married woman was taken ill of some apparently obscure malady in a tenement house in the neighbourhood of Lisson Grove, tenanted by five families. The symptoms at first pointed to acute bronchitis, but on January 9th an eruption of a morbilliform character appeared. Two well-known general practitioners of considerable experience saw the case, and were of opinion that the disease was a mixture of measles and scarlet fever, but reserved definite diagnosis until further development. On January 15th they came to the conclusion that the case was one of malignant small-pox, and notified the case, at the same time stating that the patient was too ill to be removed. In fact, a few hours after notification the patient died. The body was, of course, moved under proper precautions to the mortuary, and the room and its contents disinfected. It thus appears that from January 6th an infectious centre existed in one of the densest parts of the district. The five families during the whole of this period were each visited by their friends and acquaintances, and within the incubation period some twenty cases, all of which could be traced more or less satisfactorily to have had communication with the infected house were notified as suffering from small-pox, and were promptly removed to hospital. At the present moment there is a lull because all known cases derived from the fatal case have been removed; but Mr. Wynter Blyth, in a report addressed to the vestry, is by no means hopeful, and anticipates that there will be other cases, giving the following reasons: (1) A child supposed to be suffering from measles, but really suffering from small-pox, has been kept at home unnotified for six days in a tenement house: (2) a prostitute with no settled address has been removed, the eruption being probably from two to three days old; and (3) a case of small-pox has been removed from one of the female shelters. All the successive outbreaks in Marylebone have been derived from cases having been kept at home for reasons wholly beyond the control of the sanitary authorities, and strikingly show that, provided early removal is effected, there is no danger of the disease spreading, but on the other hand the danger to the public health rests entirely on cases either unnotified, or which from their malignant or obscure character have been kept at home. It is certain that the sanitary officers of Marylebone will show the same activity as before in controlling the present small outbreak, but Mr. Wynter Blyth, in the report alluded to, justly complains of the delay of the local authority in not coming to a prompt decision as to increasing the facilities for the disinfection of the clothes of persons who only possess a single suit. He has recommended the erection in the parish stone-yard of a steam disinfector, and a shelter combined with suitable baths, so that the persons who have been exposed to infection may have a hot bath, and whilst they are in the bath their clothes may be submitted to superheated steam. He points out the large proportion of one- and two-roomed tenement dwellers, a great number of whom have only the clothes they stand up in, and suggests that one reason why small-pox continues to smoulder in the district is the want of facilities in dealing with possibly infected clothing actually worn. The vestry considered this important question of a shelter on Thursday, February 14th, one committee (the Sanitary) reporting in favour of the entire scheme, the other (the Works) reporting against it. In such a question the whole metropolis is interested, and it is a matter for congratulation on public grounds that the Sanitary Committee's report was adopted.

THE INDIAN CANTONMENT ACTS AMENDMENT BILL.

The correspondent of the *Times* in Calcutta telegraphs that the Cantonment Acts Amendment Bill has been passed by the Legislative Council, Clause 3 having been dropped, and some verbal alterations in the other clauses approved. Clause 3 was that to which strong exception was taken, on the ground that it was not only unnecessary, but that it was an entirely gratuitous menace to the medical servants of the State in India. It is a matter for sincere congratulation that the profession has been able in this matter to make its influence felt so effectually and promptly. The indignation aroused by this ill-considered measure, expressed with so much spirit and vigour by Mr. Ernest Hart, the Chairman of the Parliamentary Bills Committee of the British Medical Association, during his recent visit to Calcutta, may, we

hope, mark a turn in the tide, and dispose the British Government to leave the Indian Government a freer hand in dealing with this question of internal administration. The Commander-in-Chief in India, in a speech at the recent meeting of the Legislative Council, stated that he had made strong representations to Her Majesty's Government as to the ravages which venereal diseases were making in the British army in India. He added that the admissions to hospital in 1893 amounted to nearly 50 per cent. of the entire European force, and, as the prevalence and virulence of the disease were increasing, he feared that the statistics for 1894 would show a still higher percentage.

MEDICAL OFFICERS OF WORKHOUSES AND CORONERS' FEES.

A WORKHOUSE medical officer writes to us to state that he called the attention of the auditor of the county in which he resides to the answer in the BRITISH MEDICAL JOURNAL of December 22nd, 1894, to a question on this subject. The auditor, in reply, inquired under what circumstances Mr. Poland gave the opinion. We have authority for stating that Mr. Poland's opinion on this question was taken by the London County Council, and, in consequence of that opinion, inquest fees have since been paid by London coroners to workhouse medical officers. We, of course, suppose that Mr. Poland's opinion was founded on his construction of Clause 22, Subsection 2 of the Coroners' Act, 1887, as to the meaning of which we ourselves have never had any doubt.[1]

REMUNERATION OF ODDFELLOWS' SURGEONS.

IT is satisfactory to learn that the "Stony Stratford Branch of the Manchester Order of Oddfellows" have decided by a large majority to increase the surgeon's payment per member from 4s. to 5s. per annum. This is a movement in the right direction, and is doubly welcome just now, seeing that recently all reports that have reached us seemed to point in the opposite direction, namely, to lowering of medical fees. It is earnestly to be hoped that the good example thus set will be followed by other Courts throughout the country both of the Oddfellows and Foresters' Order, and we would assure the members of these institutions that the extra shilling will be well invested on their part, as it can never be for their ultimate benefit grossly to underpay their doctor.

FEES UNDER THE NOTIFICATION ACT.

IN December, 1893, Dr. Shapland, of Exmouth, notified certain cases of diphtheria, and on December 11th one of the persons notified was summoned at the Exmouth Petty Sessions at the instance of the Exmouth Local Board for wilfully exposing himself while suffering from diphtheria, but the case was dismissed. Thereupon the Local Board declined to pay the fee for notification, and the District Council, which has taken the place of the Local Board, on January 19th adopted a resolution to the effect that the application from Dr. Shapland for payment of his fees should lie upon the table. The matter was then taken up by the Medical Defence Union, who instructed a solicitor in Exeter to take proceedings to recover the amount. A County Court summons was issued on January 24th, returnable on February 26th, but we learn from the *Devon and Exeter Daily Gazette* that in the meanwhile the district council held a meeting, and directed a cheque in full payment of the debt and costs to be signed at once. This incident is one of which a careful note should be made, as it may serve as a useful precedent in future.

[1] Extract from Coroners' Act, 1887: Clause 22, Subsection 2.—"(2) Where an inquest is held on the body of a person who has died in a (county or other lunatic asylum, or in a) public hospital, infirmary, or other medical institution (or in a building or place belonging thereto, or used for the reception of the patients thereof), whether the same be supported by endowments or by voluntary subscriptions, the medical officer, whose duty it may have been to attend the deceased person as a medical officer of such institution as aforesaid, shall not be entitled to such fee or remuneration."

In reference to workhouses, the above proviso may be read as follows, the words left out being parenthetical: Where an inquest is held on the body of a person who has died in a public hospital, infirmary, or other medical institution, whether the same be supported by endowments or by voluntary subscriptions, the medical officer whose duty it may have been to attend the deceased person as a medical officer of such institution as aforesaid, shall not be entitled to such fee or remuneration.

HOSPITAL ORGANISATION IN LONDON.

AT a meeting of the Council of the Charity Organisation Society on February 11th, Colonel Montefiore read a paper urging the establishment of a Central Hospital Board for London, with the object especially of attaining uniformity in the system of admission to hospitals. He contended that a system of inquiry into the circumstances of both in and out-patients by visitors or almoners trained in charitable work should be established, so that the hospitals might not take away patients who could pay the fee of a local general practitioner, or should belong to a provident dispensary. Colonel Montefiore thought that the municipalisation of medical charities threatened by the "Progressive" party, was only to be defeated by subordinating private predilections and combining to create a true organisation of medical charities under a central Board. Sir John Erichsen thought that a central Board was necessary to make uniform the system of relief, but that municipal or State interference was to be deprecated. Other speakers also advocated the maintenance of the voluntary system, but held that to preserve it a central Board was a necessity.

THE AUSTRALIAN ELECTRO-MEDICAL SPECIALIST.

THE *Western Morning News* of February 2nd contained an announcement to the effect that "Professor Richard, M.E., who is known as the Australian electro-medical specialist, advertises that, in the Mechanics' Institute, Plymouth, he will for a season of three weeks (except Tuesdays), commencing on Wednesday next, give an exhibition of his method of electrical treatment. The deserving poor will be treated without charge. The professor's programme seems to justify his use of the adjective 'unique.'" We learn from a report in the *Western Mercury* of February 7th that at the hour appointed on February 6th the doors of the Mechanics' Institute were thrown open, but that only some twenty people assembled, and some person, apparently not the "professor," announced that there would be no exhibition that evening, and no performances given in Plymouth at all, as the "professor" declined to appear before so scanty an audience. He added that those who had paid for admission would receive their money back. We understand that this "professor" had not long before made his appearance in Liverpool. As this "professor" is believed to be a great traveller, some curiosity is felt to know where he may next announce his intention of treating the deserving poor without charge, and private patients at fees to be settled "at his own discretion."

THE Ninth Congress of the German Anatomical Society will be held at Basel next April (17th to 20th).

BARON LARREY has given £20 to the Paris Academy of Medicine to found a prize of medical statistics.

AT an inquest held by Mr. Braxton Hicks in Lambeth on February 13th, it was stated in evidence, according to the report in the *Daily Telegraph*, that the deceased, a child aged 8 weeks, had been attended by the unqualified assistant of "Dr. Payne, 2, Lambeth Walk." The unqualified assistant, who described himself as a medical student, is reported to have stated that he was in sole charge of the Lambeth Dispensary when Dr. Payne was not there. Dr. Payne was called by the coroner, and expressed his regret, stating that he had been left in the lurch by a duly qualified assistant, who had left him suddenly. The jury expressed the opinion that Dr. Payne was deserving of censure.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

THE DISCUSSION AT VIENNA.

A prolonged discussion has taken place at the Royal Medical Society of Vienna on the therapeutic value of Behring's antitoxic serum in diphtheria.

Professor Monti, who opened the discussion, gave statistics of the cases he had treated, which, however, only numbered 25. Among these only one patient died, a boy 7 years old, who before the attack of diphtheria was suffering from chronic pneumonia and bronchiectasis. Intubation was performed thirty-six hours after the onset of symptoms of stenosis of the larynx, and twenty-four hours later tracheotomy was performed. Death ensued six days later. Among the remaining 24 cases there were 11 of the ordinary uncomplicated type, and 13 of the mixed or phlegmonous form. Diagnosis was verified by bacteriological examination in 24 cases, including that which succumbed. In 10 cases Loeffler's bacillus was found alone, in 13 it was associated with streptococci, and in 1 case staphylococci only were cultivated, though the histological examination of the membrane rendered the diagnosis of diphtheria certain. In 23 cases bacteriological examination was continued for various periods after convalescence had commenced. In 9 cases the diphtheria bacillus disappeared with the local symptoms; in 1 case the bacillus was still present fourteen days later, in another after twelve days, in another after ten, in another after nine, and in another after eight. In 1 case a relapse occurred on the seventh day. In 7 cases one injection was sufficient, in 13 two injections were necessary before the local condition improved, in 3 cases three injections were given, in 1 four, and in 1 five. In 3 cases the injections were begun on the first day of the disease, in 10 on the second, in 1 on the third, in 8 on the fourth, in 2 on the sixth, and in 1 on the tenth. In the fatal case the first injection appears to have been made on the first day. In the series of cases recorded paralysis was observed in 12 cases, and as the last case was treated in the middle of December and the report was made on January 11th, it was thought that further cases would not occur. The serum used in all the cases but one was Behring's; in this one case the serum was Roux's. This was one of the cases in which paralysis occurred, and in it the paralysis was most extensive, involving the face and the lower limbs. Paresis of the lower extremities was noted in two other cases. The number of injections and the amount injected seemed, in Professor Monti's opinion, to have an influence in determining the early appearance of paralysis. Albuminuria occurred in 13 cases; its appearance was not attended by fever nor diminution in the quantity of urine, and it ceased after a few days. In no cases were casts found. Urticaria was observed in 7 cases. In 1 case the heart became irregular, and the pulse fell to 45. Professor Monti expressed the opinion that the serum had a real influence over diphtheria, and led to recovery more rapidly than any other method of treatment. In complicated cases, however, it was doubtful whether the serum exerted any curative influence.

Dr. Heim stated that 48 cases had been treated in the St. Joseph Children's Hospital in Vienna, with Behring's serum. He gave statistics of the first 27 treated between October 6th and November 4th, 1894. At the latter date the supply of serum failed and could not be renewed until December 18th. The mortality among 236 cases treated in 1894 down to October 6th by other methods, was 52.4 per cent., and the average mortality for the ten years ending with 1894 was 51.1; the lowest rate being 25.9 per cent. in 1886, and the highest, 58.7 per cent. in 1892. Of the 27 cases treated with the serum 6 died, a mortality of 22.2 per cent. In the 27 cases the diphtheria bacillus was cultivated bacteriologically from 23. In 15 it was obtained alone, in 6 with streptococci, and in 2 with staphylococci. In one case streptococci only were found. The three remaining cases were examples of laryngeal diphtheria, in which intubation was at once performed and materials for bacteriological examination could not be obtained. The cause of death was in 4 cases diphtheria, sepsis, and degeneration of the heart and kidneys; in one case purulent cirrhosis of the kidney, and in one case there was double broncho-pneumonia. In 8 cases there were traces of albumen in the urine for a short period, in 6 for longer periods. Failure of the palate was observed in 2 cases. An urticarial eruption occurred in 5 cases. In each case its appearance was accompanied by a rise of temperature. Nine children were injected on the second day of the disease, and all recovered; 7 on the fourth day, of whom 6 recovered; 3 on the fifth day, of whom 1 died; one on the sixth day, who recovered; 3 on the seventh day, of whom 2 died died, and 2 on the eight day, of whom 1 died.

Dr. Unterholzner stated that in the Leopoldstadt Children's Hospital in Vienna, 37 children had been treated with the serum between October 11th, 1894, and January 10th, 1895; 23 had recovered, 6 remained under treatment, and 8 had died; 5 of the 8 deaths occurred within twenty-four hours of admission. As the supply of serum was limited, other cases in the hospital at the same time as these were treated by other methods, the serum being reserved for the severest cases. He presented two tables, contrasting the results in the two series of cases; 31 cases treated with the serum yielded 8 deaths, 25.8 per cent.; 36 cases treated without serum gave 24 deaths, or 66.66 per cent. Among the cases not treated with the serum were many of a slighter kind.

Table.

	Treated with Antitoxic Serum.		Treated without Antitoxic Serum.	
	Treated.	Died.	Treated.	Died.
Under 1 year	2	1	2	1
1 to 2 years	9	5	6	6
2 ,, 3 ,,	7	2	7	6
3 ,, 4 ,,	3	0	5	4
4 ,, 5 ,,	2	0	2	2
5 ,, 6 ,,	1	0	2	1
6 ,, 7 ,,	5	0	2	2
7 ,, 8 ,,	2	0	6	1
8 ,, 13 ,,	3	0	4	1
	31	8	36	24

Professor Kassowitz, at the adjourned meeting on January 18th, delivered a discursive address, criticising in great detail the experimental observations upon which Behring had founded his method, and described them as insufficient in number and uncertain in teaching. He also expressed the opinion that the immunising power of the serum could not be depended upon, and was, in fact, probably *nil*. He further laid stress on the fact that, as he believed, the serum had an injurious effect upon the heart, and that many cases had succumbed to heart failure, and pointed out that paralysis of the ocular muscles and of the extremities appeared to occur with greater frequency. Professor Kassowitz stated that he had used the serum in 8 cases without observing any change in the temperature or pulse, or any definite improvement in the local conditions. He deprecated conclusions drawn from hospital statistics, since the mortality at different hospitals and in the same hospital at different times varied very much. He gave no further statistics himself.

Dr. Drasche directed his remarks specially to the later symptoms observed after injection of the serum. He quoted published cases in which heart failure, joint affections, paralysis, and exanthemathous eruptions had been observed.

Professor M. Gruber said that he sympathised with the cool wind of criticism which had blown in Vienna, though he deprecated some remarks Professor Kassowitz had made calling in question the specificity of Loeffler's bacillus. He agreed that not much reliance ought yet to be placed on the statistics, and confessed that the favourable opinion Professor von Widerhofer had formed after a clinical study of the effects of the remedy weighed with him far more.

Professor Koliško said that during the last twelve years he had, as Prosector of the St. Anne's Children's Hospital in Vienna, performed over 1,000 *post-mortem* examinations upon children who had died of diphtheria. He had performed 75 *post-mortem* examinations upon the children dying after treatment by the antitoxic serum, and he entertained no doubt

whatever from his observations that the serum did exert a favourable influence upon the disease. In particular the diphtherial membrane was found to be much more lightly attached to the mucous membrane. On the complications of diphtheria the serum did not appear to have any obvious action. The changes in the kidney were the same as those seen in the days before its use.

Professor PALTAUF, replying to Professor Kassowitz's criticism of Behring's experiments upon animals, urged that the later experiments had not been taken into account.

The debate, which extended over two evenings, was brought to a close by Professor von WIDERHOFER, who replied *seriatim* to the points raised by Professor Kassowitz, and observed that the whole subject would come up again for discussion at the German Medical Congress to be held in April at Munich, and invited Professor Kassowitz to repeat his criticisms there.

STATISTICS.

The two tables published below contain the most recent statistics, showing the death rates at various ages in continuation of previous tables published in the BRITISH MEDICAL JOURNAL. Table I contains the statistics reported to the Royal Medical Society of Vienna during the recent discussion. It should be said, however, that Unterholzner does not give the figures in precisely the form in which we have printed them, as he takes the cases and deaths from 8 to 13 years together. We have counted all these into the age period 10 to 15, but the matter is of the less importance as there were no deaths at those ages. In the second table we have brought together all the statistics previously published in the JOURNAL bearing directly on the question of age mortality, and have calculated the percentages on the 344 cases which are thus made available. It will be seen that the general mortality for ages under 15 years is 22·1.

TABLE I.

	Monti.		Heim.		Unterholzner.		Total.		
	Treated.	Died.	Treated.	Died.	Treated.	Died.	Treated.	Died.	Percentage.
Under 1 year ...	—	—	—	—	2	1	2	1	50.00
1 to 2 years ...	4	—	5	1	9	5	18	6	33.30
2 „ 3 „ ...	3	—	4	1	7	2	14	3	21.42
3 „ 4 „ ...	3	—	2	—	3	—	8	—	—
4 „ 5 „ ...	5	—	6	2	2	—	13	2	15.38
5 „ 10 „ ...	9	1	7	2	5	—	21	3	14.28
10 „ 15 „ ...	1	—	3	—	3	—	7	—	—
	25	1	27	6	31	8	83	15	18.07

TABLE II.

	B. M. J., Jan. 19th.		B. M. J., Feb. 2nd.		See Table I		Total.		
	Treated.	Died.	Treated.	Died.	Treated.	Died.	Treated.	Died.	Percentage.
Under 1 year ...	12	6	4	2	2	1	18	9	50.00
1 to 2 years ...	34	11	9	3	18	6	61	20	32.78
2 „ 3 „ ...	27	8	6	1	14	3	47	12	25.53
3 „ 4 „ ...	23	3	12	1	8	—	43	4	9.30
4 „ 5 „ ...	26	8	10	3	13	2	49	13	26.53
5 „ 10 „ ...	37	2	23	9	21	3	81	11	17.28
10 „ 15 „ ...	13		15	2	7	—	35	2	5.71
Above 15 years ...	—	—	16	1	—	—	—	—	—
							334	74	22.10

XLV.—Mr. ALEXANDER DON, M.A., M.B., C.M. (Aberdeen), sends us the following report of a case of diphtheria (followed by measles) treated by antitoxin:

A. W., aged 6 years 11 months, was in her usual health on January 25th, and had left home twelve days previously to stay with friends owing to a brother and sister having taken diphtheria. On the night following January 25th she felt ill, was shivering, fevered, sick, and vomiting.

On January 26th at 12.30 P.M. the patient was seen by Professor Ogston and myself. Her face was then pale and wan and she was much collapsed. Her lips were livid and tongue covered with thick white coating. The tonsils were inflamed and enlarged, and a patch of greyish-white membrane the size of a threepenny piece was seen on the upper and anterior surface of the left tonsil. The pharynx was congested, as was the soft palate. The lymphatic gland below the left angle of the jaw was enlarged to the size of a bean and tender, while the corresponding one on the right side could just be felt. The respiration was unimpeded and 18 per minute. The pulse-rate was 150, very feeble, but regular. The temperature in the axilla 101°. There was no albumen in the urine. Five c.cm. of Aronson's antitoxin (Schering) was injected subcutaneously in the left suprascapular region. At 8 P.M. the pulse was 160, regular, and seemed less feeble; the temperature 103.6° F. The face was flushed and the patient was perspiring freely and feeling comfortable. The respirations were 20 per minute and unimpeded. She was ordered inhalations of carbolic acid (gr. v to Oj) every hour.

January 27th, 9 A.M. The patient had been very restless during the night, and between 2 and 5 A.M. she had been frequently delirious, and had perspired profusely, but improved towards morning. Her face was pale, but the colour was more natural; her tongue was cleaner. The inflammation round the fauces seemed less intense, but the membrane had spread to the edge of the soft palate and uvula. The pulse was 120, regular and stronger; the temperature 101.3° Antitoxin 2½ c.cm. was injected subcutaneously on the opposite shoulder. At 4 P.M. the patient was asleep, breathing quietly; the colour of the face good, and she was still perspiring. The pulse was 140, regular but rather feeble; the temperature was 102° F. Membrane now covered the whole of the uvula and half of the soft palate, but its edge looked everted, as if detaching. The strength of the inhalations increased to gr.x per Oj. At 8.30 P.M. the pulse was 140; the temperature 99.8°. The tongue was much cleaner, and the appetite good. The left lymphatic gland was softer, and almost painless on pressure. The membrane had ceased to spread.

January 28th, 9 A.M. She had had a very good night. The temperature was 100° F.; the pulse 120, regular and strong. The inflammation in the throat was sharply limited to near the edge of the membrane, which was detaching, and came away easily with a camel's hair brush, the rawed surface showing a speck or two of blood. The patient was feeling almost well, and taking milk in large quantities. Antitoxin 2 c.cm. was injected in the right shoulder. None of the injections caused the slightest local trouble, and the immediate pain was slight. At 3 P.M. the temperature was 100° F.; the pulse 100, regular and full. No new formation of membrane had taken place on the denuded part, and that on the tonsil was loose.

From this onward the improvement was rapid, and on January 30th at 8 P.M. the temperature was normal and the pulse 80. The pulse was good, but showed a very marked respiration rhythm. On this date a trace of albumen was found in the urine. The throat seemed now almost well, though the tonsils were enlarged and the uvula relaxed. On February 1st the inflammation about the throat seemed returning, and the patient was sneezing. The temperature and pulse rate both rose slightly for the next few days, but no symptoms of catarrh developed until after the appearance of a profuse measles rash on February 6th, which faded a good deal on the following day, but reappeared very profusely as a typical measles rash on February 8th, the temperature being then 101.5°, and the pulse 140, regular, but feeble. There was now a good deal of conjunctivitis and slight discharge from the nose, but the attack proved a very mild one.

On the second day of the rash the patient complained of stiffness about the elbows and knees, and was very dull. The albumen, which had disappeared from the urine on February 6th, reappeared as a faint trace on February 10th, and still continues (February 11th). The rash has completely gone, and so have all the catarrhal symptoms, and the patient feels quite well and seems as strong as when she first took ill. There was no paralysis anywhere as yet.

I wish to express here my thanks to Professor Ogston for his assistance and advice, and to Dr. Dean for making the bacteriological examination. The Loeffler bacillus was found both in a microscopic slide preparation from the culture and in a cover-glass preparation made directly from the throat.

ANOTHER READY MEANS OF TRANSMITTING DIPHTHERIAL AND OTHER DISCHARGES.

Dr. William Hardman (Blackpool) writes: The British Medical Journal of February 9th contains an account of a method for transmitting diphtherial discharges—a sterilised brush, cotton plug, and test tube are used. I regard the previous sterilisation of apparatus in this method as futile, for the discharges obtained from the throat or elsewhere are extensively contaminated by a multitude of microbes before removal, and I see no reason why these should not live, and even increase, in the material removed for examination before the examination can take place. I have preserved and mounted for microscopical examination hundreds of samples of discharges of all kinds during the last fifteen years, and have always found my specimens preserve their microscopical characteristics absolutely unaltered for, any way, as long as eleven years. The method, too, has the advantage that subsequent contamination is impossible; it is, too, of the easiest application, and needs no apparatus at all.

Let such discharges as are intended for examination be received on a piece of white paper, and immediately dry before the fire, using only sufficient heat to thoroughly dry without sterilising. Then fold up the paper with the discharge inside, which can be kept weeks without the slightest alteration, or transmitted by post in an ordinary envelope. When it is required to mount specimens or try culture, it is only necessary to moisten the dried discharge with a little sterilised water, and it is in a few moments available for any desired purpose.

The specimens from my case of diphtheria published in the Journal of the 9th were prepared in this way, and though not forwarded to the British Institute of Preventive Medicine for several days, yet sufficed for the absolute identification of my case with the classical type—that is, that due to the Loeffler's bacillus as distinguished from those forms associated with other familiar micro-organisms.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary Council was held at the College on February 7th. Mr. Hulke was in the chair, and the minutes of the last quarterly Council were read and confirmed.

With regard to the important question of the arrangements for admitting visitors to the examinations of the College, the following resolution was adopted:—

The Court of Examiners having considered the question of the admission of visitors to the final examination for the Fellowship, are of opinion that for the present it will be sufficient if a notice is handed to each visitor on his arrival, in the following terms, namely: "Visitors are requested not to approach too closely to the candidates while the examinations are in progress, and to refrain from examining patients in close proximity to the examiners."

Messrs. MacCarthy and Owen, as members of the Court of Examiners, were elected upon the Board of Examiners in Dental Surgery.

In accordance with the opinion of the legal adviser of the College, the Council resolved that it was not expedient to accede to the resolution passed at the meeting of Fellows on January 3rd, in respect of the appointment of a conjoint committee of members of the Council and of other Fellows of the College.

It was further resolved that a committee of the Council be appointed to receive deputations from the Fellows of the College upon the subject of the resolution at the meeting of Fellows above mentioned, and to report thereon to the Council. Copies of this resolution were forwarded to the mover and seconder of the resolution at the meeting of Fellows.

A letter was read from Mr. W. G. Dickinson giving the reasons held by the Society of Members of the Royal College of Surgeons of England for their opposition to the proposed alterations in the by-laws which has been made to the Home Secretary.

It was resolved that the quarterly meeting of the Council be held on April 4th; and it was left to the President to summon a meeting of the Council in March if it should appear to him desirable to do so.

REGISTRATION OF MIDWIVES.

At a special meeting of the Birmingham and Midland Counties Branch, held on January 31st, the President (Mr. Langley Browne) in the chair, the Committee appointed to consider the various schemes proposed in connection with the registration of midwives made the following report:

1. That the fact of a large proportion of labours attended as at present by ignorant and untrained women constitutes a danger to the lives and health of parturient women and their infants.

2. That it is expedient that a body of women, to be called midwifery nurses, should be so trained as to be able to render efficient attendance on cases of natural labour, and to give first aid in accidents arising in the course of labour.

3. That the midwifery nurses should undergo a process of training extending over twelve months, and at the end of that period should be examined, and if then found efficient their names should be placed on a register.

4. That the education, examination, and registration of midwifery nurses should be under the direct supervision of the county councils, subject to the control of the Local Government Board, or some other central authority.

5. Any persons now practising as midwives should be allowed two years in which to comply with the new regulations as to examination and registration.

6. That the attendance of midwifery nurses should be strictly limited to cases of natural labour, and that their duties and the penalties for disregarding or exceeding those duties should be defined by the local and central bodies above mentioned.

It was proposed by the President and seconded by Mr. M. A. Messiter that the report be adopted.

Sir Walter Foster moved the following amendment:

"To delete all the report after Paragraph 1, and to substitute the following words: That inasmuch as the proper care of these lives before, during, and after the act of labour involves a knowledge of almost the whole arts of medicine and surgery no one should be entrusted with them save fully trained and qualified practitioners."

This was seconded by Mr. Lawson Tait.

After considerable discussion the amendment was put to the meeting and was lost.

The original motion was then put and was also lost.

Ambulance Organisation in Paris.—On February 5th the ceremony of handing over the urban ambulance organisation to the city of Paris took place in the greenroom of the opera. The Baroness Mohrenheim presided, and many notabilities were present. Dr. Nachtel, the founder of the organisation, sketched its origin and progress. M. Jules Simon, President of the organisation, bore eloquent testimony to the value of Dr. Nachtel's work. The ceremony was brought to a close by music played by the Garde Républicaine, and a piece of poetry recited by M. Mounet-Sully.

The third Congress of the French Obstetrical Society will be held in Paris in April next, 18th to 20th.

The French Otological and Laryngological Society will hold its annual meeting this year in Paris on May 1st and following days. The questions on the programme are: (1) Noises in the Ears and their Treatment; (2) Neuromotor Disturbances of the Larynx.

THE FIRST INDIAN MEDICAL CONGRESS.

[FROM OUR OWN CORRESPONDENT AT THE CONGRESS.]

THE RESULTS OF THE INDIAN MEDICAL CONGRESS, ITS CHARACTERISTICS, AND ITS PROBABLE INFLUENCE.

Now that the work and the festivities of the Congress have become things of the past, the ephemeral can more easily be distinguished from the lasting and durable elements of its work; and it will be useful to survey from an Indian point of view the field of such varied action. Your special correspondents will have been able to regard the subject from the point of view of visitors looking at everything with English eyes. However well informed or experienced in looking through merely superficial appearances, they will not have that knowledge of Indian affairs which is indispensable for an adequate appreciation of the true inwardness of things. That gap I will endeavour to supply.

In the first place must be emphasised the importance of the initial event of an assemblage of the leading medical men of India for the first time and for any purpose whatever. Hitherto they have been merely scattered units, each man responsible for himself, and thinking mainly of himself and his particular duties and responsibilities. It is not that public spirit is more lacking amongst the profession in Calcutta than in other parts of India, but the opportunities for its development are lacking, and the avenues for its expression are closed.

No "Collective Expression of Opinion" Permitted.

We are almost without exception officials, and as such must walk in single file, one behind the other. Petitions, or round robins, or meetings, or resolutions are forbidden things; they constitute that prohibited sin—*anathema maranatha*—in official administration, "the collective expression of opinion." Hence when the experienced Chairman of the Parliamentary Bills Committee announced that he proposed to close his address to the Congress by certain definite propositions, and suggested that if approved they should be put into the form of resolutions and adopted by the Congress, he probably little knew how pregnant an innovation he was introducing and how far-reaching a proposal. The proposal, however, was carried into effect with the approval of the Executive. Happily two other important papers, including that by Dr. Simpson, the Health Officer of Calcutta, were found capable of like treatment, and as they dealt with the great subjects of preventive medicine and the organisation of the health service, they could be put forward with great advantage.

Its Inarticulate Expression.

It will perhaps give your readers some idea of our absolute helplessness in most of the great matters with which Mr. Ernest Hart deals so trenchantly, that when the resolution denouncing the Cantonments Acts Amendment Bill was put to the vote the President, Surgeon-Colonel Hill, felt obliged to rise, and in solemn and severe tones and carefully set phrase, to warn the whole of the official members present that they must not vote; it related to legislation on an official matter on which they were not entitled to express a collective opinion. Now as, with the exception of natives, there were hardly a dozen men present out of the whole 800 who were not in official employ, the resolution was carried with barely a dozen hands held up; but amidst a tumult of applause, for although voting was prohibited there was no regulation against cheering, probably because it was not foreseen as an element of expression.

Now that this new method of collective action has been invented it may find many useful purposes in the Branches of the British Medical Association in India, and in local medical associations. Questions may be discussed by the Branch, and the civil unemployed practitioners can voice them, with the implicit but unexpressed assent of the official medical men.

It is a strange but necessary result of the absorption of practically the whole professional force of India in public employ that there is no public opinion, no check upon official follies and tyrannies, no independent review of errors of commission or omission; and the effect produced by an outspoken and well informed discussion by one man of the leading defects of our official system of medicine and medical administration has been startling, and would be inexplicable but for the fact that in the whole history of India, no one before of anything like Mr. Ernest Hart's position, influence, and capacity, has ever been in a position to come forward and boldly to utter to a great audience the words of independent criticism.

Official Cholera Nonsense.

At the first moment this spoken address came like a thunderbolt out of the blue; its jokes and its irony and satire provoked irrepressible laughter, not devoid of uneasiness; its denunciations were listened to with deep but somewhat alarmed interest. When Mr. Hart produced the official cholera regulations, bearing an office mark, and read paragraph after paragraph of childish old-world nonsense, emphasising the incessant reports and telegrams to headquarters, the imbecile barrack and town regulations, the amusements and the rectangular marching recommended, and concluded in the presence of the principal medical officers of various districts by declaring his entire ignorance of the authors and responsible sponsors of this farce, but denouncing their tragical miscarriage, there was what the French call a "movement," which was converted into a general burst of laughter by the proposal to teach the troops "waltzing," as Mr. Gilbert has done, as a diversion equal in value to "marching at right angles to the wind."

Official Seniority and Scientific Infallibility.

It was felt that not only were those regulations doomed, but much more. The whole edifice of official maladministration was shaken to its base; the theory that "official seniority was identical with scientific infallibility," which the orator frankly stated; and the view that the oldest surgeon-general was not necessarily a more competent bacteriologist than the youngest surgeon-lieutenant (although self-evident, still officially a new theory), were all so many blows at that monstrous system which has placed the whole official fortunes of a young *savant* in the hands of seniors to whom "new views" are a horror or a derision—who regard "cholera inoculation," "water typhoid," "water cholera," as insubordinate diseases of the mind, and who summarily refute a theory or a suggestion by snubbing its author or sitting down upon his report.

The "Twenty-Man Power" Medical Officer.

The twenty-man power which the Indian Government, from motives of economy, exact from a single medical officer—in charge of a province, a gaol, a lunatic asylum, a police force, a railway force, a vaccination circuit, a medical report of a huge hospital—was never before so boldly stated and so effectively ridiculed; and once more the whole Congress applauded what every man has long known but has not been able effectively and publicly to say. The whole newspaper press has echoed and continues to discuss these topics. I send you cuttings from papers from every part of India—from Calcutta, Allahabad, Madras, Bombay, Rangoon. You will see that there is only one widespread chorus of approval. What is of more consequence, however, is that many important people have been so heavily hit and many more so severely stung by Mr. Ernest Hart's winged arrows of satire and heavy club of denunciation that immediate as well as ulterior results are already in view.

The Cantonment Acts Amendment Bill is doomed in its present form, and it is exceedingly likely that it will disappear. This will be a triumph of public opinion over an official and insulting tyranny which will be appreciated throughout India, and all the more so on account of the resentment felt at the overpowering of public opinion here by official dictation in the matter of the recent Cotton Duties Bill.

Cholera: Old Saws and Modern Instances.

As to the cholera regulations, explanations have been asked for. The result is the laying bare of a complicated series of

acts partly ignorant, partly obstinate, and partly neglectful. The antiquated nonsense was perpetuated by carelessness and dictated by the pedantic follies of a passing generation. What emphasises, however, the tragic side of this farce on which Mr. Hart laid no undue stress is the leaking out since the Congress of some of the facts of the recent terrible outbreak at Lucknow. Mr. Hart predicted with dangerous but determined emphasis, and staked his scientific name upon the prophecy, that here too, as in the cases which he has related of Genoa, and of East London, of Hamburg, and of Naples, the polluted water and the fouling of food would be found to underlie the facts.

It is almost the first time that a cholera epidemic has been scientifically investigated here by one of the new school. The results are startling. Referring to these regulations Mr. Hart made his best point by showing that the questions of drinking water and food were relegated to a few casual lines, and that marchings, and campings, and evacuation of cantonments, and the like were presented at great length and at vast cost. Here then, briefly, it is found that what Mr. Hart denounced as "of course the worst filter in the world," since it was the "official filter" of a bygone day still perpetuated, was actually the efficient cause of the epidemic.

The troops were decimated; then they were fumigated and their quarters evacuated, and new cantonments were erected, and they were marched at the proper angles and duly dismissed, and still they died. The filters had been filled with sand taken from an infected site and loaded with cholera bacilli. Only one company escaped, and for that company the water had been boiled by a sergeant who was a convert to Mr. Ernest Hart's "teakettle or cauldron policy," a policy which he himself christened and announced at two public meetings in Calcutta, and which has now made the round of the newspapers, and with this illustration will possibly profoundly affect sanitation in India, and if the "boiled and filtered water" theory enters into the daily life of the people, it will be the cause of a great saving of life.

Future Reforms.

Other points I must defer, but I am told on good authority that a new laboratory of "preventive medicine" will be at once established on a large scale at Lahore, and that others, urgently needed and sure now to be continuously called for, may be expected at Calcutta, at Madras, and Bombay. The Mysore Princes will probably contribute largely. So, too, it is hoped here that further pressure from home will keep alive the question of the overloading of the Civil medical service, with incongruous and impossible duties, at nominal rates of pay. The Indian medical service is in an impossible state, and we are deeply indebted to Mr. Ernest Hart for coming here and making himself plainly heard where no one else has dared to speak.

A Healthy City.—At the last meeting of the Lincoln Town Council, a resolution from the Sanitary Committee was presented congratulating the Council and the citizens upon the fact that the last quarterly report of Dr. Harrison, the Medical Officer of Health, had stated that the death-rate of the city was only 11.5 per 1,000. Dr. Lowe, in moving that the report should be referred to the Sanitary Committee, observed that the rainfall of Lincoln was the smallest in the United Kingdom. He commented on the extremely low death-rate from zymotic diseases, and expressed the opinion that the water supply of the city was extremely good. He pointed out, however, that not long ago the water as delivered into the houses was notably inferior in quality to the water at the point of supply from the deep well. It had been found that many of the mains which conveyed the water to certain parts of the city were foul, so that when alterations took place in the temperature of the earth, a sediment inside the main was broken up and carried into the delivery pipes. This had now been remedied, all the old mains having been taken up and new ones laid.

Bequests and Donations.—Lady Kortright, in addition to a gift of £1,000 last August, has contributed the further munificent donation of £7,000 towards the building fund of the Grosvenor Hospital for Women and Children, Vincent Square, Westminster.

A REPORT
ON THE
POSSIBLE CONVEYANCE OF CERTAIN WATER-BORNE DISEASES, ESPECIALLY TYPHOID FEVER, BY OYSTERS AND OTHER MOLLUSCS.

IV.

The Colne Breeding Grounds.—The Pyfleet Fattening Grounds.—Southend.—Foreign Oysters.

In the last article of this series some account was given of the estuaries on the coasts of Essex and Suffolk more or less connected with the oyster fishery. Local inquiry has, however, satisfied us that all those lying northwards of the Colne may be practically ignored, for while the Deben has entirely, and the Stour very nearly, fallen into disuse, the Orwell does not yield more than are required for local consumption, natural causes, aided by neglect, having rendered these unfit for oyster culture with profit. As to the Colne, a far greater stretch of its estuary is "let out," that is, reserved for oyster breeding, than is at present, or will for some years to come, be thus occupied, though new ground will probably be taken up each year, as more of the bottom is cleaned by steam dredgers. Roughly speaking, the distance from the outfall of the Colchester sewer to the highest limit of the possible oyster beds is about three miles, and of the actual bed six. The sewage of Colchester is treated with lime and alumina, and yields an effluent which it is not thought necessary to submit to subsequent filtration. Wyvenhoe has no sewers whatever, but at Brightlingsea the houses in at least one street are provided with w.c.'s in connection with a small sewer. But the beds in the Colne itself are devoted exclusively to breeding the oysters being laid out to fatten in the Pyfleet, for the freedom of which from pollution we can unhesitatingly vouch. There are no houses on its marshy shores, and the possible access of sewage from the Colne at the eastern entrance seems precluded by the peculiar character of the tidal currents, that of the ebb running strongly seawards along the left or eastern shore past Brightlingsea, while the rising tide carries the salt water of the North Sea inland and towards the Pyfleet, along the right or western shore. The amount of sewage off the foreshore at Brightlingsea is so small; and, as will be seen from a letter published below, we were under a misapprehension in stating that the Marine Biological Station has been abandoned.

So far as we can judge, the so-called Colchester oysters, as laid out to fatten in the Pyfleet, are as little exposed to any form of sewage contamination as those of the Medway, and for the same reason: that whether bred in the river or elsewhere, they are kept for many months in salt water creeks, the shores of which are almost uninhabited, or in sheltered bays.

As regards Southend we have not at present any evidence which would lead us to withdraw or modify our description of the dangers it presents, though we learn from a gentleman largely interested in these beds that they are gradually being abandoned. At Grimsby, Cleethorpes, and other places on the north-east coast, North Sea oysters are laid down to fatten, but they are larger, coarser, and rarely eaten, except cooked; their surroundings are too often of a suspicious character.

Thus far the results of our inquiries and inspections have been on the whole decidedly reassuring; they have shown that, so far as the Kentish and Essex fisheries are concerned, the beds in which the oysters are laid out to fatten are not, in the great majority of instances, exposed to any appreciable risk of sewage pollution, and that the few localities of which this cannot be said it would be sufficient if pressure were put on the local sanitary authorities by those interested in the fisheries to "abate the nuisance" by proceeding against the persons causing it.

At the same time it would be premature to assert that the mischief had arisen through imported oysters, for while the sewage of Southend, which was for half the year charged with typhoid evacuations, was discharged in dangerous proximity to the beds, the so-called "Dutch natives," scarcely inferior

to those of Colchester, were laid down on the shores of the Zuyder Zee, where, the land being lower than the sea, sewers were unknown, and all excrement was applied directly to the soil. On the contrary, we believe that exposure of possible dangers at home may lead to their remedy, and ultimately, by restoring public confidence, conduce to the prosperity of the trade and industry itself, as the enormous development of the dairy business dates from the first exposure of a London milk supply as a source of typhoid fever by Dr. Ballard just a quarter of a century ago.

Pathogenic Organisms and Sea Water.

The clinical evidence pointing to the possibility of the conveyance of the infection of typhoid fever by oysters and other molluscs which we have been able to adduce, and the overwhelming body of proof that at certain points on our coasts oysters are kept under conditions which would favour their contamination by sewage, which has been accumulated by the inquiries made for the Local Government Board during the last two years, and more recently on behalf of the British Medical Journal, lend special interest to experimental inquiries as to the action of sea water on pathogenic micro-organisms. A few years ago Professor de Giaxa[1] made a series of investigations on this question at the Bacteriological Laboratory in Naples. If sea water is a suitable element for the reception and growth of pathogenic micro-organisms, it becomes a most important conveyer of infections, as there are many ways, both direct and indirect, in which it may reach the human body. The author found by experiments the following conditions to be favourable for the growth and multiplication of micro-organisms in the water of harbours: its intermixture with the outflowing contents of canals, and consequent richness in organic matter: its comparative shallowness, the stagnation and high temperature of the surface water, and the abundance of vegetation present. The micro-organisms principally investigated by the author were the cholera, anthrax, and typhoid bacilli, and the staphylococcus pyogenes aureus.

The Cholera Bacillus.—The experiments were made with samples of sea water taken at various distances from the mouth of the canal, varying from samples comparatively pure to those taken only at a distance of 50 metres from the mouth of the canal, which were teeming with various micro-organisms. These samples were then inoculated with cultures of the cholera bacillus of varying strength. In the comparatively pure specimens the cholera bacillus was able to live for some time, and twenty-four hours after the inoculation several colonies of the bacilli had developed, but their number had considerably decreased again after the lapse of three days, and had disappeared on the fourth day. During this period a distinct multiplication of the other micro-organisms present was noticed. In a sample of water taken 350 metres from the mouth of the canal, the number of ordinary bacteria was so considerable that they became serious antagonists to the cholera bacilli in the struggle for existence. It was found that out of four experiments with the same sample an increase in the number of the cholera bacilli after twenty-four hours was only noticed in one, whereas in the other three there was a decrease after two to four days, and all four showed a complete disappearance after the fourth day. In the most contaminated samples—those taken only 50 metres from the mouth of the canal—it was found that the cholera bacilli had disappeared even before twenty-four hours had elapsed. It may thus be seen that the behaviour of the cholera bacilli—their earlier or later disappearance from the sea water—was dependent on the number of other bacteria present.

The author also made experiments with sterilised sea water to compare the result with those made with water practically sterile, taken at a distance of 3 kilometres from the shore, which was found to be very poor both in organic matter and micro-organisms. In both a considerable multiplication of the cholera bacilli occurred, even during the first twenty-four hours, in spite of the chemical peculiarities of such water. This reproduction went on for some time, but after the lapse of a month the number of colonies had decreased again.

The Anthrax Bacillus.—By the experiments with this bacillus (which included inoculation of animals) somewhat similar results to those with the cholera bacillus were obtained. During the first twenty-four hours an almost exclusive development of anthrax bacilli was noticed, but these decreased after the first twenty-four hours, and after the lapse of four to five days the result was negative. With another sample of water, twenty-two times richer in micro-organisms, scarcely any reproduction could be discovered, and after the lapse of only twenty-four hours the result was negative.

The Typhoid Bacillus.—On account of the difficulty experienced in tracing this bacillus in the presence of a large number of other organisms it was necessary to limit the investigation to samples of sea water taken at 3 kilometres distance from land, which samples were comparatively poor in micro-organisms (10 to 80 per c.cm.). Soon after the inoculation with a culture of typhoid bacilli there was noticed an almost exclusive multiplication of these, whereas after the lapse of twenty-four hours a considerable reproduction of the other bacteria was found and a decrease in the typhoid bacilli had commenced. Their number had decreased still more on the fourth day, and on the ninth day only 912 were found. In the experiments with sterilised water an increase was noticed, especially after the first twenty-four hours, but the duration of the increase, although varying in the different experiments, never exceeded ten days.

The staphylococcus pyogenes aureus was found able to live for many days in sea water, but its power of reproduction could not be clearly ascertained. In most of the experiments there was a continuous decrease in colonies after some time had elapsed.

It is difficult to explain what was the real influence of the bacteria on the cholera and anthrax bacilli. That it was neither the assimilation nor the excretive products of the former which caused the disappearance of the studied organisms the author was able to prove by some elaborate experiments. He would therefore be inclined to fall back upon the old hypothesis of the survival of the most resisting species after a mutual struggle. The results of the above experiments help to support this hypothesis. Although the number of the ordinary bacteria present in the sea water played the chief *rôle* in the destruction of all four pathogenic organisms, they were found to differ in their power of resistance. The cholera and anthrax bacilli were soon overpowered, whereas the typhoid bacillus and the staphylococcus pyogenes aureus were able to live and reproduce themselves even after a considerable development of ordinary bacteria.

Prof. de Giaxa also made a few investigations concerning the behaviour of the cholera and anthrax bacilli in the bodies of fishes and molluscs. It was found that these, when introduced into the alimentary canal of various fishes, were completely destroyed after a length of time, which varied according to the size of the fishes. The author attributes this result partly to the action of the gastric juice and partly to the competition with the other bacteria present. The experiments with the molluscs (oysters, mussels, and cockles) were carried on both with specimens immersed in the sea water and removed from it. It was found that both cholera and anthrax bacilli had disappeared after six hours in most and after twenty-four hours in all. The author found the mucus covering the body of molluscs a favourable soil for the growth of micro-organisms. It was a curious fact, however, that in spite of the many varieties of bacteria found in the surrounding water, only two varieties (although in large numbers) could be detected in the molluscs.

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The Sewage of Brightlingsea and the Marine Biological Station.

Mr. H. Laver, M.R.C.S. and F.L.S. (Colchester), writes under date February 10th: I regret I did not see the British Medical Journal for February 2nd until to-day or I should have

[2] It may be true that sea water at a distance of 3 kilometres from Naples is free from organic matters, but this is certainly not the case with the water at the same distance from the mouth of the Thames, as a discoloration of the water can be noticed almost half way to Denmark.

pointed out an error therein contained. It is stated that a biological station at Brightlingsea had to be removed to another point as the water of the creek was so foul that few marine forms could live in it, although it was in close proximity to the oyster beds. As Chairman of the Biological Station Committee kindly allow me to contradict this statement and say the station has never been removed and the water in the creek has in every way been perfectly satisfactory, and that it is proposed to continue the station in the same spot for another year.

Oysters may possibly be carriers of the germs of typhoid, but up to the present no instance has occurred, as far as my inquiries show, of this disease being caused by Essex natives, and I am quite sure that it is impossible for any sewage to reach the Colchester Pyfleet oyster grounds.

OYSTERS AND TYPHOID FEVER IN ITALY.

Dr. W. Wilson, F.R.C.P.Lond., of Florence, writes: It is now many years since I first observed typhoid fever follow the ingestion of oysters. I can cite three instances which appear sufficiently conclusive. About ten years ago Mrs. S. requested me to visit one of her daughters whom I found with a tolerably high temperature. The next day the son was attacked in the same way, and a few days later a second daughter. On inquiry, it transpired that the family had been staying at Naples. Oysters formed part of the *menu* of their daily dinner. The mother did not partake of them. The eldest daughter ate them once; violent vomiting and diarrhœa followed. The three others partook of them daily; they all contracted typhoid, which went through the ordinary course, presenting no special phenomena. About the same time a lady requested me to see her daughter. I found her suffering from fever. On inquiry I found that they had been stopping at the same hotel at Naples as Mrs. S. and family, and dining daily with them. The mother had not eaten oysters, but the daughter had—another example. A party of friends went to the theatre to see an exhibition, and afterwards supped together. Oysters formed part of the repast. Two of them ate of them, and contracted typhoid fever; the others did not, and escaped. The last cases occurred at Florence.

THE PROBABILITY OF SEWAGE CONTAMINATION.

Mr. John Hollingworth, M.R.C.S. (Hull), writes: During the latter part of 1893 several cases of cholera occurred in Hull, in none of which could the most careful inquiry discover the source of infection. Most elaborate precautions had been taken to prevent the introduction of the disease by the sea going portion of the population, and as the cases occurred in different parts of the town, and amongst those who were not brought into special contact with seamen or shipping, it was considered by the authorities that we had to deal either with a recrudescence of the disease from germs introduced the previous autumn, or that in some way, possibly by means of imported articles, the poison was being introduced. I found, however, upon making special inquiries that in several cases the patient had partaken of oysters or mussels within a few hours of the onset of symptoms of the disease, and I believe that such may have been also the source of infection in some at any rate of the sporadic outbreaks which occurred in other parts of the country. The special danger with regard to oysters and mussels lies in the fact that they are most commonly eaten raw, and, in addition, the fluid contained in their shells is swallowed also. It is a very common practice amongst the poorer classes, when marketing, to purchase a plate of raw mussels, as anyone may see in our towns, particularly on Saturday nights. In order to meet the demand large quantities of mussels are imported from the Continent, where near the mouths of the tidal rivers extensive areas are devoted to the artificial cultivation of these molluscs. When we consider that the prevalence of cholera on the Continent in 1892 and 1893 must have caused contamination of almost all the rivers, we cannot be surprised that the fact of this infected sewage being carried over these growing shellfish should be a source of public danger. That diluted sewage is not in itself deleterious to oysters and mussels, and that the cholera bacillus can exist in an active condition in the fluid of oysters are proved and recorded facts. With regard, too, to the outbreak in England in 1893, I think we need not go even to the Continent for a source of danger. It is pretty well known that with the exception of a few cases of cholera imported on shipboard and arrested at the port of importation, the first native cases occurred in Grimsby, in which town the disease spread [illegible] for some weeks. During this period the [illegible] of the cholera cases ran into the sewers, and was discharged through the drain outfall into the Humber within three miles of the large oyster beds which are [illegible] at Cleethorpes. It appears to me that contamination of these beds was not a possibility only, but was almost a certainty. These oysters are despatched in large quantities regularly in the season to all parts of the country, and are [illegible] eaten largely by the trippers and visitors who in thousands frequent this favourite holiday resort every week during the season. Crabs and lobsters are free from any suspicion of danger, because they are always well boiled before being eaten. It is, in my opinion, in the consumption in the raw state of oysters and mussels that any risk arises.

THE MICRO-ORGANISMS OF SEWAGE IN RELATION TO OYSTERS.

A very interesting report on the micro-organisms of sewage has just been presented to the Main Drainage Committee of the London County Council, by Mr. Parry Laws, F.I.C., and Mr. W. F. Andrewes, M.B., M.R.C.P., which bears somewhat on the question of the relation between oysters and typhoid fever. Among the various matters to the elucidation of which the authors applied themselves was the influence of sewage upon the vitality of pathogenic organisms, especially the bacillus of typhoid fever. The micro-organisms of sewage are derived from many sources, but it would appear that its ultimate bacterial flora is only in part determined by the organisms which pass into it with its various constituents. Probably only a small portion of these ultimately survive. For some species sewage forms a favourable nutrient medium, others appear speedily to perish in it. Whether by a process of crowding out, or because the growth of certain bacteria induces changes in the sewage, of a fermentative and putrefactive character, by which it becomes unfit for the growth of some micro-organisms which had thriven in it before, it does appear that, from some cause or other, the flora of the sewage at the Barking and Crossness outfalls is very different from that of the perfectly fresh fluid as delivered into the drains. It would, therefore, not seem unreasonable to suppose that pathogenic organisms might be adversely affected by residence in sewage, and might, in fact, be thus destroyed. To elucidate this point a careful search was made for the bacillus of typhoid fever in the cultures from all the various samples of sewage which had been collected, but in only one was it discovered, namely, in that from the drain running from the fever block at the Homerton Hospital, where there were at the time 40 cases of typhoid fever the excreta of which had not been disinfected during the preceding two days. In all the other samples, even in one taken from the sewer which received the hospital drain, about a quarter of a mile further down, no typhoid bacilli were discovered.

Various laboratory experiments were also made with the object of estimating how far the vitality of the typhoid bacillus was influenced by sewage. It appeared, as the result of numerous experiments, that the bacillus typhosus was capable of slight multiplication in sterilised sewage during the first twenty-four hours only, but that thenceforwards it became gradually extinct. The presence along with it of certain non-pathogenic organisms, commonly present in sewage, appeared also to affect in some degree the rate of its extinction, but the results of these experiments, although agreeing with what Percy Frankland has shown to occur in rivers, where the pathogenic organisms diminish as the ordinary water bacteria increase, do not seem sufficiently definite to build much upon. What the experiments have shown is that sewage does not form a medium in which much if any growth is possible for the typhoid bacillus under natural conditions, and that their death is probably only a matter of a few days or at most one or two weeks.

Perhaps it was only natural that this verdict should be

taken by those interested in oyster culture as one of acquittal, and in fact not many days elapsed after its publication before it was stated in the lay press that people should be grateful to the London County Council "for having so speedily removed a delusion into which a too credulous public had been led by those entirely ignorant of the subject." If, however, the report is properly read it will at once be seen that it by no means justifies such a conclusion. Not only do the authors go on to say, regarding the persistence of the bacilli even for this short time: "This degree of resistance may, nevertheless, be sufficient to allow of their being carried in sewage to remote distances, and of their being able to produce disastrous results should they gain access to any water supply," but they also give details of their experimental methods, which go to illustrate again the futility of all attempts to prove a negative.

The authors, taking what they admit to be a purely conjectural, and what seems to us a somewhat large, estimate of the amount of sewage contributed daily by the cases of typhoid in London, conclude that there would be on the average one typhoid bacillus in $\frac{1}{10}$ c.cm. of sewage at the outfall. But the largest amount of undiluted sewage with which they had found it possible to work was only $\frac{1}{2000}$ c.cm., so that the chances of missing the organism were very considerable. That this was so is shown by some of the experiments as to the vitality of the bacillus in sterilised sewage, in which after a negative result had been obtained by cultures made in the ordinary way, typhoid bacilli could still be found in considerable numbers, when large quantities, such as 0·5 c.cm. of the undiluted sewage, were used for each plate.

What the investigation has shown is that sewage is not a favourable medium for the growth of the bacillus typhosus, and that such bacilli as gain access to it, instead of increasing, tend rapidly to diminish in number; but no proof has yet been given that they absolutely die. Not, however, that this matters very much in regard to the oysters. If it should be proved that the effluent from sewers flows over certain oyster beds or over certain places where oysters are deposited for purposes of fattening, we may be pretty sure that it arrives there well within the time during which the typhoid bacillus still retains its vitality, probably within the first twenty-four hours, during which the report shows that the bacilli are even multiplying.

It must also be borne in mind that the experiments of Giaxa show that typhoid bacilli can maintain their vitality in sea water, whether sterilised or not, for many days. As the question now stands, then, in regard to oysters, this report practically makes no difference. Any sewage which can be proved to flow over the oysters will reach them well within the time during which, according to this report, any typhoid bacilli it may contain will be in a state of full vitality. What we have, therefore, now to do is to ascertain whether sewage which may at times contain the excreta of typhoid cases does or does not pass over the oysters, or whether after they are gathered they are exposed to infection during their retail distribution. If typhoid poison is in the sewage, it certainly will live long enough to get to the oysters over which it flows.

THE SMALL-POX HOSPITAL PROVISION PROBLEM.

Official Solution.

Ever since the issue, thirteen years ago, of the report of the Royal Commission on Small-Pox and Fever Hospitals, much difficulty has been experienced in respect of the provision of hospitals for the isolation of small-pox. The danger to patients treated in the same ward as small-pox patients, but suffering from another disease, has been undoubtedly great; so, too, has been the danger when small-pox and other fevers have been under simultaneous isolation on the same site. Further, much harm has been found to accrue to populations resident in the near vicinity of hospitals used for the treatment of small-pox cases. Under these circumstances local sanitary bodies have often found it next to impossible to proceed to the erection of a hospital for infectious diseases wherein it was hoped to treat small-pox patients, either alone or together with those suffering from other infectious maladies. Their difficulty was increased by the refusal of the Local Government Board to sanction the expenditure of money raised by loan for hospital schemes which offended against the rules which accumulated evidence had shown to be necessary to be laid down. It was apparently owing to the position which local authorities felt compelled to take up in the matter of providing temporary makeshifts when small-pox was prevalent, that the Local Government Board was led to institute an inquiry some little time back into the utility of schemes for rendering small-pox hospitals harmless by burning all outgoing infected air; and we have had occasion to show that the efforts made in this direction have not hitherto attained the success which had been anticipated.

At the present time an important juncture in the history of hospital provision—when county councils are stirring under the Isolation Hospitals Act—Dr. Thorne Thorne, the medical officer of the Local Government Board, has reissued the memorandum "On the Provision of Isolation Hospital Accommodation by Local Authorities," wherein he deals with the vexed question of small-pox hospitals. He states that the distance at which these institutions may operate dangerously cannot at present be established with any degree of certainty, though it may be taken to be considerable. But, "with a view of lessening the risk of infection," he holds that no local authority should "contemplate the erection of a small-pox hospital: (1) On any site where it would have within a quarter of a mile of it as a centre either a hospital, whether for infectious diseases or not, or a workhouse, or any similar establishment, or a population of 150 to 200 persons. (2) On any site where it would have within half a mile of it as a centre a population of 500 to 600 persons, whether in one or more institutions or in dwelling houses.

"It must also be understood that even where the above conditions are strictly fulfilled, there may be circumstances under which the erection of a small-pox hospital should not be contemplated. Cases in which there is any considerable collection of inhabitants just beyond the half-mile zone should always call for especial consideration."

These regulations give a wider scope to local authorities in their endeavours to solve a difficult problem. Sites will not be hard to find fulfilling the conditions laid down, and the harm to residents within the varying radii can be reduced to a minimum by a proper administration of the Vaccination Acts. It will be well when these are entrusted to the district councils. For the rest, we do not doubt that houses will not infrequently encroach on the zones in question; but the occupants will have nothing to fear if they secure in infancy and again in later life the prophylactic which experience has shown to be almost absolutely protective against attack by small-pox when efficiently performed and once repeated.

DRY METHODS OF SANITATION.

Dr. G. V. Poore read a paper on this subject at a meeting of the Sanitary Institute on February 13th. In order to narrow the subject, and to avoid controversial matters, he assumed that there were conditions under which dry methods were alone available. Having regard, he said, to the fact that the conversion of fæces into humus was mainly due to the action of mould fungi and aërobic microbes, it was absolutely necessary that the excrement or the mixture of excrement and earth should be freely exposed to the air. It was also obligatory that there should be no excess of moisture, and it was therefore necessary that any excess of urine should be allowed to flow away, and be absorbed by earth or other absorbent material. He advocated the use of the dry catch devised by Mr. Richardson, of Clifton, in which the closet seat is raised on three steps, and the excreta dropped into a cemented "catch," freely aërated, and with a slightly sloping floor, down which the urine would flow to the opening. If a store of earth sufficient for six months were intelligently used, it would change all the excreta to humus, and would never fail, and only the surplus would have to be got rid of. The great advantage of dry methods was that when properly applied the process was continuous. When practicable, the best plan was to bury the excreta daily in shallow furrows in a well-tilled garden. The pail system was not satisfactory because the pails in use did not fulfil the necessary conditions. When empty they weighed 50 lbs., when full of water

187 lbs. The expense of moving such "putrefaction boxes" was enormous, and the contents being fluid rendered manipulation difficult and disgusting. Houses should be fitted with a dry "catch," and the solid excreta alone removed daily; the absorbent material into which the fluid flowed only needed removal very occasionally. To bury excreta deeply was a great mistake; the farmer got no benefit and the wells were endangered. In India, where the earth system was very general, typhoid fever was rife, but it was stated also that it was the practice to bury the excreta deeply in trenches. If this were so, it was conceivable that if the earth were deeply fissured by drought the torrential rains which followed would wash the excreta into the springs unchanged, because buried too deeply to be reached by the air. When the dry method was used, the excreta must not be mixed with chemical antiseptics, nor heated artificially, whereby the microbes necessary for their humification were killed.

Dr. Poore described a pan which he had devised for high-class closets. This pan had a counterpoised flap at its lower end whereby the excreta in the catch below were hidden from view and all up-draught prevented. This pan had answered well and was in use in a ladies' school. Urine was a valuable manure, but the only way to make use of it was to imitate the farmer, who employed straw as an absorbent. If kept in bulk, and especially if mixed with alkaline soapsuds, it became very foul, but if thrown on the same spot of humus day after day no offence would arise over long periods. When fresh humus was used as a filtering medium for urine the filtrate was always of much lower specific gravity than the urine added—1003 to 1024 was the maximum result—and the filtrate, which contained no urea, had no tendency to putrefy, and could be evaporated to dryness without offence. When earth which had previously been used for urine filtration was employed a second time after an interval of some weeks, the filtrate was of higher specific gravity than the urine added owing to the solution of nitrates and other soluble salts produced in the earth by the previous lot of urine. The filtrate, however, was practically free from nitrogenous matter, and showed no tendency to putrefy. When, however, the earth was sterilised by heat the filtrate had distinctly urinous qualities. Urine slowly filtered through old cement stucco coarsely pounded was changed just as in the filtration through garden mould, and a sample of filtrate prepared in this way was shown, which was indistinguishable from water, and had a specific gravity of 1001. He had advised the use of sawdust with great success in the urinal of a large railway works where 150 men were employed. It was contained in a trough having a triangular section. He had recently inspected the trough, and though the sawdust had not been changed for eight weeks, it smelt of sawdust and nothing else. He showed a sample of part of six pounds of sawdust which had been used four times in the past year (with intervals to allow of evaporation and drying) for the absorption of 64 lbs. weight of urine. This sawdust was absolutely sweet, and its power of absorbing and purifying urine seemed as great as ever. He believed that if a urinal were provided with two supplies of sawdust, one in use and the other drying in a shed, its power of dealing successfully with the urine would never cease. Peat or dry earth or any other absorbent material would answer as well. It should be kept in a receptacle made of basket work or very fine galvanised netting to admit the air, and sawdust should be stirred daily. The best sawdust to use was deal sawdust. The matter usually consigned to the "pig pail" could be disposed of by making a circle with wire netting, and throwing the kitchen refuse together with the garden sweepings into it.

Dr. Poore thought that there was a growing feeling that it was advisable to exclude typhoid excreta from the sewers or only to admit them after previous disinfection by strong chemical antiseptics. But typhoid fever was not easily diagnosed in the early stage, and the safest course was to exclude from the sewer all alvine excreta. The abandonment of the pail system by Nottingham and other towns was not due to its being sanitarily defective but because it was cumbersome, expensive, and inelegant. As to the relative expense that was a matter which had never been fairly investigated, for under the watercloset system the water and the fixtures were paid for by the householder. Water carriage was sure to be popular in cities were the citizens merely wished to be rid of matters of no use to them as individuals. An objection urged against the dry system was that the slop water would have to be treated separately. An analysis published by the Royal Commission on Rivers Pollution in 1868 was brought forward very frequently in support of this contention. This analysis compared the sewage of midden towns with those of watercloset towns, and it was urged that it showed no material difference in the quality of these two kinds of sewage. Dr. Poore said he was unable to draw any such conclusion from this analysis which was as follows:

Grains per Gallon.

	Total solids in solution.	Suspended matter. Mineral.	Suspended matter. Organic.	Total solids in solution and suspension.	Organic carbon.	Ammonia.	Total combined nitrogen.	Chlorine.
Midden towns	57.68	12.467	14.910	85.057	2.926	3.804	4.515	8.078
Water-closet towns ...	50.51	16.962	14.357	81.829½	3.237	4.692	5.410	7.462

The fact that the matter in suspension and solution in the water-closet towns was less than in the midden towns could only be accounted for by the enormous dilution of the excremental matter in the former towns. Notwithstanding the dilution, the watercloset sewage contained 20 per cent. more combined nitrogen and 23 per cent. more ammonia, and, what was very remarkable, 36 per cent. more suspended mineral matter. This increase of mineral matter in suspension, which could be caused only by precipitation by the ammonia and sulphuretted hydrogen formed by the decomposition of the albuminous and other organic matter, was a measure of the enormously increased putrefaction in the watercloset sewage, and an indication that a large quantity of putrefactive gases had been given off in the streets and houses. The watercloset caused an increase in our need for water amounting to 25 per cent., and was really only practicable when there was water under pressure. Even if it were held that the objections to the use of the dry system in towns were insuperable—and this he did not admit—it would at least be a great gain if the rural districts could learn to treat solid excreta on a wholesome system. Household slops, if not allowed to stagnate, and if their treatment were commenced on the premises, need cause no serious trouble.

In conclusion, Dr. Poore produced evidence that under his own management human excreta had proved a most valuable manure, and had produced all fruits, flowers, and vegetables in great quantities and in high perfection. At least four hundred millions of the human race had conclusively proved the same thing. The "manurial value" of organic matter was more of a biological than a chemical question, and it would be very misleading to trust too implicitly to the guidance of chemical analyses.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

Meetings of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, April 3rd, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should

apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 7th, at 5 P.M.; dinner at 5.30 P.M. Notice of the title of any communication should be sent in before the meeting. Business (after dinner): Consideration of the Bill, as approved by the Parliamentary Bills Committee, for amendment of the law relating to unqualified persons who practise medicine and surgery, in compliance with a request as notified by the said Committee in a notice which was published in the BRITISH MEDICAL JOURNAL of January 12th last, at page 87, where also may be seen the text of the said Bill. Mr. C. E. Abbott will read a paper on Scoliosis and its Treatment, upon which a discussion will be invited.—W. M. KELLY, M.D., Honorary Secretary, Taunton.

GLASGOW AND WEST OF SCOTLAND BRANCH.—This Branch will hold its winter meeting at the Victoria Infirmary on Tuesday, February 19th, at 3 P.M. The annual dinner will be held at Messrs. Ferguson and Forrester's at 6 P.M. Any members of the Association who may wish to join the Branch are requested to communicate with the Honorary Secretaries, F. FERGUS, 203, Bath Street; R. H. PAREY, Crosshill.

LANCASHIRE AND CHESHIRE BRANCH.—A special and general meeting of this Branch will be held in Liverpool about the end of February. Applications for membership, and all communications, should be addressed at once to the Honorary Secretary, JAMES BARR, M.D., 72, Rodney Street, Liverpool.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting of this Branch will be held at Aberdare on Thursday, February 28th. Members desirous of reading papers, etc., are requested to communicate with Dr. Sheen, Cardiff, not later than February 12th.—A. SHEEN, M.D., and D. ARTHUR DAVIES, M.B., Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place at Maidstone on Friday, March 15th, Dr. F. J. Plomley in the chair. Gentlemen who wish to read papers or exhibit specimens are requested to communicate with the Honorary Secretary not later than February 21st.—EDWARD GROUND, Honorary Secretary, 1, Ashford Road, Maidstone.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at the Town Hall, Hackney, on Thursday, February 21st, at 8.30 P.M. The chair will be taken by Dr. Daly, Vice-President of the District. Agenda: Minutes of last meeting. Letter from Mr. Dickson. Letter from East Kent District, South-Eastern Branch. Mr. Swinford Edwards will read a paper on Some Improvements in the Treatment of Rectal Disease. Visitors will be cordially welcomed.—H. E. POWELL, Honorary Secretary, Glenarm House, Upper Clapton.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the Swan Hotel, Stafford, on Thursday, February 28th. The President, Dr. Charlesworth, will take the chair at 3.30 P.M.—GEO. REID, Honorary Secretary, Stafford.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—An ordinary general meeting of the Branch will be held in Milnes' Library, Union Street, Aberdeen, on Wednesday, February 20th, at 8 P.M., the President, Professor Stephenson, in the chair. Business: Minutes, Nominations, etc. Professor Stephenson: The Ethical Aspects of the Pharmacy of To-day. Professor Finlay: Two Cases of Renal Disease, with specimen. Professor Ogston and Dr. Don: A Case of Diphtheria treated by Antitoxin.—C. THISELTON URQUHART, and J. SCOTT RIDDELL, Honorary Secretaries, Aberdeen.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE 124th general meeting of this Branch was held on December 7th, 1894, at the Royal Society's Room, Sydney; Dr. CRAGO, President, in the chair. Forty-seven members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—The election of the following new members was announced by the PRESIDENT: Drs. A. Andrews, Albury; J. Colpe, Sydney; F. G. Connor, Lismore; A. E. Cox, Forbes; R. F. Ferguson, Newcastle; W. Fox, Narandera; T. A. Green, Marrickville; H. E. Lee, Gunnedah; H. L. Maitland, Sydney; Thos. Matthews, Nowra; John Morton, Camden; R. McKillop, Goulburn; Chas. Patrick, Marrickville; H. R. H. Peare, Leichhardt; Walter Spencer, Enmore; G. P. Stanley, Blackheath; S. H. Schrader, Sans Souci; W. H. Tibbetts, Gunning; Harry Tresidder, Dubbo; Caleb Terry, Kiama; T. Wood Lee, Wollongong; J. Ashburton Thompson, Sydney; Chas. H. Maher, Burwood; W. Gordon Cumming Smith, Ryde.

Letters.—The following letters were read by the HONORARY SECRETARY: From Dr. Odillo Maher, Dr. Sydney Jones, and Dr. C. J. Weekes acknowledging receipt of letters of sympathy from the Branch; from Dr. T. A. Green, relative to a certain paragraph appearing in the *Weekly Review;* from the Secretary of the Faculty of Physicians and Surgeons of Glasgow *re* Dr. Elmslee's advertisement; and from Dr. W. C. Wilkinson, apologising for his absence from the meeting and his inability to read his paper.

Registration of the Branch.—Dr. HUXTABLE proposed:

That the Council be empowered to take all the necessary steps for registration of the Branch under the Companies Act.

This was seconded by Dr. FIASCHI, and, after discussion by Drs. QUAIFE, E. FAIRFAX ROSS, KENDALL, and Professor STUART, carried.

Communications.—Dr. CLUBBE read some notes on a case of Operation for Abscess of Brain; the patient was exhibited.—Dr. BARKAS read notes on a case of Habitual Abortion treated by Potassium Chlorate.—Dr. CLUBBE read a paper on the Diagnosis of Diphtheria. Drs. QUAIFE, SCOT SKIRVING, CRAGO, and Professor STUART discussed the paper.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

A SPECIAL meeting of this Branch was held on January 31st, Mr. H. LANGLEY BROWNE, President, in the chair; 34 members were present.

Amendment of Medical Acts.—The Committee appointed to consider the draft Bill to amend the Medical Acts presented their report. They recommended that the Branch should express the opinion that no amendment of the law would be satisfactory which did not include effectual provisions for the suppression of such unqualified practice. Dealing with the clauses separately, the Committee approved of Clause 1, but would prefer to see a shorter list of titles and descriptions, with less pretension to comprehensiveness, if such a notorious example as "bonesetter" was to be deliberately omitted. In Section B the word "name" should be inserted on the first line after the word "title," so as to bring it into harmony with the words quoted in Clause 3. The definition of unqualified persons in Clause 2 was approved, but Section C needed the addition of the words "in the United Kingdom" after the word "registration," while the remainder of the sentence should be left out. Clause 3 was quite satisfactory. With regard to Clause 4, which permitted prosecutions to be undertaken by the General Medical Council, by its Branch councils, or by any of the medical corporations (defined as those mentioned in the Medical Act of 1886), or by any private person, the Committee was of opinion that it would be wiser to make the consent of one of the aforesaid bodies necessary before any private person could institute a prosecution under the Act. With regard to Clause 6, which exempted from the penalties certain persons, for example, strangers merely visiting in this country, or persons who did not intend to practise, the Committee recommended that only those should be exempted who did not practise, or intend to practise, in the United Kingdom. It was proposed by the PRESIDENT and seconded by Dr. SAUNDBY that the report be adopted. After some discussion this was carried *nem. con.*

[A report of the proceedings with reference to the registration of midwives will be found at p. 387.]

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE quarterly meeting of this Branch was held on January 31st, at the Ryde Pier Hotel. The PRESIDENT (Mr. C. Meeres, of Sandown) in the chair.

Amendment of the Medical Acts.—A resolution was carried expressing approval of the direction of action proposed in

the draft Bill to suppress irregular practice, but asking for further opportunity for consideration of the details of the draft Bill.

Communication.—A paper was read by Dr. E. M. Shirtliff on Sore Throat as affecting pharynx and tonsils. The catarrhal sore throat leading to chronic and granular follicular, the constitutional sore throat, gouty, rheumatic, and so on, phlegmonous, hospital, and drain throat, herpetic, fungous, and exanthematous were rapidly sketched out with appropriate treatment, constitutional and local. Time not permitting, that part of the paper devoted to tonsillar affections was left over.

SPECIAL CORRESPONDENCE.

PARIS.

The New President and the Paris Hospitals.—Epidemics in France.—Medico-Legal Examination of Prisoners.—Typhoid Fever and Fatigue.—The Watering of Wine.—"La Mutualité Maternelle."—The Madagascar Expedition.—Burial Grounds and Dwellings.—The Hanoi Hospital.—Penalty for Selling Diseased Meat.

M. Felix Faure, the new President of the French Republic, recently visited the St. Antoine Hospital. He gave £20 in order that the patients should be better fed. He announced his intention of visiting the Paris Hospital.

According to M. Henri Monod, during the last week there has not been a single case of typhoid fever notified. The Prefect of the Loire has notified that the epidemic of typhoid fever which broke out in December, and caused many deaths, had died out; disinfection and the sanitary precautions prescribed by the consulting committee were practised. The municipality takes care that the streets, courts, and gutters are kept clean. It has also taken measures that water is not contaminated. The principal Lyons Seminary, where priests are educated, is closed in consequence of an epidemic of influenza prevailing in that city.

M. Henri Monod, Director of the Assistance Publique, has published a book dealing with the question of the medico-legal examination of criminals. M. Monod has ascertained that from 1886 to 1890 600 lunatics had been sentenced to different punishments; these sentences would have been avoided had the culprits been previously medically examined.

Dr. Constans, of Montpellier, having carefully studied the effect of fatigue on the pathogeny of typhoid fever, has come to the conclusion that it is an important factor in the evolution of that disease, and especially so in hot climates. A great many army medical officers have called attention to the necessity of saving soldiers from undergoing all avoidable fatigue. He mentions as an example worthy of imitation the precaution adopted by the English in their Ashantee campaign of giving a "boy" to each man to carry his knapsack and his provisions. Dr. Constans urges that the soldiers selected for active service in hot climates should not be younger than 25 or 26. During the Dahomey campaign 80 per cent. of the infantry soldiers were invalided home, and only 45 per cent. of the foreign legion.

Seventeen winesellers were recently proceeded against for selling wine which, on analysis by the chemical staff of the Paris Municipal Laboratory, was reported to be mixed with water. The experts called in by the tribunal, after analysis of the incriminated samples, reported against fraud, declaring that wine "to be legal and saleable." The court, therefore, acquitted them. During a discussion in Parliament on "Watering Wines," M. Berthelot, the celebrated chemist, declared that he defied any laboratory to establish the exact quantity of water in a natural wine. M. Berthelot believes that the chemists of the municipal laboratory simply deceive themselves concerning the certainty of their methods. The authorities of the municipal laboratories were ignorant of the acquittal before it was reported in the daily papers. On being interviewed they made the following statement: During eight years we endeavoured to show that the pepper consumed in Paris is half pepper and half-ground olive stones. Notwithstanding conclusive proof it was impossible to succeed more rapidly. The same tactics are now being used with regard to wine. Their analyses are as rigorously exact as a chemical analysis can be, and agree with those of the wine syndicate; it is testing that decides the question. The laboratory sends in the note, "This wine is watered;" the syndicate chamber, "Small wine watery and weak."

La Mutualité Maternelle held its annual meeting not long ago. A subscription of 5d. a week—now reduced to 2½d. —assures to the subscriber at a nominal price medical attendance during her confinement; for a month after confinement she receives the sum she could have gained at her work. If she suckles her child she receives 20 francs. Medical advice is gratuitous; drugs are 20 per cent. cheaper than at a chemist's. There are special homes for convalescent patients.

The vessel *Nôtre Dame du Salut*, formerly used for conveying pilgrims to the Holy Land, has been prepared to form part of the expedition to Madagascar. The hospital on board the ship will contain twenty-four beds, a freezing apparatus, and a second distilling apparatus. L'Union des Femmes de France has voted £400 for medical comforts to be sent out to Madagascar, and £20 to be distributed among the victims of the recent tempests and avalanches.

According to the law, burial grounds should be at a distance of 38 metres from towns and villages. The State Council (Conseil d'Etat) has been appealed to by a private person to interpret the decree above alluded to, because his house is situated at a distance less than 38 metres from the cemetery; the Council considers that the law applies only to an agglomeration of houses and not to an isolated house.

The Hanoi Hospital (Tonquin) has been officially inaugurated. It is a splendid building, containing 300 beds. It is composed of three blocks of buildings, besides several outhouses. It is on the banks of a stream; the view is splendid. The sanitation is reported to be excellent, and the ventilation so good that even in summer the rooms are airy and fresh.

A butcher at Abbeville has been condemned to two years imprisonment for providing soldiers with bad meat, resulting in the death of several of the men. The parents of one of the victims proceeded against the fraudulent butcher, and obtained £40 damages and a yearly pension of £20 for life.

ROME.

The Closure of the University of Naples.—Dr. Behring in Rome. —Tuberculin and Mallein.—General News.

The academic year of the University of Naples was closed on January 29th by a decree of the Minister of Public Instruction. This extreme step was necessitated by the continuance of disturbances, due chiefly to political causes, among the students of the various faculties. These political tumults have been very frequent in nearly all the Italian universities for several years. The reason the students give for their behaviour is that Professor Baccelli will not grant a spring session of examinations this year as was done last year by his predecessor in office, Signor Martini. It appears, however, that Baccelli has not the power, even if it were desirable, to accede to this request owing to a circular issued by his predecessor. The disturbances began early last month, and despite the kindly advice of the professors, the warnings of the Rector and the Academic Council, and the threats of the Minister they increased to such an extent that the authorities lost all control over the students. The question has been freely discussed in the Italian papers during the last week or two, as has also the best remedy to check this growing evil. Many of the soundest thinking people in this country consider the best means to adopt would be to establish autonomous government in the universities—an idea which Professor Baccelli is said to hold very strongly. A meeting of the Naples professors was held to consider what steps should be taken, and it was decided that a Commission elected from themselves should be sent to Rome to ask the Minister to rescind the decree. Accordingly on February 8th Professor Baccelli had an interview with them, and he declared that the reopening of the university was impossible. He proposed, however, that those students who were ready to declare on their honour and in writing to the Rector that they had not taken part in the disturbances should be given a

special ticket, which would readmit them to the university schools.

Dr. Behring was here lately, and had interviews with Professors Pagliani and Celli with reference to his antitoxin treatment for diphtheria. Accompanied by Professor Celli he paid a visit to the most important aqueducts, the Cloaca Maxima, and the new collectors for the sewage of the city, which run along both banks of the Tiber, and convey the sewage into the river some two miles below the city. Dr. Behring was enthusiastic about the perfection of the works both from an artistic and sanitary point of view. He also expressed himself as being highly pleased with the Institute of Experimental Hygiene, and the bacteriological work that is being done there under the direction of Professor Celli.

The Director-General of Public Health has sent a circular to the Prefects of the Italian provinces, in which he states that being convinced of the utility of introducing into general use the diagnostic means for recognising in domestic animals tuberculosis and glanders, he has therefore provided that the State Vaccine Institute should prepare supplies of tuberculin and mallein. These fluids will be sent to public authorities, medical practitioners, and veterinary surgeons by making a request to the Minister of the Interior.

Dr. Marchiafava, Professor of Pathological Anatomy in the University of Rome, and one of the leading physicians in the city, has been made a Commendatore of the Crown of Italy.

Following the election of Professor Baccelli as a member of the Harveian Society, the Italian medical papers again mention with satisfaction the election of Dr. Luigi Luciani, successor of Moleschott, to the Chair of Physiology in the University of Rome, as a corresponding member of the London Neurological Society, in the place of the late Dr. Brown-Séquard.

CORRESPONDENCE.

REGIUS PROFESSORSHIPS AT THE OLDER UNIVERSITIES.

Sir,—The Regius Professorships of Medicine in the Universities of Oxford and Cambridge are at present in a unique position which, it is to be hoped, will be prevented from occurring again.

Though technically the heads of the faculty of physic, Professors Burdon Sanderson and Clifford Allbutt have not the slightest connection with either the Radcliffe Infirmary or with Addenbrooke's Hospital. This anomalous and false position of the Regius professors is the more striking inasmuch as the presumably subordinate posts of the Lichfield Lectureships on Medicine and Surgery at Oxford and the Downing Professorship of Medicine at Cambridge are vested in active members of the hospital staffs.

Some years ago Sir H. Acland, who was Consulting Physician to the Radcliffe Infirmary, brought a motion before the governors of that charity to provide that in future the Regius Professor of Medicine should *ex officio* have a certain number of beds for teaching purposes; this disinterested suggestion, however, did not meet with the approval of the governing body. The recently elected professor, therefore, is one only of the theory of medicine, and has no possible opportunity of teaching the practice of his profession; not only this, but there is the serious drawback that the practical work of the second (or final) M.B. can only be held in the Radcliffe Infirmary subject to the goodwill of the staff and governors. This necessitates the appointment of some of the staff as examiners, for which post they may or may not be specially eligible. Again, in a university town there is always a danger of the town party taking up its stand against the "gown" and thwarting its proceedings.

Since his appointment to the chair vacated by Sir George Paget's death in 1892, Professor Clifford Allbutt has been in a position that would be a difficult one for most men, namely, that of having to make bricks without straw. How can a clinical physician teach without cases or wards to draw from? Cambridge thus loses the benefit of Professor Clifford Allbutt's extensive practical experience and knowledge of medicine. This is a matter for serious regret, as out of the large number of medical students a certain proportion stop up for a year after passing the second M.B. (Anatomy and Physiology), and begin medical and surgical ward work in their Alma Mater. Although it is not advisable for a student to spend more than one year of clinical study at Cambridge, very great benefit results from such an introduction, as Professor Humphry's numerous pupils would testify with no uncertain voice.

It is improbable that the governing body of Addenbrooke's Hospital, if strongly urged by the medical officers of the hospital to grant some such facilities to the Regius Professors would afford any strong opposition. As was noticed in the British Medical Journal of February 9th, p. 342, the question has now been brought forward by the University, and it is to be hoped that some arrangement, such as that which obtains in the University of Edinburgh, for example, where the Professor of Medicine *ex officio* has wards in the Royal Infirmary, will be put on a permanent basis.—I am, etc.,

M.A., F.R.C.P.

A UNIVERSAL LANGUAGE FOR MEDICAL MEN.

Sir,—If we are to adopt one language for international intercourse between medical men both for speech and for written communication, the first condition is that we should be eventually intelligible. Holding with those who consider Latin to be most universally available for men of education, it will be necessary that our schoolmasters and tutors should, without delay, adopt a pronunciation of the vowels, at least, in accordance with that of all Continental nations; for Latin spoken in the ordinary English way would be simply unintelligible to a Frenchman, German, or Italian. Greek, modern or ancient, of course is out of consideration in this respect for more reasons than one; although the grammar of modern Greek is much easier to acquire than that of the ancient writers, Greek vowels, diphthongs, and several consonants are pronounced quite differently from that in vogue in England or in western nations.

The "spirit of the times" has during the last thirty years thrown discredit upon ancient languages, although our civilisation is in a great measure based upon them and upon what they teach. If now there is to be a move in the opposite direction, let us hope that our great institutions—and in this connection I particularly advert to the Royal College of Physicians—may redintegrate to practical employment of Latin, and thus promote the object of those who advocate its use as an international means of communication between medical men. Some years may elapse before our educational corporations will adapt themselves to such requirements, but no practical or insurmountable difficulties suggest themselves. Let every public school engage an Italian to teach masters the pronunciation of Latin, and one day's practice ought to revolutionise the present method. Let anyone who doubts the adaptability of Latin to modern views read Erasmus's *Familiaria Colloquia*. The addition of the technical medical terms with which his ordinary professional training makes him acquainted will fit the young physician for the employment of Latin for international professional intercourse as well as for occasional useful interchange of opinion at the bedside.—I am, etc.,

Manchester Square, W., Feb. 12th. Edward H. Sieveking.

Sir,—What need of Latin when by natural evolution English is becoming the most wide-spoken language on earth? Far too many papers appearing in the British Medical Journal are spoilt by verbosity and the use of newly-coined words, which savours greatly of pedantry. Many, like myself, would be only too pleased to see future writers use good English, be short, terse, and to the point.—I am, etc.,

Pocklington, Feb. 9th. Alex. D. H. Leadman.

THE REPORT OF THE LONDON TEMPERANCE HOSPITAL.

Sir,—Referring to your review of my report upon the cases treated in the London Temperance Hospital during the year 1893, I should be much obliged if you would kindly allow me to state that, with the exception of the two cases specifically mentioned, all the cases were treated without alcohol in

any form, or the use of any drug in which alcohol is a constituent —I am, etc., Leonard Wilde, M.D., M.R.C.P.,
Hampstead Road, Feb. 12th. Registrar and Pathologist.

THE NEW HOSPITALS OF THE METROPOLITAN ASYLUMS BOARD.

Sir,—£700,000 or £800 000 is no small sum for one Board to expend on new establishments, but this is something like the figure that the Asylums Board is contemplating disbursing on new fever hospitals. It might be as well before entering upon such a large outlay to look around and see what existing buildings might be utilised for the Asylums Board purposes. All who read the articles on the up-bringing of pauper children which were published in the British Medical Journal in the spring of last year, and which had so great an influence in bringing about the appointment of the Departmental Committee now sitting to inquire into the Poor-law schools, must be aware that all expert opinion concurs in denouncing the practice of housing large numbers of children in one building.

It is understood that the Local Government Board has stopped or deferred all action which immediately affects these schools until such time as the Committee issues its report, but it might be as well for the department to go a step further, and to defer the erection of some of the buildings contemplated by the Asylums Board until it can be seen whether there are any of the pauper school palaces that are available, and could be adapted as fever hospitals. Most of these establishments are well equipped as far as steam laundries, kitchen appliances, and dormitory furniture are concerned; and as they are, almost without exception, placed in good air, on suitable soil, and within reasonable distance from London, they have the three essentials for a refuge for the infected.

There are cases when the governing bodies of kindred institutions are not identical, as, for instance, that of certified schools, which can be under either the Home Office, the School Board, or the Local Government Board. In such cases the transference of property might be difficult, but in this instance the Local Government Board is master of the establishments under the Asylums Board as well as the institutions of the Poor Law, and it would seem to be merely a question of organisation to hand over the large buildings which are necessary to carry on the work of one of its committees, and to relieve the other from erections which are declared to be *de trop*, and which must be paralysing to a progressive and an educationally enlightened board of guardians.—I am, etc., Opportunist.
January 31st.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SIGN BOARDS.

In reply to a correspondent in the British Medical Journal of November 10th, 1894, page 1084, we stated in a paragraph under this heading that the description forwarded to us "of the proceedings of Mr. Alex. Macdonald had, in our opinion, better be referred to the Royal Colleges of Physicians and Surgeons, Edinburgh, of which the practitioner is stated to be a Licentiate." Mr. Macdonald is aggrieved at this suggestion. He asserts—and we are quite willing to accept the assertion—that he has, in the method in which he announces his name to the public, only followed a very general custom of the Scotch city in which he resides. We recognise that custom in such matters varies in different countries and even in different towns, and that the individual practitioner who follows general custom does not deserve individual censure. It was for this reason that we suggested that the descriptive sketch which we received should be submitted to the authorities of the Scottish Medical Colleges. These Colleges are the proper bodies to decide upon a question of this nature, and we think they would be well advised to investigate such matters, and, after ascertaining the custom in other countries, to take such action as may seem best to draw the attention of their licentiates as a body to the asserted peculiarities in some respects of Scottish methods. We regret that Mr. Macdonald's name should have been referred to as meriting individual censure.

ASSISTANT'S NOTICE.

Unwritten writes: Would you kindly inform me, through your issue of this week's British Medical Journal, if there is an unwritten law, or is it a breach of professional etiquette, for an assistant who has given six months' notice to inform his friends of the same two months before he leaves?

*** There is no written or unwritten rule within our knowledge which relates to the question submitted by our correspondent; nor does the subject thereof constitute a breach of medical etiquette. Such a prohibition, moreover, is, in our opinion, neither medico-ethically-essential nor expedient.

CHEMISTS AND SURGICAL WORK.

M.B., F.R.C.S.Ed. inquires whether any steps can be taken to prevent chemists from doing surgical work, and alludes to a case where a chemist put stitches into a scalp wound.

*** We fear there is practically no legal means of preventing surgical practice on the part of a chemist, provided he makes no pretence to be a surgeon. Of course, if injury is caused to the patient by improper treatment, legal proceedings might be taken by such patient in the form of an action for damages. In the event of death resulting from the negligent treatment of a patient, proceedings of a more serious character would probably lie, as it has been held that every person who deals with the life or health of anyone is bound to use competent skill.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Anthropology.—Professor Macalister announces a new course of lectures with practical work in anthropology, to be given by Mr. A. C. Haddon on Thursday during the Lent and Easter terms.

Dr. Dohrn's Station.—Mr. M. Laurie has been appointed to occupy the University's table in the Naples Zoological Station for three months from March 1st.

Honorary Degree.—The degree of Sc.D. *honoris causâ* is to be conferred on Sir William MacGregor, M.D.Aberd., K.C.M.G., Administrator British New Guinea, in recognition of his able services to ethnography.

Electors.—Dr. Allbutt has been appointed an Elector to the Chair of Anatomy, Dr. A. Macalister to the Chairs of Medicine (Downing) and Surgery, Dr. Gaskell to the Chair of Pathology, Dr. D. MacAlister to the Chair of Zoology.

UNIVERSITY OF LONDON.

Preliminary Scientific (M.B.) Examination, Pass List.—*Entire Examination.* First Division: L. F. Keays, St. Paul's School and private tuition; C. E. M. Kelly, Owens College; P. T. Manson, University Tutorial College; F. A. C. Oswald, B.A., private study; T. Petch, B.A., private tuition; T. Shopland, B.A., University Tutorial College and private study; Ethel Miller Vernon, University Tutorial College. Second Division: A. C. Coffin, B.A., private study; D. L. Davies, private study and University Tutorial and University Colleges; H. A. Easton, private study and University Tutorial College; H. A. Ehrlich, Owens College and private study; T. Hoban, private study and St. Thomas's Hospital; G. C. Jarvis, B.A., private study; W. H. P. Jones, B.A., private study and University College, Liverpool; S. Kevern, B.A., Plymouth Technical School; E. Raven, St. Thomas's Hospital; D. P. Rockwood, University College and Gower Street Laboratory; J. S. Smith, University College; B. H. Spilsbury, Owens and University Tutorial Colleges; W. A. Trumper, St. Mary's Hospital; Louisa Woodcock, University Tutorial College.

Chemistry and Experimental Physics.—*J. W. Aldred, Owens College; J. J. Armitage, School of Science, Cheltenham; *N. C. Beaumont, St. Bartholomew's Hospital; *V. C. Bensley, St. Mary's Hospital; *Chrn. Constance Bernard, private tuition; W. B. Billinghurst, Merchant Taylors' School; T. T. Blythe, University Tutorial College; F. A. Boissière, King's College; *C. R. Brown, St. Bartholomew's Hospital; *W. L. Burd, private study; *H. S. Capper, private study and University Tutorial College; *W. C. Dawson, King Edward High School, Birmingham, and Mason College; *H. G. Drake-Brockman, University Tutorial College; A. G. Edy, Durham College of Science and St. Bartholomew's Hospital; *C. E. Etheridge, University Institute; *W. H. Flint, Mason College; *H. B. Foster, private study; *H. Goodman, St. Bartholomew's Hospital and private tuition; *E. L. Gowlland, University Tutorial College; *S. B. Green, St. Bartholomew's Hospital; *J. W. Harrison, St. Paul's School and University Tutorial College; *E. B. Hickinbotham, King Edward High School Birmingham; A. G. Hill

T. D. Miller, University and University Tutorial Colleges and private tuition; *Christine Mary Murrell, University College; *W. P. Noall, Owens College and private study; *H. R. Nutt, St. Mary's Hospital; *S. J. Ormond, Guy's Hospital; *R. H. Paramore, University Tutorial College; J. W. G. Pearse, the Leys School and private tuition; *L. Pick, University Tutorial College; A. R. G. Pocock, University College and private tuition; *A. C. Ransford, Dulwich College and Guy's Hospital; *H. Robinson, St. Paul's School; *J. J. S. Scrase, St. Bartholomew's Hospital; Edith Serjeant, Somerville Hall, Oxford; *P. T. H. Stedman, private study and tuition; S. Stevens, Carlyon College; *E. W. D. Swift, Firth College; *R. C. Turnbull, Yorkshire College and London Hospital; *H. J. Van Praagh, St. Mary's Hospital; S. E. J. Wallbridge, St. Mary's Hospital; *W. B. Watson, St. Mary's Hospital; H. Wolstenholme, University College and private tuition.

*These candidates have now completed the examination.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary examinations and having conformed to the by-laws and regulations, have been admitted Members of the College, namely:

Andrews, H. A., L.R.C.P.Lond.
Ashton, J., L.R.C.P.Lond.
Astbury, T., L.R.C.P.Lond.
Badcock, E. R., L.R.C.P.Lond.
Bagshawe, A. W. G., L.R.C.P.Lond.
Barber, M. C., L.R.C.P.Lond.
Barford, P. C., L.R.C.P.Lond.
Barker, G. C., L.R.C.P.Lond.
Barrett, J. W. C., L.R.C.P.Lond.
Best, F. H. de G., L.R.C.P.Lond.
Bloomfield, H. W. G., L.R.C.P.Lond.
Bousfield, A., L.R.C.P.Lond.
Brakenridge, F. J., L.R.C.P.Lond.
Brewerton, E. W., L.R.C.P.Lond.
Bromet, E., L.R.C.P.Lond.
Brooks, W. P., L.R.C.P.Lond.
Bryant, C. H., L.R.C.P.Lond.
Burrell, L. C., L.R.C.P.Lond.
Candler, G., L.R.C.P.Lond.
Chapman, W., L.R.C.P.Lond.
Charsley, G. W., L.R.C.P.Lond.
Christmas, R. W. S., L.R.C.P.Lond.
Clay, D. L., L.R.C.P.Lond.
Clay, F. E., L.R.C.P.Lond.
Cole, G., L.R.C.P.Lond.
Collier, H. W., L.R.C.P.Lond.
Collings, D. W., L.R.C.P.Lond.
Connell, W. T., L.R.C.P.Lond.
Constable, J. C., L.R.C.P.Lond.
Cotter, G. E. W., L.R.C.P.Lond.
Crossley, R., L.R.C.P.Lond.
Cummings, A. P., L.R.C.P.Lond.
Cunliffe, T. V., L.R.C.P.Lond.
Currey, H. F. N., L.R.C.P.Lond.
Daniel, E. G. C., L.R.C.P.Lond.
Davidson, G., L.R.C.P.Lond.
Davis, H. J., L.R.C.P.Lond
Dawes, C. D., L.R.C.P.Lond.
Dillon, R. W., L.R.C.P.Lond.
Dockray, J. S., L.R.C.P.Lond.
Duke, R. B., L.R.C.P.Lond.
Eder, M. D., L.R.C.P.Lond.
Ensor, C. A., L.R.C.P.Lond.
Escombe, W., L.R.C.P.Lond.
Evans, E. G., L.R.C.P.Lond.
Every-Clayton, L. E. V., L.R.C.P.L.
Finch, H. J., L.R.C.P.Lond.
Flint, T. B., L.R.C.P.Lond.
Forrester, W., L.R.C.P.Lond.
Fry, A. C., L.R.C.P.Lond.
Gibbes, L. N., L.R.C.P.Lond.
Giles, L. T., L.R.C.P.Lond.
Greenway, C. M., L.R.C.P.Lond.
Greenwood, A. C., L.R.C.P.Lond.
Hampton, T., L.R.C.P.Lond.
Hancock, G. C., L.R.C.P.Lond.
Handley, W. S., L.R.C.P.Lond.
Harding, L. N., L.R.C.P.Lond.
Hayes, R. H., L.R.C.P.Lond.
Hedges, C. E., L.R.C.P.Lond.
Henderson, R., L.R.C.P.Lond.
Hinds, L., L.R.C.P.Lond.
Hodge, A., L.R.C.P.Lond.
Home, A. L., L.R.C.P.Lond.
Hooper, A. W., L.R.C.P.Lond.
Horner, W. E. L., L.R.C.P.Lond.
Horseman, F., L.R.C.P.Lond.
Horton, J. H., L.R.C.P.Lond.
Horwitch, D., L.R.C.P.Lond.
Hosford, J. S., L.R.C.P.Lond.
Hughes, B. M., L.R.C.P.Lond.
Hughes, R., L.R.C.P.Lond.
Hughes, R. T., L.R.C.P.Lond.
Hugo, J. H., L.R.C.P.Lond.
Jackson, F. S., L.R.C.P.Lond.
Jacob, F. H., L.R.C.P.Lond.
James, S. P., L.R.C.P.Lond.
Jeffery, C. C., L.R.C.P.Lond.
Jones, R. L., L.R.C.P.Lond.
Kearney, C. J., L.R.C.P.Lond.
Kettlewell, G. B., L.R.C.P.Lond.
Knight, H., L.R.C.P.Lond.
Leon, G. A., L.R.C.P.Lond.
Levy, O. L., L.R.C.P.Lond.
Lewis, G., L.R.C.P.Lond.
Lonnon, F., L.R.C.P.Lond.
Mackintosh, J. S., L.R.C.P.Lond.
Mansergh, W., L.R.C.P.Lond.
Mathews, C., L.R.C.P.Lond.
Mayne, W. S., L.R.C.P.Lond.
Messiter, F. G., L.R.C.P.Lond.
Milward, F. V., L.R.C.P.Lond.
Morison, H. B., L.R.C.P.Lond.
Morrison, A., L.R.C.P.Lond.
Morrison, D., L.R.C.P.Lond.
Newington, C. W. H., L.R.C.P.Lond.
Norris, F. B., L.R.C.P.Lond.
Olver, R. S., L.R.C.P.Lond.
O'Malley, E. D. J., L.R.C.P.Lond.
Osborn, E. C., L.R.C.P.Lond.
Parkinson, W. G., L.R.C.P.Lond.
Pern, H., L.R.C.P.Lond.
Phillips, J., L.R.C.P.Lond.
Porter, R. I., L.R.C.P.Lond.
Power, H. R., L.R.C.P.Lond.
Quait, A. W., L.R.C.P.Lond.
Reeves, A., L.R.C.P.Lond
Rigby, H. M., L.R.C.P.Lond.
Roberts, C. D. D., L.R.C.P.Lond.
Robertson, F. W., L.R.C.P.Lond.
Robinson, C. H. J., L.R.C.P.Lond.
Robson, T. S., L.R.C.P.Lond.
Rogers, F. E., L.R.C.P.Lond.
Rost, E. R., L.R.C.P.Lond.
Rykert, A. F., L.R.C.P.Lond.
Salter, A., L.R.C.P.Lond.
Schuller, A., L.R.C.P.Lond.
Sharpin, W. A., L.R.C.P.Lond.
Shepherd, A. E., L.R.C.P.Lond.
Smith, G. U., L.R.C.P.Lond.
Snoad, P. E., L.R.C.P.Lond.
Stenhouse, J. W., L.R.C.P.Lond.
Stokes, F. W., L.R.C.P.Lond.
Stokes, E. G., L.R.C.P.Lond.
Sullivan, D. V., L.R.C.P.Lond.
Taylor, H. S., L.R.C.P.Lond.
Thomas, T. M., L.R.C.P.Lond.
Tinley, W. E. F., L.R.C.P.Lond.
Tregenza, W., L.R.C.P.Lond.
Waite, J. E., L.R.C.P.Lond.
Watts, B., L.R.C.P.Lond.
Webb, A. L.A., L.R.C.P.Lond.
Weeks, C. C., L.R.C.P.Lond.
Welch, E., L.R.C.P.Lond.
Wells, T. H., L.R.C.P.Lond.
White, A. T., L.R.C.P.Lond.
Williams, R. B., L.R.C.P.Lond.
Zumbado, F., L.R.C.P.Lond.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen having passed the necessary examinations, have been admitted, by the two Royal Colleges, Diplomates in Public Health:

Ferrand, E. (Surgeon-Major Madras Army), M.R.C.S.Eng., L.R.C.P. Edin.
Gill, J. W., L.R.C.P.Lond., M.R.C.S. Eng.
Meadows, R. T., M.D.&C.M.Edin.
Moore, S. G., M.B.&Ch.B.Vict.
Newton, H. W., L.R.C.P.Lond. M.R.C.S.Eng.
Paine, A., M.B.&B.S.Lond.
Helby, E. H., L.R.C.P.Lond., M.R.C.S. Eng.
Jones, G., M.B.&B.Ch.Oxon., L.R.C.P. Lond., M.R.C.S.Eng.
Jones, R. F. H., L.R.C.P.Lond., M.R.C.S.Eng.
Paine, C., M.B.Lond.
Russell, W., M.B.&C.M.Aberd.
Simmons, H., M.B. & B.S.Durh., L.R.C.P.Lond., M.R.C.S.Eng.
Wilkes, G. A., L.R.C.P.Lond., M.R.C.S.Eng.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

ON Friday, February 1st, the President admitted to the Licences in Medicine and Midwifery the following candidates who have been successful at the Final Examination held in January, 1895, under the Conjoint Scheme with the Royal College of Surgeons in Ireland:

A. St. L. Burke, T. Cairns, M. A. Corcoran, M. Delany, J. Fleming, W. A. Gordon, R. D. Jephson, T. J. Jordan, H. G. Martin, W. F. A. M'Cann, W. Stratton, J. H. Walsh.

Mr. G. S. Davidge, who had passed the Final Professional Examination in October, 1894, but who was not then of age, was also admitted.

Mr. J. H. J. L. Davys, not yet being of age, was not admitted, although he had passed the Final Professional Examination in January.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

The Poor Laws.—Mr. SHAW LEFEVRE having informed Mr. Howell that the Government would not be able to bring in a Bill to consolidate the Poor Laws during the present session, Mr. HOWELL gave notice that he would call attention to the subject at an early date.

Alleged Increase of Insanity.—In reply to a question by Dr. KENNY, Mr. ASQUITH said that much information on this subject had been received through the Foreign Office, but had not yet been digested. He questioned the necessity or expediency of appointing an international commission.—Mr. MORLEY said the Board of Control in Ireland was making every exertion to overtake the crowding in many Irish district lunatic asylums.

Indian Opium Commission.—In reply to Mr. J. ELLIS, Mr. H. H. FOWLER said that the Opium Commission had for some weeks been working unremittingly at the preparation of their report. He had every reason to believe that it would be issued before Easter.

The Tuberculosis Commission.—In answer to Mr. FIELD, Mr. CHAPLIN, and Mr. KNOWLES, Mr. SHAW LEFEVRE said that he regretted the delay in the presentation of a report by the Royal Commission. It was to some extent attributable to the illness and death of the late Lord Basing, who was the Chairman of the Commission. A new Commission, with Sir George Buchanan as Chairman, was appointed in November, 1894. He was informed that the Commission, at a meeting held last month, agreed upon certain matters to be stated as the opinions of the Commission, and that they would meet at the end of the present month or the beginning of March, when a draft report would be before them for consideration. The medical officer of health had no authority to confiscate meat which had been seized as diseased or unwholesome, or as unfit for food. It was only a magistrate who could condemn the meat, and order it to be destroyed or so disposed of as to prevent its being used for food. The Local Government Board had no power to give instructions to the medical officer of health in the matter. His duties were prescribed by the statute. In reply to further questions, Mr. Shaw Lefevre said that he was advised that he had no power to issue instructions to magistrates in order to obtain uniformity in regard to decisions as to condemnation of meat.

The Hemp Drugs Commission.—In reply to Mr. CAINE, Mr. H. H. FOWLER said that the Indian Government were now considering the report of the Hemp Drugs Commission; when it came home with their observations on it he would inform the hon. member.

The Treatment of Inebriates.—Mr. KNOWLES asked the Home Secretary when he would introduce the Bill to which he referred on August 3rd, 1894, embodying the main recommendations of the Departmental Committee on the treatment of inebriates.—Mr. ASQUITH said that the Bill had been prepared, and would probably be introduced in another place.

Alleged Compulsory Revaccination of Firemen.—In reply to Mr. HOPWOOD, who asked a question with regard to the alleged compulsory revaccination of firemen who had been called to a fire at the end of last month at the Liverpool small-pox Hospital, Sir WALTER FOSTER said that the men had been strongly advised to submit to revaccination, but that no compulsion was used and that none of the men objected to the operation. Further, upwards of 50 policemen who had been in contact with the firemen had, of their own free will, asked to be vaccinated.

The University of London.—Mr. ACLAND, in answer to Sir A. ROLLIT, said the Government proposed shortly to introduce a Bill in reference to the University of London in the House of Lords.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NEW PRINCIPAL MEDICAL OFFICER, INDIA.

WE have reason to believe that the rumours now current to the effect that Surgeon-Colonel Gore, serving in Bombay, will be selected as Surgeon-Major-General Bradshaw's successor as P. M. O. at Simla are well founded.

THE NAVY.

STAFF-SURGEON H. S. R. SPARROW has been appointed to the Plymouth Division, Royal Marines, February 8th.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON THOMAS JERRAM ORTON died in London on the 9th ultimo. He entered the service as Assistant-Surgeon, January 17th, 1855; became Surgeon, November 9th, 1867; Surgeon-Major, March 1st, 1879; and Honorary Brigade-Surgeon on retirement, December 4th, 1885. He

served with the Royal Artillery in the trenches before Sebastopol in 1835, and at the assault of the Redan on September 8th (medal with clasp and Turkish medal); with the Central India Field Force, under Sir Hugh Rose, in 1858, being present at the siege and capture of the Fort of Chandairee, siege and capture of Jhansi, battle of the Betwa, action at Koonch, actions of May 17th and 18th, and of May 21st at Golowlie and capture of Calpee, and afterwards in various actions in the Bundelkund district (medal with clasp). He also accompanied the Perak Expedition as Principal Medical Officer of the force (mentioned in despatches, medal with clasp).

Surgeon-Major COLIN M. MILNE-MILLER, M.D., died at Eastbourne on February 9th, aged 69. He dated as Assistant-Surgeon, November 7th, 1851; as Surgeon, December 13th, 1858; and as Surgeon-Major, December 14th, 1872. He retired on half-pay, November 24th, 1873. He was with the 80th Regiment during the India Mutiny in 1858-59, and had received the medal for that campaign.

The undermentioned Surgeon-Lieutenants, who entered the service January 30th, 1892, are now promoted to be Surgeon-Captains from January 30th last: Edgar M. Pilcher, M.B., Henry P. Johnson, William G. Beyts, Harold A. Stalkartt, M.B., Henry N. Dunn, M.B., Samuel H. Withers, M.B., Edward M. Morphew, Ernest C. Anderson, Nicholas Tyacke, Robert H. E. Holt, Lionel A. Mitchell, M.B., Charles C. Fleming, M.B., John Hennessy, M.B., Claude B. Martin, M.B., George J. Buchanan, M.B., Charles B. Lawson, M.B., George E. Hughes, Joseph F. M. Kelly, M.B., Gilbert S. Crawford, John D. Alexander, M.B.

Sir ANTHONY HOME, V.C., K.C.B., has been awarded a distinguished service reward of £100 from the Army Medical Staff. Sir Anthony joined the army March 1st, 1848, and retired November 30th, 1886. He was with the Light Cavalry Brigade in the Crimea, and was present at the battles of Balaklava and Tchernaya, was subsequently with the force, under the French General D'Allonville, that threatened Simpheropol from Eupatoria (medal with two clasps and Turkish medal). He also served as Surgeon of the 90th Regiment in the Indian Mutiny campaign; was with Havelock's force as the relief of Lucknow (Victoria Cross), with Outram's force at Alumbagh, and with that under the Commander-in-Chief at the capture of Lucknow (medal with clasp and a year's service); in the war in the North of China in 1860, from the landing at Peytang to the capture of Pekin (medal); in the war in New Zealand in 1863-65 (promoted to Surgeon-Major, C.B., medal); and in the Ashanti war as Principal Medical Officer from June till invalided in December, 1873; was present at all the earlier operations of this period, including the action at Essaman; and made the medical arrangements for the campaign (several times mentioned in despatches, promoted Deputy-Surgeon-General K.C.B., medal).

Surgeon-Captain JAMES H. DALY is placed on temporary half pay on account of ill-health, February 2nd. His commission is dated August 1st, 1885.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT WILLIAM VERNON to be Surgeon-Captain, February 13th.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR ALBERT RICHARD WAGHORN, M.D., Bengal Army, retired, died at Redhill on February 6th, aged 66.

Brigade-Surgeon T. B. W. P. JOHNSTON, Retired Bombay Establishment, died at Baudon, co. Cork, on December 17th, 1894, aged 64. He was appointed Assistant-Surgeon, November 7th, 1854, and became Surgeon-Major, November 7th, 1864, retiring the honorary rank of Brigade-Surgeon, April 16th, 1886. He was in the Persian expedition in 1856-57, and was present at the capture of Bushire and at the bombardment of Mohumrah (medal with clasp).

THE VOLUNTEERS.

SURGEON-CAPTAIN F. H. SHAW, 2nd Cinque Ports Artillery (Eastern Division, Royal Artillery), has resigned his commission, February 13th.

The undermentioned gentlemen are appointed Surgeon-Lieutenants to the corps specified, dated February 13th: JOHN CECIL MACKMURDO GIVEN, M.D., 4th Lancashire Artillery; DOUGLAS JOHN MAYHEW BONE, M.B., 5th Lancashire Artillery; GEORGE OSBORNE MORGAN LUNT, M.B., 1st Flintshire (Buckley) Engineers, Fortress and Railway Forces, Royal Engineers.

Surgeon-Lieutenant-Colonel F. B. MALLETT, M.D., 2nd Volunteer Battalion the Loyal North Lancashire Regiment, to be Brigade-Surgeon-Lieutenant-Colonel, Northern Counties Brigade, Volunteer Infantry, February 13th.

THE SELECTION BOARD.

THE constitution of this Board is not generally known in the Army Medical Department. The President is General H.R.H. The Duke of Connaught. The members are Surgeon-Major-Generals Paterson and Giraud. The Board has already held some meetings at the Medical Division of the War Office.

CHANGES OF STATIONS.

SOME time ago, in consequence of the great pressure upon our space, the publication of the list of changes of stations was suspended. A correspondent writes to us that the omission of this list is a source of inconvenience to army medical officers in this country, as the information is not otherwise easily procurable. We shall be glad to have the opinion of other officers serving in this country on the subject, and shall be obliged to our correspondents if they will indicate some other subjects dealt with under the head of "Naval and Military Medical Services" which might be omitted in future to make room for the list of changes of stations.

THE ARMY MEDICAL REPORT FOR 1893.

THE Army Medical Report for the year 1893 (vol. xxxv., 2s. 5d.) has been issued this week. With the appendices it forms an octavo volume of a little over 460 pages. It contains the usual information with regard to the health of the troops at home and abroad, with statistical tables showing the nature of diseases which came under treatment in various commands. In view of the recent action of the India Office in forcing upon the Indian Government a new Cantonment Act, we extract the following statistics with regard to the prevalence of diseases in India:

	Bengal.	Madras.	Bombay.
Average strength	43,001	13,349	13,515
Admissions into hospital	15,385	5,537	5,229
Average number constantly sick	1,285.92	501.90	391.62
Ratio of admissions per 1,000 in 1893... ...	357.80	414.80	386.90
" " " " 1886-1892 ...	312.30	314.10	341.80

Among the appendices is an interesting report of the progress of hygiene in the year 1894 by Brigade-Surgeon-Lieutenant-Colonel Lane Notter, and an instructive report by the same officer on the Eighth International Congress of Hygiene and Demography held in Buda-Pesth. Surgeon-Lieutenant-Colonel Pratt contributes a report on the Eighth Congress in Lyons last September, of the French Surgical Association, and an able report by Surgeon-Major H. E. R. James on the bubonic plague at Hong Kong is illustrated by maps, diagrams, and charts. There are also notes of a few interesting cases contributed by Surgeon F. J. Lambkin, Surgeon-Captain F. Smith, Surgeon-Lieutenant C. G. Spencer, and Surgeon-Lieutenant-Colonel F. W. Trevor. Brigade Surgeon-Lieutenant-Colonel W. F. Stevenson and Surgeon-Major H. R. Whitehead supply the usual statistics as to operations performed at Netley, with notes on the more interesting cases.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,870 births and 4,210 deaths were registered during the week ending Saturday, February 9th. The annual rate of mortality in these towns, which had been 18.7 and 19.1 per 1,000 in the preceding two weeks, further rose to 20.7 last week. The rates in the several towns ranged from 13.5 in Derby, 14.5 in Leicester, and 15.0 in Bradford and in West Ham to 24.8 in Manchester, 27.1 in Bolton, and 30.9 in Liverpool. In the thirty-two provincial towns the mean death-rate was 20.4 per 1,000, and was slightly below the rate recorded in London, which was 21.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, and was highest in Manchester, Gateshead, and Plymouth. Measles caused a death-rate of 1.4 in Preston, 1.8 in Croydon, and 2.3 in Plymouth; whooping-cough of 1.2 in Blackburn and 2.3 in Plymouth; and "fever" of 1.1 in Gateshead and 1.5 in Birkenhead. The mortality from scarlet fever showed no marked excess in any of the large towns. The 67 deaths from diphtheria in the thirty-three towns included 34 in London, 5 in Birmingham, 5 in Manchester, 3 in Liverpool, and 3 in Wolverhampton. Three fatal cases of small-pox were registered in London and 1 in Derby, but not one in any other of the thirty-three large towns. There were 56 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, February 9th, against 32, 35, and 58 at the end of the three preceding weeks; 18 new cases were admitted during the week, against 8, 8, and 21 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital, which had been 1,653, 1,662, and 1,653 at the end of the preceding three weeks, was 1,667 on Saturday last, February 9th; 149 new cases were admitted during the week, against 154, 186, and 160 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 9th, 833 births and 757 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 28.3 to 23.9 per 1,000 in the three preceding weeks, rose again to 26.2 last week, and exceeded by 5.7 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 17.5 in Dundee to 32.4 in Glasgow. The zymotic death-rate in these towns averaged 2.8 per 1,000, the highest rates being recorded in Glasgow and Aberdeen. The 433 deaths registered in Glasgow included 29 from whooping-cough, 10 from measles, 4 from diphtheria, and 1 from small-pox. Two fatal cases of small-pox were recorded in Edinburgh, and 9 of measles in Aberdeen.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the fourth, or autumn, quarter of 1894, and to the marriages during the three months ending September last. The marriage-rate was equal to 15.8 per 1,000 of the

population, and exceeded by 0·8 per 1,000 the mean rate in the corresponding periods of the preceding ten years.

The births registered in England and Wales during the three months ending December last numbered 223,705, equal to a proportion of 29·5 per 1,000 of the population, estimated by the Registrar-General to be rather more than thirty millions of persons in the middle of this year. This rate was, with three exceptions, lower than in the corresponding period of any year on record, and was 1·1 per 1,000 below the mean rate in the fourth quarters of the preceding ten years 1884-93. The birth-rates in the several counties during the quarter under notice ranged from 21·8 in Westmorland, 23·5 in Rutlandshire, and 24·2 in Herefordshire, to 33·0 in South Wales, 34·2 in Monmouthshire, 35·5 in Staffordshire, and 35·8 in Durham. In thirty-three of the largest English towns the birth-rate last quarter averaged 30·7 per 1,000, and was 1·2 per 1,000 above the general English rate. In London the birth-rate was 30·2 per 1,000, while it averaged 31·1 in the thirty-two provincial towns, among which it ranged from 20·8 in Huddersfield, 20·9 in Halifax, and 25·6 in Croydon, to 35·4 in West Ham, 35·6 in Gateshead, and 35·7 in Sheffield.

The births registered in England and Wales during the quarter ending December last exceeded the deaths by 99,297; this represents the natural increase of the population during that period. It appears from returns issued by the Board of Trade that 50,855 emigrants embarked during last quarter for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these, 26,014 were English, 3,106 Scotch, and 7,741 Irish. Compared with the averages in the corresponding periods of recent years, the proportion of emigrants from England and from Scotland showed a decline, while that from Ireland showed a considerable increase.

During the fourth quarter of 1894 the deaths of 124,408 persons were registered in England and Wales, equal to an annual rate of 16·4 per 1,000 of the estimated population; this rate was by far the lowest yet recorded in any December quarter, and was as much as 2·6 per 1,000 below the average rate in the corresponding quarters of the preceding ten years 1884-93. The lowest county death-rates last quarter were 10·9 in Rutlandshire, 12·3 in Huntingdonshire, 12·9 in Middlesex, and 13·0 in Oxfordshire; while the highest rates were 17·8 in the West Riding of Yorkshire, 18·0 in Staffordand in Northumberland, 19·1 in Lancashire, and 20·0 in Durham. In the urban population of the country, estimated at about twenty and a-quarter millions of persons, the rate of mortality during the period under notice was 17·1 per 1,000; while in the remaining and chiefly rural population of about ten millions it was 15·0 per 1,000. These rates were respectively 3·1 and 2·0 per 1,000 below the mean rates in the corresponding quarters of the preceding ten years. Among thirty-three of the largest English towns the mean death-rate was 17·7 per 1,000; in London the rate was 16·0 per 1,000, while it averaged 18·6 in the thirty-two provincial towns, and ranged from 12·7 in Croydon, 14·6 in Leicester, and 14·8 in Birkenhead, to 21·0 in Burnley, 22·0 in Preston, 22·5 in Liverpool, and 23·4 in Sunderland. In sixty-seven other large towns, with an estimated aggregate population of about three and a half millions, the mean death-rate was 16·7 per 1,000, or 1·0 below the rate in the thirty-three large towns.

The 124,408 deaths registered in England and Wales during the three months ending December last included 3,087 which resulted from measles, 2,311 from diphtheria, 2,163 from diarrhœa, 1,933 from whooping-cough, 1,550 from "fever" (including typhus, enteric, and ill-defined forms of fever), 1,204 from scarlet fever, and 78 from small-pox; in all, 12,326 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·63 per 1,000, against an average rate of 2·03 in the corresponding quarters of the preceding ten years. The mortality from diphtheria showed a considerable excess, while the rates from each of the other principal zymotic diseases was below the average. Of the 78 fatal cases of small-pox recorded in England and Wales last quarter, 31 belonged to Birmingham, 15 to Liverpool, and 5 to London.

The rate of infant mortality, or the proportion of deaths under one year of age to registered births, was equal to 143 per 1,000, and was slightly below the mean rate in the corresponding periods of the preceding ten years. In London the rate of infant mortality was 139 per 1,000, while it averaged 166 in the thirty-two provincial towns, among which it ranged from 99 in Croydon, 134 in West Ham, and 135 in Cardiff to 207 in Swansea, 209 in Sunderland, and 226 in Preston.

The mean temperature of the air during last quarter at the Royal Observatory, Greenwich, was 46·4°, and was 2·8° above the average in the corresponding periods of 123 years; the mean showed an excess of 0·7° in October, 4·4° in November, and 3·2° in December. The rainfall during the quarter amounted to 8·94 inches, and was 1·85 inch above the average.

OBITUARY.

JOHN THOMAS SECCOMBE, M.D., J.P.

DR. J. T. SECCOMBE, of Terrington Lodge, King's Lynn, who died on January 27th, was the eldest son of Sir Thomas Lawrence Seccombe, G.C.I.E., K.C.S.I., for many years Financial Secretary and, subsequently, Assistant Under-Secretary of State for India. He obtained the degree of M.D. at St. Andrews, in 1856, and commenced practice at Terrington in 1862. With keen scientific interests he was also an ardent theologian, and this somewhat unusual juxtaposition of tastes was thoroughly characteristic of a remarkably versatile mind. He was a Fellow of the Royal Astronomical Society, and erected a powerful telescope with an 8-inch Newtonian reflector in his garden. He wrote several books in exposition of the Orthodox Catholic Faith of the Greek Church (of which he was a member), and also published in 1875 *Science, Theism, and Revelation, considered in Relation to Mill's Essays on Nature, Religion, and Theism.* He was held in high repute as an authority on change-ringing and as a local antiquary, contributing a valuable paper on the magnificently decorated church of Terrington St. Clement to the Norfolk and Norwich Archæological Society.

He was an enthusiastic admirer of Pasteur, visited the Institute at Paris in 1893, and gave an interesting lecture upon the subject in connection with the latest theories as to the *rationale* of inoculation. In addition to many out-of-the-way subjects, of ecclesiastical history and ceremonies, of the patristic learning of the East, and especially of St. John Damascene, and of liturgiology generally, he had an extraordinarily ample and minute knowledge. He acted as a J.P. for the county of Norfolk from 1886 until his death, which resulted from cardiac disease at the comparatively early age of 60. By his first wife, Elizabeth Margaret, daughter of Thomas Clout, he left one daughter and two sons, of whom the elder, Thomas Seccombe, M.A., Balliol College, Oxford, is assistant editor of the *Dictionary of National Biography*, under Mr. Sidney Lee, while the younger, Philip J. A. Seccombe, M.A., of St. John's College, Cambridge, has entered the medical profession. By his second wife, Ellen, daughter of Mr. Henry Bates, he has left five children.

CHARLES MOSS, M.R.C.S.

MANY old King's College men will hear with regret of the death of Charles Moss, on February 8th, from acute intestinal obstruction. He was taken with abdominal pain on the previous day, but though evidently ill, he kept an appointment at Dr. Wharton Hood's house in the afternoon, but while there fainted, and was taken home in a cab. Dr. Duffin saw him the same night, and again the next morning in consultation with Dr. Cayley, and it was agreed to ask Mr. Christopher Heath to see him at midday on Friday, but he died before the consultation was held.

Charles Moss was a native of the Cape of Good Hope, and came to King's College older than the average student, though his prematurely bald head made him look older than he was. He became a member of the College of Surgeons in 1862, and was for some time House-Surgeon at the Moorfields Ophthalmic Hospital. Here he had considerable experience in the administration of anæsthetics, so that he was prepared to take up that work for Sir William Fergusson, both at the hospital and in private, when the late Dr. Anstie gave it up about 1863. Mr. Moss for many years absolutely discarded chloroform, and invariably administered A. C. E. mixture when not giving gas for dental operations. He was able to boast that he had never had a fatal case in his long practice, and looked upon strong ammonia inhalation as his sheet-anchor in cases of heart failure. He had held the post of anæsthetist to King's College Hospital for many years. Of late years he had confined himself to the practices of Sir H. Thompson, Mr. Herring, Dr. Wharton Hood, Mr. Lawson, and other old friends, by whom he was much appreciated, both professionally and socially. He was buried at Kensal Green on Wednesday last.

THE late Mr. S. M. BURROUGHS, whose death from pneumonia at Monte Carlo we announced last week, was born in Medina, New York, in December, 1846, and in 1878 came to London as the agent for Messrs. John Wyeth and Brother. In 1880 he entered into partnership with Mr. Wellcome, and the new development which this firm gave to pharmaceutical methods has made his name well known to the medical profession in this country and in the British colonies. He was a man of considerable personal charm, and when success came as the reward of his energetic devotion to business, he showed himself to be possessed of wide views, and was a most liberal contributor to many charities. He took an active interest in the foundation of the Cottage Hospital at Dartford, where his firm had extensive works, and contributed the sum of £1,000 towards the erection of the building, the memorial stone of which was laid last April. On February 12th a meeting was held at the Cannon Street Hotel, under the chairmanship of Mr. Carteighe, the President of the Pharmaceutical Society, with the view of taking steps to found some memorial to Mr. Burroughs. After some

discussion an executive committee was appointed consisting of Mr. Carteighe (chairman), Messrs. Radford, Wootton, Frank Smith, John Moss (treasurer), and H. Helbing (Honorary secretary). The form which the memorial should take will be settled later, but subscriptions may be sent to the Burroughs Memorial Fund, 63, Queen Victoria Street, E.C. A sum of over £350 was subscribed at the end of the meeting.

MEDICAL NEWS.

Lady Ilchester opened the new wing of the Weymouth Sanatorium on February 7th. The institution was founded in 1848 by Dr. Smith, and since then it has relieved nearly 50,000 patients.

The students of King's College are arranging for a concert to be given in the College on Tuesday, February 19th, under the patronage of H.R.H. the Duke of Cambridge, the Duke of Westminster, the Bishop of London, the Hon. W. F. D. Smith, M.P., and Dr. Wace, on behalf of the funds of King's College Hospital.

St. Thomas's Hospital.—An important meeting was held at the Mansion House on February 13th, in support of an appeal for £100,000 to defray the expense of opening wards in the hospital which are at present closed for want of funds. The Duke of Connaught, the President of the hospital, moved the resolution expressing regret at the condition of things indicated above. He pointed out that since 1871 the population round the hospital had been trebled, and now numbered upwards of a million. The hospital had been crippled partly by expenditure in connection with funds borrowed for the completion of the building, partly by the heavy rates, amounting to £2,500 a year, which had to be paid, and partly by the agricultural depression which had greatly diminished their income from land. The resolution was seconded by the Bishop of Southwark, and supported by Sir William MacCormac and the Rev. Newman Hall, who, speaking as a Governor for thirty years, described the hospital as a palace of philanthropy. The Chairman, Alderman Sir Stuart Knill, moved a resolution to the effect that bearing in mind that the hospital was placed by the Charter of Edward VI under the fostering care of the Mayor, Commonalty, and citizens of London, the City guilds and the citizens of London should be specially invited to respond to the appeal. The resolution was adopted, and the Chairman, in acknowledging the vote of thanks, announced that the Queen had promised to contribute £100 to the special fund.

MEDICAL VACANCIES.

The following vacancies are announced:

CAPE COLONY.—Medical Officer of Health for Cape Colony. Salary, £1,000 per annum. Applications to the Agent General, 112, Victoria Street, S.W., or the Colonial Under-Secretary, Cape Town, by March 15th.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Honorary Physician, Honorary Surgeon, Honorary Consulting Dental Surgeon. Applications to Walter G. Carnt, Secretary, by February 18th.

GENERAL INFIRMARY, Leeds.—Resident Casualty Officer. Salary, £100 per annum, with board, lodging, and washing. Applications to Mr. Littlewood, Secretary of the Faculty, General Infirmary, Leeds, by February 20th.

GUEST HOSPITAL, Dudley.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided in the Hospital; no salary. Applications to the Secretary by February 27th.

KENT AND CANTERBURY HOSPITAL, Canterbury.—Surgeon. Applications to the Secretary by February 19th.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer for the Western Hospital for Fever Patients, Seagrave Road, Fulham, S.W.; unmarried, doubly qualified, and not more than 35 years of age. Salary, £160 during the first year, £180 during the second year, and £200 during the third and subsequent years of service, with board, lodging, attendance, and washing. Applications, on forms to be obtained at the Offices of the Board, Norfolk House, Norfolk Street, Strand, W.C., to be sent in by February 21st.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—House-Surgeon. Salary, £50, with board and residence. Appointment from April 1st to November 7th. Also Surgeon to the Out-patients. Applications to the Secretary by March 1st.

PARISH OF LOCHS, Island of Lewis. Medical Officer. Knowledge of Gaelic indispensable. Salary, from Parochial Board, £135 per annum, free house, and garden. Applications to Inspector of Poor by February 18th.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Junior House Surgeon; doubly qualified. Salary, £80 per annum, with apartments and rations. Applications to Will Taberner, General Superintendent and Secretary, by February 27th.

ST. GEORGE'S HOSPITAL, S.W.—Surgeon and Assistant Surgeon; must be F.R.C.S.Eng. Applications to the Secretary by March 1st.

ST. PETER'S HOSPITAL, Henrietta Street, Covent Garden, W.C.—House-Surgeon. Appointment for six months. Salary at the rate of 50 guineas a year, with board, lodging, and washing, and an allowance for wine, etc. Applications to the Secretary by March 1st.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Fourth Assistant Physician, must be Fellow or Member of the Royal College of Physicians of London, not practising pharmacy and midwifery. Applications to the Secretary before February 26th.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM.—Third Assistant Medical Officer; unmarried. Salary commences at £100 per annum, with board, lodging, and washing. Appplications to Dr. Cooke, The Asylum, Powick, near Worcester, by March 1st.

MEDICAL APPOINTMENTS.

ARBUCKLE, Hugh White, M.D.Aberd., reappointed Medical Officer to the Thorne District Council.

BARBER, George T. C., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer to the Parish of Birmingham Workhouses.

BARNES, Dr., appointed Medical Officer of Health to the Chard Town Council.

BOSTOCK, Leonard, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Fourth District of the Liskeard Union.

BOUSTEAD, R. J., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Haltwhistle Rural District Council.

CAMERON, Dr. Hugh, appointed Medical Officer to the Parochial Board of Rosskeen, *vice* Dr. Sutherland, deceased.

COUMBE, John Batten, F.R.C.S.Edin., M.D.Brux., L.R.C.P.Edin., appointed Medical Officer for the No. 9 District of the Bedminster Union.

CROSSFIELD, Arthur K., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Dittisham District of the Totnes Union.

ELIAS, James, M.R.C.S.Eng., D.P.H.Camb., appointed Medical Officer of Health to the Neath Town Council, *vice* J. W. Thomas, M.R.C.S., L.R.C.P.Lond., resigned.

FERRABY, George Arthur, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Fourth and Fifth Districts of the Parish of Birmingham.

GREENSILL, E. S., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Martley District of the Martley Union.

JONES, Llewellyn G. D., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the First and Second Districts of the Parish of Birmingham.

JOHNSTON, John, M.D., M.Ch.Edin., L.S.A.Lond., Honorary Surgeon to Bolton Infirmary, appointed Public Vaccinator for the Great Bolton District, *vice* Walter Morris, L.R.C.P.Edin., L.F.P.S.Glasg., resigned.

LAKEMAN, Thomas, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the Ugborough District of the Totnes Union.

PEGLER, L. Hemington, M.D., M.R.C.S., appointed Assistant Registrar to the Central London Throat and Ear Hospital.

RAYWOOD, John R. I., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., appointed Honorary Surgeon to the Montgomeryshire Infirmary, Newtown, N. Wales, *vice* G. H. Bidew, resigned.

SMITH, Kenneth R., M.D.Lond., reappointed Medical Officer for the Halwell District of the Totnes Union.

STANLEY, Arthur, M.B.Lond., appointed Assistant Physician to the Manchester and Salford Hospital for Skin Diseases.

TENNANT, John, M.A., M.B., C.M.Edin., appointed House-Surgeon to the Victoria Hospital, Folkestone.

UBSDELL, Henry, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Staverton and Rattery District of the Totnes Union.

WILD, Robert B., M.D.Lond., M.Sc.Vict., appointed Honorary Physician to the Manchester and Salford Hospital for Skin Diseases, *vice* Walter Whitehead, F.R.C.S., F.R.S.Edin., appointed Honorary Consulting Surgeon.

WRIGHT, Joseph Farrall, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer to the Western Division of Great Bolton, *vice* Walter Morris, L.R.C.P.Edin., L.F.P.S.Glasg., resigned.

YONGE, Eugene S., M.B., C.M.Edin., appointed Honorary Surgeon to the Chorlton-on-Medlock Dispensary, Manchester, *vice* G. R. Gowland, L.R.C.S., L.R.C.P.Edin., resigned.

YOUNG, Adam, L.R.C.P.Lond., M.R.C.S.Eng., appointed Certifying Factory Surgeon for Hampstead.

DIARY FOR NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Mr. W. G. Spencer (Arris and Gale Lecturer): On the Central Nervous Mechanism of the Respiration. Lecture I.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Conjunctival Affections. London Throat Hospital, Great Portland Street, 8 P.M.—Dr. Edward Woakes: Nasal Neuroses.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Frederick T. Roberts: The Combinations of Morbid Conditions of the Chest. (Third Lettsomian Lecture.)

TUESDAY.

London Post-Graduate Course, Bethlem Royal Hospital, 2 p.m.—Dr. Hyslop: Delusional Insanity; Paranoia.

The Clinical Museum, 211, Great Portland Street.—Open at 2 p.m., Lecture at 4.

Pathological Society of London, 8.30 p.m.—Mr. D'Arcy Power for Mr. R. Jones: Endosteal Sarcoma of Patella. Dr. F. Hawkins: Congenital Obliteration of the Bile Duct. Mr. S. G. Shattock: Fœtus with Reptilian Characters in the Sexual Ducts. Dr. Voelcker: Carcinoma of Ureter. Mr. L. A. Bidwell: Carcinoma of Stomach treated by Gastro-duodenostomy. Card specimens will be shown by Dr. W. W. Ord, Dr. G. Newton Pitt, and Dr. C. J. Arkle.

Central London Throat, Nose, and Ear Hospital, 4.30 p.m.—Dr. Dundas Grant: The Treatment of Diseases causing Discharge from the Ear.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Mr. W. G. Spencer (Arris and Gale Lecturer): On the Central Nervous Mechanism of the Respiration. Lecture II.

London Post-Graduate Course, Hospital for Diseases of the Skin, Blackfriars, 1 p.m.—Dr. Payne: Acne. Royal London Ophthalmic Hospital, Moorfields, 8 p.m.—Mr. A. Quarry Silcock: Progressive Myopia, with illustrative cases.

National Hospital for the Paralysed and Epileptic, Queen Square, 3 p.m.—Lecture by Dr. Beevor.

Royal Meteorological Society, 25, Great George Street, Westminster, 7.30 p.m.

Royal Microscopical Society, 20, Hanover Square, 8 p.m.

West London Post-Graduate Course, West London Hospital, W., 5 p.m. —Mr. Eccles: The Mechanical Treatment of Hernia.

THURSDAY.

London Post-Graduate Course, National Hospital for the Paralysed and Epileptic, Queen Square, 2 p.m.—Dr. Buzzard: Insular Sclerosis. Hospital for Sick Children, Great Ormond Street, 3.30 p.m.—The Medical Registrar: Pathological Demonstration. Central London Sick Asylum, Cleveland Street, W., 5.30 p.m.—Dr. Christie: Cases in the Wards.

Harveian Society, 8.30 p.m.—Dr. James Taylor: Syphilitic Diseases of the Brain.

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Mr. W. G. Spencer: (Arris and Gale Lecturer): On the Central Nervous Mechanism of the Respiration. Lecture III.

London Post-Graduate Course, Bacteriological Laboratory, King's College, 3 to 5 p.m.—Professor Crookshank: Lecture: Anthrax and Malignant Œdema: Practical Work: Staining Sections.

Clinical Society of London, 8.30 p.m.—Dr. E. W. Goodall: An unusual case of Diphtheria of the Air Passages. Dr. Lee Dickinson: A case of Malformation of the Heart with Hæmophilia. Mr. Barling: A case of Gangrenous Umbilical Hernia: Resection and Immediate Union by Murphy's Button: Recovery. Dr. Hector Mackenzie: A case of Hysterical Contracture of the Legs of two years' duration successfully treated. Mr. Arbuthnot Lane: A case of Extensive Degenerating Nævus of the Bladder.

SATURDAY.

London Post-Graduate Course, Bethlem Royal Hospital, 11 a.m.—Dr. Craig: Stupor, Catalepsy, Katatonia, Dementia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

Gainer.—On February 7th, at Thrapston, Northamptonshire, the wife of J. W. Gainer, M.B.Edin., of a daughter.

Stevens.—On February 1st, at Villa la Tour, Mentone, the wife of William H. Stevens, M.R.C.S., L.R.C.P.Lond., of The Hollies, Zetland Road, Bristol, of a daughter.

MARRIAGES.

Apthomas—Rowland.—On February 6th, at Chorlton Road Congregational Church, Manchester, by the Rev. Wm. James, M.A., Griff Apthomas, M.B., C.M.Edin., of Oldham, to Jennie, eldest daughter of the late Hugh Rowland, J.P., of Buena Vista, Alexandra Park, Manchester.

Broadbent—Field.—On February 12th, at St. George's, Hanover Square, by the Rev. W. Page Roberts, assisted by the Rev. David Anderson, Rector, John Francis Harpin Broadbent, M.A., M.D., eldest son of Sir William H. Broadbent, Bart., to Margaret Elizabeth, eldest daughter of George P. Field, Esq., of 34, Wimpole Street, and Normanswood, Farnham.

DEATHS.

Champneys.—On February 11th, at Hamilton House, Penge, Henry Montagu Champneys, F.R.C.S.Eng., L.S.A., in his 77th year.

M'Geagh.—On February 6th, at 20, Spellow Lane, Liverpool, Marion Ethel, beloved and only surviving child of William M'Geagh, M.D., aged 12 years and 11 months.

Travers-Stubbs.—Suddenly, at Galatea Place, Blaauwberg Strand, near Cape Town, on December 31st, 1894, Grace, beloved wife of Dr. P. Travers-Stubbs, District Surgeon of Parkly West.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Dental Defence.

Dentist asks whether there is among dentists a society for mutual protection, etc., analogous to the Medical Defence Union, or would any of the existing medical societies take registered dentists in.

*** The Medical Defence Union admits as members those registered dentists who possess in addition a surgical registrable qualification. The London and Counties Medical Protection Society admit dentists who are on the *Register* as L.D.S. We know of no existing dental society on exactly the same lines as the Medical Defence Union.

Treatment of Sporadic Cretinism.

L. F. N. asks what is considered a safe dose of thyroid extract for a child aged 15 months suffering from sporadic cretinism? Is any other preparation of the raw gland preferable. How often should the dose be given, and how long should the treatment be kept up?

*** We have referred this question to Dr. Hector W. G. Mackenzie, who writes: I consider the dry preparations the most suitable for administration by the mouth. The tabloids are very convenient, and are usually made so that one tabloid corresponds to 5 grains of thyroid gland. If a powder is used for convenience, 1 grain of the powder should equal 1 grain of thyroid gland. For safety I should begin with a very small dose, one-fifth of a tabloid or 1 grain of powder of above strength. Let this be given every other day for a week. If no effect has then been produced, let the same dose be given every day. At the end of another fortnight, it might be necessary again slightly to increase the dose. The occurrence of vomiting or diarrhœa and acceleration of the pulse are signs that too much of the remedy is being used, and in such a case its administration should be suspended for a little and subsequently a smaller dose given. The necessary dose has been found to vary very much in different cases. As long as no bad symptoms are produced, the dose may be cautiously increased if necessary. It has been found that once a cure has been established sometimes a very small dose (2½ grains a-week) is sufficient to maintain a satisfactory state of health. The expense is accordingly very trifling in most cases. It must be clearly borne in mind that the remedy must be persistently continued to keep the patient in health.

ANSWERS.

A Member B.M.A.—There is only one person of the name on the *Medical Register*, 1894 (the last issue). The address given in the *Register* does not coincide with that on the handbill, and initials are not given on the handbill.

Opinion.—We must refer our correspondent to the resolutions on "covering," issued by the General Medical Council, and printed in the British Medical Journal on December 22nd, page 1460 ("Unqualified Assistants.")

M.B.—We should recommend our correspondent to consult the elaborate article on typhus fever in Murchison's *Treatise on the Continued Fevers of Great Britain*, third edition, edited by Dr. Cayley. London: Longmans, Green, and Co., 25s.

A. M., B.M.A.—The appointment to the office of Public Vaccinator is made under ordinary circumstances by the guardians The vacancies in the appointments are duly advertised, and in the advertisement it will be stated to whom applications should be made.

J. A.—1. The Pfarrer Kneipp water cure for all kinds of diseases was described in an editorial article published in the British Medical Journal on October 17th, 1891. 2. We should recommend our correspondent to consult Dr. Berkart's book on *Asthma, its Pathology and Treatment*, second edition, 1889. London: J. and A. Churchill, 10s. 6d.

Spero.—There are so many works published on ambulance lectures that it seems invidious to select any particular author for recommendation. The book written for and authorised by the St. John Ambulance Association, Shepherd's *First Aid to the Injured*, may be mentioned. It is published by the Association, at 8, St. John's Gate, Clerkenwell, price 1s.

M.D.—Primrose soap, sold in bars, and easily obtainable, used freely, and not too much diluted with water, will be found suited for toilet purposes in a condition of acne oleosa. But a very effectual and cleansing application would be light friction once daily, with sapo mollis (*B.P.*), care being taken not to let it enter the eyes or ears, or to touch naturally delicate parts of the skin.

Cataract.—Pending the maturation of a nuclear cataract, the use of a stronger solution of sulphate of atropine (gr. ¼ ad 3j) two or three times a week, in place of the weaker solution (gr. ½ ad 3j), which has been used for eighteen months, would not be likely to set up any condition prejudicial to the future performance of extraction. Prolonged use of atropine sometimes sets up slight conjunctivitis; if this occur it is advisable to add 1 grain of sulphate of zinc to the ounce of solution.

Country G.P. might find what he requires in regard to Horses in Gresswell's *Manual of Equine Medicine* (London: Bailliere, Tindall, and Cox), price 10s. 6d., Haye's *Veterinary Notes for Horse Owners* (London: W. Thacker and Co.), 12s. 6d., or in Gresswell's *Diseases and Disorders of the Horse* (Leeds: Yorkshire Conservative Newspaper Company), 5s. As to the question what book to put into the hands of a missionary's wife so that she shall have some sort of clue as to what should be done in case of sickness, probably *A Manual of Family Medicine and Hygiene for India*, by Sir W. Moore (London: J. and A. Churchill), price 12s., would be found as useful as any.

J. B.—Two reports on influenza have been issued by the Local Government Board, the one dated 1891 (2s. 11d.), the other dated 1893 (2s. 6d). They can be obtained through any bookseller or direct from Messrs. Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C. A translation of Pfeiffer's first paper was published in the British Medical Journal of January 16th, 1892, together with papers by Dr. Kitasato and Dr. Canon on the same subject. An abstract of the further paper by Pfeiffer and Beck was published in the Epitome of the British Medical Journal of June 25th, 1892, par. 579. Some further references will be found in Dr. Klein's paper in the second of the two reports issued by the Local Government Board.

Morphine Urticaria.

W.P., M.B., suggests the subcutaneous injection of atropine, or the internal administration of belladonna, in the treatment of a case related by "A Member," in the British Medical Journal of February 2nd, p. 291.

Neurasthenia.

We fear there is no institution to which a patient unable to pay the ordinary fees can obtain admission for the Weir-Mitchell treatment. Some observations on this point were made in the British Medical Journal of November 10th, 1894, p. 1090.

Suicide or Somnambulism.

M.D.—It is impossible to answer the question as to whether a lady who walked through the snow a quarter of a mile to a lake committed suicide or died accidentally from drowning while in a state of somnambulism. We have been unable to ascertain that there is any case on record in which a somnambulist passed through such experiences without awaking. The patient was probably neurotic, and so the hereditary of melancholia or suicide would not be of great value. The hour—early morning—is the time of suicide. The only decision as to the probability of suicide must be "not proven."

The Treatment of Tapeworm.

With reference to the recent inquiries in our columns regarding the treatment of tapeworm, a correspondent sends us the following note:

Before commencing to treat an individual for tapeworm, the physician would do well to satisfy himself that there actually is a member of the tænia family located within his patient's intestine. Cases of self-delusion in the matter are by no means uncommon. There is but one pathognomonic sign of the presence of tapeworm: the passage *per anum* of fragments of segments, more or less numerous, detached from the main body. According to Dr. Dujardin-Beaumetz, the best of all tæniicides is the pelletierine of Tanret. His method of prescribing is as follows: The patient's bowels should be thoroughly cleared out towards evening by means of a copious enema; and, if he cannot do without supper altogether, the meal should be as light as possible, consisting chiefly of milk. The next morning, while fasting, 2½ grammes of sulphate of pelletierine should be given in solution, with ½ gramme of tannin, and ten minutes after swallowing the dose the patient should drink a large glassful of water. In three quarters of an hour he should conclude the treatment by taking 3jss of castor oil. Pelletierine is not a suitable vermifuge for children, for whom the subjoined formula is recommended: Pumpkin seeds, newly hulled; sugar, of each 40 grammes; orange flower water, a sufficiency to make a paste: the whole to be taken, fasting, in the early morning.

At Aden, where tapeworm is very common, pumpkin seeds are in high repute as a palatable and successful remedy, not only in the case of children, but also for adults. Large quantities of the decorticated and crushed seed are freely swallowed in the form of pottage made with milk, the patient having abstained from all food during the preceding twenty-four hours, and also, as far as possible, from all drink. This treatment is said never to fail, but the writer can only vouch for a single case, that of a European, in whom the pumpkin-seed regimen was eminently successful in bringing away the head of a tænia solium—a very old stager—together with several yards of body, a variety of remedies, including oil of male fern, having previously been essayed in vain.

In conclusion, here are two minor, but practical, points connected with the treatment of tænia. Never exercise traction on a protruding worm; the prolapsed portion should be snipped off. After taking a vermifuge the patient should pass his dejections into a receptacle half full of water, in order that, if present, the head of the parasite may not escape identification.

Sick Fund, Great Northern Railway Company.

E. J. C.—Eight shillings per annum per member is far too little to remunerate a medical practitioner for attendance on the member, his wife, and children. It must be confessed that in many cases no more than this is paid, but as a rule only children under 14 years of age are included, and even the latter are not entitled to free medical attendance when they are out at work earning wages. Another reason, too, given for this low rate of payment is that the contributions are stopped out of the workmen's wages. This does not seem to be the case according to the rules of the Great Northern Railway Company, or if it is the plan adopted by most of the large industries throughout the country, it is not carried out; for there the custom is to make the workmen contribute according to their rate of wages, that is, a workman in receipt of 20s. per week would pay 8s. per annum, but another in receipt of 40s. would have to pay 16s.; and so on.

On the whole it is to be regretted that a great and wealthy company like the Great Northern Railway Company is unable to appreciate better the value of the medical services rendered to their *employés*, although doubtless the terrible competition within the ranks of the profession, and the willingness of certain members to accept absurdly low rates of remuneration has a good deal to do with this state of affairs.

Purchase of Goodwill of Medical Practices.

G. W.—In the case put by our correspondent, it is to be presumed that he has had the option of purchasing the house himself; if this is so, and he has declined, it is difficult to see why those beneficially interested in the sale should not advertise it in the way reported, even if some of the beneficiaries are medical men, who received a share of the purchase money for the goodwill of a medical practice. If a practioner buy the goodwill of a medical practice, and declines to buy the house in which the practice has been carried on, he can hardly expect the owners, in the absence of any express stipulation to this effect at the time of the purchase of the practice, to forego any of their rights to sell at the highest rate they can obtain. It is clear that when he left the house it would be fully within their right to let it to another medical man, so that merely to state in the advertisement that the house for sale had been many years in the occupation of a medical practitioner, and even the mention of the latter's name, can scarcely be considered more than a somewhat strict carrying out of ordinary business principles. There is no doubt that this might lead to the injury to our correspondent, but it is obvious that anyone who buys the goodwill of a practice without the house in which the same has been carried on, ought to protect himself by a special agreement against such a contingency, otherwise it will be naturally presumed that he paid less for the goodwill in question on account of this contingency.

NOTES, LETTERS, Etc.

We are asked to call attention to an announcement in our advertisement columns of a vacancy for a thoroughly qualified medical officer of health in Cape Colony at a salary of £1,000 a year. Applications will be received in this country by the Agent General of the Colony, 112, Victoria Street, S.W.

We are requested to state that at a meeting of the Croydon Medical Reading Society last autumn the following resolution was unanimously carried: "That in order to discourage the increasing nuisance of visits from travellers representing various firms we unanimously agree not to make purchases from or through any such travellers."

Medical Missionary Wanted.

The Archbishop of Canterbury and the Committee of the Archbishop's Mission to the Assyrian Christians greatly wish that some young doctor, full of a missionary spirit, may offer himself as medical officer to the Mission. The Mission staff are not paid salaries, but receive board and lodging and £25 a year each for clothes and personal expenses. Further particulars can be obtained from the Honorary Secretary, 7, Dean's Yard, Westminster Abbey, S.W.

Treatment of Mental Depression in Ovarian Disease.

Dr. Moffat Flynn (Bentinck Street, Manchester Square, W.) writes: I find dilute hydrobromic acid the most useful for the mental depression associated with chronic uterine or tubo-ovarian disease. I prescribed it alone in several very chronic cases with marked benefit, after other drugs had failed. The dose should be m xx, ter in die, as less is not of much value.

Chlorate of Potassium Lozenges and Safety Matches.

Dr. W. Davidson (Winton, Bournemouth) writes: On the morning of January 19th I was called to see Mr. L., and found him suffering from an extensive burn of the inner surface of the left thigh, and another burn, of smaller extent, but more severe, extending over the thenar half of the left palm. The history of the injury was that the patient had been suffering from sore throat, and had purchased some chlorate of potash lozenges. These he was carrying in the pocket of his

trousers, rolled up in a piece of paper. He told me that one of the lozenges was loose in the pocket, and that he had also in the pocket a box of safety matches. While moving about he suddenly heard a noise like a squib going off in his pocket, and saw smoke issuing from it. This caused him to grasp his pocket from the outside, thinking to smother the fire: but suddenly there was an explosion which blew out the whole of the front of the leg of the trousers, and caused the burns. There was no loud noise, but only an exaggeration of the hissing noise heard at first. What had evidently happened was that the loose lozenge, by rubbing on the sulphur composition on the outside of the box of safety matches, had become ignited, and that the rest of the lozenges had been exploded by it, causing the chief explosion. When I searched the room, I found the remains of several of the lozenges. They had been reduced to about one-third of their normal size, and the outside of them appeared scorched and their surface irregular. The patient told me that he had fully an ounce of the lozenges in his pocket at the time.

At the present time (January 25th) the burns are healing rapidly, and are almost entirely covered with new epidermis.

Medical Men and Trance Experiments.

We have received a letter from Dr. Forbes Winslow, in the course of which he states that the presence at the Aquarium on the occasion when the first person whose case was referred to by a correspondent last week was hypnotised was accidental, and that he made a medical examination at the request of the Chairman of the Board of Directors, owing to the absence of two doctors who had been expected to do this. In the second case he states that he was led away by its interest, and watched it from a purely scientific view, and did not realise that his presence at such a *séance* would be unusual. Further, he states that as soon as he saw his name mentioned in connection with it in the press he gave directions for it forthwith to be withdrawn.

Cheap Dispensaries.

Dr. J. Wright Grant (District Medical Officer, Woburn Sands, near Bletchley) writes: I entirely agree with Dr. Dod's letter in the British Medical Journal of January 12th that the licensing authorities should make it 'infamous conduct' to have any dealings with medical aid associations." So long as men will not protect themselves, even when a chance is offered, those associations will continue this "sweating business." If only we held together as lawyers do in connection with their profession and fees, there would be no need for the authorities to interfere, and we should soon see the last of those associations, which would be "tidings of comfort and joy."

Vaccination in Italy.

Dr. James Leishman (ss. *Scindia*, Anchor Line, Birkenhead) writes: In default of better information my small experience of vaccination in Italy may not be without interest. In 1894 I examined over 800 Italian emigrants for vaccination according to American law. I regret I did not retain exact figures of results, but many men even of military age had somehow escaped, and more women, while fully half of the children had no marks. On my last voyage out of 100 children I had to vaccinate over 60. The figures would be more unfavourable if I could subtract those vaccinated just previous to voyage who preferred doing it at home. I was more than surprised to find it is supposed to be universal. These were mainly peasants from the southern half of Italy. While I am writing I may say that Scandinavians are very carelessly vaccinated, many who have certificates showing no marks; Scotch are rather better, German and Irish are far superior and practically perfect. The Italian lymph is excellent. Other ship surgeons I have no doubt could corroborate me.

LETTERS, COMMUNICATIONS, Etc., have been received from:

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BOOKS, Etc., RECEIVED.

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[The following Oration had been prepared by Mr. Hulke, but before the day of delivery he was seized with the illness which proved fatal on February 19th. The Oration was read by Mr. Bryant.]

THE HUNTERIAN ORATION
ON
JOHN HUNTER THE BIOLOGIST.

At the Royal College of Surgeons of England, February 14th, 1895.

By J. W. HULKE, F.R.S., F.R.C.S.,
President of the College.

Mr Vice-President, Visitors, Fellows, and Members of the Royal College of Surgeons of England,—We meet to-day to commemorate the 166th anniversary of the birth of John Hunter, that remarkable man whose name in this College is as a living presence, who did so much and with such great success last century to raise surgery from the lower grade of an empirical handicraft, which it then too greatly resembled, to the dignity of a branch of science by basing the principles that should guide its practice on the combined foundation of anatomy, physiology, and pathology.

His great achievements as a surgeon, his life-history, and his personality have been so frequently dwelt on here, that I may pass these by, and at once take up the theme on which I would speak to you; its subject is John Hunter the Biologist, the sagacious investigator and interpreter of "organic Nature." Of John Hunter in this character I can, however, offer you only a very incomplete sketch, since even if the time at my disposal permitted, and had I the necessary ability for such a task—a gift I may not claim—the materials for a complete presentment of him as a biologist do not now exist, for ten large bound volumes of manuscript written, mostly by his assistants at his dictation, and then revised, added to, and corrected by himself, embodying the records of the labours of many years, purchased, together with his museum, by the nation, which made our College their custodian, were, about thirty years after John Hunter's death, designedly burned by his brother-in-law and executor, Sir Everard Home. When interrogated respecting this act, he alleged that he had destroyed these MSS. by John Hunter's expressed desire, as being by him considered too imperfect for the public eye. That these ten volumes of MSS. were included under the words "collections and everything belonging thereto," which John Hunter in his last will directed should be offered to the Government "in one lot," is not open to doubt; yet Sir Everard Home, shortly before the transfer of Hunter's collections from Leicester Square to Lincoln's Inn Fields, and therefore after their purchase by the Government, had them removed to his own house. The Board of Curators of the College Museum appear not to have known that they had ever existed until after their destruction.

This irreparable loss looms the larger when we study John Hunter's anatomical and physiological collections, when we ponder on the fragments of his writings rescued from destruction by the solicitude of William Clift, his devoted assistant, our first conservator; and when we read his lectures and other papers collected and published by this College, and by Palmer, Ottley and R. Owen.

The better my knowledge of the extensive series of anatomical and physiological preparations—nearly all made by John Hunter's own hands, a series which may properly be regarded as the centre around which are clustered our own now very greatly extended and in some respects unsurpassed collections—the more profoundly am I impressed with the vastness of our great master's anatomical and physiological work, which, it should be remembered, was all accomplished within the relatively short space of thirty years, broken in upon by frequent and severe illness and by the many interruptions incidental to the life of a busy practising surgeon: the better my acquaintance with the Hunterian series, the more am I impressed with John Hunter's sagacity, for in this series of preparations we have not the bald presentments of disconnected facts, but each preparation unfolds a tale, each conveys a lesson, each is a link in a chain, and not infrequently one clears up something which is obscurely represented or only hinted at by another.

The overshadowing greatness of his zootomical work, perhaps, accounts for the imperfect recognition by so many of us of how much John Hunter also occupied himself in botanical research. In one of several physiological papers, after discussing the agreements and the differences between that which he terms "common or original matter and animate matter"—or, as we now should say, between inorganic and organic substances—and affirming the derivation of the latter from the former, for the reason that "animate is found to return to inanimate matter," he proceeds to analyse the resemblances and the differences of the matter of which animals and vegetables are composed. He restricts to vegetables the power of immediately converting common—that is, inorganic—matter "into their own kind;" and from this he draws the inference that "a vegetable seems an intermediate link between common and animal matter."

In his lectures on the *Principles of Surgery* he reviews the "accord" between the physiological endowments of vegetables and those of animals. He mentions that "a self-moving power has been observed and is universally allowed in vegetables;" and he adds that "this principle seems to be as much a property in vegetables as in animals." He illustrates internal mechanical work done within the vegetable tissues by reference to Hale's notable experiments on the rising of the sap in trees; and he contrasts the magnitude of the force employed in this movement with that exerted in the heart's systole.

Having defined irritability as the power of responding to stimuli by internal and external work, he calls attention to the visible movements of "whole parts of plants" as examples of this property. He adduces the movements of the leaves of the leguminous plant, the Hedysarum gyrans, as an example of this phenomenon; and he comments on an apparent analogy between these movements and those of respiration in animals suggested by their periodic repetition in both divisions of organic nature. Here he is, however, careful to avoid the error of attributing to these superficial resemblances an essential correspondence of function. With characteristic cautiousness he proceeds, "This (that is, the recurring leaf movements) is an action apparently similar to breathing in animals, though perhaps it does not answer the same purpose."

The circling movements of tendrils, as if seeking for a mechanical support, and their twining round this when they have come into contact with it, did not escape John Hunter's notice. Neither did he overlook the remarkable circumstance which characterises the twining of the stems of certain climbing plants—namely, its constant direction for each plant. He cites the honeysuckle (Lonicera) and the hop (Humulus) as climbers, of both of which he says, "their stems turn to the left, whereas the stem of Clitoria (a pea) and that of convolvulus turn to the right." He instances Dionœa muscipula (Venus's flytrap) and the Mimosa pudica (sensitive plant) as plants endowed with considerable powers of movement. He remarks that "the leaf of Dionœa, upon being touched, closes up, and as it were confines the stimulating cause;" that is, shuts it, and so entraps the insect which, in alighting on its upper surface, has touched the little cluster of extremely irritable hairs there projecting above the general level of the cuticle.

Of the Mimosa pudica he observes that it bends its leaflets in response to a coarse mechanical stimulus, and also to the subtle excitation of varying quantities of light incident upon them. In connection with excitation by light he mentions the goatsbeard (Tragopogon) and Calendula pluvialis, two plants in the large order Compositæ, and he says that they and many other plants close their blossoms towards night or at the approach of rain. Of this habit an indigenous Centaurias (Erythræa), once of high medicinal repute, and the scarlet pimpernel (Anagallis arvensis) supply familiar examples. Then he passes on to tell us that some other plants,

as certain species of "convolvulus, open their flowers in the evening, and close them at the approach of the sun." In striking contrast to these dusk-loving plants, he mentions that nearly the entire class Diadelphia (now designated Leguminosæ), which comprises, he adds, "chiefly wing-leaved plants," close their leaflets "towards night, not expanding them till morning:" and he remarks that this phenomenon had been called by Linnæus the "sleep of plants."

This reference to the great Swedish botanist is interesting, because it proves John Hunter to have been acquainted with Petrus Bremar's remarkable treatise bearing the Latin title *Somnus Plantarum*. It is included in the *Amœnitates Academicæ* of Linnæus, published at Stockholm in 1759. In this instructive memoir Bremar asserts that "plants possess most qualities in common with animals; they feed, they have movement and rest, they have excretions, and they celebrate their nuptials." To Bremar we are indebted for an anecdote of the circumstances which first brought to the great botanist's notice the phenomenon of the folding of the leaves of certain plants at night, before unrecognised. Linnæus, he tells us, had placed in the charge of an assistant a lotus (Ornithopodioides), and had enjoined him to take particular care of it. The lotus blossomed. Throughout the day its conspicuous blossom attracted notice, but in the evening, when the assistant visited the plant, the blossom, to his consternation, was not to be seen. The unhappy man, conceiving that the blossom might have been surreptitiously plucked by an evilly-disposed person, watched the lotus more closely than before. Next morning a blossom again appeared; in the evening it had again vanished. Perplexed, and unable to account for the singular occurrence, but convinced that the blossom had not been stolen, the assistant hastened to Linnæus, and told him what had happened. Linnæus at once went to the lotus, and on closely inspecting it he detected the vanished blossom still actually there, only it was closed and hidden from view, mantled by the green leaves wrapt about it. Attention once aroused, this phenomenon was quickly found to be common to many other plants. That it should have so long escaped recognition, and then owe its discovery to an accident, is but one of many instances that could readily be adduced to illustrate how easily circumstances for which we are not looking pass unnoticed, even though occurring daily under our very eyes.

John Hunter made the Mimosa pudica the subject of a study into which he threw himself with characteristic energy. He writes: "in order to have the greatest part of the day before me, I began my experiments at 8 in the morning, while the leaves were in full expansion, and I continued them till 4 in the afternoon, as longer would not have been just, for they begin to collapse of themselves between 5 and 6 o'clock." With his peculiar aptitude for planning an experiment, he contrived a small screen upon which he could trace and measure the arc through which a selected leaflet moved in response to a certain stimulus. In this way he found that "the leaflets are less affected as they become accustomed to the stimulus;"......"that they require a stronger and quicker stimulus to produce motion after being some time accustomed to it;".....and "that they erect themselves less after a repetition of such actions." Here the analogy to the corresponding occurrences in connection with excitation of animal tissues is very obvious. Searching for the mechanism concerned in the movement of the mimosa leaflets, John Hunter discovered that "the motion is principally confined to one part, and this differing from the others in external appearance, which difference is its increased thickness and uniformity of surface." Then he locates the motor mechanism in the swelling at the base of the pedicle, and in the homologous parts of the stalks of the leaflets. Next he tells us that he slit longitudinally the swelling on the "foot stalk," and also that part of "the stem on which it stands," and he is about to record what he saw in these parts; but here unhappily, as Ottley notices, there occurs a blank in the manuscript which leaves us ignorant of what he actually discerned in them. I do not gather from the context that John Hunter employed the compound microscope in this investigation. The contrary appears more probable, for the use of the microscope was then only dawning, and vegetable histology had made relatively little advance since Malpighi began to cultivate it in the latter half of the preceding century. We at our standpoint can hardly conceive the possibility of Malpighi holding concurrently the Chair of Botany and that of Zootomy in his university—Bologna, yet in both these chairs he made discoveries which gained for him enduring fame. We *metici* are wont to think of Malpighi as an anatomist only, whose honoured name has come down to us chiefly in association with certain minute bodies in the kidneys and spleen, and with a certain layer in the skin, but botanists revere Malpighi as the founder of vegetable histology. For John Hunter it may fairly be claimed that he pushed his investigations into the motor mechanism of the mimosa leaflets as far as was then practicable with the means at his command.

Later investigators have demonstrated that when in a young, vigorous, succulent mimosa plant a cut is made with a sharp knife into the petiolar swelling, dividing its parenchyma down to the central strand of vascular tissue, a drop of water oozes from the wound, upon which follows the well-known movement of the leaf. In the absence of this effusion of water, no movement of the leaf occurs. Julius Sachs, who in recent years has done so much to advance the study of vegetable physiology, has further demonstrated that the visible leaf movement is caused by the afflux of water in the petiolar parenchyma, distending the tissue and thus causing it to become elongated more than the less extensile axile band of vessels. By such distension of the mass of parenchyma situated above the axile vascular bundle, the upper part of the petiolar swelling is lengthened disproportionately to the lower part, and the leaf of necessity bends down; whereas when the lower mass of the parenchyma is turgid with water, the opposite occurs, and the leaf erects itself. By the device of removing first the upper and then the lower mass of parenchyma, J. Sachs was able to demonstrate that only the latter mass—that lying below the axile vessels—is endowed with this irritability. It is now known that the movements of the mimosa leaflets are attended with the production of feeble electric currents. Such currents have also been demonstrated by Professor Burdon Sanderson to attend the movements of the leaf of Dionœa muscipula. Dr. Kunkel, working in Sachs's laboratory, has since then demonstrated that weak electric currents accompany the movement of water. In the vegetable tissues, however, this movement is originated, and thus the generation of such electric currents proves not to be peculiar to leaf movement excited by external stimulation.

Whilst experimenting on the mimosa, John Hunter observed that when he touched the leaflets the visible effect of the local stimulation spread to the neighbouring leaflets which he saw laid down in pairs until all the leaflets of the compound leaf were folded. He noticed also that this progressive effect of the stimulus spread from the point where it was applied more readily in the direction towards the stem of the plant than in the opposite direction towards the peripheral end of the leaf.

J. Sachs and with him some others appear disposed to regard the petiolar, axile, vascular bundle as the path along which the molecular disturbance initiated by the application of the stimulus travels; but whether this or the parenchymatous tissue is the path, it seems probable that a molecular disturbance in the living, active cell protoplasm is the efficient cause of the afflux of water that produces the leaf movement. The protoplasm of adjoining vegetable cells is now known to be continuous through minute openings in the cell walls, so that we are warranted in regarding the protoplasm in living vegetable tissues as a *continuum;* and thus the propagation of a molecular disturbance to considerable distances beyond the point of application of a mechanical stimulus originating it becomes readily intelligible. John Hunter's experiments on the mimosa were not limited to the effects of mechanical stimulation. He also experimented on this plant with heat, with chemical solutions, and with ether. He tried also the effect of a tight ligature placed around the stem or branch, and he found that when the part below the ligature was cut, very slight or no movement of the leaf occurred.

Continuing his discussion of the resemblances between animals and vegetables, Hunter remarks that "vegetables

are supposed, with great reason, to have an action analogous to breathing, for the same kind of air which kills animals which do breathe certainly kills vegetables also." He touches this subject so briefly that he leaves us in uncertainty whether he had himself experimentally investigated the influence of gases on plant life, or had merely adopted the conclusions of others. This latter appears to me more probable, when we bear in mind the standpoint of the chemistry of the gases in his day. Carbonic acid gas was discovered by Black in 1754, nitrogen by Priestley in 1772, oxygen also by Priestley in 1774, and hydrogen by Cavendish in 1776, the year of John Hunter's Croonian Lecture, from which I have just quoted.

We know (as Palmer has noticed) that John Hunter and Cavendish were personally acquainted, for Hunter himself tells us that Cavendish examined for him "air" contained in certain bladders present in the intestines of a hog sent to him by Jenner. There is, then, no improbability in the supposition that John Hunter may have derived from Cavendish his knowledge of the influence of gases on vegetable life.

However this may have been, botanists have long recognised as a general principle the necessity of the presence of oxygen for vegetable life: further, that vegetables take in free oxygen from the surrounding atmosphere; and also that they are able to seize upon oxygen when this is presented to them in weak chemical combination. Of this latter action the reduction of oxyhæmoglobin to hæmoglobin in the circulating blood by the bacillus of anthrax in animals dying of cattle plague has been thought a significant example.

In the absence of oxygen plants are asphyxiated, vegetable protoplasm loses its irritability, though less quickly than does animal protoplasm, because the processes of vegetable life are less actively carried on than are those of animal life. When a plant is deprived of oxygen, as when it is placed in an atmosphere from which the gas is absent, during a short period the want of the external supply of oxygen is in some measure compensated by the atmospheric oxygen previously enclosed in the air spaces of the vegetable tissues; perhaps also some oxygen is derived by the plant from the decomposition of weak chemical combinations of oxygen normally present in certain chemical substances contained in the tissues but these limited sources of oxygen are soon exhausted.

To this general law of the necessity of oxygen for the maintenance of vegetable life certain low forms appear to offer notable exceptions. Thus the yeast plant (Saccharomyces cerevisiæ) can live and even increase in an atmosphere devoid of oxygen. Its highest life phase, however, requires the presence of oxygen, for spores are not produced unless the plant has access to the atmosphere. Then, also, there are certain Schizomycetes to which free oxygen seems to be positively hurtful; they die in its presence. The explanation of this singular phenomenon still awaits solution.

The final products of the oxygen taken into the tissues of the plant are carbon dioxide and water. Of these, the former is exhaled from every part of the plant's external surface. This, von Tighem says, is the most constant phenomenon of plant life: and thus in the matter of gas exchanges we find confirmed the impression mentioned by John Hunter as current in his day, namely, that a very close correspondence exists between vegetable and animal respiration.

That plants like animals have "the power within themselves of producing or generating heat" did not escape John Hunter's notice. He investigated also their power of resisting very low temperatures, employing in some experiments freezing mixtures, and noting the effects of these on succulent and on woody plants, and he found that the latter better resisted great cold. He also carried out a series of observations, prolonged over a year, on the internal temperature of trees relatively to that of the external atmosphere. He mentions that he "read his thermometers at six o'clock in the morning and again at the same hour in the evening;" and he says that he was obliged to discontinue these experiments because the sap froze in the holes bored in the trees treated for the reception of his thermometers. He records that he was careful to allow a sufficient interval to elapse between boring the holes and inserting the thermometers in order that the heat generated by the friction of the gimlet might be dissipated; and he tells us also that he enclosed in a box the part of the thermometers projecting externally beyond the hole, and packed it in wool in order to protect it "against all immediate external influences either of heat or of cold."

Hunter also made a series of thermal experiments on vegetable seeds similar to others he had made on eggs, and he mentions his intention to record these. No trace of such record has come down to us, if actually made; it may, perhaps, have been amongst the MSS. burned by Sir Everard Home. John Hunter has left us a brief account of experiments in connection with the movement of the sap. We possess, also short statements of his views concerning the influence of light on the production of the "green colour" of vegetables, on the changes undergone by the leaf in dying, on the natural decay of the vegetable tissues, on the morphology of the bud, and on "germination and generation in vegetables."

I cannot now enlarge on his work in relation to these several subjects, nor is it necessary that I should do so, since the evidence adduced is more than sufficient to justify me in claiming for our great master that he was a very close observer, and an acute reasoner upon many of the phenomena comprised under vegetable physiology.

Leaving botany, John Hunter's title to a place in the foremost rank of original investigators in zoology, the other primary division of biology, is so universally acknowledged that more than a passing reference to his researches in the animal kingdom may seem unnecessary, particularly within these walls; yet on this occasion I may not dismiss them with a bare allusion. His memoirs on *The General Principles of the Blood:* on *The Vascular System:* on *Digestion, Absorption, and Nutrition:* and on *The Growth of Bones*, even at the standpoint we have reached, requite attentive study. They show how far he was in advance of his contemporaries.

John Hunter's devotion to physiology, which had its root in his conviction of the necessity of this "discipline" for the intelligent practice of surgery, was made a reproach by empirical surgical contemporaries, who called him a theorist and not a practical surgeon; indeed, the tardy recognition of John Hunter as the leading surgeon in this metropolis was probably in no small degree due to this misconception of him. This comment has also been made by others. His memoir on *The General Principles of the Blood* is certainly one of the most important written by him. From it we learn how much patient investigation, how much concentrated thought he bestowed on the striking phenomenon of its coagulation. "This," he remarks, "is not a property of the blood as a whole, but only of one of its component parts—the coagulable lymph." Then with nice discernment he adds: "This would better be termed 'coagulating lymph,' since blood serum also contains a coagulable substance which, however, needs the addition of a chemical agent for its change from a liquid to a solid state." John Hunter considered "coagulable lymph"—fibrin, as we term it—to be the most important constituent of the blood chiefly because he found it universally present in it. He sought to ascertain the influence of temperature on the coagulation of fibrin, and he established that this latter is retarded by cold and hastened by heat.

The effect of rest and of motion on coagulation of fibrin also occupied his attention, with the result that he was led to regard rest as an important direct factor but not its immediate cause.

The final outcome of all his experiments and observations on the blood was the view of its coagulation, which I state in his own words: "That the fluid state of the blood is connected with the living vessels, which are its natural situation, and with motion: and that where there is a full power of life the vessels are capable of keeping the blood in a fluid state." These views appear to harmonise closely with those of the present day.

The white corpuscles of the blood appear to have been unknown to John Hunter, which will not surprise us if we bear in mind the imperfection of the compound microscope in his day, and also the entire absence of our numerous aids, of which I need only instance the use of differential staining agents, by which so many delicate details of minute structure have been disclosed.

How narrowly John Hunter scrutinised every unusual circumstance that came before him is shown by his remarks on Liphæmia. He writes: "The serum of the blood is often wheyish, and then upon settling it often throws up a whitish

scum like cream."..... "This was most probably first observed in human blood, but it is not peculiar to it." He had noticed it "more frequently in the blood of breeding women, but he had seen it in others, and sometimes in man." Examined with the microscope, he found this serum to be composed of "globular particles which are not soluble in water, and which rise to the top." This pathological condition has in recent years attracted much attention.[1]

Numerous and varied experiments were made by John Hunter to determine the cause of the different colour of venous and of arterial blood. He noticed the influence of respiration on the colour, and to the objection advanced by some "that in the lungs the blood cannot come into contact with the air," he opposed the familiar fact that the bright red colour assumed by the outer surface of a bloodclot when exposed to the atmosphere "extends some depth into the clot," whence "it is evident that air can and does penetrate animal matter."

Passing to the "vascular system" we find that John Hunter notices the predominance of muscular over elastic tissue in the coats of the smaller blood vessels; and then he comments on their respective influences on the calibre of the vessels. He also notices the branching and the anastomosis of arteries, and he discusses the effects of these arrangements on the velocity of the blood current. Then he investigates the pumping force of the heart in relation to the resistance offered by the arterioles; the relative capacities of the venous and arterial systems; the retardation of the blood current in the veins; and the form, structure, and distribution of the valves in the last named vessels.

John Hunter's observations on *Digestion and Nutrition*, though much less extensive, are scarcely less instructive than those I have noticed. I shall cite one only, namely, that on "The Digestion of the Stomach by its own Juices after Death," occasioning appearances that had previously been regarded as pathological, and respecting the real nature of which much acute difference of opinion continued long subsequently to exist, notwithstanding the thoroughness of John Hunter's exposition.

In a communication to the Royal Society, made at the instigation of its President, Sir John Pringle (read on June 18th, 1772), John Hunter insists on the prime importance of a correct knowledge of the appearances produced in the tissues of the body by those changes which they naturally undergo in persons dying suddenly, as from fatal violence inflicted on them when in perfect health. He significantly remarks that, in the absence of this knowledge, appearances, collectively products of putrefaction, may easily be mistaken for others the results of disease, pathological in their nature and occurring during life; and thus confusion and misapprehension will arise. He goes on to state that "there is a case of mixed nature which cannot be reckoned a process of the living body, nor of the dead; it participates of both, inasmuch as its cause arises from the living, yet it cannot take effect till after death." He adduces the suggested fact that "animals or parts of animals possessed of the living principle, when taken into the stomach, are not affected by the powers of that viscus so long as the living principle remains. Thence it is," he adds, "that we find animals of various kinds living in the stomach or hatched or bred there; but the moment that any of these lose the living principle they become subject to the digestive powers of the stomach."

At a loss to explain these appearances, John Hunter had supposed them to have been produced during life, and to have been the cause of death; but the absence of associated symptoms, and their frequency in persons who, being in good health, had died violent deaths, occasioned him perplexity and made him, as he says, "suspect that the cause was not even imagined." He tells us that the first time he had observed this "appearance" was under circumstances that precluded its causation by disease—the man had just before his death made a hearty supper of cold meat, cheese, bread, and ale. On opening his body a large hole was found in the stomach, through which part of the ingesta had escaped into the general cavity of the belly. Doubtful as to what this might mean, John Hunter made "many experiments on digestion, on different animals, all of which were killed at different times after being fed with different kinds of food; some were not opened immediately after death, and in some of them (he says) I found the appearance thus described in the stomach."

This memoir is worthy of study if only as an illustration of John Hunter's method of work; whenever puzzled by anything of which the explanation did not immediately present itself, he turned to experimentation for its solution.

These very incomplete references to some of his more important physiological researches prove that as an original investigator in this branch of biology John Hunter was in line with the foremost workers of his day.

How great an anatomist he was is evidenced by his published papers; by the great value in which his lectures delivered in the Windmill Street rooms were held by those who made the effort to understand them, and is told yet more eloquently by his preparations on the shelves of our museum. In anatomy, as I have already said, John Hunter was not a mere accumulator of facts, not a mere describer of figure, colour, and relative position of the organs and members of the animal body, but he sought for the explanation of these. He tried to import into the art of anatomy the character of a science. He was ever seeking the how, the why, and the wherefore of the facts disclosed by his scalpel, ever reasoning inductively from particular instances, and ever trying to deduce general laws.

But John Hunter was not only a distinguished zootomist, anthropotomist and physiologist; he also assiduously prosecuted researches in embryology previously little studied, and he reaped in it a rich harvest. How keenly, how penetratingly he observed, and how sagaciously he interpreted what he saw is apparent in the article he wrote on "The Development of the Chick." In order to secure a supply of eggs for this research he kept large numbers of fowls and also a flock of geese during several years.

John Hunter's labours were not limited to ontogeny the development of the individual; he pressed onwards to the study of phylogeny, the evolution of the "stem." He writes, "We may observe that in natural things nothing stands alone; that everything in Nature has a relation to a connection with some other natural production or productions; and that each is composed of parts common to most others, but differently arranged. Therefore in every natural production there is an appearance of an affinity in some parts of its composition with those of some other natural production, and where there are the greatest number of these affinities, or corresponding parts, the correspondence or affinity between those of one production with those of another, the nearer are those (natural productions) allied."

In another passage, after premising with characteristic vigour of language that "definitions are the most damnable things," he defines species as "things having the same relationship in their most essential properties, however much they differ in others." "So," he continues, "animals breeding in the full extent of that process constitute the species, although this may differ in some of their parts or other circumstances, but which differences are less essential, only constituting a variety."

He comments on the greater tendency of domestic species to variation than obtains in wild animals, and he illustrates this difference by the many diverse breeds of dogs and the few distinct races of wolves. He attributes this difference to the existence of domestic animals under other than their natural circumstances—in short, he recognises the plastic influence of environment. He perceives "in a great many species a considerable variety in the same, and from variety in this same species it becomes a doubt whether they were all original or none of them, or, if any be original, which that one is."

He alludes to the variability of species in more than one passage, and he makes the significant comment that some variations are transmissible to offspring. He tells us that "it may certainly be laid down as one of the laws of Nature for species to deviate from their type under certain circumstances;" and, he adds, "it is neither necessary, nor does it follow that all deviations from the original must be a falling off; it appears just the contrary, therefore we may suppose that Nature is improving her works, or, at least, has established the principles of improvement in the body as well as in the mind."

In these passages—laboured and somewhat deficient in per-

[1] See *Trans. Path. Soc. Lond.*, vol. xxxviii, 1887.

fect clearness of expression—we find John Hunter enunciating the principles of the "inherent variability of species;" of the "modifying influences of environment;" of the transmissibility of variations from parent to offspring: and of evolution from lower to higher life forms—in short, in those of his memoirs which we possess there is to be found abundant evidence that his mind was often and deeply engaged in the consideration of the pregnant questions comprised in the idea of evolution, around which so much and such fierce controversy has been waged in our own day.

The significance of past forms of life did not escape him; he studied their fossil remains, of which he collected a considerable number. In a memoir communicated by him to the Royal Society on a series of fossil bones from caves at Gailenreuth presented to the Society by His Serene Highness the Margrave of Anspach, we find John Hunter investigating the circumstances of their fossilisation, comparing the forms of these bones with those of extant animals, reviewing the geographical distribution of animals in past time, and speculating from the *gisements* of fossils upon the form, etc., of the earth's surface in past ages.

From these and similar considerations John Hunter inferred a duration of our earth prolonged through "many thousand centuries." This chronology was so greatly at variance with that then universally accepted that a second memoir sent in by him to the Royal Society, in which it was stated, caused so much misgiving in its Council as led to a suggestion being conveyed to him that he should substitute years for centuries. With characteristic adherence to his convictions, John Hunter would not modify his original statement, and he withdrew the paper.

John Hunter's researches were not limited by the walls of the dissecting room, museum, and study; outside these he was a close observer of living Nature. He was fully alive to the great value of both these lines of work. In some fragmentary notes on *Natural History*, edited by R. Owen, he remarks: "Writers on the natural history of animals have been of two kinds—one (concerned) only in what they could observe externally, such as form and mode of life; the second (studying) only the internal parts, and the structure of the whole animal which was performed by the anatomist. As (the subject of) the first has an immediate connection with (that of) the second, the describers of form conjectured what the structure ought to be by consulting the anatomist; and the anatomist conjectured what the living history is, or ought to be, from the natural history of others, filling up what he conceived to be just, and fancy supplying the rest. But such union of knowledge does not properly match. It is one building built at different times, an addition to an original plan. It is no wonder therefore that the whole is imperfect." Can we pronounce all later anatomists and writers on natural history free from this reproach?

John Hunter's remarkable memoirs on the life-history of the bee testifies to his excellence as a naturalist. We find that for the convenience of close observation without molesting his bees he had hives constructed with glass windows which allowed him at all times to watch their occupants. He inquires into the causes of the death of certain bees in winter. He mentions that "there was plenty of honey in their hives; that on closely examining the dead bees he found they all died with their proboscides extended; their stomachs were full of honey, and their intestines, especially the last part, also full of excrement." No circumstance, however minute, eluded his notice! Then we find him making observations on the heat of bees. Without warmth, he observes, they became dull, inactive, and torpid. He tells us that "on July 18th at 10 P.M., wind northerly, thermometer at 54° F. in the open air, I introduced it into the top of a hive full of bees, and in less than five minutes it rose to 82° F. I let it stand all night; at 5 o'clock in the morning it was down to 79°; at 9 on the same morning it had risen to 83°, and at 1 P.M. to 84°; and at 9 in the evening it was down to 78°. December 30th, air at 35°, bees at 73°."

John Hunter also made the discovery that "the wax is not gathered by the bees from flowers as is 'farina' (pollen), but it is formed by the bees themselves." "It may," he says, "be called an external secretion of oil."....."It is formed between each scale on the under surface of the belly." He detaches the minute flake, warms it on the point of a needle at the flame of a candle, sees it melt and run into a bead, and then burn in the manner of wax—in short, it is wax. He describes the building of the comb and of the royal cell; the deposition of eggs by the queen, their attachment to the bottom of the cell, and their occasional transference to other cells from those in which they were originally placed; the storing of bee bread for feeding the grubs; the development of the grub, its pupal phase, and its final escape out of the cell as the imago. He notes the different life forms present in the community—the queen, the males, and "the working bee, which cannot be called either sex." Finally he describes the anatomy of the bee, and comments on its special senses. He investigated with similar care the life-history of wasps and hornets.

We find him occupying himself, also, with the economy and anatomy of the humble bee (Bombus terrestris), on which subjects he has left quite a long note. With unflagging industry he examined all the occupants of a nest, and found them to comprise 157 females and 25 males; and he noted that the former had longer proboscides than the latter. He observed that the humble bee does not colonise as does the honey bee—it does not swarm, the queen does not leave the hive accompanied by a large train of followers; but "the family is begun by a single female, later assisted by her offspring." None but young queens live through the winter. On its approach they leave their nest, and seek winter quarters in holes in dry banks and similar places, from which they emerge in the spring. Humble bees construct their hives or nests generally underground. These he describes in some detail. Then he notices the deposition of the eggs by the queen, the grubs which emerge from them, and the imago or perfect insect.

The habits of the black humble bee (Anthrophora retusa) and those of the leaf-celled bee (Megachile centuncularis) also occupy his notice; the custom these bees have of cutting pieces out of the leaves of the rose, strawberry, or dogwood, and the neatness with which they adapt these in the construction of their cells.

His attention was not limited to Hymenoptera, for every living creature that frequented his garden or that he met with in the country attracted him. Thus he has left us notes on three familiar beetles. Of the dung-beetle (Geotrupis stercorarius) he records that in June he found the grubs nearly ready to assume the pupal phase; and that the perfect beetle escaped from the chrysalis at the end of July or the beginning of August. He found the grubs in nests at the bottom of holes 12 to 18 inches below the surface of the ground, and usually near cow dung. He treats at some length of the common cockchafer (Malveontha vulgaris), giving its life-history and anatomy, and with less detail he notices the rose beetle (Cetonia aurata).

It was scarcely possible for him not to be interested by two common Orthoptera, and so we find him noting down the appearance and the structure of the grasshopper (Acrida viridissima), describing particularly its eye and speculating on its vision. He detects the predatory habits of the dragon fly (Œstrus grandis), and records his discovery in the following very characteristic note:

"August 18th, 1778, at 8 in the evening, I saw the dragon fly flying about, making short turns, which were performed very quick. I also observed gnats flying, and what took my attention most was his making up to a gnat, and the gnat was seen no more, therefore I conjectured he was feeding on them. I caught him and opened him next morning, and could observe in the stomach the scales of some insects."

What a picture this little anecdote gives of the acuteness of John Hunter as a field naturalist!

As a zootomist and morphologist, John Hunter could not be satisfied with the highly artificial zoological classifications of his time. He remarks that the want of an adequate knowledge of these preliminary and indispensable studies had led even the great classifier Linnæus into some very singular arrangements in the earlier editions of his *Systema Naturæ*, of which he mentions one, namely, the placing together in one order of Mammalia, mouse, the elephant, and the bat, because in each of these the mammæ are pectorally situated. Such classifying as this John Hunter caustically observes may be pertinent in respect of breasts, but not as regards animals. He did not stop at showing the defects of this

then current systems of classification, but he suggested as basis for a natural classification the arrangement of the vascular, the respiratory, and the nervous system; and he tentatively drew out the scheme of a natural classification founded on a combination of what he termed essential and circumstantial characters. Thus of the order Mammalia he gives as essential characters "a four-chambered heart; lungs confined to a proper chamber, the enlargement of which is the cause of respiration; lungs divided into small cells; respiration quick; viviparous, etc.; whilst circumstanial characters are found in the structure of the auditory organ." This illustration will suffice to prove how sound and how advanced were John Hunter's views as a systematic zoologist.

If in this sketch of John Hunter—imperfect, incomplete as I know it to be—I have in some small degree succeeded in presenting to you our great master as one of the most indefatigable workers, one of the most earnest seekers after truth, one of the very closest of skilled observers, one of the most sagacious expositors of the facts of vegetable and animal life, I shall not, I trust, have altogether failed in the design I aspired to place before you on this commemorative day—a presentment of John Hunter as a biologist in the widest and truest sense of this now much used word. For this I have made large use of John Hunter's own words, because these best show his mind, and "the mind is the man."

TWO CASES OF ENTERECTOMY IN WHICH MURPHY'S BUTTON WAS USED.

By W. MITCHELL BANKS, M.D., F.R.C.S.Eng.,
Surgeon to the Liverpool Royal Infirmary; Emeritus Professor of Anatomy, University College, Liverpool.

In the two following cases Murphy's button was used as a means of end-to end approximation of the intestine.

A. M., an unmarried female, aged 30, had enjoyed very good health until about eighteen months before her admission into the Liverpool Royal Infirmary. She then began to suffer from attacks of constipation, which were relieved by purgatives and dieting. During the intervals between these attacks she was quite well. As time went on the attacks became more frequent and more severe, each succeeding one lasting a longer time and being more difficult to get over. Moreover a certain amount of pain and discomfort began to be experienced in the region of the cæcum. She lost flesh, and, during the attacks, there was not only constipation but vomiting. At last complete obstruction came on. As her life was in serious danger, she was transported from North Wales, where she lived, to Liverpool. When she arrived she was in an extremely emaciated condition and greatly exhausted. The obstruction had been complete for a fortnight; nevertheless, the abdomen was not much distended, because the patient had been fed on the smallest possible amount of easily absorbable liquid food, and had been kept free from pain by opium. Being so thin as she was the action of the small intestine could be plainly seen through the abdominal wall struggling to force a passage through some obstruction, but where that obstruction was could not be ascertained. The only guide was the patient's statement that most of her pain and uneasiness were felt in the region of the cæcum, but nowhere could any tumour or swelling be felt. As she was obviously nearing her end unless relief were given, the abdomen was opened in the middle line so as to permit of an inspection of all parts of the cavity. Presently distended and hypertrophied small gut was found, which, being followed down to the cæcum, led to the cause of obstruction. This was a thickened and strictured condition occupying about two inches of the bowel, and intensely hard to the touch. At the moment its hardness induced us to believe it malignant, but subsequently microscopical examination showed it to be mostly fibrous. This could not have made any difference in the treatment, for nothing short of removal would have been of any avail.

The difficulties in connection with it were two: (1) That the ileum on the proximal side of the stricture, by reason of its severe and protracted exertion, had become enormously hypertrophied and increased in calibre, so that it was quite as large as great intestine, while the ileum between the stricture and the ileo cæcal valve was atrophied, and not larger than the small bowel of a child. (2) That the last-mentioned piece of bowel was extremely short, being only about three quarters of an inch in length, and when the stricture was cut out became even shorter by retraction of its muscular coat. It is difficult to imagine more difficult circumstances under which to attempt union of intestine. As something, however, had to be done, I rapidly removed the stricture, and proceeded to fit the Murphy's button. The difficulty with the proximal end was that it was far too big for the upper half of the button, and had to be very much crumpled up; while, on the other hand, the distal end was so short and small that I could not get enough to cover the button until I had divided one flap of the ileo-cæcal valve and thrust it into the cæcum. All this had to be done in such a hurry, owing to the weak condition of the patient, that it was done in a manner which I felt was unsatisfactory and imperfect, but there was no help for it, and we were glad to get her back to bed alive. She lived for thirty hours, but never properly rallied. At the *post-mortem* examination it was found that semi-fluid fæces had passed abundantly through the button, so that there was no longer any obstruction; also that the bowel was well united and soundly glued together, except at one small point, and at that point a little fæcal extravasation had taken place. Commenting upon the case one would say that the real cause of failure was the exhausted condition of the patient, so great that she would have died under all circumstances, whether the button had held completely tight or no. The only other method I could have employed would have been to have united by an end-to-side approximation the proximal end of the ileum with the ascending colon, closing up the short end of ileum which led into the cæcum. Theoretically this would have been the best thing to do. Practically the condition of the patient did not permit of more than was done, and that was done in such a hurry that it was done imperfectly. Nevertheless, the untoward result of the case did not prejudice me against the use of the Murphy's button. On the contrary, I at once recognised in it such valuable qualities that I resolved to use it the very next chance I had. This occurred within a few weeks, the facts of the case being briefly thus.

On Saturday evening, December 29th, 1894, I was asked by my friend, Dr. Holmes, of Anfield, to see at his own home, A. H., a schoolboy, 7 years of age. His mother told us that he had for a long time been in the habit of bolting his food. For some weeks before his present attack he had gone as usual to the watercloset after his hastily-swallowed breakfast, but had come down complaining of griping pains in his belly, which passed off after a little while. On Sunday, December 23rd (six days before I saw him), he had been taken with pains all over him, and remained in the house. Next day (Monday) he lay on the sofa, "generally ill all over." In the evening he had a dose of castor oil, which was said to have operated twice in the night. From that time onwards he had complete obstruction. On Tuesday he had frightful abdominal pains, and vomited everything, and this continued all Wednesday and Thursday. On Thursday evening he had a simple enema, and on its return it was accompanied by the passage of a considerable quantity of blood. On Friday and Saturday he was comparatively free from pain, and lay in a quiet, dreamy state. The abdomen was not much distended, but all that could be felt was that there was a feeling of fulness to the right of the umbilicus. A diagnosis was made of intussusception, chiefly owing to the passage of blood. It was agreed that if no relief came during the night the child should be brought to the Royal Infirmary next day (Sunday, December 30th). This being done the abdomen was opened in the middle line, and an intussusception of the ileum, situated about 18 inches from the cæcum, came readily up to the incision. The bowel was black and gangrenous at the site of constriction, and for some distance downwards from it. Points were selected quite free of the mischief, the bowel divided at them, and its ends approximated by a Murphy's button. The abdominal wound was completely closed. The boy soon began to get over his shock. On the nineteenth day the button was passed, and on the thirty-eighth day he was sent home. Here a correct diagnosis was made. One was prepared for what was coming, and the operation was done with the greatest ease and rapidity.

Dr. Murphy's button has been in use for about two years and a-half in America, and in a paper published by him in the *New York Medical Record* for June, 1894, he refers to sixty-five cases that he had collected. The success seems to have been astonishing. Of course one must always remember that on the introduction of any new surgical procedure the successes attributed to it are very remarkable. This arises from the modern practice on the part of surgeons of recording their successful and saying nothing about their unsuccessful cases. It is a miserable and dishonest habit, and causes much of our recent surgical literature to be very untrustworthy. But even if one were to deduct a considerable percentage for unsuccessful cases not reported there would still remain such a mass of splendid work as to compel the serious attention of all persons interested in abdominal surgery. To those who wish to look into the literature of the subject, Dr. Murphy's papers in the *New York Medical Record* (just referred to), and in the *Lancet* of September 15th, 1894, will give a vast amount of information. So far as I can gather from the journals the button has been used in this country on three occasions; at any rate, I cannot find reports of other cases. In the *Lancet* of April 21st, 1894, Mr. Arbuthnot Lane described a case of sarcoma of the sigmoid, where the tumour was removed along with 12 inches of the large intestine, the bowel being approximated end to end. The button was passed on the eighth day. There was some slight fæculent leakage, but it escaped into the wound, which was conveniently situated for its exit. In the *Lancet* of October 20th, 1894, Mr. Paul Swain narrates a case of non-malignant stricture of the small gut in a lad aged 15, the result of injury, which he removed along with 5 inches of intestine. The button passed on the thirteenth day. In the British Medical Journal in January, 1895, a brief reference is made to a case of removal of gangrenous intestine by Dr. Murphy, of Sunderland. Mr. Lane spoke in praise of the button, and Mr. Swain wrote as follows: "The great objection to all intestinal resection is the length of time spent in securely suturing the ends of the gut. I was surprised at the facility with which the operation was performed. I was only familiar with the use of the button from the description I had read, and yet I found the reunion of the gut a very easy process. The adaptation of the serous surfaces was so perfect that it was with entire confidence that I returned the bowel into the abdominal cavity."

In abdominal surgery two great factors make for success—maintenance of an absolutely aseptic condition of the peritoneum, and rapidity in the actual performance of the operation. In ovariotomy and uterine laparotomies this second condition is not so important as in operations for intestinal obstruction, for the patient of the gynæcologist, although often very worn and emaciated, is, at all events, seldom in a condition of general poisoning, whereas the victim of intestinal obstruction, by reason of fæcal auto-infection, is in a thoroughly poisoned state, and almost infallibly succumbs to a protracted operation. Any means, therefore, that will shorten the duration of time occupied in joining intestines together is of moment. I think the general testimony is that Murphy's button fulfils this requirement.

The first of the two patients whose cases I have recorded lost her life through the fact that she was so weak, that the time necessary for the performance of the operation undertaken for her relief was not sufficient to enable that operation to be done satisfactorily. This, by the way, was her own fault, as she objected to an operation until too late. But, although my experience has long ago made me thoroughly alive to the importance of operating before the patient has arrived at the last gasp, still I cannot quite agree with Dr. Murphy in the serious charges he brings against physicians of trifling away the lives of their patients by vain attempts at general treatment, charges which are constantly being made by surgeons of the end-of-the-century type. In the operative treatment of intestinal obstruction there will always be two difficulties: one is the uncertainty that, in spite of all our improvement in diagnosis, will ever surround the exact pathological condition of the patient; and the other is the fact that every surgeon and physician of experience can call to memory plenty of cases presenting all the characteristic symptoms of obstruction which have, nevertheless, recovered without operation. While I hail, then, with pleasure every operation which will increase the safety of intestinal operations and so enable us with a good conscience to operate as early as possible, still I cannot throw in my lot with those gentlemen who want to open every man's belly after he has been constipated for a week.

For my own part I cannot help thinking that a serious cause of the delay in operating has not so much been any rooted objection to surgical proceedings on the part of physicians as the fact that they (and surgeons too) have been too indiscriminate in the use of opiates in cases of obstruction, and have commenced their administration too early in the progress of their case. It is true that under their use the patient lies in a torpid and painless state, not complaining of much except nausea and vomiting when food is put into him; but this same opium completely masks the symptoms of the disease, and hinders all just attempts at diagnosis. It must without doubt be valuable in cases where there is no mechanical obstruction of the gut of such a kind as Nature cannot undo, but in the case of all other mechanical obstructions we are apt to be lured into viewing our patient as not in very great danger because he is lying tranquil and not complaining much, whereas all the time he is quietly dozing away to his doom. Again, the temperature, the pulse, nay, even the tongue, are no measures at all of the danger in a case of obstruction if it be one of a subacute or chronic kind; and I have often found it most difficult to convince my fellow practitioners that a man may be lying with a slightly subnormal temperature, a slow pulse, and nothing worse than a white, furred tongue, while at that moment he is near his end.

Returning, finally, to the question of Murphy's button, I will not say that (to use the customary phrase) it has "revolutionised" intestinal approximation, but I do regard it as the best all-round mechanical implement that we have at present for the union of the divided bowel. The *primâ facie* objection that the button would stick somewhere on its journey downwards is answered by the fact that no such case has occurred. As to its producing stricture subsequently, it is less likely to do that than any other method of approximation, because it punches out all the superfluity of the inverted intestinal diaphragm and leaves only a narrow ring, along which union takes place. I cannot make any statement as regards other mechanical means, because each inventor gets used to his own apparatus and can manipulate it quickly, but I can testify to much greater ease and rapidity in uniting bowel by the use of the button than by the simple Czerny-Lembert suture. By this last method I have removed portions of gangrenous hernial small bowel on three occasions, the first case dating as far back as 1883. The history of it is to be found in the *Transactions* of the Medical Society of London for 1885. It was a great success, but the next two cases ended fatally, and I came to think that the safest plan was to make an artificial anus at the site of hernia and trust to uniting the bowel by some means or other at a subsequent date. I may come to change my mind on this point now.

CARCINOMATOUS STRICTURE OF TRANSVERSE MESOCOLON: SUCCESSFUL END-TO-END APPROXIMATION BY MURPHY'S ONE AND A-HALF INCH BUTTON.

By GEORGE G. HAMILTON, M.B., F.R.C.S.Ed.,
Late Honorary Surgeon, Northern Hospital; Assistant Surgeon, Royal Infirmary, Liverpool.

The end-to-end approximation of the small intestine
some time been a moderately successful operati
by suture, and now by various mechanical m
operations on the large bowel have in m
disastrous.

It is with pleasure, therefore
features of a case of carcinom
mesocolon in which four
and end-to-end app
and a-half inch b

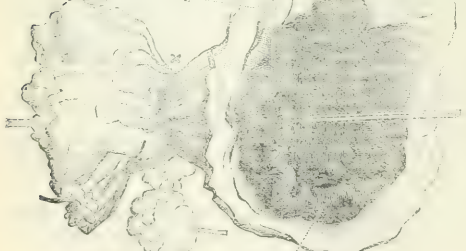
On December 13th, 1894, Dr. Sugden, of Aintree, sent me a man, 33 years of age, a locomotive fireman, who had suffered from symptoms of subacute intestinal obstruction, which had commenced suddenly with pain in the left iliac fossa, while he was turning his engine on a turntable twelve days previously. The doctor reduced a left inguinal hernia for him, and, as his symptoms did not improve, naturally concluded that the hernia had been reduced *en bloc*, and sent him to hospital.

The only physical sign of such being the case was a feeling of resistance over a small area to the right of the umbilicus which appeared at the time, and was afterwards proved to be a scybalum.

The patient thus described his pain: "The wind seems to collect in the upper part of the abdomen, and then to run downwards with a gurgling sensation; the pain is most acute when the advancing wind reaches the centre of the belly; it then diminishes as the wind passes on."

While he was starved he got on very well for some three weeks, but as soon as even a little rice pudding was given him his vomiting and other symptoms of obstruction recurred. I therefore explored his abdomen through a 3-inch wound, commencing an inch below the umbilicus, and extending downwards. After a good deal of searching and examining the right and left inguinal canals, the caput cæcum, sigmoid flexure, and pelvic organs, on running my hand along the large intestine I came upon what felt like a large-sized empty cotton reel exactly in the centre of the transverse colon. I was able to pull this out of the wound, the abdominal cavity being protected by means of a sponge placed underneath. The removal of the carcinomatous stricture and approximation being effected, five Lembert's sutures were applied, the transverse mesocolon being adjusted by stitches as far as was possible. The time, including chloroform administration and exploration, was fifty minutes, the actual operation taking under half an hour.

Mr Thomas, who came into the operation room while I was exploring the abdomen, kindly helped me with the latter part of the operation.



✖ Carcinomatous stricture of mesocolon. A, Red-frilled edge of new growth. B, Healthy mucous membrane.

The specimen shows a tight stricture half an inch in length, barely admitting an ordinary probe, the red frilled edge of new growth invading the mucous membrane on each side of the stricture being very well marked.

The patient is young for cancer, but it is our experience in Liverpool that general cancer affects both males and females at a much earlier age than was formerly the case. After operation he made an uneventful recovery, was perfectly comfortable, passed his first motion on the tenth, and the button unaided on the twenty-fourth day. I had examined his rectum the same day, and could feel nothing of the button.

His diet after operation consisted of 3 ounces of beef-tea and 3 ounces of hot water every hour alternately for the first week, after which milk, and at the end of a fortnight rice pudding and biscuits were added.

The case under consideration illustrates what abdominal surgeons in every journal are urging physicians to see, namely, that where an *exact* diagnosis of the cause of obstruction is not made, the symptoms should not be masked by opium, or waiting for a tumour or further distension, but that the surgeon should be consulted.

Murphy states that the so-called conservatism in many cases amounts to criminal procrastination. I am not one of those who have a great anxiety to open the abdomen in all cases of intestinal obstruction; I have seen too many get well without operation ever to make that mistake, but surely the operator who is constantly handling these cases must become more than a mere cutting man.

No case requires more judgment and experience than one of early intestinal obstruction; two opinions are better than one, and chloroform often facilitates the diagnosis. I trust the practice of calling the surgeon in only when some cutting is indicated will soon be a thing of the past. Early excision of carcinoma of the bowel is not such a hopeless operation as excision of cancer in other parts. Bidwell relates two cases where patients are alive after the operation of removing a carcinomatous tumour of the sigmoid and cæcum, the former two and the latter four years ago.

A word in conclusion about the buttons. It has been proved beyond a doubt that they pass even the ileo-cæcal valve without any harm or difficulty. They, in my experience, are a great improvement on the suture, bone plates, or bone tubes. I believe this to be the first case where the one and a-half inch button has been used for the large intestine. It gives no trouble and is very easy to adapt to the bowel. I should advise everyone who is going to use the buttons to practise in the *post-mortem* room, as considerable dexterity can be acquired, and valuable time gained, after a little practice.

I completed the operation in the *post-mortem* room in seven minutes, and after tying up one end of the bowel, put on the full force of the main water pipe, and no leak took place at the button.

THE LETTSOMIAN LECTURES

ON THE

COMBINATIONS OF MORBID CONDITIONS OF THE CHEST.

Delivered before the Medical Society of London.

By FREDERICK T. ROBERTS, M.D.,

Professor of Materia Medica and Therapeutics at University College; Physician and Professor of Clinical Medicine at University College Hospital; Consulting Physician to the Brompton Hospital for Consumption and Diseases of the Chest

Lecture III.

Symptomatology.

Dr. Roberts, in commencing his third lecture, observed that it was a dangerous error to take account only of physical signs, and to neglect to study the symptoms of intrathoracic diseases. In some cases there might be no obvious symptoms, and this negative fact was of importance as giving an indication of the pathological nature of the changes present. The symptoms presented by complicated cases must be studied on a thoroughly comprehensive basis. In acute cases the severity and character of the pain, the kind of disturbance of breathing, and the sounds by which it was accompanied were to be noted. The characters of the cough and expectoration, and the variety of dyspnœa present demanded special study, the more that in some cases the patient's general condition did not permit systematic physical examination to be made. In chronic cases physical examination should be followed by a systematic study of the symptoms. A single symptom might often be of great value in diagnosis—such symptoms as the sudden discharge of a quantity of pus due to the bursting of an empyema into the lung, or of certain kinds of abscess into the air passages. The sense of smell might lead to an immediate diagnosis, as, for instance, the fœtid odour of the expired air, especially after a vigorous cough, revealing

bronchiectasis in emphysematous lungs. So the sense of hearing might lead to immediate diagnosis by an observation of sounds associated with the acts of breathing or coughing, or by alterations in the voice, as, for instance, in intrathoracic aneurysm.

The occurrence, type, degree, mode of progress, and associated phenomena of fever were often most significant. Thus we may recognise, Dr. Roberts continued, not only pronounced inflammatory or tuberculous cases, but also those indefinite changes going on in the lungs to which I have previously referred. Moreover, by the presence of fever we may be led to conclude that there must be some obscure condition within the chest, as, for instance, a localised collection of pus which is entirely out of reach of direct examination. In cases of phthisis I need scarcely say that pyrexia is a most valuable indication as to the activity and progress of the disease. But perhaps one of the most striking illustrations of the diagnostic value of this pathological state is when malignant endocarditis supervenes upon old chronic disease of the cardiac valves, which it may be impossible otherwise to recognise.

General wasting is another symptom which is very instructive, as indicating what is going on in the chest, not only in relation to phthisis but also to other conditions, especially obscure cases of malignant disease. Anæmia likewise often deserves thoughtful attention. The phenomena resulting from obstruction of the general venous circulation, especially dropsy, always demand careful study. It is a very common tendency to associate these phenomena simply with heart disease. Let it be remembered, however, that this is by no means their sole cause, and that they may be very pronounced when the heart is really practically normal, while in cardiac cases they are often aggravated by pulmonary conditions. This class of symptoms, especially dropsy, are often of great help in determining what is the actual state of things in connection with the heart, and here it may be particularly noted that functional disorder superadded to organic cardiac disease is often accountable for the occurrence of dropsy, or for its temporary aggravation. I will only further state that general symptoms not uncommonly add more or less to the trouble immediately connected with the chest, especially by disturbing the breathing and the cardiac action.

The relation of the pulse to morbid conditions of the chest opens up a very wide subject, upon which I cannot now attempt even to touch. I will only say that, regarding it merely as a symptom, and without reference to any elaborate methods of investigation, it affords in a large number of instances most valuable diagnostic information about combinations of these conditions which I do not think is always adequately appreciated. I may, by the way, draw attention to the fact that the absence of the radial pulse on one side is another important point to be remembered in relation to the diagnosis of an obscure intrathoracic aneurysm.

I have incidentally referred to certain of the minor structures contained in the mediastinum in my preceding remarks. I wish now merely to point out that interference with these structures, or their implication in actual organic changes, is chiefly indicated by what may be regarded as mere symptoms, as distinguished from physical signs. These may be simply modifications of the ordinary chest symptoms, to which, however, they give special characters, such as pain, cough, respiratory disorders, or cardiac phenomena; but some are of special kinds, such as dysphagia due to obstruction of the œsophagus; or signs of implication of the sympathetic nerve, of certain veins, or of the thoracic duct.

Special Methods of Investigation.

(A) *Examination of the Sputum.*—While fully recognising the value of a microscopical examination of the sputum if carried out with intelligence and judgment, Dr. Roberts observed that it could not always be relied upon either from its positive or negative aspect, but in any case the naked-eye examination of the sputum should not be neglected.

(B) *Instrumental Examination.*—Dr. Roberts urged the advantage of simplicity in examination, and that no instrument ought to be allowed to take the place of the trained and educated senses of sight and touch.

(C) *Operative Procedures.*—The use of the exploring needle or trocar, and other measures intended to demonstrate the presence and situation of fluid in the serous cavities, or the existence of an obscure abscess in the lung or elsewhere, or of a hydatid tumour, often yielded valuable information.

(D) *Examination of the Larynx and Trachea.*—Laryngoscopic examination might not only reveal associated morbid states in the larynx or even in the trachea, especially tuberculous and syphilitic, but the signs produced by interference with one or other of the laryngeal nerves might be almost the only data for the recognition of an aneurysm or growth obscured by other conditions within the chest. Similar signs might be associated with an adhesion and fibroid thickening in old chronic apical phthisis. "Tracheal tugging" might also be of real service in the diagnosis of deep-seated aneurysm.

(E) *Examination of the Œsophagus* might be useful not only in the investigation of the morbid conditions of the œsophagus itself, but also of diseases in its vicinity.

Remarks on Treatment.

The concluding part of the lecture was devoted to the discussion of treatment in the following terms:

1. The management of chest affections is far from being such a simple and easy matter as many people seem to imagine, and they certainly cannot, as a rule, be dealt with as individual entities, to be severally treated on a routine and settled system or plan, or with a particular remedy, varying according to the age in which we happen to live, the prevailing therapeutic fashion or fad, or the personal, and it may be very peculiar and original, views of the individual medical practitioner or "scientific therapeutist." Still less ought we to be content with merely treating symptoms, a practice but too often habitually adopted, sometimes, indeed, with remarkable success and undeserved kudos, for the man who acts on this principle, and who doesn't take the trouble to investigate his cases, will often administer powerful drugs, with benefit it may be, when they are in reality very dangerous, and when a well-informed practitioner, who had ascertained the facts of the particular case, would not dare to use them. In the long run, however, this method of procedure is certain to do infinite harm, and to lead to lamentable results, of which only a very small proportion actually come to light. And not only is it directly mischievous and dangerous, but it does infinite harm by allowing serious morbid conditions within the chest to progress unchecked, which might often be arrested, or at any rate controlled, in their early stages, if their presence had been properly detected.

And here I must enter an emphatic protest against a state of things extensively prevailing, and with which as a profession we are deeply concerned, that not only permits, but encourages in a high degree the evil against which I have been speaking, namely, the prevalence of "cheap dispensaries," where so many patients are polished off within the hour; the employment of ignorant unqualified assistants; and the encroachment of the "prescribing chemist" on the domain of the medical practitioner. We do occasionally see in the newspapers some startling revelations brought out in the coroner's court, but these only give a faint hint as to what is actually proceeding on a very large scale. These revelations, however, do not lead to any change, and things go on just as before.

After this digression I return to my point, and must insist on the fact that a large proportion of chest cases, even when they belong to a particular category, must as a necessary consequence of their combined conditions present more or less difficulty in their management, and that they ought always to receive due consideration from a therapeutic as well as a diagnostic standpoint. Sometimes the difficulties are very great, and we may be able to do little or nothing for our patient. But while fully recognising this aspect of the question, I affirm, on the other hand, that much can often be done, even in highly-complicated cases, in the way of treatment, if we study them adequately and intelligently, and deal with the existing conditions rationally and judiciously.

2. Now the first thing we have obviously to determine in relation to the treatment of combined chest conditions in a

particular case is what we can and what we cannot do. We are bound to face the uncomplimentary fact that there are morbid changes which we cannot influence materially, or perhaps not at all, and we had therefore better leave them alone. Of course there are grave diseases for which we can do absolutely nothing; and then I think we ought to be very cautious in using powerful drugs or practising special methods of treatment, the good results of which are, to say the least, highly problematic, though of course it is impossible to lay down any "hard-and-fast" rule in this matter, and each case must be dealt with on its merits.

There is another class of cases, of very common occurrence, in which permanent changes in various combinations affect the chest and its contents, not necessarily immediately dangerous or serious in themselves, but which give rise to more or less troublesome symptoms, and yet we can do little or nothing for them directly. Under these circumstances our main indication is to try to get the patient to understand the state of things, to learn to put up with them and make the best of them, accommodating himself or herself to existing conditions, and to ward off further evils by judicious care and avoiding doing stupid and foolish acts which are likely to bring on additional troubles. I must say that patients do not like this kind of advice, and as a rule resent our ignorance and incompetency; but really it is often the best and most honest advice that we can give, and in the long run many come to acknowledge this fact. A large number of cases coming under this category merely present the combination of minor changes to which I referred in my first lecture. Others belong to the group—and a very trying and sad one it is—where individuals who have led a too active and energetic life, and who often boast that "they have never had a day's illness," are unexpectedly found out and pulled up by the development of one or more prominent chest symptoms, or by some sudden serious disturbance, and it is then discovered that more or less grave morbid conditions have been slowly but surely progressing for some time, of which these phenomena are the outcome and manifestation. To bring such patients to reason and to make them understand that they must give up their hunting and shooting, their mountain-climbing, their boxing and fencing, their lawn tennis, or even their golf, is anything but an easy task for the medical practitioner. Even the "old man" who has long passed his "three score years and ten," and has had a "real good time" in every respect, cannot understand why he should come to the "end of his tether," and that not even "hypodermic injection of spermine" can infuse new life into him.

There is still another class of cases to which I must allude here, namely, those in which definite and easily recognised chronic morbid conditions exist in the chest in various combinations, but entirely inactive and quiescent, though no remedies or methods of treatment can modify them in the least degree. There are hundreds and thousands of cases of this kind, to which we apply particular names, and which throng our hospital out-patient rooms, where I venture to affirm that no active treatment at all is needed, and indeed such treatment is often worse than useless. And here let me say a word as to the frequent necessity of a more judicious use of applications to the chest. By way of illustration may I call attention to the fact that to go on applying some preparation of iodine, sometimes, too, with not very pleasant results to the patient, day after day and week after week, for the supposed purpose of "absorbing" something which cannot possibly be absorbed, such as a greatly thickened pleura or a densely fibroid lung of long duration, is at least not "scientific therapeutics." Of course this procedure may be of service as a "placebo," or to relieve a symptom, when judiciously carried out, but that is altogether another matter.

A very important matter in relation to the classes of cases I am now discussing is that, although any active treatment is decidedly contraindicated, the prevention of any further chest complication is of the greatest consequence, and more or less stringent measures towards this end have often to be carried out. Obviously climate comes in here as a valuable therapeutic factor, but due care is necessary even under the most favourable climatic conditions. Moreover, the great advantages of "home treatment" must also be duly recognised in this connection, the good effects of which may be very striking. I have already alluded to patients suffering from chest affections who are able and willing to remain indoors all the winter, under comfortable conditions, and thus not only prolong their lives considerably, but often manage to have by no means an unpleasant time. But they are not all so amenable to reason, and what one finds is that not a few individuals suffering, it may be, from even serious chest diseases, want to enjoy all the amusements and fun that are going on in the world, without any regard to the risks involved, and they expect us, in our professional capacity, to avert all the evils which their imprudence brings upon them.

From the point of view I am now discussing, in-patient hospital treatment becomes an inestimable boon, even in a "hospital for consumption," with all its supposed risks, and my personal observation and experience will bear ample and emphatic testimony in support of this statement. At the same time, in the light of modern researches and observations, I fully admit that it is our duty to take every possible precaution to prevent tuberculous infection; and it may be a question whether it is desirable to bring phthisical patients, in whom the disease has been practically arrested and cured, into too close contact with those who are suffering from the complaint in an active form.

The next point worthy of notice is that, in the cases we have been considering, should any complication supervene, even if it be but a slight cold, it ought always to receive immediate attention. Neglect of this principle is accountable for much serious mischief.

3. I now proceed to say a few words about the treatment of combinations of diseases or morbid conditions of the chest in acute cases, as they come before us in practice, and for which we are expected to do something definite. Obviously it is impossible to lay down any distinct general rules, but every case must be studied individually, bearing in mind the recognised principles which usually guide us in dealing with the several acute chest affections. It is especially desirable in these cases to try to realise fully at the outset what conditions we have actually to treat, and what we propose to do by our therapeutic measures. I think the general tendency is to be too active than the reverse, and it is well to lean to the side of discretion. A routine line of treatment directed only to one factor in an acute combined case—say pneumonia—is decidedly to be avoided. The supervention of acute on pronounced chronic conditions often gives us a very trying case to manage, and if the combination is not understood it will probably be a bad time for the patient; if nothing worse happens, he is pretty sure to be subjected to a more energetic treatment than the circumstances of the case demand. Of all the cases that harass the medical practitioner and make him feel his smallness and impotence, I think there are none worse than those complicated acute inflammatory chest cases of rapid onset and progress to which I referred in my previous lecture. Some of them are obviously hopeless almost from the first; in others we feel that we must make a fight for life, and there is no greater satisfaction than when, by sticking to our patient and encouraging others to do the same, we succeed, aided by intelligent, judicious, and devoted nursing, in bringing the conflict to a favourable issue, and, humanly speaking, save his life. Unquestionably the rational administration of medicinal agents becomes in these cases of the highest value, especially of those which affect the functions of the vital organs, or which assist or modify expectoration.

I cannot now refer to other details of treatment, and will only say that it is in grave acute chest conditions that we derive such timely help from active therapeutic measures intended for special purposes, more particularly abstraction of blood, either by venesection or local methods, or even by cardiocentesis—as in a case reported in the British Medical Journal of December 15th, 1894—free dry cupping, inhalation of oxygen, artificial respiration, or subcutaneous injection of powerful drugs, such as ether, strychnine, or digitalin. How far the injection of antitoxins is going to be of service to us in the future in the treatment of formidable acute inflammatory diseases of the contents of the thorax remains to be seen, but, so far as diphtheritic cases are concerned, I can affirm that the results which have been achieved in my

wards at University Hospital, under the active management of my late house-physician (Mr. Bunch), are most satisfactory, and fully bear out the favourable reports from other quarters.

4. The actual treatment of chronic chest cases which come before us, presenting such a variety of morbid conditions, in every conceivable combination, and not uncommonly highly complicated, is a problem that always requires thoughtful consideration, and often gives abundant scope for the application of sound therapeutic knowledge and skill, guided by discretion and common sense on the part of the individual practitioner. Different kinds of cases must of course be dealt with in different ways. As I have already intimated, many cases of even pronounced chronic chest diseases do not require any active measures at all, at any rate as a constant or regular practice; but in others we can do much, by the administration of suitable remedies or in other ways, to influence or control morbid processes, to relieve or help symptoms, or to affect temporary conditions or disturbances which so often form part of the history of these cases.

Of course general or constitutional, as well as climatic treatment, and that directed to the digestive or other systems, is frequently of essential importance; and I must draw special attention to the great value not unusually of more or less prolonged rest in bed from time to time, particularly in cardiac cases. As regards the use of medicines, I think the tendency is to overdo things in this direction in chronic cases, even when they are needed; and I may observe that sometimes we find a condition present which distinctly contraindicates the use of a particular drug, or at any rate should make us very cautious in its administration, as, for example, extensive pericardial adhesion, which certainly is not favourable for the employment of digitalis and allied agents. It is interesting and important to note that if one has the opportunity of watching the progress of chronic chest cases of a combined nature, it will frequently be found that they present exacerbations of symptoms from time to time, which pass away under treatment, but in many of them a period comes when nothing further can be done, and the patient must inevitably succumb. The laity cannot understand this at all, and do not see why what has been accomplished before cannot be done again; and I must say that occasionally even a medical man does not quite realise the state of things under these circumstances, but expects the "consulting physician" to achieve impossible results.

5. I now come to the consideration of a definite principle in the treatment of combined chest cases of all kinds, be they sudden, acute, or chronic, as well as indeed in those of a more simple nature, and one which I regard as of the greatest consequence. It is this—to be always on the look-out for, and prepared to deal more or less actively with, certain morbid conditions, often of a pronounced kind, which we can materially influence by treatment, or even absolutely get rid of, but which, if allowed to continue, are sure to lead to serious results, either immediate or remote. This principle applies also to certain individual diseases of a grave nature, which may in not a few instances be greatly checked, or even entirely cured, by appropriate treatment. It opens up a wide range of subjects, and in individual cases it often gives us occasion for deep and anxious thought in determining what is best to be done for our patient's interests, while special difficulties may face us as to carrying out a method of treatment which we know is clearly indicated. There are some who, in relation to certain of the conditions to which I allude, are, I think, inclined to be too hasty, or even rash, in the employment of vigorous and heroic measures; but the general tendency is decidedly in the opposite direction, and one sometimes sees an aggravating "pottering" about cases when there is really something very definite to be done.

Without any comment, I can now only mention the chief conditions or diseases to which the preceding remarks refer, namely, fluid effusions in the serous cavities; pneumothorax and its effects or accompaniments; purulent accumulations of any kind, whether empyema, pyopericardium, or either of the several abscesses; excessive secretions and morbid products in the air tubes or pulmonary vesicles, especially if of a purulent or fœtid character, as well as materials formed in phthisical cavities, special care being taken as far as possible not to allow persistent accumulation of these fluids in the bases of the lungs; solid inflammatory products in the lungs, the remains of pneumonia or broncho-pneumonia, which, even when very extensive and abundant, and of long standing, may sometimes be got rid of entirely by appropriate treatment, systematically and diligently carried out; syphilitic changes, often markedly benefited by specific remedies; aneurysm, which is in not a few instances remarkably amenable to treatment; cardiac thrombosis; and such exceptional diseases as hydatids or actinomycosis.

6. The treatment of temporary disorders of a more or less serious nature occurring as complications of various diseases or combinations, whether acute or chronic, is another aspect of the management of chest cases which always demands thoughtful consideration as well as often promptness of action. Many of these disturbances yield readily to simple measures, such as rest, warmth, posture, and the use of old-fashioned and comparatively harmless remedies, such as "ammonia with ether." The obvious tendency nowadays, however, is to rush off to certain special drugs or methods of treatment, without at all considering the case which has actually to be dealt with, or making any attempt to understand the conditions present. I allude more particularly to the treatment of attacks of spasmodic asthma and angina pectoris. I have no hesitation in affirming that such attacks or supposed attacks—for the disturbances called by these names are by no means always correctly so designated—are often regarded from too narrow and restricted a standpoint as regards the adoption of measures for their immediate relief, that different cases require to be treated in different ways, and that it is a serious mistake to fly to any one remedy as a routine practice. Further, we must never forget that by the repeated use of these remedies, which are usually powerful and dangerous, we may be doing positive mischief; and especially that we may be laying the foundation for their habitual employment by patients themselves on the slightest provocation, the injurious results of which practice we so constantly meet with at the present time, when all kinds of drugs and preparations in convenient and attractive forms for use can be so easily obtained.

At the same time I fully recognise the remarkable effects which can be produced by certain agents which modern experimental pharmacology has provided for us, as well as their essential value in the treatment of the conditions of which I am now speaking, provided they are employed judiciously, and under the direct supervision of a medical man who knows what he is about. Nor must I forget to note here that some of the very active measures to which I have previously alluded may be urgently demanded in cases belonging to the present category, and that they may be immediately instrumental in averting threatened death.

7. The treatment of symptoms opens up most important questions in relation to combined morbid conditions of the chest, and calls for much consideration in a large number of instances. It is impossible for me now, however, to do more than offer a few general remarks on the point. When in an earlier part of this lecture I strongly condemned the mere symptomatic treatment of chest cases, of course I did not mean to imply that they should not receive due attention when required. As a matter of fact they often need a good deal of consideration, and it is by no means easy to cope with them under many circumstances in which various thoracic changes exist together. But here comes in the essential importance of studying each symptom individually in relation to the conditions present before attempting to influence it. It frequently happens that we then find that little or nothing can be done for a particular symptom which is troubling the patient, and what we have got to do is to enforce the principle to which I have previously referred, namely, that he must learn to accommodate himself to his circumstances. This applies more especially to disturbances of respiration and cardiac action. On the contrary, it may be that there is some state of things within the chest which can at once be recognised as the cause of the disorder, and that treatment directed thereto will immediately relieve the symptom or symptoms thus produced, even when they are of a severe or grave character. To go on pouring in drugs for the relief of urgent dyspnœa and palpitation, so-called, obviously depending upon a large pleural effusion which demands instant removal is certainly not rational treatment, and yet it is pos-

sible even in these enlightened days. Again, it is often not desirable to check a particular symptom even when this can be done, such as cough, provided it serves some useful purpose, though it may at the same time perhaps be controlled and helped in various ways. One general rule at any rate should be followed in dealing with symptoms in combined chest cases, and that is not to give more medicine than is really needed, and to employ simple and harmless remedies as much as possible.

I may draw attention to the great advantage to be derived in relation to thoracic symptoms not uncommonly from the adoption of treatment directed to some particular general condition or conditions, especially anæmia, emaciation, and obesity, though I think the last mentioned is sometimes rather injudiciously attacked. Nor must I overlook the immense relief to be often obtained by getting rid without delay of certain abdominal accumulations which physically interfere with the diaphragm and thoracic contents, as well as of extensive subcutaneous dropsy. The beneficial effects which thus follow tapping for ascites, or relieving anasarca by operative measures of different kinds, have, in my experience of a good many cases, been most remarkable.

8. I now come to my last point bearing upon the treatment of combined chest cases, and that is to say a few words about special therapeutic methods. I need scarcely remind you that we are living in an age when, to say the least, there is no great respect paid to traditional therapeutics, and when active and energetic workers are on all hands trying to discover new systems, methods, or even remedies, which will enable us to cope more effectually and successfully with disease in its varied and complex forms. It behoves us, however, as a profession, to be somewhat cautious in our so-called "progress," and not to be too eager to adopt and and practise supposed "cures," which a little consideration may show to have really no rational foundation. Such caution is especially necessary in relation to the treatment of diseases of the chest, and a comparatively recent experience gave us all round a lesson which it is to be hoped will not soon be forgotten.

The more prominent special methods of treatment at present in vogue in relation to chest affections may be summed up as follows: (1) Antiseptic treatment, practised in various ways, including intralaryngeal injections, a method recently brought prominently before the profession by Dr. Colin Campbell. The use of antiseptics may unquestionably be of the greatest value in many combined chest cases, and not merely in those of a phthisical nature. (2) Hypodermic injections of different kinds, which may be rational enough in connection with certain exceptional conditions, but on the whole, as at present recommended and carried out, rather indicate a want of any actual clinical or even pathological knowledge of the grave diseases with with they profess to deal, and sometimes border on the absurd. (3) Climatic treatment, to which is added not uncommonly some particular "cure." About this treatment, which of course is the essential requirement in a large number of instances, I will only say that I find that the "resident doctors" in climatic "health resorts" do not at all like a very advanced or complicated chest case of any kind to deal with, but almost invariably, and for obvious reasons, give their opinion that their particular climate will not be suitable for the patient, and that he had better go elsewhere or stay at home. (4) The use of "respiratory gymnastics," often of the greatest service for various purposes, when properly carried out. (5) Methods connected with the employment of "condensed or rarefied air," especially for emphysematous cases. (6) Treatment directed to the nasal cavities and the throat, which in appropriate cases is of unquestionable advantage. (7) Mechanical or physical methods practised in the treatment of cardiac affections, such as massage, graduated mountain climbing, cycling, or special exercises. With regard to these methods, no doubt they are most beneficial in suitable cases, as I can testify, but each one requires very careful consideration before it is treated in any such way.

The preceding remarks have been intended merely to bring to your remembrance, without attempting to discuss them, certain methods of treatment, one or other of which might appropriately be called for in the management of more or less complicated chest conditions. Their individual application must be left to the matured judgment, practical experience, enlightened common sense, and honesty of purpose of each member of the profession to which we have the privilege and honour to belong.

And now, Mr. President and Gentlemen, my task is ended. I am but too conscious of the imperfect manner in which it has been performed. One of the greatest and most trying problems which the medical profession has to face at the present day, is how to diminish by preventive measures the enormous number of cases of chest diseases which overwhelm us on all sides; and how most effectually to cope with these diseases, in their many forms and combinations, so as to restore health, to prolong life, or to lessen human suffering, according to the circumstances and conditions with which we have to deal. I can honestly say that my object in these lectures has been to contribute something, however insignificant, to the attainment of these ends. Increasing experience has made me feel more and more strongly that before we can succeed in our aims in anything like a satisfactory degree, we must not be content with a general and often vague or theoretical conception of the maladies against which we have to contend, or of their treatment; and I venture further to suggest, with all deference and respect, that we cannot consent to be guided in this matter solely by the teaching of modern experimental pathology and pharmacology. We are bound to realise things as they actually exist in living patients; and it is from this point of view that I have thought it might be of some positive advantage to bring the combinations of morbid conditions of the chest prominently before the profession, at the same time trying to arrange them under some kind of order, to take a comprehensive survey of their clinical investigation, and to glance at the more important principles bearing upon their practical management.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CONGENITAL ABSENCE OF KIDNEY AND FALLOPIAN TUBE.

I WAS sent for to see a female child, aged 1 month, who had died suddenly without any apparent cause. She was said to have been quite well in the early morning, when her mother left her in the bed alive, and returned after about an hour's absence and found her dead. The child had two thumbs on the right hand, the four fingers being normal. She had also two accessory auricles in the position of the upper branchial cleft and the intermaxillary cleft. An inquest was held. On making a *post-mortem* examination, I found that the right kidney and right Fallopian tube and ovary were absent, and there were not any rudimentary structures in their place. The right superior angle of the uterus was rounded off, and completely covered by peritoneum. The left kidney was normal in size and deeply congested. The pelvis contained a small quantity of purulent urine; the bladder was quite empty. In this case it appears as if the one kidney had been insufficient for the wants of the body.

Hendon. F. W. EDRIDGE-GREEN, M.D., F.R.C.S.

THE CONTROL OF HÆMORRHAGE IN AMPUTATION AT THE SHOULDER.

THE method of controlling the main artery on the inner flap by placing a temporary ligature around the vessels, nerves, and muscles, after transfixing the flap by a needle, as described by Dr. Dillon in the BRITISH MEDICAL JOURNAL of February 9th, is no doubt efficient, but I think unnecessary. The text books give four suggestions: (1) pressure on the subclavian with or without division of the skin; (2) elastic ligature carried over the shoulder; (3) trusting to an assistant to compress the flap or catch the vessel; (4) previous ligature of the artery. The three first named are unreliable, the last superfluous. Having in my first amputation learnt the danger of trusting to even a highly-qualified assistant to control the hæmorrhage, I have ever since arranged to keep the

artery under my own command. The method I adopt is as follows:

The deltoid flap having been raised and the head of the humerus disarticulated, the knife is carried down on the inner side of the bone somewhat below the neck. The left hand now grasps the inner flap between the thumb and fingers so as to compress the artery, the thumb being in contact with the raw surface and the fingers outside. Held in this way the inner flap is completed by the knife without hæmorrhage, the surgeon retaining his hold until the vessel is secured with forceps. During the ten years I taught operative surgery in the school of Guy's Hospital, I always insisted on the students adopting this method so as to render them in practice independent of assistants, and I have so frequently tested its efficiency on the living subject that I can strongly recommend its general adoption.

Finsbury Square. R. Clement Lucas, B.S.Lond.F.R.C.S.

BURSA COMMUNICATING WITH KNEE-JOINT: EXCISION.

Mrs. D. first consulted me on November 22nd, 1894, complaining of a "jelly tumour" in the right popliteal space. She had noticed it for years, and had been treated for it by means of strapping, blistering, and injections of iodine and Morton's fluid. It had lately got larger and caused her inconvenience on walking. Excision was advised and accepted. On December 2nd an incision was made over the bursa, and an attempt made to "shell it out" entire. This was impossible, as it had a deep connection communicating with the joint. The bursa was opened and its contents mopped up. On exploring the interior of the sac a small opening was seen through which a probe could be run into the joint. A silk ligature was placed on the neck of the sac as near the joint as possible, and the sac then excised.

The patient made an uninterrupted recovery, and is now, January 14th, 1895, quite free from any inconvenience in the part.

Scarborough. J. A. Hutton, M.D.

MATERNAL IMPRESSION.

A woman in the early months of pregnancy was attending the Electrical Department in St. Bartholomew's Hospital, and while she was sitting upon a bench in the waiting room, she was startled by a little boy who had two fingers of one hand fused together.

The boy was standing on the bench and put his hand upon her shoulder; she turned to see what it was that touched her, and then saw for the first time his deformed hand, and was agitated at the sight of it. Her baby now has a double fifth toe upon each foot. The right one is almost completely double, and the left one is so to a less degree, being bifurcated, and having two separate toe nails. The deformity had not occurred before in any of her children or relations. I give this case for what it is worth, the relation between the alleged cause and effect being a fairly direct one.

Upper Wimpole Street. H. Lewis Jones, M.D.

A CASE OF CONTINUOUS HICCOUGH.

Cases of persistent hiccough lasting a few days are not infrequently met with in hysterical patients, but the following case is of interest on account of its having lasted for more than three months.

J. H., aged 21, a domestic servant, complained on October 28th, 1892, of shortness of breath on exertion, general *malaise*, and constipation. The mucous membranes were pale, tongue foul; temperature normal; pulse 76, fairly good. A *bruit de diable* was heard in the veins of the neck, and a hæmic murmur over the pulmonary cartilage. The menses were scanty, and the appetite bad. She was hiccoughing, but this symptom had commenced only just before I saw her. She had been in poor health for the previous twelve months. One brother was a congenital idiot, and two great-aunts and a great-uncle were also insane. A mixture of soda, rhubarb, and cascara was ordered to be taken before meals.

On October 30th the hiccough was much worse; she was unable to swallow solids, and had not slept. A draught containing bromide of potassium gr. xx, chloral hydrate gr. x, with spirit of chloroform, procured her some sleep, the hiccough ceasing during sleep. Next morning it recurred, and an inhalation of chloroform proved useless. Later Dr. de Havilland Hall saw her with me, and he advised morphine gr. ½ hypodermically, sinapisms round the diaphragm, and ℥v of tincture of belladonna every three hours. The sinapisms were repeated, blisters applied over the origins of the phrenic nerves, and among the drugs exhibited were carbolic acid and the valerianates of zinc and quinine. Pilocarpin (gr. ⅙ given by the mouth every four hours) was followed by lessening of the hiccough, which ceased on November 10th, but recommenced on November 12th.

On November 15th tincture of jaborandi in ½-drachm doses was substituted for the pilocarpin. Again the spasm lessened, but in a few days was more violent than ever. Subsequently musk gr. j every three hours and gargle of cocaine were also given without result.

On November 24th she was admitted to Westminster Hospital, where faradism to the phrenics failed to relieve. For a few days the hiccough was changed for sneezing, but soon recurred. On February 4th, 1893, the patient was attacked with tonsillitis, after which she remained free from hiccough.

This case shows well how little reliance can be placed on the ordinary remedies. Nearly everything that has been recommended was tried in this case and failed. Heidenhain[1] thinks cocaine invaluable; Nobel and Stiller[2] consider jaborandi and pilocarpin the best remedies; Dr. Rattray[3] recommends musk; but all these proved ineffectual. The case is also of interest on account of the small effect which the hiccough had on the patient's general health; she only lost a few pounds in weight all through. In the *Boston Medical and Surgical Journal*, March 8th, 1894, a case of similar duration is recorded, in which the patient wasted from 150 lbs. to 80 lbs. and then died, in marked contrast with the present case.

South Croydon. Arthur W. Harrison, M.R.C.S.Eng., etc.

OPERATION ON A CASE OF STRANGULATED INGUINAL HERNIA FOUR MONTHS AFTER A SUPPOSED RADICAL CURE.

On January 7th, 1895, I was sent for to a patient of whom I had no previous knowledge.

On arrival, I was told that four months previously the patient—a lady—had been advised to undergo, and had undergone, an operation for the radical cure of an old-standing right inguinal hernia. From this operation she had had an uninterruptedly good recovery, though she was advised to continuously wear a truss.

Leaving London for a holiday she had tried to manage without her support, with the result that, after playing with a child, she was seized with violent abdominal pain.

I found the usual signs of an inguinal hernia, together with the scar of the previous operation over the most prominent point of the tumour. My efforts to return the gut being futile, my partner, Mr. Martin, kindly administered chloroform, and the tumour being still irreducible, I proceeded to operate in the usual manner. The only noticeable circumstance in the early stage was the excessive amount of fluid which spirted out immediately on incision of the sac. A knuckle of intestine was tightly gripped by the ring, and with difficulty I passed the director through and divided the constriction, then returning the intestine into the abdominal cavity. On examining the ring I could find no trace of a radical cure, in fact the ring seemed to be in a perfectly normal condition. I made no attempt at a radical cure, and the patient is now convalescent.

My object in communicating these notes is, first, that I think it is very unusual for a patient to have been operated on twice in four months for hernia on the same side; and secondly, I think it must be still more unusual when we remember that the first operation was done on an old reducible hernia solely for the purpose of a radical cure.

Sidney Matthews, M.R.C.S., L.R.C.P.,
Late Resident Medical Officer Brighton Hospital for Women.

Crawley.

[1] *Berl. klin. Woch.*, June 11th, 1894.
[2] *Centralbl. f. klin. Med.*, 1892, Nos. 32 and 42.
[3] British Medical Journal, December 10th, 1892.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

LONDON HOSPITAL.

A CASE OF RECOVERY FROM TETANUS IN WHICH ANTITOXIN WAS USED.

(Under the care of Mr. Hurry Fenwick.)

[For the notes of the following case we are indebted to Mr. Harold L. Barnard, M.R.C.S., L.R.C.P., House-Surgeon.]

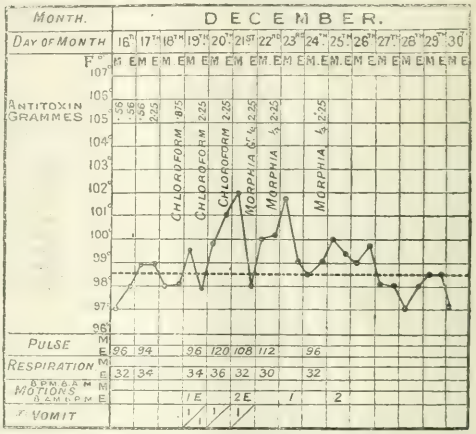
History up to Time of Admission.—F. P., a blacksmith, aged 35 years, on November 23rd, 1894, struck his left hand with a hammer on the anvil. The nail became black, and the skin was slightly torn at the tip, but wrapping it in a piece of dirty rag he continued at work. During the ten days which followed, the thumbnail suppurated and was poulticed. On the evening of December 3rd, whilst drinking a pot of beer, he noticed that his jaws were stiff and would not open widely. This, the first symptom, gives a maximum incubation of ten days. Next morning, the nail having become loose, he had it removed and dressed at Poplar Hospital; on his way home he noticed a stiffness in his back. He was restless and wakeful all that night, and suffered from "cramps" in his back, which became more and more severe and continuous. On December 5th, although in great pain in the back, he went to work as usual, but knocked off at 2 P.M., and on arriving home his wife noticed that "his face was changed and wrinkled." The cramps had now spread to his legs; he perspired profusely, and his wife could not insert her little finger between his teeth. During the next few days he became worse, his back was often markedly arched and his head retracted, continuous pain and stiffness being experienced in the neck. He had perfect control over bladder and rectum, but suffered from obstinate constipation.

On December 16th he was admitted into the London Hospital under Mr. Hurry Fenwick, who at once gave instructions for the exhibition of tetanus antitoxin. This was the thirteenth day of the symptoms, and the twenty-third since the injury. On admission the man's face was pale, pinched, and anxious, his skin clammy, his half-closed eyelids giving him a sleepy appearance. The constant effort to keep the eyes open threw the forehead into transverse wrinkles, The corners of the mouth were drawn up, and this combined with the deeply-furrowed naso-labial folds formed a well-marked risus sardonicus. The head was retracted, the sterno-mastoids stood boldly out from the neck, the masseters formed hard prominences on the cheeks. The pectorals were sharply outlined and all these muscles were found hard and tonic, the arms were stiff, the legs rigidly extended: both recti abdominales were hard as boards, and marked out in squares by their tendinous intersections. He could not protrude his tongue, and could only separate his teeth one-third of an inch; even this distance lessened with two or three attempts, until absolute closure resulted from spasm of the masseters. He complained of a troublesome cough, and of severe epigastric pain. His temperature was 97° F.: pulse strong, of fair tension, 96 a minute; his respiration 34, quiet but shallow. His urine was alkaline, clear, specific gravity 1014, contained neither albumen or sugar, and only a faint cloud of mucus. His thumb nail had healed completely.

Soon after admission he was given an injection of 0.56 gramme of tetanus antitoxin, which was repeated the same night. He also had chloral hydrate gr. xv. every eighth hour. As there was no local inflammation the thumb was spared. When seen late at night, his pain was somewhat less severe, but there was no improvement in the rigidity of his muscles or the frequency of his spasms.

December 17th. In the morning, about 10 30 A.M., he again had an injection containing 0.56 gramme of antitoxin. In the evening he was given 2.25 grammes of antitoxin in 23.5 c.cm. of sterilised water, by four punctures, two in each thigh. On this occasion, when the thigh was scrubbed with carbolic lotion preparatory to puncture, it hardened into the most painful cramps. At each thrust the patient gave a groan, the head was retracted and the shoulders raised from the bed; the sterno-mastoid became rigid, whilst the risus sardonicus increased, and the legs were extended in spasm. This condition lasted some half minute. He had a very bad night, broken by repeated cramps and by continuous pain in his back, but he fed well. This and the previous injections were made without anæsthesia of any kind, but the three following injections were made under chloroform on account of the severe pain.

December 18th. This evening, under chloroform, he had an injection of 0.875 gramme of antitoxin, the residue of our stock. He passed a bad night, the spasms being rather worse, and chloral gr. xv were given to afford him sleep.



December 19th. In the morning he vomited and again in the afternoon, whilst his appetite fell off from nausea; his muscles, however, were softer, he could bend his legs and protrude his tongue, which he was quite unable to do previously. His heart was quiet in action, first sound strong, and those at the pulmonary cartilage a little accentuated. His respirations were quiet but shallow, and at his right base louder breath sounds and more fine crepitations were heard than at his left; temperature 99.8°; the cough was better. At night 2.25 grammes were again injected under chloroform. He passed a fearful night, keeping the whole ward awake with his cries, caused by repeated short spasms, chiefly in the back. Two doses of chloral of 15 grains each gave him but two hours sleep, and he vomited all the food he took.

December 20th. In the morning he seemed very weak, but his pulse was fair. He still suffered from nausea, and his tongue was brown and dry. Pain and spasms were much less than during the night. He was again put on chloral gr. xv every eighth hour. On the occasion of his next injection his condition was noted at intervals all through the night. The dose of antitoxin was again 2.25 grammes; it was given under chloroform, at 10 P.M., the tension of the muscles having previously been noted, and his teeth ascertained to separate half an inch. On coming round from the anæsthetic he was noisy for a short time, but he slept with chloral until midnight. He then had several spasms which caused him to cry out.

December 21st. At 4 A.M. spasms had ceased, but he had epigastric pain with borborygmi, relieved by soda water and lemon; the abdominal muscles were less rigid, and relaxed considerably at each inspiration; his mouth opened three-quarters of an inch, and, though low in spirits and despondent, his general condition was better, and his muscular system more relaxed. At 7 A.M. no further spasms had occurred, and his muscles were still softer. At 11 A.M. the palpebral fissures were wider, the thighs softer, and the legs less stiff. Temperature 102°. He was in better spirits, but nausea per-

sisted, leaving him only towards evening, when he retained some food. At 11 P.M. he had 2.25 grammes of antitoxin injected, preceded at 9 P.M. by a hypodermic injection of morphine gr. ¼. To minimise the pain, the needle was inserted but once, and when the syringe was emptied it was unscrewed, refilled, and readjusted, until the whole 2.25 c.c. had been slowly injected at one puncture. Considerable local inflammation followed, but no suppuration.

December 22nd. At 1.45 A.M. he was sleeping quietly, no spasms or sickness having followed, and during the night he took food well. At 11 A.M. he was much better, and free from all pain save at the seat of the last injection, in the right thigh. He was given 3j brandy in each feeder of egg and milk. Again he had the usual dose of antitoxin under morphine, as in the night previous. The improvement continued.

December 24th. One night was missed, as the patient had so markedly improved. During the 23rd he had no spasm or pain though his muscles were still rigid. The injection on Christmas eve was his last, and was given in two punctures, preceded by morphine gr. ¼, without exciting spasm.

December 25th. A severe and last spasm took place.

December 26th. He progressed uninterruptedly. No further antitoxin or narcotics were given, and he was able to masticate solid food with relish.

December 28th. His pupils were dilated and his eyes widely opened, without the assistance of the frontales. The risus sardonicus was gone and his face wore a cheerful expression; his mouth now opened 1½ inch, nor was this impaired by repeated efforts. His muscles were soft and normal, except the recti abdominales, which only relaxed on inspiration, and the thighs which were still somewhat tonic.

December 29th, 1894—January 9th, 1895. Patient was up and walking about the ward. His appetite was good, but he was still pale and thin at the latter date. The recti abdominales are still more tonic than normal, but this is the last vestige of the disease.

January 17th. Convalescent.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

A CASE OF TRAUMATIC TETANUS TREATED WITH TETANUS ANTITOXIN.

(By G. E. Williamson, M.A., F.R.C.S., Surgeon to the Infirmary.)

J. T., aged 15, putter in a coal mine, was admitted to the Royal Infirmary, Newcastle-on-Tyne, on November 12th, 1894, suffering from a deep, lacerated, and burnt wound, 8 inches long and 3 inches broad, situated on the outer side of the buttock and the great trochanter. The patient stated that he was carrying an iron tube filled with gunpowder under his clothes, and touching his thigh, when some loose gunpowder was ignited by a spark, and this, forming a sort of train, carried the light to the contents of the tube, which exploded and caused his injury. He was admitted a few hours after the accident.

Under an anæsthetic some sutures which had been put in at the time of the injury were removed, and the wound was thoroughly cleansed by the house-surgeon, Dr. Clay, with a solution of perchloride of mercury (1 in 500), and a dressing applied. The burnt tissues on the surface sloughed, but about a week later the wound appeared healthy and granulating.

On the tenth day the lad looked well, had a good appetite and a normal temperature, and he was reading a boys' journal with interest, complaining only of a slight sore throat. On the following day, the first day of the tetanus and the eleventh after the accident, a distinct risus sardonicus was present with a little rigidity of the neck, and later in the day there were slight spasms in the muscles of the back. Messrs. Allen and Hanburys, who were known to have some tetanus antitoxin, were telegraphed to for a supply. The next day the symptoms were more distinct, but they were by no means severe or distressing; the case so far, indeed, promised to be a mild one. The antitoxin arrived on the evening of this the second day, and, following the directions sent out with it, 35 grains were injected. This occupied a considerable time, owing to the comparative insolubility of the remedy, the necessary precautions for sterilisation, and the resulting large quantity of fluid to be injected. The next day the symptoms were rather worse. On the fourth day there were short, sharp contractions of the abdominal muscles in addition to the other symptoms. In the evening the spasms were extremely severe, and the boy became cyanosed. Before the spasms the temperature was 100° F., after it was 97.4°. Eight grains of antitoxin were injected. On the fifth day the spasms were so severe that chloroform was administered, as the boy was in danger of death from asphyxia. The sixth day the spasms were still severe, and 8 grains were injected. On the seventh day the spasms continued and 30 grains were injected. On the eighth day there were no severe spasms but the patient was becoming exhausted. On the ninth day he had 10 grains of antitoxin. On the tenth day he was quiet, much exhausted, and the spasms were slight; 20 grains were injected. He died on the eleventh day.

A *post-mortem* examination could not be obtained. The temperature rose after death from 103° to 108°. Some cultivations were made from the wound, without, however, any development of the bacillus of tetanus. The treatment was limited to the administration of antitoxin, with the exception of a little morphine when the pain was severe. The effect of the antitoxin was carefully watched, but it appeared to be neither beneficial nor hurtful, the disease, though slow, pursuing an ordinary course. Although the treatment was commenced on the second day, its failure was probably due to even that early period being too late. The case, in fact, bears out the view that the antitoxin is useless when once the symptoms are sufficiently established to make a diagnosis. No doubt when the remedy immediately follows inoculation, the disease is prevented, but in order to do this with certainty every patient who has a wound fouled with dirt would have to be injected at once, in the event of the dirt containing the bacillus. In rare instances this might possibly be done, but as a routine practice it is, of course, out of the question. The cost of each dose of antitoxin at present averages about a sovereign, and this necessarily limits the application of the remedy. I may add that the boy was often in the stables down the pit, although the explosion did not occur there, and that there was no other case of tetanus in the infirmary during the past year.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. Pavy, M.D., F.R.S., President, in the Chair.

Tuesday, February 19th, 1895.

Primary Endosteal Sarcoma of the Patella.

Mr. D'Arcy Power showed the above specimen. It was obtained from the knee-joint of a girl, aged 20, and involved the whole substance of the patella, the articular cartilage being intact. Histologically the tumour was of the giant-celled kind. The adjoining bones were all healthy. In the summer of 1890 the patient fell on her knee; she again sustained a similar injury in the spring of 1891, and from that date the swelling of the patella appeared. The condition on its first appearance was diagnosed by Mr. Robert Jones as an inflamed bursa; on aspiration, blood was withdrawn, but nothing further than rest was enjoined until a year's time, when amputation was resorted to in consequence of the continued increase of the swelling. In the Museum of the Royal College of Surgeons there was a similar specimen of Sir Astley Cooper's, but the author knew of none other.

Mr. S. G. Shattock remarked that there was a primary sarcoma of the patella in St. Mary's Hospital Museum, which had been described by Mr. Pepper.

Mr. A. A. Bowlby pointed out that when extravasation was associated with bone sarcomata, their growth was usually slow. Mr. Roughton had shown this to hold especially in the case of sarcomatous "blood cysts" of bone.

Male Fœtus Showing Reptilian Characters in Sexual Ducts.

Mr. S. G. Shattock exhibited a malformation of the sexual ducts which came in the category of abnormal arrest at a

stage in human development and which he regarded as best explained on the principle of atavism or reversion to an ancestral type. The malformations in question were associated with extroversion of the bladder and prolapse of the posterior segment of the intestine (which terminated blindly) at the umbilicus. The particular characters referred to, however, consisted (1) in a remarkable elongation of one of the kidneys, recalling the condition in certain lacertilia and ophidia, and it was noteworthy that the kidney so altered was the right, for in ophidia the right kidney was normally much longer than the left, (2) in the persistence of both Müllerian ducts, which remained quite distinct from one another throughout, and opened in the neighbourhood of the ureters on the extroverted surface; this resembled the persistence of both oviducts in an ununited condition in the female of reptilia. (3) On one side the vas deferens opened into the ureter. This was a persistence of the primitive embryological condition in man, and it represented what was a permanent one in the male of lacertilia, where these canals opened together in the cloaca. (4) There were, in addition, two blind sacs representing the anal pouches of reptilia. The author observed also that the extreme degree of hypospadias in the human subject, though usually regarded as strictly pathological, might really be viewed as a reversion to a reptilian type, for in the crocodile and tortoise the penis was single and the urethra represented merely by a groove on the lower or posterior surface, near the base of which lay the openings of the vasa deferentia in the cloaca.

Adenoma of Lip.

Mr. L. A. Dunn exhibited a firm, encapsulated growth under the above title; it projected beneath the mucous membrane, and contained a central cyst.

In answer to Mr. Shattock, Mr. Dunn said he had not found cartilage in the new growth.

Portal Thrombosis and Infarction of the Liver.

Dr. Newton Pitt recorded two cases of this condition. In the first, the patient, a man, aged 36, was admitted for strangulated hernia. After death there was found in the liver a well-defined area of blood, in the middle of which was a thrombosed branch of the portal vein; the vein had probably been injured, and hence the thrombosis; the rest of the organ was fatty. In the second case, that of a man, aged 48, there appeared left hemiplegia and unconsciousness; the paralysis passed off, but after six days it suddenly reappeared. Coma and death followed. There was found widely diffused thrombosis in the aorta, without evident atheroma. The left renal, splenic, right middle cerebral, and greater part of the portal vein and its branches were all thrombosed. The liver on section showed pale areas and others engorged with dark blood, a series of infarctions. Wooldridge had shown that infarction of the liver might occur if there was a widespread tendency to thrombosis. This did not hold, however, of the first of the specimens the author exhibited. In the spleen, although there was complete thrombosis, the infarction was not general. In the brain, again, there was a small patch of softening in the ganglia, and a large hæmorrhage at the peripheral distribution of the thrombosed artery.

Dr. H. D. Rolleston had similarly observed cases of embolism of the splenic artery without complete infarction. He had also seen patchy infarction follow on thrombosis of the splenic vein. In the cases where the artery was concerned, it was possible that numerous small emboli might reach the interior of the spleen first, the main trunk only becoming completely occluded shortly before death, or a primary embolus might break down. In the kidney, the collateral blood supply rendered such partial infarctions after complete thrombosis intelligible, but they were difficult to explain in the case of the spleen.

Dr. Pitt replied that the splenic infarcts were of different dates in the case he had recited, the organ itself was adherent, and it was probably through a collateral circulation by means of the adhesions that the absence of complete infarction was to be explained.

Card Specimens.

Dr. W. W. Ord: Hydronephrosis due to Congenital Stricture of the Ureter.—Dr. Newton Pitt: Kidney increased fourfold by Nephritis, in a child.—Mr. L. A. Dunn: Calculi from the Bladder of an Infant.—Dr. C. Arkle: Ulceration of the Large Intestine.—Dr. Cyril Ogle: Two specimens of Gastro-jejunostomy for Carcinoma.

HARVEIAN SOCIETY OF LONDON.

Sir John Williams, Bart., M.D., President, in the Chair.

Thursday, February 7th, 1895.

Relapsing Typhlitis.

Mr. Frederick Treves gave an account of a further series of eighteen cases of relapsing typhlitis, in which he had removed the appendix in the quiescent period. He pointed out the morbid conditions of the appendix most commonly met with, and observed that the formation of abscess often ended the trouble. The operation, in the absence of adhesions, was most simple. In some of the cases perforations in the cæcum and ileum had been laid bare, and were closed with sutures. Many concretions had been removed. In one instance the appendix was found firmly attached to the rectum. Mr. Treves alluded to the medical measures taken to ward off attacks, and especially to the questions of diet, the avoidance of milk, regulation of the bowels, the importance of perfect mastication, the use of such an intestinal antiseptic as salol (in a powder of 10 grs.), and massage.

Mr. Rayley Owen, Dr. Sutherland, and Mr. Buckston Browne took part in the discussion.

The President inquired upon what grounds Mr. Treves maintained that abscess cured the condition, and dissented from the condemnation of milk as a food for invalids.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Walter G. Smith, M.D., P.R.C.P.I., President, in the Chair.

Friday, January 11th, 1895.

Locomotor Ataxia from Injury.

Dr. Craig exhibited the patient and read a short paper on locomotor ataxia due to injury. A year ago the man fell while revolving on a horizontal bar, and lost consciousness for about twenty minutes. Although the injury seemed slight, within a few months his arms and legs were markedly ataxic, cutaneous sensibility was lost in the limbs and, to a less degree, in the trunk; the knee-jerk was gone, gastric and rectal crises were complained of, but no ocular symptoms appeared. In the absence of cerebral or ocular symptoms, and with a history of the rapid appearance of other symptoms, could the case be called one of true locomotor ataxia?

The President said that this was a case in which the term locomotor ataxia was applied in a clinical rather than a pathological sense. It was hard to bring it into line with those cases commencing with affections of the cerebral nerves. The ordinary forms were cerebro-spinal, but in this case all the symptoms were spinal.

Dr. Finny remarked on the rapid loss of sensation which happened in this case. One might suppose it to be a change in the posterior columns of the cord, also involving the posterior nerve roots. He thought that the wasting of the muscles was out of proportion to the length of time that the man had not used them.

Dr. Parsons said that the patient seemed to be going the round of the Dublin hospitals. Some of his symptoms might perhaps be functional rather than organic. He knew what ones he should have. However, there was no doubt he had marked inco-ordination.

Dr. Craig briefly replied, stating that he agreed with the President as to the difficulty of regarding this case as an ordinary one of locomotor ataxia.

Small-pox.

Dr. O'Carroll read a paper on the diagnosis and prognosis of small-pox, based upon the experience of the cases treated in the Hardwicke Hospital during the present epidemic in Dublin and the much smaller epidemic of 1887-8. With regard to diagnosis, the main difficulty occurred with cases of varicella simulating variola, or *vice versâ*. In cases otherwise similar, and supposing the diagnosis to be made at one visit, the points which were laid stress on as making for

varicella were the following: Childhood; if good vaccination marks present; eruption greater on trunk than on face; eruption more or less multiform, even in the same region, papules, vesicles, and crusts being seen together; no papules in the horny skin of palms and soles. As to prognosis, Dr. O'Carroll believed there was hardly any acute disease in which it was so uncertain till convalescence was established.

Some Small-pox Temperatures.

Dr. H. C. Drury exhibited a series of temperature charts of variola cases. He divided them into three classes: (1) Those with primary and distinct secondary fever. (2) Those in which the initial fever was continued into a period of febrile state, of longer or shorter duration, but without any distinctive character; and (3) those in which the high initial temperature, lasting three or four days, was the only one seen. From a large number of observations he was unable to draw any conclusions from the temperature as to the severity of the rash, general symptoms, or length of time till convalescence was complete, as all three classes of temperature were seen in unvaccinated as well as vaccinated cases, mild and exceedingly severe or even fatal cases, or cases in which the rash was confluent or discrete, copious or slight in amount, also in cases that could be considered free from infection in three weeks, or in others that would require from two to three months.

After remarks from Dr. Tweedy, Dr. Burgess, Dr. Day, Dr. Horne, and Dr. Parsons.

Dr. J. W. Moore said that the way in which the eruption appeared in varicella was important. Very often there was no papule, but within a few hours a clear vesicle appeared on the skin. He mentioned a case of scarlatina which developed chicken-pox.

Dr. A. N. Montgomery said that although the vesicle in a revaccinated person might—sometimes on the eighth day—resemble a primary vesicle, yet the material obtained from it should not be used for the purpose of vaccination or revaccination. As showing the necessity of a very careful search for vaccination cicatrices being made in patients suffering from modified small-pox before they were recorded as unvaccinated, he alluded to such a case which had come under his notice some years ago in which he had found a well-marked vaccination cicatrix on the posterior aspect of the arm which had been overlooked.

The President said that the difficulties of the diagnosis between variola and varicella were perhaps exaggerated. He also said that it was quite well established that the vesicles of chicken-pox were multilocular and were often umbilicated. The greater frequency of umbilication in variola depended on, first, the less acuity of the pathological process, and, secondly, on the fact that the epithelial cells were œdematous and underwent what was described as a "ballooning degeneration." They became distended and the nuclei were broken up.

Dr. O'Carroll and Dr. Drury replied.

Section of Pathology.

J. A. Scott, M.D., President, in the Chair.

Friday, February 8th, 1895.

Retro-peritoneal Rupture of the Duodenum.

Dr. Taylor read a paper on retro-peritoneal rupture of the duodenum, which was discussed by Dr. Roche, Dr. Bennett, Dr. Parsons, Dr. Tweedy, and Dr. W. J. Thompson.

Crystalline Branched Renal Calculus Removed by Nephrolithotomy.

Dr. C. Yelverton Pearson read notes of a case of nephrolithotomy, and exhibited the stone which he had removed from a man, aged 32, by the lumbar incision. The specimen was a branched calculus of oxalate of lime, weighing 200 grains. A great portion of the surface was covered with beautiful crystals of ammonio magnesian phosphate.

Dr. Roche wished to know what were the points which would help to make the diagnosis between stone and tuberculous pyelitis. He had a patient six months ago who had a paroxysmal attack of pain running down to the thigh, with partial suppression of the urine. There was no stone in the bladder. She subsequently suffered from frequent attacks, and after a time continually passed a large quantity of pus in the urine but no blood; she had frequent micturition. The diagnosis was between stone in the kidney or tuberculous pyelitis. Dr. Little, who saw the case, thought it was the latter. The patient went to London and underwent an operation, when it was found that it was a case of tuberculous pyelitis affecting both kidneys.

Dr. Bennett said that the diagnosis could be made by making a microscopic examination for the tubercle bacillus. With regard to the structure of the stone he differed from Dr. Pearson, and thought it was crystals of ammoniaco-magnesia phosphate. He remembered seeing a case in which there were no symptoms whatever of calculus, but *post mortem* a large branched crystalline calculus was found. It was pure ammoniaco-magnesia phosphate. The other kidney had lithate of soda along the uriniferous tubes as in gout.

Dr. Roche stated that he had had the urine twice examined for tubercle bacilli by Dr. M'Weeney, but that none were found.

Dr. Tweedy said he had had a parallel case to Dr. Bennett's.

Dr. Parsons fully agreed with Dr. Bennett as to the way of making the diagnosis between tuberculous kidney and stone. If not found at first, it should be frequently examined for tubercle bacilli.

Dr. Pearson, replying, said he attached great importance to the presence or absence of tubercle bacilli in making a diagnosis. He thought it was very rare, however, to have tuberculous disease of the kidney without having it also in the genital organs. He would examine the epididymis carefully on both sides, and thought it would be a curiosity if it was not found diseased when tuberculous disease of the kidney was present. Also the presence of tuberculous deposit in the seminal vesicles could be detected by the finger in the rectum. In this case the kidney was abnormally high up, and it might account for the pain being referred to a point immediately below the cartilages in front. The objection to making a lumbar as against an abdominal incision was that the opposite kidney could not be explored. In this case, however, as there was such pain in the left loin for a few weeks before the operation, he was sure it was the left kidney in which the stone was.

Fracture of the Sacrum.

Dr. E. H. Bennett exhibited a united fracture of the sacrum, in which the line of fracture was oblique, passing from the upper sacral foramen on the left side to the fourth on the left. The lower fragment, unlike the transverse fracture of the sacrum, was displaced upwards and to the left. Dr. Bennett discussed the question as to whether the injury in this case had been a violent kick delivered from behind with the right foot.

LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

E. West Symes, M.D., President, in the Chair.

Friday, February 1st, 1895.

Acute Mania following Pleurisy.

Mr. Bates (Addingham) read notes of a case of acute mania following dry pleurisy in a female, aged 12 years. The maniacal symptoms came on the day following the reduction of the temperature to the normal. They quickly gave way to treatment consisting of a mixture of potass. bromid. and vin. antimon. tart., with a draught of chloral hydrate and potass. brom. āā ℥ij. one half given, and followed in two hours by the remainder. The delusions, however, did not disappear for a week. The family and personal history pointed to instability of the nervous system in the patient, and accounted for the post-febrile mania following what was only a mild attack of pleurisy.

Dr. Barrs thought mental disturbances frequently followed on febrile conditions no matter from what cause arising, as also after surgical operations and in cardiac cases.

Mr. Ward had never met with a case of mental disturbance in one so young.

Dr. Cheeton used morphine hypodermically unless contra-indicated, and then immediately administered chloroform for two or three minutes in cases of acute delirium, gradually

increasing the dose of morphine until a continuous sleep of six or eight hours was obtained. Under chloroform, enemata (nutrient or aperient) could be given, and catheterism, cleansing, etc., could be done.

Mr. Godfrey Carter, Dr. Gordon Black, Dr. Mantle, the President, and Dr. Bedford Pierce (who mentioned a case of mania accounted for by constipation) also took part in the discussion.

Operations on the Mastoid Process.

Dr. Adolph Bronner (Bradford) read a paper on the various methods of operating on the mastoid process and the indications for the same. In cases where the attic was diseased Stacke's or Schwartze's modified operation were the most satisfactory. The chisel and mallet were now universally used. Macewen preferred the rotatory burr.

The paper was discussed by Mr. Secker Walker, Dr. Oakley, and Mr. Hartley.

Dilatation of the Cervix of the Unimpregnated Uterus.

Dr. Braithwaite read a paper on a point in the dilatation of the unimpregnated cervix uteri. The point was that when the unimpregnated cervix was dilated, for whatever purpose, it was infinitely easier and more satisfactory to do it on the last day of the menstrual period, or when the discharge had just ceased. At that time the work was already done for us to some extent, and the tissues were so soft and elastic that dilatation could be accomplished to almost any extent in about twenty minutes, provided the patient was under an anæsthetic. If it were done for the cure of dysmenorrhœa, Hegar's dilators could be passed one after the other, up to say No. 15; if for the purpose of examining the interior with the finger, up to No. 17 or 18. In many cases very little resistance was met with, and there was none of the injury to the tissues likely to result at other times. The use of tents was done away with. The curative action in dysmenorrhœa was better than if the dilatation were done between the periods, for it was more free and to cure a bad case of dysmenorrhœa the dilatation was considerable. This plan opened up a vista of utility in the diagnosis of small intrauterine growths.

(?) Functional Flexor Spasm of Right Hand of Ten Years' Duration.

Dr. Churton showed a girl, aged 20, tall and well formed, but with small cranium and rather childish manner, not robust, who had constant flexion of the wrist and fingers, the thumb being usually laid across the palm. The father died of phthisis, aged 32; a sister aged 22 had phthisis; a sister aged 8 diabetes. During childhood the patient had frequent nightmare. After one such dream, followed by a severe screaming fit at the age of 10, she was found to be hemiplegic on the right side; her mouth was twisted, it was said, and saliva ran from it. Speech returned next day. Chorea occurred on the left or sound side in a few days and lasted some weeks; the right leg recovered in a few months. She could always move the right shoulder. On admission, legs equal, face not quite symmetrical, left side more grooved, especially in laughing; in smiling, however, no over-action of right face; the left was first to move. Bones of right arm and hand equal to left; much smaller, but reacted to weak faradic shock, also normally to C.C. K.C.C. > A.C.C. No tremors or movements of athetosis. The flexion was easily overcome usually, but was maintained during sleep and when the wrist was forcibly flexed (not always). When ordered, she extended the fingers and thumb almost completely at first; afterwards much less readily. The pupils showed a trace of dilatation, often observed in functional cases.

Cases, pathological specimens, etc., were shown by Dr. Barrs, Dr. Adolph Bronner, Dr. Trevelyan, Mr. Mayo Robson, Mr. Littlewood, Mr. Jessop, Mr. Hartley, Dr. Baxter Tyrie, and Dr. T. Wardrop Griffith.

North-West London Clinical Society.—At a meeting on February 13th, Mr. Mayo Collier in the chair, Dr. Knowsley Sibley showed the Suprarenal Capsules of a woman, aged 20, who had died suddenly with the symptoms of Addison's disease, which had developed very rapidly. Dr. Harry Campbell, Dr. Gill, and Dr. Guthrie discussed the case.—Dr. Stowers showed a case of Lupus Erythematosus, and another of rare Tertiary Dermato-Syphilis, simulating erythematous lupus. Mr. Jackson Clarke, Dr. Wilbe, and Mr. Collier joined in the discussion.—Dr. Harry Campbell exhibited the Heart of a man who had died of Aortic Stenosis, without any symptoms of regurgitation. Dr. Gill and the Chairman commented on the case.—The Chairman showed a girl who had Contracture of the Posterior Tibial Muscles, as a result of infantile paralysis involving the opponents. He advocated division of the tendo Achillis in such cases. He also showed a case of Flat-foot. Mr. Jackson Clarke and Dr. Cagney took part in the discussion.

Hunterian Society.—The seventy-sixth annual general meeting was held on February 13th, 1895, Mr. Charters J. Symonds, President, in the chair.—The report of the Council for the past year was read by Dr. Hingston Fox, the Senior Honorary Secretary, and adopted upon the motion of Dr. Cotman, seconded by Dr. Fred. J. Smith.—The financial report and balance sheet and the report of the Library Committee were read and adopted.—Votes of thanks were passed to the President, Vice-Presidents, Honorary Treasurer, and Honorary Librarian for their services during the past year. A vote of thanks was also passed to the Council, the Hon. Secretaries, and the Auditors. The following gentlemen were appointed officers for the ensuing year:—*President;* Charters James Symonds, M.S., M.D. *Vice-Presidents:* Mr. Henry J. Thorp, Mr. John S. E. Cotman, R. Hingston Fox, M.D., Mr. T. Mark Hovell. *Treasurer:* F. Charlewood Turner, M.D. *Trustees:* H. I. Fotherby, M.D., Mr. F. M. Corner. *Librarian:* Arthur T. Davies, M.D. *Orator:* G. Newton Pitt, M.D. *Secretaries:* T. H. Openshaw, M.S., Fred. J. Smith, M.D. *Council:* Sir Hugh R. Beevor, M.D., T. H. Arnold Chaplin, M.D., Louis A. Dunn, M.S., Mr. Hope Grant, Mr. Francis R. Humphreys, Patrick Manson, M.D., John W. Oliver, M.D., George W. Potter, M.D., Mr. Henry J. Sequeira, Mr. St. Clair B. Shadwell, Mr. R. G. Tatham, Mr. John F. Woods. *Auditors:* Mr. F. Gordon Brown, Mr. Hope Grant, Mr. Francis R. Humphreys, Thomas Glover Lyon, M.D.

Glasgow Obstetrical and Gynæcological Society.—At a meeting on January 23rd, Dr. G. A. Turner, President, in the chair, the President gave an address on The Successful Preventive Treatment of the Scourge of St. Kilda—Tetanus Neonatorum; with some considerations regarding the management of the cord in the newborn infant. He first referred to the extreme prevalence of tetanus in St. Kilda for at least 200 years, and to the different views which had, in the past, been advocated as to its cause. Having been consulted on the question a year or two ago, instructions were given first by Professor W. L. Reid, and afterwards by himself, but acting independently of one another, for the careful treatment of the cord by freely dusting with iodoform and dressing with antiseptic gauze. The result of this practice, as stated by the Rev. A. Fiddes, minister of St. Kilda, in a note from him to Dr. Turner, dated August 6th, 1894, was: "I have not lost a single case since I began the iodoform and gauze bandages and pad over the navel.....A St. Kilda mother never thought hitherto of making any preparations for the new visitor. He, or she, was wrapped in a piece of blanket till the ninth or tenth day was over, and if the infant survived then the mother began to show her affection for her offspring—not till then. This is now being changed, and faith placed in the means of relief. The people are deeply grateful." Dr. Turner proceeded to comment on the common practice of managing the cord in newborn infants as not being abreast of our practice in midwifery and surgery. He quoted statistics as to the occasional occurrence of tetanus neonatorum in all parts of the kingdom, and held that treatment of the cord more in line with present day antiseptic midwifery and surgery would effectually prevent not only this, but such other complications as erysipelas, excoriations, and fungating excrescences of the umbilicus, and ulceration or sloughing of its margin. He advocated the routine use of antiseptics in the treatment of the cord, and especially the new iodine preparation loretin as being thoroughly efficacious

and yet non-poisonous and free from odour, and so unobjectionable in the lying-in room. As a general dusting powder for infants he suggested the use of a mixture of loretin and emol keleet, which had been prepared, at his suggestion, by Messrs. Burroughs, Wellcome, and Co , of London.

Liverpool Medical Institution.—A meeting was held on February 18th, Mr. Chauncy Puzey, F.R.C.S., President, in the chair.—Mr. Robert Jones showed a patient in whom he had Tied the External Iliac Artery on the Left Side for Femoral Aneurysm, and also the Femoral Artery on the Right Side for Popliteal Aneurysm. He applied a double ligature on the external iliac by the extra-peritoneal method. The patient was able to resume his work in two months, and had had no circulatory disturbance.—Dr. Abram showed two cases of Beri-Beri. The patients were the captain and mate of a Norwegian barque just arrived in Liverpool from the coast of Brazil. Inoculations from the blood were negative. No malarial organisms were found on examination of fresh blood. Rapid improvement was taking place under general tonics and regular massage.—Mr. Banks and Mr. George Hamilton related cases of Intestinal Obstruction, which are published at pp. 410 and 411.—Mr. Paul read a paper on Excision of the Rectum for Cancer, based on fourteen cases.—Dr. Alexander congratulated Messrs. Banks, Hamilton, and Paul on the advances in surgery indicated in their papers. He thought that Mr. Paul's results were excellent and the prolongation of life undoubted; not only was life prolonged, but it was life worth living. He had a case working for ten years after Kraske's operation and one rejected in London, and sent home to die, had nearly three years of comfort before recurrence carried him off; he was able to shoot and fish, and follow most outdoor pursuits.—Mr. Paul thought that many children could not bear the removal of a large piece of bowel, as in Mr. Banks's case, and one usually had to choose between the establishment of a fæcal fistula and the more simple and safe operation introduced by Mr. Barker. He thought Murphy's button the best method for joining large intestine, and would advise its use in colectomy when the growth was small and the symptoms of obstruction not severe, but when the growth was advanced or the abdomen considerably distended, he thought it much wiser and safer to bring the ends of the bowel out and approximate later.—Mr. Banks said that the great advantage of Mr. Murphy's button was the saving of time, which was often the principal element in ensuring success.

Sheffield Medico-Chirurgical Society.—At a meeting on January 31st, 1895, Mr. Makeig Jones, President, in the chair, a discussion on the Treatment of Diphtheria by Antitoxin was opened by Dr. Caley and Dr. Addison. Dr. Gwynne gave particulars of a severe case which he had treated successfully with antitoxin supplied by the British Institute of Preventive Medicine. The President, Mr. Garrard, Dr. Burgess, Mr. Pye-Smith, Mr. Atkin, Dr. Martin, Dr. Samson Mathews, Mr. Lockwood, Dr. Stedman, Dr. Dyson, and Dr. Rhodes took part in the discussion.

Aberdeen Medico-Chirurgical Society.—At a meeting on February 7th, Professor Stephenson, President, in the chair. Professor John McKendrick (Glasgow) was unanimously admitted as an honorary member.—Drs. J. Scott Riddell and Glennie contributed notes of a case of Impacted Gall Stone treated by Cholecystotomy. The operation was successfully performed by Dr. Scott Riddell, and for a time the patient, a woman aged 43, seemed to be recovering. About a month after the operation she developed febrile symptoms, complicated with lung affection, and died. Dr. Dean, assistant to the Professor of Pathology, who conducted the *post-mortem* examination, found that the liver was studded with minute cellular points distributed along the course of the bile ducts. In addition to these there were a number of areas, the largest the size of a walnut. These appeared to be of the nature of bacillary necrosis. The cellular nodules were, he thought, a biliary cirrhosis of an acute type.—Dr. John Gordon read a paper on a case of Subcutaneous Emphysema in a child, aged 4½ years, suffering from a slight bronchitis. The swelling involved the right side of the thoracic wall, neck, and cheeks. In ten days the air had become completely absorbed. One interesting point was the slight violence of the cough, which caused the pathological condition.

Nottingham Medico-Chirurgical Society.—At a meeting on February 6th, Dr. Tew, President, in the chair, Dr. Bell Taylor showed (1) a case of Cataract Extraction (without Iridectomy) in a a man, aged 80; (2) three cases of Double Extraction; (3) a boy, aged 15, with Detachment of Retina, under treatment by Galvanism; (4) A man, aged 45, who had been blind for several months from Disease of the Nerve, and whose sight had been restored by Galvanism; (5) a man, aged 47, in whom Symblepharon of the Left Eye had been treated by a graft of skin transplanted from the upper eyelid of the right side.—Dr. Carroll showed a man, aged 45, suffering from Psoriasis, who had been much benefited by taking four thyroid tabloids daily for nine months.—Dr. Wm. Ransom showed a woman, aged 34, suffering from Acromegaly associated with Glycosuria and Bitemporal Hemianopia.—Dr. Handford showed a man, aged 32, with Splenic Leucocythæmia who, after the unsuccessful use of marrow tabloids and extract, improved greatly under arsenic.—Mr. Anderson related three cases of Ligature of the Common Carotid Artery, one in which pulsation recurred in the sac of an aneurysm after ligature, proved fatal after a second operation involving removal of the aneurysmal sac. The two other cases were done in the course of operation on Malignant Growths and recovered.—Mr. Chicken showed the Vermiform Appendix removed *post mortem* from a male patient who had died of Syncope occurring in the course of an acute abdominal illness. Two members of the same family had suffered from illness, in one case fatal, supposed to be due to disease of the same region.

Manchester Medical Society.—At a meeting on February 6th, Mr. Southam, the President, delivered his Presidential address, taking as his subject Recent Advances in Urinary Surgery, contrasting the surgery of the present day with that of the past, and reviewing the various operative measures which had recently been introduced in the treatment of diseases of the bladder, urethra, and prostate.—Dr. Mules related the history of a case of operation for radical cure of hernia, when, in spite of the usual antiseptic precautions, acute œdema commenced forty-eight hours after operation, followed by sloughing of a great part of the scrotum, but on the side opposite to the operation wound. Dr. Dreschfeld, who was good enough to take interest in the case, showed preparations morphologically identical with the bacillus of malignant œdema. Free incisions with generous diet brought the patient from an apparently hopeless condition to satisfactory convalescence. Dr. Mules also explained his new operation for Ptosis.—Mr. Whitehead showed a patient after Excision of the Scapula, and also gave particulars of a singular Pistol Accident.—Dr A. T. Wilkinson mentioned a case illustrating difficulties in the diagnosis of Abdominal Tumours.

Newport Medical Society.—At a meeting held on January 2nd, Dr. B. Davies, President, in the chair, Mr. G. A. Davies read notes of a case of Acute Lateral Curvature of the Spine in a middle-aged man.—Mr. T. Garrett Horder (Cardiff) gave an address on Medical Defence. It was decided to form a local branch of the Medical Defence Union.

Erratum.—In the report of the proceedings of the Medical Society published in the British Medical Journal of February 16th, p. 366, 10th line from the top, the words "The operation lasted for over an hour and much blood was lost," etc., should read "but little blood was lost, nor was there much shock."

St. Thomas's Hospital.—In addition to the contribution of £100 by the Queen to the special appeal fund for St. Thomas's Hospital, as already announced, a like amount has been given to the fund by the Duke of Connaught. Messrs. Barclay, Perkins, and Co. have contributed £1,000 towards the fund.

REVIEWS.

The Disorders of Speech. By John Wyllie, M.D., F.R.C.P.Edin., Physician to the Edinburgh Royal Infirmary, Lecturer on the Practice of Medicine and on Clinical Medicine in the School of Medicine, Edinburgh. Edinburgh: Oliver and Boyd. (Demy 8vo, pp. 493. 18s.)

This latest addition to the already voluminous literature on speech and its disorders thoroughly justifies its existence by the completeness and excellent quality of its contents. Dr. Wyllie brings to bear on an intricate and difficult subject not only ripe clinical experience but the practised skill of a successful teacher, and the result is a book which for comprehensiveness, clearness of style, and practical usefulness is certain to hold its own for a long time as a standard authority.

The work is divided into three sections: 1, functional diseases of speech; 2, the development of speech and the developmental disorders; 3, speech in relation to nervous diseases. Of the last section, which occupies half the book and treats of speech in relation to mental diseases and at great length on the various forms of aphasia, space only permits us to say that it is admirably done. The physiological processes are clearly considered and the different varieties of aphasia are discussed and explained by abundant diagrams and by the narration of apposite cases. If Dr. Wyllie had confined himself to the consideration of aphasia only he would still have produced an extremely valuable work, but he has gone further and has taken up other affections of speech which, although very frequently met with, are usually slurred over in medical textbooks and their treatment left to "professors" of elocution or neglected altogether.

Before discussing the disorders met with, Dr. Wyllie gives briefly an account of the mode of production of the various vowel and consonant sounds. He has constructed a physiological alphabet on phonetic principles, the consonants being grouped according to the place in the articulatory mechanism where they are produced.

The chapter on stammering is one of the best and most original in the book. Stammering is regarded as not a mere spasm of the articulatory mechanism, but as a want of harmonious action between it and the larynx. Much stress is laid on the presence of a vocal element in the pronunciation of most of the consonants, and stammering is shown in many cases to be due to delay in the production of this vocal element. Anyone can convince himself of the existence of this vocal element by pronouncing aloud slowly the word "wonder," in which all the letters are "voiced," and then noticing the sudden break which occurs when the syllable "ful" is added to make "wonderful," the "sharp" consonant "f" being voiceless. Hence Dr. Wyllie insists that the important thing for a stammerer to think of is not the articulation of the consonant at the beginning of a word which gives him difficulty, but of the production of the vocal element. This method has also been adopted by other medical men on Dr. Wyllie's suggestion with most encouraging results. The whole chapter is full of interest. Functional aphonia, hysterical mutism, and the troubles of professional voice users—clergymen, actors, auctioneers, etc.—are considered at some length, and then follow 100 pages dealing in the most instructive manner, and from many points of view, with the development of speech in the individual and in the race.

In considering the development of speech in the infant, the author follows the well-known accounts of Darwin and Preyer on the development of speech in their children, and he has also given a most interesting account of the expressive inarticulate sounds which are employed before the acquisition of speech to indicate its requirements or to express its emotions. This is followed by an examination of the rudimentary speech presented by some idiots, of the forms of lisping, and of defects of speech from structural peculiarities of the mouth. A chapter is devoted to deaf mutism, and the substitutes for speech—lip-reading and gesture language—which have been necessitated by it. This part of the book is concluded by a most thoughtful chapter on the development of speech and of written language among the various families of the human race.

It will thus be seen that the work covers a much wider field than most books on the subject. There is hardly a dull page in the book, from which we have only been able to pick out the more salient points for notice. It is most carefully written, and Dr. Wyllie is at great pains to distinguish between what is probable and what is proved. There is throughout evidence of careful and mature thought, and an anxiety to prove every assertion by reference to actual clinical or pathological observation—qualities not too often met with in books written under the pressure of our hurried modern life. We heartily congratulate Dr. Wyllie on the production of this admirable monograph.

Night Lights (Shadows from a Doctor's Reading Lamp). By Arthur Broadfield Frost, Licentiate of the Royal Colleges of Physicians and Surgeons of Edinburgh. Birmingham, Leicester, and Leamington: The Midland Educational Company. London: Simpkin, Marshall, Hamilton, Kent and Co. (Cr. 8vo, pp. 236. 3s. 6d.)

These short sketches of scenes from medical life, illustrating many of its phases, will be read with delight by every doctor. The author is a humourist, and deals for the most part with the fenny side of things; but he can touch with a deft finger the pathetic chord of human sacrifice and sorrow, as all will admit who care to read the little story entitled "Mr. Bottle's Romance." Many of the scenes are taken from student life in Edinburgh, and, allowing for a certain amount of exaggeration in colouring, they afford a fairly accurate and undoubtedly a lively and amusing picture of medical education in the Scottish metropolis. Some of the *dramatis personæ* are so well drawn that we should like to meet them again. Dr. Kennedy and My Uncle Titmarsh are character studies which seem to be worth elaborating, and the family conclave at which the choice of the profession of medicine is decided upon for the hero is a bit of comedy of the most excellent kind. We hope this little book will have the success it deserves, and that the author may be encouraged to give us more of his clever work.

De l'Agrandissement Momentaire du Bassin. [On Temporary Enlargement of the Pelvis.] Par Adolphe Pinard. Paris: G. Steinheil. 1894. (Roy. 8vo, pp. 69. Illustrations 24. Fr. 2.50.)

The high position occupied by Professor Pinard, his many valuable contributions to obstetric medicine, and, especially, the zeal with which he has prosecuted his researches in connection with symphysiotomy, which he has done much to popularise on the Continent, render any communication from his pen of the greatest interest to obstetricians and the profession generally. No one will be disappointed in reading the pamphlet before us, which is a report of the work done at the Baudelocque Clinic, read at the International Congress of Medicine held at Rome in April of last year. From this report it appears that from February 4th, 1892, to March 8th, 1894, 38 operations for the enlargement of the pelvis have been performed in Professor Pinard's clinic—namely, 36 symphysiotomies, 1 pubiotomy, and 1 ischio-pubiotomy (Farabeuf's operation).

The result of these operations has been to give 36 living mothers and 34 living children. Of the two mothers who died, the first had been in labour for three days, the membranes had been ruptured sixty-six hours, the liquor amnii was green and extremely fœtid, and the woman had been examined several times at her house by a midwife and a doctor. The patient died of septicæmia on the ninth day. The other mother suffered from spondylolisthesis, and died on the seventh day from intestinal obstruction, produced by a band, which laparotomy, performed on the fifth day, failed to discover.

Of the four children which died, three had fractures of the cranial bones (in two cases due to the forceps). The other was premature, weighing less than 4½ lbs.

As regards complications, in 1 case a laceration of the vaginal wall gave rise to a vesico-vaginal fistula; in 5 other cases slight laceration of the vaginal wall occurred, but these tears all healed by the first intention. In all the cases the

consolidation of the pelvis was such that the patients could leave their bed and walk with facility, on an average, on the twentieth day.

In illustration of the absence of evil after-effects from the operation, Pinard says that one of the women remained as a nurse in the clinic for a year after the operation, during which time she had to remain standing all day and often through the night: another was a bread carrier, and had to mount stairs from morning till night, etc. He makes no mention of the pain in the back which is said to follow the operation.

One of the cases became pregnant three months after the symphysiotomy, and was spontaneously delivered of a child which weighed over 6½ lbs. The following table shows the superiority of symphysiotomy over premature labour as regards the child:

Cases of premature labour in the years 1890-91... 64
Mothers living, 62; dead, 2. Children living, 35; dead, 30.
Cases of symphysiotomy in the years 1892-93 38
Mothers living, 36; dead, 2. Children living, 34; dead, 4.

It must be observed, however, that this table hardly affords material for a fair comparison. It is seen, in the first place, that a much larger number of inductions of premature labour than of symphysiotomies occurred (in the same clinic); and, in the second place, that some of the symphysiotomies could apparently have been replaced by natural or forceps delivery. In any case the superiority of the cutting operation is only in favour of the children, and no one doubts that it is less fatal to them. What we require to know, what even the excellent paper before us does not show, is the effects, immediate and remote, upon the mothers, of symphysiotomy in small pelves, through which a child cannot be delivered naturally or by the forceps.

Of the ten cases published in detail all had a diagonal conjugate of at least 4 inches, with one exception, in which it was said to be a fraction of an inch less; but this patient had given birth to a living and a dead child at term in her two previous labours.

The author draws the following conclusions: 1. Aseptic symphysiotomy or pubiotomy is an operation free from danger. 2. To be useful it must be complete, and the preliminary separation of the pubes must be in relation with the contraction of the pelvis. In producing this separation we must rely upon the researches and figures of Farabeuf. 3. The operation must be attempted only in cases in which study of the pelvis and calculation have shown that a separation of 7 cm. will permit the passage of the fœtal head at term. 4. The pubes should never be separated more than 7 cm., lest lesions of the soft parts be produced. 5. In the case of pelves in which the separation of 7 cm. will not permit the head to pass, Porro's operation should be performed. 6. For the more severe cases of oblique pelvis with synostosis of the sacro-iliac joint, the operation of Farabeuf is indicated.

In his general conclusions M. Pinard says that embryotomy upon the living child and induction of premature labour should be entirely abandoned, as also all operations which have for their aim to make the fœtal head contend with a bony resistance of the pelvis, which is not overcome by uterine contractions under conditions of favourable presentation.

The remaining part of the paper consists of an excellent account of the anatomy and mechanical effects of the operation, and of practical details as to its performance, of which we need only notice the use of a broad director introduced behind the symphysis to obviate hæmorrhage, and the recommendation of a *thin* blade for cutting the joint.

We have given the views of the author at some length on account of the importance of the subject, and the high position of Dr. Pinard, who is one of its most ardent advocates. While the work breathes the spirit of the enthusiast, and does not deal in sufficient detail with some crucial questions, it is one which should be read by every obstetrician who wishes to ascertain whether this country is behind or in front of others in refusing to perform the operation of symphysiotomy.

Medical Magistrate.—Dr. J. F. Counihan, of Kilrush, has been appointed by the Lord Chancellor to the Commission of the Peace for the county of Clare.

An International System of Electro-Therapeutics. By H. R. Bigelow, M.D., and thirty-eight Associate Editors. London: F. J. Rebman. 1894. (Demy 8vo, pp. 1180, 295 illustrations. 34s.)

This large volume consists of thirty-six chapters by different writers, and deals with the applications of electricity to the various branches of medical practice. About one-fifth part of the book is devoted to gynæcological subjects, including a chapter by Dr. Inglis Parsons on the Treatment of Cancer of the Uterus by Electricity. One other English writer—Dr. M'Clure, of Cromer—contributes a chapter on Static Electricity and Magnetism, and there are three articles by French medical men. The greater part of the book is by American writers, and the number of contributors proves that the subject of medical electricity receives more attention in the United States than in Great Britain.

It is only natural that a compilation, such as this book is, should be of unequal merit in its different parts, and thus, while some of the articles are well written, others are very poor. The chapters on batteries and apparatus are fairly well done, but the description of the methods of utilising the electric light currents for medical purposes is meagre, and the use of transformers for alternating currents is not even referred to. Nothing is said of the precautions which are required for the successful operation of cautery burners from the mains, and very little upon the management of accumulators for medical purposes.

The paper of Dr. Larat on the Treatment of Intestinal Obstruction by Electricity is valuable, and the results obtained both by him and by Dr. Boudet de Pâris (not Dr. Boudet, of Paris) in relieving 70 per cent. of their cases by electrical treatment are most encouraging.

The chapter by Dr. Alleman on Electricity in Ophthalmology shows a critical and scientific attitude of mind which might well serve as an example to some of the other contributors to the volume. Dr. Alleman has had very favourable results in the treatment of corneal opacities by weak galvanic currents of ½ to 1 milliampère, and gives a careful account of his methods and results. He says that dense white scars yield very slowly to treatment, while superficial opacities disappear with wonderful rapidity. This mode of treating a very troublesome condition deserves the attention of all who have to deal with such cases. The electrical treatment of optic atrophy, of ocular paralysis, of trichiasis, and of vascular tumours of the orbit are also well handled by the same writer.

The attention which has of late been given to the medical induction coil becomes evident from the articles of Dr. Kellogg and Dr. Engelmann. Both are worthy of study, though Dr. Engelmann's paper is somewhat obscure in parts. Dr. Kellogg gives some valuable tracings of induction coil discharges taken with a modified form of d'Arsonval's apparatus. These tracings show clearly that when the contact breaker is in proper adjustment the discharges of an induction coil are very similar to the sinusoidal currents of an alternating dynamo machine, and they emphasise the importance of the contact breaker in determining the character of the shocks of any particular coil. It is not clear, however, from the text which accompanies the tracings, that Dr. Kellogg fully understood the significance of the curves which he obtained.

The account of the treatment of sciatica is given rather indifferently in less than half a page. Infantile paralysis is touched upon by two writers, but both of them deal with the subject in a disappointing manner, so as to give the impression that neither of them has had many opportunities of studying the merits of the treatment.

Dr. Peterson's chapter on Cataphoric Medication, dealing specially with the introduction of cocaine through the skin by the aid of galvanism for the relief of neuralgia, is well and carefully written. An account of Apostoli's methods as carried out in Apostoli's own clinic is given by Drs. Grand and Famarque, and is fresh and good.

Dr. Parsons's article on the Treatment of Uterine Cancer resolves itself into a description of a mode of causing sloughing of epithelioma of the cervix uteri by electrolysis. The writer accords to his method only the lukewarm support of

saying that it may be superior to the knife in treating cases of recurrence following excision.

Dr. Newman contributes an able chapter of fifty-six pages on the Treatment of Urethral Stricture and of Enlarged Prostate.

The chief fault of the book is that it is too large for its subject, with a disproportionate amount of padding, and in some of the chapters there is too little evidence that the authors are writing from their own practical experience of the methods under discussion.

Practical Lectures on Dermatology: comprising a Course of Fifteen Lectures delivered at the University of Vermont Medical Department during the Session of 1892 and 1893. By Conduct W. Cutler, M.S., M.D. New York and London: G. P. Putnam's Sons. 1894. (Cr. 8vo, pp. 242. 9s.)

In this compact volume Dr. Cutler gives a methodical and useful account of the symptoms and treatment of diseases of the skin, with brief, intelligible remarks on the pathology and etiology, and the book may be considered as quite up to date. In regard to ointments, which are so much used in skin diseases, he observes that lanolin, although more readily absorbed by the skin than lard, is in other respects inferior. Vaseline, if not properly prepared, contains impurities which are very irritating to many skins, and both these statements we can bear out. He states that the ointment of the water of roses of the *United States Pharmacopœia* is highly esteemed in America as a base for ointments.

We wonder whether it would be possible to find sentences like the following in any book published in England for English medical men. Writing regarding the question as to what remedies should be used for alopecia, he remarks: "If you will take your Bible and read the 23rd and 24th verses of the second chapter of II Kings, you will find when Elisha had his attention attracted to his bald head, he immediately looked around for some means of relief. He found that bears afforded a remedy which was wonderfully and rapidly effectual, for we do not hear of any further reference made to his bald head. Since then bear's grease has been one of the many remedies applied to the scalp for the cure of alopecia." We decline to believe that even in America this can pass for wit; and if Dr. Cutler purposes continuing his career as a medical author, we hope he will either not attempt humour, or will practise being witty on the lines laid down by Sydney Smith, till he can "Jock" with less difficulty.

NOTES ON BOOKS.

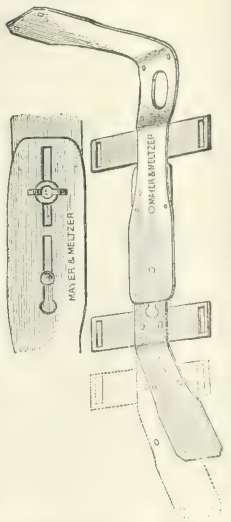
Ueber den Einfluss von Ruhe, mässiger Bewegung und körperlicher Arbeit auf die normale Magenverdauung des Menschen. [On the Influence of Rest, Moderate Exercise, and Bodily Work upon the Gastric Digestion of Man.] Inaugural dissertation. Von Wilhelm Spirig. (Bern: Stampfli, Lack, Scheim, et Cie. 1892. Demy 8vo, pp. 20. Fr. 2.2.)—The remarkable energy with which the functions of the stomach both in health and disease have been investigated of recent times has undoubtedly thrown much light on the diseases of that organ. The author has here carried out his investigations upon himself, and upon a healthy man aged 26. Specimens of the stomach contents were submitted to the well-known methods of examination employed in ascertaining the chief facts in gastric chemistry in the motility of the stomach and in absorption. The author concludes that the most pronounced degree of acidity is obtained by rest after a meal, that the quantity of peptones and propeptones is then greatest, and the motility least. By moderate exercise the acidity as well as the peptones and propeptones diminish, while the motility is increased, the other functions of the stomach remaining unchanged. Much the same result was obtained by suitable work after a test meal. It would be interesting to know whether moderate mental work would act in the same way as bodily exercise. Investigations were also made upon a man, aged 50, with a slight degree of hyperacidity. The results were in general the same as the above. Thus, along with other measures, a moderate degree of bodily exercise after eating should be recommended in hyperacidity (hyperchlorhydria). Moderate exercise is preferable to bodily work, since it is more pleasant.

Aseptic Surgical Technique. By Hunter Robb, M.D. (London and Philadelphia: J. B. Lippincott Company. 1894. Cr. 8vo, pp. 272. 25 Plates, and 47 Illustrations.)—The title of this book does not include all the subjects with which the author treats. In addition to chapters upon "Aseptic Surgical Technique" part of the book is devoted to the consideration of details which are to be observed during the performance of ovariotomy and other operative procedures upon the female generative system, and also to the after-treatment of patients who have been subjected to surgical operations upon the abdomen. In dealing with the precautions which every aseptic surgeon should adopt previous to the performance of any operation, very elaborate instructions are given, but it appears that these are too extensive to be carried out in the majority of surgical operations. The last portion of the volume comprises chapters upon the examination of patients under the influence of anæsthetics; and the bacteriological examination of pathological fluids and tissues. In many parts of the book valuable details are given which will prove to be of much value to both the student and to the aseptic surgeon.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A MODIFICATION OF NEVILLE'S SPLINT.

The accompanying illustration represents a modification of Neville's splint, one of the most universally useful splints that has been contrived for fractures and injuries of the leg. It is, perhaps, more frequently used in hospital work than in private practice, few private practitioners caring to supply themselves with the necessary number of sizes to suit the varying length of their patients' legs.



The simple modification depicted in the illustration enables the surgeon, by a mere turn of the screw, to alter the length of the splint by 3 inches; by this means the knee-bend of the splint can easily be accurately adjusted to the bend of the knee, a point of practical importance and comfort to the patient.

Two or three splints of different lengths and widths would provide a surgeon with the means of dealing with legs of all sizes. Messrs. Mayer and Meltzer have skilfully carried out my suggestion, and have informed me that the extra cost of the mechanical modification would only be about 4s.

As I have not seen any similar contrivance, I have thought it might be worthy of a brief notice.

Bertram Thornton, M.R.C.S., L.R.C.P.Lond.,
Surgeon to the Royal National Hospital for Scrofula, Margate.

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA*.

IV.

THE MANUFACTURING PROCESSES OF THE *BRITISH PHARMACOPŒIA*.

By DAVID HOWARD,
Fellow of the Institute of Chemistry.

The alteration of the title of the German *Pharmacopœia* to *Arzneibuch* is very significant of the altered idea that has come about of what is required in a *Pharmacopœia*. The old conception, accurately reflected in the name, was that of a book giving full instructions for the manufacture of the medicaments required. It was necessarily so, for in no other treatise was information to be found either of the nature and properties of medicines or of their preparation. Even the familiar direction *misce secundum artem* appealed to traditional skill not to scientific knowledge. If this old conception were to be maintained, even without the additional information called for by Dr. Lauder Brunton and others, the *Pharmacopœia* must grow in these days to encyclopædic dimensions, and consist largely of information which either has already formed a necessary part of the education of those who are to use it or would better be obtained from the various treatises on pure or applied chemistry.

The *British Pharmacopœia* in its present condition bears evidence of a period of transition, and contains a multitude of instructions by no means sufficient for those actually engaged in manufacture yet quite needless for any others.

What is wanted is that a clear distinction should be drawn between products in which the process of manufacture cannot be varied without risk of giving an uncertain result and products of perfectly well-known composition and properties. In the case of the latter it is quite enough to supply efficient tests and accurate standards of quality.

Such preparations as fluid extracts, for instance, show by their very presence in the *Pharmacopœia* that something more is desired than a dilute solution of an active principle. In such cases the strength of the solvents, the temperature at which they are made, and other multifarious details of preparation have a material influence on the result; and even where a given percentage of an active principle can be insisted on that is only one factor in the desired product. In such cases the instructions, general and special, cannot be too clear, for the mode of preparation itself gives the standard for the result.

The time has passed when this was equally true of definite chemical products, whereas the danger now is that by prescribing imperfect methods of preparation a standard may be fixed far below what can be attained by newer methods. It is, therefore, needless to give detailed processes of manufacture in any instance where the result is not affected by variations in the process. Descriptions of processes should be confined, in fact, to cases where only one process can be allowed.

For example, no harm except great waste of space is caused by giving instructions to prepare citric acid from four pints of lemon juice, or tartaric acid from 45 ounces of acid tartrate of potassium; they might even be useful in an elementary handbook as exercises for a beginner. But there *is* serious harm in the process given for aconitina, which stereotypes as "Aconitina, *B.P.*," a product of which the only thing that can certainly be said is that it is not aconitina in any accurate sense, but a mixture most uncertain in composition and therapeutic action.

If all needless and obsolete processes, including a variety of statements how a medicament "may" be made, which only need the additional words "but is not" to be quite accurate, were omitted from the *Pharmacopœia*, no small addition would be gained to the space available for new and valuable matter.

Although no small part of the present *Pharmacopœia* has by lapse of time become useless, or even mischievous, and may therefore be very safely omitted, those occupied in the preparation of medicinal products must be allowed to urge most strongly their claim to a great extension of the space devoted to standards and tests. If it is true that a *Pharmacopœia* in the old sense is no longer needed, because the pharmacist is no longer likely to prepare all his own chemicals, this division of labour between those who make and those who use, makes it imperative that there should be a clear official standard for the maker to work up to, and for the user to verify the quality of the product he buys.

This need for standards of purity, rather than for the processes of manufacture, is reflected in all the best modern *Pharmacopœias*. In the American the change is defined with admirable clearness, as to omissions, thus:—"Descriptions of chemicals: All mineral substances, or chemical preparations, except those where differences in process produce different results, shall be described and defined by concise and complete tests of identity and purity without giving processes;" and as to tests, thus: "In the revision of the descriptions and tests of chemical substances, particular care was bestowed upon the limitation of impurities, by introducing methods of testing which would sharply respond to the established limits whenever possible or where deemed necessary.....The allowed limits of impurities were fixed after a careful examination of the commercial products, and were in no case made more rigorous than can be readily complied with by any manufacturer without an increase of the cost of these articles."

These quotations exactly express the real needs of those who have to do with medicinal chemicals of definite composition, and it is greatly to be hoped that in the new edition of our *Pharmacopœia* they will be followed, and that no time or thought will be spared to make the result as perfect as possible.

The need thus generally felt is especially strong in the United Kingdom. The necessity for standards for use under the Adulteration Acts has made the *British Pharmacopœia* a legal textbook for criminal prosecutions, under an Act which renders it possible to convict on evidence of mere opinion, without proof of intention to defraud, and without giving "the benefit of the doubt." An *obiter dictum* of the compilers of the *Pharmacopœia* has thus the force of law, and it is necessary in the interests of justice that a clear distinction should be made between recommendations of an ideal to be striven after, and commands which it is penal to neglect.

It is unfortunate that it should be so; the standard *should* be high, and it is often easier to define the absolute purity to be aimed at than the maximum of impurity to go below which is criminal; but the difficulty must be faced, or the *Pharmacopœia* will be either inoperative or unjust in dealing with adulteration.

From this point of view it is much to be wished that the *Pharmacopœia* should clearly state that its requirements are those for medicinal use only. Potassii tartras acida should be of approximate purity for pharmaceutical use, especially when used in the preparation of other medicaments; but it is hardly within the province of medicine to dictate to commerce what standard should be observed in cream of tartar. It is desirable to confine the vinegar used in oxymel scillæ to malt vinegar, but there is no need to raise a doubt as to the legality of using wine vinegar for salads. Again, synonyms should only be given when actually necessary; "spiritus ammoniæ aromaticus *B.P.*" is a definite preparation, but "sal volatile," as understood by the public, may mean a variety of older preparations; and if the flavour of the "sal volatile" of *Pharm. Lond.* 1787 is preferred, there is no harm in supplying it.

The first requirements in the tests given in the *Pharmacopœia* must be perfect clearness of description and certainty of application. To take one of many examples to the contrary in the present *Pharmacopœia:* At first sight it looks all right to say of tartaric acid that "an aqueous solution of the acid is not affected by sulphuretted hydrogen," but experience shows that unless the strength of the solution is prescribed and the mode of application of the H_2S stated, whether as gas or in solution, a dispenser may find that a sample which he has found, by careful testing, to be free from lead, may show under slight variations of the conditions very decided

traces. Then, again, the line between giving "a faint opalescence," "giving a very slight precipitate," and "giving no precipitate," is very difficult to draw, especially when no strength is given for the solutions nor limit of time for the formation of a precipitate. It would be a very lengthy task indeed to point out these defects in detail, but a comparison of the British with other more modern *Pharmacopœias* will soon show how much more minute are the instructions given for testing in these latter.

To these and similar criticisms from a manufacturer's standpoint there are two objections that are likely to be taken: first, that they are mere details which it is the business of the manufacturer to attend to; and, secondly, that an absolute standard of purity should be set up and adhered to at any cost. To the first objection it may fairly be answered that the experience of all compilers of *Pharmacopœias* is against it, that in all cases the *Pharmacopœias* are looked to to give standards, that an official standard of any sort must be accurate to be tolerated at all, and that as long as a name meaning, according to Liddell and Scott, "the preparation of medicines" is used, those who are *φαρμακοποίοι* have a clear right to be told exactly what to make, the only alternative being to give up all tests, and merely say that the substance is to approximate as nearly as possible to the chemical formula given. The answer to the second objection is, first, that purity is after all a relative term; anyone who has tried to get rid of the sodium line in a spectrum knows what is the difficulty of obtaining a substance free from soda to that extent, and yet no one supposes that even that test is absolute. Anyone who has looked for arsenic carefully knows how easy it is to allow a minute trace to escape notice, and therefore, as official words ought to have a meaning, it is needful that some limit should be given to such a term as "free from," and further that in a book intended for practical use practical possibilities must be attended to. Even in scientific matters the question of cost must receive some attention; we do not prescribe diamonds as a source of pure carbonic acid, and if standards of purity are given which enormously increase the cost of production they are certain not to be observed, while manufacturers who do endeavour to observe them are put to a great disadvantage.

It is earnestly to be hoped, therefore, that the compilers of the new and revised *Pharmacopœia*, about the need for which there can scarcely be two opinions, will clearly determine what the book is to contain and what it is to omit; and that they will spare no pains to secure that what it does contain may be perfectly clear and definite, so that it may be used without hesitation as an authority.

THE SANITARY FUNCTIONS OF COUNTY COUNCILS.

THE DEGREE AND MODE IN WHICH THEY ARE EXERCISED.

THE Local Government Act of 1888, which brought county councils into existence, allotted to them certain sanitary functions, which have since been largely extended by the Housing of the Working Classes Act of 1890, the Isolation Hospitals Act of 1893, the Local Government Act of 1894, and to some extent also by the revision of the official duties of medical officers of health as prescribed by the Local Government Board. The recent additions are of such moment that it becomes a point of some interest and importance to ascertain how far the several councils have availed themselves of the discretionary powers vested in them from the first, and how far they may be regarded as being reasonably prepared for the wider responsibilities which now devolve upon them.

Some information upon these points may be gathered from the replies received in response to a circular letter of inquiry which we have addressed to the clerk of each of the English and Welsh county councils. The questions were as follows:

1. Whether any Sanitary or Public Health Committee had been formed.

2. To what Committee matters of the following kinds would be referred:

Pollution of rivers.
Reports of medical officers of health.
Reports under the Housing of the Working Classes Act.
Applications and questions under the Isolation Hospitals Act.
Appeals by parish councils in case of default in sanitary matters on the part of the rural district council.

3. Whether any county medical officer of health had been appointed.

In the first place fourteen administrative counties, according to the returns furnished by the respective clerks, have appointed county medical officers of health. These pioneer counties are:

Bedfordshire	Lancashire	Surrey
Cheshire	London	Worcestershire
Derbyshire	Northumberland	Yorkshire, N. Riding
Durham	Shropshire	Yorkshire, W. Riding
Glamorgan	Staffordshire	

To this list ought perhaps to be added the County Council for the Isles of Scilly, which in its capacity as rural district council for the same area has of course appointed a medical officer of health.

The conditions of appointment are stated only in a few instances, but it is mentioned that the county medical officer for Bedfordshire is paid by fees, not by salary, and that his duties are "to report upon the reports of the medical officers of the various sanitary authorities, to advise the Council on matters arising out of such reports, and to advise the Council when called upon on all other sanitary matters." We believe we are right in saying that the position is very similar in the North Riding of Yorkshire, and that Dr. Thursfield's relations to the Shropshire County Council are exceptional, since he is also medical officer of health for most of the districts within the county area.

In nearly all of these counties a special committee has been formed to take charge of questions of sanitary importance, including those arising under the Rivers Pollution Prevention Acts, the Housing of the Working Classes Act, and the Isolation Hospitals Act, together with allegations of default on the part of local authorities in sanitary matters, and, of course, the consideration of the reports of medical officers of health. It need hardly be pointed out that the London County Council has exceptional powers and duties, and its position is scarcely comparable with that of the provincial councils. The committee, which would thus take cognisance of most of the subjects with which the medical officer has to deal, bears the title of Sanitary Committee in Glamorgan, Shropshire, Staffordshire, Surrey, Worcestershire, and the North and West Ridings of Yorkshire. London, Derbyshire, and Lancashire have Public Health Committees. Durham a Health Committee, and Northumberland a Property and Sanitation Committee. In Cheshire the Public Health Committee (consisting of the whole council) has no concern with rivers, which are under the charge of a separate committee: and as independent Rivers Boards have been established for parts of Cheshire and Lancashire, and for the whole of the West Riding of Yorkshire, those county councils are *pro tanto* relieved of direct responsibility for administering the Rivers Pollution Prevention Acts. The Bedfordshire County Council, however, relegate all sanitary questions to the General Purposes Committee.

Several other councils represent themselves as having no county medical officer, but add that expert assistance is called in for the purpose of abstracting and tabulating the local reports. Such is the case in Essex, Leicestershire, Merioneth, and Somerset, according to the returns before us; and also in many others, including Buckinghamshire and Warwickshire, although no mention is made of the fact. In Gloucestershire a singular practice is adopted. The local reports are referred to a "Medical Officers of Health Reports Committee," who prepare an abstract apparently without expert aid. In Cornwall the task is undertaken with much ability by the Chairman of the Sanitary Committee.

Apart from the fourteen councils who are advised by medical officers of their own, thirteen more have constituted sanitary committees, under that or some similar name. These are:

Buckinghamshire	Lincolnshire, Lindsey	Nottinghamshire
Cornwall	Merioneth	Warwickshire
Essex	Monmouthshire	Wiltshire
Leicestershire	Norfolk	Yorkshire, East Riding
Lincolnshire, Kesteven	Northamptonshire	

The questions referred to these committees seem to be identical with those already named in connection with the first list, but the Merioneth Council is fortunate enough to have no rivers pollution to consider.

Next, we have a group of eleven counties in which, there being no sanitary committee, matters affecting the public health are, for the most part, dealt with by the General Purposes Committee:

Cumberland	Hertfordshire	Montgomeryshire
Devonshire	Huntingdonshire	Oxfordshire
Flint	Isle of Wight	Somerset
Herefordshire	Middlesex	

As regards rivers, however, Herefordshire, like Merioneth, is happily untroubled, but the Somerset and Devonshire councils have thought it expedient to appoint special committees to deal with that subject alone. Kent and Dorset may be added to this group, as all sanitary questions are referred to the Parliamentary Committee.

There remain for consideration twelve more replies, namely those for:

Anglesey	Cambridgeshire	Lincolnshire (Holland)
Berkshire	East Sussex	Rutland
Cardigan	Gloucestershire	Soke of Peterborough
Carnarvon	Isle of Ely	Westmorland

It is stated frankly that nothing at all is being done in the way of public health administration, in Anglesey, Cambridgeshire, Carnarvon, Holland, Rutland, or Westmorland: and the Clerk to the Cambridgeshire Council adds that it has not been found necessary to appoint a medical officer. In Berkshire no sanitary questions have arisen, except one instance of river pollution, which was dealt with by the General Purposes Committee. The county council for the Isle of Ely refer all points concerning rivers to the Highways Committee, and other sanitary questions to the General Purposes Committee, or would do so in case any such questions should arise. Two distant county authorities, those for Cardigan and the Soke of Peterborough, deal with all matters of this kind in full council, local reports not excepted. The East Sussex Council refer hospital questions to the General Purposes Committee, and rivers cases to the Rivers Committee, but we are not told what is done with the reports of medical officers of health. As already stated the Gloucestershire reports are edited by a special committee; rivers questions in that county are submitted to a Rivers Committee, and other sanitary matters are disposed of by the Council. It should be added that in Anglesey, as in Oxfordshire and Shropshire, most of the constituent districts are advised by the same medical officer of health.

We are unable to include in this review the other English and Welsh administrative counties, six in number, as no replies have been received. The silent counties are:

Brecon	Denbigh	Pembroke
Carmarthen	Hampshire	Radnor

In none of these has a county medical officer been appointed.

It may safely be taken for granted that there is sanitary work for every county council; or, in more precise terms, that in every county there are questions affecting the public health with which the County Council has power to deal, and which, in the absence of action on their part, remain in abeyance. If there is a river which receives crude or imperfectly purified sewage, a sanitary district which is without adequate accommodation for the isolation of cases of infectious diseases, or a sanitary authority which has failed to carry out any of the requirements of the Public Health Act with regard to any part of its area, the County Council has power to interfere, and must, therefore, share the responsibility for action. Information upon these points is given to them, whether they elect to take any notice of it or not, in the reports of the several medical officers of health. If in doubt they can obtain skilled advice and assistance, as many have already done, and wherever this work has been taken up in earnest there has been no lack of important and useful duties found lying ready to hand, although not always specifically defined in any Act of Parliament. The need for the formation of a sanitary committee is common to all counties, for matters of this kind can only properly be dealt with in committee in the first stage, and referred to the Council in a matured report in a form in which they can profitably be discussed.

The degree of urgency for appointment of a county medical officer of health, who would not only advise in all matters affecting the public health, but would bring before the committee questions not automatically coming before it, but nevertheless needing attention, may vary in different parts of the country, and in some counties the area and population and the rateable value may be considered too small to justify the council in retaining the whole of the services of such an officer. In these cases a combination of counties may be thought of, and precedents for this are to be found in Scotland; or, as a temporary expedient, the council may be satisfied with the occasional assistance of some competent medical officer of health not wholly in its service; but under the latter arrangement many things are liable to be passed over which an officer armed with power of initiative would bring into prominence. It may fairly be claimed, too, that the appointment of a county officer of recognised standing will not only tend to ensure the efficiency and prestige of the sanitary work which the county council undertake, but will also be helpful to local authorities in cases of difficulty or doubt, where their own officers need expert assistance, and that it will thus in more ways than one promote the harmonious working of the different public bodies concerned. After all, few of the sanitary questions which a county authority is called upon to take in hand are of a kind which can safely be carried far without need arising for technical knowledge; but it may be conceded that if no expert advice is available, the necessity for careful consideration in committee is all the greater.

If the result of our analysis is not altogether encouraging to those who hope to see immediate advance in sanitary efficiency as the outcome of recent permissive legislation, it is at all events satisfactory to find that there are at least a dozen counties which have already laid a solid foundation of county sanitary government, and have thereby established the lines upon which the rest must sooner or later follow.

DEATHS UNDER ANÆSTHETICS.

CHLOROFORM.

In the *Indian Medical Gazette* for December, 1894, Surgeon-Captain Malcolm Moore (C. I. Horse, Agra, W. Malwa) reports the case of a Brahman, aged about 60, who died while under the influence of chloroform administered for excision of a cancerous tongue. The patient is described as a feeble subject of nervous temperament. The heart's sounds were wanting in distinctness, and the superficial arteries were tortuous and inelastic in places. The anæsthetic was administered by a skilled assistant—who had given chloroform in at least 500 cases—from a drop bottle on lint stretched upon a wire frame.

The operation was done in the open air. A large quantity of the drug was found necessary to produce anæsthesia, the patient struggling a good deal. Nearly a quarter of an hour elapsed before reflex action was abolished. One lingual artery was tied as a preliminary measure, and on proceeding to remove the tongue the operator gave directions that only just enough chloroform to prevent struggling should be given. As it could only be given by the nose, there was much trouble from restlessness, making temporary stoppages necessary while a little was given by the mouth. On dividing the other lingual in the floor of the mouth there was smart hæmorrhage, but the vessel was soon secured. Up to this stage the patient had assisted in getting rid of blood and mucus. After the artery was tied no more chloroform was given. Just as the tongue was removed some blood was vomited; after this the respiratory movements went on fairly. About four minutes were occupied in sponging and cleaning up the back of the throat and fauces, and, just as the gag was being removed, the heart and respiration ceased apparently simultaneously. The first efforts at artificial respiration resulted in air being expelled from the chest. There was evidently no obstruction. "The usual measures for resuscitation proved unavailing."

Death appeared to Surgeon-Captain Moore to be due to syncope from the direct influence of chloroform on an already enfeebled system producing cardiac depression. The quantity of chloroform used was 19 drachms, but it is pointed out that it was the last of an old stock probably deteriorated; that it was given in the open air; and that for much of the time only such as could be given by the nose was administered. Administration extended over a period of about ninety-five minutes.

At a meeting of the elective members of Council of the Medical Defence Union (Limited), held on February 13th, the following appointments of officers for the year were made: *President:* Professor Victor Horsley, F.R.S., F.R.C.S. *Treasurer:* Dr. Masters, M.R.C.P. *Secretaries:* Dr. Campbell Pope, F.R.C.S., Dr. A. George Bateman. All inquiries for application forms for membership should be made to the Secretaries at the registered offices, 20, King William Street, W.C.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XXXIX.—ST. THOMAS, EXETER.

Exeter is divided into two unions, St. Thomas being the one workhouse, and Exeter city the other. St. Thomas was built in 1835, in the form of the letter Y, a plan somewhat in favour at that date. It stands on a hill overlooking the city, the country extending beyond it. The master was pleased to show us over the house, pointing out with pride many recent improvements.

The Infirmary

is a separate block, behind and a little to the right of the main building. There is accommodation for 72 sick; we found 28 male patients and 25 female distributed on the ground and first floors. The wards hold from 6 to 10 beds a-piece, the larger wards being on the first floor. The wooden staircases lead to wide landings, and are the same on the male and female sides. There are also outside escape staircases, the spacious landings of which form pleasant balconies overlooking a wide range of country, and are used as airing grounds by the sick.

The Wards

were not crowded, plenty of space being left between the beds, and these were not all occupied at the time of our visit. The roof of the upper floor is pitched, with cross beams; there is a ventilator in the gable end and the upper window frame also serves as a ventilator, falling back to form a hopper. Open fireplaces are in each ward and plenty of arm chairs for the old people; at the head of each bed hangs the towel and the brush and comb bag for the patient. We noticed the want of cupboards in the wards or on the landings, also of lockers. Commodes are placed in the wards for the night. The bedsteads are narrow and low; the bedding is chaff or short straw, they were clean and appeared comfortable. There are no day rooms. Bells ring from the wards to the nurse's room and in the house to the matron's room.

The Lying-in Ward

is on the ground floor; there is no labour ward. Here were two patients with infants of varying age. The poor weakly creatures were seated on ordinary chairs by the fire. We understand the feeling that prompts the hard measure so often dealt out to these women who make such a shameless use of the shelter which they can claim; but surely it is good policy to accelerate as far as possible their recovery and so discharge them the sooner, and a couch or a more restful chair might conduce to this end.

Isolation

is decidedly defective: there is one small ward on the men's side that could be used if needed for any offensive case, but we saw nothing for the women. There was a pregnant syphilitic woman isolated in a ward close to the tramps' quarters. The place hardly deserved the name of ward; it was a bare, whitewashed room, the door of which opened immediately into the court; it had a very small fireplace, one small window, and a convenience with a good flush. An inmate shared the room with the patient at night, and the matron was responsible by day. An isolation hospital was built some years ago; but it is too near the other buildings, and, as it is not self-contained, it has been used for a storeroom for vegetables for some time past. All cases of infection are removed to the sanatorium outside the city. There are no children's wards. The receiving wards are at the front of the building, and are provided with baths and conveniences, all of modern construction.

The Patients.

There were no acute cases in the infirmary at the time of our visit. The most serious case appeared to be that of a man recently admitted suffering from some affection of the throat. Nine patients were in bed, mostly cases of senility or rheumatism. There is no classification, and we saw idiots and imbeciles in almost every department. When restraint is necessary the patient is placed in a separate room in the care of inmates.

The Nurse,

who has been in the service of the Board for some time, is untrained, and, though she acts as the midwife, is not certified. The wards and the appearance of her patients did her credit. There is no night nurse. Pauper help is used in the infirmary, and when all the beds are full these helps must be relied on for much of the nursing.

The Sanitary Appliances

are up to date; the wash-out pan, the open seat, the porcelain baths, placed free from the walls, with hot and cold water, all of recent construction, show that the guardians have been setting their house in order. One point struck us: the narrow covering to the pan affords no leverage to enable an old infirm person to raise himself; it is a real objection to these fittings in asylums for the sick and infirm, and it might be obviated by prolonging the seat a little on either side, or by a pull from the ceiling. Shelves placed in the bath rooms or closets for the chambers and pans would be an improvement. They were piled on the floor in confusion.

The Nursery

was one of the most cheerful we have seen; it was quite a pleasure to see the toys, pictures, wooden horse, and other accessories for a happy child's home. There was a bright fire, and the little ones seemed to be on good terms with the officers. The babies are kept here until they are 4, and longer if they seem weakly, as was the case with one little one now toddling about, but, being a backward child, it had been slow in finding its feet.

For Exercise

the patients can either make use of the fire escape balconies or go into the garden and field, as we saw them that day. The women's airing court is circumscribed as compared with the men's, but they have their days for going into the garden.

Diets.

The bread is baked in the house, and tasted good. The infants have new milk, and the sick likewise, when this is ordered by the medical officer; the rest of the inmates, including the children, have scalded milk. The meat is roasted on two days in the week, and the portions being weighed and divided in the kitchen, are distributed in covered tins to the various departments. We were informed that the sick diets were varied by the doctor.

Recommendations.

The defects in this infirmary are mainly structural: separate wards are required for isolation, especially for the lock cases; day rooms for the use of the more convalescent patients; a labour ward with separate offices; a separate department for the imbeciles, and a ward for the children in the infirmary. A trained nurse should succeed the present one when her time of superannuation comes, and a night nurse should be appointed at once.

PROGRESS AT THE KINGSTON WORKHOUSE.

It is satisfactory to find in how many places the public conscience is becoming awakened in regard to the nursing in workhouse infirmaries, about which we have had so much to say of late. The meeting of the Kingston Guardians on February 5th was a most satisfactory one in that not only was a report recommending large reforms presented by a Committee, but it was unanimously adopted. Pauper nursing is to be entirely dispensed with; the permanent staff of nurses is to be increased from 5 to 15, allowing 2 day nurses and 1 night nurse for every 60 beds. Surely not an excessive allowance. There is to be a trained superintendent or head nurse, who will have direct control over the whole of the nursing staff; and arrangements will be made for providing a common room for the nurses, and a separate bedroom for each of them. Various humane recommendations were also made in regard to appliances for the use of the inmates.

We congratulate the Kingston guardians on the readiness with which they have adopted the recommendations of their Committee; at the same time we imagine many people will be rather shocked to find that within so short a distance of London such a condition of affairs as is here displayed should exist. If, after trebling the number of nurses, there

are still to be only two to attend to sixty patients all the day, what must the condition have been up to now? To the traveller, London appears to shade off by degrees into the country, but parochially there is a sharply drawn line between the two, at the other side of which line there still persist many curious arrangements, and it is probable that but few of those who have read our reports on provincial workhouses have grasped the fact how near to us on every side are the evils and abuses therein depicted.

NOTTINGHAM WORKHOUSE INFIRMARY.

We have before us a statement of the condition of things in this house, which reads as badly as any of which we have knowledge. It is the report of the Committee appointed by the Board to investigate into the overcrowding of the house. In December, 1894, there were 121 more inmates than the certified accommodation; the report says it cannot be denied that the hospital accommodation at York Street is of the worst kind, and has been for some years. There are the airing courts, small and surrounded by high walls, no day rooms, no convalescent wards; the sick live, eat, and die in the overcrowded wards to which they are admitted. The nursing staff is inadequate, and pauper help is largely used, the efficient treatment of the sick is impossible in the overcrowded condition of the wards and the absence of almost every necessary convenience, and the report from which we have quoted goes on to say "this state of things has existed and been within the knowledge of the guardians for years past, and has frequently been brought under the notice of the Board by the House Committee, the permanent officials, and others, but nothing has been done to deal with the question in a manner befitting its importance." The report constantly refers to the action of the Local Government Board since 1885 in urging on the Board to build an infirmary and in other ways to meet the requirements of the union.

What an indictment of incompetency! Is there any other department of the public service that can exhibit such a spectacle of inefficiency as the working of the Poor Law by many provincial boards of guardians?

POOR-LAW RED TAPE.

A curious instance of officialism comes to light in the report of an inquiry into the circumstances of the death of an outdoor pauper in Norfolk on whom the district medical officer operated for femoral hernia. It seems that the doctor, at his first visit on December 4th, found the man suffering from a reducible hernia and in great pain. He ordered him not to leave his bed, and on December 16th—the day of the Board meeting—he reported the man to the Board for a truss. It seems that a truss, when ordered by the doctor, is supplied by the relieving officer on the order of the Board, and Dr. Dundas states that, in his opinion, if the truss had been supplied when he reported the unfortunate man he would have been alive. It seems that when the various processes necessary to obtain a truss had been accomplished the relieving officer did not order the truss because he thought that the man was dying; and it is also to be noted that the medical officer was hampered by the difficulty of getting the truss without the order of the Board. We are glad to see that the Board resolved that in future a truss should be supplied by the relieving officer on the order of the doctor.

THE PONTEFRACT GUARDIANS AND THE LOCAL GOVERNMENT BOARD INSPECTOR.

It seems that Mr. Kennedy has been looking round his district, and has admonished the Pontefract Board to set its house in order. He condemns the laundry buildings, the vagrant wards, the deficient supply of hot water, the bathing arrangements, the want of supervision in the laundry, the inadequate number of nurses for the sick, and the want of careful safe guarding of the epileptics. The inspector also draws attention to the use of skimmed milk in the children's porridge. We note that the report is treated with scant respect by the guardians, the Chairman, who should set a better example remarking "that the gentleman who wrote it must have wanted to fill up the time," and the Board joining in the laughter with which the report was greeted. It must be difficult at all times for an inspector to hit the happy medium of not insisting on too much, or on the other hand of condoning inefficiency; still, when he is doing his best to point out where deficiencies exist, and how they may be remedied, his report deserves the careful consideration of the Board.

THE NURSING IN PRESTON UNION INFIRMARY.

Dr. Thomas Pinley, M.D., of the Preston Union Infirmary, writes: That we have a trained nursing staff at the Preston Union Infirmary is undeniable. That that staff is fewer in number than I would have it be is sufficient, I am sure, to show Mr. W. R. Williams that he and myself are not at issue on this question.

DEVONPORT WORKHOUSE.

The medical officer attached to this infirmary (Dr. Rowe) has presented an important report to his Board on the present condition of the nursing of the sick under his care. According to his statement there is a total of 173 patients; this includes the sick and infirm in the infirmary and the house. In the infirmary proper there are 125 beds, distributed among twenty three rooms or wards, and the nursing staff consists of fifteen attained women, one of whom has to do the cooking of the extras for both sides of the infirmary. Dr. Rowe points out that the subdivision of the infirmary into many small wards increases the difficulty of supervision, and also that the patients are of necessity left largely to the care of irresponsible pauper wardswomen, who at night have entire care of the wards. The report shows that there is need of much improvement in the care of the sick in this infirmary, and we are glad to see that Dr. Rowe's suggestion to appoint a trained head nurse over the infirmary, responsible to the guardians and the medical officer, has been referred to the house committee for consideration, and we trust that the matter will be quickly carried through.

WHERE WAS THE AMBULANCE?

By the evidence published in the Wolverhampton *Express* and *Star* of an inquest held on the body of a married woman who died at Wolverhampton, we see that death was accelerated by her being removed from her home at midnight in very severe weather, on a barrow. The poor woman was near her confinement, and the doctor called in to see her, finding that she needed more care and attention, advised her going to the workhouse. There is an ambulance at the union which can be used on the order of the relieving officer, but in this case it was not sent for this patient, the husband not having applied for it. There must have been some sad bungling in this case, resulting in the death of the poor woman, and it suggests that the working of the machinery of poor relief is much hindered by the red tape of officialism. As sickness cannot keep times and seasons, would it not be possible to give authority to the master or the medical officer to send the ambulance at any time when there seems to be urgency, and that means should be taken to make this known to the district medical officers and others who have to see after the relief of the poor? Surely human life is not so cheap that it is no matter whether a husband and children are deprived of wife and mother for the sake of red tape.

A RESIDENT HOUSE-SURGEON FOR OLDHAM WORKHOUSE.

We most cordially endorse the recommendation of Dr. Young, medical officer of the above infirmary, to appoint a resident house-surgeon to assist in the care and treatment of the inmates. Wherever such an appointment has been made, marked improvement has taken place in the efficiency of the nursing and the arrangements and methods of dealing with the sick. Considering the important nature of the cases in the wards, the large number of inmates of all kinds, the possibility of emergencies arising, or the admission of sick tramps or casuals during the night, it is a matter of surprise that the necessity for the resident house surgeon has not arisen long ago. The recommendation was referred to the Hospital Committee for consideration.

THE HOLBORN UNION INFIRMARY.

Dr. J. Crawford M'Learn, Medical Superintendent, writes: Kindly allow me through your columns to contradict an erroneous statement which appeared in the British Medical Journal of February 16th, regarding an inquest alleged to have been held on the body of a patient, who died, it was stated, in the Holborn Union Infirmary. The death referred to really took place in the Holborn Union Workhouse, City Road, where the 401 persons in charge of the nurse are aged inmates, and not sick patients, as in this infirmary, which, with a certified number of 625 beds, has a staff of 44 nurses.

LITERARY NOTES.

We have been favoured with a copy of a new periodical called *Reality*, and the editor draws our "esteemed attention" to an article entitled "Hospital Patients as Human Subjects for Speculative Inoculation and Vivisection," adding, "If you can give us a line it will be much esteemed." We will give several lines which will show the character of our new contemporary better than any words of ours could do. The article in question, which occupies the place of honour, begins as follows:

It was with the most profound regret—a regret, we believe, shared by very many thousands—that we read of the decision of the Metropolitan Asylums Board early in the past month to introduce the new remedy (?) for diptheria (*sic*), the antitoxin serum, for use in the Board's hospitals. In doing so they will, we are sure, be pained to learn on such excellent authority that:

They have blindly placed their faith in the latest medical advertisement, and doomed their helpless and fever-stricken patients of the great London fever hospitals to serve as human subjects for speculative inoculation.

But what else can be expected since:

Our surgical hospitals are becoming amphitheatres for human vivisection . . . . . Suffering humanity is hacked and cut, and sewn up and explored at the discretion of inefficient and inhuman surgeons.

We should have thought that the exploration should have preceded the sewing up, but perhaps some refinement of cruelty on the part of the operators is hinted at. Our contemporary does, indeed, make a concession, for which we suppose we should be grateful. It says:

If it were proven beyond reasonable doubt that this new diptheritic (*sic*) cure were indeed a cure or possessed of some saving power *we think* that we should be found to welcome it as gladly as any.

The writer is fond of italics—"the last resource of the forcible feebles," as Lord Beaconsfield called them—and scatters them about somewhat promiscuously; in the extract just quoted we have taken the liberty of italicising words which seem to us to express with involuntary candour the attitude of mind, or rather of feeling, characteristic of such obscurantists. Of the competence of the writer to speak on the subject let the following be a specimen:

And meanwhile, says the Asylum Board, we will experiment upon our fever patients, we will inoculate them with this germ, we will close our eyes to the fact that it may, by time and contact with the system, turn from a healthy germ to a ravaging bacilli (*sic*), that it may undermine

and suck the system until the disease which it professes to allay breaks out with hopeless viciousness.

It is natural, adds this amiable person, that vivisectors having tasted the blood of dumb animals should wish to slake their thirst for torment on human beings. The "red dawn has begun to rise," and all kinds of horrors may be expected to follow. The writer is good enough to admit that "the medical profession is not yet seriously impregnated with this feeling of wanton brutality."

It is still a very great and noble profession, but the germ has been introduced, and if it is not combated it will slowly and surely come out of the chrysalis and eat into and fix upon the great body which it has attacked.

The "nice derangement of epitaphs" in this Cobbe-cum-Berdoeish effusion is in keeping with the grammar and spelling. Let the writer stick to abuse, however; we can endure anything rather than to be called "a very great and noble profession" by a person whose utterances are "like a tale told by an idiot full, of sound and fury, signifying nothing."

At the annual dinner of St. Mary's Hospital held in October last, the idea was first mooted that one of the few things still required to satisfy the legitimate aspirations of that growing school was a journal of its own. The *St. Mary's Hospital Gazette*, the first number of which is now before us, is the "materialisation" of that idea. It is to be published every month with the exception of August and September. The aim of the guiding spirits of the new journal is to make it "thoroughly representative of the interests of all St. Mary's men." The Committee appointed for the management of the *Gazette* consists of Mr. George P. Field (Dean), Chairman; Dr. Lees, Mr. Page, Dr. Luff (Subdean); Dr. Caley, Editor; and Mr. F. H. Madden (School Secretary), Financial Editor. The title of the last-named official rather suggests that the *Gazette*, in its praiseworthy anxiety to represent the interests of St. Mary's men, is to have a "City Article" for their special benefit; we have, however, failed to discover any reference to financial matters beyond a broad hint from Mr. Field that contributions not only of a literary character, but of "the funds requisite for the satisfactory maintenance of the *Gazette*" will be welcome. The first number promises well; in addition to matter intended more particularly for St. Mary's men, there are interesting and instructive papers by Sir William Broadbent (A Study of Aneurysm of the Arch of the Aorta), Mr. Malcolm Morris (The Antiseptic Treatment of Boils), Mr. Edmund Owen (Percivall Pott and his Fracture), and others. There can, we think, be little doubt that the *St. Mary's Hospital Gazette* will achieve the success which it certainly deserves.

Dr. I. Oeller, of the University of Munich, has in preparation an Atlas of Ophthalmoscopy, which is to be published by subscription. The Atlas will contain about seventy-five plates, with descriptive text. More than half are already completed. The illustrations are, with few exceptions, drawn and painted in the erect image with the help of the usual concave mirror (Lyder Borthen). The figures are without exception original, and are painted in oils on canvas. The work is intended to afford a systematic representation of the most important and most frequent diseases. Among those who have so far promised to subscribe are His Royal Highness Prince Ludwig Ferdinand of Bavaria, His Royal Highness Archduke Carl Theodore of Bavaria, Dr. Argyll Robertson of Edinburgh, Dr. Landolt of Paris, Professor Snellen of Utrecht, Professor Panas of Paris, Professor von Zehender of Munich, and other leading ophthalmic surgeons in Europe and America. The work will be published by J. F. Bergmann of Wiesbaden, and can be subscribed for through Messrs. Williams and Norgate, Henrietta Street, Covent Garden.

Mrs. Denton Carew writes to us to deny a statement recently made in another journal that she has parted with her interest in the *Clinical Journal*. She states that she has in no way severed her connection with that periodical, nor does she contemplate any such step, and the *Clinical Journal* will in future be conducted by her as heretofore.

The resolutions adopted—or, according to the title page of an official document with which we have been favoured, "accepted, respectively received by the closing-meeting"—at the Eighth International Congress of Hygiene and Demography held at Buda-Pesth, have been reprinted in four languages—Hungarian, French, German, and English. The English part would have been the better for the supervision of a competent editor. We find such specimens of "English as she is wrote" in Hungary as the following: "The anti-diphtheric serum is greatly to be recommended as Prophylacticum and as Curativum;" "the instruction of the personal to be entrusted with the carrying out of the work;" "veneric diseases," etc. The spelling is erratic, but of that we suppose we must not complain. The permanent committee charged to prepare reports and resolutions on infant mortality for the next Congress includes six medical members; the list is headed by a gentleman whose name in the Hungarian version appears as "Allbut, H. A., M.R.C.P., Leeds;" in the French and German as "H. A. Albutt, M.R.C.P., Leeds;" and in the English as "H. Albutt, M.A., F.R.C.S., of Leeds." The uncertainty about the initials and patronymic of this gentleman, and the discrepancy in his professional titles in the several versions of this interesting document, are rendered still more remarkable by the fact that neither in the *Medical Directory* for 1895, nor in the *Medical Register* for 1895, does his name appear at all.

A curious account of the latest application of antiseptic surgery in duelling occurs in a recent number of the *Revue de Paris* in the novel entitled *L'Enfant de Volupté*. The combatants enter a room in a house situated in the suburbs of Rome, and there find two surgeons busied in disinfecting the blades of the swords with a solution of carbolic acid in water, the odour filling the room. There is a table covered with bandages, dressings, vessels of carbolised water, and cases full of little glittering instruments of steel. The rivals strip to the waist, and the fight begins outside. One of them is wounded in the forearm, but so slightly that no dressing is required, and the duel is about to be continued when the unwounded man inadvertently touches the ground with the point of his weapon. A surgeon instantly rushes forward with a sponge saturated with carbolic water and disinfects the blade afresh. In the next bout the same man is struck under the right nipple, but the point has touched a rib, which prevents it from penetrating. The surgeons then make pressure on the little wound, wash it with an antiseptic, put on a bit of pure strapping, and allow him to go on. In the last round the wounded man strikes his adversary full in the chest, and he falls back into the arms of his second. Presently the senior surgeon announces "penetrating wound of the chest at the level of the fourth left intercostal space, involving the surface of the lung." Perhaps in another encounter the novelist may advance a step further, have the candidates thoroughly scrubbed and disinfected overnight, and then despatched to their place of meeting in sterilised shirts.

An interesting volume was disposed of by Messrs. Christie, Manson, and Woods on February 7th, at the sale of part of the effects of the late M. Guglielmo Libri. It was described in the Catalogue as "Instrumenta Chyrurgiæ et Icones Anathomicæ, old French red morocco, having on the back the device of a beast rampant, surmounted with the royal crown of France." The following note was added: "This curious volume contains wood engravings, beautifully executed, of surgical instruments and anatomical figures painted in gold, silver, and colours. It was probably executed for Diane de Poictiers, as her cipher occurs twice on one of the wood engravings.....Though intended for the press, this work was probably never published, and this may be the only copy in existence." The book really was a set of proofs of the woodcuts from the *Dix Livres de la Chirurgie avec le Magasin des Instruments nécessaires à icelle*. Par Ambroise Paré. Paris: 1564. The woodcuts had been worked off on separate pages, and elaborately illuminated. The cipher of Diane de Poictiers mentioned in the notes to the Catalogue occurs on the cut in Paré's printed volume. In addition to this there is a letter H surmounted by a crown, which had escaped the notice of the cataloguer. The volume was sold for £8.

Scribner's Magazine for February contains an article by Dr. Charles L. Dana on Giants and Giantism, readable, and with some good illustrations. It is interesting medically because it contains reproductions of photographs from two cases in which giant growth was associated with acromegaly.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, FEBRUARY 23rd, 1895.

THE PROGRESS OF COUNTY SANITARY ADMINISTRATION.

From the standpoint of public health only one of the many county councils created by the Local Government Act of 1888 can be said to have been born great, the London County Council having begun its career with powers and responsibilities far in advance of those conferred upon the rest. To the provincial councils were given in the first instance the care of rivers, the power of creating or altering sanitary districts, the right to appoint county medical officers of health, and an implied rather than defined supervision over local sanitary authorities. Their position in this respect has been greatly strengthened by later legislation, notably by the Housing of the Working Classes Act, the Isolation Hospitals Act, and the Local Government Act of 1894. Thus a measure of greatness has been thrust upon all county councils alike, great and small, from huge Lancashire down to little Rutland and the subdivisions for which some counties have unwisely chosen to sacrifice their unity and importance. Some, too, have achieved greatness for themselves by making the best of the limited powers originally given to them, and have discovered that their opportunity for useful action was in no way limited to the matters specifically allotted to their charge in any Act of Parliament. In every county there are many sanitary responsibilities which local authorities often evade, and which the Local Government Board, notwithstanding the excellence of its medical and engineering staff, cannot supervise and enforce in every detail throughout the vast area under its control.

In another column, under the heading of The Sanitary Functions of County Councils, will be found a review of the steps taken by the several councils in preparation for the due discharge of their duties in connection with the public health. It affords a new illustration of the old fable of Eyes and No Eyes. Many councils have seen no occasion for interference with the inefficient sanitary government that assuredly exists in some parts of every county, while others have set to work with a success which has naturally been most conspicuous where the services of a county medical officer of health have been secured. Indeed, there are many of the responsibilities of county councils which cannot be properly discharged without such expert assistance; and the passing of the Isolation Hospitals Act alone would have rendered it incumbent upon every county council to act under skilled advice. Up to the present time, it seems, there are but fourteen county medical officers in England and Wales.

An instructive example of the practical working of Lord Thring's Act in a well-ordered county is afforded by a recent report of the Public Health Committee of the Derbyshire County Council. Throughout the whole county, it appears, there is only one properly constructed isolation hospital; and only half of the notified small-pox cases, 1 per cent. of the scarlet fever, 3 per cent. of the enteric fever, and none of the diphtheria have been isolated in hospital. The county medical officer, Dr. Barwise, has drawn up a comprehensive scheme which the Committee have accepted, and which they have succeeded in carrying through the county council. The county is to be divided into twelve hospital districts, so arranged that every urban district and workhouse is within six miles of the nearest hospital, and nearly every part of the rural districts is within eight miles. The county offers a contribution of one-fifth (not exceeding £40) of the cost of each bed, provided that the number of beds does not exceed 1 per 2,000 population. The hospitals must of course be approved by the county authority, and the contribution will not in any case exceed £3 6s. 8d. per £1,000 of rateable value of the district served. The total charge upon the county funds is not to exceed £6,500.

In accordance with the terms of the Isolation Hospitals Act, the county council must charge the hospital committees 4 per cent. interest upon money raised for hospital purposes; but as a further concession it is now arranged that if the Derbyshire Council succeed in borrowing money for the purpose at a lower rate of interest the difference shall be handed back to the hospital authorities as an annual contribution to the current expenses.

The scheme is a moderate one, and has evidently been carefully thought out. It is not stated whether it is the intention of the county council to proceed to the formation of the proposed hospital districts upon their own initiative, or to wait for applications from the local authorities concerned, nor what action they propose to take with regard to the "temporary" hospitals of canvas, wood, and iron which have sprung up so abundantly within the last year or two, owing to the threatened revival of small-pox prevalence. The allowance of one bed for every two thousand persons is small, especially in view of the growing acceptance of the necessity for the total independence of small-pox hospitals; but the ratio is not put forth as final, and with such a permanent basis the local hospital authorities will be able to extend their accommodation as circumstances may require. The contribution out of county funds is a welcome feature for many reasons. It recognises the community of interest in the prevention of epidemic diseases, and it makes the inert localities contribute to the expenses of those which elect to protect themselves and their neighbours; thereby offering a strong inducement to the former to join the ranks of the subsidised. No doubt the legitimate claims of the one town which had taken effectual action without waiting for the county council will receive due consideration.

By the elaboration and adoption of this scheme Derbyshire has taken a prominent place among the pioneer counties. The need for such action is common to all counties alike, although the precise lines best adapted for each may vary. The Derbyshire County Council have recognised their

responsibility in this and other sanitary questions, and have shown deserved confidence in their medical officer of health.

BRAIN AND MIND.[1]

II.—Inferences and Conclusions.

The doctrine of the four mental centres to which attention was drawn in a former article, is of such recent origin that it has thus far been found impossible to ascertain the special function of each one of them singly; for Professor Flechsig only succeeded in discovering or rather defining them in the course of 1894, when a certain line of research, undertaken in the laboratory of the clinic for mental diseases in the University of Leipzig, was finished. The cortex of the human brain, Professor Flechsig holds, consists of at least nine areas, which are anatomically distinct from each other.

The organ of mind appears to possess a collegiate constitution, for its council is divided into two senates. The several members of these senates have however not such titles as friendship, firmness, humour, etc., as in the old system of phrenology, but are either sensorial, such as visual sense, etc., or centres of coagitation and association. Although the degree of importance attaching to each of these latter is as yet unknown, it seems clear that they cannot be of equal value. It will be acknowledged, for instance, that the capacity of uniting a variety of sensorial impressions into a single conception, and of recognising the natural connection of things, must be bound to other centres than the capacity of expressing knowledge by language; for language may be confused, where the conception of the external world is not disturbed; and, on the other hand, language may still be formally correct, where conceptions have already given way to senseless delusional ideas.

In the most complicated mental operations all four mental centres are likely to be acting together; they are connected with one another by an untold number of conducting nerve fibres. By far the largest portion of the medullary matter of the brain consists of millions of conducting paths, extending, it is estimated, over many thousands of miles, and connecting, first, the different sensorial centres amongst each other; secondly, the sensorial with the mental centres; and, thirdly, the mental centres amongst each other. It is only by the aid of such a mechanism that unity of cerebral operations can be brought about.

As destruction of the mental centres is invariably followed by loss of memory, it follows that they must contain a very large portion of the nervous elements to which the capacity of recollecting sensorial impressions is bound. The question thus arises how far it may be possible to show, by the aid of physical and chemical means, traces of former sensorial impressions in them. That such traces of memory are of a physical kind appears from the fact that chemical poisons, such as alcohol, may cause them to disappear either temporarily or permanently, and that total loss results where actual dissolution of the ganglionic cells and nerve fibres of the mental centres is brought about by that poison.

The traces of memory must be sought for in the ganglionic cells, because they alone are capable of accumulating stimuli and becoming charged with force. Yet it appears impossible to ascertain the number of cells which may be in action at a given moment or to construct a mathematical formula which would exactly show the movements of cerebral molecules which would correspond to certain mental actions.

The connection of the elements of the memory forms the base of all logical thinking. Since natural processes occur according to definite laws, groups and series of sensorial impressions must frequently recur in the same connection. The accumulation of analogous impressions must produce firm traces in memory, while lawless chance occurrences must, from recurring rarely, be loosely connected.

The result of the action of physical impulses upon the cortex is a struggle between sensory impulses and reason. As soon as the power of the mental centres is paralysed, the impulses are deprived of the mental control, and passion reigns unbridled. Even the ordinary use of alcohol shows us the terrifying image of the unbrained man, while actual disease of the mental spheres produces the deepest degradation. Purely physical factors thus influence the condition of the hemispheres. Bodily impulses are essentially of a reflex nature, and are, like other reflexes, liable to be inhibited by the controlling centres; and where the mechanism of inhibition is lessened, the body gains supremacy over the mind.

In moral insanity, which is always due either to poisoning of the hemispheres in their germinal state, or to disturbed nutrition in them, we thus find exaggeration of bodily impulses and excessive response to moderate stimuli, leading to perversity in the satisfaction of the impulses. In other cases there may be brilliant talents, yet cerebral debility is shown by unsteadiness and want of sustained power in the performance of the highest cerebral actions. Professor Flechsig explains such cases by deficiencies occurring from time to time in the cerebral circulation. The brain cannot discharge its functions without oxygen, and a deficient supply causes at once impaired nutrition and, therefore, disturbed consciousness. Professor Flechsig does not end his dissertation without drawing a moral. The dependence of mental processes on material conditions tends, he holds, to show that civilised man possesses in a higher degree than has been generally acknowledged the means of creating for himself the conditions necessary for a moral life, and he therefore incurs grave responsibility if he neglect them. The fact that the power of the mind is dependent upon the condition of the body should be clearly impressed upon the people so as to prevent them from thoughtlessly injuring their most precious organ. A war against alcohol, that terrible enemy of the hemispheres, is by no means sufficient, but all the principles of the hygiene of cerebral life must be understood by the general public if the bases for moral feelings and actions in the coming generations are to be securely laid. Professor Flechsig expresses his conviction that, as the whole grandeur of the plan followed in the creation of mind becomes more and more revealed, the ruling of infinite Powers, aside from the external world, and compared with which human knowledge and capacity for action are but an emblem, must be more clearly recognised.

[1] Rectoratswechsel an der Universität Leipzig am 31 October, 1894. Rede des antretenden Rectors Dr. Paul Flechsig: Gehirn und Seele. Leipzig: Druck von Alexander Edelmann, Universitäts-Buchdrucker.

COMMERCIAL SCIENCE.

It has been from time immemorial the honourable tradition of medicine in this country that every discovery made by a medical man tending to the relief of suffering or the preservation of health should be freely communicated to the world and placed at the disposal of the entire profession. A rigid etiquette forbids alike the use of a secret remedy and the attempt to establish an individual right in a medical or surgical discovery by the solicitation of a patent. The newly awakened commercial spirit of the German Empire seems disposed to overleap the venerable bounds of professional conduct which unenlightened Britain is still content to observe. Hans Aronson, Doctor of Medicine, of Charlottenburg, claims to be the discoverer of the method of separating antitoxins from serum by means of metallic hydrates, which has enabled an immunising substance to be prepared of ten times the strength of that obtained directly from blood, and for his method of doing so and for the immunising principles thus obtained he has made application to the Crown to grant him a patent in this country.

It is obvious that a question of a very serious nature is here raised, and one which must not be allowed to go against the public interest by default. It would be premature to pronounce at the present moment on the prophylactic or therapeutic results which the method of immunisation by antitoxins may ultimately be proved capable of yielding; but it is clear that if it in any marked degree justifies the hopes that have been founded on it, antitoxins will at once take rank among the things necessary to life in all classes, from the highest to the lowest. They will not be the luxuries of the wealthy patient, but remedies that must be provided, either by charity or by local administrative means, for the relief of the poorest. The preparation of them is at best a tedious and costly process. If the expense of their production is further enhanced by the payment of a royalty to a patentee on every dose, a simple arithmetical calculation will be sufficient to show what a heavy burden is likely to be thrown on the rates in every parish in the kingdom. It is for the Government and for Parliament to consider whether public policy requires that Great Britain and Ireland should bind themselves to pay for thirty years to come, in the event of antitoxin immunisation proving successful, this huge bounty to a foreigner who violates the code of professional honour recognised in these islands in the very act of claiming it.

Sir Richard Quain, Bart., has accepted the office of President of the North-West London Clinical Society.

The King of the Belgians has sent the Grand Cordon of the Order of Leopold to M. Pasteur, and the Cross of Commander of the same Order to M. Roux.

We regret to announce the death of Dr. Dujardin-Beaumetz, the distinguished physician to the Hôpital Cochin, Paris, and author of valuable works on therapeutics, which took place at Nice on February 15th, at the age of 61.

Professor Clifford Allbutt will deliver a lecture on Senile Plethora and High Arterial Pulse in the Aged before the Hunterian Society on Wednesday next, at 8.30 P.M. The meeting, to which members of the medical profession are invited, will be held at the London Institution, Finsbury Circus.

THE CLINICAL SOCIETY OF LONDON.

As a mark of respect to the memory of Mr. Hulke, the President of the Society, the ordinary meeting of the Society announced to be held this (Friday) evening, February 22nd, has been postponed until Friday next, March 1st, at 8.30 P.M.

THE ADMINISTRATION OF CHLOROFORM TO HORSES.

Though varieties of "muzzles" have been arranged for administering chloroform to veterinary patients, anæsthesia is most commonly induced in the horse by inhalation of the vapour from a sponge which forms the bottom of a hollow leather cylinder applied to the nostrils and covered with a towel so as to exclude as much air as possible except that which passes through the pores of the sponge. By this method a relatively small proportion of air is inhaled, and though it often takes an ounce and a-half of chloroform to induce anæsthesia, and 6 or 8 ounces to maintain the state for the time necessary for operation, fatal effects have been rarely recorded. Indeed, it occasionally proves difficult to kill a horse by causing him to inhale very large quantities of chloroform vapour with the least possible admixture of air. Mr. E. W. Hoare, F.R.C.V.S., has described in the *Veterinary Record* an apparatus, made by Messrs. Krohne and Sesemann, for administering chloroform to the horse. There is no claim to originality of principle, but the chloroform vapour is forced into the "nosebag" inhaler by means of a foot bellows, and the relative amounts of air and vapour can be regulated. For this new apparatus it is claimed that less chloroform is required and that return to consciousness is quicker. It is highly satisfactory to note evidence of the growing favour and general application of anæsthetics in veterinary surgery. A certain amount of ignorant prejudice still exists with a small minority of veterinary surgeons, who adduce, among other reasons for its non-employment, trouble to themselves, the discomfort of the patient from after-effects, and fear of fatal results. Though with the methods at present in use it cannot be admitted that these arguments are valid, inasmuch as the apparatus mentioned may appear to reduce their weight, it is to be hoped it will have the effect of extending the merciful use of anæsthetics in veterinary operations, some of which must be of a most painful nature.

RENEWED PREVALENCE OF INFLUENZA IN LONDON.

Although for some time past influenza has been more or less prevalent in many places in and around London, the number of deaths directly attributed to this disease had, previously to last week, shown very little tendency to increase. During the three weeks ending February 9th the fatal cases of influenza recorded in London were 11, 16, and 13 respectively; but during the week ending February 16th the deaths rose to 24—a higher number than in any week during the past twelve months. Of these 24 deaths, 2 only were of persons under 20 years of age, 6 of persons between 20 and 40, 7 of persons between 40 and 60, and 9 of persons aged upwards of 60 years. Considering the immense increase in the mortality from diseases of the respiratory organs which was recorded last week in London, it is not remarkable that there was an increase in the number of deaths attributed to influenza. On previous occasions when influenza has been epidemic in London, the deaths referred to pneumonia have always shown a very marked excess, even when the deaths from bronchitis have been below the average; but it appears on examination of the last return of the Registrar-General that the mortality

from pneumonia showed proportionally a somewhat smaller excess than that from bronchitis. This renders it probable that among the deaths last week primarily attributed to pneumonia, there was no considerable number that should more properly have been classed to influenza.

CONFERENCE OF SCOTTISH STUDENTS' REPRESENTATIVE COUNCILS.

An Inter-university Conference of the Students' Representative Councils of Scotland was held at Edinburgh on February 15th. The St. Andrews' representatives indicated objection to the foundation of two new medical chairs under the Berry bequest; they thought it would be wasting money on an "experiment" that was not likely to be a success, and that the money might be better spent in extending arts and science education. The University of St. Andrews did not favour the admission of women to the representative councils. It was agreed that the Conference should request the various medical committees to consider the advisability of taking united action with regard to approaching the University Commissioners concerning the entire subject of professional examinations, with special reference to the undue time taken up with science subjects, whereby the commencement of purely medical studies was delayed, and the extra year meant for clinical work thrown over, and the desirableness of having therapeutics as a third professional subject.

THE SICK POOR IN PROVINCIAL WORKHOUSES: ST. THOMAS, EXETER.

The workhouse of St. Thomas's Union, Exeter, boasts many recent improvements, and we are delighted to read our Commissioner's report of a real children's nursery, a cheerful room with toys, and of infants properly cared for. But the grave defect of insufficient classification is very apparent; idiots and imbeciles in every department, no children's ward, no wards for the proper isolation of offensive cases. Until these matters are remedied the guardians can hardly rest satisfied with their work. Destitution and sickness, old age and infancy bring to the shelter of our workhouses all sorts of people, from the respectable man, who has seen better days and been brought to this pass through no fault of his own, to the worthless riff-raff of the vilest slums; it is not fit that sick children should be exposed to the companionship of the latter, even though both are ill and both require nursing. The matter of classification is becoming a pressing question. The Poor Law of 1834 was such an enormous improvement on the previous reckless and wasteful system of indiscriminate outdoor relief that its defects long escaped notice; it is only of late, with the greater attention paid to the needs of the sick and to the claims of the children, that the evils of herding together people who have nothing in common but their poverty have become apparent. And even when recognised they are not always remedied, because the structural limitations of the buildings at the disposal of the guardians do not allow of proper classification. But reform is urgent, and if people would only grasp the idea that such reforms would diminish pauperism and therefore prove in the long run the truest economy, we should not find such widespread objections to the necessary outlay.

MONISM AND PHYSIOLOGY.

Professor McKendrick, of Glasgow, gave his concluding Thomson lecture on "The Phenomena of Life as seen in Physiological Science" in the Free Church College, Aberdeen, on February 16th. He stated that during the first two or three decades of this century physiologists were mainly vitalists. Then the pendulum swung violently in the materialistic direction. Then came a period of reflection, when profound questions were asked as to the nature of life and consciousness. The psychologists pressed the physiologists for an answer, but no answer came. It has been found in every case that a purely mechanical explanation of a vital phenomenon is not a complete explanation of the facts. Life, vitality, the vital condition, the vital force, by whatever name it might be called, was still the unknown factor, and the further the question was pressed the more mysterious it became. Step by step the physiologist had been forced to study, not so much the mechanisms found in the body, but the living matter itself. He was back at protoplasm. He found that this living stuff shows much the same properties throughout the whole range of animal existence; and he found that the phenomena manifested by this living stuff were fundamentally the same in kind. This phenomena of life, according to Professor McKendrick's conception, might be as intimately connected with the primary properties of matter, and possibly with the ether that now played so large a part in the speculations of physicists, as those of gravitation or light, or electricity or elasticity. A thoughtful physiologist ran no risk of becoming a materialist in the grosser sense of the term. In his judgment only a superficial view of science led anyone to assert, as Haeckel did in his book on *Monism*, that all the phenomena of the universe—mental and physical—could be accounted for as conditions of matter and energy. A monistic theory of the universe might by-and-by be possible, but not now. What had to be dreaded were premature generalisations either on the one side or the other; attempts to establish harmonies where evidently no adjustment was at present possible, and declarations to the unlearned multitude of antagonisms that did not really exist. Professor McKendrick concluded by expressing his firm conviction that there was nothing in the doctrines of physiological science inconsistent with the teachings of the Great Founder of Christianity, who, when He discussed some of the mysteries of human existence, brought man back to God by the lessons of the lily of the field and the fowls of the air.

BONE SETTING IN EXCELSIS.

The *Sportsman* for February 15th contains a lengthy communication from a "Professor Atkinson, which is likely to excite surprise in its sporting readers, and amusement in medical men whose attention may have been directed to its pages. The "Professor," in discussing steeplechasing and its accidents, claims for himself exceptional skill and success in the treatment of sprains and other injuries to joints. He indulges in some rather severe criticism on the teaching and the practice of professional men, as he states that serious damage is very often done to patients from the want of proper training on the part of the practitioner. Our readers, however, will be pleased to read that this is done rather in sorrow than in anger, and that the "Professor," who indulges in "no mystery or hanky panky," proposes very shortly to enlighten us all by giving lectures and public demonstrations, so that medical men may be able to witness his method of treatment. As such method has been the means of saving innumerable limbs from amputation, many of the readers of the *Sportsman* will doubtless regret that some hints as to its nature have not been given in the article to which we allude.

THE PREVENTION OF CHOLERA.

The following telegram, dated Hyderabad, February 17th, was published in the *Times* of the following day: "Much interest is being taken in the great Mohammedan centre of Hyderabad in the prevention of cholera among pilgrims to Mecca. Mr. Ernest Hart addressed a public meeting attended by 5,000 persons yesterday. The Prime Minister presided. Dr. Lawrie made a statement as to the prevention of cholera in Hyderabad. The Nizam's physician supported resolutions in favour of urgent representations being made to the Sultan of Turkey calling for a reform of the quarantine arrangements at Kamaran, Jeddah, and Yambu; comprehensive schemes of sanitation at Mecca, Mineh,

and Arafat; the protection of the pure water supply of the pilgrim road to Mecca: and the provision of a trained Mohammedan doctor for the men and a female Mohammedan doctor for the women to accompany the pilgrimage annually and to report on its sanitation. The Nizam's Government were asked to appoint a committee to support the above. In the opinion of leading Mohammedans, Mr. Hart's scheme involves no interference whatever, now or in the future, with the Holy Well of Zem-Zem, the water of which being regarded by all true Mohammedans, no matter what its condition, as a panacea for all evils, must always be pure and undefiled, or with any religious observances connected therewith."

CHOLERA AND THE PILGRIM TRADE.

The rise and fall of the pilgrim trade between India and Mecca, conducted for several years by Messrs. Thomas Cook and Son, is a matter of considerable interest, showing as it does on the one hand that the Mohammedan world is willing enough to accept better accommodation on the voyage if it is provided; in other words, that the essence of the pilgrimage in no way lies in the hardship and perils of the journey, but in the mere getting to Mecca; and, on the other hand, that there would be no insuperable difficulty nor undue interference with trade in enforcing the provision of these better conditions of travel. In 1884 Messrs. Cook expressed themselves as ready to undertake the task of putting the pilgrim traffic on a much more satisfactory footing than was then the case, and eventually an arrangement was come to by which they were appointed pilgrim agents for the whole of India. A tariff of through fares from all parts of the country was drawn up, and they agreed to supply satisfactory accommodation and make all other arrangements as in the case of other passengers who book through their agencies. In 1887 the operations began, Messrs. Cook being guaranteed against actual loss to the extent of £2,000 for the first year, and £1,000 for each of the two following years. In the first year they took nearly 2,000 pilgrims to Mecca, or 19.8 per cent. of the whole traffic. In the second year they conveyed 29.3 per cent.: in the third year, 38.6 per cent; and in 1890 they carried 44.5 per cent. of the Indian pilgrims. But the firm lost heavily on each year's traffic, and the Government had to pay the guarantee. In 1891, however, the number of pilgrims carried by Messrs Cook declined, and it has continued to do since, so that in 1893 only 9.5 per cent. of the pilgrim traffic was carried by their steamers, and Government reluctantly decided that they could no longer continue the subsidy. If the moral pointed by this tale were that the Mohammedan pilgrims preferred to pig it in the old style, herded together without any attempt at sanitary decency, the outlook would be gloomy enough. There is, however, reason to believe that the opposite is the case, and that the lessened number of travellers by Cook's steamers is due, not to a reversion of the pilgrims to their former filth, but to the fact that the competition of Cook's better arrangements has forced the owners of the other steamers to provide a better class of accommodation, so as to attract back again some of their old custom. If this is so, and if under the mere stimulus of competition the pilgrim traders have found no difficulty in raising the standard of accommodation, there would seem to be no hardship, and no undue interference with the course of trade, in the Government enforcing the maintenance of this improved sanitary standard in the pilgrim trade.

BURMESE MEDICINE, ANCIENT AND MODERN.

Mr. Ernest Hart on his way from Calcutta has visited Rangoon, the seat of a flourishing Branch of the British Medical Association. The Rangoon papers announce that the medical profession of Burmah and officers and members of the Branch had invited him to a conference and banquet on January 30th. Meanwhile the *Mandalay Herald* states that Mr. and Mrs. Ernest Hart have gone for a few days up the Irrawaddy River in company with Dr. Walsh, the Surgeon-General of Madras (to which Burmah is attached), who is on a visit of inspection to the hospitals and medical stations in the country of the late King Theebaw. Mr. Ernest Hart had received a visit from the physician to the ex-King Mindoon and his successor Theebaw, and from some of the soothsayers and workers of charms against disease (the "pounas" and sayahs), and with the assistance of Dr. Dendrah, the chief Civil Surgeon of Mandalay, a Parsee physician who has graduated in England, was making a collection of the drugs, medical books, charms, etc., employed by the "hakims" of the rule that has now passed away, for demonstration and illustration at the forthcoming annual meeting of our Association in London.

THE MARYLEBONE OUTBREAK OF SMALL-POX.

From February 14th to February 20th seventeen cases of small-pox have been removed to the Asylums Board Hospitals from the affected districts. All of these appear to be directly or indirectly connected with the fatal case recorded in the British Medical Journal of February 16th. At the present moment there is again a lull, but it is obvious from the known seasonal course of the malady that a recrudescence is probable.

THE REPORT OF THE VACCINATION COMMISSION.

The answers given by the Lord Chancellor, the Chairman of the Vaccination Commission, in the House of Lords, and by the President of the Local Government Board in the House of Commons, which we report in another column, do not offer very satisfactory reasons for the long delay in the publication of the report of the Commission. According to Lord Herschell the delay is due to the exhaustive nature of the inquiry. Not content with the evidence of a cloud of witnesses for and against the use of vaccination, and not content with the mass of State statistics of various countries, the Commission is holding its own special investigations. We venture to say that the Commission was not appointed to investigate local outbreaks of small-pox, and that, though no doubt actuated by the laudable desire to do its work thoroughly, it is committing an error in judgment in doing so: for it runs the risks of widening the issues instead of narrowing them. We may say that the Commission ought to have made up its mind upon the subject years ago—it is now nearly six years since its appointment. Surely there are already in existence reports on plenty of outbreaks and plenty of statistics. The Lord Chancellor's excuse is a poor one. The delay in the publication of the report of the Commission has already done a great deal of harm, because Boards of Guardians have in many instances used the delay as an excuse for not doing their plain duty, as if the law on the subject were dubious. The inconvenience of the situation, to use no stronger term, is plainly shown by Mr. Shaw Lefevre's confession that he finds it very difficult to call upon Boards of Guardians to enforce the law pending the report of the Commission.

HYPNOTISM AND THE LAW.

Sir D. Macfarlane performed a public duty in calling the attention of the Home Secretary to the public exhibition of hypnotism now going on at the Aquarium in which men and women are kept in what is described as a state of suspended animation for considerable periods. Mr. Asquith's reply to the effect that now, the facts having been brought before him, his attention would be directed to the matter does not commit him to anything in particular, but we hope he may see his way, if not entirely to forbid such exhibitions, at least to surround them with restrictions that may safeguard the performers as far as possible against any danger to health or life. The practice of hypnotism is strictly regulated by law in Belgium, Hungary, and Russia; has our own Legislature no time to spare from party quar-

rels for a matter which so directly concerns the public welfare? The authorities are in this position: If the performance is an imposture, they give negative sanction to a peculiarly pernicious piece of humbug; if it is genuine, they are permitting what is in reality a trifling with human life. What would be the legal position of the promoters of these exhibitions if such an accident were to happen as has recently befallen Professor Bernheim of Nancy? In the *Revue Médicale de l'Est* of February 1st that gentleman reports, with every appearance of perfect frankness, the case of a man, aged 37, suffering from phlebitis of the leg, whom he hypnotised, with the view of relieving pain in the affected limb. The patient was brought "under influence" without difficulty, but almost immediately he was seized with a feeling of oppression in the chest and difficulty of breathing, and he died in two hours, declaring that hypnotism had killed him. Professor Bernheim maintains that hypnotism was in no way responsible for this accident, death having been shown by the *post-mortem* examination to have been due to embolism of the pulmonary artery. We are quite prepared to admit that the occurrence was nothing more than an unlucky coincidence, but it is at least arguable that the psychical excitement induced by the hypnotising process may have caused a disturbance in the circulatory system which had a share in bringing about the catastrophe. We are pretty sure that if anything of the kind were to happen at the Aquarium it would be difficult to convince a coroner's jury that the hypnotism had had nothing to do with the fatal issue. The fate of the poor girl who died of heart failure while under hypnotic "influence" in Hungary a few months ago should be a warning to all who dabble in this dangerous form of conjuring. We commend these cases to the serious attention of the managers of the Aquarium, and still more to that of those medical men who have lent the countenance of their professional character to a performance which has neither interest nor value from a scientific point of view.

NEW USES FOR BARRACK SCHOOLS.

The suggestion made by "Opportunist" in a letter which we published last week is one which must be considered from various points of view. There is no doubt that the question how to deal for the best with the pauper children of the metropolis is greatly complicated by the fact that an enormous capital has been sunk in the erection of barrack schools. However wishful some of the guardians may be to adopt the system of boarding out, the fact that they possess these expensive and comparatively new buildings is sure to be accepted by many as a positive reason for doing nothing which should risk leaving them empty on their hands. This feeling must, to some extent, have an influence on the Committee now inquiring into the matter. From the boarding-out point of view, then, it is obviously most desirable to lighten the ship by throwing overboard these white elephants. The Asylums Board, however, may well be indisposed to accept the suggestion that they should acquire these buildings for conversion into fever hospitals. So far as infectious diseases are concerned that Board has set itself a definite task—to provide an ambulance service and a hospital service which shall not merely give the minimum of help in sickness which humanity demands, but shall be so good as to draw to it many of those who could not be compulsorily removed, and thus to withdraw from the metropolis the largest possible number of centres of infection. The ambulance service they have supplied, but the hospitals have been a great difficulty. The Board has been hampered in every way in getting sites; the crush of cases has been so great that they have had to build hospitals in the greatest haste. Now, however, when they have obtained sites suitable for present purposes, and when the time seems favourable for gradually replacing their temporary structures by hospitals more completely fitted for their purpose, we do not think it likely that they will look with favour upon the suggestion to give up what they have so long worked for, to treat their patients in converted buildings, and again fall back upon a system of makeshifts. From the medical standpoint we should agree with them. Experience teaches the difficulty of making a satisfactory hospital out of a building not originally designed as such, even if the sites were appropriate and the localities desirable. It is worth while, then, to consider whether these great buildings would be available for any other purposes, and in regard to this two suggestions arise. The separate Poor-law infirmaries are being more and more occupied by comparatively acute cases, the workhouses more and more filled with the aged and infirm. Could not a selection be made among these feeble folk, and could not such as are not tied by friends and relatives to their own parishes be removed into the country, entirely away from the able-bodied? Again, on every hand we find splendid asylums being erected fitted with every appliance for the treatment of diseases of the mind, but filled with mere dements, the wreck and waste, the failures who are past hope. For hundreds of such cases treatment is useless; what they want is care and comfort, and decent kindly surroundings in which to live out their lives, and yet at present they cumber the way and fill up the wards, making the proper treatment of the more acute phases of insanity, diseases of minds which still remain potentially valid, difficult if not impossible. Might we not then use the barrack schools for the housing of the dements? If they have failed as places for the education of the mind let them become the refuges of those whose minds are gone.

THE COLLISION CURE.

The poet tells us "There is a soul of goodness in things evil," and Dr. Richard C. Newton, Surgeon to the New York and Greenwood Lake Railroad, applies this comforting doctrine even to railway smashes. He thinks that the benefit which persons suffering from some bodily ailment or some nervous or mental disorder may derive from the shock of a collision has been overlooked. He admits with somewhat unnecessary candour that "the literature relating to railroad injuries does not provide as many cases illustrating these questions as could be wished." Will Dr. Newton allow us to suggest that this may be due to the fact that the good which these accidents do to invalids is oft interred with their bones? Dr. Newton cites two or three cases at second hand, and chiefly on the unverifiable testimony of non-medical witnesses, in which gout, rheumatic fever, and even consumption was cured by the shock of an accident. It would, we suppose, be hypercritical to lay stress on the fact that in only one of the cases which he relates was the instrument of healing a railway accident. The instance which seems to us least open to objection is that of Mrs. Russell Lowell, who was prostrated with illness (the nature of the disease is not stated) when her husband was offered the post of Minister to the Court of St. James. He wrote to decline it, as his wife could not be moved; in the meantime the lady's bedclothes caught fire, which made her jump out of bed with great alacrity. So beneficial an effect did this accident have on her health that Mr. Lowell sent a telegraphic message to Washington cancelling his refusal of the post. Dr. Newton states, though without giving any instances in point, that epilepsy has occasionally been cured by a fall or blow on the head, or by fright, and he attributes the benefit that has followed surgical procedures for the cure of that disease to the fright or excitement caused by the operation. That fright or other strong emotion has sometimes worked miracles like that recorded of the cripple who took up his bed and walked there can be no kind of doubt. Shaking, again, was used by Charcot as a remedy for certain forms of nervous disease. Nor are we prepared to deny that violence scientifically applied may be a useful stimulant. There is somewhere on record the case of a very

backward child whose mental faculties were quickened into activity by a fall on the head—a fact which suggests that the cleverness of the Irish people may not be altogether unconnected with the free application of hard bodies to the human skull. Railway directors would probably be disposed to encourage the idea that railway accidents cure as well as kill. For our own part, however, we cannot conscientiously recommend the collision cure as a remedy for nervous or mental disease any more than we can urge the use of the shillelagh as an instrument of education.

THE HEALTH OF THE PRINCE OF WALES.

We understand that the Prince of Wales has been suffering from a feverish cold, affecting the throat and causing some hoarseness together with a troublesome cough. Although the feverishness which accompanied the onset of the attack has now passed away, it is thought prudent that he should delay his departure for the Riviera, which will therefore not take place until February 23rd.

THE NEW REGISTERS.

The *Medical Register* for 1895 reaches our hands as we go to press. This is a somewhat earlier date than in previous years, and the Registrar, Mr. Miller, is to be congratulated on having completed his task, and presented to the profession this volume, so important in many respects, thus early in the year. It appears that the total number of names in the *Register* on December 31st, 1894, was 32,637, an increase of 993 since the last issue. During the year 1,426 names were added by registration, and 71 restored. The number of names removed on evidence of death was 458. We propose to refer in another issue to some of the conclusions to be drawn from the other statistical data supplied in this volume. We have also received from the Registrar of the General Medical Council the *List of Medical Students Registered During the Year 1894*. The volume contains the amended list of Preliminary Examinations approved by the Council last December, and the new form of registration certificate now enforced. The "commencement of medical study" by pupilage to a medical practitioner is no longer recognised; but during the past year it was accepted in the case of over 150 students. The Council now allows pupilage to count as part of the five years' course of study only during one-half of the last year of the curriculum, and then under the restriction that the practitioner taking pupils is specially approved by one of the licensing bodies. Of the English schools of medicine, Cambridge is easily first with 153 students; then comes Guy's with 86; Owens College, Manchester, has 66; and St. Bartholomew's 65. In Scotland, the University of Edinburgh registers 154, Glasgow 96, and Aberdeen 53. Among the Irish schools, the Catholic University registers 50, and the Royal College of Surgeons 40; the School of Physic of Trinity College, Dublin, appears with a total of 6 only, but this probably implies nothing more than that the new system of registration approved by the Council last year has not yet come into operation. The *Dentists' Register* for 1895 has also been issued. From it we learn that the number of names on the *Register* is 4,901. Of this number, 27.82 per cent. are registered as licentiates in dental surgery, 0.65 per cent. as persons in *bonâ-fide* practice of dentistry with additional surgical qualifications, 0.55 per cent. as foreign dentists, and the remainder, 70.98 per cent, without qualification.

BURIAL AND CREMATION.

At a meeting of the Leeds Sanitary Aid Society, over which Mr. Pridgin Teale presided last week, after a few words from the Vicar of Leeds explaining the aims of the Society, Mr. C. G. Wheelhouse delivered an address on the disposal of the dead, which he said had for many ages been regarded as a matter of supreme importance from several points of view. He condemned in strong terms the custom, now happily dying out, of pompous and expensive funeral ceremonies, and the custom still too prevalent of keeping the body in a private house for many days after death. Among the very first requirements of sanitary science was, he said, burial within as short a number of hours of death as was practicable. He discussed the possibility of burial in a condition of trance or catalepsy, and quoted two cases within his own experience in which a doubt had existed in the minds of the friends, and had immediately been set at rest by his own inspection. He endorsed the view that this fear need not be entertained if the body were inspected by a medical man, and quoted the circular letter to this effect, signed some years ago by Sir George Burrows, Sir William Fergusson, Sir William Gull, Sir William Jenner, Sir James Paget, and Sir Thomas Watson. He said that a body buried in appropriate soil—that is to say, a permeable soil—would be found to have entirely disappeared in ten years at the most, if there were no artificial interference with the action of the soil. Massive leaden coffins and elaborate brick graves did interpose an obstacle in the way of the natural action of the soil, and prolonged putrefaction. He believed that the burial of the body in a coffin made of easily destructible material and in an appropriate soil reduced the danger of the contamination of water springs to a minimum. He then discussed the advantages and disadvantages of cremation, and concluded his lecture by expressing the opinion that:

If in the country places and urban cemeteries we were content to bury our dead properly, by laying them simply in the earth, avoiding the horrors of brick graves or leaden or heavy and costly coffins and other impediments to natural resolution, and if cremation could be resorted to for the immediate destruction of bodies charged with infected germs, thereby avoiding the danger of the spread of such disease, we should have arrived at the ideal of burial from a sanitary point of view.

FOOD POISONING AND SEWER GAS.

At the present time, when the question whether gas escaping from sewers can convey infection is still open, particular interest attaches to the results of the inquiry as to the large number of cases of poisoning which followed the ingestion of soup given away last Chrismas time by the landlady of the Wylde Green Hotel, Sutton Coldfield. We have already given an account in the British Medical Journal of January 12th, page 97, of the general effects of the outbreak, and some particulars as to the symptoms observed. An inquest was opened on January 10th by Dr. Iliffe, coroner for North Warwickshire, on the body of a woman, aged 47, who died after partaking of the soup. The inquest was adjourned to allow time for for further inquiries, and a sample of the soup was submitted to Dr. Klein, F.R.S., who received it on January 24th. He found that, in addition to other microbes, it contained two pathogenic bacilli, the one closely related to the typical bacillus coli, the other a variety of the bacillus coli. Both of these are normally present in sewage, and the second variety was present in enormous numbers in the soup. It multiplied extremely rapidly in beef broth at the body temperature, and the filtrate from the bacilli itself was found to be extremely fatal to guinea-pigs. Dr. Klein concludes that it is highly probable that the soup had been polluted with sewage. Evidence was not called at the inquest either from the medical officer of health of the town or from any of the other sanitary officials, an omission to be regretted. Professor Bostock Hill, medical officer of health, informs us that from a careful inspection of the building in which the soup was made, he has satisfied himself that the organisms cannot have found their way into the soup either by direct pollution with liquid sewage, or from the dropping of water into it accidentally from any spout or from the roof. He believes that the pollution must have been caused by a ventilating shaft which runs up the side of the outhouse. This was put up some little time ago to obviate a serious nuisance complained of from the crown ventilator in the neighbourhood. Now, while it is true that, as a rule, sewer air is

comparatively free from micro-organisms when the sewer is running smoothly and freely, it is known also that such sewers do not produce a nuisance. A sewer which does produce a nuisance is, as a rule, one which is not clean, and in which putrefaction is going on. Under such circumstances microbes are carried up mechanically with other solid particles. It is stated that since the erection of a ventilating shaft a nuisance had been experienced in one of the rooms of the house at Wylde Green, and that in consequence of sewer gas coming down a chimney, a new register grate had been put into the room so that the chimney might be closed. Professor Bostock Hill points out that on a still cold night warm sewer gas arising from a shaft would soon be cooled, and the solids in it not being subject to diffusion like gases, would very probably fall close to where they were discharged. If this theory be correct, there is no doubt that conditions existed in connection with the outhouse at the Wylde Green Hotel which would favour the deposition of any solid particles, including microbes, in the immediate neighbourhood of the ventilating shaft. In this way the soup may have become contaminated. The circumstances are certainly striking, and appear to illustrate the danger of erecting sewer ventilating shafts up dwelling houses.

M. ROCHEFORT AS MEDICAL STUDENT.

Dr. Cabanès has found out that M. Henri Rochefort was once a medical student. As a schoolboy, at the Lycée St. Louis, Rochefort composed a five-act play entitled *Andreas Vesalius, Creator of Anatomy.* His love for medicine was very great, but he was too nervous. He collapsed at the mere description of an operation for the repair of a perforating ulcer of the palate, and could not be revived until ether had been freely administered to him. He wrote to Dr. Cabanès a letter in March, 1892, stating that when a student his nerves soon told him that he must not think of adopting medicine as a profession. M. Rochefort as a student took some interest in the case of a companion who died from the effects of syphilis inoculated experimentally. He made certain communications in consequence to Ricord and others. M. Rochefort's exit from the profession seems to have been involuntary after all. He lost his patrimony and tried to get pupils. Two presented themselves, but they only brought him in about thirty-two shillings monthly. In consequence he was only too glad to get, after some solicitation, an under clerkship in the French Patent Office at 1,200 francs per annum, or about £4 a month. This is how M. Rochefort was lost to medicine. Unfortunately, other promising men who have, unlike the well-known politician, succeeded in conquering their own nerves, have failed as he did in overcoming the other obstruction.

SYPHILOPHOBIA MEDICA.

It is unfortunately beyond doubt that syphilis is a disease which is far too prevalent, and that it has a serious influence in producing degeneration of the race and in paving the way for degenerative changes, but it is possible to exaggerate its importance; and a very good example of the danger of riding a hobby is afforded by a volume recently published by Dr. Conan,[1] who appears to believe not only that syphilis is universal, but that it is the origin of all other diseases. We must confess that we have found neither time nor inclination to follow Dr. Conan through the twenty-six chapters of his book, in which he says he has traversed—with a few omissions to be repaired later on—the whole circle of pathology. Probably a single example of his method will be sufficient. Most people would fail, we suppose, to trace a connection between syphilis and ascarides; but Dr. Conan points out that there sometimes occurs in secondary syphilis a "very remarkable phenomenon," namely, bulimia. Further, people who have worms have also a voracious appetite—hence the relationship. If there be any who wish to know how Dr. Conan connects with syphilis such diseases as diphtheria and dysentery, goitre and gout, measles and mumps, tetanus and trichinosis, to say nothing of hay fever and kleptomania, by all means let them procure his book and read for themselves.

[1] *Syphilis Universelle: Origine de toutes nos Maladies.* Par Dr. Conan (Meriadec). Paris: J. B. Baillière et Fils. 1894. (Demy 8vo, pp. 337. 5 francs.)

THE LIFE-SAVING SOCIETY.

The little handbook issued by the Life-Saving Society is appropriate both for winter and for summer. Although the broken ice of the one season is productive of larger catastrophes, which by their magnitude are more apt to attract public attention, the constant frittering away of human life by drowning during the bathing season is by far the more serious of the two. In both cases the sadness of these accidents is greatly aggravated by the fact that they often happen in the presence of spectators who do not know how to render assistance. The object of the Life-Saving Society is to remove this ignorance by means of lectures, demonstrations, and the formation of classes of instruction, and this little handbook, to which we now draw attention, is in reality the drill book according to which these classes are instructed. Although there can be no doubt that this is a sort of knowledge which is best imparted by practical demonstration, yet by a careful perusal of the handbook a man will be infinitely better prepared for emergencies which he may meet with at any moment than are those who, like the vast majority of mankind, trust to the intuitions of ignorance and flurry. The work consists of three parts: *(a)* what to do while the drowning man is in the water, "Rescue;" *(b)* what to do when he has been got out, "Resuscitation;" *(c)* "Hints to Bathers." None of these should be neglected, for it is curious how many, even of those who can swim, are ignorant how to save others, and in consequence of their ignorance are dragged down by the clutch of drowning men in their attempts at rescue.

DR. JAMES ANDERSON MEMORIAL.

At the Aberdeen University Court meeting Dr. Alexander MacGregor intimated that the Committee appointed in connection with the Dr. James Anderson Memorial would hand over £300 for investment. It was proposed that a gold medal of not more than £7 value and the balance of the income of the fund in books, instruments, and money be given to the best student in an examination in clinical medicine. Professor Finlay and Dr. Angus Fraser were appointed examiners. The medal will be awarded at the end of each winter session, and the first presentation will be made in March, 1895. The numerous subscribers to the fund will be gratified by the generous response which will keep green the memory of a distinguished graduate of Aberdeen University.

A National Congress of Hygiene is to be held at Buenos Ayres in March.

The Lord Chancellor presided at the festival dinner in aid of the funds of the Royal Sea Bathing Infirmary for Scrofula, Margate, held on February 20th at the Hôtel Metropole. Subscriptions and donations amounting to £1,033 were announced.

Superannuation for Poor-law Medical Officers.—The deputation representing the Poor-law Medical Officers, which waited recently upon the President of the Local Government Board, was attended by Mr. Wickham Barnes as representative of the Poor-law Medical Officers' Association. Mr. Shaw Lefevre's reply with regard to the payment of superannuation allowances was considered to be satisfactory, and there is reason to hope that the Government will take early action. It is understood that the proposal to grant superannuation allowances is receiving influential support from both sides of the House of Commons.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

Kilmarnock Infirmary.

XLVI.—The following cases of diphtheria treated with antitoxin have been under Dr. Frew's care in the Kilmarnock Infirmary:

Case I.—J. S., aged 7 years, was admitted on the evening of January 29th, suffering from diphtheritic croup. The breathing on admission was loudly stridulous, and there was marked recession of the chest walls and epigastrium. The child lay as if exhausted and the lips were cyanotic. The temperature was 100.2°; the pulse rapid and very weak. On examining the throat, membrane was seen on the left tonsil and on the pharynx, and there was some enlargement of the cervical glands. The urine was examined as soon as possible, and was found to contain about one-fifth albumen. The child had been observed to be out-of-sorts for about a week before admission, and the parents had noticed some days previously white patches on the throat, and had applied to these tincture of iodine. During the night of January 28th croupy symptoms set in, and on being seen by the family medical attendant on January 29th she was sent to the infirmary. At 9 P.M. on January 29th I injected 5 c.cm. antitoxin (Behring's No. 3), and with the exception of ordering brandy to be given at intervals prescribed no other medicine. The breathing was so bad that I considered it advisable to obtain the consent of the parents to allow tracheotomy to be done should it be considered necessary.

On January 30th, at 10 A.M., the temperature was 100.4°, the pulse still very rapid and weak and breathing much the same as on the previous evening. She had taken milk and soups freely, but as every attempt to give brandy caused vomiting it was stopped; 20 c.cm. of antitoxin procured from the British Institute of Preventive Medicine was now injected. After the injection the temperature rose until it reached 102° at 8 P.M., from which point it declined rapidly, and at my visit on the morning of January 31st it had reached the normal, and there were distinct signs of improvement. The pulse was better and the breathing freer. Most of the membrane had disappeared from the tonsils and pharynx, and the amount of albumen in the urine had diminished greatly. I injected an additional 5 c.cm. of antitoxin from the same source as the last.

On February 1st the breathing was very natural when the child was lying quiet. The temperature had remained normal and the pulse was better. When the child coughed, it was still somewhat croupy: it seemed as if there was loose membrane in the trachea or larynx and the voice was hoarse. The tonsils and pharynx were quite free from membrane. There was only a slight trace of albumen in the urine, and on the whole the child appeared greatly better.

On February 2nd improvement was still more marked. The child had regained her appetite and took food well. All signs of obstruction in the breathing had disappeared only slight hoarseness remaining. The urine was found to be perfectly free from albumen. After this recovery went on satisfactorily.

Case II.—I. S., aged 3 years (sister of the preceding patient), was brought to the infirmary on the morning of January 30th, suffering from similar symptoms in a less advanced stage. There was membrane on the tonsils and pharynx, and croupy cough. The breathing was not much interfered with as yet, and there was no albumen in the urine. The croupy cough had only been observed the same morning. The cervical glands were not markedly enlarged. At 12 noon I injected 10 c.cm. antitoxin (from the British Institute of Preventive Medicine), and prescribed no other medicine. The temperature on admission was 99°. On the morning of January 31st the membrane on the throat was already disappearing, the temperature was normal and the child seemed better. I injected 5 c.cm. more of antitoxin. On February 1st the throat was quite clean, and the child appeared to be well. There was slight hoarseness for a day or two, but otherwise recovery was good.

Case III.—I. G., aged 2 years, was admitted, on January 23rd, to the scarlet fever ward, suffering from that disease. On January 29th signs of nasal diphtheria were marked and membrane could be seen on the edge of the palate at the root of the uvula. The cervical glands were considerably enlarged, especially on the left side. The temperature was 101°. At 11 A.M. I injected 5 c.cm. antitoxin (No. 2 Behring) and stopped all other medicines, except to wash out the nasal passages with a solution of bicarbonate of soda. The urine was being passed in bed, so could not be obtained for examination. By the following morning the temperature had fallen to normal and the condition of the child seemed improved. I again injected 10 c.cm. of antitoxin at 11 A.M. (procured from the British Institute of Preventive Medicine). On the morning of January 31st, although the child was much improved and the membrane had disappeared from the palate, I repeated a similar injection. The urine was procured on this day and found free from albumen. Recovery was uninterrupted.

Case IV.—H. L. was admitted to the scarlet fever ward on January 28th, having been suffering from that disease since January 25th. When I saw the child on the morning of January 29th the tonsils and uvula were covered with diphtherial membrane, which evidently extended up into the nasal passages. Acrid discharges were coming from both nostrils, the cervical glands were enlarged on both sides, and there was regurgitation of food through the nostrils to such an extent that the nurse expressed a fear that none was going into the stomach. The urine was passed in bed, and could not be got for examination. The pulse was very weak, and the temperature 103°. I injected 5 c.cm. of antitoxin (Behring's No. 1) at 11 A.M.; no other medicines were prescribed. The child was to be fed by the bowel, and stimulants were to be given freely in the form of wine whey. Feeding by the mouth was of course also to be continued on the chance that the child might swallow some. On January 30th the temperature was 101°, but the child on the whole seemed to be no better. I injected 10 c.cm. more of antitoxin (Behring's No. 1) at 11 A.M. On January 31st the temperature was still 101°, with no sign of improvement. I injected 5 c.cm. more of that, procured from the British Institute of Preventive Medicine. On February 1st, there being still no sign of improvement, I injected a further dose of 5 c.cm., procured from the same source. The child, however, never showed any sign of improvement, the membrane did not disappear from the throat, and the discharges from the nose continued. He died on February 9th from exhaustion.

Case V.—H. McR., aged 3½ years, was admitted on February 6th, suffering from diphtherial croup. On admission the temperature was 99.4°. There was diphtherial membrane on the tonsils and pharynx. The breathing was not much disturbed, but there was hoarseness and croupy cough. The cervical glands were slightly enlarged. The urine contained no albumen. We learned that the child had been ill on February 2nd and 3rd with croup, had been considered better on February 4th, but was seen again on February 6th for a return of the symptoms, and sent into hospital. I injected 10 c.cm. antitoxin procured from the British Institute of Preventive Medicine at 11 A.M. on the morning of February 6th, and a further dose of 10 c.cm. on the morning of February 7th. The disease seemed to be arrested at once, and by the morning of February 9th no membrane was to be seen on the throat. Some hoarseness continued for a few days, but recovery was uninterrupted.

General Remarks.—These are the first cases admitted to the hospital in which there has been an opportunity of trying the antitoxin treatment, and the impression left on the minds of all who watched them has been very favourable. The cases of uncomplicated diphtheria yielded to the treatment in a very marked manner. Case I on admission seemed to be in a very hopeless condition, and the amount of albumen in the urine indicated a very severe attack. The rapidity with which the symptoms disappeared was very striking, as was also the rapidity with which she seemed to gain strength. In one of the cases complicated with scarlet fever it seemed to act well and quickly, but in the other—a much more serious one—where probably septicæmia had already set in, the effect seemed to be *nil*. In Case III only was there observed a decided rash (roseolar), appearing first on the face and limbs on the ninth day after the first injection, and lasting for several days. I also injected four members of the

same family as Cases I and II with 10 c.cm. each of antitoxin obtained from the British Institute of Preventive Medicine as a preventive. So far these have escaped the disease, and in three of these a rash has occurred similar to that already described.

Cases Treated with Dr. Klein's Antitoxin.

XLVII.—Dr. Francis W. Clark, M.O.H. Lowestoft, writes: I am glad to say that this borough has been free from diphtheria during the past three months, and I have therefore only had the opportunity of using Klein's antitoxin in one case. This was a little girl, G. G., aged 6, who was admitted to the Borough Fever Hospital at 6 P.M. on January 10th, having been ill forty-eight hours. She had well-marked diphtheria patches on both tonsils, and had a temperature on admission of 103° F., while there was a small amount of albumen in the urine. A culture tube, inoculated from the throat, was immediately forwarded to the Clinical Research Association, and at noon on January 12th a telegram was received, intimating that the Klebs-Loeffler bacillus, associated with numbers of streptococci and of staphylococci, was present. The patient was accordingly inoculated with 3jss of the antitoxin. Within thirty-six hours of the injection the albumen had disappeared from the urine, and did not subsequently reappear; the temperature, which had gradually fallen from 105° on admission to 99.2° at the time of inoculation, fell within a couple of hours to 97°, and did not subsequently exceed 99°, while the pulse, which had averaged 120, also fell for a few hours to 80, and then regained its former rate; the respiration did not appear to be affected by the injection. The child made an uninterrupted recovery, and no rash appeared during convalescence, nor have any paralytic or other sequelæ developed up to the present time.

THE ANTITOXIN TREATMENT ABROAD.

France.—Since February 10th the Pasteur Institute has supplied pharmacists with serum at 3 francs per bottle of 10 c.cm. and 6 francs per bottle of 20 c.cm. A discount of 25 per cent. is allowed to pharmacists. The Institute will continue to supply serum gratuitously as heretofore to hospitals and to the poor. Some surprise has been expressed that after the liberal contributions of money by the public the Institute should sell the serum. The authorities of the Institute have according explained that 100 horses have had to be purchased, and that unless the serum is made to a certain extent a source of income, the 600,000 francs subscribed would be exhausted before long. The subvention granted to the Institute is inadequate, and unless the sero-therapeutic service is made self supporting it will be impossible to carry it on. In connection with this matter it may not be out of place to state that (as we learn from the *Concours Médical* of February 16th) M. Roux, out of his modest salary of £240, gives £80 every year to the Institute.

From September, 1894, up to the present the Pasteur Institute has sent out 50,000 doses of the serum.

The administrative authorities of the civil hospitals of Lyons place at the disposal of the public a supply of antitoxin prepared for them by Professor Arloing.

MM. Lebreton and Magdelaine presented to the Société Médicale des Hôpitaux on February 1st a report of the cases of diphtheria which they had treated with antitoxin in the Hôpital des Enfants Malades from October 1st to December 25th, 1894. In order that the effect of the serum might be tested as accurately as possible, no special local treatment was employed. Each child on admission at once received from 10 to 20 c.cm. of serum if there was *primâ facie* evidence that it was suffering from diphtheria; if cultures gave positive results therapeutic injections were at once begun. The amount given in each case varied, according to the severity of the symptoms, from 40 to 60 c.cm.; in the later cases, as the serum supplied seemed to be more active, the total dose was reduced to an average of 30 c.cm. The total number of cases was 258, of which 31 died, a mortality of 12 per cent. Deducting from the number of deaths, 8, in which the children died within twenty-hours of admission, and therefore without having undergone the antitoxic treatment, there remains a total of 250 cases treated, with 23 deaths, a mortality of 9.2 per cent. Tracheotomy was required in 24 cases, of which 9 died, a mortality of 37.5 per cent. In 51 cases intubation was performed; of these cases 14 died, a mortality of 27.4 per cent. Of the 14 fatal cases, however, 7 died within twenty-four hours of admission, either of broncho pneumonia, pseudo-membranous bronchitis, or general intoxication; deducting these, the mortality after intubation was 15.9 per cent. The authors think that the serum treatment gives intubation a much better chance than it has heretofore had, as by shortening the period during which the false membranes are reproduced, the tube need be left in the larynx only a few days. Of the 258 cases, other micro-organisms besides Loeffler's bacillus were present in 147; these cases of mixed infection furnished 19 out of the 31 deaths. The total number of injections given was 1,200; in only 1 of these did suppuration occur at the seat of puncture. A variety of eruptions (urticaria, erythema—scarlatiniform, morbilliform, multiform) followed the injections in 70 cases; they generally appeared from the eighth to the eleventh day.

No definite relation was observed between the eruption and the dose of serum. Albuminuria occurred in 140 cases; in 83 it was present at the time of admission or within two days of it; in 57 it came on as an eliminative process at the end of the illness. Paralytic sequelæ were exceptional, but the patients were kept a very short time in hospital. The authors conclude that the serum treatment is the one to be preferred (*traitement de choix*) for diphtheria, but they point out that the injections are not entirely harmless; they may cause rise of temperature and renal complications, and in some cases a general condition that may, at least transiently, give rise to some anxiety. They do not think, therefore, as they were inclined to do at first, that prophylactic injections should be given in the case of children who have been exposed to infection.

With regard to this, however, M. Chantemesse pointed out that smaller doses of serum were required for prevention than for treatment. For the former purpose 1 or 2 c.cm.—a dose which could not produce the slightest ill consequence—was all that was necessary.

In the *Médecine Moderne* of February 6th, Dr. H. Simon gives an account of an epidemic of diphtheria in the village of Pecy (700 inhabitants), in which he had all the cases under his observation from start to finish, and in which he used antitoxin with a success which has thoroughly convinced him of its curative power over the disease. The first case occurred on November 25th, 1894, and between that date and December 27th, 18 cases came under treatment. The diagnosis was confirmed by bacteriological examination. Dr. Simon obtained a supply of M. Roux's serum, and used it in all the cases except 2; one of these was a slight case, and for the other no serum was available. The results are shown in the appended table:

No.	Sex.	Age.	First Seen.	Injected.	Not Injected.	Cured.	Died.	Remarks.
		Yrs.						
1	M	7	Nov. 27th	—	1	1	—	—
2	F	10	Nov. 27th	1	—	1	—	—
3	M	7½	Nov. 27th	1	—	—	1	Injected when moribund.
4	F	5½	Nov. 29th	1	—	1	—	—
5	M	7	Nov. 29th	1	—	1	—	—
6	F	11	Dec. 2nd	1	—	1	—	—
7	M	7	Dec. 2nd	1	—	1	—	—
8	M	11½	Dec. 3rd	1	—	1	—	—
9	F	14	Dec. 3rd	1	—	1	—	—
10	F	7½	Dec. 3rd	1	—	1	—	—
11	M	7½	Dec. 4th	1	—	—	1	Injected regularly.
12	F	2¾	Dec. 4th	1	—	1	—	—
13	F	7½	Dec. 5th	1	—	1	—	—
14	F	13	Dec. 7th	1	—	1	—	—
15	M	7½	Dec. 12th	1	—	1	—	—
16	F	11	Dec. 20th	1	—	1	—	—
17	M	9½	Dec. 24th	1	—	1	—	—
18	F	5	Dec. 27th	—	1	—	1	No serum.
				16	2	15	3	

Thus of a total number of 18 cases in children from 2½ to 13

years of age, 3 died. Of these, 1 was not treated with serum, because the supply had run out, and another was *in articulo mortis* when the injection was given. Of the cases regularly treated with the serum, only 1 died, while 15 recovered. The case in which the serum failed after fair trial was that of a weakly neurotic boy, aged 7½, who died of heart failure; Dr. Simon thinks a child of stronger constitution would have recovered. The amount of serum used averaged 20 c.cm., the smallest total dose being 10 c.cm.; the largest 40 c.cm. Dr. Simon had to economise, as his stock was limited. The notes of the cases show that a considerable proportion were of great severity. The patients were all in the most unfavourable hygienic environment, and the parents had no idea of nursing. In only two cases were any secondary effects observed; in one of these, urticaria with joint pains came on seventeen days after the last injection; in the other an urticarial eruption appeared the morning after the fourth injection in a patient who had received in all 40 c.cm. of serum. In both cases the eruption disappeared within three days. The occurrence of albuminuria did not seem to Dr. Simon to be in any way influenced by the injections. Some paresis of the throat has been noticed in several of the children; so far there have been no other paralytic sequelæ.

Germany.—In a book entitled *Diphtherie, Croup, Serumtherapie*, which has just been published by Prochaska of Teschen, Professor Escherich of Graz gives the results of his experience of antitoxin in the treatment of diphtheria. From an abstract published in the *Münchener medicinische Wochenschrift* of February 12th, it appears that of a total number of 87 children suffering from diphtheria, who have come under his observation since the commencement of the "serum period," he has treated 57—almost all severe cases—with antitoxin. Of these 5 died, a mortality of 9·5 per cent. If from this number are deducted 3 in which the disease had reached a hopeless stage before treatment was begun, the mortality is only 3·8 per cent. The total mortality from diphtheria during the serum period was 9·2 per cent., or, deducting the 3 cases above mentioned, 4·5 per cent. In other words, the proportion of recoveries was 95·5 per cent., a figure never before in the author's experience attained in a children's hospital. Professor Escherich distinguishes three forms of diphtheria: (1) localised, (2) progressive pharyngeal, (3) septic. It is in the second of these forms of the disease that antitoxin has the most beneficial influence. Its most marked effect, according to Professor Escherich, consists in a favourable modification of the local process, and in the speedy loosening and prevention of further spreading of the false membranes. The effect on the toxic symptoms is less marked. The treatment should be commenced at the earliest possible moment. Professor Escherich lays down the rule that if cases of pure uncomplicated diphtheria are treated with suitable doses of serum within three days of the onset of the disease, the mortality can be reduced almost to *nil*. As regards secondary effects, the author observed in 3 cases large blotches on the skin twelve or fourteen days after the injections; in 1 case the eruption was accompanied by fever and pains in the joints.

Belgium.—In *La Flandre Médicale* of December 27th, 1894, Dr. Ch. Gevaert, of Ghent, reports his results with the serum treatment in 8 cases of diphtheria, all in children: 6 recovered and 2 died; in both the latter cases the disease was of the septic form, and treatment was commenced on the second day of illness.

In *La Presse Médicale Belge*, Dr. De Becker, of Brabant, relates the case of a delicate girl, aged 7, who was brought to his out patient room on the third day of illness. She was cyanosed and aphonic. An injection of 10 grammes of Behring's No. 3 serum was at once given, and the asphyxial symptoms becoming urgent, tracheotomy was performed two hours later. A further injection of 10 grammes was given the next day. There was abundant discharge of membranes in which bacteriological examination showed Loeffler's bacilli. On the third day the temperature was normal, and the tracheotomy tube was removed. The patient was discharged completely cured on the twentieth day after the tracheotomy. Dr. De Becker was particularly struck by the rapidity of the recovery. Within twenty-four hours of the first injection a large quantity of false membrane had been expectorated, and the child's general condition had completely changed. In no previous case of the kind had he seen so immediate and so striking an improvement.

Dr. Malvoz recently presented to the Société Médico-Chirurgicale de Liége a report (which is published in *Le Scalpel*, of February 17th) on the results of the serum treatment in the province of Liége. Two horses have been immunised by Dr. Malvoz, but he states that there is no necessity for him to continue preparing the serum, as a supply sufficient for the needs of the province is regularly received from M. Roux. A dose of serum is supplied to any medical practitioner who asks for it, but on condition that he will at once send specimens of membrane from the case under treatment for examination. If the case is proved to be true diphtheria, a further supply of serum is sent on the following day. That this precaution is not unnecessary is shown by the fact that of 62 specimens sent between December 28th and February 5th, only 15 were found to contain Loeffler's bacillus. These 15 cases included 2 of "pure angina" (Loeffler's bacillus alone), 4 of mixed angina (Loeffler's bacillus with streptococci and staphylococci), 3 of pure laryngeal diphtheria—all mixed, and 6 of combined angina and laryngeal diphtheria—1 pure, 5 mixed. In some of the more serious cases a total dose of 70 c.cm. was used. Of the 15 cases only 1 died; the patient was a child on whom tracheotomy had been performed, and treatment was begun very late. The age of the patients ranged from 18 months to 9 years.

Italy.—The new sero-therapeutic institute at Pavia will be opened within the next few days. Its establishment is due to the exertions of private individuals and the corporate bodies of the city. It is in connection with the Institute of Biology, and is under the direction of Professor Golgi.

Spain.—At a meeting of the Academy of Medicine of Cartagena on January 20th, Dr. Candido, who was sent by the municipal authorities of that city to Paris to investigate the effects of the serum treatment, reported the results which he had obtained in 14 cases of diphtheria (shown to be such by bacteriological examination as well as by the clinical phenomena) treated with antitoxic serum prepared by Dr. Jaime Ferrán, of Barcelona. All recovered with the exception of one in which tracheotomy had to be performed.

Russia.—The demand for serum appears to be very brisk in Russia, to judge from the fact, which is given on the authority of *Vratch*, that in two weeks 2,500 bottles have been sent out by the St. Petersburg Institute of Experimental Medicine.

United States.—In the *Boston Medical and Surgical Journal* of January 25th, Dr. F. Gordon Morrill, Physician to the Boston Children's Hospital, reports that an endemic of diphtheria in that institution was apparently stopped by the use of antitoxin. During 1894 there were three outbreaks of the disease in the hospital, necessitating the clearing out and disinfection of the wards in which the cases had occurred, and involving much trouble and expense. The statistics of the disease were very unsatisfactory. Strict precautions were taken to prevent the importation of infection from without, but in spite of this the disease broke out, each time in a particular ward. An investigation into the sanitary condition of the building is now in progress, and certain defects in ventilation have been discovered. At the beginning of the present year a fresh outbreak occurred. On January 13th there were 9 cases in the contagious wards, 3 of which were serious. During the previous 48 hours 4 or 5 cases had been sent over from the general wards, and "the outlook was anything but cheerful." Dr. Gordon Morrill being left a free hand by his colleagues in dealing with the situation, used antitoxin very freely and with particular reference to its immunising properties. Every patient in the hospital was given an injection of 5 c.cm. of the serum prepared by the Pasteur Institute of New York and admissions were continued with the proviso that each child should be given a like amount upon entrance. Writing on January 21st, Dr. Gordon Morrill says: "The patients in the contagious wards have been sent back to the house after being disinfected whenever they have shown two negative cultures three days apart. No fresh cases have occurred, and if we may judge by the history of previous outbreaks in the hospital the present condition of affairs would appear to be the very satisfactory effect of a perfectly defined cause. It being the opinion of the staff that if protection had not been afforded the hospital would have been tem-

porarily closed before now, and for the fourth time within twelve months." The patients who were injected by way of prophylaxis were suffering from various ailments, medical and surgical. No exception was made for any cause. In all 50 were injected, including those in the contagious wards. Three nurses and 39 children were injected for purposes of protection. The unpleasant effects (though some children who were very ill were injected) were unimportant: well-marked urticaria on the fifth or sixth day in 4; ephemeral diarrhœa within twenty-four hours in 7; temporary increase of micturition in 9; anorexia and slight vomiting in 4; well-marked tenderness over the site of injection, and extending up to the axilla in 2; erythema around the puncture in 3. All these phenomena quickly disappeared. In some cases (mostly suppurative—spine and hip) an increase of appetite and immediate improvement in the general condition were noted. The temperature reactions agree with those recorded by other observers. Of the children treated for diphtheria in the contagious wards, all recovered except one, which was sent over suffering from croupous pneumonia and "the worst kind of diphtheria," with almost complete suppression of urine and œdema of the face and legs. In all 45 c.cm. of antitoxin were injected in this case, but the child died sixty hours after the first dose. At the necropsy there was found broncho-pneumonia (from infection by the staphylococcus) in the lung opposite the one which was the seat of the original trouble (croupous pneumonia). In two "nasty" cases the children were sitting up in bed and enjoying themselves twenty-four hours after receiving a dose of 15 or 20 c.cm. The others were mild cases. Urticaria did not follow the injections in any case treated in the contagious wards.

DETAILING OF THE MEDICAL STAFF TO INDIA.

DECISION OF THE SECRETARY OF STATE FOR WAR.

IT will be in the recollection of our readers generally, as it is of course still vividly before army medical officers, that No. VI of the representations on grievances laid before the Secretary of State for War by the Parliamentary Bills Committee, in 1893, was on the posting of the Medical Staff to Presidencies. It was the only one on which an adverse decision was not made, and it was stated that Mr. Campbell-Bannerman would convey an answer later on. It is therefore with great satisfaction we are able to publish the following courteous and favourable reply from the Permanent Under-Secretary for War:

4831/1/731 War Office, Pall Mall, S.W., February 12th, 1895.

SIR,—Adverting to my communication of August 20th, 1893, and to that section thereof in which it was stated that the question of posting officers of the British Medical Service to particular Presidencies for duty was reserved for further consideration, I am now directed by Mr. Campbell-Bannerman to acquaint you, for the information of the Parliamentary Bills Committee, that it has been decided, with the concurrence of the Secretary of State for India in Council, to revert to the former system, whereby the allocation of medical officers proceeding to India was carried out in this country. I am, however, to add that, consequent upon impending changes in Indian army organisation, postings will be made to commands instead of to presidencies, and the distribution of officers to the several commands will be subject to such occasional transfers as the exigencies of the service in India may dictate.—I have the honour to be, Sir, your obedient servant, RALPH THOMPSON.

The Chairman of the Parliamentary Bills Committee of the British Medical Association, 429, Strand, W.C.

In an article in the BRITISH MEDICAL JOURNAL of November 23rd, 1893, we stated: "The decision on the detailing of medical officers for particular presidencies will, we are told, be communicated later on. Meanwhile, let us repeat the hope that it may be against the present cruel system of pitchforking them on the shores of India in total ignorance of where they may have to serve in that vast country. Surgeon-Major-General Thomson, late principal medical officer in India, and one of the best that ever filled the post, has positively declared that the new, autocratic, and heartless system is entirely unnecessary for any purpose of practical administration. Let the detailing be restored to the Director-General, whose hands it should never have left."

What we then contended for is now granted; it is a just and wise decision, but we will not call it a boon, because there was not the least reason we ever could discover, beyond certain bureaucratic aims in India, for a departure from the old system of posting medical officers to presidencies at home. Under the system now happily reversed, the medical officers and their wives were the only persons on board a troopship proceeding to India who could not tell whether they were going to the snows of Peshawur or the heats of Trincomalee; could anything be more gratuitously cruel? It will be observed we may no longer in a military sense speak of presidencies, but commands; but these, as the head quarters of the four army corps, being fixed and known, medical officers will of course know, just as well as under the old presidency system, where, within definite limits, they may be called upon to serve. Of course "exigencies" will, as in the past, cause transfers; but such, if unavoidable, cannot be frequent under well ordered administration. We congratulate medical officers on this favourable decision, which would probably not have been made but for the vigorous stand and representations of the Parliamentary Bills Committee of the British Medical Association. We trust it is not the last concession that may yet be obtained.

SMALL-POX AND VACCINATION IN IRELAND.

OUR Dublin correspondent writes: The Council of the Sanitary Association have published a return in which the following table appears:

Deaths from Small pox in the Dublin Registration District.

Ages and conditions as to "vaccination" of those persons who died of small-pox, whose deaths were registered during the 28 weeks from July 14th, 1894, to January 26th, 1895.

	All Ages.	Under 1 Month.	1 Month and under 1 Year.	1 to 5.	5 to 20.	20 and under 40.	40 and under 60.	60 and under 80.
Vaccinated	42	*1	†1	—	§6	19	13	2
Unvaccinated	54	‡1	9	10	20	8	6	—
No statement	5	—	—	—	1	2	2	—
Total	101	2	10	10	27	29	21	2

* Infant 9 days old.
† Infant 1 month old; "vaccinated too late; did not take."
‡ Infant 23 days old "vaccinated after infection."
§ Aged respectively 5, 6, 9, 10, 11, and 17 years.

In almost every case of death of a vaccinated person sufficient time had elapsed since the primary vaccination to allow the effect of that operation to wear off. Thirty-four persons aged over 20 years died, and in these the period of protection by infantile vaccination had long passed. Of 22 young children who died none were protected by vaccination.

As bearing out the necessity of revaccination, we are in a position to say that no revaccinated member of the hospital staffs has been attacked during the epidemic. Among the patients admitted there were two or three who had been revaccinated, but on inquiry it has been found that this was carried out subsequent to infection by small pox. There has been no case of small-pox in which the individual had been efficiently revaccinated. We regard this as a proof of the strongest character, if any were required, in support of the efficacy of the recognised method for securing protection.

A FEMALE physician, Dr. Anna Williams, has been appointed one of the bacteriologists of the New York City Health Board.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE FRIENDLY SOCIETY.

The usual monthly meeting of the Executive Committee of this Society was held at 429, Strand, on February 14th. There were present the Chairman, Dr. De Havilland Hall, in the chair; the Treasurers, Dr. G. E. Herman and Mr. H. H. Clutton; Dr. Walter Smith, Dr. Major Greenwood, Mr. F. Swinford Edwards, Dr. J. B. Ball, Dr. W. Knowsley Sibley, Dr. Alfred S. Gubb, and Mr. Edward Bartlett.

The accounts presented showed the business of the Society to be satisfactorily progressing, and the Secretary reported that the sum of £4,950 19s. had been returned to the sickness members, as a bonus, in accordance with the resolution of the general meeting held in August last year.

The claim lists produced showed a very moderate sickness experience for the month of January, but the severe weather of the last few weeks had produced a large number of claims in the current month. They arise mostly from tonsillitis, laryngitis, bronchitis, and influenza, and are the result in nearly all instances of the exposure to weather which medical men, and particularly provincial practitioners, are compelled to face. A typical case is that of a member who is totally incapacitated by facial paralysis produced by a drive at night in a dogcart. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Assurance Society, 33, Chancery Lane, London, W.C.

THE ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD.[1]

This report is divided into five sections, of which the first two deal with details connected with the carrying out of the Local Government Act of 1888, which established county councils, and with the Local Government Act of 1894, which created parish and district councils. The third section deals with the relief of the poor and the poor rates. Owing to various causes the pauperism of 1893-94 was greater than in the previous year; the average rate per 1,000 of estimated population was 27.6, of which proportion 7.4 were indoor paupers. The ratio of indoor paupers was twice as high in London as in any other part of England and Wales, but the ratio of outdoor paupers was much lower. The total cost of the relief of the poor for the year ending Ladyday, 1893, reached the enormous total of nearly nine millions and a quarter. In this total persons of unsound mind accounted for over £1,390,000. The number of children receiving relief was nearly a quarter of a million. An interesting appendix contains a report from Miss Mason, the Inspector of Boarding-out by Committees; it shows the need for constant visitation by the committees, and of inspection, but it is gratifying to learn that there has been a very marked improvement in the manner in which this system is carried out.

With regard to the education of pauper children, it appears from the report that the number taught in workhouses and separate pauper schools was considerably more than twice as many as the number who attended district schools, but it is stated that the number of unions in which workhouse children are sent out to neighbouring public elementary schools continues to increase, so that the average daily number in the pauper schools has diminished by one-third since 1882-83. The fourth section of the report deals with the public health and local administration, but is concerned mainly with the latter subject, matters of more general interest being reserved for the special report of the medical officer to the Board, which will be issued separately. The report, however, gives some particulars as to the special precautions taken with regard to cholera, which, brief as they are, serve to show how real was the danger by which the country was threatened.

From a paragraph in the report we learn that the Infectious Disease Notification Act was in force at the end of last March in districts with an aggregate population of over 26,400,000, which in round numbers is within 2½ millions of the total population of the country. Returns were received weekly from 115 of the 141 provincial towns, having upwards of 25,000 inhabitants, showing the number of infectious cases notified during the preceding week. These statistics are, two days later, issued to the medical officers of health of the towns taking part in the scheme.

The fifth section of the report deals with local taxation and valuation. Each section of the report is completed by appendices containing the reports and statistics discussed in the body of the report.

[1] *Twenty-third Annual Report of the Local Government Board, 1893-4.* London: Eyre and Spottiswoode. Edinburgh and Glasgow: J. Menzies and Co. Dublin: Hodges, Figgis and Co. Royal 8vo, pp. 804. Price, 4s. 2d.

POST-MORTEM EXAMINATIONS IN SCOTTISH LEGAL CASES.

The Lord Advocate's answer in the House of Commons to Sir J. Carmichael's question on this subject was not altogether satisfactory. Sir J. Carmichael inquired whether applications to be present or represented at the *post-mortem* examinations by persons suspected of having caused the death by criminal or other means, or by medical men who had had charge of the case prior to death, were ever refused. The Lord Advocate stated that the applications of persons closely connected with the matter of inquiry were not refused, but that all persons not officially connected with the case were excluded unless the consent of Crown Counsel or the authority of the sheriff had been obtained.

The fiscal proceedings in Scotland in regard to medico-legal *post-mortem* examinations differ very considerably from those in England, where the coroner is empowered, in cases of suspicious death, to order any competent medical man to undertake this duty. This subject was discussed at a meeting of the Faculty of Physicians and Surgeons of Glasgow recently. About a year ago the Faculty decided to approach the Lord Advocate on the subject of providing for representation both of the Crown and of the accused and interested parties when such an examination was ordered by the Lord Advocate or by the Procurator Fiscal. A letter was accordingly addressed to the Lord Advocate pointing out that some doubt existed as to what his directions were on the subject of representation at *post-mortem* examinations, and desiring an expression of opinion from him as to what the actual practice was understood to be.

The Faculty suggested that a suspected individual, or a person interested in the case, should have an opportunity of being present at the examination upon expressing this wish to the proper quarter, namely, the Crown. It is understood that neither the medical men whose names are on the warrant for examining the cadaver nor the Procurator Fiscal had any power of themselves to grant permission to other medical men to be present to represent either the suspected individual or interested parties. The difficulty at present is that no one except the Procurator Fiscal knows when the examination is going to be made, and in consequence no time is allowed for the agent (solicitor) to make the necessary application to the sheriff to have representatives present. The Lord Advocate duly acknowledged receipt of this letter, but the Faculty thought that that functionary ought to do more than simply give the matter consideration, and that he should afford every facility from the scientific point of view for having both sides represented in all medico-legal cases.

The directions for conducting *post-mortem* examinations in Scotland are of the most minute kind. They were carefully drawn up by Sir Robert Christison, Professor Syme, and Sir Douglas Maclagan in 1868. As a rule—and here the regulations are similar to those in England—all cavities have to be opened and all organs examined and reported upon, although it is not necessary that in the medico-legal report they should be minutely described.

Another point in the law of Scotland to which considerable importance is attached and much objection taken is the fact that frequently only one medical man is sent to make a *post-mortem* examination, and that in all cases where there may be *culpa*, and the prisoner in custody, it is thought to be contrary to the spirit of Scottish law that a man should be convicted on the evidence of one medical witness, and there is a strong feeling, which is shared by the Faculty, that in all cases there should be two medical men present at the *post-mortem* examination.

Sometimes the Procurator Fiscal merely requires a report of the cause of death from external examination; this is

probably due to the fact that the Fiscal has received orders not to multiply examinations.

Upon the point as to the desirability of the presence of a second medical man, the Lord Advocate contented himself by saying that experience had proved that there were many cases in which it was quite unnecessary that two medical men should conduct the *post-mortem* examination.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, April 3rd, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election. FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 7th, at 5 P.M.; dinner at 5.30 P.M. Notice of the title of any communication should be sent in before the meeting. Business (after dinner): Consideration of the Bill, as approved by the Parliamentary Bills Committee, for amendment of the law relating to unqualified persons who practise medicine and surgery, in compliance with a request as notified by the said Committee in a notice which was published in the BRITISH MEDICAL JOURNAL of January 12th last, at page 87, where also may be seen the text of the said Bill. Mr. C. E. Abbott will read a paper on Scoliosis and its Treatment, upon which a discussion will be invited.—W. M. KELLY, M.D., Honorary Secretary, Taunton.

LANCASHIRE AND CHESHIRE BRANCH.—A special and general meeting of this Branch will be held in Liverpool about the end of February. Applications for membership, and all communications, should be addressed at once to the Honorary Secretary, JAMES BARR, M.D., 72, Rodney Street, Liverpool.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting of this Branch will be held at Aberdare on Thursday, February 28th. Members desirous of reading papers, etc., are requested to communicate with Dr. Sheen, Cardiff, not later than February 12th.—A. SHEEN, M.D., and D. ARTHUR DAVIES, M.B., Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place at Maidstone on Friday, March 15th, Dr. F. J. Plomley in the chair. Gentlemen who wish to read papers or exhibit specimens are requested to communicate with the Honorary Secretary not later than February 21st.—EDWARD GROUND, Honorary Secretary, 1, Ashford Road, Maidstone.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the Swan Hotel, Stafford, on Thursday, February 28th. The President, Dr. Charlesworth, will take the chair at 3.30 P.M.—G. O. REID, Honorary Secretary, Stafford.

MIDLAND BRANCH: LINCOLNSHIRE DISTRICT.—A meeting will be held at Stamford on Thursday, March 21st. Members desirous of reading papers or exhibiting cases are requested to communicate with the Honorary Secretary, Dr. CARLINE, Lincoln.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the Session will be held at the Grand Pump Room Hotel, Bath, on Wednesday evening, February 27th, at 7.30, Nelson C. Dobson, F.R.C.S., President. A discussion on the Surgery of the Thyroid Gland will be opened by Mr. R. J. H. Scott.—W. M. BEAUMONT, Bath, and E. MARKHAM SKERRITT, Bristol, Honorary Secretaries.

BATH AND BRISTOL BRANCH.

THE third ordinary meeting of this Branch was held at Bristol on January 30th, Mr. NELSON C. DOBSON (President) in the chair. Fifty-one members were present

New Member.—Mr. F. St. J. Bullen, M.R.C.S., L.S.A., was elected a member.

Draft Bill for the Amendment of the Medical Act.—It was resolved unanimously that:

The consideration of this Bill should be left in the hands of Dr. A. J. Harrison, the representative of the Branch on the Parliamentary Bills Committee of the Association.

Cases.—Dr. MICHELL CLARKE exhibited the following cases: Diplegia with mild Athetosis in an Infant; Progressive Muscular Atrophy; Retrocollic Spasm; Paralysis of Right Fifth Nerve, with Affection of some Oculo-motor Nerves.

Communications.—Dr. B. M. H. ROGERS read a paper on the Administration of Nitrous Oxide as a Preliminary to Ether Anæsthesia; and the following gentlemen took part in the Discussion which followed: Dr. WATSON WILLIAMS, Messrs. HAYMAN, WALKER, FREEMAN, GREIG SMITH, and BUSH, Dr. SWAYNE, Mr. LACE, Dr. CLARKE, Mr. CROSS, and the PRESIDENT. — Dr. THEODORE FISHER read a paper on Alcoholic Disease of the Heart, which was discussed by Drs. SHINGLETON SMITH, EDGWORTH, MARKHAM SKERRITT, and HARVEY.—Dr. W. C. NEWNHAM related a case of successful operation for Ruptured Tubal Pregnancy, upon which Dr. AUST LAWRENCE, Mr. GREIG SMITH, Dr. SWAYNE, and Mr. BUSH commented. — Dr. MICHELL CLARKE and Mr. C. A. MORTON brought forward a case of Cerebral Tumour, in which a large area of the skull was removed for relief of intracranial pressure, and exhibited the patient. Messrs. CROSS and WALKER, Dr. EDGWORTH, and the PRESIDENT took part in the discussion which followed.

EDINBURGH (FIFE AND LOTHIANS), STIRLING, KINROSS, AND CLACKMANNAN, AND DUNDEE AND DISTRICT BRANCHES.

A COMBINED meeting of these Branches was held in the Royal Infirmary, Edinburgh, on February 15th, 1895, Professor ANNANDALE, F.R.C.S., President of the Edinburgh Branch, in the chair. There was a large attendance.

Cases.—The following cases were shown:—The PRESIDENT: A patient after operation for Hypertrophy of Nose, with remarkably good result.—Professor Sir T. GRAINGER STEWART: A series of cases. (1) Of Pernicious Anæmia, with symptoms of Spinal Disease. (2) Locomotor Ataxia, with development of well marked symptoms within four weeks. (3) Conjunction of Paralysis Agitans with Cerebro-Spinal Sclerosis. (4) Unusually pronounced Progressive Muscular Atrophy. (5) Double Facial Paralysis, from Peripheral Lesion.—Dr. ARGYLL ROBERTSON: Four cases illustrating Van Millingen's operation for Entropion following Granular Conjunctivitis, or Destruction of the Conjunctiva from Caustic Substances. The results of the operation were most satisfactory, the transplanted strips of mucous membrane adhering readily.—Dr. MCBRIDE: (1) Boy in whom Multiple Laryngeal Papillomata had been removed by Thyrotomy. (2) Two cases of Ear Disease associated with Extradural Abscess. (3) Foreign Body which had been twelve years in an Ear without symptoms.—Dr. MCKENZIE JOHNSTON: Two cases of Mastoid Disease, following Middle Ear Disease.—Dr. ALLAN JAMIESON: Case of Psoriasis Rupioides. — Dr. NORMAN WALKER: Three cases of Dermatitis Herpetiformis.—Dr. AFFLECK: Case of Beri-beri in seaman recently returned from Pernambuco.—Dr. ANDREW SMART: (1) Case of Cerebral Tumour recovering under specific treatment. (2) Case of Locomotor Ataxia recovering under specific treatment.—Dr. JAMES: Case of Pulsating Empyema, discussing at the same time the cause of the pulsation.—Dr. MACKIE WHYTE: Two cases of Hereditary Ataxia.—Dr. BRAMWELL: Four cases of Pseudo-hypertrophic Paralysis.—Dr. G. A. GIBSON: Case of Infantile Hemiplegia with Imbecility, after operation by Mr. Alexis Thomson, the result of which had been eminently encouraging.—Dr. FELKIN: (1) Case of grave Nervous Disease

showing remarkable results by Cerebral Juice. (2) Case of Myxœdema.—Mr. J. M. Cotterill: Patient after Excision of Large Frontal Bone for Tumour.—Mr. Caird: Case of Suture of Bladder; Primary Union after Suprapubic Cystotomy.—Mr. J. W. Hodsdon: Patient after Removal of Larynx for Epithelioma.—Mr. David Wallace: Patient after Removal of Carcinoma of Thyroid.—Mr. H. A. Thomson: (1) Case of Congenital Hypertrophy of Lower Extremity. (2) Case of Multiple Neuro-fibromata.

Special Demonstrations.—Professor Chiene gave a demonstration on Cranio-cerebral Topography.—Dr. Berry Hart gave a demonstration of Casts and Drawings illustrating Perineal Operations.—Mr. Chas. W. Cathcart gave a demonstration on cases of Venereal Disease.

Pathological Museum: Microscopical and Bacteriological Exhibits, etc.—Throughout the afternoon there was on view in a number of the infirmary theatres and side rooms a large and interesting collection of rare specimens and preparations. Among the contributors were Professor Annandale, Professor Sir T. Grainger Stewart, Drs. Bruce, F. Caird, Cathcart, Cotterill, Halliday Croom, George Gibson, Allan Jamieson, Leith, F. Mackay, Miles, Muir, R. W. Philip, J. B. Ronaldson, Smart, H. A. Thomson, J. Thomson, N. Walker, and D. Wallace. Mr. Fraser and Messrs. Gardiner and Sons showed recent Apparatus and Instruments.

Dinner.—At 6.45 P.M. the members dined together in the West End Café, Princes Street. Professor Annandale occupied the chair, and the croupiers were Sir T. Grainger Stewart and Dr. Argyll Robertson. There was a large company. After the loyal toasts that of "The Navy, Army, and Reserve Forces," proposed by the Chairman, was replied to by Dr. Dickson (Carnoustie), Brigade-Surgeon Alexander, and Dr. Mackie Whyte (Dundee). "The British Medical Association" was proposed by Dr. Sinclair (Dundee), and acknowledged by Dr. Argyll Robertson. "The Guests" were proposed by Sir T. Grainger Stewart, and replied for by Dr. McVail (Stirling Branch), and Dr. Macdonald (Cupar). The Chairman's health was given by Dr. Strachan (Dollar), the Croupiers' by Dr. Balfour (Portobello), and the Secretary's by Dr. Bramwell.

SOUTH OF IRELAND BRANCH.

A meeting of the Council was held on February 16th, Professor E. R. Townsend, M.D., in the chair.

New Members.—The following gentlemen were elected members: Dr. Stephenson, Ballyduff, Lismore; Dr. Wall, Carrick-on-Suir; Dr. Hargreave, Tralee; Dr. Jackson, Dumore, E. Waterford.

Irish Poor-law Medical Officers.—Dr. Curran proposed and Dr. Guisant seconded the following resolution, which was carried unanimously:

We, the Council of the South of Ireland Branch of the British Medical Association, do request the Parliamentary Bills Committee of the British Medical Association, to strongly support the Bill to be introduced this session for the Superannuation of the Irish Poor-law Medical Officers.

Dr. Moriarty spoke strongly in favour of the Bill.—Professor Corby also advocated the need of compulsory superannuation to the Irish Poor-law medical officers, and gave instances of the necessity of making it compulsory, not as at present, merely a personal matter in the hands of the Poor-law guardians. The matter was further referred to Professor Townsend, representative on the Parliamentary Bills Committee.

Amendment of the Medical Acts.—The Draft Bill for the Amendment of the Medical Acts was considered and approved of, subject to consideration of Professor E. R. Townsend.

The Friendly Societies.—After consideration of some matters relative to the dispute with the friendly societies, and the need of further support in the matter, the meeting adjourned.

The Anthropometric System in Russia.—During the three years that M. Bertillon's anthropometric system for the identification of criminals has been employed by the police in St. Petersburg, 27,636 measurements have been made. The proportion of old offenders identified by means of the measurements was in 1892 14·87 per cent., in 1893 19.52 per cent., and in 1894 24.03 per cent.

SPECIAL CORRESPONDENCE.

PARIS.

The President of the Republic and the Paris Hospitals.—A New Disinfecting Stove.—The Paris Death and Sickness Rate.—General News.

The President of the Republic, at a recent visit to a Paris hospital, announced his intention of visiting all the Paris hospitals. He is keeping his word, thereby showing a good example to politicians. He has visited the Tenon Hospital, spoken words of encouragement to the patients, men, women, and children; complimented the *chefs*, the *internes*, nurses, and the entire hospital administration, from the director downward; pronounced the "services d'alimentation" to be well organised. The culinary results were not tested. The President gave a donation of £24 to the hospital. The military hospital, the Val de Grâce has also been visited by the President, and he gave £16 for the benefit of the patients.

M. Vaillard and M. Besson, of the Val de Grâce Hospital, have invented a disinfecting stove, founded on the principle of the circulation of vapour at a high pressure; the stove is automatic, and moderate in price, easily moved from place to place. It has thus an advantage over the Geneste and Herscher stove, which is costly and complicated.

From January 27th to February 2nd the mortality in Paris rose to 1,380 deaths more than the average number for the season. In the preceding week there were 180 deaths less; the sudden rise is attributed to the intense cold. Deaths from infectious diseases are much below the average. The Paris night refuges for men are overcrowded, and applicants are unavoidably turned away. In those for women 40 per cent. of the places are vacant. In the hospitals 1,500 extra beds have been put up. Two hundred further ones will be added after February 14th.

The French Vice-Consul at Suez and the physician of the French hospital have begged their female compatriots to organise a branch association for succouring the invalid and wounded soldiers landed or passing through Suez. This branch will be amalgamated with the three important societies constituting the Croix Rouge Française.

The death of M. Kœchlen Schwartz, one of the principal founders of cremation, is announced.

CORRESPONDENCE.

A UNIVERSAL LANGUAGE FOR MEDICAL MEN.

Sir,—It seems to me that the letters which have recently appeared in the British Medical Journal about a universal language for medical men have only an academical interest. No one seriously believes that Latin will be a universal language. It has had two chances to become so—during the Roman Empire, and after the revival of letters, when most scientific treatises were written in Latin, but this is now passed. After Latin, French had a chance to be used as a common language in international communications. In the last century David Hume gently reproved Gibbon for writing his first literary effort in French, observing that the great extension of the British colonies promised to make English a far greater spoken language than French. Though this has now been realised, there is no chance of English being adopted by the European nations. Trees may grow high, but they will not reach heaven. It is desirable that those who keep in the front of medicine should know at least two foreign tongues—French and German. But the human capacity for acquiring languages is limited; if you teach a boy one, you exclude another.

The question is, therefore, What is comparatively the most advantageous? Tried by this test the dead languages are much in the way. Every year diminishes their relative importance, and the best thing to be done is to anticipate what is approaching, and to leave them to amateurs. This will take a dead weight out of educational progress. The modern tongues are much easier learned, and it is easier to learn two languages than four. The difficulty is that a large portion of our pedagogues and so-called learned men know nothing else

than Greek and Latin, and are anxious to continue earning an easy livelihood by teaching them. If those who go up for preliminary examinations were allowed to have their choice of modern languages instead of Greek and Latin, the difficulty of international communication would be very much lessened.

Those who desire to reform medical education, of which there is much need, should direct their attention to deprive Latin and Greek of the favoured position which they hold by long prescription over living tongues. I am aware of some M.B.'s who, though skilful in medicine, could not take the degree of M.D. because they had not passed an examination in Greek, and could not find leisure or stomach to get up the indispensable smattering.—I am, etc.,

WILLIAM W. IRELAND.

Mavisbush, Polton, Midlothian, Feb. 16th.

SIR,—In perfect agreement with all that is contained in the letter of Sir Edward H. Sieveking on Latin as "a Universal Language for Medical Men," I wish to point out the advantages of printing our forthcoming *Pharmacopœia* in that language.

Surely that which was accomplished by the President of the College of Physicians—Johannes Ayrton (Paris), M.D. in 1851—assisted by the four censors—T. Mayo, H. Jeaffreson, T. A. Barker, and George H. Barlow—would not be too great a task for the "editors" selected by the General Medical Council of the present day. Abroad as well as at home Latin is necessarily required of medical men, chemists, and pharmaceutists. Without this grand, useful, and by no means dead language how could they understand the excellent nomenclature of anatomy, botany, chemistry, and the allied sciences? Moreover, is it desirable to inform inquisitive patients of every grade that the ointment we prescribe contains 80 grains of oxide of zinc to 1 ounce of lard? That pilula aloes barbadensis has in 33 parts at least 8 parts of hard soap? That pilula conii composita is made up of treacle, etc.?

I may mention *en passant* that I once attended a patient who could not only read my prescriptions but was also the possessor of our *Pharmacopœia* in its English dress. Then, is it not rather grotesque to head the preparations in Latin and give the formulæ in plain English?—I am, etc.,

H. M. D.

February 18th.

CASTRATION FOR PROSTATIC HYPERTROPHY.

SIR,—I have been interested in the letters of Mr. Buckston Browne and Mr. MacMunn, in the BRITISH MEDICAL JOURNAL of January 12th. By way of aiding in the elucidation of the questions raised by Mr. Browne, I may state that, so far as I have been able to learn, all the cases operated on in this country have been benefited, no matter what the form or character of the prostatic growth; none of them have relapsed or returned to the clinical conditions which existed previous to the castration; in none of them have any changes in intellectuality been observed. These remarks apply fully to cases operated on in December, 1893, and in January, 1894, as well as to many more recent ones. I have knowledge now of thirty-eight cases of this operation. I am in communication with the operators in eighteen of the unpublished cases. I have operated four times myself.

In reply to Mr. MacMunn, I would say that tying the internal iliacs has been tried twice in this country, but with results which would deter most operators from repeating it, although in one case some atrophy of the prostate was said to have followed.

As to the possibilities of effecting this by ligation of the arteries of the cord, or the entire cord, or of certain of its components, I may say that I am now carrying on a series of experiments on dogs which are intended to aid in the solution of these problems. I expect to report them in full in a paper on the subject, which I am preparing at the invitation of the American Surgical Association. It seems probable at present that by any of these methods merely the sentimental objection would be met, and that atrophy of the prostate would be obtained, if at all, by first causing atrophy and functional uselessness of the testicles. The fact, however, absurd as it seems at first sight, that in two instances celluloid testicles have, for æsthetic purposes, been implanted in the scrotum after castration, indicates the strength of the feeling of repugnance to the operation to which Mr. MacMunn justly alludes.

I am indebted to him and Mr. Browne for their kind mention of me in their communications. Mr. Moullin, in the same issue, objects to the suggestion that in his published allusions to this operation he seems to be claiming priority of thought. I have since seen his book, *Enlargement of the Prostate*, where (page 154, American edition) he writes as follows:

> As frequently happens in such cases, the same idea appears to have occurred more or less definitely to many people almost at the same time. In November, 1892, shortly after the publication of my Hunterian Lectures, I discussed the advisability of the operation with a patient, who, though he admitted the force of the arguments in favour of it, not unnaturally declined it on the ground that it must be of the nature of an experiment. In 1893, in an admirable paper read before the American Surgical Association, Professor White, of Philadelphia, summed up all that was known in favour of it, admitting at the same time that he had as yet formed no convictions upon the subject. In April of the same year, Professor Ramm, of Christiania,[1] performed it for the first time with this object.

This omits to state that my paper contained the results of elaborate experiments undertaken with this sole object; that it was the first mention in surgical literature of the possibility of employing castration for the treatment of prostatic hypertrophy; and that nothing whatever was heard from Mr. Moullin or Professor Ramm until more than three months after that paper was read and published.—I am, etc.,

J. WILLIAM WHITE.

Philadelphia, Pa., Jan. 29th.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 5s. 6d., which should be forwarded in stamps or post office order with the notice. The first post on Thursday mornings is the latest by which these announcements can be received.

A SURGEON-CAPTAIN due for foreign service in the autumn requires an exchange with an officer having about two years to serve at home. State all particulars to "Exchange," care of Messrs. Holt and Co., 17, Whitehall Place, S.W.

THE NAVY.

THE following appointments have been made at the Admiralty: ROBERT H. NICHOLSON, Surgeon to the *Scylla*, February 19th; JAMES W. W. STANTON, Surgeon to the *Scylla*, February 19th, and then to the *Pigeon*, undated; ROBERT HARDIE and EDWARD CUFFEY, Surgeons to the *Scylla*, undated; PERCY E. MAITLAND, Surgeon to Haslar Hospital, undated; MILES O'C. MCSWINEY, Staff Surgeon to the *Barfleur*, February 26th; GEORGE T. BROATCH, Surgeon to Yarmouth Hospital, February 26th; JAMES W. O. UNDERHILL, Surgeon to the *Boadicea*, February 26th; ALFRED H. MILLER, Staff-Surgeon to the *Mildura*; BASSETT C. E. F. GUNN, Surgeon to the *Malabar*, February 18th.

ARMY MEDICAL STAFF.

THE undermentioned Surgeon-Captains, having completed twelve years' full-pay service, are promoted to be Surgeon-Majors from February 3rd: WILLIAM G. MACPHERSON, M.B.; ROBERT J. S. SIMPSON, M.B.; EDGAR V. A. PHIPPS, ANDREW BAIRD, M.B., F.R.C.S.Edin.; THOMAS W. O'H. HAMILTON, M.B.; DAVID SEMPLE, M.D.; JOHN R. STUART, M.B.; BENJAMIN W. C. DEEBLE, RICHARD P. BOND, GEORGE T. H. THOMAS, F.R.C.S.Edin., and GEORGE M. H. COLMAN, M.B.

The undermentioned Surgeons on probation are appointed Surgeon-Lieutenants from January 29th: WILLIAM S. HARRISON, M.B.; HARRY A. L. HOWELL, DOUGLAS LAWSON, EDWIN B. STEEL, M.B.; CHARLES W. PROFEIT, M.B.; FREDERICK KIDDLE, M.B.; HENRY E. STADDON, JOHN H. WHITEHEAD, JAMES A. MURISON, M.B.; LIONEL P. TOMLINSON, SAMUEL J. C. P. PERRY, and ARTHUR F. HEATON.

Quartermaster FRANCIS TIGHE retires on retired pay, February 20th. He was appointed Lieutenant of Orderlies April 1st, 1876; Quartermaster July 1st, 1881; and Honorary Captain April 1st, 1886. He was in the Egyptian War in 1882, and was at the battle of Tel el Kebir (medal with clasp and Khedive's star) and in the Soudan campaign in 1885 (clasp).

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN JOHN SUTCLIFFE is promoted to be Surgeon-Major, February 20th.

THE VOLUNTEERS.

M. THOMAS MACKENZIE, M.D., is appointed Surgeon-Lieutenant in the 7th (Isle of Man) Volunteer Battalion the King's Liverpool Regiment, February 7th.

Surgeon-Lieutenant C. BROWN, M.D., 4th (Perthshire) Volunteer Battalion the Black Watch (Royal Highlanders), has resigned his commission, February 20th.

Surgeon-Major T. L. GENTLES, 1st Volunteer Battalion the Sherwood

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[1] *Centralb. f. Chir.*, No. 35, September 2nd, 1893.

Foresters (Derbyshire Regiment), is promoted to be Surgeon-Lieutenant-Colonel, February 20th.

Surgeon-Captain A. R. H. Oakley, 2nd London Rifles, has resigned his commission, February 20th.

INDIAN MEDICAL SERVICE.

The undermentioned Surgeon-Lieutenants, having completed three years' full-pay service, are promoted to be Surgeon-Captains from January 30th:—Bengal: B. G. Seton. Madras: R. H. Elliot, R. K. Mitter, W. E. A. Armstrong. Bombay: W. C. Sprague, M.D.

It is notified in an army circular recently published that time on half-pay not exceeding one year shall be allowed to reckon as service for pension in the case of an officer of the Staff Corps or of the Indian Medical Service placed on half-pay on account of ill-health contracted in the performance of military duty, and that such time shall also reckon as service for promotion. This period of one year's service on half-pay can only be reckoned by an officer on his restoration to full-pay, and he cannot be promoted whilst remaining on the half-pay list; but the period will reckon for pension, whether an officer retires direct from half-pay or after restoration to full-pay. Retrospective effect to the above concession will, where necessary, be given from January 1st, 1887.

FIELD HOSPITAL, WAZIRISTAN.

The correspondent of the *Pioneer* with the Bannu column at Camp Makin writes as follows, regarding a record forced march from Gazni Khel to Bannu, some 36 miles:

The 21st Field Hospital, with Surgeon-Major Sykes, D.S.O., Surgeon-Captain Gravie, and Surgeon-Lieutenants Fullerton and Maddox, entrained at Meerut one night at 1.44 A.M., arrived at Darya Khan at 11 P.M., detrained 88 mules, unpacked all their saddlery, fitted saddles, loaded up 50 camels, and marched 14 miles into Dera Ismail, and thence proceeded up to Gazni Khel by ordinary marches. When arrived at the later stage an urgent message was received at 2 A.M., ordering the hospital to march forthwith into Bannu straight. The whole hospital arrived at Bannu before 9.30 P.M., covering 36 miles, and next morning marched out another 9 miles to Miriam, joining the Bannu column all well and fit.

This piece of work is acknowledged to be exceptionally good, and redounding to the credit of all the medical officers concerned.

THE ARMY MEDICAL STAFF SECRETARY TO PRINCIPAL MEDICAL OFFICER, INDIA.

Pending the final decision as to the abolition of this post, Surgeon-Lieutenant-Colonel R. Exham will, it is reported, retain his present position for one year from the present time.

THE FARNBOROUGH URBAN DISTRICT.

The army authorities, as represented by the Inspector-General of Fortifications, have given notice of opposition to the proposals for the inclusion of the Marlborough Lines, North Camp, Aldershot, in the proposed urban district of Farnborough.

ENTERIC FEVER IN INDIA.

The following statements showing the number of admissions from enteric fever among the officers of Her Majesty's British and Indian armies during the years 1891-92 will be interesting:

Officers.	Bengal.		Madras.		Bombay.		Total for India.	
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.
British	35	41	10	6	6	8	51	55
Indian	6	9	2	2	3	0	11	11

The reports of the Sanitary-Commissioner with the Government show the following total number of officers of the British and Indian armies:

	1891.	1892.
Total officers	6,391	6,204

Thus the 62 and 66 cases of enteric fever in 1891 and 1892 represent respectively 9.70 and 10.63 per mille of strength.

To be able to compare the liability to enteric fever of European officers, European soldiers, and the native soldiers, the following figures per 1,000 are furnished:

	1891.	1892.	
Among native soldiers'	0.30	0.40	Per Mille.
Among European officers	9.70	10.63	
Among Europen soldiers	20.40	20.10	

An Indian contemporary[1] alludes to personal hygiene as a probable factor in the causation, and one worthy of the consideration of the military medical authorities.

THE SOCIAL POSITION OF THE ARMY MEDICAL STAFF.

Surgeon-Major writes: I would warn the gentlemen of the London medical schools, who may contemplate entering the Army Medical Service, of the treatment they may expect. I have been stationed in a large garrison town for some years, and neither my own or my wife's calls have been returned by any of the military, although they have by a number of the naval service. As for regimental messes, they conspire to ignore the "doctor"—yea, even the regiment which he may have under his charge. The medical officer's rank is totally ignored except when the "subscription of a day's pay" is wanted for any particular object, then a paper is forwarded, with cool impudence, by the very aide-de-camps and others who have hitherto boycotted the individual. I purpose putting a son into the army, and another into the medical profession, but the latter shall not combine two careers which are as incompatible as oil and water.

*** The social ostracism complained of is neither new nor singular, and will, we fear, taint the army, more or less, so long as class snobbery exists; old officers think there is even more of it now than in the old days of purchase. The invidious and unworthy treatment of medical officers is undoubtedly aggravated by the unification system, whereby the regimental link was severed, yet, we cannot but think, will tend to die down, just as the party swayed by old prejudices disappear from the active list.

THE TITLES OF MILITARY SURGEONS.

I.V.R.C. writes: In the Mexican Army the medical officers are graded as follows:—Chief of the Corps: a Brigadier-General; this would correspond with the Director-General, A.M.D. Inspector-General: also a Brigadier-General. There are also Colonels, Lieut.-Colonels, Majors, etc. The probationary officers are called "Lieutenants Stagiaires." The Apothecary Class, Pharmaciens, few in number, are also graded by military titles.

The countries graded by Military Titles, pure and simple, are: Switzerland, Holland, Norway, Turkey, Greece, Roumania, Servia, United States of America, Mexico, and Japan. By Double Titles: Italy and England nearly. Departmental Titles: France, Germany, Austria, Russia, Sweden, Spain, Portugal.

It is to be remembered that in the four great armies the doctors entering the army are not free men coming of their own accord to a service which they voluntary choose when already qualified as civil physicians. In all these services the doctors are manufactured by the State, like the Indian apothecary class, and in return for a free education have to serve in the army for a term of years.

If these services had to depend on voluntary recruitment, doubtless in France and Germany military titles would be demanded at once, and conceded.

In Russia and Austria the Medical Service is not fully autonomised, there is a dual control and a commandant in every hospital. For them the double titles might suit. Every fully autonomised service requires purely military titles. Every service is evoluting in this direction.

MEDICO-LEGAL AND MEDICO-ETHICAL.

INQUESTS WITHOUT MEDICAL EVIDENCE.

G. W. H.—The coroner in his remarks, as reported, does not seem seriously to have questioned our correspondent's action. No one, of course, is bound to attend as a witness at an inquest unless he has been summoned to appear. If he attends without a summons, experience shows that he runs considerable risk of getting no fee for attending. The report seems to suggest that the holding of an inquest at all was unnecessary.

CONDUCT MONEY.

Police Station.—The fee allowable by magistrates to a medical witness resident more than two miles from their court for giving evidence before them is for each attendance a sum not to exceed £1 1s, and mileage not to exceed 3d. per mile each way. If this allowance is insufficient it is open to the person summoned to remain at home, and run the risk of proceedings being taken against him for disobedience to the subpœna. A penalty is practically never imposed where sufficient conduct money has not been tendered; but opinions as to what sum is sufficient may of course differ.

JUDGES AND EXPERT WITNESSES.

L. M.—The manner of the judge mentioned is often rough and needlessly offensive to those who—whether as counsel or witnesses—appear before him. If the witness in giving his evidence used the phrase that there was "no evidence" of a fact in issue at the trial, he laid himself open to strong remarks from the judge. The opinion of a scientific witness may seem to him decisive of the case in which it is given. But the tribunal has to decide, and not the witness. If the witness had stated that he had found no "sign" of penetration, the judge could not properly have taken objection to his statement. The objection was probably taken in such a way as to grate on the feelings of the witness, but it was technically justifiable.

LOCUM TENENS AND RIVALRY.

Member writes: Will you kindly let me know your opinion on the following?

A. acted as *locum tenens* for B. over two years ago. C. practises in the same village as B. Some of C.'s patients wishing to change their medical attendant send for A., who practises in a village four miles from where B. and C. practise. Would it be unprofessional for A. to attend them? And as it is now over two years since A. acted as *locum tenens*, would it be unprofessional for him to take any patient who may send for him to attend in the village B. and C. practise in? A. has never examined any of B.'s books.

*** A fuller explanation of the attendant incidents being deemed essential to a right appreciation of the case, a few interrogations were addressed to our correspondent, and in response thereto the following supplemental note was forwarded:

A. was not at the time he acted for B. an independent practitioner; he

[1] *The Indian Medical Record.*

came to act for B. from a distance, and was paid the usual £3 3s. a week. It was almost immediately after (about twelve or fourteen days) leaving B. that A. started practising in the village four miles distant; this was done with the full consent of B. There was no restrictive bond as to time or distance, but A. has refused to attend patients up to the present who live in the village where B. and C. practise, but thinks that now, as two years have passed, he would not be committing a breach of medical etiquette in attending them. The *locum tenency* was a longer one than usual, as it extended over three months. A. has consulted several of the other medical men in the neighbourhood (including C.), and they say A. would be quite justified after such a long interval to attend patients in the said village. When C. was asked his opinion he was aware that it was principally his own patients who were in question, but took a common-sense view of the question. As A. is anxious not to act unprofessionally, your opinion on the matter will be much appreciated.

*** The statement that A. commenced practice in the village referred to with the full consent of B., his former principal, is so exceptional, that we fail to comprehend it; and alike difficult to understand is the alleged interviewing of C. in relation to his assumed dissatisfied patients. Moreover, be the opinion of the several practitioners whom he (A.) consulted on the subject what it may, we cannot ignore the apparent fact that he, in the absence of a restrictive bond, availed himself of his acquired knowledge as a *locum tenens* to settle as an independent practitioner in the near neighbourhood of, and to the unquestionable detriment of, B. and C. If such be the case, it is scarcely necessary to add that, in so doing, he failed to fulfil the great but simple moral law "to do unto others as he himself would wish to be done by." In reply, therefore, to the specific question as to whether A. would, in our opinion, be justified in professionally attending any person in the village in which B. and C. practise, we would simply counsel him to be guided by the dictates of his own conscience instead of soliciting extrinsic opinions.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.

The Royal Commission on Vaccination.—In reply to Lord ASHBOURNE, the LORD CHANCELLOR said that when he became Lord Chancellor he wished to discontinue serving on the Commission, but he had remained a member of it in compliance with the request of his colleagues. The chair when he was away had been taken by Sir James Paget, than whom no one was better qualified to fill the position. The Commission was appointed on May 28th, 1889, and held its first meeting on June 26th. No doubt a very considerable time had elapsed since then, but if his noble and learned friend had seen the Blue Books that had been published from time to time he must have observed how wide had been the field of the inquiry. It was absolutely necessary that the Commission should prolong its investigations, for it was not thought desirable to shut out evidence, and it was felt to be expedient that no excuse should be given to the supporters or opponents of the present system for stating that they had not been fully heard. The inquiry had, then, been very exhaustive. Even the Blue Books did not give an idea of its complete extent, because the cases of injury from vaccination that had been brought before the Commission had been specially investigated by a medical man appointed for the purpose, and of course the reports received from him had required and received very careful examination. When the Commission was approaching the conclusion of its evidence, and indeed since the oral evidence was concluded, there had been in several parts of the country outbreaks of small-pox; and it was thought desirable by the Commission that a careful inquiry should be made by skilled persons into these epidemics. These inquiries necessarily, in order to be of any value, occupied some considerable time, because of course they had to range over the whole period of the continuance of the epidemic. The report of the last three inquiries was complete, and he believed would be very shortly in the hands of the members of the Commission. Steps had been taken for the preparation of the report of the Commission, but there was an enormous mass of matter to be dealt with, going often into points of very great detail, which, nevertheless, had to be noticed and considered. Several of the members of the Commission, moreover, were gentlemen whose time was very fully occupied, and it was impossible to make more than a reasonable demand upon their services; but the Commission, individually and as a whole, were desirous to see their labours brought to a close, and the report would be presented as expeditiously as possible consistently with its being complete and satisfactory. —Lord ASHBOURNE asked for some more definite statements as to how soon the report might be expected.—The LORD CHANCELLOR said that there would be no unnecessary delay, and that the Commission would conclude their labours and issue their report at the earliest possible period. He could not give any more definite information.

Indian Opium Commission.—In reply to Lord CROSS, Lord REAY said that the report would certainly be issued before Easter, and Lord BRASSEY, as Chairman of the Committee, asserted that the Commission had shown the utmost assiduity in the discharge of their duties.

HOUSE OF COMMONS.

Public Hypnotic Exhibitions.—In reply to Sir D. MACFARLANE, Mr ASQUITH said that his attention had not previously been called to the public exhibition of hypnotism at the Royal Aquarium, but that the matter having now come under his notice he intended to give it attention.

The Vaccination Commission.—In reply to Mr. WHARTON, the PRESIDENT OF THE LOCAL GOVERNMENT BOARD said that the Commission had practically concluded the taking of evidence, and the delay in the appearance of the report was due in part to the great mass of evidence and in part to the institution of special inquiries into particular outbreaks. In reply to a further question, Mr. SHAW LEFEVRE said that boards of guardians had been informed of the state of the law very often, but that it was difficult to call upon them to enforce it pending the report of the Commission.

Mr. LONG introduced a Bill to provide for superannuation allowances to Poor-law officers and servants, and for contributions towards such allowances by such officers and servants, and to make other relative provisions.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

DEGREES.—At the Congregation on February 14th, the following medical degrees were conferred: M.B. and B.C.—Harold Christian Barraclough, B.A., St. John's College; Lionel Nicholson Harding, B.A., Selwyn College.

EXPERIMENTAL PHYSICS.—The Cavendish Laboratory is about to be extended at a cost of some £4 000, chiefly for the accommodation of the large classes of elementary students preparing for the First M.B. Examination.

UNIVERSITY OF LONDON.

INTERMEDIATE EXAMINATION IN MEDICINE. Pass List.—*Entire Examination.* Second Division: J. H. Arthur, London Hospital; W. B. Bell, King's College; H. C. P. Bennett, St. Bartholomew's Hospital; W. M. Bergin, University College, Bristol, and Clifton Laboratory; R. F. Brown, St. Bartholomew's Hospital; E. P. Chennells, University College; J. B. Christian, St. George's Hospital; W. W. Clegg, Leeds and Middlesex Hospital; F. C. W. Clifford, King's College; A. S. Cobbledick, Bristol Medical School; E. Evans, Guy's Hospital; R. T. Fitz-Hugh, Guy's Hospital; Lucy Elizabeth Harris, London School of Medicine for Women and Birkbeck Institute; F. J. Hasslacher, King's College; C. R. Hodgson, Guy's Hospital; Beatrice Knowles, London School of Medicine for Women and Birkbeck Institute; Octavia Margaret S. Lewin, London School of Medicine for Women; J. J. S. Lucas, B.A., Bristol Medical School; S. F. Lynch, King's College; R. Maxwell, London Hospital; R. W. Mayston, Guy's Hospital; F. H. Michod, St. Mary's Hospital; J. Moore, Guy's Hospital; W. G. Mortimer, London Hospital; A. E. Payne, St. Mary's Hospital; J. H. Phipps, Owens College; E. Pritchard, Owens College; H. J. Starling, Guy's Hospital; W. C. Varley, Owens College; W. P. Walker, Owens College; A. E. Walter, Middlesex Hospital; Bertha Margaret Webb, London School of Medicine for Women; A. J. Wernet, Guy's Hospital; R. H. Wilshaw, Owens College; H. B. Woodcock, Owens College.

Excluding Physiology. Second Division: A. E. Baker, Middlesex Hospital; C. E. Durrant, St. Thomas's Hospital; W. N. East, Guy's Hospital; H. A. Günther, University College; E. S. Hall, Guy's Hospital; E. L. Hunt, St. George's Hospital; H. J. Marriage, St. Thomas's Hospital; J. Maxwell, St. Bartholomew's Hospital; P. W. Moore, Guy's Hospital; P. Northcote, St. Thomas's Hospital; D. L. Smith, Guy's Hospital; J. Thornton, London Hospital and Birkbeck Institute.

Physiology only. H. R. Smith, St. Bartholomew's Hospital. Second Division: H. R. Emms, University College; H. N. Goode, St. Thomas's Hospital; F. R. Greenwood, Mason College; C. Harcourt, St. Thomas's Hospital; F. R. Greenwood, Mason College; H. F. Mantell, St. Mary's Hospital; H. Mundy, St. Bartholomew's Hospital; C. S. Read, University College; C. Rivière, St. Bartholomew's Hospital; F. M. Seal, University College; E. Shepherd, St. Mary's Hospital; R. O. Sibley, St. Mary's Hospital; F. Sugden, St. Mary's Hospital; C. E. Trimble, University College, Edinburgh University Extra Mural School; W. Wrangham, St. Bartholomew's Hospital.

THE MATRICULATION EXAMINATION.—The list of successful candidates has just been issued. There are nineteen names in the honours division, of whom two are women. The first division contains 465 names, and the second 193. The total number of new undergraduates for the half-year is thus 677.

UNIVERSITY OF EDINBURGH.

MR. ARTHUR E. SHIPLEY, M.A.Camb., F.R.S., has been appointed additional examiner in Zoology for medical and science degrees in the University of Edinburgh.

STUDENTS' REPRESENTATIVE COUNCIL.—The statutory monthly meeting of the Students' Representative Council was held on February 28th. There was no business of special medical interest before the meeting.

UNIVERSITY OF ST. ANDREWS.

A SPECIAL meeting of the Court of St. Andrews University was held on February 16th. By a majority of 6 to 8 the following motion was carried: "That the resolution adopted at the meeting of the University Court on January 26th, namely, 'That the Court petition Parliament in favour of the Bill to Amend the Affiliation of University College, Dundee, to the University of St. Andrews,' be rescinded, and that a committee be appointed to take such steps as may be necessary, by petition to Parliament or otherwise, to oppose the said Bill."

There was read to the meeting an extract minute of the Senatus Academicus, bearing that the Senate had, by 11 votes to 4, passed a resolution disapproving of the proposed establishment of two additional medical chairs out of the Berry Fund.

There was also submitted and read a communication from the Students' Representative Council, stating that at a mass meeting of the students of the United College and St. Mary's College, a resolution deprecating the decision of the Court regarding the foundation of medical chairs had been carried by 93 votes to 3. On this, a motion to the effect that the Court adheres to its resolution as to the foundation of

wo additional medical chairs, adopted at last meeting, was carried by 8 votes to 7.

The import of this last resolution is that students will now be able to ke two complete *anni medici* at the University of St. Andrews, and will recent ordinances thus be left free to take the remaining three *anni edici* at any of the schools or colleges recognised as giving qualifying ourses.

OBITUARY.

JOHN WHITAKER HULKE, F.R.S.,

President of the Royal College of Surgeons of England; Senior Surgeon to the Middlesex Hospital.

It seems but the other day that the profession of medicine in this country had to sorrow with the College of Physicians in the unexpected demise of its President, and now we have to express profound regret that a similar calamity has befallen the Royal College of Surgeons of England. Mr. Hulke, though he never, at least for many years past, presented the appearance of one endowed with a robust physical constitution, was yet until the other day apparently in the enjoyment of excellent health, and there seemed every reason to suppose that he had still many years of useful and honourable work before him. There can be no doubt that he has fallen a victim to the unreserved manner in which he devoted himself to the duties of the many honourable offices which had accumulated upon him, and to his unflinching determination to carry out these duties at whatever cost to himself.

Mr. Hulke attended a meeting of the Clinical Society, of which he was President, on February 8th; and we understand that during the bitter cold of that night, or rather in the early hours of Saturday morning, he obeyed an urgent summons to attend a case of strangulated hernia at the Middlesex Hospital, to which he was senior surgeon. Shortly afterwards he was seized with symptoms of influenza, which was followed by broncho-pneumonia, and in spite of the unremitting attention of his colleagues, Dr. Douglas Powell and Dr. Kingston Fowler, he succumbed to this insidious disease at noon on February 19th. The incident is made the more pathetic by the fact that his lifelong companion and fellow worker, Mrs. Hulke, was at the same time suffering from a dangerous attack of influenza.

John Whitaker Hulke was born in 1830, and was the elder son of a highly esteemed surgeon at Deal, where the family had been resident for many generations. His ancestors, who bore originally the name of Hulcher, had left their native Low Countries during the persecutions of the Duke of Alva in the sixteenth century, and their descendant probably owed to his sturdy Puritan ancestors certain traits conspicuous in his character. The father attended the great Duke of Wellington during his last illness in September, 1852, and Mr. Hulke was associated with his father in the treatment of this illustrious patient, and was present at his death. The late President of the College of Surgeons was educated at King's College School, and before becoming a medical student spent two years in Germany. He entered the medical school of King's College in 1849, and was dresser to the late Sir William Bowman, House Surgeon to Sir William Fergusson, and subsequently became Medical Tutor in succession to the late Dr. Brinton. In 1855, like so many other young surgeons at that time, he volunteered his services during the Crimean War, and was for some time Assistant Surgeon to the British Civil Hospital at Smyrna. In the following year he was attached to the General Hospital before Sebastopol. At the conclusion of the war he returned to England, became a Fellow of the Royal College of Surgeons in 1857, and in the same year was appointed Assistant Surgeon to the Royal London Ophthalmic Hospital, Moorfields. At this time Mr. Hulke devoted much attention to the study of the minute anatomy and comparative anatomy of the eye, and especially of the retina; and in 1859 he received the Jacksonian Prize for his essay afterwards published under the title of *A Practical Treatise on the Use of the Ophthalmoscope*. At the Moorfields Eye Hospital he took a distinguished part, in association with the late Sir William Bowman and the late Mr. Critchett, in giving that extraordinary impetus to the science and art of ophthalmology which has resulted in bringing both to their present high state of excellence. He had already become known, however, in another and apparently a very dissimilar scientific department, and his studies in palæontology, especially on the anatomy of the fossil remains of the larger Saurians, were no doubt one of the main grounds for his election as Fellow of the Royal Society in June, 1867. In the following year he was appointed Arris and Gale Lecturer at the Royal College of Surgeons, a post which he held also in 1869 and 1870, his lectures being devoted to the discussion of the minute anatomy of the eye. Meanwhile, owing to circumstances which it is not now necessary to discuss, his connection with King's College Hospital had ceased, and in 1862 he became Assistant-Surgeon to the Middlesex Hospital. In 1870 he became full Surgeon to this hospital, and from 1879 to the time of his death he was Senior Surgeon. During the whole of his long period of service he devoted himself with the punctilious conscientiousness, which was one of the most striking qualities of his character, to the exacting duties of surgeon to a large general hospital, adding to them those of Lecturer on Physiology and subsequently on Surgery in the School. Although known as a practitioner mainly—at any rate, in his earlier days, as an ophthalmologist—Mr. Hulke never permitted his interest in surgery to be narrowed by the success which he had achieved in this absorbing department of practice, and he was not only a careful and successful operator, but also one whose opinion in cases of difficult diagnosis was most highly esteemed by his colleagues. During the greater part of the time during which he was giving so much energy to the work of the Middlesex Hospital he retained his connection with the Moorfields Eye Hospital, becoming full Surgeon there, and, on his retirement, Consulting Surgeon.

Mr. Hulke's long official connection with the Royal College of Surgeons began by his appointment to the Board of Examiners in 1880. This office he held for two periods, retiring finally in 1890. In 1881 he became a member of the Council of the College, and from the first took a very great interest in the administration of College affairs. He was punctual and assiduous in his attendances, and served upon many committees of the Council. He was Vice-President in 1888, and again in 1891, and in the latter year delivered the Bradshaw Lecture. In 1893 he was elected President. But though this last office was the more honourable, we believe that we are justified in saying that his most important service to the College was the manner in which he discharged the duties of Chairman of the Joint Committee of the two Royal Colleges charged with the management of the Laboratories on the Embankment. He was a member of this Committee at its first appointment in 1889, and was immediately elected its Chairman—an office which he held at the time of his death. His interest in the work carried on there was never-failing, and it may safely be said that in his capacity of Chairman he rendered most valuable services to the laboratories and the Colleges. He showed great tact in dealing with knotty questions arising from time to time in connection with the carrying on of the work in the laboratories; and his sound common sense, directness of purpose, and strict integrity, impressed all with whom he came in contact, in this capacity, in a most remarkable manner. His last official work in connection with the laboratories was to make arrangements for the co-operation of the Colleges with the Metropolitan Asylums Board in carrying on an extensive investigation into the causation of diphtheria, and in providing the hospitals under the Board with antitoxic serum for the treatment of this disease.

As an examiner Mr. Hulke had the reputation of being scrupulously fair and painstaking; he was free from "fads" and although considered somewhat severe by the candidates he was known by his colleagues to be only what an examiner should be—thoroughly searching and absolutely impartial. Students found it impossible to evade his questions, which were well pushed home until it was clear that the student knew his subject or did not. When elected a member of the Council of the College, as those who knew him anticipated, Mr. Hulke from the very first showed himself

possessed of distinctly conservative tendencies. He had no sympathy with the movement set on foot by those Fellows and Members who desired to take part in the government of the College, and he opposed most strenuously the proposal that was made in the year 1884 to delegate to the Fellows the election of the President on the nomination of the Council. He always upheld the powers of the Council, and maintained the view that, as the Council was responsible for the good government of the College, so it should take upon itself full responsibility of action without seeking the advice of the Fellows and Members on the various Collegiate questions as they arose. Mr. Hulke was re-elected to the Council in 1889. He was greatly interested in the development of the museum, and it may safely be said that no member of the Council was more intimately acquainted with the work done there, or with the immense value of the additions made to the various collections by the late and present conservators—Sir William Flower and Professor Stewart—for whose abilities he had the highest admiration; whilst he himself, as a member of the Museum Committee, was constantly endeavouring to add to the usefulness of the collection.

His time was always at the disposal of the College, and, whilst he often appeared to be taking little part in the various questions under discussion, the weight of his opinion was always thrown in the balance, and on many occasions, as those who have sat on committees with him well know, his quietly expressed opinion has been the turning point in the discussion, and was always for the elevation of the College both as a scientific and as an examining body. As a member of the Committee of Management Mr. Hulke brought a long and useful experience to bear on the educational matters concerning the College, and his loss on this Committee will be severely felt. He was also one of the delegates representing the Royal College of Surgeons before the Gresham University Commission. In 1888 and again in 1891 Mr. Hulke held the office of Vice-President of the College, and in the latter year he delivered the Bradshaw Lecture.

During his tenure of office as President of the College, he showed himself to be gifted with excellent business capacities, and has been looked upon as a "strong" man. Though holding very decided opinions he has gained the respect of those who in policy were bitterly opposed to him.

Mr. Hulke was a man of somewhat complex character not easily to be summed up in a few words. He was esteemed most by those who knew him best, but even those who sometimes considered that his decided and openly expressed opinions bordered perhaps on prejudice, always felt constrained to respect the integrity and directness of purpose which characterised his words and actions.

Punctilious and precise himself in all business matters—it is stated that he never failed to attend every meeting of every subcommittee of the Council of the College of Surgeons of which he was a member—he was disposed to expect a similar exactitude in others. There was a certain austerity in his address and in his manner of expressing his judgment on matters of business and sometimes also on those with whose opinions he was in conflict. At the same time there was another side to his character not difficult to discover, and all those who were brought into social relation with him quickly found that under this austere manner was concealed a fund of geniality and of kindly humour, not spontaneous, perhaps, but easily elicited. He was a man of wide reading and considerable linguistic acquirements, and he kept himself well acquainted with foreign publications on those departments of science in which he was interested. As a clinical teacher he worked rather by demonstration and questioning than by didactic teaching. He insisted upon thorough, painstaking, and intelligent examination, and sought to train the students not only to an accurate observation of the phenomena of disease but to reason from them for themselves.

In 1883 Mr. Hulke succeeded Dr. Samuel Wilks as President of the Pathological Society, and it is a curious proof of the eminence which he had attained in two departments of science that he was at the same time also President of the Geological Society. In 1893 he became President of the Clinical Society of London, of which he was an original member, and, as has been already said, one of his last public acts was to preside over a meeting of that Society. He was to have delivered the Hunterian Oration before the Royal College of Surgeons on February 14th, and the oration, which appears in another column, has been printed from the manuscript, probably the last to which he put his hand, which he had prepared for this occasion. When the day for the Hunterian festival came round, the hand of death had already been laid upon the orator, and a pathetic interest thus attaches to the eulogium which he had intended to pronounce upon Hunter.

Though Mr. Hulke can hardly be described as a voluminous writer, a large number of papers were contributed by him to the Transactions of various societies, especially to those of the Royal Medical and Chirurgical Society; and he frequently intervened with effect in the discussions at the medical societies in London. His earlier contributions to literature were mainly on the subject of the minute anatomy of the eye, and the anatomy of the retina of amphibia and reptiles was the topic of his first paper in the *Proceedings* of the Royal Society. His first contribution to palæontology was published in the Geological Society's quarterly journal in 1869, and thereafter follows, in the Royal Society's Catalogue of Scientific Papers, a long list of papers on saurians, reptilian fossils, ichthyosaurian remains, the two latest important contributions being descriptions of Iguanodon prestwichii (a new species from the clay at Kimmeridge Bay, Dorset (1880)) and of Polacanthus foxi (a large undescribed dinosaur from the Wealden formation in the Isle of Wight).

We are indebted to Mr. Timothy Holmes for the following estimate of Mr. Hulke's work as a surgeon:—

"It is difficult at the present moment, when our minds are full of the feelings of personal loss for one who had so many claims on the gratitude and love of his friends, to form a cool, unbiassed judgment of the surgical work of the late President of the College of Surgeons.

"Mr. Hulke, in surgery as in all that he attempted, was more studious of thoroughness and efficiency than of originality or effect. His mind was eminently conservative, and averse to change for its own sake. He was, besides, deeply read in the surgical literature of our own and other countries, especially Germany, and had the most profound veneration for the doctrines inculcated by the great authors who have passed away. Nevertheless, his practical sagacity led him to investigate every proposal for the advancement of surgical treatment with a genuine desire for improvement with which no prejudice was allowed to interfere; and those who were privileged to attend his practice know that he was always eager to test any new proposal which seemed to justify its adoption by proved success, or even trustworthy reasoning. He was not a voluminous author. His contributions to general surgery are mainly to be found in the *System of Surgery*, of the third edition of which he was joint editor; and those who will read the articles in that work on Tetanus, on Injuries of the Head and of the Upper Extremity, and on Ophthalmic Surgery, will be able to estimate the essentially practical character of the man, how ample his own experience had been, and how successfully daring he could be in grave emergencies; and yet how modestly he consented to revive the labours of other men. To the medical societies he was an unwearied and most fertile contributor; few men of his standing were more punctual at the Royal Medical and Chirurgical Society, or had contributed more to its *Transactions*. He had served the Society in the honourable and laborious office of Librarian for many years, and its Council will suffer a loss from his death which they will find it difficult indeed to supply. He had served the office of President of the Pathological Society, and was actually President of the Clinical Society at the time of his death. His contributions to the journals were not numerous, but they were valuable.

"He had filled the great office of President of the College of Surgeons for nearly two years, and although his management of the College was on lines more Conservative than those advocated in this Journal; though he was averse from changes which seem necessary to some, he conducted his opposition in the spirit of a high-minded gentleman, not afraid to state his opinion and not unable to defend it with

vigour, but sure to make himself respected and to respect the liberty of opinion of his opponents.

"It it be true that the cause of his death was exposure to cold on one of the bitter nights we have lately experienced, while attending a call to the hospital, it is an appropriate ending to a life devoted to active surgical pursuits. Though he was far from being a man of strong constitution Hulke was the last man in the world to spare himself or to neglect any call of duty from personal considerations, and many of his friends can testify to the zeal with which he placed his ripe experience and knowledge at the service of those in distress.

"Such, in a few words, was the late President—emphatically a good surgeon, a man of ripe and safe judgment; who shrank from no danger and no emergency, who might possibly have taken a still higher position in the future if he had been more careful to keep his great qualities before the eyes of the public; but who thought more of the interests of his patients and of his art than of his own; who was satisfied to do his duty; and of whom more than of most it could be said that he used his talent 'as ever in his great Taskmaster's eye.'"

We are indebted to Mr. Arthur Smith Woodward, Assistant Keeper in the Department of Geology of the British Museum, for the following estimate of Mr. Hulke's services to geology:

"Mr. Hulke was elected a Fellow of the Geological Society in 1868, becoming President in 1882-83, 1883-84. He received the Wollaston Medal in 1887. His address in 1883 dealt with the shoulder-girdle of extinct marine reptiles (Ichthyosauria and Plesiosauria); that in 1884 referred especially to recent researches on the Dinosaur Iguanodon by Dollo, of Brussels. He began to study fossil vertebrata in the collection made by Mr. Mansel (now Mansel Pleydell), of Blandford, Dorset, in the Kimmeridge clay of the Dorset cliffs. The specimens were later presented by Mr. Mansel Pleydell to the British Museum. Papers by Mr. Hulke on The Humerus of a Gigantic Land Reptile, Two New Species of Marine Crocodiles, a Plesiosaurian and an Ichthyosaurian Reptile, from this collection, were read before the Geological Society, and published in its journal 1869-71.

"In 1871 he was attracted by the collection of the Rev. William Fox (now in the British Museum) to study the Wealden reptiles of the cliffs of Brook and neighbourhood, Isle of Wight. He began to collect these himself, and found many valuable specimens, which are now in his own little museum. A new species of Iguanodon (I. seelyi) was dug out by him in 1870, and described before the Geological Society in 1882. Four short papers on the bones of another gigantic land reptile from Brook (Ornithopsis eucamerotus) were also published by the Geological Society later. But Mr. Hulke's most important memoir was his 'attempt at a complete osteology' of the small Wealden dinosaur, Hypsilophodon foxi, published in *Phil. Trans.*, 1883. Another valuable memoir was that on Polacanthus foxi in the *Phil. Trans.*, 1882, a remarkable Dinosaur from Brook, completely covered with armour in the hip region. Other small notes on the pectoral arch and maxilla of Iguanodon appeared in the *Journal* of the Geological Society so recently as 1885-86.

"In 1880 he described an imperfect skeleton of another new Dinosaur—Iguanodon prestwichi—obtained by Professor Prestwich from Kimmeridge clay, of Cumnor, Oxford.

"In 1887 he began to study the collection of fossil reptiles made by Messrs. C. E. and A. N. Leeds, of Eyebury, in the Oxford clay of Peterborough (now in the British Museum). He described the evidence of two new Dinosaurian reptiles—Ornithopsis leedsi and Omosaurus durobrivensis. He afterwards contributed to the *Proceedings of the Zoological Society* an important paper on the Osteology of Mesozoic Crocodiles based on the same collection. His latest paper was of a controversial nature, on the Shoulder Girdle of the Extinct Marine Reptiles, Ichthyosauria and Plesiosauria; it was read before the Royal Society in May, 1892.

"To sum up, Mr. Hulke made most substantial contributions to our knowledge of the great extinct land reptiles (Dinosauria) of the Secondary Period, especially remarkable because all his investigations were carried out in the leisure of a busy professional career."

Mr. J. W. Hulke was elected a member of the Committee of the Indigent Blind Visiting Society in May, 1867, and was up to the time of his death a most active member of that Committee. He, with the late Dr. Armitage, did a great deal to make the condition of the blind better than it was thirty years ago; their condition of living was gone into thoroughly, classes were formed to instruct them, and everything that two experts like Dr. Armitage and Mr. Hulke could suggest was as far as possible carried out. Mr. Hulke was for about twenty-five years examining surgeon to the Society, and examined and certified to every case that was brought before the Committee until three years ago, when his honorary office was shared by Mr. A. Q. Silcock.

A special meeting of the Council of the Clinical Society was held on February 20th, when the following resolution was unanimously adopted and directed to be transmitted to Mrs. Hulke:—

The Council of the Clinical Society of London has learnt with deep regret of the death of the President of the Society, John Whitaker Hulke, F.R.S., one of its original members, among its most earnest supporters, a highly-gifted and very learned surgeon, who has filled the office of President with his wonted punctuality, urbanity, and zeal. The Council begs to offer its heartfelt and regretful sympathy to Mrs. Hulke in her great sorrow.

The Council resolved also that the next meeting of the Clinical Society, which was to be held on February 22nd, should be postponed until March 1st, as a sign of respect to the deceased President.

The funeral will take place at Deal on Saturday, February 23rd. Those who wish to attend the ceremony should travel by a train at 10 A.M. from Victoria (L. C. & D. R.). A memorial service will be held at 1 P.M. on the same day at St. James's, Piccadilly.

We learn with regret that Dr. Glascott Symes, of Kingstown, has just died in his 85th year. He at one time enjoyed a very large practice, and he was held in the highest esteem by his professional brethren. He became a Licentiate of the Irish College of Surgeons, and an M.D. of Glasgow just sixty-two years ago, and he received the Fellowship of the former College in 1844.

We regret to have to announce the death, at his residence in Canterbury last month, from chronic bronchitis, of Dr. George Mundie. He was born in 1823, and received his professional education first at Marischal College, Aberdeen, and subsequently at the London Hospital and in Paris. He obtained the diplomas of L.R.C.S.Edin. and of L.S.A. in 1853. In 1876 he took the degree of M.D. Brux. He practised for many years in London with Dr. F. H. Daly, of Hackney Downs, but subsequently removed to Eastbourne, where he was in partnership with Drs. Habgood and MacQueen for several years. Afterwards he practised in Hessle, but eventually settled in Canterbury. He was a member of the British Medical Association for many years, and his kind, courteous, and unaffected character won for him the regard and affection of all with whom he was associated. He leaves a widow and one daughter.

Dr. Alfred L. Loomis, whose death was recently announced in the British Medical Journal, was born at Bennington, Vermont, in 1831. He took his degree in the New York College of Physicians and Surgeons in 1852. After a time he was appointed physician to Bellevue Hospital, a post which he continued to hold till his death. In 1862 he became a member of the teaching staff of the College of Physicians and Surgeons, and in 1866 he was appointed Adjunct Professor of Medicine in the Medical Department of the University of the City of New York. Subsequently he succeeded to the Chair of Medicine, which he occupied for the rest of his life. He was twice President of the New York Academy of Medicine. For the greater part of his career Dr. Loomis had to work hard for little pay, but his progress, if slow, was steady, and during the later part of his career he was borne on the full tide of professional success. He was the author of *Lessons in Physical Diagnosis*, of which ten editions appeared between 1872 and 1893; *Diseases of the Respiratory Organs* (1875); and a *Textbook of Practical Medicine* (1884).

The death is reported of Mr. J. Westwood Moore, of Balsall Heath and Moseley, after a brief illness. The deceased qualified as M.R.C.S.Eng., in 1878. He had held the post of Senior House-Surgeon to the Queen's Hospital, Birmingham. In his earlier days Mr. Moore was an enthusiastic athlete.

Dr. Louis Rouge, of Lausanne, the well-known surgeon, died on January 13th of pulmonary disease, from which he had suffered at different times during the last thirty years. He was born at Lausanne in 1833, studied medicine at Zurich, Strassburg, and Berne, and took his doctor's degree in the last-named University in 1856. He was appointed Chief Surgeon of the Cantonal Hospital at Lausanne in 1866. One of the results of the new spirit which Rouge's intellectual energy breathed into his medical brethren was the formation of the Société Médicale de la Suisse Romande, which issued a monthly *Bulletin*, of which Rouge was appointed editor. In this *Bulletin* appeared a large number of papers and reports of cases from his pen. In 1873 he resigned he editorship into the hands of Drs. de Cérenville and Dufour, under whose rule it was some time afterwards transformed into the *Revue Médicale de la Suisse Romande*, which is now the leading medical journal of Switzerland, and is published at Geneva. In 1870 Dr. Rouge was placed at the head of a Swiss ambulance organised for service in the Franco-German war, and did excellent work among the wounded. He was probably best known in this country by the operation on the nasal cavities which bears his name. His writings, however, deal with nearly the whole field of surgery. He also translated Esmarch's work on military surgery into French. He was not only an accomplished surgeon, but a man of many-sided intellectual interests and of upright kindly character.

Dr. Antoine Baumgartner, one of the oldest practitioners of Geneva, died on January 14th, in his 87th year. Born at Birmingham in 1808, he returned to Switzerland with his parents in 1813, and received his early education at Geneva. He studied medicine in Paris, where he took his doctor's degree in 1833. He settled in Geneva, and practised his profession. He made some contributions to medical literature, notably a pamphlet published in 1842, in which he strongly recommended the cold bath in typhoid fever. As a writer on political subjects he acquired such a reputation that he was compared to the famous pamphleteer, Paul Louis Courier.

Dr. Bournet, of Amplepuis, who recently died of infectious pneumonia, at the age of 41, was a recognised authority on criminal anthropology. He was one of the founders, and remained till his death the Director, of the *Archives d'Anthropologie Criminelle*. He was the author of an interesting Life of St. Francis of Assisi. As a practitioner he was entirely devoted to his patients. He succeeded, after overcoming a good many difficulties, in establishing a mountain sanatorium for scrofulous children at Magny.

Dr. Jules Regnauld, Professor of Pharmacology in the Paris Faculty of Medicine, who died on February 9th, took his doctor's degree in 1847, and became *Agrégé* in 1857. In 1859 he was appointed Professor of Pharmacology. He was President of the Académie de Médecine in 1892. He was joint author with his father-in-law, Professor Soubeiran, of a *Traité de Pharmacie*, which is still a standard textbook in the French schools, and of papers embodying the results of original researches on ether, chloroform, mydriatic alkaloids, etc. He was a man of great moral and intellectual work, and of a retiring modesty which showed itself even in his directions as to his funeral. By his express wish no intimation was sent out, no official delegation was present, and no parting salute of funeral oratory was delivered over the grave.

Dr. Jolicœur, of Rheims, who died on January 18th, aged 56, has left 50,000 francs (£2,000) to the hospitals and other public charities of Rheims, and 15,000 francs (£600) to the Rheims School of Medicine for the foundation of a prize for first year's students.

Dr. Nikolai Massloff, District Medical Officer of Kirchdorf Makarowo, in the Woronesh Government, Russia, died recently of diphtheria contracted from a child which coughed in his face while he was painting its throat. Dr. Massloff was in his 26th year, and took his degree in the University of Charkoff only a year ago.

Dr. José Eduardo de Magalhaes Coutinho, Emeritus Professor in the Medico-Chirurgical School of Oporto, of which he was also Director, died at Lisbon on January 13th, in the 80th year of his age. He was Physician in Ordinary and a most intimate friend of the late King Luis I. He was Chairman of the Consultative Committee of Public Health, and Custodian of the Royal Library at Ajuda.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. L. Valdiveiso y Prieto, of Madrid, for many years editor of *El Jurado Medico-Farmaceutico;* Dr. Henry Goldthwaite, Physician to the City Hospital of New York, and for many years one of the most noted "quiz-masters" (*Anglice* "coach") in that city, aged 52; Dr. Manuel Rodrigues da Silva Pinto, Professor of Forensic Medicine and Public Health in the Medico-Chirurgical School of Oporto; Dr. B. W. Palmer, for some years editor of the *Medical Age* of Detroit; Dr. A. B. Cook, of Louisville, formerly Professor of Surgery in the Kentucky School of Medicine, aged 66; Dr. Espian de Lamaestre, Physician to the Lunatic Asylums of the Seine Department, aged 72; Dr. Boursier, one of the leading practitioners of Bordeaux; Dr. Henri Clermont Lombard, the oldest member of the medical profession in Geneva, aged 92; Dr. John W. Pinkham, of Montclair, New Jersey, author of numerous works on hygiene, intubation of the larynx, etc.; Dr. Mariano Sancho Martin, Professor of Obstetric Medicine in the University of Valladolid; Dr. D. K. Rodsajewski, Professor of Pharmacology in the University of Charkoff; Dr. Gustav Loimann of Franzensbad, of which he had been Burgomaster for ten years; and Dr. François Demon, *professeur agrégé* at the Medical Faculty of Lille, and former President of the Société de Médecine du Nord, and author of a treatise on the nervous centres, etc., aged 54.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,806 births and 5,430 deaths were registered during the week ending Saturday, February 16th. The annual rate of mortality in these towns, which had increased from 19.7 to 20.7 per 1,000 in the preceding three weeks, further rose to 26.7 last week. The rates in the several towns ranged from 14.5 in Croydon, 18.3 in Hull, and 18.7 in Plymouth to 27.7 in Leeds, 29.2 in London, and 39.6 in Liverpool. In the thirty-two provincial towns the mean death-rate was 24.9 per 1,000, and was 4.4 below the rate recorded in London, which was 29.3 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.7 per 1,000, while it averaged 1.5 in the thirty-two provincial towns, and was highest in Wolverhampton, Sheffield, Manchester, and Burnley. Measles caused a death-rate of 1.1 in Sheffield, 1.6 in Gateshead, and 2.3 in Plymouth; scarlet fever of 1.0 in Burnley; whooping-cough of 1.1 in Bristol and 1.5 in Norwich; and "fever" of 1.3 in Bolton. The 52 deaths from diphtheria in the thirty-three towns included 27 in London, 4 in Liverpool, 3 in Wolverhampton, and 3 in Birmingham. One fatal case of small-pox was registered in London and 1 in Birmingham, but not one in any other of the thirty-three large towns. There were 67 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, February 16th, against 35, 58, and 56 at the end of the preceding three weeks; 18 new cases were admitted during the week, against 8, 21, and 18 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,662, 1,653, and 1,667 at the end of the preceding three weeks, was 1,657 on Saturday last, February 16th; 159 new cases were admitted during the week, against 185, 160, and 149 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 16th, 937 births and 1,013 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.9 and 26.2 per 1,000 in the preceding two weeks, further rose to 35.1 last week, and was as much as 8.4 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the death-rates

ranged from 20.6 in Perth to 43.0 in Glasgow. The zymotic death rate in these towns averaged 4.0 per 1,000, the highest rates being recorded in Aberdeen, Glasgow, and Greenock. The 576 deaths registered in Glasgow included 25 from whooping-cough, 23 from measles, 4 from scarlet fever, 4 from diphtheria, and 1 from small-pox. Nine fatal cases of measles were recorded in Edinburgh, and 12 in Aberdeen.

ENGLISH URBAN MORTALITY IN 1894.

In the accompanying table will be found summarised the vital statistics for 1894, relating to the thirty-three large English towns dealt with by the Registrar-General in his weekly returns.

The 320,497 births registered during 1894 in these thirty-three large towns were equal to 30.7 per 1,000 of their aggregate population, estimated at rather more than ten and a quarter millions of persons. This rate showed a decline of 0.8 per 1,000 from the rate recorded in 1893, and was 2.5 per 1,000 below the mean rate in the ten preceding years 1884-93. In London the birth-rate last year was equal to 30.1 per 1,000, while it averaged 31.2 in the thirty-two provincial towns, among which it ranged from 20.2 in Huddersfield, 23.1 in Halifax, 25.0 in Croydon, and 25.8 in Brighton to 34.3 in Salford, 34.4 in Cardiff, 35.1 in Sunderland, and 35.4 in Liverpool.

The 188,995 deaths registered last year in the thirty-three towns were equal to a rate of 18.1 per 1,000; this is by far the lowest rate on record, and as much as 3.2 per 1,000 below the mean rate in the ten preceding years 1884-93. The death-rate in London during 1894 was equal to 17.8 per 1,000, while it averaged 18.4 in the thirty-two provincial towns, among which it ranged from 13.2 in Croydon, 14.7 in Leicester, 15.0 in Derby, 15.2 in Portsmouth, and 15.8 in Huddersfield to 20.4 in Manchester, 20.7 in Wolverhampton, 20.8 in Preston and in Sunderland, 21.0 in Salford, and 23.8 in Liverpool.

During the year under notice 25,412 deaths were referred to the principal zymotic diseases in the thirty-three towns, equal to a rate of 2.4 per 1,000, which was 0.5 per 1,000 below the mean rate in the ten preceding years 1884-93. The lowest zymotic death-rates in these towns last year were 0.9 in Halifax, 1.2 in Brighton, 1.4 in Huddersfield, and 1.5 in Croydon and in Norwich; while in the other towns the rates ranged upwards to 2.7 in London, 3.1 in Sunderland, 3.2 in West Ham and in Wolverhampton, 3.3 in Salford, and 4.4 in Liverpool. The 25,412 deaths referred to the principal zymotic diseases included 6,553 which resulted from measles, 5,223 from diarrhœa, 5,033 from whooping cough, 3,979 from diphtheria, 2,177 from scarlet fever, 1,997 from "fever" (principally enteric), and 450 from small-pox. The death-rate from measles was equal to 0.63 per 1,000, and almost corresponded with the mean rate in the ten preceding years; in London the rate of mortality from this disease was equal to 0.76 per 1,000, while it averaged 0.54 in Liverpool. Thirty-two provincial towns, among which the highest rates were recorded in West Ham, Portsmouth, Wolverhampton, Birkenhead, Sunderland, and Gateshead. The rate of mortality from diarrhœa did not exceed 0.51 per 1,000, against a mean rate of 0.91 in the ten preceding years; among the various towns this disease showed the highest proportional fatality in Wolverhampton, Leicester, Liverpool, Bolton, Burnley, Preston, and Sunderland. The death-rate from whooping-cough was equal to 0.48 per 1,000, and was 0.11 below the mean rate in the ten preceding years; in London the death-rate from this disease was 0.48 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest rates were recorded in Plymouth, Bristol, Cardiff, Swansea, Sheffield, and Newcastle-upon-Tyne. The rate of mortality from diphtheria was equal to 0.38 per 1,000, and exceeded by as much as 0.15 per 1,000 the mean rate in the ten preceding years; in London the diphtheria death-rate was as high as 0.62 per 1,000, while it averaged 0.21 in the thirty-two provincial towns, among which this disease showed the highest proportion fatality in West Ham, Cardiff, Wolverhampton, Birkenhead, Salford, and Burnley. The death-rate from scarlet fever was equal to 0.21 per 1,000, and was 0.09 per 1,000 below the mean rate in the ten preceding years; in London the rate of mortality from this disease was 0.32 per 1,000, and was slightly exceeded the mean rate in the thirty-two provincial, among which the highest scarlet-fever death-rates were recorded in Wolverhampton, Liverpool, Salford, and Burnley. The death-rate from different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever) was equal to 0.19 per 1,000, and was slightly below the average; in London the "fever" death-rate did not exceed 0.15 per 1,000, while it averaged 0.22 in the thirty-two provincial towns, and was highest in Nottingham, Liverpool, Salford, Burnley, and Sunderland. During the year under notice 450 fatal cases of small-pox were recorded in the thirty-three towns; of these, 170 occurred in Birmingham, 89 in London, 49 in West Ham, 27 in Bradford, 23 in Manchester, 23 in Oldham, 20 in Liverpool, and 16 in Bristol.

Infant mortality, measured by the proportion of deaths under 1 year of age to registered births, was equal to 152 per 1,000, against a mean rate of 166 in the ten preceding years. In London the rate of infant mortality was equal to 143 per 1,000, while it averaged 159 in the thirty-two provincial towns, among which it ranged from 121 in Croydon, 123 in Derby, 131 in Portsmouth, and 135 in Halifax, to 170 in Burnley, 174 in Nottingham and in Salford, 179 in Liverpool, and 217 in Preston.

The causes of 3,276, or 1.7 per cent., of the 188,995 deaths in the thirty-three towns during 1894 were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon; in the other towns the lowest proportions of uncertified deaths were registered in Birkenhead, Wolverhampton, and Derby, and the highest in West Ham, Birmingham, Preston, Halifax, and Hull.

INFLUENZA IN PARIS.

INFLUENZA appeared in Paris at the end of December and continues to increase. A great many people are attacked but there are very few deaths. According to M. Masson's researches, during the influenza epidemic of 1890 there was an unprecedented increase of barometric pres-

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Year 1894.

Towns.	Estimated Population middle of 1894.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	10,458,442	320,497	188,995	30.7	18.1	2.4	25,412	450	6,553	2,177	3,979	5,033	1,997	5,223	152	1.7
32 Provincial Towns	6,169,276	189,944	111,956	31.2	18.4	2.3	13,865	281	3,260	1,215	1,309	2,936	1,344	3,443	159	2.3
London	4,849,166	130,552	77,039	30.1	17.8	2.7	11,544	89	3,253	962	2,670	2,097	653	1,780	143	0.8
West Ham	238,184	8,097	5,811	34.0	16.2	3.2	758	49	229	56	180	101	45	168	138	4.2
Croydon	111,921	2,799	1,472	25.0	13.2	1.5	172	—	40	8	32	62	7	23	121	—
Brighton	118,715	3,055	1,843	25.8	15.4	1.2	143	—	36	4	26	14	11	52	138	1.4
Portsmouth	170,973	4,709	2,584	27.6	15.2	2.0	332	4	128	15	33	41	27	74	131	0.8
Plymouth	87,931	2,528	1,345	28.8	18.3	1.6	139	5	3	8	5	78	11	29	169	1.2
Bristol	226,578	6,373	3,900	28.2	17.3	2.0	461	16	111	16	48	176	22	69	150	1.3
Cardiff	118,890	5,103	2,403	34.4	16.2	1.9	288	1	11	8	69	123	8	68	141	1.2
Swansea	95,389	3,069	1,621	32.3	17.0	1.8	168	—	26	23	10	77	12	20	163	1.1
Wolverhampton	85,036	2,889	1,755	34.1	20.7	3.2	274	5	72	55	75	214	106	257	163	5.1
Birmingham	482,701	15,582	9,125	31.7	18.9	2.5	1,225	170	357	76	75	214	106	257	163	5.1
Norwich	105,645	3,137	1,974	29.8	18.7	1.5	159	—	22	15	18	38	23	43	164	1.7
Leicester	189,136	5,934	2,764	31.5	14.7	1.9	365	—	166	30	13	12	28	176	162	3.1
Nottingham	223,584	6,381	3,844	28.6	17.2	2.3	520	3	134	51	18	118	62	134	174	1.3
Derby	98,796	2,890	1,479	29.3	15.0	1.6	160	—	64	15	5	16	26	34	123	0.7
Birkenhead	105,627	3,223	1,902	30.6	18.1	2.6	278	1	92	12	41	67	17	48	143	0.5
Liverpool	507,230	17,893	12,082	35.4	23.8	3.4	1,726	20	299	229	97	276	297	508	179	3.5
Bolton	118,302	3,721	2,217	31.5	18.8	1.8	215	—	21	9	10	59	26	90	162	0.9
Manchester	520,214	16,608	10,632	32.0	20.4	2.4	1,235	23	224	113	146	287	96	346	160	1.3
Salford	205,828	7,041	4,310	34.3	21.0	3.3	667	2	146	112	63	140	63	141	174	2.8
Oldham	138,755	3,782	2,575	27.2	18.6	1.8	255	23	56	21	39	57	15	44	161	0.8
Burnley	96,478	3,099	1,799	32.2	18.7	2.5	237	—	33	51	29	17	27	77	170	1.8
Blackburn	125,787	3,617	2,244	28.8	17.9	1.6	201	—	13	9	18	42	33	88	153	4.2
Preston	111,425	3,566	2,312	32.1	20.8	2.6	290	1	37	12	6	46	29	157	217	4.8
Huddersfield	98,511	1,988	1,552	20.2	15.8	1.4	142	—	13	23	22	54	12	18	160	3.4
Halifax	82,861	2,142	1,526	23.1	16.5	0.9	81	4	33	3	12	19	6	4	135	4.8
Bradford	225,983	5,961	3,797	26.7	17.0	1.8	384	27	115	72	17	68	30	65	145	0.9
Leeds	388,761	12,502	6,927	32.2	17.9	2.0	776	3	280	52	73	131	52	175	155	1.0
Sheffield	338,316	11,267	5,994	33.4	17.8	2.3	765	—	165	40	66	239	64	191	157	3.6
Hull	212,679	6,888	3,683	32.4	17.4	1.8	373	3	93	39	23	81	40	88	142	4.2
Sunderland	136,101	4,768	2,821	35.1	20.8	3.1	415	—	116	25	9	70	32	113	167	1.0
Gateshead	93,372	3,180	1,644	34.2	17.7	2.4	219	1	93	6	21	31	23	44	152	0.9
Newcastle-on-Tyne	201,947	6,250	3,684	31.0	18.3	2.2	435	—	98	29	32	154	27	97	157	1.0

sure and the temperature decreased, nevertheless the cold was moderate; the rainfall during the epidemic was slight; nevertheless, the hygrometric state of the atmosphere increased; at the height of the epidemic it was more than 0.80. M. Masson's investigations also tend to show that throughout Europe the oscillations of the barometer coincided with the decrease and increase of mortality—the maximum of barometric pressure with the highest death-rate from influenza, the minimum with the minimum death-rate. Russia, according to M. Teissier, is the sole exception.

SANITARY ADMINISTRATION IN DENMARK.

Considerable changes are about to be introduced into the sanitary administration of Denmark. The "Royal Health College" is to be transformed into a superior sanitary council, consisting of a medical director appointed by the King, two medical councillors appointed by the Minister of Justice, and of other members also appointed by the Minister. Among the latter there will be two pharmacists, at least one of whom is actually engaged in retail trade. The council is to exercise supervision over everything that concerns the public health and the care of the sick. Practitioners of medicine and of dentistry, pharmacists and midwives, are in the practice of their several professions to be under the supervision of the Council. The Council will also be called upon to advise in all circumstances of public need in which medical knowledge is likely to be useful.

THE VESTRY OF ST. GEORGE SOUTHWARK AND ITS MEDICAL OFFICER OF HEALTH.

In our issue of February 16th, we commented upon a report by the Medical Officer of St. George, Southwark, on the need of the provision in the district of a shelter for families who have to leave their dwellings for the purpose of disinfection. Dr. Waldo has also recently presented to the sanitary authority a report on the desirability of enforcing the by-laws which have been adopted and confirmed under Section 94 of the Public Health (London) Act, 1891, and which deal with tenement houses. At the vestry meeting, held on the 29th ultimo, the opinion was expressed that the Medical Officer wrote "flaring reports."

The member of the authority who pronounced this criticism cannot be congratulated upon his appreciation of the position of affairs. The provision of a shelter and the enforcement of by-laws under Section 94 are duties which the sanitary authority must carry out in order to comply with the Act of 1891. That Act, we have remained unperturbed for more than three years, and a clear statement of the urgent need for prompt action is therefore amply justified.

At the conclusion of the meeting of the vestry last week, at which Dr. Waldo had replied to certain allegations, and at which subsequently an acrimonious discussion took place on another matter not connected with public health, the chairman is reported, in the *South London Press* of February 16th, to have said: "Gentlemen, you have been here for hours, and what have you done for the good of the parish? The proceedings of to-night, like the proceedings of our last meeting, must be most disastrous to interests which we are here to represent."

NEW EXCUSES FOR FAILURE TO VACCINATE.

Mr. Corrie Grant, barrister, recently made a curious point when he argued that a distinction should be drawn between persons who defended their neglect of the vaccination law on purely conscientious grounds and those who neglected to comply with the law from pure carelessness. This is certainly a very extraordinary argument for a barrister to use. But a still more curious point was made the same day by another barrister, who made a fresh objection to the proceedings under the Vaccination Act, namely, that it was impossible for the Registrar—or anyone else, we imagine—to prove that the supposed father of any particular child is the real father. The Brentford Police Magistrates would not entertain this new plea, and the usual order was made.

INFECTIOUS DISEASES IN EDINBURGH.

At a meeting of the Edinburgh Town Council, on February 19th, it was reported that there were 362 cases of infectious disease in the fever hospital, probably the largest number ever known. There was a marked increase in small-pox last week, 12 fresh cases having been reported. Measles shows no sign of decrease, no fewer than 539 cases having been notified. Happily, diphtheria and scarlet fever are diminishing. Fourteen deaths were due to zymotic causes. Eighty-three deaths of a total of 132 were due to chest disease.

NOTIFICATION QUESTION.

A. B.—(1) The fact of a previous notification having been made by another practitioner does not remove the duty of notification, or the right to the usual fee for notifying.

(2) Without hearing the other side we cannot offer an opinion as to the propriety of X.'s conduct in commencing practice on his own account, or in seeing A.B.'s (former?) patient. If he has broken faith with his former employer, or if he intruded unasked in the latter case, there is much to be said in justification of the course proposed. Assuming the diagnosis of scarlet fever to have been made by X. in good faith, it was his duty to notify. The fee would be due to his principal.

RESIDENCE OF MEDICAL OFFICER OF HEALTH OUTSIDE HIS DISTRICT.

Tact asks whether he is eligible for the appointment of medical officer of health for a neighbouring urban district of 12,000 inhabitants. His residence is within a mile of the boundary, but there are three medical men who reside in the district itself.

*** Non-residence is not a disqualification; it involves a certain amount of inconvenience, which would no doubt be considered by the District Council in making the appointment, and by the Local Government Board in sanctioning it.

MEDICAL NEWS.

The Cork Board of Guardians, on February 14th, unanimously adopted the Notification of Infectious Diseases Act.

Lord Rayleigh will give the Friday evening discourse at the Royal Institution on April 5th. His subject will be Argon, the new constituent of the atmosphere.

Mr. Samuel Braithwaite, M.R.C.S., has been elected the first Chairman of the Egremont (Cumberland) Urban District Council. He had in previous years acted as chairman to the Local Board.

The dinner of the past and present students of King's College Hospital will be held on Friday, March 1st, at the Holborn Restaurant, under the chairmanship of Dr. Curnow. Old students intending to be present should communicate with Mr. J. Gott or Mr. A. H. Safford at the hospital.

Donations and Bequests.—The Queen has sent an annual subscription of £10 in aid of the funds of the Royal National Hospital for Consumption at Ventnor. The Mercers' Company have contributed 500 guineas to the special appeal fund of St. Thomas's Hospital.

The annual general meeting of University College, London, will be held on Wednesday next. The report to be then presented by the Council gives expression to the expectation that the Government will shortly bring in a Bill for the appointment of a Statutory Commission for the purpose of carrying out the recommendations of the Royal Commission on the Gresham Draft Charter.

Cambridge Medical Graduates' Club.—A smoking concert was given, under the auspices of this club, in the St. James's Banqueting Hall, on February 18th. The Oxford Graduates' Medical Club was invited, and was well represented among the guests. Excellent music was provided by Drs. Shadwell, Habershon, Fyffe, McCann, and Hayne, and Messrs. Burns, Gale, Marshall, and Forman. The proceedings, which were informal and thoroughly social, terminated shortly before midnight.

Dr. J. G. Swayne, of Bristol.—On February 20th a complimentary dinner was given to Dr. Joseph Griffiths Swayne, in recognition of the value of his fifty years' work at Bristol University College, and as a medical teacher in Bristol. The chair was taken by Dr. E. Long Fox, the President of the British Medical Association. Dr. H. Marshall, who proposed "The Health of Dr. Swayne," said that students over the whole kingdom for many years had looked on the *Obstetric Aphorisms* of Dr. Swayne as useful to them at the school and at the bedside. The Dean of the Faculty (Dr. E. Markham Skerritt) subsequently announced that that afternoon Dr. Swayne had been elected Emeritus Professor of Midwifery, and Mr. N. C. Dobson (President of the Bath and Bristol Branch of the Medical Association) Emeritus Professor of Surgery. A presentation of plate was then made to Dr. Swayne. One of the pieces bore the following inscription: "Presented with a service of plate to Joseph Griffiths Swayne, M.D., Emeritus Professor of Midwifery in University College, Bristol, by his colleagues, friends, and former pupils, as a mark of their personal esteem, and in grateful recognition of his eminent services in the teaching of Obstetric Medicine and Gynæcology in the Bristol Medical School and University College, Bristol, during the long period of fifty years." The President, Dr. Fox, made the presentation, and Dr. Swayne, in the course of his reply, mentioned that the *Aphorisms* which had been alluded to had been translated into eight languages, including Hindustani.

The Oxygen Treatment of Wounds and Ulcers.—At the Richmond Hospital, Dublin, on February 16th, Dr. George Stoker, of London, a former pupil, gave a demonstration of the treatment of ulcers and wounds by the local application of oxygen gas. There was a large attendance, amongst those present being Dr. W. G. Smith, President of the Royal College of Physicians; Mr. Thornley Stoker, President Royal College of Surgeons; Sir John Banks, K.C.B.; Dr. S. Gordon, Sir Philip Smyly, Mr. H. G. Croly, Dr. W. Martin, Dr. Lane, Dr. Winifred Dickson, Dr. J. F. Knott, Dr. G. H. Kidd, Dr. O'Carroll, Mr. L. H. Ormsby, Mr. Arthur Chance, Dr. F. H.

Heuston, Dr. T. Stafford, Dr. Cox, and Mr. William Stoker. Mr. William Thomson introduced the lecturer, who detailed the experiments which he had been carrying on for some months, and showed the apparatus which he employed for the treatment. He said he had been permitted to use the treatment in the Richmond Hospital, and the cases were now present for examination. A large number of photographs were shown to enable the audience to observe the rapid improvement effected in old-standing ulcers. The cases exhibited were mostly tuberculous, and testimony was borne by some members of the staff as to the advantage which had so far been gained. Reports of the observations on these cases will be made at a future time.

American Jottings.—Among the names of the fifty-three celebrated sons of Massachusetts which are to be inscribed on the base of the dome of the new Chamber of the House of Representatives in the State House at Boston is that of Dr. W. P. G. Morton, to whom the discovery of anæsthesia is chiefly due.—Millie Jefferson, believed to have been the oldest negro woman in America, recently died at the age of 109 years, 8 months, and 16 days. The date of her birth, March 30th, 1785, is definitely known. She was born on the plantation of Thomas Jefferson in Virginia, and married the body servant of that distinguished statesman.—The Sanitary Committee of the Philadelphia Board of Health have declared in favour of a biological laboratory and the necessary equipment for investigating contagious diseases, facilitating diagnosis, and examining water and food supplies, with the hope of obtaining knowledge indicative of appropriate remedial measures. The Board will petition the City Council for 15,000 dollars, to be expended in organising a division of bacteriology and disinfection.—The Detroit Board of Health has established an information bureau for the convenience of persons seeking houses to rent. The bureau will furnish specific information regarding the sanitary condition of every house in the city. Three large maps will show the location and surroundings of each habitation, and when the inspection corps makes its annual examinations of premises, the returns will be tabulated and placed at the disposal of house hunters. Details will be set forth with reference to the material employed in constructing the house—whether stone, brick, or wood—height in storeys, number of rooms, size of surrounding yard, if any, ventilation, condition of closets, plumbing, etc. The expense of this procedure will be about 200 dollars, the maps costing 180 dollars of this amount. The landlord will henceforth be compelled to keep his tenements in first-class condition, or suffer the brand of unhygienic to be placed thereon.

MEDICAL VACANCIES.

The following vacancies are announced:

BARNWOOD HOUSE HOSPITAL FOR THE INSANE, Gloucester.—Junior Assistant Medical Officer. Salary, £100 per annum with board. Applications to the Medical Superintendent.

CAPE COLONY.—Medical Officer of Health for Cape Colony. Salary, £1,000 per annum. Applications to the Agent General, 112, Victoria Street, S.W., or the Colonial Under-Secretary, Cape Town, by March 15th.

GUEST HOSPITAL, Dudley.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided in the Hospital; no salary. Applications to the Secretary by February 27th.

HOLLOWAY SANATORIUM HOSPITAL FOR THE INSANE, Virginia Water.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Philipps.

NORTH LONDON CONSUMPTION HOSPITAL, Hampstead, N.W.—Medical Officer, doubly qualified. Appointment for one year but eligible for re-election. Honorarium, £40 per annum, with board, rooms, etc. Applications to the Secretary, Lionel F. Hill, M.A., by March 4th.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer, unmarried. Salary, £120 per annum, increasing £10 yearly to £150, with furnished apartments, board, and lodging. Applications (marked outside "Medical") to Dr. McDowell at the Asylum by March 11th.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—House-Surgeon. Salary, £50, with board and residence. Appointment from April 1st to November 7th. Also Surgeon to the Out-patients. Applications to the Secretary by March 1st.

QUEEN CHARLOTTE'S LYING-IN-HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer. Appointment for four months. Salary at the rate of £60 per annum, with board and residence. Applications to the Secretary by March 2nd.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Junior House Surgeon; doubly qualified. Salary, £80 per annum, with apartments and rations. Applications to Will Taberner, General Superintendent and Secretary, by February 27th.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House-Surgeon. Board, residence, and laundry found. No salary. Applications to the Honorary Secretary by March 4th.

ST. GEORGE'S HOSPITAL, S.W.—Assistant Surgeon; must be F.R.C.S.Eng. Applications to the Secretary by March 1st.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY, 60, King Street, Golden Square, W.—Resident Medical Officer. Salary, £100 per annum, with furnished apartments, fuel, light, and attendance. Applications to S. Leger Burnett, Secretary, by March 2nd.

ST. PETER'S HOSPITAL, Henrietta Street, Covent Garden, W.C.—House-Surgeon. Appointment for six months. Salary at the rate of 50 guineas a year, with board, lodging, and washing, and an allowance for wine, etc. Applications to the Secretary by March 1st.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Fourth Assistant Physician, must be Fellow or Member of the Royal College of Physicians of London, not practising pharmacy and midwifery. Applications to the Secretary before February 26th.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM.—Third Assistant Medical Officer; unmarried. Salary commences at £100 per annum, with board, lodging, and washing. Applications to Dr. Cooke, The Asylum, Powick, near Worcester, by March 1st.

MEDICAL APPOINTMENTS.

BODINGTON, G. F., F.R.C.S., M.R.C.P., appointed Medical Superintendent to the New Westminster Asylum, Canada.

BRIGGS, Henry, M.B., C.M.Edin., F.R.C.S.Edin., reappointed Honorary Surgeon to the Liverpool Hospital for Women.

BURTON, John E., M.A., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Surgeon to the Liverpool Hospital for Women.

DAVIES, E. T., M.D.Edin., F.R.C.S., reappointed Senior Assistant Surgeon to the Liverpool Hospital for Women.

DAVIES, W. G., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Western District of the Llandilo Rural District Council, *vice* — Jones, deceased.

DE LA TOUCHE, Mr. A., appointed Medical Officer for the Soothill Nether District of the Dewsbury Union.

EDIS, John Butler, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Honorary Surgeon to the Liverpool Hospital for Women.

GRIMSDALE, T. B., B.A.Cantab., M.B., M.R.C.S., reappointed Honorary Assistant Surgeon to the Liverpool Hospital for Women.

HALE, Mr. L. H. D., appointed House-Surgeon to the Boscombe Hospital and Provident Dispensary.

HANCOCK, George, M.R.C.S.Eng., L.R.C.P.Lond., appointed Obstetric House-Physician to Westminster Hospital.

HARPER, Walter Joseph, M.R.C.S., L.R.C.P., appointed Medical Officer and Public Vaccinator for the Braunton District of the Barnstaple Union.

JOHNSTON, J., M.D.Edin., appointed Public Vaccinator for the Western District of the Bolton Union.

KEAY, Joseph H., M.A.Edin., M.D., appointed Medical Officer for the Colne District of the Burnley Union.

KEITH, Mrs. Caroline, L.R.C.S., L.R.C.P.Edin., appointed Anæsthetist to the Chelsea Hospital for Women.

KNIGHT, Ernest, M.R.C.S., L.R.C.P., appointed House-Surgeon to the Salford Royal Hospital, *vice* S. M. Brown, resigned.

MAX-VICKERS, Mr. C. G., appointed Medical Officer for the No. 8 District of the Newmarket Union.

PERRY, F. W., L.R.C.P., L.R.C.S.I., reappointed House-Surgeon to the Pendleton Branch Dispensary of the Salford Hospital.

RAY, J. Howson, M.B., Ch.B.Vict., M.R.C.S., L.R.C.P., appointed Junior House-Surgeon to the Salford Royal Hospital, *vice* E. Knight, M.R.C.S., L.R.C.P., appointed House-Surgeon.

RAYWOOD, J. R. I., L.R.C.P.Lond., M.R.C.S.Eng., appointed Honorary Surgeon to the Montgomeryshire Infirmary.

ROBERTS, Mr. E. A. Mills, appointed Surgeon to the Penrhyn Quarry Hospital.

ROBINSON, F. Gardner, M.B.Vict., L.R.C.P.Lond., reappointed District Medical Officer to the Salford Royal Hospital.

SMART, David, M.B., C.M.Edin., B.Sc., reappointed Assistant Surgeon to the Liverpool Hospital for Women.

SMITH, Wm. Barron, L.R.C.P.Edin., M.R.C.S.Eng., reappointed District Medical Officer to the Salford Royal Hospital.

STUCK, S. J., M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Chelsea Hospital for Women.

THOMPSON, Charles S., M.B., C.M.Edin., reappointed Medical Officer for the No. 5 District of the Barnstaple Union.

WARE, John Wm. Langston, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for the Fourth District of the Barnstaple Union.

WELLS, T. P. Grosart, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Honorary Medical Officer to the St. Albans Hospital and Dispensary.

WILLIAMS, Mr., appointed Medical Officer for the Crowland District of the Peterborough Union, *vice* M. R. Rich, L.R.C.P., L.R.C.S.Edin.

WRIGHT, J. F., M.R.C.S.Eng., appointed Medical Officer for the Western District of the Bolton Union.

DIARY FOR NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor C. B. Lockwood: On Traumatic Infection. Lecture I.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. A. Stanford Morton: Affections of Eyelids. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. George Stoker: Post-nasal Growths and Enlarged Tonsils.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. J. D. Malcolm: Some cases of Liver and Gall Duct Surgery. Dr. Wallis Ord and Mr. E. Cotterell: A case of Craniectomy. Patient will be shown.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Hyslop: Puerperal and Lactational Insanity.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Discussion on Affections of the Nervous System occurring in the Early (Secondary) Stages of Syphilis.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, 4.30 P.M.—Dr. Dundas Grant on "The Diagnosis of Diseases causing Pain in and about the Ear."

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor C. B. Lockwood: On Traumatic Infection. Lecture II.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Eczema: its Varieties. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Stanford Morton: Optic Neuritis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, 3 P.M.—Lecture by Dr. Gowers.

HUNTERIAN SOCIETY, 8 P.M.—Lecture by Professor Clifford Allbutt on Senile Plethora (High Arterial Tension in the Aged).

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Dr. W. Hunter: Pernicious Anæmia.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Bastian: Cases in the Hospital. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. Donald Gunn: Ophthalmia. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. Bryant: Cases in the Wards.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor C. B. Lockwood: On Traumatic Infection. Lecture III.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: Tuberculosis and Leprosy. Practical Work: Staining Sputum and Sections.

WEST KENT MEDICO-CHIRURGICAL SOCIETY, Miller Hospital, Greenwich, 8.15 P.M.—Clinical evening. Card specimens and cases by Mr. John Poland, Dr. Taylor, Dr. Herschell, Mr. J. F. Puris, Dr. Ezard and Dr. Ernest Clarke.

CANCER HOSPITAL, Brompton (Free), 4 P.M.—Mr. F. Bowreman Jessett: On Cancer of the Uterus.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. E. W. Goodall: An unusual case of Diphtheria of the Air Passages. Dr. Lee Dickinson: A case of Malformation of the Heart with Hæmophilia. Mr. Barling: A case of Gangrenous Umbilical Hernia; Resection and Immediate Union by Murphy's Button; Recovery. Dr. Hector Mackenzie: A case of Hysterical Contracture of the Legs of Two Years' Duration Successfully Treated. Mr. Arbuthnot Lane: A case of Extensive Degenerating Nævus of the Bladder. (Postponed from February 22nd on account of the death of Mr. J. W. Hulke.)

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Hyslop: Developmental Insanity, Circular Insanity.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

COCKS.—On January 18th, at Elsmere, Inglis Road, Colchester, the wife of Surgeon-Captain Horace Cocks, M.B., Army Medical Staff, of a son.

MAPLETON.—January 16th, at Bassterre, St. Kitts, West Indies, the wife of G. H. Mapleton, M.B., of a son.

RAYNER.—February 19th, at 68, Porchester Terrace, W., the wife of Herbert E. Rayner, F.R.C.S., of a daughter (prematurely).

DEATHS.

BLUETT.—On January 16th, at his residence, Chesterfield, John Bluett, M.R.C.S., L.S.A. (formerly of St. John's Wood, London), second son of the late John Bluett, of Haygrass House, in the county of Somerset, in his 80th year. Friends will please accept this, the only intimation.

HULKE.—On February 19th, at 10, Old Burlington Street, London, W., John Whitaker Hulke, F.R.S., President of the Royal College of Surgeons of England, aged 64.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. F., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL EYE HOSPITAL, Southwark. *Hours of Attendance.*—Daily, 2. *Operation Days.*—Daily.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2, Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—Tu., W. Th., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday Post on Wednesday. Telegrams can be received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

☞ *'Queries,' answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Treatment of Hiccough.

Subscriber would be much obliged for any hints in the treatment of hiccoughs lasting over two weeks. Almost everything has been tried without success; Whitla's *Dictionary of Treatment* being principal guide. Hiccoughs occurred twelve months ago in the same patient when suffering from hemiplegia, from which he had well recovered.

Institution for Imbecile.

M.B. (Cornwall) asks to be recommended a home where a girl of 14 years—idiot from birth—would be accepted for a few shillings a week? She is mischievous at times and needs care.

*** We would advise M.B. to apply to the Western Counties Asylum for Idiots, Star Cross, near Exeter. The authorities there might take the patient. There are of course other institutions; but if the child lives in Cornwall, there will be a better chance for it to be admitted into the Star Cross Asylum than elsewhere.

Hydrochlorate of Quinine.

M. O. asks why hydrochlorate of quinine is not more generally prescribed; it seems from its description to be a much more efficient salt than the sulphate.

*** Hydrochlorate of quinine is richer in alkaloid, and, owing to its greater solubility in water—namely, about 1 in 40—should replace the sulphate, which is practically insoluble, but the latter salt can be produced much more conveniently and cheaply; and these are probably the reasons which have enabled it to hold the field against the hydrochlorate. Physicians have been so long accustomed to prescribe an acid in combination with the sulphate that they have been tardy in realising the greater value of the soluble salt, which ultimately will become the popular one.

County Council Lectures.

R. H. W. asks: What are the best books to study nursing and hygiene for lecturing for County Council work, also sick room cooking for a young medical practitioner to learn up.

*** Nursing can only be learned and taught by the bedside. This practical instruction may be supplemented but not superseded by reading and lectures. Hygiene can only be learned and taught by a combination of practical work (visits to homes, inspection of sanitary and insanitary arrangements), and lectures and reading. Among the best books to read and glean from for such work are Stevenson's and Murphy's *Public Health* (London: J. and A. Churchill; 3 vols; 28s., 32s., and 20s.). Whitelegge's *Hygiene* (London: Cassell and Co.; 7s. 6d.). Parkes's *Hygiene and Public Health* (London: H. K. Lewis; 10s. 6d.). Wilson's *Handbook of Hygiene* (London: J. and A. Churchill; 12s. 6d.). Miss F. Nightingale's *Notes on Nursing* (London: Harrison and Sons). Billroth's *Care of the Sick, etc.* (London: Sampson Low, Marston, and Co.; 6s.). Lawton Roberts's books on *Ambulance Work* (London: H. K. Lewis; 2s. 6d.); and on *Nursing and Hygiene* (London: H. K. Lewis; 2s. 6d.). Yeo's *Food in Health and Disease* (London: Cassell and Co.; 9s.). The mixing up of the subjects of health and disease in the same course is most undesirable.

ANSWERS.

Dr. M'Sweeney.—The journal mentioned, when first started a few years ago, showed a good deal of public spirit, and we are not aware that its character has altered since.

R. I. writes: "Rad. Sarsæ," in the British Medical Journal of February 9th, p. 340, is wrong about apprenticeship with medical men not being recognised under the Pharmacy Act. All that the latter requires is that the candidate shall show that he has been engaged three years in dispensing medical prescriptions (where matters not), and a physician may certify the declaration.

A New Diploma.

R. H. S.—We believe that the letters M.R.B.N.A. on the card forwarded signify member of the Royal British Nurses' Association. It will be noticed that the person in question describes herself on the card as a nurse. We cannot ascertain what the letters M.R.I.N.A. signify, and are inclined to suppose that our correspondent is in error.

Club Law.

Justice.—It is probable that he could recover at the county court his sick allowance, provided that he had not broken any of the rules which the club may legitimately lay down for the observance of members. A rule that the sick allowance should be forfeited on employing an outside practitioner would, we believe, be *ultra vires*. We should strongly recommend our correspondent not to rely on any legal textbook, but to take proper professional advice when required. There is an adage very familiar to members of the legal profession which contains a wholesome amount of truth—namely, "That a man who is his own lawyer has a fool for a client."

Companies and Medical Fees.

J. F. H.—It does not appear that the manager of the works requested our correspondent to accompany his patient home, so that the company could hardly be debited with the whole account. If the company were to pay two guineas and the patient another guinea, the arrangement would be fairly equitable. From the details of this case another question arises which it would be well for our correspondent to bear in mind; it is quite possible that in a case like this the company are not bound legally to pay at all. If they are paying a good salary to the cashier, they might argue that he ought to pay the doctor himself; and, further, it must not be forgotten that the acts of the manager do not necessarily bind the company. In Cox *v.* Midland Railway Company it was decided that the stationmaster, who after an accident called in a medical man to attend to an injured passenger, had no authority to bind the company to pay the surgeon's fee.

NOTES, LETTERS, Etc.

Derbyshire Royal Infirmary.

We regret to learn that some objection has been made to the new arrangement by which the two junior or last appointed members of the honorary medical staff of this institution are elected simply for out-patient work. Although this system is not so prevalent in provincial as in metropolitan hospitals, there can be no doubt, we believe, that it is preferable in the interest both of the profession and of hospital patients.

A Case of Urticaria.

M.B. writes: A young man in perfect health except when he indulges in certain articles of diet, an hour or so after eating an apple suffers from a well-marked urticarial rash preceded by itching in some parts of his body, generally the palm. With this urticaria is associated a condition of extreme dyspnœa, from the patient's description a regular asthmatic attack, the mucous membranes of the mouth and nose also swelling up. The whole passes off in an hour or two leaving him as well as ever. This is the patient's own account of the attacks, I not having had an opportunity of witnessing one, but I have no doubt it is an accurate description. Is the dyspnœal attack asthma due to swellings in the mucous membrane of the bronchi similar to the urticarial swellings of the skin?

The Medical Profession and Freemasonry.

An interesting paper was recently read before Lodge Quatuor Coronati, by Brother R. F. Gould, P.G.D., the well-known Masonic historian, the subject being the Profession and Freemasonry. Brother Gould's paper was exhaustive, and entered into minute details of the connection of medical men with the craft from time immemorial. The paper appears in the official Transactions, Ars Quatuor Coronatorum, published under the special direction of the Secretary, Mr. G. W. Speth, P.M. The Transactions are worthy of a place in any library.

Dispensaries and Advertising.

Two correspondents send us cuttings from newspapers with advertisements. One refers to the Sunderland Provident Dispensary, and offers "all the advantages of private medical attendance, and at the lowest possible cost." In this advertisement, however, the names of the medical officers do not appear, and the breach of medical etiquette to be condemned is the tacit permission apparently given by the staff of this dispensary to a measure largely calculated to injure the practices of their brother practitioners who are not officers of the institution, especially when it appears that no system of wage limit is adopted by this provident dispensary.

The second refers to the Royal Victoria Dispensary, concerning which institution we read: "Number of patients during the week 1,334," and "Medical officers are Mr. Moxon, Mr. Evans, Mr. Cogan, Mr. Spurgin, Mr. Rae. Dental Surgeon: Mr. C. S. Tuck." Surely there can be no need for adding these names. We feel sure that the gentlemen in question cannot have sanctioned such a procedure on the part of the dispensary officials, which can only tend to lower them in the opinion of the general body of the profession, and that they will themselves promptly see that so grave a breach of medical decorum is not repeated.

Oxygen and Ozone in the Local Treatment of Wounds.

Mr. George Stoker (Hertford Street, W.) writes: I am much indebted to Mr. Nelson Hardy for his courteous letter in the British Medical Journal, February 9th. I have read his interesting article in the *Medical Magazine* of June, 1894; it does not, however, contain any reference to, or description of a system similar to mine, or any record of cases treated thereby.

Evolution of Bacilli of Infectious Disease.

Mr. Armstrong Todd, M.B., B.Ch., B.A.O. (Market Drayton), writes: I am strongly reminded, in perusing Dr. Lee's report of "Some Cases Resembling Scarlatina," of some five or six cases of enteric fever which occurred on board H.M.S. *Belleisle* in 1889, the notes of which I have by me. In all these cases the onset of the disease was sudden, ushered in by violent repeated shiverings, a rapid rise of temperature, intense lumbar pain similar to that of small-pox (apparently spinal in origin, as it was unaffected by movement), and in one case a remission on the third day of all the symptoms and temperature, followed in three days' time by an exacerbation of all the foregoing symptoms, after which the symptoms of enteric fever in a modified form showed themselves, and the disease ran its course, terminating by lysis about the thirtieth day of the disease. These cases reminded me of the account given of enteric fever by Dr. Lutz, in 1884, quoted in Trousseau's *Clinical Medicine*, vol. ii. Trousseau mentions that young children, girls, and anæmic weaklings are prone to suffer from these spinal symptoms in the course of this disease, but in the cases I refer to the majority were stokers, and strong able-bodied men all of them. One cannot help thinking, when such cases as these our predecessors in medical art of bygone years, that they, who are admitted even now to have been admirable clinicians, must have laboured in differential diagnosis under very adverse circumstances, such as for instance the want of differentiation of the effects of bacilli of infectious disease whereby one case (say of enteric) infected another which, in its turn, developed symptoms resembling typhus, or perhaps small-pox, and partly in justice to ourselves, when such cases as those Dr. Lee reports and those I have referred to turn up unexpectedly from no one knows where, the explanation of which may perhaps be found in the supposition that they are a reversion to the original type.

Licentiates and the Title of "Doctor."

M.R.C.S., L.R.C.P., writes: In the British Medical Journal of January 19th, referring to the disabilities of English medical students and the misconception which exists in the mind of the general public upon the question of medical degrees, you quoted a letter which appeared in a provincial newspaper, in which the public were warned against the inferior order of medical practitioners who did not possess the degree of M.D., and were therefore incompetent to deal with the more intricate diseases and to perform surgical operations. Now it is often not until a London diplomate commences general practice that he discovers, too late, the suspicion with which he is regarded by the uninitiated public. This being the case, is it not within the powers of the General Medical Council, in justice to the London diplomates, to authorise the adoption of the title "doctor," in its popular sense, by all duly qualified and registered practitioners?

As an instance of the confusion which at present exists, and so seriously embarrasses a young man endeavouring to work up a practice, may be mentioned a letter recently received in which I was addressed as M.R.C.V.S., L.R.C.P.Lon. Ultimately, perhaps, London diplomates will be placed in a less anomalous position, but in the meantime cannot something be done?

Supernumerary Toe.

Dr. W. G. Ternan (Dublin) writes: On January 21st I was called to see a male infant, aged 7 weeks, who had six toes on the right foot. All the other limbs were normal, and the child was otherwise well formed. The supernumerary toe had two phalanges, with nail complete, and was attached by a pedicle of skin only to the dorsum of the base of the fifth toe, which latter it resembled in size and shape, and upon which it was freely movable in all directions. At the request of the parents I removed the additional toe. There is no history of any freak of Nature amongst the other children of the family, nor in the families of either parents.

A Prolific Patriarch.

According to the New York *Medical Record* a man died recently near Lebanon, Pa., at the age of 92. He had been the father of 22 children, 15 of whom survived him. At the time of his death there were living 110 grandchildren and 99 great grandchildren. This prolific patriarch was even more blest in the number of direct descendants whom he saw around him than our own gracious Sovereign.

LETTERS, COMMUNICATIONS, Etc., have been received from:

(**A**) Messrs. Arthur and Co., London; Mr. R. C. Atkins, Brighton; A.; Dr. A. E. Aust-Lawrence, Clifton. (**B**) Mr. W. H. Best, Ilford; Mr. C. Biddle, Philadelphia; Mr. A. E. Barker, London; W. H. Bansall, M.B., Aylsham; Mr. D. Biddle, Kingston-on-Thames; Dr. W. A. Bonney, London; Dr. R. Bangay, Lyme Regis; Mr. A. H. Bays, St. Albans; Mr. A. B. Brockway, Southport; C. H. Bond, M.B., Banstead; Berkshire; Mr. E. Buxton, Liverpool; F. W. Burton-Fanning, M.B., Norwich; Mr. C. Y. Bottemanne, Bergen-op-Zoom. (**C**, Dr. W. A. Carline, Lincoln; Dr. F. W. Clark, Lowestoft; Messrs. J. and A. Churchill, London. (**D**) Dr. W. R. Dawson, Dublin; R. H. Drennan, M.B., Nottingham; Mr. W. Duncan, London; Dr. T. M. Dolan, Halifax; Doubtful; G. H. Dinsmore, M.B., Coldstream. (**E**) Dr. F. W. Edridge-Green, London; Mr. F. S. Edwards, London; Mr. G. B. Ellis, London; E. S.; Mr. F. Elvy, Eastbourne; E. M.; Mr. E. C. Edwards, Ipswich. (**F**) F. S. F. B.; Mr. T. Fletcher, Warrington; Mr. A. Fournet, London; Mr. C. Forbes, London; Mr. T. J. Frost, Llanhilleth. (**G**) Professor Gault, London; H. C. Garth, M.B., Calcutta; Dr. J. Galloway, London; Great Northern Central Hospital, the Secretary of the, London; Mr. J. H. Gornall, Warrington; A General Practitioner. (**H**) Mr. H. Helbing, London; Mr. A. Hay, Salford; Dr. J. Hubbard, Hemel Hempstead; Mr. S. Hodgson, London; G. E. Hale, M.B., Eton; Mr. C. Heath, London; Dr. D. Hilston, Gosport; Hunterian Society, the Secretary of the, London; Dr. F. Hinds, Worthing; Mr. G. Hancock, London. (**J**) Justice. (**K**) Dr. T. N. Kelynack, Manchester; Mr. C. Kirklin, Bonn; Kentigern; A. D. Keith, M.B., Aboyne. (**L**) Dr. F. Levison, Copenhagen; J. D. Leigh, M.B., Brotton-in-Cleveland; Dr. H. A. Lawton, Poole; L.R.C.S.; Mr. H. Littlewood, Leeds; Mr. F. W. Lowndes, Liverpool. (**M**) Dr. L. Maybury, Southsea; M. O.; M.D.; Mr. C. A. Marrett, London; Medical Society of London, the Honorary Secretary of the, London; J. W. Mason, M.B., Hull; Mashonaland; W. Martin, M.B., Hemel Hempstead; Mr. J. Morison, St. Albans; Mr. E. S. Metcalf, Hove; Dr. J. C. McLearn, London; Mr. C. M. Mapleton, London. (**O**) T. H. Openshaw, M.B., London. (**P**) Mr. A. Pointon, Hanley; Dr. S. T. Pruen, Cheltenham; Messrs. Parke, Davis, and Co., London; Mr. F. E. Peake, Bristol; Dr. T. Pimley, Preston; A. E. Patterson, M.B., Dartford; Parish Doctor; Dr. A. Price, Birmingham; Dr. R. W. Philip, Edinburgh; Mr. W. H. Penrose, Cork. (**R**) Mr. A. Roche, Dublin; Rad. Ipecac.; Miss A. Ravenhill, London; Mr. J. Reynolds, London; Dr. A. Ransome, Bournemouth: Mr. A. B. Reck, Copenhagen; Dr. B. Rogers, Clifton; Dr. H. D. Rolleston, London; Railway Surgeon; Mr. J. Robertson, St. Helens. (**S**) Mr. H. M. Sampson, London; Dr. A. T. Simpson, Sheffield; Mr. R. Steele, Liverpool; W. G. Spencer, M.B., London; Dr. H. Solomon, Yarm; Mr. F. Sidebotham, Manchester; Mr. C. H. Shears, Liverpool; Mr. W. H. Seyfong, Cambridge; Mr. A. H. Safford, London; Spes; Mr. W. H. D. Snow, London; Sir E. H. Sieveking, London; Dr. E. M. Skerritt, Bristol; Mr. G. Stoker, London; Mr. C. T. Symons, London; J. P. Smith, M.B., Dingwall; Mr. R. E. South, Boston; Subscriber; Sarcoma. (**T**) Mr. S. Thompson, Belfast; Dr. S. Tidey, Florence; Mr. J. B. Thomas, Abergwynfi; Themis; Dr. J. A. Turner, Syston; A. Todd, M.B., Market Drayton. (**V**) Vigilo. (**W**) J. C. W. Williams, M.B., London; Mr. A. Winkfield, Oxford; Dr. F. J. Waldo, London; Mr. F. F. White, Coventry; Mr. W. T. R. Weldon, London; J. R. Wortabet, M.B., Aberdare; Mr. W. Watson, Rochester; T. P. G. Wells, M.B., St. Albans; Mr. H. S. Walker, Leeds. (**Y**) Mr. E. A. Young, Bangor; Dr. E. G. Younger, London; etc.

BOOKS, Etc., RECEIVED.

University of Edinburgh. Examination Questions in Surgery. Answered and Annotated. By W. R. Smith, M.B.. Edinburgh and London: Young J. Pentland. 1895. 1s. 6d.

University of Edinburgh. Examination Questions in the Practice of Physic, Answered and Annotated. By W. R. Smith, M.B.. Edinburgh and London: Young J. Pentland. 1895. 1s. 6d.

Die Diphtherie. Von Dr. A. Baginsky. Wien und Leipzig: Urban und Schwarzenberg. 1895.

Materia Medica and Therapeutics. By Dr. J. B. Biddle. 13th Edition revised by Dr. C. Biddle. Philadelphia: P. Blakiston, Son and Co. 1895. 4 dollars.

On the Geographical Distribution of Tropical Diseases in Africa. By Dr. R. W. Felkin. Edinburgh: W. F. Clay. 1895. 3s. 6d.

Manuel de Percussion et d'Auscultation. Par Dr. P. Simon. Paris: Félix Alcan. 1895. Fr. 4.

Petit Compendium Médical. Par Dr. A. Bossu. Paris: Félix Alcan. 1895. Fr. 1.25.

An Elementary Textbook of Anatomy. By Professor H. E. Clark. London: Blackie and Son. 1895. 5s.

A Practical Treatise on Diphtheria and its Successful Treatment. By B. R. Martin, M.B. Second Edition. London: Baillière, Tindall, and Cox. 1895. 2s.

*** In forwarding books the publishers are requested to state the selling prices.

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N.B.—It is against the rules of the Post Office to recieve letters at *Postes Restantes* addressed either in initials or numbers.

A CLINICAL LECTURE
ON
SOME UNUSUAL TUMOURS.

Delivered at Middlesex Hospital,

By J. BLAND SUTTON, F.R.C.S.,
Assistant-Surgeon Middlesex Hospital.

Gentlemen,—During the past few months several unusual cases of tumours have come under our observation; some of them are worth your careful notice as they illustrate points of interest in diagnosis, in pathology, and in treatment.

I.—Pregnancy Complicated by a Dermoid Incarcerated in the Pelvis: Ovariotomy at Eight and a-Half Months: Anuria for Fifty Hours: Recovery.

In July, 1894, Dr. Leonard Hine placed under my care Mrs. H., aged 31, at the same time furnishing the following facts: A year previously she was confined with her first baby and had a very tedious labour terminated by "turning." The child was stillborn. The difficulty in delivery was caused by a pelvic tumour, which Dr. Hine believed to be a dermoid. Twelve months later the patient again came under observation, nearly seven months pregnant. An examination proved that the tumour was wedged in the pelvis in a very dangerous position.

When the woman came under my care she was, according to her "reckoning," seven months and one week advanced in pregnancy. The movements of the fœtus were obvious enough. The upper half of the patient's face was pigmented, the colour being yellow and identical with that characteristic of xanthelasma. This "mask" deepened as the pregnancy advanced and formed a striking contrast with the fresh pink colour of her cheeks.

The hollow of the sacrum was occupied by a tumour of the dimensions and shape of a large turkey's egg; the big end was lying well behind the left broad ligament (mesometrium), but the pointed end projected obliquely downward towards the vagina. The cervix was drawn up and pushed towards the symphysis pubis. The tumour was very hard, and even slight pressure upon it produced pain. I was able to satisfy myself that the tumour was incarcerated by the uterus, for I could distinctly move the big outer end, but the history of the case deterred me from attempting to push it out of the pelvis, for the squeezing to which it had been subjected in the previous labour had in all probability led to the formation of adhesions. The tenderness and hardness of the tumour, as well as the resistance it offered to the passage of the child without bursting, served to convince me that it was in all probability an ovarian dermoid. Two other possibilities were entertained, (1) a tumour of the sacrum, (2) a sequestered extrauterine fœtus. Of these, the first was disproved by the mobility of the outer pole of the tumour, and the second was put out of court by the history of the case, for the woman was intelligent and furnished a very clear and definite account of her illness.

Although the condition of affairs was quite plain and serious enough, and admitted of one interpretation—interference of some kind—it was not quite so simple to determine the treatment, as several plans were suggested. After careful deliberation I decided to keep the patient under observation in the hospital until she was within two weeks of the date at which the pregnancy was estimated to terminate, then open the abdomen and endeavour to remove the tumour; failing this, save mother and child by Cæsarean section. It was July 24th when this course was determined. I did not re-examine the patient until August 15th; in the interval the uterus had settled into the pelvis and depressed the tumour so much that its lower end could be felt as soon as the finger cleared the vulvar orifice. She had been complaining of occasional pains in the belly, and as I was anxious that she should not come prematurely into labour, I decided to operate on August 21st, when she was within half a month of the calculated date of labour.

Mr. Burns, with his usual care and judgment, rendered the patient unconscious with A.C.E. mixture, and I opened the abdomen as for ovariotomy. On introducing my left hand, I detected the right ovary far above the level of the navel; the hand was then very gently carried over the face of the uterus, and passed behind the left mesometrium, and at once encountered the tumour. I circumscribed its circumference with my forefinger, gently and slowly detaching slender adhesions. On attempting to extract the tumour there was difficulty, for it was so incarcerated by the uterus, aided by atmospheric pressure, as to demand the expenditure of some force to raise it; then by tilting the tumour so as to destroy the vacuum, it suddenly popped out. The pedicle, very long and slender, vascular and soft, was transfixed and tied with thin plaited silk, and the incision closed with waxed silk sutures, 1 cm. apart. The wound was dressed, and the patient put to bed. Half a grain of morphine was given in a suppository to still the uterus.

At the end of twenty-four hours the patient had passed no urine; in other respects her condition was reassuring. Forty-eight hours later there was still anuria, pulse 140, temperature 102°, slight vomiting and restlessness. To account for the anuria, I concluded that the impaction of the dermoid had in all probability compressed the left ureter, and abolished the function of the left kidney, hence by keeping the patient on her back the weight of the uterus had obstructed the flow of urine down the right ureter. Dr. W. Duncan saw the case with me, and agreed that labour should be induced to relieve pressure. I had the patient turned upon her left side, with the hope of temporarily relieving pressure, and shortly afterwards Dr. Berkeley introduced a bougie into the uterus under Dr. Duncan's supervision.

The effects of the change of position were simply magical; two hours later the woman voided half a pint of urine without effort. When I saw her six hours later the temperature had fallen to 100°; pulse steady at 120; no pain, and freedom from any kind of discomfort, and she had passed an additional pint of urine—altogether 1½ pint in six hours after the change of position.

On the fifth day after the operation and fifty-four hours after the introduction of the bougie she was delivered (by forceps) of a living, vigorous, male babe. Coincident with delivery the yellow mask on her face began to fade, and in three days disappeared completely. Convalescence was rapid.

The tumour was a dermoid, consisting of one loculus and several diverticula, filled with epithelial and fatty *débris* of the consistence of fresh putty, the whole forming an ovoid inelastic mass.

Whilst the mother was in labour it occurred to me that the amniotic fluid might, in consequence of the fifty hours' anuria, contain an abnormal proportion of urea, especially as it is probable that in the late stages of pregnancy the fœtus defiles this fluid with urine. Mr. Mackenzie Edwards, house-surgeon in charge of the case, undertook the investigation. The mother, previous to the operation, had been passing urine very freely (70 ounces daily), and, after the period of anuria, the output of urine rose to 60 ounces daily, with an average of 1.5 per cent. of urea. The amount of liquor amnii collected measured 1 pint and contained .5 per cent. of urea. I believe the average proportion of urea in amniotic fluid is 2.6 per 1,000 parts, but it has been observed to contain 5.0 per 1,000 in uncomplicated cases, and as the proportion in my case only equals this it fails to throw any additional light on the question.

I have ventured to bring this case under notice, because it contained many points of interest. It is an easy matter to collect a hundred or more successful cases of ovariotomy during pregnancy, but if anyone will take the trouble to study the cases collected from the most varied sources by Dsirne, he will find that the great majority were performed before the fourth month. A fair number belong to the seventh, and a few to the eighth, month. Pippingsköld was successful at the ninth month. In all the records I have been able to consult of ovariotomy performed in the late stages of pregnancy, the tumour was situated above the uterus. I have failed to find records of an ovariotomy performed late in pregnancy with the tumour incarcerated in the pelvis as in the present case. It is an instructive fact that an ovarian tumour can be removed from such a difficult position, at a very late stage of pregnancy, without initiating

labour. It is a fact which I shall not hesitate to make use of in the future.

It is not difficult to estimate the danger the mother would have incurred by retaining the tumour. The early volumes of the *Transactions of the Obstetrical Society*, contain illustrative cases recorded by Berry, Playfair, Warn, Brewer, and others. Briefly summarised, the risks are these: (1) Rupture of the uterus; (2) rupture of the vagina; (3) rupture of the cyst, or subsequent suppuration, with the risk of fatal peritonitis; (4) certain death of the child from unavailing attempts of Nature, or mutilation at the hands of the accoucheur; and (5) death of the mother save in such extraordinary circumstances as the expulsion of the tumour or its contents through the vagina (natural ovariotomy). Even in these exceptional instances life was spared at the cost of awful suffering.

The successful issue of the operation in the present case is a threefold source of gratification. The mother's life is spared as well as that of the child, and the mother has been rendered capable of making useful additions to the population of Great Britain.

II.—A Cervical Dermoid.

A man, 23 years of age, was admitted under my care with a tumour of the size and shape of a Tangerine orange, situated in the neck immediately above the sternum. A small knot had been noticed in this situation many years, but latterly it had grown very quickly, and as the man was an indoor servant, and the "lump" in the neck was far from ornamental, he decided to be quit of it. (Fig. 1.) There was much speculation in regard to the character of this tumour, but on

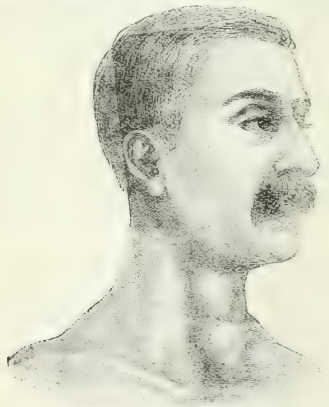


Fig. 1.—Dermoid of the neck.

closely examining I found that it could be moulded with the fingers and made to assume any shape, like so much plastic clay. This circumstance, in connection with its long history and the position of the tumour exactly in a "line of coalescence," led me to regard it as a dermoid filled with putty-like material. Its removal was a simple matter, as it lay between the skin and the deep fascia, embraced by the sternal origins of the sterno-mastoid muscles. The walls of the dermoid were very thin, and the cavity contained putty-like material and a few light-coloured hairs.

Dermoids in this situation are very unusual, and this is the only example which has come under my observation. A not uncommon position for dermoids is the middle line of the anterior wall of the thorax, at the level of the meso-sternal joint.

III.—Chondroma of a Lumbar Vertebra.

Dr. Lawrence, of Chepstow, placed under my care a man, aged 40, with a tumour in the loin. The patient had noticed a swelling in his back for two years, but it caused him no inconvenience until three months before he consulted Dr. Lawrence, when he began to suffer pain in the front of the thigh; this led him to seek advice.

I found a tumour as big as a turkey's egg projecting from the right side of the lumbar spine into the ilio-costal space; this tumour, embedded in the erector spinæ muscle, was very hard, fixed, and painless; it could not be detected by manipulation through the abdominal wall. The patient complained of pain in the thigh corresponding to the distribution of the external cutaneous and anterior crural nerves. I came to the opinion that it was in all probability a chondrifying sarcoma springing from, or involving the arches of, the upper lumbar vertebræ, and implicating the anterior divisions of the upper two or three lumbar nerves. The man was in vigorous health, the tumour of slow growth, and favourably situated for removal. I exposed the tumour by a longitudinal incision parallel with and 4 cm. from the spines of the lumbar vertebræ. The cut involved skin, lumbar fascia, and erector spinæ muscle. The tumour had a strange corymbose appearance. In the process of removal rounded, grape-like pieces became detached, several containing a central cavity filled with mucoid fluid. The base of the tumour was seated on the expanded transverse process of the second lumbar vertebra; a prominence of the tumour projected forwards through the space between the second and third lumbar vertebræ, and invaded the quadratus lumborum muscle. During the whole of this deep operation no vessel required either forceps or ligature. The incision in the muscle was united by catgut sutures, and the skin wound sutured with waxed silk, and dressed with iodoform gauze and cotton

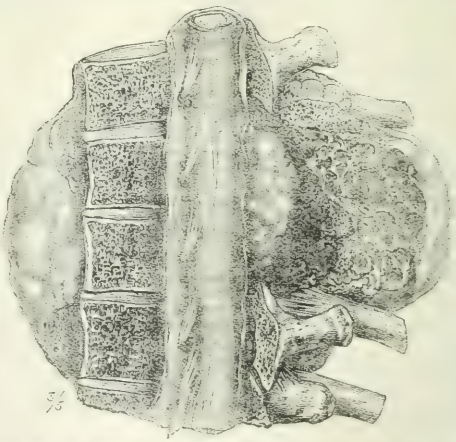


Fig. 2.—Chondroma of the lower thoracic vertebræ. An outrunner of the tumour has crept into the neural canal and compressed the cord, producing fatal paraplegia (Museum, St. Bartholomew's Hospital).

wool. In twenty-one days the patient left the hospital free from pain, and the wound soundly healed. The tumour is composed of pure and well-formed hyaline cartilage; near its base it has undergone calcification.

I have spent a large amount of time in studying oncological literature as well as tumours preserved in museums, but I can only refer you to one example which in any way resembles this. It is a remarkable specimen preserved in the Museum of St. Bartholomew's Hospital. I have had it engraved because my acquaintance with this specimen helped me very materially in deciding the probable nature of the swelling in Dr. Lawrence's patient. In the drawing (Fig. 2) you see four vertebræ in sagittal section. A chondroma occupies the outer surface of the vertebræ and a rib, whilst an outrunner from the tumour has crept through an intervertebral foramen,

spread upwards and downwards in the neural canal, compressed the cord, and produced fatal paraplegia.

IV.—Enlarged Accessory Thyroid Gland: Fatal Dyspnœa.

This case illustrates the baleful character which environment sometimes imposes on even simple tumours. A man, aged 36, was found lying upon his back in a street adjoining the hospital, apparently in a fit. When brought into the casualty room by the police he was dead. Mr. E. A. Fardon, the resident medical officer, detected in the course of the *post-mortem* examination a tumour connected with the cervical section of the windpipe, and drew my attention to it. I had no difficulty in deciding that this tumour was an enlarged accessory thyroid gland; it was embedded in a thick fibrous capsule, its inner segment being firmly fixed to the trachea in the neighbourhood of the fourth to ninth semi-rings. The tumour, including its capsule, was somewhat larger than a dove's egg (Fig. 3), but it had severely compressed the trachea, so that on section it presented at the seat of compression the form shown in Fig. 4.

The central part of the tumour exhibited under the microscope the characteristic structure of thyroid gland. The capsule consisted of dense laminæ of fibrous tissue. Had this tumour been recognised during life it could have been easily enucleated from its capsule.



Fig. 3.—An enlarged and encapsuled accessory thyroid gland. It compressed the trachea and produced fatal dyspnœa.

A curious feature of this case is the thick capsule by which this accessory gland is invested. Such capsules are not uncommon around foreign bodies—for example, fragments of glass, metal, and the like—also around parasites, such as echinococcus (hydatid) cysts, and present the peculiar laminated arrangement so markedly exhibited in the present specimen. I am at a loss to explain it. In this instance the fatal result seems to be due to this thick sheath binding the gland firmly to the trachea. The cyst on the thyrohyoid membrane (Fig. 3) is an enlarged bursa, which usually exists between the body of the hyoid bone and the thyrohyoid membrane.

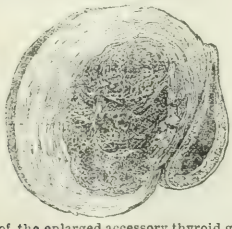


Fig. 4.—Section of the enlarged accessory thyroid gland and trachea, showing the amount of stenosis (natural size).

The following case is useful as illustrating the way in which pathological knowledge intensifies diagnostic power.

V.—Implantation Cyst of the Thumb.

This case concerns a housemaid aged 18, who sought relief on account of a hard ovoid tumour growing on the thumb in the position shown in Fig. 5. The tumour was distinctly circumscribed, firmly connected with the skin, and could be moved from side to side over the sheath of the flexor tendon.



Fig. 5.—Implantation cyst of the pulp of the thumb.

It had been slowly growing during three years, and had reached a size which caused inconvenience in using the thumb, but it had never been a source of pain. There was no difficulty in recognising it as an "implantation cyst," that is, by some accidental puncture a piece of skin had been engrafted in the subcutaneous tissue, and had grown into a tumour. After Mr. Carwardine made a sketch of the thumb, I cut the tumour away with a scalpel, and drew the cut edges of the skin together with two stitches; it was hardened, and in due course sectioned for the microscope; and, as you see for yourselves, there is a central cavity containing fluid and epithelial scales surrounded by thick walls containing all the tissues of the skin in an inverted order.

This kind of tumour was formerly described as sebaceous cyst of the finger, but a careful study of the structure and history shows conclusively that it has nothing in common with sebaceous cyst, and the mode of origin excludes it from the genus dermoid. The term "implantation cyst" is a useful one, as it enables the student without effort to remember the peculiar mode of origin of such tumours.

Implantation cysts are produced in a variety of ways: for example, punctures by awls, forks, needles, thorns, glass, etc.; wounds made by knives, teeth, or falls. Lücke, in his

article on Tumours, in Pitha and Billroth's well-known *Chirurgie*, mentions that dermoids sometimes follow injury (trauma) in early life, and as an illustration writes:

"A child, 6 years old, was seized in the right orbital region by a dog, but without actual wound of the skin; some weeks later a tumour appeared in this region, its presence had never been noticed before. It gave the characters of a dermoid."

Among my own cases I have an example of an implantation cyst in the forehead of a pretty girl, which formed in the scar of a wound, due to a blow from an angular stone, three years previously.

TETANUS ANTITOXIN: ITS PREPARATION AND PROPERTIES.

By RICHARD T. HEWLETT, M.D., M.R.C.P.,
Assistant Bacteriologist British Institute of Preventive Medicine.

A short description of the mode of preparation of tetanus antitoxin may be of interest at the present time when antitoxins and the antitoxin treatment are occupying so much attention. The work, on which the following account is based, was carried out mainly on the lines followed by Roux and Vaillard,[1] and may be divided into the following stages:

Preparation of the Toxin.

A simple method was adopted for the cultivation of the tetanus bacillus, and gave excellent results.[2] Glass flasks of a capacity of about 120 c.cm., and of the form known as "yeast flasks" were used; these have a narrow glass tube attached to the neck, for the first inch or so passing horizontally outwards and then bent downwards at right angles.

The neck of the flask is corked with a perforated rubber cork, through which a narrow glass tube passes to the bottom of the flask, projecting 2 inches above the cork. This projecting portion of the tube and also the end of the lateral tube are plugged with cotton wool, care being taken that the plugs are loose enough to allow gas to pass freely through them. The flasks are filled with a grape sugar bouillon, sterilised, and inoculated after momentarily withdrawing the rubber cork and tube. The air is expelled from the flask and replaced by hydrogen by connecting the projecting glass tube with a Kipp's hydrogen apparatus, the gas bubbles through the bouillon and escapes by the lateral tube.

After the hydrogen has been passing for half an hour, a small capsule containing mercury is applied to the free end of the lateral tube, so that its open extremity just dips beneath the surface of the mercury. The projecting end of the tube, which passes through the rubber cork, is then sealed off in the blowpipe flame. The flask is thus filled with hydrogen which cannot escape, nor can air enter on account of the mercurial valve, though if any gas be formed during the growth of the organism it can escape, while the glass flask can be used again and again. The flask, with the mercurial valve *in situ*, is placed in an incubator at 37° C. After a lapse of two days the bouillon becomes turbid, and gradually a small precipitate, consisting chiefly of bacilli and spores, falls to the bottom; a surface film never forms. The culture can be used after it has been growing for three weeks, but preferably for a month; after five weeks' growth the virulence seems to diminish. Such a culture is so toxic that after filtration $\frac{1}{15}$ c.cm. of the filtrate is sufficient to kill a guinea-pig weighing 300 to 400 g. The cultures are filtered before using, and an antiseptic is added to the filtrate to prevent subsequent putrefactive changes. At first thymol was used, but this was found to produce a slight precipitate after a time.

As I have elsewhere pointed out,[3] thymol, though an efficient antiseptic for such a purpose, is a precipitant of proteid substances, and must be used with caution when these are present. Carbolic acid was afterwards employed, one part of a 5 per cent. aqueous solution of carbolic acid being added to every nine or ten parts of the fluid culture, corresponding to an addition of about .5 per cent. of carbolic acid. This addition does not in any way modify the virulence of the filtered culture, which seems to keep indefinitely in a dark cool place; at any rate, there is no loss of activity after a lapse of four months. The mixture of carbolic acid and culture is then filtered through porous porcelain, preferably after previous filtration through paper, to remove the organisms. This can be conveniently carried out by means of a Chamberland filter, which is connected with an exhaust pump by a rubber tube, the filter "candle" being immersed in the fluid contained in a glass cylinder of suitable size. On exhausting, the fluid passes into the interior of the Chamberland filter, which, when full, is disconnected from the pump, and the clear filtrate shaken out into a stoppered bottle. The process is repeated as many times as necessary, and the fluid obtained forms the toxin which is used in the next stage—that of immunisation.

Immunisation.

In order to obtain a quantity of antitoxin the animal chosen was a horse, which was injected with the prepared toxin after the method employed by Roux and Vaillard, except that it was found necessary to proceed more cautiously. To commence with: the toxin is weakened by the addition of an equal volume of Gram's iodine solution,[4] of this mixture gradually-increasing doses are injected subcutaneously in the neck or shoulder, starting with .5 c.cm. and going up to 8 c.cm. or 10 c.cm. This took from May 2nd to June 22nd, three injections being given weekly. The next two doses were 4 c.cm. and 8 c.cm. of a mixture of 2 parts of toxin and 1 part of Gram's iodine solution. After this, commencing July 2nd, the pure toxin was injected, the dose being 1 c.cm., which was increased by degrees until 22 c.cm. were injected on July 23rd. On July 25th 4 c.cm. were injected into the jugular vein, followed by rather alarming symptoms half an hour after, the animal falling prostate, with legs extended, laboured respiration, and rapid small pulse. These symtoms, however, lasted only about ten minutes, after which the animal seemed to recover completely. On three other occasions somewhat similar attacks occurred after intravascular injections.

In spite of the apparent risk, the injections into the jugular vein were continued in gradually increasing amounts, and on August 30th the animal received a dose of 70 c.cm. without ill-effect. There was then an interval of a month without injection, and blood drawn on September 29th was found to have an antitoxic power of about 50,000.[5] This of course was not nearly sufficient, so the treatment was resumed on October 8th, when 6 c.cm. were injected into the jugular vein. The doses were rapidly pushed until November 19th, when 90 c.cm. were administered. At the beginning of December the antitoxic power of the blood serum tested on guinea-pigs was found to be about 1,000,000. The total number of injections, subcutaneous and intravascular, was 57, spread over a period of five months. It will thus be seen that the treatment was very tedious, and doubtless it might have been carried out more rapidly, but I desired to be on the safe side, as I had had the misfortune to lose my first horse. Roux and Vaillard obtained an immunity of 1,000,000 after a course of treatment lasting three months, and following their programme exactly my first horse developed tetanic symptoms after the fifth dose. I was also unable to increase the dose of toxin as rapidly as these authors seem to have done. The intravascular injection must be a risky procedure, and I question whether it is at all necessary, there being no need for it, for example, in the preparation of diphtheria antitoxin, and in another case I should certainly try to do without it. The smaller doses, up to 15 c.cm., were injected by means of a Loeffler syringe, the larger ones by an ordinary glass syringe attached to a large hypodermic needle by a short length of india-rubber tubing. The needles and syringes were disinfected with 1 in 20 carbolic solution before use, and in no instance did any trouble ensue from the puncture.

Preparation of the Antitoxin.

Allowing three or four days to elapse since the last injec-

[1] *Annales de l'Institut Pasteur*, 1893, ii, p. 64.
[2] See also *Lancet*, 1894, ii, p. 64, and *Cent. f. Bakteriologie*, xvi, p. 1074.
[3] *Proc. Physiolog. Soc.*, 1894, No. ii, p. xi.
[4] Iodine 1 part, potassium iodide 2 parts, water 300 parts.
[5] By this is meant that 1 c.cm. of the serum will protect or immunise 50,000 grammes of guinea-pig against the minimum fatal dose of tetanus toxin. An immunising power of 1,000,000 means that 1 c.cm. of the antitoxic serum will protect 1,000,000 grammes of guinea-pig against the minimum fatal dose of tetanus toxin.

tion of the toxin, the horse is bled from the jugular vein by means of a sterilised cannula, the blood being collected in sterilised vessels and allowed to coagulate. After standing for twenty-four hours the clear serum is pipetted off into sterilised vessels. This serum contains the antitoxic substance and is the antitoxin, and may be used for injection. By working aseptically there is no difficulty in collecting and keeping the serum sterile: it should, however, be stored in a dark cool place, and a little camphor may be added to it. As cases of tetanus are not common it is customary to evaporate the serum to dryness, the dry substance being more conveniently kept without change. Heat destroys the antitoxin; therefore the evaporation must be performed *in vacuo* over sulphuric acid. A series of glass dishes are arranged one above the other on a metal stand in a large and strong glass receiver, which is connected with an exhaust pump. The glass dishes contain alternately sulphuric acid and the antitoxic serum, those used for the latter having been previously sterilised and covered with pieces of sterilised filter paper. The receiver is exhausted and the serum becomes dry in three or four days. The serum yields 9 to 11 per cent. of the dried substance, which is kept in stoppered bottles in a dark cool place. For use it should be powdered finely, and dissolved in sterilised distilled water without the aid of heat.

Properties of the Antitoxin.

Experimentally, the effects of the antitoxin are little short of marvellous. Minute doses injected into animals will completely neutralise fatal doses of the tetanus toxin injected eight to twelve hours afterwards. Thus 0.0005 c.cm. of the antitoxic serum was found to be sufficient to protect a guinea-pig weighing 400 to 500 grammes from the minimum fatal dose of the tetanus toxin, which in the present instance was about 0.01 c.cm. Mixtures of the toxin with the antitoxic serum, in the proportion of 40 or 50 parts of the former to 1 of the latter, are completely inert, and 2 c.cm. of such a mixture, containing nearly 2 c.cm. of the deadly toxin may be injected into a guinea-pig without producing any effect. The antitoxin also possesses considerable curative power, but much larger doses are necessary when the disease has declared itself than when used as an immunising agent.

Treatment of Tetanus in Man.

The antitoxin treatment of tetanus would seem to be the one which gives the best hope of cure, though it can hardly be so successful as the corresponding treatment for diphtheria is reported to be. The explanation of this is that tetanus is only recognised as being tetanus at a late stage when the toxins are circulating in the blood: the disease is far advanced before it can be diagnosed. Gowers[6] estimates the mortality in traumatic tetanus at nearly 90 per cent., and in idiopathic at 50 per cent. I have been able to collect records of 42 cases of tetanus treated with antitoxin, nearly all traumatic, and of these 15 died and 27 recovered, giving a mortality of about 36 per cent. If these figures can be relied on, the result is encouraging, but the tendency is always to report successful cases only. The antitoxin must be administered by subcutaneous injection. It is difficult to state what the dose should be, for this has varied enormously in the recorded cases, from 10 c.cm. to 165 c.cm. Probably 20 c.cm. to 40 c.cm. for a first dose, followed by 10 c.cm. every six or twelve hours would be found most suitable.

Of the dry antitoxin, 1 gramme corresponds to about 10 c.cm. of serum, so that the dose of this would be 1 to 4 grammes. If reduced to an impalpable powder, it dissolves fairly readily, 1 gramme to every 5 c.cm. or 10 c.cm. of sterilised distilled water.

In conclusion, my thanks are due to Professor Crookshank, in whose laboratory part of the above work was carried out, and especially to Professor MacFadyean, Principal of the Royal Veterinary College, where the horse was kept, for kind advice and assistance during the progress of the work.

[Note.—The above work was carried out by means of a Government grant. By permission of the Grant Committee of the Royal Society, the immunised horse has been transferred to the British Institute of Preventive Medicine, and the tetanus antitoxin can be supplied on application to the Director, 101, Great Russell Street, W.C.]

[6] *Manual of Diseases of the Nervous System*, 2nd edition, 1893, p. 655.

Remarks on Chronic Renal Disease: its Frequency in Asylum Necropsies, and its Possible Connection with Alcohol as a Cause of Insanity.

By C. Hubert Bond, M.B., B.Sc.,

Pathologist and Assistant Medical Officer, London County Asylum, Banstead.

The object of this paper is: first, to endeavour to bring into greater prominence the great frequency with which renal disease is seen in asylum *post-mortem* examinations, and at the same time to attempt a comparison with the amount found in a *post-mortem* room of a general hospital; and in the second place, to inquire how far these renal changes may be regarded, as a factor in helping us more accurately to gauge the part alcoholic abuse plays in the etiology of insanity.

The report of the Commissioners in Lunacy for the year 1894 shows that during the five years 1888 to 1892 inclusive the yearly average number of admissions into the various asylums in England and Wales was 7,793 of the male sex, and 8,246 of the female sex, and that the percentage of these set down as caused by intemperance in drink was 20.5 for the former and 8.1 for the latter, or rather more than 14 per cent. of the total admissions of both sexes. The annual reports of individual asylums show a wide variation on each side of this figure. Thus, from the reports before me, the lowest percentage recorded is 5, and the highest is 30, including both sexes, while in the male sex the number sometimes goes up to over 40 per cent. It is very questionable, however, if the whole truth, or anything like it, is represented in these statistics. It so often happens that no trustworthy history of many asylum cases can at all be obtained, and these are then recorded in the table of causes as "Unknown." The number of these unknown causes is usually highest in those reports which show the lowest proportion of cases due to alcoholic excess. How many of these cases should fall under the heading of intemperance?

One of the first things that impressed me in the *post-mortem* room here was the large number of cases in which I found renal disease, chiefly in the form of interstitial changes; and it occurred to me that if they were collected and tabulated, they might perhaps be of service in the above direction.

From the literature regarding diseases of the kidney as seen in asylum necropsies, it would seem that at any rate in former years any special frequency was not noted. Thus, for instance, Bucknill and Tuke distinctly stated that the kidneys are remarkably free from disease in all forms of insanity.[1] Maudsley[2] observed that there was nothing special to be said concerning diseases of the abdominal viscera. But Dr. Howden many years ago pointed out that in the necropsies at the Montrose Asylum renal disease was frequently to be observed. More recently, especially from America, further facts have been brought forward indicating that, among asylum cases, the kidneys are much more frequently found diseased than was formerly thought; but, as far as I am aware, no attempt has been made to compare numerically the proportion found diseased in asylum *post-mortem* rooms with that in a general hospital.

The following are the results obtained from an examination into the records of the necropsies made at Banstead Asylum from April, 1893, to December, 1894. They numbered 154 (85 males and 69 females), and in 74, or 48 per cent., I found marked renal changes. These changes were visible in the males in 40 per cent., and in the females in 58 per cent. These figures are not intended to represent the entire number of instances in which the kidneys were found diseased, for in arriving at them I have excluded those cases in which there was solely a fatty, tuberculous, or waxy change, and have limited myself to the morbid conditions which might have been brought about by over-indulgence in alcohol. And thus, speaking broadly, the conditions included in my table are two—typical red granular contracted kidneys (with or

[1] In an earlier part of their *Manual* attention is drawn to the fact that alcoholic insanity was then certainly on the increase.

[2] *The Pathology of Mind.*

without cystic formation), and kidneys (large, normal, or slightly reduced in size) whose capsules are markedly adherent to the cortex (with or without some fatty change). The evidence of interstitial change has not been gathered from mere inspection of the organs only, for, with but few exceptions, the naked eye observations have been verified with the microscope.[3]

The next point to be determined is whether this proportion of 48 per cent. is above that which would be found from a similar inquiry into the *post-mortem* records of a large general hospital. This I found by no means an easy question to solve. Dr. Leith, Pathologist to the Edinburgh Royal Infirmary, writes to me that "it is extremely common to meet with minor degrees of cirrhosis in old people, and not infrequent to find granular kidneys in cases where these conditions were not suspected during life." But he was unable to give me any figures. However, owing to the kind interest Dr. Clayé Shaw has taken in the matter, I have been able to get some valuable data from St. Bartholomew's Hospital. They are especially valuable in that the district supplying patients to that hospital is included in the area whence the population of the London asylums is drawn. Dr. Herringham, the medical registrar, has been good enough to go over the *post-mortem* records there for the year 1893, and, from 422 necropsies made there during that year, he has drawn up the subjoined table:

Table I.—*Showing the Frequency and Degree of Kidney Disease found in 422 Necropsies made at St. Bartholomew's Hospital during the year 1893.*

Ages	Under 20.		30 to 39.		40 to 49.		50 to 59.		60 and above.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of cases in each sex in each age	130	98	39	20	44	17	36	11	20	7
Kidneys large, capsules adherent	6	3	3	3	6	3	1	0	0	0
Ditto, *plus* a granular surface	0	2	3	3	3	2	1	1	2	1
Ditto, *plus* diminished or diseased cortex	1	2	0	0	9	4	7	2	5	2
Kidneys small, capsules adherent, surface granular	1	0	0	0	1	1	1	2	0	0
Ditto, *plus* diminished or diseased cortex	0	1	1	7	2	2	5	4	5	2

The cases, having been primarily divided into male and female, have further been subdivided into five groups according to age. The total number of cases whose ages fell between the several age periods are stated; and below these, arranged in columns, are the number of instances in which kidney changes were noted. These changes he has divided into five, according to the degree of disease, but in each, he says, distinct signs of interstitial nephritis were present.

On summing up the latter numbers, the following figures are obtained: 23.4 per cent of the 269 male necropsies, and 30.7 per cent. of the 153 female cases showed one or other of the above renal changes; or, calculating on the totals, out of the whole 422 cases 26 per cent. presented one form or other of these kidney lesions. These percentages are contrasted with those similarly obtained from the *post-mortem* records at Banstead Asylum in the following table:

Table II.

Percentage showing Renal Disease:	St. Bartholomew's Hospital.	Banstead Asylum.
Of the male sex	23·4	40
Of the female sex	30·7	53
Of the total number of cases	26.0	48

[3] Since writing the above I notice in the *Journal of Mental Science*, January, 1895, an article by Dr. Beadles, in which he states, that in the *post-mortem* room at Colney Hatch Asylum, the kidneys show indications of chronic interstitial nephritis in as many as 70 per cent. of the cases.

In order that Dr. Herringham's cases may still further be compared with mine on parallel lines, I have arranged them in a table constructed very similarly to his. It will be observed, however, that I have not separated the kidney lesions into so many degrees; my cases being considerably less in number than his, I felt that such a procedure would be useless.

Table III.—*Showing the Frequency and Degree of Kidney Disease found in 154 Necropsies made at Banstead Asylum during 1893 and 1894.*

Ages at Death	Under 30.		30 to 39.		40 to 49.		50 to 59.		60 and above.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of necropsies in each sex in each age-period	9	3	24	15	23	13	9	14	20	24
Kidneys large or normal in size, capsules adherent, and with or without some fatty change	2	1	3	6	9	5	1	9	8	4
Granular contracted kidneys	0	0	1	0	2	3	2	2	6	10

In addition to comparing percentages for all ages combined, it was my original intention to compare those similarly calculated for each of the several age-periods; that implied that our totals, 154 and 422, would each require to be subdivided into ten groups some of which would be represented by very small numbers indeed (for instance, the number of my female cases dying under 30 was only 3); and though trustworthy deductions, I think, may fairly be drawn from our cases collectively, it was patent that to attempt the same from much smaller numbers would be fallacious. To what must we attribute the fact that at Banstead Asylum and at St. Bartholomew's Hospital, each one of the largest institutions of its class in the kingdom, the proportion of renal disease in both sexes found in the *post-mortem* room of the former does very considerably exceed—nay, nearly doubles—the same in the latter? One or more of the agents which can ultimately induce interstitial changes in the kidney must be much more actively at work among those who become insane than among the general population.

Let us for a moment recall what are usually given in text-books as the possible causes of interstitial overgrowth, whether this takes the form of the large or contracted white kidney following a tubal nephritis or of true renal cirrhosis. They are cold, scarlatina, pregnancy, and alcohol in the case of the former, and gout, chronic lead poisoning, and alcohol again as regards the latter. Cold need not detain us; everyone alike is liable to that at any time. As to scarlatina many of our cases of kidney disease, I have no doubt, owe their origin to the patient having had an attack of it earlier in life; but it has no relation to the etiology of the bulk of insanity, and therefore one fails to see how in any way it could account for our excess of renal disease over that found in a general hospital. Pregnancy, as an explanation, deserves consideration, for we see from the above tables that it is among the females this excess is chiefly noticeable; but I have carefully gone over the case-books and do not at all find that the greater proportion of kidney disease is among those who had borne children. Then as to gout and lead poisoning, both stand out prominently as frequent causes of renal cirrhosis, and a special variety of insanity has been associated with each, so they must not be lightly dismissed; but those whose occupation is in any way connected with lead form but a very minute fraction indeed of our asylum patients, except in certain isolated parts of the kingdom, certainly not in the London asylums; besides, we should surely expect to more frequently find symptoms of plumbism were this the agent to which we are to ascribe our excess of kidney disease. As regards gout, it is true a podagrous insanity has been described and is well recognised, but it is admittedly rare. However gout may, in neurotic families, acquire a special significance; it has been known to alternate with neuroses, apparently remaining latent during the time the mental phe-

nomena, which usually take the form of profound melancholia, are most acute. But of my 74 cases, where marked renal disease was ascertained *post mortem*, only 6 had shown during life any very marked degree of melancholia,[4] and, curiously, in not a single instance was I able to discover tophaceous deposits in the joints or elsewhere. And, against gout being the cause of our excessive number of diseased kidneys, we further have the fact that it is eight times more common in men than women, while, as before noted, our excess of renal disease was chiefly seen in the female sex. However, were we even to admit that much of this excess is directly brought about by gout, we must not forget that in intoxicating drinks, especially in those made from malt, we have one of the most potent factors in the production of gout.

We are thus impelled, as it were, to look to alcohol as the agent for which we are seeking. But before entering into a few final details regarding it our remarks in this connection would, I think, be incomplete without a reference to that reputed cause of Bright's disease which recently has so prominently been brought before us, namely, prolonged worry. How often it acts in this way and its *modus operandi* are speculative. It has been suggested[5] that the digestive processes become deranged, resulting in imperfectly metabolised products being thrown into the blood; but may it not possibly be that during prolonged anxiety and worry a vasomotor disturbance takes place, and the renal organs are kept in a state of greater activity than is normal, and that, as a result, hypertrophy with consecutive atrophy takes place? We all of us know how anxiety over some impending event often causes an increase in the flow of urine. However, we must not be led away into the domain of theory; and until some more extensive and repeated observations have been made upon this point it would, in my opinion, be rash indeed to attempt to explain away our excessive number of diseased kidneys upon such an hypothesis. Worry no doubt enters largely into the cause of many an example of mental breakdown; but, as a matter of fact, among the actual cases now under consideration, mental distress, as I have already said, was a prominent symptom in only a very small proportion.

As regards the power of alcohol in the production of interstitial changes in the kidney:—Fagge, in his *Textbook of Medicine*, lays special stress on it as a cause of tubal nephritis. Bright himself was strongly of this opinion, and it will be seen above from Table III that most of the kidneys showing chronic interstitial change were of such an appearance as to warrant one assuming that they had originally started with a parenchymatous lesion. When discussing the etiology of renal cirrhosis proper, though he does not speak so positively in favour of alcohol, he still again leans very strongly towards it, and points out that the general consensus of opinion of clinicians of high repute is, that it is a most powerful cause of this affection. Little is known as to the time it takes to work its disastrous results in the various organs of the body; but, while kidney disease—which at onset is mainly parenchymatous in distribution—is one of childhood and young adult life, it is rare under 35, and not frequent before 50, to find the small red kidney of renal cirrhosis. Thus, the age on admission of our cases, as well as that at death, becomes an important point to look to. We know, of course, that during their asylum residence patients have no opportunity for over-indulgence in beer or other alcoholic beverage, and therefore, should their kidneys be found diseased after death, and if alcohol be the cause of such disease, its excessive consumption must have occurred prior to their admission. And thus, if we may presume that not much excessive drinking goes on till towards the end of adolescence and onwards, it would follow that a much smaller proportion of those admitted under, say, 25 years old, would show these renal changes if they ultimately died in the asylum; and, again, since renal cirrhosis proper is a disease that usually comes on later in life, it would follow that the age on admission of those who at death show this condition would be much higher. I think it will be seen that these points are faithfully illustrated by my cases: Of the whole 154, 15 were admitted under 25 years of age, and though these mostly lived to a fairly good age, only 1 of them at death showed interstitial change in the kidney; from 25 years of age the number of cases yearly admitted, which after death showed the first form of kidney disease in Table III, steadily rose up to the age of 40, and then declined; and on reference to the clinical histories of the 26 examples of the typical red granular contracted kidney, I find that none of these had been admitted under 35 years of age, and only 1 at this age, while 16 were admitted after the age of 60.

Let us for a moment beg the question, and see to what conclusion it leads us. The following table has been compiled from the statistics appended to the last five annual reports of the four oldest London asylums.

Table IV.—*Showing the Number of Admissions into the London County Asylums during the Five Years 1889 to 1893 and the Percentages Ascribed to Intemperance in Drink.*

	Asylums	Hanwell.			Colney Hatch.			Banstead.			Cane Hill.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1889	Number of admissions	131	173	304	224	295	519	267	341	608	215	197	412
	Percentage due to intemperance in drink	21.0	15.0	18.0	12.0	5.7	10.0	12.0	6.0	8.8	28.0	9.0	19.0
1890	Number of admissions	301	288	589	465	469	874	278	379	657	313	334	647
	Percentage due to intemperance in drink	16.0	11.0	14.0	10.0	6.0	7.8	17.0	8.0	12.0	16.0	12.0	14.0
1891	Number of admissions	301	288	589	320	325	645	280	323	603	210	181	391
	Percentage due to intemperance in drink	19.0	9.0	14.7	16.0	9.0	13.0	8.0	4.0	6.0	29.0	12.0	21.7
1892	Number of admissions	246	216	462	225	343	563	239	301	540	654	705	1,359
	Percentage due to intemperance in drink	24.0	12.0	18.4	17.0	8.0	11.8	9.0	2.0	5.3	14.7	7.5	11.0
1893	Number of admissions	192	161	353	212	297	509	186	199	385	237	257	494
	Percentage due to intemperance in drink	19.2	16.7	18.0	25.4	13.4	16.5	20.4	7.0	13.0	23.6	10.1	16.6
Average percentages for the five years due to drink		19.8	12.7	16.6	16.0	8.4	11.8	13.2	5.4	9.0	22.2	10.0	16.4

By grouping a large number of figures together in this way, accidental fallacies tend to neutralise each other. Taking these five years together, the average percentage due to drink for the four asylums collectively is 13.4 (that is, combining both sexes). I find from the casebooks that in only 5 instances among my 74 examples of renal disease had drink been assigned during life as the cause of the mental disorder. If we deduct these five from the 74, our 48 per cent. of renal disease becomes reduced to 44.8; the percentage found at St. Bartholomew's Hospital, we saw, was 26, so this still leaves an excess of 18.8 per cent. to be accounted for. If we may then reasonably assume that this 18.8 represents the extra proportion of insanity due to drink revealed by *post-mortem* investigation, in order to come at the true amount, we must add to it the above figure 13.4 which, we saw, represents the percentage revealed by clinical study, and this would bring the total amount up to 32.2 per cent.

[4] Of these 74 cases, the form of mental disorder was—general paralysis in 27 per cent., senile dementia in another 27 per cent., sequential insanity accounted for 36 per cent., and epilepsy had existed in 7 per cent. Of the whole 154 necropsies, 47 had been general paralytics, 17 epileptics, 53 chronic dements, and 28 had been admitted as cases of senile insanity. I would like here to append a point of considerable interest, I think, though somewhat outside the general aim of this discussion. It is well known that, in the last stages of general paralysis and other forms of chronic brain disease, diarrhœa is not an infrequent complication, and after death an intestinal catarrh, extending sometimes to ulceration, has been observed. The same condition is also well recognised to occur in certain cases of chronic renal cirrhosis. Is not this a possible explanation of many of our examples of obstinate diarrhœa in general paralytics and others? I observe that of my 154 cases, 15 had suffered from severe diarrhœa towards the end, and in 11 of these I found very marked interstitial changes in the kidneys.

[5] British Medical Journal, November 3rd, 1894.

Thus, if our premisses have been rightly taken, this important fact is brought out—that, of the patients admitted to the London asylums, more than twice the number than is at present stated, owe their entrance, partly at any rate, to the abuse of alcohol.

THE LETHAL EFFECTS OF ELECTRICAL CURRENTS.

By H. LEWIS JONES, M.D., F.R.C.P.,
Medical Officer in Charge of the Electrical Department, St. Bartholomew's Hospital.

Since the introduction of electric lighting as an industry, fatal accidents have occurred from time to time to those employed in connection with it. These have usually been the result of contacts with conductors charged to a potential of 1,000 volts or upwards, whereby the body of the victim has become the path of a considerable current, discharging in most cases to earth, but sometimes to the other conductor of the system. In ordinary engineering practice these high voltages occur in the mains of the alternate current supply systems, where the pressures range between 1,000 and 2,500 volts. In the case of one London company, the enormous pressure of 10,000 volts is reached. Direct current at high tension also occurs in street lighting by arc lamps, where a number of these are connected in series and worked by a direct current, steady or pulsatory, at a pressure which may amount to 1,500 volts or more. These high potentials are not permitted by the Board of Trade regulations to be used in dwelling houses; and we may say at once that with the pressures (not exceeding 200 volts) which these rules allow in dwelling houses, there is no danger of fatal shocks from accidental contacts with the conductors. The high tension current supplied by the alternating supply companies does not enter the houses, but is used to excite a transformer fixed outside, from which a low tension current is led to the lamps within.

In this country it is the rule that high potential conductors shall be laid underground, consequently the persons exposed to the risk of fatal electric shocks are mainly those employed in the generating or transforming stations, those at work upon "live" high tension mains, or those engaged with "series" arc lamps, and almost all the accidents which have occurred in this country have been to persons engaged in one or other of these ways. Where high-pressure wires are allowed on poles overhead there is a chance of the wires breaking and falling down among the people in the street, and deaths have been caused to several persons abroad through incautiously meddling with such wires. The two accidents lately recorded, in which a creeping discharge along the surface of the ground has proved fatal to horses, are of peculiar interest but are not so likely to cause serious damage to human beings; still it is to be hoped that they will not often recur.

The mode in which electric shocks cause death is one of considerable interest because it underlies the questions of the prevention of such accidents and of the mode of treatment when they arise. Recently attention has been called to this question afresh by the writings of Professor d'Arsonval on the subject, which have given rise to much discussion in the technical journals and in the public press. His belief is that it is not the heart but rather the respiration which fails. He has even declared that in his opinion the criminals executed by electricity in the United States died from the effect of the *post-mortem* examination; that the shocks had only rendered them insensible, and that they might have been revived by artificial respiration.

Other writers following him have lamented the deaths of other victims of electricity which they consider might have been prevented by timely assistance. A case has even been recorded[1] in which a man was resuscitated in this way when he was apparently dead, although the artificial respiration was not commenced until three-quarters of an hour after the accident. Too ready an acceptance of d'Arsonval's theory is likely to be a source of danger by leading people to think less of the risks of electric shock, and already an American medical man is said to have offered to submit to an electrical discharge provided only that his special method of resuscitation be carried out upon him afterwards.

Against d'Arsonval's views we would note that artificial respiration has been employed in vain in some of these accidents, and that in the *post-mortem* examinations upon the American criminals the heart was not found beating—I write from memory, not having a report at hand—although the necropsy was begun immediately after the execution; in fact, the stoppage of the heart's action was taken as the sign of the patient's death.

In a case reported by Dr. J. W. Brown in the *New York Medical Record*, 1893, the victim survived the first shock, the dynamo breaking down, and he began to recover. The published account states that the current was kept on for fifty-two seconds; the man remained apparently dead for twenty seconds more, and then gasped; five seconds later no pulse could be felt at the wrist, but after thirty seconds it was felt, breathing became gradually re-established, the pulse grew stronger, and some movements of a purposive nature were performed. He was then killed by a shock from an arc lighting machine. In this case the heart and respiration were both profoundly affected. Respiration recovered first, and then the heart.

In a report by Dr. Clowes[2] of an accident in Brompton, the patient was seen five minutes after the accident. The heart and respiration had stopped: artificial respiration was performed but was of no use. In d'Arsonval's case referred to above, three quarters of an hour had elapsed before artificial respiration was begun, and it seems unlikely that respiration could have been completely arrested for so long a time and the patient not die. It is probable that the man was in a dazed or senseless condition only, and might have come round equally well without artificial respiration.

The examination of the bodies of those killed by electric shock may afford little information as to the mode of death. In one of the earliest cases[3] recorded in the medical journals, no signs of injury could be found except a small superficial burn of the thumb. It is usual to find some marks of burning at the part which has been in contact with the wire or point of entry of the current, and a careful search should always be made over the whole body for other burns at the point (point of exit) at which the current passed from the patient to the earth or to the other conductor. When the discharge has been to earth the current usually leaves the body at the feet, and these should always be examined for marks of burning, and the soles of the boots should also be looked at. When the shoes and socks are damp there may be no burn of the feet, even when a current of fatal magnitude has passed through them. The soles of the feet and the socks are almost always damp from perspiration, and the soles of the boots of working men are often full of nails: the boots, therefore, offer but little in the way of insulation resistance. The severity of the burns is to be taken rather as a measure of the duration of the contact than of the magnitude of the fatal shock, and the same may be said of the heating of the tissues which has been sometimes observed. They may be slighter in those who have been killed on the spot than in those who have escaped with their lives. When the body remains in circuit, burns of great extent may be caused by the prolonged action of the current upon it subsequent to death.

In the accounts of the necropsies mention is often made of congestions, extravasations of blood, or internal hæmorrhages; these may be the result of violent muscular tetanus caused by the shock and the rise in blood pressure associated with it; they are not themselves the cause of death. It is difficult to assign its proper value to the statement which so often crops up about the fluidity of the blood in these cases. The heart is often noted to be relaxed and empty, and this is not in accord with the theory of death from asphyxia. For electric shock to cause death a current of considerable magnitude must pass through the body and must traverse a vital part. An extremity may be completely destroyed by a current without the patient himself being killed by the shock, provided that the current does not pass through the trunk as well. It is not volts which kill, and in this lies a

[1] *Comptes Rendus*, vol. xcviii.

[2] *Lancet* of December, 1892.

[3] Sheild and Delépine, British Medical Journal, 1885, i, p. 531.

common source of error; people are said to have received so many volts, which tells one very little; whereas if we could be told what ampères or current had passed through them, the cases of shock would soon arrange themselves in order, and the magnitude of the current required to kill would be no longer a speculation.

The voltage of the source of electricity determines the magnitude of the current through the patient; but another factor, the resistance of the patient, is equally important. By the resistance of the patient is understood the resistance through the patient's body, his clothing or boots, and, in the case of a discharge to earth, of the floor on which he is standing. When protected by trustworthy and adequate resistances a man may take hold of a conductor of high potential unharmed, and in cases of accidental shock the dampness or dryness of the boots, or of the floor on which a workman stands, may easily make the difference between life and death. In general the magnitude of the current traversing the tissues can hardly be even roughly guessed at from a knowledge of the voltage of the conductor, because the resistance of the path through the patient may be of almost any magnitude; in fact, no definite answer has yet been given to the question what current is required to kill a man, though probably the minimum current is over half an ampère. The body may be traversed from hand to foot by a current large enough to cause extensive and deep burns without a necessarily fatal result. The vigour of the patient's heart is most likely an important factor in the case. Experiments on animals have been made by several observers. Dr. Tatum, of New York, published in 1890[4] some results of his experiments on dogs which are valuable. He made use both of alternating and continuous currents. The current required to kill varied with the size of the animals, and ranged from 0.1 to 1.3 of an ampère. Alternating currents seemed to be twice as fatal as continuous, but under ether this difference became much less marked; the periodicity of the alternating current seemed unimportant; the anæsthetic increased their chances of survival to a considerable extent with alternating currents, though not with continuous. The path of the current in his experiments was between the skull and the thigh. He came to the conclusion that the fatal mischief done by electrical currents to dogs is done chiefly or entirely within the actual substance of the heart.

In some experiments, carried out in the laboratory of the Royal Colleges of Physicians and Surgeons by Mr. Bokenham, which I was enabled to witness through his kindness, the current required to kill cats which were deeply anæsthetised was half an ampère, and this, which seems, comparatively speaking, an enormous current for so small an animal, proved always fatal when passed transversely through the thorax, although when passed through the skull by means of electrodes placed one on each side of the head or the upper part of the neck the animals were but slightly affected. The same difference between the susceptibility of the brain and the heart was noticed also in guinea-pigs. The currents used were continuous.

Tracings taken during the experiments (see Figs. 1 and 2)

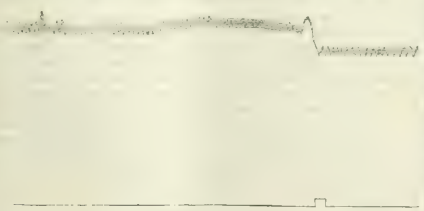


Fig. 1.—Blood-pressure tracing of cat; to be read from right to left. The first break in the base line indicates the discharge of 0.5 ampere through skull; the second rise a similar discharge through thorax.

[4] The *Electrical World*, May 10th, 1890.

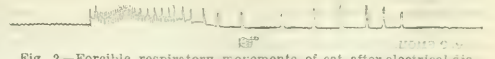


Fig. 2.—Forcible respiratory movements of cat after electrical discharge through thorax; to be read from left to right. The normal movement is shown in the first part as a finely waved line.

showed conclusively that death was caused by failure of the heart, and the negative results of shocks of equal strength through the head and neck suggest strongly that the action is upon the heart muscle rather than upon its nervous mechanisms. Experiments by Dr. Tatum on animals under atropine and with divided vagi point in the same direction. Though carefully tried, in no case could the animal be revived by artificial respiration when apparently dead. Indeed, the stoppage of the heart was always followed by a period of dyspnœa, with very forcible spontaneous respirations, due no doubt to the action of the respiratory centre, stimulated by the sudden failure of the supply of arterial blood which followed the stoppage of the heart; and it is interesting to note that a similar condition of laboured breathing has been recorded in some of the cases of accidents from electric shock. An examination of the animals' hearts showed them relaxed, with tremulous movements of the auricles and auricular appendices; by no stimulation of the exposed heart could it ever be made to beat again. These experiments show clearly that the effect of the shocks was to arrest the heart's action, while respiration was not seriously affected; nor with the animals employed, and under the conditions of the experiment, was any state observed of suspended animation or apparent death from which the animal could be restored by artificial respiration. When the shocks through the thorax were insufficient to stop the heart, its action became feeble for a time, but quickly recovered. Respiration was somewhat altered in rhythm, though not profoundly so. The results in fact are directly opposed to the views expressed by d'Arsonval. It is possible that the effect in man may be different from that in cats and in guinea-pigs, and it is not unlikely that there may be a stage on the borderland between life and death, with the patient rendered insensible, but with the heart's action not completely arrested, and, in these, artificial respiration might be of some service. Certainly it should always be tried if the patient's heart is still beating. Although the labours of d'Arsonval upon matters connected with the physiological actions of electricity entitle his views to our highest respect and attention, I cannot help believing that upon this question he may be mistaken, and I fear that death in the victims of severe electric shock is too often real, not apparent, and that they are, as a rule, quite beyond resuscitation by artificial respiration, or by any other means with which we are acquainted. In fact, it is certain that electrical discharges can kill a man as dead a doornail. The majority of the fatal accidents have been due to discharges from one conductor to earth through the body; of fifteen cases of which I have notes, ten were certainly, and some of the others were probably, of this nature. This makes it important to consider what step can be taken to protect workmen from such accidents. An obvious method is to insulate them from the ground, and it seems that this might best be done by covering the floors of all high-pressure stations and sub-stations with a thick layer of asphalte, or with insulated platforms of considerable extent, and by covering the walls as far as possible with a non-conducting lining of wood, the insulation resistance of which might be increased by impregnating it with paraffin wax, or tar or varnish. The arrangements should be such as to make it impossible for a workman to touch any high potential conductor or machine, except when he stands upon a non-conducting surface, nor should he be able to touch at the same time a high potential conductor, and any part of the building which is in electrical connection with earth. In the case of men at work through unavoidable necessity upon "live" high-pressure street mains or arc lamp circuits, it is probable that the use of india-rubber sea boots without nails would be a better protection than the rubber gloves, which have been several times found lacking; at least the use both of boots and of gloves would decrease the risk. The danger of street mains, however, is best met by permitting no work to be done upon them until they have

been cut out of circuit. When, unfortunately, an accident has happened, artificial respiration should be put in practice as soon as possible, in the hope that the injury has not been severe enough to arrest the heart permanently; and if the heart show signs of beating, however feebly, the artificial respiration must be persevered in. By the enterprise of the *Electrical Review*, a card of directions for the best method of giving first aid to victims of electric shock has been issued, and is likely soon to find a place in all central stations. It is drawn up on the lines of the well-known card of the Royal Humane Society for the restoration of the apparently drowned.

A CASE OF FUNCTIONAL DEAF-MUTISM.

By W. B. RANSOM, M.A., M.D., M.R.C.P.,
Physician to the General Hospital, Nottingham.

The following case appears to me of sufficient interest to merit publication.

A. H., aged 19, a miner, was brought on November 16th, 1894, by his father to the General Hospital with a letter from Dr. Dykes Robson, of Somercotes, to whom I am indebted for the history of the case. It appeared that three weeks earlier he had gone to bed in his usual health, but woke up in the morning unable to hear or to utter a sound. The deafness was so complete that the loudest and most sudden noises made near him were unnoticed, and he gave no sign of hearing a cannon let off close to him on November 5th. Not only had speech entirely gone, but he had not been able to make any sound at all. He could neither talk, whisper, nor utter inarticulate noise. The intellectual faculties had apparently remained intact, and he had communicated with his friends by reading and writing, in which processes he had had no difficulty. His conduct had been rational, and he had shown no signs of undue emotion or of hysteria. He had slept rather badly, and had complained of some pain in the occipital region and in the temples. The special senses had appeared normal, as had general sensation, and there had been no paresis, fits, sickness, vertigo, or tinnitus.

In regard to his past history, the father said that he had been in no way peculiar, not at all nervous or hysterical, and of average intelligence and conduct. The only important point in the history was that a year earlier he had suddenly lost the use of his right arm, which had remained paralysed for three weeks. Whether recovery was gradual or sudden was not ascertained. The patient's mother had died of paralysis of a year's duration. She was said to have lost the use of both legs, and towards the end to have become slightly demented. Death came by sudden coma. She had had several miscarriages, but no definite history of congenital syphilis could be made out in regard to the patient. When the lad walked into the out-patient room there was nothing unusual about his appearance or manner. He was well developed, of healthy aspect, and showed no signs of a neurotic or hysterical tendency. It was not till we obtained no response to questions that anything abnormal became evident. On testing hearing further I found he was obviously deaf, but when I spoke in very loud and distinct tones into either ear a simple order, such as to shut his eyes or put out his tongue, that the order was in some instances obeyed; the more sudden and peremptory the command the more chance there seemed of the responsive movement being elicited. The father thought that the deafness was not now quite so intense as at first. He could not hear a watch through air or bone. All attempts, however, to make him speak or utter any sound failed. He promptly did whatever he was told to do in writing, except this; he could not repeat a word spoken to him, or read aloud what he clearly understood or had himself written; nor did moderate pain produce any cry. A severe test of a painful nature was not then applied. He wrote in a good hand intelligent replies to written questions.

On the objective side of the nervous system things were practically normal. The movements of the eyes, face, lips, tongue, and limbs were normal; there was no stridor and no cough. There were no paresis, inco-ordination, tremors, or spasm. The gait was normal, and there was no swaying with eyes open or shut. The right knee-jerk was but slightly marked, and the left was not obtained. The pupils were a trifle large, but reacted normally.

Vision appeared normal, both as regards acuity and extent, but no exact perimetric examination was made. The fundi of the eyes were normal, except for one small pigment spot in the nasal half of the left retina. There was no cephalic or mastoid tenderness; there never had been an ear discharge, and the drums of the ears were normal, except for a little dried cerumen attached to them. The teeth were not pegged or notched, and the pharynx, lungs, abdomen, and generative organs appeared healthy. The pulse was regular, but jerky, and rather soft; the artery was not thickened. The cardiac apex was displaced half an inch outwards, but there was no other sign of disorder of the heart or aorta.

A fortnight later the patient presented himself again, the symptoms having remained unchanged. He now, however, showed also anæsthesia of the palate and loss of the palate reflex; and a sudden movement of the hand before his eyes failed to make them blink.

The diagnosis of "functional" or "hysterical" deaf-mutism being now fairly certain, the faradic current was sent through the larynx by means of an intralaryngeal electrode and one on the front of the neck. The result was a kick and a yell. He was then told that he could speak, and at once answered, "Yes, I can." The next minute he could answer questions uttered in a whisper. He went home hearing and speaking normally, after having been deaf and dumb for five weeks.

Hysterical mutism has been well described by Charcot[1], who has pointed out its existence as a clinical entity, and its differences from aphasia and aphonia of organic origin. In the third volume of his lectures are reports of twenty cases, but in only two of these was the mutism associated with deafness as in my patient.

The diagnostic points are: (1) Sudden origin; (2) existence of absolute aphasia and aphonia; (3) absence of signs of labio-glossal paralysis, and usually of any paralytic phenomena, though hysterical hemiplegia may coexist; (4) preservation of intellectual faculties and the power of writing; (5) frequent coexistence of hysterical stigmata; (6) usually rapid recovery, though it may be gradual. These characteristics distinguish the affection from simply hysterical aphonia, from aphasia due to lesions of Broca's convolutions, or from aphemia due to disease of the medulla or its nerves.

The question of diagnosis from wilful simulation is perhaps one which will impress itself upon English minds; but, as Charcot points out, the clinical picture of mutism is not such as would probably suggest itself to a malingerer, while certain of the coexistent stigmata, such as contraction of the visual fields and anæsthesia of the palate, could not be counterfeited by one ignorant of the symptoms of organic disease.

The present case is remarkable for the deafness as well as the mutism, and although the former was not absolute when the patient came to hospital, yet severe tests, such as the cannon, showed it to be real.[2]

The onset of the affection in this case was a little unusual, as there seems to have been no antecedent shock or emotion, and the patient could not say exactly when it began. All he could say, in answer to questions after his recovery, was that when he woke up in the morning he found himself unable either to hear or speak.

This case also was peculiar in presenting hardly any ordinary symptoms of hysteria. Neither his family nor Dr. Robson considered him inclined that way. Previously to the occurrence of the deaf-mutism and anæsthesia of the palate, the only evidence of a liability to functional nervous disease was the history of a temporary paralysis of the right arm.

The mode of cure is of interest inasmuch as a severe shock applied to the organ of voice not only restored speech, but hearing at the same time. The intimate association of the ideational centres is thus well illustrated. Perhaps excitation of the ears would have restored speech as well as hearing.

[1] Charcot's *Lectures*, vol. iii, Syd. Soc.

[2] It may be noted that the character of the deafness was quite unlike that of a malingerer; for he never started at the loudest noise made unexpectedly behind his back, whereas he did seem occasionally to comprehend simple orders made before his face, such orders being those that the doctor might be expected to give. A malingerer would have done exactly the reverse.

HYDRONEPHROSIS DISTENDING THE ABDOMEN; SPONTANEOUS EVACUATION, AND RECOVERY.

By GEORGE BUCHANAN, M.A., M.D, LL.D.,
Professor of Clinical Surgery in Glasgow University.

On February 6th, 1894, at the annual meeting of the Glasgow Branch of the British Medical Association, I reported a case of hydronephrosis simulating an ovarian cyst, abdominal section, and recovery. The details of that case I published in the *Glasgow Medical Journal* for March, 1894. The operation was performed on April 25th, 1893. The patient called at the Western Infirmary some months ago, where I saw her, and the other day she reported herself as still quite well.

Shortly after the foregoing case, a young man was admitted to my ward, in the Western Infirmary, with a fluctuating swelling of the abdomen. The clinical history and diagnostic signs were very similar to those of the case above referred to, which, before operation, had been assumed to be a parovarian cyst.

G. G., aged 20 [1] was admitted to the Western Infirmary on January 2nd, 1894, complaining of pain in the region of the left kidney. About five years ago he had pain in the same situation, which lasted only one day; since that time he has had similar attacks at intervals of about six months.

Present illness: About three weeks ago he had an attack like the former. A few days after the onset of the pain he noticed the abdomen getting swollen in the left lower lumbar region. There was a round globular swelling, which increased in size till it assumed its present aspect. It is fully as large as a man's head, is resistant and tense but fluctuant. It extends from the left lumbar region across the abdomen to midway between the umbilicus and the right flank. Circumference of body at umbilicus 30 inches. As the patient is subject to constipation, and there is some flatulent distension of the intestine round the tumour, he was ordered to have some soap and water enemata every two or three days, which always relieved him; but the tumour was not reduced in size—indeed, it seemed gradually to increase. The urine was more scanty than normal but varied occasionally. Judging from the history of the illness and from my experience of the former case I diagnosed it as a case of hydronephrosis, probably proceeding from a calculus impacted in the ureter, but there was no tender spot to indicate where it was located, and there never had been the acute local pain or any hæmorrhage which usually accompanies that condition. In the alternate days from the enemata I caused his abdomen to be kneaded and rubbed downwards, especially in the left lumbar region, in the hope of dislodging a calculus, if there, or undoing any twist or kink of the ureter.

January 20th. The bowels acted without enemata, but the swelling was rather increased in size.

January 29th. Aspiration was performed and 40 ounces of a clear amber-coloured liquid were drawn off. Examination of the liquid after standing: Deposit of a pinkish precipitate, consisting chiefly of altered blood corpuscles, granular and fatty, mainly non-nucleated cells. Reaction neutral, specific gravity 1005. Albumen and urea were detected. The character of the liquid was that of altered urine.

January 30th. Tumour completely gone.

February 6th. The patient was shown at the meeting of the Glasgow Branch of the British Medical Association.

February 10th. The tumour returned to almost its former size. There was no alteration in the character of the urine and no sudden acute pain to indicate the presence of a calculus.

February 19th. The swelling suddenly disappeared, 120 ounces of urine having been passed during the night.

March 6th. The patient was kept in hospital until this day, but as there was no sign of any return and he was otherwise quite well; he was dismissed—to return if the swelling reappeared.

January 17th, 1895. The patient returned to report that there had been no return, that he had been quite well, and that he had been at work ever since he left the hospital. He asserted that he had carefully observed every time he passed urine and that he had not passed any calculus. There was no trace of the former tumour nor any symptoms of disorder of kidney or ureter.

[1] From *Hospital Records*, by George Lunsden Buchanan, B.A., M.B., C.M.

A CASE ILLUSTRATING INFECTION IN SKIN DISEASES.

By ALFRED EDDOWES, M.D.Edin.,
Physician to the Western Skin Hospital, London.

A proper apprehension of the mode in which certain diseases of the skin originate and spread is of essential importance, not only in forming a correct opinion as to the pathology of the condition, but as often giving a valuable clue to the principle upon which successful treatment may be founded. It is a fact well recognised by all practitioners that many superficial diseases of the skin, which in themselves appear to be trivial, become of serious moment to the patient owing to the frequency with which they, as it is commonly said, relapse. In many cases these so-called relapses are in fact examples of reinfection. The patient, temporarily incapacitated by an acute attack of his disorder, relinquishes his work or changes his habits, thus removing himself from the source of infection, and submits to treatment. With amelioration of his disease he returns to his former occupations, is reinfected, and soon in a condition as bad as before, to which the term relapse is improperly applied. If I am right in the interpretation of the case which I am about to narrate, my patient, on resuming his usual occupation with the absence of certain necessary precautions, would almost surely have become again infected, and the disease would have appeared to present an inveterate character which in reality it does not possess.

J. P., aged 25, a student of Oriental languages, consulted me recently for an acute impetiginous affection of the hands, or, more strictly speaking, of certain digits. The affection was similar in appearance to the superficial, suppurating, and exfoliating condition which is frequently seen on the fingers of those who nurse children suffering from impetigo. As shown in the illustrations, the disease occupied the dorsal aspect of the second finger of the right hand, having commenced over the last joint. On the left hand, the index and third finger were similarly affected, and had a similar history in every respect. The thumb of the left hand was also affected near its last joint, but on a different aspect, that is, at the junction of its dorsal and palmar surfaces on the radial side. All of the patches were extending with well-defined, inflamed borders; but the severity of the inflammation generally had been greatly lessened by boric acid and vaseline, which the patient had employed for a few days without medical advice.

I was at a loss at first to account for such a remarkable distribution of lesions. The patient's history stated, as I have already said, that he was a student of Oriental languages. He had been reading in the British Museum and had copied and translated a good deal. I requested him, therefore, to assume his usual attitude when translating into Hebrew or copying from books, printed or in manuscript. He took up the position shown in the illustration, with one exception, namely, that the index finger of his left hand remained extended, though I observed that the second was his pointer. After writing for a few seconds he allowed the first finger of his left hand to bend in some degree. I then flexed it underneath as far as it would go, and asked him if that was not the usual position in which he worked. He replied that it was, and that probably he would have placed the said digit in that position had the skin not been at the time too stiff to allow free flexion without pain. After twenty-four hours' treatment the disease was so rapidly disappearing that I was obliged to colour the affected areas in order to obtain a satisfactory photograph. For this purpose I used tincture of iodine, which combines the advantages of a good remedy and a useful stain. The manner in which the pen is seen to be held is one which the patient says he frequently adopts, and finds the most convenient for writing Semitic languages, which of course read from right to left. He does not feel sure which digit was first

involved, but thinks it was the index finger of the left hand. The rest followed, probably on the same day. There was no history of any constitutional complaint or of local disease elsewhere. Whatever may have been the original source of the virus, there cannot, I think, be the least doubt that his books and papers formed the inoculating instruments, and that the portions of skin exposed to friction were vulnerable, with the exception of the pad of the second finger, which, being better protected by horny layer, consequently escaped infection. On the thumb side of the index finger can be seen a small promontory stretching out from the diseased patch; the disease has evidently spread in that direction





rather quickly. A glance at the patch on the thumb shows a similar condition and explains the cause. The digits have come together at these spots, caused friction, extra warmth, and moisture, and so supplied conditions favouring the extension of the disease. The little finger appears generally to remain flexed, and not in contact with the surface over which the hand is being passed; whereas the three joints corresponding to the foci of disease formed the three legs of a tripod, which is steady in itself, and so related to the second finger as to fix it also, and render it the best digit for pointing with. With respect to the infection of the right hand little explanation is required. The penholder, first taken hold of in the left hand, is placed between the first and second fingers of the right, and held only by the thumb and first finger rather low down near the pen. The second digit is flexed, and the back of its last joint allowed to rest upon the paper while the hand is writing and travelling from right to left.

At a meeting of the Dermatological Society of Great Britain and Ireland I have already called attention to infection of the legs, brought about by interchange of stockings from leg to leg, carrying with them diseased products, and causing the appearance of a false symmetry of eruptions on the legs or feet. In such cases lesions situated upon the backs and fronts of the legs present what may appear to be perfect symmetry, but the outside of the left leg becomes so infected as to correspond in appearance to the inside of the right, and *vice versâ*. In this way a sore on the left little toe may infect the foot of a stocking; the stocking is laid aside during the night; the micro-organisms increase in the discharges as upon an artificial cultivating medium, and next morning the infected stocking is drawn upon the other leg, with the result that a corresponding portion of the skin of the previously healthy foot (the skin over the root of the great toe) becomes inoculated. In more than one case of this kind the infection has resulted in ulceration and the production of a slough, and thus the secondary infection may be more destructive than that of the original wound. This explains a false kind of symmetry which is not uncommon upon the lower limbs, and one to which I have ventured to give the name of "stocking symmetry."

The case which I exhibited to illustrate this condition, was one which most of the dermatologists present diagnosed as a typical case of Bazin's disease. It would occupy too much space if I were to attempt to describe the case fully; suffice it therefore at present to say that the patient has remained perfectly cured to all appearance for nearly two years, and yet it is easy to discover where each lesion has been by means of the scars. A careful study of these scars alone, without any knowledge of the history of the case, would probably convince any unbiassed observer that my explanation of the distribution of the lesions was probably the correct one. The case came under my notice at the Children's Hospital, Shadwell, while I was acting as clinical assistant, and I have fortunately been able to watch its progress for some years. I am indebted to Dr. Dawson Williams for permission to show the case in the first instance, and I hope to have a further opportunity at the forthcoming International Dermatological Congress, which is to take place in London next year.

Another important instance of infection is one often seen upon the face. Commencing from the corner of the mouth or from a nostril may be observed a fan shaped area of skin infected by discharges which have escaped from the mucous membrane and travelled over the skin. Such patches or groups of efflorescence generally possess a narrow angle at the mucous orifices from which they originate, and widen out as they pass along the cheek towards the ear. Such an eruption is sometimes unilateral, or at least most marked upon the side on which the patient sleeps, not "eats," as has elsewhere been reported, obviously by an oversight.

The important practical directions which such observations suggest are: that stockings should not be interchanged if discharge is upon them, but should be laid aside at night in such a manner that next morning each stocking may be returned to the leg from which it was removed, as by that means the infected parts of the stockings are prevented from further spreading disease until a fresh pair is available.

In the second instance the mouth, throat, nose or conjunctivæ should be carefully examined, and treated if necessary to prevent further infection of the skin of the face: and the common but objectionable habit of brushing the teeth over and expectorating into the washhand basin should be discontinued, especially if the patient possess a vulnerable skin.

Most practitioners will admit that impetiginous eczema is extremely liable to recur, especially in the case of infants in arms. Such recurrences or relapses, as they are generally termed, are, I believe, not infrequently instances of reinfection from an unsuspected source. When by appropriate treatment a baby's head has been apparently cured, it is not a rare occurrence for the disease to break out with great violence upon one side of the head over the most prominent portion of the parietal bone. In one case of such recurrence I have seen a considerable slough produced at this spot on the scalp, and it seems almost certain that in that case, as in many others of less severity which I have observed, the true explanation was to be found in reinfection from the nurse's dress. Not only may the dress be soiled by discharges containing active pathogenic germs, such as the staphylococcus aureus, which can survive many months of inactivity, but the multiplication of the germs is accelerated by the extra heat and moisture produced when the head of the child rests against the mother's or the nurse's breast. Friction of the child's skin against the dress has the further effect of making the inoculation more sure and extensive. Owing to the greater extent of disease on one side of the scalp than the other it is not difficult sometimes to guess upon which arm a nurse carries her child, and, when once the source of reinfection has been discovered, to adopt the necessary precautions for the prevention of another so-called relapse, which may prove disheartening to both nurse and medical attendant and a source of great suffering to the little patient.

Instances of infection and reinfection might be multiplied indefinitely, but the above will indicate the importance which the subject possesses from the practitioner's point of view.

CONGENITAL MALFORMATION OF THE UMBILICUS.

By GEORGE HEATON, M.B.Oxon., F.R.C.S.,
Surgeon to the General Hospital, Birmingham; and to the Hospital for Sick Children.

There have lately been under my care three cases of malformation of the umbilicus which, owing to their comparative rarity and interest from a developmental point of view, have seemed to me to be worthy of record.

Case I. *Large Congenital Exomphalos: Hernia of Intestines into a Thin Membranous Sac, Composed of the Dilated Umbilical Cord: Abdominal Section: Recovery.*—R. M. was admitted into the General Hospital on August 18th, 1892, four hours after birth, on account of a large membranous protrusion at the umbilicus. The infant, a female, was in other respects quite healthy and a full term child. Protruding from the umbilicus was a membranous sac about the size of a large orange, with thin transparent walls thickened on the right side, to which the umbilical cord was attached. Coils of intestine were plainly visible through the sac, which was evidently an expansion of the umbilical cord. The intestines could not be reduced into the abdominal cavity. Chloroform was administered, the sac opened, and the neck of the umbilical aperture enlarged by a vertical incision above and below the umbilicus. Several coils of small intestine—one coil with a thin white cord attaching it to the fundus of the sac—were reduced into the abdomen. The cæcum and vermiform appendix were intimately adherent to the sac wall. As it was impossible to separate these latter, all the sac was cut away except where adherent to cæcum, and this part was reduced into the abdomen along with the intestine. The abdomen was then closed with fine silk sutures.

During that night and the whole of the following day the child vomited at frequent intervals. The vomit resembled coffee grounds. In the evening of August 19th the anus was well dilated with forceps. This gave vent to a quantity of meconium, and the child's recovery was afterwards uninterrupted. When seen a few months ago she was a strong healthy girl.

This case is an example of a deformity occasionally met with in obstetric practice. The white cord attaching a coil of small intestine to the fundus of the sac was the fibrous remains of the vitello-intestinal duct. This and the adhesion of the cæcum to the sac wall may perhaps account for the non-closure of the umbilicus.

Case II. *Umbilical Fæcal Fistula due to Persistence of the Ductus Vitello-intestinalis Opening at the Umbilicus: Death: Necropsy.*—J. Y., a puny male infant, was admitted into the Children's Hospital in October, 1894, with a large abnormal aperture at the umbilicus, through which all fæces were discharged. The history was that the infant was at birth a well-developed child. The midwife who attended the mother noticed nothing wrong with the navel, and ligatured the cord in "the usual way." Meconium and fæces passed naturally *per anum* for two days. On the fourth day some fæcal discharge was noticed at the umbilicus. This discharge from the umbilicus increased daily, while the motions passed through the natural passage rapidly grew smaller, until latterly all fæces had been discharged through the abnormal aperture.

The infant was extremely emaciated on admission. At the umbilicus was a fistula lined with mucous membrane, the edges of which were in a state of prolapse. A probe passed freely through the fistula but detected no "spur." The anus and rectum were well formed but empty. Attempts were made to induce a closure of the opening by means of an india-rubber ring, but had to be abandoned, as they produced obstinate vomiting. No motion was passed *per anum*; partially digested curds passed through the umbilical opening, and he died some ten days after admission.

At the necropsy, which was made on the following day, it was found that, situated about seven inches from the ileo-cæcal valve, was a short wide diverticulum leading from the small intestine to the umbilicus. The diverticulum had a thick muscular wall, and was lined by normal mucous membrane. The small intestine above the diverticulum was much dilated: below it, both small and large intestine were much contracted. The cæcum and appendix cæci lay free in the cavity of the true pelvis, attached to the anterior surface of the sacrum by a long mesocæcum. The ascending colon passed upwards on the left side of the spine, and then crossed over to the normal situation of the hepatic flexure.

Case III. *Muscular Walled Sac Opening at Umbilicus and Attached to the Small Intestine: Due to Imperfect Obliteration of the Vitello-intestinal Duct.*—W. B., a boy, aged 2½ years, was admitted into hospital in September, 1893, suffering from an umbilical discharge. The mother's account was that ever since birth there had been a periodic discharge of "urine from the navel." The discharge took place generally after an attack of straining or fit of crying.

On examining the navel a small fistula was discovered, into which a probe passed downwards and backwards for 3 inches. The introduction of the probe gave vent to several cubic centimetres of a clear, thin, oily, light yellow fluid, resembling urine except in its being oily to the touch. The fluid when collected was found to be slightly alkaline in reaction, highly albuminous, and contained no urea. After admission there were several discharges of this fluid. The child was anæsthetised, a probe passed into the fistulous opening, and an exploration made. The peritoneum was opened and the fistula found to lead into a muscular walled sac, attached to the umbilicus and passing downwards and backwards. It had no connection with the bladder, but was attached at its blind end by a short, slender, fibrous cord to a coil of small intestine. The sac was opened, its walls partly excised, and the remains of it stitched to the edges of the parietal peritoneum.

On October 22nd, as the remains of the sac were still discharging the same yellow oily fluid, it was again laid open. Its interior was found to be lined with mucous membrane resembling that of the small intestine. The wound rapidly granulated up, and the child left the hospital well. The fluid resembled in its reactions those ascribed to the succus entericus; and the wall of the sac resembled very closely that of the small intestine. Unfortunately no microscopic examination was made of the portion excised. From its connections, however, I have little doubt that it was developed from a portion of the vitello-intestinal duct, which had not undergone obliteration.

The three cases related above are all examples of malformations of the umbilicus due to errors in development in connection with the alimentary canal. Urinary and biliary fistulæ at the umbilicus have been recorded by various writers, but of such I have had no personal experience.

NOTE OF A CASE OF SALIVARY CALCULUS PRESENTING UNUSUAL SYMPTOMS.

By A. MARMADUKE SHEILD, M.B., F.R.C.S.,
Assistant Surgeon and Lecturer on Practical Surgery, St. George's Hospital.

On December 15th, 1894, I saw a gentleman, aged between 30 and 40, a patient of Dr. Day, who sent him to me on account of an affection of the mouth and neck. He was pale, and looked worn and ill, and stated that he had noticed a "hard lump" in the floor of the mouth for about two years, which had much increased of late, and become painful and inconvenient. The swelling in the submaxillary region had also gradually appeared, first as a small lump, then as a continually increasing and painful one. The significant statement was also made, that the lump in the neck became markedly more painful and harder after eating.

On examination, a hard elongated tumour occupied the floor of the mouth on the left side, beneath the tongue. The mucous membrane was livid, and at one spot was a fungating excrescence. Indeed, I looked upon the affection as one of typical epithelial carcinoma, which hardly needed a second glance. The mass in the neck and under the jaw was hard and fixed, the size and consistence of a small potato, indistinguishable from cancerous glandular disease. The history of the pain and swelling in the neck after eating, made me suspicious that the salivary duct was blocked, and that possibly by a calculus. The orifice of the duct was indistinguish-

able. I accordingly passed a fine needle into the swelling, and at a considerable depth plainly felt a calculus. So formidable did the case appear, that even then I could not exclude from my mind the possibility of a new growth, but I advised immediate extraction of the stone by incision. This, owing to business reasons, the patient could not accede to. I saw him from time to time, and on December 24th the mass in the floor of the mouth appeared so threatening, the fungation having markedly increased, that I determined a new growth must certainly be present. A consultation was arranged for the 27th, as to the feasibility of removing the mass in the neck and mouth. On the 25th the patient called upon me much relieved by the spontaneous escape into the mouth of a fragment of calculus, the size of half a large almond. On the few days following other portions of stone



spontaneously escaped by ulceration. Some fragments were doubtless lost. Those obtained are depicted in the accompanying plate. The specimen has been sent to the museum of the College of Surgeons, and consists largely of carbonate of lime. After the extrusion of the calculus all swelling rapidly subsided, and when I last saw this patient, with the exception of an insignificant lump in the submaxillary region, he was well.

The fungation in the floor of the mouth was on a par with exuberant granulations in connection with necrosed bone, which have so often been confounded with malignant disease. The great swelling and hardness of the submaxillary gland were doubtless due to retained secretion and inflammation, and was analogous to those cases of hardness and induration in the breast, observed when there is an obstruction to the flow of milk. A relation of this case needs no further remarks, to point out its importance, with regard to the diagnosis of affections of the floor of the mouth.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

SCARLET RASH AFTER ENEMATA.

As a well-marked instance of this condition the following case may be of interest.

K. C., an unmarried girl of 20, presented severe symptoms of gastric ulcer, and in order to procure absolute rest for the ulcer, a course of rectal feeding was advised. Preparatory to this, on October 23rd, a full soap-and-water enema was given in order to evacuate and cleanse the lower bowel. On October 24th the nutrient enemata were commenced, each consisting of 9 ounces of milk, ½-ounce of beef juice, and one egg (in all a little more than half a pint), the whole being peptonised. The enemata were administered three times daily with the hips well raised, and were retained comfortably. On the same day (October 24th) the rash appeared on the face, accompanied by an intense burning sensation; and on the morning of October 25th the rash was fully developed, and was distributed with accurate symmetry over the following regions: the forehead, the upper parts of the cheeks, the chin, the whole of the neck, the buttocks, and the upper part of the backs and fronts of the thighs. The rest of the legs, the arms, the trunk, and a patch on each cheek were free. The temperature was normal, the throat slightly red, and the tongue markedly so, having a "bare" appearance. The rash resembled a very small-whealed urticaria, becoming confluent in places, and producing a suffused and swollen condition of the skin. The rash disappeared as quickly as it had come, although the nutrient enemata were continued regularly.

The chief features of interest in the case were the accurate symmetry and the fact that the rash subsided although no interruption was made in the rectal feeding by somewhat large enemata, a circumstance which tends to bear out Dr. Suckling's view[1] that the rash is due to absorption of fæcal matter softened by the enema, as it did not recur when fluid was injected into the bowel after it was emptied of fæces.

Eton. G. E. Hale, M.B., B.C.

ACUTE GENERAL ERYTHEMA AFTER CHICKEN-POX.

The patient was a baby, 14 months old. Six months earlier he had had a severe attack of broncho-pneumonia, which left him very feeble, but from which he thoroughly recovered. He had been weaned for four weeks, his principal diet being bread and milk and crushed oats. A few days previous to my seeing him he had chicken-pox; the pocks were drying up when I saw him on January 26th. He was then suffering from an acute general erythema of the face, right side of the body, and both arms and both legs; there was marked œdema of the face (eyes and lips swollen), of the hands and feet, and scrotum; there was redness of the conjunctiva, and he was not able to bear the light; he had abundant nasal catarrh and salivation. There was no cough, but slight catarrhal sounds at the base of the right lung; the heart was normal. The bowels were slightly constipated, with rather offensively-smelling motions; he was passing an ordinary quantity of urine. There was no albumen or sugar in the small quantity which was obtained for examination. The temperature was 100.4° F., the pulse 150.

To all appearance the child seemed to have acute nephritis, but the condition of the urine, however, contraindicated this. The erythema became alternately bright and faded; when at its height the child was very irritable.

I ordered calomel gr. ij and small doses of citrate of potash, the erythema to be covered with zinc oxide ointment. Next day (January 27th) the redness had subsided slightly, but the swelling persisted. I then suggested four hot baths daily. By the evening of January 28th, after the baths, all the swelling and redness had subsided. On January 27th I noticed that the erythema, after almost fading, started afresh from urticarial centres, spreading very rapidly.

The cause of the acute attack may lie in either the weaning of the child, the attack of chicken-pox, or some erysipeloid absorption from the scabbed-pox.

Bootle. W. N. Clemmey, M.R.C.S.Eng.

MATERNAL IMPRESSIONS.

The account by Dr. H. Lewis Jones in the British Medical Journal of February 23rd of a case of the above recalls to my mind two which came under my notice. In the one the lady had been greatly interested in a story which her husband had read to her in which one of the characters was described as having a supernumerary digit. She told me that this fact became very strongly impressed on her mind, and that it often recurred to her. When the baby was born it was found to have a supernumerary and rudimentary digit on one of the hands. In the other case the lady had seen a man passing along the street leading a performing bear with a ring in its nose. The animal becoming refractory, the man pulled the rope by which he led it with such violence that the ring was, as she described it, torn through the brute's lip. She was very much impressed with the sight, and told me that she found herself very often thinking about it. When her baby was born it was found to have a slight, but quite distinct, hare-lip. None of their other children had shown any such deformities, and in both cases I inquired most particularly into the family histories, but could find nothing to account for them. Both ladies were perfectly convinced that the circumstances as above narrated were the only cause for the deformities. Like Dr. Jones, I give these cases for what they are worth, the relations between the alleged cause and effect being fairly direct.

Aberdeen. J. Jenkyns, M.D.

SCARLET FEVER DURING PREGNANCY: ABORTION: RECOVERY.

On November 23rd, 1894, I was called to the house of Mr. C., and discovered that two of his children were suffering from scarlet fever, and that the mother, who was in an advanced condition of pregnancy, was nursing them. The usual treat-

[1] British Medical Journal, 1894, i, p. 1190. See also *ibid.*, p. 1413; ii, p. 12, p. 867; *Lancet*, December 15th, 1888.

ment was adopted and precautions taken as regards the children, who made ultimately a perfect recovery. In addition I strongly advised the mother to give up the nursing, and explained to her the great danger she ran of contracting the disease, in which case I pointed out that not only would the child she was carrying die, but that her own life would be thrown into a condition of great jeopardy. She, however, refused point blank to give up the nursing, and, as I anticipated, she sickened on December 2nd; she had rash and sore throat and a temperature of 102·4° F. on December 3rd. On December 4th the temperature was 103·2°, on December 5th 103·6°. She aborted at 7 P.M. on this day. The fœtus (about end of seventh month) lived three hours. On December 6th the tongue was moist, the temperature 102°; the patient was rather prostrate. On December 7th the temperature was 101.2°, and she was feeling better. On December 8th there was slight lochial discharge but it was not offensive; the temperature was 100.4°. On December 9th the temperature was normal; there were evidences of profuse desquamation, and the condition of the patient was much more satisfactory. There was no rise of temperature after this date, and she made an uninterrupted recovery.

Great Crosby. EDWARD BUXTON, M.R.C.P.Edin.

ACUTE INTESTINAL OBSTRUCTION FROM GALL STONES.

SOME months ago I was called to a woman, aged 62, suffering from sickness and intense pain in the region of the gall bladder; she stated that she had had attacks similar to the present for some years and that her former medical attendant had treated her for gall stones. I inquired for previous symptoms, but she did not think that she had ever been jaundiced and was doubtful as to whether her urine had ever been dark coloured. Next day she was better and I did not see her again for two months, when she was suffering in the same manner; this time, however, she did not get relief until I resorted to morphine injection. About the fourth day the pain became more general but seemed to be less severe; vomiting, which had been occasional, became continuous; she rapidly grew worse, and died the following evening.

At the *post-mortem* examination a large gall stone (1½ inch by 1 inch) was found in the duodeno-jejunal flexure, the gall bladder was indistinguishable, the duodenum being adherent to the liver.

REMARKS.—Intestinal obstruction being the subject of discussion at the meeting of the Royal Medical and Chirurgical Society on January 22nd, I mention this case as an interesting one on account of the impaction being so high up: this was due to the longitudinal axis of the stone being in the transverse axis of the gut. Constipation was marked throughout.

Starbeck. JACKSON A. ATKINSON, M.R.C.S., L.R.C.P.

COMPLETE DEAFNESS FOR TWENTY-FOUR YEARS FROM EUSTACHIAN CLOSURE: PERFECT RECOVERY AFTER A COURSE OF POLITZERATION.

K. N., aged 35, is said to have been quite deaf since she was 9 years of age. Her friends considered her case hopeless.

When first seen, a note was taken: "Hears nothing at either meatus, probable closure of Eustachian tubes. Ordered Politzeration daily." In one week she heard, at ½-inch, a feebly ticking watch; in three weeks, at 3 inches; and now, after three months, the hearing is normal.

The case is recorded as remarkable for the extent of the recovery after so long a period of deafness, and to encourage tentative treatment in apparently confirmed cases of deafness. An interesting feature in the case is the mental development, which has been most marked since hearing has been established.

Before treatment, K. N. was a good lip reader, and could make use of a limited number of words. Now, after restoration of the hearing, she has to learn the alphabet of sound. At first she could not understand aural conversation at all, but now she understands a good many words when spoken slowly. Her education had been terribly neglected.

F. FAULDER WHITE, F.R.C.S.,
Surgeon to the Coventry Hospital, and to the Department for Diseases of the Ear and Throat.

8

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL INFIRMARY, GLASGOW.

SYPHILIS A FACTOR IN THE ETIOLOGY OF ACUTE ATAXIC PARAPLEGIA.

(By G. SCOTT MACGREGOR, M.B., Physician to the Glasgow Hospital for Diseases of Women; Clinical Medical Tutor to Queen Margaret College, Glasgow.)

IN view of the interesting case reported by Dr. Trevelyan in the BRITISH MEDICAL JOURNAL of January 5th, under the heading "An Unusual Form of Ataxia," and of the comment by Dr. Dawson Williams in the succeeding number of the JOURNAL, the following case, which came under my observation a few months ago, is of the highest interest. The patient was an inmate of one of Dr. Wallace Anderson's wards in the Glasgow Royal Infirmary.

Mrs. O., aged 42 years, was admitted on April 3rd, 1894, complaining of inability to sit up or move her lower limbs. She stated that on March 30th, 1894, she was in the enjoyment of her usual health, and that while sitting mending shirts during the middle of the day she was suddenly seized with a feeling of numbness in her lower extremities. She, nevertheless, was able to get up and go into another room for mustard oil, with which she rubbed her limbs. This was followed immediately by considerable relief to her symptoms. On resuming her work she was again suddenly made aware of a peculiar pricking sensation and numbness creeping over her lower limbs, accompanied by pain and weakness in the small of the back. She now for the first time discovered that she was quite unable to move her lower limbs, and had to be lifted into bed.

On admission four days later she presented the following signs and symptoms:—Her face wore an anxious expression, while her complexion was of a somewhat sallow colour. There were marked nervous twitchings of the face, more especially the eyelids, and restless movements of the arms. At the same time she had no severe pain, with the exception of a slight twinge about the small of the back, which shot round towards the bottom of the abdomen. The pulse rate was 140 per minute, while the temperature was 102° F. There was loss of control of both sphincters, also loss of motor power of the lower limbs, while sensation in the affected parts was normal. There was complete absence of the knee-jerk, nor was ankle clonus present. There was no cramp in the legs, no anæsthesia, no analgesia. She could quite readily localise tactile impressions; any girdle pain was very slight; the sponge test was negative; there was no flaccidity nor atrophy of the muscles of the lower limbs. There was evidently some vasomotor disturbance present, as was seen by the marked ecchymoses on both heels. It may be added that meanwhile the temperature was sometimes reaching as high as 104° F., with respirations occasionally 50 per minute, and a pulse rate of 150 per minute, while occasionally a hectic flush might be seen on both cheeks. The tongue was rather glazed and dry. Physical examination of the chest revealed nothing of a special character; there were only some loud sonorous *râles* heard over both lungs at various points.

From April 3rd, the date of her admission to the hospital, the above symptoms and signs remained virtually unaltered until April 10th, when she suddenly presented a marked change. The still more frequent respirations, the commencing irregularity of the heart beat, and the falling temperature, all betokened an increasing exhaustion. She soon passed into a state of complete unconsciousness, and, gradually sinking, died on the morning of April 13th. It need only be added that the temperature continued to fall steadily from April 10th until within four hours of her death, when it registered 96.2°. The urine was found to present the following characters—reaction alkaline, ammoniacal odour; mucous, pus, and albumen present.

The result of the *post-mortem* examination was as follows:

The body was that of a well developed woman, not much emaciated. On laying open the spinal canal, the dura mater presented quite a healthy appearance, but on reflecting this, the soft membranes were found to be unusually adherent to it, and likewise to the cord beneath, and they were also seen to be infiltrated with a white fibrinous deposit. There did not appear to be much increase of vascularity, and the cord appeared quite natural in density and colour. It was put in Müller's fluid for further microscopical examination. The heart and lungs presented quite healthy appearances, except that the heart had a much greater amount of fat on it than was usual. The liver had several nodules in connection with its capsule, both on its upper and lower aspect, having the appearances of cicatrices, and on section these presented all the characters of syphilitic gummata, and on subsequent examination under the microscope, proved to be undoubted gummata. The spleen and intestines presented healthy appearances. The mucous membrane of the bladder was very vascular and thickened, the ureters were slightly distended but did not appear inflamed, and contained nothing abnormal. The pelvis of the left kidney was also somewhat dilated, and its mucous membrane appeared very vascular. The cortices of the kidney appeared somewhat atrophied, but pale, and evidently had been the seat of a parenchymatous nephritis: the capsule was adherent and left a roughened surface on being detached. Time would not permit the pathologist to open the skull.

On July 6th, 1894, I examined, along with Dr. Workman, sections of the lower dorsal region of the cord; it had previously been embedded in celloidin, cut, and stained with carmine. The various sections showed the following changes under the high power of the microscope; the vessels of the cord were large, and injected with red blood corpuscles. The soft membranes surrounding the cord showed a fibrinous infiltration otherwise the sections presented a perfectly normal appearance.

REMARKS.—The interest of this case undoubtedly lies in the discovery of the gummatous tumours in the liver. We have no data which will indicate definitely the duration of the syphilis. What we have, on the one hand, is the undoubted gummata; on the other hand, a most acute ataxic paraplegia, surely a case of the explosive form of spinal syphilis, if such a thing occurs at all. Considering the obscure nature of the affection, as to whether it is even of a centric origin or a peripheral neuritis, I would simply reiterate the salient points of the *post-mortem* examination. There is the fibrinous lepto-meningitis, confined to the dorsal portion of the cord, and not of sufficient amount to warrant one in saying that the symptoms of acute paraplegia were due to pressure in the cord. Then the microscopical appearances showed that no changes of a sclerotic nature had as yet taken place, the vessels, however, showing a condition of much enlargement, with congestion of the red blood corpuscles. Obscure as the process may be, are we not bound to conclude that the immediate source of the poison are the gummata referred to; that this poison finds a new *locus* in the membranes of the spinal cord, for a short time runs a comparatively latent course, and then suddenly assumes a virulence incompatible with the continuance of life?

THE CANCER HOSPITAL, BROMPTON.

URETERAL FISTULA FOLLOWING VAGINAL HYSTERECTOMY FOR CANCER: CAUTERISATION: RECOVERY.

(Under the care of Dr. HERBERT SNOW.)

E. R., aged 33, married, seven children, was admitted on October 22nd, 1894. She was a rather stout, originally robust, young woman, with cervical cancer dating from a confinement six months previously, since which there had been continuous hæmorrhage, with fœtid discharge. The portio vaginalis was much eroded, especially the posterior lip; the whole being converted into a hard tuberous mass, bleeding copiously when touched. Subinvolution of the uterus coexisted. Supravaginal amputation was attempted, but it was found impossible to remove a sufficient margin of mucous membrane around the lesion without freely opening Douglas's pouch; and the whole organ was accordingly extirpated. Silk ligatures were, unfortunately, used, and the vagina plugged with iodoform gauze—removed in forty eight hours. The malignancy of the disease was amply proved by microscopic examination. Recovery was uninterrupted, the morning temperature being normal on the tenth day. On December 10th, however, urine was found to pass *per vaginam*. On digital examination a hard granular body was found loose at the upper extremity of the canal. This was a silk knot encrusted by lime salts. On the 24th, under anæsthesia, the site of the fistula was freely cauterised with Paquelin's instrument. For the next five days there was occasional urinary discharge from the vagina; the flow then entirely ceased. The patient went home well on January 5th, 1895, and continues in good health.

REMARKS BY DR HERBERT SNOW.—This case illustrates a rather common sequence—with the appropriate treatment—to a now frequent operation. However one may seek by traction of the cervix to guard against that accident, inclusion of a ureter in the ligatures must, perforce, sometimes happen; but, provided the obstruction cease within a few weeks, no harm whatever accrues. Hence an absorbent material, such as sulpho-chromic gut, is infinitely preferable to silk for the operation in question. No advantage is gained by complete hysterectomy in cervical carcinoma provided that a sufficient margin around the dissected area can be removed by extraperitoneal amputation—a condition, as in the above instance, not always procurable.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. PICKERING PICK, F.R.C.S., Vice-President, in the Chair.

Tuesday, February 26th, 1895.

AFFECTIONS OF THE NERVOUS SYSTEM OCCURRING IN THE EARLY (SECONDARY) STAGES OF SYPHILIS.

A DISCUSSION on this subject was opened by Mr. JONATHAN HUTCHINSON (President), who said that the term "early" was designed to comprise the first two years. Attention was asked to the following topics: 1. The general differences between affections of the nervous system in late and in early stages of syphilis. 2. The state of general diminution of sensation which has been alleged (Fournier) to attend the exanthem stage of syphilis. 3. Certain rare cases of general paresis of both motion and sensation which are met with in secondary syphilis, and from which complete recovery may take place. 4. The early occurrence of arterial disease which may influence the nervous system secondarily: (*a*) in reference to the brain, (*b*) in reference to the spinal cord. 5. A group of not very infrequent cases, in which a rapidly developed form of paraplegia occurs early in syphilis, and from which, although it may be for a time almost complete, partial recovery usually takes place. 6. The occasional occurrence of paralysis of single nerves (unsymmetrically). 7. The influence of syphilis in producing recurring herpes. 8. The parallelism between certain affections of the brain and spinal cord in secondary syphilis with acute inflammation of the eye and ear occurring in the same stage. 9. The parallelism between these syphilitic affections of the nervous system and those of somewhat similar character which have been observed after the acute exanthemata. The facts which had been brought forward seemed to him to justify the following conclusions, which he offered as the basis for discussion: 1. The nervous system may suffer in very various ways during the secondary period of syphilis, and it is very important to recognise this fact, since the affections are usually acute and destructive unless prompt treatment be adopted. 2. It is very exceptional that any disease of the nervous system occurs earlier than the sixth month. 3. Many, perhaps most, of the affections of the nervous system in the secondary period are secondary to disease of the blood vessels. Under this head we may be permitted to include extensive implications of the minute arteries of the pia mater, whether of the brain or cord. 4. Amongst the diseases which are probably primarily of the nerve structures themselves we may recognise (1) acute affections of the eye and ear, of the latter sometimes attended by paralysis of the portio dura; (2) acute forms of polyneuritis, usually symmetrical and transitory; (3) a peculiar and very definite form of paraplegia due to transverse myel-

itis; (4) certain rare and peculiar forms of hemianæsthesia. 5. It is not disputed that at much later periods in the course of syphilis affections closely similar to the above may occur, but it is believed that when they do so they are much slower in onset, less severe and more chronic in progress, and less amenable to specific treatment. 6. The prognosis of these affections is good up to a certain point if efficient treatment be commenced early. 7. It is believed that these early affections of the nervous system in syphilis occur almost invariably to those in whom the treatment in the early stages of the disease has been more or less neglected.

Dr. Gowers said that as regarded the effect upon the nervous system he knew nothing practically of the distinction between secondary and tertiary syphilis. Syphilis affected the nervous system in various ways. First, there was the effect of syphilis upon the arteries. This was, as far as we could be sure, confined to the cerebral arteries, and, except for one or two cases, to the larger cerebral arteries. It might occur at any time between the first year and the twenty-fifth year after the chancre, though usually before the seventh or eighth year, and whenever it occurred it was exactly the same in appearance. Secondly, there were gummata. These were found at about the same period of the syphilis as the arterial lesions, but were probably much less common. They always arose from the meninges, and might be traced to the cerebral meninges, even when they seemed to be situated within the brain substance. These included the small gummatous growths upon the cranial nerves. After speaking of the inflammations of the membranes and nerves, he referred to the causal relation between tabes dorsalis and syphilis. In order to obtain a real grasp of syphilis, we must regard it as an organismal disease, and, arguing on the analogy of the diphtheritic organism, whose effects had been so ably worked out by Sidney Martin, he was inclined to think that tabes was due, like diphtheritic paralysis, which sometimes closely resembled it, to some chemical result of the syphilitic organism. But other lesions did occur in syphilitic subjects which might be due to syphilis. One such was simple acute meningitis, another was transverse myelitis. These, as he had said, might be due to syphilis, but we did not know it for certain. Nor could cure under mercury be used as a proof of their specific nature. It was certain that syphilis had two effects, the one inflammation, the other the production of a peculiar tissue, the gummatous. These two varied in amount, some lesions being almost wholly gummatous, others very largely inflammatory. He saw no reason why some again should not be wholly inflammatory; the inflammatory part of the process in each case was indistinguishable from ordinary simple inflammation. Now, there was no question that ordinary simple inflammation was greatly influenced by mercury, and, therefore, to argue from the effect of mercury that any given inflammation was syphilitic was unjustifiable. He had found it impossible to draw a distinction between cases of transverse myelitis, probably syphilitic, and similar cases in which syphilis could with certainty be excluded: yet, though he had no certain knowledge, he thought it probable that syphilis did cause such cases. How it acted he did not know. So far as his knowledge went there was no proof, but he had mentioned fifteen years ago the suspicion that it might be through disease of the spinal arteries. He must demur also to the opinion that by the effect of mercury we could draw a distinction between secondary and tertiary syphilis. One case of syphilitic cellulitis in the tissues of the neck which had occurred fifteen years after infection, and which might therefore be reckoned tertiary, though unaffected by iodide of potassium, had yielded rapidly to mercury. In many cases iodide of potassium produced great effect for a time, but after two or three months' continuous use it ceased to prevent the fresh development of the syphilitic processes that it first arrested.

On the motion of Sir W. Broadbent, the discussion was adjourned to the next meeting.

At an examination for inspector of nuisances, held at Bristol by the Sanitary Institute on February 15th and 16th, 16 candidates presented themselves, of whom 10 were successful.

MEDICAL SOCIETY OF LONDON.

Frederick Treves, F.R.C.S., Vice-President, in the Chair.

Monday, February 25th, 1895.

Cases of Liver and Gall Stone Surgery.

Mr. Malcolm related in detail all the cases of liver and gall stone surgery that had come under his care. Case I was one in which he failed to make out exactly the nature of the disease on exploration, and this case was illustrated by one in which no operation was performed, but malignant disease was diagnosed, and verified by *post-mortem* examination. Case II was one in which by exploration he found malignant disease of the lower surface of the liver. Case III was one in which he had performed ovariotomy, and found malignant disease of the pancreas and duodenum, causing obstruction of the common bile duct. In each of these three cases the patient had died of the natural progress of these diseases; the surgical treatment could not be said to have hastened the fatal termination. Case IV was one in which he had operated three times for numerous hydatids of the liver and subperitoneal tissue and connective tissue—on February 17th, 1891, December 2nd, 1892, and March 12th, 1894, the patient having borne a child between the second and third operations. Recently she was reported to have shown signs of the development of another cyst. Case V was that of a child aged 5½, from whose liver he had removed two hydatid cysts. Case VI, a case in which he had removed 789 stones from the gall bladder. Case VII, in which Mr. Doran had opened an abscess over the gall duct in November, 1893. Mr. Malcolm extracted 134 stones on December 2nd, 1893, and Mr. Doran extracted three more stones on May 26th, 1894, after which the wound healed. Case VIII, a case in which he removed four stones from the gall bladder, cystic duct, hepatic duct, and common bile duct. The last five patients all recovered, and were alive. He insisted on the difficulties of diagnosis and of the manipulations involved, and upon the necessity of operating whenever gall stones caused serious trouble. He pointed out that in liver surgery the dangers of septicæmia and of irritation and obstruction of the intestines could usually be avoided, and that the disposition of the colon and its mesentery facilitated drainage. He declared his agreement with the opinion expressed by König that the duration of an operation was not so important in causing shock as the nature of the manipulations performed. He suggested the following points for discussion: (1) The signs which could be relied upon to enable surgeons to distinguish between gall stones and cancer of the liver; (2) the possibility of gall stones being overlooked in the ducts, and the possibility of their collecting in the ducts within the liver substance, and rapidly descending after other stones had been cleared out of the gall bladder or liver ducts; (3) the length of time after operation at which a patient might be considered safe from a further development of hydatids; (4) the fact that in the third operation in the fourth case there were removed a number of hydatids, in which the daughter cysts were shrivelled up as if dead, although the tumours had been growing very recently, and had shown no signs of diminution in size immediately before the operation.

Mr. Alban Doran raised the question as to how long it took for gall stones to form, because the stone he had removed might have been formed subsequently to the author's operation; or on the other hand, it might have escaped observation in the hepatic duct or in the liver ducts. The stone in question presented facets which would have to be accounted for. He asked whether, in view of the uncertainty on this point, it was good practice to remove the gall bladder.

Mr. Arbuthnot Lane thought that the diagnosis in these cases was easy and the surgical results excellent, provided of course that delay in advising operation had not allowed the patient to lapse into a condition past hope. He related several cases—unsuccessful cases—from his own experience in illustration of the difficulties connected with this department of surgery.

Mr. Henry Morris observed that cases of multiple hydatid cysts were very unfavourable for the surgeon who undertook to operate upon them, and he alluded to a case in which one large cyst had been made the subject of a clinical lecture as being a typical instance of ovarian dropsy. He suggested

that the rapidity with which gall stones formed was probably influenced by the cells from the walls of the gall bladder or ducts undergoing cholesterin degeneration. Anything that interfered with the formation of those constituents of bile which were solvents of cholesterin, or any disproportion in the amount of cholesterin to be dealt with, would necessarily influence the formation of such concretions. He referred to a case in which he had removed fifty-nine stones from the gall bladder of a lady, and had satisfied himself that none were left behind. Yet a year or two later he had removed eleven more stones, after which the sinus healed. He pointed out that facets might result from churning of the freshly formed calculi without necessarily involving the action of the other stones in the gall bladder or ducts. He thought that Mr. Lane had depicted the success attending surgical intervention in such cases rather too much *couleur de rose*, but he admitted that when the gall bladder was distinctly dropsical, when there was no jaundice and stones could be made out in the gall bladder or cystic duct, then the best results might be anticipated.

Mr. GODLEE referred to a case of an obscure tumour in the lumbar region which had been variously diagnosed to be a tumour of the kidney and the intestines, etc. On cutting down on the tumour he had come across adhesions of the transverse colon to the liver, on breaking down which he discovered two hard masses, one in the gall bladder and one in connection with the liver. He concluded that it was malignant, and gave a gloomy prognosis, but some time later the woman passed a large gall stone, and the tumour disappeared.

Mr. MALCOLM, in reply, said his impression was that he must have overlooked the stone subsequently removed by Mr. Doran, which might possibly have been pushed up into the liver substance, as appeared to have been the case in one instance referred to by Mr. Lane. He did not think Mr. Lane had proved his contention that these operations were easy.

A CASE OF MICROCEPHALUS TREATED BY LINEAR CRANIECTOMY.

Dr. WALLIS ORD and Mr. COTTERELL related the case of a female child, aged 19 months, who was first seen by Dr. Ord on July 28th, 1893. The child was born at term; there was no difficulty at birth, and no instruments were used. She was a healthy and well-nourished infant until 13 months old, when she was stated to have had influenza, which was followed by "gastric fever." At 16 months of age she was suddenly seized with fits, which appeared from the description to have been general convulsions, marked by an extreme degree of opisthotonos. She is said to have had sixty fits in five days. After the fits passed off the child began to waste, and lost power in her limbs. She also ceased to notice what was going on around her. When first seen the child was very feeble and was quite unable to maintain a sitting posture for more than a moment. There was a reversal of the normal relations of size between the face and the skull. There was no trace of fontanelles, and the child was dull and apathetic, though easily roused by loud sounds. She did not seem to be aware of the approach of anyone by sight alone, unless some noise was heard made, but nothing could be discovered in the condition of the fundus to account for the apparent loss of sight, which was attributed to a weakness of the power of perception analogous to the weakness observed elsewhere in the body. It was decided to try linear craniectomy, and Mr. Cotterell performed the operation in sections, removing portions of bone on August 9th, 23rd, and September 4th and 13th. Improvement was noticed after the second operation, and was maintained until she became like an ordinary child, running and walking about and with every indication of very good eyesight. The bones of the skull were found to be much thinner than normal, and there was often little or no diploë to be found. On removal of the pieces of bone the dura mater usually bulged into the groove. The great thing in these operations was to avoid hyperpyrexia and shock. The former might usually be averted by only taking away a small piece of bone at each sitting, and by taking care not to bruise the subjacent brain substance. In addition to the foregoing precautions shock might also be minimised by applying an improvised Esmarch's bandage to prevent hæmorrhage.

Dr. SHUTTLEWORTH said he had had under his observation two or three cases of microcephalus, the patients being idiots, who had not benefited in the slightest by the operation. He agreed, however, that the operation could no longer be classed in the category of operations described by Jacobi at Rome as "the rash feats of indiscriminating surgery;" for in some of the cases at any rate there was evidently something more than congenital microcephalus. He pointed out that, as usually grouped, microcephalus was a term only applied to children with a head circumference not exceeding 18 inches. In this case, however, though the circumference was upwards of 19 inches, the absence of all softening about the fontanelles pointed to premature ossification, and that was the point upon which the desirability or otherwise of operative interference must be decided. In reference to his own cases they were all examples of congenital microcephalus in which no one would *a priori* expect any benefit to follow the operation. In such cases there was evidently an arrest of development of the brain at the fifth or sixth month of intrauterine life, and the skull was consequently small. In such cases, therefore, it was not right to say that there was premature synostosis. He referred in conclusion to a case in examining the skull of which Professor Cunningham had observed that at the age of 29 the bony sutures were not yet fully synostosed.

Mr. ARBUTHNOT LANE asked whether the author's case could be correctly described as one of microcephalus.

Dr. ORD, in reply, said the case had been considered to be one of microcephalus by his colleagues. There was no evidence of tumour or tuberculous disease within the cavity of the skull, and the child did not seem to be in the pain one would have anticipated had there been any tumour or meningeal trouble. It was operated upon on the assumption of its being a case of premature synostosis. He admitted that it was not an extreme case, such as those described by Dr. Shuttleworth, not one, in fact, in which there was primary atrophy of the brain, but one in which the primary mischief was in the bones of the skull.

LARYNGOLOGICAL SOCIETY OF LONDON.

FELIX SEMON, M.D., F.R.C.P., President, in the Chair.

Wednesday, February 13th, 1895.

CASES AND SPECIMENS.

THE PRESIDENT asked the opinion of the members on the following case: J. F., aged 55, complained of hoarseness, which commenced fourteen days before with slight cough, with dryness and tickling sensation in the throat; expectoration scanty; no blood; family history good; no syphilitic history; fauces and pharynx congested; posterior pharyngeal wall granular with distended veins and adherent secretion; and considerable general congestion of larynx and swelling of the ventricular bands. Six weeks later some ulceration of both vocal cords was seen. Put on iodide of potassium. In the course of the next three months ulceration spread to interarytenoid commissure, and to the posterior end of the right ventricular band. Resonance was now impaired on both sides of the chest. A few harsh *râles* at right apex, rather more numerous at left; no loss of flesh; night sweats or hæmoptysis; no tubercle bacilli found in sputum. The case was discussed by DRS. CRESSWELL BABER, DUNDAS GRANT, PERCY KIDD, SYMONDS, and HILL, the majority regarding the disease as of a tuberculous nature.—Pathological specimens of Adenoid Growths and of Perforation of the Nasal Septum were exhibited by Dr. KANTHACK, who pointed out that the growths were not in the usual position but on the walls of the naso-pharynx and around Luschka's tonsil. DRS. CRESSWELL BABER and DUNDAS GRANT discussed the specimen of adenoid growth. DRS. BALL, DUNDAS GRANT, TILLEY, LAW, and SCANES SPICER considered the septal perforation due to simple ulceration.—A case illustrating various Morbid Conditions of the Nose and Ear was shown by Dr. ED. LAW. Examination showed a general catarrhal condition of the upper air passages; deflected nasal septum; a papillomatous-looking growth from the anterior third of the left inferior turbinate bone; extensive polypoid proliferation of the left middle turbinate; enlarged Luschka's tonsil; perforation and cicatrices of both drumheads. Dr. PEGLER, Mr. STEWART, Dr. CRESSWELL BABER Mr. SANTI, Dr. HILL and Dr. SCANES SPICER discussed the nature of the growth.—

Mr. Parker showed a case of Laryngeal Stenosis probably due to lupus. The patient, a girl aged 16 had suffered from hoarseness and loss of voice, off and on, for a year and eight months.—Dr. Scanes Spicer showed a case of Anterior Nasal Stenosis from cicatricial contraction after ulceration, consecutive to laryngitis, in a monthly nurse, ascribed to "blood poisoning" contracted two years previously. Mr. Stewart, Dr. Rees, Mr. Symonds, and the President discussed the case.—A case of Paralysis of the Left Vocal Cord was shown by Mr. Charters Symonds. The patient, a butcher, had resided in California up to October, 1894. Whilst still there, he woke up one morning with voice altered to its present condition: no joint pains, though he says he had had rheumatism. No history of injury, debauch, or syphilis. No dysphagia; but cannot drink large gulps of anything; is obliged to sip his fluids. When first seen on January 25th, mucous membrane of larynx was healthy. The left cord was healthy, but immovably fixed in the middle line. The voice is gruff, but loud and fairly strong. No evidence of perichondritis or intrathoracic disease. Mr. Rees thought the case was one of simple rheumatic paralysis from cold. Dr. Scanes Spicer considered the paralysis due to intrathoracic trouble, as there was no abnormality in the larynx.—A case of Paralysis of the Left Vocal Cord after injury was shown by Mr. Symonds. Patient at the beginning of January was looking after a steam elevator which was above him. Whilst speaking to someone below it came down upon him, crushing him severely about the upper part of the chest; does not think his neck was hurt. Immediately on recovery found his voice had disappeared; no haemorrhage, pain, or dysphagia, no history of syphilis, phthisis, or rheumatism. Left cord red, and fixed on phonation not quite in the middle line; the arytenoid did not move at all; right cord normal; no sign of external injury; chest normal. On January 25th the left cord had approached the middle line and was immovable; some dysphagia the last ten days; the larynx remained the same; patient spoke in a whisper but could copy a low laryngeal note: the aphonia appeared to be neurotic. Mr. Symonds was disposed to think the paralysis existed before the injury. The President thought that as the cord had altered its position it was probably due to the injury, but it was difficult to say; the aphonia was undoubtedly neurotic.—A case of Pachydermia Laryngis. Mr. Symonds again showed the case of Mr. H., which had been before the Society on two or three occasions. The swelling on the left cord, which was still present, had gradually diminished in size; the nodular character had nearly disappeared. At the present time the swelling was more marked posteriorly; cord itself fairly normal, opposite one free: no local treatment beyond rest had been employed; internally he first took iodide of potassium, but had taken mercury now for some weeks. Drawings illustrating the various stages which had been made by Dr. Waggett were shown. Dr. Warner said this case had more or less redness of the throat for some time, but this had increased considerably two days ago from a cold. Some years ago he suffered from granular pharyngitis. Dr. Waggett suggested absolute silence as treatment, and mentioned a case he had seen in conjunction with the President which under this treatment had considerably improved. Leiter's tubes and iodide of potassium had also been used.—A case of Pachydermia Laryngis was shown by Dr. Tilley. The patient complained of a feeling of suffocation, more especially at night, with occasional darting pains in the ear and hoarseness. It came on 20 years previously, six months before a confinement. She was born in Germany and had been in the habit of drinking beer freely. The vocal cords were congested and thickened, outward movements limited, shreds of dry mucus adherent in various parts of the larynx. In the interarytenoid fold a large well-marked swelling of a somewhat triangular outline, traversing this mass in the direction from above downwards was a fissure. The points of interest were the rarity of the disease in women, the important ætiological factor of alcohol, the position of the disease in the interarytenoid fold, the fissure through the growth which probably accounted for the pain, and the slight immobility of the vocal cords, probably due to chronic inflammation. Dr. Waggett, when house-surgeon to the London Throat Hospital, had painted the case regularly with perchloride of iron for three weeks, with recovery of the voice. The President said these cases were extremely rare here but very common in Vienna, and in answer to Dr. Law, attributed this frequency to beer drinking.

HARVEIAN SOCIETY OF LONDON.

Sir John Williams, Bart., M.D., President, in the Chair.

Thursday, February 21st, 1895.

Intracranial Syphilitic Disease.

Dr. James Taylor read a paper on syphilitic diseases of the brain. These were classified under three groups: (1) meningitis; (2) gummata in the membranes, with secondary affection of the brain proper; (3) disease of blood vessels—endarteritis and periarteritis. The symptoms commonly present in these three forms were briefly described, and also the symptomatology of another class of case characterised by considerable mental change similar to that occurring in general paralysis, with optic neuritis, but no paralysis of limbs. Dr. Taylor had no knowledge of the pathological condition underlying this clinical state, but suspected effusion of meninges and vessels. In two cases which he had seen marked improvement and subsidence of the optic neuritis had followed the energetic use of antisyphilitic remedies, although some degree of mental change still remained. The treatment called for when syphilitic disease of the brain had been diagnosed was touched upon, and the extreme importance of using mercury freely, and iodide of potash in preference to the latter alone. Dr. Taylor, in conclusion, described the clinical condition in two cases which he had observed through the kindness of Dr. Hughlings and Dr. Ferrier, and also the result of the *post-mortem* examinations. One was a case of gumma in the membranes, and the other of widespread disease—endarteritis and periarteritis—of cerebral vessels. Illustrative sections, with a drawing and photograph, were also shown.

The President related a case of syphilitic hemiplegia during pregnancy, accompanied by thrombosis of veins in the chest wall. The condition was cured by mercurial inunction. He also discussed the question of temperature in syphilitic meningitis.

Dr. Guthrie referred to the importance of certain minor manifestations of cerebral syphilis, and particularly of transitory aphasia and ophthalmoplegia. He related several instances in point.

Dr. Cagney spoke of the difficulty of recognising meningeal gummata in an early stage. He gave the history of a fatal case of this kind in which an abscess had perforated the skull.

Dr. Shuttleworth gave his experience of congenital syphilitic disease in children. Symptoms began about the second dentition. Paralysis was preceded by dulness of intellect, and followed by imbecility, with a proneness to use bad language. *Post-mortem* examination showed an atrophied brain with thickened membranes.

Mr. Brodie, Dr. Hazell, and Dr. MacEvoy also spoke; and Dr. Taylor replied.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Professor Sheridan Delépine, M.B., President, in the Chair.

Wednesday, February 13th, 1895.

Osteomalacia Subsequent to Scirrhus of the Mamma.

Mr. C. E. Richmond related a case where osteomalacia and spontaneous fracture of the femur occurred in a patient who had been the subject of a scirrhus of the mamma. The breast and axillary glands and fat were thoroughly cleared away, and there was no local recurrence. Visceral deposits, however, followed very rapidly, and the patient succumbed about five months after operation. Before this bone softening was observed in the pelvis, and the left femur, the diameter of which was much increased, snapped across when the patient was getting into bed. Fair union was obtained in four to five weeks, with disappearance of much of the thickening. Sections of the original breast tumour, of the liver, and of the iliac crest were shown, all exhibiting cancerous growth. The fractured femur also was shown, and a decalcified section taken from the site of bony union entirely negatived the

presence of cancer at this spot, and merely showed the ossification of fibrous callus. Reference was made to a similar case in the museum of University College, London.

Acute Intestinal Obstruction caused by a Gall Stone.

Mr. J. W. Smith showed a specimen of fistula between the gall bladder and duodenum and a gall stone 1½ in. in length and 3⅜ in. in circumference from a woman, aged 63, who was admitted to hospital with a history of five days' acute intestinal obstruction. Laparotomy was performed and the gall stone removed from the intestine. Death occurred seven hours later. The point of impaction was about the middle of the jejunum, the bowel above being greatly distended and congested. The cystic duct was obliterated, the hepatic and common bile ducts remaining patent. The gall bladder contained two smaller stones.

Dr. Dreschfeld also showed a specimen in which a gall stone had set up ulceration of the gall bladder, with a secondary biliary duodenal fistula, arrest of the gall stone in the jejunum, and intestinal obstruction.

Card specimens were shown by Drs. Enrich, Helme, Kelynack, and Littler.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

R. D. Purefoy, F.R.C.S.I., President, in the Chair.

Friday, January 25th, 1895.

Specimens.

Dr. Macan exhibited: (1) Fibrous Tumour of Ovary; (2) Intraligamentous Cyst with Subperitoneal Fibromata; (3) Two Fibrocystic Tumours of Uterus. Drs. A. Smith, Purefoy, and Smyly discussed the specimens.—Dr. W. J. Smyly exhibited: (1) Ruptured Tubal Pregnancy. Patient, a widow married two months, had hæmorrhage and pain on January 15th, supposed to be abortion; pulse rapid, feeble, compressible; hæmatocele in Douglas's pouch; hæmorrhage. January 17th. Abdominal section; tube removed with a large quantity of blood and clots. The tube had ruptured on the posterior aspect about one inch from the fimbriated extremity. Recovery good. (2) A Myomatous Uterus as large as an adult head which had been removed by total extirpation through an abdominal incision. (3) An Ovarian Tumour as large as an adult head filled with blood clot. (4) Suppurating Ovarian Cysts. (5) Papillomatous Cysts of Both Ovaries.—Dr. F. W. Kidd exhibited a Fibro-myomatous Tumour and Uterus removed from a patient aged 36. The prominent symptom was hæmorrhage. The patient made a good recovery.

Pedunculated Fibroid Simulating Ovarian Tumour.

Dr. Atthill gave the details of a case in which a pedunculated fibrous tumour being attached to the anterior wall of the abdomen above and to the left side of the pubes simulated an ovarian tumour. The patient had for several years suffered intense pain at each menstrual period, evidently due to ovarian causes. The tumour, on an abdominal section being made, was found to be firmly adherent to the abdominal wall, but was also connected with the uterus by a thin pedicle nearly 2 inches in length. It was removed. Both ovaries were found to be diseased, and were removed. The patient recovered rapidly.

Dr. Macan did not think that the process of diagnosing ovarian dysmenorrhœa by the exclusion of uterine trouble should always be followed. As the tumour was very painful on examination, he thought that the case was probably not one of ovarian dysmenorrhœa, but that the tumour caused the pain.

Dr. Smyly thought that nothing was more difficult than to diagnose the conditions of the ovary which produced dysmenorrhœa. He had only operated on one case, that of cirrhosis of the ovaries. He questioned whether in this case, the tumour having been removed, it would not have been better to leave the ovaries. If they were removed to prevent the further growth of myomata in the uterus he thought it justifiable.

Dr. A. Smith believed that an ovary could cause dysmenorrhœa. He had shown one to the Academy, which was a good example of a retention cyst. He had removed this ovary, leaving the other behind. Nothing else was done, and the pain ceased.

Dr. Horne said he had assisted at the operation. It was not the size of the tumour but the intense pain the patient suffered from which led to the operation. The tumour lay to the left side, but they did not know whether it was an enlarged ovary, a greatly enlarged tube, or a fibroid. When the abdomen was opened it was found necessary to remove the tumour before proceeding further. The ovaries were then found in a cystic condition, and were removed.

Dr. More Madden expressed his entire concurrence with the treatment carried out by Dr. Atthill. He had very frequently seen great dysmenorrhœa caused by very slight abnormal conditions of the ovaries, but had not seen such dysmenorrhœa produced by small tumours of the uterus unless they interfered, by their position, with the function of ovaries or Fallopian tubes. He thought it was evidently a case of ovarian dysmenorrhœa.

The President thought that cases of dysmenorrhœa were difficult to treat, especially those called ovarian dysmenorrhœa. In his opinion the pain was not always in exact proportion to the pathological condition of the ovaries. In this case he understood Dr. Atthill mentioned two kinds of pain—dysmenorrhœa some years ago which had increased, and also latterly a constant pain, which, in his opinion, was due to the tumour.

Dr. Atthill, replying, said he would not have thought of removing the ovaries unless he had thought that they were radically diseased. He had only removed the ovaries six times. The patient had never referred her pain nor any of her sufferings to the tumour. One of the ovaries had a cyst in it the size of a walnut, the other had a smaller cyst in it.

Section of Anatomy and Physiology.

Alex. Fraser, M.B., President, in the Chair.

Friday, February 1st, 1895.

Specimens.

The President exhibited two Microcephalic Brains and a young Chimpanzee in which the central nervous system had been exposed.—Professor Symington gave a Microscopical Demonstration of a series of sections of various parts of the Central Nervous System, stained by Golgi's method, which he had made last summer in Professor Kölliker's laboratory in Wurzburg. He had found the methods easier and more reliable than was generally supposed.—The President, Professor Purser, and Professor M'Weeney joined in the discussion.

The Anatomy of the Pancreas.

Professor Symington read a paper on the topographical anatomy of the pancreas. He had investigated the subject by hardening the abdominal viscera *in situ* by the injection of a 1 per cent. solution of chromic acid. The results differed in several respects from those of His.

Professor Cunningham said that there were two ways by which the topography of an organ, such as the pancreas, could be made out—(1) by injecting hardening solutions into the blood vessels, (2) by frozen sections. Up to the present the topography of the pancreas had been only known by His's model. Professor Symington's model had been prepared in same way as His's. He himself had only studied the pancreas in one frozen section, and in it the form of the pancreas was much nearer the pancreas of Symington than that of His. All abdominal organs, however, were subject to great variations in form.

Professor Symington thought that the pancreas was more easily investigated by the chromic acid method of His than by frozen sections. He did not wish to assume that the pancreas always took the form that it had in his model. The neck part of the head was subject to considerable variations due to the movements of the pylorus.

Professor Symington also read a short note on the use of cold-water starch as a basis for an injection mass suitable for ordinary dissecting-room work.

Professor Cunningham thought that when in a hurry the addition of spirit to it was an improvement, as it could both preserve and inject at the same time.

Section of Surgery.

W. Thornley Stoker, F.R.C.S., President, in the Chair.

Friday, February 15th, 1895.

Internal Strangulation.

Mr. William Thomson read a paper on internal strangulation. He recorded three cases upon which he had operated, and in all of which there was a fatal result. In one he found a Meckel's diverticulum, which was divided near its origin and removed. It was subsequently found that a very tight stricture of the ileum had been caused by long-existing pressure, so that obstruction still remained. In the second, the patient was moribund, and an artificial anus was made, the ileum being opened. A tight band, very short, springing from caseating glands, was found. In the third case the band was also very short, and was attached to the right angle of the body of the uterus. He spoke of the difficulty of diagnosis, but placed reliance upon sudden acute pain, early collapse, and vomiting. The important point in treatment was speed in operating.

The President thought that with regard to shock, the only cases of rapid death in inguinal hernia were in young people. The tender young peritoneum was more susceptible of injury than an indurated peritoneum in an old person, and with an old hernia. In these cases usually there was far less risk to the patient by making a free incision, and allowing the distended bowels to escape on to the surface of the abdomen.

Mr. Ball said he would confine his remarks to the difference between the operation for strangulated hernia and for internal strangulation. As regarded fatality, a great deal depended on the amount of distension of the bowel. In internal strangulation there was very extensive meteorism if it had lasted for any time. The fatal results were due a good deal to the great difficulty in returning the intestines. In strangulated hernia, on the other hand, the cases were operated on before the meteorism was so extensive.

Mr. Lentaigne agreed with what Mr. Thomson had said. He had seen several cases more or less similar in some of which the intestines were punctured and the flatus let out and still a bad result followed, except in two, which were not quite of the same kind as Mr. Thomson's, and they were both operated on at the very commencement.

Dr. Parsons thought that the reason cases of strangulated hernia did so much better than those of internal strangulation was because they were diagnosed at once. The diagnosis of the latter was very difficult. He thought that in strangulation involving the small intestine there was not much distension as they died too rapidly, contrasting with those of the large intestine, where the symptoms were not so acute and where there was more distension. If after a patient was suddenly seized with pain in the abdomen the pulse steadily and rapidly increased he thought the abdomen should be opened.

Mr. Chance did not share Mr. Ball's view that distension of the abdomen was a bad sign. The higher the strangulation occurred in the gut, the more the shock and the less the distension. He would make a small incision, suture the intestine to the abdominal wall, and wash it out. This could be done in bed, and so could avoid the shock caused by bringing patient to a theatre which there might not have been time to warm.

Mr. Bennett thought that the question of dealing with the distended abdomen was the most important. If the distended intestines were allowed to escape, there would be great difficulty in returning them. In a tympanitic case he would prefer making a small incision, sufficient to admit a couple of fingers; then, if he found the obstruction, well and good, but if not he would make a small incision in the intestines. If they let out the intestines before puncturing them, there was very little tendency for the gas to escape after incision, because the intra-abdominal pressure was gone.

Mr. Croly said he had met with collapse so often in ordinary strangulated hernia that he thought it one of the commonest causes of death in these cases. In cases of internal strangulation or strangulated hernia, if an operation was not done early it should not be done at all.

Mr. Myles said he had the opportunity of assisting Mr. Thomson in one of the cases. He was struck by two features in the case—one, the smallness of the band causing the obstruction; the other, the comparative absence of tympany. He thought that, having once opened the abdomen, and if tense allowed the gas to escape by making a small incision in the gut—a trocar was no use—a systematic search should be made for the site of the obstruction, and that it should not stop till this had been found.

Mr. Nixon had seen two cases in which definite symptoms of intestinal obstruction were present, but in which the patients declined laparotomy. The symptoms subsided and they got well. He thought the difference between the results of intestinal strangulation and strangulated hernia was due to the difference in the amount of peritoneum involved.

Mr. Thomson, replying, wished to impress upon them the distinction between acute obstruction and internal strangulation; the former might recover by medical treatment, the latter never could. Tympany was not an early symptom; it was not coincident with the pain and collapse. When distended, he thought that if necessary the intestine should be opened, but in his cases there was no great distension. The danger of letting the intestines outside the abdomen and the trouble of getting them back could not be exaggerated. The behaviour of the intestines was entirely different when dealing with a solid tumour of the uterus or ovary; there the intestines were collapsed, and in most cases did not tend to protrude.

Nottingham Medico-Chirurgical Society.—At a meeting held on February 20th, Dr. Tew (President) in the chair, Dr. Watson read a paper, illustrated by drawings and lantern slides, on the Calcareous Corpuscles of Tapeworms. He gave the history of the subject and alluded to the views of Von Siebold, Goodsir, and others. These bodies were invariably present in tapeworms and echinococci, but could best be studied in the tissues of the cœnurus cerebralis from the sheep. Here they could be seen as round or oval bodies with a capsule and well defined nucleus. The latter might be divided into two or more parts. After discussing the views of various writers the speaker expressed the opinion that the bodies might be parasitic protozoa. He referred to the forms he had seen undergoing fusion as evidence of this. He thought the bodies in some respects resembled coccidia, but at present they could not be classified in any known species.—The President and Dr. Ransom having made some remarks, Dr. Cattle showed on the screen some drawings and photographs of rabbits, coccidia and of cancer bodies. With regard to the bodies described by Dr. Watson he remarked that they did not appear to inhabit cells, as was usual in the case of the growing forms of parasitic protozoa, and that no further development appeared to have been observed in them after their removal from the body.—Mr. Chicken showed a Pedunculated Tumour removed by means of the *écraseur* from the upper part of the rectum of a woman of middle age.—Dr. Wm. Ransom showed microscopic sections of Hypertrophic Cirrhosis of the Liver and Spindle-celled Sarcoma of the Kidney.

Bristol Medico-Chirurgical Society.—The fifth meeting of the session was held on February 13th.—Mr. A. W. Prichard and Dr. Edgeworth brought before the Society a case of Intestinal Obstruction from Congenital Malformation. Dr. Harrison, Mr. Munro Smith, and Dr. Aust Lawrence discussed the case.—Dr. J. E. Prichard read a case of Unusual Development of Intestine, and also showed specimens of an Anencephalous Monster and Horseshoe Kidney. Dr. Harrison, Dr. Aust Lawrence, Mr. Ewens, and Dr. J. G. Swayne discussed the cases.—Dr. Aust Lawrence read a paper on some cases of Inversion of the Uterus. Dr. J. G. Swayne, Mr. Paul Bush, Dr. W. C. Swayne Dr. Steele, and Dr. Harrison spoke on the subject.—Mr. Ewens described a case of Multilocular Parovarian Cysts of Both Ovaries, in which he had performed a successful operation. Mr. Morton, Dr. W. C. Swayne, and Dr. J. G. Swayne commented on the case.

Newport Medical Society.—At a meeting held on February 6th, Dr. A. G. Thomas in the chair, Mr. E. T. Collins showed specimens of Perforated Vermiform Appendix and Three Early Abortions. Mr. Collins gave a short account of cases referring to these, and the treatment adopted in each

case.—Mr. W. BASSET showed a case of Extensive Skin Grafting.—Dr. T. G. MACORMACK showed a case of Thoracic Aneurysm, which had considerably improved under treatment.

REVIEWS.

DISEASES OF THE EAR. By A. MARMADUKE SHEILD, M.B.Cantab., F.R.C.S.Eng. With four coloured plates and thirty four woodcut illustrations. London: Cassell and Co. 1895. (Cr. 8vo, pp. 278. 10s. 6d.)

THIS compact and handy little work contains practically all that is required by the student or the general practitioner in the way of a guide to the diagnosis and treatment of diseases of the ear. The facts conveyed, if not very new, have obviously been submitted to careful verification. Those who have followed up the literature of the subject know the valuable contributions which Mr. SHEILD has made from time to time, and these are the pegs on which he has hung a good deal of the more current material.

The customary anatomical and physiological chapter is cut down, but though condensed it is clear and sufficient for the purposes of the book. Diseases of the auricle and external meatus receive ample attention, the dermatological aspect being evidently a favourite one with the writer, though we miss all reference to seborrhœa. The remarks on the management of foreign bodies are most judicious, the dangers of unskilful attempts at dislodgement, and the needlessness of premature interference being emphasised. The use of leaden tubes for insertion into the meatus in cases of narrowing following eczema is strongly advised on account of the action of the carbonate of lead formed on the surface. This is an excellent application of the principle involved in the leaden shields employed for the breast. A warning is uttered against the initiation of operative procedures for the removal of exostoses unless urgently called for. Greater "boldness" in the surgical treatment of caries and necrosis is advised than is usually now adopted. Among the inflammations of the tympanum are included the "subacute" forms in which a perforation and discharge occur without any notable degree of pain. These form the important class now more and more recognised as occurring in very cachectic and especially tuberculous subjects, and to which Mr. Sheild gives a greater degree of prominence than do most other authors. In chronic suppurations the indications for "moist" and "dry" treatment respectively are well laid down. He deprecates removal of adenoids during the persistence of fœtid aural discharge, or even fœtor without discharge, until previous antiseptic treatment of the ear has been carried out. He maintains an open mind with reference to operations for chronic dry catarrh, and even for the adhesions following suppuration. His opinions on the management of "quiescent perforations" are plain and practical. He properly extols Yearsley's cotton-wool pellet beyond all other forms of artificial drum.

The chapter on the cerebral complications of perforative otorrhœa is probably the clearest exposition of the subject to be found anywhere within the same number of pages. Subdural (extradural) abscess might, however, have received a fuller description, and the points of distinction between the cervical suppurations arising from "Bezold's mastoiditis," and that accompanying thrombo-phlebitis extending down the jugular might be more detailed.

The diseases of the mastoid process are treated in a well-written chapter. Greater stress might well have been laid upon the facility with which any surgeon may carry out the operative measures required in most of the acute cases as compared with the difficulties attending those necessitated by chronic disease. In accordance with the view expressed that "that practitioner will be the most successful in his management of cases of deafness who recognises nasal and pharyngeal complications and is able to treat them," a short account is given of the more important of these, including an after-treatment of cases of removal of adenoids of a more active character than is usually practised.

In the discussion of tinnitus galvanism is recommended in some cases, notably those in which there is (1) absence of advanced middle-ear disease, (2) presence of slight nerve deafness, and of (3) a neurotic disposition on the part of the patient. He reports some satisfactory results obtained under these circumstances by Dr. Lewis Jones.

The whole work is admirably concise, free from pedantry, and, if at times tinctured with dogmatism, it is a dogmatism which is essentially shrewd and practical. It will be found a safe guide, of convenient size, and eminently readable.

MANUAL OF MORBID ANATOMY, BEING A HANDBOOK FOR THE POST-MORTEM ROOM. By H. D. ROLLESTON, M.A., M.D., F.R.C.P., and A. A. KANTHACK, M.D., M.R.C.P. Cambridge: University Press. 1894. (Cr. 8vo, pp. 260. 4s.)

THE editor of the *Cambridge Natural Science Manuals* has been fortunate not only in the selection of the above-named subject, but also in securing as authors Drs. ROLLESTON and KANTHACK.

In the preface two or three matters of considerable importance are touched upon. A clear exposition is given of the objects for which a necropsy is made. An outline account in an appendix of the preparation of a fresh section would, we are inclined to think, have best emphasised the importance of the use of the microscope in questions of doubt as mentioned here by the authors. The presence of microtome and accessory apparatus in or near the *post-mortem* room is almost essential, and it would have been convenient for the student to have had the whole of the required information in one place. The same may be said in regard to first preliminaries for a bacteriological examination. A few words (after Mr. E. W. Willett) are also given in the preface as to the rough methods used in the early preservation of specimens for museum purposes. It is recommended that the examination, including a short description of morbid lesions, should be carried out under the following headings: (1) The general and external examination; (2) the abdomen (preliminary) with the removal of the intestines; (3) the thorax; (4) the abdominal viscera (in detail); (5) the kidneys and pelvic viscera; (6) the head; (7) the spine and spinal cord; and (8) the joints, bones, etc. Each of these chapters is divided into sections, and there is, besides the general index, an index of the sections. Each section is written in a very clear and concise manner, the methods of examination being the most approved ones. Many pathological anatomists, however, prefer, in examining the brain, to remove the pons medulla and cerebellum, then to separate the hemispheres, and to examine each hemisphere by means of vertical and coronal sections, rather than to follow the method usually prescribed.

This manual can in every sense be most highly recommended, and it should supply what has hitherto been a real want.

TEXTBOOK OF HYGIENE. By GEORGE H. ROHÉ, M.D. Third Edition, thoroughly Revised and Largely Rewritten. Philadelphia: The F. A. Davis Company. London: F. J. Rebman. 1894. (Roy. 8vo, pp. 563. 17s.)

THIS book contains twenty-three chapters; the first twenty-two consist of a number of short essays on subjects of hygienic interest, while the twenty-third and last chapter deals at considerable length with quarantine. It is stated that "the old significance of the term (quarantine) is entirely lost in its present application, which is quite general; thus, besides regular maritime quarantine, mention is often made of land, railroad, cattle, shot-gun, house, and even room quarantines." We are told that there is need of clear understanding with regard to the term, for when the assertion is made that the English disbelieve in quarantine, a wrong impression will be made unless it is understood that "only particular and obsolete forms of quarantine are meant, and not quarantine in the broad sense just mentioned." Even this explanation, however, will not reconcile most readers to the devotion of so large a part of the book to this topic.

At the end of each chapter is a series of questions, many of which partake more or less of the nature of conundrums. Thus: "Why should physicians know considerable about

cooking?" "Who should not bathe without previous medical advice?" It would appear that the most appalling queries follow upon the chapters which deal with their subject matter in the most brief and unsatisfactory manner. Thus, even after mastering the twenty-five pages devoted to the examination of air, water, and food, the reader may be pardoned if he feels surprise at being asked: "Why is it usually not necessary to make a quantitative examination of the carbon monoxide in air?" and he may be in doubt as to how milk is usually "sophisticated." The subject of vital statistics, again, is dealt with in ten pages, and then the enterprising student finds himself confronted with problems of this kind: "Why should the State take care in the licensing of physicians to practise?" "What tends to make the arithmetical mean approach the invariable?" and "Why is the record of marriages of no sanitary interest? How might it be made so? Is this practicable?" The book contains a few illustrations, and is well printed.

Practical Physiology of Plants. By Francis Darwin, M.A., F.R.S., and E. Hamilton Acton, M.A. Cambridge: University Press. 1894. (Cr. 8vo, pp. 342, 42 figs. 6s.)

This book will prove a valuable one for the student of practical botany. The experimental teaching of vegetable physiology is of comparatively recent growth, and it is interesting to note how similar are the methods employed to those used in animal physiology. Pressure in roots and so forth is measured by manometers; graphic records are obtained of modes of growth; chemistry comes in also very largely in elucidating the metabolic phenomena of plant life. The instructions for the study of these and similar facts in the botanical laboratory are set out with great clearness, and the figures illustrating apparatus used and tracings obtained are extremely good, and will greatly help the investigator who avails himself of the guidance of this book.

Now that botany forms so insignificant a part of the medical curriculum, we can hardly suppose that the medical student will purchase the book. It is, however, not intended for him, but for those who are beginning the study of botany from the scientific standpoint. From this point of view we welcome the work, and wish it every success. Its freshness and power bring home to us the loss which scientific botany has sustained by the tragically sudden death of Mr. Hamilton Acton.

A Treatise on Appendicitis. By G. R. Fowler, M.D. London and Philadelphia: J. B. Lippincott Company. 1894. (Demy 8vo, pp. 190. 10s. 6d.)

This work does credit not only to its author, but to American surgery, and its careful study will amply repay any medical man, whether physician, surgeon, or general practitioner. The extreme importance of the subject, the serious nature of the diseases in question, the large amount of clinical material on which the conclusions are based, and the details of the surgical treatment adopted, render the work of exceptional value. In a short review it is impossible to point out many of the excellent lessons to be found in this book of 181 pages, but the following paragraph will give some idea of what is to be discovered:

"A remission of all the symptoms of the first, second, and third stages, save local tenderness, may take place, and yet the disease goes steadily onward through all its stages to a fatal termination. A lowering temperature and lessening pulse rate are not inconsistent with impending ulceration, perforation of the appendix into an unprotected peritoneal cavity, complete gangrene of the organ, or rupture of an appendicular abscess into the cavity of the peritoneum."

The first chapter on anatomical considerations is not only written clearly, but well illustrated by diagrams, as is indeed the book throughout, and we here notice an ingenious method of classifying the positions and directions of the appendix by lines radiating from McBurney's point, the points of the compass being used to indicate the directions. The terms endo-appendicitis, parietal appendicitis, peri-appendicitis, and para-appendicitis are used to designate the first, second, third, and fourth stages of inflammations of the appendix, which are classified as acute, subacute, chronic, relapsing, and recurrent. Particular attention is drawn to the insidious nature of the subacute form, which, leading to a sense of false security, may at any time be followed by one of the grave accidents seen in acute appendicitis.

The chapter by Dr. Van Cott, jun., on the pathology is well up to the general standard of the work, and is of much interest.

In the section on treatment occurs the following: "The indications for operative interference during an attack of appendicitis may be summed up in a few words. As soon as the diagnosis of progressive appendicitis is assured the abdominal cavity should be opened and the appendix removed." This is probably a good rule, and although in England we have not yet generally adopted such a radical procedure, many English surgeons feel that this is the only safe method.

NOTES ON BOOKS.

Report on the Relation between Malarial Fever among Her Majesty's White Troops at Port Louis, Mauritius, and the Meteorological Elements of Temperature, Rainfall, and Relative Humidity of the Year 1889; with a Preliminary Sketch of the Medical Topography of the Island, and the Epidemic of Malarial Fever in 1866-67. By Surgeon-Major H. H. Johnston, Army Medical Staff, etc. (Edinburgh: Darien Press. 1894. Cr. 8vo, pp. 47.)—The title of this paper sufficiently expresses its scope. It is a careful piece of work, embracing many points of interest to the epidemiologist and meteorologist. We note one circumstance which is at variance with general experience. The town of Port Louis is more malarial than its suburbs and surrounding country; the opposite relationship in this respect usually obtains between town and country in malarial countries. It would be interesting to ascertain the reason for this inversion of what seems to be a fairly general law.

A Clinical Manual for the use of Students and Physicians. By Andrew Mac Farlane, B.A., M.D. (London and New York: G. P. Putnam's Sons. 1894. Cr. 8vo, pp. 134. With 35 illustrations and 4 plates. 5s.)—The advances made of recent times in clinical chemistry and microscopy have called into existence quite a number of books both large and small on these subjects; this is one of the smaller ones. The author acknowledges in his preface his indebtedness to the well-known authorities and especially to Tappeiner, the excellence of whose little work will be readily admitted by anybody familiar with it. The subject matter is here treated in the following order: The examination of the urine, stomach contents, fæces, blood, pathological fluids and the examination for micro-organisms. It is somewhat surprising that the sputum has been omitted except in so far as the examination for micro-organisms is included in the last section. The methods appear to be described with clearness, due emphasis being laid on the most important and reliable ones. The different methods of staining the blood are particularly well given. The Thoma-Zeiss hæmocytometer is the only instrument described for counting blood cells. Two useful appendices are added including the necessary reagents and the English equivalents of the metric system.

Catechism Series: Physiology. Part VII, Eye, Ear, and Cranial Nerves (Cr. 8vo, pp. 64, 1s.) Part VIII, Spinal Cord, Brain, Reproduction, Physiological Chemistry (Cr. 8vo, pp. 64, 1s.). Edinburgh: E. and S. Livingstone.—We have had occasion several times to notice the previous parts of this series. The two before us apparently complete those concerned with physiology. We have read them carefully, and our previous opinion is confirmed that they are most pernicious little cram books. They are bad, not only on the principle that all such works have an evil influence on students, but they are essentially and radically bad on account of the numerous mistakes they contain. We recommend all students to eschew them if for this reason alone. In some of the previous reviews we have taken the trouble to point out some of the most obvious errors; it is hardly necessary to repeat this process. The two present parts beat their predecessors in this particular; there is hardly a single page without egregious and obvious errors.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AN IMPROVED MULTIPLE LINEAR SCARIFIER.

DR. G. STOPFORD TAYLOR, Hon. Physician to the Liverpool Hospital for Cancer and Skin Diseases, writes: Everyone who has used Squire's linear scarifier must have experienced the difficulties of cleansing the instrument and rendering it aseptic. Messrs. Mayer and Meltzer have overcome these drawbacks, and have made for me an instrument with such improvements as have added greatly to its value. The blades, ten in number, are double edged, and are fastened to the arms of the handle with two bolts, which are held in position and secured by milled heads. The arms are prolonged to a quarter of an inch from the point of the blades, and act also as a guard. This instrument can be taken to pieces, cleaned, and put together in a few minutes, and I have used it with most satisfactory results in lupus and rosacea. (A the blades, B the arms, C the milled head, D the handle.)



AN IMPROVED CLINICAL THERMOMETER.

WE have received from Mr. James J. Hicks, of 8, 9, and 10, Hatton Garden, London, E.C., a clinical thermometer which is designed to overcome certain of the drawbacks of the pattern ordinarily in use. Much ingenuity has been expended at one time or another on this indispensable part of the practitioner's armamentarium, but in most of the patterns which we remember to have seen the graduation is made by lines engraved upon the glass. These lines no doubt hold dirt, and render it more difficult to disinfect the thermometer, and in process of time constant cleansing tends to remove the pigment in the engraved figures. The new pattern is designed to overcome these objections. In the divisions and figures in a pattern brought out by Mr. Kent some time ago the glass was drawn without any enamel at the back, and an opaque glass scale was fixed on the inside. Mr. Hicks, by arrangement, as we are informed, with Mr. Kent, has improved upon this pattern by marking the graduation and figures on a transparent mica scale, which is then imbedded in the substance of the thermometer. We find that the thermometer is easily read, particularly at night, owing to the translucency of the scale. The surface of the thermometer is quite smooth, and the graduation marks cannot be worn out by cleansing. Mr. Hicks has given to it the name "Climax," and it can be obtained either with an ordinary tube or with a magnifying tube. The price of the former is 60s., of the latter 78s. a dozen.

LIQUOR CINCHONÆ HYDROBROM.

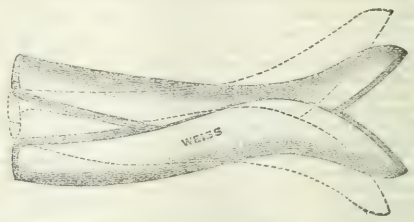
WE have received from Messrs. Fletcher, Fletcher and Co., manufacturing chemists, Holloway, London, N., a specimen of a new preparation of cinchona bark, which is certainly an advance in the pharmacy of this drug. The extractum cinchonæ liquidum of the *British Pharmacopœia* is prepared by exhausting red cinchona bark with water acidulated with hydrochloric acid. The product thus obtained contains the whole of the alkaloids of the bark as hydrochlorates, and it is standardised to contain 5 per cent. of total alkaloids. The process employed by Messrs. Fletcher is based on the use of hydrobromic acid as the solvent of the active principles, the finished product containing the alkaloids as hydrobromates. Our examination of liquor cinchonæ hydrobrom. shows 5 per cent. of total alkaloids to be present. It is perfectly soluble in distilled water, forming a slightly acid liquid, which can be mixed with a solution of bromide of iron without any change of colour. We find, however, that liquor ferri perchloridi causes blackening, but this disappears on the addition of a few drops of hydrobromic acid.

There is no doubt that liquor cinchonæ hydrobrom. represents in a definite form the whole of the active matters of cinchona bark.

SPECULUM FOR USE IN COMBINED ABDOMINAL AND VAGINAL HYSTERECTOMY.

MR. FREDK. BOWREMAN JESSETT, F.R.C.S. (Buckingham Palace Mansions, S.W.) writes: The accompanying figure represents a modification of a speculum I have had made for me by Messrs. Weiss. I use it in the operation for the complete removal of the myomatous uterus.

The speculum, which is 9 inches long, is introduced into the vagina closed, and is held in position by an assistant. The abdomen being opened, and the broad ligaments ligatured on each side and divided, anterior and posterior flaps of peritoneum are reflected from the uterus, the bladder being



pushed away in front and the rectum behind. The assistant then pushes the speculum well home, and by pressing on the outer ends the blades are forced open and the roof of the vagina put upon the stretch; it is then an easy matter to cut into the vagina from above on to the ends of the blades of the speculum in front and behind. This being done the uterine arteries are readily secured by ligatures, and the tissues between these and the cervix uteri divided, and the large myomatous uterus lifted out of the abdomen. The remaining steps of the operation, as thus practised by me, have been described elsewhere.

A MODIFICATION OF NEVILLE'S SPLINT.

MR. T. E. HAYWARD, M.B., F.R.C.S. (Haydock, Lancashire), writes: The idea of so modifying Neville's splint by a sliding arrangement of slits and screws, as to permit of its length being accurately adapted to any given fractured leg, seems so obvious, that it may well have occurred to many.

Did surgeons generally appreciate and understand with what satisfaction to themselves and with what comfort to their patients such splints can be used for fractures of the leg, few would be without them.

While congratulating Mr. Bertram Thornton on his independent exercise of inventive power, and on his lucid explanation of the advantages of these splints, given in the BRITISH MEDICAL JOURNAL of February 23rd, he will, I am sure, not take it amiss if I point out that an essentially similar splint was described and figured by me in the *Lancet* ten years ago (Vol. ii, 1885, p. 528).

I have there explained that for the actual mechanical device by which a need, which I had long felt, was met, I was indebted to the help of a non-professional friend, who had some splints made for me in the workshops of Messrs. Richard Evans and Co., colliery proprietors. They were made in three sizes, corresponding to the three usually sold as a set. For the past ten years I have used these splints at the Haydock Cottage Hospital, as well as in private practice, with increasing satisfaction.

Wishing to place the idea at the service of any who might choose to avail themselves of it, I sent a model in the year 1885 to Messrs. Arnold and Sons, who have since then kept the splints in stock and have described and figured them in their supplementary catalogues. It is, after all, a matter of comparative indifference for any individual to claim priority in invention as regards a little detail like this. We all have received much more than we can give, and are daily making use of the inventions and contrivances of those who have gone before, and who now, forgotten in name, live only in having added each his little to the common stock of knowledge.

MESSRS. ARNOLD AND SONS (West Smithfield) write to the same effect, and add that "in the *Lancet* of March 21st, 1891, will be found another modified Neville's splint, which we made at the suggestion of Mr. C. H. R. Holden, and this splint is likewise made adaptable to suit any length of limb."

REPORT ON VACCINATION AS A BRANCH OF PREVENTIVE MEDICINE.

By ERNEST HART, D.C.L.,

Chairman of the Parliamentary Bills Committee of the British Medical Association.

I.

THERE is a paragraph in the last-issued report of the medical officer of the Local Government Board which deserves more than the passing notice it is likely in most instances to receive: "From the returns made by vaccination officers, it appears that of children whose births were registered in England and Wales during the year 1890, there remained 11.3 per cent. not finally accounted for as regards vaccination, the percentage for the metropolis being 13.9, and for the provinces 10.9. These figures indicate a larger amount of default in regard of vaccination than any which has been recorded since the passing of the Vaccination Act, 1871. In the metropolis the percentage of births unaccounted for has, during the ten years 1881-90, risen almost continuously from 5.7 to 13.9; and in the provinces there has, during the same period, been an altogether unbroken rise from 4.3 to 10.9. A marked increase in these rates took place as regards children whose births were registered during the year 1888, and whose vaccination became due, at the latest, during 1889. In the metropolis the amount of default indicated is now nearly two and a half times as great, and in the provinces it is nearly two and a quarter times as great as it was ten years ago. The figures are very significant, affording as they do an indication of a steadily growing increase in the younger population of persons who are altogether without protection against small-pox."

This falling off in infantile vaccination is no doubt largely due to the absence of any widespread epidemic of small-pox throughout the country within recent years, a feeling of false security having thus been created, which has led a number of parents to put off for the moment the temporary inconvenience of having their infants vaccinated. On more than one occasion there has recently been apprehension of small-pox spreading in various localities, and there has been the usual rush for vaccination amongst the unprotected whenever small pox threatens, and which, by straining the local resources to their utmost limits, is not calculated to secure in all cases the most efficient protection. Happily, however, in only a few centres has the disease assumed alarming proportions, and, with the subsidence of the immediate danger, apathy has again set in; but although individual apathy has had much to do with the falling off in the amount of infantile vaccination, a great deal of the mischief is attributable to the baneful influence of a number of opponents of the system who by disseminating gross misrepresentations calculated to create a distrust of vaccination, have caught the attention of those who convince themselves that vaccination is useless. This is shown by the fact that the greatest neglect has grown up in those towns in which the leaders of the opposition are most active.

The growing neglect of vaccination in the early years of life is, nevertheless, a serious menace to the future health of the community, which must ere long be strongly grappled with. In this matter of life or death antivaccinators are assuming a very grave responsibility, and it is the duty of those who realise the approaching danger to do their utmost to avert its consequences. English common sense may be trusted eventually to sift the wheat from the chaff, but in the meantime every effort should be made to prevent any fatal retrograde step being taken.

Vaccination has now for nearly a century stood the test of practice, and to-day it remains one of the greatest medical prophylactics which the world has ever known. To say that it has been maintained by the medical profession for their own pecuniary benefit is so obviously absurd as scarcely to deserve notice. Only a very small proportion of doctors derive any substantial benefit from the practice of vaccination, and those who consider that the bulk of medical men are so inordinately mercenary as to lend themselves to the support of a false system for the sake of a few shillings a year should remember that it is the prevalence of disease and not its prevention which pays the doctor best, and that a widespread outbreak of small-pox will pay far better than the eighteenpenny fees to be earned by vaccination. It seems to be too often forgotten that all measures for improving the general health of the community have emanated from and been fostered by the medical profession, and that, to take a striking example, the sanitary science of which England is to-day justly proud, and which has led during the last fifty years to a marvellous reduction in the mortality from filth diseases and an increase in the average length of life, owes its origin and development to medical men. Had vaccination not possessed the powers claimed for it the medical profession would have been the first to cast it aside as they have rejected other practices.

It has been truly said that if those who so readily neglect vaccination at the bidding of a few energetic agitators could for a moment look on the sight too common in every small pox epidemic—of a family which has been living in the same house and under precisely the same conditions, stricken by small-pox, the unvaccinated members developing the disease in all its natural hideous loathsome virulence, whilst the recently vaccinated or revaccinated have escaped altogether, and those who, years previously, have been vaccinated more or less efficiently have escaped with a few spots and slight constitutional disturbance—the perverted statistics and the sophistries of the antivaccinators would for ever be brushed aside and the apathetic would hasten to secure for themselves and their offspring the protection which vaccination affords. Such a living picture would be repulsive, but it would teach a valuable lesson. It is contact with such sights that has convinced the medical profession as a body of the value of vaccination.

In its natural state small pox is a peculiarly loathsome disease, which has always been fatal to a very large proportion of those attacked by it. It is eminently infectious from person to person; it seizes, with very few exceptions, all who for the first time come within its reach, and, when not fatal, it now, as before the introduction of vaccination, disfigures its victim for life. Looking back at its past history, we find that in 1518 it helped to complete the depopulation of St. Domingo, which fire, sword, and famine had begun; and soon afterwards, in Mexico, it even surpassed the cruelties of conquest, suddenly smiting down 3½ millions of population. Mr. Prescott, in his *Conquest of Mexico*, describes the epidemic as "sweeping over the land like fire over the prairies, smiting down prince and peasant, and leaving its path strewn with the dead bodies of the natives, who (in the strong language of a contemporary) perished in heaps like cattle stricken with murrain." In Brazil, in Siberia and Kamschatka, in Greenland and Iceland, in Borneo, on the Gold Coast in Madagascar, its devastations were similar. Striking accounts of its ravages among the North-American Indians in very recent times may be gathered from Mr. Catlin's *Lectures and Notes on the Manners, Customs, and Conditions of the North-American Indians*. In one place, Mr. Catlin observes, "30 millions of white men are now scuffling for the goods and luxuries of life, over the bones and ashes of 12 millions of red men, 6 millions of whom have fallen victims to small-pox, and the remainder to the sword, the bayonet, or whisky." More recently we have the remarkable evidence of the late Surgeon-Major Parke before the Vaccination Commission, as to the virulence of small pox among the natives of Central Africa, when uncontrolled by vaccination. In England, according to calculations of Dr. Lettsom, about the year 1805, the average annual deaths from small-pox were about 3,000 out of every million of population, a death rate which, with the present population in England, would give an average of nearly 90 000 deaths from small-pox a year. Nearly one tenth part of all the persons who died in London within the Bills of Mortality during the last half of last century died of this one cause. The younger part of the population were peculiarly its victims, and royal and noble families were not exempt.

The ravages of small pox are not, however, half enumerated in the list of the myriads whom it has killed. From the earliest to the latest records of the disease there is constant mention of the tax which it has levied upon its survivors. The eloquent passage in which Macaulay refers to this, when comparing the ravages made by small-pox in this country towards the close of the seventeenth century with those of the plague, is well

known. Our great historian justly assigns to small-pox the foremost place as the "most terrible of all the ministers of death." "The havoc of the plague," says he, "had been far more rapid, but the plague had visited our shores only once or twice within living memory. The small-pox was always present, filling the churchyards with corpses, leaving in those whose lives it spared the hideous traces of its power, turning the babe into a changeling at which the mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to the lover."

This description applied with at least equal force a hundred years later. Few indeed, then, were those who were not, at some time or other of their lives, attacked by this fell disease, and happy was it for anyone so attacked that he should escape with unimpaired health, or without serious disfigurement. Among those who outlive it, says De la Condamine, many either totally or partly lose their sight or hearing, many are left consumptive, weakly, sickly, or maimed, many are disfigured for life by horrid scars, and become shocking objects to those who approach them. Sir Gilbert Blane, at a later period, quoted a report of the Hospital for the Indigent Blind to the effect that two-thirds of those who applied there for relief had lost their sight by small-pox.

Such was the state of affairs when towards the middle of the eighteenth century the practice of inoculation was introduced into this country from the East, and prevailed until the discovery of vaccination by Jenner towards the close of the century. I do not here propose entering at length on a discussion of the question, What is vaccination? There is in my mind very little doubt that human small-pox and cow-pox are derived from one and the same infection, though there are differences in their effects. Which is the ancestor of the other remains a moot point, but that small-pox and cow-pox are identical was Jenner's firm belief, and the most recent scientific investigations of the subject altogether go to strengthen this view.[1]

A favourite and showy argument of the antivaccinators is that vaccination has not fulfilled Jenner's first hope that it would be "an antidote capable of extirpating from the earth a disease which is every hour devouring its victims—a disease that has ever been considered the severest scourge of the human race." But this was not quite Jenner's more matured opinion. He was well aware of the fact that even an attack of natural small-pox did not invariably render a person immune from a subsequent attack of the disease, and, within a very few years of the discovery of vaccination, cases occurred in subjects who had been vaccinated. What he really claimed was, to use his own words, that vaccination "duly and efficiently performed will protect the constitution from subsequent attacks of small-pox as much as that disease itself will. I never expected it would do more," he said, "and it will not, I believe, do less."

A century's experience has fully borne out Jenner's opinion. Vaccination, "duly and efficiently performed" in infancy, and repeated at the age of puberty, has shown itself to be an almost absolute protection against small-pox, whilst in those cases in which small-pox occurs after vaccination the disease is, almost without exception, so far modified that often its identity is, in its early stages, unrecognised. Only last year in Blackburn, to take a very recent illustration, the medical officer of health met with a number of cases of small-pox in vaccinated persons, where the disease was so modified that the patients went about their work without being aware of the nature of the illness which was upon them. Cases of the same sort were also recently met with by Dr. Bruce Low when investigating an outbreak of small-pox at Hastings. It is in dealing with the statistics which prove these statements that the antivaccinators have practised the grossest perversion and misrepresentation. It is an indisputable fact, shown by the Registrar-General's returns from year to year, that small-pox has greatly decreased within the present century, and especially within the last 50 years. In his *Vital Statistics* Dr. Farr, whose position gave him exceptional facilities for obtaining accurate information and whose integrity is unimpeachable, has given the following instructive table with regard to the London death-rate from small-pox:

Years.	Average Annual Deaths per Million from all Causes.	Average Annual Deaths per Million from Small-Pox.
1660-79	80,000	4,170
1723-57	52,000	4,200
1771-80	50,000	5,020
1801-10	29,200	2,040
1831-35	32,000	830

Continuing these figures for subsequent periods, we get:

Years.	Average Annual Deaths per Million from all Causes.	Average Annual Deaths per Million from Small-pox.
1838-53	24,900	513
1854-71	24,200	388
1872-82	22,100	252
1883-92	19,800	73

Unfortunately, complete statistics as to last century's small-pox are not available for the whole of the country, but, as far as they go, they tell the same tale. Since 1838, when registration became compulsory, we have definite information, and it will be seen that since that date the decline has been very marked. Beginning with 1838, we find that the annual small-pox death-rates for the country for subsequent years are, in consecutive order, as follows: 1,064, 589, 661, 400, 168 (here occurs an interval of four years, 1843 to 1846, during which the figures are not available), 246, 397, 264, 262, 389, 401, 171, 151, 131, 116, 202, 329, 193, 136, 64, 78, 266, 364, 301, 139, 114, 91, 67, 113, 1,012, 821, 98, 88, 35, 99, 173, 74, 21, 25, 119, 50, 36, 83, 104, 10, 18, 36, 1, 1, 2, 15.

But the most remarkable fact disclosed by a careful examination of the small-pox statistics is the changed incidence of the disease on different age periods since the introduction of vaccination. Whereas in prevaccination times small-pox was essentially a disease of childhood, some 800 out of every 1,000 small-pox deaths being of children under 5 years of age, and 150 of the remaining 200 being of children between 5 and 10 years (even as late as 1839-88 per cent. of the small-pox deaths in England were in children under 10 years of age), it has in recent years lost that peculiarity, as will be readily seen from the following table. In reading this table it must be borne in mind, that although vaccination came into use early in the present century, no public provision for its gratuitous performance was made until 1840, it was not obligatory until 1853, and legislative arrangements for its systematic enforcement were not made until 1871.

Mean Annual Deaths from Small-pox at Successive Life Periods per Million Living at each such Life Period, 1847-53, 1854-71, and 1872-91.

Period.	All Ages.	0-5	5-10	10-15	15-25	25-45	45 and Upwards.
1. Vaccination optional, 1847-53	305	1,617	337	94	109	66	22
2. Vaccination obligatory, but not efficiently enforced, 1854-71	223	817	243	88	103	131	52
3. Vaccination obligatory, but more efficiently enforced by vaccination officers, 1872-91	89	177	95	54	67	83	33

As pointed out by the Registrar-General in his 43rd Annual

[1] In the annual report for 1892-3 of the Medical Officer of the Local Government Board is contained a very interesting report by Dr. E. Klein of experiments carried out by him in London. Dr. Simpson, of Calcutta, has also recently carried out experiments on similar lines and obtained similar results, going to prove the identity in origin of small-pox and vaccinia.

Report with reference to a similar table: "The figures show conclusively that coincidently with the gradual extension of the practice of vaccination, there has been, in the first place, a gradual and notable decline in the mortality from small-pox at all ages; and, in the second place, that this decline has been exclusively among persons under ten years of age, and most of all among children under 5, and thirdly, that after the age of 10 years the mortality, so far from having declined, has actually increased; very slightly among persons of from 10 to 15 years of age, but very greatly for persons older than this; and, lastly, that the increase has been the greater the more advanced the time of life."

This changed incidence of small-pox is one of the most remarkable and convincing proofs of the efficacy of vaccination, and one which may profitably be studied by a close examination of the facts connected with each and all of the recent small-pox epidemics.

So much strength has been expended by the opponents of vaccination in disputing and distorting the older statistics, with the object of discrediting the evidence based upon them, that there may be especial advantage in studying the most recent outbreaks before they pass out of reach for the purpose of verification. Even here many red herrings will doubtless be drawn across the scent. As regards adults, there will, of course, still be the usual cavilling as to the classification of patients as "vaccinated" or as "unvaccinated." This difficulty, however, cannot arise as regards the children in recent epidemics, the records of whose vaccination are still in existence, and here the evidence in favour of vaccination is simply overwhelming and unanswerable.

In the following table, therefore, I have endeavoured to summarise the facts relating to all the more important recent small-pox outbreaks in this country, respecting which statistics and reports have reached me, and I feel that the more that information is studied the more clearly does it bear irrefutable evidence of the protective value of "efficient" vaccination. With respect to some of the recent outbreaks I have not been able to ascertain in detail the age distribution of the cases, and they therefore cannot be tabulated uniformly. These I have omitted from the tabular statement, but I have subsequently dealt with the facts individually.

I should have been glad to have added to this table columns showing how the population in each town was made up at the time of the epidemic, how many of the inhabitants were vaccinated, and how many were unvaccinated; how many of the children under 10 years were vaccinated, and how many were not. But as calculations of that kind could only be approximately accurate, it might needlessly afford the opponents of vaccination an opportunity for quibbling, and might thus lead to obscurity of the main points which the indisputable figures amply prove. These points are that the vaccinated children under 10 have been almost immune from death by small-pox, and that where they have contracted the disease they have suffered from it in its mildest form, often having only "a few spots" and little constitutional disturbance; whilst, on the other hand, the unvaccinated children have suffered in every instance more severely, some 20 to 50 per cent. of the cases amongst them terminating fatally. The unvaccinated children have, in short, suffered terribly, whilst the vaccinated have suffered very lightly, and this in spite of the facts that, broadly speaking and taking the aggregate of the enumerated towns and districts, the vaccinated are seven or eight times as numerous as the unvaccinated, that the vaccinated include a large

Table Showing the Distribution of Small-pox Cases and Deaths in a number of Large Towns between the Years 1887 and 1894.

Period of Epidemic.	Towns.	Population.	Total Small-pox			Under 10 Years of Age.									Over 10 Years of Age.								
						Vaccinated.			Unvaccinated.			Doubtful.			Vaccinated.			Unvaccinated.			Doubtful.		
			Cases.	Deaths.	Mortality Per Cent. of Cases.	Cases.	Deaths.	Mortality Per Cent. of Cases.	Cases.	Deaths.	Mortality Per Cent. of Cases.	Cases.	Deaths.	Mortality Per Cent. of Cases.	Cases.	Deaths.	Mortality Per Cent. of Cases.	Cases.	Deaths.	Mortality Per Cent. of Cases.	Cases.	Deaths.	Mortality Per Cent. of Cases.
March, 1887, to Feb., 1888	Sheffield	274,112	4,677	474	10.1	353	6	1.7	228	100	43.9	—	—	—	3,771	194	5.10	322	174	54.2	—	—	—
Year 1892	,, ...	329,585	47	3	6.4	1	0	0.0	2	0	0.0	—	—	—	20	2	5.50	8	1	12.5	—	—	—
,, 1893	,, ...	333,922	102	4	3.9	6	0	0.0	7	0	0.0	—	—	—	79	3	3.70	3	0	0.0	7	1	14.2
Aug. 1892, to Dec., 1893	Leicester ...	184,547	347	21	6.05	2	0	0.0	105	15	14.3	—	—	—	190	1	0.52	48	4	8.3	2	1	50.0
May, 1892, to March, 1893	Warrington ...	54,000	598	60	10.03	24	0	0.0	32	13	40.6	1	1	—	506	32	6.30	34	13	38.2	1	1	—
1892-3	Halifax	84,000	513	44	8.5	4	0	0.0	67	22	32.1	—	—	—	421	8	1.90	21	14	66.0	—	—	—
Jan., 1892, to June, 1893	Oldham (Westhulme Hospital)	166,000	605	63	10.4	15	0	0.0	97	27	27.8	2	1	50.0	431	19	4.40	51	14	27.4	9	2	22.2
1893	Blackburn	124,000	79	8	10.1	3	0	0.0	—	—	—	1	1	—	68	2	2.90	4	3	75.0	3	2	66.6
1893	Bolton	117,000	44	6	13.6	1	1	—	—	—	—	—	—	—	30	0	0.00	6	3	50.0	7	2	28.5
1892	Bradford	219,282	28	4	18.0	2	0	0.0	1	1	—	—	—	—	20	2	10.00	2	1	50.0	—	—	—
1892	Brighouse	10,500	134	15	11.2	6	0	0.0	19	7	36.8	—	—	—	104	6	5.70	5	—	40.0	—	—	—
1893	,, ...		23	2	8.7	3	0	0.0	2	0	0.0	—	—	—	17	2	11.70	—	2	—	1	0	0.0
1893	Derby	87,000	46	7	15.2	1	0	0.0	6	3	50.0	—	—	—	31	2	6.40	8	2	25.0	—	—	—
1892-3	Glasgow	677,883	259	18	6.9	10	0	0.0	2	2	100.0	—	—	—	238	11	4.60	9	5	55.5	—	—	—
1894	Hastings	63,466	86	9	10.4	4	0	0.0	10	4	40.0	—	—	—	63	3	4.70	4	0	0.0	7	2	28.5
1893	Huddersfield ...	97,500	48	2	4.1	—	—	—	1	1	—	—	—	—	36	1	3.30	17	2	11.7	—	—	—
1893	Keighley	32,000	72	7	9.7	1	0	0.0	24	4	16.6	—	—	—	163	5	3.07	13	4	30.7	—	—	—
1892	Liverpool	517,514	194	15	7.7	7	1	14.4	11	5	45.5	—	—	—	332	14	4.20	23	5	21.7	—	—	—
1892-3	Manchester ...	515,598	378	22	5.8	4	0	0.0	19	3	15.7	—	—	—	11	0	0.00	2	1	50.0	3	0	0.0
Nov., 1892, to June, 1893	Middleton ...	22,162	22	2	9.1	2	0	0.0	3	1	33.3	1	0	0.0	25	1	4.00	1	1	—	—	—	—
April to July, 1894	,, ...		34	4	11.7	0	0	0.0	8	2	25.0	—	—	—	18	0	0.0	—	—	—	—	—	—
1892	Ossett ...	11,100	19	1	5.2	0	0	0.0	1	1	—	—	—	—	23	0	0.00	2	0	0.0	—	—	—
1893	,, ...		26	0	0.0	0	0	0.0	1	0	0.0	—	—	—	13	0	0.00	3	1	33.3	—	—	—
1893	Pudsey	13,400	17	1	5.9	0	0	0.0	1	0	0.0	—	—	—	12	8	6.40	17	5	29.4	5	1	20.0
1893	Salford	203,431	174	21	12.0	7	0	0.0	20	7	35.0	—	—	—	103	0	0.00	7	4	57.1	20	1	5.0
1893	Southampton	68,325	152	8	5.2	13	0	0.0	8	3	37.5	1	0	0.0	19	0	0.00	1	1	—	—	—	—
1893	Swansea	93,816	23	1	4.3	3	0	0.0	—	—	—	—	—	—	14	0	0.00	1	1	—	1	1	—
Oct., 1892, to July, 1893	York	66,912	72	7	9.7	2	0	0.0	5	1	20.0	—	—	—	56	4	7.10	8	1	12.5	1	1	—
			Under 15 Years of Age.												Over 15 Years of Age.								
1893	Birmingham* ...	487,897	979	70	7.1	107	0	0.0	69	20	29.0	4	0	0.0	749	38	5.10	36	12	33.3	23	0	0.0
1887-8	Bristol* ...	225,028	327	37	11.3	64	0	0.0	22	12	54.5	—	—	—	208	11	5.30	33	14	42.2	—	—	—
1893	,, ...		104	19	11.5	12	0	0.0	15	6	40.0	—	—	—	128	8	6.33	11	5	45.4	—	—	—
1893	Walsall*	74,000	778	71	9.1	123	2	1.6	141	41	29.0	4	3	75.0	431	4	0.90	66	20	30.3	13	1	7.7
	Totals		11,064	1,026	9.2	780	10	1.2	927	301	32.4	14	6	42.8	8,468	381	4.50	774	313	40.6	168	15	14.5

* In these instances the available statistics only enable the cases to be distributed according as they were under or over 15 years of age, instead of under or over 10 years of age.

proportion of children whose vaccination has been very imperfectly performed, that both the vaccinated and the unvaccinated are drawn from the same aggregate population, and that, again speaking broadly, all live in the same sanitary conditions. The only line of broad distinction between the two classes of children is in regard to their vaccination. Further, as regards adults, we find that although a larger number of vaccinated than of unvaccinated cases occurred, the disease in the one was, with comparatively few exceptions, mild; whilst it was, with comparatively few exceptions, severe in the unvaccinated. This is broadly shown by the fact that only 4·5 per cent. of the vaccinated cases terminated fatally, whilst as many as 40·6 per cent. of the unvaccinated cases died. We must also, in fairly considering this question, bear prominently in mind that the so-called "vaccinated" often scarcely deserve to be so classed, the evidence as to their original vaccination being very vague, and the marks on their arms being in many cases quite invisible. This will be seen to be an important element by those who wish to arrive at a just appreciation of this vitally important national question.

I wish now to set out a variety of details which it has been found impossible to embody in the tabular statement on preceding page, but which are of great interest and importance. I have placed the Sheffield epidemic of 1887-8 at the head of the table for various reasons. Sheffield is not a centre of antivaccination. The law has been carried out there so well that, roughly speaking, some 97 or 98 per cent. of the population are more or less efficiently protected by vaccination. Consequently, when small-pox broke out there in 1887, "well-vaccinated Sheffield" in the throes of a small-pox epidemic was pointed to as about to settle once for all the long-debated vaccination question. The vast importance of the occurrence was so evident that an exhaustive investigation of the matter was wisely instituted at once by the Government through the Local Government Board. This arduous task was entrusted to Dr. F. W. Barry, and his admirable report on the matter, together with Sir George Buchanan's excellent introductory summary, deserves to be carefully studied by anyone desirous of learning whether or not vaccination is what its supporters claim for it. The facts disclosed in that report form such a monumental testimony to the value of vaccination that nowadays one seldom hears the Sheffield epidemic referred to by antivaccinators.

Dr. Barry commenced his inquiry at a time when some 300 new cases of small-pox were occurring each week in the borough, and he was consequently in a position, by prompt personal inquiry and personal observation, to place beyond cavil many matters of fact which otherwise might have been disputed or distorted. He proceeded, with assistants, to make a house-to-house census of the infected localities. I can only give here the broad important facts disclosed by that census. It was found that the total enumerated population of the borough, or rather of the infected divisions of the borough, was 274,112, of whom 268,397 were classed as vaccinated and 5,715 as unvaccinated. Under 10 years of age there were 68,236 vaccinated children, and of these 353 (or 0·51 per cent.) were attacked, and 6 (or 0·009 per cent.) died; whilst at the same age there were only 2,259 unvaccinated children, yet of these 228 (or 10·09 per cent.) were attacked, and 100 (or 4·4 per cent.), excluding for obvious reasons children under 1 month of age, died. Above 10 years of age there were 196,905 vaccinated persons, and of these 3,774 (or 1·9 per cent.) were attacked, and 194 (or 0·09 per cent.) died; whilst there were only 3,429 unvaccinated persons, yet of these 322 (or 9·3 per cent.) were attacked, and 174 (or 5·07 per cent.) died. There were, in addition, 3,256 vaccinated and 27 unvaccinated individuals, whose ages could not be ascertained, and who have therefore been excluded from the above calculations, together with the 24 and 2 cases of small-pox which occurred among them respectively.

These figures are by themselves sufficiently convincing as to the value of vaccination; but I cannot refrain from quoting the following paragraphs from Sir George Buchanan's masterly analysis of Dr Barry's report:

"First, of the children under 10 years of age living in Sheffield during 1887-88, under the common conditions of infection in the whole borough:

"Per 1,000 of the number of children in each class:

"The attack-rate of the vaccinated was	5·09
"The attack-rate of the unvaccinated was	101·00
"The death-rate of the vaccinated was	0·09
"The death-rate of the unvaccinated was	44·00

"Under the general circumstances of the Sheffield epidemic, therefore, the vaccinated children had, as compared with the unvaccinated children living in the town, a 20-fold immunity from attack by small-pox, and had a 480 fold security against death by small-pox. The above relates to the general children—population of the borough;" but "children living in houses actually invaded were, of course, exposed to an intenser and more continuous infection," and presented even stronger contrasts.

"Next, concerning persons over 10 years of age living in Sheffield during 1887-88 under the common conditions of infection of the borough. The vaccinated and unvaccinated members of this class are found to have always differed to a considerable degree from each other, both in regard of attack and of death, and also whether the borough as a whole or its component subdistricts be examined. But this degree of difference, considerable though it has been, has not been nearly so large as in the class of children.

"Per 1,000 of the number of persons over 10 in each class:

"The attack-rate in persons twice vaccinated was ...	3·00
"The attack-rate in persons once vaccinated was ...	19·00
"The attack-rate in persons not vaccinated was ...	94·00
"The death-rate among persons twice vaccinated was ...	0·08
"The death-rate among persons once vaccinated was ...	1·00
"The death-rate among persons not vaccinated was ...	51·00

"Under the general circumstances of the Sheffield epidemic, therefore, the twice vaccinated persons over 10 years of age, as compared with the unvaccinated persons of the same age living in the town, had a 31-fold immunity against attack by small-pox, and had a 640-fold security against death by small-pox."

As regards the more limited outbreak in Sheffield in 1893, the medical officer of health records that of the 85 vaccinated cases, 30 were varioloid, 30 "discrete" or mild small-pox, 11 "coherent," and only 14 confluent. Nine of these last cases showed bad vaccination marks.

(To be continued.)

LITERARY NOTES.

IN some of the biographical notices of Mr. Hulke an error has been made in counting his Jacksonian Prize Essay and his Treatise on the Ophthalmoscope as two separate works. The subject for the Jacksonian Essay in 1859 was "The Morbid Changes of the Retina as seen in the Eye of the Living Person and after removal from the Body, together with the symptoms associated with the several Morbid Conditions." The prize was awarded to Mr. Hulke. In 1861 he published the essay under the title of *A Practical Treatise on the Use of the Ophthalmoscope*. In the preface to the printed book he accounts for the delay in issuing the essay by stating that he had no idea of publishing it, and only did so because he was repeatedly asked by the students at the Royal London Ophthalmic Hospital for a guide to the ophthalmoscopic examination of the eye. In the printed book many cases and copious anatomical notes are omitted, and an account of all the ocular structures and of the optics of the ophthalmoscope is added.

A copy of *Wiseman's Treatise of Wounds (1672)* has just been added to the library of the Royal College of Surgeons of England. When Sir Thomas Longmore was writing his *Life of Wiseman* he was unable to hear of more than two copies, one in the British Museum and one in the Library at Netley. This copy which has just come to light is a very interesting one, as it is a presentation copy from the author. On the cover is written, "May 27th, '73, this booke was sent me by ye Author from Kinge's Streete in Covent Garden. Ja. Welsh." From James Welsh it passed to Thomas Welsh, who sold it in 1678 to Mich. Cadman, jun., for 2s. 6d. This inscription throws some light on Wiseman's place of residence. There are references to his living in Covent Garden, but except this note no mention of the name of the street in which he lived.

Dr. Thomas Harris, of Manchester, has in the press a monograph entitled *Indurative Mediastino-Pericarditis*, which will shortly be published by Messrs. Smith, Elder, and Co.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, MARCH 2nd, 1895.

THE MEDICAL PROFESSION AND MEDICAL CLUBS AND SOCIETIES.

Evidence reaches us from week to week—almost from day to day—of the rapid increase or extension of organisations for exploiting the medical profession for the benefit of various combinations of persons. Sometimes these combinations are medical clubs, sometimes friendly societies; sometimes they are limited companies which trade under the name of Medical Aid Associations, or under similar designations. The position of affairs which has been brought about is a serious one for the general body of the profession, and it is yearly becoming more serious. The organisations to which we refer are of various origin: in some cases they have been founded primarily on provident principles, in other cases they have been from the first mere trading companies. While we would be the last to speak otherwise than in terms of praise of the provident principle, it must always in justice be borne in mind that in the application of this principle to the provision of medical attendance there are two parties to the arrangement, and we think that there can be no doubt that from a combination of circumstances the remuneration paid by medical clubs and friendly societies to their medical officers has been reduced below an equitable standard.

We have repeatedly called attention to the action which has been taken by the medical profession in Cork, by and through the local Branch of the British Medical Association. The fees paid by the medical clubs and friendly societies in that city have been absurdly low and utterly inadequate if regarded as remuneration for the services rendered. Further, owing to the absence of any wage limit, persons in the enjoyment of considerable incomes have contrived to become or to continue members of these societies, and to obtain, on payment of an annual sum of 6s. 6d., medical attendance for themselves and for their families. Other abuses have flowed from this fundamental abuse, and, after full consideration and consultation, the South of Ireland Branch last October, with the unanimous approval of all medical men practising in Cork, sent a circular letter to the clubs, stating that after December 31st last they would require an alteration in the scale of remuneration, and would insist upon the imposition of a wage limit. The annual payments indicated in this circular letter were low—in fact, it has appeared to many practitioners in England that the payments were too low; and exception has been taken to the scheme on the ground that the medical men in Cork are willing to undertake attendance on members and their families for an annual sum below the rates which prevail or would be accepted in England.

This should be clearly understood by the friendly societies in Cork, who, at a public meeting held last week, nevertheless denounced these new rules as "unreasonable and impracticable," and strongly protested "against the attempt to impose upon the Cork benefit societies rules which are not in force in any part of the United Kingdom." A more absurd resolution has probably never been adopted even at a public meeting in Cork. Such rules may not be in force elsewhere; but if they are not in force it is because the public sense of right and justice has in other parts of the United Kingdom rendered it unnecessary for the medical profession to take united action against such scandalous abuses as have been brought to light in Cork.

We have said that the determined attitude assumed by all medical men practising in Cork has the sympathy of the whole body of the medical profession, and we cannot say too strongly that the occasion is one upon which this sympathy should receive distinct and practical expression.

At the last meeting of the Council of the British Medical Association, which was attended by representatives of Branches from all parts of the United Kingdom, resolutions were adopted expressing sympathy with the medical profession in Cork, and authorising the publication in the Journal of a special appeal for contributions to a fund started in Cork to indemnify those members of the profession in that city whose pecuniary interests have been seriously affected by their public spirited conduct in resigning their connection with clubs and friendly societies which have shown themselves totally unfit to appraise the value of the services rendered by their medical officers. The treasurer of the fund is Dr. Denis Dempsey Donovan, of 51, King Street, Cork, and we have already printed two lists of subscriptions to the fund, but it appears to be a matter of importance that the number of names upon the list of contributors should be largely increased. Medical men in Cork are fighting the battle of the profession at large, and should therefore receive the support of the profession at large.

SCHOOLS OF DEGENERATION.

The old-fashioned lover of good literature, the man who believes that ethical and æsthetic principles are not to be overset because we are drawing near to the end of a century, may for once lay aside his excellent rule—when he hears a new book talked about to read an old one—for in Dr. Max Nordau[2] he has found an avenger of many insults. He may

[1] The following is an extract from the minutes of the Council of the British Medical Association held on Wednesday, January 16th, 1895: "Moved by the President of Council, seconded by the Treasurer, and resolved: That the Council of the British Medical Association receive most cordially the deputation from the South of Ireland Branch, and much regret to hear of the unfortunate contention which has occurred within the area. The Council strongly condemns the admission of improper persons as members of medical aid societies. They deeply sympathise with those medical men who have been compelled to resign their positions, and unanimously resolve to render them all the assistance in their power. Moved by the Treasurer, seconded by Dr. Saundby, and resolved unanimously: That notice be given in the Journal that a fund has been opened by the South of Ireland Branch for assisting the medical men in Cork who have resigned their positions, and that subscriptions be received from members of the Association towards this fund. Copies of the foregoing resolutions were ordered to be sent to the Branches in the United Kingdom."

[2] *Degeneration*, by Max Nordau, translated from the second edition of the German work. London, William Heinemann, 17s. net.

wish, perhaps, that Nordau himself were a little more sparing in epithets, he will wish most certainly that Nordau was a little less spendthrift of words; but, after all, Johnson said he loved a good hater, and if we cannot love Nordau's violence, we may admire his enthusiasm.

Dr. Nordau's main argument may be stated somewhat as follows: There are among persons—abnormal obviously by deficiency—a certain class or classes who may be placed provisionally together as degenerate by congenital defect. Some of these present pathological exaggerations of certain mental qualities; they are dominated by one idea, filthy in thought and speech and act, and present perhaps some perversion of the sexual instincts; they see visions and hear voices; they are absurdly egoistical, or live in a condition of mental exaltation or megalomania which is obviously abnormal. If in contemporary literature, art, or politics we find persons who, by reason of their vehemence in the promulgation of so-called new theories or new ideas, have obtained a following we may inquire whether they do not present some other of the defects which when observed in lunatics are admittedly characteristic of their unhappy state. If we do find such indications we are to conclude, not that everybody who indulges in pornography, or egoism, or mysticism is a fit inmate for a lunatic asylum, but, recognising that such tendencies in a more developed form are due to degeneration, we may ask ourselves very seriously whether these would-be prophets are really pointing the world the upward road of advance or whether they are not, impelled by their own defects, bidding us to take the road downwards to decay and degeneration.

That there is a parallelism between the type of mental organisation characteristic of a large class of these "degenerates" who crowd our madhouses and some of the most conspicuous tendencies of certain modern schools of art, literature, and politics, is an obvious truth, though a man may be called a philistine for saying so. And that there is a singular strain of hysteria in the utterances of some of the disciples of the prophets of the modern Baal must be obvious also to anyone who knows what hysteria really is. A man or woman possessing some faculty in an unusual degree, but others in an enfeebled degree, is a degenerate being, and not a genius, for a true genius is an individual who possesses a faculty developed in an extraordinary degree, but with the other faculties at least equal to the average standard. Take from the true genius the special capacity through which he becomes a genius, and there still remains a capable, intelligent, and judicious man; but, take away from the morbid genius his one great faculty, and there remains a criminal or a madman. The danger for the world is that the gifted degenerate deceives the great multitude of the hysterical, easily swayed by suggestion, and driven by their egoism to make a great clatter, so that they may attract the public notice which they love. Thus a "school" arises, and it quickly comes to be the interest of a number of people who are not "degenerate" or hysterical, but merely commercial, to maintain and extend the cult. The young are taught that the school reflects "the richer vibrations of the refined nervous system of the present day," and embodies "the ceaseless quest of a new idea by the modern spirit," whereas what the ignorant hold to be the outburst of gushing, youthful vigour and turbulent but constructive impulses are really nothing but the "convulsions and spasms of exhaustion." The material appliances of "civilisation" have advanced so rapidly that the human organisation in large cities, where the pressure of "civilisation" is the greatest, fails to adapt itself continuously to the environment. Thus, for example, the anarchist, a product of city conditions, is a being incapable of adapting himself to his environment. He desires, therefore, to reduce human affairs to original chaos in order that his environment may be adapted to the conditions of his own mind.

It is easy to push a theory of this nature too far and we are disposed to believe that Dr. Nordau has in more than one instance been betrayed into an exaggeration of language and of statement which will do the cause he has at heart no good. But that he is right in his main thesis there can be little doubt, nor can it be doubted that he is right in looking hopefully to the future. The human race, as a whole, is not degenerating, but from the operation of a variety of causes which are set out with much brilliancy in this book, the degenerate has for the moment risen like a scum to the surface. The hysteria of the present day will not last, and the feeble and the degenerate will perish; the strong will adapt themselves to the acquisitions of civilisation or will subordinate them to their own organic capacity.

THE ABUSE OF MEDICAL CHARITIES IN LONDON.

The series of articles in the *Westminster Gazette*, lately published under the above heading, has, we may hope, succeeded in attracting the attention of the general public to certain evils attendant upon our present methods of hospital administration—evils already familiar to most of the members of our own profession who have devoted even a small amount of thought to the matter. It is something so to place the facts contained in a Blue Book before the eyes of the readers of an evening paper that they will pay heed to the things that are written. After the elaborate report of the Lords' Committee on metropolitan hospitals published in 1892 there was not much to be said on the subject that had not been said before; yet we may fairly congratulate the writer upon the accomplishment of what our school friend Horace long ago declared to be a difficult thing, "*proprie communia dicere*," or, as we may paraphrase it, so to write upon commonplaces as to make them one's own.

Space would fail us to go over the whole ground traversed, but upon a few points we may venture to dwell. It is stated "that experience shows that hospital managers in the majority of cases in no way concern themselves with the abuse practised upon their institutions. Their supreme desire is to be able to point to a commanding record for in-patients and out-patients during the course of a year's working." This allegation seems to us to have much force in it. And the causes of this indifference to abuses is not far to seek. We are all attracted by signs of progress, the benevolent no less than the rest of mankind, and a progressive hospital is in vulgar parlance "the one for our money." Now how are the managers of hospitals to demonstrate progress? Of course everyone who knows anything knows that a mere numerical increase in out-patient attendances is of an importance quite secondary to a skilful medical and surgical staff, good nursing, careful administration, high moral tone, and kindly treatment of the inmates; but these signs of ad-

vance do not lend themselves to short advertisements to be paid for by the line. Statistics, on the other hand, are particularly adapted for such uses.

It is now a good many years since one clever hospital secretary realised the potentialities of the out-patient department for impressing the public with the amount of work done, and the steady annual increase of the same. With a definite number of beds in occupation the in-patients cannot widely vary from year to year, but with out-patients there is no knowing how largely and profitably one may inflate the returns, especially when, according to general custom, a renewal of a subscriber's letter is counted as a new patient. And so, when once the ball was set rolling, other hospitals had to play the game, and vigorously has it gone on ever since. Of late years, in answer to remonstrances from our own profession, some hospitals have appointed an inquiry officer to prevent the reception of undeserving cases, and the remedy may be of some little value, rather, however, from the knowledge on the part of the would-be impostor that such an officer exists than from any effectual investigations that he can undertake. There is, we believe, an inquiry officer at the London Hospital, but even supposing that he has several assistants, how is he to make inquiry into the circumstances of any but an insignificant proportion of the 127,094 actual out-patients who are returned in the *Charities Register and Digest* as having been relieved by this institution alone in 1893? The British Medical Association has tried on several occasions to induce the managers of hospitals throughout the metropolis to place such an officer upon their permanent staff, and there can be no objection to asking for half a loaf when the alternative is no bread, but he is indeed a simple or sanguine man who imagines this solution of the problem to be at all an adequate one.

The plain fact is that this particular form of abuse does not offend the bulk of subscribers—indeed, so far is it from offending them that some of them are themselves ready to aid and abet the practice by sending with letters to hospitals people who can quite well afford to pay a doctor at their own homes. If the subscriber who sends an unsuitable patient happen to be an influential personage, the secretary of the hospital, as in the striking instance quoted by the writer in the *Westminster Gazette* from our own columns, may be tempted not to look too narrowly into the case for fear of offence. Probably few except officials know to what devices rich folk will resort to escape from their proper liabilities. It is not long since a wealthy tradesman, and a knight to boot, wrote to a large hospital asking the proper authority to supply him with a letter to a convalescent home for his butler, though he had not been a patient in the wards, had not even been an out-patient, and the worthy knight himself had never subscribed a penny to the institution he sought in so barefaced a manner to plunder. This, however, by way of parenthesis. What we are saying is that there must always be a temptation to the hospital secretary to admit an undeserving patient for fear of offending a wealthy patron, the fear of offending the physician or surgeon who has to treat the case being "a quantity that may be neglected." And herein lies one great obstacle to reform. The only class who feel this abuse are the victimised consultants, and still more strongly the general practitioners, and what, think managers, do they matter? The former are always prepared to give much of their time, especially when they are waiting for patients to be seen at home, and the latter may growl in the pages of their professional journals, but nobody marks them; nor will they be marked, even when supported by a body as important as the British Medical Association, until the governors of hospitals believe that the medical profession as a whole takes an active part in directing the channel into which the contributions of the philanthropic flow. As soon as that conviction is reached, so soon will the managers of hospitals heed the remonstrances of our Association on behalf of their hardly used brethren, whose practices suffer from the unfair competition of the medical charities.

In his second article the writer in the *Westminster Gazette* goes on to consider the question of the issue of subscribers' letters, and condemns the system "as bad in principle, because it is equivalent to implying that certain persons who give to charities insist on having something in return—in other words, a *quid pro quo* for every pound they contribute.' If this contention is well based, we have at once an argument which cuts at the root of the Hospital Saturday Fund, which aims at obtaining letters in return for awards to participating institutions. For our own part we quite admit that these letters are often given, though not by the Saturday Fund, to those who ought not to have them, just as free hospitals are abused by those who ought not to gain admittance, but it has never seemed to us unreasonable that such letters should be issued. Many who subscribe to a hospital never send a patient; on the other hand, if a subscriber has personal knowledge of a case deserving of relief, he may well desire to recommend the patient to the hospital. That tradespeople in a district should give to a neighbouring hospital that they may have letters to hand to their customers as a bonus is, if the allegation be true, a serious evil, and it can only be met by that strict supervision of the applicants in order to eliminate unworthy cases which, as we have shown, is so difficult to get carried out under any system of administration.

In the third and last article we come to the difficult practical question, Who are fit subjects for medical charity? and upon this point we cannot say that we get any clear leading. It is to be presumed that, speaking generally, the fitting class consists of those who, not being actual paupers, are unable to pay fees, and it would be interesting to learn what is the amount of the fee regarded by doctors in the poorer districts of London as the lowest that a self-respecting practitioner can accept. Whilst not in the least seeking to minimise the abuse which exists in this matter, we have not failed to observe that in the special departments at least many patients who, as far as appearances go, seem to be above the hospital class of patients, are not really to be regarded as abusers of charity. Some years ago, when, in consequence of the inquiry before the Lords' Committee then sitting, the point was much debated, occasion was taken to question a large number of those attending a special department in a general hospital who seemed to be of a better class than the ordinary run of patients. In a surprising number of cases the reply was that they had spent all that they could afford on doctors, or that they had attended Dr. So-and-so for so many weeks, and had got no better, and that therefore they were obliged to seek further advice. Nevertheless, even if full allowance be made for

these exceptional cases, no serious observer doubts that much abuse prevails.

The Charity Organisation Society is seeking to resuscitate the movement for the establishment of a Central Hospitals Board for the metropolis. In this movement, suggested by the report of the Lords' Committee, Lord Sandhurst took great interest, and a meeting was actually held to settle a basis of representation, but for reasons into which we need not now enter no great progress was made. The practical difficulties in the way are of considerable proportions, but that such a Central Board might exercise very useful functions in the regulation of medical charity no one can doubt. To take an apt illustration. We have lately recorded in our pages the great meeting at the Mansion House on behalf of St. Thomas's Hospital. On this occasion the Duke of Connaught as President deplored the necessary closure of so many wards from lack of money, dwelt upon the great benefits which the hospital confers on the poor of the neighbourhood, and "confidently looked to the public to support an institution which is capable of such vast good." And now at a time when St. Thomas's and Guy's have literally hundreds of beds closed for want of funds we observe in the *Times* and elsewhere a letter from a gentleman describing himself as chairman of a committee whose object is "the promotion of a large general hospital for South London" on the grounds that the old hospitals are "quite inadequate and not available for" the large population in which they are placed. Perhaps this gentleman's contention may be correct, but more confidence would be felt in his appeal if the question had been impartially investigated by a Board composed of persons conversant with our medical charities and convinced that nothing more can be done to make the empty beds of St. Thomas's and Guy's available before sanctioning an effort to add to the number of struggling hospitals. Though all improvement in social matters is of slow growth, we believe that a Central Hospitals Board, on which the medical corporations and the general practitioners were strongly represented, would be a powerful engine for the education of the public in rational methods of philanthropy and for controlling within due limits that individualism in charitable enterprise which under present conditions seems to us to deserve repression rather than encouragement.

Dr. Armand Ruffer has tendered his resignation of the post of Director of the British Institute of Preventive Medicine.

Sir Henry Roscoe has been appointed Chairman of the Select Committee of the House of Commons which is to inquire into the present system of weights and measures with the view of suggesting any changes which may be necessary.

The next meeting of the Pathological Society of London (Tuesday, March 5th) will be devoted to a discussion on the Bacteriology and Pathological Chemistry of Diphtheria and its Antitoxin. The subject will be introduced by Dr. Bertram Hunt. Specimens illustrating the bacteriology of diphtheria will be shown; and Drs. John A. Hayward and C. P. White will give an account of recent researches.

THE ABUSE OF MEDICAL CLUBS.

It would appear, from an article in the Lincolnshire *Echo* of February 15th, that there is a good deal of dissatisfaction being shown by the profession of Lincoln and the vicinity relative to the present abuse of the club system. Our contemporary, after quoting with approval certain opinions expressed in a recent issue, remarks: "It would be unfair to suppose that the profession are opposed to medical clubs for *bonâ fide* medical men; on the other hand, they cordially approve of them. But they object to be 'sweated' for the benefit of people who can afford to pay the recognised medical fees. It is suggested that to meet the difficulty there should be a wage limit, and that no person earning, say, more than £2 5s. a week should be eligible for admission to a medical club." It concludes by saying: "There is no doubt the medical profession intend fighting to establish a principle of fundamental importance to their material interests, and the outcome of the conflict will be watched with interest."

LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

The Milroy Lectures will be given on March 5th, 7th, 12th, 14th, by Dr. A. Newsholme, M.O.H. for Brighton, the subject chosen being "The Natural History and Affinities of Rheumatic Fever." The Goulstonian Lectures will be given on March 19th, 21st, 26th, by Dr. H. D. Rolleston on "The Suprarenal Capsules." The Lumleian Lectures will be given on March 28th and April 2nd and 4th, by Dr. G. Fielding Blandford on "The Diagnosis, Prognosis, and Prophylaxis of Insanity." The lectures on each occasion will commence at 5 p.m.

THE ATMOSPHERE IN FACTORIES.

In a lecture at the Halifax Philosophical Society on the Use of the Hygrometer in Textile Industries, Dr. Solomon Smith has drawn attention to the fact that while the Cotton Cloth Act imposes a limit to the amount of humidity which is permitted in weaving, where the excessive steaming commonly practised had been the cause of much ill-health, mischief in the opposite direction was apt to arise in spinning from the extreme dryness that prevailed in many factories. It appeared that the flexibility and spinning properties of cotton were at their best at a comparatively high temperature, and that in cold weather raising the cold air to that temperature produced such a large capacity for moisture that the relative humidity was reduced to a degree which not only sometimes interfered greatly with the operation of spinning in consequence of the electricity produced in the process, but was, in his opinion, inimical to health. He advocated the introduction of a certain degree of humidity carefully regulated by hygrometrical observations, to which workpeople were now accustomed in consequence of the provisions of the Cotton Cloth Act, and he thought that there was no danger of any excessive humidity being produced, or of any repetition of the evils which had accompanied over-steaming in cotton weaving, because from the nature of mechanical processes of spinning any approach to excess would be detrimental to the work.

THE PRESIDENCY OF THE ROYAL COLLEGE OF SURGEONS.

Until the lamented decease of Mr. J. W. Hulke the death of a President of the Royal College of Surgeons had only happened once since the institution of the office of "President" in 1821. Mr. R. C. Headington was elected President in 1830; he attended a meeting of the Council on January 19th, 1831, and at a special Council held February 22nd of the same year his death was reported. It was then ordered that the election of a President in Mr. Headington's stead should take place at another special Council which was called for March 2nd. At that meeting Mr. Robert Keate was elected to the Presidential Chair for the remainder of Mr. Headington's term of office. In 1831 Keate was again elected President. When the head of the College was styled "Master" a vacancy arose in a somewhat similar manner. Sir James Earle was elected Master in July, 1817, but did not

attend any meeting of the Court after his election. On September 22nd, 1817, he forwarded a letter to the Court, in which he resigned his office on account of his ill-health. This letter was read at a meeting on October 9th, and an announcement was made that since the receipt of Sir James's letter of resignation he had died. Mr. George Chandler was then elected Master. At the Royal College of Physicians the death of a President whilst in office has happened at least three times. Sir Henry Halford died whilst President in March, 1844, and his vacancy was filled by the election of Dr. J. A. Paris, who also held office until his death in 1856. The recent great loss which the College sustained in the death of Sir Andrew Clark is the third instance alluded to. In all these cases the vacancy was at once filled up. Sir Andrew Clark's death also left vacant the Presidential Chair of the Royal Medical and Chirurgical Society. This was the first time in the history of the Society that death had removed a President during his term of office. In this case a new President was not elected until the next annual meeting, the Senior Vice-President acting as chief of the Society in the interval. The only case of a President of the Royal Medical and Chirurgical Society not filling his full time of two years was Dr. A. W. Barclay, who was elected in 1881, but did not stand for re-election in 1882. Curiously enough the death of Mr. Hulke, like that of Sir Andrew Clark, leaves the Presidential Chair of one of the chief London societies vacant. Mr. Hulke was elected President of the Clinical Society in 1893 and held the office at the time of his death. This is the first instance in the history of the Society of the President dying whilst in office. Illness has once before interfered with the delivery of the Hunterian Oration. In the year 1851 Mr. R. A. Stafford was prevented by severe indisposition from giving the oration. On that occasion it was not read by deputy but the ceremony was entirely omitted.

FUNERAL OF THE LATE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS.

At the funeral of Mr. Hulke at Deal, on Saturday, the institutions with which he was connected were officially represented as follows:—The Royal College of Surgeons by Mr. Reginald Harrison and Mr. Alfred Willett (Vice-Presidents), and Mr. Sibert Cowell (Assistant Secretary); the Laboratories of the Royal Colleges of Physicians and Surgeons by Dr. G. Sims Woodhead; the Middlesex Hospital by Dr. Kingston Fowler, Mr. Pearce Gould, Mr. G. H. Lock (Mr. Hulke's house-surgeon), and Mr. C. J. Armson and Mr. S. E. Trench (representing the Hospital Medical School); the Clinical Society by Mr. John Langton and Dr. C. Holman; the Geological Society by Mr. R. Lydekker (Vice-President). Mr. Harrison also represented the Royal Medical and Chirurgical Society. On arrival at Deal the body was met by Mr. F. B. Hulke, a nephew of the deceased. The other mourners included the Mayor, Town Clerk, and Rector of Deal; Mr. E. Willmott, Dr. S. Plumbe, Messrs. Lewis, Sydney, F. B., and Walter Hulke, Major Plumbe, Mr. G. Barnett, Dr. Sprcate, and Mr. F. Leney. The service was conducted by the Rev. D. Bruce Payne, Vicar of St. George's, Deal. The coffin plate bore the inscription: "John Whitaker Hulke, F.R.S., born 6th Nov., 1830, died 19th February, 1895." On the same day a memorial service was held at St. James's, Piccadilly, and was attended by representatives of the Royal College of Surgeons, the Royal College of Physicians, of the Middlesex Hospital, the Geological Society, and the British Museum, and by many members of the medical profession in London. In our notice of the life of Mr. Hulke published on February 23rd, we omitted to recall the fact that he was the President of the Ophthalmological Society from 1886 to 1889, and that he delivered the Bowman Lecture for 1890, the subject being Sir William Bowman's Work in Relation to Ophthalmology.

THE WATER SUPPLY OF ALDERSHOT.

Mr. Campbell-Bannerman's reply to Mr. Hanbury's question in the House of Commons on this subject confirms in essential particulars the accuracy of the statements which we have made on this subject. Owing to the contamination of the water from the Bourlay reservoir this supply has been cut off, and steps are being taken to obtain an adequate supply from the Aldershot waterworks. Reconstruction of the whole of the drainage of the camp has been determined upon—that of the Stanhope Lines has been completed, that of the Marlborough Lines is nearing completion, and that of the Wellington Lines is in hand. With regard to the abolition of the sewage farm, the arrangements are still "under consideration." The Secretary of State for War stated that during 1894 11 cases of enteric fever occurred, 4 among officers and 7 amongst men. Four of these cases were believed to have been contracted outside Aldershot: one was an orderly who had nursed a patient with the disease; in one case milk supply was suspected (a rather remarkable occurrence, as to which further information would be welcome); two were attributed to unsatisfactory sanitation, and in three cases the cause was considered doubtful. Mr. Campbell-Bannerman's statistics may with interest be supplemented by furnishing the returns for the three previous years. The following table gives the admissions and deaths from enteric fever at Aldershot among the troops for each year:—1891: Admissions, 12; deaths, 2. 1892: Admissions, 28; deaths, 3. 1893: Admissions, 49; deaths, 9. In this period some 16 cases occurred among the wives and children of soldiers. Among the officers 2 cases occurred in 1893, as compared with 4 last year. For the cause of the serious outbreak in 1893 we refer our readers to the Principal Medical Officer's report, which will be found in the Army Medical Department report for that year.

MASON COLLEGE, BIRMINGHAM.

The annual dinner in commemoration of the founder of Mason College, who was born on February 23rd, 1795, took place on Saturday last at the Great Western Hotel, Birmingham. The chair was taken by Professor Clifford Allbutt, M.D., F.R.S., and among those who were present were the Mayor of Birmingham, Sir Walter Foster, M.P., the President, Principal, and Dean, several trustees and members of the College staff, and about forty medical men from Birmingham and the Midland counties. After the loyal toasts, "The Memory of the Founder" was drunk in silence. Professor Clifford Allbutt, in proposing the toast of "The College," observed that Sir Josiah Mason had shown not only munificence as a founder, but also great breadth of mind in acting upon the advice tendered to him, and in gradually extending the scope of the College until it might now be properly termed a university college. The giving of degrees was a legitimate ambition, but it was not a necessary mark of a university college; it was rather a matter of internal convenience, but indicated that the teaching in the college where they were given was free. So long as students had to be examined by somebody else teaching was not free. Therefore, he hoped that the time would come when Mason College would be able to give degrees, not because they were wanted for advertisement, but to indicate the kind of training to which its students had been subjected. Principal Heath, in responding, said that in a great industrial centre the training to be given must bear a relationship to the industry of the district, but a lofty ideal and a high plane of intelligence were attainable, although the training had to bear close relationship to the practical issues of life. The College had been much encouraged by the receipt during the year of no less a sum of £17,000 from various benefactors, a fact which showed that the work commanded the respect of leading men in the Midlands. Professor Windle (Dean) said that the clinical field provided for medical students in Birmingham was ample. The

ordinary courses of instruction were followed at the General and Queen's Hospitals, and students were able to attend also the Corporation Fever Hospital and Lunatic Asylums as well as the Eye, Orthopædic, and Ear and Throat Hospitals. They had reason to be proud also of their Medical School, which provided more than 50 per cent. of the honorary and paid staffs of the hospitals of the city, an eloquent proof of the confidence of the managers of these institutions in the school. The toast of "The City" was proposed by Professor Lapworth, and acknowledged by the Mayor. The toast of "The Visitors" was given by Professor Barling, and Sir Walter Foster in response spoke of the educational facilities in Birmingham provided largely through the munificence of its citizens. As a member of the General Medical Council, he knew that the high standard of passes for which the Medical School had always been distinguished was maintained, and more than maintained. Mr. Oliver Pemberton (President) proposed "The Health of the Chairman," which was briefly acknowledged by Professor Allbutt.

TO SPIT OR NOT TO SPIT.

A correspondent asks whether to spit is useful or injurious to smokers. We should be glad to be able to say that it is injurious, but unfortunately it is more likely to be harmful to others than to the smoker himself. On the other hand, spitting may be a means of getting rid of any poisonous substances that may find their way into the smoker's mouth. Recent researches have shown that nicotine, of which Calverley sings, how

> One or two at most
> Drops make a cat a ghost,
> Doctors have said it!

is not, as used to be supposed, the most dangerous principle, but pyridine and collodine. Nicotine is the product of the cigar and cigarette; pyridine, which is three or four times more poisonous, comes out of the pipe. It would be well both for the devotees of tobacco and their neighbours if they took care always to have the smoke filtered through cotton wool or other absorbent material before it is allowed to pass the "barrier of the teeth." Smokers might also take a lesson from the unspeakable Turk, who never smokes a cigarette to the end, but usually throws it away when little more than half is finished. If these precautions were more generally observed, we should hear much less of the evil effects of smoking on the nerves and heart, and on the tongue itself. Persons whose salivary glands are abnormally excitable should smoke only the mildest tobacco. Spitting, however, is largely a matter of habit, and a good deal may be done by most smokers to control it. Persons who cannot smoke without constant spitting should for the comfort of those about them forswear tobacco altogether.

UNSATISFACTORY INQUESTS.

Hardly a week passes without our being compelled to call attention to the lax and inefficient manner in which inquests are too often conducted, but a case recently reported in the *Wilts and Gloucestershire Standard* of February 16th, seems, in the extreme futility of the result reached, to exceed the common run. According to the report before us, the inquest was held by a legal deputy coroner to ascertain the cause of death of an infant aged 9 months, which was found by its mother dead beside her in a bed which was also occupied by a little girl aged 2 years and a man with whom the mother lived. The mother is reported in her evidence to have stated that she could suggest no cause for the death of the infant, except inflammation of the lungs. She had had four children die of that complaint, to which she herself was subject, and a doctor had told her that she would not be able to keep any children. No medical evidence appears to have been called. The verdict arrived at by the jury is stated to have been to the effect "that death was due to inflammation of the lungs or teething." It is surely absurd to go through the formality of an inquest to arrive at such an inconsequential result. Some time ago an inquest was held at Dundalk which can hardly be said to have ascertained the cause of death. According to the report in the *Dundalk Herald*, the body was that of a man, aged 34, of somewhat drunken habits, who was on his way to Dublin to appear in the Bankruptcy Court on the morning of the day he was found dead. He was not known in Dundalk, and had only come to the hotel the night before, at 10 o'clock. When the "boots" went to call him it was found that he was dead; the body was in a sitting posture on the floor, both arms being raised up, the elbows in line with the mouth, and the hands half closed pointing to the mouth; the body was very rigid; there was no external mark of violence. The doctor who was called in very properly declined to express any opinion as to the cause of death without a *post-mortem* examination, and the coroner—we believe a medical man—expressed an opinion to the same effect, but at the same time he said that it was entirely for the jury to decide whether a *post-mortem* examination should be held or not, and the jury promptly returned a verdict of "Death from Natural Causes.' One gentleman who attended the inquest, apparently in an official capacity, is reported to have said that where there was no suspicion of foul play or criminal charge against anyone, it would be a very strong measure to hold a *post-mortem* examination to see what the man had died of. If he really said anything to this effect, all we can say that a more illogical utterance can seldom have been made even in a coroner's court.

LORD ROSEBERY.

We understand that Lord Rosebery is now making satisfactory progress. The attack of influenza from which he is suffering has been a very severe one, being of so extremely asthenic a type as to have given rise to much anxiety. The temperature, however, is now normal, and no complication has declared itself, and except for the persistent sleeplessness, which it has not been possible more than partially to overcome by therapeutic means, he may be considered to be doing well. From the commencement of the attack, Lord Rosebery has been entirely unfit to give any attention to his public duties.

SURGEON-MAJOR G. S. ROBERTSON.

It is rather an odd thing that the Reuter's telegrams from Calcutta have again begun to speak of "Mr. Robertson, the British Commissioner," who is now at Chitral Forts, on the extreme north-western frontier of India. This gentleman is an officer of the Bengal Department of the Indian Medical Service, and holds the rank of surgeon-major. We do not quite understand why this fact should be suppressed. He served during the expedition against the Hunza-Nagars in 1891-92, was mentioned in despatches, and received the medal and clasp. He has been employed for many years on the frontier, and has shown himself to be an intrepid explorer, possessed of extraordinary tact and discretion in dealing with the wild tribes of "the roof of the world."

OPHTHALMIA IN METROPOLITAN PAUPER SCHOOLS.

In the recently issued report of the Local Government Board, Mr. Hedley, inspector for the district comprising the metropolis, says: "Ophthalmia is the bane of all the Poor-law schools, particularly the large ones. I cannot hope that it will ever be wholly eradicated. The disease exists among the population whence the schools are recruited. It is, in my opinion, much to be desired that two eye hospitals, one on the Middlesex side of the Thames, one on the Surrey side, should be provided, to which all cases occurring in the schools, and all children found on first admission to be suffering from eye disease, could be at once admitted. There have during the year been serious outbreaks of the complaint at the Hackney and Bethnal Green School's and the South Metropolitan District Schools at Sutton." This is

a sufficiently serious indictment against the barrack schools, made as it is by a Government official reporting to his own department. His suggestion as to the isolation and systematic treatment of cases of ophthalmia is worthy of consideration. Among the various evils arising from the present methods of dealing with pauper children is the fact that each Board of Guardians and each set of school managers acts for itself, as if there were no other pauper children in existence. It thus happens that, while the number of children in each barrack school is vastly too great, the total number under the management of any one Board is too small to enable them to institute, with anything like due economy, that classification of abnormal and often infectious cases which is necessary where large numbers of children have to be dealt with. That this is so is shown by a remark in Mr. Hedley's report. The extensive provision of accommodation which had been found necessary for the treatment of the chronic outbreak of ophthalmia at the Central London District Schools at Hanwell had been most beneficial; but now that the number of cases arising in those schools has greatly lessened, "the ophthalmia department being now far in excess of the requirement of their own schools, the managers have, with some reluctance, consented to receive for the space of two years cases from other schools." Why with some reluctance? Clearly because the other schools are nothing to them; and, except for monetary considerations, their own ample accommodation for such cases might stand idle, while other schools struggle with their ophthalmia cases as best they can. What is wanted is a central clearing house, a sort of metropolitan school board for pauper children. Complete classification would then be possible; children then could, according to their character, their age, and their physical and mental condition, be boarded out, or sent to cottage homes, or to reformatory or industrial schools; and special institutions could be maintained for the treatment of those who were abnormal or diseased. Ophthalmia cases would go to one, ringworm to another, epilepsy to a third, and so on. What is already done for imbeciles would be done for those who are bodily deficient, and the rest could partake of the general educational facilities provided by the country for the use of all. Then, at any rate, we should not find ophthalmia spreading in some schools for want of the appliances necessary for its treatment; while in other schools these appliances, although "far in excess of the requirements," are only "with some reluctance" made generally available.

THE PREVENTION OF INFLUENZA.

With regard to the prevention of this disease something has been learnt during recent epidemics. In the first place we know that it is an infectious disease, conveyed directly, as a rule, from the sick to the healthy. Isolation, therefore, of every case at the beginning of the attack is the first necessity. The infection does not appear to be able to travel far, and confinement to one room of the first case will often prevent the spread through a household and is also the best thing for the patient. In the second place, though we fear it must be admitted that the healthiest may catch the infection, yet there are good grounds for believing that they are less liable to do so than those who are debilitated, and if they are attacked they, as a rule, suffer less severely and are better able to combat the depressing effects. A regular life, plenty of open-air exercise short of fatigue, a proper number of hours in bed, and regular meals of good, simple food are among the best prophylactics. In the third place it is highly probable that the infection is contracted through the mouth, throat, and respiratory passages. The use of an antiseptic mouth wash several times a day would seem to be a reasonable precaution, and cleansing of the nostrils with a similar solution, either with a small syringe or by the simpler method of drawing a little of the solution into the nose from a hand basin, should also be practised. In the fourth place the advice so often given not to despise, or to attempt to fight down the disease when once it has begun, must be repeated and insisted upon. It was said last year by many experienced physicians that the best cure for influenza was two days in bed in a warm and well-ventilated room. We do not think that this recommendation can be improved upon.

THE NEW EPIDEMIC OF INFLUENZA.

There was a very marked increase last week in the fatality of influenza in London. The deaths directly attributed to this disease, which had been 16, 13, and 24 in the three preceding weeks, further rose to 111 during the week ending Saturday last, February 23rd. In addition to these deaths primarily attributed to influenza, there were others in which influenza was certified to have occurred in the course of other diseases. As in the case of previous epidemics, the mortality among elderly persons from the disease shows a marked excess, 50, or about 45 per cent., of the 111 deaths being of persons aged upwards of 60 years. These 50 deaths from influenza among elderly persons were equal to an annual rate of 9.3 per 1,000 persons estimated to be living at that age-period, while the remaining 61 deaths which occurred among persons under 60 years of age were equal to only 0.8 per 1,000 persons living at that age-period. In other words, among equal numbers living influenza was last week nearly twelve times as fatal among those who had reached the age of 60 years as among younger persons. Although the disease is becoming more or less generally prevalent throughout the metropolis, it is proportionally much more fatal in West London, especially in Kensington, Fulham, and St. George Hanover Square. South London appears to be more free from the epidemic than any other part of the metropolis, although influenza appears to be fatally prevalent in Brixton and Battersea. The deaths referred to diseases of the respiratory organs in London last week were as many as 1,119 and were more than double the average; they included 787 from bronchitis and 256 from pneumonia. It is certain that many of the deaths primarily attributed to these diseases were indirectly due to influenza. As in the first onset of this group of outbreaks, namely, in 1889, the disease has appeared to spread with great rapidity over large areas. We hear of it in Berlin, where for some years back it has not appeared with such severity as it has lately shown; in Munich, 30,000 people are reported to be affected; from Russia reports arrive; and from many districts in England we receive information of the spread of the disease. Our Edinburgh correspondent says: Influenza has now attained to the dimensions of an epidemic in Edinburgh. Every doctor is overwhelmed with work; some are themselves down with the plague. The death roll for the past three weeks will perhaps best indicate the state of affairs. In the week ending February 9th there were 100 deaths, of which 54 were due to chest disease, and of this total of 100 there were 32 of persons over 60 years of age. In the week ending February 16th there were 132 deaths, 83 due to chest disease, and 63 of persons over 60 years of age. Last week 188 deaths—115 due to chest disease, and 54 of persons over 60 years of age; that is, the deaths from chest disease for these weeks stand at 54, 83, and 115 respectively. The death-rates were 19, 25, and 36 per 1,000. The type of influenza does not appear to be so grave as in former years, save in the debilitated; nor is the duration of the attack as a rule so long. As before, there are sad cases of pneumonia supervening, because some persist in "fighting against" the malady. There would appear to be a larger number of cases where albuminuria is a complication, and in some cases hæmaturia. Our Dublin correspondent writes: There are indications of a reappearance of influenza in Dublin. The cases are not numerous, and, so far, the symptoms have been mild. As might be expected, there has been a great increase in deaths from diseases of

the respiratory organs, last week's number (82) being 26 above the average of the past ten years. There were 60 deaths from bronchitis and 17 from pneumonia. From New York, also, reports arrive of the rapid spread of the malady. It would appear from the accounts which have come to hand that during this outbreak the disease has shown a great tendency to affect more especially the respiratory organs, differing in that respect from the epidemic of 1889, which fell with especial force upon the nervous system, and conforming more nearly to the type of disease which prevailed in the spring of 1891, and in the winter of 1891-92. Dr. Thorne Thorne, speaking of the investigations of Dr. Klein, says that while in the blood only one of the cases examined showed the bacilli believed to be the cause of the disease, "it was otherwise with the bronchial sputum" of the cases which had passed through the febrile stages. This in each instance contained bacilli as described by Pfeiffer and Kitasato, which in a recent case were so numerous as to amount almost to a pure cultivation. We may picture influenza to ourselves as an infectious febrile disease, the primary seat of which is in the mucous membrane of the respiratory tract, where it may sometimes be so severe as to cause rapid death from pneumonia, sometimes so slight as to be almost overlooked, while the toxins which it produces are absorbed, and lead to great depression and enfeeblement of the system, and predispose to the occurrence of pneumonia, broncho-pneumonia, and bronchitis as secondary infections.

POOR-LAW OFFICERS' SUPERANNUATION.

It is understood that there is a fair prospect of a Bill to provide superannuation allowance to Poor-law officers, just introduced in the House of Commons by Mr. Long, becoming law this session. Very material support has been promised to it in both Houses. The main provisions of the Bill are stated at page 499. Provision is made with respect to existing officers at the time of the passing of the Act, giving them the option of contributing to secure "certainty," but retaining their present equitable rights under the existing Acts should they decline to do so. The contributions proposed will be compulsory on all officers appointed after the passing of the Act. The all-important change effected by this Act is that it will no longer be optional for Boards of Guardians to decline to award superannuation as at present, even after very long services, and there will no longer be the possible anomaly of a liberal Board of Guardians awarding superannuation after fairly-paid services, and an illiberal Board declining to grant a similar allowance for even longer services, which have been paid for on a less remunerative scale. This latter practice has, as we know in the past, been very common. Many cases of serious hardship have arisen from the permissive character of all previous Acts of Parliament bearing on superannuation. The one now before the House, though perhaps not perfect, ought to receive the support of the whole medical profession. It will, if passed, doubtless ultimately add to the status of the Poor-law Medical Service.

THE OPIUM COMMISSION.

We understand that the report of the Opium Commission has been forwarded to India for the signature of two of the native Commissioners, and that on its return it will be submitted to the Crown and then presented to Parliament. This, however, will not take place before Easter. We believe that the drift of the report will be to show that the statements generally made as to the evils of the use of opium in India have been greatly exaggerated, and that the Commission will not recommend any steps in the direction of prohibiting the growth of the poppy or the manufacture and sale of opium in British India or of any interference with the existing arrangements with the Native States. In the section dealing with the export of opium to China the conclusion will be arrived at that there could not be any interference with that branch of trade without undue and perhaps illegal meddling with the rights of the Native States, which would be looked upon as a very high-handed proceeding not justified by evidence presented to the Commission. Reverting to the question as it affects China, it appears that the evidence went to show that India only sends about one-fifth of what is used in that country and that not only does China grow opium largely, but also imports from other places besides India, notably from Persia. In regard to the question whether any change short of prohibition could be made in the system at present followed for regulating and restricting the opium traffic, some have anticipated some recommendation from the Commission in regard to opium smoking. We believe, however, that in view of the fact that the Indian Government have already withdrawn all licences for opium smoking, no such recommendation will find a place in the report. A separate report, differing in its conclusions, will be sent in by Mr. Wilson, who represents the anti-opiumists. Appended to the report will be a memorandum by Sir William Roberts on the medical aspects of the opium question, and another by Mr. Haridas Veharidas, recording his opinion that the increasing consumption of alcohol in India is a matter of more urgency than is the use of opium.

THE TENURE OF THE OFFICE OF M.O.H.

A deputation representing the British Medical Association, and the Society of Medical Officers of Health, will have an interview on Tuesday or Friday next with Sir Walter Foster, M.P., Parliamentary Secretary of the Local Government Board, in regard to the present system under which medical officers of health are appointed for limited periods. From the *Alfreton and Belper Journal* we learn that the new Urban District Council of Alfreton are to be asked to take advantage of their present power to set aside the medical officer of health, who has served the district under their predecessors for many years. Dr. Gaylor, it seems, lives outside the Alfreton area, and, according to the local journal, this is in itself an advantage, since it leaves the officer unfettered by local interests or influences. At all events, it need not be any disadvantage, and as it appears from the *Medical Directory* that Dr. Gaylor holds similar appointments in adjoining districts, the present arrangement is evidently one which conduces to greater efficiency than the subdivision of the duties and experience among a number of different officers, each acting for a smaller area. There seems to be no suggestion that the duties have not been discharged most ably in every respect, but simply an intention on the part of a section of the new authority to try and find a member of the medical profession sufficiently reckless of professional ethics and usages to be willing to wrest an appointment from one who has long and worthily held it. If there is anything in the background to be urged against the maintenance of the present incumbency, the Local Government Board or the county council should be the judges. If not, it is to be hoped that the proposition will meet with the fate it deserves at the hands of the district council and all self-respecting medical men to whom the overtures may be made.

Edinburgh Health Notes.—Apart from influenza, true and spurious, there is an enormous amount of illness in Edinburgh at present, and excluding measles, of which 683 cases were reported last week, diseases of the respiratory tract predominate. In the junior section of a large public school more than half the boys are absent from "feverish colds." A large elementary school has been closed because of the epidemic of measles. The teaching staff of some of the public schools, banks, public and private offices, are in many cases seriously crippled by absentees from various causes. Coachmen and cabmen appear to have suffered less. Twenty-seven deaths were due to zymotic diseases, 20 being due to measles, 2 to diphtheria, 2 to small-pox, and 3 to whooping-cough.

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA.*

V.

PHARMACEUTICAL DEFECTS IN THE PRESENT *BRITISH PHARMACOPŒIA* FROM THE MEDICAL POINT OF VIEW.

By WILLIAM WHITLA, M.D.,

Professor of Materia Medica and Therapeutics in the Queen's College, Belfast; Physician to and Lecturer on Medicine in the Belfast Royal Hospital.

The announcement that the General Medical Council have commenced operations for a revision of the national *Pharmacopœia* has been received with no small amount of interest by the medical profession. This interest has not diminished since the publication of the debate upon the presentation of the report of the *Pharmacopœia* Committee to the Council, which doubtless has had the effect of directing the attention of the profession more closely than usual to the methods by which the revision is proposed to be carried out. The General Medical Council, and especially the able and untiring Chairman of the *Pharmacopœia* Committee, have earned the gratitude of every medical practitioner at home and in the Colonies for their labours in former revisions.

It is, therefore, in no spirit of fault-finding or censoriousness that it is proposed to examine the methods by which the revision in former years has been carried out. We must look at the inherent difficulties of the work with the view of finding out if possible how they may be overcome or minimised, and, if possible, how a higher standard of excellence may be reached in the next issue of the *Pharmacopœia*. The work must always be regarded from two very distinct standpoints —namely, from the point of view of the pharmaceutical chemist and that of the practitioner of medicine. The *Pharmacopœia* is designed as a guide or aid to the pharmacist who dispenses as well as to the physician who prescribes the remedies for disease. The General Medical Council have always broadly acknowledged this, and, in addition to engaging a number of pharmaceutical experts to assist in the work, they return thanks in the preface to the last edition "for assistance received from several of the medical authorities, scientific bodies, medical practitioners, and from pharmacists."

The circular sent out to the medical bodies in December last states that the *Pharmacopœia* Committee appointed by the Council "are desirous of enlisting the co-operation of the medical authorities and such other bodies and persons as may be able to furnish useful information, with the view of rendering the work as complete and accurate as possible."

By approaching the new revision in this broad spirit, the Parliament of Medicine has shown itself worthy of the trust reposed upon it. At the same time it is obvious that the work cannot be expected to be a success unless the help of medical experts be engaged, and associated in the revision with the distinguished pharmaceutical authorities at present employed in the undertaking. From the nature of the work to be done it is impossible for the editing of the medical side of the *Pharmacopœia* to be satisfactorily accomplished by a committee of the General Medical Council. Supposing that the medical bodies, universities, and teaching organisations take the matter up earnestly, it might be contended that their valuable assistance could be made to take the place of a medical editor or editors. A little reflection will, however, show that medical editorship would probably be only the more necessary under such circumstances. One or more physicians who have devoted themselves to the study of pharmacology and therapeutics would be required to weigh the mass of recommendations and opinions out of which the new *Pharmacopœia* is to emerge. There can be little doubt that experts could be found in London who would undertake the labour, and whose duty it would be to collaborate with the pharmaceutical editor as the work of revision advanced. It is the writer's opinion that only in this way can a *Pharmacopœia* be brought out which will index the medical mind of the nation or be creditable to British medicine.

When one examines the present (1885) volume with its additions of 1890, it becomes apparent that many blemishes and imperfections would have been impossible had a medical expert been made responsible for the medical portion of the work. Thus the entire dosage would have been revised and brought into line with the therapeutics of the day; but as the question of the posology of the *British Pharmacopœia* is to be treated in a subsequent article, nothing further need be said upon the subject in the present paper.

A few examples of pharmaceutical defects in the present volume may, however, be looked at from the medical standpoint with advantage. Opening the *British Pharmacopœia* at the second page one cannot fail to be struck with the question why such an unstable and non-uniform preparation as acetum is still permitted to encumber its valuable space, while we have the acid aceticum dilutum of practically the same strength. As little can be said for the acetum cantharidis.

Passing over such practically worthless encumbrances as the nitrate and phosphate of ammonium, sulphate of beberine, bael fruit, canella and cassia pulp, we come to the group of cataplasmata, the retention of which is a serious blemish upon our national *Pharmacopœia*. The formula of almost every member of the group may be safely pronounced to be at variance with present therapeutic knowledge and experience. One of the most obvious blunders is the directions for the preparation of the cataplasm of hemlock, namely, the instruction to evaporate the hemlock juice to half its volume. The result of this is to completely destroy the property of the drug, unless indeed the evaporation be carried out at a low temperature, which is not stated. Moreover, as it is impossible for the chemist to make and supply these poultices, it is difficult to see why they have been retained. It is probable that few physicians, when ordering a mustard poultice, intend that the official mustard cataplasm, which consists of an equal quantity of linseed meal and mustard, should be applied, nor is the official mustard paper recognised by physicians as a success.

There was a time when something might have been said for the retention of the sulphates of cinchonine and cinchonidine, but from a therapeutic point of view the two pages devoted to their characters and tests are at the present day worse than lost space.

The confections may be regarded as belonging to a past time, and as veterans they lag superfluous on the stage; those of scammony, hips, opium, and, perhaps, turpentine are seldom used. Much may be said for the retention of confections of sulphur, pepper, and senna, but when one considers that the latter preparation contains nine substances, four of which (that is, figs, tamarinds, cassia pulp, and prunes) are solely retained for its preparation, it is obvious that the confection of senna is retained at serious cost, especially as the pharmaceutical process directs the rejection "of the seeds and other hard parts" upon which the laxative properties of its ingredients to a considerable extent depend. If the directions for evaporating the confection at the end of the process be followed the active principle of the senna is very considerably destroyed, and this official representative of polypharmacy is rendered almost useless, as is also the case with the syrup of senna.

The decoctions and plasters afford numerous examples of inert preparations, but perhaps the small group of enemata afford the best examples of official preparations framed in opposition to the recognised principles of physiology and therapeutics. Thus, the enema of aloes is made to measure 10 ounces, and that of sulphate of magnesium 16 ounces, quantities which obviously cannot be retained for any time in the body. It is clear that these five preparations should be excluded, as the physician can give directions when he wishes to use enemata of asafœtida and opium, the only members of the group of any utility.

The space of the present article does not permit of a review of the numerous extracts, many of which are seldom employed, and some of which—notably conium and dandelion —are inert when the official formula is followed. It has been

demonstrated that the hemlock extract may safely be swallowed in enormous doses, its active principle having been destroyed by the high temperature of the evaporation. Perhaps no more obvious example of the defect of a pharmaceutical preparation could be mentioned than that of glycerine of borax. Formerly this valuable preparation, which was faintly opalescent, consisted of 1 ounce of borax dissolved in 4 ounces of glycerine, but in the last revision 2 ounces of water were added, the result being a thin bright liquid, which does not adhere to the diseased mucous membrane, but immediately flows off and is practically valueless as a therapeutic agent. By using the borax in crystals a clear, bright, and adhesive liquid would have resulted. The utility of the preparation was sacrificed to elegance in pharmacy, whilst a little more pharmaceutical knowledge would have redeemed it.

The entire group of infusions should be revised, and most, if not all, must be omitted, from a medical point of view. Their strength and actions vary so much and they are so liable to spontaneous changes, even when combined in mixture form with other drugs, that the days of this form of Galenical preparation are already numbered, and, as Professor Leech has shown, they have practically disappeared from the other *Pharmacopœias* of the world.

Another group of preparations which shows serious defects is the mucilages, though some of these could be easily remedied. Thus mucilage of acacia, which soon becomes acid when kept in ordinary vessels, might retain all its properties fresh if the *Pharmacopœia* supplied the directions for enclosing it in small sealed phials completely filled and excluded from the air and light. It is a common occurrence to see mischief caused in the treatment of stomach affections by this acid mucilage, especially as it is so often used to suspend bismuth. For similar reasons the hypodermic injections are actually dangerous; ergot decomposes, and when injected abscesses result, a state of matters which could be easily avoided; indeed much can be said for excluding all preparations liable to speedy spontaneous decomposition. The injection of morphine requires serious attention. It is quite too powerful; every minim contains one-tenth of a grain, and no matter how careful the physician may be, he is liable to inject one or two minims more than he intends. Owing to its strength the writer regards it as a positively dangerous preparation, and it is probable that death has resulted from its use in the hands of young physicians not accustomed to the daily use of the hypodermic syringe. The introduction of discs or tabloids containing alkaloids in soluble form should replace these unstable injections.

The practically inert aromatic mixture of iron known as Heberden's ink and the vinum ferri are still left as blemishes; they are valuable chalybeates no doubt, but only in the absence of the host of reliable preparations of iron. The same remarks will apply to the pill of iodide of iron.

The saccharated carbonate of iron may be instanced as an example of reform urgently required in the official pill masses; "this carbonate (if reckoned as anhydrous) forms about one-third of the preparation," but commercial specimens, prepared by the official process, generally are found to yield about 20 per cent. of real ferrous carbonate. The dose of the preparation is given as 30 grains, which would mean, when mixed with the official excipient, about one dozen fair-sized pills.

Extractum rhamni frangulæ (never used as an excipient) has its dose fixed at 15 to 60 grs. This means that when made into firm pills of fair size the number required to be administered will amount to at least from 4 or 5 to 15 or 18. The dose of many other extracts introduced into the *Pharmacopœia* for administration as pills is so large and bulky as to render them useless; this becomes even more evident when one remembers that the prolonged evaporation deteriorates their active principles.

Of the 51 liquors, 18 syrups, 18 spirits, and 75 tinctures, much might be said from a purely pharmaceutical point of view, which is outside the scope of the present article. That only a very small percentage of these 162 preparations are in use amongst practitioners cannot be denied, and the reason is obvious—their strengths and doses are so various that it is found impossible to remember either, and after the ordeal of the examination in Materia Medica is got over the young physician breaks acquaintance with the great majority of his official friends, and too often drifts into the daily use of semi-proprietary or ready-made pharmaceutical compounds, or else settles down to the routine use of a very limited selection of *British Pharmacopœia* drugs and their preparations.

The lozenges are a very doubtful addition to the *Pharmacopœia*, and the recent perfection of the manufacture of tabloids should suggest the advisability of excluding these remnants of the old-world pharmacy altogether. If administered for their local action upon the mucous membrane of the mouth and fauces the sugar mucilage and gum seriously interfere with the action of some of them. If this group of preparations is to be retained a plea must be made for a lozenge containing carbolic acid, such a lozenge would be worth more than the present list of thirteen.

There are no fewer than forty-five unguents in the present *Pharmacopœia*, and upon these a separate article might be written with advantage; from the medical standpoint the chief objection is the lamentable want of anything approaching uniformity of strength. Thus the list of forty-five unguents will be found to contain preparations of no fewer than twenty-eight different strengths. In objecting to the want of uniformity in the strength of tinctures and Galenical preparations to be swallowed it always can be answered that the dose is an item to be considered, but in dealing with ointments, many of which are inert, there is certainly less to be said against uniformity of strength. It is rather surprising to learn that out of a total of forty-five of these preparations, there are twenty-eight of which no two are of the same strength. The result of such an arrangement is that the physician learns practically to ignore the official list, and, when he requires an unguent, writes a recipe for a preparation of his own, as it is almost an impossibility to remember the strength of even a fair percentage of these preparations. An even more serious objection to the group is the unfortunate selection of a basis consisting of a mixture of hard and soft paraffin in several of them. If anything can be said for such a basis from a pharmaceutical point of view, experience proves that it is objectionable from a medical point of view, and in some ointments it destroys their usefulness. As a rule, the official directions for the making of ointments are very defective; in no place is it made clear that the powdered substance is to be rubbed laboriously and patiently with a very small quantity of the basis before the remainder is added; there is no class of preparation requiring so much care and skill, and such curt directions as "mix thoroughly" are insufficient.

The vapours of the *British Pharmacopœia* are seldom employed and so out of touch with modern therapeutic notions that, like the cataplasmata, they are so certain to be excluded in the approaching revision, that nothing need be said of them. The wines should probably also be excluded, for if sherry or other wine be found in any particular case to be a better menstruum than weak spirit, it may be used, and the resulting preparation called by its proper name—a tincture. The vinum ferri should certainly be excluded; the quantity of iron contained in it is most variable, but never enough to be of any therapeutic value when given in the official dose of 1 to 4 drachms.

The above-mentioned objections are given not as a complete list of the pharmaceutical defects in our national *Pharmacopœia*, but as a sample of what must be remedied if the new work is to become one of which we shall not be ashamed. They go to prove conclusively that the valuable suggestion of Dr. Lauder Brunton should be acted upon—that "skilled labour and much experimental work, necessitating the expenditure of a good deal of time and money," should be provided by the General Medical Council.

If this is obviously necessary for the judicious weeding out of the grave defects and worthless drugs and preparations in the present *British Pharmacopœia*, how much more obviously necessary is it for the introduction of new remedies and new Galenical preparations—a subject not within the scope of the present article.

We trust that the compilers of the work will not be

> The first by whom the new are tried,

but the profession in all English speaking countries will doubtless also hope that they will not

> Be yet the last to lay the old aside.

An analysis of the inconsistencies and lack of uniformity

evident all through the 1885 issue proves that these arise from the patchwork nature of the original issue in 1867, when the compilers had to reconcile the various interests represented in the old Edinburgh, London, and Dublin *Pharmacopœias*. This Herculean task was accomplished with great ability, but the time has now come when the work must be undertaken in a totally different spirit, and the revisers must go to the root of the matter and produce a volume which will be an index of the advanced pharmacy and therapeutics of the day. The great and only danger appears to be that of haste; it will take at least a few years before this result can be accomplished.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

A Bill to provide for superannuation allowances to Poor-law officers and servants, and for contributions towards such allowances by such officers and servants, has been introduced into the House of Commons by Mr. Walter Long. The Bill is backed by Sir Algernon Borthwick and Sir F. FitzWygram, who sit on the Conservative benches, and Mr. F. C. Frye and Captain Norton, who are of the opposite political opinion.

A memorandum prefixed to the Bill points out that at present Poor-law officers have an equitable statutory claim to a superannuation allowance after not less than ten years' service upon becoming incapacitated from the performance of their duties by reason of permanent mental or bodily infirmity, or of old age. The granting of such allowance is dependent upon the discretion of Boards of Guardians, and in many cases grants have been withheld on various pretexts. The Bill proposes that in return for a percentage contribution from his salary and emoluments every Poor-law officer shall be entitled to a superannuation allowance under the circumstances mentioned above. Power is given to Boards of Guardians to require an officer who has attained the age of 65 to retire when they are of opinion that it would be expedient in the interests of the public service that he should do so. The percentage of contribution has been graduated with respect to existing officers from 2 per cent. of their total salary and emoluments in the case of officers with less than five years' service, to $2\frac{1}{2}$ per cent. in the case of officers with five to fifteen years' service, and to 3 per cent. in the case of officers with more than fifteen years' service. This percentage has been arrived at from the experience of other superannuation schemes, and will practically be found sufficient to meet future claims for superannuation. Provision is made with respect to existing officers at the passing of the Act, giving them the option of contributing to secure "certainty," but retaining their present equitable rights under the existing Acts should they decline to do so. With all officers appointed after the passing of the Act the contribution would be compulsory.

The scale of superannuation proposed for the officers who have served for ten years and less than eleven years is $\frac{1}{80}$ of the average amount of his salary during previous years with the addition of $\frac{1}{60}$ of such amount for every additional completed year of service until the completion of forty years, when a maximum allowance of $\frac{40}{80}$ must be granted. The services of an officer for this purpose would be aggregated, whether the service had been continuous or not, and whether his whole time had been devoted to the service or not.

Clause 5 provides that the guardians of a union in computing the amount of superannuation allowance to any officer or servant may, in consideration of peculiar professional qualifications, or of special circumstances, and with the consent of the Local Government Board, add a number of years not exceeding ten to the number of years which the officer or servant has actually served in the aggregate. An officer who has not held his office long enough to be entitled to a superannuation allowance, and who loses his office by reason of a reduction of staff, alteration of areas or boundaries, by reason of bodily injury not occasioned by his own fault, or of any other causes other than his own misconduct or voluntary resignation, would be entitled to receive, if the Bill becomes law, out of any common fund of the union, a sum equal to the amount of all his contributions; and the guardians may, with the sanction of the Local Government Board, grant a gratuity not exceeding the amount of his salary and emoluments during the year preceding the vacation of his office. There is a further provision that when such loss of office or employment occurs in a case in which the death, resignation, or insanity of one of the holders of a joint appointment vacates the office of the other, the officer or servant whose office is so vacated shall be entitled to receive during life out of the common fund of the union a superannuation allowance, according to the scale laid down in this Act, if such officer or servant has attained the age of 50 years, and has served for not less than twenty years. The "officer" includes every officer (whether paid by salary or fees) in the service of an authority empowered by this Act to grant superannuation allowances, whether his whole time is devoted to the duties of the office or not; and for the purposes of this Act superintendent registrars and registrars of births and deaths are deemed to be in the service of the guardians of the union in which their respective registration districts are situated. The "emoluments" include all fees, poundage, and other payments made to any officer or servant as such for his own use; also the money value of any apartments, rations, and other allowances in kind appertaining to the office or employment of any officer or servant, according to such scale as the Local Government Board shall prescribe.

It must not be overlooked, however, that the superannuation fund is taken out of the salary of the officer—at least, to the extent of the deductions—so that it is to be presumed that, in the case of officers resigning after ten years' service, they will be entitled to claim their proportion of superannuation, though this is not made quite clear in the Bill. Then in the case of the death of an officer after completing more than ten years of service, as he was compelled on entering the service to allow this 2 per cent. deduction from his salary for a purpose which has not benefited him at all, it would seem equitable to allow his executors to claim a return of a certain proportion of these deductions; but the Bill is entirely silent as to what, if any, benefit is to be derived by an officer from his forced contributions to this superannuation fund, who, it may be, after having worked for nearly forty years in the public service, dies in harness.

Although not specially mentioned, it would seem that this Bill is intended to apply to medical officers by necessary implication (Sec. 20); it also repeals the Medical Officers Superannuation Act, 1870.

THE COUNTY COUNCIL AND THE LONDON CORONERS.

The scheme recently formulated by the Public Central Department of the County Council, and laid before the London coroners, involves sweeping changes in the office of coroner and the constitution of his court within the metropolis. It proposes the following innovations:

1. That the metropolitan area should be mapped out into districts, in each of which should be created a central coroner's court, with clerk and officials analogous to those of the stipendiary magistrate's court, and that the coroner should hold the same position in the new court as the latter in the police court, and receive the same salary (£1,200 per annum), and that the existing franchise districts should be absorbed into the newly created ones.

2. That special officers, to be called medical investigators, should be appointed to each court, whose duty would be to inquire into cases of uncertified deaths, to examine the body and in such cases where necessary to make a *post-mortem* examination, and to report the result of their inquiry to the coroner sitting in court, who would then decide as to the necessity of holding a formal inquest.

3. The requirement that the jury and coroner must view the body is to be done away with, as also the magisterial investigation of cases committed for trial by the coroner, who is to have full power to do this, and to bind over all necessary witnesses.

The proposals of the County Council do not seem to meet with the approval of the London coroners, and Dr. Danford Thomas in their answer pointed out that a recent resolution

of the Coroners' Society of England and Wales had strongly deprecated the abolition of the custom of viewing the body by the coroner and jury.

There can be no question that these proposals are worthy of every consideration, and although in some points they might need modification, they ought not to be lightly condemned: as a whole they offer an admirable means of giving to an ancient office, which is not quite in touch with modern times, increased utility in the future.

Few will contend that some alteration of the present system in the direction indicated in the first clause is not urgently required. Many of the incidents of the present system of holding inquests are pure anachronisms; are, moreover, useless and expensive, and their abolition can be only a question of time. What can be more undignified than the coroner's court, when held in the parlour of a public house? The character of the evidence and the verdict of the jury are sometimes ludicrous in the extreme, and their judicial worthlessness is not infrequently a byword in other courts. The inaptitude of the present inquest to secure the ends of justice in certain cases could not be more strikingly shown, than by the fact that the Home Office some years ago ordered that an investigation should be made by the stipendiary magistrate of all cases committed for trial by the coroner.

We have seen of late a tendency to hold inquests in central places, such as town halls and special coroners' courts, and a system with a machinery borrowed from our police courts would seem the logical extension of this reform to its natural conclusion. Then the coroner's court would be able to hold its own with the other courts instead of being, as is sometimes the case, a parody on them.

The appointment of medical investigators is another reform urgently needed, if only to put some limit to the number of inquests which take place annually to the distress of families, the inconvenience of jurors, and general waste of public money. Under the present system most of these inquests cannot be dispensed with, but a substantial reduction in their number might be expected to result from the appointment of such officers, who would be able to investigate individual cases far more reliably than the present coroner's officer. It is not clear, however, that a good pathologist would be a good medical investigator, especially as the latter ought to have a certain amount of legal, in addition to medical, knowledge. Further, it would be unnecessary for the former to devote the whole of his time to the duties of his office. The office of pathologist might not unreasonably be held by the pathologists of our metropolitan hospitals, as it is very desirable that where the life and liberty of the subject is at stake the pathological evidence should be beyond suspicion. The medical investigators, too, would have plenty of other work on their hands, even if the whole of their time were devoted to the duties of their office. The course of events would then be as follows: All uncertified or suspicious deaths would be referred to the coroner, who, in the case of some, would decide on his own discretion alone that an inquest was necessary; others he would refer to the medical investigator for further inquiry, the latter officer being the judge as to whether a necropsy was or was not necessary, the coroner issuing his order to the pathologist to make this necropsy on the recommendation of the medical investigator. The medical investigator and pathologist would then make their report on oath before the coroner sitting in his court, who would finally decide whether a formal inquest should be held. Under these circumstances the coroner might be either a medical man or a lawyer, but some legal qualification would be indispensable. On the other hand, both medical investigator and pathologist must necessarily be members of the medical profession.

It is difficult to see what useful purpose could be served by the retention of the custom of viewing the body, which is highly objectionable to many jurors and at times not unattended with public danger, if the body has been viewed by the medical practitioner called in, and also by the medical investigator, both of whom can report on oath before the coroner and jury as to the result of their observation. The viewing of the body is obviously a relic of the past, when deaths by violence were far more common and skilled medical witnesses are more likely than a jury to notice anything worthy of observation in the condition of the cadaver.

It seems to us that under a system such as the above the following reforms would be likely to be realised: (1) There would be a considerable diminution in the number of inquests; (2) the dignity of the coroner's court would be raised to the level of our other courts, and, as a natural consequence, a better class of jurors might be hoped for, especially when their attendance would be nothing like so frequently required. An end would then be put to those pseudo-judicial proceedings which every now and again occur, in which the verdicts returned are utterly meaningless or based on principles quite unknown to our jurisprudence. (3) *Post-mortem* examinations would always be made by competent pathologists—a reform devoutly wished for by many members of the profession, despite the pecuniary loss thereby entailed.

MEDICAL STUDENTS IN SCOTLAND.

According to the statistics given in the last issue of the *Medical Students' Register* there has been a considerable decline in the number of medical students registered in Scotland during the last few years. The following are the figures for the decade: In 1885, 639; in 1886, 626; in 1887, 666; in 1888, 720; in 1889, 702; in 1890, 643; in 1891, 729; in 1892, 578; in 1893, 560; in 1894, 485.

The large number of entries in 1891 is doubtless to be attributed to the approaching incidence of the new regulations and the new university ordinances, and the comparatively small number of entries since may be in part at least attributed to the effect of the overplus in this year. The number of entries in 1894 was, in fact, the smallest since 1877, when 431 students entered.

As to the manner in which the new students are to be allocated, our information is not complete. The returns from the University of Edinburgh are shown in the following table:

	Dec. 31st, 1893.	Dec. 31st, 1894.	Academical Year, Oct. 1st, 1893, to Oct. 1st, 1894.
First year ...	244	285	339
Second year ...	221	247	232
Third ,, ...	239	223	243
Fourth ,, ...	273	247	288
Fifth ,, ...	327	316	458
Total ...	1,304	1,238	1,560

The total number of medical students attending the University of Glasgow in the session 1894-5 was 519, as compared with 594 last year. How many of these entered this year cannot at present be accurately stated, but it may be said, in round numbers, that the new students number 100. This is a large falling off as compared with the days before new ordinances overturned the established order of things, when the average number of entrants was about 150.

The general effect of the proceedings of the University Commission as regards matriculation is well shown in the returns recently published of the numbers of students matriculated in Edinburgh and Glasgow Universities during the six years 1889 to 1894. In Edinburgh in 1889 the students of medicine were 2,025, and in the following years, 1,979, 1,839, 1,715, and 1,641. In Glasgow the figures for the corresponding years are 818, 770, 820, 760, 695, and 618. In Edinburgh the difference between the medical students in 1889 and 1894 is 531, and in Glasgow 200.

At Aberdeen the number of medical students who registered with the General Medical Council at the commencement of the current winter session was 21. This number, we are informed, cannot properly be made a basis for comparison with the numbers of former years, because it is the habit under the new ordinances for those who intend to take the degree of A.M. to make the last year required for that degree count also as an Annus Medicus, as can now be done by taking the science classes in the newly rearranged Arts

curriculum. How many students actually do this does not appear to be accurately known, but it is thought probable that the number does not exceed 12.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

The ordinary general meeting of the London and Counties Medical Protection Society, Limited, was held at the rooms of the Royal Medical and Chirurgical Society, on February 25th, under the chairmanship of Dr. George A. Heron, Treasurer.

Dr. Hugh Woods submitted the report, which congratulated the members on the satisfactory condition and prospects of the Society. It dealt with the work of organisation going on generally all over the kingdom, and particularly in London. There was, it was stated, a steady improvement in the financial position, the income of the Society for the past twelve months being £566 17s., against £433 16s. 6d. in the previous year. The heavy expenses incurred in the registration and formation of the Society had been paid off, and in the meantime the important duties entrusted to its care had been thoughly carried out. In view of increasing membership the Council felt confident that the future would justify the position which the Society had already attained. The Council had conferred with the Medical Defence Union with a view to amalgamation, and negotiations were broken off on the question of representation in the conjoint society. The report proceeded to deal with the work of the Society in connection with the Indian oculists, Russian doctors in Whitechapel, the bogus orphanage at Worthing, and other matters.

The Chairman and Dr. Baines seconded the motion for the adoption of the report.

Dr. Balding observed that, in common with many other members, he desired an amalgamation with the Medical Defence Union.

After some discussion, in which Dr. Mead and Mr. Foulerton took part, the motion for the adoption of the report was put and carried unanimously.

On the motion of Dr. Bell, seconded by Dr. Baines, the officers and Council for the ensuing year were elected.

Messrs. H. Alderson and Anthony A. Bowlby were elected Auditors.

A resolution dealing with the system of election of officers was, after some discussion, referred to the Council for consideration.

Votes of thanks to the officers and Council and to the Chairman were adopted.

In reply, the Chairman said that, with regard to the question of the amalgamation with the Medical Defence Union, he could only say that a resolution was agreed to by both Associations that whilst negotiations were pending to bring about the amalgamation it was most desirable that nothing should be published except with the sanction of representatives of both societies in writing. They were bound by that, and therefore could say nothing.

THE MEDICAL REGISTER, 1895.[1]

The *Medical Register* gives no details regarding the individual beyond the name, the address, the date and place of registration, and the qualifications registered. Collectively, however, in regard to the profession at large, it contains certain figures of interest. The multitude of registered practitioners continues to increase year by year. In 1879 there were 22,516 registered medical practitioners; in 1894 there were 32,637. Between 1876, which was the first year in which the data for these figures were preserved, and 1879 there was a slight diminution in the numbers, but since the latter date there has been a steady and uninterrupted increase, till at the present time there are upwards of 10,000 more on the *Register* than there were fifteen years ago. There would, however, seem to be some prospect of a turn in the tide, for the *Students' Register* shows that since 1891 there has been a considerable fall in the number of medical students registered each year, the number entered last year, which was precisely the same as that of those entered in 1892, being smaller than in any other year since 1876. Possibly this has been due to the five years curriculum; not, apparently, owing to increased strictness of examination, for the ratio between the number of students and of practitioners registered remains nearly the same now as it was fifteen or twenty years ago.

Between 1872 and 1875 the number of students registered was 5,208 and in the succeeding four years the number of practitioners registered was 3,941, being 75.6 per cent. of the students entered in the preceding four years.

Between 1887 and 1890 in like manner the students were 7,728, against 5,863 practitioners registered between 1891 and 1894, the practitioners being 75.8 per cent. of the students.

A steady diminution in the number both of students and practitioners added to the *Register* has been going on in Ireland for many years, while in the other two divisions of the United Kingdom the practitioners have increased; but in all three alike there has been a falling off in the numbers added to the *Register* in 1894, the total in 1893, the highest ever reached, being 1,579, while in 1894 it was 1,426.

The number of practitioners removed from the *Register* under Section xiv of the Medical Act, that is, for not notifying change of address, varies remarkably from year to year, suggesting a varying activity at the office rather than any greater or less remissness on the part of the profession; the extremes are 29 in one year and 618 in another. Last year only 33 were removed for this cause.

Under Sections xxviii and xxix—the penal clauses—twelve practitioners were removed from the *Register* in 1894, more than twice the number removed in any one year before.

[1] London: Published for the General Medical Council by Spottiswoode and Co. 6s.

PAY WARDS AT THE GREAT NORTHERN CENTRAL HOSPITAL.

The annual meeting of the governors of this hospital was held on Friday, February 22nd, under the presidency of Mr. C. T. Murdoch, and there was a very large attendance.

The Chairman briefly moved the adoption of the annual report, and said that in opening, in accordance with the scheme adopted, certain pay beds the Committee of Management had simply felt that they were carrying out what they were bound to do under the constitution of the hospital. Elected as a Committee of Management, whatever the constitution was, they were bound to carry it out loyally, irrespective of their personal feelings, more especially as the money which had been received from the public to erect the hospital had been received on a public statement that pay wards were to be started. Of course it rested with the governors to alter any details of that constitution if they thought fit. The pay beds now numbered nineteen, and twelve of them were occupied.

Mr. Lang seconded the motion, and it was agreed to.

Dr. Glover proposed the following motion:

That this meeting of governors of the Great Northern Central Hospital regrets the recent changes in the administration of the hospital by which pay patients have been admitted to its wards to be attended gratuitously by the honorary staff, and is of opinion that such a system is not likely to conduce to the welfare of the hospital or the advantage of the poor, for whom such institutions exist, and should without further delay be abandoned.

He said that he was a subscriber to the hospital, and was acting in no unfriendly spirit to it, but he must point out that in this pay system the Committee were taking an entirely new departure. He had been told that St. Thomas's was a precedent for the action of the Committee, but he denied that, for the system there was entirely different to that of the Great Northern Central Hospital. The traditional objects for which the hospitals existed were the poor—not the very poor, because they were already provided for in the infirmaries and other institutions; there was a class between the very poor and those who could afford to pay, and they had always been provided for by the voluntary hospitals. He as a governor objected to his money being applied to those who could afford to pay, and for whom other institutions existed. There were a number of abuses connected with some of the hospitals, and he did not wish to see them increased; and he therefore objected to the Committee catering for any class of persons who ought to provide for themselves. He believed

that the effect of the adoption of this system at the hospital would be to stop their subscriptions to a great extent. He did not think that it was quite correct to say that the system which was being carried out was in accordance with the constitution of the hospital.

The Chairman interposed that the first paragraph of the constitution of the hospital stated that "it shall be a general and free hospital with pay wards."

Dr. Glover remarked that there was nothing whatever in these words to justify the particular plan of paying wards which was now in force, and he considered that it ought not to have been adopted without first ascertaining the views of the governors with regard to it. The change was introduced without discussion. Such a new departure was entirely unwarranted by anything in London. By the opening of those wards they were not only catering for a new class, but they were excluding the poor.

Mr. Graham, who seconded the motion, said he could not reconcile himself to the strange anomaly of a building erected for the benefit of the poor taking money for the admission of some of its inmates. In addition to that, he thought an injustice was being done to the local practitioners.

Mr. Burdett moved an amendment as follows:

That, with the twofold object of loyally administering the affairs of the Great Northern Central Hospital on the lines of its constitution and of reducing to a minimum the competition between the hospital and private practitioners, it is desirable that the system of pay wards now in operation be so modified that the patients in those wards may, if they desire it, be attended in the hospital by outside practitioners of their own selection; that the pay system, thus modified, be continued for an experimental period of five years; and that a committee of governors be appointed to prepare a detailed scheme on these lines, and to report to a meeting of the whole body of governors to be convened for this special purpose in June next.

He said he did not agree with Dr. Glover that the pay ward system at the hospital would have the effect of diminishing the subscriptions. He was heartily in favour of the combined system of free and pay wards in hospitals, but the particular system in force at that hospital he disapproved.

Dr. Potter seconded the amendment and urged that the least the Committee of Management could do to satisfy the general practitioners of the neighbourhood would be to appoint a committee especially to deal with the question and thresh it out.

The Chairman, in reply, said that he and his colleagues of the Committee as well as the members of the medical staff could not look upon the amendment in any other light than as a vote of censure upon the Committee. It was distinctly taking out of the hands of the Committee an essential part of their duty and to appoint a committee to take into their hands for five years the work of the present Committee was a thing which no Board could possibly put up with. Supposing the regulations suggested were to be passed for five years, the governors of the hospital were to have no voice should they desire a change in the regulations. He trusted they would never consent to tie up the Committee's hands in that way and prevent them making any alteration in the system that the governors might think fit. They also had to face the fact that if patients in the hospital were to be attended by their own medical practitioners the Committee of Management placed in charge of the hospital would be made responsible for what was done therein by persons over whom they had no control. They could not expect that a committee of management would allow gentlemen to come into the hospital, however eminent they might be, over whom they had no control and who possibly and unintentionally might make serious slips. That would be fixing upon them a responsibility which he and the whole of his colleagues would never think of undertaking. Again, to have competing bodies of medical practitioners in one hospital was, he believed, a thing utterly impossible to have carried out. Besides from what he had seen in the medical journals a great number of medical practitioners in the neighbourhood admitted that such a proposal was not practicable. He had thought it his duty to put the amendment before persons in the highest quarters and it was the opinion of Sir Francis De Winton that the President of the hospital would object to any such scheme as the particular one suggested in the amendment.

The amendment was then put to the meeting and lost, only the mover and seconder voting for it.

Dr. Glover's motion was, after some discussion, negatived by 23 to 18.

A vote of thanks to the Chairman concluded the meeting.

THE REPORT ON THE RELATIVE EFFICIENCY OF WATER FILTERS.

We have received a long communication from the manager of the Spongy Iron Filter Company with reference to that portion of the Report by Dr. Sims Woodhead and Dr. Cartwright Wood which refers to the filters sold by that company. We may observe that in the opening paragraphs of this report it was stated that this investigation dealt only with the question of the removal from water of micro-organisms in so far as this bears on the spread of waterborne disease. The experiments were not directed to ascertain the alteration which the filters might produce in the chemical condition of the water by the removal of organic matter present in solution. The Spongy Iron Filter Company, as we understand, claim for their filters that water after passing through spongy iron does not support putrefaction until reinfected. The manager also objects that the experiments were carried out with "the small spongy-iron table filter, which, on account of its obvious disadvantages, is hardly ever selected, and certainly not recommended, unless the ordinary larger domestic filters are impracticable." The manager complains also that only one quotation is made from reports favourable to the filters as a means of checking the dissemination of disease by water. A report containing more direct evidence is claimed to be that of the Surgeon-General of the Prussian Army Corps to the Secretary of War on experience with spongy iron filters during an epidemic of typhoid at Emden. Reference is also made to the 19th, 20th 21st, and 22nd British Army Medical Reports. In the first of these the insanitary condition of the water supply of Fort George was mentioned; and it was stated that zymotic diseases threatened to become epidemic. In the second it was stated that the water had been remedied by filtration through spongy iron filters, and that "the analyses after filtration were very favourable, and all complaints so loud before had ceased." In the following report it was stated that there had been no epidemic among the troops, and that no cases of enteric fever had occurred at Fort George. We publish these statements because we are anxious to avoid any appearance of injustice to this or any other company, but they are in reality not relevant to the subject of the investigation, which was concerned solely with the power of various filters sold in this country of preventing the passage of disease germs.

We have also received from Messrs. Doulton and Co. a long letter criticising the results contained in the report. We cannot find space for the whole of this communication, which ranges over a great variety of subjects. The main points which the company desires to bring into prominence appear to be: (1) that of the germs found in the filtrate a great number of the non pathogenic organisms may have been derived from the air after filtration; this it is thought applies especially to the third and fourth days' experiments; (2) that the number of micro-organisms in the fluids used in certain of the experiments was too numerous to afford a fair test; (3) that the filters tested abstracted from 60 to 90 per cent. of the germs; (4) that they believe themselves in a position to state with regard to one of the filters tested and attributed to them that it was not of their manufacture; (5) that the company had never claimed that any portable filter of its manufacture was self-cleansing, but that, on the contrary, instructions for cleansing were issued; (6) Messrs. Doulton and Co. believe that the experiments of the late Dr Bernays establish that the presence of manganese in the filtering medium does increase its oxydising power, and therefore its power of destroying organic impurities.

With regard to these points we may observe as to (1) that the conditions of the experiment excluded this source of error; as to (2) the experiments show that an imperfect filter which allows the direct passage of any disease germs will probably in time allow all to pass; as to (3) the number

of organisms in a filtrate depends, in the case of an imperfect filter, upon the time necessary for the organisms to be washed through from the upper layers of the filtering medium to the lower layers, and so into the filtrate; as to (5) and (6) the necessity for cleansing remains as Messrs. Doulton say.

We have received also a communication from the managing director of the Berkefeld Filter Company. This is also a very lengthy communication, but we feel that it would be at present premature to enter upon a discussion of the working of this filter, as the first part of the report—which is all that has at present been published—deals only with non-pressure filters, and the Berkefeld filter will be further dealt with as a pressure filter in the second part of the report.

THE POSSIBLE CONVEYANCE OF CERTAIN WATERBORNE DISEASES, ESPECIALLY TYPHOID FEVER, BY OYSTERS AND OTHER MOLLUSCS.

THE DUTCH FISHERIES.

Dr. C. J. Bottemanne, M.Sc., Chief Inspector of Fisheries for the Netherland Government (Bergen-op-Zoom, Netherland), writes:

In a recent number of the British Medical Journal attention was called to the danger of contracting typhoid fever by eating oysters because, as I find it stated, the refuse from all the towns situated near the mouth of the river is discharged therein, and carried by the tide over the oyster beds. The British Government intends inquiring into the matter, and I have no doubt that the results of this inquiry will show these fears to be entirely imaginary as regards the Dutch native oyster. Meanwhile, I shall feel obliged by your allowing me to point out that the East Scheldt, the water in which the Dutch native oyster is cultivated, contains about 150,000 millions imperial gallons of salt water, two-thirds of which is changed each tide. The water has a density of 1.024. Not a single river discharges therein. Three places are situated on the East Scheldt, one of 13 000 and two with about 4 000 inhabitants, but they do not allow the refuse to discharge into it, it being valuable as manure, and saved for that purpose.

THE SEWAGE OF GRIMSBY.

Dr. T. Newby, M.O.H. Town and Port of Grimsby, writes:

The statement in the British Medical Journal of February 16th by Mr. Hollingworth of Hull that during the prevalence of cholera here in 1893 the dejecta from those cases were allowed to run into the drains is in direct opposition to the fact. All dejecta from both cholera and typhoid patients were daily carefully removed in pails and burnt. As the box system pertains almost exclusively here, such entrance into the drains as described could not in any case have occurred. Since such broad misstatements are calculated to do very serious injury to an industry of the port, I shall be obliged if you will kindly find space for this contradiction.

AN EARLY EPIDEMIC.

Dr. Leonard Molloy (Blackpool) writes:

The possibility of a causal relationship existing between the ingestion of oysters obtained from contaminated beds and typhoid fever is not such an entirely new idea, as the recent correspondence would lead one to believe.

A very intelligent layman, whose occupation necessitated his being *au fait* with matters concerning sanitation generally and who had recently recovered from a severe attack of typhoid fever, informed me that in the early sixties an epidemic of that disease broke out in a hamlet on the shores of Loch Ryan. The cause of the outbreak very much puzzled the authorities, as hitherto the place had been singularly healthful. On the matter being investigated it was found that a small stream which flowed into a creek from which a plentiful supply of oysters was obtained received higher up in its course the sewage from a farmhouse, among the inmates of which two cases of fever had occurred previously to the outbreak in the hamlet.

At the time it was held that the epidemic was due to the infection being carried from the farmhouse to the hamlet through the agency of the oysters.

Even if the theory were fallacious it shows us that the possibility of such a source of infection had occurred to sanitarians in the pre-bacteriological days.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A meeting of the Committee of the Association of Fellows of the Royal College of Surgeons of England, was held on February 20th last, Mr. George Pollock (President) being in the chair.

Mr. Percy Dunn (Honorary Secretary) reported that in pursuance of the resolution adopted at the last meeting he had communicated with the Society of Members, but that so far no reply had been received.

The following resolution was unanimously adopted:

The Committee of the Association of Fellows of the Royal College of Surgeons of England beg to express their deep regret at the loss which the Council of the College and the profession generally have sustained by the unexpected death of the President, Mr. J. W. Hulke, whose conduct in his distinguished position has earned the respect of all the Fellows of the College.

It was also agreed that a copy of the foregoing resolution should be forwarded to the Secretary of the College, with the request that it should be laid before the Council at the next meeting of that body, and to Mrs Hulke.

The reply of the Council to the resolution adopted at the meeting of the Fellows in January last was then considered, and it was resolved to nominate a deputation to confer with the Committee of the Council upon the subject of the charters. The decision was also arrived at to constitute the deputation as a subcommittee, with power to reformulate the various points upon which the Association has consistently held that a new charter should be obtained. It was, however, determined to take no steps in this matter until the election of a new President had taken place to fill the vacancy caused by the regretted death of Mr Hulke.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

Meetings of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, April 3rd, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Francis Fowke, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

South-Eastern Branch; East Surrey District.—The next meeting of the above District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 14th, at 4 P.M.; E. H. Galton, F.R.C.S., of Brixton Hill, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him by postcard whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. Agenda: To decide where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. Election of Honorary Secretary. To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read: Dr. Goodhart: Influenza. Mr. Tubby: The Diagnosis of Pott's Disease of Spine. Dr. P. Horrocks: Post-partum Pneumonia. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, Henry J. Prangley, Tudor House, Anerley, S.E.

South-Eastern Branch: West Kent District.—A meeting of the above District will be held at the Ophthalmic Hospital, Maidstone, on Friday, March 15th, at 4 P.M. Dr. Plomley in the chair. The dinner will take place at the Mitre Hotel, Maidstone, at 6.30 P.M. Charge, 6s. 6d., exclusive of wine. To facilitate the arrangements, gentlemen who in-

tend to dine are particularly requested to signify their intention to the Chairman, Dr. Plomley, Knightrider House, Maidstone, not later than Wednesday, March 13th. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce professional friends. Communications: Messrs. T. F. Hugh Smith and A. A. Lipscombe: Notes on a case of Rupture of the Uterus during Labour. Dr. Hoar: A case of Abdominal Section. Dr. Tirard: The Antitoxin Treatment of Diphtheria. —EDWARD GROUND, 1, Ashby Road, Maidstone, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—A special meeting of this Branch will be held in the Medical Institution, Liverpool, on Wednesday, March 6th, at 3.30 P.M. Agenda: The consideration of "A Bill Intituled an Act to Amend the Law Relating to Unqualified Persons who Practise Medicine and Surgery" (see BRITISH MEDICAL JOURNAL, January 12th, p. 87). The Secretary will propose certain alterations in and additions to the laws of the Branch. Dr. W. Wingate-Saul will propose, and Mr. Moreton (Tarvin) will second; and Dr. R. R. Rentoul will move, and Dr. O'Sullivan will second, resolutions with regard to voting by voting papers, as to the election of office-bearers and as to the mode of election. Dr. R. R. Rentoul will move a resolution with regard to advertisements in the BRITISH MEDICAL JOURNAL. Arrangements have been made for a dinner at the Adelphi Hotel, at 6 P.M. Tickets (wine not included) 5s. each. Early application with enclosed remittance for dinner tickets is desired. No dinner tickets will be sold after Tuesday, March 5th. The notice paper is signed by JAMES BARR, M.D., Honorary Secretary, 72, Rodney Street, Liverpool, February 20th.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 7th, at 5 P.M.; dinner at 5.30 P.M. Notice of the title of any communication should be sent in before the meeting. Business (after dinner): Consideration of the Bill, as approved by the Parliamentary Bills Committee, for amendment of the law relating to unqualified persons who practise medicine and surgery, in compliance with a request as notified by the said Committee in a notice which was published in the BRITISH MEDICAL JOURNAL of January 12th last, at page 87, where also may be seen the text of the said Bill. Mr. C. E. Abbott will read a paper on Scoliosis and its Treatment, upon which a discussion will be invited.—W. M. KELLY, M.D., Honorary Secretary, Taunton.

MIDLAND BRANCH: LINCOLNSHIRE DISTRICT.—A meeting will be held at Stamford on Thursday, March 21st. Members desirous of reading papers or exhibiting cases are requested to communicate with the Honorary Secretary, Dr. CARLINE, Lincoln.

GLASGOW AND WEST OF SCOTLAND BRANCH.

THE winter meeting of this Branch was held in the Victoria Infirmary on February 19th, Dr. RENTON presiding.

Election of Officers.—The following gentlemen were appointed office-bearers; *President-elect:* Mr. H. E. Clark. *Representative to General Council:* Dr. Goff. *Secretaries:* Mr. R. H. Parry, Dr. J. H. Nicoll. Drs. Fergus, Jenkins, and Shearer, of Paisley, were elected as the new members of Council.

Amendment of Medical Acts.—On the recommendation of the Council, the Branch resolved unanimously to support the Bill proposed to be brought into Parliament for the purpose of amending the law relating to unqualified persons who practise medicine and surgery.

Treasurer's Statement.—The Treasurer's statement showed a balance of about £70 at the credit of the Branch.

Cases and Specimens.—The following were shown: Dr. DUNCAN: Some interesting medical cases.—Dr. NAPIER showed the following Microscopic Preparations: Bacillus of Diphtheria; Gonococcus; Hæmatozoa Malariæ; Diplococcus found in Secretions in a Case of Exfoliated Dermatitis following Pemphigus; Diplococcus found in Sputum in Cases of Pneumonia associated with Influenza.—Mr. MAYLARD: A Patient operated on for the Radical Cure of Inguinal Hernia.—Mr. PARRY: Cases illustrating points in the Surgery of the Foot.—Dr. JENKINS: Fœtal Hydrocephalus; Extrauterine (Tubal) Fœtal Sac and Fœtus.—Dr. BROWNLEE: Microscopic Specimens of Nerve Tissue.

Annual Dinner.—In the evening the annual dinner was held.

DUBLIN BRANCH.

THE eighteenth annual meeting of the Dublin Branch of the British Medical Association was held in the Royal College of Physicians of Ireland on February 14th, Dr. J. W. MOORE in the chair.

Annual Report.—The report stated that there were 135 members on the roll, and it referred particularly to the dispute in Cork between the medical officers and the clubs. The hope was expressed that the profession in that city would maintain a united front against the attempt of the societies to impose unworthy and inadequate terms upon their medical officers. — Dr. ATTHILL moved, and Dr. W. G. SMITH seconded, the adoption of the report, which was adopted.

New President.—Mr. H. R. SWANZY, having been declared President for the ensuing year, took the chair.

Vote of Thanks.—A vote of thanks, proposed by Dr. DUFFEY and seconded by Dr. GRIMSHAW, was passed to Dr. J. W. Moore, the outgoing President.

Election of Council.—Mr. W. THOMSON moved, and Sir WM. STOKES seconded:

That at each annual meeting the names of the two members of Council who have attended the least number of meetings during the previous year shall be omitted from the list of candidates for election.

The motion was carried.

Resignation.—Dr. GRIMSHAW said that in consequence of Mr. Thomson's resolution, he would resign his seat on the Council.

Medical Charities in Dublin.—Dr. H. C. TWEEDY read a paper on miscarriage of medical charity in Dublin hospitals. He objected to the use of pay wards by the better classes, who were able to pay ordinary fees. He advocated the establishment of a private hospital of the type to be found in Berlin, to which a paying class of patients could go.

Officers and Council.—The following officers were elected: *President-Elect:* William Thomson, F.R.C.S. *Vice-Presidents:* Wallace Beatty, M.D., and Kendal Franks, F.R.C.S. *Council:* Lombe Atthill, M.D., Sir John Banks, K.C.B., T. W. Grimshaw, M.D., E. Hamilton, M.D., F.R.C.S., F. T. Heuston, M.D., F.R.C.S., J. W. Moore, M.D., ex-President, J. M. Redmond, M.D., W. G. Smith, M.D., Sir William Stokes, W. Thornley Stoker, M.D., F.R.C.S., H. C. Tweedy, M.D., and E. H. Bennett, M.D., F.R.C.S.

Dinner.—In the evening the Branch dined under the presidency of Mr. Swanzy. Amongst those present were Mr. J. G. Nutting (High Sheriff), Mr. Brookes, D.L., Canon Carmichael, President Moffett, Dr. Atthill, Dr. J. W. Moore, Professor E. H. Bennett, Dr. Wallace Beatty, Dr. G. F. Duffey, Dr. Conolly Norman, Mr. W. Thomson (Vice President R.C.S.), Dr. Molony (Secretary), Dr. Purefoy, Dr. G. P. Moore, Dr. R. H. Moore, Dr. O'Carroll, and Dr. Werner. The usual toasts were proposed, and among the speakers were the PRESIDENT, Canon CARMICHAEL, President MOFFETT, Dr. ATTHILL, Mr. W. THOMSON, Dr. J. W. MOORE, Mr. NUTTING, Dr. GRIMSHAW, Dr. MOLONY, and Professor BENNETT.

BRITISH GUIANA BRANCH.

A QUARTERLY meeting was held at the Georgetown Hospital on January 31st; Dr. WALLBRIDGE, President, in the chair; twelve members present.

Elections.—The elections of Dr. D. Palmer Ross, Surgeon-General of the colony, and Drs. Honiball and Edmunds as members of the Branch were announced, and also the election of the former as a member of the Council in place of Dr. Neal, resigned. Dr. A. D. Williams was elected as the representative of the Branch on the General Council.

Presidential Address.—Dr. WALLBRIDGE then delivered his presidential address.

Vote of Thanks.—A vote of thanks was proposed and carried unanimously.

Specimens.—Specimens, consisting of stained Plasmodia Malariæ, Hepatic Abscess in a child 3 years old containing lumbrici, Tubal Pregnancy, Mauritius Argus, and a specimen of a section of Tænia Saginata passed off as a "liver worm" by a female quack, were exhibited by the SECRETARY.

SPECIAL CORRESPONDENCE.

BERLIN.

Treatment of Lupus by Cantharidinates.—Frigo-therapeutics.—Influenza.

THERE was a large audience at last week's meeting of the Berlin Medizinische Gesellschaft to hear Professor O. Liebreich's paper on the treatment of lupus by cantharidin, and on tuberculosis. His theory of tuberculosis is shortly as follows: In the case of animals—for instance, of guinea-pigs—the smallest doses of tubercle bacilli suffice to create a general disease, which in every case kills the animal. But

the resisting power of human beings is much greater. An inoculation of tubercle bacilli would, in a healthy individual, produce not general tuberculosis but only localised nodules. The disease could only supervene where there was what is called a predisposition—that is, diminished vital energy of the cells of the organism. The healthy human cell resists the action of parasites, and only where it is weakened can it be attacked by nosoparasites. In treating nosoparasitary diseases, it is important to strengthen the vitality of the cells, and Liebreich has found cantharidinate of soda or of potash most valuable for this purpose. A dose of 2 decimilligrammes may be taken for years without affecting the kidneys, and under the influence of the drug the lupus clears away uniformly. A patient of Liebreich's, completely cured of lupus of the face and arms, was shown. The discussion was adjourned till next meeting.

At the same meeting Professor Raoul Pictet, the well-known Geneva physicist, who has a laboratory in Berlin, recently explained his new method of frigo-therapeutics—that is, the influence of very low temperatures on the organism, to an invited audience of physiologists and medical men. His plan is to place the patient, well covered with furs, and up to the chest or shoulders only, in a double-walled cylinder, the inner wall of which is cooled to 50° Centigrade below zero (−57° F.). Thus the organism loses heat by radiation, not by contact. Pictet affirms that this loss of temperature by radiation—that is, from the interior and all parts of the body, has a distinct therapeutic action. He says that in his own case he has cured a long-standing catarrh of the stomach by this means. Eight applications of the cold "air bath" at suitable intervals had sufficed for the cure.

Influenza is extremely prevalent in Berlin at present. The type is decidedly milder than that of the epidemic of last year.

PARIS.

An Unaccountable Epidemic of Diphtheria.—Foreign Invasion of the Medical Faculties.—Competitive Examinations.—Sanitation and Recruits.—Medical Circulating Library.—Presidential Hospital Visits.—A Fatal Injection of Serum.—Danger of Fees.—General News.

An epidemic of diphtheria has broken out at the Aubervilliers Hospital among the patients attacked with chicken-pox. They were completely isolated, contact with any other patients was impossible. Not one of the chicken-pox patients when admitted into the hospital ward exhibited false membrane in the throat. There was no case of diphtheria in the hospital. It is supposed possible that the bacillus of diphtheria was present in the saliva of one of the patients in the ward. It may furthermore be possible that the patient carrying the bacillus did not have diphtheria. Such an occurrence was recently mentioned in an English medical journal.

Dr. Bourneville, in the *Progrès Médical* of February 23rd, replies to the outcry of the medical students against the "invasion of foreign students" with some sensible advice. He begins by answering their statements with statistics. The malcontents angrily assert that half the places of hospital surgeon are filled by strangers. M. Bourneville assures them that in 1894 there were 14 among 249. He then goes on to say: "In face of the efforts made by other countries to attract the largest number possible of foreign students, the complaints and recrimination in France on the subject are astonishing. Indeed, to accord the right to students of all nationalities to study in the French universities on the same terms as Frenchmen and to take part in competitive examinations will," says Dr. Bourneville, "do more good than any number of military expeditions."

Seventy years ago the house-surgeons' competitive examination began in October and terminated on December 25th. All the "internes," whether new or old, on January 1st were at their post by the side of their new *chefs*; now the "internes" change wards on February 1st, and the competitive examinations are so protracted that three months elapse before they are over. it is predicted that in the near future they will last till May, if the increase in the number of candidates is maintained. In a piece written and played by "internes" one of them is represented as a young man at the beginning of an examination, and an old one before it is finished. A commission, composed of nine members, including three physician *accoucheurs*, has been named to modify and shorten the examination.

In future Paris military recruits will be measured by the aid of metallic rules; formerly wooden ones were used. This precaution is intended to prevent contamination among the thousands of young men who undergo the pass examination. Metallic substances can be easily disinfected, but not wood. Therefore the Seine Prefecture has adopted the suggestion of the Seine Sanitary Council. No mention is made of preserving provincial recruits from the danger of being measured by wooden rules.

Dr. Marcel Beaudoin, General Secretary of the French Medical Press Association, has started a medical circulating library, organised on the model of the London circulating libraries. A subscription of 15s. a year entitles the subscriber to have forwarded to him all the books he may desire; the price of carriage is deducted from the deposit fee—5 francs (4s. 2d.) for each book asked for. Dr. Beaudoin has also organised the "Service des Fiches Bibliographiques." Instead of grouping facts and subjects in the order of their occurrence, they are grouped in the order of specific sequence. The subscription is 8s. a year, and each "fiche" costs one halfpenny. "A Fiche Analytique" is to be added to this organisation, in which foreign works will be analysed in the French language. After November, 1895, a reading room will be attached to this circulating library.

The President of the Republic continues his *tournée* among the hospitals; he has visited the Lariboisière and St. Martin Hospitals, and it is reported that he intends to continue this practice on every Thursday.

The *Gyogyaszat*, a medical paper published by Professor Joseph Korach, of Buda-Pesth, publishes the following interesting case showing that the antoxic serum is not innocuous as a preventive. A child, aged 3, had slept in the same bed as her sister, who had diphtheria, and was successfully treated by the serum. The parents insisted that their child, having been in contact with her contaminated sister, should be rendered exempt by an injection of the serum. Accordingly 2 c.cm. of No. 1 Behring was injected. The next morning the child was depressed. On the following day she had fever and violent pain in the lumbar region. The urine contained a considerable quantity of albumen. Next day the temperature rose to 103° F., petechiæ appeared on the legs, and the day after the child died.

Dr. Demosthène, of the Bucharest Medical Faculty, declares in the *Bulletin Médical* that medical men must mistrust fees from their patients suffering from infectious or contagious illness, and show their mistrust by always carrying a metal purse or a linen bag capable of being sterilised. After having received the money the doctor should immediately sterilise his hands, on returning home again wash his hands, sterilise the fee if it be gold by passing it through a flame, and a banknote by a solution of carbolic acid, 5 or 10 per cent., during one hour's immersion. It would be more practical for a member of the patient's family to present the note already immersed, or a gold fee blackened by its purification. The already overtaxed brain of the doctor would be thus relieved from all anxiety.

The French Minister of Agriculture has prohibited the entry of American cattle from America into France, on account of the Texas bovine epidemic and pleuro-pneumonia.

Dr. Flassières has been re-elected Mayor of Marseilles.

The death is announced of Dr. Alphonse Guérin, member of the French Academy of Medicine, and honorary hospital surgeon and inventor of the "padding dressing" which prevented air from reaching the wound.

The death is announced of Dr. Chabrely, General Councillor of the Gironde, formerly Professor-Adjoint at the Bordeaux Faculty of Medicine, and a medical practitioner during nearly forty years.

Donations and Bequests.—The directors of the Bank of England have granted a donation of 500 guineas in aid of the special fund for opening the closed wards of St. Thomas's Hospital.

ROME.

The Introduction of the Dispensary System into Rome.—Closure of the University of Rome.—The University of Naples.—General News.

AN organisation somewhat on the lines of the dispensary system in England was floated in Rome about a month ago. It is called the Assistenza Medico-Chirurgica Romana; and, judging from the circulars issued by the promoters, the arrangements made for the benefit of the members are very complete. The following are some of the advantages mentioned: "1. An abatement of at least 50 per cent. on the legal tariff for medicines, by means of an arrangement made with the principal dispensing chemists in the city. 2. Special facilities for the major surgical operations at the residences of the subscribers. 3. Advantageous arrangements for obstetrical and gynæcological assistance in connection with the house of health conducted by Professor —— (for obvious reasons I omit the name). 3. An annual subscription of 36 francs a year for each family, including the servants. 4. Special and advantageous arrangements with corporations, institutions, hotels, etc. 5. The society is patronised by the first physicians, surgeons, and specialists among the most conspicuous scientific notabilities of Rome, who have gracefully accepted the title of consultants." Here follow the names of seven of certainly the leading specialists, etc., in Rome. It appears that this comprehensive society was evolved from the brains of a shrewd American, who hails from Chicago. It is said that he has provided the funds required for starting the society, and he has selected for the medical staff four young and inexperienced Italian doctors, who have lately obtained their diplomas. I have been told that the consultants were to charge a fee of 10 francs for a consultation (the usual fee is 30 to 50 francs), and that all classes of people are entitled to become members of this society. Directly the circulars were issued, nearly all the Roman doctors, from the leading physicians down to the most humble general practitioners, were up in arms against the seven consultants and the transatlantic institution. A large meeting of the profession in Rome has been lately held, at which all or nearly all the seven were present, and from their statements it seems that they allowed their names to appear in good faith, and without knowing the constitution and full nature of the society. A unanimous vote of protest was passed against the society. One has already confessed the error of his ways, and the others, it is believed, will soon follow; and it is the confident belief of the Roman doctors that the shrewd Chicago speculator will have to migrate to fresh fields and pastures new.

For some time past the University of Rome has also suffered from the turbulence of the students. The disturbances have been on the increase since the closure of the Naples University. On February 11th four students, one of whom belonged to the medical faculty, were suspended. Next day the disturbances were so great that several of the professors were obliged to cease lecturing. Later on in the day the rector, Professor Maurizi, issued an order for the temporary closure of the University.

A deputation of students of the University of Naples sought an interview with Professor Baccelli on February 14th with the view of inducing him to rescind the decree for closing the University.[1] The Minister at first declared that he could not grant an interview until the disturbances which were at that moment going on in the University of Rome had ceased. Later on, when the tumults had abated, the Professor received the president of the deputation, Dr. Gregoraci, and he stated to him that he was disposed to open the University on the following conditions: (1) The re establishment of order in the University; (2) the declaration by decree that the time destined for the summer session of examinations be assigned to the lessons which have been lost; (3) a faculty to be given to the Academic Council to prolong the autumn session of examinations, where it was necessary; (4) an assurance that the studious young men would engage not only to keep discipline, but to defend it if necessary against a factious minority.

Dr. Sanarelli, Professor of Bacteriology and Hygiene in the University of Sienna, has been appointed Director of the New Institute of Hygiene at Montevideo. The Uruguayan Parliament in the last session approved of the expenses of this institute, and selected Professor Sanarelli for the post of director.

[1] BRITISH MEDICAL JOURNAL, February 16th, p. 395.

CORRESPONDENCE.

REGIUS PROFESSORSHIPS AT THE OLDER UNIVERSITIES.

SIR,—Your correspondent, "M.A., F.R.C.P.," is in rather too much of a hurry in championing the cause of the Regius Professor of Medicine in Oxford. Sir Henry Acland was for many years one of the physicians to the Radcliffe, and there is little doubt that Dr. Sanderson will be offered a similar post. Some years ago, by the retirement of one of the physicians (either Dr. Tuckwell or Dr. Gray, I forget which), a vacancy occurred, and no attempt was made to refill the post, it being understood that it should be offered to the next Regius professor. Dr. Sanderson has only been appointed about two months, and will no doubt, be requested to fill the vacancy in due time.

No difficulty has, I believe, ever arisen over the final M.B. clinical examination. Both physicians and surgeons have been only too glad to be able to oblige the examiners in supplying cases, and the statement of "M.A., F.R.C.P." that the difficulty can only be got over by making one of the staff an examiner is hardly supported by facts. Dr. Darbishire was deputy Regius professor for many years but did nothing but preside in the schools during the paper work, and I cannot call to mind any instance of a member of the staff being an examiner of recent years.

As some of your readers may be aware, the Radcliffe, like many hospitals, is not in a very good financial state, but the University has shown little inclination to assist it in its troubles by pecuniary assistance. If the University is anxious to have its Regius professor an *ex-officio* member of the staff, it should express its wishes in a more tangible form.

It is, perhaps, not out of place to raise the question whether the infirmary is large enough or is sufficiently patronised by the sick to supply enough variety of cases for complete clinical instruction for the Oxford medical degrees. Or, even to go further, whether it is seriously intended to try and give a complete course in all subjects—including practical midwifery—in Oxford; in fact, to compete with the metropolitan and provincial medical schools. Oxford has never done this, nor do I believe will it be able to.

Of the state of affairs at Cambridge and the position of Dr. Allbutt I know nothing, but, as a native of Oxford and a graduate of the University, I am deeply interested in the welfare of the medical school.—I am, etc.,

BERTRAM ROGERS, B.A., M.D., B.Ch.Oxon.

Clifton, Feb. 16th.

OPHTHALMOLOGY IN BENGAL.

SIR,—I have read with interest the abstract "of the retrospect of Ophthalmology" read by Mr. Lal Madhub Mookerjee, Teacher of Ophthalmology in the Calcutta Medical School, at the recent Indian Medical Congress, and reported in the BRITISH MEDICAL JOURNAL of January 26th. Without wishing to detract in any way from the honour claimed for the Bengal Presidency as the pioneer in this direction, I wish to state that the so-styled "benighted Presidency"—Madras—should not be lost sight of as having, at an earlier date than that mentioned by Mr. Lal Madhub Mookerjee, taken the lead in treating those suffering from diseases of the eye, in regularly appointed hospitals.

In the *Review of the Eye Infirmary, Madras, for the Five Years ending March 31st, 1883*, drawn up by me at the wish of the Surgeon-General with the Madras Government, I have stated (my information having been obtained from old records in that institution) that:

> The Eye Infirmary was originally founded in July, 1819, by the Honourable Board of Directors in a house known by the name of Compton's Gardens, in the district of Royapettah, under the superintendence of Surgeon R. Richardson. In the June of the following year (1820), for certain reasons, of which there is no record, the present locality (Egmore) was selected; and the former building having been vacated, the hospital was reopened in the premises at present occupied for the pur-

pose, Surgeon Richardson continuing to hold the superintendence of it. The reports submitted to the Board of Directors from time to time of the working of the hospital appear to have been of so favourable a character as to induce that body of gentlemen to continue to maintain the hospital; and in order that a suitable successor might be found in the possible absence of the surgeon at any time, Assistant-Surgeon T. M. Lane was appointed as an assistant to that officer in October, 1823.

Further on Mr. Lal Madhub Mookerjee says: "For the last thirty years nearly 300 operations have been performed yearly in the Eye Hospital Medical College." For want of sufficient data, I am unable to give statistics of the operations performed at the sister hospital at Madras for so long a period; but the following figures will be interesting in showing that for nearly eleven years, ending December 31st, 1891, equally good work has been done at the latter institution.

In my second *Review of the Ophthalmic Hospital, Madras, from April 1st, 1881, to December 31st, 1891*, submitted to the Madras Government, I give the yearly figures, which show a total of 12,320 for the eleven years, an average of 1,120 for each year.

If Mr. Lal Madhub Mookerjee's "nearly 300 operations" refer only to cataract extractions of kinds, as one might infer from the context, I would mention that, out of the total of 12,320 operations, 5,633 were performed for removal of cataracts during the eleven years above named, at the Ophthalmic Hospital, Madras.

While dealing with the subject of medical work in Madras, it may not be out of place to mention here two other directions in which Madras has taken a prominent, if not the leading, part. I refer first to female medical education, and second, to the institution of a chair of dental surgery at the Madras Medical College, and the appointment of Mr. H. J. Gould (since retired and now in practice in London) as the first professor of that subject.—I am, etc.,

E. F. Drake-Brockman, F.R.C.S.,
Brigade-Surgeon-Lieutenant-Colonel I.M.S. (retired).

Welbeck Street, W., Feb. 2nd.

VISION TESTS AND A RECOGNISED STANDARD OF ILLUMINATION.

Sir,—At this juncture, when attention is being directed to the testing of eyesight in connection with public services, it may not be inappropriate to question the value of the ordinary distance test-type as a reliable means of recording vision. In the British Medical Journal of February 9th, Mr. Priestley Smith is reported to have wisely pointed out that varied illumination is likely to produce discrepancies in the results obtained by the lay examiner and the specialist. Indeed, it is this lack of a standard illumination which makes the test in general use an inaccurate recorder. The only standard which we have hitherto recognised is "a good light," or, in other words, the light which in the opinion of the individual examiner is best. This renders the standard of normal vision a variable one. For, since the acuity of vision is greatly influenced by the degree of illumination, it is obvious that so lax a standard is sure to cause discrepant results. Even the individual use of a light of unvarying intensity does not remedy the matter. What appears to be necessary to render the test of universal value is a recognised standard of illumination.

Could not the subject be conveniently discussed at the approaching annual meeting of the British Medical Association, when suggestions might be prepared for the next meeting of the International Ophthalmological Congress?—I am, etc.,

Aberdeen, Feb. 12th. George Ferdinands, M.D.

GOVERNMENT OFFICES AND THE NOTIFICATION OF INFECTIOUS DISEASE.

Sir,—The exemption, not only of Her Majesty's vessels, but of all Government property, buildings, and land from the provisions of the Infectious Diseases (Notification) Act, sect. 15 and sect. 55 (7) of the Public Health (London) Act, and practically from the jurisdiction of the Public Health Acts and the control of the local health officers is certainly fraught with danger to the public. If the privilege of being allowed to conceal the presence of infectious diseases were restricted to those in command of ships of war and of barracks, free as is the intercourse between the soldiery and civilians in garrison towns, they might perhaps be trusted to take precautions for isolation in their own interests; but it is quite another matter when the persons whose lives are endangered, although in the service of the State, belong to all intents and purposes to the general population. There is nothing to hinder the concealment of cases of small-pox in the families of the hall porters, housekeepers, etc., in the Government offices in and around Whitehall, or of the many resident officials in the various royal dockyards and arsenals, with whom hundreds of clerks or artificers, the majority of these having wives and children at home, are daily brought into contact. Whatever reasons may be urged against the admission of the sanitary inspector or other officers of the local authority within the precincts of arsenals and dockyards, it is hard indeed to imagine any justification for the non-notification of infectious diseases to the medical officer of health of the district within which the cases have appeared, while all such exemptions on the ground of privilege are calculated to provoke opposition to the enforcement of the law under other circumstances.—I am, etc.,

February 26th. D.P.H.

BEAVEN RAKE MEMORIAL FUND.

Sir,—Will you kindly allow us to inform your readers that the subscription list of the above will be closed next month, and that it has been decided to spend part of the money in the erection of a memorial tablet in Guy's Hospital Medical School, and to hand over the balance to Dr. Rake's widow and children.

It may have been supposed that the latter were sufficiently provided for under the will of the elder Dr. Rake; we therefore wish to say that the small extent to which they become *beneficiares* was known to us, and that the whole question was considered at two meetings of the Committee before the appeal was drawn up which you kindly inserted in your columns.

The Treasurer of the Fund (Dr. Pye-Smith, 48, Brook Street, W.) will be glad to receive contributions from other friends who appreciated the character and work of the late Dr. Beaven Rake but who have not yet subscribed to the memorial.—We are, etc.,

Phin. S. Abraham,
George A. Buckmaster,
Alfred Rake,
Honorary Secretaries.

February 26th.

THE CHELSEA HOSPITAL FOR WOMEN.

Sir,—Not having been re-elected to the post of Anæsthetist to the Chelsea Hospital for Women I feel I should like, with your permission, in justice to myself to state the circumstances of the case.

When the staff resigned in consequence of the report of the Committee of Inquiry, as no question of the anæsthetic work of the hospital had been raised, it did not seem necessary for me to resign my post. In December, however, the Treasurer represented to me as everyone had resigned it was desirable that I should do so, and I fell in with his suggestion. In due course the applications for the in- and out-patient staff were advertised for, but the post of anæsthetist was not advertised for till February 2nd. My application, therefore, did not come before the Medical Selection Committee in the early part of January. Although the Board advertised that candidates must not be engaged in general practice, I applied for re-election, stating that I had served the hospital as anæsthetist for 3½ years, and that I had had no fatal case. There has never been any fault found with my work. I claim to take all necessary care as regards antiseptic precautions, and I fail to see why my work as a practitioner should disqualify me for a post which I have held with success for so long.—I am, etc.,

Andrew Fausset, B.A., M.B., B.Ch.Dubl.

Belgrave Road, S.W., Feb. 20th.

POOR-LAW INFIRMARIES AND POOR PATIENTS.

Sir,—Can anything be done to ease the lot of helpless incurable patients needing attention which their friends cannot give them, who are able to pay something for the attention they would receive in a public institution, but cannot afford the charges of private nursing homes?

For those absolutely destitute the Poor-law infirmaries are open, but a woman in this neighbourhood (with paralysis from disease of the spinal cord and neglected bedsores) who applied the other day to the board of guardians here for admission into their infirmary as a paying patient, was told that the guardians had no power to admit her because she was not absolutely destitute. Presuming that this is the law, I should be glad if someone would explain the reason on which it is founded.

The admission of incurable though paying patients into Poor-law infirmaries could hardly be suspected of a tendency to encourage improvidence, and need not increase the rates except to an imperceptible degree where the nursing arrangements were already inadequate.—I am, etc.,

Barnsley, Feb. 17th. MICHAEL T. SADLER.

THE EFFECTS OF UNILATERAL CASTRATION ON THE PROSTATE.

SIR,—I should like to ask through your columns for information from surgeons in Great Britain as to the effect of unilateral castration upon the total bulk of the prostate. The existing evidence is scanty, but seems to point clearly to one-sided atrophy of the prostate as a common result of the removal of one testicle. Some experiments which I am now making on dogs corroborate this view, as does the observed condition of the prostate in monorchids. If it is found that the diminution in size extends to the other lobe, or if the shrinking of one lobe will in any large proportion of cases remove or lessen the mechanical obstruction to urination, it is obvious that the good effects of a simple and safe operation might at once be extended to a much larger number of patients and at an earlier and more favourable stage of the disease.

I now have several cases under observation, and hope by further experiment to throw more light on the subject, but conclusive clinical evidence must already be in existence, and I write in the hope that it will be sought for by those surgeons who have removed one testicle for disease or injury and whose patients are accessible for examination.—I am, etc.,

Philadelphia, Pa., Feb. 5th. J. WILLIAM WHITE.

CEREBRO-SPINAL FLUID.

SIR,—I shall be greatly obliged if any of my professional colleagues who may have the opportunity of obtaining cerebro-spinal fluid in any quantity would forward it to me, since we much need some for an investigation which is in progress in this laboratory.—I am, etc.,

E. A. SCHÄFER,
Jodrell Professor of Physiology.

Physiological Laboratory, University College, London, Feb. 26th.

A UNIVERSAL LANGUAGE FOR USE AMONG MEDICAL MEN.

SIR,—I would suggest that those who desire to see the general use of some one language for contributions to medical literature would probably advance their object in a practical way by forming themselves into an international society, somewhat upon the model of the New Sydenham Society, the object of which shall be the publication of translations of important medical papers and monographs in the selected language. The balance of advantages seems decidedly in favour of Latin.—I am, etc.,

February 26th. C. C. C.

OBITUARY.

HENRY WIDENHAM MAUNSELL, M.A., M.D., T.C.D., M.R.C.S.

DR. H. W. MAUNSELL, who died on February 21st from bronchitis following influenza, after a week's illness, was born in Dublin in 1847, his father being a solicitor in that city. He was educated at Trinity College, Dublin. In 1868, having obtained his diploma from the College of Surgeons the previous year, he accompanied his father and the rest of the family to Melbourne, and was very shortly afterwards appointed resident medical officer at the Melbourne Hospital. This post he resigned three years later on being appointed to a similar office at the Westland Hospital, Hokitika, New Zealand, with a salary of £500 a year. Here he was allowed to undertake private practice, and met with such great success that he was able to give up his appointment in less than a year. Not long after he had hæmoptysis in consequence of a fall, which laid him aside for six months. He then returned to Europe for some eighteen months, and took his M.D. degree at his old University in 1876. Returning to New Zealand he settled at Dunedin, and was soon after appointed honorary surgeon to the Dunedin Hospital, an office he held until 1891. From 1889 to 1892 he was Lecturer on Surgery in the University of Otago. Again failing in health from overwork he took a holiday, and spent some time in visiting the hospitals in this country and on the Continent, where his reputation as a surgeon was already considerable. He then relinquished the idea of returning to New Zealand, and about two years ago settled down to practise in South Kensington. He was an enthusiastic surgeon, and devoted his best powers to his work; he was also a very good artist, and his surgical lectures were beautifully illustrated from his own drawings. In private life he was a charming companion, and will be greatly mourned by his numerous friends both in this country and in the Colonies, where he was widely known. He leaves a wife and three daughters. The funeral service took place in London on Monday, February 25th, and his remains were cremated at Woking the following day.

Mr. Frederick Treves writes: Dr. Maunsell was a most able and enthusiastic surgeon, and devoted much time and much energy to the improvement of those branches of operative surgery in which he was most interested. He was a voluminous contributor to surgical literature. Some of his cases of operation are amongst the most brilliant of the surgery of the time, and as an instance may be quoted a case in which he removed with success a subtentorial hydatid tumour.[1] He will be best known by his work in the department of intestinal surgery. His method of intestinal suture is probably the best of the many means of uniting divided bowel by suturing now in use. The procedure is most ingenious, and yet most simple. It was by the ingenuity of his surgical proposals that Dr. Maunsell commended himself to many. In not a few instances it may be urged that Dr. Maunsell's proposals went a little beyond the limits of practical surgery, but his many methods were at least characterised by that originality, shrewdness, and sincerity which were such notable features in the man himself.

WE regret to have to record the death of Dr. THOMAS THEOPHILUS HAMILTON, of Bury, Lancashire, at the age of 47, from pneumonia. Dr. Hamilton, who commenced the study of medicine at a somewhat late age, was a student of Queen's College, Belfast. He obtained the diploma of L.S.A. in 1883, and those of L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg. in the following year. In 1883 he was appointed assistant house-surgeon at the Bury Infirmary and subsequently he was appointed house-surgeon. Resigning that appointment two years later, he settled in practice at Bury, and was subsequently appointed physician to the Hospital for Incurables at Walmersley. He was devotedly attached to his profession, and his untimely death is mourned by a large circle of friends and patients. In 1889 he married Miss Bloomer, at that time lady superintendent of the Walmersley Hospital for Incurables, who survives him.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

STAFF-SURGEON FRANCIS MOORE has been allowed to withdraw from Her Majesty's Naval Service, with a gratuity. He was appointed Surgeon August 28th, 1882, and Staff-Surgeon twelve years thereafter.

The following appointments have been made at the Admiralty: HAMILTON MEIKLE, Surgeon, to the *Rainbow*, March 8th; ALBERT O. BOBARDT, Surgeon, to the *Dart*, February 21st; WALTER BOWDEN, D.S.O. Surgeon, to the Royal Marines, Portsmouth, March 7th; THOMAS THORNE Staff-Surgeon, to the *Rainbow*, March 5th.

Deputy-Inspector-General ROBERT CREIGHTON died at Derryree House, Lisnaskea, co. Fermanagh, on February 21st. His commissions were

[1] *New Zealand Med. Journ.*, April, 1888.

thus dated: Surgeon, December 27th, 1850; Staff-Surgeon, August 10th, 1860; Fleet Surgeon, September 21st, 1871; and Deputy-Inspector-General on retirement, July 1st, 1879.

ARMY MEDICAL STAFF.

THE following is the list of successful canditates for commissions in the Medical Staff of Her Majesty's army at the recent examination in London:

	Marks.		Marks.
Smith, L. F.	2,580	Maurice, G. T. K.	2,172
Fairrie, S. H.	2,410	Gunter, F. E.	2,077
Blackham, R. J.	2,352	Campbell, J. H.	1,819
Forrest, J. V.	2,245	Grech, J.	1,761
Grattan, H. W.	2,185	Dee, P.	1,756
Fawssett, R.	2,175	O'Leary, E. G. E.	1,611

Surgeon-Colonel W. C. ROBINSON retires on retired pay, February 27th. He was appointed Assistant Surgeon, January 19th, 1860; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1875; Brigade-Surgeon, May 12th, 1886; and Surgeon-Colonel, December 27th, 1891. He served in the Abyssinian war in 1868, and received the medal granted for that campaign.

The promotion of Surgeon-Lieutenant-Colonel C. H. SWAYNE, which was notified in the *Gazette* of November 13th last, is antedated to August 21st, 1894.

Sergeant-Major WILLIAM JAMES BLACKMAN, Medical Staff Corps, is appointed Quartermaster, with the honorary rank of Lieutenant, *vice* Honorary Captain F. Tighe, retired, February 27th.

INDIAN MEDICAL SERVICE.

THE following is the list of successful candidates for commissions in Her Majesty's Indian Medical Service at the recent examination in London:

	Marks.		Marks.
J. Stephenson	3 104	R. F. Standage	2,250
F. N. Windsor	2.811	F. L. Blenkinsop...	2,229
P. F. Chapman	2,796	T. E. Watson	2,185
W. B. Turnbull	2,779	H. A. F. Knapton	2,118
A. Hooton	2,673	C. G. Webster	2,004
J. M. H. Macleod...	2,653	A. A. Gibbs...	1,984
E. E. Waters	2,518	A. Moore	1,983
A. Leventon	2,487	G. E. Bensley	1,902
A. F. W. King	2,374	E. M. Iliewicz	1,879

Surgeon-Lieutenant-Colonel A. B. SEAMAN, Bengal Establishment, has been promoted to be Brigade-Surgeon-Lieutenant Colonel from October 22nd, 1894. He entered the service as Assistant-Surgeon October 1st, 1869, and became Surgeon-Lieutenant-Colonel, October 1st, 1889. He was in the Afghan war in 1879-80 (medal); with the Burmese Expedition in 1885-86, including the capture of Minhla (medal, with clasp); and with the Lushai Expedition in 1889 as Principal Medical Officer to the force (mentioned in despatches).

The retirement of the undermentioned officers of the Bengal Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen: Brigade-Surgeon-Lieutenant-Colonel J. B. GAFFNEY, Surgeon-Lieutenant-Colonel A. McM. PATERSON, and Surgeon-Lieutenant-Colonel H. P. YELD.

Surgeon-General JOHN JAMES CLARKE, M.D., Retired Bengal Establishment, of Vernon Terrace, Brighton, died on February 23rd, suddenly, while on a visit at Leura, Toorak, Melbourne. He entered the Indian Medical Service as an Assistant-Surgeon, May 14th, 1853, and became Deputy Surgeon-General, April 20th, 1879. He retired with the honorary rank of Surgeon-General, January 14th, 1884. During the Indian Mutiny in 1857-58, he was with the artillery, under Generals Havelock, Outram, and Neill, and was present at the actions at Bithoor, Mungarwar, Alumbagh, the first relief and defence of the Residency of Lucknow, the engagements at the Alumbagh, under General Sir James Outram, and the capture of Lucknow under Lord Clyde. He also took part in the operation in Oudh (mentioned in despatches; medal with two clasps; one year's service for Lucknow). He served in the Akka expedition in 1883-84 as Principal Medical Officer, and was mentioned in despatches. Surgeon-General Clarke was awarded a good service pension in 1882.

THE VOLUNTEERS.

THE undermentioned gentlemen are appointed Surgeon-Lieutenants to the corps specified, dated February 27th: LOUIS WALLTER ALFRED KEIFFENHEIM-TRUBRIDGE, M.D., 3rd Kent (Royal Arsenal) Artillery; HENRY GEORGE OUTRAM COLLETT, 1st North Riding of Yorkshire Artillery (Western Division Royal Artillery); ALEXANDER MACDONALD, M.B., and CLAUDE BUCHANAN KER, M.B., The Queen's Rifle Volunteer Brigade the Royal Scots (Lothian Regiment); GEORGE REUBEN ROBINS PAINE, 4th Volunteer Battalion the Hampshire Regiment.

Surgeon-Captain E. L. FREER, 1st Volunteer Battalion the Royal Warwickshire Regiment, is promoted to be Surgeon-Major, February 27th.

VOLUNTEER MEDICAL ASSOCIATION.

AT the last quarterly meeting of the Council of this Association the date of the next Challenge Shield competition was fixed for Saturday, June 15th, and certain alterations were made in the conditions, particulars of which can be obtained from one of the secretaries, by the teams proposing to compete. The date of the annual dinner was fixed for April 24th, and a small subcommittee was appointed to carry out the arrangements. The Hon. Secretary reported that several members of the Association had written, complaining of the new regulation withdrawing the Red Cross badge from regimental bearers, and substituting a brassard to be worn only when actually employed on ambulance work, and asking the Council to make a representation on this matter. The Council, however, could not but recognise that the wearing of this badge by men in the ranks was virtually an infringement of the Articles of the Geneva Convention, and that, therefore, the present regulation was necessary in order that the Red Cross might continue to serve as a protection to non-combatants on active service.

ASSISTANT-SURGEONS BRANCH SUBORDINATE MEDICAL DEPARTMENT.

THE Government of India have recently had under consideration the question of the revision of the strength of the Military Assistant-Surgeon Branch of the Indian Subordinate Medical Department in the three presidencies. Owing, however, to existing financial depression it has finally been decided not to increase the strength.

SEWAGE AT ALDERSHOT.

CIVILIAN writes: A strong suspicion hangs over the water with which the troops at Aldershot are supplied, and it is well known that the sewage, at any rate of the North Camp, is disposed of in a most dangerous and inefficient manner, running into a sewage farm which would be much more accurately described as a sewage marsh. Under these circumstances it would be wrong to shirk raising the question why, in a camp the sole function of which is that it may be a camp of exercise, there should be any sewage at all. In actual warfare the greatest pains would be taken to dispose of the excreta in such a manner as not to injure health. This, however, would not be done by means of drains and sewers; latrines would be established, and part of the daily duty of the soldiers would be the trenching of their contents and covering it with earth. A practical knowledge of this process, by which alone a camp can be kept sweet, is of the absolute importance for the successful conduct of a campaign, and should be as practically taught in a camp of exercise as is every other form of drill. The production of sewage in a military camp is not only a sanitary evil, but it is a proof that the troops are not being trained in the actualities of warfare.

EXAMINATION FOR PROMOTION.

A CORRESPONDENT sends us the questions on hygiene at the recent examination of medical officers for the rank of surgeon-major, and asks our opinion on Nos. 2 and 6 as follows:

2. A body of men, each carrying 100 lbs. weight, do a daily march of fifteen miles over an undulating country at the rate of three miles an hour; express the work they each do in foot-tons, and state in terms of water-free alimentary elements what should be their daily diet.

6. What are the chief causes of mortality on home service? Contrast the death-rate per 1,000 from phthisis and continued fever (zymotic) in the army at home with civil population.

*** Our correspondent has evidently a very flattering opinion of our wisdom, impartiality, and even discretion in asking us to decide on the questions propounded. A decided expression of opinion, according as we hold to one side or the other, would pretty surely be construed as savouring of presumption or prejudice. Nevertheless, we may venture on a non-expert and merely common-sense view of such questions forming a basis of fitness for promotion. Broadly, we disbelieve in the utility of all recondite examinations "for promotion;" it is a Chinese system, we believe—and what the result in war! It is the experience of all capable of judging that the truly efficient, resourceful, tactical, popular, and generally successful army medical (or other) officer can no more be found out by formula and statistics than can the capable workman or merchant. We would ask, Do the very men who propound such questions as No. 2 themselves carry the formula needed for an answer in their own heads? Would they not, in writing of such matters, for the sake of accuracy, refer to worked-out data? We quite agree with our correspondent that promotion examinations should be absolutely practical.

THE PLAGUE AT HONG KONG.

A CORRESPONDENT sends us a cutting from the *Western Morning News*, some short time back, wherein, in a letter to the editor, surprise is expressed that, while the admirable behaviour of the line regiment and of the Royal Engineers, during the terrible plague epidemic, is freely and deservedly extolled, all mention of the Royal Artillery and the medical officers is left out. Yet there was no difference in the services rendered by these bodies of men. The letter states in regard to the medical officers: "Perhaps what is looked upon as being the utmost heroism when attempted by laymen, and as such is considered worthy of being placed on record, and rewarded by nothing less than the presentation of gold and silver medals, silver plate, cups, shields, etc., is considered only the daily routine duty of the members of the medical profession, and therefore hardly worthy of public recognition."

Apropos of this comment, our correspondent instances how, about ten years ago, an army medical officer was, by garrison orders, placed in charge of a civilian cholera hospital camp at Gibraltar, in which he did duty for nearly eight weeks, in addition to his usual military occupations. When the epidemic was over, a big breakfast was given to the Sanitary Commissioners at Government House, but the said medical officer was not invited; and, when he applied for some extra remuneration for his services, it was declined upon the most shuffling pretexts.

*** We are afraid self-sacrifice on the part of the medical profession obtains scant recognition anywhere.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

The Influenza.—Mr. SHAW LEFEVRE, in answer to Mr. AIRD, who asked whether the Government were taking any steps to investigate the cause of, and also to suggest remedies for dealing with, the epidemic of influenza, said inquiries with reference to influenza were instituted by the Local Government Board in 1890-91 and 1892-3. The results of those inquiries were given in two reports which had been presented to Parlia-

ment. Those reports dealt with the disease in reference to its history, and also statistically, clinically, pathologically, bacteriologically, and administratively as regards measures of prevention. In January, 1892, a memorandum was issued by the Board as to the precautions advisable at times when epidemic influenza threatened or was prevalent, and the Board saw no reason to vary the recommendations which were then made. Mr. AIRD further suggested that the memorandum should again be circulated, not only in the metropolis but in those districts where the epidemic prevails.—Mr. SHAW LEFEVRE said he would see whether that could be done.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CO-OPERATION WITH QUACKS.

SARCOMA.—There can be no question that by every rule of professional etiquette, co-operation with a quack by a medical practitioner is absolutely forbidden, and any medical man violating this rule does so at his peril, and may involve himself in serious liabilities. Our correspondent should therefore refuse to have anything to do with the medical attendance on this patient so long as the services of the quack are retained, for it is obvious that the prescribing of sedative medicines with the full knowledge that improper operative measures are being adopted at the same time can be nothing less than a tacit sanction of this mode of treatment.

ASSISTANTS AND RIVALRY.

A. T. S.—In view of the general moral principle which is reasonably assumed to govern the temporary relations between practitioners and their assistants, it is not a little difficult to reply to our correspondent's question. Assuming, however, that he, as alleged, relinquished his assistantship on account of the excessive nightwork, and not in consequence of the impending necessity to sign the customary restrictive bond; and looking, moreover, at the improbability that in so short a period as three and a-half months he (the assistant) could effect other than a transient favourable impression on the patients which could not fail to be more or less effaced after an absence of two years and a-half, we are inclined to the opinion that, in commencing independent practice in the town referred to, it would, under the exceptional and contingent circumstances, be regarded as a venial breach of the ordinary rule At the same time, we give this opinion with much hesitation, and therefore if our correspondent entertains any doubt whatever as to the moral honesty of his contemplated proceeding, we would advise him to take counsel of his infallible innate mentor, "conscience," and be guided thereby.

"TOUTING" FOR PATIENTS.

A GENERAL PRACTITIONER.—We have repeatedly condemned touting for patients on the part of the London and Manchester Assurance Company and other medical aid societies. It is contrary to all rules of medical etiquette, and it is the duty of members of the profession to discountenance such practices in every possible manner, and to do their utmost to prevent the agents of such societies from using their names for so reprehensible a purpose. Our correspondent complains of the "twopence per week" for medical attendance; it is, in truth, little enough, but he must be aware that the usual club rate throughout the country is only one penny per week, so that if the rate he quotes were universal it would be a substantial increase on the present rate of payment in the case of most benefit societies. It is to be hoped that in the future there will be less division in the ranks, and better combination among medical men, as it is only by this means that they will be able to make better terms with the public, and to gain a suitable remuneration for their services.

DIPHTHERIA IN GENERAL HOSPITALS.

THEMIS writes: A. is a general practitioner in a country town, the senior member of the local hospital staff, and a member of the Sanitary Committee of the town. B. is a general practitioner in the same town, and also medical officer of health. B. is sent for to visit a child, and finds it suffering from laryngeal obstruction, due to membranous croup or diphtheria, and requiring tracheotomy. B. consults the hospital staff as to its admission for operation, and A., who acts for the staff, and whose partner has seen the case, agrees to its admission, with the proviso that if it turns out undoubted diphtheria, B. should bear the responsibility of admitting an infectious case to the hospital. To this B. consents, it being understood by all that it is probably an infectious case. The case is admitted with all isolation precautions, and operated on by A.'s partner, and subsequently dies, the complication of pneumonia being present. The death certificate is signed "Diphtheria."

At the next meeting of the Sanitary Committee A. gets up and protests against the medical officer of health sending an infectious case into a general hospital; notwithstanding the medical officer of health has privately informed him that the operation could not have been done at home or at the infectious hospital, owing to the want of proper nursing facilities at both places.

1. Is A.'s action in harmony with medical etiquette?

2. Should not A. either have refused the admittance of the case, or withheld his protest after?

**** We are not told how far the isolation was carried, nor whether there was any proper isolation hospital available as an alternative to the general hospital, nor whether A. has been asked for, or has given, any explanation of the apparent inconsistency of his action in the matter; but if we limit our view to the facts as stated by "Themis," there can be no hesitation in giving an affirmative answer to both questions.

ADVERTISING DENTISTS AND ANÆSTHETISTS.

REX.—1. The dentist in question appears to be duly qualified, and there is nothing in his advertisement contrary to the recent pronouncement of the General Medical Council. It may, however, offend against the by-laws of the College which granted him his diploma, and on this point our correspondent would do well to communicate with the Secretary of the College. As the dentist is qualified, it cannot be a "penal offence" for a medical man to give chloroform to one of his patients. 2. It is undoubtedly against the ethics of the profession for a medical practitioner "to bribe a lodge of Oddfellows to elect him their surgeon," but is "Rex" sure of his facts?

BAD CORRESPONDENTS.

DISGUSTED sends us an account of two cases in which patients under his charge subsequently removed to other towns. "Disgusted" referred the patients to medical men practising in these towns. In both instances he wrote to these medical men (to one twice) but did not receive any reply from either. He considers he has been treated with gross incivility.

**** Such an occurrence must be, we imagine, very exceptional, and we would fain hope that the apparent incivility is in both instances due to an oversight.

MEDICAL HANDBILLS.

MEM. BRIT. MED. ASSOC.—We are glad to hear these handbills have been discontinued, as such a practice is opposed to all rules of professional decorum. We are sorry to learn our correspondent has observed similar conduct in other practitioners, but trust that in future he will not take the conduct of such men as a guide to his own.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF DUBLIN.

AT the Spring Commencements in Hilary Term, held (according to custom) on Shrove Tuesday, February 26th, in the Theatre of Trinity College, the following licences and degrees in Medicine were conferred by the University Caput in the presence of the Senate:

Licentiati in Medicinâ, in Chirurgiâ, et in Arte Obstetricâ.—W. R. Davy, A. H. Middleton.

Baccalaureus in Medicinâ.—J. R. Mallins.

Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetricâ.—W. Ayres, A. A. Cooper, F. R. Cosgrave, H. A. Engelbach, H. F. S. Langstaff, C. J. Martin, Rev. H. C. Packard.

Doctores in Medicinâ.—H. Croly, A. V. Geoghegan, W. Hamilton, R. M. Hewitt, C. B. Scott, A. E. Taylor.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

FELLOWSHIP EXAMINATION.—The following gentlemen, having passed the necessary examination, have been admitted Fellows of the College: R. B. McCausland, G. R. Penrose, and H. Stoker.

ANATOMICAL PRIZES FOR STUDENTS.—The Royal College of Surgeons in Ireland announces that two Barker Anatomical Prizes of the value of 25 guineas each are offered for competition this year, and are open to any student whose name is on the anatomical class list of any school in the United Kingdom. One prize will be allotted to a dissection of the kidneys as seen from behind, special value being attached to the exhibition of the surgical relations. The other prize will be given for a dissection of the rectum as seen from behind, special value being attached to the exhibition of the relations of the bowel in connection with the operation of removing it by the trans-sacral method. The preparations must be received by the Curator of the Museum before June 1st, 1895, and from him full particulars can be obtained.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, February, 1895.—The following candidates passed in:

Surgery.—L. M. Breton, St. Thomas's; W. J. Gillespie, St. Bartholomew's; D. W. Jones, Charing Cross; S. E. Price, London; H. Roberts, St. Mary's; W. Sutcliffe, Birmingham; and M. M. Townsend, King's.

Medicine, Forensic Medicine, and Midwifery.—A. F. Blake, London; W. Mettam, Sheffield; and H. H. Thomas, Charing Cross.

Medicine and Forensic Medicine.—W. E. Bremner, King's; and R. Keatinge, London.

Medicine and Midwifery.—H. G. C. Hardwick, St. Thomas's.

Medicine.—H. Roberts, St. Mary's.

Forensic Medicine and Midwifery.—S. S. Wallis, Guy's.

Forensic Medicine.—J. C. G. Reed, Guy's; and G. Lowsley, St. Bartholomew's.

Midwifery.—A. H. Wade, St. Bartholomew's.

To Messrs. Jones, Keatinge, Mettam, Price, Roberts, and Sutcliffe was granted the diploma of the Society, entitling them to practise Medicine, Surgery, and Midwifery.

INDIA AND THE COLONIES.

INDIA.

AT a meeting of the Bengal Legislative Council on February 17th Mr. J. A. Bourdillon introduced a Bill for the segregation and control of pauper lepers.

NEW SOUTH WALES.

There are now 40 patients suffering from leprosy on the Leper Island at the Little Bay Coast Hospital near Sydney.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE DEATH RATES OF LONDON SANITARY AREAS DURING 1894. In the accompanying table will be found summarised the vital statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the year 1894. The mortality figures in the table relate to the deaths of persons actually belonging to the respective sanitary areas, and are the result of a complete system of distribution of deaths occurring in the public institutions of London among the various sanitary areas in which the patients had previously resided.

The 130,553 births registered in London during 1894 were equal to a rate of 30.1 per 1,000 of the population, estimated at 4,349,166 persons in the middle of that year. In each of the two preceding years 1892 and 1893 the birth-rate was 30.9 per 1,000. In the various sanitary areas the birth-rates showed, as usual, wide variations, owing principally to the differences in the sex and age distributions of their populations. In Kensington, St. George Hanover Square, St. James Westminster, Hampstead, St. Martin-in-the-Fields, London City, and Lee, the birth-rates were considerably below the average; while in St. Luke, Shoreditch, Bethnal Green, Whitechapel, St. George-in-the-East, Mile End Old Town, Newington, and Bermondsey the birth rates showed a marked excess.

The deaths of persons belonging to London registered during the year under notice were 75,434, equal to an annual rate of 17·4 per 1,000 of the population, against 21·1, 20·3, and 20·9 in the three preceding years. This rate was considerably below that recorded since the establishment of civil registration nearly sixty years ago, the nearest approach to so low a death-rate having been 18·0 in 1888. During the nine preceding years 1885-93 the London death-rate averaged 20·1 per 1,000. The lowest death-rates in the forty three sanitary areas during last year were 9·8 in Stoke Newington, 10·6 in Hampstead, 12·4 in Wandsworth and in Lee, 12·5 in Plumstead, 13·8 in Lewisham (excluding Penge), and 14·5 in St. George Hanover Square; in the other districts the rates ranged upwards to 21·1 in Mile End Old Town, 21·4 in Whitechapel, 22·7 in Strand, 23·1 in St. George Southwark, 23·5 in St. Luke, 24·7 in Limehouse, and 26·4 in St. George-in-the-East.

During the year under notice 11,467 deaths resulted from the principal zymotic diseases in London; of these, 3,291 were referred to measles, 2,637 to diphtheria, 2,094 to whooping cough, 1,769 to diarrhœa, 961 to scarlet fever, 626 to different forms of "fever" (including 5 to typhus, 993 to enteric fever, and 13 to simple and ill-defined forms of fever), and 89 to small-pox. These 11,467 deaths were equal to an annual rate of 2·6 per 1,000, against 2·3, 2·8, and 3·0 in the three preceding years; during the nine years 1885-93 the zymotic death-rate in London averaged 2·7 per 1,000. In the various sanitary areas the rates ranged from 0·9 in Stoke Newington, 1·1 in the City of London, 1·4 in St. George Hanover Square and in Hampstead, 1·7 in Lee, 1·8 in Wandsworth, and 1·9 in Lewisham, to 3·5 in Bethnal Green, 3·6 in St. George Southwark, 3·8 in Fulham, 4·1 in Mile End Old Town, 4·3 in Limehouse, and 5·0 in St. George-in-the-East. Compared with the average in the ten preceding years the mortality from measles and from diphtheria showed a marked excess, while that from each of the other principal zymotic diseases showed a decline. The 89 fatal cases of small-pox registered in London during last year showed a marked decline from the number in the preceding year, and were less than half the average; of these 89 cases, 29 belonged to Marylebone, 8 to St. Pancras, 5 to Bethnal Green, 4 to Mile End Old Town, and 10 to Poplar sanitary areas. During the year under notice 1,234 small-pox patients were admitted into the Metropolitan Asylums Hospitals, and 16 remained under treatment at the end of the year. Measles showed the highest proportional fatality in Fulham, Limehouse, Mile End Old Town, Poplar, St. Saviour Southwark, St. George Southwark, and St.

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions, during the Year 1894.

Sanitary Areas.	Estimated Population middle of 1894.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Phthisis.	Deaths of Children under 1 year of age to 1,000 births.
LONDON	4,349,166	130,553	75,434	30.1	17.4	2.6	11,467	89	3,291	961	2,637	2,094	5	608	13	1,769	—	143
West Districts.																		
Paddington	121,583	2,837	1,826	23.4	15.1	2.4	289	3	66	14	93	45	—	19	—	49	—	137
Kensington	167,350	3,673	2,647	22.0	15.9	2.1	348	—	111	22	77	58	—	21	3	57	—	173
Hammersmith ...	105,696	2,901	1,712	27.5	16.2	2.4	256	—	71	14	50	59	—	15	—	47	—	147
Fulham	110,993	3,763	1,897	34.0	17.1	3.8	425	3	161	33	105	69	—	5	1	57	—	149
Chelsea	99,052	2,700	1,619	27.3	16.3	2.3	224	—	70	16	52	28	—	14	1	33	—	131
St. George Hanover Sq.	75,033	1,551	1,088	20.1	14.5	1.4	105	1	31	11	19	21	—	12	—	10	—	115
Westminster	54,414	1,235	991	22.8	18.3	2.0	108	—	35	7	23	21	—	5	—	14	—	138
St. James Westminster	23,571	464	393	19.7	16.7	2.2	52	1	13	3	15	7	—	8	—	5	—	144
North Districts.																		
Marylebone	138,554	4,304	2,662	31.2	19.3	2.4	328	29	88	40	73	40	—	23	—	35	—	130
Hampstead	75,443	1,472	798	19.6	10.6	1.4	104	3	31	10	19	28	—	6	1	8	—	113
St. Pancras	233,738	6,967	4,256	29.9	18.3	2.2	510	8	95	51	118	115	1	38	—	84	—	145
Islington	331,900	9,500	5,866	28.7	15.9	2.6	847	3	204	69	221	195	—	36	—	119	—	139
Stoke Newington ...	34,172	757	334	22.2	9.8	0.9	29	—	2	6	5	8	—	3	—	5	—	86
Hackney	211,493	6,073	3,241	28.8	15.4	2.6	554	1	186	57	122	68	—	38	—	82	—	127
Central Districts.																		
St. Giles	38,144	1,069	757	28.1	19.9	2.1	78	1	15	2	14	27	—	8	—	11	—	132
St. Martin-in-the-Fields	13,783	233	266	17.0	19.4	2.0	27	—	9	1	6	5	—	2	—	4	—	210
Strand	23,179	547	524	23.7	22.7	2.7	62	—	16	1	9	21	—	7	—	8	—	179
Holborn	32,493	832	660	25.7	20.4	2.5	81	—	23	—	20	21	—	7	—	10	—	180
Clerkenwell	65,312	2,180	1,243	33.5	19.1	2.7	174	—	49	10	34	38	—	8	—	35	—	145
St. Luke	41,168	1,879	965	45.8	23.5	2.1	87	1	14	10	15	18	—	3	—	26	—	123
London City	34,832	525	379	15.1	10.5	1.1	39	—	3	9	6	11	—	6	—	4	—	160
East Districts.																		
Shoreditch	123,186	4,332	2,450	35.3	19.9	2.8	350	2	69	28	75	93	1	12	—	70	—	160
Bethnal Green ...	129,840	4,836	2,642	35.8	20.4	3.5	457	5	135	27	133	70	—	27	—	60	—	151
Whitechapel	75,498	3,178	1,613	42.2	21.4	3.1	231	—	66	23	45	52	—	10	—	34	—	154
St. George-in-the-East	45,286	1,577	1,196	34.5	26.4	5.0	224	—	49	18	51	41	—	6	—	59	—	185
Limehouse	57,000	1,906	1,403	33.5	24.7	4.3	244	1	93	33	51	27	—	8	—	31	—	174
Mile End Old Town ...	108,242	4,042	2,281	37.5	21.1	4.1	439	4	157	37	82	74	—	13	2	70	—	156
Poplar	170,217	5,800	3,225	34.2	19.0	3.2	549	10	214	40	108	77	—	31	1	68	—	153
South Districts.																		
St. Saviour Southwark	26,712	770	560	28.9	21.0	3.3	87	—	46	6	20	9	—	2	—	4	—	145
St. George Southwark	60,060	2,071	1,384	34.6	23.1	3.6	217	—	89	17	49	27	—	5	—	39	—	186
Newington	118,512	4,201	2,369	35.5	20.0	2.8	327	2	103	19	61	75	—	14	—	73	—	158
St. Olave Southwark	12,984	431	268	33.3	20.7	2.8	36	—	19	4	3	7	—	—	—	3	—	128
Bermondsey	84,053	3,095	1,734	36.9	20.7	3.3	279	1	79	23	66	51	1	16	—	42	—	146
Rotherhithe	40,365	1,353	764	33.6	19.0	3.3	134	—	41	15	31	13	—	2	—	32	—	161
Lambeth	282,574	9,231	4,845	32.8	17.2	2.4	676	1	181	64	141	109	—	46	—	134	—	133
Battersea	161,558	5,024	2,573	31.2	16.0	3.1	493	2	151	32	116	75	—	28	1	88	—	146
Wandsworth	179,518	4,423	2,224	24.7	12.4	1.8	317	—	75	20	89	55	—	21	2	64	—	114
Camberwell	248,893	7,382	4,045	29.7	16.3	2.8	687	2	186	46	192	137	1	22	—	101	—	148
Greenwich	173,128	5,374	2,976	31.1	17.2	3.1	540	—	144	59	132	112	—	32	1	60	—	138
Lee	38,172	794	472	20.9	12.4	1.7	64	2	11	7	21	11	1	3	—	8	—	94
Lewisham	79,903	2,040	1,097	25.6	13.8	1.9	154	—	39	12	30	35	—	14	—	24	—	128
Woolwich	42,309	1,271	753	30.1	17.8	2.6	110	1	39	22	14	12	—	6	—	16	—	136
Plumstead	59,233	1,910	736	32.3	12.5	2.1	124	2	21	23	36	30	—	6	—	6	—	94

Olave Southwark; scarlet fever in Whitechapel, St. George-in-the-East Limehouse, Mile End Old Town, Greenwich, and Woolwich; diphtheria in Paddington, Fulham, Bethnal Green, St. George-in-the-East, Limehouse, Mile End Old Town, St. George Southwark, Bermondsey, and Camberwell; whooping-cough in St. Giles, Strand, Shoreditch, Whitechapel, and St. George-in-the-East; "fever" in St. James Westminster and Strand; and diarrhœa in St. Luke, St. George-in-the-East, Mile End Old Town, St. George Southwark, and Rotherhithe sanitary areas. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 2,872 at the beginning of 1894, was 1,865 at the end of December last; 11,767 new cases were admitted during 1894, equal to a weekly average of 226 throughout the year. There were 4,128 admissions of diphtheria patients into these hospitals during 1894, and 821 remained under treatment at the end of the year; and there were also 675 admissions of enteric fever patients during the same period, of whom 104 remained at the end of December last.

Infant mortality in London during 1894, measured by the proportion of deaths under one year of age to registered births, was equal to 143 per 1,000, and was below the mean proportion in the ten preceding years. While the rate of infant mortality did not exceed 86 in Stoke Newington, 94 in Lee and in Plumstead, 113 in Hampstead, 114 in Wandsworth, and 115 in St. George Hanover Square, it ranged upwards in the other sanitary areas to 174 in Limehouse, 179 in Strand, 180 in Holborn, 185 in St. George-in-the-East, 186 in St. George Southwark, and 210 in St. Martin-in-the-Fields.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,886 births and 3,614 deaths were registered during the week ending Saturday, February 23rd. The annual rate of mortality in these towns, which had increased from 18.7 to 20.7 per 1,000 in the four preceding weeks, further rose to 29.6 last week. The rates in the several towns ranged from 17.4 in Gateshead, 19.8 in Derby, and 19.9 in Leicester to 35.2 in Nottingham, 38.0 in Plymouth, and 46.1 in Liverpool. In the thirty-two provincial towns the mean death-rate was 26.5 per 1,000, and was 7.5 below the rate recorded in London, which was as high as 34.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.5 per 1,000, whilejit averaged 1.6 in the thirty-two provincial towns, and was highest in Burnley, Manchester, and Salford. Measles caused a death-rate of 1.1 in Gateshead, and 1.7 in Bolton and in Sheffield; scarlet fever of 1.2 in Wolverhampton and 1.3 in Salford; and whooping-cough of 1.0 in Manchester and in Burnley and 1.9 in Norwich. The 55 deaths from diphtheria in the thirty-three towns included 29 in London, 4 in Leeds, 3 in West Ham, and 3 in Sheffield. One fatal case of small-pox was registered in London and 1 in Derby, but not one in any other of the thirty-three large towns. There were 75 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, February 23rd, against 51, 56, and 67 at the end of the three preceding weeks; 19 new cases were admitted during the week, against 18 in each of the two preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital, which had been 1,653, 1,667, and 1,657 at the end of the three preceding weeks, was 1,658 on Saturday last, February 23rd; 152 new cases were admitted during the week against 160, 149, and 159 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 23rd, 891 births and 1,186 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 23.9 to 35.1 per1,000 in the three preceding weeks, further rose to 41.1 last week, and was 11.5 per 1,000 above the mean rate during the same period in the large English towns. Among these Scotch towns the death-rates ranged from 24.0 in Perth to 51.2 in Glasgow. The zymotic death rate in these towns averaged 4.1 per 1,000, the highest rates being recorded in Edinburgh and Aberdeen. The 683 deaths registered in Glasgow included 29 from whooping-cough, 18 from measles, and 4 from diphtheria. Twenty-two fatal cases of measles and 2 of small-pox were recorded in Edinburgh, and 12 of measles in Aberdeen.

SPECIAL FEE FOR PUERPERAL COMPLICATIONS.

PARISH DOCTOR writes, asking whether he is not entitled to the special fee of £2 for attendance on a case of chorea, which occurred as a complication of pregnancy and labour, and which necessitated attendance for more than two months after confinement.

*** Chorea being recognised as a dangerous complication of pregnancy and labour, and long-continued attendance having been necessary, we have no hesitation in saying that our correspondent is entitled under Art. 183, Consolidated Order, July 24th, 1847, to the special fee of £2. The article is as follows: "Provided that in any special case in which great difficulty may have occurred in delivery or long subsequent attendance in respect of some puerperal malady or affection may have been requisite, any district medical officer shall receive the sum of two pounds."

SUPPLY OF DRESSINGS, ETC., FOR WORKHOUSE PATIENTS.

A WORKHOUSE MEDICAL OFFICER asks whether, in our opinion, the guardians are compelled to provide lint, cotton-wool, strapping, clinical thermometers, enema syringes, and other things generally used by nurses when attending patients.

*** We believe that it has hitherto been exceptional for provincial guardians to provide any of the appliances named; moreover our correspondent has probably undertaken by contract that he will himself provide all dressings required, and under this heading such things as lint, cotton-wool, strapping, etc., may be held to be included.

MEDICAL NEWS.

THE anniversary dinner of the Medical Society of London will be held at the Hôtel Métropole on Friday, March 8th, at 7 P.M.

AT a recent meeting of the Royal Surrey County Hospital, Guildford, it was resolved to increase the honorary medical staff of the hospital by the addition of two medical men residing outside of Guildford.

CHELSEA HOSPITAL FOR WOMEN.—The distribution committee of the Hospital Saturday Fund have forwarded to the Chelsea Hospital for Women their cheque for last year's award (£95 1s.), which was withheld until the committee had been satisfied that the requirements and reforms mentioned in the official report of the committee of inquiry had been carried out.

MR. GEORGE BURNSIDE BUCHANAN, B.A.Cantab. M.B. and C.M.Glasg., has been appointed Class Assistant to his father, Dr. George Buchanan, Professor of Clinical Surgery in the University of Glasgow, with authority from the University Court to take part in the public business of the class. He has also been appointed by the managers as Extra Dispensary Surgeon to the Western Infirmary, Glasgow.

DR. BELLEW'S WORK ON CHOLERA.—The Secretary of State for India asks us to state that he has a limited number of copies of the late Dr. Bellew's book on the *Nature, Causes, and Treatment of Cholera*, which he will be glad to distribute among such medical institutions and hospitals as may desire to have them. Applications should be addressed to the Under-Secretary of State for India, India Office, London, S.W.

THE annual meeting of the Irish Medical Schools' and Graduates' Association will be held at the rooms of the Medical Society of London, on Saturday, March 16th, at 6 P.M. The festival dinner will take place on the same evening, at the Café Monico, Dr. H. Phillips-Conn in the chair. Applications for tickets should be made to Dr. Cagney, 93, Wimpole Street, W.

WE are asked to state that it is intended if possible to hold a meeting on the afternoon of Monday, March 11th, at the Examination Hall, Victoria Embankment, to consider the formation of a proposed Association of Qualified Medical Assistants, Junior Medical Officers, and Locum Tenentes. Further particulars will be announced subsequently, but Mr. T. Howard Brocklehurst, M.R.C.S.Eng., 1, Ilchester Villa, Westham, Weymouth, will in the meanwhile be glad to receive the names of any gentlemen taking an interest in the movement.

SMALL POX IN IRELAND.—The death-rate in Dublin for the past week reached 35 per thousand. The number of deaths from small-pox numbered 6, and for the preceding weeks of the year the mortality from this disease amounted to 5, 11, 10, 7, 5, 7, 8. The admissions to hospital of small-pox cases for the same period were 71, 88, 81, 64, 69, 60, 56, and 37, so that there has been a steady but small decline. Some cases have been reported from Drogheda, Kilkenny, Sligo, Lurgan, and Newry, but except in the last-named town the disease does not appear to have spread.

CHOLERA IN EASTERN EUROPE.—Epidemic cholera continues to prevail in Southern Russia, in the Galician provinces of Austria-Hungary, and in Constantinople. Sixty cases occurred in Constantinople in one week this month, and 29 cases succumbed. Most of the cases were recorded in the suburbs. Dr. Chantemesse, of the Pasteur Laboratory in Paris, during a recent mission in Constantinople, undertaken at the request of the Sultan, ascertained that the city had been free from the disease for twenty one years before August, 1893, when a few cases occurred. Since then it would appear that the disease has become, to some extent, endemic.

THE TREATMENT OF INEBRIATES IN THE UNITED STATES.—Mr. Meredith, of Virginia, has introduced a Bill for the treatment of inebriates in the District of Columbia. It authorises the Commissioners to establish a public hospital for the

care and cure of inebriates. Such persons shall be admitted as are committed to the hospital by the Police Court or Criminal Court of the District, and the judges of these Courts shall have power to commit, for not more than ninety days (1) any person convicted of the habitual excessive use of alcoholic liquors who might be amenable to commitment to the workhouse; (2) such persons as may be recommended for treatment by the Commissioners; (3) such as may voluntarily apply for admission and pay for treatment not less than 10 dollars a week. All moneys so received are to be handed over for deposit in the United States Treasury.

Japanese Casualties in the War.—The Japanese *Official Gazette*, as quoted in the *Times*, has published statements of the casualties among the troops in the field. The statements include deaths in hospital, whether from wounds or disease, as well as deaths in battle. From July 16th to December 5th the total under the headings "Killed in Battle" and "Died of Wounds" is 359; while the total under "Died of Disease" is 430. The naval forces are not included in these numbers, but it is considered that the total casualties would not exceed 1,200 or 1,300 in a period of five months, which is considered a wonderfully small list. It appears from a brief report in the *Graphic* that the method employed by the Japanese after recent engagements to cremate the dead was to put the bodies in coffins, which were then placed in pits on the top of logs of wood, built up to form a funeral pyre. The coffins were then covered entirely with straw and other combustible material, and saturated with petroleum. The cremation was, as a rule, performed in a secluded spot.

MEDICAL VACANCIES.

The following vacancies are announced:

CAPE COLONY.—Medical Officer of Health for Cape Colony. Salary, £1,000 per annum. Applications to the Agent General, 112, Victoria Street, S.W., or the Colonial Under-Secretary, Cape Town, by March 15th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Appointment for six months Board, residence, and allowance for washing. Application to the Secretary at the Office, 24, Finsbury Circus, E.C., by March 15th.

FISHERTON ASYLUM, Salisbury.—Assistant Medical Officer, unmarried, age from 26 to 30. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. Finch, Salisbury.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Medical Registrar and Pathologist. Appointment for one year. Honorarium, 50 guineas. Applications to the Secretary by March 20th.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer at the North-Western Hospital for Fever Patients, Haverstock Hill, N.W., unmarried, doubly qualified, and not more than 35 years of age. Salary, £160 per annum during the first year, £180 during the second year, and £200 during the third and subsequent years, with board, lodging, attendance, and washing. Applications on forms to be obtained at the office of the Board, Norfolk House, Norfolk Street, Strand, to be sent in by March 4th.

MIDDLESEX HOSPITAL, W.—Vacancy on the Honorary Staff and Election Committee. Applications to F. Clare Melhado, Secretary-Superintendent.

NORTH LONDON CONSUMPTION HOSPITAL, Hampstead, N.W.—Medical Officer, doubly qualified. Appointment for one year but eligible for re-election. Honorarium, £40 per annum, with board, rooms, etc. Applications to the Secretary, Lionel F. Hill, M.A., by March 4th.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer, unmarried. Salary, £120 per annum, increasing £10 yearly to £150, with furnished apartments, board, and lodging. Applications (marked outside "Medical") to Dr. McDowell at the Asylum by March 11th.

ROYAL INFIRMARY, Hull.—Senior House-Surgeon, unmarried. Salary, 100 guineas per annum, with board and furnished apartments. Applications and copies of testimonials to the Chairman of the House Committee by March 4th.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House-Surgeon. Board, residence, and laundry found. No salary. Applications to the Honorary Secretary by March 4th.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon, must be M.R.C.S. Eng. Salary, £60 per annum, with board, lodging, and washing. Appointment for six months. Applications to W. Stockwell, Secretary-Superintendent, by March 20th.

SUSSEX COUNTY HOSPITAL, Brighton.—Fourth Resident Medical Officer, doubly unqualified, unmarried. Emoluments are board, residence, and washing, and a salary not exceeding £30 per annum. Applications to the Secretary by March 18th.

TOWNSHIP OF MANCHESTER.—Assistant Medical Officer at the Workhouse at Crumpsall, and Resident Assistant Medical Officer at the Workhouse in New Bridge Street; unmarried, doubly qualified. Joint salary, £110 per annum, with furnished apartments, fire, light, washing, and attendance. Must reside at the Workhouse in New Bridge Street, and devote his whole time to the duties. Applications endorsed "Medical Appointments" to Geo. Macdonald, Clerk to the Guardians, Poor Law Offices, New Bridge Street, Manchester, by March 5th.

VICTORIA HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Edinburgh.—Resident Physician. Appointment for six months. Apartments, board, and washing, with allowance of £2 monthly for conveyance in connection with outdoor department. Applications to the Honorary Secretaries, Messrs. Wallace and Guthrie, 1, North Charlotte Street, Edinburgh, by March 11th.

WIMBORNE MINSTER URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £30 per annum. Applications to Herbert William Dibben, Clerk, Urban District Council Offices, Wimborne Minster, by March 11th.

MEDICAL APPOINTMENTS.

Byers, Alfred, M.B., Ch.B.Vict., B.Sc.Lond., appointed Junior Resident Medical Officer to the General Hospital for Sick Children, Pendlebury, Manchester.

Cunliffe, Mr. T. V., appointed House-Surgeon to the Manchester Royal Infirmary.

Dockeray, Mr. J. S., appointed House-Surgeon to the Manchester Royal Infirmary.

Edgar, Mr. J. C., appointed Clinical Assistant to the Convalescent Hospital of the Manchester Royal Infirmary.

Flint, Mr. T. B., appointed House-Physician to the Manchester Royal Infirmary.

Grace, Henry, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for Kingswood.

Grant, Dr., appointed House-Surgeon to the Glasgow Maternity Hospital.

Hamilton, Dr., appointed Medical Officer for the Workhouse of the Rathdown Union, *vice* Dr. Darby.

Hinnell, Joseph Squier, B.A.Cantab., M.D., M.R.C.S.Eng., appointed Assistant Medical Officer to the Suffolk General Hospital.

Hughes, Mr. R. T., appointed House-Surgeon to the Manchester Royal Infirmary.

Iles, Alfred Robert, M.R.C.S.Eng., L.R.C.P.Edin., appointed Honorary Surgeon to the Taunton and Somerset Hospital, *vice* W. B. Cosens, L.R.C.P.Lond., M.R.C.S.Eng., resigned.

Lander, H. W. G., M.B., C.M.Edin., appointed Assistant House-Surgeon to the District Hospital, West Bromwich, *vice* O. H. Isard, resigned.

Macdonald, Dr., appointed Medical Officer for the Parish of Kiltarlity.

M'Dougall, Percy, B.Sc.Lond., M.B., Ch.B.Vict., appointed House-Surgeon to the Manchester Royal Infirmary.

Melland, C. H., M.R.C.S., L.R.C.P.Lond., appointed House-Physician to the Manchester Royal Infirmary.

Morrice, George Gavin, M.A., M.D.Cantab., M.R.C.P., appointed Physician to the Salisbury Infirmary.

Parkinson, Walter George, M.R.C.S., L.R.C.P., appointed House-Surgeon to the Hospital for Women and Children at Leeds.

Pomfret, H. W., M.D.Vict., M.B., L.R.C.P.Lond., reappointed Surgical Registrar to the Manchester Royal Infirmary.

Prentice, Z., M.R.C.S.Eng., L.S.A., appointed Surgeon to the Kent and Canterbury Hospital.

Roden, Percy Austin, M.B., C.M.Aberd., reappointed Medical Officer of Health to the Droitwich Town Council.

Smart, Henry Warner, L.R.C.S.I., L.M., appointed Medical Officer for Newry No. 1 Dispensary District, *vice* A. McBride, L.R.C.P.Edin., M.R.C.S.Eng.

Taylor, Shephard Thomas, M.B.Lond., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Chingford Urban District Council.

Vernon, Claude M., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer for the Kennington Parish of the East Ashford Union.

Westmacott, Frederic H., F.R.C.S.Eng., L.R.C.P.Lond., reappointed Resident Medical Officer to the Barnes Convalescent Home, Cheadle.

Williamson, Richard Thos., M.D.Lond., reappointed Medical Registrar to the Manchester Royal Infirmary.

Young, Alexander G., M.B.Glasg., appointed Medical Officer and Public Vaccinator for the Rillington District of the Norton Union.

DIARY FOR NEXT WEEK.

MONDAY.

London Post-Graduate Course, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Corneal Affections. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. G. Charles Wilkin: Aural Polypi.

Odontological Society of Great Britain, 40, Leicester Square, 8 P.M. Casual Communications by Mr. Harry Rose and Mr. J. F. Colyer.

TUESDAY.

London Post-Graduate Course, Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Alcoholic Insanity.

Pathological Society of London, 8.30 P.M.—Dr. Bertram Hunt: On the Pathology of Diphtheria. Dr. John A. Hayward: Cultivation of Diphtheria Bacilli in Antitoxic Serum and in Hydrocele Fluid. Dr. C. P. White: Growth of Diphtheria Bacilli in Hydrocele Fluid. Specimens illustrating the Bacteriology of Diphtheria will be shown.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

ROYAL COLLEGE OF PHYSICIANS, 5 P.M.—Dr. A. Newsholme: On the Natural History and Affinities of Rheumatic Fever (Milroy Lecture No. 1).

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Treatment of Eczema. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A Quarry Silcock: Glaucoma, with Illustrative Cases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, 3 P.M.—Lecture by Dr. Beevor.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M. —Mr. Dunn: Eye Cases.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Dr. Champneys: Inaugural Address. Specimens will be shown Dr. J. Inglis Parsons: The Disintegration of Organic Tissue by High Tension Discharges. Dr Leonard Remfry: List of Ovariotomies in Women over 80. A case, aged 83, Complicated by Epithelioma of the Vulva.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Gowers: Clinical Lecture. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. Arthur Voelcker: Infant Feeding. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Dr. C. Theodore Williams: Cases in the Wards.

ROYAL COLLEGE OF PHYSICIANS, 5 P.M.—Dr. A. Newsholme: On the Natural History and Affinities of Rheumatic Fever (Milroy Lecture No. II).

HARVEIAN SOCIETY, 8.30 P.M.—Dr. Ewart: On Cardiac Murmurs heard in the Back.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: Actinomycosis and Glanders. Practical Work: Staining Sections and Cultivations.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Handford: A case of Cerebral Tumour following Injury. Dr. Karl Grube: Cases Illustrating the Association of Psoriasis with Diabetes. Mr. Arbuthnot Lane: Rupture of the Gall Bladder and Liver produced by Violent Straining in a patient suffering from Obstructive Jaundice. Mr. Walter Spencer: Traumatic Cystic Lympho-Sarcoma of the Shoulder removed after Five Years' Growth by Amputation of the Right Upper Extremity, the Flap being taken entirely from the Upper Half of the Arm. Dr. Wallis Ord: A case of Complete Unilateral Arrest of Development with Arcus Senilis, and without Hemiplegia, in a girl, aged 12 Years.

CANCER HOSPITAL, Brompton (Free), 4 P.M.—Mr. F. Bowreman Jessett: On Cancer of the Breast.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Craig: Climacteric and senile Insanity.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

FERNIE.—On February 24th, 1895, at 15, Granville Terrace, Stone, Staffs, the wife of F. E. Fernie, F.R.C.P.Lond., M.R.C.S.Eng., of a son.

HARDWICK.—On February 26th, at Prospect House, Newquay, Cornwall, the wife of Arthur Hardwick, M.D., of a son.

JOSS.—On January 17th, the wife of John Joss, M.A., M.B., C.M., of a son.

MILLHOUSE.—February 25th, at Kirkstall, Leeds, the wife of Geo. Millhouse, of a son.

MARRIAGES.

FORSYTH—ACKERMANN.—On February 26th, at the Parish Church, St. Austell, Cornwall, by the Vicar, the Rev. Canon Hammond, LL.B., Charles Forsyth, M.B. & B.S., of Middleton Manchester, to Beatrice Maud, youngest daughter of the late George Ackermann, London, and of Mrs Ackermann, Brisbane House, St. Austell.

GROSE—BALSDON.—On February 26th, at Wear Gifford, by the Rev. Stephen Wade, John Sobey Grose, M.R.C.S.Eng., L.R.C.P.Lond., of Bideford, to Mabel E Balsdon, of Wear Gifford. No cards.

POWELL—DAVIES.—At Swansea, on February 20th, by the Rev. M Jones Powell, M.A., assisted by the Rev. W. Watkins Edwards, T. M Jones Powell, M.B.Lond., Swansea, to M Beatrice Davies, daughter of Joseph Davies, F.R.C.S.Edin., J.P., Hafod, Swansea.

DEATHS.

CREIGHTON.—On February 21st, at Derryree House, Lisnaskea, Ireland, Deputy Inspector-General Robert Creighton, R.N., M.R.C.S., J.P., aged 68.

GILLETT.—On December 23rd, 1894, at his residence Brooke, Norfolk, George Gillett, M.R.C.S., L.S.A., aged 76.

GOOD.—On February 22nd, at 13, Rothesay Place, Edinburgh, Fannie Russell, dearly-beloved wife of J. Ernest Good, M.B., C.M.

HUBBERT.—On February 16th, at his residence, Meadow Bank, West Tarring, Philip Hubbert, M.R.C.S., L.S.A., formerly of Arundel and Croydon, in his 81st year, deeply lamented.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. F., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M., Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 2; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30 S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL EYE HOSPITAL, Southwark. *Hours of Attendance.*—Daily, 2. *Operation Days.*—Daily.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2, Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10 *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—Tu. W. Th., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic: W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

J. S. G. (Antigua) asks where he can get information about toad fish (scorpæna brasiliensis) poisoning.

SPES asks to be recommended a gymnasium where a case of slight arthritis and cracking of tendons about joints could procure gentle muscular exercise, preferably in the neighbourhood of Hyde Park?

SENEX asks for a suggestion for treatment of "recurrent vascular ulcer of cornea" (both eyes) in a child, aged 3 years, otherwise in good health. Photophobia slight. Diluted Pagenstecker's ointment causes much irritation. Is dry calomel quite safe, or eserine, and how applied? Nothing now done but borax fomentation, and Parrish's chemical food taken.

TREATMENT OF CHRONIC RHEUMATIC ARTHRITIS.

G. J. C. asks what would be the probable result to be obtained by forcible manipulation under an anæsthetic of the joints of a sufferer from chronic rheumatic arthritis whose legs have become semiflexed at the knees.

JUVENILE ODDFELLOWS.

T. M. W. asks any reader who attends a juvenile branch of an Oddfellows' Lodge to inform him what he is paid per member. Such a branch is being opened here, and I proposed to charge the same as for adults, namely, 4s. a year, seeing that children were oftener ailing than their seniors, but my suggestion was scouted, and the negotiations are in suspense.

ANSWERS.

ARSENIC.—The *British Journal of Dermatology* appears regularly every month. It is published by H. K. Lewis, Gower Street, W.C.

E. S.—Dr. G. E. Herman's *First Lines in Midwifery* (London: Cassell and Co. 5s.) would probably meet our correspondent's needs.

R. B. S.—We should recommend our correspondent to communicate with the Secretary of the Home Hospitals Association, 16, Fitzroy Square, London, W.

S. L. B. W.—Our correspondent might consult an article by Dr. Sims Woodhead on the "Use of Mercuric Salts in Solution as Antiseptic Surgical Lotions," published in the first volume of the *Reports from the Laboratory of the Royal College of Physicians, Edinburgh*.

EXPERS.—We think our correspondent misapprehends the real question at issue. The only novelty in the patent, if there be one, is a very small point. By far the greater part of the original work has been done by others.

CLIMATE OF CORSICA.

M.D.—The climate of Ajaccio (the only suitable place for the abode of English invalids in Corsica) has a sort of intermediate character between that of the French Riviera and that of Algiers. We do not know where the meteorological statistics asked for can be obtained. The climate of Madeira or of Orotava would probably be found to suit the case mentioned much better.

ADMINISTRATION OF SYR. FERRI IODIDI IN CAPSULES.

AJAX.—There are empty gelatine capsules made, which consist of short tubes closed at one end, telescoping into one another so as to form a closed capsule. These would be suitable for the administration of syr. ferri iodidi. The medicine cachets sold by Messrs. Burroughs, Wellcome and Co., Snow Hill Buildings, E.C., can also be used for the same purpose. Some years ago capsules ready filled with various syrups were brought out by a firm, the name of which we do not at present recall.

A CURIOUS POINT.

A CORRESPONDENT who signs himself "Write or Call" sends us a cover of a *Parish Magazine*, in which is the advertisement of a tradesman who sets out in it that his shop is next door to our correspondent's residence. Our correspondent asks whether it would be proper for him to write to the vicar stating that he does not wish his name to appear in a magazine in such a connection, and asking him to expunge it from future issues. We quite agree with our correspondent that this would be the best course to follow.

TREATMENT OF HICCOUGH.

DR. W. LANGFORD SYMES, of Kiltegan, co. Wicklow, writes to call the attention of "Subscriber" (BRITISH MEDICAL JOURNAL, February 23rd, page 459), to an article by him in the January number of the *Dublin Journal of Medical Science*, and would be glad to receive from "Subscriber" the notes of his case.

SIR H. R. BEEVOR, M.D., writes: I have found hiccoughs lasting two days cease on administration of one drachm of liquid extract of ergot. This treatment was adopted owing to a note in the "Queries" of the BRITISH MEDICAL JOURNAL, I believe.

MEDICAL AID SOCIETIES.

E. M.—A medical aid society is a species of joint stock company, the first object of which is to get profit for the shareholders out of the labour of members of the profession, to whom a small pittance is paid on condition that they bind themselves by a special agreement to become practically the slaves of the company. This is the case when the medical officer is required to give the whole of his time to their service; in other cases a certain district, which is well canvassed by the "touts" of the company, is offered to a medical man already in practice there, preferably the oldest practitioner, as his name obviously furnishes a better means of canvassing for members. If he refuses the post, and he usually does so, a junior is waited on by the agents of the company, who point out in glowing language to him what an excellent means their organisation offers for gradually getting into his hands the patients of his professional neighbour, as they visit indiscriminately throughout the neighbourhood, and if he accepts their terms they will take care to give his name due prominence. They sometimes endeavour to gloss over the smallness of the fees they offer by alleging the poverty of the class for which they are trying to procure medical attendance, and may even pretend that their institution is of a provident character, although it is notorious that the class these agents specially seek to attract is not the poor, but rather petty tradesmen and others able to pay ordinary medical fees, who would not probably trouble about any system of this kind if it were not brought to their doors. Any practitioner who accepts one of these appointments invariably finds that his members are chiefly made up of those who had hitherto been his patients at the ordinary rates, together with a certain number of those who had been his neighbour's patients, but had been induced to leave their old doctor by the lowness of the fees required. Many, moreover, are chronic invalids who would never be accepted as members by any really provident institution. As to accepting such an appointment we can only leave it to our correspondent to exercise his own discretion in the matter.

NOTES, LETTERS, Etc.

A LAY correspondent writes to us that he recently received a copy of a pamphlet entitled *The Skin and Complexion*, by Mr. James Startin, through the post in a wrapper marked "official-paid," from which he deduces that the pamphlet must be posted in large numbers. We have communicated with Mr. Startin, who informs us that he was unaware that the work in question was issued in the way suggested by our correspondent, and adds that he has taken steps to prevent any further circulation of the lecture in such a manner.

HOSPITAL ADVERTISEMENTS.

A SHORT time ago our attention was called to an advertisement in a London weekly paper of a Throat Hospital, giving the names of the medical staff. We have communicated with the medical staff, and are informed that the advertisement was inserted without their cognisance, and that its appearance was due to the over-zeal of a lay friend of the hospital. We understand that steps have been taken to prevent its reappearance.

A UNIVERSAL LANGUAGE FOR USE AMONG MEDICAL MEN.

IN the letter from Sir Edward Sieveking on this subject published in the BRITISH MEDICAL JOURNAL of February 16th, page 396, two printer's errors occur. In the fourth line the concluding words of the sentence should have been "mutually intelligible;" in the second paragraph, seventh line, "redintegrate to practical employment of Latin" should be "redintegrate the practical employment of Latin."

COMMERCIALISM AND SCIENCE.

WE learn from a notice in the *Investors' Guardian* of February 23rd that a company was registered on February 14th under the name of the Pasteur Anthrax Vaccine (United States and Canada) Company, Limited, with a capital of £25,200 in £1 shares. The object of the company is to enter into an agreement with one Harold Sorby, and to propagate the Pasteurian methods of vaccination.

THE ST. GOTHARD RAILWAY.

A PAMPHLET by Mr. George L. Catlin, describing the St. Gothard railway, has been issued, apparently, though the little page does not say so, by the Company. It contains two maps, several photographs reproduced in Zurich, where the book is printed, and some old sketches which have probably done duty often before. The pamphlet would have been more useful if the writer had given some information about the places in side valleys accessible from the railway stations instead of confining himself to rather stilted descriptions of the views to be seen from the carriage window and gushing comments on the length and curious curvings of the tunnels, which are, after all, no more than necessary evils. A railway, however marvellous as a piece of engineering skill, is regarded by all wiser holiday makers and health seekers merely as a means to an end.

Migraine.

Surgeon-General Thomas B. Beatty, M.D., Glencairn Abbey, Lismore, co. Waterford, writes, with reference to a paragraph which appeared in the Epitome on February 17th, 1894, that the proper dose of migranine (obtained at Messrs. Burroughs, Wellcome and Co.), is from 15 to 20 grains. A smaller quantity is valueless for the cure of migraine.

Railway Surgeons and Sick Funds.

A Railway Surgeon writes, with regard to a paragraph published in the British Medical Journal of February 16th, page 403, to point out, that although the company's *employés* are expected to contribute towards a provident fund in proportion to their wages, that is, a workman having twice the wages of another has to pay twice the contribution of the latter, the surgeon in reality is paid the minimum amount per annum per member, irrespective of the earnings of the member. In the book of rules which came before our notice this was certainly not very apparent, and if the fact is as our correspondent reports, there can be no question that the arrangement is a most inequitable one, and ought to be speedily altered. If brought before the company it is difficult to see how they could uphold such an anomaly, as illogical as unfair; for if it is just that they who are in receipt of higher wages should contribute rateably towards the expenses of the provident fund, why should they not do likewise towards the remuneration of their doctor; or, as it might perhaps be better put, by what right do the company deprive the doctor of the share of the increased contributions of the higher wage earners, which it may be presumed they intended he should have?

An Antitoxin for Syphilis: a Suggestion.

Surgeon J. Duncan Menzies, R.N., writes from Gibraltar: The satisfactory results of the antitoxin treatment of diphtheria encourage one to hope for a still more brilliant advance in scientific medicine. I refer to the possibility of obtaining a seropathic antitoxin for syphilis. The horse is known to be subject to a constitutional affection, having a marked likeness to the human disease, without, perhaps, a "real identity." Again, human syphilis is incapable of being transmitted to the equine genus. Can we regard this last fact as showing a species of antagonism between the two diseases? The bacteriology of equine venereal disease has not as yet, I believe, been worked out. It would be instructive to compare and endeavour to form an estimate of the bacteriological strength and antagonism of the two viruses, if possible. This discovery, if properly substantiated, might lead us on to the perfected therapeutic "syphilotoxin."

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) Dr. J. T. Arlidge, Stoke-on-Trent; Alpha; Messrs. Arnold and Sons, London; Another L.R.C.P. London. (B) Dr. J. Broom, Clifton; Mr. G. A. Brown, Tredegar; Mr. P. Brooks, Poole; Mr. C. Y. Broatch, Yarmouth; Dr. George Buchanan, Glasgow; Mr. C. Barber, Birmingham; Mr. J. Barnet, Chicago; Mr. P. M. Braidwood, Amersham; Sir H. R. Beevor, Bart., London; W. M. Browne, M.B., Saltcoats; Mr. L. A. Baillon, London; Dr. L. Brunton, London; Mr. J. J. Brown, Glasgow; Mr. J. P. Bush, Clifton; Mr. W. Basset, Newport; Mr. T. H. Brinckhurst, Weymouth. (C) Dr. H. Clothier, London; Dr. E. Clarke, London; Messrs. T. and A. Constable, Edinburgh; Country G. P.; Mr. E. J. W. Carruthers, Pendlebury; C. C. C.; Mr. R. Crofton-Atkins, Brighton; Curio. (D) Duly Qualified; Messrs. Doulton and Co., London; Disgusted; Devonian; Dr. E. Drake-Brockman, London. (E) Dr. F. W. Edridge-Green, London; Expers. (F) A. G. Fausset, M.B., London; Dr. A. F. Fergus, Glasgow; Messrs. Fletcher, Fletcher, and Co., London; Dr. J. Farrar, Gainsboro'; Mr. A. Freeman, Ballarat; Mr. C. L. Fraser, Berwick; Mr. W. C. Finch, Salisbury. (G) Mr. J. S. Gabriel, Antigua; Dr. W. S. Greenfield, Edinburgh; A G. P. of More than Thirty Years; Dr. E. Ground, Maidstone; Dr. A. Gubb, London; Mr. E. Gaylor, Belper; Dr. G. M. Gould, Philadelphia; Mr. L. M. Griffiths, Clifton; G. J. C. (H) F. L. Hart, M.B., London; Dr. H. C. Highet, Singapore; Dr. S. Hickson, Dublin; Mr. A. W. Herbert, Southwold; Mr. F. Helbing, London; Dr. W. W. Hardwicke, East Molesey; Hospital Surgeon; Mr. A. J. Hall, Rothesay; Mr. J. T. Hartill, Willenhall; Messrs. D. Howitz and Co., London: Dr. G. Henderson, Coldstream; T. Hayward, M.B., St. Helens. (J) Mr. F. B. Jessett, London; Mr. T. S. H. Jackman, London; Mr. F. W. Jordan, Stockport; J. Joss, M.B., Denny, N.B.; Dr. J. Jenkyns, Aberdeen. (K) Mr. G. M. King, Preston; Mr. S. J. King, Southall; Mr. J. S. Kirk, Belfast; Messrs. Kingsford and Rake, Chepstow; Dr. T. N. Kelynack, Manchester. (L) Loyalty; Dr. T. Laffan, Cashel. (M) Mr. W. Marriott, London; Dr. G. Morris, Nantgaredig; Mr. J. McNicoll, Poole; M.B.; A Member, Wiltshire; M.D.; Mr. C. A. Morton, Clifton; Mr. G. Molloy, Blackpool; Mr. H. G. Maclagan, Melbourne, Derby; Member of the B. M. A.; Mr. J. McC. McCarthy, St. George's, Salop; Medical Etiquette. (N) Dr. T. Newby, Grimsby; Dr. D. Newman, London; Mr. C. R. Neville, Kingston-on-Thames; Mr. J. T. Neech, Tyldesley; A Non-Dispensary Doctor. (O) Mr. T. Ormrod, Workington; Mr. J. Odling, London; Mr. E. A. Onyon, Eye; Observer. (P) Mr. C. H. W. Parkinson, Wimborne; Dr. J. H. Potter, Cullumpton; Pathological Society of London, Secretary of the, London; Prophylaxis; Dr. G. N. Pitt, London. (R) Dr. H. D. Rolleston, London; Royal College of Surgeons in Ireland, Registrar of the, Dublin; Dr. J. Roche, Dublin; Dr. R. R. Rentoul, Liverpool; Messrs. Reynolds and Branson, Leeds; Dr. J. Rowat, Highworth; Mr. H. Rix, London; J. S. Riddell, M.B., Aberdeen. (S) Mr. B. B. Smith, London; A Salford Practitioner; A Surgeon of the G. N. R. Company: Messrs. Street, Bros., London; Senex; Mr. W. W. Smith, London; Mr. B. Sykes, Leeds; C. J. Stanley, M.B., London; Dr. A. Simpson, Perth; Mr. J. H. Skeen, Bothwell; Mr. W. R. H. Stewart, London; Surgeon-Major-General; C. E. A. Semple, M.B., London; Mr. H. E. Smyth, Northwich; Dr. W. L. Symes, Kiltegan; Surgeon-Major A.M.S.; Professor E. A. Schäfer, London; Sir W. Stokes, Dublin. (T) Mr. S. Thomson, Virginia Water; Dr. G. S. Taylor, Liverpool; Dr. W. Bezly Thorne, London; Mr. S. M. Thompson, Dublin; S. T. Taylor, M.B., Chingford; Professor G. Tizzoni, Bologna; T. M. W.; Mr. K. F. Tollner, Bremen; T. C. Tosswill, M.B., Exmouth. (U) University of London, the Secretary of the, London. (W) Mr. E. W. Wallis, London; Why Annual? Dr. J. Wallace, Greenock; Mr. A. Winkfield, Oxford; Professor Windle, Birmingham; Write or Call; etc.

BOOKS, Etc., RECEIVED.

Note Book of Materia Medica, Pharmacology, and Therapeutics. By Dr. R. E. Scoresby-Jackson. Fifth Edition. Revised by J. R. Hill and Dr. R. Stockman. Edinburgh: James Thin. 1895. 12s. 6d.

Transactions of the Eighth International Ophthalmological Congress held in Edinburgh, August, 1894. Edited with the assistance of Drs. Parent, Hess, and Fergus. By George A. Berry. Edinburgh: T. and A. Constable. 1894.

Introduction to Physiological Psychology. By Dr. T. Ziehen. Translated by C. C. V. Liew and O. W. Beyer. Second Edition. London: Swan Sonnenschein and Co. 1895.

The Westminster Hospital Reports. Vol. IX. Edited by Dr. R. G. Hebb. London: J. and A. Churchill. 1895. 6s.

Commitment, Detention, Care, and Treatment of the Insane; being a Report of the Fourth Section of the International Congress of Charities, Correction, and Philanthropy, Chicago, June, 1893. Edited by Dr. G. A. Blumer and Dr. A. B. Richardson. London: The Scientific Press. 1894. 6s.

General Exercises of the International Congress of Charities, Correction, and Philanthropy, Chicago, June, 1893. London: The Scientific Press. 1894. 6s.

The Difficulties of Prognosis in Insanity. By Dr. H. Sutherland. London: John Bale and Sons. 1894.

La Pratique des Opérations Nouvelles en Chirurgie. Par A. Guillemain. Paris: J. B. Baillière et Fils. 1895.

La Mort et la Mort Subite. Par Professor P. Brouardel. Paris: J. B. Baillière et Fils. 1895.

Abdominal Tumours and Abdominal Dropsy in Women. By Dr. J. Oliver. London: J. and A. Churchill. 1895. 7s. 6d.

The Pathology of Mind; a Study of its Distempers, Deformities, and Disorders. By Dr. H. Maudsley. London and New York: Macmillan and Co. 1895. 15s.

A Course of Elementary Practical Bacteriology, including Bacteriological Analysis and Chemistry. By Dr. A. A. Kanthack and J. H. Drysdale, M.B. London and New York: Macmillan and Co. 1895. 4s. 6d.

New London; Her Parliament and its Work. By the Special Commissioners of the *Daily Chronicle*. London: Edward Lloyd, Limited. 1895. 1s.

The Elements of Pathological Histology, with Special Reference to Practical Methods. By Dr. A. Weichselbaum. Translated by Dr. W. R. Dawson. London and New York: Longmans, Green, and Co. 1895. 21s.

Fünfundzwanzigjähriger Bericht über die Augenheilanstalt. Von Dr. J. Hirschberg. Berlin: R. Friedländer and Sohn. 1895.

Précis de Bactériologie Clinique. Par R. Wurtz. Paris: G. Masson. 1895. Fr. 6.

Traité Élémentaire de Clinique Thérapeutique. Par Dr. G. Lyon. Paris: G. Masson. 1895. Fr. 15.

Butchery and its Horrors. By J. Oldfield. London: Ideal Publishing Union. 1s.

*** In forwarding books the publishers are requested to state the selling prices.

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Post Office Orders should be made payable to the British Medical Association at the West Central Post-Office, High Holborn. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to recieve letters at *Poste Restantes* addressed either in initials or numbers.

OBSERVATIONS
ON A
FURTHER SERIES OF CASES OF RELAPSING TYPHLITIS TREATED BY OPERATION.[1]

By FREDERICK TREVES, F.R.C.S.,
Surgeon to and Lecturer on Surgery at the London Hospital; Examiner in Surgery at the University of Cambridge.

In a paper read before the Harveian Society[2] in April, 1893, I gave a brief account of a series of 14 cases of relapsing typhlitis treated by operation. I would now add to that account a further series of 18 cases of relapsing typhlitis in which I have carried out an operation during the quiescent period. I have excluded those far more numerous cases of acute typhlitis in which an incision is called for for the purpose of evacuating pus, and those not uncommon examples of operation in chronic cases for the relief of a persisting sinus.

In all the present instances the operation for the removal of the appendix was carried out when every symptom of the inflammatory trouble had disappeared, in accordance with the proposal I first made in 1886.[3] All the 18 patients made a good recovery except one (Case VII). This case represents the only fatality I have ever had from this operation.

It has been now apparently demonstrated that that form of localised peritonitis which is known by the names of typhlitis, perityphlitis, and appendicitis is due in the great majority of instances to the bacterium coli commune. Thus, Tavel and Lanz examined 23 cases of trouble in the appendix. The examination was made either of the pus within or without the appendix or of the exudation into the peritoneal cavity immediately around the diseased process. The material for this bacteriological investigation was obtained during the patient's life. In 3 no micro-organisms were found. In 19 examples the colon bacillus was found either alone or in association with other pathogenic germs. The streptococcus was found in several cases; the pneumococcus was met with in 2 examples, but not in pure culture. The staphylococcus pyogenes citreus was in 1 instance the only micro-organism discovered.

The bacterium coli commune exists normally in the human body, and is said to be the most abundant and the most constant of the bacteria found in the individual in health. Its natural habitat is the bowel, and it has been demonstrated to be present along the whole length of the alimentary canal from the mouth to the anus.

The micro-organism has this notable feature, that it varies greatly in its virulence. So far as experiments upon animals are of value, it would appear to be harmless when taken from the normal intestine. If, however, the bowel become the seat of almost any morbid condition, then the bacillus becomes at once virulent. Virulence has been found to be developed in cases in which the bowel was obstructed, strangulated, or inflamed, in congestion of the intestine, in diarrhœa, in advanced constipation, and in other abnormal states. This point is of no little moment in the etiology of perityphlitis. In a large number of cases the attack is preceded by constipation, or by the decomposition of undigested matters in the bowel, or by diarrhœa, or by exposure to cold, or possibly, although rarely, by injury.

If measures can be adopted to render the bacterium non-virulent, then a great step has been taken in the preventive treatment of the affection.

Two elements at least would appear to be necessary to produce an attack of localised peritonitis through the medium of the appendix. The first is such a condition within the bowel as will render the colon bacillus virulent; and the second is such a lesion in the appendix as will permit that bacillus to reach the peritoneum. The invasion of the peritoneum by the micro-organism gives rise to sudden, violent, and acute symptoms, to an outbreak so abrupt and intense as to produce the impression that the appendix has become perforated. Perityphlitis due primarily to a sudden definite perforation of the appendix is certainly uncommon. In not a few instances in which the last attack was sudden and acute I have failed to detect any visible breach in the outer surface of the appendix.

I have elsewhere pointed out the morbid changes found in this little process in cases of perityphlitis.

If a large series of cases of this affection be passed in review, it will be found that the number of instances in which there has been only one attack is much greater than that in which there have been several attacks. In a certain proportion of the examples of a single attack there has been an abscess, and the great majority of the subjects of typhlitis who have passed through the stage of suppuration are thereby rendered free from any further attacks. The cause of the trouble has been removed by the suppurative process. The abscess cavity may apparently heal, and what is improperly called a second abscess may form, but that does not as a rule represent any fresh mischief at the original seat of disease.

Among the morbid conditions of the appendix which are necessary to produce relapses, the following are probably the most common. The lumen of the appendix is in some places narrowed or occluded, and the contents of the little tube are unable to escape. Such occlusion may result from a twisting of the organ, or from an acute bending of it, due to the contraction of adhesions, or from a cicatrix in its interior due to extensive ulceration. In other examples a quantity of inflammatory material, amongst which may be found the gangrenous tip of the appendix, is embedded within a mass of firm adhesions as an explosive within a bomb. In a third series of examples the organ shows a condition well adapted for volvulus, or there is lodged within it a calculus or a fæcal concretion.

Mere ulceration alone would not appear to be a cause, certainly not a common cause, of relapses. Perforation, in the ordinary sense of the term, would appear to play a very little part.

I have in previous papers ventured to indicate those cases which would appear to be best suited for operation, and which indeed would seem to be incapable of being treated by any other measure. The cases adapted for operation are comparatively few, and the simplicity of the surgical treatment has rather cast into the shade the somewhat neglected measures of the physician. Instances in which there is abiding tenderness and some swelling in the cæcal region, with very frequent attacks of pain and fever, are, I believe, amenable to no measure short of operation. In all such cases I have found the appendix to be distended with pus.

In examples not so marked such measures as the following may bring the attacks of typhlitis to an end:

1. The digestion must be attended to. If the teeth are defective the deficiencies must be made good. The bolting of ill-masticated masses of food is not an uncommon exciting cause of perityphlitis. The meals must be taken at regular hours, the patient must eat slowly, and must rest after each meal. Not a few attacks in active business men can be ascribed to a hurried lunch, which is eaten "with the loins girded" one day at 1 o'clock and another day at 3. The food must be simple and digestible, and of such a kind as to leave as little *débris* as possible in the intestine.

2. The bowels must be made to act daily. The aperient given should be frequently changed.

3. Massage of the abdomen appears to have in many cases a very admirable effect, partly, it may be, by promoting the absorption of inflammatory exudations, and partly by encouraging a normal action of the bowels. With massage may be associated suitable exercise.

4. The use of some intestinal antiseptic. The most efficient would appear to be salol. It should be given in a powder (in milk or in a cachet) in 10 grain doses night and morning. Salol in the form of tabloids is very apt to leave the rectum in precisely the same form as it entered the mouth. I have seen such tabloids discharged from an artificial anus entirely unchanged. The value of this drug can be well observed in examples of an artificial anus made in the cæcum. The escaping matter may be very foul and mixed with bubbles of gas, and when this condition is apt to act as a

[1784]

[1] Read before the Harveian Society, February 7th, 1895.
[2] British Medical Journal, April 22nd, 1893.
[3] *Med.-Chir. Trans.*, vol. lxxi.

corrosive upon the skin, producing great distress. A more wholesome condition of the discharge—as shown markedly by the improvement in the skin—very soon follows upon the use of salol. In only one case have I seen carboluria attend the use of this drug.

The actual operation itself I have elsewhere described. It is a measure which may prove to be exceedingly difficult or exceedingly easy. Some of the cases have been most trifling. On the other hand, in two instances I failed to remove the appendix after very persisting attempts. It is impossible to predict beforehand the features of the operation. The attacks may have been violent and numerous, and the removal of the diseased process nevertheless prove to be a mere trifle. On the contrary, some of the most difficult operations I have met with have been in cases in which I had hoped from the history of the attacks to have encountered no complications. With one exception I have in the cases enumerated below made the incision directly over the cæcum, that is, about in the position occupied by Mr. Cripps's incision for iliac colotomy on the left side. In one or two instances the incision was lower down. In the case mentioned as an exception the abdomen was opened in the median line. The peritoneal cavity should be opened with caution. The cæcum may be adherent immediately beneath the line of the incision, and may be readily cut into.

The dealing with adhesions constitutes the real difficulty of the operation. An adherent appendix may hide a perforation in the cæcum. I have met with a thinned and dilated ureter among the adhesions and realised that it could readily be mistaken for an appendix. This structure and the iliac veins are in some danger in certain of these operations.

The serous coat of the appendix is divided and the little process is ligatured with silk in the groove thus made. The projecting mucous membrane is then cut away, and the detached peritoneum is then carefully stitched over the stump. When this cannot be done a hood of peritoneum is obtained from the neighouring serous membrane. Throughout the operation the "vivisector's tool" is most useful. Iodoform is dusted over the exposed area of peritoneum and the wound is closed by means of a continuous silk suture of the peritoneum and a series of silkworm-gut sutures, which involve the muscles and skin.

Of the subjoined 18 cases, 14 occurred in private practice and 4 were patients in the London Hospital.

SERIES OF CASES.

CASE I. *Appendix found as a Strap across the Cæcum.*—A lad, aged 13. Had had two very severe attacks; one two years and a-half ago, and one eight months ago. The last attack had laid him up six months. The appendix was easily to be felt. Operation, June, 1893. Appendix adherent to the left layer of the mesentery, and fixed as a strap over the left side of the cæcum, was removed. The process was of unusual length. An ulcer existed at its extremity, and here had apparently been a perforation. There were many adhesions about the appendix, to which, also, the omentum was adherent. Two enlarged glands found in the mesentery were removed. The operation occupied one hour. The patient made an excellent and speedy recovery. (See Case III.)

CASE II. *Remarkable Amount of Inflammatory Material around the Appendix.*—A lady, aged 47. Had four attacks in January, February, March, and June, 1893. The first three were comparatively slight. The last was severe, and the patient was not free from local pain four weeks after the attack began. Operation in July, 1893. There were numerous adhesions. The appendix was bent upon itself, was adherent to the cæcum, and was distended with muco-pus. Behind the cæcum was a dessertspoonful of custard-like material. This was scraped away with a sharp spoon after the appendix had been removed. The cavity was dusted with iodoform, and a drain inserted for sixteen hours. The wound healed without suppuration, and the patient did well in all respects. (See Case IV.)

CASE III. *Appendix Fixed as a Strap across the Cæcum.*—A gentleman, aged 42. Appendix removed November, 1893. Had had four great attacks, followed by much prostration and slow recovery. The first laid him up from January to March, 1889; the second from October, 1889, to March, 1890; the third from May to June, 1891; the fourth was in November, 1893. There had been many minor attacks. The appendix was fixed like a strap over the front of the cæcum, and was adherent by its tip to the anterior abdominal parietes. The removal was difficult, and I ultimately excised it in three pieces, owing to the fear that there might be a hole in the cæcum. There were many adhesions. The appendix was the size of the adult forefinger, and was full of stinking pus. No drain was used. An uninterrupted recovery followed.

CASE IV. *A Complex Case with Two Perforations in Cæcum.*—A gentleman, aged 42. Appendix removed November, 1893. His first attack of severe perityphlitis was in 1874. Several minor attacks followed. The second severe attack was in 1877, when he was invalided for four months. Some minor attacks followed until 1882. He was then quite free for five years. Then he became troubled again by slight attacks, which came on every few months or few weeks, and laid him up each time in bed from one to three days. The third severe attack was in October, 1883. The operation was performed as soon as recovery had taken place, that is, in four weeks. On account of the considerable amount of thickening which was to be felt in the iliac fossa, the incision was made in the median line. There were extensive adhesions, and much omentum was cut away. The tip of the appendix—greatly thickened—was adherent to the cæcum. When it was freed two perforations in the cæcum were discovered, and were closed by sutures. Behind the cæcum a cavity was discovered filled with a custard-like substance. This collection extended as far down as Poupart's ligament. To the wall of this cavity the ileum was adherent. The cavity was scraped out and dusted with iodoform. (*Cf.* Case II). No drain was used. The operation lasted one hour and a quarter. The patient made a good and speedy recovery without a bad symptom of any kind.

CASE V. *In which a Stony Concretion was found.*—A gentleman, aged 17. Appendix removed December, 1893. He had had five attacks of perityphlitis, namely, in December, 1892, and in June, July, August, and September, 1893. The first four attacks laid him up in bed from two to fifteen days. The fifth attack was very severe and he nearly lost his life. From this attack he never quite recovered, and was, indeed, confined to bed up to the time of operation. There was much local tenderness, and any movement brought on indications of an attack. The adhesions were extensive, and the appendix was found with difficulty. About the cæcum was much of the custard-like matter noticed in Cases II and IV. This was scraped away. The appendix was adherent to the ileum, was filled with muco-pus, and contained a large and stone-like concretion. A drainage tube was introduced. The patient made a perfect recovery. No suppuration occurred in the wound. (See also Cases XI and XV.)

CASE VI. *Large Appendix full of Pus.*—A girl, aged 12. The appendix was removed February, 1894. The first reported attack was in September, 1893. It came on after eating many raisins and some green apples. From the accounts given—the child was abroad at the time—the symptoms were rather those of acute intussusception. The patient was exceedingly ill. From this date until the time of the operation the patient had slight attacks of perityphlitis almost every ten days. The symptoms were sudden pain, vomiting, constipation, a temperature of 100° to 102° F., and great abdominal tenderness. The patient would be confined to bed for about three days on each occasion; the usual interval of freedom was seven days; the longest interval was from January 24th to February 2nd. The operation was performed as soon as the February attack had subsided. The appendix was behind the cæcum and ileum. It was short, was about the size of an adult thumb, and was full of stinking pus. At its base it had been twisted upon itself and nearly closed. There were considerable omental adhesions. The operation presented no difficulties. The child made a perfect recovery.

CASE VII. *A Case that ended Fatally.*—This case represents the only death I have ever had after this operation. A gentleman, aged 35, had had five attacks of perityphlitis, in November, 1893, December, 1893, February, 1894, March, 1894, and April, 1894, respectively. Since December, 1893, he had lived on liquid food. Two of the attacks had been very severe. He was never free from a sense of discomfort in the right iliac region. He was much constipated. The operation was performed in May, 1894. Before the operation the patient was in a condition of considerable nervous excitement and on account of this the operation was twice postponed. The appendix was of remarkable dimensions, measuring 3½ inches by 1 inch in width. Its lumen was occluded near the cæcum and it was distended with pus. The operation presented no difficulty. The patient was sick on recovering from ether and soon began to develop a condition of nervous restlessness which I have never seen equalled. Except when quieted with morphine it is literally accurate to state that he never ceased to move and to talk. He complained of pain, but the abdomen was never tender and never distended in the least. There was no vomiting. The temperature rose to 99.5 on the evening of the second day, but with that exception t was normal. The bowels were opened by an enema on the third day. What food he was allowed to take he took readily and without being sick. He continued his ceaseless movements and remained in the same condition of excitement until his death on the fourth day. When in the act of dying he vomited, this being the only time he was sick after he had recovered from the anæsthetic. What was the actual cause of death is difficult to state as there was no *post-mortem* examination.

CASE VIII. *In which it was impossible to remove the Appendix.*—The patient was a gentleman, aged 30. The operation was carried out in June, 1894. There had been a very severe attack of perityphlitis in boyhood, and since then the patient had had constantly recurring slight attacks. These were represented by pain, fever, vomiting, great tenderness over the right iliac fossa, and constipation. Each attack laid the patient up in bed from one to three days. So frequent were the attacks—sometimes three in a month—that the patient, who was a most active and intelligent man, had been unable to follow any profession, and had to restrict himself to a rigid dietary. Some induration was to be felt in the upper part of the iliac fossa. For a considerable time I was unable to demonstrate the abdominal cavity, owing to the adhesions. These were remarkably dense, and served to obliterate the anatomical details of the bowel. The cæcum was completely buried in a dense mass of adhesions, and hidden here was, no doubt, the appendix. I was not disposed to undertake the serious risk of opening up this area, especially as the adhesions obliterated both the ureter and the iliac veins, structures in no little risk of being wounded during operations. I divided adhesions wherever possible, removed such omentum as was attached, and closed the wound. The patient made an excellent recovery, and has been free of any attacks since the operation, a period now of over six months. (See also Case XIII.)

CASE IX. *The Appendix Closed by Bending.*—The patient, a girl of 13, had had seven marked attacks of typhlitis within the last few years, and a few minor attacks. The appendix was removed in November, 1894. It was found to be acutely bent upon itself, so that the tip nearly touched the root of the process. This bending was the result of adhesions. The lumen of the tube was occluded at the point of bending. The operation was exceedingly simple, and the patient recovered perfectly. (See also Case XII.)

CASE X. *An Appendix Adherent to the Anterior Parietes.*—A gentleman of 60. The appendix was removed in November, 1894. In the summer he had had an exceedingly severe attack of perityphlitis, in which he nearly

lost his life, and from which he never made a complete recovery. There was a tender lump left in the right iliac fossa, which became the seat of pain and swelling on movement and after any error in diet. The appendix was found buried in a dense mass of fibrous tissue, adherent to the abdominal wall. It was difficult to demonstrate the abdominal cavity, and in order to remove the appendix, which was inseparable from the adhesions around it, some of the muscular tissue of the belly wall had to be removed. The mass removed was the size and shape of a large walnut. The buried appendix contained pus. The omentum was adherent. The operation occupied an hour and a-half. The great difficulty was in entering the abdominal cavity. A speedy incision would have involved the cæcum, which was adherent immediately under the surface wound. The patient's recovery was delayed by a small abscess which appeared in the wound after a definite exposure to cold and after the patient was about again, two months after the operation.

Case xi. *In which a Stony Concretion was found.*—The patient was a boy of 10. The operation was performed in December, 1894. A year previously he had had a very severe attack of localised peritonitis, which at one period closely resembled typhoid fever. Subsequent to this he had eight definite attacks of perityphlitis, two of which were very severe. The boy was rendered an invalid. The operation was much complicated by adhesions, which extended as far as the median line. The cæcum, terminal ileum, appendix, and free end of the omentum formed one confused mass. The appendix was discovered with difficulty. It was buried in a clump of adhesions derived from the omentum. Its tip was represented by a slough. Its cavity contained muco-pus and a small hard stony concretion the size and shape of a cherry stone. The patient made an uninterrupted recovery.

Case xii. *The Appendix Closed by Bending.*—A lady, aged 24, whose appendix was removed on January 9th, 1895. The first attack was four years ago; since then there had been twelve definite attacks and many minor ones. The patient was rendered more or less of an invalid. The operation was very simple. There were no adhesions except those on the appendix, which was acutely bent upon itself as in Case ix. The tube beyond the bend contained pus. An enlarged lymphatic gland near by was removed. The patient has made a good recovery.

Case xiii. *In which it was impossible to Remove the Appendix.*—Operation January 17th, 1895. The patient, a lady of 25, had her first attack four years ago; since then she has had on an average eight attacks in the year. The adhesions were extensive as in Case viii. The cæcum was lost in the pelvis among old and rough adhesions, and could not either to bring it into view or to discover the appendix. Many feet of the ileum were matted together in great confusion. The omentum was adherent. I divided as many of the adhesions as was possible, but left many untouched on account of the bleeding. The patient has made an uninterrupted recovery, but it is as yet impossible to say what effect the operation will have upon the attacks.

Case xiv. *A Simple Case.*—A gentleman, aged 24. Appendix removed January 24th, 1895. First attack in January, 1894, was moderately severe; second and third attacks laid him up two and four weeks respectively; fourth attack in November was very severe, and the recovery was slow and interrupted. The operation was simple. The appendix, as shown by its mesentery and the ulceration in its interior, had evidently been twisted upon itself. There were no adhesions except about the appendix, which was, however, free from attachments. The patient's recovery has been rapid and uneventful.

Case xv. *Three Concretions in Appendix: Perforation in Cæcum.*—London Hospital. Operation May 14th, 1894. Man, aged 48. Three attacks of perityphlitis, all of some severity. The appendix was found in the ileo-cæcal fossa. It was adherent to the cæcum, and contained three small stony concretions. In setting it free from the cæcum a perforation in the viscus was made evident. This hole was closed with a double row of sutures, and the appendix removed. The patient made a perfect recovery.

Case xvi. *Appendix Distended with Pus.*—London Hospital. Appendix removed June 1st, 1894. Woman, aged 32. Patient had had eight attacks of perityphlitis within the previous nine months. During this time she had been confined to her bed almost continuously. The lumen of the appendix was occluded close to the cæcum. The tube beyond was distended with pus. There were no adhesions, and the operation was most simple. Patient made a sound recovery.

Case xvii. *Appendix Distended with Pus.*—London Hospital. Appendix removed September 28th, 1894. The first two attacks of perityphlitis were respectively eight and six years ago. During the last twelve months the patient had had four attacks, making six in all. The lumen of the appendix was occluded, and the tube beyond was filled with stinking pus. There was some difficulty with adhesions. Perfect recovery.

Case xviii. *In which the Appendix was Adherent to the Rectum, and contained a Fæcal Concretion.*—London Hospital. A woman, aged 27. Appendix removed January 11th, 1895. The patient had had eleven attacks of varying severity, and which had confined her to bed for periods varying from two days to three weeks. The operation was attended with considerable difficulty. The omentum was adherent to the apex of the cæcum, and was divided between ligatures. The appendix, after some search, was discovered in the pelvis, where it was adherent to the rectum. Much time was occupied in separating the little process from that viscus. I was afraid there might be a perforation into the rectum which (at the depth at which it lay) might be difficult to close. The bowel, however, was sound. After clearing away the remaining adhesions the appendix was removed. It contained a fæcal concretion, composed of concentric lamine of various tints, about the size of a Spanish nut. It was readily cut with a knife. The operation occupied over one hour. The patient has recovered without a bad symptom.

The Departmental Committee appointed by the Home Secretary to inquire into the various processes connected with the mixing and making of brass and kindred amalgams paid a visit to Glasgow last week. Evidence was taken and various brass foundries were visited.

REMARKS
ON
EXCISION OF THE RECTUM, WITH A REPORT OF FOURTEEN CASES, AND A NEW RECTAL TRUSS.[1]

By F. T. PAUL, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

Perhaps one of the best recent advances in the operative treatment of malignant disease is the gradual replacement in cancer of the alimentary canal of operations affording only temporary alleviation by those which have for their aim not simply the relief, but the cure of the patient. Thus I find in my practice excision of the rectum and colectomy are gradually replacing colotomy. In time possibly pylorectomy may supersede gastro-enterostomy; but gastrostomy for cancer of the œsophagus, if doomed to disappear, must fail on its own merits, as it is hardly likely that a radical operation can ever take its place.

Excision of the rectum, except in the minor degree, has not been warmly advocated by surgical writers in this country. Even the pioneer, Harrison Cripps, out of an experience of 400 cases of cancer of the rectum coming under his notice, has only actually operated in 38 (1892), and does not appear to approve of the major operation. Treves[2] does not even mention the name of Kraske or Alexander in connection with the subject. He states that the term proctectomy is misleading, "as the rectum is never excised, but only a comparatively small part of it." He mentions 3 inches as the usual limit, and considers that "in no case should the peritoneum be deliberately opened." Jacobson[3] only mentions the high operation to condemn it, but American and Continental surgeons regard it with much more favour. The writer's experience, very much more limited than that of Mr. Cripps, is that the most extensive operations upon the rectum for cancer are in every way more hopeful than those performed for much less advanced disease in the mouth, and which almost all surgeons would consider it a duty to undertake.

In the same way that cancer of the tongue requires different procedure for its removal, in accordance with the situation and extent of the disease, so proctectomy varies considerably, and a different operation will be called for in each of the four following classes of case:

1. Carcinoma of the lower end of the bowel all within easy reach of the finger.

2. Growths which have commenced high up, but are or have come down to be within reach of the finger.

3. Extensive growths commencing low down, but the limits of which cannot be defined.

4. Growths too high to be recognised without laparotomy.

Of the first class Cases i, ii, and ix were satisfactory examples. Cases viii and xi were more of the nature of class 3; that is, the tumours were large, but the upper edge was within reach of the finger. In these five cases the lower part of the rectum was removed by the operation advocated by Mr. Cripps. First an incision is carried from the anus to the tip of the coccyx, splitting the rectum in the middle line posteriorly. If the disease is placed quite low down, incisions are next made round the anus, which is removed with the growth, otherwise it should be left. When the above incisions are completed the lower part of the bowel is freed on all sides with scissors well beyond the limits of the growth, great care being taken of the urethra. During this stage hæmorrhage is free and is I think best dealt with by operating rapidly whilst an assistant does what he can with sponge compresssion. Finally the bowel is divided. This was formerly effected with an *écraseur*, the wound being left to granulate. Recently, since Case ii, more bowel has been drawn down, cut through with the scissors, and sutured to the posterior angle of the wound when the anus has been excised, but to the latter when it is left. In Cases viii and xi it was necessary to remove a part of the posterior wall of

[1] Read before the Liverpool Medical Institution on February 14th
[2] *A Manual of Operative Surgery*, 1892.
[3] *The Operations of Surgery*, 1891.

the vagina. They were not very satisfactory, though the result was much better than colotomy. In XI there were infected lymphatics in the form of fine cords running up the wall of the bowel beyond the line of division. This is in my experience very unusual in rectal cancer, and may perhaps be accounted for by the fact that the growth was pure colloid. The patient died of internal recurrence ten months after the operation. Case VIII was only 29 years of age, and as is well known, the younger the subject the more malignant the growth. At first she was very well pleased with herself, so much so that she married; but subsequently I saw her with recurrence in the pelvis, not in the parts originally affected nor in the liver, but apparently in the cellular tissue. She was last seen in this condition two years after the operation, and I did not think it probable then that she would live many months longer.

The second class of cases may sometimes be very satisfactorily treated by operation. The method adopted has been to remove the coccyx, and if necessary a part of the sacrum, then excise the growth through an incision in the posterior wall of the rectum. Cases X, XII, XIII, and XIV were of this description, XII and XIII verging into class 3. Case X I was very pleased with, as I was able to carry out the true principles of Kraske's operation. The patient was a man, 64 years of age. He had a malignant ring stricture of the upper part of the rectum, which was invaginated so that it could be reached by the finger. I was able to draw the tumour out of the wound made in the back of the rectum, and there to excise it after having passed sutures through the bowel in the manner adopted by Maunsell, of Dunedin. Two inches of bowel were removed which was completely invested with peritoneum. It was not thought wise to close the opening through which the excision had been performed, in order that the sutures in the bowel might run no risk of being burst asunder by a collection of fæces retained by the anus; but this wound, allowed to remain open for a temporary purpose, continued as a permanent fistula. In every other respect he made a rapid and good recovery. Five months later as the fistula was still open, and as the rectum examined through it proved to be quite free from recurrence, a plastic operation was done, and he was sent home with the lower bowel performing its functions in a perfectly normal manner. In order to avoid such a fistula on a future occasion, it would probably be better to divide the posterior wall of the rectum the whole way up from the anus, closing it again to within an inch of the latter after the growth was excised. The opening left would paralyse the action of the sphincter, and if it did not heal by granulation could be very readily repaired. This was done in subsequent cases. It might be sufficient to place a large tube in the anus.

In Case XII the growth commenced 1½ inch above the anus and extended beyond reach. Through a similar incision a segment of bowel about 4 inches in length was removed, and the upper and lower portions reunited. He made a good recovery, and exactly a year later his doctor wrote me that he was quite free from recurrence, comfortable, and had control over his motions.

Case XIII occurred in another old man of 64. The malignant ulcer was situated on the anterior wall of the bowel. It commenced 2½ inches above the anus, and extended upwards for nearly 3 inches, consequently its limits could not be defined with the finger. It was removed through a similar incision with a good margin of healthy mucous membrane. The remaining portions of rectum were dovetailed together, but the lower part of the posterior incision was left unsutured, as in the other cases, in order to prevent retention of fæces in the rectum during healing. He recovered without any bad symptoms. Seen fifteen months after the operation, he was found to be troubled with prolapse and the mucous discharge which goes with it. A small plastic operation would probably have mended matters, but as he was now 65, and a truss which answered well had been discovered in the meantime, it was decided not to operate again at present.

Case XIV was admitted for severe intestinal obstruction, for which immediate and simple relief was imperative. Inguinal colotomy was done, and he soon recovered. The cause of the obstruction was a small but tight malignant stricture high up in the rectum, so high that it could only just be touched. The patient was not a good subject, having been much pulled down by the obstruction, and he was 60 years of age; however, I was tempted by previous successes to try and remove it for him. The operation was performed as before through the posterior median incision of Kraske. It was not nearly so easy as in Case X, in which Nature had conveniently invaginated the bowel for me, and the hæmorrhage was rather free. The end of it was that he became too weak for me to complete the operation by suture, so the upper end of the bowel was brought out of the top of the wound, a glass tube ligatured into it, and the patient put back to bed as quickly as possible. Unfortunately, the shock continued, and he died in eight hours. Had this patient been in ordinary health I feel sure he would have recovered. It was an error of judgment; under the circumstances I ought to have declined to operate.

The cases included in Class 3 are much more hopeful than would be supposed. Such patients, unless they elect to remain as they are, must choose between colotomy and the high operation. I unhesitatingly recommend the latter whenever possible, even although it may be doubtful if the entire growth can be eradicated. What we have to look to are the comfort and the subsequent duration of the life of the patient. Can these be improved without undue risk? From what I have seen of death from cancer of the rectum, I believe it to be incomparably more distressing than death from internal extension or recurrence of the growth, so that if the local disease can be removed it is at least a gain to the patient's comfort whilst he lives. Colotomy affords less relief than excision, and for a much shorter period. Moreover, the patient always prefers the artificial anus to be somewhere near the site of the natural orifice, and with the help of a new truss, to be described further on, I have found it easier to retain the fæces or a prolapse after excision than after colotomy. The mortality of Kraske's operation must, of course, be higher than for such a simple proceeding as inguinal colotomy, but it really seems to be much less than one would suppose from its apparent severity.

Cases III, IV, V, VI, and VII were of the nature of Class 3; that is, the growth extended upwards out of reach, and all the rectum below it was excised. The rectum was in all more or less fixed, but in none hopelessly immovable, nor could any secondary deposits be detected, otherwise I should not have operated. The amount of bowel removed varied from 5 to 8 inches. The duration of life in these cases was as follows: One 11 days, one 10 months, one 1 year, one 2½ years, and one is still living 3½ years after. The mode of operating is to place the patient on the left side with the knees up. Then make the first incision from the anus directly backwards to the middle of the sacrum, rapidly clear the soft tissues from the sides of the coccyx and lower half of the sacrum, divide the latter with saw and forceps, and tear the bones away with lion forceps and a few touches of knife or scissors. The bleeding is free and should be at once stopped with compression forceps or sponges. Next the lower end of the rectum is detached with knife and scissors. First one side is cleared and plugged with sponges, then the other, care, of course, being employed in detaching the bowel from the neighbourhood of the urethra and back of the bladder; from the hollow of the sacrum it shells out with the greatest ease. At this stage the bowel hangs loose, and it is convenient now to ligature the vessels which have been plugged with sponges. This having been accomplished, the higher part of the rectum is liberated by opening the peritoneal cavity, and dividing as much of the meso-rectum as is necessary. In the latter there are very large vessels which should be clamped or tied before being cut. When plenty of bowel has been drawn down, the rent in the peritoneum may be loosely closed with a few fine sutures, and a large glass intestinal drainage tube plugged with wool is inserted into the bowel and ligatured above the growth. If the intestine is loaded with fæces the tube had better be introduced below the stricture and forced up—to the detriment of the specimen—as it is very difficult to avoid some escape of fæces when this powerful bowel is opened under high pressure. The tube having been fastened in, the diseased part is cut off and the stump sutured to the top corner of the wound—the higher the better, as less gut needs to be drawn down, and the orifice is in a more favourable position for the truss. There is no tension on

the sutures in this operation. The remainder of the large wound cannot be closed, or only in part; it is therefore filled with antiseptic dressings through which the tube from the bowel projects. When there is much pressure of fæces, they are caught in a basin for the first few hours, and subsequently in a waterproof bag containing antiseptic wool; but when there is no such collection the bag only is used. The advantages of the tube are that it keeps the wound aseptic for a few days, and enables all the large vessels in the rectal walls to be closed with a single ligature, whilst the advantage in discarding it would be that one could fashion a smaller and better artificial anus. The former considerations have seemed to me to outweigh the latter. The tube generally sloughs out on the fourth day, and the wound takes about eight weeks to heal. Subsequently a special rectal truss is required to prevent prolapse and incontinence of fæces. A small plastic operation will considerably improve the anus; but when a good deal of bone has been removed some more rigid support than skin is necessary for comfort.

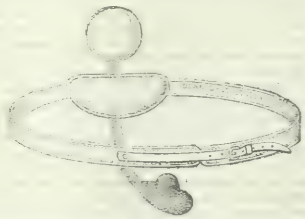
The chief danger of this operation is shock. It is the only one I have met with so far, and is almost entirely due to hæmorrhage. The patients are generally rather old, and they are already reduced by the disease. If the operator stopped to ligature every vessel as it was cut, the length of time employed would prove an equally fruitful source of shock. Expedition is necessary, and I think the best success is attained by bold and rapid operating, whilst the ready fingers of an assistant compress the vessels with sponges as they are cut.

The fourth class, in which the tumour can only be discovered on opening the abdomen, is not represented in my cases. Supposing such a growth to be suitable for removal, I should deal with it by one of two methods, according to the condition of the patient and the accumulation of fæces above the stricture. The safer operation, suitable for those patients in which the symptoms of obstruction are pronounced, would be to doubly ligature and divide the bowel above the growth, taking the upper end out through a small separate wound in the inguinal region, where subsequently a tube could be inserted and an artificial anus established. Then excise the diseased portion of the rectum, and invaginate and close the lower end. If the patient were in better condition, and there were no great accumulation of fæces, I should simply excise the growth and approximate the cut ends with Murphy's large sized metal button. This ought to be a favourable position in which to use it.

Mortality.—The number of deaths from the operation in these 14 cases was 2, or equal to 14 per cent. Both occurred in somewhat unfavourable subjects operated upon by Kraske's method. If cases were selected the death-rate would be greatly reduced. Mr. Cripps records a death-rate of between 7 and 8 per cent., his cases including none operated on by Kraske's method, but from reasons which may be gathered above I have declined operating in none but absolutely hopeless cases. The simpler ones all recovered.

Duration of Life.—Of the 12 patients who recovered from the operation 6 have since died from recurrence of the growth, the period of death varying from ten months to two and a-half years, and giving an average of exactly one year and eight months. Of the 6 still living, the time elapsed since the operation ranges between ten or more years and one year and a-quarter, giving an average duration of between three and a-half and four years. The absence of exactitude is due to the fact that the earliest case left for work in America four years ago, hence, if still living, it would be fourteen years since his operation. Most of the hospital cases who present themselves for treatment with cancer of the rectum have had symptoms of its presence for from nine months to a year, and sometimes longer. Now what is their expectation of life? This is a question I am not prepared to answer definitely, but so far as I can gather from experience in my own practice and that of my friends, and from the results of colotomy, it would appear that the average expectation of life in those who are sufficiently bad to apply for relief cannot exceed a year even when colotomy is performed. Now my cases of excision taken as they stand, including the whole 14 with 2 deaths, show an average period of life of upwards of two and a-quarter years since the operation, which is probably more than double their expectation under any other treatment; and this without counting the fact that 6 patients, including some of the most hopeful, have a prospect of living for some years to come, and thus adding considerably to the success of these statistics. During their survival all my patients have returned to work, with the exception of two ladies, who had no work to do, so that the result of the operation has been not only a gain in life but a gain in usefulness, and also a gain in comfort.

Other Results.—One patient only suffered from stricture consequent upon the operation, Case II. In the earlier slight cases I followed Harrison Cripps in not stitching the bowel to the skin. Under these circumstances the funnel-shaped wound cicatrices, and is liable to contract and form a stricture. Case I could retain fæces except when attacked with diarrhœa. Cases III, V, VII, IX, and XIII suffered from more or less prolapse of the bowel and mucous discharge. In VII I excised the prolapse with very little benefit, as it soon returned. In IX, a slight case, I narrowed the opening, and he subsequently had very good control over the bowels. Case IV had a preliminary colotomy done, so of course was not troubled with his rectum. In Cases X and XII the upper and lower parts of the bowel were approximated, and the normal characters of the rectum restored. It is only in the more severe operations where the cut end of the bowel is stitched to the skin that a bad prolapse takes place. This is due to the absence of the support natural to the parts by the loss of a portion of the sacrum, the coccyx, and the levator ani and sphincter muscles. Complete excision of the prolapse does not touch the cause, and therefore does not cure it. I felt this prolapse and constant mucous discharge from it to be the weakest element in the results obtained by the operation, and therefore every effort was made by our instrument maker to remedy it by means of rectal trusses, but without success. They not only would not retain fæces when liquid, but often allowed the prolapse to escape beside the pad. As a matter of fact, no instrument tried maintained a constant pressure in the ordinary varying positions of the body. I therefore requested Mr. Reynolds, of Liverpool, to make a rectal truss to my design, shown in the accompanying figure,



New rectal truss designed by the author for use after excision.

which he satisfactorily accomplished. We tried it first on Case VII, the worst, and he at once said it was the very thing he had been wanting for the past two years. Poor fellow, he had been steadily going on with his work, which involved constant walking about with a large prolapse, and now that he was made quite comfortable in this respect he soon began to show signs of recurrence, from which death occurred six months later. The truss has since been used in Cases V and XIII, and in both has proved very satisfactory. The special feature of the instrument is that counter-pressure is obtained by continuing the spring supporting the rectal pad above the waist belt to end in a circular pad in contact with the base of the spine. The rectal pad is made to a cast of the orifice, and is covered with indiarubber. Messrs. Down Brothers, of St. Thomas's Street, S.E., have undertaken to manufacture the truss if required in London, and they suggest that the spring action may be improved by using a spiral spring in the upper pad, which I think very probable. Of course careful measurement and accurate fitting are essential, and it will be found that the higher the cut end of the rectum has been implanted the better the truss will answer, as the rectal pad will be more out of the way when sitting down. I think the same principle may be useful in other affections for which a rectal truss is required, and as

TABLE OF CASES.

Case.	Date.	Sex.	Age.	Situation of Tumour.	Operation.	Amount Removed.	Result.	Died Since.	Living.	Remarks.
						Inches.			Years.	
	1881	M	47	Low down behind	Simple excision	2½	Recovered	—	10 to 14	Seen several times, but left for America in 1891 for work.
II	1888	F	56	Low down all round	,,	2½	,,	2½ years	—	Had stricture.
III	1890	F	37	Sarcoma 2½ in. above anus, extended out of reach	Kraske	7	,,	1 year	—	Had complete obstruction at time of operation.
IV	1890	M	46	1½ in. above anus, extended out of reach	,,	6½	,,	10 mos.	—	Preliminary colotomy, left ureter infiltrated.
V	1891	M	41	1½ in. above anus, extended out of reach	,,	7	,,	—	8½	At work ever since, had prolapse, now cured by truss.
VI	1891	F	55	1 in. above anus, extended out of reach	,,	5	Died	—	—	Died on 11th day, gradual exhaustion with delirium.
VII	1892	M	56	3 in. above anus, extended out of reach	,,	8	Recovered	2½ years	—	Prolapse, excised, recurred, cured by truss.
VIII	1892	F	29	Near anus and extended upwards for 3 inches	Simple excision	4	,,	2½ years	—	Part of vagina removed, very well at first, got married.
IX	1893	M	59	Near anus	,,	3	,,	—	2	Very well, good control over bowels.
X	1893	M	64	Ring stricture high up, invaginated	Kraske approximation	2	,,	—	1½	Very satisfactory result, rectum functionally normal.
XI	1893	F	42	Lower 3 inches	Simple excision	4	,,	10 mos.	—	Part of vagina removed, rapid recurrence owing to infected lymphatics.
XII	1893	M	56	1½ in. above anus, extended out of reach	Kraske approximation	4	,,	—	1½	Rectum functionally normal.
XIII	1893	M	64	2½ in. above anus, extended out of reach	,,	4½	,,	—	1½	Rectum incomplete behind, considered too old for plastic as truss acts well.
XIV	1894	M	60	Ring stricture high up	Kraske	4	Died	—	—	Patient debilitated by previous acute obstruction and colotomy, died shock same day.

the spring carrying the pads may cross the waistbelt at any angle, I do not see any difficulty in applying the principle in cases of colotomy. I must quite dissent from the view expressed by some German writers that a new sphincter is developed, or that the act of defæcation can become normal again after the lower end of the rectum is excised. Solid motion gives no trouble; liquid always runs away. When the whole rectum is removed even solid motion is passed unconsciously. Hence the great value of Kraske's operation, with approximation, and the use of the truss in other cases.

Recurrence.—As in all other cases of carcinoma, unless taken very early recurrence is the rule, and the exceptions are not numerous in cancer of the rectum. Case I was a genuine cure, having survived upwards of ten years. I think Case IX, and possibly X or XII, may also prove to be cures. Case V has passed the critical three years, but his was a very bad case to commence with, and he has made some complaint of sciatic pains, which are certainly suspicious. But even if recurrence occurred in every case it would not influence the favourable view I entertain of excision as compared with colotomy or simpler palliative measures, so long as the mortality of the operation continues low. And should it tend to rise it may at any time be met by a more rigid selection of cases; of late I have accepted quite 75 per cent. Recurrence is most frequent in the liver and lumbar glands, where it causes gradual exhaustion with but little pain. It has also a somewhat marked tendency to occur in the pelvic cellular tissue, where it is liable to invade the sacral plexus, and give rise to a painful sciatica. Contrasted with cancer of the tongue the recurrence is much more favourable, as the latter is just as distressing and dangerous to life in the neck as it was at first in the mouth.

Age.—Cancer of the rectum extends over a wide period of life. The respective ages of my patients were 47, 56, 37, 46, 41, 55, 56, 29, 59, 64, 42, 56, 64, 60. The youngest patients whose growths I have examined microscopically were 23 and 25, but I once saw, with Mr. Reginald Harrison, a boy of 14 who had a malignant tumour of the rectum possessing all the features of carcinoma. Colotomy was performed, but he died within six weeks with extensive secondary deposits in the liver.

Sex.—Seventy-eight per cent. of the patients were males and 22 per cent. females. Roger Williams[1] gives the liability of the sexes to rectal cancer as equal, but I have certainly seen many more cases in men than in women.

Minute Structure.—The histological features of the tumours are not without interest. Eleven were specimens of the usual cylindrical-celled carcinoma of this neighbourhood, a few showing early colloid change. Some might be mistaken for so-called scirrhus if roughly and partially examined. The old and degenerated tracts of growth often have a round-celled appearance; but the young growth when in columns is always cylindrical-celled, and when in masses has a row of columnar cells round the periphery. The exceptions were Cases III, VIII, and XI. The first was a round-celled sarcoma of the outer coats of the bowel, commencing 2½ inches from the anus, and attaining the size of a large lemon, with the mucous membrane quite intact passing through the middle of it. The growth was very hard, and had produced a tight stricture. Recurrence took place in the internal organs and in the skin of distant parts, the latter being a condition I have never met with in rectal carcinoma. Sarcoma in this position is distinctly rare; this is the only case which has come under my observation. It resembled sarcoma of the stomach and small intestine in appearance and distribution. Both are equally rare. Case VIII was very interesting. It commenced six years before coming under treatment as a polypoid tumour about the size of a large filbert, which could be projected through the anus on straining, but was easily returned. Apparently malignant growth commenced in connection with it about five years later, when it became fixed, and remained up until three months before operation. At this time it gradually began to protrude again, but could not now be returned. When seen, the projecting part was merely a small polypoid portion of a rectal carcinoma growing from the mucous membrane well within the anus, the latter not being even infiltrated. The oldest part of the growth was situated on the posterior and lateral parts of the rectum, but it had extended round to the front, and was fixed to but did not penetrate the vagina. Notwithstanding its position, this growth was a squamous-celled carcinoma. The cells were very bright and clear, reminding one more of bladder than skin epithelioma; but an epithelioma it unquestionably was, and one which had commenced in the rectum not the anus. I explain its anomalous character on the ground that it had the same origin as dermoid cysts of the rectum, namely, in a tract of sequestrated dermal tissue. This is the only case of the kind that I have heard of. Case XI was one of pure colloid carcinoma. The lymphatics were freely involved and could be traced up the wall of the bowel. Naturally symptoms of recurrence showed themselves somewhat early. Slight colloid change in the ordinary cylindrical-celled carcinoma is quite common, and even the advanced condition is not rare. I have seen several examples in the rectum and colon,

[1] *Influence of Sex in Disease.*

REMARKS
ON
THE MORTALITY OF THE VARIOUS OPERATIONS FOR THE REMOVAL OF VESICAL CALCULUS, ESPECIALLY IN CHILDREN.[1]

By GILBERT BARLING, B.S., F.R.C.S.,

Surgeon to the Birmingham General Hospital; Professor of Surgery in Mason College.

IN the BRITISH MEDICAL JOURNAL of May 5th, 1894, I published statistics showing the mortality of the various operations performed for vesical calculus in young subjects, taken from the records of several hospitals. The main result of these was to show a remarkably high death-rate from suprapubic lithotomy. As I practise the suprapubic section with some frequency, I felt interested to know what results it gave in adults, and whether it would compare favourably with perineal lithotomy and litholapaxy. No absolute comparison can be drawn between these various operations, because practically all large stones are now removed by the high section, thus throwing upon it a greater rate of mortality than would be the case if it were the routine operation, and not one for selected cases.

The period covered by my statistics is five years, from 1888 to 1892 inclusive, and they are from the records of six metropolitan and seven provincial hospitals, the majority being medical schools. It would have been unfair to have gone back to an earlier period than that selected, as the high operation was then, so to put it, on probation.

The following is the result of my investigation:

Litholapaxy.

No. of Cases.	Recovered.	Died.	Under 10 Years.		Under 20 Years.		Under 30 Years.		Under 40 Years.		Under 50 Years.		Under 60 Years.		Under 70 Years.		Over 70 Years.	
			R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.
300	276	24	43	1	17	0	24	3	25	1	19	5	41	3	74	7	33	4

Suprapubic Lithotomy.

No. of Cases.	Recovered.	Died.	Under 10 Years.		Under 20 Years.		Under 30 Years.		Under 40 Years.		Under 50 Years.		Under 60 Years.		Under 70 Years.		Over 70 Years.	
			R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.
169	143	26	46	10	33	5	9	1	6	0	11	0	20	2	12	4	6	4

Lateral Lithotomy.

No. of Cases.	Recovered.	Died.	Under 10 Years.		Under 20 Years.		Under 30 Years.		Under 40 Years.		Under 50 Years.		Under 60 Years.		Under 70 Years.		Over 70 Years.	
			R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.
96	91	5	48	2	16	0	7	0	3	0	4	0	9	2	4	1	—	—

Median Lithotomy.

No. of Cases.	Recovered.	Died.	Under 10 Years.		Under 20 Years.		Under 30 Years.		Under 40 Years.		Under 50 Years.		Under 60 Years.		Under 70 Years.		Over 70 Years.	
			R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.	R.	D.
48	42	6	15	1	7	0	5	2	5	1	2	0	3	1	5	1	—	—

By a glance at the tables the proportion of deaths following the various operations will be seen as also the mortality at various ages. Summed up the results are these:

Litholapaxy: 300 cases, 24 deaths=1 in 12.5=a mortality of 8 per cent.
Suprapubic lithotomy: 169 cases, 26 deaths=1 in 6.5=a mortality of 15.4 per cent.
Lateral lithotomy: 96 cases, 5 deaths=1 in 19.2=a mortality of 5.2 per cent.
Median lithotomy: 48 cases, 6 deaths=1 in 8=a mortality of 12.5 per cent.
Adding these together we get a total number of cases 613, deaths 61=1 in 10=a mortality of 10 per cent. on the series.

A few comments are necessary. Litholapaxy deals with the most favourable cases of stone, namely, those in which the calculus is of small or moderate size, and its best results are shown under the age of 20 and above 50.

The suprapubic mortality is considerable. This is not surprising in old people, who bear any cutting operation badly, and should therefore as far as possible be reserved for crushing. But in children the death-rate is so considerable as to call for careful consideration. Later I propose to contrast the mortality of modern operations for stone with that obtained when only one operation, the lateral, was practised, when I shall have some further comments to make on the death-rate in children after the high section.

It should be noted, with regard to the general mortality after suprapubic section, that 4 deaths were not directly due to it but rather to some antecedent proceeding. In 3 of the cases lithotrity and in 1 case lateral lithotomy had been attempted, and failing, the high operation was immediately performed, 3 of the patients dying of shock. This leaves 22 deaths to be accounted for: 7 are ascribed to various inflammatory and degenerative changes in the kidneys, 3 to peritonitis, 2 to shock, 2 to septicæmia, 1 each to cellulitis, bronchitis, pneumonia, scarlet fever, secondary hæmorrhage, and exhaustion: in 2 no cause is given.

The deaths due to dilative and infective changes in the kidneys are numerous, as was to be expected from the fact that many of the patients were reserved for this particular operation owing to their age and the size of the stone.

In 2 of the deaths from peritonitis there is no explanation given, nor is there of the 1 case in which urinary infiltration occurred: the third case of peritonitis was due to injury of the rectum by the Petersen's bag. The two special dangers ascribed to the high operation, peritonitis and urinary infiltration, seem to me from my own experience to be overestimated. In 24 cases in which I have operated by this method, in no case has peritonitis ensued, the peritoneal reflection in all being pushed out of the way if seen, nor has there been any case of infiltration of urine.

I now propose to contrast the mortality of modern operations for stone with that which prevailed when only lateral lithotomy was practised. In an Appendix to his Introduction to the Catalogue of the Collection of Calculi of the Bladder in the College of Surgeons Museum Sir Henry Thompson gives an analysis of stone cases, all operated on by lateral lithotomy in various metropolitan and provincial hospitals between 1790 and 1840. The total number of Thompson's cases was 1,827, the deaths were 229, the rate of mortality being therefore 12.5 per cent. With this may be contrasted the death-rate from the various operations 1888 to 1892: Number of cases 613, deaths 61, mortality 10 per per cent.—a reduction of 2.5 per cent. as compared with the previous period. It is at first sight disappointing to find that the reduction in mortality is not greater, but the figures in detail show that in Thompson's tables the majority of the patients were considerably younger than those collected in mine. Doubtless in those early days many elderly patients

[1] Read at the Birmingham and Midland Counties Branch of the British Medical Association on December 13th, 1894.

were advised to endure their suffering rather than face the risk of lateral lithotomy—then the only resource—and this must affect the comparative mortality. I should like to have compared each decennial period of Thompson's cases with my own to show the mortality at different ages, but this is not possible from the way in which his statistics are compiled. Nevertheless, some further comparison is possible and of value.

Thompson's Tables. (Operations from 1790 to 1840.)

Age 1 to 11 inclusive	850 cases,	49 deaths,	1 in 17=	6.0	per cent.	mortality.
,, 1 to 48 ,,	1,365 ,,	114 ,,	1 in 12=	8.3	,,	,,
,, 49 and upwards...	462 ,,	115 ,,	1 in 4=25.0		,,	,,
At all ages ...	...1,827 ,,	229 ,,	1 in 8=12.5		,,	,,

My own Tables. (Operations from 1888 to 1892.)

Age under 10 ...	... 166 cases,	14 deaths,	1 in 11.9=	8.4	per cent.	mortality.
,, ,, 50 ...	... 377 ,,	32 ,,	1 in 11.8=	8.4	,,	,,
,, 50 and upwards	236 ,,	29 ,,	1 in 8.0=12.5		,,	,,
At all ages ...	... 613 ,,	61 ,,	1 in 10.0=10.0		,,	,,

Comparison of these figures emphasises what I have already pointed out, namely, that the general mortality of stone operations is reduced. It shows further that the reduction is due to the greater safety with which operations are now performed after 50 years of age; but it appears to show also unmistakably that operations for stone in children are attended with a greater mortality than they were fifty years ago. This, if it be true—and I have endeavoured to avoid putting any unfair construction on the figures—can only be due to the introduction of lithotrity and suprapubic section. Reference to the first tables shows that to the latter the enhanced mortality must be ascribed.

This further inquiry therefore confirms the opinion I expressed in my former paper already referred to that lateral lithotomy and litholapaxy are safer operations in children than the suprapubic is at present, and that if the last-mentioned is to be adopted as a routine procedure in the future, it must be shown that it gives better results than it does now.

To return for a moment to the mortality of suprapubic section in adults. I can only speak of general impressions gathered from the statistics and from my own operations. So far as these go, they leave no doubt in my mind that where a cutting operation has to be performed on an elderly person, say above 50, suprapubic section is safer than perineal, but it should be resorted to only when lithotrity is for any reason unadvisable. In the middle period of life, although I personally prefer to perform litholapaxy, I believe the mortality of the three operations is very similar. I have not seen a permanent urinary fistula left after any suprapubic section, but in three cases operated upon by me in private practice, all men with marked prostatic enlargement, the length of time before sound healing was secured was protracted to months, in one to seven months, to the patient's and my own considerable annoyance. Removal of prostatic tissue in these cases was forbidden by the patients' general condition.

THE TREATMENT OF CHRONIC AFFECTIONS OF THE HEART BY BATHS AND EXERCISES

By W. BEZLY THORNE, M.D.

THE PHYSICAL TREATMENT OF AFFECTIONS OF THE HEART. ALTHOUGH the Schott methods of treating affections of the heart were brought under the notice of the medical profession in England in 1891,[1] it is only within the present year that they have attracted even a small share of the attention which, as therapeutic agents of the first order of efficiency, they unquestionably deserve. The brief account of the system in question which I published in the early part of the present year,[2] and the paper from the pen of Dr. Wethered which recently appeared in the BRITISH MEDICAL JOURNAL, have at length attracted so much attention that further information on the subject may possibly be read with interest.

In the Hunterian Oration of last year Dr. Lauder Brunton assigned to the system under consideration a place intermediate between massage as applied to those who are confined to bed, on the one hand, and graduated walking exercise, as practised in the Terrain cure, on the other. Such a general classification would not be intended to have the force of a precise definition; and I hope to be able to show that while in skilful and experienced hands massage, combined with rest, may be of great value in the treatment of certain conditions of the heart, the Schott methods are equally applicable to the same conditions either by themselves or in conjunction with massage, while graduated walking falls into place as their rational complement.

The system consists of two methods of treatment—that by baths, and that by remedial exercises or movements. Broadly speaking, the immediate effect on the heart and blood vessels of immersion in water, whether holding in solution a number of mineral and gaseous constituents or relatively pure, depends on the temperature of that medium; and it may at once be stated that the range which is available for the therapeutic purposes in question lies between 85° and 96° F. The effect of the immersion is at once to increase the volume and diminish the rate of the pulse; and that the difference between the primary effects of a comparatively pure and a strongly mineral water is not considerable will be shown by the comparison of observations made on myself in connection with immersions of ten minutes' duration in three different waters, each of which was of the temperature of 90° F. In the first instance the bath consisted of London water as provided for public consumption, in the second of the water of Llangammarch Wells, in Breconshire, which, in addition to 0.09 parts of chloride of barium, contains 2.7 of chloride of sodium and 1.2 of chloride of calcium per 1,000. In the third instance the water was that of the Nauheim Spring No. 7, freed from the greater part of its natural carbonic acid, and containing close on 22 parts of chloride of sodium and about 1.7 of chloride of calcium per 1,000. It will be observed that in each instance there was an immediate diminution of the pulse-rate which, proportionally to the rate observed before immersion, can scarcely be said to differ, and that during the latter half of the immersion there was a slight advance on the lowest rate attained. Further, it should be stated that in each case there was a marked increase in the volume of the pulse as tested by the finger.

The following are the pulse rates:

	London Water.	Llangammarch Water.	Nauheim Water.
Before immersion (standing)...	88	96	84
Within 1 minute	71	80	72
At the 2nd ,, ...	76	69	64
At the 4th ,, ...	68	73	64
At the 6th ,, ...	64	70	68
At the 8th ,, ...	68	74	70
At the 10th ,, ...	64	77	70
After dressing (standing)	88	88	80

Here ends the similarity of effect of immersion in plain and mineral waters as far as my own experience goes. During the last two or three minutes the bath of plain water conveyed a sense of cold, which was only afterwards relieved by vigorous towelling, and was followed by no perceptible sense of exhilaration or invigoration. The mineral baths, on the contrary, induced a glow of warmth and a sense of exhilaration and invigoration which, within certain limits, were proportionate in degree and duration to the salinity of the water employed. Moreover, the influence exercised on the rate and volume of the pulse in the case of plain water is so transitory that it may be regarded as merely temporary, and presumably would not be cumulative in the event of repeated daily immersions being employed, as it undoubtedly is with baths more or less saline in constitution. It may, therefore, be correct to say that, in respect of therapeutic influence on a disabled heart and an impaired circulation, fresh water baths may be dismissed from consideration.

Mineral baths, therefore, whether endowed by Nature or by artificial means with suitable ingredients, may be said to produce the following immediate and rapidly-ensuing results:—a marked diminution of the rate of the pulse, an equally notable increase in its volume and force, a glow of warmth extending to the extremities and imparting to them a heightened colour, and an enduring sense of refreshment and invigoration. No less obvious are the influences they exercise on the respiration and on the size of the heart.

[1] Reprint, *The Treatment of Chronic Diseases of the Heart.* By Th. Schott, M.D. Eyre, Spottiswoode, and Co.

[2] *The Treatment of Chronic Diseases of the Heart by Baths and Exercises.* By W. Bezly Thorne, M.D. J. and A. Churchill.

During the first two or three, or even five or six, minutes of immersion, the breathing becomes oppressed and laboured, and sometimes a sense of constriction is experienced in the epigastric and lower anterior costal regions, while, at the same time, the area of cardiac dulness diminishes to a degree varying from a third to about half an inch in the healthy, to an inch or more in the dilated heart, as measured in the oblique transverse diameter. These effects are not transitory. The area of dulness, the force, volume, and rate of the pulse, all show a tendency to return within the following twenty-four hours to the initial standard, but each successive day, with its bath of graduated strength and duration, brings its instalment of gain, which leads to a recovery which in some cases is partial, and is, happily, in many complete. At the same time an enlarged liver may be observed to diminish in vertical measurement, prominence, and sharpness of edge, while sometimes within the first day, and almost invariably within the first two or three, a free diuresis, which may last in greater or less degree throughout the bathing course and after it, is generally found to have been established.

The other and perhaps in some respects more remarkable method consists, as already indicated, of movements or exercises. Their originators have designated them *Widerstandgymnastik*—a term which literally translated into "resisted gymnastics," might convey a misapprehension to the English mind. As they have been fully described elsewhere,[2] it need only be said that they consist of movements which should be performed under the immediate direction of the physician, subject to a certain measure of resistance offered either by him or by a carefully trained assistant, and successively applied to the upper extremities, trunk, and lower extremities.

Any detailed description of the influence which these movements exercise on the heart, pulse, and abdominal viscera would be a reiteration of what has been said of the effects of mineral baths on those organs. In most respects they are identical, but it must be observed that as regards the diminution of the pulse rate, the influence is neither exerted so rapidly nor so marked in degree. On the other hand the movements yield the more rapid and striking results in reducing the area of cardiac dulness, while the baths may be regarded as exercising the more profound and enduring influence on the nutrition on the cardio-vascular tissues and those of the system generally. These points of difference are of obvious practical importance. Both methods are capable of bringing influences to bear on the heart and blood vessels, the importance of which it would be difficult to exaggerate; combined they are capable of producing effects which throw the action of drugs completely into the shade; judiciously directed and skilfully applied, they are capable of yielding therapeutic results the importance of which can scarcely be overestimated.

It would, perhaps, be interesting to inquire by what means such remarkable results are produced. The originators of the system suggest that the baths, through their mineral and gaseous constituents—the latter being carried by imbibition into the superficial layers of the corium—produce a cutaneous excitation, which, transmitted along the nerves of sensation to the cardiac and vasomotor centres, is reflected to the peripheral nerves, which they control, and induces an expansion of the arteries and capillaries throughout the body, and, simultaneously, a tonic contraction of the myocardium. For the exercises they claim that a similar influence travels to the same centres along the motor nerves of the muscles successively brought into regulated, orderly, and never-exhausting action. My own view is that, if there be any difference in the matter of precedence between the effects produced on the heart and vessels respectively, it is the latter which are first brought under influence; that the general, and especially the capillary, vascular capacity being increased, the carrying and containing power of the vessels is proportionately increased, peripheral resistance is reduced, and the heart is at once placed in the position of being an organ of relatively greater driving power. As Sir Philip Smyly puts it,[3] "the contraction being more complete, it takes a longer time, thus making the pulse slower and at the same time fuller. Being able to send on more blood, it is ready to receive more, and thus relieves venous congestion." That the vascular capacity may increase independently of, or out of proportion to, the driving power of the heart is shown by the symptoms which may be induced by no more than two or three movements where there exists some obstacle to the rapid filling of the arteries, as is the case in obstruction of the pulmonary circuit from emphysema and other causes, and where the aortic orifice is rigid and unyielding. Under such conditions, unless the movements be most carefully regulated and perhaps administered in the recumbent position, facial pallor and yawning supervene, and may be rapidly followed by syncope.

It might perhaps be interesting as well as legitimate to wander a step further in the field of physiological speculation, and to inquire more particularly how such effects as are common to both the methods under consideration, namely, diminution of the rate of the pulse, increase of its volume, diminution of the area of cardiac dulness, and determination of blood to the surface and extremities, are effected. In so doing, I need offer no apology for referring once more, with due acknowledgments, to the lucid account which Dr. Lauder Brunton gave, on the occasion already referred to, of the results of his own investigations and those of Ludwig and other observers. The points which are of especial interest to us may be summarised as follows as nearly as possible in the words of the Harveian Orator:—

1. The amount of blood contained in the body is insufficient to fill the whole of the vascular system at once.

2. The vessels which supply the muscles of the body and of the limbs are capable of such expansion that, when fully dilated, they will allow the arterial blood to pour through them alone as quickly as it usually does through the vessels of the skin, intestines, and muscles together.

3. The contraction of the cutaneous vessels, such as occurs in exposure to cold, will drive more blood through the muscles, and, as oxidation goes on more rapidly in them, the result will be increased production of heat.

4. The first effect of sudden or violent contraction of the muscles is to contract the arterioles and to raise the blood pressure, while quite easy contraction will have little effect in compressing the arterioles, and these, becoming dilated, will allow the blood pressure to fall.

Now taking the first and third of the above physiological aphorisms into joint consideration, we at once find a flood of light thrown upon the effects produced by the baths. The amount of blood in the body is not sufficient to fill the whole of the vascular system at once, but it is lingering in undue and injurious measure in the systemic veins, and in an impaired and dilated heart which is labouring against a peripheral resistance out of proportion to its driving power. The condition of exposure to cold is fulfilled by immersion in a medium of a temperature from three to ten degrees lower than that of the body. Contraction of the cutaneous vessels is followed by a more than compensating determination of blood to the muscles, which, becoming the seat of increased oxidation, promote general metabolism and the production of heat. The mineral constituents of the bath cause a measure of cutaneous excitation which forbids chill, and, as soon as reaction follows immersion, opens up fresh avenues for the blood in the glowing skin. Further experience shows that such effects are limited neither to the parts immersed nor to period of immersion. That the vessels generally fall under the same influence is shown by the heightened colour of the cheeks and lips.

Aphorisms 2 and 4 explain in part, if not in whole, the influence of the exercises. The vessels of the muscles are capable of an expansion endowing them with something like three times their ordinary capacity; quite easy contraction will have little effect in compressing the arterioles, and these, becoming dilated, will allow the blood pressure to fall. Easy, quiet, uniform movement of the muscles of the trunk and limbs is the very essence of the Schott system of movements, and in their case also the effects are not limited to the parts brought into exercise, but are shown in the cheeks and lips as obviously as they are during and after immersion in the baths. Whichever method, therefore, be employed, and especially when the two are brought into combined use, we are provided with the means of transferring from the veins

[2] *The Schott Methods of the Treatment of Chronic Diseases of the Heart.* J. and A. Churchill.

[3] *Dublin Review of Medical Science*, September, 1894

blood which has been a vehicle and a store of poisonous ingredients to the arteries, in which it flows a purified and oxidising stream, and, at the same time, of so increasing the vascular capacity as to afford to a labouring heart the relief which would arise from free venesection without despoiling the system of one drop of blood. Accumulation of blood in the heart and veins tends to death; transfer of the excess to the arteries and capillaries is life.

In considering the effects which may be produced in the circulation by both baths and exercises, it must not be forgotten that analogy would point to the coronary system and the vasi vasorum as enjoying their full share in those beneficial changes which have been described. Clinical experience yielding, as it does, evidence of the gradual repair of myocardial and vascular tissues, confirms that hypothesis.

We are now naturally led to inquire what affections of the heart and blood vessels may, with advantage, be treated by these methods. The reply, briefly summarised, might be: those in which therapeutic indications point to the reduction of peripheral resistance; to the relief of a weakened, incompetent, labouring dilated heart with or without valvular lesion; and to the repair of damaged or degenerating cardiac and vascular structures. It will at once be recognised that the range is very wide. Dr. Schott, until recently, excepted only those conditions which involve advanced arterio-sclerosis and aneurysm of either the heart or one or more of the great vessels. He is now disposed to withdraw his reservation as to the latter class of cases, and I confess that I am of the same mind. Indeed it seems to me that measures calculated at the same time to repair vascular tissue and to reduce peripheral resistance must be pre-eminently suited to meet the exigencies of at least early cases of aneurysm.

Speaking generally, and for myself, I may say that out of 85 cases of which I have preserved records, one failed to derive benefit from the exercises, and had no opportunity of making trial of the baths; two died in the course of treatment. They were both men in comparatively humble circumstances. One was the subject of mitral disease, with loss of compensation and enormous dilatation. During the cold weather of the current year he contracted capillary bronchitis, upon which supervened inflammation of an enlarged liver and eventually cardiac thrombosis. The other was the subject of a patent foramen ovale. He improved under treatment by exercises to the extent of gaining complete relief from cyanosis and dyspnœa; but one extremely hot night during the past summer he removed his vest, and sat uncovered before an open window. Acute hepatitis was followed in a few days by death. The cases alluded to may be divided into the following classes:

1. Enlargement in persons over 50, in which the heart sounds were not materially altered, except in cases of extreme anæmia, 24.

2. Enlargement in persons under 50 and in which the heart sounds were not materially altered, except in cases of extreme anæmia, 28; of which 11 appeared to be traceable to influenza.

3. Enlargement in which the heart sounds were so changed as to suggest valvular lesion, 24; in 7 of which the sounds became normal under treatment, namely, 5 which were consequent on influenza and 2 on recent rheumatism.

4. Enlargement with asthma and emphysema, 5.

5. Enlargement in cases of chorea, 4; 2 of which were slight and 2 well marked.

6. Cases of marked anæmia in women under 40, 6; in 2 of whom *bruits* became inaudible.

7. Enlargement with cyanosis dependent on patent foramen ovale, 3 (inclusive of Sir P. Smyly's case, published in the *Dublin Review of Medical Science*, September 9th, 1894).

8. Enlargement accompanied by dropsical symptoms, 3; in 2 of which there was œdema of the lower extremities and in 1 an extreme degree of general anasarca (Sir P. Smyly's case).

9. Enlargement with slow intermittent pulse and epileptiform accesses, of 18 years' standing, following traumatic injury to the heart, 1.

It would be difficult to pass from this aspect of the subject without glancing at some of the more important collateral but physiologically consistent effects of these methods of treatment. In many cases changes, as indicated by the following results, are induced in congested abdominal viscera, namely: relief of gastric and intestinal catarrh and of the attendant deviations from normal digestion with distension; reduction in the size and prominence of an enlarged liver; relief, either partial or complete, of albuminuria, and of acute initial dysmenorrhœa. As regards the respiratory organs, pulmonary resolution—as indicated by the rapid subsidence of crepitatic redux—has been observed to take place, as well as marked relief in cases of long-standing asthma and emphysema. Perhaps most striking, although most easy of explanation, is the repair of the blood itself. Without recourse to chalybeate remedies colour returns, not infrequently within a few days, to the face of the anæmic, especially in chlorosis and dyscrasia due to malarious poisoning or to the presence in excess of uric acid. For œdema of the lower extremities, ascites, and hydrothorax due to feeble circulation there exists, I believe, no such effectual measure of relief.

I must not omit a reference to the psychological influences of the treatment, for it is perhaps of all the most interesting and suggestive. No one can have observed the subjects of failing or permanently impaired heart strength without being struck with the suffering they endure from loss of power of mental concentration and of control over the emotions, from intolerance of sharp and sudden sounds, and, above all, from the gloom and despondency, not far removed in degree from melancholia, which too often settles on their spirits. The manner in which these allied miseries give place to hope, courage, buoyant spirits, and mental vigour, synchronously with the contraction of a dilated heart and the improvement of the peripheral circulation, is one of the most agreeably surprising therapeutic results that has ever come under my notice. This consideration appears to me to derive additional importance from the joint consideration of the following two observations: that a considerable proportion of cases of heart dilatation are found to have followed in the train of influenza, and that that disease is a by no means infrequent precursor of melancholia. Interesting as the suggestion is to myself, I should scarcely have ventured to allude to it but for the fact that Dr. Savage informs me that he has traced a considerable proportion of cases of melancholia to influenza, and that his observations led him to regard an abnormally rapid pulse, unaccompanied by rise of temperature, or even in some cases associated with deficiency of body heat, as pathognomonic of that special class of cases.

With regard to diet, in the first place the Schott system recognises no restriction in the amount of fluids ingested. For my own part, I would go so far as to say that in many cases the more fluid, and especially the more water, the patient drink the better, provided it be taken under such circumstances as would not effect undue dilution of the juices of the stomach during the period of gastric digestion. The greater part of the patients who come under treatment are suffering from, if not indeed in consequence of, the concentrated state of the blood in respect of uric acid and other ingredients whose presence in excess is due to deficient oxygenation and defective elimination. The limitation of fluids increases the relative proportion of poison in the blood stream, irritates arterioles and capillaries into contraction, and so increases peripheral resistance and checks elimination. It would be difficult to conceive of circumstances more adverse to a labouring, and perhaps disabled and degenerating, heart. With regard to solid food, it must be borne in mind that a quickened circulation, with enlarged vascular capacity and increased oxygenation and general metabolism, creates an imperative demand for nutrition of high physiological value; that a large proportion of the patients under treatment are the subjects of uric acid storage in the blood and tissues, and that in a certain number of cases that condition exists with the undue deposit of adipose tissue.

The ingestion of the fermentable and acid and fat-forming carbohydrates should, therefore, be regulated according to the circumstances of each case, and, in the class last specified, to a great extent withheld, and three substantial meals of animal food—consisting in due proportion of fish, birds, and butcher's meat, tempered with an abundance of succulent vegetables—be insisted on. Such limitation or withdrawal of carbohydrates and substitution of nitrogenous foods, combined with the drinking of water at proper times and in regulated quantities, may be relied upon in a great

number of instances to free the system from excess of uric acid and to restore the body to its normal weight, whether the previously existing dyscrasia have resulted in excessive deposit of fat or in loss of weight. In the last-named cases a liberal quantity of milk may be taken in one of the many forms in which it can be prepared for the table without admixture with farinaceous substances.

I will now only turn for a moment to the objection most frequently advanced against the effects which it is claimed that the therapeutic movement has upon the dimensions of the heart, namely, that the diminution of the area of cardiac dulness is due to increased pulmonary inflation. In reply, it may be pointed out in the first place that increased inflation of the lung would not account for the indisputable physiological and therapeutic results of the treatment: that where the horizontal plane of the diaphragm changes as the result of the movements, it is found to rise and not to fall. There is one argument, however, which appears to me to be conclusive. It is that, under the influence of both baths and exercise, an apex beat appreciable by sight as well as touch may be observed in a few minutes to migrate towards the mesial line and at the same time to increase in force.

NOTE ON THE TREATMENT OF DILATED HEART AS PRACTISED AT NAUHEIM BY DR. SCHOTT.

By W. ALLEN STURGE, M.D., F.R.C.P.,
Nice.

At the recent meeting of the Association at Bristol an account was given by Dr. Wethered of a visit he paid to the baths of Nauheim for the purpose of studying the influence of the saline waters, combined with the system of gymnastics advocated by Dr. Theodor Schott, of Nauheim, upon diseases of the heart.

As I went through a course of these baths (but without gymnastics) in the past summer for a dilated and irritable condition of the heart, it may interest the readers of the British Medical Journal to have a short account of my experiences. I was seized with influenza in February, 1894, which took the form of acute muscular rheumatism (with alkaline phosphatic urine), pneumonia of a low type; and, later, moderate dilatation of the heart, with quick irritable, somewhat feeble pulse. As I found that no treatment would reduce my pulse below 100, I decided to go to Nauheim. There Dr. Schott found the apex beat to be about 2 centimetres outside the nipple line. I began to take baths on June 15th, and continued them three days out of every four until July 21st. After the bath I had massage according to Dr. Schott's special method. I made notes of my pulse (1) in the early morning, (2) before and after the bath, (3) before and after massage, (4) after going to bed at night.

The first marked change was in the early morning pulse, which, after three baths, was on June 19th, 64—a very marked descent in rapidity. The bath pulse (after walking) remained about 100 until towards the end of the treatment, but on July 17th it had come down to 96, and on July 21st to 88.

The after-massage pulse (lying down), which on June 20th was still as high as 82, was on June 22nd 72, and 64 on July 8th, at which point it remained stationary. It is worthy of note that though the massage was vigorously carried out, it produced a slowing, and not a quickening, of the pulse.

The evening pulse (lying down), which varied from 82 to 86 during all the earlier part of the treatment, came down suddenly on July 13th to 72, and rarely much exceeded that rate afterwards.

At the end of the treatment Dr. Schott noted that the apex beat was one centimetre within the nipple, and the sphygmograph showed a pulse of good average fulness and tension.

It is a fact of some interest that on each occasion when there was a sudden drop in the pulse rate, namely, on June 19th, when the early morning rate (which had hitherto ranged between 80 and 90) dropped to 64; and again on July 13th, when the evening rate dropped suddenly to 72, the sudden drop was accompanied by an absolutely sleepless night, with great nervous erythism. This fact points to a possible explanation of the action of the baths—the explanation, in fact, put forward by Dr. Schott. This is, the soaking of the skin in very strong, warm brine, produces a powerful stimulant effect on all the surface nerve endings. This in its turn being passed up to the nerve centres, acts as a strong tonic on them. Hence the good effect produced on weak centres—such as the heart centres in cases like mine. When the stimulation was so great as to produce a sudden marked change in the pulse, the general centres being over-stimulated would behave as mine did on these two occasions.

The gymnastics, about which so much has been said in connection with the Nauheim treatment, were tried in my case, but they seemed to irritate the heart, and were discontinued. This was probably due to the fact that the muscles of the limbs were still to some extent under the influence of the rheumatism from which they had suffered, and owing to stiffness the resistance they offered to movement was greatly augmented, and hence the increased heart's action under gymnastic treatment.

THE MILROY LECTURES
ON THE
NATURAL HISTORY AND AFFINITIES OF RHEUMATIC FEVER.

Delivered before the Royal College of Physicians of London, March, 1895.

By ARTHUR NEWSHOLME, M.D.Lond., M.R.C.P.,
Medical Officer of Health for Brighton.

[Abstract.]

Lecture I.

After a brief sketch of the history of the word "rheumatism," the lecturer outlined the different theories of its causation, and stated that his lectures would be restricted strictly to the consideration of rheumatic fever, which he regarded as a specific febrile disease, caused by a pathogenic micro-organism, endemic throughout Europe and America and other parts, and at times becoming epidemic, or even pandemic. Such a view did not exhaust the entire causation of the disease. It had certain relationships to season, locality, weather, climate, and ground water. It occurred chiefly in certain predisposed persons, under the influence of certain xcitants, as injury or fatigue.

Epidemiology of Rheumatic Fever.

Epidemics were described by Pringle, Stoll, Mertens, and others in the eighteenth century. Their true character was doubtful. Senator had described unusual prevalence of the disease in certain years, but denies "the essential feature of an epidemic-infective power." Longstaff had noted the occurrence of four periods of excessive mortality shared by scarlet fever, erysipelas, pyæmia, puerperal fever, "rheumatism accompanied with heart affection," and five other diseases. Lange, of Copenhagen, Hirsch in Berlin, and others had described local "epidemics." There had, however, so far as the lecturer was aware, been no general investigation of the epidemiology of rheumatic fever. The word "epidemic" was used in these lectures to mean excessively prevalent, the question of infectivity being left for consideration later.

Evidence from Death Returns.

The curve of death-rate from rheumatism in England and Wales from 1851 to 1892 showed crests in 1855 (15 per cent. excess), in 1859 (18 per cent. excess), in 1864 (23 per cent. excess), in 1869-70 (18 per cent. excess), and in 1875 (52 per cent. excess above the respective preceding minimal years). This curve dealt with "rheumatism," the separation into (*a*) rheumatic fever and rheumatism of the heart, and (*b*) rheumatism was not made until 1881. For the remaining years the two curves ran parallel, and (*a*) forming 73·5 per cent. of the whole is the predominant partner.

The curve of death-rate from rheumatism in London showed similar maxima to the above in 1864, 1868, and 1875 and 1884. The 1868 maximum replaced the 1869-70 maximum for England and Wales. Curves for large provin-

cial towns were very similar. The Paris curve showed a similar maximum mortality from rheumatism in 1875. So also did the Berlin curve, which related to rheumatic fever only. The direct case mortality from rheumatic fever was very low. It had been stated at from 3·0 to 3·75 per cent. Dr. Southey gave the percentage at 1·16 for St. Bartholomew's Hospital in 1861-75, varying from 3·4 at ages under 10, 1·5 at 10 to 15, 1·4 at 15 to 25 to 0·4 over 45 years of age. There was considerable evidence that the fatality and the tendency to complications varied in different epidemics and at various seasons.

Evidence from Hospital Records.

The chief source of error in regard to rheumatic fever statistics was the varying systems of classification. Explanatory curves for acute, acute *plus* subacute, and total rheumatism were shown indicating that inasmuch as the lecturer was dealing, not with the actual amount of rheumatic fever in a given hospital as compared with other hospitals, but only with the excess or deficiency of the hospital experience from its average experience for a series of years, the records might be trusted. The earlier cure by salicylates in recent years had probably led to fewer rheumatic patients finding their way into hospitals than formerly, but this, although it might partially account for the decline in hospital incidence of rheumatic fever in London shown by the curves, did not invalidate conclusions drawn from the oscillations displayed by the downward curves.

Metropolitan Hospital Records.

A combination of all the hospital curves for London showed a curve with a chief maximum in 1868, a lower peak in 1871, and a higher in 1874. After an uninterrupted decline to 1878-79, lower peaks are visible in 1881, 1884, 1887, 1890, and 1893. The curve appears to show an elevated plateau with minor undulations from 1868 to 1874, then a sloping declivity also with minor undulations from 1874 to 1889. Since then there had been a gradual rise.

Provincial Hospital Records

The lecturer dealt with the statistics of a number of provincial, Scottish, and Irish hospitals, which in every case gave evidence of periods of unusual prevalence, which, however, were not usually synchronous with similar prevalences in London. The curves for the Queen's and General Hospitals, Birmingham, showed some discrepancy in 1868-72. In 1874, 1876, and 1877 both hospitals showed an epidemic. In 1880 an epidemic began, lasting with a remission in 1886 until 1888. It started a year later in the experience of the General than of the Queen's Hospital. The course of the curves for these two hospitals seemed to confirm the impression derived from the metropolitan hospital curves that the infection of rheumatic fever might spread gradually from one part of a town to another, the epidemic being at its height in one district when it had not well begun in another district of the same town. Such a conclusion could obviously only be tentative in view of the uncertain character of the data, but it was confirmed by other curves to be discussed later.

Lecture II.

Evidence from Foreign Countries.

The evidence from Scandinavian countries was exceptionally complete.

In Norway rheumatic fever was compulsorily notified by the medical attendants. Comparing the curve for Norway with that for Christiania, deduced from the statistics for the thirty-three years 1861-93, several important differences were evident. The maximum of the first epidemic was reached in 1866 in Norway, in 1864 in Christiania; of the second, in 1871 in Norway, in 1870 in Christiania; of the third, in 1876 in Norway, in 1875 in Christiania; of the fourth, and greatest epidemic, in 1888-89 in Norway, in 1885 in Christiania. The Christiania curve was sharp and angular, the Norwegian curve smoother and more protracted. With epidemics starting in the same year the Christiania curve fell to the mean line in 1889, and to its absolute minimum in 1890, while the curve for Norway in 1891 was still 20 per cent. above the mean line. This might be explained by the more gradual spread of infection in the widely scattered population, or possibly by climatic or other differences.

In Sweden rheumatic fever was only notified compulsorily among the poor. Dr. Linroth had furnished hospital figures for a long series of years, and returns of cases among the poor for ten years, which show a maximum incidence of rheumatic fever in 1888, instead of 1885, as in Christiania. In Denmark every case of rheumatic fever was notified compulsorily. There was an epidemic reaching its maximum in 1871, a second with its maximum in 1878, and a third in 1883-88, as in Christiania. There was in the Scandinavian curves a curious inverse relationship between the case curves and the death curves, the lowest of the high case curves corresponding with the highest of the high death curves, and *vice versâ*. There are some indications of the same thing in London, and it may be surmised that sometimes the intensity of the specific infection of rheumatic fever is in inverse proportion to the extent of its distribution.

The Norwegian curves for rheumatic fever show a general upward tendency; the Danish curves are fairly stationary, allowing for epidemic variations. With this may be compared a general decline in London hospitals and an increase in Scotch hospitals. It is possible that these differences expressed real facts and not merely differences of notification or of hospital administration. The lecturer then reviewed hospital statistics obtained from Cronstadt, Paris, Berlin, Munich, Vienna, Montreal, Philadelphia, New York, and Boston.

Summary.

From a general view of the available data it was evident that:

1. There were great irregularities in the incidence of rheumatic fever year by year.

2. These epidemic prevalences of rheumatic fever were of two kinds—one lasting from one to three years and the other from six to eight years. The latter were seen chiefly in very large centres of population or when dealing with a country as a whole, and it was possible, therefore, that they represented in reality the fusion of several epidemics of the former kind.

3. There had been certain favourite years for epidemics, though different localities did not as a rule have all these. In England these favourite years were 1855-56, 1859, 1864-65, 1868-71, 1874-76, 1884-85, 1888, and 1893.

4. There was no regular periodicity in the epidemics, but they tended to recur at intervals of three, four, or six years.

5. In many of the curves a severe epidemic was followed by a light epidemic or even two light epidemics before the next severe epidemic was reached. This appeared to be the rule, but there were several exceptions to it.

Climate and Geography.

Rheumatic fever was ubiquitous, but it was most difficult to gauge its relative prevalence in different districts and countries. Deaths from rheumatic fever, of which details were given, afforded a very uncertain indication.

Scandinavia.—In Scandinavian countries there was the more certain basis of notifications. In Norway, in the 29 years 1863-91, the sickness-rate was 1,270 per million persons living; in Denmark, in the 24 years 1870-93, was 2,183 per million; and in Helsingfors, in the 13 years 1881-93 was 4,500 per million. It was higher in the towns than for the whole country. Some of the difference doubtless means varying completeness of notification.

Scotland.—From hospital returns it appeared that in Scotland there was more rheumatic fever in Aberdeen than in Kilmarnock, more in Kilmarnock than in Glasgow, more in Glasgow than in Paisley, more in Paisley than in Edinburgh.

London.—The admission to hospitals in London for rheumatic fever for a long series of years averaged 8·43 per cent. of the total medical admissions varying from 6·41 per cent. in University College to 10·7 per cent. in Middlesex.

England.—Southern districts: The admissions varied from 7·0 per cent. in Brighton to 10·1 per cent. in Chatham. The amount was excessive in Reading, and in Birmingham also exceeded that in London. In Yorkshire towns the amount was very variable.

Much of the differences might be accounted for by varying hospital administration, but it could hardly be owing to hospital administration that in Glasgow in 1870-93 rheumatic fever formed only 4·35 per cent., and in Aberdeen (1865-93) 7·21 per cent., while in London it was (1865-93) 8·43 per cent. of total medical admissions. In Birmingham the proportion was 9·71 per cent., in Manchester (1870-93) was 5·69, and so on.

These unfortunately lacked precision, all forms of rheumatism being massed together. The death returns for the English counties 1881-90, corrected for age and sex distribution, appeared to indicate that rheumatic fever was most fatal in those counties like Lancashire and the West Riding, which had large urban populations. Cumberland did not fit in with this view. Lincolnshire and Cambridge had a low rheumatic fever mortality, which did not support the view that rheumatic fever had taken the place of malaria.

Influence of Season.

The notification returns for Christiania and Stockholm showed a minimum number of cases in August after a gradual decline to this point; then a more rapid rise to a maximum in January. At Helsingfors the maximum was in July, and there was but little winter rise.

In Berlin the hospital experience of fifteen years showed much more rheumatic fever in the first half of the year, but the excess lasted till midsummer instead of ceasing early in May as in Christiania and Helsingfors.

At Munich the maximum was in March, a second almost equal maximum occurring in May. The minimum was in September.

The London hospital curves showed a larger number of cases in the last three than in the first three months of the year, unlike most of the foreign returns.

THE EFFECTS OF UNILATERAL CASTRATION UPON THE PROSTATE.

By E. HURRY FENWICK, F.R.C.S.,
Surgeon to the London Hospital, and to St. Peter's Hospital for Stone and Urinary Disease.

I NOTE in the BRITISH MEDICAL JOURNAL of March 2nd, p. 508, that Dr. White, of Philadelphia, is desirous of obtaining information as to the effects of unilateral castration upon the total bulk of the prostate. He surmises, also, that one-sided atrophy of the prostate commonly results upon the removal of the corresponding testis, and that the same condition is met with in monorchids. Logically, the same result should ensue upon the absolute atrophy of one testis from any cause.

As I have been investigating the physiological relation between the testes and the prostate for ten years, and have taken as my guide the contour and consistency of the prostate as estimated by rectal examination, I am able to offer Dr. White a few facts upon the subject.

I have excerpted from my notebooks some twenty cases which may be grouped, according to the issues which have been raised, under the heads of unilateral castration, monorchids, and atrophic testes of minute size (small bean to pea size). These cases are taken consecutively, and are not selected. They are now described as they were noted at the time, each was accompanied by a diagram, and I think that they may be taken as fairly accurate, as I have specially educated my finger to detect changes in the contour of the prostate. Since 1886 I have been in the habit of making clay models or drawings of each prostate which I have examined, and my material in this respect has been abundant.

I seize this opportunity of endorsing Dr. White's statement concerning the shrinkage of the prostate after bilateral castration, and of expressing my belief that the profession and our patients owe him a real debt of gratitude for the introduction of an important addition to our means of combating certain forms of the enlarged senile prostate.

UNILATERAL CASTRATION.

1. Left testis removed for tuberculosis 1889; prostate examined 1890; left lobe equal to right, both healthy, neither atrophic.
2. Left testis removed 1883; examined 1889; left lobe of prostate larger than right.
3. Left testis ablated 1887; examined 1894; very little prostate felt, and what was detected of it was confused; no interlobular furrow appreciable.

MONORCHIDS.

4. Left testis absent; left lobe of prostate flat, slightly larger than right.
5. Left testis absent; left lobe of prostate atrophied, right lobe normal.

EXTREME ATROPHY OF TESTIS.

A. After inflammation.

6. Left testis minute; both lobes of prostate equal, but flattened.
7. Left testis minute; left lobe of prostate large, right lobe atrophic.
8. Right testis minute; right lobe inflamed and cirrhotic; left lobe small.
9. Left testis very small; left lobe of prostate larger than right.
10. Right testis pea-sized; left lobe of prostate very small, half the size of right.
11. Left testis minute; both lobes of prostate equal, smooth, and plump.

B. Cause of atrophy unknown.

12. Left testis very small; both lobes of prostate equal.
13. Right testis atrophic; lobes of prostate equal, flattened, and cupped.
14. Left testis small; prostate of average size, left lobe slightly the larger.
15. Left testis unfeelable; prostate equal lobed.
16. Left testis small; left lobe of prostate the smaller.
17. Left testis small; prostatic lobes of equal size, but flattened.
18. Both testes retained in groin and very small; both lobes of prostate equal; became affected by infiltrating carcinoma (primary).
19. Both testes in groin bean-sized; both lobes of prostate equal, but small.
20. This case is interesting; left testis in groin very small; patient suddenly affected with gonorrhœal parenchymatous prostatitis; both lobes were found equally and greatly enlarged.

I point out with some diffidence that these cases are mostly at variance with Dr. White's surmises. At the same time I am aware that rectal examination, however skilled, is as uncertain a guide to the activity of the prostate, as it is unreliable for estimating the amount of urinary obstruction which may be present. Moreover, none of us know the normal shape of the prostate, for it varies with each decade and with each individual. Lastly, few seem to appreciate the fact that the prostate is often changed in rectal contour by posture, by vesical distention, and by excessive use.

OBSTRUCTION OF THE BOWELS CAUSED BY GALL STONE: LAPAROTOMY: ENTEROTOMY.

By F. W. E. KINNEIR, M.R.C.S., L.S.A.,
Horsham.

MRS. B., aged 57, was taken with sudden abdominal pain followed by sickness on January 14th. On the following morning she passed two loose motions. The sickness continued, and stercoraceous vomiting commenced on January 17th. I was called in to see the patient on January 20th by the family medical attendant, and performed laparotomy on January 21st. I found a large gall stone impacted in the upper part of the ileum, which I removed by enterotomy. After the operation the sickness ceased for some hours, the patient was conscious and expressed relief, and took some nourishment. About six hours later she vomited, but not fæcal matter. This continued at intervals during January 22nd, and on the morning of January 23rd the vomit became again stercoraceous and very offensive. She died on the afternoon of that day. There was no swelling of the abdomen before or after the operation and very little pain; the temperature was normal throughout. Very little urine was passed, and constipation was complete from January 15th in spite of medical treatment. She passed flatus frequently before she died. After the operation she was fed on soda water, some brandy, and nutrient suppositories. Morphine was injected hypodermically.

The operation was performed without any difficulty, the patient taking the anæsthetic well, chloroform and ether mixed being used. The abdomen was opened by a median incision, the small intestine was exposed distended with flatus; this was followed down for some distance till the obstruction was found firmly impacted in the gut, which was collapsed below. As it could not be moved and the intestine looked inflamed and of a dark red colour, I decided to perform enterotomy, and the obstruction shelled out easily. I closed the wound by continuous catgut suture. The peritoneum was brought together and united with chromic gut, and the abdominal wound with deep and superficial silver sutures. The gall stone was covered with a layer of hard fæcal matter; it measured 1½ inch in diameter, its weight was 2⅜ drachms, and it resembled a walnut. On section it presented the usual yellow striated centre, getting darker towards the circumference.

Post-mortem Examination.—The median incision had begun to unite; there was no trace of peritonitis, and no serum or fluid in the cavity. The wound in the intestine was quite unchanged; the small intestine nearly down to the cæcum was distended. There was no other sign of obstruction from the duodenum to the anus. The mesentery at the seat of the obstruction and the intestine itself was of a dark green colour.

REMARKS.—I am encouraged to publish this case on account of the interesting discussion on the subject, which took place at a meeting of the Royal Medical and Chirurgical Society, held on January 22nd, and because, as it seems, intestinal obstruction produced by gall stone is rare. This patient had a sharp attack of colic and vomiting seven years ago, and gall stone was thought to be the cause. Since then she has complained of slight attacks. After seeing the case I decided to operate as quickly as possible, and on any future occasion I should feel encouraged to operate soon, as I feel sure in an earlier stage the operation would meet with a better chance of success. In this instance the fatal issue was evidently brought about by gangrene and paralysis of the bowel, on account of the continued pressure.

ON the occasion of the presentation of the certificates to the successful members of the Great Western Railway ambulance class at Banbury, a testimonial was presented by the class to its instructor, Surgeon-Captain Raye.

PRESENTATION.—Dr. T. C. Leman, of Chipping Sodbury, has been presented by the members of the Ladies St. John Ambulance Class of that town with a silver cigarette case and matchbox in appreciation of his services as lecturer to the class.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THROAT AFFECTIONS IN INFLUENZA.

I should be very much obliged if any one could inform me whether, in this present outbreak of influenza, they have noticed that a great number of cases have presented very marked throat affections. A great number have lately come to me complaining of headache, pains in the back and limbs often of a very severe character etc., on examining the throat I have found one or both tonsils to be very enlarged and inflamed, resembling somewhat a follicular tonsillitis: the uvula in nearly all cases has been markedly elongated, the soft palate highly inflamed, and the pharynx of a dark red colour and usually dry. The tongue at first is coated with more or less greyish white fur, but in from 24 to 48 hours it peels at the tip and edges, and presents a great many enlarged and dark red fungiform papillæ giving the tongue a strawberry appearance.

The temperature the first 48 hours ranges between 100° and 103° F., after that it quickly subsides to the normal or subnormal, and the patient feels quite well, with the exception of now and then a few rheumatic-like pains in the limbs and back. The throat complications, however, often last two or three weeks; but curiously enough there is little or no pain on swallowing, in fact in the majority of cases the patient does not complain of his throat at all; sometimes, however, there is a little pain and tenderness in the glands of the neck, and at the angle of the jaw.

In about a quarter of the cases there has been a rash on the chest, arms, knees, or out-sides of the legs, it is usually of a roseolous or erythematous nature, but sometimes it has the appearance of an urticaria.

I have been so struck with the similarity of the throat and mouth affections in so many cases that I should like to hear whether other observers have noticed the same signs.

John Terry, M.R.C.S., L.R.C.P.,
Senior House-Surgeon, Royal Surrey County Hospital, Guildford.

ATRESIA ANI URETHRALIS: INGUINAL COLOTOMY.

On the evening of October 1st, 1894. I was called to attend the infant son of Mrs. E. The child was found to be suffering from the affection indicated above, the position of the anus being merely marked by a slight dimple in the skin. At intervals meconium was passed *per urethram* without giving rise to any pain; micturition was performed normally and there was no admixture of urine with meconium, indicating pretty clearly that the rectum had its termination in the urethra rather than the bladder. The following morning, the child being then 36 hours old, an attempt was made to reach the rectum through the perineum, the centre of the incision corresponding with the dimple above referred to. A careful search was made for the rectum, the wound being gradually deepened till the middle of the sacrum was reached, and the coccyx being also removed to facilitate the operation. As no bowel, however, could be found, I closed the perineal opening and opened the abdomen in the usual situation for the performance of inguinal colotomy. On introducing the finger into the abdominal cavity the rectum was found narrowed to a calibre very considerably below the normal and passing towards the neck of the bladder. A suitable part of the sigmoid flexure which was of normal size was sutured to the lips of the incision and at once opened. Three hours afterwards the bowels discharged their contents freely through the artificial anus.

Since the operation the child has progressed almost uniformly favourably, a slight blush of cutaneous inflammation, due to the irritation of escaping fæces, persisted round the artificial anus for about a fortnight, and six weeks after the operation the infant suffered from a short attack of enteritis. At the time of writing there is a slight protrusion of intestine at the seat of the colotomy, but in all other respects the infant is in the best of health.

Manchester. F. C. Scotson, F.R.C.S., M.B.

CINNAMON IN DYSENTERY.

I wish to bring to the notice of the profession a new treatment for acute dysentery. It is not original, but was obtained from a medical work in Persian. This is what the book stated:

"*Treatment for Acute Dysentery.*—Reduce cinnamon bark to a fine powder, take 1½ drachm, mix it with a little 'mullai' (the cream which gathers on the top of boiled milk after it is allowed to settle and cool), and administer in the morning on an empty stomach. The patient will be cured."

I have made a slight alteration in the above. The powdered cinnamon is given by me in drachm doses only, mixed with a few drops of water and made into a ball, which is given to the patient to eat, washed down by a mouthful or two of water. This quantity is repeated again in the evening, and so on, morning and evening, until a cure is effected.

It is a little over two years since I started this method of treatment, and I have cured about thirty cases of the disease. Often patients have been cured by only one or two doses of the drug, while my worst case was cured after five doses only, but a sixth was given to make quite sure. The earlier the treatment is begun the quicker the cure.

This method of treatment is vastly superior to the ordinary ipecacuanha treatment in that the medicine is pleasant to take, causes no nausea or vomiting, and acts, if anything, quicker and better than ipecacuanha.

If the drug were to be given in drachm-and-half doses, as recommended in the book, most probably cures would be effected quicker, but my method has been quite quick enough.

S. T. Avetoom,
Surgeon-Major, 1st Baluch Battalion L. I. (27th Bombay Infantry).
Loralai, Baluchistan, India.

SEPARATION OF THE AFTER COMING HEAD DURING DELIVERY.

I have read with much interest the paper of Dr. Purslow on the separation of the after-coming head during delivery in the British Medical Journal of January 19th. On the morning of January 10th a message was received from Mrs. F., a farmer's wife, living eight miles from Forres, that she had been attacked with severe vomiting, which had persisted for two days. She was expecting to be confined about this time. There were no labour pains, and an enema and an opiate relieved the vomiting considerably. This was her eighth confinement. Her seven children were all healthy, and her labours, though all somewhat stiff, were natural. At 11 P.M. on the evening of the same day a message was received that she was in labour. The pains were very strong, and she had been in labour for three hours. On examination the os was found fully dilated, the membranes intact, and the buttocks and both feet presenting. I ruptured the membranes and seized hold of a foot; gentle traction made the presenting part advance a little. On exerting a little more traction I was astonished to find the leg give way between the knee and the ankle, all the tissues being ruptured except the skin. I put the patient under chloroform, and made a more complete examination, and found that both legs were exceedingly short, measuring only about 4 inches in length. Fearing that I had to deal with a monstrosity, I sent for Dr. Petrie Hay to come and assist me. The pains meanwhile were very strong, and I kept the patient under chloroform.

When Dr. Petrie Hay arrived, he made traction on both legs, and was surprised to find first both knees becoming disarticulated, and then both hip-joints. By grasping the pelvis and making traction there, assisted by pressure from above, the body slowly advanced. The cord was pulled down, but no pulsation was found On attempting to pull down the arms they were found to be so short that the hands were practically attached to the body. The body itself was of an unusually large size, and filled up the vagina tightly. On allowing the body to hang down for a short time we were astonished to see the structures of the neck giving way, and, fearing that the head might be left behind, very gentle traction was used, and that only during a pain, pressure meanwhile being kept up on the body of the uterus. Notwithstanding, the neck gave way, and the head was left inside the uterus. Dr. Petrie Hay then passed his hand into the vagina and searched for the mouth. This he found lying behind the pubes. A finger was passed into the mouth, and the face was

hooked downwards. Then taking a stout piece of cord it was doubled, and the loop was passed through the mouth and out by the pharynx. The ends of the cord were taken outside the vagina and tied in a knot. Gentle traction was then applied by means of the cord, the fingers of the disengaged hand being meanwhile passed up to the sharp edges of the cervical vertebræ, thus protecting the maternal structures from being torn. Traction was applied only during the continuance of a pain, pressure at the same time being kept up on the uterus.

Gradually the head advanced, the face was guided under the arch of the pubes, and the head ultimately born. The head was hydrocephalic, being about twice the size of an ordinary head, but as nearly half the fluid had escaped, it was easily moulded to the shape of the passages. The placenta was expressed quite easily, a large amount of clots escaping at the same time. The uterus retracted well, and no further hæmorrhage took place. The body was much discoloured and soft, but the skin was not peeling off.

The advantage of passing a cord through the mouth and out by the pharynx is apparent. Gentle traction, however, must be made, the danger being that the jaw may be torn off, especially when the fœtus has been dead for some time.

On the second day after delivery, the patient was troubled with some vomiting, which an opiate relieved. The temperature did not rise, there was no shock, and she has made an excellent recovery.

Forres, N.B. DUNCAN D. MACKINTOSH, M.B.

In reference to the cases recorded by Dr. Purslow, I consider Dr. Boxall's suggestion to bring down the face to be of much practical value. Two cases of separation of the after-coming head which I had during 1894 incline me to this belief.

The first occurred in March, 1894. The labour was premature—about the end of the sixth month. At the time I first saw the woman I found the funis protruding about 2 inches outside the vulva. There was a good deal of hæmorrhage. On examination I found the os fairly well dilated. The presentation was a breech. As I anticipated very little difficulty in the delivery, I brought down the feet. With slight traction the body was born. As there then seemed to be some abnormal resistance to the delivery of the head I exercised a little more force. In another moment the headless body was in my hands. I then resorted to the forceps, but my efforts were ineffectual. I next tried the cephalotribe. It answered no better. I now introduced my hand into the vagina, and, after a little manipulating, succeeded in bringing down the face. Traction with the finger in the mouth got the head away with comparative ease.

In November last I had another experience of a like nature. Unlike the other case, however, the child was in a condition of putrefaction. As I thought I had learned a lesson from my first case, I did not in this attempt to use either forceps or cephalotribe. I introduced my hand and with no little difficulty brought down the face. Traction with the finger in the mouth proved successful in this case also, although the age of the fœtus was eight months.

In both these cases the mothers made excellent and uninterrupted recoveries.

Walthamstow. S. A. CLARKE.

THE ANTISEPTIC ACTION OF PERMANGANATE OF POTASSIUM.

In the British Medical Journal, which has just reached me, of January 19th, Dr. W. N. Thursfield, in a letter under the above heading, states that "a solution of Condy's fluid decolorised by saturated solution of oxalic acid.....would have no more germicide (*sic*) action than so much plain water," etc.

I trust Dr. Thursfield will pardon me for calling his attention to the fact that this method of disinfecting the hands is advocated by Dr. Welch, Professor of Pathology Johns Hopkins University, Baltimore, and that it is the outcome of experiments undertaken with the view of ascertaining the most perfect manner of sterilising the surgeon's hands before operation.

In vol. ii of the *Transactions of the Congress of American Physicians and Surgeons* Dr. Welch stated his conclusions as follows:—

"I shall simply state here that we have thus far obtained the best results in disinfection of the skin by the following method:

"1. The nails are kept short and clean.

"2. The hands are washed thoroughly for several minutes with soap and water, the water being as warm as can be comfortably borne, and being frequently changed. A brush sterilised by steam is used. The excess of soap is washed off with water.

"3. The hands are immersed for one or two minutes in a warm saturated solution of permanganate of potash and are rubbed over thoroughly with a sterilised swab.

"4. They are then placed in a warm saturated solution of oxalic acid, where they remain until complete decolorisation of the permanganate occurs.

"5. They are then washed off with sterilised salt solution or water.

"6. They may then be immersed for two minutes in sublimate solution 1 in 500.

"The bacterial examination of skin thus treated yields almost uniformly negative results, the material for the cultures being taken from underneath and around the nails. This is the procedure now employed in the gynæcological and surgical wards of the hospital.....The best results in cutaneous disinfection we obtained by a method in which permanganate of potash followed by oxalic acid plays the principal disinfectant *rôle*."

Los Angeles, California. E. A. PRAEGER.

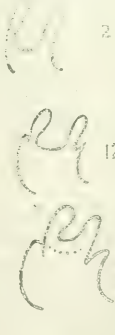
REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

BRISTOL GENERAL HOSPITAL.

A CASE OF POST PARTUM INVERSION OF THE UTERUS OF THREE MONTHS' DURATION REDUCED IN THIRTY-FOUR HOURS WITH AVELING'S REPOSITOR.

[By A. F. AUST-LAWRENCE, M.D., Physician-Accoucheur to the Hospital.]

A. B. was admitted under my care complaining of great pain and uterine bleeding. An examination revealed complete inversion of the uterus. Taxis under chloroform failed to reduce the organ. Rest in bed and the hot vaginal douche were ordered for a few days, and then Aveling's repositor was applied on December 4th, 1894, at 12 noon. The largest cup was used, with only slight elastic pressure. On December 5th, at 11 A.M., there was noticed a slight feeling of a ring at the upper part of the swelling, but no appreciable lessening of the



uterine tumour. The tension on the elastic rings was then increased, and in one hour the fundus was just level with the os uteri, so that in twenty-four hours practically half of the uterus was reduced. I then put on the small end of the repositor, and at 4 P.M. the same day I found the fundus driven well within the cervix, but not yet reduced completely. At this stage (twenty-eight hours from the beginning) the patient appeared very exhausted, so I removed the apparatus, and to prevent descent of the uterus I plugged with iodoform gauze, and gave a dose of opium. The next day, at 10 A.M., I found only a slight descent had taken place. I replaced the repositor, and at 4 P.M. the uterus was in its normal position. The patient is now perfectly well, and is one more case to prove the great value of elastic pressure.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

Friday, March 1st, 1895.

ANNUAL MEETING.

AFTER the minutes of the last annual meeting had been confirmed, the report of the Council was read. The changes with regard to the reading of papers and the publication of the *Transactions* which had recently come into force were enumerated. The Honorary Librarians' and the Treasurers' reports were included in the Council's report, and were most satisfactory. It was announced that the first volume of the report of the Committee on Climatology and Balneology would be published shortly. The roll of the Society contained 503 resident Fellows, 279 non-resident Fellows, and 17 honorary Fellows.

After short speeches from Drs. CHURCH and C. T. WILLIAMS, and remarks from Mr. T. HOLMES and the PRESIDENT, the report of the Council was adopted.

The modifications in the by-laws rendered necessary by the new method of dealing with papers were then carried.

The PRESIDENT then gave his annual address. He referred to the views entertained by his predecessors, Sir E. Sieveking, Mr. Holmes, and Sir A. Clark, regarding the amalgamation of the various medical societies into an Academy of Medicine. Personally, he thought that the work was done better by special societies, and that such a body was not required for the direction of medical politics and education, since that function was already performed by the General Medical Council, the Royal Colleges of Physicians and Surgeons, and the medical press. The measures taken to improve the discussions of the Society were referred to. The obituary list was a short but heavy one; it included two foreign honorary Fellows and six ordinary Fellows. Professor Adolph Hannover of Copenhagen had been an honorary Fellow since 1866; he had early distinguished himself by investigations into the structure of the nervous system. Professor Helmholtz died, aged 72, after a long life of brilliant and laborious scientific researches and inventions, among which the ophthalmoscope, though of such importance to the medical profession, was by no means the greatest. Mr. Bernard Holt, Dr. O. Sturges, Dr. A. G. Medwin, Dr. Cyril Hicks, Mr. J. W. Hulke, F.R.S., and Dr. H. W. Maunsell had died within the last year. The many-sided energies and abilities of the late President of the Royal College of Surgeons were feelingly touched upon, and his thoroughness and conscientious discharge of duties referred to. The clinical abilities of Dr. O. Sturges, the author of two classical works on Chorea and Pneumonia, were gracefully alluded to.

Mr. C. HEATH proposed, and Dr. ALTHAUS seconded, a vote of cordial thanks to the President for his admirable address, and begged that it might be printed in the *Transactions* of the Society.

The usual votes of thanks to the retiring Vice-Presidents (Dr. Pavy and Mr. Pick), Secretary (Mr. R. J. Godlee), and Members of Council (Drs. Coupland, Thin, S. West, and Messrs. W. H. Bennett, Doran, and Higgins), were passed.

The following officers were elected for the ensuing session: *President:* Jonathan Hutchinson, F.R.S. *Vice-Presidents:* Charles John Hare, M.D., *John Harley, M.D., J. Warrington Haward, *John Langton. *Honorary Treasurers:* William Selby Church, M.D., John Ashton Bostock, C.B. *Honorary Secretaries:* John Mitchell Bruce, M.D., *Robert W. Parker. *Honorary Librarians:* Samuel Jones Gee, M.D., *Rickman J. Godlee, M.S. *Members of Council:* *Francis Charlewood Turner, M.D., Frederick Thomas Roberts, M.D., Frederick Taylor, M.D., *Felix Semon, M.D., *William Ewart, M.D., *John Hammond Morgan, *Arthur Edward J. Barker, Reginald Harrison, *Frederick Treves, Thomas Fitz-Patrick, M.D. Those Fellows against whose names asterisks are placed were not on the Council, or did not fill the same office last year.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. PAVY, M.D., F.R.S., President, in the Chair.

Tuesday, March 5th, 1895.

THE PATHOLOGY OF DIPHTHERIA.

DR. BERTRAM HUNT commenced by briefly sketching the history of the present state of knowledge in regard to immunity. At present two kinds of immunity were recognised: (1) an active, brought about by the action or use of a mitigated virus; (2) a passive, which consisted in the transference of immunity. The first was permanent, the other temporary. A child recovers from diphtheria because it forms an antitoxin; and so of other like diseases. Roux and Yersin were the first to show that a toxin was formed in a bouillon culture of the diphtheria bacillus. The formation of toxin was hastened, as Roux had proved, by the passage of air over the culture, and Dr. Ruffer had devised a special flask for this purpose. The passage of air, however, was troublesome. The growth itself sinks in the bouillon; but the author had noticed that if it float a luxuriant culture takes place. This floating arose from the presence of a fatty layer on the fluid; he was, therefore, led to try the effect of adding vaseline or cork filings, in order to float the bacillus, and in either case the growth was accelerated and increased. The fluid itself becomes acid, and the action of the oxygen, as Ruffer had found, was to render the fluid alkaline, and so aid the growth of the bacillus. Filtered toxin rapidly lost virulence on account of oxidation. The toxic substance was not an alkaloid; no alkaloids were specific, and they were of no importance in the question of immunity; it was a toxalbumin, which could be carried down or entangled with calcium phosphate. The toxin was most probably elaborated in the bacillus, rather than a ferment shed from it. The poison was the offensive and defensive weapon of the bacillus. Fowls were naturally immune to tetanus; in them there was no substance in the blood that could be used for the protection of others. So white mice were immune to diphtheria; the urine was toxic at first, but after eight hours it was harmless. It was at no time protective—that is, no antitoxin was formed. This was the rule. On the contrary, it was in animals susceptible to a disease that an antitoxin was formed. Here there was a struggle, and if the tissues gained the upper hand the serum could be used for therapeutical purposes. Repeated doses of toxin produced a higher amount of antitoxin; the health of the animal being allowed to be restored in the intervals. The horse was not an animal highly susceptible to diphtheria, but it was a more convenient one than others. An antitoxin was not a mitigated toxin; it was itself harmless, and productive of no symptoms. Behring had held that a toxin and an antitoxin neutralised in vitro; this, however, was not the correct way of looking at the matter. They would not neutralise one another even in the living body. The antitoxin acted as a stimulus, and incited the cells to produce a specific substance of an antidotal nature. Whenever disease was set up by a microbe, immunity would confer curative properties on the serum. Such serum was not antibiotic; it would not destroy the growth of the micro-organism, which could be readily cultivated outside the body in it. In the case of diphtheria, however, the antitoxin was antibiotic in the body; it protected against the toxin and against the bacillus. Alexins were not identical with antitoxins, as antitoxin was not bactericidal. That the antitoxins were purely cell products appeared from their specificity. This was Buchner's view, and that of the author coincided with it. The author's opinion was that the specific

antitoxins were actually elaborated by the cells out of the toxins, which latter substances incited the cells to action. That the antitoxins were cell products appeared from the fact also that from a horse treated with diphtheria after antitoxin had been obtained by bleeding, a second supply might be subsequently obtained without a second inoculation. The case was comparable to that of cumulative poisons, such as strychnine. The cells probably took up the toxin and excreted it as antitoxin, but some remained stored up and reincited the cells to a fresh production. Antitoxins could be separated from serum by entanglement, the precipitate being soluble in an alkaline fluid. The admixture with Loeffler's bacillus of streptococci increased their virulence, but it did not affect the antitoxic treatment. The chief danger lay in the amount of general damage done before the adoption of the treatment. The poison in animals induced fatty degeneration of the muscles in general, including the heart; and so in the human subject this degeneration added to the difficulty of respiration, etc. If the poison was intense it caused inflammation and necrosis of tissue; if dilute, it set up progressive degeneration.

Dr. John A. Hayward made his observations on the cultivation of diphtheria bacilli in antitoxic serum and in hydrocele fluid. Hydrocele fluid was a reliable medium, and its use removed the difficulties of obtaining and preparing ox serum. The tubes charged with the fluid were heated to 55° C. for three or four hours on three successive days; finally they were placed on the slant in the hot air incubator, and kept at 68° C., which coagulated the fluid; at a higher temperature the albumen was thrown down in white flakes. Small white colonies of the diphtheria bacillus appeared in twenty-four hours, the maximum growth being reached in three or four days. The medium did not favour the growth of other organisms, so that the obtaining of pure cultures was rendered easier. Streptococcus pyogenes grew on the medium, but not staphylococcus aureus or albus. Experiments were quoted to illustrate the relative growth of a mixture of diphtheria bacilli, streptococcus pyogenes and staphyloccus respectively on hydrocele fluid, serum, and nutrient agar, and comment was made on the infrequency of suppuration after tapping for hydrocele in the days before aseptic surgery. Dr. White had greatly simplified and accelerated the preparation of the hydrocele fluid by a method which he described. It was easy to obtain and prepare, and formed a clear, firm, solid nutrient medium. The diphtheria bacillus grew readily upon it, and could be recognised within twenty-four hours. It was inimical to the growth of many of the organisms found in diphtheritic membrane, and thus rendered a separation of the bacillus easier. On antitoxic horse serum, obtained by Professor Klein's permission from the Brown Institute, it was found that the bacillus grew readily if tubes were prepared by Lorrain Smith's method, which involved sterilisation at a high temperature. If the serum was rendered solid by mixture with 2 per cent. agar, the temperature not being raised above 40° C., the bacillus grew very feebly, no definite colonies appearing in such cultures within forty-eight hours; but both in the fluid and solidified antitoxin serum it remained active, at least for three days, and subcultures were made which grew readily on other media. Experiment was quoted which appeared to show that the antitoxic serum retained its property of protecting guinea-pigs even when the serum had been inoculated with the bacillus and incubated for forty-eight hours. It was suggested from this that the antitoxin when injected in diphtheria could have little or no effect *per se* on the membrane or bacillus; it must either neutralise directly the chemical products formed, or by acting as a stimulus to the natural antagonistic forces at work render the best of all charitable aid in helping the tissues to help themselves. Remarks were made on cases in which the bacillus had been detected in membrane occurring on the conjunctiva and in the stomach; on the clinical significance of the different varieties of the bacillus and its association with other micro-organisms, and on the length of time during which its presence could be detected after disappearance of the membrane.

Dr. Charles Powell White also recounted his experience of the use of hydrocele fluid. In October, 1894, he undertook the bacterioscopic diagnosis of the cases of diphtheria admitted to St. Bartholomew's Hospital. Hearing from Dr. Hayward of the use of hydrocele fluid as a culture medium for the bacillus diphtheriæ, at Dr. Kanthack's suggestion he applied to it the method introduced by Dr. Lorrain Smith for solidifying blood serum, and published by him in the British Medical Journal for June 2nd, 1894. This method consists in adding to the medium a certain proportion (for ox serum 0.1 to 0.15 per cent.) of caustic soda, and afterwards heating the tubes in a sloping position in the autoclave to a temperature of 120° C. for twenty minutes. After several trials he found that the amount of caustic soda to be added to the hydrocele fluid was about 0.07 (0.06 to 0.09) per cent. The exact amount must be found out for each specimen by trial tubes containing 10 c.cm. each. The caustic soda is used in the form of a 10 per cent. solution. The resulting medium is as clear as nutrient gelatine. On this medium the bacillus diphtheriæ grows better than the organisms usually associated with it. He had obtained a distinct growth after only seven hours' incubation. Streptococci grow on the medium, but the colonies are not usually distinctly visible till more than twenty-four hours after inoculation. Staphylococcus aureus grows very slowly, and does not produce its yellow pigment, but appears as small white colonies. In order to separate the bacilli he inoculated one of these tubes directly from the false membrane. Examination eighteen hours after will reveal the presence of the diphtheria bacillus often without any other associated organisms. The advantages of this hydrocele fluid medium were: (1) It was (in hospital practice) easily obtained; (2) it was perfectly transparent; (3) it was especially suited for the separation of the diphtheria bacillus.

Dr. A. A. Kanthack exhibited microscopic sections showing diphtheria bacilli in the diphtheritic membrane in the smallest bronchioles of the lung, as well as specimens showing phagocytosis in guinea-pigs killed by injections practised into the muscle of the thigh; though death ensued, nevertheless the leucocytes contained bacilli. The part played by phagocytosis, therefore, was not to be unduly exaggerated in the phenomena of immunity. The chief point he insisted upon was that because serum will immunise against an organism, it does not prove that the organism is the cause of the disease. Again, although it was generally believed that from animals naturally immune to a disease a curative serum could not be obtained, it had been lately shown that if fowls were given large doses of tetanus bacillus, the serum acquired an immunising property. In some diseases (vibrio Metchnikovi) it was not so easy to immunise against the toxin as against the micro-organism; the toxin would still kill after the other immunisation had been brought about. In the case of cobra poison it was the author had found, very difficult to immunise, though animals might be made to stand increasing doses. As to the nature of the toxalbumins, it was not clear that albumins were essential parts; they were probably only the vehicles in which the poisons were carried down. The terms albuminoid bodies, or simply toxins, were therefore perhaps the best. Even Brieger had admitted that in the case of tetanus the presence of the albumen was an accident only.

The discussion was adjourned until the next meeting on March 19th.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., Vice-President, in the Chair.

Friday, March 1st, 1895.

The Death of the President.

The Chairman explained that he had been requested by the Council to fill the presidential vacancy until the end of the session. He added: "My presence in this chair to-night tells us of the profound loss our Society has sustained in the death of our late President, Mr. Hulke, who for nearly two years presided over our meetings with such marked ability and tact. Mr. Hulke was one of our original members, and he has frequently enriched our *Transactions* by valuable communications, and has further taken prominent part in the discussions which followed the reading of other papers, and given us the advantage of his large experience and ripe learning. He was pre-eminently a sound man, and possessed

much personal individuality. His convictions were deep, and his decisions on important questions, if not on every occasion acceptable to all, were always the outcome of a full and conscientious consideration of all the points, and consequently were received with the respect which they deserved. Other branches of science claimed Mr. Hulke as an ardent student, and the esteem in which his work was held was recognised in the fact of his talents being fully appreciated by high appointments in other societies. Self-interest was a word unknown in Mr. Hulke's vocabulary, and his actions showed that all he desired was the best interests of his profession and of the offices he filled. In him our profession has lost a learned and an accomplished surgeon, our Society an able and a wise President, whilst collateral science regrets the loss of an enthusiastic and successful worker in its various branches, and the world must mourn the loss of a Christian gentleman, who by his life and work showed that all his actions were governed by the highest standard of duty."

Sir Dyce Duckworth moved a resolution expressing the regret of the Society at the death of Mr. Hulke, which was adopted.

An Unusual Case of Tracheal Diphtheria.

Dr. E. W. Goodall described this case, which was that of a boy, aged 4, admitted into the Eastern Hospital with faucial diphtheria. On the ninth day after admission he expectorated a cast of the trachea, and during the next week he brought up several casts of the trachea or bronchi, and several shreds of membrane. There was albuminuria lasting for about a month. At the end of three weeks from admission paralysis of the palate, ciliary muscles, and lower extremities supervened. The boy recovered and left the hospital quite well at the end of another seven weeks. The point of interest in the case lay in the fact that in spite of the extensive formation of membrane in the trachea and large bronchi, there were never signs of laryngeal obstruction. Only during the expulsion of the largest casts was there dyspnœa. It was reasonable to suppose that in this case the larynx was unaffected. Three somewhat similar cases had come under his observation—a boy, aged 4; a girl, aged 4; and a young woman, aged 18. All were in the first instance cases of faucial diphtheria. The young woman died, after having expectorated several casts of the trachea. There was no dyspnœa, and she apparently died of the severity of the disease. The Klebs-Loeffler bacillus was found in the faucial exudation. The two children coughed up casts of the trachea, but had no symptoms of laryngeal obstruction. Both were subsequently paralysed, and both recovered.

Mr. W. G. Spencer thought the case showed that cases of plastic bronchitis were practically identical with diphtheria, and he suggested that in future they ought to be classed under the same heading.

Dr. S. Phillips explained that in plastic bronchitis the casts were laminated, and quite unlike diphtheritic membrane. Plastic bronchitis, moreover, was, clinically considered, quite a different disease. Moreover, such patients suffered from the disease for years.

Mr. Spencer added that his remarks were based on certain museum specimens of tracheal or bronchial casts from children.

Sir Dyce Duckworth observed that the sooner the description of these specimens was changed the better. Plastic bronchitis occurred in adult or elderly persons, and never in children. It was impossible, in fact, to confound the disease with diphtheria. The casts were only from the smaller bronchi.

Dr. Sansom said that patients with plastic bronchitis often suffered from previous hæmoptysis.

Dr. Goodall, in reply, said the point to which he particularly wished to call attention was that the membrane missed the larynx, though it affected the respiratory tract above and below.

Malformation of the Heart with Hæmophilia.

Dr. Lee Dickinson gave details of the case of a girl, aged 8, with pronounced congenital heart disease and hæmophilia, and the author asked how far these diseases were related. He reviewed the opinions held in the early part of this century as to a developmental connection between cyanosis and hæmophilia, and regretted the obsolescence into which they had fallen. A hæmorrhagic tendency had often been noted in cases of malformation of the heart, and was sometimes partly explainable by venous congestion or venosity of blood, but in cases like the one brought forward, without either clubbing of the extremities or cyanosis, there was an unequivocal hæmorrhagic diathesis. Some degree of malformation of the heart had been found in a few cases associated with hæmophilia, but apart from this the two diseases might be related in a developmental peculiarity of the blood. There were exact observations to show that the blood in congenital heart disease was in a state of concentration, especially as regarded the number of red corpuscles, which might explain its cyanosis; and there was reason to suppose that in hæmophilia the blood was in a somewhat similar state.

Dr. Sansom doubted whether the condition could rightly be described as hæmophilia. The signs certainly pointed to the presence of some communication between the ventricles. The question of stenosis of the pulmonary artery could only be hypothetical, for the observation contained no evidence establishing it. The physical signs could be explained by a perforation of the septum, and the tendency to hæmorrhage by the circulatory trouble consequent on the heart abnormality. He remarked on the exceptional occurrence of hæmophilia in females.

Sir Dyce Duckworth conceded that females did sometimes suffer from hæmophilia, though if so they exhibited the tendency in a less marked degree than did males. His own experience did not bear out the view that patients suffering from morbus cerulii were more prone to hæmorrhage than others.

Dr. S. Phillips asked whether any other members of the family had suffered from hæmophilia.

Dr. Dickinson, in reply, declined to admit that the hæmorrhage in this case could be explained by reference to the heart trouble only. The child was not cyanosed while under his observation, though this was said to have been the case once or twice. There was no clubbing of the fingers or other indication of chronic circulatory trouble. There was no history of hæmophilia in the family.

Umbilical Hernia: Murphy's Button: Recovery.

Mr. Gilbert Barling read a note of this case. The patient, a female, aged 49, was admitted to the Birmingham General Hospital four days after strangulation commenced. On the day of admission symptoms ceased suddenly. Strangulation was by a severely constricting band, which involved about 5 inches of small intestine, and the upper or entering portion was gangrenous at the point of constriction. The patient's general condition being good the strangulated gut, with a V of mesentery, was removed, and the divided ends of the intestine approximated by a Murphy's button 1 inch in diameter. Recovery was uneventful, but the button was not passed until the twenty-fourth day, two days after the patient had been allowed to get up. It gripped a ring of necrosed gut.

Mr. A. Pearce Gould commented on the curious absence of collapse in this case. He remarked that from an operative point of view the fact of the hernia being umbilical presented certain advantages, notably in the facility with which the gut could be drawn out and dealt with without tension on the mesentery. He suggested that the symptoms of "indigestion" from which the patient suffered subsequently to the operation might be explained by the arrest of the button at the ileo-cæcal valve.

The Chairman referred to the tendency to stenosis to which patients were exposed after using Murphy's button, Senn's plates, and the like. The length of the operation in such cases must necessarily have an effect on the patient's condition. He asked how long the operation had lasted. He did not agree with certain surgeons of the German school who held that these operations did not necessarily involve any collapse.

Mr. Barling, in reply, referring to the numerous cases of gangrenous intestine which some of his colleagues seemed to meet with, said that either the cases could not be as bad as suggested or they did not attach the same significance to the term gangrenous. He remarked on the difference observed

in the way that patients reacted to peritonitis in illustration of the curious absence of shock in his own patient. He pointed out that the "indigestion" occurred on the fourth day and followed the first ingestion of food by the mouth. That was earlier than one would expect the button to have become detached. He admitted that in some cases the button sojourned in the intestine an inconveniently long time; but on the whole he thought the risk of its becoming arrested in its onward passage was a slight one. He admitted that stenosis was tolerably frequent after using Senn's plates, but he thought the method he had described would perhaps give a better result in this respect. The operation took fifty minutes, most of the time being taken up with ligaturing the numerous bleeding vessels after section of the mesentery.

Hysterical Contracture Cured by Massage, Etc.

Dr. Hector Mackenzie related this case. The patient, a young woman, had first come under care at the age of 20 for symptoms which suggested gastric ulcer. She was at that time much emaciated and suffered from gastric pain and vomiting. Some time after this she had some disappointment, lost power in her legs, and took to her bed, the legs soon became contracted and remained so. When she came under treatment a second time the legs had been contracted for two years; she was then 23. Her emaciation was great, her weight was 5 stone. Under the deepest anæsthesia it was impossible to extend the legs on the thighs beyond a right angle, flexion could, however, be performed up to the normal limit. The flexor tendons were hard and rigid. The patient was depressed and dwelt much on her troubles. There was marked anorexia. From the history, the mental and physical condition, and the character of the contracture Dr. Mackenzie concluded that the case was hysterical in origin. It seemed likely, however, that structural changes in the flexor muscles had supervened, and it was at first doubtful whether it would be possible to straighten the legs without performing tenotomy. The case was treated in the general ward of the hospital with massage and high feeding. Letters and the visits of friends were strictly forbidden. At the end of five weeks the patient had gained a stone in weight and was much more cheerful. She was soon made to get up and was encouraged to use her legs a little. The contracture gradually gave way. At the end of nine weeks the legs were nearly straight and the patient had gained two stone in weight. She was discharged at the end of thirteen weeks well able to walk with her legs quite straight, her weight nearly three stone more than when she came in, and in a cheerful frame of mind. She had now for two years been perfectly well. It was very satisfactory to know that in such a well marked and long-standing case ordinary methods of treatment had proved sufficient to establish a complete cure.

HUNTERIAN SOCIETY.

Charters J. Symonds, M.S., F.R.C.S., President, in the Chair.

Wednesday, February 27th, 1895.

The Hunterian Lecture on "Senile Plethora, or High Arterial Pressure in Elderly Persons."

Professor Clifford Allbutt narrated several cases typical of the condition. They all presented the same features, "symptoms obscure in so far as any particular parts or organs were concerned, but obvious and miserable enough otherwise"; the patients were "sluggish, sleepless, wretched on awaking of a morning, nervously perturbed," with "some of the classical symptoms of hysteria." In all there was a remarkably hard pulse with "thudding" aortic valve sound, and none of them showed any feature in the urine leading to any suspicion of incipient or established renal disease. All of them were relieved by drugs adapted to lower blood pressure, and relieved most strikingly. Occasional mercurial and saline purges, and a course of iodide of potassium, pushed freely, the lecturer had found to give almost complete relief; nitro-glycerine was also useful. Professor Allbutt then proceeded to discuss the meaning and pathology of the condition. He had found it commoner in women than in men; gout either declared or suspected was much oftener absent than present, and renal disease and arterial degeneration were conspicuous by their absence also; and even "renal inadequacy" could be excluded. That the blood in senile plethora was at fault, primarily or secondarily, was probable, and that it was altered in some way which set up peripheral arteriolar contraction, was the conclusion; but "beyond this I feel unable to proceed, if indeed I ought to go so far." Notwithstanding his inability to elucidate completely the pathology of the condition, Dr. Allbutt concluded his lecture with some thoughtful considerations of its possible etiological factors.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

T. S. Clouston, M.D., President, in the Chair.

Wednesday, February 20th, 1895.

The Remedies Employed in Cardiac Affections and their Indications.

Dr. Byrom Bramwell, in continuing the discussion on this subject, said that in his opinion the condition of the heart muscle was the key to cardiac therapeutics; that this was of more importance than the state of the valves. He admitted the difficulty of discovering the precise state of the myocardium, but alongside of this one had to remember that murmurs, too, were very deceptive things. It was important to note the great reserve force of the heart, and how it responded to proper treatment. In cases of functional derangement the first thing was to remove the cause; the second was to bring the patient into improved habits of life; and the third to reassure the patient as to the curability of his disorder. Were the heart irritable it ought to be soothed and toned up by simple means, for example, a simple sedative, a plaster on the precordium, a tonic (iron and arsenic); and only on occasion by digitalis. In organic cases, in simple acute rheumatic endocarditis, for example, much could be done. First and all important was rest, in order to remove valvular strain. This not only during the attack, but during convalescence, and, perhaps, for months after. Here, again, the question of tonics came in. In chronic valvular diseases it was necessary to avoid strain. Where compensation was well maintained cardiac tonics were not called for. When that failed the condition of the cardiac muscle was the guide to treatment. In all conditions it was necessary to keep the health in its highest possible condition, attending also to digestive and excretory functions. In fatty degeneration, due to diminished hæmoglobin, iron was called for. In pernicious anæmia arsenic stood first; in dilated heart graduated exercises (Schott's method). In senile heart with high tension, and, perhaps, mitral regurgitation, the strain should be removed, and the heart improved by tonics, and in such cases strophanthus was safer than digitalis. In neurotic affections exercise was of great value. So also in some fatty cases, in gout, and other cases with a satisfactory cardiac muscle. Strychnine was of great value in cases of valvular disease before failure of compensation. After failure of compensation morphine in small and frequently repeated doses was invaluable as a soporific; before failure chloralamide or paraldehyde.

Dr. Stockman said that cardiac tonics were used when the heart was beating less forcibly and more frequently than normal, in consequence of which the arterial system was depleted and the venous engorged. The diuretic effect of cardiac tonics was due to the reabsorption of effused fluid after the veins and lymphatics had been emptied by slower and more vigorous action of the heart. Strophanthus, digitalis, adonis vernalis, convallaria—all gave pretty much the same result in this way. Sometimes such drugs were highly successful, at other times they signally failed. There was much difference of opinion as to iodide of potassium. Prevost maintained that small doses raised the blood pressure, and thus acted like digitalis; while large doses diminished pressure. Dr. Stockman had given 300 grains daily to a man with spinal sclerosis, and no alteration in the pulse could be detected. Sparteine and barium chloride he had found of little use. Sudden cardiac asthma was best met by diffusible stimulants. Cardiac cases with much dropsy should be freely purged. "Tapping" the pleural spaces might mean starvation by the excessive abstraction of albumen.

Professor Greenfield said that so far as he had discovered from the necessarily brief reports of the first night's discussion, as given in the medical journals, strophanthus had

received but faint praise. He regretted this. He had used strophanthus for nine years, and in his opinion it was the most universally applicable member of its group of cardiac remedies. He had used it in all sorts of diseases—in valvular disease, in dilatation from acute strain, from disease, or from senile change; in pericarditis, in pneumonia, both ordinary and influenzal, in the latter as they all knew cardiac failure was often the cause of death. Again, in collapse from hæmorrhage, in fevers, in delirium tremens, and so on. In all strophanthus was of the utmost value, and in none more so than in acute pneumonia. Of course he used all other aids —mechanical, dietetic, and medicinal. He had alternated digitalis with it, but in the great majority of cases he found strophanthus more useful and safer, and sometimes it succeeded where digitalis was quite useless. He had once seen toxic results from strophanthus, but only once. In urgent cases he had given 10, 15, and even 20 minims every two hours with excellent results. Necessarily such and so many doses required constant watching of the pulse. He gave most unqualified praise to strophanthus as a drug of pre-eminent value and safety.

Dr. James Ritchie said he now valued rest and diet as far ahead of exercise and drugs in the treatment of cardiac cases. In most cases he thought there was no doubt that by limiting the amount of fluid taken, there was less to drive on, and therefore relief to the heart's work. He was greatly against stimulants, save to tide over a crisis. He considered strophanthus best for getting quick action, but its action was not so prolonged as that of digitalis. Further, a larger number of patients were unable to tolerate it than was the case with digitalis. Digitalis had a certain tonic action on the heart which strophanthus had not. He used to give strophanthus in doses of 5 minims, now only 2 or 3, because of the nausea it so often produced.

Dr. William Russell thought they ought to have heard more of the failures of treatment. Then again there were cardiac cases where no special cardiac treatment was needed, indeed where they were contraindicated. In functional cases the primary condition was that which called for treatment. In organic cases he thought there should be no special cardiac treatment unless there was insufficiency. All causes of strain, direct and reflex, should be removed. Aortic stenosis least of all required therapeutic interference when there was no cardiac insufficiency. If incompetence were present, the matter was different. Digitalis was not suitable to all double aortic conditions with want of compensation, especially when the pulse-rate was only 60 or 70, since it prolonged the diastole and gave greater regurgitation and over-distension of the ventricle. If the pulse were quick, then digitalis was useful. In slow pulse he found belladonna very valuable, probably because it relieved spasm in the arterioles. He was inclined to think that iodide of potassium acted in the same way, though evidently Professor Greenfield had little faith in that drug. In mitral incompetence with rapid action digitalis seemed indicated, with slow action strychnine and iron. A prolonged diastole ought to be aimed at in mitral stenosis. In his judgment the rate of the heart was the index to cardiac therapeutics. When the rate was rapid and the tension high, digitalis was not a suitable drug.

Dr. Clouston spoke very briefly on cardiac conditions in mental disease. In certain cases of mania the rate ran constantly at 130 or 140. He had had several cases of melancholia where the pulse was never under 120. In addition to the regular treatment appropriate to the mental condition he had exhibited digitalis with iodide and bromide of potassium. Then there was another group of cases with stupor and œdema, where cardiac stimulants and tonics were called for.

The discussion was then adjourned.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of State Medicine.

D. Edgar Flinn, F.R.C.S., President, in the Chair.

Friday, February 1st, 1895.

Domestic Treatment of the Insane.

Dr. Conolly Norman read a paper on the domestic care of the insane. After glancing briefly at the system adopted at Gheel and in Scotland, he referred at length to the insane colony at Lierneux, in Belgium, to the boarding out of lunatics as carried out in the Berlin district (which he thought much superior to the Scotch system), and to the recent and singularly successful experiment at Dun-le-Roi, in Berry. He held that these attempts to provide for the insane outside asylums had been, on the whole, a great success, and believed that in Ireland an energetic and intelligent endeavour to organise the domestic care of the insane would be similarly successful.

Dr. Roche said that if the experiment of boarding out pauper lunatics was to be tried it could not be tried in a better place than in Ireland. The poor people had the reputation of being exceedingly kind to the afflicted. He thought, on the other hand, that if the patients were badly treated they would be afraid to complain to the inspectors.

Dr. Thompson remarked that, as far as his experience in workhouses went, he found the healthy inmates very cruel to the insane. If a patient was fit to be sent to the healthy yard they drove him to madness again.

Dr. Donnelly said that Dr. Thompson's statement was really an argument in support of Dr. Norman's paper. He had found that the friends and neighbours of harmless lunatics did their best to keep them at home, and it was only when they became dangerous that they were sent to an asylum.

Dr. Baker thought that if the experiment were to be tried of course only harmless patients would be boarded out. Imbeciles were kindly treated by their friends.

Dr. Norman, in reply, explained that the greatest care must be taken in the cases sent. Much harm to the insane and to the system might arise if unsuitable cases were drafted out to the so-called insane colonies. On account of the better supervision he preferred the system as worked in Berlin to that in Scotland. As regarded the difficulty about hearing complaints, he said that this difficulty existed to an even greater degree in asylums. The hosts of the patients would be interested in preventing things going wrong, and it would be to their advantage to keep their patients alive and in good health as long as possible. Ireland, he thought, would be a good place to try the experiment in, as it abounded in small holdings, and the people, on account of the payment, would be glad to receive patients. The poor of the Irish race he believed to be kind to those in distress.

The Need for Women as Poor-law Guardians.

Dr. E. Winifred Dickson read a paper on this subject. In England there was a large and every year an increasing number of women who were elected to act on the Boards of Guardians. In Ireland women were technically disqualified. Among the lines of work in which women had been found to be of service on the Boards in England were the following: (1) Engagement of officials, the majority of whom, nurses and servants, were women. (2) Superintending the quality and make of the clothes for the women and children. (3) Inspection of the food supplies and cooking. (4) Inspection of the feeding and care of the infants and children. (5) Inspection of the beds and bedding, household linen, towels, etc., and of the washing arrangements and sanitary conveniences for the women. Women had also taken the initiative on several of the Boards in the matter of providing trained nurses for the hospitals instead of paupers.

Dr. Roche thought that the election of ladies to this post might cause more human sympathy to be indulged in towards the young and the old feeble inmates of workhouses. He had no sympathy at all for the able-bodied inmate and the tramp.

Dr. Delahoyde said that the Acts relating to the Poor-law system were passed nearly half a century ago, during which time the country had changed, and they were now unsuitable. He considered that the Boards of Guardians had degenerated. Their members were not now the broad minded and educated gentlemen who used to sit on them. The present members paid very little attention to any suggestion from their medical officers and tried to repress them whenever they got a chance. Since he had listened to Miss Dickson's paper he viewed in a much more favourable light the election of lady guardians.

Dr. Norman said he thought that the power should be given to ladies to serve as guardians.

Dr. Doyle briefly expressed his approval of Miss Dickson's paper. He thought the Poor-law system needed to be completely amended to get rid of the jobbery at present existing in it.

Dr. Thompson said that he had found that the present members of Poor-law Boards frequently gave more time to their work than their wealthy predecessors. They had, of course, a very poor idea of the position of their medical officers, but with time and experience this would improve. There was no doubt about the frightful amount of jobbery that existed in some workhouses.

Dr. Potter said he agreed with Dr. Dickson, and that it would be an immense advantage to country workhouses to have lady guardians.

Dr. Dickson, in replying, stated that she hoped the present Poor-law system would soon be abolished; but that in the meantime she thought some amelioration of the system would be of much service. A workhouse matron, if she were of the right sort, would be very glad to have lady guardians with whom she could consult.

Section of Medicine.

Walter G. Smith, M.D., President, in the Chair.

Friday, February 22nd, 1895.

Notes upon some Urinary Tests, with Experiments.

The President made a communication upon some points in urinary chemistry, and showed several experiments. He said that the determination of the acidity or basicity of urine consisted essentially in estimating the relative proportions of the two phosphates, which were best determined by Freund's method. He also referred to two other phenomena of some interest, namely, (*a*) the nature of the precipitate so often obtained in dark bilious urine by the addition of acetic acid, and not cleared up by heat: (*b*) the nature of the precipitate sometimes obtained by floating urines, albuminous or not, over acetic acid. This precipitate was not redissolved by heat.

Ecchymosis following Insane Excitement.

Dr. W. R. Dawson related the case of a married woman, aged 50, who was admitted to the Royal Edinburgh Asylum in 1890. She suffered then and ever since from melancholia, accompanied by delusions of suspicion, with exacerbations every ten or fourteen days in the form of outbursts of violent indignant grief, during which she was very noisy and abusive. During the first two years of her illness these attacks were sometimes followed by eruptions of an erythematous character; but last April, four years from the commencement of the attack, a number of purpuric spots appeared after a fit of excitement, and every such fit was followed by spots of ecchymosis so long as the case remained under his observation, the spots varying much in size, and appearing from time to time on nearly all parts of the body. Once there was some blood evacuated by the mouth, and once a small spot appeared on the tongue; the temperature was not raised; the heart's action was weak. Only one similar case (that of Drs. Savage and Price Smith) appeared to have been recorded in the insane, but there would seem to be some resemblance to the hæmorrhages described as occasionally following hysterical fits. From recent statements on the pathology of ecchymosis it might be concluded that the causative factors were arterial dilatation due to the influence of mental excitement and predisposed to by diathesis and time of life; sluggishness of venous return from cardiac weakness; and, lastly, some undetermined variety of vascular degeneration, the assumption of the latter being necessary to explain the long period which elapsed before the appearance of the hæmorrhages.

The President thought that Dr. Dawson's case was a very rare one, and raised the question of the possible influence of iodide and bromide of potassium in producing purpura.

Medical Magistrate.—Dr. Adam Wilkinson, of Shaftesbury, has been placed on the Commission of the Peace for the county of Dorset.

Messrs. Barraud, of Oxford Street, have in preparation a photogravure of the late Mr. J. W. Hulke, President of the Royal College of Surgeons.

Liverpool Medical Institution.

Chauncy Puzey, F.R.C.S., President, in the Chair.

Thursday, February 28th, 1895.

A Case of Mycosis Fungoides.

Dr. Leslie Roberts pointed out that the symptoms in the early stage of this disease simulated eczema, but that the changes were in reality neoplastic in nature. The tumours were infective, but there was no evidence at present of the action of micro-organisms. The necropsy in this case showed the presence of tubercle bacilli in the left lung.

The consideration of the histo-pathology of the case was deferred until the next meeting of the Pathological Section of the Society.

A Case of Pneumonia with Relapse.

Dr. Glynn said that there was a great divergence of opinion as to the frequency with which a relapse occurred in pneumonia, some authorities holding that relapse was an event of the greatest rarity, whilst others considered that it occurred in from 15 to 25 per cent. of their cases. A man was admitted into the Royal Infirmary who had been ill for three days. He convalesced on the tenth day, and remained well for 11 days; he then had a distinct relapse. The pneumonia was at the base of both lungs. A very favourable point in the case was that the respirations never rose above 30 per minute. This showed that the rapidity of the breathing did not altogether depend on the physical condition of the lungs, but probably on the presence of toxins circulating in the blood and affecting the respiratory centre. A few days before the temperature dropped there was a considerable increase in the quantity of urine secreted. Dr. Glynn considered this a most important sign of recovery in cases of pneumonia. As to treatment, ℥ij of infusion of digitalis were given every two hours. Dr. Glynn pointed out that this was a most valuable remedy in pneumonia, being able to produce sleep and quiet the patient when other drugs failed to do so. It was stated, however, that relapses were more liable to occur in cases treated by digitalis.

Anæsthetics and Ventilation.

Mr. C. G. Lee described the spasmodic cough and laryngeal irritation which often affected the operator and his assistants when chloroform was administered in an ill-ventilated room in proximity to a gas flame. The only record of such cases that Mr. Lee had been able to discover was to be found in a paper by Dr. Paterson, of Cardiff, published in the forty-second volume of the *Practitioner*. In Dr. Paterson's case the patient, as well as the surgeon, suffered from the violent cough, so that it was considered dangerous to proceed with the operation. In none of Mr. Lee's cases had the patient suffered. The exact nature of the irritating substance was discussed, and Dr. Paterson's view that it was probably due to the formation of carbon oxychloride or phosgene gas was favourably commented upon; at the same time it was thought that it might be partly due to free hydrochloric acid, as suggested by Dr. Carter.

Several speakers were familiar with the distressing symptoms related by Mr. Lee, and it was pointed out that the same irritation was sometimes experienced when ether was given in the neighbourhood of a coal gas flame.

Acute Rheumatic Endocarditis.

Dr. Caton, whilst treating 300 cases of acute or subacute rheumatism during the last thirteen years, had observed the occurrence of 51 cases of valvular disease of the heart. The early signs of cardiac involvement were described, also the means employed to prevent it. Thirteen of the cases received no special treatment beyond that appropriate to the rheumatism; they were kept in hospital on an average of twenty-five days. Of these, 12 left the hospital with a *bruit* and 1 without. Thirty-eight cases were treated by repeated blistering over the cardiac region and by the administration of potassium iodide; their average stay in the hospital was forty-one days. Of the 38 cases, 28 left without any *bruit* and 10 with a *bruit*.

Drs. Glynn, Barr, P. Davidson, and Logan discussed Dr. Caton's paper.

CAMBRIDGE MEDICAL SOCIETY.

Professor Clifford Allbutt, M.D., F.R.S., President, in the Chair.

Friday, February 1st, 1895.

The Antitoxin Treatment of Diphtheria.

Dr. Latham, after giving a short history of the serum treatment of diphtheria and describing the method by which Behring's antitoxin was prepared, and the way in which the strength of the preparation was determined previous to its use, reported five cases which had been treated under his directions by the remedy. Two of the cases presented points of special interest, tracheotomy having been performed, the membranous exudations extending into the trachea and bronchi, and both patients recovering. A number of microscopical specimens and cultures from each of the cases were shown by Dr. Cobbett, John Lucas Walker student of Pathology in the University. Case I. M.C., a girl, aged 3 years. This was a severe case of diphtheria, involving the nose, fauces, and larynx, admitted on the second day of the disease with signs of laryngeal obstruction. The condition was one to give rise to anxiety. Antitoxin was injected at once. The child took nourishment well throughout. An improvement was shown eight hours after injection. Albumen was present from admission to the nineteenth day of the disease. Membrane had completely disappeared on the sixth day. Knee-jerks were absent from the seventh to the twenty-third day of the disease. There was no paralysis of the soft palate; no rash or joint pains. Nourishment consisted of beef-tea and milk, 3 ounces every second hour. No stimulants were given. Case II. H. C., a boy, aged 3 years, admitted on the fourth day of the disease in a condition of urgent dyspnœa, with marked laryngeal stridor. Membrane was present on both tonsils and the base of the uvula. Tracheotomy was performed. An hour and a-half after admission Behring's antitoxin (10 c.cm.) was injected. Three hours afterwards some improvement was noticed, but twelve hours after the injection the child died. Cover-glass preparations showed almost pure cultures of Loeffler's bacilli. The urine, which was obtained after death, contained a large amount of albumen, and acute nephritis was discovered at the *post-mortem* examination. Case III. S. J. N., boy, aged 4 years. Behring's antitoxin injected at 11.45 P.M. on January 3rd. On January 4th, at 2.30 P.M., no improvement; antitoxin again injected. 5.30 P.M. Tracheotomy performed, much membrane being expelled, giving great relief. January 5th. Child cyanosed, but relief again obtained after expulsion of large piece of membrane. This process of obstruction, only relieved by expulsion of membrane, was several times repeated, but ultimately the child recovered. There was from the first a small amount of albumen. A rash appeared on the seventeenth day of the disease, with diarrhœa and pyrexia (101°), and remained out about forty-eight hours. Case IV. Girl, aged 4 years. Behring's antitoxin, No 2, had been injected before arrival at the hospital. Admitted apparently moribund. Tracheotomy performed at once. During the performance of the operation and for some time afterwards the condition of the child was very grave. The membrane began to be expelled on the evening of the fourth day of the disease, and ceased, together with the nasal discharge, on the seventh day, when the throat also was free from membrane. On several occasions the condition of the child gave rise to much anxiety, owing to blocking of the air passages by softened membrane. It was impossible to obtain any urine. Case V. W. H. C., aged 4 years and 7 months. Temperature 103·5°. Membrane on both tonsils. Behring's antitoxin, No. 1 (15 c.cm.) injected. Next day there was much improvement, and the child did well. The diagnosis of diphtheria was verified by microscopic investigation and by cultures.

Laryngeal Growths Removed by Operation.

Mr. Wherry showed a lad who had suffered from aphonia and stridor, his breathing being seriously affected. Dr. Laurence Humphry had discovered papillary growths obscuring the greater part of the vocal cords, and advised their removal. Mr. Wherry performed preliminary tracheotomy, and after a few days opened the larynx by median section of the thyroid cartilage. He removed a large quantity of papillomatous growths from the interior of the larynx, and also from the region of the false cords. No after application was needed. The case did very well, and both voice and breathing were unimpaired.

MANCHESTER MEDICAL SOCIETY.

F. A. Southam, M.B., F.R.C.S., President, in the Chair.

Wednesday, February 20th, 1895.

Mammary Cancer.

Mr. Jones read a paper based on an analysis of 55 operations for the removal of cancer of the breast. The mortality attending the operations was under 2 per cent., and the proportion of cures was given as 12.6 per cent. Mr. Jones laid stress on the importance of a routine examination of the axilla through the operation wound, even although no obvious enlargement of the glands could be detected. In 48 out of the 55 cases the axilla was thoroughly cleared out, which with care need not add much, if anything, to the risks of the operation.

Appendicitis and Rheumatism.

Dr. Brazil brought forward two cases in which the symptoms of appendicitis and rheumatism were simultaneously present, and in which complete and rapid recovery took place under salicylate of soda. After referring to the literature of the subject, Dr. Brazil discussed the relation between the two disorders.

Cases.

Mr. C. E. Richmond showed two patients (1) Elephantiasis of Lips following on destruction of lymphatics from lupoid ulceration; (2) Abdominal section for supposed Retro-peritoneal Rupture of Spleen.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Malcolm Black, M.D., Vice-President, in the Chair.

Wednesday, February 27th, 1895.

The Work of the Maternity Hospital.

Dr. Robert Jardine read a report of the work done last year at the West End Branch of the Maternity Hospital. Five hundred and twenty-three cases were full time, 12 premature, and 15 abortions. The operative cases were—forceps, 29; version, 5; induction of premature labour for contracted pelvis, 1. There were three deaths; two after premature labours. One woman had hardly been sober a day for over four months. She was dying of gastritis, evidently alcoholic, when delivered at the seventh month. Her temperature remained subnormal. Another woman was in the last stage of phthisis when delivered at the sixth month. The third died of embolism on the twenty-fifth day after the confinement. She was in bed at the time of the seizure, and died in a minute or two. There was no thrombosis of the superficial veins. The embolus must have come from the uterine veins. He had always used perchloride of mercury (1 to 2,000) for douching the uterus, and had never once seen any poisoning symptoms, but he ended the douche with pure boiled water and thus washed out as much as possible of the albuminate of mercury which had deposited in the uterus.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Richard Favell, M.R.C.S., Vice-President, in the Chair.

Thursday, February 14th, 1895.

Cases and Specimens.

Mr. Atkin showed a girl from whom he had removed the Shaft of the Ulna for Necrosis without Suppuration.—Mr. Pye-Smith showed three boys on whom he had recently performed Excision of the Hip by Anterior Incision, and advocated this operation as giving better results than that of external incision.—Dr. Martin showed: (1) an Ovarian Cyst and Cystic Ovary, removed from a patient, aged 24. (2) An Ovarian Cyst with a Twisted Pedicle, from a patient, aged 34. (3) A large Fibroid, weighing 11 lb. 3 ozs., and measuring 12½ by 11½ inches, which he had removed from the vagina of a patient, aged 50. All three patients made good recoveries.—Mr. Kilham read notes of the following cases: (1) Accidental Vaccination by bathing a small wound on the cheek of a boy,

aged 3, with a sponge which had just been used to wash a baby's arm vaccinated the previous day. (2) Unusually Large Child, stillborn weight 17½ lbs., length 25 inches, and, with the arms to the side, 11 inches across the shoulders. (3) A Curious Bicycle Accident causing Rupture of the Urethra without any Skin Wound.

Chronic Stricture of the Urethra.

Mr. W. H. Brown (Leeds) read a paper on some points in the treatment of chronic stricture of the urethra. In the presence of cystitis in at all a severe form, or with an abnormally sensitive urethra, he considered the treatment by dilatation, either rapid or gradual, decidedly dangerous. Internal urethrotomy he condemned, but external urethrotomy on the lines laid down by Mr. Wheelhouse he regarded as a safe and efficient method of dealing with chronic stricture. One advantage of this operation was that it afforded the operator an opportunity of exploring the bladder, which in one of his own cases led to the discovery of two unsuspected calculi. It also provided for sufficient drainage of the bladder subsequently, which no other plan of treatment did. Mr. Brown said that he always varied Mr. Wheelhouse's method of proceduce by the insertion of a perineal tube into the bladder, allowing it to remain there for four or five days; and in bad cases he washed the bladder out with a solution of quinine. With regard to the risk of serious hæmorrhage, which had been alleged as an objection to this operation, he said he had only once met with any trouble from this cause, and he had never known suppression of urine to follow external urethrotomy, as had been the case after dilatation several times in his experience. In conclusion, he strongly deprecated undertaking such an operation as external urethrotomy without at least three assistants; in fact with as many assistants as would be present if the operation were performed in a hospital.

The Vice-President, Dr. Keeling, Mr. Pye-Smith, Dr. Sinclair White, Mr. Atkin, and Mr. Snell joined in the discussion which followed.

THE MALAYA BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

M. F. Simon, M.D., Vice-President, in the Chair.

Saturday, January 12th, 1895.

Menière's Disease.

Dr. Galloway reported a case of this disease, in which, however, the symptoms were not quite typical according to Menière's description. The patient, aged 60, was suddenly seized with buzzing in the left ear, intense giddiness, and a few minutes later with vomiting. Next morning she was well, but the attacks had since recurred three or four times a week. In them she lay with her eyes closed, the face ashy pale, and covered by a cold perspiration. She complained of intense giddiness, a sensation as if the room rushed round towards her left side. Vomiting, which soon came on, continued long after the stomach was empty. There was no loss of consciousness. The pulse was full and slow. Bromide and iodide of potassium seemed to have a good effect. During the attacks there was hemianopsia. Nothing abnormal was discovered in either ears or eyes except amblyopia for red throughout each field.

In the discussion which followed, Drs. Fowlie, Jansz, Wilson, and Highet took part; the latter referred to a case reported by Gowers, in which aërial and bone conduction seemed to be perfect until trial was made with Galton's whistle, when this was found to be inaudible on one side, showing some damage to nerve endings.

Otomycosis.

Dr. Highet read a paper on otomycosis, which he considered was perhaps the most frequent affection of the external meatus with which the profession had to deal in Singapore. Special stress was laid upon the fact of its frequency there compared with Europe. The principal etiological factor was shown to be sea-bathing. The complications which he had met with were detailed as follows: Diffuse inflammation of the external meatus, acute and chronic serous catarrh of the middle ear, perforation of the membrane, swelling and even suppuration of the lymphatics at the angle of the jaw from septic absorption, and eczema of the meatus and pinna. In the way of treatment the meatus was thoroughly cleansed of all traces of fungus by means of forceps and antiseptic douches. A thorough application was then made to all parts of the meatus with a solution of 1 part bichloride of mercury in 1,000 parts of rectified spirit. It was advised that the treatment in all its details should be carried out by the surgeon in person, as the chief trouble of this affection was its liability to return.

Surgeon-Captain Greig agreed with the reader of the paper that "otomycosis" was very common in Singapore. He found that it was brought about by bathing in fresh as well as in salt water. He found that douching with a 1 in 1,000 bichloride of mercury solution, followed by the insufflation of dry boric acid powder, was the best method of curing it.

Dr. Wilson found very frequently in Chinese coolies a condition of the ears such as Dr. Highet had described as "otomycosis." He considered that it was due to their filthy habit of bathing in any wayside pond, and not drying themselves on emersion.

Drs. Middleton, Fowlie, Simon, and Croucher corroborated the experience of the writer of the paper.

REVIEWS.

Lectures on the Diagnosis of Abdominal Tumours. By William Osler, M.D. New York: D. Appleton and Co. 1894. (Demy 8vo, pp. 166. 1 dol. 50 cents.)

The volume before us contains six lectures delivered before the post-graduate course at the Johns Hopkins University last winter, which have already appeared in the pages of the *New York Medical Journal*. The first two are devoted to the stomach, the first dealing with tumours formed by the dilated stomach itself, almost always associated with a nodular mass at the pylorus; amongst the special points to which he calls attention in reference to diagnosis may be mentioned the two kinds of movement that are observable, namely, a peristalsis that can be seen in the walls of the stomach, which occurs from left to right; and secondly, the development of irregular protuberances of the stomach wall generally near the greater curvature, and often synchronous with the above-mentioned peristalsis. Another point of importance is the gurgling of gas through the pylorus, which can sometimes be felt. Inflation constitutes a most valuable aid to diagnosis, and is best effected by administering half a drachm of bicarbonate of soda in solution, followed by a similar quantity of tartaric acid, also in solution. In a few cases a tumour may be formed by a contracted stomach, as in œsophageal obstruction, or from cirrhosis or diffuse cancer of the stomach walls. The second lecture is devoted to nodular and massive tumours of the stomach, including thereby instances of thickening and induration round an old ulcer. In none of his cases was a tumour situated at the cardiac orifice or on the posterior wall. Tumours of the liver form the subject of the third lecture, cases of abscess, syphilis, and cancer being described, whilst dilated gall bladder and cancer of the gall bladder are considered in the fourth. The diagnosis of the latter condition is not always easy, but the following points would be helpful: Two-thirds of the patients are women, and in seven-eighths of the cases there is an association with gall stones, so that a history of colic and previous attacks of jaundice should be sought for. Rapid emaciation and the development of cachexia within three or four months would favour cancer; chills and fever would be against it. Ascites is often present, but jaundice is not necessary till the disease spreads to the walls of the duct. The fifth lecture deals with tumours of the intestine, omentum, and pancreas, and some miscellaneous cases of obscure origin, whilst the last lecture is devoted to tumours of the kidney, dealing with movable kidney, which is so common that he says they are never without an example in the wards, intermittent hydronephrosis, sarcoma of the kidney, including a very interesting case in which the the tumour was successfully extirpated, and tuberculosis. The lectures are entirely confined to a consideration of cases that had been under treatment during the preceding twelve months, and we may congratu-

life Dr. Osler both on the wealth of his material and on the excellent use he has made of it. The whole set constitutes a most excellent piece of clinical work, and we believe that no physician could fail to derive benefit from a careful perusal of these lectures, which, we may add, are profusely illustrated with photographs and diagrams.

Wintering in Egypt. By A. J. M. Bentley, M.D., and Rev. C. G. Griffenhoofe, M.A. London: Simpkin, Marshall and Co. 1894. (Cr. 8vo; pp. 188, with illustrations. 2s. 6d.)

This small volume, the joint production of a clergyman and a doctor, is divided into two parts. The first, entitled Under the Shadow of the Pyramids, consists of some useful though rather commonplace remarks on Cairo and its immediate surroundings, the means of getting there, and the kind of life you lead when you get there. This occupies 152 pages, and a good deal of it is diffuse and redundant. On the other hand the writers seem to know nothing personally of Upper Egypt.

The second part is entitled A Few Practical Hints for Invalids on the Maintenance of Health in the Climate of Egypt, and seems to be composed to a great extent of quotations from the writings of Dr. Hermann Weber, Sir James Clark, Professor Burdon Sanderson, and Dr. Sandwith. We observe that the medical author recommends Egypt in the winter to "all forms of incipient phthisis, where the constitutional disorder preceding the disease is marked." We hardly know what the author means by "the constitutional disorder preceding the disease." If he means the pyrexial condition which often attends the evolution of pulmonary tuberculosis, we doubt if it is sound advice to send a patient to Egypt under such circumstances.

Das Fieber: kurzgefasste Darstellung unserer gegenwärtigen Kentnisse über den Fieberprocess. (Fever: a Compendious Statement of our Present Knowledge of the Nature of Fever.) By Dr. G. B. Ughetti, Professor of General Pathology in the University of Catania. Translated into German from the Italian by Dr. R. Teuscher. Jena: Gustav Fischer. 1895. (Roy. 8vo, pp. 232, with 32 diagrams. M. 4.50.)

Professor Ughetti's little work gives a clear but not very complete statement of the history of medical speculation on fever, together with some criticism, acute if somewhat sceptical, of current theories on the subject. He writes in a lively style, which his translator has fairly retained in the less smooth and fluent German version. Certain curious misunderstandings of the writings of other than Italian authors, which the work betrays, are explained by reference to the "bibliography" at the end of the volume. From this it appears that Professor Ughetti has often had recourse, not to the originals of his German and English authorities, but to brief abstracts in the Italian medical journals. He has consequently overlooked or misconstrued the work of Wood, Ott, Burdon Sanderson, Hale White, Ord, MacAlister, and many others, and so omits much which might have modified his conclusions, and which ought to have found a place in his history. These conclusions are chiefly negative; the essential nature of fever is still a mystery; pyrexia, if not wholly a sanative reaction of the organism, is yet far from being in itself so dangerous as it is often deemed, and therefore "antipyresis at any price" is not rational therapeutics. Even the benefits of cold bathing are due not to the reduction of temperature, but to the increased thermogenesis it produces.

The Public, the Profession, and Medical Charities. By Robert Boxall, M.D., F.R.C.P. London: H. K. Lewis. 1894. (Demy 8vo, pp. 30. 1s.)

This reprint of an introductory lecture, reported in our columns at the time of its delivery, gives many facts regarding the numerical relations between the public, the hospitals, and the members of our profession. In regard to the proportion of medical men to population in England and Wales, it appears that, starting in 1873 with one medical man to 1,615 people, the number of the latter gradually rose to one to 1,703 in 1882, and since that date has steadily declined, until in 1893 it stood at one practitioner to 1,437 people. This means that on an average each medical man has 250 people less out of whom his living has to come, a by no means encouraging prospect.

This being so, it became a matter of interest to ascertain what alteration had taken place during the same years in regard to the number of the hospitals and dispensaries, seeing that they in a sense enter into competition with medical men, and certainly deprive them of many fees. In answer to this inquiry a table is given showing that these institutions have not increased in number in proportion to that of medical men. In 1878 on the average one hospital or dispensary existed to every 20 practitioners; in 1893 there was only one to every 22 members of the profession; nor have they, Dr. Boxall contends, increased unduly in proportion to the population, such increase as is apparent being due to the institution of separate borough and county asylums.

It is otherwise, however, in regard to the number of patients treated at the hospitals and dispensaries. The proportion which these bear to the population has increased by 20 per cent., the actual numbers being 2,855,644 patients in 1878, and 3,985,263 in 1893. It is pointed out that while the increase in the out-patient department in the large metropolitan hospitals with medical schools, and in the other ancient foundations, has barely kept pace with the increase among the in-patients, in the more recently established hospitals in London, the proportion of out-patients to in-patients is very much larger. The conclusion, therefore, is that the out-patient difficulty, which is now so pressing upon the profession, is an affair of modern growth.

Essays on Rural Hygiene. By George Vivian Poore, M.D., F.R.C.P. Second Edition. London: Longmans, Green, and Co. 1894. (Demy 8vo, pp. 386. 6s. 6d.)

We are glad to welcome a second edition of this book, for it is written with a purpose and its purpose is good. It is full of information and piquant satire, and is obviously the preaching of one who thoroughly believes. Although there seem difficulties innumerable in the practical application of the methods which are advocated, at any rate in regard to towns, one closes the book with a strong conviction that the author is right, and a strong wish that such things could be. Two main ideas run through the work; one the evils of overcrowding of houses on the land, the other the immense advantage of applying the excreta directly to the soil. Dr. Poore addresses the rural population because it is only in the country that it is possible to be guided by scientific principles in our measures for the preservation of health and the prevention of disease. Towns, as they have hitherto been built, seem hopeless, but an earnest protest is made against what is now being done on every side in the suburbs, and the continuous building which is going on over such open spaces as are yet left within city bounds, for it is urged that it is impossible to maintain complete health among the inhabitants unless each house has a certain amount of open space around it. Dr. Poore's great idea, however, which he wishes to impress upon all who dwell either in the country or wherever they possess a garden is that the proper way of disposing of the excreta is by burying them near the surface of the ground. His arguments and the apparatus he recommends are well placed before the readers of this book, but they were so fully stated in his address to the Sanitary Institute, a report of which was published in the British Medical Journal on February 16th, 1895, page 392, that we need not further refer to them.

We strongly commend this work to the attention of all dwellers in country or in semirural districts where gardens are available, and to all town councillors and sanitary authorities who are responsible for the manner in which our towns are allowed to grow.

St. Thomas's Hospital.—The Grocers' Company have contributed £200, the Salters' Company £105, and the Cannon Brewery Company £105, towards the St. Thomas's Hospital Special Appeal Fund for opening close wards.

NOTES ON BOOKS.

Practical Uranalysis and Urinary Diagnosis. By Professor Charles W. Purdy, M.D. (Philadelphia: F. A. Davis and Co. London: F. J. Rebman. 1884. Demy 8vo, pp. 374. With numerous illustrations. 14s.)—The scope of this work is wide, for, in addition to dealing with the examination of the urine in all its different stages, the second half contains a description of the special features of the urine that indicate, as the author says in his preface, the presence of special pathological processes in progress in the economy, whether they be local or general, medical or surgical, together with a brief enumeration of the leading clinical symptoms of each disease, and in most cases an epitome of their nature and etiology. The methods are well and amply described, and the short account of diseases given appears to be very efficient. In an appendix there is an account of the examination of the urine for life insurance, and in it some useful directions and hints will be found. This work appears to be very thoroughly done, and by one with very considerable experience.

The Rearing and Feeding of Children. By Thomas Dutton, M.D. (London: H. Kimpton. 1895. Cr. 8vo, pp. 177. 2s.)—This is a subject of perennial interest, and one the importance of which is constantly gaining in general recognition. The most original section of the book is that in which the author recommends the establishment of institutions for training ordinary children's nurses; we are by no means sure that the mother who had the misfortune to have such a "trained" nurse in her nursery would not be entitled to a good deal of sympathy. The last chapter is on slight ailments, in which it appears to be suggested that drowning is an accident that may occur in an ordinary nursery.

Anleitung zur aseptichen Geburtshülfe. [Introduction to Antiseptic Midwifery.] Von Dr. Paul Straumann, Assistenzarzt an der geburtshülflichen und gynäkologischen Universitats poliklinik der königl. Charité zu Berlin. (London: Williams and Norgate. 1895. Demy 8vo, pp. 162. M 4·50.)—This is a short and clear account of the use of antiseptics in midwifery. The author begins with a history of the subject. Gonorrhœal infection is stated to be the clearest example of "auto-infection." But surely the patient does not infect herself with gonorrhœa! It is as truly brought to her from without as the microbes of septicæmia; it may be ante-infection; it is not auto-infection. Then follows a chapter on the etiology of puerperal fever—a thoughtful and judicious estimate of the possible origins of the disease. Then come detailed directions for the disinfection of the doctor, the nurse, instruments, and patient. Sublimate is recommended as the best antiseptic. The directions are full, and like those in most German books err rather on the side of excessive than of deficient precaution. In the latter part of the book matters are discussed, such as the indications for operations etc., which one would hardly think came within its scope. But the work is clear, sensible and readable.

Humanising of the Poor Law. By J. F. Oakeshott. No. 13, Humanitarian League's Publications. (London: William Reeves. 1894. Crown 8vo, pp. 40. 2d.)—The writer of this pamphlet has given a brief and accurate statement of the present administration of the Poor Law; and the suggestions that he makes, which tend towards greater humanity in dealing with the poor, agree in the main with those which have appeared from time to time in the British Medical Journal. Classification and discrimination among the inmates of the workhouse, efficient medical relief and nursing for the sick and infirm, the removal of the children from the atmosphere of the union, and the abolition of the barrack schools, and in the case of outdoor relief its limitation to the deserving poor or cases of temporary indigence. We recommend this pamphlet as a valuable contribution to the literature on Poor-law economics.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AN ENEMA RACK.

The difficulty of keeping the ordinary india-rubber enema syringe in good order available for immediate use is one of the smaller trials of the general practitioner, the house-surgeon, and the nurse. If folded up in the boxes in which they are sold, the india-rubber tubing is very apt, after no long time, to become kinked, and finally cracked. Messrs. Reynolds and Branson, of 13, Briggate Street, Leeds, have sent us a very simple and cheap (9d.) enema rack for suspending enemas so as to avoid kinking. The construction is sufficiently shown in the accompanying block. The bottle at the bottom, which is an ordinary half-ounce glass bottle, is designed to catch the drip from the enema when suspended after being cleaned.



ŒSOPHAGEAL BOUGIES.

Mr. T. Mark Hovell, F.R.C.S.Edin. (Harley Street, W.), writes: In the treatment of small pharyngeal and œsophageal strictures there is an undoubted advantage in the employment of tapering bougies and bougies with a bulbous extremity similar to that of a French urethral catheter, as stated by Mr. Mayo Robson in the British Medical Journal of February 16th, but he is mistaken in thinking that he is "introducing" these forms of bougie "to the profession." They have been in use for many years at the Throat Hospital, Golden Square, and I have often succeeded in passing a bougie of one of these shapes when an ordinary instrument could not be got through the stricture. The "radish-shaped" bougie, which is slender at its further extremity, then becomes somewhat suddenly greatly enlarged, again returning to the smaller dimensions, was introduced by Mr. Arthur Durham about twenty years ago, and acts on the same principle as those above referred to. Messrs. Mayer and Meltzer, of Great Portland Street, have not only kept for many years tapering and bulbous-pointed œsophageal bougies, but also feeding tubes of the same pattern. I have no wish to detract from the merit of Mr. Mayo Robson's observations and the practical expression which he has given to them, but I think it is only fair that similar observations, leading to similar results, made by those who have gone before should not be forgotten.

A SPLINT FOR FRACTURE OF THE PATELLA.

Mr. William Edelsten Bracey, L.R.C.P., L.R.C.S.Edin., Assistant House-Surgeon to the General Hospital, Birmingham, writes: The splint pictured in the drawings on page 542 is intended to conduce to accurate apposition of the fragments in fracture of the patella. Briefly it consists of a back splint with a footpiece and a simple apparatus for the knee, by which almost any degree of force can be applied to bring into apposition the fragments of the patella. The apparatus was ably made for me by Messrs. T. P. Salt and Co., of Birmingham, from my own drawings. Fig. A represents the apparatus for the knee. It consists of two half hoops, like those on Thomas's hip splint, to which are attached straps for strapping horse-shoe shaped graduated pads, in order to grasp the patella above and below. These half hoops are hinged to a perforated iron strip admitting of the adjustment of the intervening distance between them, and also preventing them from coming together beneath the knee. F, F are strong cords, the use of which is shown in Fig. C. The hoop above the patella has a pulley on each side at E, and the hoop below has a wire ring each side at D. Fig. B shows the padded back splint, interrupted for the reception of the iron strip beneath the knee. On the foot piece

is another iron strip (3), perforated for two thumb screws about 5 inches long, as shown in 2. Fig. c is the splint and

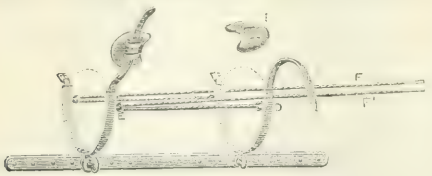


FIG. A

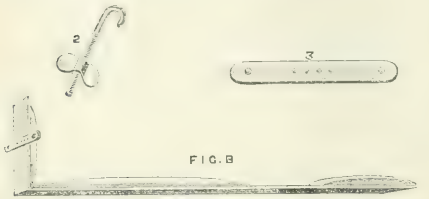


FIG. B

apparatus applied—on each side the cord is fixed to the wire ring on the lower hoop; passes round the pulley on the upper hoop, and is securely tied to the thumbscrew at the foot piece. By this means the lower pad is pulled upwards, and the upper one downwards at one and the same time,

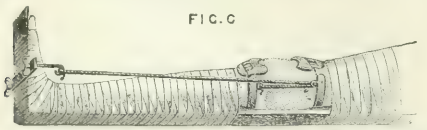


FIG. C

thus bringing the fragments together. The applied force varies as to whether or not the thumbscrews are screwed up. In treating fractured patella by this method, bandage the limb firmly to the splint and treat the swelling over the joint with an evaporating solution. On the second or third day apply the pads to the patella with only gentle pressure, which must be very gradually increased until the swelling has sufficiently subsided to allow considerable force to be applied without danger to the skin from sloughing. Fig. 1 is a section of one of the graduated pads.

A MODIFICATION OF NEVILLE'S SPLINT.

Mr. Bertram Thornton (Margate) writes: My thanks are due to Mr. T. E. Hayward for his courteous and flattering remarks about my short note on an adjustable Neville's splint. The mechanism of his modification is somewhat different to mine, though it is doubtless equally efficacious. The similarity of our views and even phraseology is sufficiently remarkable to have suggested a less courteous colleague that I had copied his paper as well as his design. As a matter of fact, it really points to the fact that various surgeons have appreciated the inconvenience of the non-adjustable Neville's splint, and that some of us have designed a simple mechanism to obviate the difficulty. I should not be surprised to hear of similar modifications. I venture to hope that this correspondence may be the means of inducing instrument makers to bring one or both of these small but useful modifications to the notice of the profession.

Dr. G. H. R. Holden (Reading) writes: I notice in the British Medical Journal of February 23rd a description of a modification of Neville's splint. In the Journal of April 18th, 1891, I described a somewhat similar modification which was made for me by Messrs. Arnold and Sons, the object being to enable weight extension to be applied in cases of oblique fracture of the tibia. The splint proved very useful and has been in use in St. Bartholomew's Hospital and the General Hospital, Birmingham. The addition of a screw for fixing the lower end on the upper would enable the splint to be used as an ordinary Neville's splint of varying length. I am under the impression that several splints were made with a fixing screw, as I suggested to Messrs. Arnold the desirability of doing so in order to make the splint more useful in private practice. The essential difference between the two modifications is that in mine the alteration in length takes place outside the suspension straps, whilst in Mr. Thornton's it takes place between the points of suspension, hence, while my pattern can be used as an extension splint and also as a fixed splint Mr. Thornton's is adapted for use as a fixed splint only.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XL.—PORTSEA ISLAND UNION, HANTS.

By the kind permission of the Board of Guardians we were enabled to go over this infirmary, which deals with a very large number of sick and infirm patients. It has accommodation for 496, and at the time of our visit 360 of these beds were occupied. We were, unfortunately, deprived of the advantage of Dr. Knott's escort, as he was absent from Portsmouth at the time.

The House.

The Board has to deal with a difficult structure, the house having been built in 1815, a period when, for some reason or other, buildings were erected which are in every way unsuitable for infirmary or hospital work. In many of the wards the wall surface is painted brick; the staircases are steep, and in some cases between walls; the passages and landings are narrow, and, generally, insufficient attention has been bestowed upon light and air space. The infirmary buildings stand behind the workhouse. They form a parallelogram, expanding at the ends into two cross wings, a recent addition to meet increasing demand for space. The wings have three storeys, the middle building two. To each wing is attached an outside escape staircase with wide landings, which are useful as balconies for the patients. There are, in addition, a small one-storeyed building holding a few beds, and a separate block of two storeys containing 45 beds in 5 wards for the female lock patients, cancer cases, ulcerated legs, and other offensive cases. This block is quite distinct, standing in a field apart. The passage in the middle building is along one side, the wards opening from it. This plan is not a good one for ventilation and lighting; in a few instances the windows light the ward from the passage, but not invariably.

The wards vary in shape and size, the larger holding as many as 25 beds, and the smaller ones in the wings 9. There are a few wards for isolation, holding one or two beds apiece. At the time of our visit the walls were being cleaned throughout the infirmary, the comparatively large number of empty beds making it a suitable time. The wards are deficient in cupboards, lockers, and all such accessories. In the new wards we saw a few lockers for the patients' possessions, but space for clothing, linen, and ward stores was very limited. In the bath rooms and scullories attached to groups of wards, the bedpans, bottles, and chambers were heaped on the ground for want of other places to bestow them; a method conducive neither to cleanliness nor economy. There is a strip of linoleum down the middle of each ward, and there are tables and benches; more armchairs would be advisable, as so many of the patients are put of bed during the day. In one small female ward in which all the women were up, there was a table, two benches, and one chair. There are no day rooms in any part of the infirmary. Two wards in the workhouse are appropriated to the aged and infirm, that for the men having thirteen beds, that for the women fifteen; these beds were all full. We may sum up our own impressions in the words of the recent admirable report of the

Local Government Board Inspectors:

"The wards, though well kept and some of them of good dimensions, are in many respects old fashioned, and far removed from what would now be considered good sick wards for acute cases. Some of the rooms are by no means deserving of even qualified approval."

Domestic and other Appliances.

We were surprised to find no sink for washing-up in the infirmary except that in the kitchen; there are no slop sinks. The closets serve groups of wards, and are mostly of the old enclosed form. The bath rooms are also arranged for groups

of wards, and in some cases are most antiquated, those in the wings being more modern. The fireplaces are open, and are placed at the sides and ends of the wards. The lighting is by gas. Hot and cold water is laid on all over the building. Ventilation is chiefly by means of the windows; there are outlets in the ceiling, but no means of ascertaining if these are clear of accumulation. The wards were quite sweet except one in the separation block, in which there was an offensive case. The intakes are on the lines of Tobin's tubes, but are too small in diameter and discharge at a greater height into the wards. There are ventilators in the floors, but these are wisely covered up by the linoleum. The bedsteads in most of the wards are modern, of hospital width, and are supplied with flock or straw bedding; a few spring mattresses are ordered.

Classification.

A careful distribution of the patients according to their ailments is hardly possible: the top floor wards are used as far as possible for the surgical patients, as these are near to the room which has been adapted for operations. The more infirm seemed to be on the ground floor. There are wards for boys and girls, but the children mix with the adults in the grounds. The male lock patients are on the ground floor in the infirmary, and have the use of the men's recreation grounds if they are able to go out-of-doors. The female lock patients are in the separate building spoken of above. The imbeciles and certified patients are well lodged in two blocks of modern construction, under paid attendants, and are never brought to the infirmary.

The Patients

are chiefly the aged and infirm, many of them being very helpless, but the acute cases are mixed up with these. There were, however, very few acute cases when we went round. There was a case of typhoid fever, recovering: one had recently died: a lad with pneumonia, and several severe cases in the female lock ward. The hospital matron informed us with pride that there had been four cases of amputation in the year, all the patients having recovered: we saw two of them: in both cases the leg had been taken off above the knee. There was also a case of lithotomy: the patient, who was over 60, was making a good recovery. Among the children there was eczema, ringworm in a chronic state, hip-joint disease in a Thomas splint, pleurisy (recovered), and a few cases of debility. The temperature of only one patient was being taken. There were two cases of cancer, but they had no open wounds.

The Midwifery Wards

are on the top floor in the female wing, two wards with separate offices. The labour ward was in the hands of the cleaners and in some confusion. The labour bed, though elaborate and expensive, seemed too narrow and somewhat unstable. There are a large number of confinements in the year: four women were in the convalescent ward with their infants. There is a trained midwife, who has an inmate as her assistant.

The System of Nursing

which has hitherto prevailed in this infirmary is one which we believe to be peculiar to this Board. The hospital matron and the midwife above referred to are trained nurses: the medical officer selects as their assistants the most capable among the male and female inmates, one to each ward; these are promoted to be nurses, clad in a kind of uniform, and paid a small sum: they have a few privileges, and are spoken of as "nurses." As far as this system can go it has answered fairly well, for the Board has to do with an intelligent and superior class of inmates: but there are serious limitations. The inmates are beyond the trainable age; the field of choice is limited to those who may chance to be in the house when a vacancy occurs; the necessity of placing them at once in a responsible position precludes their receiving even such training and testing as they are capable of undergoing; above all these inmates can hardly claim the authority and respect due to a nurse. On all hands it is admitted that the results have been far better than could have been looked for with such a system of nursing—and that these results have been attained speaks volumes for the attention of the medical officer and the painstaking care of the hospital matron; but there can be no doubt that the strain and anxiety which it imposes on the responsible officers is very great. The matron said that she had taught these attendants to dress bedsores, and that she had now not one in her wards. The supervision of the imbecile blocks is also part of the duty of the hospital matron.

At Night

the place of these paid inmates is taken by paupers from the house (not paid), one or more for each ward. We asked the hospital matron if she could rely on these night watchers to give food or stimulant during the night. She replied in the negative, so that, if there is cause for anxiety about any patient, she must rise in the night to see that he is attended to.

The Nursery.

We asked as usual for the nursery, as we have found by experience that in very few workhouses the babes are properly cared for. We found them in a large long room, airy and cheerful, with a boarded floor and two fireplaces. The room was full of infants and their mothers, the latter, if in the house, taking charge of their children until they are two years old, when they are passed on to the school. The responsible nurse is a pauper. We were sorry to see the old wooden cradle in use: it cannot be clean or wholesome, however much care may be bestowed upon it; these have a straw pad and covering quilt. We noticed also that the feeding bottles were not cleaned at once after use and put in clean water; the bottles were the proper boat shape, but they were lying in a basin with the remnants of food in them.

The Receiving Wards

are at the back of the infirmary, quite detached, and there is a ward available for quarantining purposes. If infectious disease declares itself, the patient is removed to the hospital under the rural sanitary authority.

Recommendations.

As the whole question of the nursing and of increased accommodation is under the consideration of the Board, it is not for us to prejudge the matter: a study of the report will give an idea of our opinion. This Board has been fortunate in the superior character of the inmates of the workhouse; that fact, and the care and ability of the medical officer and the hospital matron, will account for what is satisfactory in the results hitherto obtained. With the improved system which we believe that the Board is about to introduce, we look to see the infirmary of the Portsea Island Union a model to other unions, and we trust that it will serve as a training school for probationers destined to work under the Local Government Board.

IRISH WORKHOUSE HOSPITALS.

Dr. Moorhead, of Cootehill, Cavan, medical officer of the workhouse infirmary there, is to be congratulated upon having drawn attention to the generally miserable condition of the hospitals attached to Irish workhouses. The course which he has followed in collecting information by means of queries addressed to the medical officers was, he states, suggested to him by the reports we have published regarding the English workhouse infirmaries. As a result of his own experience, and from the answers which he has received he draws this picture:

Bare walls, mostly whitewashed—and how trying it is to lie on a sick bed for days gazing at a bare white wall. Sometimes roughly plastered, oftentimes not even that. Small windows, so arranged that you cannot keep a patient out of draught: bags of straw for beds and pillows laid on strangely contrived wooden stands or on the floor: no ventilation, but through doors and windows, with perhaps some holes in the wall which are generally stuffed with straw or rags. No day rooms for convalescent patients; no closets except buckets in the wards and privies in the yards; and when you recollect this involves the excreta of the patients lying in open buckets in the wards all night, you can guess what the smell of that ward will be if you have to enter it early in the morning. No bath rooms or means of giving a bath, unless you have hands enough to carry all the water required from the kitchen boiler to the ward. No night attendants except

paupers, for our few nurses are too overworked in the daytime to sit up at night. No plates, knives, forks, or cups; no means of cooking meat except boiling; no lavatories except a few tin basins; no towels, except one to a ward not changed too often. In fact, there is only one word in the English language which describes the condition of our rural workhouse infirmaries, and that is the word "squalid."

The remedy for this shocking state of things rests with the Local Government Board, and we are glad to learn that it is proposed to enlist the interest of the Irish licensing bodies, the British Medical Association, and the Irish Medical Association, in an effort to induce the body which we have named to take steps for the reorganisation of the Irish workhouse hospital system.

BRIDGEND AND COWBRIDGE.

ON February 8th this Board at a full meeting resolved to appoint a second nurse for the infirmary, as advised by the medical officer and recommended by the visiting committee. On February 15th, on the motion of a guardian absent from the previous meeting, the question was raised to rescind this motion. We are sorry to see that the chairman has allowed the discussion to be reopened, though the material laid before the Board by its medical officer was amply sufficient for its guidance, and the report based on that information had been in the hands of the guardians for some weeks previously. This is not the way to conduct public business, and it would never be tolerated except by a body of men who hold the efficient nursing of the sick pauper as of little account.

TIVERTON WORKHOUSE INFIRMARY.

THE hospital accommodation in this house is condemned by the medical officer (Dr. W. R. Haydon) "as unfit for human habitation," and when we read his report we feel the justice of his condemnation. The wards are overcrowded, insanitary, so insufficiently warmed that the old women must stay in bed to keep themselves warm; and to meet the demand on the women's side it has been necessary to borrow a ward on the men's side—a practice condemned by the inspector. We are glad to see that the editor of the *Devon and Exeter Daily Gazette* has some strong comments on the condition thus made evident by the medical officer's report, saying with truth "that the criminals in the County Gaol live in what is a palace compared with the ward for the sick women in the Tiverton Workhouse, and that the unhappy inmates of the asylum are in infinitely superior surroundings."

NATIONAL POOR-LAW CONFERENCE.

THE conference which met in the Guildhall gathered together representatives from every part of the kingdom, men and women of experience, competent to discuss the many questions that arise in the working of the Poor Law. As our columns are still occupied with reports on the condition of the sick in our provincial workhouses, we turned with much curiosity to the debate on nursing under the Poor Law. Miss Gibson, matron of Birmingham Workhouse Infirmary, read a paper on the subject, and we are glad to see that she strongly advocates the separation of the infirmary department from the workhouse, placed under the charge of a trained superintendent responsible to the guardians and the medical officer. We are also thoroughly in accord with the recommendation that trained women should be appointed as inspectors, who should inquire into the nursing and into the wants of the women and children. From the remarks that fell from other speakers during the discussion on the paper it seems that Miss Gibson carried the meeting with her.

THE COST OF A TRAINED NURSE.

AT a recent meeting of the Newton Abbot Board of Guardians the question of appointing a permanent night nurse came up for discussion. Among other details which were elicited it came out that the cost of the present untrained nurse was at the rate of £44 4s., and that the cost of a trained nurse would be £44 10s. The fact is the salary is a mere detail in the expense of an officer of that sort, and if efficiency be taken into consideration guardians will always find that skilled labour is cheap.

SENTIMENT AND SANITATION.

WE have every sympathy with that more or less sentimental feeling which prompts well-meaning guardians to remove from their inmates such a badge of pauperism as is involved in the wearing of a distinctive pauper garb. Nevertheless, when we find that at the same meeting at which the Mile End Guardians took this step they received a report from their medical officer stating that the overcrowding of the workhouse continued to a most objectionable extent, and that the male receiving ward was so overcrowded as to be detrimental to health, we cannot think that the guardians quite grasp the situation. Right as they are about the dress, that in no way lightens their responsibility regarding the overcrowding. No doubt when public opinion demands reform something must be done; in view of the condition of the wards, however, the offer of Sunday trousers is but a sop.

A NEW work entitled *Elementary Textbook of Anatomy* by Mr. Henry E. Clark, editor of Wilson's *Student's Vade Mecum*, will shortly be published by Messrs. Blackie and Son, Glasgow. The book, which is profusely illustrated, is intended for the use of hospital nurses. It supplies an amount of anatomical knowledge sufficient for the needs of those who only wish to learn the elements of the subject.

DEATHS UNDER ANÆSTHETICS.

CHLOROFORM.

THE death of a child, aged 5 years, in the Boston Hospital while under the influence of chloroform was the subject of an inquest recently. The child had been admitted for enlarged glands on the right side of the neck, and an operation was determined on for their removal. Chloroform was administered by Dr. W. J. H. Wood, who stated that the anæsthetic was well taken. Insensibility was produced in three minutes. Dr. South removed the glands, and was about to put in the stitches when the child suddenly turned livid and stopped breathing. The body was inverted and respiration began again. Some retching occurred at this time. The stitches had just been put in when the child again became livid, and respiration ceased. Artificial respiration was performed, and every endeavour was made to restore animation. During half an hour efforts at voluntary respiration were made but these finally ceased. It was stated that this was the first case of death under an anæsthetic which had occurred at the hospital. The jury returned a verdict in accordance with the medical evidence, and expressed the opinion that every care had been taken.

We are indebted to Mr. A. W. Livesay, M.B., C.M.Edin., House Surgeon to the Royal Victoria Hospital, Bournemouth, for the notes of a case which occurred some time ago in that hospital. The patient was a man, aged 43, who was admitted on November 23rd, 1894, for a transverse fracture of the right patella. On that day chloroform was administered by Mr. Livesay, and the fractured bone was cut down upon and wired by Mr. F. Winsom Ramsay. On this occasion, beyond a considerable amount of struggling, the patient bore the anæsthetic well. On January 4th, 1895, as a sinus remained, Mr. Ramsay decided to remove the wire which was suspected to be the cause of the sinus. On this, as on the previous occasion, Skinner's inhaler was used, there was some violent struggling at first, but subsequently the patient became quiet, taking regular and deep inspirations. Two drachms of chloroform had been used, and the corneal reflex had just been found to be absent, when the breathing suddenly altered in character, and after two or three long drawn slow inspirations ceased. Artificial respiration was commenced, the tongue pulled forward, the head drawn back over the end of the table, and a hypodermic syringeful of ether injected. About ten minutes after commencement of artificial respiration it was thought that a spontaneous attempt had been made at inspiration, but this was doubtful. At the time of the respiratory failure the matron, who was holding the patient's hand, could detect no radial pulse.

The *post-mortem* examination was conducted by Dr. Kinsey Morgan. The pericardium showed considerable signs of fatty infiltration, and on the heart muscle fat extended down between the muscle fibres. The heart muscle was much paler than usual and could be readily broken down under the finger nail, while the walls of the cavities appeared much thinner than normal, especially the left ventricle, which was very flabby and dilated. The heart was emptied of blood and quite flaccid, all the valves were competent. The lungs were slightly congested, the other organs appearing to be healthy excepting the left kidney which was also the seat of fatty degeneration. The fractured bone had united perfectly, the line of fracture on the surface next the joint being covered with new cartilage and not distinguishable.

The cause of death seems to have been primary cardiac failure due to a fatty heart in an alcoholic subject, probably excited by embarrassment in the struggling stage. At the time of failure of respiration there was no cyanosis of the face, neither, on the other hand, was marked pallor noticed: respiration stopped suddenly after a few long inspirations, there was nothing of the slow sighing shallow respiration commonly associated with the primary failure of respiration due to overdose.

ON Wednesday, March 13th, Dr. James Niven, M.O.H. for Manchester, will open a discussion at the Sanitary Institute on Back-to-Back Houses, and Mr. de Courcy Meade, city surveyor of Manchester, will give illustrations of various types of such houses, and the methods of dealing with this class of property. The chair will be taken at 8 P.M. by Sir Francis Sharp Powell, Bart., M.P.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, MARCH 9TH, 1895.

THE MATHEMATICAL THEORY OF EVOLUTION AND VITAL STATISTICS.

"SCIENCE is measurement." The truth conveyed by this dictum, long recognised in theory, is becoming more and more received and acted upon in practice. "Every science and every question in science," said Stanley Jevons, "is first a matter of fact only, then a matter of quantity, and by degrees becomes more and more precisely quantitative." Step by step the phenomena of inorganic Nature are being brought under the domain of exact measurement and calculation, and the biological sciences are following in the same direction. From some points of view this supersession of earlier and rougher methods may be regretted. There is no doubt that to many minds the interest of a great scientific discovery lies mainly in its general application to the facts of Nature, and tends to evaporate under the strict discipline involved in the laborious tracing out of its consequences in minute detail. For the genuine student, however, what is lost in picturesqueness is gained in truth; and the sacrifice of popular attractiveness is a small price to pay for the real advance of knowledge implied by the transfer of a scientific subject to the region of accurate computation. It is hardly necessary to point out the splendid triumphs that have been won in almost every department of physical and chemical science by the use of the quantitative methods of induction—those, namely, of "concomitant variations" and of "residues"—which methods become applicable only when the means of exact measurement exist. Even the biological sciences have in part come under the same influences. The ultimate claim of the physicist to bring the whole range of biological phenomena under his sway has not yet been made good, but physiology has owed most of its recent advances to the perfecting of apparatus for accurate physical measurement, and in the manifold questions that surround the great central doctrine of evolution it has come to be recognised that mathematical reasoning, founded on an exact numerical marshalling of data, is necessary for the final solution of many controverted points. Steps in this direction have already been taken by Milne Edwards, A. R. Wallace, Francis Galton, Professor Weldon, and others; and the Royal Society had before it last week the report, drawn up by Professor Weldon, of a committee appointed for the purpose of "conducting statistical inquiries into the measurable characteristics of plants and animals," in which some of the mathematical bearings of a systematic series of measurements are fully discussed. Certain of the data collected by Professor Weldon and Mr. H. Thomson have formed the basis of an elaborate memoir by Professor Karl Pearson in the *Philosophical Transactions of the Royal Society*, 1894, Part 1, the results contained in which, besides being of much importance for the special end in view, have a distinct bearing on the methods of vital statistics, and will accordingly be of special interest to readers of the BRITISH MEDICAL JOURNAL, for all that has been said of the importance of exact quantitative modes of induction in other departments of science applies as a matter of course to the study of preventive medicine and public health. It behoves all those who deal with these subjects from the statistical side to take every means of deriving such information from the data as they are able to afford, and of avoiding the fallacies that lurk in them, ready to entrap the unwary reasoner. These ends can only be fully attained by a rigid attention to the requirements of mathematical doctrine.

Professor Pearson begins by describing the nature of the "frequency curve," the curve, that is, constructed by measurement of several hundred or thousand individuals of the same supposed type, of which the abscissa x represents the size of a given organ, and the ordinate y the number of specimens falling within a definite small range δx of variation. "In most cases," the professor points out, "as in the case of errors of observation, these curves have a fairly definite symmetrical shape, and one that approaches with a close degree of approximation to the well-known error or probability curve." A symmetrical curve of this nature is termed for this purpose a normal curve. "When a series of measurements gives rise to a normal curve, we may probably assume something approaching a stable condition. . . . In the case of certain biological, sociological, and economical measurements there is, however, a well-marked deviation from this normal shape, and it becomes important to determine the direction and amount of such deviation. The asymmetry may arise from the fact that the units grouped together in the measured material are not really homogeneous. It may happen that we have a mixture of 2, 3, ... n homogeneous groups, each of which deviates about its own mean symmetrically and in a manner represented with sufficient accuracy by the normal curve. Thus an abnormal frequency curve may be really built up of normal curves having parallel but not necessarily coincident axes and different parameters. Even where the material is really homogeneous but gives an abnormal frequency curve, the amount and direction of the abnormality will be indicated if this frequency curve can be split up into normal curves." The method of graphically representing the incidence of various phenomena by means of curves constructed on the same general principle as those here dealt with is familiar to the vital statistician, and the same abnormality of curve resulting from what Mill called the "homogeneous intermixture of effects" is often to be met with, implying, just as in the case of the frequency curve, an imperfect diagnosis or the confusing together of forms essentially distinct. The object of Professor Pearson's paper is to discuss the dissection of abnormal frequency curves into normal curves, and thus by mathe-

matical methods to supply the means of unravelling the complexities that are or may be latent in collections of physical data. It should be noted that the only case dealt with in the paper is that in which the normal components of the abnormal curve are but two in number. Cases of higher degrees of complexity, though theoretically soluble, can hardly be dealt with in practice. "The analytical difficulties, even for the case of $n = 2$, are so considerable, that it may be questioned whether the general theory could ever be applied in practice to any numerical case." This is, however, in the instances dealt with by Professor Pearson, of comparatively small importance, inasmuch as "even when the heterogeneity may be threefold or more, the dissection into two is likely to give us, at any rate, an approximation to the two chief groups." And "in the case of homogeneous material, with an abnormal frequency curve, dissection into two normal curves will generally give us the amount and direction of the chief abnormality." An instance of the successful breaking up of an asymmetrical frequency curve is given in respect of Mr. H. Thomson's measurements of the carapace of prawns. The analysis of the curve founded on these data leads the author to "suspect that the family of prawns was not homogeneous, but contained between 2 and 3 per cent. of a giant population with a large standard deviation." On the other hand, in the instance of Professor Weldon's crabs, Professor Pearson is able to demonstrate "that there is no solution whatever of the problem of breaking up the curve of (No. 4) measurements into two normal components. . . . . The result of this investigation," he proceeds, "seems to me most important. Professor Weldon's material is homogeneous, and the asymmetry of the 'forehead' curve points to a real differentiation in that organ, and not to a mixture of two families having been dredged up." It is obvious, from these cases, that Professor Pearson's method, if found applicable to the data of vital statistics, may lead to results of the highest value. Many disorders, now well known to be distinct, have in former days been confused, to the detriment of medicine both as a science and as an art; and an analysis, say, of the curves furnished by the age incident of various diseases, on the lines laid down by Professor Pearson, should tend to the still further improvement of diagnosis and classification. Take, for instance, the age curve of pneumonia during the prevalence of epidemic influenza—the curve, that is, of which the abscissæ correspond to periods of life, and the ordinates to the percentage mortality at each period. An inspection of such a curve shows at once that it is not the normal curve of pneumonia, and a complete analysis of the disturbing element would help us to the solution of many questions of which the answers are as yet uncertain.

We are pleased to find, from a note appended to Professor Pearson's paper, that he has himself made a beginning in the application of his method to vital statistics. "Professor Lexis and Dr. Vehn," he says, "have pointed out that the curve of deaths for each year for 1,000 persons born in the same year—the true mortality curve—is also in all probability a compound curve. Since writing the above memoir I have succeeded in resolving this mortality curve into components which are not, however, all of the normal type, but become, as we approach infantile mortality, of the skew form." The details of this application and the conclusions that Professor Pearson would found on the fact observed would be of great interest to vital statisticians; and it is to be hoped, in the interest of public health and scientific medicine generally, that the author of this important memoir may continue and amplify his researches.

THE NEW FACTORY BILL.

The medical profession is so directly interested in factory legislation, both in its objects and its administration, that it is incumbent upon us to notice the considerable changes proposed in the Factories and Workshops Bill just introduced by the Home Secretary in the House of Commons. The name of Mr. Asquith will ever be associated with factory legislation, so largely has he contributed to extend and amend it; and so thoroughly does he understand its objects and its mode of administration, that propositions coming from him to enlarge its scope and perfect its machinery must be treated with the best consideration.

As the introducer of the Bill he at great length described its clauses, and showed full grasp of the subject. To quote his own words: "The aim and intention of that legislation he understood to be to provide for all classes of workers to whom it applied those reasonable conditions of safety for life and health which were, in fact, observed by wise employers and well-conducted undertakings." And evidently bearing in mind the origin and history of the factory laws, he sagaciously remarked "that the standard of safety rose from time to time;" following the advancement of hygienic science and the development of public opinion as regards the duty of the State to protect the health of the working population. The constant advance in these matters has from time to time demanded extensions and amendments of the factory laws as first enacted; and it is clear that the present state of manufacturing industries and of public opinion now demands yet further rectification of those laws.

For the present we must restrict ourselves to making a general review of the new measure. When the second reading has taken place, and time has been allowed for a careful examination of the propositions advanced, occasion will be taken to comment upon and criticise the several clauses, especially those that bear upon the interests of medical men and the views of sanitarians.

The first alteration of the Factory and Workshops Act, as at present in force, is to fix by law the amount of cubic space to be allotted to each worker in a factory or workshop. Hitherto overcrowding has been disallowed, but what constitutes overcrowding has not been defined. Hence the law against it has been inoperative.

The next and very needful amendment is to prohibit children from cleaning machinery whilst in motion. Did not the returns of accident prove how largely this has been done, it would seem scarcely credible that people, old and young, should be guilty of a proceeding so contrary to common sense and prudence. But its proved frequency suggests that Mr. Asquith should go even a step further, and interdict the practice for all ages.

A more important advance in factory control is proposed, though with some misgiving, namely, the power to call for structural alterations of factories and workshops when these are regarded as insanitary. Hesitation is felt in fixing the

whole onus of such demands upon the inspectors, and provision therefore is to be made to relieve them by referring the question as to what shall be enforced to a court of summary jurisdiction.

Another valuable clause provides that a register of all accidents be kept in every factory, and that, when the Home Secretary deems it desirable, he shall have authority to direct a special investigation of any accident reported to him.

How to lessen and keep under control the so-called "sweating system" has proved a problem difficult to solve; but Mr. Asquith does not despair of accomplishing the purpose. Its vast evils, which are not limited to the workers, but extend to the public at large, he endeavours in some measure to overcome by giving a month's notice to the employer who puts work out of the reported unhealthy state and surroundings of the place of work, and on failure to remedy the state of things complained of the Home Secretary takes power to call for the discontinuance and closure of the workshop as a place of labour.

His next effort at reform is in the matter of overtime. He considers present rules to be too lax, and the extent of overtime allowed needlessly long. He consequently proposes to enact that no "young person" under the age of 18 be permitted to work overtime, and that no child be allowed to take work home after having been occupied the legal period in a factory. Moreover, he would put a stop to the employment of young persons, whether in shops or elsewhere, and likewise to their taking home work, after completing their accustomed employment in a factory. The limitations to freedom of action on the part of women will, we apprehend, meet with great opposition, for they invade domestic rights, and will often prove prejudicial to family life and comfort.

The propriety of raising the age of children before entering upon factory labour from 11 to 12 has been a long debated question, and Mr. Asquith favours the adoption of the rule, but dreads to do so, foreseeing the great opposition it will encounter from both employers and employed, particularly in the textile districts; but possibly he will be disposed to introduce the requirement into his Bill, having received great encouragement to do so from several leading members on both sides of the House, especially from Sir John Gorst, who went so far as to undertake to move an amendment that the raising of the age be agreed to and made part of the Bill.

The next part of Mr. Asquith's programme is to bring certain occupations, hitherto exempt, under the provisions of the Factory Act. Among these laundries rank first. Another proposal is to ensure a minimum temperature of 60° in shops where sedentary work, such as the making of clothing, is carried on. Where poisonous materials are used or made he would enforce the reporting of all cases of injury from them to the inspector and certifying surgeon. Supplementary clauses call for the registration of all workshops and factories, and the making of annual returns of all persons employed, noting their sex and ages.

Such are the outlines of this important and far-reaching Bill now before Parliament, and now is the time for critical examination of its several causes, particularly of those which contain sanitary provisions and for this reason most concern medical men.

Whilst bringing under notice this important Bill, it is right to note that a small Workshop Amendment Bill, introduced as a private measure, is also before the House of Commons. Its stated purpose is to "extend the powers of inspectors over workshops." This it seeks to accomplish by obtaining the repeal of subsection (1) of Section 3 and the whole of Section 4 of the Factory and Workshop Act, 1891. In a word, it would withdraw the supervision of workshops from local authorities and transfer it wholly to the factory inspectors. This proceeding is justified by the general neglect of the duties imposed by the Act of 1891 upon local authorities, few of whom have attempted to watch and regulate workshops on any systematic principle. Moreover, on the whole, it would be a subject of congratulation were a dual authority discarded; for divided authority will never work well.

INDECENT ADVERTISEMENTS AND PAMPHLETS.

We have received a great many communications of late relative to the distribution, principally we gather through the medium of the post, of pamphlets and circulars of a very objectionable character. In some cases, apart from the question of the advertisement of quack "remedies," the tone of the pamphlets is extremely pernicious and calculated, we fear, to cause very grave mischief, especially to the young. It is much to be regretted (if such indeed is the fact) that the penal clauses of the Indecent Advertisements Act are incapable of being enforced against the authors and distributors of this revolting literature.

It is quite unnecessary to comment on the subjects forming the staple products of these pamphlet mongers. They are far too familiar to our readers already. Suffice it to say that the consequences (and only sure cure) for "nervous ailments" arising from the indiscretions of youth very generally prove the main feature, although the subject of diseases of women is often found on the title page of such pamphlets, and "remedies" for so-called cases of "obstinate obstruction" and for the limitation of families are freely advocated. It is hardly necessary to add that the "remedies" can be sent to any address with the greatest secrecy.

The latter class of cases is not dealt with in pamphlets alone. Advertisements in the newspapers of "marvellous female remedies" are of every-day occurrence, and, in fact, in nearly all sections of the press, these noxious advertisements meet the eye, in conjunction or otherwise with remedies for treatment of diseases of the nervous or general debility type.

One of our correspondents has furnished us with a cutting from an influential provincial paper containing a string of advertisements of this kind, the advertisers guaranteeing "the desired result," or intimating that "nothing can resist the action of this extraordinary preparation," and so on *ad nauseam*.

It is incomprehensible that newspapers of a high class should be found willing to admit advertisements of this nature, but it is still more anomalous that the law should be found incompetent to deal with such a state of things.

On all hands the inquiry is, Can nothing be done to prohibit the circulation of the pamphlets to which we have referred, or the publication of the advertisements in question? and it is no doubt generally felt that it is almost impossible that such things cannot be brought within the

pale of the law. Pamphlets circulate through our universities and probably public schools (one of our correspondents at the University of Cambridge informs us that he has been in the habit of receiving, on the average, two or three a month during the last three years), and the advertisements come before every member of the domestic circle.

Notwithstanding all this, we are reluctantly bound to come to the conclusion that, unless loss of life or bodily injury can be directly traceable to the administration of the "remedies" so freely advertised, there are practically no means of preventing the abomination.

Under the Indecent Advertisements Act persons are punishable by fine or imprisonment or both for publishing the same kind of matter in a different form; that is, by affixing or inscribing the same on any house, building, board, tree, or other thing so as to be visible to a person passing along any street, public highway, or footpath, or by delivering or attempting to deliver the same to any person being in or passing along any street, highway, or footpath, or thrown down any area or exhibited to public view in the window of any house or shop. But no mention is made of an advertisement in any newspaper nor of any such matter being transmitted through the post.

It is desirable in the interests of every class of the community that these indecent advertisements and pamphlets should be suppressed, and the suggestion therefore arises whether the attention of the Legislature cannot be brought to bear upon the subject, so as to secure the offences to which we have alluded being brought within the purview of the Indecent Advertisements Act, and thus provide for the obvious and serious defects at present existing therein.

The Post Office Regulations provide that no indecent or obscene print, or engraving, or book, or card, shall be sent through the post, but we are unaware of any prosecution under this provision having taken place, and probably there would be very great difficulty in connection with any such prosecution.

The Legislature has very properly interfered to prohibit under severe penalties the transmission of touting circulars by money lenders or betting agents to students in our schools and universities. It can be a matter of no less importance to place an effectual bar to the dissemination broadcast of the pamphlets to which we have referred, and to the advertisements in newspapers of what can only be regarded as direct incentives to the commission of crime.

The only new medical member of the London County Council is Dr. Ralph Gooding, of Blackheath, who was one of the two successful "Moderate" candidates for Greenwich. Dr. W. F. Blake has been re-elected for Central Finsbury, Dr. E. B. Forman for North Hackney, Dr. W. J. Collins for West St. Pancras, and Dr. G. B. Longstaff for Wandsworth.

The adjourned debate at the Royal Medical and Chirurgical Society on Affections of the Nervous System occurring in the Early (Secondary) Stages of Syphilis will be resumed on Tuesday next by Sir William Broadbent, and among those who are expected to take part in the discussion are Drs. Hughlings Jackson, Althaus, Buzzard, Ferrier, and Weber.

VACCINATION DELAYS.

Another instructive example of the harm that is being done by the long delay of the Royal Vaccination Commission in issuing their final report is furnished by the recent proceedings of the Cricklade and Wootton Bassett Rural District Council, when it was resolved to take no further steps against defaulters. This was an amending resolution; the original motion was that no person be prosecuted for not having his children vaccinated until after the report of the Royal Commission was published. To most of us, the Commission has already fulfilled the main part of its duty in collecting evidence on both sides and in giving that evidence to the world. This has been done long ago, and every man who can read can draw his own conclusions independently of the Commission. But not every man has leisure and opportunity to study the evidence, hence the Commission are doing wrong in not letting the country know their decision at once. They need only sit round a table and count their votes, a process which would take some few minutes. Their decision on the subject once published, a detailed report might follow when ready.

THE FAYRER TESTIMONIAL.

We have been asked to intimate that subscriptions—limited to 10s. 6d. for this country and Rs. 10 for India—to this fund, which has for its object, as announced in the British Medical Journal of January 26th, the painting of a portrait of Sir Joseph Fayrer, to be hung in the officers' mess at Netley, should be forwarded to the Honorary Secretary, Surgeon-Captain W. W. Webb, M.D., Odstock, Netley Abbey, Hants. *Bis dat qui cito dat.*

CAMBRIDGE SUMMER COURSE FOR MEDICAL MEN.

As will be seen from Professor Allbutt's letter, and from a fuller statement in an advertisement in this issue of the British Medical Journal, the University of Cambridge proposes to lay open some of its large educational facilities for the benefit of such medical practitioners as may wish to renew their acquaintance with modern methods in medicine and the ancillary sciences, and to see the work which is being done in the University laboratories. It is intended to arrange the fee to include board and lodging, probably in college. The University professors have offered their services, and will open their laboratories; and there can be no doubt that the interval between July 1st and July 6th will be to many a very pleasant time, in which much useful information on many topics will be gained amid such surroundings as are not often available for the purpose.

CIVIL RIGHTS DEFENCE: ANDERSON APPEALS

We publish in another column a memorandum from the Civil Rights Defence Committee and a further list of subscriptions received by it to defray the cost of further appeals to the Privy Council in the case of Mr. Anderson, which has already been on several occasions fully stated in this Journal. At the last meeting of the Committee votes of thanks to the Halifax (Nova Scotia), the Yorkshire, the Victoria, the Burmah, the East Anglian, the Lancashire and Cheshire, the South Midland, the Gloucestershire, the North of Ireland, the Shropshire and Mid Wales Branches of the British Medical Association for the expressions of sympathy with the appeal and for subscriptions to the fund, were passed and it was resolved to send communications to other Branches of the Association. It was further resolved to prosecute the appeal in the House of Lords, and in the event of failure in such appeal to carry on the matter with a view to legislation and to obtain an indemnity for Mr. Anderson from Parliament.

THE STREET EXPLOSIONS IN ST. PANCRAS.

There have never been any doubts as to coal gas having been the explosive concerned in the recent accidents. The whole subsoil of London reeks with coal gas, it being practically impossible to joint the sections of the iron mains so that they shall be capable of resisting the constant vibration of the traffic on the paved roadway, to say nothing of

sinkings from drought or from building operations, but the difficulty was how to account for the spark to which the explosion was actually due. Of course any fracture or breach in the mains or cables might produce a powerful spark, but there was no risk or suspicion of such an accident. An examination of the copper mains and the stoneware insulators showed that the effect of the current was to cause deposits on the copper mains of verdigris and on the stoneware insulators of a white incrustation composed of nearly pure caustic soda, interspersed with particles of metallic sodium produced as it was by its discoverer, Sir H. Davy. Experiments showed that though the action of mere humidity was its slow oxidation, a drop of water falling on to such an incrustation caused a momentary outburst of flame amply sufficient to ignite coal gas, and give rise to an explosion of a mixture of coal gas and common air in the requisite proportions. Orders have been given to fill up the boxes, but it would seem probable that a recurrence of these accidents could be effectually averted by substituting guttapercha for stoneware as the material for insulators in all underground chambers.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

We publish in another column a brief letter from Dr. Mead expressing regret that a letter written by him should have appeared in a recent issue of a London evening paper. As Dr. Mead's communication standing by itself does not make clear the nature of the letter to which he refers, it may be as well to explain that the letter, which was dated February 27th, was published in the *Echo* of March 1st. It was headed "The London and Counties Medical Protection Society, Limited," and prefixed to it was a list of the officers of the Society, including that of "Dr. George B. Mead, L.R.C.P., Mentmore, Newmarket, Suffolk," as one of the honorary secretaries. The letter itself is a most extraordinary production, and contains sweeping assertions derogatory to the profession of which Dr. Mead is a member, and reflecting severely upon the character of the articles appearing in our medical contemporaries. Dr. Mead, as will be seen from our correspondence columns, did not intend his communication to the Editor of the *Echo* to be published, and frankly admits that several sentences which it contained "ought not to have been written," and he desires "to withdraw them absolutely." As was to be expected, the Council of the London and Counties Medical Protection Society has felt compelled to move in this matter, and the letter from the solicitors to the Society published in the same column informs us that Dr. Mead's connection with the Society as one of its honorary secretaries has been determined.

THE SICK POOR IN PROVINCIAL WORKHOUSES: PORTSEA ISLAND.

We have under our eyes the report of the Inspectors of the Local Government Board on the Portsea Island Union Workhouse and Infirmary, as well as that of our Commissioner which appears in another column. This union is interesting as one where a special modification of the system of employing pauper inmates as nurses has been in force for some time. The medical officer selects the most promising assistants from among the able-bodied, both men and women, and these are paid a small wage, wear a sort of uniform, and have certain privileges in return for their attendance on the sick. This is clearly an advance on the plan of employing the casually chosen and unpaid pauper, inasmuch as these paid attendants have an incentive to do well, and carefulness in the selection and subsequent supervision have given results, in the words of the official report, "very much better than could reasonably be expected, and afford the strongest evidence of the devotion with which the medical officer and the hospital matron discharge their onerous duties." Nevertheless the report goes on to recommend the discarding of this plan for the organisation of a proper nursing staff. "There are at present only two trained nurses, the hospital matron and the midwife. The latter is necessarily concerned with her own department only. Consequently the whole of the sick, other than the maternity cases, are under the care of the hospital matron, and she further has the general supervision of the imbeciles' block and of all the other wards where the sick and infirm are treated, from 350 to 500, according to the time of year." The night watchers are unpaid pauper attendants, so that the hospital matron has to forego her rest at night if there are patients seriously ill. The official report also affords confirmation of our contention that all infants ought to be under the charge of a responsible trained attendant. "With the exception of one child over 2 years old, not one of the infants was being properly fed; every cot was used as a receptacle for all sorts of articles which should have had no place there. Very nearly pure milk was being given to a child 3 or 4 months old, and in other instances the mothers gave bread and milk, broth, and—as one of them expressed it—a little of what they had for themselves." We understand that the guardians are about to build increased accommodation, and to reorganise the system of nursing, and we therefore quote these passages rather in support of our general position that pauper attendance of all kinds is a mistake, however carefully supervised, than with any desire to insist unduly upon defects which are recognised and are likely to be shortly removed.

MILK SCARLATINA.

The report presented by Dr. Clothier, the Medical Officer of Health to the Hornsey Urban District Council, leaves little doubt that the outbreak of scarlet fever in Stroud Green and the neighbourhood was due to milk which had become infected in the Belper Rural District. Certain of the farms from which the dairy in Hornsey drew its milk supply were either in or close to a village in which scarlet fever had been somewhat prevalent, though in a very mild form, since the summer of last year. It has been found necessary, acting on the advice of Dr. Barwise, Medical Officer of Health for the county of Derby, and Dr. Moir, Medical Officer of Health to the District, to close the schools at Hatton, the village in question, on account of the prevalence of scarlet fever in the neighbourhood, and Dr. Clothier advises that the prohibition as regards the sending of milk to London should not be withdrawn from the dairy farms near the village until the medical officer of the county gives his permission. One of the smaller dairy farms, milk from which was used to augment the supply from one of the larger, was actually under the same roof as a cottage in which a case of undoubted scarlet fever occurred on January 8th, and another case of very bad sore throat shortly after in the person of a woman who nursed the other case. We understand that Dr. Andrews, who is investigating the matter for the London dairymen, finds a very strong preponderance of cases among those who partook of the milk from the farms at Hatton to which reference has been made. There does not seem to be any ground for suspecting that the cows themselves suffered from any disorder, and it is more probable that the milk became infected through human agency. Altogether the epidemic in the Hornsey district has affected 233 persons, but certain cases in which the infection was derived from the same source have occurred in Upper Holloway. The first case of the epidemic in Hornsey was notified on February 2nd. On February 4th 5 cases were notified; on February 5th, 16 cases; and on February 6th, 7th, and 8th together, 14 cases: on February 9th, 17 cases; and on February 11th, 58 cases. On this day the manager of the dairy at Stroud Green stopped the supply of milk from the suspected district. Up to this time 111 cases had occurred. On the three following days, February 12th, 13th, and 14th together, 73 cases were notified; on February 15th, 9 cases, and since then altogether 40 cases. There is good reason, therefore, to believe that

the stoppage of the milk supply has had a most salutary effect in arresting the progress of the outbreak, and the comparatively small number of cases notified since February 14th, the third day after the suspension of the supply of milk, may fairly be attributed to the usual secondary causes. Of the 200 cases notified down to February 18th, all but 13 got their milk from the particular dairy mentioned, while of the 60 patients in the local infectious hospital 58 got their milk from this source. As has been observed in previous epidemics of scarlatina disseminated by milk, the type of the disease appears to have been mild, and we understand that no death from the disease has been reported in the Hornsey district.

THE INFLUENZA EPIDEMIC.

The mortality from influenza in London last week showed a very considerable further increase. The deaths attributed directly to this disease, which had been 13, 24, and 111 in the three preceding weeks, further rose to 296 during the week ending Saturday last, March 2nd. This mortality greatly exceeds that recorded during the last epidemic in December, 1893, when the maximum number of deaths in any week did not exceed 164. The mortality among elderly persons from influenza again showed a marked excess, no fewer than 142, or nearly 50 per cent., of the 296 deaths being of persons aged upwards of 60 years. This corresponds to a death-rate of 26.3 per 1,000 persons estimated to be living at that age-period, while the remaining 154 deaths which occurred among persons aged less than 60 years were equal to only 2.0 per 1,000 living at that age-period. It therefore follows that among equal numbers living under 60 and above 60 years of age, to 1 death from influenza among persons aged under 60 there were 13 deaths among persons aged upwards of 60 years. Although the disease is proportionately most fatal in West London, especially in Kensington, Fulham, Chelsea, and St. George Hanover Square, it spread rapidly during the week in South London, and was especially fatal in Newington, Brixton, Battersea, and Camberwell. The deaths referred to diseases of the respiratory organs in London, which had been 480, 840, and 1,119 in the three preceding weeks, further rose to the immense total of 1,449, which were 945 above the average; of these, 977 resulted from bronchitis, against an average of 316; and 355 from pneumonia, against an average of 130. Doubtless many of the deaths primarily attributed to one or other of these diseases were indirectly due to influenza. It is worthy of note that an examination of the death-rates prevailing last week in the large English provincial towns shows that, notwithstanding the recent severe weather, low rates of mortality were recorded in most of those towns in which influenza is not fatally prevalent, notably Derby, Norwich, Leicester, Sunderland, and Gateshead, in none of which did the death-rate reach 20 per 1,000. On the other hand, the death-rate was equal to 39.2 in Plymouth, 43.4 in Halifax, 49.2 in Nottingham, and 55.5 in Liverpool, in all of which towns the epidemic is very fatally prevalent.

AMATEUR THERAPEUTICS IN INFLUENZA.

Among the dangers of modern life is certainly to be reckoned the fatal readiness with which people follow the advice of irresponsible persons in matters affecting health. Wise people, full of self-confidence, laugh at the silly performances of the victims of hypnotic suggestion; but let the suggestion come in the form of a printed paragraph, and straightway many of the wisest succumb before it. How else are we to explain the reckless manner in which all sorts and conditions of men dose themselves with dangerous drugs, recommended by the know-not-whoms as specifics for this, that, or the other malady which happens to be talked of at the moment? Just now it is "influenza" which is the excuse for people half, or more than half, poisoning themselves with drugs, before using which a physician, primed with knowledge, would ponder greatly. What are we to think of people who imagine that they are suffering, or who really are suffering, from influenza, a disease which is trying to all and dangerous to many, pouring into their unfortunate bodies such depressing drugs as antipyrin, phenacetin, and such-like compounds, and so lessening the chances of their recovery. If the craze for amateur therapeutics led people to the tisanes and herb teas of our grandmothers we would say nothing; they formed part of a bed and coddling treatment which was good. But the modern craze for self-physicking with strong drugs, and for taking them in doses such as physicians would tremble to prescribe, is utterly and absolutely bad. Not only are the doses often dangerously large—in one case brought to our notice a patient with a dilated, weak, flabby heart was taking on her own responsibility the colossal dose of 30 grains of antipyrin every three or four hours—but they are generally taken in the hope of "throwing off" the disease. It cannot be too strongly impressed upon people that a perfectly innocent influenza may become fatal by virtue of the attempt to struggle against it and throw it off, and that when the blood is disorganised by doses of antipyrin, and when the pain which ought to have driven the patient to bed is by the same means kept in check, exposure and exertion are even still more dangerous. We feel very strongly that the daily newspapers would be doing a great service to their readers if they would eschew the discussion of details as to symptoms, dangers, and specifics; the timorous are so terrified that they become ready victims to the disorder, while the bolder spirits dose themselves inordinately, and thus run risks which are absolutely needless and the gravity of which they little know.

SANITARY REFORM IN THE INDIAN EMPIRE.

During his recent visit to Burmah Mr. Ernest Hart was entertained at dinner by the medical profession in Rangoon. The chair was taken by Surgeon-Colonel Hunt, who, in proposing the toast of the health of their guest, said that Mr. Hart had been a consistent friend to all who were serving their country in the East, and had done everything in his power to forward their interests and to let their wants be known to the Government at home. The toast was received, the *Rangoon Gazette* continues, with much enthusiasm. In reply Mr. Ernest Hart referred to the opportunities which he had had during his tour in India and Burmah to become acquainted with the real nature of the work which the Government demanded from its medical officers and to understand the varied and complicated functions, requiring expert knowledge at every turn, which they were expected to discharge. The system which inflicted such monstrous burdens upon individual medical men was, he felt, a monstrous wrong. If the facts were really understood by the Government of India, and when they were really understood in England as he would take care they should be understood, it would be impossible any longer that such a system, which for purposes of mere economy demanded expert knowledge and superhuman efforts under impossible conditions, would be continued. The inevitable consequence of thus attempting to obtain from officers, however willing and devoted, more work than it was physically possible for a human being to accomplish was that grave defects existed, which it was the obvious duty of the Government to rectify. At Mandalay and at Rangoon the water supply was contaminated in a revolting manner; disease was rampant, and yet there was not in Burmah a single Government officer placed in a position to give a report such as modern science demanded on the pathogenic organisms in the water. He thought that the Branch of the British Medical Association in Burmah might render very great service by asking that work should be suitably divided, that the salaries of special appointments should be adequate, and that experts of suitable character should be employed. In his reply to the deputation of the Indian Medical Congress

Sir A. MacDonnell had promised that the Government of India would favour the creation of places for the cultivation of preventive medicine and bacteriology in India, and Mr. Hart urged that the Burmah Branch might claim the establishment of a bacteriological institute, not only scientific but clinical, officered by men who would trace scientifically the whole history of epidemics on the spot. Such an institute should be made to afford to medical officers opportunities to refresh old knowledge and acquire new. Whilst doing so such officers should receive full pay, and the time thus spent should be counted towards promotion. Mr. Ernest Hart then entered a vigorous protest against the system of demanding oppressive and needless returns and reports, a system which converted medical officers into clerks. Referring then to the criticism upon the policy in sanitary matters which he had advocated in India that it was a policy of great expenditure, he replied that it was not so in fact. It was a policy of justice to individuals, of employing efficient men to do special work, and of encouraging and enabling men to do their best. If it were made a medical duty to see that the food and water, the cooks and cookhouses, and all pertaining thereto were scientifically clean, then the policy of turning men out of barracks and of establishing costly camps at every threatening of cholera would be unnecessary. He had convinced himself further of the great probability that a large proportion of malaria could be banished if the same principles were applied. In the delta of the Ganges in the worst villages the mortality from malarial fevers was from 45 to 52 per 1,000, but in the prisons in these same districts, where the food was clean and the water boiled, the mortality was 2 to 4 per 1,000. In one instance since the water of the prison had been boiled malarial fever had become practically unknown. Dr. Kinsey had observed a similar sequence of events in Ceylon; and Dr. Evans, veterinary inspector in Burmah, had told him that where water was boiled for horses these animals did not get surra.

THE OBSTETRICAL SOCIETY AND THE MIDWIVES' DIPLOMA QUESTION.

On Wednesday night Dr. Champneys, the newly-elected President of the Obstetrical Society of London, read his inaugural address. It consisted of a sketch of the history of midwives, an older institution, he said, than the medical profession itself. He argued that midwives were absolutely necessary; therefore, the public must be supplied with competent women professing that calling. He showed how actively the Obstetrical Society had, since 1870, undertaken the examination of midwives. The results had been admirable, and there were now more candidates than ever. So far from any damage being done to practitioners, those gentlemen were, on the contrary, relieved from irksome and unprofitable labour. Dr. Champneys strongly condemned the action of the General Medical Council, especially in its offensive use of the word "infamous" in its recent resolution on the Society's diploma. The address was received by the meeting with unanimous approval, and it was agreed not only that it be published and circulated among the Fellows of the Society, but that at an appropriate date it be distributed among members of Parliament and of the General Medical Council.

MEDICAL HELP IN URGENT CASES.

Two cases have occurred recently which not only illustrate the hardships to which the poor are exposed from their inability to get a doctor in emergencies, but show the moral pressure which is thus brought to bear upon medical men, forcing them very often to take upon themselves the irksome labour of attending urgent cases without reward. Under the sensational heading "Waited for the Fee: an East End Child dies before the Doctor Attends," we find an account of an inquest on a child who was found dead by the mother on her return from seeking a doctor. It was given in evidence, according to the *Star*, that the husband was out of work, that there was no food or firing in the house, that the woman told the doctor whom she called up that she had not a sixpence and was a stranger in the neighbourhood; and yet, because this private doctor—who, like other people, has to earn his own living—does not take upon himself the public duty of providing a free medical night service for the poor in his district, he is exposed to insult at the inquest, and told that he could easily have gone "even if it had only been in charity." The coroner, however, pointed the true moral, saying that "in Poplar any doctor could be called to a case and the guardians paid the fees, and he wished the other parishes did the same." The other case occurred at Cardiff, where the doctor was exposed at the inquest to the most virulent abuse because he did not rush round the moment he was called to see a child who was stated to be in a fit. The jury, however, stated in their verdict that no blame was attaching to Dr. Milward. It is utterly absurd to abuse private practitioners for the want of forethought of local authorities.

ARE NIGHT NURSES NECESSARY FOR PAUPERS?

This question is agitating the Coventry Board of Guardians, and has been answered in the negative. The reason given for this decision is that there were at the date of the discussion only three acute cases under treatment, while we gather from the figures quoted to the guardians that the usual number in the infirmary varies from 80 to 100 inmates "paralysed, decrepit, infirm, and worn out." An argument based on such reasoning betrays lamentable ignorance of the needs of the paralysed, infirm, and decrepit inmates, whose helplessness at night should surely appeal for the same skilled nursing and attendance as is provided for them in the daytime, when, to quote again from the same report, we are told that "during the day there were a considerable number of paralysed patients who required frequent lifting." We are told that the medical officer is quite satisfied with the present nursing arrangements. Of the accuracy of that statement we have our doubts, which will remain until we are furnished with that gentleman's report. The Countess of Warwick, guardian on the Warwick Board, has, we are glad to see, grappled with this question in a business-like—and may we say woman-like?—way. In speaking of pauper night nursing she said: "This is one of the ways by which guardians sought to extract from the ward-help some equivalent for his maintenance, and as he (the pauper) did not benefit by it, he did as little as possible in this way." This is what we have always contended for, that the care of the sick should be worth somebody's while to do well—or, in other words, that the service should be rendered by a paid official. Lady Warwick also pointed out that the average inmate of the workhouse is there because he has shirked his responsibilities, and hence the pauper could never be a trustworthy attendant on the sick. The result of the discussion was that the motion to appoint a night nurse was carried by 36 votes to 1.

CENSURED UNHEARD.

On February 27th an inquest was held by Mr. H. Churton, the Birkenhead coroner, on the body of a child, aged 4 years, who died on February 25th, from what is variously described as a burn and a scald. The accident occurred on February 22nd. The wounds were dressed the same day at the Wirral Children's Hospital by the house-surgeon. The child was brought again to the hospital on February 23rd, and the mother was told to attend with it again on Monday, February 25th. The house-surgeon had in the first place used without avail every means of persuasion in his power to induce the mother to leave it in the institution. Death, however, took place before the child was brought again. The house-surgeon gave some kind of a certificate that death was due to scalding, but received no notice of the inquest. According to the report in the *Liverpool Daily Post*, no medical

evidence was called, but the coroner said that he thought the doctor ought to be there himself to give some explanation of his "extraordinary conduct," not only in giving a wrong certificate but in telling the mother not to bring the child until the following Monday (February 25th). Hereupon an inspector is reported to have interposed the irrelevant observation that the doctor was a very young man. The jury returned a verdict of accidental death, and added a rider to the effect that they were not at all satisfied with the treatment of the child by the doctor at the hospital, considering that it ought to have been taken to the hospital again on the Sunday. In an issue of the same paper two days later there is a letter from the chairman of the hospital, pointing out the gross injustice of the coroner's remarks, and contradicting most of the charges alleged. These are, however, so shadowy that they seem scarcely to deserve a serious refutation. It is very much to be regretted that a public official should lend his judicial sanction to hasty censures on professional men without affording them any opportunity of rebutting them. In this instance it would have been clearly proved that the censure was based on a misapprehension.

THE MEDICAL STAFF OF A STATE HOSPITAL.

The Committee of the Pavia Hospital recently issued disciplinary regulations with the view of removing various abuses in the service of the second and third grade of medical officers to the hospital, who are fifteen in number. They, however, were very dissatisfied with the regulations, and applied to the Committee to suspend them temporarily. This the Committee would not grant, and the doctors immediately decided to cease forthwith their attendance at the hospital. They gave notice of this decision to the Committee, the Mayor, and the Prefect, and the endeavours made by the authorities to induce them to reconsider their decision being of no avail, the Prefect issued an order to the doctors to resume their duties immediately, with the threat that if they did not do so they rendered themselves liable to the punishments decreed by the penal code. At the same time, the Prefect ordered the Hospital Committee to provide promptly substitutes in order that the work of the hospital be properly carried out. On February 8th, the doctors issued a public manifesto to the citizens giving an account of their grievances, and appealing to the citizens as to the good work they had done. They concluded by stating that, being certain of their right in defending a good cause and their dignity, they were quite sure justice would be done them.

THE DANGERS OF A RUN TO THE SOUTH.

It is not unnatural that the prolonged continuance of the cold weather and the anticipation of the rigours of an English spring should induce in the minds of many an intense longing to rush off to climes where there is warmth and sunshine, where buds are opening, and where fresh air can be enjoyed, nor can we entirely wonder at the readiness with which those who in this country are tied by their ailments to an indoor life face the discomforts of long journeys for the sake of exchanging the imprisonment of an English winter for the outdoor pleasures of the Riviera, Egypt, or Algeria. It is desirable, however, to draw attention to the risks and perils of long journeys in cold weather in the case of those who are suffering from disease, and especially from those kinds of disease which are most benefited by visits to the sunny south. With the really ill the question hardly arises, with the strong it is not of much importance, although even they find long journeys far from pleasant; those who really are tempted are those who are convalescing from illness, or are suffering from winter cough, or from the chronic types of Bright's disease or diabetes, or from the so-called "suppressed" forms of gout, and the various degrees of dyspepsia and heart disease which demand for their treatment daily exercise. Only now and again during the cold weather can these people get out of doors, and each time they do so they feel the benefit so markedly, that they would "give anything" to get away. But these are the very people to whom a long journey in cold weather may mean death. The fatigue, the disturbance of meals, the want of sleep, the excitement of the change, and, to those not too well off, the worry of the exorbitant expense of luxurious travel, and, above all, the alternations of freezing platforms and baking railway carriages, together form a dangerous combination of adverse circumstances of which all invalids should beware, an ordeal through which those suffering from disease should not attempt to rush. Where expense is no object it is doubtless possible in many ways to lighten the rigours of the journey, but it must be remarked that in many cases a tithe of the money spent on foreign travel would, if expended in making an English house reasonably comfortable, be more beneficial to an invalid. The wilfulness of man is, however, sometimes unconquerable, and if for all one's warnings invalids persist in travelling in cold weather, let them take this final caution—stay in bed for three days on arrival.

THE MICRO-ORGANISMS OF LONDON SEWAGE.

During last year an interesting report was made on the results of investigations on sewer air. A fresh report is now forthcoming on the micro-organisms of sewage, revealing some noteworthy features. The facts again come out in striking confirmation of the conclusion arrived at in the last report, that the organisms present in sewer air are not derived to any essential extent from the sewage, otherwise they would show to some degree the same relative ratio of micrococci to bacilli. Further, a large proportion of the bacteria of sewage have the property of very rapidly liquefying nutrient gelatine; so large a proportion, indeed, as to make gelatine an impossible medium to employ in estimating their numbers. In sewer air, on the contrary, organisms rapidly liquefying gelatine were found to be practically absent, a fact impossible to explain on the assumption that sewer air is able to take up bacteria from sewage. The number of micro-organisms existing in sewer air appears to be entirely dependent upon the number of micro-organisms existing in the fresh air at the same time and in the same vicinity. With the advance of the colder weather, and consequent rapid decrease in the number of micro-organisms in fresh air, there is a corresponding decrease in the number of micro-organisms of sewer air, although the temperature of the sewer air and sewage undergo comparatively slight variation. The very organisms which are most abundant in sewage were precisely those found to be absent from sewer air. The nature of the organisms in some 1,200 litres of sewer air had been carefully determined, and not once in the course of the experiments was the bacillus coli communis or any of the predominant organisms of sewage found, though the bacillus coli is present in sewage in numbers varying from 20,000 to 200,000 per cubic centimetre. This being the case, it is pointed out that it is infinitely improbable that the typhoid bacillus exists in the air of our sewers. That sewage is a common medium for the dissemination of typhoid is certain, and that sewage-polluted soil may give up germs to subsoil air is possible, but that the air of sewers themselves should play any part in the conveyance of typhoid fever appears from the results of the investigations to be in the highest degree unlikely. It is more and more evident that water supply and, as an incidental result, our milk supply constitute the chief channels of infection by which typhoid fever is communicated, and this is true also of cholera and possibly of other infectious diseases. Mr. T. Parry Laws, F.I.C., and Mr. F. W. Andrewes, M.B., have carried out the investigations, at the request of the Main Drainage Committee of the London County Council. The investigators hold that some of the ill-effects which have been erroneously ascribed to sewer air may be due to subsoil air derived from soil polluted by constant infiltration of excremental matter through a leaky drain.

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA*

VI.

THE CRITERIA FOR THE ADMISSION OF NEW REMEDIES.

By J. THEODORE CASH, M.D., F.R.S.,
Professor of Materia Medica, University of Aberdeen.

Important as the work of elimination from the old volume may be, much of the value of the coming edition of the *British Pharmacopœia* will depend upon the new remedies which find their way into it. As this extension forms an essential part of the Pharmacopœia Committee's plan, it may be advisable to consider the principles which should be borne in mind in the selection of such remedies.

The first and most important of these principles is embodied in the question, Is the knowledge of a certain remedy sufficiently favourable and precise to ensure its accurate and reliable employment in the treatment of disease? Stress has already been laid upon the advantage of having our list of remedies and their preparations no longer than is necessary to render the equipment of the practitioner as efficient as the existing state of our knowledge admits. But this limitation must go hand in hand with the recognition that only such bodies are added to the list as have an established and ascertained position. If the position is regarded as uncertain and resting upon slight or insufficiently tested evidence, by all means let the alleged remedy serve its probation outside the *Pharmacopœia*. This volume cannot anticipate to any large extent the future requirements of practice or the means of supplying them; its remedies may be in time superseded by others, its preparations of remedies may give place to better ones; all that is possible is to make use of the research and observation which is now available. But the fact that a remedy stands in the *British Pharmacopœia* should be a guarantee to the practitioner that it is of ascertained efficiency in an indicated sphere of action, whilst each and every form in which it is presented should be reliable and representative in its effect.

It will be asked from what sources is such a guarantee to be satisfied? The essential sources I believe to be therapeutical and pharmacological observations, but in many instances, according to the nature or the origin of the body, the work of the chemist, and frequently that of the botanist, must also be considered indispensable in character.

It is neither conducive to the accuracy of pharmacological research nor yet of treatment, that we should work with bodies whose constitution is not understood, and which may contain principles divergent or even antagonistic in their action. Neither is it advantageous when a new vegetable product is under consideration that any doubt should be left as to its precise botanical source. In other words, it is desirable to know exactly what we are dealing with, and whence its supply is to be drawn.

If medical science is to progress it must rest upon close observations of the action of remedies both in health and disease, and therefore the most important sources through which these can reach official recognition are pharmacology—under which term one department of experimental pathology must be considered as implied—and therapeutics. As a means of analysing action upon healthy organs and tissues, and thereby indicating the direction in which the new substance may be utilised in treatment, the former is essential; but its results must have been satisfactorily translated into the successful treatment of human disorders, before the most important requirements for admission to the *Pharmacopœia* are to be regarded as satisfied.

Such sources only will furnish us with bodies which can be employed accurately, scientifically, and effectively, and will reduce the already slackening grasp of empiricism in practice, and thereby raise the standard of treatment to a higher and more worthy level.

But, again, contributions to our knowledge from such sources must be precise and discriminative if they are to serve in this important direction. To a much larger extent in some other countries than in our own it is the business of the enterprising vendor of new remedies to find a field for his products such as may bring them into the position of utility which he no doubt honestly believes they are entitled to occupy. He is desirous of the backing of the practitioner, and it is scarcely to be expected that he should weigh the merits of such written support as he receives before he utilises it in his enterprise. But the medical man who analyses the majority of such testimonials—one is almost tempted to call them "presentation bottle testimonials"—is apt to be struck with their worthlessness as evidences of careful employment or of close observation of the effect occasioned. "I have found it excellent in kidney troubles," runs such a testimonial. In what kidney troubles?—if, indeed, we admit a term which may imply a multitude of disorders, or of symptoms of disorders, calling for widely diverse methods of treatment. How was it given? What is the *rationale* of its action? These and many other questions will suggest themselves to the practitioner who desires to follow as accurate and intelligent a course in his treatment as is possible.

Such faulty and inexact therapeutical statements are worthless, they may be positively misleading, and it is not by them that a remedy will receive its justification. The difficulty must be recognised and acknowledged of introducing supposed remedies directly into the service of therapeutics, without a previous elucidation of their action by means of pharmacological research, which renders it possible for the practitioner to find an explanation for the benefit that may accrue from their use. In a word, unless we have studied the manner of action, our employment of remedies is apt to degenerate into a more or less pronounced empiricism which goes no further than the assertion, "It does good, and therefore I use it." This is the chief origin of the inconclusive and valueless character of the support often accorded to a new remedy.

When the practitioner knows precisely what he is using, how it acts, and what are its potentialities for curative purposes, he goes to his work with a degree of confidence and of satisfaction which is otherwise denied him; and by his careful and thoughtful adaptation of his knowledge he enriches and promotes the progress of medical science. These are therefore to be regarded as the chief *desiderata* which should recommend a new body for admission into the *British Pharmacopœia*.

But beyond the main consideration, others present themselves before the new body should be enrolled in the official list. Is there a distinct necessity for its inclusion in the *Pharmacopœia*? Is it more effective than similar remedies already represented there? Is it safer, or does it possess other conspicuous advantages? Is it a body which promises to cover a field of action hitherto entirely barren or imperfectly occupied by older remedies?

There are now existent a multitude of products, hypnotic and antipyretic in properties, largely supplied by the synthetical skill of the chemist, but it would be disadvantageous to introduce most, or even many of these, unless they can be shown to possess some of the advantages just touched upon.

If a hypnotic is to be found amongst them which acts steadily and equally in simple insomnia or conditions of excitement, which does not cause any after-disturbance, which is easily administered and easily taken, it will be such an ideal remedy of its class that it would be a manifest injustice to exclude it from official recognition. But it may be questioned whether such a hypnotic is as yet available. With reference to those which have much to recommend them, a very careful eye should be cast over the records of prolonged administration, as it is quite evident that some of them are by no means free from danger when so employed, and if they stand for recognition in contrast with bodies which do not possess such a drawback, the latter should, if their action is to be otherwise depended on, be preferred.

If the value of such a remedy is so great that it must be allowed admission, in spite of a disadvantageous effect of this character, much may be done by giving information as to the time- and dosage-limit of safe administration, in order

to make its employment serviceable and free from anxiety to the practitioner. Such questions might arise with regard to official sulphonal, and the related non-pharmacopœial compounds, trional and tetronal. If theobromine and its salts are shown to be as energetic diuretically as caffeine, and at the same time to act without occasioning the sleeplessness and excitement often following the latter, a distinct gain would result from their recognition.

As it is important that the *Pharmacopœia* should be as representative as possible in the directions in which its remedies act, special attention may well be drawn to those which are serviceable in disorders, the treatment of which is imperfectly or not at all provided for.

The first examples which suggest themselves are thyroid extract, antitoxins, and serums, regarding which our knowledge is increasing from day to day. These, I understand, will be specially considered in a later article of this series. Beyond this domain, however, let me refer to one or two bodies simply by way of illustration and not because I am prepared to support their claim for admission.

If all that has been claimed for piperazine could be substantiated we should have in it an agent which would do more as a litholytic than has been fairly claimed for any one pharmacopœial remedy.

If it was considered as satisfactorily proved that orexin stimulated the appetite far more energetically than bitter tonics hitherto in use, and did not provoke gastric disorder, it would be entitled to a place amongst valuable additions to our remedies, though it would be necessary to remit it to the pharmacist in order that by the resources of his art he might attempt its conversion into a palatable form.

Had bromide of ethyl been found to be not only more prompt in action, but less dangerous for short operations, than chloroform, it might not have been deemed unworthy of introduction, for there are at the present moment few fields of action less satisfactorily provided for in the official list than that of the general anæsthetist.

If jambul had justified the earlier notices of its action in the treatment of diabetes, what a welcome addition it would have been to the meagre and inefficient equipment we possess in this direction! Hypothetical examples might be brought forward in great numbers, but these given may serve to illustrate the point.

The question whether a body otherwise desirable can be presented in a form suitable for use may still demand an affirmative answer before the official portal is opened to it. This consideration may involve the separation of active principles from antagonistic or undesirable principles associated with them in vegetable remedies, but it especially involves the retention of the valuable active properties of a remedy in such a form as can be utilised by the practitioner.

Ozone is a body to which considerable value is attributed in treatment of certain cases: but if it is to be of service, a standardised preparation, which would retain its activity would be desirable, for the employment of a gas of unknown strength would probably in its results be either useless or positively harmful. Possibly as a substitute a solution of the closely-related peroxide of hydrogen might be employed.

To recognise nitrous oxide gas or oxygen, except in such a condensed form as would admit of their development in large volume from small bulks, would be to deny them to the practitioner, and the same may be said of some of the energetic local anæsthetics, which cannot be made the objects of an ordinary dispensary process.

These bodies are all prepared extra-pharmacopœially in useful forms, and, though some of them may be held to have a sufficiently important action to recommend them, the question of their admittance to the *British Pharmacopœia* may have to turn on the possibility of recognising them in such a form as will admit of every-day employment in practice.

The first annual report of the directors of the David Lewis Trust states that the Manchester Committee has allotted out of the capital sum a grant not exceeding £70,000 towards hospitals to be erected in Gloucester Street and Stanley Grove, and that the Liverpool Committee have allocated a sum not exceeding £60,000 to the Northern Hospital to aid in the reconstruction.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

THE STORAGE OF ANTITOXIN.

Professor Thomas R. Fraser (University of Edinburgh) writes:

It seems to me that much unnecessary trouble is being taken in the storage and distribution of diphtheria antitoxin. I refer to the elaborate precautions which are required so long as it continues to retain its liquid form. I would suggest that in future the liquid antitoxin should, as soon as it has been obtained, be evaporated *in vacuo* over sulphuric acid, and stored and distributed in the form of a dry powder, whose exact quantitative relationship to the liquid antitoxin or to the toxin itself could easily be ascertained and stated. There can be no doubt that in this dry form diphtheria and all other antitoxins will retain almost indefinitely their original effects. Were this plan adopted it would also be possible considerably to reduce the bulk of fluid injected under the skin.

XLVIII.—Mr. E. F. Flynn, L.R.C.S., L.R.C.P. (Leathwaite Road, Clapham Common), writes as follows:

E. R., aged 8, was in her usual health until the afternoon of January 15th, 1895, when she felt languid and ill. The temperature was 102°, the pulse 120, and slight membranous patches were present on both tonsils. At 8 P.M. that evening the temperature was 104°, and the pulse 140; both tonsils were very much inflamed and covered with a greyish exudation, and the breath had a very foul smell; the cervical glands were enlarged and very painful, and there was intense pain in the ears. The condition was much the same at 12.30 A.M., but the child was delirious. At 5 A.M. no improvement had taken place. At 10 A.M. the temperature was 102°, and the local condition was much as before. At 3 P.M. I injected 20 c.cm. of antidiphtherial serum, prepared by Messrs. Burroughs, Wellcome, and Co., into the loose tissue at the back of the scapula. At 8 P.M. the temperature was 103°, pulse 120, but the throat condition had improved. A spray of lactic acid and papain was used.

On January 17th, at 10 A.M., the temperature was 100°, and the general and local condition was much improved. From this date she quickly improved, and made an unusually rapid recovery. About eight days after injection she had slight urticaria, and complained of pains in the limbs.

On December 17th, 1894, F. R., aged 6 years, brother of the above patient, died in 36 hours from diphtheria, not treated with antitoxin.

On December 20th Mrs. R., the mother, contracted diphtheria from kissing her child, but in a milder form, and recovered after being treated locally and constitutionally with tincture of the perchloride of iron.

REPORTS OF CASES TREATED BY DR. KLEIN'S ANTITOXIN.

The General Infirmary, Chester.

XLIX.—Reported by Richard Hamilton, M.B.Lond., House-Surgeon.

Case I.—M. S., aged 4, admitted December 10th, 1894. Membrane was present on each tonsil, the cervical glands were enlarged, and albumen was present in the urine. Temperature 100°, respirations 28, and pulse 120 per minute. There was no rash; tongue very furred. At 5 P.M. 80 m of antitoxin were injected into the back. Temperature 98.6° pulse 128, respirations 24.

December 11th. Neck was more swollen, throat cleaner; temperature normal at 4 A.M.

December 12th. Patient was better. Respirations 24, pulse 116, temperature 98°. The quantity of albumen had increased.

December 13th. The throat was free from membrane. Temperature 97.6°, pulse 120, respirations 24. Albumen ⅛ by volume.

December 15th. Albumen was ⅛ by volume. Otherwise the

child was better, drinking well. Temperature subnormal, pulse 100, respirations 24.

December 17th. Albumen was still present in large amount in the urine, which contained hyaline casts with scattered epithelial cells on them.

December 18th. Bowels were very constipated; 6 ounces of urine were passed.

December 19th. Four ounces of urine were passed during the night, albumen being very abundant.

December 20th. The albumen was slightly diminished in quantity.

December 26th. Diuretin gr.v was ordered every three hours.

January 14th, 1895. Slight paralysis of soft palate was noticed. The quantity of albumen was much diminished, the urine passed being much increased in quantity.

February 4th. Temperature rose to 102.6°. There was bronchitis and an increased quantity of urine.

February 10th. Albumen was still present in the urine; cough slight, and no physical signs were found in the chest.

February 23rd. The child continued much wasted, but showed slight improvement during the last month; temperature remained somewhat irregular, rising to 100° or more at night. Albumen was present in moderate quantity in the urine, and there was purulent discharge from the ears. She remains still under observation.

Case II.—W. M., aged 4, admitted December 13th, 1894. The illness commenced on the 11th, with croupy cough and laryngeal stridor; no distinct membrane was visible on the pharynx, but there was redness of the tonsils. On admission the patient was found to be breathing with some stridor and with sinking in of the ribs on inspiration. Respirations 32, pulse 128, temperature 100.2°. Albumen was present in the urine, and a patch of membrane was visible on the right tonsil $\frac{1}{8}$ inch broad. The patient was put in a tent bed with a steam kettle (carbolic acid 1 in 20), and 80 m of antitoxin were injected at 7.30 P.M. At 9 P.M. the breathing was easier. respirations 28, pulse 146, temperature 100°. General improvement was noted.

December 13th. The throat was clear, respirations 24, pulse 120, temperature 97.6°, and the obstruction to inspiration was relieved. The cervical glands were much more swollen.

December 14th. There was albumen ($\frac{1}{8}$ by volume) in the urine, temperature subnormal, pulse 112, respirations 24; she was drinking well.

December 15th. There had been steady improvement, the glands of the neck were smaller.

December 16th. Cough was frequent and of a croupy character when the child was excited.

January 14th. Albumen was still present in urine.

January 31st. Patient was discharged cured.

Case III.—M. M., aged 5, sister of above, admitted December 15th, 1894. She was taken ill the preceding day. On admission the tongue was dry and brown, the breathing loud and noisy, but with no stridor. Temperature 102°, respirations 32, pulse 136. The tonsils were covered with membrane, but there was none on the uvula. There was headache and very offensive discharge from nose. A trace of albumen was found in the urine. Antitoxin, 80 m, was injected into back, a kettle with carbolic acid was employed, and boracic acid lotion was used as a mouth wash. At 12 P.M. the temperature was 102°.

December 16th. There had been a steady fall of temperature to 99° at 8.45 A.M., pulse 124, respirations 24. The patch on the left tonsil was thinner, that on the right tonsil thicker and larger; the uvula also was involved. The discharge from the nose was diminished, the trace of albumen more distinct, and one piece of membrane had separated during the day.

December 16th. At 6.30 P.M. the uvula was cleaner, but the tonsils were more thickly covered; temperature 99°, respirations 24, pulse 120. The patient felt better herself.

December 17th. The uvula was free from membrane, the right tonsil thickly covered by a patch, which, however, was less firmly attached. The temperature was normal. The discharge from the nose still continued offensive.

December 18th. The tonsils were still thickly covered by membrane; temperature 98-98.6°. Antitoxin 40 m was injected.

December 19th. The temperature was 98-99°, and the throat cleaner.

December 20th. Great improvement had taken place in the appearance of the throat; temperature 97.4-99°. The urine was free from albumen.

December 21st. The throat was free from membrane, the tonsils ragged, the temperature normal, but there was a trace of albumen in the urine. Steady improvement had been noted. She was discharged cured on January 31st.

Case IV. G. J., aged 10. The illness commenced on December 25th, 1894. The patient was admitted on December 27th; temperature 102°, pulse 120, respirations 24. Both tonsils and the pillars of the fauces were covered with membrane, the patches being surrounded by intensely congested mucous membrane. The cervical glands were enlarged, especially on the right side. There was a very faint trace of albumen. Antitoxin 75 m was injected at 2.30 P.M.

December 28th. The temperature had risen with slight variations to 103.4°; the pulse-rate had increased from 120 to 136, the respirations from 24 to 32. Patient very ill, she had had a restless night; her breath was very fœtid, the right side of the neck was more swollen, the membrane extended from the right tonsil on to the soft palate. Three ounces of brandy were ordered per diem, and 80 m more of antitoxin were injected. The temperature at night varied from 101° to 102.4°, respirations from 32 to 36, pulse from 132 to 136.

December 29th. There was increased difficulty in breathing, the respirations being 36-44, and the ribs being sucked in on inspiration: pulse 140, temperature 101.4° to 102.6°. The pulse was weak and fluttering, and there was cyanosis. The heart sounds were fairly distinct. The mouth was brushed out with 1 in 100 perchloride of mercury, and 1 in 16 chloral hydrate. Liq. strychninæ m iij, and tr. digitalis m iv were given by the mouth, and the child was placed in a tent-bed. At 3.30 P.M. there was no improvement, and the symptoms were more alarming. Tracheotomy was performed, but the breathing stopped, and artificial respiration proved unavailing. Death was due to failure of the heart, together with the sucking in of blood into the bronchi.

THE VALUE OF THE BACTERIOLOGICAL EXAMINATION OF THE THROAT IN DOUBTFUL CASES OF DIPHTHERIA.

Dr. John Robertson, B.Sc., M.O.H. St. Helens, sends us the following observations on this subject: It is now well recognised by experts that many cases of membranous and other inflammations of the upper air passages cannot be distinguished clinically from diphtheria, and again the converse holds equally true, diphtheria being often overlooked. The case recorded in the British Medical Journal of January 12th, 1895, vol. i, p. 61, of a boy retaining the bacillus diphtheriæ in his throat for six months, points to the importance of examining the throats of patients before declaring them free from infection and fit to return to schools, etc. It is highly probable that the difficulty in diagnosing a certain percentage of cases of diphtheria is one of the main, if not the only, cause of the absolute failure of our present preventive measures in checking the progress of diphtheria.

In the reports of the medical inspectors of the Local Government Board on special epidemics of diphtheria in England, the frequency with which it is noted that prior to the epidemic there was a large number of ill-defined sore-throats of a quasi-diphtheric character is striking. Again, every medical man must have noted families in which several mild and apparently trivial cases of sore throat occurred prior to one or more members being attacked by diphtheria.

One of the difficulties in carrying out a systematic bacteriological examination of doubtful throat cases is to obtain a sufficient staff of competent bacteriological examiners. The appointment of such will probably turn out to be a matter for the sanitary authorities almost entirely, for as to preventive measures it is of the utmost importance that the diagnosis should be absolutely correct. It would therefore appear that the delay in sending cultures to one or more central laboratories is not so serious as might at first be imagined. A reply from the laboratory in two or three days would be of the utmost importance in enabling preventive measures to be adopted. In such doubtful cases the life of the patient does not hang upon a correct diagnosis.

The method[1] which was introduced into New York, and so successfully carried out there, is only applicable to large towns. The serum tube on which the culture is to be made is liable to become dry on its surface, and therefore to "miss fire" if not used for some months. In order to obviate the necessity for writing or telegraphing for a culture outfit every time that such is required by a medical man, I have arranged that every medical practitioner in the district for which I am medical officer of health should be supplied with a box containing two test tubes with sterilised swabs, and with directions for using these swabs. The box is then sent without delay to my laboratory, where fresh serum tubes are inoculated.

The form of swab has been slightly altered from that adopted by the New York authorities. Instead of being on a slightly curved steel wire, it is on a sufficiently strong iron wire bent as in the accompanying diagram.



A. Wire without wool

The advantages, I think, of this form are considerable in actual practice. (1) There is much greater ease and certainty in fixing the wool; (2) there is less chance of damaging the throat, especially in young children, where there is often a struggle when using the swab; and (3) the bent handle allows greater precision in applying it to the throat. So far this method has been successful, and equally so in cases where the swabs have been sent by post or rail from long distances. With such an outfit always at hand, which does not deteriorate by keeping, the minimum amount of trouble is given to the busy practitioner who in using it is acting chiefly in the interests of the public health.

The following are the results of the bacteriological examination of 53 cases between November, 1893, and December, 1894, by me. In 12 I merely got pieces of membrane or swabs, and did not ascertain any particulars as to the clinical history of the cases. In 9 out of these 12 cases the Klebs-Loeffler bacillus was present. Of the remaining 41 cases, in 11 I was informed that clinically the symptoms were those of well-marked diphtheria. In every one of these the bacillus was found. In 2 of these cases a second culture had to be taken, and in 1 a third had to be taken before the bacillus was found. The failures may have been due to a number of causes, which I believe experience alone will demonstrate. In 30 cases diphtheria could not be diagnosed definitely so far as the clinical features were concerned; 5 of these 30 cases were of suspected diphtheria in children who were desquamating. In all of these the organism was abundantly present. Of the remaining 25 doubtful cases the Klebs-Loeffler bacillus was found in 9, and was not found in 16. In several of these doubtful cases more than one culture was taken from the throat. In the 53 cases examined, therefore, the bacillus diphtheriæ was present in 34 and absent in 19.

Taken by themselves the above examinations do not give any adequate idea of the immense value that they have proved to be in actual practice. During this period the method of examination which I adopted was on several occasions changed, and I feel confident that with more experience it will be possible to be much more certain of one's results.

THE ANTITOXIN TREATMENT ABROAD.

Germany.—In the *Therapeutische Monatshefte* for February Witthauer, chief physician to the Diakonissenhaus in Halle, reports a series of 50 cases of diphtheria treated by him since October, 1894. Of these 36 were treated with serum; of this number 5, or 13.9 per cent., died; in 4 of the fatal cases tracheotomy was performed. In 20 of the children who were injected tracheotomy was required, so that the mortality after the operation was 20 per cent. All the cases, both those treated with and those treated without serum, taken together gave a mortality of not quite 14 per cent. This Witthauer considers a brilliant result having regard to the fact that in 28, that is more than half the total number of cases, tracheotomy was required, and that the majority of the cases came under treatment at rather a late period after the commencement of the illness. In former years, of cases in which tracheotomy was performed in the same institution, not more than 25 per cent. recovered. Witthauer believes that recent cases of uncomplicated diphtheria will as a rule recover after the injections. Albuminuria was slight and infrequent, certainly not more frequent than before the serum period. Eruptions of the type of erythema exudativum occurred in 2 cases. The value of Witthauer's statistics is lessened by the fact that no bacteriological examination was made.

United States.—Dr. W. T. Howard, jun., of the Pathological laboratory of the Western Reserve University of Cleveland, United States, reports what is considered to be the largest series of cases yet treated with the antitoxin in America. The body of the report is published in the *Journal of the American Medical Association* of February 9th. The 28 cases treated by Drs. Ulrich, Dickson, Dorman, Flower, Gilchrist, Morse, and Pardee, between December 17th, 1894, and January 5th, 1895, were divided into four classes, as follows: Mild 5, of medium severity 10, severe 7, malignant 6. In every case in which the remedy was used benefit was noted. In all but one case the improvement was marked. In mild cases and in cases of medium severity the affected part cleared up rapidly, decided improvement being noted within twenty-four hours. The dosage varied with the severity of the case. The mild cases received from 12 to 20 c.cm. of the remedy in all. The amount given in cases of medium severity varied from 35 to 55 c.cm. Cases classed as severe received from 28 to 79 c.cm. One of the malignant cases received 113 c.cm. in five days. The usual initial dose was the contents of one of the phials (22 to 25 c.cm.). The further treatment of the case was governed by the severity of the symptoms and the patient's apparent needs. Where it seemed necessary another dose was given within a few hours, but usually the second dose was not given until after twenty-four hours. Characteristic changes following the injections were the fall in the temperature, slowing and strengthening of the pulse, with in some cases a rise in the arterial tension. Changes in the appearance of the false membrane were marked. Within twenty-four hours it would lose the characteristic dry, dull, and opaque appearance and greyish colour, and become pale white or grey in colour, and moist and somewhat translucent in appearance. Frequently in this time it would loosen and curl up at the edges. In a variable time, from twenty-four hours to several days, the false membrane would separate, often in large masses. The mucous membrane could then be seen to be more healthy in appearance than in cases not treated with antitoxin. Drs. Flower and Dickson lay especial stress upon this point, and note the fact in the reports of their cases. After the use of the remedy, often within twenty-four hours, patients were markedly brighter in appearance. Of the 28 cases treated, 3 died—a mortality of 10.7 per cent. In all fatal cases the antitoxin treatment was instituted late in the disease. "In the first two of the fatal cases there was involvement of the larynx, and the first and last cases were severe types of mixed infection." The first two were said to be the most malignant of the epidemic, and, on account of their severity, were the first cases to receive the antitoxin. The best and surest results were obtained when the antitoxin was administered within the first forty-eight hours of the disease, though there were several malignant cases which showed rapid improvement and recovered when the treatment was not instituted until the sixth day. As soon as the supply of antitoxin warranted it an attempt was made to immunise all individuals in infected houses as far as possible. Altogether 25 persons were given antitoxin for immunisation; of these 7 contracted diphtheria, but nearly all had mild attacks. It is not improbable that several of these were already infected at the time of the injection. The amount used varied with the age and body weight, from 1 to 4 c.cm. being given. In several cases this was followed by erythema and urticaria. In one case the patient within a few minutes was seized with a violent paroxysm of sneezing which was shortly succeeded by an attack of asthma. Some hours later this was followed by a troublesome urticaria. But as a rule no discomfort followed the injection, whether it was given for treatment or for immunisation.

[1] See *Medical Record*, New York, September, 1894.

PROVIDENT CLUBS AND THE MEDICAL PROFESSION.

As weeks go by, and as from one source and another letters come to us regarding the hardship done to club doctors, and we may add the injury done to club members, by the attempts of their committees to cut down fees to the lowest level, it becomes plain that, although the firm attitude taken by the medical men of Cork in their resistance to these demands drew special attention to their proceedings, their action was but the expression of a feeling and the outcome of an abuse which is widely spread throughout the profession in all parts of the country. To the nature of these hardships we drew attention in a leading article in the British Medical Journal of March 2nd. In all parts the medical profession exhibits the same desire to encourage thrift among working people, and, by what is called the provident system, to accommodate the system of payment for medical attendance to the habits and the purses of a weekly wage-earning population, and on every hand we find this provident principle, admittedly the only one by which large masses of people can be saved from rate-paid medical service, wilfully jeopardised by those who have the management of the clubs and societies, and nearly always in the same way. It not only, then, behoves the whole medical profession to hold together in this matter, but it is desirable that the public shall be made to see that on a proper and just solution of the difficulty hangs the future credit of that system of providence and thrift which is so creditable to the working classes of the country, and of which, as self-made and self-managed institutions, they are so justly proud. The abuses on which the whole question turns are two. On the one hand, the attempt is made to screw down the payment to such a level as to be unremunerative; on the other, members are introduced into the clubs of a class perfectly able to pay ordinary fees, who, while doubtless increasing the commercial prosperity of the clubs, take away from the doctors that private practice by virtue of which alone they are enabled to attend club patients at such low rates. This latter is really the greater evil. No doctor lives on his clubs; he, and too often the club also, lives on his private practice, and it is the abolition of the wage limit in clubs which in its widespread influence touches the whole mass of general practitioners.

In a report of the Dawson Street Provident Dispensary, taken from the *Salford Reporter* of February 6th, we find the following: "We also again beg to remind the members, and the *public generally*, that this dispensary is in no sense a charity, *as each person pays for what he actually receives* in time of sickness. We would urge upon the members the desirability of requesting their friends and neighbours to join the dispensary, for by doing so they incur no heavy doctors' bills, and have no need to apply for free medical aid. There is *no wage limit*, so that application for membership is open to all." The italics are our own, but this extract illustrates pretty well the gross abuse of dispensaries (provident so-called) at the present time, and the tendency they have to degrade the profession in the eyes of the public. Our readers will notice the attempt to canvass the public generally; it is obvious that such an institution as this would as soon enrol an alderman among its members as a bricklayer, and would consider that the former equally with the latter sufficiently remunerated his doctor by the payment of his weekly pittance. How such ideas as these are fostered by the ease with which gratuitous medical service is got in so many places is aptly shown by the curious inducement held out to become members—namely, "that they will have no need to apply for free medical aid."

It is to be hoped that at the forthcoming meeting of the Association in London this subject will engage the earnest attention of the Ethical Section, and that some suitable remedy for this grave evil may be suggested.

At the Oddfellows' banquet at Lincoln again we find a speaker, while proposing "Success to the Medical Institute and its Officers," maintaining that when their members increased in wealth they should still continue to receive medical attendance as before through their society.

The history of the causes which have led to the resignation of the medical staff of the Pendleton Provident Dispensary is too long a story to give here, but underlying it also were two influences similar to those which have caused differences of like nature in other places. On the one hand was a tendency practically to dip into the medical officers' share for the payment of expenses, on the other was the determination of the committee to associate this dispensary with others which were carrying on an objectionable system of distributing circulars from door to door, and had even gone so far as to follow it up with a personal canvass, urging the working classes to join the dispensary. The medical officers of the Pendleton Dispensary declined to be associated in any way with such a system, and they resigned office. With the proceedings at Cork all the world is familiar. The struggle continues, and by the action of the club managers their members are deprived of the services of their old doctors; but what we wish to insist upon is that the matter is not a merely local one, but that it is a matter of concern to the whole profession.

At a meeting of the Irish Medical Association held at the Royal College of Surgeons on February 20th, 1895, it was resolved:

That this Council expresses its sympathy with the medical officers heretofore acting for clubs and benefit societies in their effort to resist the admission of persons of ample means to the benefit of such societies, and is of opinion that in making rules for their own guidance they have acted with propriety and within their rights.

At a meeting of the Council of the South-Eastern of Ireland Branch of the British Medical Association it was unanimously resolved:

That this Branch of the British Medical Association considers the action of the members of the medical profession in Cork with reference to the benefit clubs in that city highly commendable, and deserving of every support. This Branch also strongly condemns the conduct of any medical men who take appointments in connection with any of these bodies under existing circumstances as being most unprofessional.

The following subscriptions to the Cork Societies Medical Officers' Indemnity Fund have been received since the last list was published:

	£	s.	d.
Surgeon-Lieutenant-Colonel McCreery, Isle of Wight	2	2	0
Dr. Oakshott, Cork	3	3	0
Surgeon Foot, R.N., H.M.S. *Lapwing*	1	0	0
Dr. John B. Isaac, Broadmoor Asylum	2	2	0
Dr. H. Macnaughton Jones, Harley Street, London ...	3	3	0

All contributions to the fund should be paid to Dr. D. D. Donovan, Hon. Treasurer, 51, King Street, Cork.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

The following petition to Parliament has been drawn up by the Poor-law Medical Officers' Association:

To the Honourable the Commons of Great Britain and Ireland. The Humble Petition of the Poor-law Medical Officers' Association sheweth—

That your petitioners are an Association representing the Poor-law Medical Officers of Great Britain.

That notwithstanding the present equitable claims of Poor-law Medical Officers to superannuation under existing Acts of Parliament, your petitioners are ready to contribute a percentage deduction from their salaries and emoluments in order to secure certainty of superannuation to every Poor-law Medical Officer.

All Poor-law medical officers who have not yet sent in their petitions to Mr. Wickham Barnes, Honorary Secretary of the Association, are earnestly requested to forward them to the member of Parliament of their district for presentation before March 15th.

Wills and Bequests.—The late Mr. James Price, of Barcombe, Paignton, Devon, who died on January 23rd, has by his will bequeathed £1,000 each to Guy's Hospital, St. Thomas's Hospital, St. George's Hospital, Charing Cross Hospital, Westminster Hospital, King's College Hospital, Middlesex Hospital, Royal Free Hospital, University College Hospital, Royal Hospital for Incurables (Putney), the Liverpool Infirmary, the Liverpool Northern Hospital, the Liverpool Southern Hospital, the dispensaries at Liverpool, and £500 each to the Brompton Cancer Hospital and the Torbay Infirmary at Torquay.

CIVIL RIGHTS DEFENCE COMMITTEE.

THE ANDERSON (PRIVY COUNCIL) APPEALS.

THE Civil Rights Defence Committee has forwarded the appended list of further subscriptions to the Anderson (Privy Council) Appeal Fund.

The Committee desires to state that it is much encouraged and strengthened by the action of those Branches of the British Medical Association which have voted subscriptions from the Branch funds in aid of the defence entrusted to it of the professional and public rights involved in Mr. Anderson's appeals, and of those Branches of the British Medical Association and divisions of the London and Counties Medical Protection Society, and of those gentlemen that have kindly taken charge of lists and collected subscriptions. Time is, however, passing, and a considerable further sum, about £850, is, as has been already stated, necessary for the conduct of these appeals to the Privy Council to a satisfactory issue, and of this at least £100, but to move to the best advantage £150, is required, before the special leave to appeal can be applied for. The papers and proceedings up to this stage, including many office copies from, and searches in, Trinidad, have been prepared and taken and paid for out of the funds raised, and there is at present, when all subscriptions promised are received, a balance of £45 available.

If a uniform subscription of five shillings could be obtained from one tenth part of the medical profession of the Empire, or of half-a-crown from one fifth part or of one shilling each from one half of the profession, the defence of rights declared by all public bodies, journals, and individual members of the profession that have expressed themselves to be essential to the practice and existence of the profession, need no longer be left open to question and subject to encroachment. The Committee beg to invite co-operation in organising a general uniform subscription of five shillings or half-a-crown, and to appeal to public bodies the Committee represents and to the divisions and branches of those bodies, to aid in this work and to subscribe such sums as they can devote to it, and as will express their sense of the importance to the profession of the rights involved.

Copies of the interim report will be sent to Branches about to hold meetings, and, as far as possible, to the members of those Branches, but the Committee will be very much obliged if honorary secretaries of, and Branches and divisions of, the bodies represented on the Committee and members of the profession willing to assist in the collection of subscriptions will apply for such copies as they may require.

In continuing and renewing its appeal, the Committee conveys to each member of the bodies represented on it the appeal of each of those bodies to its own branches or divisions and to its own members: and in bringing this application urgently before public bodies and individuals that have not as yet had the appeal brought to their notice, the Committee earnestly invites consideration of the several votes adopted and opinions expressed by public bodies and men of high standing in the profession to the effect that deprived of the rights which Mr. Anderson is defending, the practice of the profession as a means of livelihood would be (as it was rendered to him) impossible, and the position of medical men one of intolerable degradation.

Lord Stamford and the Committee feel therefore the greatest confidence in appealing to every feeling of public spirit and of personal generosity for the aid necessary to enable Mr. Anderson to bring to a successful issue his difficult and meritorious defence of most valued professional and public rights.

FURTHER SUBSCRIPTIONS UP TO FEBRUARY 28TH.

	£ s. d.	£ s. d.
Dr. Barnes, Hon. Sec. East Anglian Branch British Medical Association, collected as per list:		
Dr. C. E. Addison, Colchester	0 5 0	
Dr. E. G. Barnes, Eye	0 5 0	
Dr. W. W. Baxter, Manningtree	0 2 6	
Dr. M. Beverley, Norwich	0 5 0	
Dr. Browne, Ipswich	0 4 0	
Dr. T. Carr, Braintree	0 5 0	
Dr. F. W. Clark, Lowestoft	0 5 0	
Mr. M. J. Doidge, Haverhill	0 5 0	
Dr. S. O. Eades, Ipswich	0 5 0	
Mr. Bransford Edwards, Ipswich	0 5 0	
Mr. S. Evans, Harwich	0 5 0	
Dr. W. F. Fryer, Ipswich	0 5 0	
Mr. C. G. Havell, Felixstowe	0 5 0	
Dr. G. F. Hulme, Felixstowe	0 5 0	
		3 6 6
Dr. James Barr, Liverpool, Hon. Sec. Lancashire and Cheshire Branch British Medical Association, collected as per list:		
Dr. J. Barr, Liverpool	0 10 0	
Dr. W. M. Campbell, Liverpool	0 10 6	
Dr. E. H. Dickinson, Liverpool	1 1 0	
Mr. J. Earle, Manchester	0 10 0	
Dr. Massiah, Didsbury	0 10 6	
Mr. Fuzey, F.R.C.S., Liverpool	1 1 0	
Dr. E. Rayner, Stockport	1 1 0	
Mr. G. E. Walker, F.R.C.S., Liverpool ...	1 1 0	
		6 5 0
Mr. C. Biddle, Merthyr Tydfil, per Dr. Greenwood...		1 1 0
*Dr. T. Bowen, Barbadoes		1 1 0
Mr. H. D. Brook Fareham, collected as per list:		
Mr. H. D. Brook. Fareham...	0 10 6	
Mr. G. H. Case, Fareham	0 10 6	
		1 1 0
Messrs. Jonas Brown and Sons, London... ...		1 1 0
C.S.W., per BRITISH MEDICAL JOURNAL		0 10 6
Mr. Cadge, Norwich...		1 1 0
Dr. Cant, Colchester		0 10 6
Dr. Cleveland, London		1 1 0
Mr. Corbin, Guernsey		0 10 6
Surgeon-Major J. R. Dodd, Lucknow		1 1 0
Dr. Dukes, Rugby		1 1 0
Eastbourne Medical Society		3 3 0
Dr. C. J. Evans		1 1 0
Dr. A. C. E. Harris, Birkenhead		1 1 0
Dr. Huggard, Davos Platz, further subscription ...		1 1 0
*Dr. John Hutson, Barbadoes		1 1 0
Dr. Johnson, B.N. Borneo		1 1 0
Dr. Keeling, Sheffield...		1 1 0
Mr. S. Knaggs, Huddersfield, collected as per list:		
Dr. R. C. Brown, Holmfirth	0 10 6	
Dr. T. Kilner Clarke, Huddersfield	0 10 6	
Dr. L. Demetriadi...	0 5 0	
Dr. J. Dickson, Lindley	0 10 6	
Mr. A. Donton, Huddersfield	0 10 6	
Mr. J. W. Draper, Almondbury	0 10 6	
Mr. S. Knaggs, Hudders-field	1 1 0	
Mr. W. H. Lord, Huddersfield	0 10 6	
Mr. P. MacGregor, Lockwood	0 10 6	
Dr. F. L. Mackenzie, Lockwood	0 10 6	
Mr. W. L. W. Marshall, Huddersfield ...	0 10 6	
Dr. J. Martin, Huddersfield	0 10 6	
Dr. F. W. Robinson, Huddersfield	0 10 6	
Mr. W. Robinson, Huddersfield	0 10 6	
Dr. T. Smiles, Henley	0 10 6	
		8 2 6
*Dr. J. B. Lawford, London		1 1 0
Collected as per list:		
Dr. Jas. James, London	1 1 0	
Dr. Jas. Taylor, London	1 1 0	
		2 2 0
Mr. Lloyd, Surbiton		0 10 0
Mr. D. MacAllan, London		0 10 6
Mr. Rutherford Morison, Newcastle-on-Tyne ...		1 1 0
Dr. E. Nash, London, per Dr. Bullock		0 10 0
The *Lancet* Fund:		
The Proprietors of the *Lancet*	10 0 0	
Mr. E. Nettleship, F.R.C.S., London... ...	5 5 0	
		15 5 0
Dr. N. N. Parakh, Honorary Secretary of the Burmah Branch of the British Medical Association, as per list:		
Surgeon-Lieut.-Colonel J. Backhouse, Rangoon ...	Rs.5	
Surgeon-Lieut.-Colonel O. Baker, Rangoon ...	Rs.5	
Dr. C. F. Britts	Rs.5	
Dr. B. Day	Rs.5	
Dr. W. E. Godber...	Rs.5	
Surgeon-Colonel S. B. Hunt	Rs.5	
Brigade-Surgeon-Lieut.-Colonel H. Johnstone	Rs.5	
Dr. N. N. Parakh	Rs.5	
Dr. T. F. Pelley	Rs.5	
Dr. E. M. de Souza	Rs.5	
	2 14 3	
Less exchange ...		2 5 9
Dr. S. T. Pruen, Hon. Sec. Gloucestershire Branch B.M.A., collected as per list, and remitted per Mr. G. A. Cardew:		
Mr. E. B. Bowey, Gloucester	1 1 0	
Mr. W. R. Buckell, Cheltenham	1 1 0	
Mr. O. H. Fowler, Cirencester	1 1 0	
Dr. S. T. Pruen, Cheltenham	0 10 6	
Dr. G. T. B. Watters, Stonehouse	1 1 0	
Dr. E. T. Wilson, Cheltenham	0 10 6	
		5 5 0
Mr. M. A. B. Smith, Halifax Branch of the B.M.A., vote from funds		2 0 0
Dr. Lloyd G. Smith, Hon. Sec. North London Division the London and Counties Medical Protection Society, collected as per list:		
Dr. E. Hooper May, F.R.C.S., London ...	0 5 0	
Dr. Lloyd G. Smith, London	0 5 0	
Dr. A. O. Ward, London	0 5 0	
		0 15 0

	£ s. d.	£ s. d.
Mr. W. Spong, A.M.S., Egypt, two subscriptions ...		2 2 0
Mr. R. R. Wishaw, F.R.C.S., Hon. Sec. Croydon Division London and Counties Medical Protection Society:		
Dr. H. J. Cooper, Croydon	0 5 0	
Mr H. W. Drew, Croydon	0 5 0	
Dr. P. T. Duncan, Croydon	0 5 0	
Dr. C. W. Philpot, Croydon	0 5 0	
Dr. W. Rosser, Croydon	0 5 0	
Dr. S. Parsons Smith, Croydon	0 5 0	
Dr. H. G. Thompson, Croydon	0 5 0	
Mr. R. R. Wishaw, Croydon	0 5 0	
		2 0 0
*Dr. A. J. Wegg, Jamaica		1 1 0
Mr. Wilkinson, Salop		1 1 0
Yorkshire Branch of B.M.A., vote from funds of Branch		10 0 0
Victoria Branch of B.M.A., vote from funds of Branch		10 10 0

*The Committee regrets that these were accidentally omitted in previous lists, having been received the day before the issue of the list of August 24th. The Committee will be much obliged if subscribers will call attention to any such omissions.

Cheques and postal orders should be crossed and made payable to the Anderson Appeal Fund Account, and forwarded to the Manager of the Chancery Lane Branch of the Union Bank, Chancery Lane, London, E.C.

AN APPEAL.

Mr. Henry Morris has drawn our attention to a very sad case in regard to which he thinks, and we think with him, an appeal for help may fairly be made to the profession of which the sufferer is a member.

It seems that in 1891, Mr. Charles Bryan Townshend, L.R.C.P., L.R.C.S.I., in attending a poor woman in her confinement, became inoculated with syphilis on the forefinger of the right hand. For two months he did not realise what had happened, and had no general treatment until he came under the care of Mr. Morris. He underwent prolonged treatment but shortly after Christmas last spinal disease developed, and he is now entirely crippled with complete paraplegia. He is a married man with six children, between the ages of 10 and 18 years, his wife is in bad health, and both he and his family are deprived of all means of support by an accident which may be looked upon as one of the dangers almost peculiar to the profession. Under these trying circumstances Mr. Henry Morris suggests an appeal for assistance. The circumstances of the case are also, we understand, known to Dr. Buzzard. Subscriptions will be received and duly acknowledged by his brother, the Rev. Horace Townshend, Chaplain of Islington Workhouse, 41, King Henry's Road, South Hampstead.

THE POSSIBLE CONVEYANCE OF CERTAIN WATERBORNE DISEASES, ESPECIALLY TYPHOID FEVER, BY OYSTERS AND OTHER MOLLUSCS.

THE RELATIONSHIP OF OYSTERS TO TYPHOID FEVER AND GASTRO-ENTERITIS.

Dr. H. J. Johnston-Lavis (Monte-Carlo, Monaco) writes:

In 1879, when I took up practice in Naples, I was immediately struck by the not inconsiderable number of cases of gastric disturbances, more especially amongst newcomers. These gastric disturbances ranged in violence from a slight so-called indigestion up to a virulent attack of gastro-enteritis, with marked foul breath, thickly-coated tongue, and high fever. Sometimes the symptoms pointed to the stomach being the chief organ involved, at other times the small intestine seemed to be the part mainly attacked, and in a few instances it was the large intestine that suffered most.

I was first led to the discovery of the cause by noticing that when my wife and myself partook of Naples oysters, within a few hours we became ill, she more rapidly with vomiting and chiefly stomach symptoms, myself later with diarrhœa of a dysenteric character, and accompanied by characteristic colic of the large intestine, with tenesmus. My wife was well in from 12 to 14 hours; I, on the contrary, often required several days to recover. These facts led me to question my patients, and I soon found that in a large proportion there was a coincidence of oyster eating and the onset of their illness.

A much more serious outcome of this observation was that a certain proportion of the gastro enteric catarrh attacks more or less resisted treatment, that succeeded in most, and lasted during very variable periods. These more chronic cases were always accompanied by an amount of fever out of proportion to the local symptoms of simple catarrh, and so indicated the existence of a blood infection, or at least a ptomainic poisoning. A smaller number of those attacked developed typhoid fever of typical Mediterranean facies. Thus some cases would last six, ten, or twelve days, with nausea, anorexia, diarrhœa, foul tongue, prostration, sometimes profuse sweating and pretty high fever, ranging from 38° to 40° C. or more, with an irregular jumpy character of septicæmic type. Recovery would then take place in some cases; others, however, would acquire in from the sixth to the twelfth day a more typical typhoid condition, and pass through several weeks of that disease with all its relapses and other features. Another class after one or two days of the acute stage would appear to be well, so that they went through their round of sightseeing always "feeling seedy," as they usually described it, until about the fourteenth day typhoid fully declared itself. There was yet another category in which the symptoms of typhoid developed in from twelve to sixteen days after oyster eating, though no disturbance had been apparent immediately after the consumption of that mollusc.

Once on the track, I soon turned my attention to the oysters themselves, and to my great satisfaction soon found that man had only himself to blame, and that the mollusc was only the unwilling vehicle of infection. I speak of Naples because it is the locality that I have thoroughly studied, but the lessons it teaches are applicable elsewhere. The oysters consumed in Naples and also Rome are dredged off different parts of the Italian coast where there are no drains in proximity, or any reason to suspect infection by human excreta. Most, however, are brought from the Lucrine and Fusaro lakes, and other preserves and culture waters. None of these localities are open to suspicion. The oysters when brought to Naples are kept alive till required by being enclosed in open-meshed baskets attached to a rope and sunk in the water of the Santa Lucia harbour. In the old port of Santa Lucia, now fortunately filled up, a sort of wooden pile platform ran out into the stagnant water, to which each oyster seller made fast the end of the cord of the basket with his store of oysters and other shellfish, so that in a few minutes he could haul up and remove what he required for immediate use. Oysters and other shell fish are thus kept for weeks and even months. Only 18 metres distant from this oyster store was the termination of one of the main drains, which then emptied its filth into this small, shallow, and stagnant pond-like port. The oysters here lived and fattened in a dark, opaque, sewage-laden water. Now when one of these oysters was consumed, about a teaspoonful of sewage-laden water contained in the mantle was swallowed, in which might be typhoid and cholera bacilli that but a very few hours before were in the intestine of some sufferer. We know, by the researches of De Giaxa and others, that the organisms of typhoid and cholera resist the action of salt water, but I do not know of any observation of the action of sea water on dysenteric amœbæ. Frequently I showed friends the water from these oysters under the microscope, as, in addition to the embryo molluscs, the innumerable and varied micro-organisms made it a "striking object for the microscope." Any deposit of sewage mud on the shell must inevitably contaminate the interior in the process of opening so that the experiments of De Giaxa on the destruction of different micro-organisms within the oyster tell us nothing concerning pollution from mud on its shell.

The variety of the morbid processes set up by such sewage-charged food can be accounted for by the special susceptibility of different individuals, and not unlikely by the variety of organisms that happen to predominate at one time and another in the sewage that is swallowed.

I do not think that this cause of typhoid is a very important one compared to that conveyed by water. The average

annual deaths from that disease in Naples (600,000 inhabitants) was roughly for 1879 to 1885 about 500. When the new and perfect water supply came in the latter year the deaths fell to below 100 where they have averaged ever since, showing that four-fifths of the typhoid was waterborne. The Santa Lucia oyster reserve was not altered or removed till some years afterwards (if I remember correctly in 1891), but no marked variation in the death-rate corresponds with that removal to comparatively pure water.

Here, however, is another custom which may, I think, nullify the good effects of the cleaner reserve, and is the clue to the English epidemic of oyster typhoid. The oyster merchants still have their stalls at Santa Lucia, and the oysters brought from the new and cleaner reserves are put in tubs and buckets which are filled by water dipped up the nearest at hand, and therefore in great part composed of sewage. Most of the oysters consumed in Rome come from Naples, and are no doubt packed in barrels which are filled by the nearest and questionable "sea water."

I have eaten Fusaro and Lucrine oysters many times when dredged fresh from the lakes and consumed on the spot; many friends and patients have done the same, but never to my knowledge with any evil consequences. This is a fair acquittal of the oyster itself as being the cause, and therefore demonstrates that the infection is derived from the contaminated water used to keep the mollusc alive in after its removal from its native bank. It is a proper surveillance of some of the oyster bars in London, the sanitary condition of many of which is simply filthy, and of the water used in packing and storing oysters, that will prevent us from abandoning one of the most valuable food stuffs to the overdone brain worker or the convalescing invalid. The same observations of course apply to all forms of shell fish eaten raw.

THE FUTURE REGULATION OF THE OYSTER TRADE.

ALTHOUGH we fully acknowledge the readiness with which certain large growers and importers of oysters have afforded us every facility for investigating the conditions under which their business is carried on, no one can have been surprised that some members of the oyster trade have endeavoured to throw scorn upon the suggestion that the bivalves could by any possibility be conveyers of infection.

But even within the trade the voices are not unanimous, and the *St. James's Gazette* reports an interview with a large oyster dealer, who is reported to have said: "No one would put oysters down in sewage; but oysters are put down in beds that receive diluted sewage.....I have visited all the oyster beds in Great Britain, and there are three of them that I consider dangerous, and worthy of being boycotted, and one I regard with strong suspicion.....But though there are these beds, there are millions of oysters from other beds which are perfectly safe.....The present has been the most serious oyster scare the trade has known; but it will probably be the last. The public may now look to Dr. Bulstrode (the officer appointed by the Local Government Board to inquire into the subject) to report that either certain beds should be closed, or that alterations should be made in the position of sewer outlets."

This is just the point. When the oysters leave the grower and fall under the free and unrestricted manipulations of the retail dealer, there is but small possibility of tracing the sequence of events, but certain correspondents, in the *Pall Mall Gazette* for example, have suggested with no uncertain voice that in the retail trade what looks like a native is a native, and thus it is but small satisfaction to the public to know that millions of oysters may come from a source which is immaculate, so long as thousands have a tainted parentage and there is no means of knowing which is which.

The principles which have been applied with such success to the trade in milk should be applied also to the trade in oysters. Inspection at the source should be the rule, and, as in the case of the great dairy companies, some measures should be adopted to insure that the consumer is supplied from inspected sources only.

THE SEWAGE OF GRIMSBY.

DR. C. BYRON TURNER (Grimsby) writes with reference to Dr. Newby's letter published in the BRITISH MEDICAL JOURNAL of March 2nd, p. 503:

The box system does certainly pertain here in Grimsby, but a basket system would do just as well and be quite as watertight. Some of the patients never had a pail at all, and others not until sufficient time had elapsed for infecting all the edible molluscs of the Humber. As to the burning of the excreta, I believe it is still proceeding, for we are frequently almost poisoned by an indescribable and abominable stench which emanates from the neighbourhood of the fever hospital. A reference to my notes on Some Cholera Cases at Grimsby, published in the JOURNAL of October 28th, 1893, will show how matters stood during the epidemic. The denial of Drs. Bruce and Newby, which appeared in the JOURNAL of November 11th, was to be taken with a good deal of salt. The damage to the industry of the port has already been done, and one has only to ask the man in the street who is responsible for it. We have a good deal to thank Providence for that we have any trade left.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH.—A conjoint meeting of the East and West Sussex Districts will be held at the Sussex County Hospital Brighton, on Thursday, March 28th, at 3.15 P.M.; Mr. T. Jenner Verrall in the chair. Demonstration of clinical cases by members of the hospital staff. Dinner at the Grand Hotel at 5.30; charge 6s., exclusive of wine. Arrangements will be made for conveying members from the hospital to the Grand Hotel.—FRANK HINDS, Honorary Secretary, West Sussex, 14, Steyne, Worthing; J. W. BATTERHAM, Honorary Secretary, East Sussex, Bank House, Grand Parade, St. Leonards.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—An ordinary meeting will be held on Tuesday, March 12th, at 9 P.M., at the Medical Library, 5, Pembroke Road, Portsmouth. Agenda: Dr. Claremont will read notes of a case of Œsophagismus.—C. C. CLAREMONT, Honorary Secretary, 57, Elm Grove, Southsea.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 14th, at 4 P.M.; E. H. Galton, F.R.C.S., of Brixton Hill, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him by postcard whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. Agenda: To decide where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. Election of Honorary Secretary. To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read: Dr. Goodhart: Influenza. Mr. Tubby: The Diagnosis of Pott's Disease of Spine. Dr. P. Horrocks: Post-partum Pneumonia. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, HENRY J. PRANGLEY, Tudor House, Anerley, S.E.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at the Ophthalmic Hospital, Maidstone, on Friday, March 15th, at 4 P.M. Dr. Plomley in the chair. The dinner will take place at the Mitre Hotel, Maidstone, at 6.30 P.M. Charge, 6s. 6d., exclusive of wine. To facilitate the arrangements, gentlemen who intend to dine are particularly requested to signify their intention to the Chairman, Dr. Plomley, Knightrider House, Maidstone, not later than Wednesday, March 13th. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce professional friends. Communications: Messrs. T. F. Hugh Smith and A. A. Lipscombe: Notes on a case of Rupture of the Uterus during Labour. Dr. Hoar: A case of Abdominal Section. Dr. Tirard: The Antitoxin Treatment of Diphtheria. —EDWARD GROUND, 1, Ashby Road, Maidstone, Honorary Secretary.

MIDLAND BRANCH: LINCOLNSHIRE DISTRICT.—A meeting will be held at Stamford on Thursday, March 21st. Members desirous of reading papers or exhibiting cases are requested to communicate with the Honorary Secretary, Dr. CARLINE, Lincoln.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

A MEETING was held at Aberdare on February 28th.

New Members.—Mr. R. T. Jones (Llandovery) was elected a member of the Association and Branch, and Messrs. H. H.

Hefferman (Caldicot) and J. A. Phillips (Cardiff) members o the Branch.

Amendment of Rules.—The rules were altered so as to allow of two extra purely business meetings to be held alternately at Cardiff and Swansea.

The Medical Defence Union.—A letter was read from the Secretary of the Medical Defence Union, acknowledging receipt of £14 3s. 10d. collected from members of the Branch.

Papers, etc.—Mr. J. L. Thomas (Cardiff): Value of Cystoscope in diagnosis of perplexing Bladder Symptoms; demonstration on Phantom Bladder.—Dr. J. Williams (Cardiff): Heart Function and Pelvic Lesion in the Female.—Mr. Evan Jones (Aberdare): Notes of a case of Birth in the Coffin after Maternal Death.—Mr. Trevor Jones (Aberdare): A case of Purulent Peritonitis treated by Abdominal Section with success.—Dr. P. R. Griffiths (Cardiff): On Miner's Spine.—Mr. W. F. Brook (Swansea): Notes of a case of Renal Calculus.—Mr. E. T. Collins (Cardiff) showed specimens of (*a*) Perforated Vermiform Appendix, (*b*) Uterine Polypi.

BATH AND BRISTOL BRANCH.

The fourth ordinary meeting of the session was held at Bath on Wednesday, February 27th, Dr. Shingleton Smith in the chair. There were twenty-two members present.

New Members.—The following gentlemen were elected members of the Association and Branch: R. H. Brew, L.R.C.P., L.R.C.S., Chew Magna; J. S. Mather, M.B., C.M., Bristol; W. Richardson, M.D. St.And., F.R.C.S.Ed., Bristol.

The Surgery of the Thyroid.—A discussion on the surgery of the thyroid gland was opened by Mr. R. J. H. Scott, and continued by Dr. Shingleton Smith, Mr. Bush, Mr. Barclay, Mr. Greig Smith, Dr. Spender, Mr. Stockwell, Dr. Brabazon.

THE MALAYA BRANCH.

The first annual general meeting of this Branch was held in the Raffles Library, Singapore, on December 15th, 1894, the President (Dr. Galloway) in the chair.

Annual Report.—The report of the Council, which was presented and passed, showed that the Branch has now thirty-eight members on its roll. The Treasurer's statement of accounts, which was also presented and passed, shows a balance in favour of the Branch of 235 dols.

Election of Officers.—The following office-bearers were then elected:—*President:* The Hon. W. C. Brown, M.D., Penang. *Vice-President:* Max. F. Simon, M.D., P.C.M.O., Singapore. *Members of Council:* David J. Galloway, M.B., C.M., and J. T. Leask, M.B., C.M. *Honorary Treasurer:* R. Jansz, M.B., C.M. *Honorary Secretary:* H. Campbell Highet, M.D.

A meeting of this Branch was also held on January 12th, Dr. Simon (Vice-President), in the chair, at which it was announced that Surgeon-Captain Greig had been appointed an additional member of the Council.

SPECIAL CORRESPONDENCE.

ST. PETERSBURG.

New Infectious Wards at the Army Medical Academy.—Sectional Programme of the Sixth Pirogof Conference.—The Medical Curriculum in Russia.—Status and Payment of Russian Medical Practitioners.—A Diverted Legacy.—Professor Zdekauer and the Russian National Health Society.

Hitherto the students of the Army Medical Academy in St. Petersburg have had no opportunity of gaining any practical knowledge of infectious diseases, as the clinical hospital had no wards for the reception of such cases. This reproach will shortly be removed, as the authorities of the Academy have decided to build a special *clinique* for five divisions—four respectively for cases of measles, small-pox, diphtheria, and scarlet fever, and the fifth cases of uncertain diagnosis. The buildings are already begun; they will be of stone, and will be able to accommodate fifty-two patients.

The programme of the Section *vratchebnavo buita* (the condition or standing of the medical profession) of the next Pirogof Conference, to be held in Kief, has just been issued by Professor Chrzonszczewski, the President of the Section, and is a not uninteresting document. Its main contention—that the number of medical men in proportion to the population of Russia is too small—will be admitted by all, though whether some of the suggestions made to remedy the present state of affairs will meet with equally general acceptance is doubtful. The more important suggestions are: That the number of medical faculties should be increased; that pupils who have passed out of the "real" schools should be able to enter the medical faculties as well as those who have passed out of the "classical" schools; that greater facilities should be given to women to enter the medical profession; that the five years' curriculum should be radically altered, the first two years being no longer, as now, devoted to the preliminary sciences (botany, zoology, mineralogy, physics, and chemistry), but that the student should plunge at once into purely medical studies, his first "course" consisting of anatomy, histology, physiology, pharmacognosy, and pharmacy, and that there should be only two examinations for the degree of *lékar* or of doctor. It is proposed to have only one degree, as in universities in other countries (*sic*), and thus do away with the present distinction between *lékar* and doctor.

The programme goes on to suggest the construction of a Ministry of Public Health, which should be concerned with everything connected with medicine and medical men; and further points out the most unsatisfactory legal status of the Russian general practitioner in regard to fees. That he has much to complain of is beyond question; the only law relating to his claims for payment dates back to the reign of Catharine, in the year 1779, when it was enacted that he might demand for a visit within the limits of a town, with or without prescription, 15 kopecks, and for a visit outside the town 30 kopecks. Whatever the value of a kopeck was then it is now only about a farthing, but the law apparently still holds, so that the most a doctor can legally claim for a visit in town is about 4d., and for a visit in the country 8d.! The second half of the programme approaches these and similar questions from the point of view of the laity. Altogether the discussion in this section of the Kief Congress should be a lively one.

The *Volga Véstnik* relates the following incident. A gymnasium student recently died in Kagan from diphtheria: he left a fortune of 100,000 roubles (say £10,000), half of which was to be given away in charity as his mother should direct. The body of the deceased, in accordance with his wish, was sent to Sarapul; but, notwithstanding that the body was embalmed, and in an hermetically sealed coffin, the Sarapul authorities would not allow it to be taken into any house in that town, nor even into any of the churches. As a result, the £5,000 which was to have been given to various institutions in Sarapul will now go elsewhere, probably to Kazan.

The Russian National Health Society was founded in 1878. It owed its existence and much of its success to the exertions of Professor Zdekauer, and consequently the loss it has now sustained by his resignation of the presidency of the Society is considerable. The Society has marked the occasion by presenting Professor Zdekauer with an address, and with the Alexander II. gold medal, which is only awarded for special services to the Society. It has also set aside 1,000 roubles, the interest on which shall be given every six years for the best work on Public Health; this prize will be called the Nikolai Zdekauer Prize.

CORRESPONDENCE.

THE APPROACHING REVISION OF THE *BRITISH PHARMACOPŒIA.*

Sir,—Not the least interesting of the interesting articles you have published on the revision of the *British Pharmacopœia* is that in the British Medical Journal of March 2nd by Professor Whitla. No one is more competent than he to point out defects and indicate improvements. But if he has ever served—as I doubt not he has—on a Pharmacopœia Committee, he will be well aware that he has entered upon highly debatable ground.

Excellent as many of Professor Whitla's criticisms and suggestions are, I must, however, take exception to some of them. I do not share his objection to confections. As means of giving bulky, insoluble drugs or very pungent and irritating substances in a convenient and at the same time active form they are most useful. The dose required is easily enveloped in moist wafer paper, and can be swallowed without being tasted. It has none of the uncertainty of the compressed tabloid with which we are at present a little overwhelmed. But the great advantage of the confection is the means it offers of diluting with inert substances drugs that are calculated to cause much irritability to the gastric mucous membrane if given pure.

The confection of turpentine has always appeared to me an admirable method of prescribing this drug; and I have for many years, when ordering sandal-wood oil, directed that it should be made into a confection in precisely the same manner. Capsules of sandal-wood oil and of turpentine will, in many patients, cause such an amount of gastric irritation as to contraindicate their use; but these drugs, given in the form of the *B.P.* confection, are admirably tolerated, and taken without any knowledge of their pungent and disagreeable taste. Nor am I disposed to endorse Professor Whitla's indictment of the confection of senna. Improve its composition by all means, but I do not believe the time has yet arrived when the modern dislike, not a little flavoured with affectation, of polypharmacy will be able to depose our old friend "the lenitive electuary."

Again, I could not agree with Dr. Whitla to exclude enemata. The *Pharmacopœia* should contain a few typical examples of this very useful mode of administering medicine, and the addition of a suitable and typical nutrient enema, concerning which much ignorance exists, would be valuable; and I would point out to Professor Whitla that a purgative enema is not usually intended to be "retained for any time in the body." I do not wish, however, to maintain that aloes and sulphate of magnesium are very appropriate medicines to be administered in this form.

Fluid extracts have no doubt displaced infusions and decoctions to a great extent, but infusions should not be wholly discarded. Fresh infusions of the fresh drug often prove more active than any other preparation, and if they have disappeared, to a great extent, from other *Pharmacopœias*, they have certainly not disappeared from the prescriptions of Continental physicians, who are, however, in the habit of indicating the strength of the infusion they wish, a plan which is not altogether commendable, uniformity of prescribing being the desideratum which a good *Pharmacopœia* should promote.

I am entirely in accord with Dr. Whitla in the matter of hypodermic injections. I agree with him in believing that many deaths have been caused by the incautious use of that of morphine, which is far too strong, and which is often used by young medical men and by nurses without any accurate knowledge of its strength. I have again and again asked the question "How much morphine have you injected?" and the answer I have received has been "So many minims:" and when I have asked the further question "How much morphine does that mean?" rarely has the answer shown any accurate knowledge of the amount.

Now that the young medical man knows so little of practical pharmacy or of the art of formulating, the hypodermic syringe is for ever in request, and its indiscriminate use is responsible for more serious consequences than I like to contemplate.

The aromatic iron mixture might certainly be discarded, and so, in my opinion, might the very inelegant compound iron mixture.

The lozenge, as now represented in the *Pharmacopœia*, is certainly a very poor thing; that of potassium chlorate is not only most unpleasant, but actually dangerous, and, when compared with the elegant throat pastilles prepared by Messrs. Allen and Hanburys, little can be said for its retention, but I should certainly favour the introduction of a modified lozenge on the type of these "pastilles."

The ointments undoubtedly require thorough revision. Many of them are much too strong and too hard.

I must not trespass further on your valuable space, but as you have, most wisely I think, opened your columns to this important discussion I have ventured to add my mite of criticism to one of the most valuable and suggestive of your articles.—I am, etc.,

Hertford Street, W., March 2nd. J. BURNEY YEO, M.D.

CAMBRIDGE SUMMER COURSE FOR MEDICAL MEN.

SIR,—May I call attention to an advertisement which appears in the BRITISH MEDICAL JOURNAL of March 2nd, and in a contemporary, of an invitation to qualified medical men to come to Cambridge for a course of demonstrations and lectures. It seems to us there must be many men resident out of reach of large schools, who would derive much advantage from seeing the work done in our laboratories, and hearing what is going on in modern medicine and the ancillary sciences. The fees, including board and lodging (probably in College) are fixed as low as possible.

The University Professors have generously offered their services, and will open their laboratories for demonstrations, etc.; and cases of special clinical interest will be shown by members of the honorary staff of the hospital. It will not be possible, of course, to arrange for private workers on such an occasion. But if the opportunity seems to be valued we hope to repeat the invitation in future years, and perhaps to extend the time a little.—I am, etc.,

Cambridge, March 5th. T. CLIFFORD ALLBUTT, R.P.P.

P.S.—It is of great importance to us to receive applications early, that we may know how to provide for our visitors.

THE LONDON COUNTY COUNCIL AND ITS PROPOSED MEDICAL INVESTIGATORS.

SIR,—Are we to understand that the arrangements suggested in this matter on page 500 of the BRITISH MEDICAL JOURNAL of March 2nd, represent the latest version of the defunct Council's proposals?—as, if so, they seem to differ materially from those published in the daily papers a few weeks since, and which the Public Control Committee was authorised to lay before the Lord Chancellor. These latter were to the effect that medical investigators should be appointed: (1) to inquire into causes of all uncertified deaths, assisted by qualified and responsible inquiry officers; (2) to examine the body in all such cases, and make *post-mortems* where necessary; (3) to report the results to the coroners sitting in court, who will then decide as to the necessity for holding formal inquests; (4) to give evidence at inquests, and act as medical advisers to coroners; and that one or more such medical investigators should be attached to each coroner's court and paid by salary; but if I am right in supposing that your contributor gives us the latest version of the Council's proposals, it appears that it is intended to have two new orders of medical officials instead of one, namely, a medical pathologist, which office, it is said, might very well be held by the pathologists of the metropolitan hospitals and medical investigators, who would make inquiries up to the point where a necropsy became necessary, but who, not being supposed competent to make this, would then hand the case over to the coroner's pathologist, and both of these new officials would have to give evidence on oath before the coroner sitting in his court, who would then finally decide whether an inquest was necessary or not.

As each of these proposals appears to have the same defect which attached to the proposal to make medical officers of health the medical certifiers, namely, that it would remove cases requiring expert medical investigation from the hands of those who, by their experience and practice, are the most competent to undertake such investigations, that is to say, the divisional surgeons of police, it is to be hoped that the new Council just elected will reconsider this part of their predecessors' proposals; as, if these were carried out as they stand, the current of events is not at all likely to run so smoothly as your contributor fondly hopes, but is rather likely, I fear, to lead to confusion worse confounded.

The one hundred and fifty police surgeons throughout the county of London would continue to be called in immediately by the police to all cases of sudden or suspicious deaths, the "one or more" medical investigators attached to each of the ten London coroners would come in a day or two after the fair to pick up what information they could apart from the

police, the hospital pathologist would make his *post-mortem* examination when and where he could, and the coroner, who is at present prevented, as I am informed, from calling more than one medical witness at an inquest without making a special report of the circumstances to the county council, would certainly not be allowed the luxury of three medical witnesses and would thus often lose most important evidence in cases of murder or manslaughter.

As the Council's other proposals for the reform of the coroner's court contain much that is valuable and urgently required I trust that the medical members of the new Council will endeavour to have the defect I have pointed out removed before any attempt at legislation in the matter is made, as otherwise our Association will be obliged to oppose it in every way they can.—I am, etc.,

H. Nelson Hardy,
Treasurer United Kingdom Police Surgeons Association.

Dulwich, March 5th.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

Sir,—We are instructed by the Council of the London and Counties Medical Protection Society to inform you that the letter which appeared in the *Echo* of March 1st, under the heading of the London and Counties Medical Protection Society, and signed "G. B. Mead," was wholly unauthorised by the Council, and that in consequence of such letter Dr. G. B. Mead's connection with the Society has been determined.—We are, etc.,

Le Brasseur and Oakley,
Solicitors for the London and Counties Medical Protection Society.

Lincoln's Inn, W.C.

Sir,—In consequence of Dr. Mead having ceased to be one of the honorary secretaries of this Society, the Council request that those having business with the Society will kindly address all communications to Dr. Woods, 11, Archway Road, Highgate, N., excepting communications relating to the payment of subscriptions, which should be addressed to Mr. A. G. R. Foulerton, 22, Ovington Gardens, S.W.—I am, etc.,

Hugh Woods,
Honorary Secretary,
London and Counties Medical Protection Society.

Archway Road, N.

Sir,—A letter not intended for publication but as a private letter has, I regret to see, found its way into an evening journal. It was hastily written during the incubation of a somewhat severe attack of the prevailing epidemic, and I regret to find it contains several sentences which ought not to have been written, and I beg to withdraw them absolutely.—I am, etc.,

Geo. B. Mead, L.R.C.P.

Mentmore, Newmarket, March 7th.

GENERAL PRACTITIONERS AND THE ABUSE OF CLUBS.

Sir,—In the British Medical Journal much has lately been written on the subject of the injury inflicted on general medical practitioners as a consequence of a large section of the fairly well-to-do public utilising provident dispensaries, clubs, medical aid associations, and such-like societies, in order that it may save its own pocket at the expense of the medical profession—that is, may obtain medical attendance, etc., for a totally inadequate and an absurdly small rate of payment.

Undoubtedly this is the great and growing evil by which in the present day general medical practitioners are oppressed. A by no means exaggerated illustration of this fact is found in the small town and district in which I practise. Here a medical aid association absorbs into its fold half the population, including about two-thirds of the well-to-do shopkeepers, publicans, farmers, artisans, etc. Some of the members own and live in large villa residences outside the town. The payment by members for all medical and surgical attendance and medicines is 4s. per annum for adults and 2s. for children; 10s. for midwifery.

The greatest possble benefit would, in my opinion, be conferred on the general medical practitioners throughout England if each Branch of the British Medical Association would take some similar action to that which has recently been taken by the one in Cork—would organise and form a committee to inquire (each in its own district) into the abuse of clubs, etc., and to frame a sliding scale of payments with a suitable wage limit to meet the requirements of the weekly wage earning class, and small tradespeople, and others whose means are narrowed; then to proceed and boycott all clubs and societies (including their officers) which declined to fall in line. I feel confident that if some such action was taken by the British Medical Association the bulk of general medical practitioners (not already members) would be induced to become so, and would, I doubt not, be pleased to subscribe to any fund formed to meet the expenses incurred in the carrying out this undertaking. In order to be successful action should be taken simultaneously throughout the country. What would be a reasonable wage limit to apply to membership of clubs? What should be the minimum sum paid per member to the medical officer?—I am, etc.,

A G.M.P. and a Member.

March 5th.

THE EFFECTS OF UNILATERAL CASTRATION ON THE PROSTRATE.

Sir,—Professor White, in the letter which appeared in your last issue, offers a suggestion which has no doubt been in the minds of many surgeons since the question of castration for prostatic enlargement has come into prominence. It is, in effect, that possibly all that is needed may be obtained by the removal of one testicle instead of both.

It may interest him to learn that, in a letter sent by me to Dr. Mansell Moullin about ten days ago, I proposed that as a safeguard against certain untoward consequences resulting from operation, an interval should be left between the removal of the two organs. In pursuance of this policy, I, on February 25th, performed unilateral castration in the case of a man 65 years of age, whose catheter history covered a period of five years. The patient has done well, and is making a good recovery, but the time is yet too short for us to be able to speak as to the changes in the prostate.

In his reply to my note Dr. Moullin commended my proposal, and added: "I have made up my mind to try unilateral castration in the next case for another reason. It seems, from several observations of Lennox and Watson, that unilateral castration is followed by unilateral atrophy. If one side of the prostate could be got rid of in this way it might make the exit from the bladder sufficiently free, without exposing the patient to such risk, or rendering him a eunuch completely."

I have mentioned above that within my knowledge certain disastrous consequences have attended bilateral castration for prostatic hypertrophy. I believe I am accurate in stating that out of four cases recently operated on three have died. In two of the cases the fatal issue was said to have been due to the supervention of acute mania, and in the third to cerebral apoplexy.

Henry E. Clark.

St. Mungo's College, Glasgow, March 5th.

CHRONIC RENAL DISEASE IN THE INSANE.

Sir,—As Dr. Bond, in the British Medical Journal of March 2nd, on referring to my recent paper on Arterial Degeneration in the Insane,[1] writes that I had found chronic interstitial nephritis in 70 per cent. of the *post-mortem* examinations, I think it only right to mention that in that percentage are included all forms of renal disease and that it is not limited to one variety of Bright's disease alone. Possibly this fact was not stated with sufficient clearness. Nevertheless, a very large proportion of the kidneys there referred to are included under the class of which Dr. Bond specially speaks, and but few were of the large fatty or lardaceous form. The exact proportions I am not at this moment able to give.—I am, etc.,

Cecil F. Beadles.

London County Asylum, Colney Hatch, N.

SCARLATINIFORM RASH IN INFLUENZA.

Sir,—May I suggest that notes should be kept by practitioners during the present extensive epidemic of influenza of cases of this disease which are accompanied by a scarlatina-like rash? It is, I think, a well established fact that, in children especially, influenza may be accompanied by a rash indistinguishable from scarlet fever. These cases are necessarily very perplexing, and we are sadly in need of further

[1] *Journal of Mental Science*, January, 1895.

observations from general practitioners. Is not this a subject worthy of "collective investigation"?—I am, etc.,

Manchester, March 5th. HENRY ASHBY.

OBITUARY.

SIR WILLIAM SCOVELL SAVORY, BART., F.R.S.,

Surgeon Extraordinary to the Queen, Consulting Surgeon to St. Bartholomew's Hospital, Surgeon to Christ's Hospital.

SIR WILLIAM SAVORY died, after a short illness, on the morning of March 4th. The deceased surgeon, Dr. Habershon informs us, had recently been subject to nervous symptoms. On February 21st he consulted that physician, who found him much distressed by the death of Mr. Hulke, and also anxious about his grandson, who had influenza. He was under daily observation, Dr. Pavy as well as Dr. Habershon keeping watch over him. The temperature, carefully taken, was subnormal till the morning of March 1st, when it rose to 100.8°, the patient felt very poorly and there was cough. He was put to bed. Sister John of St. Bartholomew's was summoned to nurse him. By the evening he became restless, and on the morning of March 2nd the temperature was 101°, the pulse steady and a little over 80. After appearing worse on Saturday night, he awoke and felt much better on Sunday morning, March 3rd. In the course of the day signs of cardiac failure set in, but yielded to active stimulation. Early on Monday morning the temperature rose to 103°, and sudden and alarming collapse set in at 4 A.M., with rapid breathing and general intense pulmonary congestion. In spite of remedies Sir William, conscious almost to the last, sunk at 10.20 A.M. "No broncho-pneumonia," said Dr. Habershon, "could be observed from first to last, and the rapid development of the bronchitic symptoms, which were not purely cardiac (for the pulse was never frequent), was rather of the nature of a profound vasomotor paralysis so commonly seen in these fatal cases of influenza. He seemed to have no power of resistance, and was, no doubt, when it attacked him, in the worst possible condition to meet an illness."

Sir William Savory was a native of London, son of Mr. William Henry Savory, a merchant, and was born near Tower Hill in 1826. His professional life was intimately associated with St. Bartholomew's Hospital, where he entered as a student in 1843. In 1847 he became a Member of the College of Surgeons, and next year took the degree of M.B.Lond. He then was appointed House Surgeon to Sir William Lawrence, whom he ever afterwards held up as the ideal of a gentleman and a surgeon. Lawrence, on his part, had unbounded confidence in young Savory. In 1852 Savory took the Fellowship of the College, after examination, a few months before Sir Joseph Lister passed, and Dr. Mouat, C.B., V.C., was elected Fellow. Savory became Demonstrator of Anatomy to his medical school, and in 1859 was Hunterian Professor of Comparative Anatomy and Physiology at the College. He afterwards held several appointments on the teaching staff at his medical school; he was especially popular as lecturer on the then dry subject of physiology, which he knew how to render interesting; his clinical lectures on surgery were even better. He was a great master of elocution; his delivery was clear and accompanied with graceful gestures, in which the hand and brow took the chief part. He had, before venturing to speak before a class, received instruction from the celebrated West End clergyman, Mr. Bellew, who, as far as eloquence was concerned, was indisputably a model preacher. Savory exceeded his master in oratorical excellence. The handsome intellectual face and commanding figure of the deceased surgeon will long be remembered.

Savory was appointed Assistant Surgeon to St. Bartholomew's Hospital in April, 1861, and in April, 1867, on the resignation of Mr. Wormald, he became full Surgeon, retiring in November, 1891. As a surgeon Savory was a cautious operator, working equally well with right or left hand, good at diagnosis, and a capital clinical teacher, especially as far as his house-surgeons and dressers were concerned.

After his retirement he continued to take an active interest in many medical questions. The Royal British Nurses' Association was particularly favoured by him. While still surgeon he had officiated as President of the College when the Queen laid the foundation stone of the Examination Hall. In 1890 he received the honour of a baronetcy.

Savory's long connection with the College of Surgeons began in 1870, when he was elected member of the Court of Examiners. In 1875 he was made one of the first members of the then new Board of Examiners in Anatomy and Physiology. This innovation was a reform preceding the yet greater reform which is known as the Conjoint Scheme. In his views on improving medical education Savory was thoroughly sound, and his share in the good cause will not be forgotten. He was a most searching examiner, and his questions were grouped so that the candidate was tested within a short time over a wide range of knowledge. Each question was delivered in the clear voice with which he uttered his commands or opinions elsewhere than in the examination hall. His test was ever thorough. Eloquence is not always sympathetic, hence Savory as an examiner was dreaded by dunces and by timid men, but he was ever kindly to the latter whenever he perceived their fear, though to the dunce he was designedly sarcastic in speech. He looked upon a random answer or a wilful guess as an act of dishonesty. Whilst he endeavoured to overcome a candidate's nervousness, he abhorred any cowardly request not to be too hard. "I would rather be plucked at once," he observed on one occasion, "than make an appeal *ad misericordiam*." Thus he had no mercy on a candidate who would say, "I have read up everything except what you ask me; kindly examine me in something else. My demonstrator, Mr. Smith, told me yesterday I was the best in his whole class." Such incidents explain some of the unaccountable rejections about which a little fuss is occasionally made. Savory held that gentlemen addicted to whining and to self-pity were not suited for the medical profession. Lastly his firmness, for it cannot be justly called severity, became widely known, and had an excellent effect in stimulating demonstrators and students.

In 1877 Sir William Savory became a member of the Council of the College of Surgeons, and, being re-elected, held his seat till 1893. His strong personality soon made itself felt: he showed his full mental activity, and accordingly obtained a position of great influence in the College counsels. Clouds began to gather round the College whilst the deceased was on the Council. In 1885 he became President in due rotation. His attitude at the early and stormier meetings of Fellows and Members about that date was dignified and far more conciliatory than was expected beforehand. Hence his opponents openly expressed their admiration as well as respect for him as chairman. Next year it was clear that a strong man was needed more than ever for President. The reformers had pointed out repeatedly the absurdity of the election of presidents by rotation. It happened that the senior vice-president, a most distinguished surgeon and anatomist, had at the time fallen into that ill-health which was to end fatally. That he could be elected was out of the question. Sir William was re-elected in 1886, and a bad old custom was broken. In 1887 and 1888 he was again re-elected, so fully did the Council rely on his fitness for the post. He never favoured what we understand as reform.

At the annual meeting of the Association at Cork in 1879, Savory delivered the address in surgery. It bore the title The Prevention of Blood Poisoning in the Practice of Surgery. The lecturer did not believe in what was then understood by the expression "strict antiseptic precautions." Further experience has justified many of his opinions and predictions as then enunciated. The spray and other somewhat disagreeable accessories have been discarded. The true basis of the antiseptic triumphs were indicated. "You are not likely to forget," said Savory, "the ghastly sketch Lister drew after his visit to some of the Continental hospitals only four years since." When those words were spoken the improvement had begun; now, sixteen years later, those same foreign hospitals are models of cleanliness. Unfortunately, some of our own are now in need of taking a lesson from abroad. Two years after the address was delivered Savory spoke in the course of a discussion on the statistics of rival ovariotomists. "In one point," said he, "all agree. The later do better than the earlier operations. This shows that the superior experience of the man must be taken into

account when he attributes the good results in his statistics to a system which he did not adopt till he was already an expert." All who rely on statistics should bear these words in mind.

In 1887 Sir William delivered the Hunterian Oration. For a discourse of this kind he was particularly fitted, and, as might be expected, it proved a fine display of wisdom and eloquence. One aphorism culled from that oration should be remembered by all doctors, by all scientists, and, above all, by every member of the public who takes the responsibility of writing or speaking on scientific subjects: "Science is never able to accomplish much when held in bondage by the immediate wants of life. Its investigations are successful only when they are pursued with indifference to the uses to which they may be applied."

Savory—an enthusiast in scientific work when young—was not a writer of books. His only publication issued in book form—*On Life and Death*—consisted of four lectures delivered over thirty years since at the Royal Institution. They contain much matter for deep reflection, and may always be read with profit. A few years earlier, in April, 1858, his important scientific paper, An Experimental Inquiry into the Effect upon the Mother of Poisoning the Fœtus, was published. Through experiments on pregnant animals he showed that proof was no longer wanting of the direct and rapid transmission of matter from the fœtus to the mother through the blood in the placenta. Among the earliest of his writings was a monograph On the Development of Striated Muscular Fibre in the Mammalia in the *Philosophical Transactions*, 1855, and, earliest of all, in 1851, a paper On the Valves of the Heart in the *Proceedings* of the Royal Society.

Some of the best of the deceased surgeon's writings appeared in the St. Bartholomew's Hospital *Reports*. His literary style was, when matured, almost, if not quite equal to his eloquence. In the first volume of the *Reports* will be found a valuable monograph On the Local Effects of Blood Poisoning in Relation to Embolism, which threw much light on the pathology of both conditions noted in the title. The author described a series of experiments. Pure water, water containing oxide of zinc powder, and water containing putrid material was injected into the jugular veins of different animals. The result proved that the oxide caused emboli in the lungs through mere mechanical action, whilst the putrid fluid also caused pulmonary emboli. Sterilisation, we cannot forget, was unknown in 1865 when this article was written, but Sir W. Savory's conclusions were substantially correct; he traced the local congestions and suppurations in blood poisoning to stasis, either due to mechanical action or—this "or" is important—to change in the blood produced by the admixture of morbid fluid. He was far too scientific to explain these stases in septic cases by mere mechanical obstruction. In the same *Reports* from time to time appeared some good clinical and statistical papers on pyæmia, thrombosis, phlebitis, and necrosis of bone. About the same period were written two contributions to Holmes's *System of Surgery*, the subjects being Scrofula and Hysteria. The latter in particular contains much clinical material of high excellence.

In 1854 Sir William Savory married a daughter of Mr. W. Borradaile. In 1867 he suffered a very sad loss; having poisoned his finger, the septic process was transmitted to Mrs. Savory, who dressed the injured hand. The infection proved fatal to her, and the disconsolate widower nearly died also. He leaves one son. Borradaile Savory, M.A., Rector since 1887 of St. Bartholomew's the Greater, West Smithfield; on him the title descends. The funeral of Sir William Savory took place on Thursday at Highgate, a service being first held at 1.30 at St. George's, Hanover Square.

DANIEL HACK TUKE, M.D., LL.D., F.R.C.P.

By the death of Dr. D. Hack Tuke, which took place on March 5th, the profession has lost a great worker. Only those who knew him intimately have any conception of the amount of work which he managed to get through. From the first he took a deep interest in mental disorders and their treatment. His great grandfather, the founder of the York Retreat, was one of the founders of humane treatment of insanity, and his descendants down to the present have carried on the good work.

Dr. Tuke, who was born at York in 1827, appeared first as an author just forty years ago, and in 1858 his name was associated with that of Bucknill in the large and still valuable *Manual of Psychological Medicine*. Dr. Tuke's first large independent work was on the *Influence of the Mind upon the Body*, later he wrote a very large number of books all having relationship to insanity. He was the great authority on the history of the treatment of insanity in all countries; he also early took an interest in the study of hypnotism and allied states. He always felt that beyond the mere drug treatment of insanity there was a great field open for the moral treatment of the insane. Dr. Tuke made also a special study of moral insanity, and one of his later contributions to medical literature was a description of the first recognition of this by Prichard and Symonds. Some eighteen years ago Dr. Tuke was appointed, with Dr. Savage, editor of the *Journal of Mental Science*, and up to the time of his death he took the leading share in the production of that journal, and more particularly kept its readers accurately informed as to every publication in connection with insanity in whatever country it appeared.

Though Dr. Tuke had been a voluminous writer, yet it was only during the last few years that he had been able to produce his *magnum opus*. In 1892 he produced a *Dictionary of Psychological Medicine* in two large volumes, the whole being brought out with most extraordinary rapidity considering the number and variety of subjects considered and the number of authors, English and foreign, engaged.

Dr. Tuke began the practical part of his professional career at the York Retreat, where he remained for about five years; after this he came to the south of England, and for years lived at Falmouth, his friends and medical advisers fearing lung disease. In 1874 he definitely took a London house in Charlotte Street, and from that time began to take a more active part in London life. At this time he became a governor of Bethlem Royal Hospital, and a few years later was appointed on the committee of that institution, and no one was more regular or helpful in the administration of its affairs. He attended the clinical and pathological work of the hospital most assiduously, and kept records of every patient whom he saw there.

He suffered a severe shock from the early death of his eldest son, a brilliant student of University College Hospital, to whom he had looked to carry on the medical reputation of the Tuke family. Besides public and official work, Dr. Tuke, early in 1880, began to get considerable consulting practice, and in 1885 removed to Welbeck Street, where he died. He took not only an official interest in the *Journal of Mental Science*, but was looked upon as the central figure of the Medico-Psychological Association of Great Britain, and the history and the development of that Association must ever be bound up with the fostering care of Dr. Hack Tuke. He was President of the Association, and by his geniality and weighed sympathies attracted not only the attention of his countrymen but that of foreigners.

Dr. Tuke was a constant attendant at the annual meetings of the British Medical Association and invariably took a prominent part in the discussions of the Section of Psychology. He was also for many years a frequent contributor to the pages of the British Medical Journal.

Probably no name is so well known among alienists the world over as that of Dr. Hack Tuke. In America he had long been recognised as the British leader, and his personal friendship with most of the leading physicians practising in psychiatry was universal. For some years Dr. Hack Tuke had a house at Hanwell and only came to London for professional work, and nearly every foreigner, American or Colonial, interested in mental science made at least one pilgrimage to the house at Hanwell.

No one could have been more kind, sympathetic, and encouraging to the younger members of his profession, no trouble was too great for him if it was to be helpful to another. Though brought up as a member of the Society of Friends, there was a bright geniality and a keen appreciation of a joke which those who knew him fully recognised. He occasionally ventured into lighter paths of literature than those of medicine, and it may be of interest later to have

these collected together. The latest official duties of Dr. Hack Tuke have been those of lecturing on insanity at Charing Cross Hospital, and of Examiner in Mental Pathology at the University of London.

It was always a matter of regret that there was one position which would have been agreeable to him which age and physical weakness prevented his attainment. We believe that Dr. Hack Tuke would have made an eminent Commissioner in Lunacy, and we believe he always regretted that there were impassable barriers to his attaining that honour.

It is hardly necessary to say more of Dr. Tuke than that he was an absolutely honest worker, a man with enthusiasm, energy, kindliness, and with the deepest feeling of his responsibility to humanity in regard to his professional work. He leaves behind him the feeling of having done a splendid life's work, and leaving a gap which at present seems impossible to be filled.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

Fleet-Surgeon J. S. Dobbyn, M.D., has been placed on the retired list, with permission to assume the rank of Deputy-Inspector-General, February 26th. He was appointed Surgeon, September 8th, 1860; Staff-Surgeon, July 7th, 1873; and Fleet Surgeon, September 4th, 1882.

The undermentioned Surgeons, having completed twelve years' service, are promoted to be Staff-Surgeons, February 26th:—T. J. Crowley, M.D., B.C. E. F. Gunn, D. T. Hoskyn, M.B., J. E. Penn, R. H. Nicholson, J. L. Barrington. Of these, Staff Surgeon Gunn was Surgeon of the *Alexandra*, and served with the Naval Brigade landed for service in the soudan, with the Nile Expedition for the relief of General Gordon at Khartoum, 1884-5 (Egyptian medal, Nile 1884-5 clasp, Khedive's bronze star). Staff Surgeon Penn was Surgeon of the *Woodlark* during the naval and military operations in the Eastern Soudan, at Suakin 1884-5 (Egyptian medal, Khedive's bronze star); he was with the Naval Brigade during the Burmese war, 1885-7 (medal with clasp). Staff-Surgeon Nicholson was Surgeon of the *Albacore* during the naval and military operations in the Eastern Soudan at Suakin, 1884-5 (Egyptian medal, Khedive's bronze star). The other officers mentioned have no war record.

The following appointments have been made at the Admiralty: George G. Borrett, Surgeon, to the *Pembroke*, February 27th; Ernest E. P. Tindall, Surgeon, to the *Hawke*, February 27th; Richard C. Munday, Surgeon, to the *Defiance*, March 7th; Robert Grant, Fleet-Surgeon, to the *Crescent*; Richard D. White, Fleet-Surgeon, to the Royal Marines, Portsmouth; Herbert W. G. Doyne and Robert D. Jameson, Surgeons, to the *Crescent*; Alexander G. Wildey, Surgeon, to the Royal Marine Depôt, Walmer; Charles H. Upham, Surgeon, to the *Vivid*, for Plymouth Hospital, March 1st.

Deputy Inspector-General David Lyall died at Cheltenham on February 25th, at the age of 77. He was appointed Surgeon, June 6th, 1839; Staff-Surgeon, July 21th, 1845; Fleet-Surgeon, November 17th, 1861; and Deputy Inspector-General on retirement, May 7th, 1873. He was Assistant-Surgeon and Botanist in the Antarctic expedition under Sir James Ross in 1839-43; was Surgeon and Naturalist in the Arctic expedition under Sir E. Belcher in 1852-54 (medal). He served in the *Pembroke* in the Baltic during the Russian war in 1855 (for which he received a medal); and, after a short service in the *Royal William*, was appointed surgeon of Her Majesty's surveying vessel *Plumper*, employed on the delimitation of the sea boundary between Great Britain and the United States in the North Pacific. Subsequently he was transferred as Surgeon and Naturalist to the Land Boundary Commission under the late Sir John Hawkins, R.E. On his return to England he was appointed Medical Officer of Pembroke Dockyard, at that time a permanency, but when this was changed in 1868 he accepted a home appointment, and in 1873 was retired as Deputy Inspector-General. Dr. Lyall's zeal and ability as a naturalist, especially as a botanist, were much appreciated by his old friend Sir Joseph Hooker. He was in receipt of a Greenwich Hospital pension.

ARMY MEDICAL STAFF.

Surgeon-Captain J. R. Forrest, who was placed on half-pay on account of ill-health, November 15th, 1894, is restored to the establishment as Surgeon-Captain, *vice* J. G. Deacon, M.D., retired, February 17th.

Surgeon-General Thomas Rudd, M.D., died at San Remo, Italy, after a short illness, on February 24th. He entered the service as Assistant-Surgeon, August 1st, 1857; became Surgeon, November 18th, 1871; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, March 13th, 1883; Surgeon-Colonel, April 11th, 1888; and Surgeon-Major-General, February 6th 1893. He was placed on retired pay June 6th, 1893. Surgeon-Major-General Rudd served with the 8th Hussars during the Indian Mutiny in 1857-58, and was present at the capture of Kotah, and at the battles of Kotaria and Khooshana (mentioned in despatches, medal with clasp), and in the Afghan war in 1878-80 (medal).

INDIAN MEDICAL SERVICE.

The following admissions to the Indian Medical Service have received the approval of the Queen:—Bengal: C. J. Milne, A. F. Stevens, C. H. Bensley, F. H. Watling, J. D. McMillan, Arthur Gwyther, E. J. Morgan, A. E. J. Ward, William Carr, J. A. Hamilton. Madras: Frank Wall, C. M. Mathew. Bombay: Samuel Evans, J. H. McDonald.

Surgeon Eyre Champion de Crespigny, late of the Bombay Establishment, died at Beckenham on February 15th, aged 72.

Surgeon-Lieutenant-Colonel A. B. Strahan, Bengal Establishment, is permitted to retire from the service from February 11th. He was appointed Assistant-Surgeon, October 1st, 1869, and became Surgeon-Lieutenant-Colonel from October 1st, 1889.

Surgeon-Major W. Gilchrist, M.D., late H.E.I.C.S., died at Rochester on February 28th, aged 88 years.

THE VOLUNTEERS.

The undermentioned gentlemen are appointed Surgeon-Lieutenants, in the corps specified, dated March 6th:—Richard Oxley Bowman, M.D., 1st Volunteer Battalion the King's Own Royal Lancaster Regiment; James Young, M.D., 1st (City of Bristol) Volunteer Battalion the Gloucestershire Regiment; Charles Symington, M.B., 9th Lanarkshire Rifles.

Surgeon-Lieutenant H. G. G. Wilkins, 2nd Volunteer Battalion the Duke of Cambridge's Own Middlesex Regiment, is promoted to be Surgeon-Captain, March 6th.

Surgeon-Captain J. McLachlan, M.B., 1st Dumbartonshire Rifles, has resigned his commission, March 6th.

M. Charles Walter Scott, M.B., is appointed Acting Surgeon to the 1st Cadet Battalion the Buffs (East Kent Regiment), March 6th.

The Volunteer Officers' Decoration has been conferred upon the undermentioned gentlemen: Surgeon-Lieutenant-Colonel E. F. Hall, M.D., 2nd Lancashire (The St. Helens) Volunteer Engineers; Surgeon-Lieutenant-Colonel James Atkinson, 2nd Cheshire (Railway) Volunteer Engineers; Surgeon Major (ranking as Lieutenant-Colonel) G. C. Tayler, M.D., 1st Wiltshire Volunteer Rifle Corps, retired; Surgeon-Major Johnstone Macfie, M.D., 4th Volunteer Battalion the Cameronians (Scottish Rifles).

REDUCTIONS IN INDIA.

A Correspondent informs us it is rumoured that the pay of surgeon-major-generals in India is to be reduced from April 1st next from Rs. 2,500 to Rs. 2,000 per month. If such reduction is followed by diminished duties and responsibilities under the new army corps system, and if similar reduction is made in the pay of combatant major-generals, little can be said. But if surgeon-major-generals are to be singled out for the process of cutting down, then it is time to enter a protest.

THE SANITATION OF ALDERSHOT.

This subject will receive further attention in Parliament when the discussion of the Army Estimates comes on. It is stated that the War Office has granted a sum of some £3,000 to His Royal Highness the Duke of Connaught, commanding the troops to investigate the defects of drainage of barracks, quite irrespective of the larger sum to improve the complete scheme of drainage for the camp. Brigade-Surgeon-Lieutenant-Colonel Notter, Professor of Hygiene at Netley, has visited Aldershot to inquire into the water supply, and his official report to the War Office will be awaited with interest. The two officers who were recently lying ill in Tournay Barracks with enteric fever have now been transferred to lodgings, so that these barracks can be overhauled.

RETIREMENTS IN 1895.

The following retirements of Surgeon-Major-Generals are due this year. The dates are those in which each officer completes 60 years of age: Surgeon-Major-Generals T. Davis, April 15th; T. Warren, May 26th; S. Archer, July 9th; R. Lewer, October 3rd; T. Inkson, November 24th. This list excludes Surgeon-Major-General Bradshaw, whose retirement on March 10th has been settled. It is not expected that any extensions will be granted. The extensions already given have seriously injured the officers in surgeon-colonels grade.

MEDICO-LEGAL AND MEDICO-ETHICAL.

UNQUALIFIED PRACTICE AND UNQUALIFIED ASSUMPTION OF MEDICAL TITLES

Duly Qualified asks to be informed what, if any, action can be taken against an unqualified man who notifies on his door plate that an "electric surgery for the treatment of diseases, etc., by electricity and massage," is carried on by the person whose name also appears on the door plate.

*** We are extremely doubtful if any action would lie against the person in question as the law at present stands, unless in combination with his electric surgery it can be shown that he carries on medical practice.

PRESCRIBING CHEMISTS.

Vigilo draws our attention to this subject, and to a case in particular where a chemist visits patients at their own homes. It is stated that he charges a small fee, and is by many considered to be a fully qualified medical man.

*** If our correspondent can procure the evidence of persons willing to come forward who have been visited and prescribed for by the chemist in question, in cases where medical as distinguished from surgical treatment has been necessary, he should forward full particulars to the Clerk to the Society of Apothecaries, Blackfriars, London. If the evidence is deemed sufficient the Society will doubtless take proceedings against the chemist in question for unqualified practice.

THE NICETIES OF PROFESSIONAL ETIQUETTE.

M. O. H.—Our correspondent appears to be under a misapprehension. A medical officer of health would be clearly within his right—nay, more, it would be his duty to visit a patient under another practitioner

if he were required to do so by the sanitary authority whose officer he was. No community would tolerate for a moment the notion that a matter possibly largely affecting the public health should be in any way at the mercy of a rule of medical etiquette, even if there were such a rule. There can be no doubt that the proper practice in such cases would be to inform the practitioner in attendance of the proposed visit, and to seek for his co-operation, but no rule of etiquette could ever require more. The above, of course, applies to special orders only; unless specially required either by the court or the sanitary authority to visit a patient under the care of another practitioner, it would doubtless be a breach of etiquette on the part of a medical officer of health to do so.

ALLEGED TOUTING AND UNDERSELLING.

A Wiltshire Member.—A correspondent writes complaining of the conduct of a professional neighbour, who is stated to visit the club patients of the former, and to hold out to them that, if elected their court surgeon, he would attend the members at a lower rate than their present surgeon.

*** Such conduct deserves severe censure, but it is to be feared there is no way of stopping such practices, for a practitioner who could stoop to them must be quite out of reach of any ethical considerations.

MEDICAL ETIQUETTE.

Alpha.—Assuming that our correspondent's statement is a just version of the facts, we may note that, "wide as the reputation" of the practitioner referred to might be, he unquestionably displayed a lamentable failure in his consultative procedure in the sick chamber and of medico-ethical duty and courtesy to the practitioner in attendance on the case. We would add that "Alpha" erred in seeking to make the superseding practitioner answerable for his fee. The husband of the lady patient was responsible.

CONSULTANTS AND SUPERSESSION.

Medical Etiquette.—(1) Unless it has been intimated in some form or other to the family medical attendant in question that his professional services would in future be dispensed with, the consultant referred to should, in our opinion, courteously but firmly decline to take charge of the fresh case of illness, except in consultation with him. (2) Acceptance of the obstetrical engagement by the consultant in the case above adverted to appears to indicate his intent to supplant the practitioner who called him in consultation, by which he contravenes the true principle of ethics and the rule distinctly laid down with reference to consultants. (3) When a practitioner is called in consultation by another, the consultant—be his former relation with the patient what it may—should not, in our opinion, seek, directly or indirectly, to supersede him.

NATIONAL MEDICAL AID COMPANY.

Doubtful.—Our correspondent must decide for himself whether he considers the acceptance of such an appointment derogatory or not; we have repeatedly expressed our opinion in the columns of the British Medical Journal on the character of this and other medical aid societies.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

The Patenting of Antitoxin.—Dr. Farquharson asked the President of the Local Government Board whether his attention had been called to the fact that a specification for the preparation by a German method of remedial substances, and in particular diphtheria antitoxin in a concentrated form, was accepted by the Patent Office on January 26th; whether such patent would hamper the production of the serum in a concentrated form in this country for the use of public infectious and other hospitals, and in the military and naval hospitals; and whether it was the intention of the Government to permit such a patent to be granted.—Mr. Bryce said the Comptroller-General of Patents had informed him that a specification for a patent such as that referred to in the question had been lodged at his office, and that in the absence of opposition a patent would be granted in the ordinary course. Whether the patent if granted would be valid was a question upon which he, of course, could pass no judgment. Whether such a patent would hamper the production of serum in a concentrated form for hospital use was a point on which he could not at present hazard an opinion, but he might remind his hon. friend of a valuable section in the Patents Act, 1883, which empowered the Board of Trade to order a patentee to grant licences on reasonable terms.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Deprivation of Degrees.—The Council of the Senate propose an addition to the statutes which, if carried, will enable the University to meet a difficulty often raised by the General Medical Council. When a university graduate in medicine or surgery has been convicted of crime the Medical Council is empowered to remove his name from the *Register*. But the University has had no proper means of exercising the power of depriving him of his degree, and the convict may therefore still pose as a qualified though unregistered practitioner. The Chancellor and the *Sex Viri* may in such a case, according to the present proposals, decide that he is unfit to be a member of the University, and thereupon the Senate, by grace, may deprive him of his degree or degrees and all privileges thereto attaching.

Advanced Study and Research.—A report has been presented to the Senate recommending that graduates of other universities of approved qualifications may be admitted as advanced students. These, after passing one of the higher triposes or presenting a dissertation embodying sufficient evidence of original research may be admitted after two years' residence to the B.A. Degree, and thereafter to the M.A. and other higher degrees. Provision is also made for conferring on Cambridge graduates a certificate of distinguished research. Similar proposals have been adopted at Oxford, but there new degrees are to be established for this special class of post-graduate students.

Medical Acts and Degrees.—The following are announced to have duly performed the exercises for the M.B. Degree: C. E. Cooper, B.A., Caius; J. M. Cowan, B.A., King's; T. P. King, B.A., St. John's; F. V. Millward, B.A., Clare; H. Smith, B.A. Trinity; H. E. Wingfield, M.A., Caius; O. F. Paget, Caius. These were admitted to the Degrees of M.B. and B.C. at the Congregation on February 28th.

Honorary Degree to Sir William Macgregor.—The degree of D.Sc (*honoris causâ*) of Cambridge University was conferred on Sir William Macgregor, K.C.M.G., Administrator of British New Guinea, at a congregation held on Feb. 28th. The Public Orator, Dr. Sandys, in presenting Sir William Macgregor for his degree, observed that the island of New Guinea (next to Australia the largest in the world) was twice the area of the United Kingdom, while the part belonging to our own empire was half as large again as England. Its present Administrator, who began his career as an M.D. of Aberdeen University, had added much to our knowledge of the anthropology, the geography, the philology, and the geology of New Guinea. He was one of those sons of Scotland to whom England owed a deep debt of gratitude for their services in every part of the world—a countryman of those who were proverbially said never to be at home except when abroad. At the call of England he had left his native country and had done good service in our Colonial Empire, and also in the cause of science. A descendant of the ancient clan of the Macgregors, who had been ruthlessly outlawed and deprived of their land, and even of their name, he was one of those who found a new home under another sun; the clan of Macgregor was homeless no more. Like the sturdy race described by the Roman poet, it had even gathered fresh strength amidst all its disasters:

> Duris ut ilex tonsa bipennibus
> Nigræ feraci frondis in Algido
> Per damna, per cædes, ab ipso.
> Ducit opes animumque ferro.

Sir William Macgregor was then formally admitted by the Vice-Chancellor, amidst general applause.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,876 births and 6,683 deaths were registered during the week ending Saturday, March 2nd. The annual rate of mortality in these towns, which had increased from 18.7 to 29.6 per 1,000 in the five preceding weeks, further rose to 32.9 last week. The rates in the several towns ranged from 15.1 in Derby, 16.1 in Norwich, and 17.0 in Sunderland to 43.4 in Halifax, 49.2 in Nottingham, and 55.5 in Liverpool. In the thirty-two provincial towns the mean death-rate was 28.9 per 1,000, and was 9.6 below the rate recorded in London, which was as high as 38.5 per 1,000. The zymotic death-rate in the thirty-three towns averaged 4.0 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, and was highest in Bolton, Salford, and Brighton. Measles caused a death-rate of 1.4 in Preston, 1.7 in Bolton and in Sheffield, and 1.8 in Plymouth; whooping-cough of 1.9 in Birkenhead, 2.2 in Halifax, and 2.6 in Brighton: and "fever" of 1.0 in Salford. The 47 deaths from diphtheria in the thirty-three towns included 31 in London, and 2 each in West Ham, Birmingham, Manchester, Salford, and Oldham. One fatal case of small-pox was registered in London and 1 in Liverpool, but not one in any other of the thirty-three large towns. There were 68 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, March 2nd, against 56, 57, and 75 at the end of the three preceding weeks; 8 new cases were admitted during the week, against 18, 18, and 19 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,667, 1,657, and 1,658 at the end of the three preceding weeks, was 1,621 on Saturday last, March 2nd; 143 new cases were admitted during the week against 149, 159, and 152 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, March 2nd, 947 births and 1,236 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 23.9 to 41.1 per 1,000 in the four preceding weeks, further rose to 42.8 last week, and exceeded by 9.9 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the death-rates ranged from 24.9 in Aberdeen to 53.6 in Glasgow. The zymotic death rates in these towns averaged 4.0 per 1,000, the highest rates being recorded in Edinburgh and Aberdeen. The 71 deaths in Glasgow included 18 from whooping-cough, 15 from measles, 4 from scarlet fever, and 3 from diphtheria. Twenty-one fatal cases of measles and 2 of small-pox were recorded in Edinburgh, and 13 of measles in Aberdeen.

REMOVAL OF FEVER PATIENTS IN ABERDEEN.

The Lord President of the Court of Session and a jury disposed of an action in which a father sought to recover from the Town Council of

Aberdeen £500 as damages. This sum was claimed on the ground that due precautions were not observed in the removal of the pursuer's daughter, aged 5 years and 8 months, when being taken to the fever hospital. It was said she was not sufficiently wrapped up, and that the cab was unnecessarily taken by a circuitous route to pick up other patients; that the patient contracted a chill, was never seen by a medical man, and died next day in convulsions caused by the chill. These averments were all denied on behalf of the defendants, who said that the removal and treatment were conducted in the usual careful manner, and that death could be accounted for only by the previous ill-health of the girl.

The jury, after an absence of half an hour, returned with a verdict unanimously for the defendants.

The Lord President, in charging the jury, pointed out amongst other things that the case involved important considerations relating to the administration of the laws of public health. On the one hand, public safety required that in cases of infectious disease the children of people whose houses were not sufficiently large to keep patients isolated should be removed to hospitals, and taken charge of by public authorities. But, on the other hand, the authorities who had that duty imposed on them were bound to see that they took all pains and skill to do the best they could for the children while in their hands. What the authorities did in this case was to send a brougham with a sanitary officer, and with it a nurse. The child was wrapped up in the blankets in which she was lying, and then in a hospital blanket, was taken in the nurse's arms to the cab, where another blanket was put round the girl. The pursuer thought there must be great danger of a chill, but the doctors all said that patients in scarlet fever were less likely to chill than other people. He was all for holding the public authorities to a high standard in these matters. It was right that they should see that they were punctual and vigilant in taking charge of the children of poor people. On the other hand, it would be a great misfortune if they were to discourage them by exhibiting a captious spirit in the examination of their proceeding. The mere fact that this child died in the hospital raised no presumption against the public authorities. It would appear that her death was one of the unusual occurrences which were not guarded against, even according to the most careful system of hospital nursing.

EXTRA FEES UNDER GENERAL CONSOLIDATED ORDER.

CANDIDATE asks whether we consider it legal for a Board of Guardians to advertise for a district medical officer, and to offer a salary inclusive of all medical fees except those for midwifery and vaccination.

*** Unless the Local Government Board has, in reference to the union in question, by special order suspended that part of the General Consolidated Order of July 24th, 1847, which refers to extra fees, and it is possible that this may have done, the guardians are not empowered to advertise as described.

MEDICAL ATTENDANCE ON RELIEVING OFFICERS AND THEIR FAMILIES.

CURIO asks whether it is customary for district medical officers to attend gratuitously relieving officers, their wives and families, or whether it is usual to charge less fees.

*** It is impossible to say what is customary, as the practice doubtless varies much throughout the whole of England. We consider that ample liberality would be shown if the relieving officer himself was not charged for ordinary medical attendance.

CERTIFICATE AS TO CONDITION OF PAUPER LUNATICS OUT ON PROBATION.

A MEMBER, who is a district medical officer, writes as follows: The relieving officer requests me to examine a pauper out of an asylum on probation, and to give the certificate required by the asylum authorities stating that the patient is fit to be at large. I do this and apply to them for a fee; this they declare to pay, and refer me to the guardians, who also decline.

*** We believe that our correspondent has no claim on the asylum authorities, as he gave the certificate they require at the request of the relieving officer, who is not likely to pay for it, and we question whether any fee can be recovered for having given this form of certificate. In our opinion it was a mistake to give it at all. As district medical officer our correspondent should have declined to give it, or should have arranged with the relieving officer for the payment of a fee for it before he gave it.

ANNUAL RE-ELECTION OF POOR-LAW MEDICAL OFFICERS.

A SUBSCRIBER writes to ask whether there is any ethical impropriety in a newcomer to a district sending in an application for a Poor-law medical appointment not publicly declared vacant, which has hitherto been held subject to annual re-election, owing to the holder being a non-resident in the district. He asks further whether the appointment ought not to be annually advertised, and whether residence does not give a preferable claim to the appointment.

*** We consider that there would be an unmistakable ethical impropriety in sending in an application for an appointment not publicly declared vacant, especially when it is known, or may be fairly assumed, that the present holder wishes to be re-elected. It rests with the guardians to advertise the technical vacancy or not as they think best. In our opinion the residence of a newcomer in the district gives him no claim whatever to the appointment until a vacancy has been publicly declared.

HOSPITAL AND DISPENSARY MANAGEMENT.

ROYAL EDINBURGH ASYLUM FOR THE INSANE.

THE annual meeting of the corporation of the Royal Edinburgh Asylum was held on February 25th. After the Treasurer had submitted the financial statement for the year, the Physician Superintendent (Dr Clouston) read his report. The total number of patients under treatment was 1,295, and 85 patients died. The number of admissions was 21 more than in any previous year, and 77 above the average. There was an increase of 30 per cent of admissions of rate-paid patients in five years, which, with no corresponding increase of accommodation, was a grave matter for the managers and ratepayers. There was undoubtedly an increase of general paralysis, a malady which was a breakdown of the great centres of mind, which went from bad to worse, an absolutely hopeless malady, which probably caused more than 1,800 deaths in the United Kingdom every year. It was a disease of cities, of restless lives, of active brains in their prime, sometimes of dissipation and debauchery, more commonly of life at high pressure; 52 cases had occurred in Ireland, 150 in Scotland, and 1,400 in England. This spoke well for the resistiveness of the Irish brain against serious disease, and for the serenity of life across St. George's Channel. During last year 46 cases had been sent to Morningside Asylum, the yearly average of the preceding ten years having been 25. There were 34 distinct entries in the list of the causes that sent them the 454 cases. As usual, the most frequent cause was alcoholism, which gave them 83 cases. He hoped that the Departmental Committee would result in some improvement in the present law in regard to the control of the habitual drunkard; 80 per cent. of the deaths were due to diseases of the brain, the largest proportion they ever had. Dr. Clouston referred to the use of thyroid extract in the treatment of brain disease. Three patients put down as quite incurable had been cured by it. He referred also to the vast advance in our knowledge of brain pathology.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

THE thirty-sixth annual general meeting of the contributors to the Royal Edinburgh Hospital for Sick Children was held on February 15th. During the past year 665 cases had been treated in the wards of the hospital, and 8,076 out-patients. In addition, 4,628 surgical cases had been treated at the dispensary. The ordinary income had been £6,629 and the expenditure £4,550. Legacies to the amount of £2,646 had been received. The amount received on account of the building fund amounted to £6,391. It was hoped that the new hospital would be ready for occupation before another winter.

WOMEN AND CHILDREN'S HOSPITAL, CORK.

Two concerts of an exceptionally attractive character were given on March 2nd in the Assembly Rooms, Cork. The entertainment was under distinguished patronage, and the hall was crowded. Amongst the artistes the services of Miss Marian Mackenzie were engaged, and her cultured contralto voice made a deep impression. The violin playing of M. Achille Rivade was marked by the skill and finish so characteristic of his talent, and Mr. Stockwell's tenor voice charmed his audience. Several well-known amateurs assisted. The hospital is of its kind an institution well-nigh perfect in the several details of hospital management, and well deserving of general support. It is entirely unendowed.

MEDICAL NEWS.

MR. WILLIAM SPEIRS, M.R.C.S.Eng., L.R.C.P.Edin., of Cleator, Cumberland, has been for the third time elected a member of the county council for that county.

WE are asked to state that the meeting to consider the formation of a proposed association of qualified medical assistants, junior medical officers, and *locum tenentes*, which, as was mentioned last week, it was proposed to hold on Monday next at the Examination Hall, Victoria Embankment, will take place at that place on the day mentioned at 3 P.M. Dr. J. G. Glover will preside, and all persons interested in the movement are invited to attend.

THE GENERAL INFIRMARY AT LEEDS.—The one hundred and twenty-seventh annual report of the Leeds Infirmary and Ida Hospital for the year 1894 shows that the number of beds in constant use was 394, of which 90.86 per cent. were continuously occupied. The number of in-patients treated during the year was 6,069, being a decrease of 273. The Ida Hospital continued to render great services to the infirmary, 735 patients having been treated there during the year. The total receipts had amounted to £22,069, being an increase of £706. The Workpeople's Hospital Fund amounted to £4,337, the contributions from workpeople outside the city to £821, and the Leeds Ladies' Hospital Fund, which is a new source of income, to £328. Mention is made of the serious loss which the infirmary sustained in the death of Dr. E. H. Jacob, "who leaves behind him a memory of useful and honourable service." It is also stated that Mr. Edward Atkinson had, after completion of twenty years' service as Surgeon, become Consulting Surgeon to the infirmary.

Dr. George Fowler Bodington, formerly of Kingswinford, who went out to British Columbia a few years ago, has been appointed medical superintendent of the British Columbian Asylum for the Insane at New Westminster in that province. The asylum, which is the only one in the province, is under the direct management of the Executive Council, and contains 162 patients, of whom 20 are Chinese. Dr. Bodington, who was at one time surgeon to the North Riding Infirmary at Middlesbrough, subsequently became well known in the Midlands, and was president of the Birmingham and Midland Counties Branch of the British Medical Association in 1876-77, and of the Birmingham Medical Institute in the following year. He has also had experience as the superintendent of a private lunatic asylum in this country. The Government of British Columbia may thus be congratulated on having had the services of so experienced a physician at their disposal.

The Public Health of Edinburgh.—At a meeting of the Edinburgh Town Council on March 5th it was reported that there were 326 patients in the city hospital, 22 of whom were in the small-pox hospital. During last week 569 cases of measles were notified, making over 2,000 during the last four weeks. One hundred and ten deaths out of a total of 169 were due to diseases of the chest; 27 deaths were due to zymotic causes, of which 2 were due to small-pox. The death-rate was 34 per 1,000, while that of Leith was 39.15 per 1,000. Of the total 180 deaths in Edinburgh 52 were those of persons over 60 years of age, and 15 over 80. Leith School Board on March 4th resolved to close their schools for two weeks because of the epidemic of measles, and because many of the teachers were reported ill of influenza.

MEDICAL VACANCIES.

The following vacancies are announced:

BELGRAVE HOSPITAL FOR CHILDREN, Gloucester Street, S.W.—House-Surgeon. Board, lodging, fuel, and light provided. Applications to the Honorary Secretary, at the hospital before March 20th.

CAPE COLONY.—Medical Officer of Health for Cape Colony. Salary £1,000 per annum. Applications to the Agent General, 112, Victoria Street, S.W., or the Colonial Under-Secretary, Cape Town, by March 15th.

CITY OF GLASGOW DISTRICT LUNACY BOARD.—Medical Superintendent of the new Asylum at Gartloch. Salary at the rate of £450 per annum, with free house, coal, gas, etc. Applications and testimonials to Mr. Dempster, Clerk to the Board, 318, Parliamentary Road, Glasgow, by March 25th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Appointment for six months. Board, residence, and allowance for washing. Application to the Secretary at the Office, 24, Finsbury Circus, E.C., by March 15th.

FISHERTON ASYLUM, Salisbury.—Assistant Medical Officer. Must be fully qualified and registered; unmarried; aged from 26 to 30. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. Finch, Salisbury.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Surgeons. Must possess surgical qualification and be registered. Appointment for six months. No salary, but residence, board, and washing provided. Applications and testimonials, with certificate of registration, to Howard J. Collins, House-Governor, by March 30th.

HORTON INFIRMARY, Banbury.—House-Surgeon and Dispenser, duly qualified; must be M.R.C.S.Eng. and registered. Salary, £60 per annum, with board and lodging. Applications and recent testimonials to Mr. C. H. Davids, Honorary Secretary, 21, Marlborough Road, Banbury, by March 23rd.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Medical Registrar and Pathologist. Appointment for one year. Honorarium, 50 guineas. Applications to the Secretary by March 26th.

ISLE OF AXHOLME RURAL DISTRICT COUNCIL.—Medical Officer of Health. Salary, £25 per annum. Applications to George Newborn, Clerk to the Council, Epworth, Doncaster.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar, from April 1st. Salary, £100 per annum. Applications and testimonials to G. Q. Roberts, House-Governor, by March 24th.

LONDON MALE LOCK HOSPITAL AND OUT-PATIENTS' DEPARTMENT, 91, Dean Street, Soho, W.—House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Must possess legally-qualified registered diplomas in medicine and surgery. Applications, with not more than three testimonials, to the Secretary by March 18th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, and Assistant House-Surgeon. Appointments tenable for six months. The House-Physician and House-Surgeon will each receive a salary at the rate of £60 year. Candidates must possess registered English medical and surgical qualications. Applications and testimonials to Charles H. Byers, Secretary, by March 18th.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer, unmarried. Salary, £120 per annum, increasing £10 yearly to £150, with furnished apartments, board, and lodging. Applications (marked outside "Medical") to Dr. McDowell at the Asylum by March 11th.

OLDHAM INFIRMARY.—Junior House-Surgeon, doubly qualified. Salary, £50 per annum, with board and residence. Applications to Harold Lees, Secretary, by March 13th.

PARISH OF BIRMINGHAM WORKHOUSE INFIRMARY.—Resident Assistant Medical Officer. Salary, £100 per annum, with furnished apartments, rations, coal, gas, washing, and attendance. Doubly qualified and duly registered under the Medical Act. Applications and testimonials to W. Bowen, Clerk to the Guardians, by March 15th.

RADCLIFFE INFIRMARY, Oxford.—Honorary Physician. Candidates must be legally qualified to practise as Physician in England. Testimonials to A. C. Virgo, Secretary, by March 25th.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon, must be M.R.C.S. Eng. Salary, £60 per annum, with board, lodging, and washing. Appointment for six months. Applications to W. Stockwell, Secretary-Superintendent, by March 20th.

SUNDERLAND BOROUGH ASYLUM, Ryhope, Sunderland.—Assistant Medical Officer. Appointment for three years. Salary, first year, £100; second year, £125; third year, £150, with quarters, board, washing, and attendance. Applications to Dr. Elkins, Medical Superintendent, by March 15th.

SUSSEX COUNTY HOSPITAL, Brighton.—Fourth Resident Medical Officer, doubly qualified, unmarried. Emoluments are board, residence, and washing, and a salary not exceeding £30 per annum. Applications to the Secretary by March 18th.

VICTORIA HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Edinburgh.—Resident Physician. Appointment for six months. Apartments, board, and washing, with allowance of £2 monthly for conveyance in connection with outdoor department. Applications to the Honorary Secretaries, Messrs. Wallace and Guthrie, 4, North Charlotte Street, Edinburgh, by March 11th.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Junior House-Surgeon; must be registered and unmarried. Salary, £50 per annum, with rooms and board. Applications and testimonials to the Honorary Secretary by March 11th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments tenable for six months, from April 1st. Board and lodging are provided. Candidates must be registered under the Medical Act. Applications and testimonials to R. J. Gibert, Secretary-Superintendent, by March 20th.

WIMBORNE MINSTER URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £30 per annum. Applications to Herbert William Dibben, Clerk, Urban District Council Offices, Wimborne Minster, by March 11th.

MEDICAL APPOINTMENTS.

Adams, A., M.B., C.M.Aberd., appointed Medical Officer to the Parochia Board of Alness, Ross-shire.

Aldrich, A. W., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer to the Worlington District and Workhouse of the Mildenhall Union.

Arnold, G. J., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

Benson, Henry Thos., L.R.C.P.Lond., L.S.A., reappointed Medical Officer for the Maxey District of the Peterborough Union.

Blacker, A. Barry, M.D., B.S.Durh., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Electrical Department of St. Thomas's Hospital (extension).

Brakenridge, F. J., L.R.C.P., M.R.C.S., appointed Non-Resident House-Physician to St. Thomas's Hospital.

Briggs, Wm. Perry, L.R.C.P.Edin., L.F.P.S.Glasg., reappointed Medical Officer of Health to the Wigton Rural District.

Carter, A. H., M.D.Lond., F.R.C.P., M.R.C.S.Eng., appointed Visiting Medical Officer to the Workhouse of the Parish of Birmingham.

Davis, H. J., B.A.Cantab., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

Dennis, O. A., L.D.S.R.C.S.I., appointed Dental Surgeon to the Nottingham General Dispensary.

Ferguson, James, M.B., C.M.Glasg., appointed Visiting Physician to the Perth County and City Royal Infirmary.

Genge, G. G., L.R.C.P., M.R.C.S., appointed Resident House-Physician to St. Thomas's Hospital (extension).

Geraty, Thomas, L.R.C.P.I., M.R.C.S.Eng., reappointed Consulting Surgeon to the Nottingham General Dispensary.

Gossage, A. M., M.B., B.Ch.Oxon., M.R.C.P.Lond., appointed Assistant Physician to Westminster Hospital.

Halliwell, T. O., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital (extension).

Harding, H. W., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

Haward, H. H., B.A.Cantab., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital (extension).

Haworth, F. G., M.B., C.M.Glasg., L.R.C.S., L.M.Edin., D.P.H.Camb., appointed Medical Officer of Health to the Darwen Urban Sanitary Authority; also Surgeon to the Darwen Division of the County Police.

Heginbotham, H. J., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer to the Wymeswold District of the Loughborough Union, vice John Bostock, M.R.C.S., resigned.

HOME, A. L., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

KELLY, P. A., L.R.C.P.Edin., L.M., L.R.C.S.I., appointed Surgeon to the Barry Island Railway and Harbour Works.

KENNEDY, Duncan Sinclair, M.B., C.M.Glasg., appointed Visiting Physician to the Perth County and City Royal Infirmary.

LAVER, J. W., L.R.C.P., M.R.C.S., appointed Non-Resident House-Physician to St. Thomas's Hospital.

LISTER, Dr. S. K., appointed Medical Officer for the Terrington District of the Wisbech Union.

LUMLEY, C. Armstrong, M.R.C.S.Eng., L.R.C.P.Lond., appointed District Surgeon to Idutywa, Transkei, Cape Colony, *vice* W. C. Kilbe, M.R.C.S., L.R.C.P., resigned.

MAGOWAN, S. M., M.B., B.Ch., B.A.O.R.U.I., appointed House-Surgeon to the Belfast Royal Hospital.

MILWARD, F. V., B.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

MITCHELL, A. B., M.B.R.U.I., B.Ch., appointed Staff Assistant-Surgeon to the Belfast Royal Hospital.

MONCKTON, William, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Portishead Town Council.

PRAIN, J. L., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

PRYCE, T. Davies, M.R.C.S.Eng., L.S.A., reappointed Consulting Surgeon to the Nottingham General Dispensary.

RICHARDSON, S. W. F., M.B., B.S., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed Junior Obstetric House-Physician to St. Thomas's Hospital.

ROBERTSON, William, M.D.Glasg., D.P.H., appointed Assistant Visiting Surgeon to the Perth County and City Royal Infirmary.

RUDD, C. F., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Stalham District of the Smallburgh Union, *vice* Dr. Walker.

RUSSELL, A. E., L.R.C.P., M.R.C.S., M.B.Lond., appointed House-Surgeon to St. Thomas's Hospital.

SAUNDERS, E. A., M.A., M.B., B.Ch.Oxon., L.R.C.P., M.R.C.S., appointed Resident House-Physician to St. Thomas's Hospital (extension).

STIRLING, Robert, M.D.Edin., appointed Visiting Surgeon to the Perth County and City Royal Infirmary.

SYMONS, R. Fox., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital.

TEALE, J. W., M.A.Oxon, F.R.C.S.Eng., appointed to the Honorary Medical Staff of the Royal Northern Sea Bathing Infirmary, Scarborough.

THOMSON, J. A. Mulville, L.R.C.P., L.R.C.S.I., appointed Medical Officer of Health to the Bradford-on-Avon Rural and Urban Districts.

THURSTON, E. O., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

TINLEY, W. E. F., M.B., B.S.Durh., L.R.C.P., M.R.C.S., appointed Senior Obstetric House-Physician to St. Thomas's Hospital.

TREWBY, Lilian, L.R.C.S., L.R.C.P.Edin., L.S.A., late Medical Officer in charge, Lady Dufferin Hospital, Shikarpur, Upper Sind, appointed Medical Officer in charge, Lady Dufferin Hospital, Amraoti, Berar.

TRUMAN, E. B., M.D.St.And., M.R.C.S.Eng., reappointed Consulting Surgeon to the Nottingham General Dispensary.

WALLACE, L. A. R., B.A., M.B., B.Ch.Oxon., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

WHITE, G. B., M.R.C.S.Eng., L.S.A., reappointed Consulting Surgeon to the Nottingham General Dispensary.

WILLIAMSON, Dr. H. W. L., appointed Medical Officer for the Northern District of the Lancaster Union.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Iritis. London Throat Hospital, Great Portland Street, 8 P.M.—Dr. Whistler: Syphilis as it Affects the Larynx.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Hector Mackenzie: A Case of Hysterical Deafness successfully treated, with some remarks on the Diagnosis and Treatment of this Affection. Mr. Bruce Clarke: Thirty cases of Nephrorrhaphy, with their Results.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor C. Stewart: On a Revision of the Endoskeleton in the Physiological Series in the Museum of the College. Lecture I.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Hyslop: Insanity with Cardiac Disease, Phthisis, Gout, etc.

ROYAL COLLEGE OF PHYSICIANS, 5 P.M.—Dr. A. Newsholme: On the Natural History and Affinities of Rheumatic Fever (Milroy Lecture No. III).

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Adjourned Discussion on Affections of the Nervous System occurring in the Early (Secondary) Stages of Syphilis, to be opened by Sir William Broadbent and Dr. Althaus.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, 4.30 P.M.—Dr. Dundas Grant: On the Diagnosis and Treatment of Diseases giving rise to Noises in the Head.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Impetigo and Contagious Suppuration. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Stanford Morton: Ocular Paralyses.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Dr. Turner: The Electrical Treatment of Nervous Diseases.

HUNTERIAN SOCIETY, London Institution 8.30 P.M.—Mr. Hope Grant: Strictures of Œsophagus. Dr. Fred. J. Smith: Cerebral Tumour. Dr. Hingston Fox: Gall Stones. Mr. Openshaw: 1. Gall Stone Removed by Operation from Ileum. 2. Congenital Sacral Tumour.

THE SANITARY INSTITUTE, Parkes Museum, Margaret Street, W., 8 P.M.—Discussion on Back-to-Back Houses, to be opened by Mr. James Niven, M.O.H., Manchester.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, 3 P.M.—Lecture by Dr. Gowers.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, 5 P.M.—Discussion on the Diagnosis and Treatment of Empyema of the Antrum of Highmore. The members of the Odontological Society have been invited to attend and take part in the discussion.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor C. Stewart: On a Revision of the Endoskeleton in the Physiological Series in the Museum of the College. Lecture II.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Ormerod: The Gait in Various Forms of Paralysis. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. Leopold Hudson: Spinal Rotation Curvature. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. Barwell: Cases in the Wards.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Specimen by Mr. Bowreman Jessett. Dr. Macnaughton Jones: The Dangers of Morphine in Gynæcological Practice. Dr. William Walter: Notes of a case of Leakage of a Multilocular Ovarian Cyst in a Girl aged 13.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY, Great Northern Central Hospital, 9 P.M.—Papers by Mr. Charles King, Dr. Christie, Dr. Burnet and Mr. Macready.

ROYAL COLLEGE OF PHYSICIANS, 5 P.M.—Dr. A. Newsholme: On the Natural History and Affinities of Rheumatic Fever (Milroy Lecture No. IV).

SOUTH-WEST LONDON MEDICAL SOCIETY, 235, Lavender Hill, Clapham Junction, 8 P.M.—Dr. Corfield: Foul Air and Disease.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, 5 P.M.—Dr. Waldo (Clifton): Notes of Cases. Exhibition of patients, etc.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: Typhoid Fever and Diphtheria. Practical Work: Staining Sections and Cultivations.

CANCER HOSPITAL, Brompton (Free), 4 P.M.—Mr. W. H. Elam: Malignant Disease of the Thyroid.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8 P.M.—Dr. Joseph Priestley: On the Value of Eucalyptus Oil as a Disinfectant in Scarlet Fever.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor C. Stewart: On a Revision of the Endoskeleton in the Physiological Series in the Museum of the College. Lecture III.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Craig: Insanity with Syphilis. Insanity with Organic Brain Disease.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

JOSS.—On January 17th, at Thorndale, Denny, Stirlingshire, the wife of John Joss, M.A., M.B., C.M., of a son.

LAWTON.—On February 28th, at Bugbrooke, Northants, the wife of William Lawton, M.B., of a daughter.

MARRIAGES.

O'REGAN—HOLMES.—On January 9th, at St. Joseph's Church and at St. John's Cathedral, Hong Kong, Surgeon Matthew O'Regan, Royal Navy, of the Royal Naval Hospital, Hong Kong, son of the late Thomas O'Regan, Esq., of Ballytrasna, Midleton, co. Cork, to Lily, eldest daughter of Henry J. Holmes, solicitor, Hong Kong.

ELLIOTT—ELLIOTT.—On February 27th, by special licence, at the residence of the bride, by the Rev. E. Clarke, M.A., Surgeon-Captain C. R. Elliott, M.D., Army Medical Staff, to Mary, only daughter of Mr. William Elliott, Strabane. No cards.

DEATH.

ADAMS.—On March 1st, at 64, Harpur Street, Bedford, Samuel Hoppus Adams, M.D.Lond., aged 59.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

P. G. G. asks if there are any spas in Sweden possessing the same properties as that of Schwalbach.

F. S. J. B. asks for suggestions for the treatment for a chronic (four years) erythematous condition of nose in a young lady, aged 24. Uterine and gastric disturbances have been corrected. Ichthyol, resorcin, zinc oleate locally have been tried.

M. M. asks for suggestions in the treatment of a patient who has suffered for fourteen months with severe diarrhœa, sometimes as many as six motions a day. He has now reduced it to one severe motion on arising in the morning. If the patient stays in bed longer than usual the attack is not so severe. The only remedy that did him good was bismuth and creasote, but this is now useless.

HOSPITAL SOUP.

HOSPITAL SURGEON would be grateful for any information about the making of a good but inexpensive hospital soup. Is Papin's digester used for this; if so, who supplies it?

SMALL DESTRUCTORS.

DR. FRANCIS W. CLARK, M.O.H. Lowestoft, desires the address of makers of a small destructor suitable for burning the refuse and night-soil of a small fever hospital. It is contemplated to use metal pails, half filled with dried moss peat, pine sawdust, or other combustible absorbent, and to burn the contents of the pails, after use, with also the general refuse, ashes, etc., of the hospital.

THE M.B.EDIN. AND THE TITLE OF "DR."

L. asks whether the qualification of M.B. and C.M.Edin. entitles the holder to place Doctor (Dr.) on his brass plate, and to call himself so.

*** Our Edinburgh Correspondent writes in reply to this question: Only the degree of M.D. gives that full legal right. But since the M.B. involves the serious examination work, and M.D. has in the past only implied writing an accepted thesis, it has become a matter of courtesy to call even an M.B. "Dr.," and it would certainly be considered pedantic for any one to describe himself on his brass plate as "A. B. C., B.A.Cantab., M.B., C.M.Edin." He had much better say simply "Dr. A. B. C.," and send in his thesis as soon as possible, so that he may early pass out of his intermediate state.

A PROFESSIONAL GOVERNMENT.

P. M. O. writes: The Government of a protected State in whose service I have been for a good many years, and which has hitherto always allowed its medical officers to carry on private practice, have now resolved that one-half of all fees so earned by its medical officers are to be paid to Government. I should be obliged for your opinion on the following points:

1. Would such an arrangement between the Government and its medical officers amount to "partnership between medical men and laymen" such as you deprecate in your answer to "Dunedin" in the BRITISH MEDICAL JOURNAL of February 9th?

2. (*a*) Could this be avoided by charging patients double the former fee, and informing them plainly that one-half of the charge is a medical fee and the other a Government tax on sickness, and for permission to have the use of the Government doctor? (*b*) If this would not apply in all cases, would it apply in case of stations too small to support a doctor in private practice, and where, therefore, the Government doctor must in common humanity attend?

3. Some years ago you quoted the Act of Parliament under which medical officers and barristers in Indian Government service are entitled to carry on private practice. As my file of the BRITISH MEDICAL JOURNAL is abroad and not available, I should be much obliged if you would kindly repeat the note.

*** The arrangement described by our correspondent, which may be described as farming out medical practice on the principle of half profits—in other words, trading on human infirmity—is, to say the least, unusual. As far as we know it is unique. A Government may grant or withhold the privilege of private practice by a professional servant, or may take this point into consideration in fixing the remuneration to be paid to such servant. But to let out medical practice as though it were a forest or a mine seems to be a curious proceeding, which strikes at the root of professional life as a labour of love, and converts honoraria into exactions. As regards the specific questions asked by our correspondent:

1. The question of partnership does not arise. It is a case of master and servant, and if the conditions of service imposed are unpleasant or improper, protest or resignation is the only remedy.

2. The question of fee cannot be regulated by considerations such as these. The idea of fining or taxing the sick on account of any action taken by the administration is absurd.

3. The conditions under which professional employes are engaged are a matter of administration rather than law. In India these conditions are defined by executive regulations which are subject to modification and revision.

ANSWERS.

H. C. F.—*Medical Handbook of Life Assurance.* By Dr. J. E. Pollock and J. Chisholm. (London: Cassell and Co. 7s. 6d.) The *Medical Adviser in Life Assurance.* By Sir Edward Sieveking. (London: J. and A. Churchill. 6s.) The *Life Insurance Examiner.* By C. F. Stillman. (New York and Chicago: The Spectator Company.)

THE COCKADE.

A. T.—We might refer our correspondent to the observations by Mr. G. Ambrose Lee (Bluemantle), of Heralds' College, published in the BRITISH MEDICAL JOURNAL of January 12th, p. 113.

TREATMENT OF CHRONIC RHEUMATIC ARTHRITIS.

J. D. E. M. writes to refer "G. J. C." to Dr. T. Pagan Lowe's paper on The Treatment of Senile Rheumatic Arthritis by Forcible Movements, published in the BRITISH MEDICAL JOURNAL of November 3rd, 1894, p. 972.

EXAMINATION BY DEPUTY.

IT does not do to take the comic press too seriously, and although when *Answers* states that the medical preliminary examination is "often" passed by deputy the inaccuracy is more obvious than the wit. We counsel the correspondent who draws our attention to it not to trouble about the matter.

MURPHY'S BUTTON.

IN answer to inquiries as to the method of using Murphy's button we have to state that an authorised pamphlet giving a full description of this instrument and the modes of applying it may be obtained on application to Messrs. Down Brothers, St. Thomas's Street, Borough, S.E.

TREATMENT OF HICCOUGH.

DR. CHARLES W. THORP (Todmorden) writes: Some years ago, having a case of hiccough which resisted all kinds of treatment that are usually recommended, I was led to try cannabis indica, which acted like a charm then and afterwards when the same man had a recurrence of it. I have often used it since, and never found it to fail. I gave the tincture in an emulsion.

HOSPITAL SHIPS AND THE RED CROSS.

P. M. B.—For a report of the International Convention consult the *Times* of August 19th, 1864, page 7, column 6, also of September 5th, 1864, page 6, column 5. The literature on the Red Cross is extensive, but the following will afford much of the information required: "Origin and Work of the Red Cross" in the *United Service Magazine*, vol. iii of 1882, and vol. i of 1883; also Mr. Furley's contributions in vol. xviii of the *Nineteenth Century*. Among works by foreign writers, the *Red Cross*, by G. Moynier (London, 1883), and *La Croix Rouge de France*, by M. Du Camp (Paris, 1889).

JUVENILE ODDFELLOWS.

J. D. E. M. (Horley, Surrey) writes: In reply to "T. M. W." in the BRITISH MEDICAL JOURNAL of March 2nd, p. 515, the Juvenile Oddfellows have pay 4s. a year, with fee of 1s. for examination on entrance, also special fee (generally £1 1s.) for fractures or severe illness requiring unusual attention.

E. R. S. L. (Starcross) writes in reply to "T. M. W.": Let me strongly advise him to stipulate for the same as he receives from the seniors. It is manifestly unfair that we should be asked to attend children for 2s. annually (the sum I receive) when they are rather more liable to illness than adults. Some years ago, when the juvenile branch was started here, I agreed to accept 2s. per member annually, on the grounds that they had no funds, the management being entirely separate from the seniors. Recently I have applied for an increase, as there are some funds in hand, but hitherto have failed to obtain it. When we consider that the Juveniles were originally started with a view of feeding the seniors' lodge, I think the latter should see that we are paid the same sum all round.

IN answer to "T. M. W." J. J. C. writes that in connection with two juvenile lodges recently formed he has fought the same battle, and was supported on one side by a neighbouring professional brother, but on

the other only by distance. He is paid 4s. 6d. per member, agreed for same as adult, on following grounds: 1. They require as much and more attention as adults. 2. Are liable to diseases of development, and children's diseases, and infectious diseases (being often cooped up together for five hours daily in stuffy schoolrooms). 3. When ailing they cannot often attend at surgery, and are unable to walk any great distance; therefore they require more visiting.

He put before them that he understood they wished to pay their surgeon for his trouble, and if they paid the tariff above it might be equitable. The lower fee could only be regarded as a honorarium, and, as he was already parochial medical officer, he could not afford any more work without due remuneration. They at once agreed they were not seeking the charity of the surgeon, and acceded to the terms.

REGISTRARS' FEES.

DR. HOOPER.—It is true that a registered medical practitioner is bound by the law, as it now stands, to furnish to the relations of a deceased patient a certificate of the cause of death of such patient, and that he is not entitled to any fee for this service to the State. The informant of the death, on registering the death, is also entitled to receive from the registrar, free of charge, a certificate of registry, which serves as an authority for the burial, but this certificate of registry is not a copy of the entry in the register or of the medical certificate. If the deceased was insured in a registered friendly society, no money can be legally paid by such society, except on production of a certified copy of the entry in the death register, for which copy the registrar is entitled to a statutory fee of one shilling. Copies of the medical certificate would be useless for this purpose.

HOSPITAL STAFFS.

MEMBER BRITISH MEDICAL ASSOCIATION: The remarks in the newspaper cutting forwarded, though very objectionable, cannot be regarded as libellous. Lay comments on professional matters should not always be taken seriously. No charge is made that the infirmary directors have broken through their own rules in the appointments that have been recently made, and except in a very large town and a hospital connected with a medical school, it is impossible, especially on the surgical side, to make up an honorary staff of medical men who are pure consultants.

NOTES, LETTERS, Etc.

THE ARTIFICIAL SPECTRUM TOP.

MR. A. S. PERCIVAL, M.B. (Newcastle), writes: Those who are interested in the explanation of Mr. Benham's "artificial spectrum top" are referred to Dr. Stewart's excellent paper entitled Is the Law of Talbot true for very rapidly Intermittent Light? This is published in *Proc. Roy. Soc. Edin.*, vol. xv, pp. 441-464. The physiological facts there discussed afford a complete explanation of the colour phenomena produced by the top.

THE STEAM TENT.

DR. A. D. KEITH (Aboyne, N.B.) writes: I think the Memorandum from Dr. Haddon, of Hawick, in the BRITISH MEDICAL JOURNAL of February 16th is most opportune, and it interests me specially as I am at present treating a case of diphtheria. Early in the morning of February 12th I injected 60 minims of Dr. Klein's antitoxin. In my temporary absence for the day the patient's friends, thinking him worse, adopted the steam tent treatment. On visiting my patient the following day I found no improvement, and until the steaming process was discontinued no real improvement did take place. I may state that I abandoned steaming in the treatment of diphtheria 17 years ago, and have had no reason to regret it.

THE TOURIST IN CAIRO.

L.R.C.P.ED. M.R.C.S.ENG. writes: The plagues of Egypt are of course not a modern invention. Excluding the hornet and the mosquito, as evils apparent only to the jaundiced mind, what are we to say to the smells and the vermin in the bazaars? As the sewerage of the native quarter has for years escaped into the watery substratum and thence only into the Nile, one can understand, only from a sanitarian point of view, a continuance at the head of affairs of a reforming body is necessary. As to the vermin, one changes everything one has on after "doing" the native quarter, and one seeks (and easily finds in this land of splendid hotels) a clean hotel where sanitary arrangements are carried out.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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BOOKS, ETC., RECEIVED.

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A CLINICAL LECTURE
ON
LATERAL CURVATURE OF THE SPINE.

Delivered at University College Hospital.

BY CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery in University College.

GENTLEMEN,—We have in the ward a young woman with lateral curvature of the spine, a malady which comes under notice far more frequently in private than in hospital practice. We are often asked by anxious mothers if there is anything wrong with their children's backs, and this anxiety is not unnatural. Few backs are quite straight, and in many young people there is a strong tendency for the trunk to lose its habitual equilibrium, and for the spine to lose its perfect straightness. We meet with two classes of lateral curvature, according as the curvature begins in the dorsal or in the lumbar region. A common instance of the first class is in a girl, say of 16; the dressmaker says: "Your shoulder is growing out," and in most cases it is the right blade bone which is more prominent than the left. The mother is alarmed, and at once takes the daughter to her doctor for examination.

Now, you can examine a girl's spine without any unpleasant exposure, if the clothes are properly pinned up round the pelvis. I show you here a diagram of the back of a healthy woman. Note that under normal conditions the scapulæ above, and the folds of the buttocks below, are perfectly level. But if one foot is placed upon a book the crest of the ilium is raised, the pelvis is sloping, and a curve is produced in the lumbar spine. This fact is important, because in many of these cases the pelvis is not straight, one leg being a little longer than the other. Few persons have eyes of precisely the same focus, and few have legs of quite the same length. A trifling illness in early life, with pain in one leg, perhaps in the hip, may have checked the growth of that limb. The effect of even a slight difference in length is to cause a tilt of the pelvis, the lower side corresponding to the shorter leg.

The tilt of the pelvis accounts for the lumbar curve, but it only accounts for the dorsal curve when that is secondary to the lumbar curve, and is in the opposite direction, to preserve the equilibrium of the trunk.

There is another class of cases, however, in which the dorsal curve comes first. A curve may begin there in consequence of a severe attack of pleurisy or from an empyema, which leads to contraction of one side of the thorax; but quite apart from this we have curvature beginning in the dorsal spine, and I believe the correct explanation is that which has been given by Mr. Barwell. The serratus magnus, which determines the fixation of the scapula in the movements of the arm, tends to pull the ribs into an abnormal position if more work is thrown on one side than on the other. The connection of the ribs with the vertebræ causes the action of the serratus on the ribs to produce a rotation of the vertebræ on their vertical axes. The altered position of the ribs involves an undue prominence of the scapula on that side, and then the girl's shoulder is said to grow out. But other causes are often in operation. Habitual muscular action is frequently influential, and many young girls have more work put upon them than they can stand. Among the poor they are set to carry children almost as big as themselves, and in the middle and upper classes they are made to practise the piano for hours, or to draw or to write with arms and body in a harmful position. Especially in writing at a flat table the elbow is fixed, and there is a strain on the scapula which the serratus magnus opposes by pulling on the ribs, and the effect is to cause a gradual rotation of the vertebræ. This result is slowly produced, but habitual posture in the course of months has a powerful effect. The ribs are drawn backwards and the scapula stands out. This theory of the influence of the serratus magnus may not be all the truth, but after thinking the matter well over I am convinced that it is true, and it is especially confirmed by the place at which this dorsal curve begins.

On looking at the patient before you, you see how the scapula projects, and you can notice that it is due to the backward prominence of the ribs under it. When the patient folds her arms and stoops forwards you see the curve in the dorsal spine. We can only perceive it by the spinous processes; the transverse processes are concealed beneath the muscles, or they would show us the rotation of the vertebræ on which the curvature depends. There is in this case a history of a chest illness in early childhood, which was probably an attack of pleurisy, determining a change in the position of the ribs, until you now see the ultimate consequence.

In the other patient I show you there is such a curve in the lumbar spine as to bring the last rib on one side almost to the edge of the pelvis, so that I can hardly get my finger in between them. The pelvis is not level, and if I mark with chalk the position of the spine you will see the curve. I put a book under the foot of the patient on the lower side, and the deformity disappears.

It is important to measure the legs in these cases, but a little tact is wise, and it can be done effectually without unpleasant exposure. If you try to measure the legs with a tape you are very likely to be misled, but make the girl lie flat on the floor, and draw up her legs by bending her knees. If one knee is lower than the other, the feet being even, that leg is shorter than the other. But a still better test is to observe the pelvis and lower part of the back when the patient is standing and the feet together.

I am sorry to say that lateral curvature of the spine has been the cause of a system of practice which is a disgrace to our profession. I show you some of the apparatus such I have again and again taken off the backs of girls whose spines were perfectly straight.

I remember two sisters being brought to me fitted with new instruments. I had the supports taken off and examined one girl's back, and said: "She has certainly a slight curvature. I do not prefer the instrument she has, but it is a well-recognised method." And then I examined the second girl's back, and found that her back was perfectly straight; there was nothing the matter with it. "Well," I said to her, "your back is quite straight." "Oh, yes," she said, "I know it is, but the doctor said if I did not wear the apparatus it would soon be like my sister's!"

These spinal supports are made with the idea that when you lift the girl up and hold her up with your hands you straighten the back; and these machines are intended to do this, but you must remember that you are standing away from the girl, and it is another thing when you put an instrument upon the actual patient herself and expect that to do what you have done from quite a separate base. Then you see cog-wheels to increase the pressure on the ribs, and there are crutches to support the arms. The gentleman who orders the instrument keeps the key. The mother and daughter have to go to him once a week in order that the instrument may be screwed up and adjusted, but a few turns reach the end of the adjustment, and then it is necessary for him to unscrew it and set it afresh. It is a monstrous thing, and, as far as I have seen, no good results from it or can result from it except to the pocket of the gentleman who ordered it and the instrument maker who made it. There are a few, a very few cases in which a support of this kind, with crutches under the arms, may be of use, but as a rule it is harmful.

I do not say that I never order apparatus, but when there is a primary curve in the lumbar region all that is really necessary is to rectify the shortness of one leg, which is the common cause, by a compensating boot. But I do not compensate by adding to the boot for the shorter leg. If, for instance, the left is half an inch shorter than the other, the bootmaker should take a corresponding amount from the heel of the right boot. Remember that to get such a thing done properly you must take the trouble to write down the precise instructions as to what is to be done. The object is to get the pelvis straight by raising one leg or by lowering the other. It is better to first lessen the thickness of the sole of the boot on the longer leg, and only to add to that of the other if the first is insufficient. If an apparatus is needed it should be worn only in the daytime, and be carefully attended to so that it does not make the skin sore by chafing.

Some apparatuses are simply stays with supports added to them; but the important thing that should first be attended to in such cases is to see that a girl has plenty of room in her clothes. Make a girl unbutton her clothes and fill her chest by a deep inspiration. You will then often find two inches between the buttons and the button holes. When the dress is fastened it is impossible for her to fill her chest with air, and the first thing is to get rid of this hindrance to expansion. The best method to adopt with such cases in order to secure the filling of the chest with air is to have a rope put up in some convenient place with knots on it. Let the girl, with as little on as may be, try to climb up the rope until she is on tiptoe, then take three deep breaths and let herself down again gradually, and presently repeat the proceeding three times. I am accustomed to write the directions down on paper, and make her keep it in her bedroom. It is well to write these things down with every formality as if it were a prescription. The patients may not carry out your prescription, but they are more likely to do so if you go through the formality.

Next, it is most important that the patient should avoid any habit tending to throw work on one shoulder more than on the other. Too much work should not be thrown upon the muscles of the back. In piano playing, for instance, it is well that the back should have a firm support behind it, and when children play the piano take care that the feet are always upon a stool and not dangling down. Take care also that all writing and drawing is done at a sloping desk, the girl sitting on a chair that is not too high.

With regard to exercise in these cases, if the patient can ride a horse or a pony it is a good thing, but a girl should not always ride with the crutch of the saddle on the same side. Small side saddles are made for children with a crutch that can be shifted.

Shall the girl be made to lie down or not? I believe that lying down is not of the slightest use in these cases. The practice is an old one, and it unquestionably rests the muscles, and it is wise to make a girl lie down for an hour after a ride or walk, but simply to rest the muscles, and not with the view of acting on the spine.

Such is the general treatment of these cases. As far as you can avoid special stays. There are some severe cases which require instrumental supports, especially cases in which bony deformity has resulted from rickets; but you should assure the parents that they are not to cure the disfigurement, but simply to prevent it becoming worse.

Some years ago I served on a committee appointed by the Clinical Society to consider the question of the treatment of lateral curvature of the spine, and I will read to you some of the conclusions we came to.[1]

"*Cases without Osseous Deformity.*—The Committee feel that while gymnastic exercises prove very useful in a great many cases of pronounced lateral curvature by improving the muscular power and relieving pain, yet that it is essentially in cases without osseous deformity, and when the curvature depends on flaccid muscles, relaxed ligaments, and on a general want of tone of the system, that this plan is indicated, and most likely to prove beneficial and even curative. Moreover it seems not improbable that the use of mechanical supports in such cases tends to maintain the curvature by preventing or limiting voluntary muscular action, and thus withdrawing from the muscles their natural stimulus to action and healthy tone. On the other hand, there are cases of lateral curvature in children too young to appreciate the dangers of faulty positions, and too weakly to keep themselves in improved positions after drilling without some extraneous aid. In such cases some means additional to exercises may be necessary to prevent the assumption of these faulty positions.

"*Cases with Osseous Deformity.*—For cases in which there is more or less well-marked osseous deformity treatment must necessarily vary according to the special needs of the case, a cure of the deformity, or even much alleviation, being quite impossible. In many of these cases the patient complains of pain, which pain is relieved by the use of a well-adjusted support, a fact to which the Committee can testify from personal observation. On the other hand, the Committee have seen great relief to pain afforded by gymnastic exercises without the use of mechanical supports. It seems very doubtful whether any real or lasting improvement is procurable by any method of treatment whatever in the later stages of such cases."

[1] *Clinical Soc. Trans.*, xxi.

HYSTERICAL (SO-CALLED) AND FUNCTIONAL DEAFNESS.

By SIR WILLIAM B. DALBY, F.R.C.S.,
Consulting Aural Surgeon to St. George's Hospital.

THE "Case of Functional Deaf-Mutism" related by Dr. W. B. Ransom in the BRITISH MEDICAL JOURNAL of March 2nd induces me to offer a few remarks on a class of cases for which I suggest no name for the present, except to say that any definition hitherto in use is not strictly accurate. They are generally spoken of as hysterical deafness, sometimes as functional deafness. I do not for one moment venture to criticise Dr. Ransom's definition of his particular case, but those to which I refer present so many points of similarity that they may usefully be laid side by side with his case in order to elucidate their precise nature. I am sure that Dr. Ransom would not object to this use being made of his case under any circumstances, but it becomes especially valuable for the reason that he adopted probably the only method which would have instantaneously cured his patient, or, speaking more accurately, would have at once put an end to both the mutism and deafness, as indeed it did.

To illustrate my meaning I will briefly relate a similar case so far as the so-termed hysterical deafness is concerned.

Some years ago a young lady, aged 17, in every way healthy, and exceedingly good-looking, was found one morning by her friends to be absolutely deaf to all sound. All communications had to be written, and she replied to them as usual. Her voice was not affected as to tone. After a week or so, she was brought to me by her medical attendant and her mother. The external and middle ear were quite healthy. A great many attempts had been made to try if she could hear anything, on both sides, in front of her, and behind her. But do what they would, she never evinced the slightest perception or gave the slightest start, and they were one and all quite certain as to the complete deafness. I was tolerably familiar with the demeanour and voice of persons who, with good hearing to start with, had suddenly lost all perception to sound, and I was quite certain that this girl could hear as well as ever she did; so I was exceedingly careful not to let her know that I had the least suspicion she could hear, and I explained (in consultation) to the medical attendant what I believed was the state of the case. I suggested that with his consent and her mother's I should arrange that she should suddenly apparently regain what had really not been lost. My plan was simple enough—that she should walk through two rooms into a third, and that as she entered the third room, from a point where she could not see, a gun should be fired. Without any doubt she would then have been so startled that she would have displayed to us all that she heard. From that instant she would no longer have been deaf. For reasons which may have been quite good, my friend objected to this, and especially on the grounds that her mother would never consent to it, so certain was she that her daughter was actually quite deaf. I then said it would be best to apparently accept the deafness as an incurable affection, with the perfect confidence that one day she would appear with the hearing as completely and suddenly restored as it had been completely and suddenly lost. So I saw her no more, but some months afterwards I saw a relative of hers who I happened to know, and he informed me that about six months after my examination she came down to breakfast hearing quite well.

Now, surely this case would be very inaccurately described as "hysterical" deafness. So far as I understand, if a young woman has hysterical paralysis of a limb she firmly believes that she cannot move it, and she cannot until some strong emotional influence has demonstrated to her that she can do so. In the case of a special sense like hearing, the girl cannot be under the impression that she does not hear. She cannot help hearing; it is not a question of loss of power

over volition; the function is involuntary; moreover, the function is perfectly performed, so it is just as inaccurate to speak of "functional deafness."

Let me give an example of true functional deafness. A child, who had become intensely deaf without any disease of the middle ear, recovered completely after the evacuation of a large number of lumbrici; the function of hearing had been suspended and restored. I have constantly known hearing suspended under a violent emotional influence, and under many other conditions which I need not mention here. This deafness would be accurately described as functional. What happened with this girl and others like her must surely come under the head of mental. A great mental strain must always have been going on lest inadvertently she should be suprised into evincing some perception to sound, and especially when it proceeded from behind or out of sight. I was much struck by a remark of Dr. Ransom, or rather a foot-note, in which he draws attention to the fact of the demeanour not being like a malingerer. This applies remarkably to the girl whose case I mention and to others I have seen.

I have seen malingerers who had a very strong motive to induce people to believe them deaf, and their demeanour was quite different to these girls. Probably she had no motive, or, at least, could not say what it was if she wished to do so, but the fact remains that, unlike the person who really suddenly loses hearing, she retained the most perfect modulation of her voice. From the moment that these girls unconsciously display to the bystander that they hear, the deafness goes. What interested me, therefore, so much in Dr. Ransom's case of the deaf-mute was that when he felt the faradic current through the larynx, and gave the "yell," his voice and hearing, like the girl's, returned so soon as his voice was displayed to the bystanders. There was another point of strong resemblance. In the case of the girl (as I mentioned) the voice retained its perfect modulation; for how should she know that this would have become altered if she suddenly lost all hearing? Whilst in the case of the boy who became the deaf-mute, he was unable to emit any sound—surely the oddest kind of deaf-mute; but how should he know that deaf-mutes, whilst unable to articulate, are most noisy, and emit all sorts of inarticulate sounds? Another odd point of resemblance in all these cases is this: They are all right the night before, and always discover themselves to be deaf in the morning, when they awake and are alone. The persons who really suddenly lose all perception to sound do soat all sorts of times, and often in the presence of other people.

Dr. Ransom says, "although the deafness was not absolute when the patient came to the hospital, yet severe tests, such as the cannon, showed it to be real," and, previously, "he gave no sign of hearing a cannon let off close to him on November 5th." In reference to this, I must say that in the cases of which I have made mention the subjects who heard well would also have given no sign of hearing a cannon if they knew it was going to be fired and could see it. But if they saw no cannon (or gun, as the case might be), and the explosion was quite unexpected and near to them, they would have displayed unmistakably to the bystanders that they heard it.

The position, therefore, resolves itself into one of two, and I am prepared to accept Dr. Ransom's opinion in either case. First, he heard the cannon and showed no sign of hearing it. Then his case comes at once into the same category as my cases. Or, secondly, he did not hear the cannon. The function of hearing had been lost, and was restored instantly by the electric shock through his larynx. In the latter case it is a unique instance, and the like of which I have hitherto regarded as impossible to bring about.

Cases of this kind are sufficiently rare to make it most important that each one should be recorded, as every fresh one not only throws new light on the subject, but in those instances where the hearing is really lost either for a time or permanently they help to show what I have for long maintained, that the sense of hearing is often apt to be lost from emotional causes, although I am quite unable to offer any reasonable explanation, and have strictly limited myself to suggestions for the consideration of others. They also help to show that there can be no true hysterical loss of hearing any more than there can be a hysterical loss of smell or of any other special sense.

REMARKS
ON A
SERIES OF THIRTY CASES OF MOVABLE KIDNEY TREATED BY OPERATION, WITH THEIR RESULTS.[1]

By W. BRUCE CLARKE, M.B., F.R.C.S.,
Assistant Surgeon to St. Bartholomew's Hospital, etc.

The completion of a series of thirty cases of nephrorrhaphy seems to me to be worthy of record. The value of the operation has sometimes been called in question. I am anxious, therefore, to record with their after-history, so far as I have been able to learn it, the ultimate results of these thirty operations.

Very nearly two years ago, in a paper which I had the honour of reading before the Fellows of the Royal Medical and Chirurgical Society, I drew attention to a class of cases of movable kidney which had hitherto attracted but scanty notice in this country, and in which very severe pain was one of the prominent features. From the pain and other acute symptoms which determine these attacks, it seemed all but certain that a sudden displacement of the kidney from its natural bed must be their determining cause, and that the term "acute renal dislocation" would best describe what took place, and what indeed was essential to the production of the symptoms in question.

Such cases form only one variety of floating kidney, though a further and more extended experience of what may be described as the more common variety of this condition has forced on me the conclusion that it is rare to come across any case of the kind in which pain has been completely absent throughout; and of the reality of these attacks of pain, when once they are witnessed, there can be no possible doubt. The question to be determined is what is the probability of a successful result if an operation be performed. The immediate result in all my cases was a successful one, and, so far as I have been able to learn, every one of my patients is alive at the present moment.

In by far the great majority of these cases pain has been the prominent feature, and the severity of the pain has led to the demand for its relief. The special character of the pain was described at some length in my previous paper before alluded to. Suffice it here to say that the pain usually begins without any warning, sometimes in consequence of a strain or some severe exertion occasionally after injury. It is often attended by vomiting, and later on usually gives rise to local abdominal tenderness. The duration varies from a few hours to a day or two, and in some instances it may be cut short by manipulating the affected kidney, in other words, by reducing the dislocation. The condition of the urine during and shortly after the attacks varies greatly. It may be scanty and blood-stained, or almost porter-coloured, like that which is passed in acute Bright's disease, whilst in the less severe cases it is more commonly quite unaltered.

In some of the cases here related the pain was far less acute. It was described by the patients themselves as consisting of a dull ache, which rarely left them free from a sensation of uneasiness in the loin, and was usually aggravated by hard work or exercise of any kind. This class of case in women is almost invariably attended by more severe pain at the monthly periods, but I have never come across any instance in which the urine was blood-stained or much altered in condition in cases of moderate severity. In many of my cases, during the interval between the attacks, the kidney, even when the patient complained of no pain, was unduly tender to palpation.

Several of the cases referred to in the table on page 577 present points of special interest; I will therefore refer to certain of them *seriatim*, and afterwards state briefly the conclusions which seem to be deducible from them.

Cases I and II both occurred at the West London Hospital,

[1] Read before the Medical Society of London, March 11th, 1895.

where they came under my care in 1888. They are remarkable as being the only two instances I have come across in which the kidney was surrounded by a well-marked mesonephron, and in which, therefore, it was found necessary to open the peritoneum in order to fix them firmly in position. The kidney in both these cases could be felt to be distinctly movable, and slipped readily out of its proper position. In both the sutures were passed through the peritoneal coats only, and the patients made rapid recoveries.

Case I complained of but little trouble afterwards, and when seen by me some fifteen months later stated she was in excellent health, and had not had any pain in the loins.

In Case II the pain ceased for a few weeks, and then returned with even greater severity than before, so much so that she begged for something more to be done to relieve her. A second operation was performed six months after the first, and the kidney was found to be fairly well fixed in position. It was cut into and punctured with a needle, but no adequate cause for the pain could be discovered. As the patient's sufferings had been so very severe in the interval between the two operations, I decided to remove the offending organ. When the operation was completed the kidney was cut across and a small calculus covered with minute spicules was discovered in its interior. The patient made a speedy recovery and was cured of her trouble.[2]

Case III has already been published.

The next case which offers any special points for consideration is Case VI, a woman who was placed under my care in 1891 by Dr. Gray, of Oxford, with the following history. Her left kidney had been movable for three years and a-half, and had given rise to a considerable amount of pain, quite incapacitating her from taking active exercise, and during the last three months she had experienced some pain on the left side. She was very thin, and the right kidney could be felt at times to be larger than natural. It was decided to operate on the right kidney first, and leave the question of the left for future consideration should her pains still persist. The kidney was fixed to the lumbar fascia by two large silk sutures, after it had been thoroughly explored for the purpose of ascertaining whether it contained a stone. She made an excellent recovery, and felt she had derived so much benefit from the operation that the pain on the left side seemed hardly to trouble her. Under these circumstances I did not propose to operate on the other side, and gave a favourable prognosis. Some few months later I heard she was much improved in health, and, with the exception of a very slight dragging pain in the loins, had no trouble from her kidney. The subsequent history of the case fully bore out the prognosis, and four years later she became a hospital nurse, capable of any amount of hard work.

Case VIII, another female patient, is an excellent illustration of how liable a movable kidney is in its acuter forms to be mistaken for a case of renal calculus. In 1889 she was admitted into St. Bartholomew's Hospital in consequence of attacks of renal colic, which were supposed to be due to calculus, and she remained some time in hospital without passing any calculus. After she went out she had further attacks of pain and came under the care of Dr. Bousfield in the Old Kent Road, who asked me to explore the kidney, and I did so in July, 1890, and found it somewhat movable, and sutured it in position. For a time she improved, but as a good deal of pain remained she came under my care for the second time about a year later, and the kidney was again explored. It was found to be firmly fixed to the side, but the ureter was loose and could be easily pulled up into the wound; in other words it appeared to be a good deal longer than necessary. The interior of the kidney was fully explored and a small bougie was passed down the ureter into the bladder, but no stone was discoverable anywhere. A drainage tube was accordingly inserted and the wound closed. She made an excellent recovery, and since her last operation, though not entirely free from pain, has been able to follow her occupation without difficulty.

[2] The earlier history of Cases I and II was referred to in a paper read by me before the West London Medico Chirurgical Society in 1890, entitled Nine Years of My Surgical Experience at the West London Hospital; and also in a paper on Renal Surgery, at the Leeds meeting of the British Medical Association. See British Medical Journal, November 16th, 1889.

[3] *Med.-Chir. Trans.*, vol. lxxvi, p. 263.

Cases IX, XXI, XXII, and XXIV have many points in common. They all either were passing or had at some time passed pieces of calculous material.

Case XXIV, which first came under my care at St. Bartholomew's Hospital in August, 1893, though by far the most severe of the four, is a typical example of the class, and I will therefore refer to it more in detail. The patient in question was aged 24, unmarried, and had had some pain in the lumbar region for several years, at times very acute. The acute attacks of pain were limited to the left side of the abdomen, and were usually accompanied by a certain amount of abdominal tenderness and distension. Just before she came under my care she had passed some phosphatic *débris*, and had had several slight attacks of hæmaturia. Her kidney on the left side was explored; it was found to be somewhat larger than natural, and flabby in texture. On incising it some urine and phosphatic gravel escaped, and its interior, including the pelvis, was considerably dilated, and contained a good deal of pus. It was easy to explore the interior thus dilated with the finger. There was no distinct calculus present, but the walls were here and there coated with phosphatic material. A small bougie was passed down the ureter into the bladder, and no obstruction of any kind was encountered. As there was still a fair amount of secreting substance left in the kidney walls, and the exact condition of the kidney on the opposite side was a matter of uncertainty, I decided to suture the left kidney firmly in position, with a hope of saving it permanently.

For the first few days the patient's condition gave rise to some anxiety, as she did not rally well from the shock, but she eventually made a good recovery, and though she passed some urine through the loin during the two subsequent months, she derived much benefit from the operation. After she left the hospital, as she was unable to rest, she relapsed into her previous weak condition, and soon suffered from severe pain on the right side, necessitating the fixation of this kidney, which was very movable, to the corresponding lumbar fascia, and three months later the removal of the left kidney, which was then reduced to a mere shell containing pus. At present she suffers from a certain amount of pain in her remaining kidney, but is better than she has been.

Of the remaining three cases in which calculous material was present nephrorrhaphy was performed in all three. Two of them recovered completely, whilst the third (Case IX), which was under my care at the West London Hospital, had nephrorrhaphy performed in 1889, following by nephrectomy in 1890, and is now well and able to lead an active life.

It may possibly seem hardly fair to have included these cases under the head of movable kidney at all, since they ought rather to be described as instances of nephrolithotomy. I would draw attention, however, to the fact that the *débris* in their interior gave no evidence of the formation of any distinct calculus, but adhered to their walls over a larger or smaller area. There was no evidence that any distinct calculus had been passed by any of them, nor was the calculous material present in the early stages of their affections. It appeared only as a later symptom, and was, I believe, as much a secondary condition as the abscess in the interior of a kidney that had been movable for years, the history of which I am just about to relate.

Case XII is the only one in which I have come across an acute abscess supervening upon a long-standing movable kidney. She was an old woman, aged 65, and was admitted to the West London Hospital in 1890 with an acutely painful swelling in the region of the left kidney, and a high temperature.

She gave a history of long-standing aching in that region, and stated she had been told she had something wrong with her kidney some years before. An incision was made in the left lumbar region, and the kidney found to be displaced forwards and somewhat downwards. It was distended with pus, which was let out, after which the organ was sutured to the lumbar fascia without much difficulty. A bougie was passed down the ureter and demonstrated that it was pervious. A rapid recovery ensued, and the patient left the hospital feeling perfectly well.

Cases XI and XVIII, like Case III, have already been described in my paper on Acute Renal Dislocation, before alluded to.

There are, in addition to these three, eighteen other cases in which the mobility was uncomplicated by any other condition, and in which dilatation of the kidney pelvis either did not exist at all or had only just begun to appear at the time of operation.

It is difficult, if not impossible, to separate the acute cases which I have previously spoken of under the term "acute renal dislocation" from the more chronic form of movable kidney. One variety passes, as I have already stated, into the other by a series of almost imperceptible gradations. Even the most chronic cases, when they are cross-questioned on the point, can usually call to mind some one or more occasions on which they have been seized with acute pain in the lumbar region. It may have been transitory and it may have occurred some time preceding the inquiry in question, but it is rare not to get the information if it is sought for. I have, therefore, included all the uncomplicated cases of movable kidney in one series. Thus it appears that twenty-one of the thirty kidneys here referred to were uncomplicated by dilatation of the kidney pelvis to any marked extent. Of these eighteen were cured, or at least so far benefited by the operation that they were enabled to lead an active life, and felt little or nothing of their old trouble. One of them (No. xxx) has been operated on too recently to enable me to form any certain conclusion as to the ultimate result; so far, however, she is entirely free from pain

In three of the cases, namely, Nos. xii, xxviii, and xxix, there was improvement, but not complete freedom from pain or from danger of further destructive dilatation of the kidney pelvis. In Case xxix it is quite possible that further improvement may take place. Mr. Burnet, one of my former dressers, who sent this case to me, tells me that in the seven months since the man was operated on he has had six attacks of renal pain. In general appearance, however, he is decidedly better, and his friends describe the attacks as being less severe and interfering less with his work than they used to.

In two of the patients above referred to (Cases x and xi) the affected kidney when explored was found to be so disorganised that it was removed at once: (for Case xi see "acute renal dislocation"), and in two instances, Nos. xiv and xxvi, although an attempt was made to preserve the kidney, it was unsuccessful. The relief from pain was only temporary, and nephrectomy was performed a few months later. In the latter case Dr. Covey, under whose care the patient had recently been at Southampton, wrote to me some time after the first operation saying she was confined to her bed, and that her health was failing in consequence Since the kidney was removed she has been quite free from pain.

Several points are suggested by a consideration of the above cases. First, the impossibility of distinguishing clinically between kidneys which are surrounded by a mesonephron, and those which are movable behind the peritoneum. In my first two cases, as I have already stated, a mesonephron was present, but the character of the movements of the kidney gave no clue to its existence beforehand. In several of the subsequent cases the movements were so extensive that a mesonephron was expected to be present, but none existed.

It is often asserted that operations performed on movable kidneys do not yield the results which are expected from them. The results that will be obtained largely depend, I am convinced, on the condition of the kidney when the operation is performed. If the pelvis is dilated or the secreting substance largely destroyed, but little is to be gained by leaving the affected organ, if the other one is known to be healthy; and it is obvious that the more unhealthy the movable kidney proves to be, the more certain it is that the opposite organ is capable of taking on the work of both sides. If the ureter is lax and elongated the tendency to form kinks and temporary valves is considerable, and militates against the likelihood of a successful issue, as is well shown by the later history of Case viii. If such cases are to be operated on at all the sooner they come into the surgeon's hands the greater the chance of permanent relief of pain, and of preventing those degenerative changes which in all probability will eventually destroy the kidney, and tend to shorten the life of the patient to whom it belongs.

Table of Thirty Cases of Movable Kidney.

No.	Name and Age.	Prominent Symptoms.	Date of Operation.	Result.
1	E.L., 39, female, married	Dragging pain in loins	Nov., 1888	Well 15 months later.
2	M.E., 18, female, unmarried	Dragging pain in loins	Nov., 1888	Pain returned; kidney removed, contained calculus.
3	J.E., 33, female, unmarried	Severe pain right loin; 18 months' duration; at times nausea and vomiting. *Med.-Chir. Trans.*, vol. lxxvi, p. 262	Dec., 1889	Well 18 months later.
4	T.S., 27, female, unmarried	Dragging pain; occasional attacks of severer pain with vomiting	Nov., 1889	No attacks of acute pain 27 months later.
5	H.W., 24, female, unmarried	Attacks of severe pain; 2 or 3 years; lately worse	January, 1890	Married shortly after; no pain in 1892.
6	M.H., 27, female, unmarried	Both kidneys movable: right 3 months: pain; left 3½ years; operation on left	January, 1891	Well 4 years later.
7	W.S., 22, male	Hæmaturia; attacks of pain; stone expected; none found	April, 1890	No pain after operation; soon lost sight of.
8	L.S., 23, female, unmarried	Severe pain: explored twice	Jly., 1890, and Aug., 1891	At present (1895) health good; occasional slight pain.
9	A.M., 27, female, married	Severe pain; dilated kidney; contained phosphatic material	Jly., 1889, and June, 1890	Pain returned; nephrectomy a year later; well 1895.
10	J.N., 33, female.	Pain 7 years; attacks last 12 hours; vomiting; kidney enlarged; nephrectomy	Oct., 1890	Well a year late
11	J.P., 22, male	Severe pain 1 year; kidney reduced to mere shell; nephrectomy. *Med.-Chir. Trans.*, vol. lxxiv, p. 255	Nov., 1890	Well 4 years later.
12	S.Q. 65, female, married	Pain for years off and on; not severe; abscess	Dec., 1890	Well 2 months later.
13	C.R., 4, female, unmarried	Slight pain 3 months; hæmaturia	Feb., 1891	Slightly improved.
14	L.G., 21, female, unmarried	Two years' pain; vomiting; dilated kidney; nephrectomy	April, 1891	Married; well July, 1894.
15	L.S., 25, female, unmarried	Pain several years	Aug., 1891	Well at present, excepting occasional pain.
16	C.W., 40, female, married	Pain from time to time	Jan., 1892	Scarcely any pain for a year later.
17	R.B., 56, male	A few weeks' history pain: kidney partly atrophied	Aug., 1892	Well 3 months later.
18	J.G., 30, female, married	Severe pain. See *Med.-Chir. Trans.*, vol. lxxvi, p. 261	July, 1892	Well December, 1892.
19	H.T., 17, male	Pain and hæmaturia	July, 1892	Well when leaving hospital; not seen since.
20	F.C., 31, male	Four months' pain; vomiting	March, 1893	Letter from Dr. Edwards, Bedford, 1894, to say he is well. Improved.
21	R.C., 31, female, unmarried	Attacks of pain 12 or 13 years; hæmaturia; melancholia after operation	May, 1893	
22	F.H., 44, male	Pain; nephrolithiasis; has passed a stone; none found at operation	Aug., 1893	Scarcely any pain 6 months later.
23	A.C., 24, female, unmarried	Pain for 2 years off and on; hæmaturia; enlarged kidney felt before operation, which was not found a year previously	July, 1893	Well six months later
24	M.M., 24, female, unmarried	Left kidney; duration 12 months; passed blood and pus. Right kidney, see Case xxviii	August, 1893, and April, 1894	Benefited for a time; left nephrectomy; no pain since.
25	A.M.N., 32, female, unmarried	Six months' pain; dyspepsia	January, 1894	Some discomfort for a while; 3 months later well.
26	E.P., 34, female, unmarried	Pain 4 or 5 years; severe shoots down leg	March, 1894, and Dec., 1894	Benefited pain returned; nephrectomy; well since.
27	S.B., 42, female, unmarried	Eleven years since some pain; worse during pregnancies; large movable kidney tender to touch	March, 1894	Well October, 1894.

No.	Name and Age.	Prominent Symptoms.	Date of Operation.	Result.
28	M. M., 25, female, unmarried	Five months' pain, sometimes severe; right kidney; left, see Case XXIV	January, 1894	Benefited; some pain at present.
29	J. C., 23, male	Duration 6 years; frequent attacks of pain lasting 2 or 3 days; vomiting; smoky urine	July, 1894	Improved.
30	A. K., 54, female, married	Pain came on suddenly 3 years ago; frequent attacks since	January, 1895	Well at present time.

OBSERVATIONS ON THE EFFECTS OF DOUBLE CASTRATION (WHITE'S OPERATION) UPON THE ENLARGED PROSTATE.

By E. HURRY FENWICK, F.R.C.S.,
Surgeon to the London Hospital; Surgeon to St. Peter's Hospital for Urinary Diseases.

I BELIEVE that the operation of double castration, which Dr. J. W. White, of Philadelphia, has proposed for the shrinkage of the enlarged senile prostate, is a valuable and an important addition to our methods of treating the distressing sequelæ of this form of urinary obstruction, for, although my experience is limited to nine cases, yet I have seen sufficient improvement in these to induce me to recommend the operation for certain forms of the disease. I gather that the profession at large is too sanguine as to the immediate benefit to be expected from the procedure, that too pronounced a relief is anticipated from it, and that it is regarded as a panacea for all stages of prostatic obstruction. These views, I submit, are untenable. It is rather to introduce a discord in the prevailing harmony of the results which have already been published that I offer the following conclusions for consideration and criticism.

I would venture to suggest that those who record their experiences should be careful to recognise and to mention the character and size of the prostate *per rectum* and the length of its channel before and after operation, for it is only upon accumulated reports of such data that we can be guided to the selection of that form of prostatic enlargement which is best suited for double castration. Accurate estimation of the character and size of the prostate is far from easy. I cannot but believe that statements describing enormous prostates disappearing in three weeks after orchectomy spring from an erroneous appreciation of the size and shape of the gland.

I may claim for myself to have avoided false impressions as far as is possible, by having educated my fingers to detect slight differences in the rectal contour and consistency of the prostate under the varying conditions of health and disease. For the last ten years I have been in the habit of modelling in clay[1] or drawing in diagram nearly every prostate I have examined, but my notes on those bearing on this subject must be, for brevity's sake, excluded from this article.

My cases of double castration are briefly as follows:

CASE I.—This was my test case for shrinkage of the normal human prostate after orchectomy. I ablated the entire genitals of a man, aged 45, by the Thiersch-Gould method, for extensive epithelioma of the penis. After six months I found the prostate had been reduced to the size of a small bean.

CASE II.—Aged 76. Some years of feeble prostatic micturition. Sudden and prolonged retention. Extreme difficulty of catheterisation. Prostate unusually hard and enlarged, especially in the left lobe. Suprapubic drainage, because patient was at a distance from medical attendant. Double orchectomy. Result: in one week patient began to evacuate a little urine voluntarily, the suprapubic wound closed, and in three weeks he was able to do without a catheter. The prostate had slightly diminished in size by this time, and, though further diminished in three months, it was still appreciable. His last report was: "I have had no stoppage; the stream varies; sometimes it is feeble, at other times there is high pressure. The intervals between making water also vary; sometimes I may go five or six hours without a call, at other times I have to urinate every two or three hours." Improvement maintained

CASE III.—Aged 70. Symptoms of enlarged prostate for six years Attacks of retention. Slight cysto-prostatitis with some mild pyelitis present, the inflammatory conditions commencing a year before orchectomy. The prostate is noted as small *per rectum*, but the lateral lobes were seen by the cystoscope to be much upraised towards the bladder, the bar at the vesical orifice being very œdematous and translucent. The bladder was fasciculated and pouched.

Result of Double Orchectomy.—The urine cleared in the first week, the stream improved in force, the pain on micturition diminished. At the end of the third week the prostate was slightly smaller, the structures of the lobes seemed more fibrous, and the interlobar line of demarcation had filled up. After three months the stream had markedly improved in force, and no symptoms, except slight variability in the power of the bladder, remained. Improvement maintained.

CASE IV.—Aged 76. Repeated attacks of retention and uræmia. Catheterisation most difficult. Prostate plump and elastic, only moderately enlarged towards the rectum. Suprapubic drainage for months without improvement to the cystitis. Double orchectomy. Cystitis rapidly diminished, and voluntary micturition was recovered in a fortnight, a stream of good force resulting. Prostate was slightly smaller at the end of the third week. Improvement maintained.

CASE V.—Aged 76. History of five years' dysuria, which was not much relieved by catheter. The instrument had to be passed every two hours, then every hour. Irrigation of the bladder had no control over the cystitis. Double orchectomy. Prostate slowly diminished in size; catheterisation was only needed every six hours; cystitis diminished, active occupation renewed.

CASE VI.—Aged 81. Patient had relieved the bladder with catheter for nine years. For several years he has had to catheterise six or seven times during the night and three times during the day. For the last three months he had experienced increasing difficulty in passing his instruments, and his efforts were often followed by hæmorrhage. Prostate *per rectum* was large and elastic, especially the left lobe. He was promised relief only. He was assured that by orchectomy the catheter would be needed less frequently, its introduction would be easier, and the cystitis would be reduced. Orchectomy. Result: For three days after the operation the catheter was only needed twice in twenty-four hours, then four times in the same period. At the end of three weeks the prostate had slightly diminished and the interlobar line of demarcation had filled in; the cystitis had greatly decreased, but the catheter had again to be used three times at night. No stone or other source of irritation was present.

CASE VII.—Aged 80. History of two or three years' dysuria, with occasional use of catheter, followed by cysto-prostatitis. A prostatic abscess formed and burst into the urethra. Pain experienced after every feeble attempt at micturition; finally retention. Catheterisation for a week. Prostate large laterally and elastic. Orchectomy. Recovery of voluntary micturition on third day; slight shrinkage of the prostate after two weeks. Pain diminished, but stream and frequency of micturition very variable. Pain gradually left, frequency became normal, but prostate still plump and elastic, perhaps diminished one-eighth by fourth week.

CASE VIII.—This patient, aged 46, applied to me after ten years' of skilled treatment for an aggravated prostatitis with great local pain, tenderness, and severe and intractable neuralgic radiations. There was also increased frequency of micturition. Sitting or walking was almost unbearable. Orchectomy. No marked relief as yet. Prostate slightly smaller. Final condition will be reported later.

CASE IX.—In progress.

All the above patients were in urgent need of relief, and they were selected from a large series of prostatic cases as being suitable for the operation. It will be noticed that they illustrate the use of the operation in four groups of cases.

1. Those cases in which castration was performed early—that is, before the vesical muscle had been permanently crippled, but not before it had been impaired.

2. Those in which the muscle power had been abrogated by years of catheterisation, and in which death was approaching from ascending pyelitis.

3. Those in which the ordinary obstructive symptoms were aggravated by chronic inflammatory troubles of the senile prostate.

4. One mid-adult case of incurable chronic prostatitis and vesiculitis which was complicated by unrelievable neuralgic radiations.

REMARKS UPON THE OPERATION AND ITS RESULTS.

Operative.—In every case of orchectomy in the aged which I have done, swelling, and in some cases suppuration, of the stump of the cord has taken place. The wound in two cases has had to be reopened for drainage. It might be contended this was due to inefficient asepsis. I cannot but think that suppuration is induced by the inflamed bladder, microbes from which attack the wound: but traumatism of senile tissues also assists and I would suggest that the greatest gentleness should be exhibited in dealing with the cord, that no stretching by pulling on the testicle should be permitted, and that a drainage tube should be invariably left for three or more days in contact with the surface of the stump when cystitis is marked. The inflammatory dangers of *bistournage* under these circumstances is too obvious for comment.

RESULTS.

(*a*) *Reduction in the Size of the Prostate.*—The prostate, commencing probably at or near the orifice of the bladder, and

[1] Clay Modelling of the Living Prostate as a Means of obtaining a Permanent Record of Progressive Disease. BRITISH MEDICAL JOURNAL, 1887, i, p. 1099.

around the openings of the ejaculatory ducts, is unquestionably absorbed. I believe that the large, soft, elastic, uninflamed prostates are only slightly diminished in actual size after three weeks, and it is some weeks, even months, before they are decidedly small *per rectum*. With the congested enlarged prostate it is perhaps slightly otherwise. I can conceive that a recently congested enlarged prostate is markedly reduced in volume after the first three weeks, because the diminution in its congestion removes much of its extravascular bulk, but its final reduction in size is probably as slow as that of others. I have a suspicion that the fibrous prostate, which is tough, hard, and small *per rectum*, does not become reduced so quickly as the soft, elastic, fibromyomatous gland.

In some cases the first appearance of change in the contour of the prostate after orchectomy was a confusion between the lobes by a filling up of the interlobar groove, but of this I cannot speak definitely, because some prostates approach this type in senile enlargement. The mere reduction in size *per rectum* is, however, of secondary importance to the observed effects upon voluntary micturition.

(*b*) *Return of Voluntary Micturition.*—In those cases in which the muscle power was still present, though impaired, some return of normal micturition took place within the first week. But if the atony was pronounced the catheter could not be discarded. This is the weak point about all prostatic operations, a prognosis of the return of voluntary micturition depending in every case upon the muscle power of the bladder. Now, it is very evident that the muscular power of the bladder is not only impaired by prostatic obstruction but also by senile changes; and when patients apply for treatment, no matter how early the stage of the enlargement may be, some muscular weakness will be detected. And from this no aged patient ever recovers. He may be made comfortable by removing the prostatic obstruction, if this is done sufficiently early, but a strong stream is never regained. In all the cases in which I have done prostatectomy or castration in the aged, evidences of muscular weakness have remained. If the muscle of the bladder had not been placed *hors de combat* by retention or by confirmed catheterism, castration has certainly enabled the muscle to recover itself to some, often to an unexpected, extent. But the evacuating power remained capricious, and was influenced by the same conditions which affected it before the prostatic obstruction was removed. Thus, at one time the force appeared greater than at others. In the morning on rising a difficulty in emptying the bladder was still experienced, and several urinations at close intervals were necessary. Towards evening the force of the current generally improved. A cold, or an indiscretion in diet evoked frequency. If the bladder became overdistended, as in prolonged railway travelling, the stream was nearly always intermittent, the bladder being forced to complete by many efforts the work of evacuation which in middle age was accomplished in one steady expulsive contraction. The catheter even may be needed to assist the muscle if the over-distension has been great. Sudden stoppages, I have noticed, are still felt, but these may be due to the excess of mucous membrane at the base—left after the shrinkage of the subjacent enlargement—becoming rolled on to the vesical orifice.

(*c*) *Pus in the Urine.*—Not least among the advantages gained in some of the cases was the reduction in the amount of the pus present in the urine. Probably this may be accounted for to some slight extent by the effects of counter-irritation applied to the vertex of the bladder by means of the two wounds.

Conclusions.

1. There is no doubt that slow shrinkage of the prostatic tissue in many of the forms of senile enlarged prostate ensues upon double castration. Further experience must, however, decide as to whether every form of prostatic growth is thus affected.

2. It is certain that escape from catheter life after castration depends absolutely upon the health of the vesical muscle. The grade of the atony, therefore, should be most carefully estimated before any hopes of relief from catheterisation are held out. To promise a confirmed catheter case that orchectomy will do away with the instrument will merely bring discredit on the operation and disappointment to the patient. Even after prostatectomy we are unable to promise such relief if the muscle is hopelessly atonic, and we cannot do so after castration.

3. It is possible that castration by diminishing the microbic infection from the inflamed senile prostate will remove a constant menace to the integrity of the kidneys, for it will control the most prolific source of ascending pyelitis.

It appears to me that double castration will prove of value in the following conditions:

1. In reducing bulky overgrowth of the lateral lobes of the prostate. It may be found that the small, tough, fibrous, median or lateral vesical outgrowths will be better removed by suprapubic prostatectomy.

2. In controlling the distress and danger of an inflamed senile enlarged prostate.

3. In lessening the frequency or difficulty of introducing the catheter in advanced or confirmed catheter life.

4. In avoiding the mechanical difficulty of crushing a post-prostatic on a post-trigonal stone, by levelling the base of the bladder, thus rendering the operation of litholapaxy feasible in a condition in which before it was impracticable.

5. In reducing chronic cystitis and recurrent phosphatic calculus in cases of confirmed catheter life.

AN ENLARGED PROSTATE GLAND EIGHTEEN DAYS AFTER BILATERAL OR COMPLETE CASTRATION.

By JOSEPH GRIFFITHS, M.A., M.D., F.R.C.S.,
Assistant to the Professor of Surgery in the University of Cambridge, and Assistant Surgeon to Addenbrooke's Hospital; Hunterian Professor of Surgery and Pathology, R.C.S., England.

For permission to publish the account of the following case I am indebted to my colleague, Dr. Carver, under whose care the patient was while in hospital.

J. M., aged 74, a well-built and hearty-looking man, was admitted on October 10th, 1894, suffering from severe cystitis of many months' duration, the urine containing a large amount of mucus and pus. Micturition was very frequent and very painful, only a few drops being expelled at a time. Two years previously he was in the hospital for retention of urine, and since then he was in the habit of using a catheter. The prostate, as felt *per rectum*, was about as large as a medium-sized orange. As there was but little improvement from washing out the bladder and the frequent use of the catheter, and as there was much pain with little prospect of relief, he consented, as a last resource, to have his testicles removed. This was done on November 16th, 1894. The testicles were of full size, and in the left there was a large spermatocele. In each the production of spermatozoa was still going on, and in each there were numerous active spermatozoa in the seminal tubules.

On the following day (November 17th) the amount of urine found in the bladder was very small, but there was a great deal of pain in the loins, indicating partial suppression of urine. The next day more urine was secreted, and the pain in the loins was much less. There was, however, at times agonising pain in the bladder, though the amount of mucus and pus in the urine had somewhat decreased. At the end of the first week after the operation he could pass, for the first time for some weeks, a few ounces of urine without the aid of the catheter which was now only used twice daily. The urine still contained much pus. During the second week after the operation his general condition slightly improved and the bladder became quiet, and he was able to empty it fairly well; but towards the end of the second week he began to suffer from sleeplessness, which was soon followed by delirium; thus it was difficult to ascertain the condition of the urine, and on the fourteenth day after the operation the right popliteal artery became blocked, and the limb below showed signs of commencing gangrene. During the next four days he became gradually worse, the gangrene of the limb increased, and he died on December 3rd, 1894, eighteen days after the operation.

At the *post-mortem* examination the right kidney was found much enlarged from chronic hydronephrosis, and there was

suppuration of the distended pelvis and of the remaining portions of the kidney substance, which was probably subsequent to the castration. The left kidney was natural. The bladder was much thickened and its mucous membrane inflamed, as was that of the right ureter. All the other organs were healthy. In the right popliteal artery there was a mottled and slightly adherent recent clot. The prostate, which was still of large size, was somewhat firmer than an ordinary enlarged gland. In its substance there were a few small, soft, circular patches, apparently infiltrated with extravasated blood. The largest of these measured about half an inch in diameter. In some parts there were many small cysts (dilated tubules), and in others the gland substance was streaked with branching yellow lines which, as will be immediately shown, were the glandular tubules filled with fatty degenerated epithelial cells. The glandular tubules in the part of the gland streaked with yellowish lines were diminished in size and in number, and the intertubular connective tissue was relatively increased. A few of these

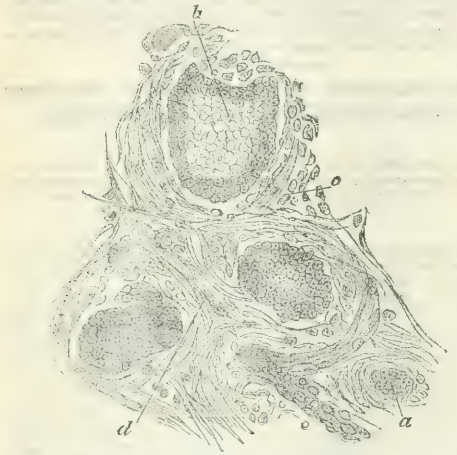


Fig. 1.—Section of enlarged prostate eighteen days after bilateral castration ×250. *(a)* Contracted tubule filled with small cells; *(b)* tubule filled with epithelial cells undergoing fatty degeneration; *(c)* stroma containing proliferating connective tissue cells; *(d)* unstriped muscle fibres.

tubules, which were of large size, were lined by three or more layers of small compressed cells, only the nuclei of which could be defined, enclosing a large lumen filled with large epithelial cells. These epithelial cells, occupying the lumen of the larger tubules, were of polygonal shape, ill-defined, with an almost clear finely granular protoplasm and small round nuclei. Some of the central epithelial cells were in an advanced state of fatty degeneration. The remaining tubules, which formed the greater number, were small and contracted, and were lined by a single layer of small cubical, almost flattened, epithelial cells with round nuclei and very little protoplasm. The lumen, when present in these tubules, was reduced to a fissure which was empty. In some parts the stroma, which usually consists largely of unstriped muscular fibres, was very cellular, owing to the proliferation of the connective tissue cells as well as of the unstriped muscle-fibre cells, the nuclei of each of which were found undergoing division. Wherever this had taken place the muscle fibres were in great part replaced by small round cells and by fusiform cells that could not be distinguished from ordinary connective tissue cells. In other parts the cell elements of the stroma had in part disappeared, giving place to a form of fibrous connective tissue in which there were only a few connective tissue cells, and this change had especially taken place around the small and contracted tubules.

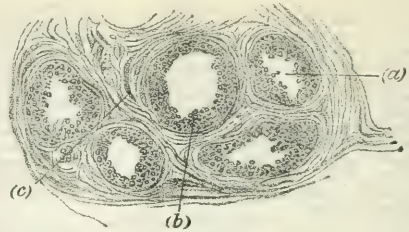


Fig. 2.—Section of enlarged prostate eighteen days after bilateral castration, stained with osmic acid ×250. *(a)* Glandular tubules; *(b)* epithelial cells lining tubules, loaded with fine fat granules which obscure outline of cells and their nuclei; *(c)* intertubular connective tissue containing some unstriped muscle fibres.

In the cystic portions of the gland similar changes had taken place, though it was not so easy to determine them. The epithelial cells lining and those partly occupying some of the cysts were without exception in a more or less advanced state of fatty degeneration. In the small patches, which were apparently infiltrated with blood, the changes were also similar but more pronounced. The epithelial cells in the dwindled tubules were loaded with small fat granules, and where fusiform cells had formed in the stroma fatty degeneration was also marked. In one or two places the capillaries were much dilated, but there was no blood extravasated, though the naked-eye appearance of these patches suggested that.

The changes above described are: (1) Proliferation of the columnar cells lining the glandular tubules; (2) acute fatty degeneration of the cells thus accumulated in the lumen of the tubules, with their disintegration and ultimate disappearance; (3) contraction of the tubules after a conversion of their naturally tall and slender columnar cells into low cubical or almost flattened small cells; and (4) in the stroma, proliferation of connective tissue and unstriped muscle-fibre cells. It appeared that in parts many of the newly-formed cells in the connective tissue had disappeared, or been converted into fibrous stroma in which there were no muscle fibres or only traces of them. In those parts of the stroma where the changes had taken place quickly the newly-formed cells were swollen and filled with fine granules of fat.

If a comparison be made between the structure of this enlarged prostate eighteen days after bilateral castration and that of an ordinary enlarged gland from a man whose testicles had not been removed or not destroyed by disease, it will be seen that the glandular tubules and the intertubular connective tissue, with its unstriped muscle fibres, have undergone definite structural changes. In the tubules the epithelial cells had undergone, first, proliferation so as to form new cells; secondly, well-marked fatty degeneration; and lastly, disintegration followed by their complete disappearance. In this manner the tubules had, in the majority of instances, become greatly reduced in size. In the intertubular connective tissue similar changes had taken place—namely, proliferation of the connective tissue cells, fatty degeneration of the new cells, their disintegration and ultimate disappearance. In like manner the unstriped muscle fibre cells had undergone proliferation, and the new cells thus formed were indistinguishable from the connective tissue cells among which they lie. In short, the cell elements first proliferate, then degenerate, and ultimately disappear, leaving a comparatively small amount of fibrous connective tissue in their place.

But in the ordinary enlarged prostate gland the structural changes above described as occurring after castration, so far as I have been able to observe, do not take place. There is no general proliferation of the epithelial cells lining the glandular tubules, or of the cells in the intertubular connective tissue; and no fatty degeneration of the cells followed by disintegration and ultimate disappearance. In the enlarged gland there is, however, usually a tendency, in small patches here and there in the substance of the gland, to atrophy of the gland tubules, to disappearance of the

muscular fibres in the stroma, and to the formation of fibrous connective tissue, and this may in some instances extend through the substance of the gland.

The inference, therefore, from the case I have related is that these structural changes in the enlarged prostate eighteen days after bilateral castration are preliminary to the ultimate atrophy of the glandular tubules and to the conversion of the prostate into a small, firm, and fibrous mass, containing only remnants of the tubules, and but few traces of its muscular fibres.

Changes similar in many respects to those described above as occurring after castration in man take place in the prostate of a dog after double castration. Thus in June, 1890, I castrated, while residing in Paris, a hound 3 to 4 years old, and three weeks (twenty-one days) after the animal was killed. In the gland, which was obviously small for so large



Fig. 3.—Section of prostate of full-grown dog twenty-one days after bilateral castration × 50. (*a*) Contracted tubules lined by low cubical or flattened epithelial cells; (*b*) stroma composed chiefly of fibrous connective tissue.

a dog, the tubules were much reduced in size and number, and the intervening tissue was relatively increased. In many of the tubules the epithelial cells filled the lumen, and these cells were of irregular shape and size. In others the tall and slender columnar cells had given place to a single layer of small cubical or flattened cells enclosing a very narrow fissure-like lumen. In parts of the stroma the muscle fibres had to a great extent disappeared, their place being taken by connective tissue cells; in others, where the tubules had in great measure disappeared, the stroma consisted of fibrous connective tissue with hardly any traces of unstriped muscle fibres.[1]

Thus the changes that arise after castration in a man with enlarged prostate are similar to those which follow castration in a dog, and no doubt the ultimate result is the same in each. The gland, whether enlarged or normal, undergoes certain degenerative changes after removal of the testicles which lead to its conversion into a small, tough and fibrous mass in which there are only remains of the glandular tubules and ducts.[2]

With regard to the enlargement of the prostate gland I published a paper in the *Journal of Anatomy and Physiology*, 1890, vol. xxiv, from which the following conclusions are taken:

1. That enlargement or hypertrophy of the prostate gland results from a growth of the gland tubules with their associated muscle so as to form new gland substance closely resembling that of the normal gland. This constitutes the first or glandular stage.

2. That after a variable time degenerative changes set in which ultimately convert the new tissue into a mass of more or less dense fibrous connective tissue containing only the atrophied remains of the glandular and muscular elements. This constitutes the second or fibrous stage.

When this second or fibrous stage has been reached throughout the gland, as occasionally happens, I apprehend that castration would not cause any very marked diminution in size of the enlarged prostate and, therefore, it must not be supposed that dwindling of the enlarged gland will invariably result after castration, though this may be the usual result.

[1] In one of the experiments made by White of Philadelphia, reported in the British Medical Journal of September, 1893, in which the dog was castrated seventeen days previously, there were apparently no atrophic changes in the prostate gland.

[2] I have, in the *Journal of Anatomy and Physiology*, vols. xxiii and xxviii, published a detailed account of the prostate gland as it is found in castrated animals and in eunuchoid persons respectively.

THE MILROY LECTURES

ON THE

NATURAL HISTORY AND AFFINITIES OF RHEUMATIC FEVER.

Delivered before the Royal College of Physicians of London, March, 1895.

By ARTHUR NEWSHOLME, M.D.Lond., M.R.C.P.,
Medical Officer of Health for Brighton.

[Abstract.]

Lecture III.

Influence of Temperature.

The marked preference of rheumatic fever for the winter season was shared by infective diseases like small-pox, measles, whooping-cough, etc. This seasonal incidence was explicable as due to the effect of climatic influences on the life-history of the specific micro-organism, or to their effect on the receptivity of the community.

A comparison of the curve of mean annual temperature at Greenwich with that of hospital cases of rheumatic fever in London showed that in the epidemic years 1866 and in 1868-9, the mean temperature was 1 to 5 per cent. above the mean for the whole period 1866-93; in the epidemic years 1874-5 the mean temperature was at the mean line. In 1879 low rheumatic fever corresponded with a low mean temperature; and in 1884 and 1893 there was again an association of high mean temperature and excessive rheumatic fever. The curves of mean temperatures for the first and fourth quarters of the year showed that higher temperatures usually coincided with excessive rheumatic fever, though there did not appear to be any definite proportion between the two.

The temperature of the earth 4 feet deep, so far as records were available, showed a much closer relationship than that of the air. The earth temperatures taken at Regent's Park since 1871 (records missing for 1877-9) showed that in 1871-4 inclusive the mean earth temperature of the year was always at or above 50° F., a temperature which was not again reached except in 1884 and 1893, which were also epidemic years. The maximum and minimum earth temperatures give similar indications. During the period in which comparison was possible in London, epidemics of rheumatic fever occurred only when the mean temperature of the soil was exceptionally high, that is, over 50° F., and the greatest epidemics occurred when the mean temperature had been thus high for two or more years in succession.

Influence of Rainfall.

The relationship between damp air and damp soil and the prevalence of rheumatism being almost accepted as axiomatic in medicine, rainfall might be expected to exercise a great influence in increasing rheumatism. The observations of writers on this point were hopelessly at variance. The Collective Investigation Committee of the British Medical Association reported that most cases began in damp or wet, or cold and cloudy weather: and Dr. Gabbett, from an examination of the London Hospital statistics, thought that rheumatic fever tended to vary directly with the rainfall. On the other hand, Hirsch, Edlefsen, and Longstaff, among others, had found that the amount of rheumatic fever was more or less inversely with the rainfall.

Comparing the yearly and quarterly rainfall at Greenwich with the hospital incidence of rheumatic fever, it was found that a heavy rainfall was usually associated with a low amount of rheumatic fever, and a light rainfall with excessive rheumatic fever, though no exact proportion was observable be-

tween the two. In provincial towns the results were somewhat contradictory. It was highly probable that, as at Glasgow, a deficiency of rainfall for several years favoured the prevalence of rheumatic fever much more than a shorter deficiency.

INFLUENCE OF GROUND WATER.

An almost unbroken series of weekly observations of well levels at the Lewes Road Well, Brighton, since 1867, existed. Although pumping goes on there, this had increased of late years, and the curves showed the influence of seasonal and climatic factors, with but little disturbance. There was no connection between great or small range of ground-water level and excess of rheumatic fever. It appeared to be simply a question of level. The years of highest level of ground water never had excessive rheumatic fever, and the years of lowest level nearly always had excess of rheumatic fever. The same relationship between low ground water and excessive rheumatic fever was seen at Croydon.

In London the years noted in the 1885 report of a Committee of the Royal Meteorological Society as years of "marked low water" were nearly always associated with excessive rheumatic fever; and the years of "exceptionally high water" were never so associated. Collateral evidence reaching up to the present date from wells in the vicinity of London confirmed this result. Thus, comparing a well at Barley in Herts with those at Croydon and Brighton, low well levels found in the former in 1871-72 were not seen in the latter. There was an epidemic of rheumatic fever in London, none in Brighton or Croydon. The low levels and epidemic of 1874-75 were common to all. The effect of deficient rainfall on the ground-water level in the absence of artificial obstructions to its outflow varied in time and extent with the character of the subsoil. Thus in 1871 there was a greater deficiency of rainfall in Brighton than in Greenwich and Herts, but there was an epidemic of rheumatic fever in London and none in Brighton. The drought in London, from the tenth to the twenty-fourth week of 1893, did not produce a prompt effect in increasing the weekly admissions for rheumatic fever to Guy's Hospital. The number of admissions in the first quarter was 25, in the second 24, in the third 42, in the fourth 39. From a careful examination of the evidence it was concluded that the effect of deficient rainfall took time to develop, and that it was exerted as the result of its effect on the subsoil, this effect usually showing itself by a marked lowering of the ground water. The low ground water must be regarded as an index of certain conditions of dryness and temperature of the subsoil which favoured the growth of the micro-organism of rheumatic fever. This being so, low ground water, when unaccompanied by the required conditions of temperature, etc., might be unassociated with an increase of rheumatic fever, though conversely a high ground water was never found accompanying excessive rheumatic fever.

The foreign returns from Munich and Berlin agree with those already stated in that high ground water is never accompanied or immediately followed by high rheumatic-fever prevalence.

LECTURE IV.

The clinical features of rheumatic fever confirmed the view that it was a specific febrile disease. 1. The mode of onset, including in a large proportion of cases throat symptoms. 2. The progress of the disease, which was fairly definite in the absence of complications. 3. The tendency to relapse was shared by the specific disease erysipelas, and in a somewhat less degree by pneumonia, influenza, enteric fever, diphtheria, and even scarlet fever. 4. The liability to later attacks was another point of resemblance to erysipelas. There is a scale of immunity by one attack, from erysipelas and rheumatic fever at one end to small-pox at the other end. Third attacks of scarlet fever were known. 5. The influence of the personal equation varied greatly in different infective diseases. In small-pox it was very slight; in diphtheria and enteric fever it was great; in rheumatic fever and erysipelas it was greater still. Hay fever might be regarded as the type of a local infective disease in which a special personal proclivity or anatomical peculiarity was required for the production of the disease. Rheumatic fever might be regarded as the type of a septicæmic disease in which a similar proclivity or peculiarity was required. 6. The method of infection in rheumatic fever was probably by the naso-pharynx. 7. The degree of infectiousness. There was a scale of decreasing infectiousness from small-pox to erysipelas, in which not only abraded surface, but also a personal predisposition was necessary, and to rheumatic fever, in which the degree of infectiousness was unknown. In rheumatic fever the chief seat of multiplication of the specific contagium was in the affected joints: it was deeply buried, and it was possible that it pays for its hardihood in invading the system by securing a sepulture in its cells. 8. The fact that the joints were the seat of the trouble favoured the infective theory, the "vessels of the synovia of the joints appearing to have some special proclivity to form a nidus for the wandering germs of disease" (Payne). The specific action of salicin and salicylic acid was an additional argument in favour of its specific febrile character, being comparable to that of quinine in malaria, and of salts of mercury and iodides in syphilis.

The bacteriological investigations of Cornil and Babes, Wilson, Mantle, Petrone, Popoff, Birch-Hirschfield, Triboulet, Sahli, Sacaze, Leyden, etc., were then described, none of them containing conclusive proof of the pathogenic relationships of the organisms described. In malaria the inoculation of the blood of a patient had produced malaria in another. In rheumatic fever this evidence was still wanting, though two cases of congenital rheumatic fever described by Pocock and Schäfer came near to demonstrating this point. It was still doubtful whether comparative pathology would help. The disease described as rheumatism by veterinary authors was probably not true rheumatic fever. Many such cases were really septicæmia, especially the arthritis of calves traceable to infection from the umbilicus (MacFadyean).

DIRECT EVIDENCE OF INFECTIVE CHARACTER.

Dr. Fiessinger had described an outbreak in a village of about 500 houses. Out of a total of 21 cases, 10 occurred in 12 houses, namely, 4 in one house, 2 in the same room (at intervals of a year and in members of different families). Edlefsen, at Kiel, had described 728 cases, in which the proportion was 100 houses for 148 cases, namely, 2 cases in one house, 100 times; 3 cases, 27 times; 4 cases, 5 times; 5 cases, 5 times; 6 cases, once; and 7 cases, once. Similar instances had been described by others.

Cases had been described by Drs. Mantle, Dalton, and others, which appeared to be only explicable on the supposition of direct personal infection or of indirect infection, which clung about certain houses, as did diphtheria. Malaria was the type of an endemic non-infectious disease. It sometimes, however, became epidemic or even pandemic, the pandemics corresponding in time with increase of sickness in the endemic foci. This did not necessarily imply the acquirement of the quality of infectiousness. It might simply be that the local conditions had become more favourable to the growth of the plasmodium of malaria. Whether the same applied to rheumatic fever, and each case implying that a saprophytic organism, never previously parasitic, had become so, or whether there was an alternation between parasitic and saprophytic life, as in yellow fever, cholera, and enteric fever, and possibly, also, in diphtheria, tetanus, and tuberculosis, was doubtful.

It might be that in non-epidemic years of rheumatic fever its micro-organisms were kept at bay by their natural enemies in the struggle for existence. In plant pathology there were many analogous cases. The historical potato blight of 1845 was not a completely new disease, though it had never previously produced such ravages. So with the *Puccinia malvacearum*, a fungus attacking hollyhocks, etc., which suddenly appeared in England in 1873. In rheumatic fever the known factors favouring the growth of its micro-organisms, and presumably inhibiting that of inimical micro-organisms, were a dry condition of the subsoil and an optimum temperature. The gradual spread of the disease of which evidence had been given in Norway, London, Yorkshire towns, etc., might mean gradual progression of infection, or that the necessary reaction of environment to the specific virus, always endemic in each district, occurred at different times, or that the susceptibility of entire populations varies at different times. The latter supposition was favoured by the frequent alternation of greater and less epidemics.

According to Metchnikoff, the Versaillese had an almost incredible immunity against cholera, when its vibrio was in their drinking water, owing to the absence of "favouring organisms" from their alimentary canals.

The Personal Factor.

Rheumatic fever was rather more common in males. The ages most prone were 15 to 45. The influence of heredity had been much exaggerated. Injury, whether due to actual mechanical causes or to former disease, as erysipelas, or caused by fatigue or exposure, had an important influence in causing rheumatic fever. Fatigue also affected the localisation of the joint affection, which was more common in the upper than the lower extremities, and in the right than the left arm. Of the influence of race and occupation there was very little evidence. Although meat food was a not infrequent cause of relapse in rheumatic fever, there was no evidence on a large scale that omnivorous or chiefly carnivorous races were more prone to rheumatic fever than vegetarians.

Affinities of Rheumatic Fever.

1. *Chronic rheumatism*, so called, had been the chief cause of the erroneous conclusion that damp favours rheumatic fever.

2. *Muscular rheumatism* was probably very closely related to rheumatic fever. Distinct epidemics of it had occurred both in this country and abroad.

3. *Chorea* had a remarkable resemblance in seasonal incidence to rheumatic fever (Lewis). Dr. Newsholme had found a similar resemblance in the annual curves. This did not necessarily imply an identical infection any more than in the allied case of erysipelas. The sex incidence of chorea was very different from that of rheumatic fever, the two sexes being attacked in nearly equally numbers in the latter case, and three times as many females as males in the former case.

4. *Epidemic cerebro-spinal meningitis* presented many points of analogy. Both occurred in irregular epidemics, but rheumatic fever did not entirely disappear in the intervals, as epidemic meningitis appeared to do. Joint symptoms were common in the latter disease. In neither was there clear evidence of personal infection. In both it appeared to be rather a question of infection of the place than of the person.

5. *Erysipelas* and rheumatic fever resembled each other in many clinical respects, as already indicated. Dr. Longstaff had shown the resemblance between the annual curves of the two diseases in England. The resemblance was even more strikingly shown in the curve of notified cases in Norway. There was this peculiarity about the Norwegian curves: comparatively large epidemics of rheumatic fever accompanied comparatively small epidemics of erysipelas, and *vice versâ*. The smaller epidemics of erysipelas in Norway were the more fatal, and probably this was also true for rheumatic fever. The same inverse relationship between the magnitude of epidemics of rheumatic fever and erysipelas corresponding in point of time was seen in Berlin. The seasonal incidence of rheumatic fever and erysipelas were identical in Norway. The age incidence of the two diseases was practically identical. Thus:

	Under 15.	Over 15.
Erysipelas percentage 1887-91	... 15·1 ...	84·9 (based on 43,537 cases)
Rheumatic fever p.c. 1885-91	... 15·3 ...	84·7 (based on 62,831 cases)

6. *Puerperal fever* shows similar annual curves to those of rheumatic fever and erysipelas. This did not necessarily or probably mean identity of virus. It was furthermore evident that the view that want of antiseptic care alone accounted for puerperal fever was not tenable unless it were imagined that in England and in Prussia there was in years of excessive mortality from puerperal fever a conspiracy of carelessness. The explanation of the epidemic prevalence of erysipelas and puerperal fever, as well as of rheumatic fever, lay in the favouring influence of a dry and warm subsoil on the specific contagia of the three diseases.

7. *Malaria*.—The belief in the substitution of rheumatism for malaria was very general, but it was without foundation. The conditions of soil producing rheumatic fever and malaria appeared to be almost exactly opposed to each other. The seasonal distribution of the two diseases was dissimilar.

Summary.

At intervals of a few years epidemics of rheumatic fever occurred, occasionally pandemics, especially in 1868, in 1874-75, and in 1884. These epidemics occurred in or following years of sparse rainfall. This produced its effect by its influence in causing a warm and dry subsoil, usually with an exceptionally low ground water. Rheumatic fever was essentially a soil disease, having close relationships with erysipelas and other septicæmic diseases. Whether it was alternately parasitic and saprophytic or each case implied a fresh infection from the soil was doubtful.

Prophylaxis.—A careful distinction should be drawn between a dry soil due to hot seasons and the same when due to improved drainage of the soil, removal of mill-ponds, etc. A further confusion between dry soils and dry houses must be avoided. The entrance of ground air under houses should be carefully avoided.

Need for Further Investigation.—It was not creditable to this country that so few continuous ground-water observations were being made. The information as to cases of rheumatic fever was most defective. There was nothing in this country corresponding to the weekly returns from the Berlin Statistical Bureau of admissions to the chief general hospitals during the preceding week. It could hardly be expected that the General Register Office, hampered by an economical Treasury, would undertake this at present. It was suggested that the Royal College of Physicians might undertake to collect weekly or monthly the admissions to the London general hospitals, classified according to disease. Such material after a few years would be invaluable for medical and hygienic purposes.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THROAT AFFECTIONS IN INFLUENZA.

Mr. Terry, in the British Medical Journal of March 9th, draws attention to the throat symptoms he has observed in the recent epidemic of influenza. I have noticed that in at least 50 per cent. of influenza cases the cough commences as soon as the joint pains disappear, and that this cough is due to an inflamed and elongated uvula, and in many cases enlarged tonsils, in five cases of a distinct follicular character; but unlike Mr. Terry's cases the patients have occasionally complained of pain on swallowing. In very few cases were the glands in the neck either enlarged or tender.

The first few cases I observed resisted the usual gargles, and were not relieved by painting with iron, but were quite well in a few days after gargling with salicylate of sodium ʒj, glycerine ʒj. aqua rosæ ad ʒvj. In no cases have I noticed any marked tongue symptoms.

New Cross Road, S.E. W. T. B. Donnelly, M.B., B.S.Durh.

I read with considerable interest the observations of Dr. Terry on the connection between inflammatory conditions of the throat and influenza. For several times have I noticed the uvula, faucial arch, and tonsils severely inflamed in cases of influenza, but thinking that such conditions were merely accidental complications I took no further note. However, I am now convinced that there exists a close relationship between the two affections.

I have a painful recollection of the first time I noticed the above-mentioned throat symptoms in influenza, as I myself was the patient in whom they occurred. The course, symptoms, and signs of the palatal and tonsillar inflammation were precisely the same as mentioned by Dr. Terry. A few peculiar points I, however, noticed: First, that although both tonsils were inflamed, one was always worse than the other. Secondly, that the severity of the inflammation changed day by day from one to the other as long as the temperature remained up. Thirdly, that keeping the mouth as aseptic as possible, along with frequently washing the tonsils with astringent and antiseptic gargles, did not do the slightest good, the soft palate and tonsils remaining persistently inflamed till the temperature fell to normal. Since my own case I have seen

several others of a similar kind, though in some instances the tonsillar inflammation was from the first confined to one side.

So far as treatment went I was much influenced by my own personal experience, paying very little attention to the use of gargles, but simply combating the general affection, and this, indeed, I found the best course, as the throat affections all subsided on the fall, or soon after the fall, of the temperature.—I am, etc.,

Lancaster. E. J. McC. MORRIS, L.R.C.S.Edin., etc.

SALICYLATE OF SODIUM IN INFLUENZA.

HAVING observed the remarkable analogy between some of the symptoms of influenza and those of acute rheumatism, I was the first—as seen in the BRITISH MEDICAL JOURNAL of January 31st, 1892—to suggest the use of salicylate of sodium in the treatment of the former disease. One of the most most distressing after-effects of influenza is the great muscular weakness. Is it not, therefore, reasonable to suppose that the congestive form of pneumonia, which frequently is such a fatal complication in lingering cases of influenza, is chiefly due to the weakening of the muscular action of the heart? Thus reasoning, it is of the utmost importance to check the abnormal metabolic changes that are going on in the system as soon as possible by some specific remedy, and we can gauge this happy result by the fall of the temperature to normal, and in salicylate of soda I believe we have the desired specific.

It should be given in large doses, such as 20 grains, every two or three hours, so as to saturate the system quickly, and I rarely find more than three or four doses are required. It agrees better combined with bicarbonate of potash, and as there is usually a great distaste for ordinary food, plenty of alcoholic stimulants are necessary and very useful. I find the artificial physiologically pure drug of greater value than the natural.

Herne Bay. ALFRED RAWLINGS.

CINNAMON IN INFLUENZA.

KNOWING that persons who live in cinnamon districts enjoy more or less immunity from malaria, it struck me that the exhibition of this drug might be of service in influenza. To 56 patients suffering from the disease I gave 2 drops of the oil made up with spirit (1 in 10) and tinct. quillaiæ (q.s.) thrice daily. Of the number, 7 declared the medicine did them no good, 21 were dubious, and the remaining 28 spoke highly of an immediate effect upon their pains and prostration. I do not flatter myself that this improvement could not be due to the spirit and the general care—the latter certainly used in all the serious cases—but I think the possibility of this drug being of some use is sufficiently indicated by the trial I have given, and I therefore feel justified in asking the profession to experiment further.

CHAS. GRAHAM GRANT,
Surgeon to the Poplar Hospital.

RECTAL INJECTIONS OF GLYCERINE AFTER ABDOMINAL OPERATIONS.

NEARLY a year ago I had a case of abdominal section in which troublesome tympanites supervened. For twenty-four hours I had recourse to plain and turpentine enemata in addition to saline purgatives, and, though these remedies were perseveringly and thoroughly used, no fæces and but little flatus passed. The patient's condition seemed desperate unless prompt peristaltic action could be induced. At this juncture it occurred to me that a large glycerine enema might be tried, and I gave half an ounce. In a quarter of an hour a small motion and a considerable amount of flatus was expelled. The injection was repeated in the course of an hour with still better results. From this time on the patient pidly improved.

Since then I have several times had occasion to use this method, and always with apparently good results. On one occasion recently I ordered a drachm of glycerine to be injected every three or four hours for twenty-four hours, and each time flatus was expelled within a few minutes, though the use of turpentine enemata and of the long tube had not been very effectual.

Glycerine seems to have the following advantages over turpentine: it stimulates the bowel more powerfully; the injection of it does not inconvenience the patient so much; and repeated injections can be continued for a longer period without setting up irritation about the anus.

JOHN CAMPBELL, F.R.C.S.Eng.,
Surgeon to the Samaritan Hospital for Women, Belfast.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

CITY OF LONDON ASYLUM, DARTFORD.

RUPTURE OF THE HEART.

(By A. E. PATTERSON, M.B., C.M.Aberd., Assistant Medical Officer.)

As rupture of the heart is somewhat rare the following case may be of interest.

J. B., aged 72, had been a patient in the asylum, suffering from chronic mania, for ten years, during which period her health had been fairly good although she was occasionally confined to bed for a few days owing to rheumatic pains in her limbs and joints. She had slight albuminuria, and there was evidence of hypertrophy of the heart, whilst the radial arteries at the wrist were very markedly sinuous and atheromatous. Whilst sitting in her chair one afternoon quietly engaged in needlework, she suddenly threw up her arms, uttered a loud cry, and fell forwards quite dead upon the floor.

At the *post-mortem* examination made eighteen hours and a-half after death, the pericardial sac was found distended with black clotted blood, which, on removal, weighed 6¼ ounces. The heart was hypertrophied and dilated and weighed 12 ounces. There was a rupture extending somewhat obliquely through the wall of the left ventricle on the anterior surface and measuring 1⅛ inch in length; the corresponding portion of the ventricle on the inner side was broken down into a ragged, uneven, cavity, the formation of which had destroyed several of the papillary muscles and to which blood clot was adherent, and for this reason the internal aperture of the rupture was considerably larger than the external. At the seat of rupture the muscular fibres were in an advanced condition of fatty degeneration, the ventricular wall being readily broken down on slight pressure with the finger. The exterior of the right ventricle was covered with a layer of fat nearly half an inch in thickness. The coronary arteries were very atheromatous and the aorta and vessels at the base of the brain were in a like condition.

The kidneys showed advanced cirrhotic changes as evidenced by adhesion of the capsules, granular surfaces, and thinning of the cortices. A small cyst was present in the cortex of the left kidney.

The most noteworthy features about the above case are that the rupture should have occurred without any previous exertion on the part of the patient, and also that such extreme cardiac and renal disease should have given rise to so few symptoms during life.

CIVIL HOSPITAL, SHIKARPUR, CENTRAL INDIA.

FAT EMBOLISM FOLLOWING FREE INCISION OF THE FEMALE BREAST FOR DIFFUSE SUPPURATION.

(By Surgeon-Major A. F. FERGUSON, Bombay.)

THE patient, a healthy Mohammedan female of 22 years of age, came to the Civil Hospital, Shikarpur, on April 7th, 1894, in great pain, and looking very much worn out by intense suffering. The left breast was enormously swollen, red, and exquisitely tender, with a doughy, elastic, semi-fluctuant feeling uniformly throughout. She was chloroformed, and a free incision was made in what appeared to be the most likely situation. There was great hæmorrhage, but only a small quantity of pus. The incision was made still freer and deeper, but still no collection of pus was reached. The finger was introduced and passed through the gland,

which was spleenlike in consistence, and the finger could easily be pushed through it, but still only a small quantity of pus escaped, and it seemed equally distributed throughout the gland. A drainage tube was inserted and a suitable dressing applied. The pain continued and the suffering seemed great. Morphine was given pretty freely, but she was very restless nevertheless.

Next day she looked extremely anxious and worn out, and the breathing was laboured. The drainage tube was removed, and some milky oily-looking fluid escaped with it. There had been a good deal of bleeding, but only slight purulent discharge. The dyspnœa rapidly increased, and at 5 P.M. it was noted that "the breathing is very much oppressed and 30 per minute, the face cyanosed, the pulse running, and patient unconscious." She died at 11 P.M.

Fat embolism was suspected, and a *post-mortem* examination was obtained almost by stealth, as the relations were outside clamouring for the body. It was necessarily very superficial. The lungs were much congested, a great portion of the left approaching red hepatisation. Portions were kept and hardened. The kidneys could not be obtained, nor could the other organs be carefully examined under the circumstances. Sections of the lungs stained with perosmic acid and mounted in Farrant's solution were exhibited at the Calcutta Medical Congress; they show the capillaries and smaller blood vessels blocked with oil globules and oil globules in the blood in larger vessels.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. Langton, F.R.C.S., Vice-President, in the Chair.

Tuesday, March 12th, 1895.

Adjourned Discussion on the Affections of the Nervous System occurring in the Early (Secondary) Stages of Syphilis.

Mr. Jonathan Hutchinson showed some illustrations of the microscopic appearances of the spinal cord in acute paraplegia occurring in the early stage of syphilis, which he had had copied from an account of a case published by M. Lamy, of Paris. The patient was a man aged 50, admitted with complete paraplegia affecting motion, sensation, and the sphincters. He had contracted syphilis one year before, and when seen presented a syphilitic eruption. The paraplegia lasted two weeks, the patient developed a large bedsore, and died suddenly. At the necropsy the spinal cord and membranes were normal to the naked eye. There was no softening, so that the early minute changes could be clearly seen, and were not obscured in any way. The stress of the disease had fallen on the perivascular spaces of the vessels, especially the veins, and had respected the nervous elements. In the grey matter the perivascular spaces contained colloid matter; in places the veins were thrombosed and showed microscopic gummata in connection with them. There was some degeneration around the septa running in from the pia mater, but most of the nerve elements were normal. These changes were present throughout the whole of the cord. Since the last meeting Mr. Hutchinson had collected some more cases of acute paraplegia, all occurring in the early stage of syphilis. He had met with few cases of this kind in the later stages of syphilis, and most of these were complicated cases. He thought that it would be well to arrange the nervous affections occurring in syphilis in a chronological order, as was done with syphilitic skin diseases.

Dr. Althaus said that the paper which they had met to discuss, and which dealt in a broad and comprehensive manner, not with isolated facts but with whole series of important and interesting clinical phenomena, had been very much wanted, because the possibility of the occurrence of these nerve troubles from syphilis at such an early stage of the distemper was not yet thoroughly realised by the profession. He had met with cases of that kind in which an erroneous diagnosis had been made because it was believed that such nerve lesions did not occur until about four or five years had elapsed after the primary affection. He related a case of hemiplegia which had come on eight months after infection, and had been diagnosed and treated as hysterical, and got steadily worse until specifically treated, and he referred to a discussion at a sister Society some years ago, in which two years was mentioned as the earliest period when specific brain lesions would become developed. He had himself seen a characteristic form of headache, followed presently by epileptiform seizures and hemiplegia three months after infection, and brought forward *post-mortem* evidence to show that arteritis and other specific lesions which were habitually thought to belong to the tertiary period might occur within a few months of the primary sore. He had met with several cases of analgesia in the secondary stage, and thought that this would be more frequently found if it were looked for. Acute multiple neuritis was no doubt sometimes the cause of the more or less general paresis with anæsthesia which was seen in the secondary stage, but acute encephalitis, ascending myelitis, and poliomyelitis might also occur during that period. He mentioned instances of these affections which had occurred in his practice, and related a case of tabes which had become acutely developed seven months after infection and where the patient made a very fair recovery under specific treatment. Early neuritis of single nerves was not uncommon, and he had found that the portio dura was more apt to suffer thus early, while in the tertiary stage the third nerve was more frequently affected. He had also seen neuritis of the sixth and of the ulnar nerves four and six months after infection. He then discussed the question whether there were any predisposing or exciting causes of early nerve syphilis, and said that he had seen the latter both where the primary and secondary symptoms had been unusually mild and where they had been severe, so that the greater or lesser virulence of the initial symptoms did not seem to be of much influence. Specific treatment was, however, apt to be unduly neglected in mild forms. The two principal predisposing causes had appeared to him: (1) youth, for all his cases had occurred in young people, chiefly between 18 and 29; and (2) injury to the head, whether received previously or subsequently to infection. Other predisposing causes were neurotic inheritance, sexual and alcoholic excesses, and undue strain on the mind. The chief differences between early and late nerve syphilis appeared to him to lie, not so much in the nature of the lesions, for arteritis and syphiloma occurred both early and late; nor in their seat, as no portion of the nervous system appeared to be safe from the inroads of the virus at either period. Early nerve troubles were, however, more acute in their appearance and more amenable to specific treatment, while tertiary affections had a slower and more insidious course, with a tendency to end in general paralysis. Nervous affections after the acute exanthemata appeared at a still earlier period, that is, before or immediately after defervescence, such as the delirium of collapse or paralysis owing to neuritis, while a considerable interval between the cessation of the fever and the appearance of nerve troubles was exceptional. Influenza stood very much in the same line with the eruptive fevers in this respect. He had seen a few cases of what he might call tertiary nerve affections after influenza, but in no case had the interval between their appearance and the primary attack exceeded six months; while insanity, general paralysis, encephalitis, myelitis, and neuritis had frequently followed the attack at a very short notice. In conclusion, Dr. Althaus spoke strongly about the necessity of the full use of mercury in the cases under consideration. He preferred the hypodermic use of it, and injected the soluble perchloride, which was readily absorbed and eliminated, in acute and threatening cases; and an insoluble preparation, where the metal was rubbed up with carbolic oil and lanoline, in the more protracted forms of the disease. The latter preparation was slowly absorbed and eliminated, and need only be injected once a week, while the perchloride should be injected daily for some time. No other remedy could be relied upon with such confidence in the gravest emergencies which might come under our notice, although even mercury was not infallible.

Sir W. Broadbent, after referring to Dr. Gowers's valuable contribution to the debate, said that, looking at the morbid anatomy of the several stages of syphilis, it would be difficult to believe that such diverse lesions were due to the same cause, and if the appearances in tabes and in general paralysis were considered as well this conclusion was

emphasised. Dr. Gowers had expressed a belief that the explanation of these differences would be found in the action of the toxins of the disease, while Mr. Hutchinson regarded the symmetrical lesions of secondary syphilis as proof that the blood was affected, and the asymmetry of the tertiary lesions as pointing to these changes being local and in no-wise connected with the blood. He himself thought that the therapeutic effects of mercury and iodide of potassium would ultimately be explained by their effects on the toxic bodies giving rise to the secondary and tertiary lesions. Turning to the special subject of the debate, he, like others, had formerly been impressed with the idea that in secondary syphilis the skin, mucous membrane, and blood vessels were affected, and that destructive lesions were rare, while in the tertiary stage the internal viscera were chiefly affected, either from arterial obstruction or by gummatous change. As a result of this belief, he had regarded cases of acute paraplegia occurring in the secondary period as being due to a precocious and premature development of the tertiary lesions. He now regarded this acute paraplegia as being due to a syphilitic myelitis and not as the result of arterial disease. He had seen cases of epilepsy apparently directly connected with the early stage of syphilis. He quoted a case of spinal meningitis occurring at the same period, in which ataxia depended on a lesion of the posterior roots in the lower part of the cord and great wasting of the arms was due to the anterior roots being involved higher up. He had seen a rapidly-developing zone of anæsthesia in a man aged 60 due to the same cause.

Dr. FERRIER said that Venus was the patron saint of neurologists, since syphilis was the most potent cause of all kinds of nervous diseases. But he did not think that the clinical course of nervous diseases apparently due to syphilis was sufficiently different from that of the same affections set up by other causes to warrant their being put into a special category. Thus there was no difference between Jacksonian epilepsy due to syphilis and to other causes, or between specific and non-specific paralysis of the facial nerve. He did not think syphilitic affections of the spinal cord were clinically so distinct as to require a separate classification. The chronic spinal paralysis described by Erb did not necessarily occur in the late stages or the acute paraplegia in the early stages of syphilis. He quoted cases in which the symptoms developed gradually in the early stages, and cases in which a sudden onset of paraplegia occurred at periods ranging between six months and eight years after infection. With the foregoing cases he contrasted three instances in which, although there was no history or evidence of syphilis, the symptoms and course of the disease conformed exactly to those described by Erb as typically syphilitic. Paraplegia due to syphilis could not satisfactorily be distinguished from that due to other causes. All cases of paraplegia occurring in syphilitic subjects were not due to the influence of that disease. Two cases of paraplegia in syphilitic patients had eventually become typical cases of disseminated sclerosis.

Dr. GEORGE OGILVIE said that all observers agreed that acute paraplegia came on soon after infection, and had a tendency to recover. But the fact that other nervous lesions occurred in the early stage of syphilis had long been known, as the statistics quoted showed. The symmetry seen in acute paraplegia was not that characteristic of the secondary stage, but was explained by the situation of the lesion, namely, in the spinal cord. Lesions of the brain at this period might be unilateral, and single nerves might be affected. The superficial reflexes in the early stages might show increased irritability. This condition was transitory; it might pass into complete abolition or return to the normal. It was independent of treatment. Transitory hyperæmia of the optic disc also occurred at this stage of the disease. In 400 cases it had been found in 30 per cent. The irritability of the superficial reflexes might be due to a similar hyperæmia of the central nervous system. Charcot thought analgesia in syphilitics hysterical, and not specially connected with syphilis.

Mr. COTTERELL quoted a case to illustrate the fact that although the course of the disease was typical of syphilis, there might be no history of that disease obtainable. Since tabes dorsalis and general paralysis did not conform to the type of tertiary affections, they might be considered as manifestations of a fourth stage of syphilis.

Dr. F. J. SMITH quoted a case of acute paraplegia occurring a year and a-half after syphilitic infection, and three weeks after a fall out of a cart. The secondary stages were characterised by diffuse small cell infiltration, and the gummatous lesions were a consolidation of this condition. The drawings shown by Mr. Hutchinson were important as showing the connection between syphilis and disseminated sclerosis. He would consider the cases of disseminated sclerosis mentioned by Dr. Ferrier as being the result of syphilitic lesions.

Dr. MOTT mentioned the case of a young man, aged 23, in whom acute paraplegia developed two years after infection. The symptoms suggested focal myelitis, but at the necropsy the naked-eye appearances were natural. Microscopically the changes were a diffuse small cell infiltration of the perivascular spaces, like the drawing shown by Mr. Hutchinson.

Dr. PARKES WEBER described a case of sudden paraplegia one year after infection, in which at the necropsy myelitis was found. The patient had motor paralysis and bedsores, but no loss of sensation; this was remarkable since bedsores were associated rather with sensory disturbance than with motor paralysis.

Mr. HUTCHINSON would not attempt a summary of the whole discussion. He thought the general verdict was that nervous lesions frequently occurred in the early stages of syphilis. He himself had quoted the statistics referred to by Dr. Ogilvie, but the compilers of those statistics considered the nervous affections as tertiary, not secondary. He did not think the tertiary lesions were due to the action of toxins, but to local degenerations in the cells. The blood was free from any poison, and therefore non-infective in the tertiary stage. The tertiary lesions were locally infective, and this explained their serpiginous character. Dr. Gowers had implied that antisyphilitic remedies were not of much use in the inflammatory affections. He did not agree with this view, since if it were true, mercury should have no effect on the vascular changes found in acute paraplegia. He was much indebted to Dr. Ferrier for his valuable clinical observations. He agreed that in diseases of the nervous system, as in diseases of the skin, no lesion was exclusively syphilitic. But since there were types usually recognised as syphilitic in origin, he thought it advisable to classify them as such. Thus he had not seen any cases of acute paraplegia in which recovery occurred due to any cause other than syphilis.

CLINICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., Vice-President, in the Chair.

Friday, March 8th, 1895.

CEREBRAL TUMOUR FOLLOWING INJURY.

Dr. HANDFORD (Nottingham) read notes of the case of a man, aged 43, who had been injured by falling out of a cart upon his head. For the first fortnight he had no definite symptoms; afterwards he became mentally depressed, and experienced gradually increasing failure of power. On admission, four months after the accident, there was general muscular enfeeblement, loss of control over the sphincters, and marked mental hebetude. Complete paralysis of the left side of the face, arm, and leg supervened somewhat rapidly, with very extensive optic neuritis. There was headache, but never vomiting or local spasm. From the very close resemblance to a previous case recorded at length in *Brain*, p. 296, 1891, a diagnosis was made of tumour, probably sarcoma, arising in the injured tissues and situated on the right side close to the motor tract. The patient was trephined, but the tumour was not found, and at the necropsy shortly afterwards a tumour was discovered, 4 inches by 7½ inches in size, firm in consistence and dark in colour, situated behind and to the outer side of the right corpus striatum. Microscopically it was a vascular sarcoma, containing some spindle cells and in places a coarse meshwork filled with uninjured blood corpuscles. Dr. Handford expressed the opinion that the causal relation between the injury and the new growth was undoubted in such cases, and that the frequency of such occurrences was somewhat underestimated.

Mr. W. G. SPENCER remembered a case in which a blow over the frontal lobe was at once followed by deviation of the eyeballs and loss of power at the shoulder, though these symptoms soon disappeared. Six months afterwards symptoms

returned, which pointed to the presence of a cerebral tumour. He thought the case favoured Hunter's view that tumours occasionally developed in blood clots.

Mr. Arbuthnot Lane had two years ago shown, with Dr. Pitt, a gentleman the vault of whose skull had been injured. Subsequently a malignant growth of the dura mater appeared at the site of the injury, and was removed. Up to the present date it had not recurred.

Dr. Hale White had recently examined a man in whom a tumour of the cerebellum had developed on the site of a blow. Cerebral tumours were more often found in males than in females. This had been ascribed to the greater frequency of blows on the head in males contrasted with females; but statistics from the Children's Hospital showed that in children under 5 years of age the excess of males over females was as great as with adults. The difference was clearly not due to greater frequency of injury of the head in males.

Dr. Handford, in reply, said that the symptoms in his cases had advanced more or less continuously from the date of injury.

Association of Diabetes with Psoriasis.

Dr. Grube, of Neuenahr, reported four cases: (1) Man, aged 39, suffering from the hereditary form of diabetes. The psoriasis had existed since the patient's boyhood. The psoriasis was less troublesome when the general condition of the patient improved, but while this improvement of the psoriasis lasted the diabetes advanced, and death occurred at last from coma. The pancreas was found to be normal; there were secondary changes in the nervous system. (2) Brother of the former patient, aged 30. He had been suffering from psoriasis for many years; the diabetes was only discovered last year. It advanced very rapidly, and now there were the symptoms of the severe form; the psoriasis, on the other hand, had nearly disappeared. (3) Man, aged 40; history of gout. He had been suffering from very troublesome psoriasis for many years. When the diabetes set in, some few years ago, the psoriasis showed great improvement. (4) Man, aged 55 suffering from psoriasis since 1865. In this case an alternation in the intensity of the psoriasis and diabetes could be observed at two periods. The psoriasis was very bad in 1890 and 1891; then it was better again, but it was found in the spring of 1892 that the patient, who complained of general weakness and loss of flesh, passed much sugar. An improvement of the diabetic condition was attained in the summer of 1892, which lasted for two years, but the skin affection became worse again. Having been treated for the latter in the summer of 1894 with good result, the amount of sugar had increased again since last October, and the patient had to be more careful with his diet. Dr. Grube did not believe that this combination was a mere coincidence.

Rupture of the Gall Bladder and Liver.

Mr. Arbuthnot Lane read the notes of a case of rupture of the gall bladder and liver, produced by violent straining, in a patient suffering from obstructive jaundice of three or four months' duration. The patient was a woman, aged 54, who was under the care of Mr. Reginald Clarke, of Lee Park. Apparently in consequence of her having administered to herself an excessive purge she was attacked with profuse diarrhœa on December 16th, and during a violent expulsive effort she suddenly exclaimed that something had given way in the region of the gall bladder. This was followed at once by pain, which rapidly became intense. Mr. Clarke found a large rounded tumour projecting from the abdominal wall forward, and having the relations of the gall bladder. The motions passed during the day after the onset of the pain consisted almost entirely of blood, but later of what was apparently digested blood. The friends made no mention of this circumstance till after the operation. Mr. Clarke, in consultation with Mr. Burroughs, urged operative interference, as the patient was becoming rapidly worse, and she consenting, she was removed into St. John's Hospital, Lewisham, for the purpose. Mr. Lane saw her on the 21st, and, though she was practically moribund, agreed with Mr. Clarke that a relief of the distended condition of the gall bladder might be of service to the patient. Consequently the greatly distended gall bladder was exposed, the tumour at once projecting through the incision. It was incised, and more than a pint of blood clot was removed. As it was then found that the common bile and common hepatic ducts were enormously distended by the same material nothing further was done. Dr. Shaw examined the parts, and found that the hepatic aspect of the gall bladder, together with the adjacent portion of the liver, were rent, and that all the ducts in the liver also were filled with clot. In support of his explanation that the rupture had resulted during violent straining, Mr. Lane quoted from a paper by Dr. Willard, in the *Transactions of the American Surgical Association*, 1893, a case in which death appeared to have resulted from rupture of a distended gall bladder, and from hæmorrhage into the peritoneal cavity. For many reasons it was very difficult to obtain from the friends of the patient any definite details prior to the operation.

Traumatic Cystic Lympho-sarcoma of Five Years' Growth.

Mr. Spencer exhibited a specimen taken from a gentleman from whom he had removed the right upper extremity. Owing to the skin being widely involved, the whole of the wound had to be covered in by a flap from the upper half of the arm. The patient lived in New Zealand, and was now 21. In 1889 he bruised the right shoulder, which remained painful, and in a few months a soft swelling slowly formed above the clavicle. As shown in the microscopical specimens and drawings, the contents of the cystic lympho-sarcoma, cystic from the first, with only a small amount of intercystic material, were excessively rare. It was difficult to understand how the growth could have been otherwise treated even at an early stage; if the skin could have been supplied by transplantation, the involvement of the large vessels of the neck in the growth would have led to their ligature, and so probably to gangrene of the arm, had removal of the tumour only been attempted. The patient was about to return to New Zealand, and the prognosis appeared to be quite favourable.

Complete Unilateral Arrest of Development.

Dr. Wallis Ord showed a case of complete unilateral arrest of development with unilateral arcus senilis, and without hemiplegia, in a girl aged 12. There was nothing in the history of the case that suggested any cause for this condition, except that the mother had suffered during her pregnancy from extreme mental anxiety, due to nursing an elder child, who died of hydrocephalus. The whole of the right side of the body below the level of the eyebrows was distinctly smaller than the left, bones and soft structures being alike affected. Above that level the conditions were reversed. There was no paralysis, no rigidity, no contraction; ordinary sensation and faradic insensibility were unimpaired, and the child's intellect was good. In the right eye was a thin sharply defined arcus above and below, and there was also considerable myopic astigmatism. Reference was made to a very similar case published by Dr. J. S. Bury, with very marked hemiatrophy of the tongue. The pathology of the case seemed obscure, but Dr. Ord suggested that it was an extremely mild form of the condition known as infantile spastic hemiplegia.

Dr. James Taylor said that in any case of intracranial lesion due to injury there was more action on the affected side than on the normal side. The absence of the patellar reflex, moreover, led one to suppose that the condition of the patient was due rather to want of development in certain tracts of the nervous system.

Dr. Wallis Ord had repeatedly tried for the patellar reflex in his patient, but without ever finding any. He had considered his case not as one of hemiplegia, but as being due to arrest of development.

MEDICAL SOCIETY OF LONDON.

H. H. Clutton, M.B., F.R.C.S., Vice-President, in the Chair.

Monday, March 11th, 1895.

Hysterical Deafness.

Dr. Hector Mackenzie related the case of a girl, aged 16, who while at a boarding school in November, 1891, suffered from sore throat during an epidemic of diphtheria. At the end of January, 1892, she had a slight attack of influenza.

Consequent upon this attack she developed earache, for which she was Politzerised. This caused sharp pain, and from that moment she became very deaf, and for some days the left ear discharged a green fluid. A week later she was taken to a specialist, who said he could see the scar of a perforation of the tympanum, and ordered galvanism locally, together with the internal administration of strychnine. Soon after she complained of numbness in the limbs, which progressed until there was anæsthesia all over, except over the head and neck. She also lost power in the limbs. For six months she was treated in London with massage and electricity, and gradually recovered sensation and muscular power, but she continued deaf and was unable to raise herself or to stand. She remained in this condition down to March, 1893, when she was admitted to St. Thomas's Hospital, where she was put under a course of Weir-Mitchell treatment for ten weeks, with the result that she gained 22 lbs. in weight, but this was not accompanied by any improvement in the hearing or in the paresis. An attempt was then made to train her to use her limbs by a systematic course, and she gradually regained the use of her legs and recovered strength in the back. Progress was interrupted by an attack of scarlet fever in October. At this time the patient was quite unable to hear with the right ear, and with the left she could hear very little. Nothing abnormal could be made out on examination of the ears. Bone conduction was apparently absent in the right and nearly absent in the left ear. All methods of treatment recommended in the textbooks had been tried without avail, and the deafness had lasted nearly two years when it occurred to the author to try the method suggested in the *Marseille Médical* by Dr. Gilles, namely, the re-education of the sense of hearing. The patient was made to listen to and try to count the ticking of a clock at increasing distances and attempt to repeat words and sentences spoken first close to the ear and then at greater distances. The treatment was commenced on December 21st, 1893. At the first trial the patient could not count the ticks even close to the ear, but this she ultimately succeeded in doing, and so on at greater distances. The improvement took place simultaneously in both ears, and the same course was gone through with the spoken word. After ten days' practice she had so far recovered as to be able to carry on an ordinary conversation. A week or two later the hearing had become of normal acuteness, and the recovery of hearing was accompanied by great improvement in her mental condition. It was now more than a year since she regained her hearing and she had since remained in excellent health.

Dr. Hill said he could only accept the diagnosis of hysterical deafness with difficulty, for though he had been on the look-out for such a case for years he had never come across one of the kind. There was at any rate a strong suspicion of diphtheria in this case, and then, too, there was a history of traumatism which might conceivably have caused concussion of the labyrinth on which the neurotic element was grafted. The success of the treatment did not prove the neurotic element, because the same method of treatment had yielded great benefit in deaf-mutes with undoubted structural lesions. He thought the case was probably one of peripheral paralysis.

Dr. Turney urged that nothing in the case suggested diphtheritic paralysis, the reflexes being perfectly normal. In his opinion it was an undoubted case of functional paralysis. Such a far-fetched idea as that of concussion of the labyrinth was quite out of the question.

Dr. Symes Thompson observed that this method of treatment had given brilliant results abroad in cases regarded as hopeless, and he thought these results were deserving of recognition in this country.

Dr. Mackenzie, in reply, pointed out that trauma was one of the commonest determining causes of hysterical manifestations. One could hardly conceive of concussion of the labyrinth lasting for two years and then rapidly disappearing under the treatment he had described. He suggested that some of the cases alluded to by Dr. Symes Thompson might have been instances of hysterical paralysis of the auditory nerve.

Movable Kidney Treated by Operation.

Mr. Bruce Clarke read a paper on this subject, which is published at p. 575.

The Chairman said it was difficult to distinguish between the cases in which the mobility of the kidney was primary and those in which it was comparatively unimportant.

Mr. Lockwood mentioned that he had operated on a woman two years ago under the impression that there was stone in the kidney. He found a normal but movable kidney which he sutured in place, and she was now able to follow her occupation. He thought many of these cases might be better treated by some form of appliance, though doubtless others were only amenable to operation.

Dr. Hector Mackenzie said it was for surgeons to tell them which cases were suitable for operation and which were not. In many cases the pain complained of was mainly neurotic, and personally he had never seen a case benefited by operation.

Mr. Wallis pointed out that the pain from which some of these patients suffered certainly seemed to justify imperative treatment. An important point was as to the date for interference, the condition of the kidney in some of the cases suggesting that in them the operation had been unduly delayed.

The Chairman, in reference to the employment of silk ligatures, said he had seen sinuses form after the operation, with the remains of the silk ligature at the bottom. Personally he always made use of kangaroo tendon. He only operated on cases in which the belt had failed to afford relief.

Mr. Clarke, in reply, said he was unable to give a definite answer to the question as to what cases ought to be operated upon.

OBSTETRICAL SOCIETY OF LONDON.

F. H. Champneys, M.A., M.D., President, in the Chair.

Wednesday, March 6th, 1895.

Specimens.

Dr. Lewers: Tubal Mole removed by Abdominal Section.—Dr. Robert Wise: A Couch Table.—Dr. Macnaughton Jones: Uterine Polypotome, Vaginal and Uterine Insufflator, Vaginal and Uterine Stem.

Presidential Address.

The President then delivered his inaugural address, which dealt with the subject of midwives and their relations to the public and the medical profession.

Dr. Watt Black proposed that the President be requested to allow his address to be printed in the *Transactions* of the Society.

Dr. Herman seconded this, and it was carried by acclamation.

Dr. Griffith proposed that a number of copies be printed, so that the address might be circulated among the Fellows of the Society, and, at an appropriate date, among members of the General Medical Council and members of Parliament.

This was seconded by Dr. Potter, and carried.

The Disintegration of Organic Tissue by High Tension Currents.

Dr. Inglis Parsons read this paper. The investigations were undertaken to ascertain the capabilities of electricity as a destructive agent in the treatment of malignant disease. He had found from former investigations that the constant current was only effective at the poles for this purpose, even with powerful currents. By using powerful interrupted voltaic currents a much greater area was injured, apparently by the force of the impact. He had some success with this method, but the results varied, some cases being more resistant than others. If the strength of the voltaic current was raised to meet this too much heat and caustic action were developed. It became necessary to investigate further. Having noticed the disruptive effects produced by currents of high electromotive force, it was decided to have a transformer made to a special design. By this means quantity was turned into pressure, heat and caustic action were reduced to insignificance, while the destructive action was enormously increased. The transformer was capable of working up to 150,000 volts, and could be graduated from zero to the pressure required within certain limits. The resistance of the transformer was kept low, so that as large a propor-

tion of energy as possible might be expended on the organic tissue when in short circuit. The primary coil was supplied by six accumulators. A manual rheotome was used, so that the operator had perfect control over his instrument. Freshly-killed beef was chosen as the best organic tissue upon which to try the discharges, because its structure would easily show any alterations that might take place, and it could be obtained in sufficient mass to allow the current to diffuse. Great difficulty was experienced in cutting sections from the beef after the current had passed through it. Even when frozen or mounted in paraffin it crumbled away into *débris*. By lowering the pressure in the transformer some sections were obtained, and the muscular fibres were found to be broken up throughout the path of the current. (This was well illustrated by magic lantern slides and microphotographs.) The destruction was found to extend throughout the path of the current, and was not confined to the poles like the constant current. The sections showed no evidence of heat or caustic action. Some experiments were then tried with an air gap in the circuit, instead of connecting the beef direct to the transformer. The destruction was nothing like so great, probably on account of the high resistance of the air gap. The diffusion of the current was then worked out as nearly as possible by cutting sections from different parts of a thick piece of beef after the passage of the electricity. The area broken up was found to correspond very nearly to the shape of an elliptic spindle. When the poles were not always placed at the same distance apart it was necessary to know the proportion between solid elliptic spindles of different sizes. With the poles 6 inches apart the solid contents were twenty-seven times greater than at 2 inches, consequently a corresponding increase or decrease must be made in the pressure of the current or the number of interruptions according as the needle points were moved further apart or brought nearer together. Finally, a Leyden jar, acting as a condenser, was then introduced into the circuit. The character of the the discharge was altered; it took place with far greater rapidity. The maximum pressure was lowered to about 20,000 volts, with a corresponding increase in quantity. The sections taken showed an utter destruction of the beef. Apparently very little diffusion occurred; the discharge made only a narrow lane from one pole to the other.

Dr. Lewis Jones said that he had made similar experiments on the disintegration of tissue by means of high tension discharges, using a transformer. He was astonished that Dr. Parsons should speak of the destruction of tissue as being produced by the "force of impact," such an expression being vague and meaningless. The destruction of the flesh was due simply to the heat produced by the discharge. Indeed, there was no other possible way in which the electrical energy could expend itself on such a conductor as a piece of flesh. In his (Dr. Lewis Jones's) experiments the piece of meat quickly heated, and if the operation was continued it soon emitted steam and smoke, and finally flame. To say that there was no heat because a thin platinum wire was not heated by the coil discharge was most misleading. Of course, under the conditions of the experiment shown, the platinum wire could not possibly have been heated appreciably. The destruction of tissue was much greater round the poles than in the interpolar area, and this point should have been mentioned more clearly by Dr. Parsons.

Dr. Horrocks said that if it could be shown that living cells, either normal or pathogenic, could be broken up by an electric current, then it was conceivable that this method had a future before it. It had long been known that a simple fracture of a bone united aseptically. Similarly, if one could break up the tissue of, say, a tumour or an inflammatory mass by electrical current, one might succeed in setting up changes which would result in the absorption of the tumour or the exudation. He (Dr. Horrocks) drew attention to the kind of current employed, namely, the faradic or induced. He could not quite understand how the author had arrived at the conclusion that none of the effects produced were the result of heat. Certainly, the sparks shown were very much like lightning flashes, and it was a well known observation that in death from lightning there was evidence of the effect of heat, especially at the entrance and exit of the electrical fluid.

Dr. Routh said that Dr. Parsons had shown how completely the interrupted current could destroy tissues. He asked whether Dr. Parsons was acquainted with the experiments of Sir Benjamin Richardson, which showed that simple non-electrical vibrations changed and reconstructed tissues in various ways. The experiments alluded to were performed on blood taken from the finger, and the products after the shock examined under the microscope. We should not forget that the action of the interrupted current might be influenced in some instances by a neighbouring vibratory wave, and the results be modified.

Dr. Parsons replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

T. S. Clouston, M.D., President, in the Chair.

Tuesday, February 26th, 1895.

Cardiac Therapeutics.

The discussion on this subject was resumed by Dr. George Gibson, who thought the debate had been too much a duel between digitalis and strophanthus. He thought the efficacy of the drug often depended on where it grew. Then there was the question of tincture or infusion. He thought they might have heard more of the value of bloodletting, especially in cases of sudden cardiac failure or great venous engorgement. Rest was important, but only when there was plenty of oxygen and sunlight in the patient's room. With regard to heart pain, he agreed with Dr. Balfour that there never was angina without cardiac failure, dilatation, or some other structural change. The vasomotor theory could not be defended. Pain was connected with the part of the cord connected with the eighth cervical, and the first, second, and third dorsal nerves, as Dr. Ross had pointed out. Pain was associated with hyperæsthesia. The impending sense of dissolution was not, in his opinion, connected with the heart. To relieve heart pains it was necessary to improve the nutrition of the heart. The iodides were chief among the agents by which pain was relieved or abolished, and iodide of potassium was the most valuable. Hydriodic acid might be given instead of it. Iodide of ethyl acted promptly, and its effects lasted longer than those of amyl. Varieties of pain were not so common in rheumatic as in degenerative conditions. Nitro-glycerine and nitrite of sodium were both valuable. He had seldom used nitrite of sodium save in asthmatic conditions. In old standing cases opium was often of great use in relieving pain. The diathesis of the patient ought to be considered in treatment, giving colchicum and alkalies, for example, in gouty cases. We ought to have some means of warding off these degenerative changes which tended to produce heart pains. Pain was probably due to local irritation of sensory nerves. Diet and exercise were at least helpful. Water and distilled water were also valuable.

Dr. James had certain perplexities as to cardiac therapeutics: (1) As to the treatment of the heart in acute disease, for example, pneumonia. If the pulse was not too rapid it was all right, but if it was rapid and the tension low then digitalis or strophanthus were advised by some. Now the pulse was slowed and improved by drugs, but was the slowing an advantage? He thought not. Suppose on the fourth day of a pneumonia, with the pulse 140 and the tension $2\frac{1}{2}$, $\frac{1}{30}$ grain of strychnine was injected, the result was pulse 120, tension 3. Was the heart now doing more work or less? Might it not be that the increased power was more than made up by the increased work? He thought here that there was great wisdom in the tartar emetic treatment of our forefathers. (2) His second difficulty was on the question of dry diet. He agreed it was useful, but he was not satisfied with the usual explanation of its usefulness, namely, that the heart was relieved because it had less fluid to drive off. Good was done by diminishing the weight of the individual, not by diminishing the quantity of blood. As to strophanthus and digitalis, theoretically he believed we did not know the cases in which either would do good specially.

Dr. George Balfour said that when a cardiac case presented itself all the organs connected with, or bearing on, the heart should be carefully examined. Next, the prominent symptom often guided one to treatment. Palpitation might be taken as an example. True palpitation was a forcible beating of the heart and great vessels; was caused not by exercise, but by gastric or emotional reflexes. It occurred

in feeble, anæmic people, and the treatment required was towards improvement of the general health. On the other hand, palpitation brought on by augmented action ought to be treated by rest, iron tonics, and sometimes cardiac tonics. In Graves's disease the whole arterial system palpitated, and the treatment was to remove the cause, if that was possible. Palpitation from overstrain might end in valvitis, and belladonna ought to be pushed. The variety of palpitation due to interference with the nutrition of the cardiac muscle ought to be treated by rest in bed and moderate doses of digitalis. True tachycardia resulted from a variety, and each case must be treated according to the cause. Tremor cordis was mostly due to gastric reflexes, and ought to be treated by attention to the general health and by moderate open air exercise. Every other symptom required special consideration: for example, breathlessness might be due to anæmia, backward pressure, limitation of air spaces from œdema, and vascular spasm of reflex origin. Next as to the heart itself. Troubles in early life of the nature of dilatation were due to anæmia, after middle life they were due to senile changes. An old heart might be rheumatic or fibroid as well as senile. The next point was the condition of the valves causing the murmur. The condition of the coronary arteries, or fatty heart, need not be troubled about, since these could not be diagnosed during life. Of all the fatty hearts Dr. Balfour had seen *post mortem* not one had been injured by any treatment however energetically persevered in. Drugs, however, were not always required to bring about compensation. It was a mistake to account for recoveries from heart disease by the use of this or that drug alone. Many patients recovered by means of rest, warmth, diet, care of general health, and freedom from anxiety. Rest was paramount where compensation was incomplete. Diet and tonics followed; exercise was of benefit only in the early stages of a gouty heart. A cardiac patient had mostly always feeble digestion, hence the necessity for simplicity and attention to the idiosyncrasies of each patient. The food should be as dry as possible. The largest meal should be taken in the middle of the day, in the evening only a light meal so as to avoid disturbance of sleep. There must be sufficiently long intervals between the meals. Fluid should be taken either four hours after or one hour before a meal. Alcohol should only be given where required, and tobacco should be used with caution. As to drugs, strychnine was very useful in energising a weak heart without structural lesion. Five minims of the liquor strychninæ hydrochloratis might be given every twelve hours for a considerable time. Arsenic, too, was a valuable heart tonic. Though we were unable to tell how it acted, there could be no doubt as to its good results. It might be combined with strychnine to advantage. Iron was a good cardiac tonic to young people. Strophanthus in a sufficient dose contracted the heart rapidly and certainly. Its defect was that it forced the heart to contract, it had no tonic action as digitalis had. It had the advantage that it could be given hypodermically. Digitalis had been recognised as a valuable heart tonic for about thirty years, and was the only drug of real importance. Further, it had the great commendation of being indigenous. He had seen a whole ounce of digitalis tincture taken without anything worse happening than reduction of the pulse to 40. Digitalis might be given for three purposes: (1) To improve the nutrition of the myocardium. Here 1 grain of the powder or its equivalent should be given every twelve hours. (2) To contract dilated ventricles. Here larger doses were given and oftener, 1½ grain of the powder every four or eight hours. (3) To remove dropsy; most useful where the tension was small. Still larger doses should be given here. Saturation should be produced rapidly, and the effect kept up by smaller doses. Something like 40 grains should be rapidly given. In aortic regurgitation, when the left ventricle began to fail, digitalis in large doses, with considerable intervals, was imperatively required. Purgatives, especially cholagogue, were of great use in lowering the blood pressure and removing sources of reflex impulse. Where there was great tension, and brawny, dusky limbs, then mechanical removal of the dropsy ought to be done. With increased blood pressure, for lasting effect, iodide of potassium was most useful, and perhaps more so in combination with digitalis. He was satisfied that in every case of angina there was an initial increase of blood pressure, though it rapidly dropped. Flatulence was very common. Sedatives, such as bromides, were often of great use in soothing irritable hearts, in the young especially. Paraldehyde was a good hypnotic, though it was disagreeable to take. Chloral and chloroform might be used in some cases; they never enfeebled the heart. Chloralose was an excellent sedative. Morphine was most useful for pain and for cardiac asthma.

Professor T. R. FRASER then wound up the discussion. He said he must first remove the misapprehension that in his opening observations it was his intention to discourse particularly on any one of the prominent remedies in heart disease. He discussed strophanthus merely as a type of the group; it happened to be the one he had used most. He had referred also to many secondary measures. The time did not permit of his exhaustively discussing all the remedial measures that might be used. Dr. James Ritchie had referred to rest and diet as primary measures, and to drugs as being entirely secondary. How could Dr. Ritchie save a patient with great orthopnœa, dilated ventricles, general anasarca, pulmonary œdema, scanty urine-loaded with albumen by any amount of rest and diet? Drugs were of primary importance in such a case. As to cardiac pain, he believed that morphine best relieved it. If nitrite of sodium was given for the relief of cardialgia it ought to be given in doses of from ½ to 2 grains dissolved in water. Its action was rather more rapid than that of nitroglycerine, and was not so apt to produce headaches. The effects of the nitrites passed off, and increase of dose was necessary. With this increase nitroglycerine was apt to cause intolerable headache. He agreed with Dr. Stockman that the indications for the use of iron were extremely few, and its large use in cardiac cases was unnecessary, and in many cases even harmful. This pernicious use of iron had probably arisen from physicians observing the pallor of patients and arguing anæmia therefrom. The results of the examination of the blood of many patients suffering from cardiac affections who had been under his care tended to show that anæmia was not common in such cases. Dr. Russell had referred to the use of belladonna in the weak and slow heart. Such cases were rare, but they occurred, and undoubtedly belladonna was of great service. This drug was a tonic by acting on the ganglia, and not on the cardiac muscle. Dr. James had said, and Professor Fraser agreed with him, that serious cardiac weakness was the only sign which ought to induce one to give digitalis and strophanthus. Professor Fraser also agreed with Dr. Russell when he said that in cases where gastric troubles were connected with heart murmurs the administration of digitalis was a mistake. In such cases of dyspepsia, if anæmia also occurred, iron should be given; if no anæmia was present small doses of bichromate of potassium quickly relieved the dyspepsia, and the heart symptoms also soon disappeared. Referring to Sir Thomas Grainger Stewart's and Dr. Ritchie's remarks on the question of active or acute changes in the valves, he believed the only time when you ought not to give cardiac tonics was when the heart failed to respond. Dr. Ritchie had said that with rest and restriction of diet cases of insufficiency recovered. Professor Fraser seldom found this to occur, though in all such cases the patients under his care were kept with no other treatment than diet and rest for from four to seven days before treatment by drugs was begun. Iodide of potassium occupied a chief place among remedies in cases of aortic aneurysm; but in many other cases it was a very unsatisfactory drug. He could not agree with the theory set forth by Dr. Balfour that iodide of potassium dilated blood vessels to any appreciable extent, judging by pharmacological experiments and clinical experience. According to Dr. Balfour's theory nitrite of sodium ought to be given. Iodide of potassium in large doses weakened the heart, and produced irregularity of contraction. In aneurysm its action was on the tissue of the diseased vessel as in syphilis. Dr. Balfour had praised strophanthus because of its value in emergencies. It was valuable in emergencies because it was readily soluble and diffusible. The effects of a number of doses could be more easily controlled because of these qualities. Dr. Ritchie had stated that the effect of strophanthus did not last so long as those of digitalis. This was one of the great advantages of strophanthus: it made it a

safer drug than digitalis. Then digitalis by contracting the blood vessels might increase the difficulties of the heart, and allow less blood to go to its own nourishment. Strophanthus had greater power, and was less complicated in its action. Dr. Balfour had said that strophanthus did not "feed the heart" as digitalis did, but this was a dictum not easily proved. The power of producing the essential action of the heart was possessed in a greater degree by strophanthus than by digitalis. The action of strophanthus was a pure one; strophanthus had suffered from being the product of a distant country. There were various species of the plant, and while only one had the special remedial action, other species had been found mixed with the proper one. Tinctures had been made from the immature seeds or from the whole follicle, and had been found to contain an excess of irritating ingredients, and to lack the essential active principles. Sometimes the same seeds were used a second time. For extraction of resin and fats petroleum ether was used instead of ethylic ether, and thus the resin was retained and irritation was caused. There was, too, an excess of resin in the covering of immature seeds. An extract from evaporating down the tincture should be in the *Pharmacopœia*.

The President, on behalf of the Society, thanked the gentlemen who had arranged and carried on the most useful discussion now concluded.

MIDLAND MEDICAL SOCIETY.

T. F. Chavasse, F.R.C.S.Edin., President, in the Chair.

Wednesday, March 6th, 1895.

Myoma of the Uterus.

The President showed a uterine myoma weighing 9 lbs., which he had removed by abdominal section from an unmarried woman, aged 35. The history of growth extended back four years. Numerous adhesions existed, and the pedicle, which was broad, was treated extraperitoneally by a wire constrictor. Recovery was uninterrupted.

Papillomata of the Larynx.

Mr. George Heaton showed a boy, aged 12, with a large valvular growth growing from his left vocal cord, and causing much inspiratory dyspnœa. In addition to the main growth there were several smaller ones growing from the mucous membrane on the interarytenoid space. The boy had suffered from frequently recurring attacks of croup, and a year previously had had tracheotomy performed for laryngeal obstruction, and wore a tube twelve days. Mr. Heaton proposed to remove the growths by laryngotomy, and gave his reasons for preferring this method.

Mediastinal Growth.

Dr. Foxwell exhibited a man with a new growth originating in the posterior mediastinum, which had compressed the main bronchus of the right lung, and also that supplying the lowest lobe. The superficial veins of the lower half of the thorax were dilated, especially on the left side, probably from pressure on the smaller azygos as it crossed the spine to join the larger. There was also a large mass of glands in the right supraclavicular fossa. The first symptom of ill health was noticed the end of November, 1894.

Cirrhotic Liver in a Boy.

Dr. Foxwell also showed a boy of 3 with a large liver of very dense consistence, which he considered to be cirrhotic owing to alcohol with which he had been regularly dosed by his parents—spirits as well as beer.

Cerebral Hæmorrhage with Unusual Symptoms.

Dr. W. A. Marris showed a brain from a case of cerebral hæmorrhage. A large hæmorrhage in the left hemisphere had burst into the lateral ventricle and passed down to the medulla. The symptoms were apoplexy, slight rigidity of all limbs, with occasional unconscious movements; no strabismus, facial muscles equally inactive, inability to swallow, Cheyne-Stokes respiration, equally-contracted pupils, polyuria, and glycosuria. The case was first diagnosed as one of diabetic coma, and subsequently as hæmorrhage into the pons or medulla.

Cases and Specimens.

Dr. Leslie Phillips showed three patients: (1) A case of Chronic Pemphigus of eight months' duration, noteworthy from the very small size of the great majority of its bullæ. (2) A case of Phagedænic Ulceration of the Penis in course of Repair after the Free Application of the Paquelin Cautery. (3) A man discharged from the army in India on account of Syphilis. One side of the nose had been lost nineteen months after the primary sore, and much destructive ulceration had attacked the lesions in other parts of the skin. The exhibitor directed attention to the occurrence in his practice at the present time of many cases of syphilis of a severe and intractable type.—Mr. C. Martin showed a Sarcoma of the Ovary which he had removed successfully.

Paper.

Dr. O. J. Kauffmann read a paper on the Etiology of Tumours.

West London Medico-Chirurgical Society.—A clinical meeting of the Society was held on March 1st. Dr. R. J. Banning, President, in the chair.—Mr. Ballance showed a woman, aged 56 years, on whom he had performed Cholecystotomy during an acute attack of Gall-stone Colic. Eighty-five gall stones were removed, and the mucous membrane of the gall bladder was found to be ulcerated. The gall bladder was stitched to the skin, and the patient made an uneventful recovery. Mr. Bidwell thought it generally preferable to stitch the gall bladder to the peritoneum and not to the skin.—Mr. Ballance also showed a boy, aged 15, on whom he had operated for Cerebellar Abscess. The patient had suffered for nine years from otorrhœa, and for five weeks from headache, staggering, vertigo, vomiting, and nystagmus. The temperature was subnormal. Half an ounce of pus was evacuated from the anterior part of the left lateral lobe of the cerebellum; blood clot subsequently formed in the site of the abscess, and caused a return of his symptoms; but on removal of this, a complete recovery ensued. Drs. Aldebson, Maidlow, Pegler, Eccles, and Lake took part in the discussion.—Dr. Buckland showed a young man suffering from Progressive Muscular Atrophy, which was improving under electrical treatment.—Mr. Edwardes showed two cases of Fracture of the Patella which he had wired four and six weeks before respectively. He operated by a lateral flap, and hammered in the ends of the wire; the splint was removed at the end of a fortnight. The movement of the joint was excellent in each case.—Mr. Edwards also showed a boy with Epispadias affecting the Glans and a portion of the Corpora Cavernosa. He also showed a Ruptured Kidney which he had removed from a man, aged 55, who had fallen on a spiked iron railing. The kidney had been transfixed by the spike, and was ruptured completely. It was removed by a lumbar incision, and the patient was doing well. Mr. Keetley referred to a case of laceration of the kidney where he had removed the lower half of the organ; the bleeding was controlled by packing the wound with sponges, which were removed on the day after the operation.—Dr. Ball showed a man, aged 40, who was suffering from Bradycardia. His pulse-rate varied between 26 and 30 per minute. At times a systolic murmur could be heard. The patient had enjoyed good health until a year ago, when he had influenza. Dr. Chapman considered that there was fatty degeneration of the heart. Drs. Maidlow, Weber, and Lloyd also made remarks.—Dr. Abraham showed a patient with a Tertiary Syphilide, which suggested a mixture of syphilis and eczema seborrhoicum. The itching was intense, and the eruption had an annular margin. Drs. Lloyd and Eccles discussed the case.—Dr. Chapman showed a girl, aged 12 years, with Displacement of the Heart to a point three-quarters of an inch outside the right nipple, which he considered was the result of contraction of the lung from old fibroid disease.—Mr. Keetley showed a case of Primary Chancre of Upper Lip in a girl, aged 18. There were some enlarged glands, but no rash nor sore throat. The patient was improving under mercurial treatment.—Mr. Keetley also showed a woman, aged 50 years, who came under his care with Eczema of the Nipple and a Chronic Abscess in the Breast. The abscess was surrounded by cicatricial tissue, which resembled scirrhus. It was dissected out, and the breast was now quite free from disease.—Mr. Bidwell showed

a girl, aged 19, suffering from Myxœdema together with considerable Enlargement of the Hands, which was apparently due to repeated attacks of erythematous inflammation; symptoms of myxœdema had existed for two years.

Leeds and West Riding Medico-Chirurgical Society.—At a meeting held for the exhibition of specimens of pathological interest, Dr. Adolph Bronner showed microscopic specimens of a Lymphoma of the Eyelid. Seven years ago an oblong elastic growth was removed from the left lower eyelid, and there was no recurrence for three years. Then all four eyelids, hard palate, and submaxillary gland became affected. The internal use of arsenic caused the growths to diminish, and on cessation of this they at once increased in size.—Dr. Hellier showed Eight Gall Stones successfully removed by operation. The case was interesting because there was present the condition which Riedel had described under the term of "linguiform appendage of the liver."—Dr. Churton showed a Liver in which there were many abscesses of various sizes from a pea to that of an orange. There was a history of gall stones. Recent and old tuberculous mischief was found in the lungs, and tubercle bacilli were found in the pus from the liver. Dr. Churton also showed an Encysted Empyema on the Inner Aspect of the Right Lung. The supervention of suppurative peritonitis had rendered the diagnosis of the encysted collection of pus more than usually difficult.—Dr. T. Wardrop Griffith showed a case of Immense Dilatation of the Rectum and Sigmoid Flexure as the result of chronic constipation without mechanical obstruction. He also showed a Collection of Specimens recently added to the Anatomical Museum.—Dr. Barrs showed a specimen of Hæmorrhage into the Pons Varolii, and microscopic specimens of Ascending and Descending Myelitis.—Specimens were also shown by Dr. Chadwick, Dr. Braithwaite, Dr. Baxter-Tyrie and Mr. Ward and Mr. Brown.

Folkestone Medical Society.—At a meeting held on February 27th a paper was read by Dr. Percy Lewis on Curable Curvature of the Spine. He pointed out that weakness and consequent loss of muscular tone were the commonest causes of curvature, inasmuch as they led to the habitual assumption of faulty positions, the worst of which were standing on one leg and sitting with the back unsupported. Dr. P. Lewis went on to discuss in detail the physical changes thus produced in the muscles of opposite sides, and their appropriate treatment. He was entirely opposed to the use of instruments, and advocated suitable exercises, carried out chiefly by a modification of Dowd's machine. Each case should be carefully studied, and should have its appropriate exercises written out in detail for the guidance of the gymnastic instructor. The object of the exercises should be to strengthen those muscles which in the individual case were specially weak. Lastly, he pointed out the advantage which Folkestone had in the possession of a gymnasium with a special department for the treatment under medical supervision of cases of lateral curvature. The paper was illustrated by numerous photographs and diagrams, and the reader showed a hard bolster, to be fixed either vertically or at an appropriate angle to one side of the back of the patient's chair. This he had found to be an effectual method of "untwisting" the spine while the patient was at rest.

The Berlin Anglo-American Medical Society.—A Society under this name has been formed in Berlin to promote social and professional relations among English-speaking physicians permanently or temporarily resident in Berlin. Fortnightly meetings will be held for discussion, and facilities will be afforded to visitors to Berlin for obtaining information with regard to opportunities for special study. Intending members should communicate with Dr. H. R. Wossidlo, Secretary, Potsdamerstrasse 117, Berlin, W. The applicant must produce his passport and diploma or matriculation card at the Berlin University. Persons connected with any irregular form of practice are not eligible for membership. The fees are: Admission, 4 marks; annual subscription, 4 marks while resident in Berlin, 2 marks after leaving.

REVIEWS.

Illustrations of the Nerve Tracts in the Mid and Hind Brain and the Cranial Nerves arising therefrom. By Alexander Bruce, M.A., M.D., F.R.C.P.Ed., etc. Edinburgh and London: Young J. Pentland. Long 4to, pp. 52, and 27 plates with letterpress. 50s.)

This work was issued some time ago, but, owing to accidental circumstances, the publication of a notice of its appearance has been unduly delayed. The volume probably is well known to most readers of the British Medical Journal who are especially interested in neurology, but it deserves to be widely known and used. In the first portion the author gives a preliminary description of the nerve nuclei, their roots and connections, and the various tracts found in the region under consideration, illustrated by several diagrams. To this he adds numerous bibliographic references. The remainder of the atlas comprises 27 coloured plates with descriptive letterpress.

For the purpose in view the author selected, with one exception, the brain of the human fœtus ranging from five months to full term, on account of the greater ease with which the fibre bundles can be followed in the fœtal than in the adult brain. In 26 of the plates the fœtal nerve tracts are delineated as shown by Weigert's hæmatoxylin method or Pal's modification thereof. The figures in Plate XXVII are drawn from the caudex of a child, aged 3 months.

To a student commencing the study of the brain stem this atlas will prove a most valuable aid. The author's descriptions are clear, and the style in which his drawings have been reproduced is of the highest order.

The Medical Annual, 1895. Bristol: John Wright and Co. (Demy 8vo, pp. 640. 7s. 6d.)

This well-known book has attained its thirteenth year of publication. It is unnecessary to say more about an annual which has so firmly established itself in public favour than that it maintains its position and justifies the large patronage which has been accorded to it.

Although its main object is to present in a readily accessible form a summary of the additions to our knowledge which have taken place during the past year, a few original contributions are inserted on subjects of more especial interest, among which the article, admirably illustrated, by Mr. Snell on Eyesight and School-life, and that by Dr. Ruffer on the Treatment of Diphtheria by Antitoxic Serum, are sure to attract attention. As in former years, the illustrations throughout the book are very good.

Towards the end of the volume certain details are inserted regarding which it is very difficult to say whether they are advertisements or not. The soaps, the dietetic novelties, and the trade directory will, in the eyes of some, rather spoil the book as a scientific or literary production, but in regard to practical utility there are doubtless many advantages in having constantly at hand useful details concerning such matters, as also lists of asylums, training institutions, inebriates' homes, hydropathic establishments, new books, nursing associations, etc.

Atlas of the Human Brain and the Course of the Nerve Fibres. By Dr. Edward Flatau. Translated by W. Nathan and John H. Carslaw. Glasgow: F. Bauermeister. 1894. (Folio, 8 plates, with letterpress. 16s.)

This is an atlas of eight plates photogravured, prepared from photographs by Dr. Flatau. The plates comprise both external views and sections of the brain, all being macroscopic, and, indeed, of about the natural size. The work is a small one, and in no way comparable to the well-known atlas of Flint, but its price is more within the reach of the ordinary student, to whom it may prove useful when making for the first time a study of the fresh brain. The photographs are not equally good throughout, and many of them show signs of retouching. Besides the photographic plates there is an extra one containing diagrams after Cajal and others, of the paths of transmission of afferent and efferent impulses,

and of the various projection and association systems which have been described in the brain and spinal cord. There is, however, nothing special about these diagrams, and they are for the most part to be found, in a more or less modified form, in the ordinary textbooks.

The text which accompanies the Atlas consists entirely of an account of the projection and association fibres, with constant reference to the diagrams. It is written clearly and concisely, is fairly up to date, and will, with the illustrative diagrams, prove the most useful part of the work.

Professor Mendel writes a commendatory preface, the photographs having been prepared in his laboratory. There is no doubt that the author has expended much care in the selection and production of the figures, for it is not easy, as in this Atlas, to give a good idea of the external and internal structures of the brain within the limits of a few plates.

Sandow on Physical Training: A Study in the Perfect Type of the Human Form. Compiled and edited under Mr. Sandow's direction by G. Mercer Adam, ex-Captain Queen's Own Rifles, C.M. London: Gale and Polden, Limited. 1894. (Demy 4to, pp. 244.)

This volume, which is profusely illustrated, though for the greater part it makes no pretence to treating the subject of physical training on a scientific basis, yet contains a good many chapters which may be studied with interest and instruction by medical men and by physiologists. The earlier part of the book is occupied with a sketch of the life of Sandow, the strong man, whose appearance in London a few years ago created so much interest. We are told that he came of parents of normal physique, and that down to his 15th year he was of slight build and rather delicate constitution. As a student he took great pleasure in gymnastic exercises, was a diligent practitioner in the gymnasium, and finally conceived a most ardent ambition to become an athlete. For some time he studied anatomy as a medical student, and the knowledge then gained subsequently served him well in the systematic plan which he evolved for training his muscles. The system which he recommends and teaches is described with considerable detail in a series of chapters on practical exercises. This part of the book is, we believe, of real value, the more that a good many of the exercises recommended can be carried out with dumbbells and some even without any apparatus. A large number of exercises are described, and a good feature in the book is that the object of each exercise is clearly stated. The pupil is thus encouraged to take an intelligent interest in them. The concluding chapter of the book describes a machine designed for exercising the muscles of the thighs and legs, and it is very probable that orthopædic surgeons might obtain some useful hints from this section. As we have already said, the volume is profusely illustrated, mainly from photographs, which give a very clear idea of the nature of the exercises recommended.

The London Health Laws: A Manual of the Law affecting the Housing and Sanitary Condition of Londoners, with special reference to the Dwellings of the Poor. Issued by the Mansion House Council on the Dwellings of the Poor. London: Cassell and Co. 1894. (Crown 8vo, pp. 178. 2s.)

This little book is a third and revised edition of a manual issued by the Mansion House Council on the Dwellings of the Poor, with a view to explaining in simple language the law relating to public health in London, and exemplifying the manner in which individual action may be beneficially undertaken for the remedy of abuses, or for the enforcement of compliance with statutory enactments. The manual is divided into three parts—Part I dealing with The Law as to Public Health, Buildings, and Water Supply; Part II having reference to the Housing of the Working Classes Act, 1890: and Part III discussing Clearances by private enterprise. In an appendix, Definitions and the Constitution of Local Authorities are treated of, and several important codes of bylaws are set out *in extenso*. The Manual has been, and in its revised form will continue to be, a useful one. There is some obscurity in the arrangement of the subject matter of Chapter iii of Part I, which is entitled The Metropolis Management Acts, as most of the points there dealt with now come within the scope of the Public Health (London) Act, 1891, and should therefore be referred to Chapter ii of Part I. As regards open space about dwelling-houses, too, it must be noted that the Manual is already out of date in virtue of the Act of last session. We fail to find any reference to the recent transfer of the power of control of common lodging-houses from the police to the London County Council. It is nowadays, however, impossible for any manual dealing with sanitary law to remain up to date for any long period of time.

A few of the statements made in the Manual are of a controversial character, and the general impression left on the readers mind with respect to existing authorities is that "there is none righteous, no not one"; but of course this only emphasises the need for individual effort. The Manual is none the less a readable and interesting compilation, and will no doubt in its new form continue to serve a useful purpose.

NOTES ON BOOKS.

Statistique et Observations de Chirurgie Hospitalière [Statistics and Records of Hospital Surgery]. Par Le Dr. Polaillon, Chirurgien de l'Hôtel-Dieu. (Paris: Octave Doin. 1894. Demy 8vo, pp. 413; 8 illustrations. 6 francs.)—This is a record of the hospital work done by M. Polaillon in the course of the past fourteen years, at first in La Pitié, and subsequently in the Hôtel-Dieu. By extending his report over this period the author has been enabled to present a larger mass of clinical material, and more reliable and instructive conclusions. The cases are arranged according to regions, the injuries and diseases of the limbs being first considered, and then those of the trunk. Each section is followed by a statistical table of operations, and the book concludes with the cases of morbid growth and of infectious disease. The records have been very carefully arranged and analysed by M. Polaillon and his pupils, and the book will be found instructive, as showing the nature and extent of the surgical practice of a large French hospital, and also may prove useful to those who are collecting statistical information on any special form of injury or disease.

Ueber die vordere Tenotomie, Mobilisirung und Extraction des Steigbügels. [On Anterior Tenotomy, Operative Release, and Extraction of the Stapes.] Von Professor Kessel, in Jena. (Jena: Gustav Fischer. 1894. Imp. 8vo, pp. 24.)—The author of this pamphlet discusses the relative value of the different operative methods that have been devised for relieving functional impairment in chronic disease of the middle ear. Whilst acknowledging that operative release of the fixed stapes and also removal of this bone may do good in certain cases, he favours tenotomy as a preferable measure in most instances, since with such treatment the whole of the mechanical apparatus of the middle ear is released, the tympanic cavity remains closed, and better results with regard to hearing are obtained.

On the Natural Immunity against Cholera, and the Prevention of this and other allied Diseases by simple Physiological Means. By C. Godfrey Guempel. (London: Williams and Norgate. 1894. Demy 8vo, pp. 84. 2s. 6d.)[1]—In this little book a certain fact is taken hold of—the small proportion of people who are attacked in any epidemic, a fact which it is essential that everyone who studies epidemics should bear well in mind. On it is founded the proposition that the personal factor as to susceptibility or immunity has a large influence in the incidence of cholera in any community, a proposition which again is worthy of more consideration than some have given it. After this the author launches out into pure hypothesis. He argues that the cholera virus has its sphere of destructive activity in the blood; that the real cause of death must be sought for in the destruction of the blood corpuscles; that in a strong wholesome blood, therefore, we

[1] The German original of this work is published by J. F. Lehmann, of Munich, price 2 marks.

have to look for the power to resist the cholera poison. High temperature and moisture are conditions which favour the development of cholera; of these high temperature has no sensible effect upon the blood, but moisture causes the corpuscles to swell, and ultimately to burst; the presence of common salt in the blood serum counteracts this absorption of watery serum by the corpuscles; high temperature produces thirst; continuous drinking with a deficient supply of common salt causes the corpuscles to become susceptible to cholera infection, this susceptibility being due not to excess of water, but to deficiency of salt; the poor live largely on vegetables, the potash salts in which displace the common salt, hence their susceptibility. To sum up, common salt "is the best tonic, a most necessary food for the body, and a most effective prophylactic against cholera." All this is mere speculation, and before writers pretend to criticise current views on cholera they ought to make themselves better acquainted with what is really meant by the term "dirt disease" than the author of this book appears to have done.

Clinique des Maladies du Système Nerveux, de M. le Professeur Charcot. Leçons du Professeur, Mémoires, Notes, et Observations, 1889-91, Tome II. (Paris: F. Alcan. 1893. Demy 8vo, pp. 484 Fr.12.)—The title of this book is misleading, in so far that only five of the sixteen articles reproduced in it are the work of the late Professor Charcot, the remainder having been penned by MM. Georges Guinon, Paul Blocq, and others. Of the five, one relates to tubercle of the paracentral lobule with Jacksonian epilepsy; another treats of hysterical vigilambulism, this term being used to denote the second state in a case of dual personality; a third, the most interesting of the series, is concerned with a case of retroanterograde amnesia. Two lectures delivered in 1886, and published in that and the following year, complete the portion contributed by Charcot. The rest of the volume is largely taken up with descriptions of various manifestations of hysteria.

The Droitwich Brine Baths as Therapeutic Agents in Various Diseases. By W. H. Tomlins, L.R.C.P., M.R.C.S. (London: H. K. Lewis. 1895. Demy 8vo, pp. 22. 1s.)—We are puzzled to know why this pamphlet should have been written. The writer seems to have nothing to say of his own knowledge or experience about the Droitwich course—in itself a subject of ample interest and importance—and even this slender account of twenty pages is chiefly composed of lengthy extracts from Otto Leichtenstern's well-known work general balneotherapeutics, and quotations from other authors, of such striking originality, for instance, as the following, referring to an acute attack of gout: "These attacks are sometimes found to be so far salutary as to clear the system and secure a more lasting immunity from future paroxysms"! We seem to have heard something like this before.

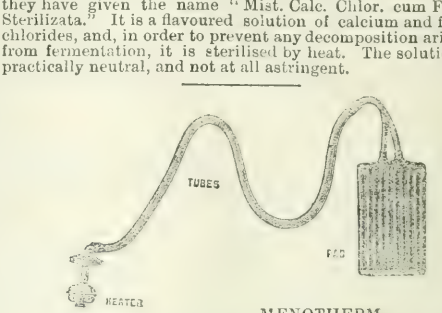
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ERGOLE.

The chemistry of ergot is so complicated, and the results which have been obtained by different investigators are so utterly at variance, both as to its constituents and their physiological action, that it is impossible to make Galenical preparations of this important drug upon any definite lines. The virtues of ergot can be extracted by water and alcohol, and those are the solvents in general use. The liquid extract of the *British Pharmacopœia* is made by exhausting the drug with water alone. In the German and Russian *Pharmacopœias* hydrochloric acid and dilute alcohol are used. The United States *Pharmacopœia* employs diluted alcohol and acetic acid. We have received from Messrs. Oppenheimer, Son, and Co., Manufacturing Chemists, 14, Worship Street, E.C., a specimen of ergole, a liquid preparation of ergot. It is stated that ergole is prepared by a new process from select Spanish ergot, and it is claimed to be a permanent solution of all the active principles of the drug. It is a dark liquid miscible with water, and possesses the characteristic odour of fresh ergot. Comparisons with preparations of a standard character indicate that it is a reliable preparation.

A STERILISED MIXTURE.

Messrs. Arthur and Co., Manufacturing Chemists, 69, Berners Street, London, W., send us a preparation to which they have given the name "Mist. Calc. Chlor. cum Ferro-Sterilizata." It is a flavoured solution of calcium and ferric chlorides, and, in order to prevent any decomposition arising from fermentation, it is sterilised by heat. The solution is practically neutral, and not at all astringent.



MENOTHERM.

An ingenious method of continuously applying heat to any external surface of the body has been devised by Mr. Edward Wilson, engineer, of Exeter. It consists of a flat india-rubber pad, which, when inflated with water, is about half an inch thick. It is connected with a small copper cylinder or heater by means of two long rubber tubes. The whole is filled with water, and closed hermetically with a screw cap. The heater is then placed in the small can shown in the illustration. Into this can sufficient water is introduced to cover the heater. The lamp, which burns paraffin, is then lighted, and the water in the can as it is heated warms the water in the heater, and the water then circulates through the tubes to and from the pad. The temperature can be regulated by raising or lowering the wick. The "menotherm" is designed by its maker to replace the poultice; and we find that when the instructions are carefully followed out there is no difficulty in making the apparatus work and raising the temperature of the pad to 120° or more. The lamp is fixed in a firm cast-iron stand, with a broad base so as to lessen danger of upsetting. The apparatus, which costs 2 guineas, may very well be of use in cases, especially in old persons, who are liable to be in need of a poultice at inconvenient hours of the day or night.



GORDON'S PATENT CRUTCH PANTS.

Messrs. Lynch and Co., of Aldersgate Street, have forwarded to us a pair of pants provided with an improved pouch for the scrotum, which is intended to act as a suspender and to prevent chafing. This modification in the making up of pants, drawers, and other garments of a like nature, which has been invented and patented by Mr. G. H. Gordon, is likely to prove useful to stout persons and to those affected with scrotal swelling.

REPORT ON VACCINATION AS A BRANCH OF PREVENTIVE MEDICINE.

By ERNEST HART, D.C.L.,
Chairman of the Parliamentary Bills Committee of the British Medical Association.

II.

(Continued from page 488.)

Small Pox at Leicester.

I have placed Leicester next to Sheffield in the tabular statement (see British Medical Journal, March 2nd, p. 487), because it has become the centre of the antivaccination movement; the performance of vaccination has been practically suspended in the town for several years past, and a gigantic experiment is being tried there of endeavouring to cope with small-pox by, curiously enough, substituting for compulsory infantile vaccination another set of even harsher compulsory measures—compulsory isolation, compulsory quarantine for twelve or fourteen days, and suchlike. The comparative immunity of "unvaccinated" Leicester from small-pox for several years past was becoming the stock argument of the antivaccinators. It is especially instructive, therefore, to see how small-pox behaves there on its introduction. From the official report of Dr. Priestley, the able medical officer of health, it appears that during the epidemic of 1892-93 there were:

Under 10 Years of Age.

Vaccinated cases, 2; deaths 0 ...	...	= 0.00 per cent.
Unvaccinated cases, 105; deaths 15	...	= 14.30 ,, ,,

Over 10 Years of Age.

Cases once vaccinated, 176; death 1	...	= 0.57 per cent.
Unvaccinated cases, 48; deaths 4 ...	...	= 8.30 ,, ,,
Revaccinated cases, 14; death 0 ...	...	= 0.00 ,, ,,
Doubtful as to vaccination—that is, no marks visible—cases 2, death 1	...	= 50.00 ,, ,,

This is convincing enough by itself, but the health officer, who personally saw and had to deal with every one of the cases, further reports that: "It is a noteworthy fact that of the 19 deaths amongst the unvaccinated, 16 were of a malignant or semi-malignant type, that is, were accompanied with extravasations of blood in various parts of the body—the skin, eyes, lungs, etc. In fact, some of the cases have been of a most revolting and distressing character, calling to mind the descriptions given by some of the early writers in speaking of the 'black small-pox.'" Among the unvaccinated, 35 cases (22 of them in children under 10 years) were malignant or semi-malignant, and of these 19 recovered, "to be left, unfortunately, disfigured for life." No vaccinated case was of a malignant or semi-malignant type, though 10 vaccinated out of the 176, and 1 doubtfully revaccinated out of the 14, were of a severe confluent type; only 1 of the vaccinated cases died. Thirteen out of the 14 revaccinated cases were either mild or very mild, and aborted. It will have been seen from the table that there were 2, and only 2, cases amongst vaccinated children under 10 years of age during the whole epidemic, and as regards these the medical officer of health is doubtful if they were cases of small-pox at all, so very mild and abortive were the symptoms.

The length of stay in hospital of the different classes of patients is another interesting and practically important point, and it was observed during this Leicester epidemic that the average length of stay was—among the vaccinated under 10 years, 14.5 days; unvaccinated under 10 years, 47.3 days; vaccinated over 10, 28.6 days; revaccinated, 26.8 days; had previous small-pox attacks, 14 days; unvaccinated, 44.2 days.

Leicester has also repeated the experiences of other epidemics as regards the immunity from attack enjoyed by the efficiently-protected nurses and attendants at the small-pox hospitals. Of 40 officials connected with the hospital, 34 were "efficiently" protected either by revaccination or by a previous attack of small-pox, as shown by extensive "pitting," and not one contracted small-pox. The remaining 6 were "inefficiently" protected, having been vaccinated only in infancy, and having refused revaccination. Five of these contracted small-pox and 1 died. The only one of these 6 "inefficiently" protected to escape was the matron, who, of course, was not much exposed to the contagium, taking no part in the actual nursing of small-pox cases, and only entering the wards occasionally.

I propose to refer, later on, to the evidence that sanitary conditions had nothing to do with the relative immunity of the vaccinated as compared with the unvaccinated. There is much that I would like to quote from Dr. Priestley's valuable report if space admitted of it, but for the moment I must be satisfied with the following:

After comparing the condition of Leicester in 1871-72 with its condition in 1892-93, he adds that in the latter year, with the "most stringent precautions taken in the way of isolation, disinfection, and quarantining, with a Notification Act well carried out, and with excellent sanitation, there have been 347 cases, showing that 1.8 per 1,000 of the whole population (estimated at 184,547) have been attacked, and the ratio of mortality to cases has been 1 to 16.5. In 1892-93 Leicester was equally well vaccinated (that is, when compared with 1871-72) as regards its adult population, but the antivaccination movement is beginning to tell, especially upon the children under 10 years of age, and it is chiefly these, proportionately, who have suffered most severely from the ravages of small-pox. This unvaccinated element under 10 years age is, in my opinion, Leicester's weak point; and certainly has proved so during our late epidemic. Taking the children under 10 years, there have been 105 unvaccinated who have passed through our hands, whilst I am able to make the significant statement, that there has not been a single case of a vaccinated child under 10 years of age treated for small-pox at the hospital during the whole of our epidemic. That many such vaccinated children have come into contact with small-pox is proved by the quarantine statistics, from which it is seen that 91 vaccinated children under 10 years were in infected houses. Comparing these with the 271 unvaccinated children in quarantine of the same age period, we find that the incidence on the vaccinated bears to the incidence on the unvaccinated the proportion of 1 to 8.7 per cent.—that is, the unvaccinated children under 10 years of age have suffered eight times as severely as the vaccinated ones. The severity of the attacks must also be noticed, and the extensive pitting and scarring left in the unvaccinated children. We have seen that out of a total of 105, 83.8 per cent. have suffered severely or very severely, whilst 16.2 per cent. have suffered mildly or very mildly."

There is yet another interesting feature in the Leicester "experiment," and that is the system of "quarantining" for small-pox. By "quarantines," Dr. Priestley explains, "are meant practically persons in small-pox infected houses, for it is clear that such inmates must, more or less, have been exposed to the contagion. Such persons may be quarantined (1) in separate hospital wards and reception houses specially provided, a method, by the way, I do not recommend, whether from the point of view of economy or practicability: or (2) at their own homes, a method I have found satisfactory, both financially and otherwise. The value of quarantining has been well shown during the Leicester epidemic, and I have been able, with comparative ease, by means of my inspectors, to quarantine hundreds of persons at their own homes and with a success that has been gratifying both financially and otherwise. One thousand two hundred and sixty-one persons were quarantined, and of these 123 sickened (that is, 9.7 per cent.). Each infected house was visited daily by one or other of the inspectors for fourteen to sixteen days. Other persons who had come into contact with small-pox were also watched in the same way. These 'quarantines' were strongly urged—practically compelled—not to go to work for the whole or part of their quarantine period of fourteen to sixteen days, and during that time have been made such monetary allowances as the Committee have thought fit, the sum advanced in each case being no more than sufficient to cover rent and maintenance." This is a kind of compulsion which it must be evident would not be tolerated to any great extent if it be seriously thought in some quarters that the system might be made general. In comparison with it the compulsion of infantile vaccination is a trifling interference with individual liberty.

Warrington Experiences.

The experiences at Warrington in 1892-3 are scarcely less instructive than those of Leicester. The figures set out in the

table already given speak eloquently for themselves, and need not here be repeated. But, from Dr. J. G. Gornall's exhaustive report on the subject I take the following further facts bearing on the influence of vaccination. A census was made of practically all houses in Warrington invaded by small-pox, with the following results. In 397 houses invaded by small-pox up to the end of March, 1893 (being the total number of invaded dwellings up to that time, excepting only 7 lodging houses), a total population of 2,424 persons was enumerated. Of these 545, or 22.4 per cent., were attacked by small-pox, and 56, or 2.3 per cent., died; 663 of them were under 10 years of age; of these, 51, or 7.6 per cent., were attacked, and 14, or 2.1 per cent., died; 1,761 were aged 10 years and upwards, and 494, or 28 per cent., were attacked, while 42, or 2.3 per cent., died. That is to say, the attack-rate in persons over 10 years of age was four times that in persons of the earlier period, while the death-rates are about the same. In other words, the diminishing protection afforded by vaccination as life advances is shown by an increased liability to attack. And since the mortality under 10 years of age is practically confined to the unvaccinated, the non-increase of the death-rate in the older class, coincidentally with an augmented susceptibility, is evidence of the power of vaccination to mitigate the severity of the disease after it has ceased to be able to prevent it altogether. Again, of the 2,424 persons already referred to, 2,313 were vaccinated, and 481, or 20.7 per cent., of these were attacked, and 32, or 1.3 per cent., died. Of the remaining 112 unvaccinated persons, 64, or 57.1 per cent., were attacked, and 24, or 21.4 per cent., died. Of 606 vaccinated children, 18, or 2.9 per cent., were attacked, and 1 (said to have been vaccinated, but presenting no trace of marks), or 0.16 per cent., died. Of 57 unvaccinated children, 33, or 57.8 per cent., were attacked, and 13, or 22.8 per cent., died. Of 1,707 vaccinated persons over 10 years of age, 463, or 27.1 per cent., were attacked, and 31 (including one whose vaccination was doubtful), or 1.8 per cent., died. Of 55 unvaccinated persons over 10 years of age, 31, or 56.3 per cent., were attacked, and 11, or 20 per cent., died.

It will be seen that the differences between these figures are very wide indeed, and not merely fractions or units. The inference to be drawn is irresistible.

Further, Dr. Gornall records that of 824 persons in the military barracks none caught the disease. No case occurred amongst the 117 revaccinated persons in the postal service, nor in the police force, whose members were all revaccinated. Nor did any case occur amongst the 23 nurses, etc., who were exposed to contact with small-pox in the discharge of their duties at the local small-pox hospital.

Small-Pox in Halifax.

In Halifax the antivaccinators have, during the last five years or so, acquired an ascendency on the board of guardians, with the unfortunate result that the Vaccination Acts have become almost a dead letter in the town. In 1891 only 516 out of the 4 868 children born were vaccinated. It must be borne in mind, however, that although this shows that children in increasing numbers are growing up unprotected against small-pox, the present adult population is still fairly protected. Let us hope the local experiences of small-pox in 1892 and 1893 may have opened the eyes of some at least of those who have been deluded by the sophistries of the opponents of vaccination. In the course of eighteen months 513 cases of small-pox were admitted to the Halifax Fever Hospital and 44 (8.5 per cent.) died. Of these 425 were vaccinated and only 8 of them (or 1.8 per cent) died. The remaining 88 were unvaccinated and 36 (or 40.9 per cent.) of them died. Looking more closely at the figures, we find that there were no vaccinated cases whatever under 5 years of age, but that 50 unvaccinated children under that age were attacked, and 20 (or 40 per cent.) of them died. Between 5 and 10 years of age there were 4 vaccinated cases, all mild and non-fatal, whilst there were 17 unvaccinated cases of that age, 9 of them confluent and 2 fatal. Above 10 years of age there were 421 vaccinated cases, 325 of them being "discrete" or mild, 96 of them "semi-confluent" or "confluent," or severe, and only 8 (or 1.8 per cent.) of them fatal; whilst of the 21 unvaccinated cases above 10 all were severe, and 14 (or 66 per cent.) were fatal. Two revaccinated persons were attacked, but in one of them the revaccination had taken place thirty-four years previously, and in the other the revaccination had been inefficiently performed five years previously. Of the hospital officials 1 only was attacked, and that during the first week of the epidemic before revaccination. All the others were revaccinated, and all escaped small-pox.

Oldham.

Oldham is a centre of antivaccination. In fact, it may be said that at present the Vaccination Acts are a dead letter in the town. Although the good people of Oldham may possibly not profit by their striking experiences of small-pox in 1893, yet it is worth putting the facts on record for the benefit of others who are still amenable to reason in this matter. It will be seen from the table that between January, 1892, and June, 1893, 605 cases of small-pox were treated in the Westhulme Hospital, the cases coming from Oldham, Chadderton, and Royton. Of these, 15 were vaccinated children under 10 years of age and all recovered; 97 were unvaccinated children under 10, and 27 (or 27.8 per cent.) died; 431 were vaccinated adults, and of these 19 (or 4.4 per cent.) died, whilst 51 were unvaccinated adults, of whom 14 (or 27.4 per cent.) died.

In a very careful and comprehensive report on this outbreak, Dr. Niven, then medical officer of health, showed that he did his best to promote vaccination and revaccination, and that in the case of actually invaded families he was fairly successful. His report goes to show that efficient vaccination or revaccination immediately after exposure to the infection of small-pox (especially within three days after the appearance of the eruption in the patient first attacked) reduces, practically to a minimum, the risk of subsequent development of the disease in the individuals who have been exposed to it.

Small-Pox at Hastings.

An outbreak of small-pox, which occurred in the Hastings registration district early in 1894, has been closely investigated by Dr. Bruce Low, of the Medical Department of the Local Government Board, and the facts and figures set out in his report are very instructive. Between January and June, 1894, there occurred 86 cases of small-pox, of which 9 were fatal. In 7 of these cases it was not found possible to obtain definite information as regards vaccination. Two of them died, and neither examination of their arms nor questioning could obtain information, whilst no relatives were found. As to the other 5 non-fatal doubtfully vaccinated cases, there were no visible marks or scars on their arms nor were the patients themselves or their friends able to give definite information as to vaccination. Of the remaining 79 cases, 67 were vaccinated, and 3 of them (or 4.4 per cent.) died; whilst 12 were unvaccinated, and of these, 4 (or 33.3 per cent.) died. Of the 67 vaccinated, only 4 (all mild and non-fatal) were under 10 years of age. Of these 4, one was an infant whose mother was attacked with small-pox three weeks after her confinement. She was removed to hospital, and her baby, after having been vaccinated, was sent with her. On the twelfth day after admission the infant developed "eight spots," but suffered little or no constitutional disturbance, and made a rapid recovery with no trace or mark of the illness. The mother, on the other hand, who had no visible vaccination scars, and who did not know whether or not she had ever been vaccinated, had a severe confluent attack. The three other vaccinated children attacked were: (1) a child, aged 3, with three vaccination scars, who had only "six spots"; (2) a child, aged 2, with two vaccination scars, who had "one spot," there being three other small-pox cases at the time in the family; and (3) a child, aged 4, with three vaccination scars, who had only "a few spots," although his father, mother, and sister, had small-pox at the same time. In all three of these children the illness was of a trivial kind. On the other hand, 10 unvaccinated children under 10 were attacked, and 4 (or 40 per cent.) of them died.

Further, as regards severity of attack, 56 of the vaccinated cases were mild and only 11 severe; but of the unvaccinated cases, only 4 were mild, whilst 9 were severe.

Blackburn Quarantines.

Blackburn furnished some instructive lessons from its

visitation by small-pox in 1893. Out of 79 cases, 3 were vaccinated children under 10 who had mild attacks and recovered, and one a child whom the health officer states was unvaccinated and who died. Of the 75 cases over 10 years of age, 68 had been vaccinated and only 2 died, 4 were unvaccinated and 3 of them died, whilst in the remaining 3 cases there was no evidence of vaccination, and 2 of these died. Vaccination was also noticed to influence very materially the fatality of the disease in those attacked. Thus, of 33 vaccinated patients showing 3 or more vaccination marks not one died. Again, the protection afforded by revaccination after exposure to infection was noticeable. There were 243 persons detained in quarantine for 14 days in consequence of their having been exposed to infection. Of these, 211 were revaccinated, 15 were already sufficiently protected by revaccination or a previous attack, and 17 were not revaccinated. Of the 211 revaccinated, 2 caught the disease, one having been exposed 4 days and the other 5 days before the performance of revaccination. Of the 17 persons who were not revaccinated 5 caught the disease. This surely goes to show that if only vaccination and revaccination were efficiently and judiciously carried out, the great expense and restriction of individual liberty involved in these "quarantines" could be avoided. Here are a couple of particular examples. A case of small-pox occurred in a house where there were 4 other persons. Three of these were revaccinated and escaped, the fourth refused and was attacked. In another instance small-pox occurred in a house where there were 3 other persons. These were revaccinated and escaped. The only other person who had been in contact was a brother who lived in another part of the town. He was only in this house a few minutes. He was not revaccinated, and he was attacked by small pox 12 days afterwards. Dr. Wheatley, the medical officer of health, was often much struck, when attempting to persuade the inmates of common lodging houses to be revaccinated, by the large number of them who had been revaccinated previously. Many of them had been revaccinated in the army or navy, and others in public institutions. It is to this large amount of revaccination that he attributes the fact that small-pox did not spread in the lodging houses to a greater extent than it did.

Small-pox in Bolton and Derby.

Of the 44 cases of small pox which occurred in Bolton during 1893, 1 fatal case in a vaccinated child under 10 years of age is recorded in the table already given, but the medical officer of health explains in his report that he has doubt as to its having been small pox at all. Of the 30 cases amongst vaccinated adults, all of whom recovered, it is instructive to find that 29 were "discrete," and that only 1 was of the "confluent" type. All the unvaccinated cases were severe.

Of the 46 cases of small pox in Derby during 1893, 14 showed no marks of vaccination, 5 showed only one mark each (good in 4 instances), 11 showed two marks each (good in only 4 cases), 8 had three marks each (good in 6 cases), and 7 had four marks each (good in 5 cases); so that only 11 of the persons who suffered from small-pox were properly vaccinated. Of the 14 patients showing no marks of vaccination, 5 died, or 35.7 per cent. Of the remaining 32 patients who had been vaccinated, only 2 died, or 6.2 per cent., and both had been vaccinated imperfectly—one in one place only and the other in two places only. No patient was admitted to the hospital who had ever been revaccinated. The whole of the staff connected with the hospital had been revaccinated, and not one of them was attacked with the disease.

Striking Illustrations from Huddersfield, etc.

Huddersfield in 1893 had 48 cases of small-pox, and though that number is comparatively small, it teaches, when analysed, the same lessons as the more serious outbreaks. Forty-six of the cases were amongst persons over 20 years of age, and the remaining 2 cases were under 12 years of age, one being a child of 5, unvaccinated and the daughter of an anti-vaccinator, who very wisely had the rest of his family vaccinated, the other being a boy of 12 practically unvaccinated, because, although subjected to the operation in infancy, "the vaccination did not take." Dr. Kaye, the medical officer of health, also reports that the severity of the attack, with its attendant disfigurement by pitting, and consequent detention in the hospital, was roughly in proportion to the condition of vaccination exhibited by the marks on the patient. These facts were observed and acknowledged by the patients themselves. Twelve of the patients were unvaccinated, and only 2 deaths occurred amongst them. Dr. Kaye includes in his report an illustration, reproduced from a photograph, of one of these fatal cases, a child 18 months old, and he justly remarks that "if any convincible antivaccinationist could have witnessed the horrible condition of both these fatal cases—features swollen beyond recognition, and covered from head to foot with loathsome-smelling scabs, and totally incapable of doing anything for themselves—I do think he would have seriously reconsidered his position." Dr. Kaye also gives illustrations of two unvaccinated adults of 24, one on the ninth and the other on the tenth day of eruption, and by way of contrast an illustration of an adult of 34, having three vaccination marks, and only a few scattered small-pox spots. The striking contrast is just what is observed in every epidemic and every small-pox hospital. Dr. Kaye has approximately calculated that the unvaccinated constitute about 3 per cent. of the population of the borough, or say 2,955, whilst the remaining 95,600 may be taken as more or less efficiently vaccinated. If vaccination possessed no preventive influence the incidence of small-pox would be the same amongst the vaccinated and the unvaccinated, and there should not be more than 1 unvaccinated case to every 33 vaccinated. In Huddersfield, however, the proportion in 1893 was 1 unvaccinated case to 3 vaccinated cases.

Seventy-two cases of small-pox occurred in Keighley in 1893, 31 of them being vaccinated, and 41 unvaccinated, but only 1 of the former died, whilst 6 of the latter were fatal. Only 1 vaccinated child under 10 years was attacked, the disease being of a mild type; whilst 24 unvaccinated children under 10 were attacked, 17 of them having the disease in a "confluent" form, and 4 of them dying. Of the 40 "confluent" or "semi-confluent" cases, 33 were unvaccinated, and only 7 vaccinated, 4 of the latter being "semi-confluent." In the vaccinated the average duration of the illness was 36 days, in the unvaccinated it was 53 days.

In Ossett there occurred 41 cases of small-pox in vaccinated persons and 4 in unvaccinated during the two years 1892 and 1893. All of the former (except one who committed suicide) recovered, but one of the latter cases was fatal. The health officer adds in his report that during the last 13 years there have been 116 cases of small-pox in the district, 104 having been vaccinated in infancy (including doubtful cases), and 12 having never been vaccinated. Only 5 deaths have taken place, and all of them have been in unvaccinated subjects. There has been no instance there of a revaccinated person having contracted small-pox.

Salford had 174 small-pox cases during 1893, and 21 proved fatal. Of children under 10 years of age 7 who had been vaccinated caught the disease, but none died; whereas of 20 unvaccinated children, 7 died. Amongst vaccinated adults over 10 years of age there were 125 attacks and 8 deaths; whilst amongst the unvaccinated there were 17 attacks and 5 deaths. As regards the hospital staff, Mr. Mullen, the medical superintendent, reports that "with a very few exceptions the nursing staff of the Ladywell Sanitorium, all of whom had been successfully revaccinated, were afforded the opportunity of adding to their experience by being detailed in turn for attendance on small-pox cases. Not one of the staff contracted the disease."

Of 152 cases of small-pox treated in the Southampton Fever Hospital during 1893, 116 had been vaccinated and none proved fatal; whilst out of 15 unvaccinated persons 7 died, and out of 21 patients whose previous vaccination was uncertain 1 died. One case, recorded by Dr. Harris, the medical officer of health, admirably illustrates the influence of vaccination. Two constables had occasion to visit a house in which a boy was suffering from small-pox, although the nature of the illness was not discovered until after their visit. On finding they had made this visit, Dr. Harris immediately inquired for the men at headquarters, and informed the inspector that they should be immediately revaccinated, offering at the same time himself to perform the operation if the men would come to his house. When they came he could persuade only one to accept the proposal, with the

result that that one escaped, while the other, who refused, was admitted to hospital a fortnight later with severe "confluent" small-pox, from which he nearly lost his life.

Out of hundreds of persons who were revaccinated during the outbreak, only 2 contracted the disease, and in them it assumed a mild form. All persons employed at the hospital were revaccinated before commencing duty, and in no instance did a member of the staff contract small-pox in spite of their daily close contact with the disease.

Of the 23 cases of small-pox in Swansea in 1893, 22 had been vaccinated and recovered, whilst the only unvaccinated person died. As an instance of the protection afforded by vaccination, Dr. E. Davies, the medical officer of health, reports that the wife of one of the patients contracted small-pox, and was removed to the hospital with an infant child 4 months old, which was vaccinated just before the mother sickened of the disease. In the hospital this child occupied the same bed as the mother during her illness, but did not contract the disease.

Facts from Birmingham, Walsall, etc.

Birmingham has lately been suffering from small-pox, and at the time of writing the epidemic has not entirely subsided. But in his *Annual Report* for 1893 Dr. Alfred Hill gives an interesting account of the epidemic so far as that year is concerned. Of 979 cases 847 had been vaccinated, and 105 had not, whilst in 27 cases previous vaccination was doubtful, no scars being visible. Of the 847 vaccinated patients at all ages 38 (or 4.5 per cent.) died, either during the year or after its close, most of them having less than 3 scars, and having therefore been very imperfectly vaccinated, whilst of the 105 unvaccinated 32 (or 30.5 per cent.) died. No case of small-pox occurred amongst the large number of vaccinated infants (under 1 year) in the town, but 14 occurred amongst the small number of infants who were unvaccinated. Only 6 vaccinated children between 1 and 5 years old were attacked, as compared with 21 unvaccinated, in spite of the fact that the vaccinated must be quite five times as numerous as the unvaccinated. Again, no death of a vaccinated person under 15 years of age occurred, but 20 unvaccinated persons under that age died. Then as regards the length of stay in hospital, the vaccinated patients were far better off than their unvaccinated fellows. Taking all the patients treated in the City Small-pox Hospital during the first eleven months of the year, the following instructive facts were observed:

	Average Number of days in Hospital.
All vaccinated cases	30
Cases with 1 mark	34
,, 2 marks	33½
,, 3 ,, ...	29½
,, 4 ,, ...	28
,, 5 ,, ...	26½
Unvaccinated cases...	50

Thus the average duration of the illness in persons who had been vaccinated was about three weeks less than in those who were unvaccinated.

Yet one further fact. Over 100 persons were engaged on the staff of the small-pox hospital, all of whom had been recently revaccinated. Not one of them contracted small-pox. Could stronger evidence be forthcoming?

In 1893 Walsall was the seat of a severe epidemic, there being 778 cases, of which 71 (or 9.1 per cent.) died. Only two of 123 vaccinated children under 15 years who were attacked died, and one of these died not of small-pox, but of pneumonia; whilst out of 141 unvaccinated children under 15 attacked, as many as 41 (or 29 per cent.) died. Of adults above 15 years of age, 431 vaccinated were attacked, but only 4 (or 0.9 per cent.) died; whilst of 66 unvaccinated, as many as 20 (or 30.3 per cent.) died. "No case of small-pox," as Dr. J. Scott Wilson, the medical officer of health, reports, "was admitted to the hospital in which the patient had been recently revaccinated."

In his annual report for 1893 on the Bingley Local Board District, Dr. G. R. McGregor thus refers to the question of small-pox and vaccination: "Experience of vaccination, more especially of revaccination, has clearly proved its marvellous efficacy, both in the prevention and the mitigation of small-pox; and to such an extent has successful revaccination impressed itself upon me, that I have no fear myself personally of the closest possible contact with the most malignant cases of small-pox, and I have no fear whatever in advising persons so successfully revaccinated to have the most intimate contact with even the more virulent cases of small-pox."

In the Ecclesall Bierlow rural sanitary district, towards the close of 1893, small-pox broke out at Totley amongst a colony of navvies, and before it died out, in July of that year, 222 cases and 19 deaths had occurred; 130 of these cases had been vaccinated and none of them died; in 19 other cases the fact of previous vaccination was doubtful, and amongst these there were 3 deaths; whilst the remaining 73 patients were unvaccinated, and 16 (or 19.1 per cent.) of them died. Of the 3 deaths in the doubtful class, one was said to have been vaccinated in infancy but had no visible marks; a second had a single doubtful mark; the third died rapidly of hæmorrhagic small-pox, the medical man in attendance being unable to ascertain his condition as to vaccination. So far as Dr. Gale, the local health officer, could ascertain, no person was attacked who had undergone successful revaccination, and he adds that "from beginning to end the epidemic was an example of neglected vaccination."

One Taken; the Other Left.

As an illustration of the certainty with which small-pox singles out the unvaccinated, Dr. Gale records the following particulars of an outbreak in a family at Green Oak: Father, vaccinated in infancy, not attacked; mother, vaccinated and revaccinated, not attacked; S., aged 17, unvaccinated, severe small-pox, recovered; W., aged 13, unvaccinated, severe small-pox, recovered; A., aged 11, unvaccinated, severe small-pox, died; E., aged 10, unvaccinated, severe small-pox, died; J., aged 8, vaccinated and revaccinated, not attacked; C., aged 6, vaccinated six days before the first symptoms of the disease too late to give protection, severe small-pox, recovered; N., aged 4, vaccinated, not attacked; G., aged 2, vaccinated, not attacked.

As showing the protection afforded by vaccination even after exposure to the disease, the following facts are instructive. An unvaccinated child was attacked with small-pox in a house in Totley Rise. The mother immediately brought her three other children to the vaccination station, where they were successfully vaccinated; and although they continued to reside with their ailing sister, not one of them was attacked. In April an unvaccinated boy living in Chesterfield Road was attacked; he was the son of a strong opponent of vaccination, who had been prosecuted under the Vaccination Acts. His unvaccinated sister and father afterwards developed the disease. A fourth case occurred in the same house in the person of an infant vaccinated eight days before the first symptoms of the disease showed itself. The vaccination had the effect of modifying the eruption, but was too late to prevent it altogether.

Of 16 cases of small-pox which came under the immediate notice of Dr. Vann, the medical officer of health for Durham City, during 1893, 10 were vaccinated, 6 were unvaccinated, and none were revaccinated. Of the 10 vaccinated cases 6 were very mild, 2 were mild, and 2 severe, one of the latter being a man aged 31, in whom small-pox was complicated with other disorders, and who ultimately died. The number of vaccination marks in this patient was doubtful. On the other hand, 4 of the 6 unvaccinated cases were very severe, 3 of them dying. Two were severe, and in no case was the disease mild.

In Idle, near Bradford, in 1893 there were 10 cases of small-pox. Four of them were unvaccinated persons, and each one had the disease severely; the other 6 were mild cases.

In Leeds, in 1892, 125 cases of small-pox came to the knowledge of Dr. Spottiswoode Cameron, the health officer, and were removed to hospital. Of these, 111 were said to have been vaccinated, although in a large proportion of them the vaccination had been very imperfect; 13 had never been vaccinated, and respecting 1 there was no record. Of the 111 vaccinated 2 (or 1.8 per cent.) died, both being upwards of 37 years of age; whilst of the 13 unvaccinated 4 (or 30.7 per cent.) died, 2 of them being more than 26 and 2 being children aged 3 months and 4 years respectively.

To the same effect was the experience of Leeds in 1893. There were 586 cases of small-pox and 30 (or 5.1 per cent.)

of them died. Of these, 257 were "well vaccinated" cases and all recovered, only 3 of them being of the confluent or severe type; 241 others were "imperfectly vaccinated," and 13 (or 5.3 per cent.) of them died; 42 were said to have been vaccinated but showed no sign or mark, and of these 4 (or 9.5 per cent.) died: whilst 46 cases were "unvaccinated," and of these 13 (or 28.2 per cent.) died.

In the Newport Pagnell rural district during 1893 8 cases of small-pox occurred, 6 of them originating in the following manner. A young man, tramping from Yorkshire, caught the disease whilst sleeping at a lodging-house in Leicester. It developed soon after his arrival at his father's cottage, with the result that he, his father, mother, brother, and a young child were shut up together in a cottage with only two bedrooms. The father, mother, and brother caught the disease, and the father, who was an elderly man and had never been vaccinated, died. The mother, an elderly woman, believed she had been vaccinated, but showed no signs of it; she recovered. The two young men had been vaccinated in infancy, and the attacks were mild, especially in the case of one, who did not feel even ill enough to go to bed. The child, who had recently been vaccinated, did not take the disease, although shut up with the rest of the family. On another occasion, a man who had been tramping about the country arrived at a lodging house at Fenny Stratford ill with small-pox. He was kept there during the period of infection, and the other lodgers were quarantined at the expense of the sanitary authority for twelve days and revaccinated. No other cases occurred. The man had been vaccinated in infancy and recovered.

In Oldbury 138 small-pox cases and 4 deaths occurred in 1893. Of these, 125 were vaccinated, and only 1 (or 0.8 per cent.) died, death in that case being really attributable to pneumonia, and not small-pox. Out of 11 unvaccinated cases 3 were fatal, 1 being a child aged 6 months, who died one mass of pustules on the eighth day after first appearance of rash, and the other 2 being children aged 3 and 4 months respectively. Two revaccinated persons caught the disease, but had it very mildly; in one of the cases the revaccination had been performed ten years previously, and in the other case the patient, who had already been exposed to direct infection by her two sons, took small-pox on the third day after attempted revaccination, but had the disease so mildly that less than a dozen abortive papules made their appearance. The patient was discharged as recovered within ten days. Dr. Cunningham, the health officer, mentions that of all those persons who sought revaccination during the small-pox prevalence, not one contracted the disease, although some are known to have been afterwards in actual contact with infection.

Facts from Pontefract, St. Helens, West Ham, etc.

In Pontefract in 1893 there were 58 cases of small-pox, and the local medical officer of health reports of them that "those who had been well vaccinated had the disease in a mild form, and those who were imperfectly vaccinated, or not at all, had it more or less severely. The two deaths occurred as usual in persons who had not been vaccinated (one was a chronic sufferer from bronchitis). Four cases were noticed of the small-pox and revaccination running concurrently, 1 taking small-pox ten days and the other 3 eleven days after revaccination, showing that the small-pox poison was already in the blood before revaccination. Both cases were of a very mild character, modified, no doubt, by the revaccination. No revaccinated person took the disease. The majority of the cases had only two vaccination scars. There were only 2 cases under 5 years, both unvaccinated or showing no scars. Seven cases over 5 years were found unvaccinated, and, with one exception, all the cases had the disease in a severe form."

During the year 1893, 44 cases of small-pox occurred in the town of St. Helens, Lancashire, and 5 of them proved fatal. Not having the ages of these patients, I have not been able to distribute them in the tabular statement, but from the annual report of Dr. McNicoll, the health officer of the town, I quote the following: "In all, 44 cases occurred in 1893 with 5 deaths, and, as in 1892, no one who saw the cases and who had to take the responsibility of checking the spread of small-pox, could fail to notice the great value of 'efficient' vaccination and revaccination. No case of small-pox occurred in any of the members of the hospital or sanitary staff. Of the 5 persons who died, 3 were unvaccinated, in 1 the vaccination marks could not be seen on account of the 'confluent' nature of the pox, and no history could be obtained that vaccination marks ever existed. In the 5th case there was a history of vaccination, but no marks visible. Of the 38 persons who recovered, all had history of having been vaccinated. One man, aged 30, had been revaccinated at the age of 12 years. He had, however, only faint cicatrices existing. His attack was a mild one. In 17 other cases the vaccination cicatrices were very feebly present, while in the remaining 11 they were fairly marked."

Between January, 1893, and June, 1894, 935 cases of small-pox occurred in the borough of West Ham, and 103 (that is, 11 per cent.) terminated fatally. Of these cases, 613 were treated in the Borough Small-pox Hospital together with 94 from outside districts, and the experience of Dr. Moir, the medical superintendent of that institution, as shown in the subjoined table, is very instructive as regards the influence of vaccination, though similar to that of others:—

Condition as to Vaccination.	Percentage of Deaths.
Unvaccinated	35.00 per cent.
Said to have been vaccinated, but with no mark	23.57 ,,
Imperfectly vaccinated...	11.00 ,,
Showing good marks	4.10 ,,
,, 2 ,, ...	2.50 ,,
,, 3 ,, ...	1.90 ,,
,, 4 ,, ...	0.55 ,,
Revaccinated	0.00 ,,

Whittington, in Derbyshire, suffered from a sharp outburst of small-pox in 1893 and the early months of last year, there being 135 attacks and 13 deaths. I am unable to distribute these figures according to ages in the general statement, but the following little table, prepared by Dr. Barwise, the county health officer, and Mr. A. M. Palmer, the local medical officer of health, is very instructive.

Small-pox in Whittington during 1893 and First Quarter of 1894.

Age Period.	Number of Persons in Invaded Houses.	Attacks.	Vaccinated in Infancy.			Not Vaccinated.		
			Not Attacked.	Attacked.	Died.	Not Attacked.	Attacked.	Died.
Under 10 years ...	177	25	148	11	0	4	14	5
10 to 20 years ...	111	34	77	31	0	—	3	1
20 to 30 ,, ...	85	37	48	35	2	—	2	0
30 years and upwards	109	39	70	39	5	—	—	—
Totals ...	482	135	343	116	7	4	19	6

Therefore, of 459 persons vaccinated in infancy and living in houses invaded with small-pox, 25 per cent. were attacked and 1.5 per cent. died; whilst of 23 persons unvaccinated and in invaded houses, 82.7 per cent. were attacked, and 26 per cent. died. No vaccinated person under 20 years of age died.

(To be continued.)

The Clothworkers' Company have voted £500 and the Worshipful Company of Lethersellers £210 to the special fund for opening the wards at present closed at St. Thomas's Hospital.

Wills and Bequests.—The late Mr. Edmund Charles Johnson, of Eaton Place, has by his will bequeathed £500 to the Medical School of St. George's Hospital, the interest to be paid to the Henry Charles Johnson Memorial Prize in Anatomy founded by him in memory of his late brother.

ROYAL COLLEGE OF SURGEONS.

AN ordinary Council was held at the College on March 7th, Mr. REGINALD HARRISON, the Senior Vice-President, in the chair.

The following vote of condolence with the relatives of the late Mr. J. W. Hulke was carried:

The Council hereby record their deep regret at the death of their late colleague and President, Mr. John Whitaker Hulke, F.R.S., and in marking their sorrow for the loss of one so lately associated with them in all the duties and responsibilities of office express their most sincere sympathy with Mrs. Hulke and the other members of the family in their affliction. The Council feel that the College has lost one of its most distinguished Fellows—one who conferred honour on the College and the whole profession of surgery, not only by his admirable skill in practice, but by his eminent position among men of science to which his varied and rare knowledge so justly entitled him. The Council also record their appreciation of Mr. Hulke's services to the College while President, and in the several offices filled by him, and their respect for his exemplary rectitude and unselfish devotion to duty.

The office of President was declared vacant, and the Council will proceed to the election of a new President on April 4th.

The following vote of condolence with the relatives of the late Sir William Savory, Bart., F.R.S., was carried:

The Council hereby record their deep regret at the death of Sir William Savory, Bart., F.R.S., and desire to express their very sincere sympathy with his family in their loss. The Council gratefully remember Sir William Savory's services to the College, and the records of the Council bear witness to the many and important instances in which the best interests of the College and of the whole surgical profession were promoted by his energy and wisdom. The Council call to mind the many rare qualities which won for him the admiration and esteem of all who knew him, and are assured that for these, as well as for his eminence as a surgeon, his name will ever be remembered with respect and honour.

A report was received from the Committee of Management recommending that the course of lectures on pharmacology and therapeutics delivered by Dr. J. B. Bradbury, Downing Professor Medicine at the University of Cambridge, be recognised as fulfilling the requirements of the regulations of the Board; that the course of clinical demonstrations in lunacy, given by Dr. Mickle at the Grove Hall Asylum, Bow, be recognised so long as he shall hold the lectureship on mental diseases in University College; that the Dundee Royal Infirmary be added to the list of hospitals recognised by the Board; and that Mr. Thomas Cooke's course of operative surgery be recognised as fulfilling the requirements of the Board as heretofore.

Mr. Pickering Pick was elected a member of the Committee of Management and Mr. H. G. Howse was elected a member of the Laboratories Committee.

A letter was read from the Home Secretary forwarding copies of the letters from the Society of Members on the subject of the new by-laws, and inviting the Council to favour him with their observations thereon. The Vice-Presidents and Mr. Bryant were requested to draw up a reply.

The executors of the late President were requested to republish the Hunterian Oration, which was read by Mr. T. Bryant on behalf of the Orator on February 14th, and was printed in the BRITISH MEDICAL JOURNAL on February 23rd.

LITERARY NOTES.

MESSRS. J. AND A. CHURCHILL will shortly issue the second volume of *Chemical Technology*, edited by Mr. C. E. Groves, F.R.S., and Mr. W. Thorp, B.Sc. This work is a comprehensive treatise in lighting by candles and oils; the several sections have been written by experts, and the whole is illustrated with about 350 figures. The third volume of the same work on *Gas and Electric Lighting* is in a forward state. Among the forthcoming publications of the same firm may be mentioned *Elements of Health, an Introduction to the Study of Hygiene*, with 27 illustrations, by Dr. Louis C. Parkes, Medical Officer of Health for Chelsea; *Mental Physiology, especially in its Relation to Mental Disorders*, with illustrations, by Dr. T. B. Hyslop, Assistant Physician, Bethlem Royal Hospital; and a *Manual of Botany: Vol. i. Morphology and Anatomy*, based on the *Manual* of the late Professor Bentley, enriched with a large number of new illustrations by J. Reynolds Green, Sc.D., M.A., F.L.S., Professor of Botany to the Pharmaceutical Society of Great Britain, and Examiner in Botany to the Universities of London and Glasgow.

Dr. Handfield Haslett, in the pages of the *Westminster Review*, defends a much maligned group of medical men—the keepers of private lunatic asylums—the attack which he specially controverts being that made in the same *Review* by Mr. W. J. Corbett a few months ago. His first point—and it is a good one—is that the modern private asylum stands on quite a different footing from those of years ago, and that among all the facts, substantiated by credible evidence, cited against the private asylums, not one of them occurred within the past ten years. Dr. Haslett reviews the methods by which alone a patient can be admitted as a lunatic into a private asylum; they are only two. In the first the lunatic is "so found by inquisition," a legal process presided over by a judge in lunacy, with or without a jury, in which sworn evidence is given and counsel are employed, the alleged patient being examined by the judge and jury. In the second the patient is examined separately by two independent medical men, whose certificates, together with the petition of a relative or friend, are presented to a magistrate appointed under the Lunacy Act, who may interview the patient, and only on his granting a reception order is the patient admitted to an asylum. Immediately on admission all documents are sent to the Commissioners in Lunacy, who are obliged by the Act to visit the patient as soon as possible, and report to their Board whether the detention of the patient is or is not proper. Except by urgency orders, purely temporary measures which expire at the end of seven days, these are the only two ways by which patients are admitted. Dr. Haslett shows, however, that although no more private licences may be issued, the county and borough asylums are entering largely into competition by catering for private patients, under sections in the Lunacy Act, 1890, enabling them to do so. Out of the 92 000 lunatics in England and Wales in 1893, 8,300 were private cases, of whom there were, in round numbers: In county and borough asylums 1,000; in licensed houses, 3,000; and in registered hospitals, 3,600. He states that advertisements of county and borough asylums appear side by side with those of private asylums, that the London County Council has sent a circular to medical men extolling the advantages of their establishment, and that the West Riding County Council has decided to erect an asylum to accommodate 200 private lunatics. It is, therefore, not true to say that private asylums are monopolies, protected from the stimulus of competition, and therefore enhanced in value. Dr. Haslett shows that even were it admitted that medical men engaged in the care of lunatics were guided by so low a standard of morality as to do such things, there are good reasons why such abuses could not exist, and he points more especially to the frequency of the visits of commissioners and magistrates and to the fact that these asylums, in which a large amount of money has been sunk, live entirely on their reputation for well doing. A successful action at law for wrongful detention would, he says, ruin any asylum. "At present private asylums are as completely in the hands of the Lunacy Commissioners as if they belonged to the Government. They can refuse to renew or revoke a licence on very short notice. They inquire into the payments of patients, and inspect the apartments, food, clothing, arrangements for amusements and occupation.....If they are of opinion that a patient has sufficiently recovered to make a tentative visit to his friends they give instructions to that effect." The securities for proper treatment would seem, in fact, to be much the same as those which are found in public institutions, with this addition—that the proprietor gives a heavy hostage for his good conduct in the capital sunk in the undertaking.

With the first number of the thirteenth volume of the *Bristol Medico Chirurgical Journal* an addition has been made to the editorial staff. Dr. Bertram Rogers, of Clifton, will act as Editorial Secretary, and will attend to all matters connected with subscriptions and advertisements.

The new Norwegian *Pharmacopœia* is in the press, and will shortly be published.

The *Cronica Medica* of Valencia, a Spanish medical journal which has had a long and honourable career, has ceased to appear.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the West Central District Office, High Holborn.

British Medical Journal.

SATURDAY, MARCH 16TH, 1895.

FIXITY OF TENURE FOR MEDICAL OFFICERS OF HEALTH.

Among other important functions, the Local Government Board are charged with the supervision of the work of the large and small sanitary authorities whose areas collectively cover the whole of England and Wales. For the most part the Board depend for their knowledge of the sanitary work done or left undone in each locality upon the annual and special reports which the medical officer of health, alone among the members or staff of the local authority, is required to furnish. No such duty is cast upon the clerk or the surveyor or engineer, but the medical officer of health has to make a formal report every year upon the sanitary state of his district, and to send this to the Local Government Board and to the county council. If the sanitary authority are neglecting any part of their responsibilities, the invidious duty of calling public attention to their default rests with their medical adviser, and with him only. From this point of view alone it is evident that whatever may be done with regard to other bodies and other officers, the medical officer of health needs some better basis for his tenure of office than the chance of a frequently-renewed vote of confidence on the part of the authority whose doings he is called upon to criticise, perhaps unfavourably.

Upon his reports, again, the Local Government rely for their records of the vital statistics of the district under his care. He is only required to report for the period for which he has held office, and any change of officers is therefore liable to cause a break in the continuity of these records, which it may be impossible afterwards to make good. This has happened not infrequently, and affords another reason for avoiding unnecessary changes.

A consideration of the other duties attached to the office leads to the same conclusion. As defined by statute, and by the Orders of the Local Government Board, they are numerous and intricate, involving much special and technical knowledge and experience, and scarcely a year goes by without some addition to them. A newly-appointed officer is at a disadvantage in more ways than one. He needs to learn his district in minute detail, from a standpoint which must necessarily be new to him, and he needs a familiarity with sanitary standards and procedure, and with the complex duties and powers of his office, which experience alone can give. The obvious importance of special knowledge and training in the scientific branches of Public Health work has led, in some instances, to the combination of a number of small districts for the purpose of appointing an expert officer whose attention is largely or exclusively devoted to sanitary work, and such an arrangement is generally admitted to be the best that can be adopted in the public interest; but if each and all of the districts concerned are at liberty to withdraw from the combination at any time the element of stability is wanting, and few competent men would be rash enough to risk their whole status and professional prospects upon so precarious a basis. Some have done so, and have sooner or later found cause to repent. One essential qualification of a medical officer of health is discretion, so that he may avoid unnecessary friction; but his duty is in part coercive, and he cannot hope to carry it out conscientiously without in some degree and on some occasions incurring hostility on the part of persons or factions who are, or may in future become, powerfully represented on the local council. To make his office absolutely contingent upon a frequently renewed vote of a purely local body is simply to place a premium upon inaction against influential offenders.

For every reason, therefore, it would seem to be the interest as well as the duty of the Local Government Board, as the Department of State responsible for the sanitary welfare of the country at large, to see that reasonable security of tenure of office is secured to medical officers of health. All that is needed is that such appointments should be held on the usual conditions. They should be permanent except in case of misconduct or inefficiency, of which default the central Board or the county councils, and not merely the temporary majority of the local authority, should be the judges. Precedents in abundance are ready to hand, and indeed the difficulty would be to find any precedent for the anomalous and slipshod system under which medical officers of health are at present appointed.

The appointments (medical and otherwise) under the Factory and Workshop Acts are made by the central authority at Whitehall, and so are those under the Alkali Acts and the Education Act. County authorities appoint inspectors of weights and measures, and officers under the Adulteration Acts. Poor-law medical officers are appointed by the Boards of Guardians, but without limit of time, and they cannot be deprived of office without the consent of the Local Government Board. The London Public Health Act of 1891 affords to metropolitan medical officers of health the same degree of security of tenure. Can any single argument be imagined why provincial medical officers should be denied the protection which is given to their colleagues in London, and to parish medical officers throughout the country?

The Local Government Board alone could tell us how many of the health officers of England and Wales hold their appointments under conditions of yearly re-election. Certainly a very large proportion indeed do so, and many more on a two or three years' tenure. For some inscrutable reason it seems to have been the policy of the Board to discourage appointments for life, or even for long terms of years, where local authorities have been willing to adopt that course. While steadily increasing the responsibilities of medical officers of health, and demanding new and special qualifications for appointments in large towns, they have done little or nothing to secure for them justice at the hands of their

authorities, and have indeed refused to allow the latter to place the appointments upon a proper tenure. No doubt in some instances of hardship the Board have tried to interfere, but with little success, the truth being that they have deprived themselves of the power of effective control by the vicious custom of short appointments which they have deliberately encouraged. The roundabout expedient of refusing to sanction the appointment of a new officer is all that is left to them, and it comes to little in practice.

If supreme importance be attached to the fact that the local authorities have to pay the salaries of their officers, why not give the power of control, as regards dismissal at all events, to the county councils, who already are liable for the repayment, on application, of half the salaries? It may not unreasonably be asked, too, why this consideration, if it has any weight, does not equally apply in London, and with regard to Poor-law appointments?

The deputation from the British Medical Association and the Incorporated Society of Medical Officers of Health, who interviewed Sir Walter Foster, the Parliamentary Secretary of the Local Government Board, upon this question last week, had a strong case to put forward, and at a propitious moment. The grievance is obvious, and militates against the public interest as well as individual rights, especially at a time when notification and other new burdens have been added to the already heavy load of responsibility which health officers have to bear. The remedy is not difficult to find upon lines of well-established precedent. The demand for reform is made by the whole body of the profession, as represented by the British Medical Association, and by the Society which includes in its ranks most of the medical officers of the country. Lastly, the deputation were received, on behalf of the Government, by a distinguished member of the profession, from whom they could count upon a sympathetic hearing and ready appreciation of the ethical points involved.

Sir Walter Foster's reply contained a guarded assurance of a change in the attitude of the Local Government Board, which will be welcomed on all hands. He frankly accepted the main contention of the deputation, and intimated that within the last few weeks the Board had come to the decision that short periods of appointment and precarious tenure were injurious to the interests of the public health. It remains to be seen by what means the Board intend to make their altered views and wishes known to the local authorities concerned, and how far they are to be pressed. An amendment of the present law will be necessary in order to give full effect to the now officially accepted principle of security of tenure; and this affords one more reason for expediting the much-needed revision of the Public Health Acts, a matter upon which Sir Walter Foster was unable to make any definite promise.

THE SURGERY OF THE GALL BLADDER.

We published recently two papers illustrating widely-removed points in a branch of surgery which, though still in its youth, has of late years attracted much attention to the relief of one of the most agonising maladies in the whole range of human suffering. Mr. Morris deals with a very characteristic aspect of the subject—the extreme difficulty of differential diagnosis between cholelithiasis and other causes of acute abdominal pain. He is, we believe, the first to insist so explicitly upon the frequency with which gall stones lead to the suspicion of that baffling malady, movable kidney. Mr. Teale's article deals with one of the numerous methods of treating calculi impacted in the ducts. It must be admitted that of late years the operation of needling biliary calculi has had but little vogue, being regarded by many surgeons as a somewhat risky leap in the dark. It is interesting to compare the consensus of opinion against needling gall stones impacted in the intestine as shown by the discussion on Mr. Mayo Robson's paper, reported in the British Medical Journal of January 26th. Still, such results as those recorded by Mr. Teale are most noteworthy, and will no doubt tend to bring this operation again into consideration.

Since the publication of Professor Courvoisier's classical monograph in 1890 the progress in this department of surgery can only be described as phenomenal, so that any attempt to estimate its present position must be one of considerable difficulty. Not much improvement has, it is true, been made in diagnosis, nor are any radically new operations to be chronicled; but surgeons now adopt with confidence measures from which the pioneers in hepatic surgery were bound to shrink. The general condition calling for operative interference is obstruction to some part of the biliary apparatus. This may be acute or chronic, a point on which in some cases the history greatly assists the pathological diagnosis. The signs of biliary obstruction are, as a rule, distinctive; they have long been well established and need not be repeated here. The regional diagnosis must be made between obstruction of the cystic, the common, or hepatic duct. In the first case there is no jaundice and the gall bladder is very slowly distended by the accumulation of its own secretion; in the second there is jaundice with rapid distension of the gall bladder by bile, while in obstruction of the hepatic duct there is jaundice, which is usually accompanied by atrophy of the gall bladder. Obstruction of the common and cystic ducts is amenable to operative interference, but the chances of benefit in occlusion of the hepatic duct are very slight. It is to be remembered that jaundice is not an immediate symptom, but develops only when the back pressure in the biliary apparatus reaches a certain point. Thus many cases of temporary obstruction never exhibit jaundice. The surgery of the gall bladder is the surgery of cholelithiasis; operation in catarrh is unnecessary, in malignant disease useless. The diagnosis is practically restricted to the differentiation of catarrh, gall stones, and malignant disease, to which patients are as a rule liable according to age in the order given. Catarrh is the most easily excluded condition of the three, but it is often impossible to tell whether malignant disease is present or not, even where gall stones have been unequivocally recognised. It can only be said that gall stones without colic and malignant disease—without jaundice and wasting—are alike extremely rare. Ascites is strong evidence in favour of a growth in the portal fissure. The temperature, on the other hand, as pointed out by Charcot, Ord, and Osler, is most unreliable, and all thought of diagnosing biliary catarrh or empyema of the gall bladder by its aid must be dismissed. As a final step in diagnosis, aspiration is now universally discoun-

tenanced, but an exploratory incision is in many cases justifiable.

Surgical interference in cholelithiasis is not indicated unless medicinal remedies have been found unavailing. Of these none are very satisfactory; rest, massage, the administration of certain oils and of Carlsbad salts dissolved in large quantities of warm water are those most in vogue.

Surgical treatment may be divided into operations upon the gall bladder and operations upon the ducts. Each set of operations is most conveniently regarded under four heads. The gall bladder may be opened, the stone removed, and the wound at once sewn up, the fundus being attached to the edges of the abdominal incision, which is then closed. This operation has been named by Courvoisier, who is followed by Dr. Murphy, cholecystendysis. Secondly, a fistulous communication may be left between the gall bladder and the exterior (cholecystostomy): this is the operation most generally performed. Thirdly, the gall bladder may be connected with the highest possible part of the intestine by means of Lembert's sutures, Senn's plates, or Murphy's buttons: this is known as cholecystenterostomy. Finally, the gall bladder may be completely excised (cholecystectomy). There is considerable divergence of opinion as to the choice of operation and also as to whether it should be performed at one sitting or two. Most authorities prefer cholecystendysis. Mr. Mayo Robson recommends cholecystostomy, while Dr. Murphy has recently published a record of 17 successive cases of cholecystenterostomy in which the anastomosis was effected by the button bearing his name, in each instance with perfect success. Dr. Murphy's results are most brilliant, and, as previous records of cholecystenterostomy were almost uniformly favourable, there can be little doubt that it is, on the whole, the most satisfactory operation. Cholecystostomy is open to the grave objection that it leaves in many cases a permanent fistula, discharging either bile or mucus, and requiring another serious operation for its cure. Cholecystendysis is free from this drawback, but, like the last-mentioned operation, yields no relief in stricture of the cystic or common ducts. Cholecystectomy is specially indicated if the cystic duct be blocked, or the wall of the gall bladder too much diseased to render its return to the abdominal cavity justifiable.

Operations on the ducts have received most attention at the hands of Professor Terrier, of Paris. They comprise cholelithotripsy, in which the stone is crushed through the walls by means of specially padded forceps, choledochostomy, choledochendysis (which is commonly known as choledochotomy, and includes Courvoisier's cholelithectomy), and choledochenterostomy. Stones in the cystic duct can usually be pushed out by manipulation, but the duodenal aperture of the common duct is too small to permit this. Cholelithotripsy is risky from the possibility of serious damage to the duct wall, choledochostomy may leave a fistula, and choledochenterostomy is rarely practicable. Hence choledochendysis appears to be the best operation here.

The indications for biliary operations in general are acute or persistent symptoms and signs of cholelithiasis unrelieved by medical treatment. Mr. Robson regards jaundice as a serious complication, and treats icteric patients with calcium chloride before and after the operation to diminish the risk of hæmorrhage, but other surgeons attach less importance to this symptom. All recent work tends to show that the escape of bile into the peritoneal cavity is not in itself a dangerous event provided no septic influence is superadded. This is especially well shown by a case recorded by Hans Kehr in which the apex of the gall bladder was shot off by a bullet, and one in which Thiersch removed 40 pints of bile from the peritoneal cavity after rupture of the gall bladder. In both there was perfect recovery. The usual incision in operations on the gall bladder is 3 inches long in the upper part of the right linea semilunaris. More space may be obtained, if necessary, by a transverse cut at the upper end of this, and Czerny always employs a rectangular incision. Courvoisier prefers a transverse incision just below the ninth or tenth costal cartilage. Persistent biliary fistula, if it gives rise to serious symptoms, can only be relieved by cholecystectomy or cholecystenterostomy.

SCHOOL BOARD CERTIFICATES.

The demands made by School Boards for many years, and recently, as the Education Acts have been more strenuously enforced, with greater insistence, for certificates as to the unfitness of children to attend school by reason of illness are becoming a serious tax upon a profession already overburdened with unremunerated duties.

A correspondent has sent us a copy of the form of medical certificate now issued by the School Board for West Ham: one in terms similar or identical to which is in use by the School Board for London. Our correspondent points out that the certificate asks the medical man not only to certify that the child is unable to attend school, but also to give particulars as to the nature of the disease from which the child is suffering, together with a prognosis. The medical man in London, and in West Ham also, is asked to state that the child "will probably be able to return in . . . . . weeks." As to the first point, our correspondent observes that when the State under the Notification Act demands information from the medical attendant as to the disease under which his patient is labouring, it requires the sanitary authority to pay a fee, and it may logically be contended that if the State under the Education Acts demands similar information as to children of school age, the local School Board should pay a fee. The cases are not quite parallel, for it is certain that no medical man is under any legal obligation to sign a medical certificate for the information of a School Board. At the same time it is by no means clear that it may not be right, and even as a matter of policy desirable, that medical men should give a certificate of unfitness for school. Much depends upon the terms in which the certificate is drawn up. In deciding upon the treatment of a case it has to be decided among other things whether the child is fit for school, and an opinion having been reached upon that matter it is no great task to state that opinion in the form of a certificate. If the School Boards were to accept such certificates, it would appear to be advisable, under all the existing circumstances, that they should be given as part of the advice paid for by the fee for visiting the child. To ask that the name of the disease should be certified is, however, quite a different thing. In a large number of cases children are kept from school on account of ailments which have not yet fully deve-

loped, or of perversions of health which are so ill-defined as not to come under any special category in our nosology, but which, for all that, the wise physician knows require warmth and quietness to prevent evil consequences of a more definite and serious kind. To suggest that no child should be kept at home unless the doctor is prepared to give a formal certificate containing a precise diagnosis which shall satisfy some clerk of the sufficiency of the excuse is to show an entire misconception of the ordinary conditions of child life. If the School Boards desire this information—and it is not very clear why it should be sought, since they are already informed as to cases of infectious disease from another source—then it appears reasonable to ask that the Boards should pay a fee.

The second clause in the certificate to which reference has been made is open to much objection. It demands an opinion upon a subject admittedly of great difficulty, requiring much deliberation and the nicest judgment. Often it is quite impossible to give even an approximate estimate as to the duration of the illness and in practice we believe that this part of the certificate is very commonly left blank. The only objection to proposing that the clause should be dropped is that its suppression would probably lead to a demand for repeated certificates at short intervals. The School Boards are bound to seek to obtain the attendances at school of all children of school age, and the attendance officer who "worries" the parents of a child absent from school is only doing his duty, though he might often do it with more discretion. The giving of a certificate to the effect that a child is unfit to attend school owing to illness may, as things are, fairly be regarded as a duty towards the child's parents by whom the medical man is consulted, and the task of signing such a certificate duly filled up by the attendance officer with the name of the child (this by the way is never done) is not a serious tax on the profession. If School Boards for their own convenience or that of their officers desire more information, and information, as we have shown, making much greater demands on the time and professional knowledge of medical practitioners, the Boards ought in equity to pay a fee for the discharge of this additional duty which they seek to lay upon the medical profession.

Sir Joseph Lister will be the President of the annual meeting of the British Association in Liverpool in 1896.

Mr. Frederick Webb, of 113, Maida Vale, has presented to the Medical School of St. George's Hospital the sum of £1,000, to found an annual prize in bacteriology.

We are asked to state that in consequence of the recent indisposition of Sir John Erichsen the complimentary dinner to him, to Sir Russell Reynolds, and Sir John Williams, to be given by the staff and old students of University College, has been postponed until Wednesday, March 27th. We are glad to learn that Sir John Erichsen is rapidly recovering his usual health.

The Select Committee on Food Products Adulteration, which opened its inquiry last session, has been reappointed under the presidency of Sir Walter Foster. The next meeting will be held on Tuesday, when evidence will be taken as to the introduction of an excess of water into butter.

The Croonian Lecture was delivered before the Royal Society on March 14th by Dr. T. W. Engelmann, Professor of Physiology in the University of Utrecht, who took for his subject the Nature of Muscular Contraction.

The adjourned debate at the Pathological Society of London upon the pathology of diphtheria will be resumed on Tuesday next, March 19th, when Mr. W. Robertson will read a paper upon the Immunisation of Horses. Dr. Washbourn, Dr. Sims Woodhead, and others are expected to take part in the discussion.

REGISTRATION OF MIDWIVES.

We have received from Mr. F. R. Humphreys, the Honorary Secretary of the Midwives' Registration Association, a copy of a Midwives' Bill which it is proposed to introduce into Parliament. It has been drawn up, we are informed, by a representative Committee from training schools and medical societies with the assistance of a barrister-at-law, and is based on the suggested scheme of the Midwives' Registration Association.

THE MEDICAL SOCIETY OF LONDON.

The annual dinner of the Medical Society of London took place on March 8th at the Whitehall Rooms, the President (Sir William Dalby) in the chair. Numerous vacant places testified to the ravages of the prevailing epidemic, and the greatest credit is due to the President for having successfully defied that touch of pathological nature which makes the whole world kin by appearing in his place and delivering the accustomed speeches in spite of a manifest indisposition to exertion begotten of the influenza microbe. The proceedings were enlivened by songs by Dr. F. T. Roberts, Mr. Anderson Critchett, Dr. Campbell Pope, Dr. S. West, and others, and, in spite of the prevailing depression, a very pleasant evening was spent.

LIVERPOOL MEDICAL SCHOOL.

The need for enlarging and reconstructing the premises of the Medical Faculty of University College, Liverpool, which has been from time to time referred to in the British Medical Journal, is daily becoming more pressing by reason of the increasing number of students. The Bacteriological Laboratory is almost completed, and at the present moment perhaps the most urgent need is for more space in the Practical Chemistry Department, and plans for its extension are receiving careful consideration by the authorities of the College. In fact, all that is now needed is to complete the necessary funds, and the hope is entertained that before long these will be provided by the generosity of some of the friends of the College. It is hoped that no avoidable delay will prevent the work being undertaken at an early date.

THE MEDICAL DIVISION, WAR OFFICE.

The answer of Mr. Woodall in the House of Commons to Mr. Hanbury's question on this subject on March 11th will not bear examination for a moment. The Secretary of State for War is made to say that the reason for not redistributing the duties at the medical division is that "medical officers, who are necessarily changed frequently, could not properly discharge the duties which devolve on the principal civilian clerk." This is a most feeble and inadequate reason for maintaining an arrangement which is well known to be most unsatisfactory. Medical officers nominated to the medical division of the War Office hold their appointment for stated periods of five years, and the term has been extended in some cases to ten years, so that the continuity of such duties as charge of the roster, exchanges, and nominations of officers might safely be made over to the next senior officer to the Director-General. We hold to

the comments and suggestions made in an article[1] on this subject in April 1894, and do not hesitate to repeat that from information in our possession the interests of the department would be furthered by a reform on the lines we then indicated.

COUNTY COUNCILS AND THE TEACHING OF HYGIENE.

Mr. Charles Cripps, of Cirencester, has been giving a series of lectures under the auspices of the County Council, on Domestic and Personal Hygiene or the Preservation of Health. The institution of such lectures is a very good example for every county council in this country to imitate. On coming to the subject of small-pox and its prevention, Mr. Cripps gave an able exposition of the evidence for vaccination in its main aspects, and cited the case of Stroud, where an epidemic occurred in 1893. According to the report of the medical officer of health there were 23 cases of small-pox in the year 1893, of which 19 were vaccinated and 4 unvaccinated. Of the 19 vaccinated persons who took small-pox, all recovered except 1, who died from a complication quite distinct from small-pox; while of the 4 unvaccinated cases, 3 died, and the fourth had a very severe attack.

CHAIR OF SURGERY ANDERSON'S COLLEGE, GLASGOW.

Dr. James Dunlop, who has for so long occupied the Chair of Surgery in Anderson's College, Glasgow, has been compelled to retire on account of ill-health, and the Governors have appointed Dr. T. Kennedy Dalziel, who has for some time lectured there on Medical Jurisprudence, to the vacancy. Dr. Dalziel is an Edinburgh graduate, who began his surgical work in the Glasgow Royal Infirmary as house-surgeon. He succeeded Professor Macewen as Casualty Surgeon to the Central District of Glasgow, an appointment which he recently resigned. He is Visiting Surgeon to the Sick Childrens' Hospital, is on the staff of the Western Infirmary, and holds other surgical appointments. His ability and reputation as a surgeon and as a lecturer should be of great value to the Anderson's College Medical School.

PROFESSOR YULE MACKAY, M.D.

A crowded and enthusiastic meeting of medical students of Glasgow University was held in the Anatomy Class room on March 8th, when Professor John Yule Mackay, M.D., University College, Dundee, was the recipient of a gold watch, presented by the Glasgow students. Professor Cleland, F.R.S., presided, and referred in high terms to the excellence of Dr. Mackay's work while his assistant, and particularly to his research on the Origin and Development of the Larger Arteries as a piece of work second to none that had been done in Britain. The presentation was made by Mr. Joshua Ferguson, M.A., who spoke of the warm relations that had existed between Dr. Mackay and his students during his twelve years' tenure of the post of Senior Demonstrator of Anatomy and, latterly, of Lecturer on Embryology. Professor Mackay, in replying, acknowledged his debt to his long association with Professor Cleland and with the Glasgow students, and dwelt upon the importance in a medical school like that of Glasgow of the development of a corporate feeling and of *esprit de corps* among its students.

CAMBRIDGE SUMMER COURSE FOR MEDICAL MEN.

This course will be open on Monday, July 1st, by a *conversazione* in the Physiological Laboratory at 9 p.m., when a short address will be given by Sir George Humphry. On the following days of the week clinical demonstrations will be given at Addenbrooke's Hospital at 10 a.m. These will be followed by demonstrations and experiments on subjects of clinical interest on alternate mornings in the Physiological Laboratory by Professor Foster, and in the Pathological Laboratory by Professor Roy. In the afternoon demonstrations will be given in the Medical Schools by Sir George M. Humphry, Dr. Anningson, Dr. Joseph Griffiths, F.R.C.S., and Mr. E. H. Douty, M.B.; in the Anatomical Department by Professor Macalister; in the Pharmacological Laboratory, Downing College, by Professor Bradbury. Lectures on special subjects will be given in the evenings at 8.30 p.m. by the Regius Professor of Physic, Dr. Norman Moore, and others. Dr. Griffiths, in the absence of Professor Clifford Allbutt, asks us to correct a clerical error in Professor Allbutt's letter, published in the British Medical Journal of last week. The advertisement of the course appeared in the Journal of March 9th, and is repeated this week. Dr. Griffiths further informs us that several applications have already been received from medical men in various parts of the country.

[1] British Medical Journal April 14th, 1894, p. 830.

THE WAYNFLETE PROFESSORSHIP OF PHYSIOLOGY.

Professor Francis Gotch, who at present occupies the Holt Chair of Physiology in University College, Liverpool, has been elected Waynflete Professor of Physiology at Oxford, in succession to Professor Burdon Sanderson, appointed Regius Professor of Medicine. Mr. Gotch, who was a student of University College, London, graduated in Arts in the University of London in 1873, and in Science in 1875. In 1881 he became a Member of the Royal College of Surgeons of England, and after a prolonged tour and study in DuBois-Reymond's Laboratory in Berlin, he became Sharpey Physiological Scholar and assistant to Professor Sanderson, who was then Professor of Physiology in University College, London. When Professor Burdon Sanderson went to Oxford, Mr. Gotch accepted the appointment of Demonstrator in the Physiological Laboratory in Oxford, and subsequently became Lecturer on Physiology, a post which he retained until his appointment to the Holt Chair in Liverpool. Professor Gotch's contributions to physiology have been chiefly in connection with electrical phenomena, and many of the researches which earned for him the Fellowship of the Royal Society were made in conjunction with the distinguished physiologist whom he now succeeds.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

The Poor-law Officers Superannuation Bill is down for second reading in the House of Commons on Monday next, March 18th. Mr. Wickham Barnes, the honorary secretary of the Poor-law Medical Officers' Association, earnestly requests all Poor-law medical officers who have not yet sent in their petitions to him to forward the petitions written out in manuscript and duly signed to the member of Parliament for the district in which they reside, for presentation not later than Monday next. The form of petition suggested was printed in the British Medical Journal of March 9th, p. 557. All petitions to the President of the Local Government Board sent in to Mr. Wickham Barnes at an earlier date were handed in by him to the President of the Board at the time when the deputation from Poor-law officers waited upon Mr. Shaw Lefevre.

MEMORIAL TO SIR HENRY ACLAND.

A public meeting was held on March 8th in the Sheldonian Theatre, Oxford, under the chairmanship of Dr. Liddell (lately Dean of Christ Church) to further the proposal to present a testimonial to Sir Henry Acland on his resignation of the Regius Professorship of Medicine. Dr. Liddell read a letter from Sir Henry Acland expressing his deep gratitude to all his scientific colleagues for their desire to associate his name permanently with the institution (the Museum) for which he had striven during the last fifty years, but suggesting that some very small memorial would fulfil that purpose. On public grounds he desired to see the Memorial

Home for Nurses increased and made permanent. Dr. Liddell said that the Museum itself was a standing memorial to Sir Henry Acland, and suggested that a bust or medallion should be placed there to commemorate Sir Henry's services. The nursing home had originally been founded as a memorial to his beloved wife, and Dr. Liddell asked his hearers to do honour to their old professor with simplicity and singleness of heart, without strife and without contention. A motion approving the proposal to present the testimonial was moved by the Bishop of Oxford, seconded by the Vice-Chancellor, and adopted. It was also resolved unanimously, on the motion of Professor Dicey, seconded by Dr. Church, and supported by Sir William Anson, that the testimonial should take the form of a provision for the increased usefulness of the Sarah Acland Home for Nurses without prejudice to any proposal for a personal memorial of Sir Henry Acland at the Museum. The third resolution, which expressed the desire that the Home should be established upon a more permanent footing, was moved by the Princess Christian, who said that it seemed to her to be in the highest degree appropriate that funds contributed with a view to perpetuating the memory of Sir Henry Acland should be devoted to the purpose of carrying the benefits and blessings of the healing art to the homes of the poor who lived under the shadow and to some extent within the influence of the University of Oxford. The resolution was seconded by Mr. Horatio Symonds, surgeon to the Radcliffe Infirmary, and carried by acclamation. A committee was appointed to carry out the resolutions.

THE OXFORD EYE HOSPITAL.

THE new buildings of the Oxford Eye Hospital were opened on March 7th, in the presence of a numerous company, which included many well-known ophthalmic surgeons, among others, Mr. Henry Power, Mr. Charles Higgens, and Mr. Priestley Smith. The hospital was founded in 1886, and has hitherto been carried on in two houses adapted as far as possible to the needs of a hospital. Last year an arrangement was come to between the Eye Hospital and the Radcliffe Infirmary, by which the latter agreed to expend some £1,200 on a block of buildings in the grounds of the Infirmary, which were originally used as a fever block for paying patients admitted from the University. This block had been for some time practically disused, and after the necessary alterations had been carried out has now been leased to the Board of the Eye Hospital. The buildings consisted of two wings. The eastern wing has now been converted into an out-patient department, and affords adequate accommodation. The western block has been raised a storey, and contains wards for in-patients and the resident staff. Separate bath rooms, lavatories, and sanitary offices have been formed in lobbies off the wards. The hospital draws its patients not only from Oxford and Oxfordshire, but also from Buckinghamshire, Berkshire, and parts of Gloucestershire, Worcestershire, Warwickshire, and Northamptonshire. Last year 158 in-patients and 1,744 out-patients came under the treatment of Mr. R. W. Doyne, F.R.C.S., the surgeon to the hospital, and Mr. H. Pooley, house-surgeon.

THE FALLACY OF EARLY RISING.

PROVERBS are responsible for a great deal of folly, and none perhaps for more mischief under the present conditions of town life than those which inculcate early rising as a virtue. When the great majority lived in villages, and were engaged in the cultivation of the soil, early rising may have been conducive to health and wealth, if not to wisdom, but even our early forefathers probably did no more than make a virtue of necessity. It is said to be natural—that is, physiological—to rise early and enjoy the beauties of the sunrise; if we ask why, we are treated to various transcendental theories about the vivifying influence of the sun, and are told to take example by the birds of the air and the beasts of the field, or so many of them as are not nocturnal in their habits. But as a matter of fact physiology, so far as it has anything to say on the subject at all, is all against the early rising theory. Physiological experiment appears to show that a man does not work best and fastest in the early morning hours, but on the contrary about midday. The desire to rise early, except in those trained from youth to outdoor pursuits, is commonly a sign, not of strength of character and vigour of body, but of advancing age. The very old often sleep much, but they do not sleep long. A long deep sleep, the sleep of youth, requires for its production a thoroughly elastic vascular system. The stiffening vessels of age are not so completely nor so easily controlled by the vasomotor nerves. Hence shorter sleeps. Thus paterfamilias, who goes to bed at 11 P.M., wants to get up at 5 or 6 A.M., and looks upon his healthy son, who prefers to lie till 8, as a sluggard. When this foolish interpretation of a proverb about the health and wealth to be got from early rising is combined with the still more foolish adage which says of sleep: "Six hours for a man, seven for a woman, and eight for a fool," then we have a vicious system capable of working great mischief to young people of both sexes. There is a tendency, greatly encouraged in towns by the spread of cycling, to curtail unduly the hours of sleep. Parties of young men and lads are to be met careering about the streets at midnight. They would be far better in bed. They have probably to be in their offices or shops by 9 A.M., or even earlier, and when time is deducted for supper, toilet, breakfast, and the journey to the place of business, it is evident that the hours for sleep cannot exceed six, or at most seven. These young men are no doubt encouraged by the silly adage quoted above. There is a disposition in town youths to overdo outdoor exercise; the cycling club "night spins" are instances in point. As Nordau has said, with a great deal of truth, the town-dweller of these last decades of the nineteenth century suffers from nervous fatigue, and is so ill-advised as to make his very recreations sources, not of recuperation, but of increased exhaustion. If our forefathers were early risers they went also early to bed. It would be well for the rising generation if it paid more heed to this part of the proverb.

THE HOME OFFICE INQUIRY AT THE HOLLOWAY SANATORIUM.

AN inquiry has been held at the instance of the Home Secretary concerning the death at the Holloway Sanatorium in September last of a patient whilst in mechanical restraint. At the coroner's inquest the jury had found that the death was from mania, but added as a rider that they were of opinion that sufficient medical supervision was not exercised, and that the mechanical restraint was excessive and too long continued. From the evidence, as reported in the *Times*, the patient in question appears to have been extremely violent, maniacal, delusional, and often made attempts to escape. The "dry pack" was resorted to as being the most humane form of mechanical restraint that would be efficacious in a case of the kind. He was under the immediate care of a junior medical officer and not of the medical superintendent. Like other acute or violent cases, he was under care in the "Retreat," which was described as being a branch, or, as we may take it, an annexe of the main building. Consequently the medical attendant could not be readily summoned, and the medical staff appears to have been more or less affected by illness at the time. The patient, however, was visited medically about midnight of the night during which he died at 4 A.M. At the inquiry the medical superintendent, questioned as to the plan of managing the case adopted by his junior officer, admitted defects in it; but there did not seem to be any support forthcoming for the suggestion, made on behalf of the relatives of the deceased patient, that the latter had been placed in the pack simply to save the work of two or three attendants. It

is, indeed, a well-known fact that the Sanatorium—which is a public lunatic hospital and not a private asylum—has an extraordinarily large number of attendants for the number of patients under care and control, so that it has often been described as overstaffed. The legal representative of the Committee of the Sanatorium admitted, and regretted, that there had been certain departures from and violations of rule with regard to the management of the case which was the subject of the inquiry, and stated that the authorities had taken precautions to prevent a recurrence of a similar event. The inquiry was concluded and the report upon it will be made in due course. Apparently this case was an unusually difficult one to deal with, and no doubt due allowance will be made for this, and for the fact that rapid or sudden death not seldom is the outcome of severe mania. Moreover, if a medical man is an officer in an institution for the insane, or is in care of the insane in any way, it seems to be the public tenet that he must always be right to escape censure. At the same institution, and on the very same day as the first day of the above inquiry into the case in which so much fault has been found with the application of the "dry pack," a coroner's jury sitting on another case found that the death was due to "exhaustion following acute mania," and added as a rider that "it was most unfortunate that the 'dry pack' was not used in this case, as we consider it the most humane form of restraint if used under proper supervision." So that in the same lunatic hospital the medical officer is found fault with if he uses the "dry pack" and is blamed if he does not.

INFLUENZA AND THE MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

The widespread epidemic of influenza has made itself severely felt in all the sickness societies throughout the country. All classes of the community have suffered, and perhaps none more so than the members of the medical profession. During the last three weeks the new sickness claims of the Medical Assurance Society have increased to eight times their normal number, and, although there is reason to hope that for the present the worst is over, a large number of claims is still being received at the offices of the Society, 33, Chancery Lane. At the valuation of 1893 a large reserve was kept back with the view of providing for such an epidemic as the present, and ample funds are in hand to meet all claims. Up to date no fatal case has occurred among the members of the Society, but there is reason to fear that a considerable number will be incapacitated for some weeks to come.

THE INFLUENZA EPIDEMIC.

The fatality of influenza in London last week showed a further considerable increase. The deaths primarily referred to this disease, which had been 24, 111, and 296 in the three preceding weeks, further rose to 473 during the week ending Saturday last, March 9th. This number considerably exceeds that recorded in any week during either of the two previous epidemics, and, with one exception, was higher than in any week on record. The mortality among elderly persons from the disease showed an even greater excess than in the preceding week, 255, or nearly 54 per cent., being of persons aged upwards of 60. The calculation of the death-rates from influenza last week at different age periods gives the following interesting results: Among persons under 20 years of age the mortality from influenza was equal to an annual rate of 1.5 per 1,000 estimated to be living at that age period; among persons aged between 20 and 40 the rate was 1.6 per 1,000; among persons aged between 40 and 60 the rate was 8.1 per 1,000; among persons aged between 60 and 80 it was 40.6 per 1,000; while among persons aged upwards of 80 the rate was no less than 144.1 per 1,000. If the deaths are divided into two age periods only—under 60 and above 60 years of age—it is found that among equal numbers living to 1 death from influenza among persons aged under 60 there were 17 deaths among persons aged upwards of 60. Although the mortality from disease is proportionally highest in West London, it is now generally prevalent throughout the metropolis, being especially fatal in Paddington, Kensington, Fulham, St. George Hanover Square, Hampstead, St. Giles, Bethnal Green, Brixton, Battersea, Wandsworth, Camberwell, and Greenwich. The deaths referred to diseases of the respiratory organs in London, which had been 840, 1,120, and 1,448 in the three preceding weeks, were 1,366 last week, and exceeded the average by as many as 824; of these 1,366 deaths, 938 resulted from bronchitis, against an average of 325; and 336 from pneumonia, against an average of 143. Many of these deaths, although primarily attributed to one or other of these diseases, were indirectly due to influenza. In some of the large provincial towns, where influenza is fatally prevalent, very high death-rates were recorded last week, notably in Brighton, Halifax, Liverpool, and Plymouth, in all of which the death-rate exceeded 40 per 1,000.

INFLUENZA IN LONDON.

During the epidemic of influenza which has for some weeks been present in London, a most unusual amount of illness has prevailed, characterised by pyrexial symptoms; but that it has all been influenza is extremely doubtful. At any rate, symptoms most generally noticed in other recent epidemics of influenza—the high temperature and great pains in the head, loins, and limbs—have been less prominent. On the other hand, bronchial catarrh, bronchitis, and pneumonia have been widely prevalent. The common sequelæ have been slowing of the heart's action, general debility, and troublesome cough, not easily stopped by medication. Another factor in the production of much of the recent widespread disease is the dryness of the atmosphere and the absence of water from the sewers. For some weeks there was no rain in London, and the snow that fell was either swept away at once or remained unmelted in unfrequented spots; whilst the frozen water pipes compelled householders in very many cases to be extremely sparing in the use of water for domestic purposes. The amount of water passing into the drains both from streets and private houses was, therefore, far below the average for many days. The healthiness of London, as of other well-drained cities, during a wet season, when the air, streets, and sewers are all thoroughly cleansed, is notorious, and the opposite condition is, without doubt, detrimental to the public health. At any rate, these considerations cannot be neglected in any attempt to fathom the causes of the recent unhealthy period. Happily, the disappearance of the frost and admission of water to houses will, it may be confidently predicted, be followed by a diminution of both illness and death-rate in London.

INFLUENZA IN EDINBURGH.

Not for twenty or thirty years has there been so much sickness of all kinds in Edinburgh. The mortality last week was 225, as against 100, 132, 188, and 180 in the four preceding weeks. Of these 225 deaths, 76 were of persons over 60 years of age—rather more than a third; diseases of the chest accounted for at least 157 deaths, and zymotic causes for 38. Cases of measles to the number of 528 were notified, and 29 deaths were last week due to this cause. There undoubtedly exists a very widespread epidemic of influenza, and unhappily it must be admitted that many of the cases are showing a more virulent type and are more frequently associated with complications dangerous to life. Pneumonia stands first in the list. Excluding phthisis and other tuberculous states, 104 deaths were due to chest disease last week, and we fear the present week will show a more appalling record. Among other complications there fall to be noted the profound depression of the nervous system, with which former epidemics have made us too

familiar, many forms of chest troubles—peritonitis (mostly local and sometimes ending in abscess), cellulitis, meningitis, albuminuria, hæmaturia, and cystitis.

EDINBURGH ROYAL MEDICAL SOCIETY.

The annual dinner of the Royal Medical Society was held on March 8th, Dr. John Orr, the senior President, in the chair. The guest was Sir William Stokes, of Dublin. Among others present were Sir Thomas Grainger Stewart, Professors Simpson, Rutherford, and Chiene, Dr. McBride, and others. In reply to the toast of "The Guest," Sir William Stokes spoke of the value of scientific combinations such as the Society for the purposes of intellectual advancement.

EPIDEMIC CHOLERA.

A sudden recrudescence of cholera is reported from Constantinople. Down to the middle of February there had been during the previous three months 174 cases notified with 75 deaths; subsequently the number of cases declined. The only other point in the Ottoman Empire from which cholera is reported is Sataliah, a maritime town of Asia Minor, but the number of cases there has been small. Galicia was reported free from cholera on February 19th, but in certain districts a severe epidemic of typhus fever has broken out. At Sulina, Roumania, there has been a sudden outbreak of gastro-enteritis, said not to be cholera. In Southern Russia certain districts are still infested with cholera, but the cases have not been numerous. The International Sanitary Council at Constantinople, in view of the continuance of cholera at Constantinople, can devise no better means of protecting the pilgrims to Mecca this year than to ordain a quarantine of ten days at Clasomene, where the pilgrims are to be disembarked, their effects disinfected, and the ships also cleaned and disinfected. The cholera has not yet disappeared from Monte Video, and cases continue to occur also in the Argentine Republic, at Buenos Ayres, Rosario, and in many country districts.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

In a recent issue of *Notes and Queries* (eighth series, vii, p. 182) there is an interesting letter by the late Mr. Henry Behrend, written to his father at the time of his passing the College examination. The date of the letter is said to be 1849; this evidently should be 1850, as the writer refers to Mr. Arnott as President. Reference to the *Medical Directory*, too, shows that Mr. Behrend passed in 1850. A graphic description of the examination is given and of the ways of some of the examiners. The manner of Mr. Guthrie, as here described, was hardly calculated to inspire an examinee with confidence. "As soon as I sat down," says Mr. Behrend, "Guthrie said, 'Well, Sir, perhaps you can tell me what so and so is?' and I began to tell him all about the matter, one that I really knew well. However, in the middle he pulled me up by coolly telling me that I talked too much and evidently knew nothing about the matter, so he would try something else. My blood boiled at this, and I begged his pardon, but assured him that, on the contrary, the subject was one with which I was perfectly familiar. He hummed and ha'ed and took me on something else, again pulling me up half way through my answer by assuring me that I was perfectly ignorant of what I was talking about; and I assure you he went on this way the entire time, only once in the course of his examination did he say, 'Come, that really is a sensible answer.' . . . . I suppose I looked rather down-hearted at his table, especially as it was the last, but when the bell rang and I rose to leave him he said, 'Now don't make yourself unhappy my dear fellow, you've done exceedingly well with me.'" After the examination Mr. Behrend records that Guthrie said to him "Well, Sir, I suppose you thought I bullied you dreadfully, but I saw what you were made of." It was rather a memorable night as ten men failed out of fourteen. Mr. Behrend describes the "funking-room" and "Paradise," and records the adjournment of the candidates to the "Old Drury," and also the fact that he reached his hotel at 3 o'clock in the morning. There is another slight error in the letter. Mr. Behrend describes Brodie as one of the examiners, but this could not have been, as Sir Benjamin had been off the Court for nearly ten years at the time referred to.

PRESCRIBING CHEMISTS.

Our attention has been drawn to a letter appearing in the *Pharmaceutical Journal* of March 9th, entitled "Should Doctors Dispense?" of which the following is an extract:

> Sir,—"Omega" in his letter to you of March 2nd writes: "We chemists have not the right to prescribe." May I ask "Omega" where he has found that piece of law which disqualifies a chemist from enjoying rights common to all citizens of the United Kingdom? The law, as stated by a London stipendiary magistrate, and confirmed by the late Lord Chief Justice of England (Cockburn) was that the doctors have no monopoly for prescribing; anybody might prescribe.

We communicated with the Clerk to the Society of Apothecaries on the subject of the letter, and he states that there would be no object in a chemist prescribing if he did not prescribe for profit, or if he did not compound the medicines which he prescribed. If a chemist or other person not being a qualified medical man professes to judge of an internal disease by its symptoms, and applies himself to cure that disease by medicines, he infringes the Apothecaries' Act, 1815. This was laid down by Mr. Justice Cresswell in the case of the Apothecaries' Society *v.* Lotinga; and in the more recent case of the Society of Apothecaries *v.* Welch, Lord Esher, the Master of the Rolls, quotes this decision with approval, and confirms it.

ANTIRABIC VACCINATION IN ST. PETERSBURG.

A recent number (t. iii, No. 2) of the *Archives des Sciences Biologiques*, published by the Imperial Institute of Experimental Medicine of St. Petersburg, contains the annual report by Dr. W. Kraïouschkine, of the antirabic department, during 1893. The total number of persons who applied for treatment was 486, being the largest number since the department was established. Of these persons 101 were judged not to require treatment, the animals who inflicted the bite being either recognised to be free from rabies, or having bitten through thick clothing, or so slightly as to leave no mark on the skin. In addition to these, of the persons who underwent the treatment 16 had no wound, having merely had their hands wetted with saliva while tending rabid animals; 6 were bitten by animals which before the completion of the treatment were recognised to be free from rabies, and 5 declined to go on with the treatment after it was begun. This reduces the number of persons to be counted as having undergone the treatment to 358, a number which still shows a considerable increase as compared with previous years. This increase coincides with an increased prevalence of rabies among dogs in St. Petersburg during 1893. Of the 358 patients, 147 were men, 93 women, and 118 children. The bite was inflicted through the clothes in 104 cases, and on uncovered parts in the remainder; 7 persons were bitten on the head, 212 on the upper limb, 8 on the lower, 27 in various parts of the body. Of the 358 only 4 died. In 1 of the fatal cases hydrophobia came on in the course of the treatment before the inoculations had time to produce a definite effect; excluding this case, the number of failures was 3, or 0.84 per cent. As, owing to the action of the municipality during the last cholera epidemic, poor patients coming from the provinces are no longer lodged, as they used to be, in the nearest municipal hospital while undergoing the treatment, the Institute now provides accommodation for 15 patients, each of whom pays 50 copecks (about 1s. 6d.) a day.

MEDICAL OFFICERS OF HEALTH.

On March 8th a joint deputation from the Incorporated Society of Medical Officers of Health, the British Medical Association, the Sanitary Institute, and the British Institute of Public Health waited on Sir Walter Foster, Parliamentary Secretary to the Local Government Board, to urge the necessity of making the appointments of medical officers of health in the provinces permanent, as in the case of London, instead of for short periods. The deputation included the following gentlemen: Dr. Ward Cousins (President of Council of the British Medical Association), Dr. Yarrow, Dr. Herbert Manley, Dr. Louis C. Parkes, Dr. Francis W. Clark, Dr. Geo. Turner, Dr. J. C. Thresh, Dr. H. G. Armstrong, Professor Wm. R. Smith, Mr. J. R. Lovett, Mr. E. White Morris, and Mr. Francis Fowke (General Secretary of the British Medical Association). Lord Fortescue, representing the Sanitary Institute, also attended with the deputation.

Dr. Farquharson, M.P., in introducing the deputation, said that great satisfaction was felt by every member of the deputation in being received by one who was not only a distinguished member of the Local Government Board, but one holding perhaps the most responsible position any medical man could hold. The deputation desired to lay before him (Sir Walter) various grievances in connection with the tenure of office of medical officers of health. In very large measure medical officers of health were merely appointed from year to year, and such appointment made their tenure of office very precarious, and reacted unfavourably, not only on their own interests, but on the interests of the public. It was obvious that if a medical officer of health was appointed from year to year, and had to seek re election annually, he would be inclined to think more of his own interest than of that of the general public. Persons against whose private interests he was compelled to go in his public capacity might be members of the electing Board before whom he had to appear from year to year, and might interfere with his re-election, and practically ruin him in his private capacity.

Dr. Armstrong (ex-President of the Society of Medical Officers of Health) said that the number of short appointments was very great. He quoted certain statistics which he had obtained from the return given to the House of Commons in 1887 on the appointment of medical officers of health. In four southern counties 65 per cent. of the urban appointments were for the term of one year; and in four northern counties 37 per cent. of the urban appointments were also for one year. With regard to the rural districts, in the four southern counties 68 per cent. of the appointments were for one year, and in the four northern counties 62 per cent. were for one year. The question was one very largely under Government control, as in many of the districts the salaries of the officers were partly paid by the Government, and the appointments were all practically under the Public Health Acts. The Society of Medical Officers of Health were unanimously of opinion that short tenure was unnecessary. It was a hardship on the officers and a public evil. The fact that many short tenures went on year after year for twenty years was a strong argument as to the absurdity of annual appointments. There was a great objection to an officer having to go about canvassing, as he very often had to do, for appointments. The very fact of short tenure stamped the appointment as undignified.

Dr. Ward Cousins (President of Council of the British Medical Association) said the question might be viewed from various standpoints, but the one he would specially lay stress upon was that the short tenure of office of the medical officers of health was certainly injurious to the interests of the community where medical officers of health practised their profession. Short tenure certainly crippled their freeness of hand and interfered with their independence of effort. Apart from all other considerations, the great questions of public health certainly surrounded the medical officers with considerable difficulty, and they had often to combat what might be termed vested interests, persons who were by no means anxious for sanitary reform. Men who had laboured well in the sanitary department of their localities, and had done much to promote that department, had often lost their appointments at the time of re-election, and he submitted that that was a very serious matter to a gentleman who had devoted his whole time to the work. It was a most difficult thing for a man occupying the position of medical officer of health to please everybody. Sooner or later, in doing his duty, he must be opposed to certain people around him. The metropolitan officers enjoyed long tenure, and could not be dismissed except the question was submitted to the Local Government Board. Anything that disturbed the position of the medical officer certainly should not be carried into effect until it had been submitted to the Local Government Board. It might be said that the medical officers of the metropolitan district wholly devoted their time to sanitary work, but a large number in the provinces also devoted their entire time. Short tenure and insecurity of tenure were very considerable hardships. It was a great loss to the public when an experienced medical officer lost an appointment in the country, because a medical officer must be a man of great experience, must be constantly working in scientific grooves, and have a thorough knowledge of the locality of his work, the people, and the foes he had to combat with.

Lord Fortescue said that officers under the Poor Law Board in the different unions had felt it to be of the greatest importance that they should be enabled fearlessly to discharge their duty without the dread of either being dismissed or having their salaries reduced in consequence of giving offence to some influential parties in the unions. His lordship read the following resolution passed by the Incorporated Society of Medical Officers of Health:

> That in the opinion of this Society it is detrimental to the best interests of the public health, and the efficient carrying out of the laws relating thereto, that medical officers of health should be appointed for limited periods and on a precarious tenure of office. That it is desirable that similar provisions to those of the Public Health (London) Act, 1891 Sec. 108 (1), (2), b and c, should apply to all medical officers of health in England and Wales.

He also read the following resolutions passed at the Congress of the Sanitary Institute held at Liverpool:

> This meeting is of opinion that in the interests of the public health of the country it is no longer expedient that appointments as medical officers of health and inspectors of nuisances should be made for limited periods of time. It is desirable that the powers of the Local Government Board with regard to tenure of office should be extended so as to apply equally to all medical officers of health and inspectors of nuisances, whether they be paid entirely out of the local rates or not.

Professor W. R. Smith (President of the British Institute of Public Health) said he saw no reason why the medical officer of health should be treated differently to the clerk or the surveyor, or any other officer of the local authority. There was no doubt that the efforts of the medical officer of health were practically paralysed by insecurity of tenure, and that it reacted injuriously to the health of the district. He suggested that the Local Government Board might, where possible, exercise some control over local authorities, and should take steps, by legislative measures, to make the condition of medical officers of health in the country similar to those of the medical officers of health in London.

Dr. Vacher (Medical Officer of Health for Cheshire) said that under the methods of appointment in the country great injustice had been done in the past, and was liable to be done in the future. He related several cases that had been brought to his notice where it appeared that very great hardships had been inflicted by means of the facility with which medical officers of health could be suddenly displaced from their positions. He had himself suffered under the system. He had been medical officer of a district for eighteen years, and left for his holiday in Switzerland, leaving his address with the town clerk. He selected a time for going away when the fever hospital was empty. On arriving home he bought a Liverpool paper, and the first thing that attracted his attention was a paragraph headed "Another Row at the Fever Hospital: Full Report of the Committee of Investigation: Medical Officer Censured." Three days afterwards he received intimation of his censure from the town clerk. He (Dr. Vacher) desired the matter to be gone into, but that was refused, and the only way of protesting against

the censure was to resign his post (worth £410 a year), which he did. That would show that medical officers of health laboured under exceptional disadvantages and disabilities. A medical man after serving 10, 15, or 20 years, suddenly thrown out of office, was too old to get his living by what was to all intents and purposes a new profession.

Sir Walter Foster, in replying, said he had very great pleasure in meeting the deputation, because they represented a very important section of the community. He could assure them that the weighty arguments they had placed before him would receive due consideration. He had had a share in obtaining that permanency of tenure which the medical officer of health in London enjoyed, and the views he expressed when the Public Health Act of 1891 was passing through the House of Commons remained unaltered. The question was not one which rested altogether with the Local Government Board, but one that demanded legislation on the part of Parliament. It would be impossible to make the appointments of medical officers of health all over the country permanent without an amendment of the Public Health Act, which could not be looked forward to in the immediate present. Appointments for limited periods were originally sanctioned on account of the uncertainty of the areas over which the appointments were made, and an alteration of those areas was then contemplated with the view of more efficient local government. That more efficient local government had now come, and the deputation had waited upon the Local Government Board at a very opportune time. The local government of the country was settled on more or less permanent lines, so that they might look forward to the formation of areas which would be able to employ medical officers of health for longer periods or permanently. A good deal of what had been said had been anticipated by the Local Government Board within the last few weeks, and the Board had arrived at a rather important decision. The Board had decided that short periods and precarious tenure were injurious to the public health. Men holding appointments for limited periods could not be expected to discharge their duties in the fearless and thorough manner which those duties required, and the Board were anxious to encourage the authorities everywhere to give up the system of short, terminable appointments. It remained to a large extent with the local authorities to take the matter up. He asked the members of the deputation to use their influence throughout the country in the direction of getting local authorities to recognise the position which the Board took up, and how much more effective they would make public health administration by making the position of medical officer of health stronger. On the part of many of the profession there was a strong feeling that a powerful central public health authority to administer the Acts relating to the public health of the country would be the best way of dealing with the matter, but legislation had gone too far in the other direction for that. Local authorities had been established all over the country, and in the ordinary course of things those authorities would have increasing powers, and he wanted the members of the deputation to look to those local authorities as the bodies whom they must convince and influence in order to obtain permanent appointments. If they did that they would have behind them the sympathy of the Local Government Board, and the Board would give them all the help they could to encourage the authorities to make the appointments permanent, or for longer periods. With regard to part repayment of salaries, repayment was made to a very large proportion of districts, but in some cases it was refused by the local authorities in order that they might be absolutely independent with reference to their own government. The desire for receiving part repayment from the Imperial or county funds was growing, and it should be encouraged, because it gave the Local Government Board more or less authority with reference to the appointment of medical officers of health, and also authority with reference to their salaries and tenure. That control over the salaries had enabled the Board in many instances to raise inadequate salaries to something more adequate, and in that way they had improved the position of medical officers of health in many districts. It would have been improved a great deal more had the Board received that co operation of the medical profession which they ought to have. The medical profession in such matters was a broken and disorganised body. When the Board had endeavoured on more than one occasion to obtain adequate salaries for medical officers of health, other medical men had agreed to take the offices at lower salaries, and naturally the local authorities thought it their duty to the ratepayers to obtain their officers at the cheapest rate. He would urge upon the members of the medical profession that while the Board were doing all they could to raise the position of medical officer of health, and to increase the security of tenure all over the country, they (the medical profession) should give the Board all the assistance they could by being true to themselves, and by not letting those undignified proceedings occur. He was sorry he could not promise to introduce an amendment to the Public Health Acts to give more permanent appointments, but the Board were going very far in the direction indicated by the deputation, and the very weighty and powerful arguments placed before him would be communicated to his colleagues, and have the most careful consideration.

The deputation then thanked Sir Walter, and withdrew.

THE MECCAN PILGRIMAGE AND THE PREVENTION OF CHOLERA.

Great Mohammedan Public Meeting at Hyderabad.—Address by Mr. Ernest Hart.—Resolutions Addressed to the Viceroy of India and the Secretary of State for Foreign Affairs.

[From an Occasional Correspondent.]

The Mohammedan community of Hyderabad has during the last ten days been in a state of unwonted energy and enthusiasm. The news of Mr. Ernest Hart's intended visit to Hyderabad had been universally welcomed by all classes of the population as of excellent omen. The telegrams and reports from Calcutta had testified to the valuable suggestions which he was prepared to offer for the sanitation of the pilgrimage to Mecca and the saving of valuable lives which it involves. The British Medical Journal and the leading English magazines are extensively read amongst the literary and educated classes here, and the Urdu translations, which have been widely circulated, have won for him and for his mission here wide and enthusiastic sympathy. He arrived from Madras by a night train and was met by what must have been a most agreeable surprise. The whole of the station was illuminated with fire dishes and torches and the leading British and native physicians and other educated natives were drawn up on the platform. As Mr. Ernest Hart and his wife stepped from the carriage they were welcomed by Dr. Lawrie, the Residency Surgeon, and an address was presented in a massive silver casket of beautifully artistic design. The following is a translation of the address, to which Mr. Ernest Hart made a suitable reply:

To Ernest Hart, Esq., D.C.L., Editor of the British Medical Journal, Chairman of the Parliamentary Bills Committee of the British Medical Association, Chairman of the National Health Society, etc.

Sir,—It is with feelings of unaffected pleasure and satisfaction that we, the members of the medical profession in Hyderabad, offer you a cordial welcome to the capital of His Highness the Nizam's dominions.

No single member of our profession has done more to guide medical opinion than yourself. The British Medical Association—the greatest representative body the world has ever known in the medical profession—is deeply indebted for its success during the last three decades to your influence, and you have edited the Journal of the Association with such conspicuous success that it is now second to no medical periodical in existence.

Your zeal and enthusiasm in the cause of sanitary reform are well known to every one of us, and we feel that it is particularly owing to your noble exertions that so much has been done in the last twenty years to prevent or mitigate infectious and contagious diseases. As Chairman of the Parliamentary Bills Committee of the British Medical Association many salutary modifications and additions to the sanitary laws of the Empire will always be inseparably connected with your name.

Your reputation as a leader of charitable and philanthropic movements extends to every quarter of the globe, and affords substantial guarantee that you are peculiarly well fitted for the task you now have in hand. That task is the prevention of cholera, and we feel unbounded confidence that through your instrumentality that terrible disease will eventually be stamped out of Mecca, and pilgrims will then be able to perform their duty of visiting the Holy City without the dread of a miserable death from an infection which you have shown to be altogether preventable.

We wish you a pleasant sojourn in Hyderabad, a successful issue to your all-important work, and safe return to your home in England.

A public meeting was summoned at the Nizam's Public Gardens on February 16th, and a document was circulated summarising Mr. Hart's previously expressed opinions and suggestions and his American address, his addresses at Edinburgh to the Congress of Hygiene, at Buda-Pesth, and to the Newcastle meeting of the British Medical Association. The Nawab Syed Ali Bilgrami, Secretary Public Works, who is a man of rare accomplishments, a polyglot scholar of profound erudition, an accomplished biologist (a pupil of Professor Huxley), and thoroughly acquainted with the literature and science of England, of which he speaks the language as fluently as his own, gave his active and invaluable aid.

In a great Mohammedan community such as this, where such an object is concerned, much depends upon the goodwill, sympathy, and support of the religious leaders. Foremost among these is His Holiness Hazarath Abdul Rahim, High Priest, Shah of the Kadri Mohammedans. Happily this holy man is a person of great intelligence, large views, and independent character. He arranged to receive Mr. Hart immediately after his arrival, and in more than one interview fully discussed the objects in view and the means by which it was proposed to attain them. The Shah Kadri had himself made pilgrimage, and was surrounded by Hajees and by Moollahs of distinction. He finally concluded to give his hearty support and promised to speak at the public meeting, a promise which he most faithfully fulfilled and in a most effective manner. Not less important from the same point of view was the Nawab Mohi-ud-Dowlah Bahadur, who is the Director of Public Mosques and Ecclesiastical Proceedings. The state of his health prohibited his attendance at the meeting, but he has shown himself fully in accord with the views more than once expressed by the Editor of the British Medical Journal, and he is to express this approval in a formal document.

The general proceedings of this important meeting are contained in the official report I transmit herewith for your use and information. It will be seen that the most leading men were present, that the Mohammedans gathered in thousands, and that the resolutions were carried unanimously. I called your attention to the precise and detailed character of these. As Mr. Hart spoke, each sentence was translated word for word to the assembled multitude by Mr. Syed Ali Bilgrami.

On the days succeeding the meeting, Mr. Hart was entertained at the palaces of the premier nobles, Nawab Sir Khurshed Jah Bahadur Ameer-i-Kabeer, Nawab Busheer ud-Dowlar Bahadur, etc. He also received complimentary visits from Nab Sarwar Jung Bahadur, the Nizam's secretary, and from the Nizam's physician Nawab Lukman-ud-Dowlah Bahadur, both of whom expressed His Highness's deep interest and his desire for success. Greatest honour of all and most significant was a formal visit from His Holiness, who rarely if ever has been known to pay a visit, not even to the Nizam, who always calls on him. In his communication announcing his intended visit and fixing the hour, the Shah Kadri intimated that his desire was to do a special honour to Mr. Hart, who was making such great sacrifice of time and labour for the welfare of the Mohammedan world, and who deserved to be considered the benefactor of the Mohammedans. It has since been arranged that formal and official copies of the proceedings of the meeting and resolutions shall be communicated to the Sultan through Her Majesty's Government; and the Earl of Kimberley, Foreign Secretary, will be requested to give the warm support of the British Government to Mr. Hart's proposals, now endorsed by the Mohammedan community of India.

The Mohammedan Meeting.

The following is a condensed report from the official document enclosed by our correspondent. All Mohammedans were invited to attend, and a half-holiday was given to the public offices. The concourse of people numbered many thousands. His Excellency Nawab Vikarul Umrah Bahadur, the Prime Minister, presided, and with him was Mr. Trevor Plowden, the British Resident. Among the leading members of the community present were: Nawab Fakhrul-Mulk Bahadur, Minister of Justice and Education; Nawab Khan-i-Khanan Bahadur; His Holiness Hazarat Abdul Rehim Shah Kadri, High Priest; Nawab Mahboob Yar Jung Bahadur, A. D. C. to H. H. the Nizam; Nawab Imadul-Mulk Bahadur, Private Secretary to H. H. the Nizam and Director of Public Instruction; Moulvi Syed Nizamuddin, B.A., B.L., Judge of His Highness's High Court; Shamsul-Ulama Syed Ali Bilgrami, B.A., LL.B., A. R. S. Secretary P. W. D. Railways and Mines; Mirza Razzack Ali Beg, A. D. C. to His Excellency the Minister; Mirza Mehdi Khan, A. R. S. M. Mint Master; Nawab Akber Jung Bahadur, C.S.I., Commissioner of Police; Moulvi Hebibuddin; Mulla Abdul Kayyoom; Moulvi Syed Ahmed; and Dr. Ahmed Mirza, M.B., C.M., B.Sc.Edin., Health Officer.

The Prime Minister, after introducing Mr. Ernest Hart, called upon the residency surgeon, Surgeon-Colonel Lawrie, who said that the sole object of Mr. Hart's visit to the city was to ask the Mohammedan community to do something to abolish cholera in Mecca. The introduction of a pure water supply into Hyderabad had been followed, as the supply was extended from district to district, by the disappearance of cholera. By giving the pilgrims pure water to drink throughout the pilgrimage cholera might also be stamped out from among the pilgrims to Mecca.

Mr. Ernest Hart said that the annual reports of the health officers and consuls proved the enormous loss of life and great suffering from disease which for so many years had afflicted so large a portion of pilgrims engaged in the sacred duty of making the visit to the House at Mecca. If this were a necessary condition of the pilgrimage, the suffering and loss of life would be borne by the Mohammedan community as a part of their religious duty; but this was not so, and these outbreaks of cholera and dysentery, which for example in 1892 caused in one month the deaths of no fewer than 20,000 Mohammedans, were preventable. If preventable, he asked, why were they not prevented? Mr. Hart then referred to the evidence accumulated in Europe, but especially in England, that cholera prevalence was due to the contamination of drinking water. During the last thirty years one hundred millions sterling had been spent in England to provide the people with pure water, and though cholera had from time to time been imported into England, it was no longer dreaded, and had never invaded England in epidemic form since pure water supplies had been provided. In Hyderabad itself a pure water supply was provided in 1889, and this step had been followed by an immense decline in the cholera mortality in each district into which the pure water had been introduced. In Calcutta the annual loss of life from cholera had declined after the introduction of a pure water supply from 4,000 per annum to 796, and cholera was practically unknown amongst the European population who drank the pipe water, the deaths occurring almost wholly among the native population who from prejudice or carelessness continued to drink the impure water of the tanks. In Madras the annual mortality from cholera had fallen with the introduction of a pure water supply from an average of 1,465 to 35; in Bombay from 2,241 to 520 in the year following the introduction of a water supply (1867), and to 19 in 1886. Cholera, then, was preventable; how was it to be prevented on the Meccan pilgrimage? It could be acquired by eating food which had become polluted, or by eating with soiled hands, or from vessels not perfectly clean; it could be drunk in water and in milk accidentally polluted and not thoroughly boiled, but it could not be caught by personal contact with a cholera patient. Such patients might be attended without fear if those in attendance were careful to cleanse their hands, and to remove all soiled clothing or bedding, and either to burn or thoroughly disinfect them, and if the soil fouled by the patient were thoroughly cleansed and not allowed to be soaked with filth. The doctrine, therefore, which he taught was not one of unkindness or of neglect of holy duties. On the Meccan pilgrimage the first source of danger was at the Island of Kamaran, where the Indian pilgrims were compelled by the Turkish Government to land and to stay, whether well or sick, for a certain number of days. Three hundred thousand pilgrims went every year from India, and each paid fees amounting to Rs.10 to the Turkish Government, so that there were ample funds to provide pure water, wholesome food, and healthy habitations. Instead of this there were miserable habitations, foul water, and a polluted soil, so that Kamaran frequently became a source of infection. This was an outrage on humanity, and the Mohammedans

had a right to demand firmly, respectfully, but earnestly, that this tribute of life should not be levied, but that the pilgrims should be supplied at Kamaran with the means of healthy life and with properly qualified Mohammedan doctors. They had, further, the right, and it was indeed their duty, to demand similar reforms at the other quarantine stations, especially at Jeddah and Yambu. The transport ships had formerly been sources of danger, but by the influence of the Queen Empress, by the solicitude of the great European Powers, with the co-operation of the Sultan, the pilgrim ships had been provided with pure water and wholesome food, and there was reason to anticipate that adequate space would henceforth be secured. Another source of preventable disease was the present mode of disposing of the offal and carcasses of the many hundreds of thousands of animals slaughtered at Minah, by burying them in shallow holes or leaving them exposed to putrefy in the hot sun. They should be incinerated, or dealt with in some other wholesome and safe manner. At the stations, fifteen in number, between Mecca and Medinah, there was either no water supply or polluted water; pure water, at least, should be supplied at each. Finally, Mr. Hart referred to the water of the well Zemzem, which it was the sacred duty of all pilgrims to drink. This water was not only sacred, but it came from a pure source; but it appeared that the precautions taken to secure its purity were insufficient. Much of the water with which the pilgrims bathed themselves fell back, it was stated, into the water of the well, which thus became loaded with impurities.

His Holiness HAZARAT ABDUR RAHIM then said that all Mohammedans should be deeply indebted to Mr. Ernest Hart for pointing out how to improve the means of carrying out a great religious duty. The purpose was so good that His Holiness felt sure that Mr. Hart would be successful. Further observations of His Holiness were then read aloud in Urdu by Mir Gazanfer Ali. In these remarks His Holiness pointed out that every human effort is regulated by the Omnipotent Power, yet every undertaking ought to be guided by wise advice. The wise, who are the promoters of men's welfare, and the governors of nations, who were the public protectors of life, were bound to encourage the health of their dependents. A great many souls were being destroyed by cholera in Mecca and Medinah. The cause of this calamity was insanitary conditions. Some improvements had been already made by the Turkish Government. The sacred well of Zemzem had been paved around with marble, with drains to carry off the used water. "I visited," he continued, "Mecca in 1283 Hijri with a number of companions who were desirous of going to the holy places. There was no quarantine at that time nor any other obstacle. The present quarantine is a nuisance, for the pilgrims pass the night in difficulty and the day in trouble, and sometimes they have to live there for twelve days and sometimes more. Even healthy people fall sick and may die in this struggle. If unfortunately anyone is attacked with a serious disease, the whole caravan is ordered back, the poor as well as the rich are returned to their native country with heavy hearts and wet eyes, without performing their long wished-for pilgrimage. Though this quarantine might have been introduced for the benefit of the people, yet it often results in disadvantage and disappointment." "I beg," he said in conclusion, "all my coreligionists to help Dr. Hart in this good undertaking, that they may receive the help of God in return, and I pray that he may protect his creatures from this awful suffering."

Mulla ABDUL KAYYOOM then offered certain suggestions with a view to preventing overcrowding in the pilgrim ships and the provision of wholesome food and pure water. He urged that railways should be constructed, and added that Mohammedan merchants of Bombay had repeatedly applied to the Porte to construct a railway line, but the self-seeking Shereff of Mecca had opposed the granting of the necessary permission.

The PRIME MINISTER then put from the chair the following resolutions, which were carried by acclamation:

PREVENTION OF CHOLERA.

1. Resolved: That this meeting offers its best thanks to Mr. Ernest Hart for the instructive address which he has delivered, and expresses its gratitude for the disinterested efforts which he is making for the prevention of cholera in India and in the Holy City

2. That this meeting deeply deplores loss of life, the hardships and sufferings so frequently and largely attending the annual pilgrimage to Mecca and the performance of the sacred duties of the Hajj. That it is certain that this great loss of life and suffering are for the most part wholly preventable, especially in so far as they are due to outbreaks of cholera and other zymotic disease. That the Mohammedans of Hyderabad here in public meeting assembled, desire earnestly and urgently to represent to His Majesty the Sultan the pressing necessity for taking steps to prevent this great evil which now sorely afflicts the great body of Mohammedan pilgrims in the performance of their religious duties, and which deters many of the faithful from undertaking the pilgrimage. The measures of prevention for which they respectfully and earnestly pray are:

(1) The reform of the quarantine establishments at Kamaran, Jeddah and Yambu and the substitution for the healthy pilgrims of a system of medical inspection by which the sick only will be detained in the quarantine establishments. This reform should include above all things the liberal supply of pure drinking water, the cleansing of the soil, the provision of suitable habitations and an adequate system of conservancy. There should be an adequate staff of properly trained doctors, male and female.

(2) The adoption of a comprehensive scheme of sanitation for the holy city of Mecca especially adapted for the requirements of the great concourse of pilgrims during the period of the Hajj, this system extending to the purity of the water supply, the employment of a large and sufficient number of sweepers, the supervision of the food supplies, the erection and inspection of healthy habitations, and the provision of temporary hospitals for the sick under an adequate and well-trained medical staff.

(3) The conservancy of the road to Arafat, and especially the incineration of the remains of the animals slaughtered in the sacrifices at Mineh.

(4) The protection and safe-guarding of the pilgrim route from Mecca to Medinah so that the pilgrims may be protected from the attacks and exactions of the Bedouins, and the provision of a pure water supply in sufficient quantity at the stations on the pilgrim road.

NOTE.—For the above provisions excellent models may be found in the measures which have been taken successfully at the great religious festivals at Hardwar and at Allahabad, where cholera formerly made frightful ravages and caused enormous loss of life, which have on recent occasions thus been wholly prevented.

3. That this meeting respectfully begs the Government of His Highness the Nizam to take cognisance of the above resolutions, and to bring them under the notice of His Majesty the Sultan, and to urge and support their importance to the Mohammedan community throughout the world, and further to press for their speedy realisation.

4. That this meeting earnestly begs that the Government of His Highness the Nizam will depute and appoint a highly-trained and well-skilled Mohammedan physician to accompany the Hajjis during the next few years, and to report in details as to the conditions of conservancy and sanitation as above referred to, in order to acquaint the Government of His Highness with the precise facts from year to year, to enable them to make such representations and to take such steps as may seem desirable.

LUNACY IN CARLISLE.—At a political meeting held in Carlisle on February 22nd, Mr. W. Carrick described the work carried on by the Municipal Lunacy Committee, of which he was a member, and among other things mentioned that the contracts had just been let for the erection of a private asylum for pay patients under their management, in accordance with the Lunacy Act, 1890.

DR. N. W. BARRINGTON, on the occasion of his retirement from practice after nearly thirty years' residence at Bexley Heath, Kent, has been the recipient of several testimonials. Private patients presented him with a purse of 125 guineas, patients of the local provident dispensary with a gold pencil case, and the Willing Lodge of the Order of Foresters with a silver liqueur stand. Each presentation was accompanied by an address expressing regard and sympathy.

A CLIMATOLOGICAL INVESTIGATION BY THE UNITED STATES GOVERNMENT.—The United States Government is (we learn from the Philadelphia *Medical News*) about to undertake an investigation of the climates of the country in connection with the indigenous diseases. The investigation will be conducted by the Weather Bureau of the Department of Agriculture, whose Chief, Mr. Mark W. Harrington, has on many previous occasions given proof of an active interest in sanitary climatology. The co-operation of boards of health, public sanitary authorities, sanitary associations and societies, and medical practitioners is invited. The precise manner in which the results of the investigation will be made public has not yet been decided upon, but it is hoped soon to publish a periodical devoted to climatology, and its relations to health and disease.

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA.*

VII.

ACTIVE PRINCIPLES AND GALENICAL PREPARATIONS.

By RALPH STOCKMAN, M.D., F.R.C.P.E.,
Lecturer on Materia Medica and Therapeutics in the School of Medicine, Edinburgh; Assistant-Physician to the Royal Infirmary.

It has frequently been suggested that a more extended substitution of the pure active principles of plants for the Galenical preparations so generally adopted in our national *Pharmacopœia* would lead to much greater accuracy of dosage, and in consequence to increased precision and success in the treatment of disease. It is urged, and with great justice, that plants vary, often to a very considerable extent, in the amount of active substances which they elaborate during their growth; that this is affected not only by climate, habitat, soil, and mode of cultivation, but that even when grown in the same locality one year's crop may differ greatly from the next year's, according to the character of the season and other unavoidable circumstances.

To take two examples only, the amount of morphine in opium may vary from 4 to 15 per cent., or even more widely, while cinchona barks may yield from about 2 to 8 per cent. of quinine. Further, carelessness in drying and packing drugs may cause their active principles to decompose, as has often been the case with coca leaves, and thus the action may be greatly weakened or even entirely lost. It is well known that many good observers formerly denied that coca had any physiological effects, owing to chemical decomposition of the alkaloids having occurred in the specimens with which they experimented. Adulteration and the substitution of immature plants act in a similar way.

In the case of opium and the cinchona bark precautions have been taken in the *Pharmacopœia* to avoid the ill-effects of such variability in alkaloidal strength by prescribing certain kinds of opium and cinchona bark which alone are to be used in making the Galenical preparations, and also by giving exact methods for quantitative analysis; but in the majority of cases a great deal is left to chance, and no rules are laid down for the chemical examination of crude products. In point of fact, however, the pharmacopœial authorities can scarcely be held to blame for this, as, owing to our defective knowledge of the chemistry of many of our commonest drugs, it is quite impossible to give methods for quantitative estimation of their active principles. Hence, our tinctures, extracts, and other Galenical preparations reproduce, and may even exaggerate, the original want of uniformity in the strength of the crude substances. We may even lapse further into error by trusting to our Galenical pharmacy, as in the case of jaborandi, where the leaflets contain several alkaloids, one of which, jaborine, has been shown to have an action similar to that of atropine in checking perspiration, and is, therefore, a direct antagonist to pilocarpine. By administering any of the three official Galenical preparations of the leaves instead of pilocarpine itself we run the very serious risk of producing in our patients effects exactly the opposite of those we desire. The advantages of using solutions of pure substances instead of complex pharmaceutical preparations are, therefore, extremely obvious in some cases and for some purposes; but on looking more closely into the matter it will be found that in our present *Pharmacopœia* this has been already recognised to a very considerable extent, and that, although some improvements and changes in this direction are possible, yet they cannot be so many nor so great as one might at the first glance conclude. The difficulties in the way depend chiefly on our defective chemical and therapeutical knowledge of drugs. In some cases we do not know what the active principles are, in others they have never been isolated pure, so that here we cannot at present improve very greatly on our pharmaceutical preparations. In other cases still there are several active substances present, and we are accustomed to rely on their combined effects. An example of this is furnished by digitalis leaves, which contain at least three active principles of different pharmacological activity, and although it would undoubtedly be an advantage to use one or more of them in a pure state and in a uniform preparation, yet nobody has ever worked up the subject clinically or chemically with such exactitude and detail that one can feel justified in departing from the use of the time-honoured preparations of the leaves. In this, as in many other cases, the compilers of the *Pharmacopœia* have no proper data on which to found any reforms. As regards ergot, where reliable dosage is also very desirable, our chemical knowledge is still more deficient, and at present it would be hopeless even to attempt to make preparations of its active constituents. Hyoscyamus leaves furnish us with another example of a drug containing more than one active principle, namely, hyoscyamine and hyoscine, to the latter of which is due very largely its superior sedative properties as compared with belladonna. We have no definite knowledge, however, of the relative proportions of the two alkaloids, and hence a mixed pure solution is scarcely to be thought of unless the issue of the new edition is to be indefinitely postponed until such points can be worked up and determined.

But, further, from a therapeutical point of view it is not always preferable to use pure active principles in place of Galenical preparations. To take again the familiar remedies morphine and quinine: when the general action of these drugs is desired, it is undoubtedly most advisable to give them pure, as they are then more easily administered and more quickly absorbed, and in consequence the beneficial effect is more rapid and decided. When, however, it is desired to act on the alimentary canal, opium or its Galenical preparations are superior to morphine; the morphine is but slowly extracted from it, hence its action is more gradual and local, and is exerted on a much larger tract of the intestinal canal before complete absorption ultimately occurs. The same is true regarding quinine and the preparations of cinchona bark, the latter containing in addition tannin and other bodies, the action of which is sometimes desirable, and for this they are purposely given. In such cases the disadvantages of somewhat inaccurate dosage are more than compensated for by other advantages which the Galenical preparations possess. In the case of other large classes of drugs, such as bitters and anthelmintics, where we wish the drug to remain as long as possible in the alimentary canal, and where quick absorption is a disadvantage, we probably get much better results from the pharmaceutical preparations than we would get from active principles. Sufficient information, however, is wanting on this as on so many subjects of the same nature, for we use santonin with great advantage, and it is possible that filicic acid might prove just as good as the liquid extract of male fern. If so, its use would be a distinct improvement, as the official preparation is often weakened by chemical changes occurring in its active principle.

The numerous bodies, such as kino and catechu, which owe their activity to tannic acid, certainly act better as intestinal astringents than pure tannic acid does, and it would be no improvement to use their active principles instead of themselves. Still, there is no reason why the ointments of galls should not be made with tannic acid instead as at present, as they would then be of more definite and constant strength. Elaterium is a substance which might well be omitted from the *Pharmacopœia*, as its active principle, elaterin, is official, and ought always to be used in preference. Elaterin is often adulterated and of uncertain strength, and, the authorities having made a distinct improvement of this kind, should proceed to its logical conclusion, and strike out the inferior preparation.

Another active principle which is official is aloin, and it might probably with advantage, certainly with increased accuracy of dosage, replace aloes in many of our official preparations and in prescribing. In the case of nux vomica, which contains only strychnine and the much less active alkaloid brucine, which has a precisely similar action, there seems to be no good reason why any Galenical preparations at all should be retained in the *Pharmacopœia*. Often as the tincture and extract of nux vomica are prescribed, their

place could be taken perfectly by strychnine or one of its salts, and there would be in consequence a great increase in accurate administration. The same is true to a very large extent of belladonna and atropine. If medical men would accustom themselves to prescribe the alkaloid instead of the tincture, extract, or succus, as the case may be, they would know exactly how much atropine the patient was getting, a matter which is left at present very much to chance. The essential oils also offer a field for many similar improvements.

It is to be confidently expected that the authorities, in preparing the new edition of the *Pharmacopœia*, will keep such possible reforms in view, as the administration of reliable preparations of constant strength is admittedly all important for success in treatment.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

CASES TREATED BY DR. KLEIN'S ANTITOXIN.

Greenock Infirmary.

Dr. James Wallace, Physician to the Infirmary, sends the following report of two cases:

Case I.—A. H., a girl, aged 3, was on January 27th transferred to the fever wards from the surgical wards of the Greenock Infirmary, where she had since October 2nd been under treatment for extensive burns of the chest, abdomen, and arms. About January 24th the patient became affected with cough. On the 27th the breathing became difficult, and it was then found that the pharynx and tonsils were deeply reddened and swollen, and that there was a distinct patch of greyish membrane about the size of a threepenny piece over the right tonsil. The breathing was laboured and rapid; inspirations when the child cried were of a distinctly croupy character. Both sides of the throat were swollen externally; the pulse was 132, the temperature 101.4°. The bacilli of diphtheria were discovered by the Clinical Research Association in the secretions from the fauces. At 6 P.M., 1½ drachm of Klein's antitoxin was injected between the shoulders.

January 28th. Had passed a good night. The throat was without any sign of membrane, and the swelling was less. Breathing was calm as long as the child was not disturbed, but when she cried there was still evidence of obstruction: pulse still 132 but temperature 99.4°; in evening pulse 128, temperature 101°.

January 29th. There was decided improvement in the child's appearance. Throat much better, cough easier, nourishment taken freely; pulse 120, temperature 99.8°; evening pulse 112, temperature 100.4°.

January 30th. Pulse 128, temperature 96.8°. After this the improvement was uninterrupted.

On February 3rd all swelling had disappeared; the breathing was without the slightest indication of obstruction; the urine kept free from albumen.

Case II.—C. N., a girl, aged 1½, was admitted on February 2nd, the disease being of four days' duration. She had a very anæmic and emaciated appearance. The breathing was rapid but not laboured and without any croupy character. The uvula, both sides of the fauces, and the back of the pharynx were swollen and covered with a dirty white membrane. The pulse was 160, feeble, and the temperature 101°. Though the case looked very unpromising, 1½ drachm of Klein's antitoxin was, at 11 A.M. on February 3rd, injected between the shoulders. At 2 P.M. the pulse was 176, but rather firmer. The patient, however, became gradually weaker and died early next morning. Three swabs from the pharynx were examined by the Clinical Research Association, who have sent the following report:

"Examination shows large numbers of bacteria, but no bacilli diphtheriæ. Culture: In twenty-four hours the medium became almost covered with masses of fungus growth, not resembling diphtheria. Microscopic examination of culture shows that the growth is composed mainly of a large jointed fungus, probably of putrefactive origin. There are also present numerous cocci arranged in pairs."

Royal Alexandra Hospital for Sick Children, Brighton.

R. Crofton-Atkins, M.B., House-Surgeon, sends the following report of a case under the care of Dr. Chaffey:

A. W., aged 1 year and 10 months, was in good health up to January 7th, when he was languid. On January 8th his breathing was noisy.

On January 9th, at 9.30 A.M., when admitted into the hospital, he was pale and slightly cyanosed; there was much laryngeal stridor, and considerable retraction of the lower ribs. Temperature 102.9°, pulse 160, respiration 52. Just above the right tonsil there was a patch of greyish-white membrane firmly adherent; the lymphatic glands were not enlarged.

5jss of Dr. Klein's antitoxin was injected, and vin. antimoniale mjij given every four hours. At 6 P.M. the temperature had risen to 103.8°, but the general condition remained much the same.

January 10th. Much worse. Pulse 166, extremely feeble: respirations 60; temperature 103°. There was more pallor and cyanosis, and more distress in breathing, with a greater amount of recession of the lower ribs. There was no extension of membrane. The need for operation not being very urgent, tracheotomy was postponed, and 5jss of antitoxin was injected. After this he seemed to improve for a few hours, but towards the evening he became definitely worse, expiration being especially stridulous, and tracheotomy was performed. No membrane was seen during the operation, nor was any expectorated afterwards. The urine contained no albumen. 10.30. P.M. 5jss of antitoxin injected.

January 11th. He had passed a fairly comfortable night; temperature 104.2° F., pulse 142, respirations 60. He was flushed and sweating. The membrane had entirely disappeared from the fauces. During the day he improved considerably, and in the evening the temperature had fallen to 102° and the pulse to 120. From this day all the symptoms progressively improved. Dr. Klein reported that the mucus from the throat contained distinct diphtheria bacilli.

On January 20th the temperature rose to 101°, and on the left side there were several patches of urticaria.

January 21st. Urticaria over both ankles, and a few more spots on the trunk. The temperature was 102°, but fell to normal at night. The following morning the legs, arms, and face were thickly covered with the rash, which evidently caused him much distress. The temperature was 104° and the pulse 140, respirations 46.

On January 23rd the eruption was fading and the temperature falling, and by the next day it had gone. No signs of paralysis showed themselves.

Remarks by Dr. Chaffey.—This case is of interest both on account of the early age of the patient and the fact that no membrane was observed subsequent to the injection of the antitoxin. The operation of tracheotomy was delayed as long as possible to enable the antitoxin to exert its full influence, but it was clear that the latter alone could not have saved the patient.

East Suffolk Hospital, Ipswich.

Mr. E. C. Edwards, House Surgeon, sends the following report of a case under the care of Mr. Brogden:

Mrs. P., aged 37, was admitted on January 16th, suffering from advanced diabetes mellitus.

On February 2nd (seventeen days after admission) she first complained of her throat having been sore for the last three or four days. The temperature since admission had ranged from 97° to 98°. The posterior pharyngeal wall and adjacent surfaces of the tonsils were coated with white membrane. The uvula was swollen, but free from membrane; the cervical glands were not enlarged.

On February 3rd the condition of the throat was much the same. Temperature 97.6°. The nose was becoming "stulled up." The patient continued to swallow solid food fairly well; she was on a strict diabetic diet, mainly consisting of meat and eggs.

On February 4th the membrane covered the uvula and anterior surface of the tonsils, and had spread forwards through the nose so as to be visible at the anterior nares. The temperature remained subnormal (97°). No glandular enlargement.

On February 5th the throat looked much the same. The

patient continued to swallow solids with very little apparent discomfort. Temperature 97.4°, pulse 65. Dr. Klein was good enough to examine the membrane microscopically, and pronounced it to be diphtheritic. At 1.30 P.M. antitoxin ℥ij injected. At 8 P.M. temperature 98.2°, pulse 100. The expectoration had increased in quantity, and was brought up more easily. The urine contained albumen (first time since admission).

On February 6th the expectoration was easier, and had increased since the injection. Aphonia had developed during night. Temperature 98.6°, pulse 100, respirations 15. The membrane appeared more yellow "creamy" coloured on the fauces, but its whiteness remained the same in the nares. There was a frequent hawking up of small pieces of membrane during night. At 3.45 P.M. a second injection of antitoxin ℥ij was administered. At 8 P.M. the temperature was 98.4°, pulse 105, respirations 14. The membrane was separating in small pieces. Food was taken well. The urine contained more albumen.

On February 7th the patient was much weaker. She was unable to raise much now, and the difficulty in swallowing was very much increased. The membrane was separating at the edges, and ashy grey in colour. Temperature 97.4°, pulse 120, respirations 28; no pulmonary signs. There was no reaction about the site of injection. At 12 noon the patient began to become drowsy, and during the rest of the day gradually passed into well-marked coma, lasting till death at 9 A.M. on February 8th. The temperature remained at 97°, pulse 110, respirations 25. Urine in the last twenty-four hours contained albumen.

In this case the temperature was only once as high as 98.6°, and as a rule was below 98°. The glycosuria increased during the last week from 600 to 1 000 grains per diem. The patient died in well-marked diabetic coma.

St. William's Hospital, Rochester.

Mr. Wm. Watson, medical officer, sends the following report:

Case I.—A girl, aged 6, very delicate and rachitic, was admitted on December 1st, 1894, on the third day of disease. Dense membrane covered both tonsils. The glands at the angles of the jaw were greatly swollen. The posterior cervical glands were much enlarged. Pulse 100; temperature 99.4°; respiration easy; no rash; no albumen in urine. The patient was very prostrate, but took nourishment well.

December 2nd. She had had a restless night; temperature normal. Membrane now covered both tonsils, the whole of the soft palate, and the uvula, and could also be seen in both nostrils. The voice was still clear.

On December 3rd, a piece of membrane was removed from the soft palate. The voice was husky. Tracheotomy was not considered necessary then. The urine was scanty, but contained no albumen. Evening temperature 99°.

On December 4th the patient was very low; cheeks pale; temperature 98°; respirations 20; pulse 120, very weak. The throat was very fœtid. A piece of membrane was removed and forwarded to the Clinical Research Association for examination. The urine was still scanty and free from albumen. Antitoxin ℥jss (received this morning from the Editor of the British Medical Journal) injected at 12.45. At 12.30 P.M. epistaxis commenced. Ice was applied to the nose and forehead. Bleeding continued till 11 A.M. Tannin was of no service. The child spat out a good deal of blood At 7 P.M. some shaggy membrane was still to be seen on right tonsil and palate. The left tonsil was nearly clear. There was still a very fetid sanguineous discharge from the nose. The child took nourishment well. Temperature 97.8°; pulse 120; respirations 14. There was some colour in the cheeks; urine albuminous; glands much smaller.

On December 6th the bleeding had ceased and the child had had a quiet night and seemed brighter. The bowels acted naturally. The throat was still injected, but there was no membrane to be seen. The patient spoke plainly. She refused nourishment; a nutrient enema was therefore given every three hours.

December 7th. She had passed a restless night, and vomited as soon as nourishment was swallowed. Respirations 20; pulse 110. Erythematous patches were seen on the trunk and both extremities.

On December 8th the throat was pale, and still clear of membrane: respirations 14; pulse, 126; very weak. The patches were now purple. Death took place from cardiac failure at 3.30 P.M.

Case II.—A girl, aged 9, well formed and muscular, first felt ill on December 7th, gradually got worse, and was sent into hospital on December 12th. The skin was blue mottled. The child spoke plainly. Respirations, 38; pulse, 120; temperature, 100.8°. The chest was healthy. Membrane covered both tonsils, soft palate, and uvula. The breath was very fetid. The post-cervical glands were much enlarged and painful. Urine was passed freely; no albumen was present. There was no rash or desquamation. A piece of membrane was removed from the left tonsil, with slight bleeding. Antitoxin ℥ij injected at 12.30. The temperature rose to 102° at 7 P.M.

On December 13th the child had passed a good night, and took nourishment well. The skin was of more natural colour. There was no nasal discharge. The pulse had descended to 90, and respiration to 20. Temperature normal. The membrane had nearly all disappeared, leaving the throat very raw. There was no albumen in the urine.

On December 14th all the membrane was gone, and the throat was of natural colour. The patient looked much better. The glands were still abnormally large. There was no albumen in urine.

On December 15th the child looked quite bright; the voice had gained strength; the throat was natural; the glands were smaller.

On December 17th the patient seemed to have entirely recovered. There was no albumen or paralysis. The child kept well till her discharge.

Remarks.—The Clinical Research Association reported Loeffler bacillus present in both cases. The rapid disappearance of membrane and fall of temperature after the injection was marked.

Two other patients were under treatment in the hospital, but as they appeared easily amenable to ordinary measures the small stock of serum was reserved for bad cases.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

Meetings of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, April 3rd, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election. Francis Fowke, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch: East London and South Essex District.—The next meeting will be held at Brooke House, Upper Clapton, by kind invitation of Dr. Adams, on Thursday, March 21st, at 8.30 P.M. The chair will be taken by Dr. Daly, Vice-President of the District. Dr. Beevor will give a demonstration of Cases of Nerve Disease. Visitors will be cordially welcomed.—H. E. Powell, Honorary Secretary, Glenarm House, Upper Clapton.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at the Cottage Hospital, Faversham, on March 28th, at 3 P.M. Dr. Selby, of Teynham, in the chair. Dr. Alexander, of Faversham, kindly invites members and visitors to luncheon at his residence, Gatefield House, from 1.30 to 2.30 P.M. Members intending to avail themselves of Dr. Alexander's hospitality are requested to send acceptances by Tuesday, the 26th, or they will not be expected. Agenda: The Chairman: Observations on Cases of Typhoid Fever. Dr. Alexander: *Post Hoc* and *Propter Hoc*. Mr. Brian Rigden: Some Points in Relation to Life Insurance. By the kindness of the Chairman tea and coffee will be served after the meeting. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—THOS. F. RAVEN, Honorary District Secretary, Barfield House, Broadstairs.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of the above District will be held at the White Horse Hotel, Dorking, on Thursday, March 28th, at 3.30 P.M.; Mr. Alex. C. Brock, of Dorking, in the chair. Dinner at 6 P.M.; charge 6s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. Agenda: To decide where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. Election of Honorary Secretary. To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read: J. H. Morgan, F.R.C.S.: Surgical Treatment of Empyema. Dr. R. Boxall: Malignant Disease of the Uterus in its Earlier and Later Stages. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, ALEX. HOPE WALKER, Cranleigh.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of these Districts will be held at the Sussex County Hospital, Brighton, on Thursday, March 28th, at 3.15 P.M.; Mr. T. Jenner Verrall in the chair. Demonstration of clinical cases by members of the hospital staff. Dinner at the Grand Hotel at 5.30; charge 6s., exclusive of wine. Arrangements will be made for conveying members from the hospital to the Grand Hotel.—FRANK HINDS, Honorary Secretary, West Sussex, 14, Steyne, Worthing; J. W. BATTERHAM, Honorary Secretary, East Sussex, Bank House, Grand Parade, St. Leonards.

MIDLAND BRANCH: LINCOLNSHIRE DISTRICT.—A meeting will be held at the Infirmary, Stamford, on Thursday, March 21st, at 2 P.M., when the following cases will be read and discussed: Dr. Newman: The Treatment of Prostatic Enlargement. Dr. Elder: 1. Case of Tubal Fœtation—specimen; 2. Recurrent Peritonitis due to Gonorrheal Infection. Mr. T. P. Greenwood: Two Cases of Appendicitis, Operation, Recovery. Dr. Carline: Sudden Death following an Attack of Hysteria. The members are invited to lunch at the George Hotel, at 1 o'clock, by the medical staff of the Stamford Infirmary. A visit to Burghley House has also been arranged, leaving the George Hotel at 11.30 A.M.—W. A. CARLINE, Honorary Secretary, Lincoln.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—An ordinary general meeting of the Branch will be held in Milne's Library, 224, Union Street, on Wednesday, March 20th, at 8 P.M. Business: Minutes; Nominations, etc.; Ballot for the Admission of Members. Motion by Dr. Garden: "That 20 guineas be given as a donation from the funds of the Branch to the Royal Infirmary, Aberdeen." Papers: Dr. McKenzie Booth: A Case of Laryngeal Stenosis, with exhibition of patient. Dr. Thiselton Urquhart: A Fatal Case of Burning. Dr. Rose: Case of Albuminuric Retinitis, with exhibition of patient.—J. SCOTT RIDDELL, C. THISELTON URQUHART, Joint Honorary Secretaries, Aberdeen.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

A MEETING of this Branch was held on Thursday, February 14th, Mr. H. LANGLEY BROWNE (President) in the chair. Thirty other members were present.

New Members.—J. A. Arkwright, M.B., Williamson R. Reith, M.A., M.B., W. Richardson Rice, B.A., M.D., W. S. Robinson, L.R.C.P.Edin., Robert Shiels, M.D., T. M. Tibbetts, M.B., and Swale Vincent, M.B., were elected members of the Branch.

Communications.—Mr. BARLING showed a girl upon whom he had operated for an Appendical Abscess opening into the bladder. The abscess was drained by incision through the abdomen, the appendix not being removed, and the patient is now quite well.—Mr. JOHN W. TAYLOR showed the Fœtus, Placenta, and remains of the Right Fallopian Tube which he had removed by operation two weeks previously from a case of ectopic gestation of three months' duration. This had been correctly diagnosed by Dr. Latimer Greene, of Stratford, previous to operation. The patient was doing well.—Mr. JORDAN LLOYD showed a Right Kidney, weighing 2 lbs. 12 ounces, successfully removed from a boy, aged 8, by combined abdominal and lumbar operation. His mother's attention was first called to the swelling through his complaining of pain less than two weeks before coming under observation. The tumour filled the right lumbar, hypochondriac, and epigastric regions, and his temperature was raised. A few days after admission a deep incision in the loin opened a cavity containing about 15 ounces of thick, sweet pus, but as the mass did not subside some three weeks later the swelling was explored from the abdomen, found to be a renal tumour, and removed.—Mr. F. MARSH showed a Calculus, weighing 123 grains, which he had removed by lumbar nephrotomy from the right ureteral orifice in a case of hydronephrosis. The patient, a woman of 50, had had symptoms of renal calculus for eight years with intermittent attacks of hydronephrosis. There were evidences of calculus in the other kidney. The patient was making a good recovery.—Mr. BENNETT MAY read a paper on a case of Pancreatic Cyst treated by operation.—Dr. CARTER read notes on the Sterilisation of Milk and demonstrated a new sterilising apparatus.

LANCASHIRE AND CHESHIRE BRANCH.

A SPECIAL meeting of this Branch was held at Liverpool on March 6th, 1895. There were about 150 members present, and letters of apology for non-attendance were received from Drs. and Messrs. Barron, Dickinson, Glascott, W. H. Hughes, Irvine, Renshaw, Shuttleworth, Starkey Smith, James Taylor, Wingate Saul, and Woodcock.

Amendment of Medical Acts.—A Bill intituled an Act to Amend the Law relating to Unqualified Persons who practise Medicine and Surgery was under consideration. There was a strong feeling among a large number of the members present that the Bill published in the BRITISH MEDICAL JOURNAL of January 12th was very inadequate to meet the requirements of the medical profession, inasmuch as it only deals with the assumption of titles, and does not make the practice of medicine by an unregistered person penal. On the motion of Dr. GODSON, seconded by Dr. CARTER, it was resolved:

That the consideration of the Bill published in the BRITISH MEDICAL JOURNAL of January 12th be deferred until it has been considered by and received the sanction of the Parliamentary Bills Committee.

Mr. WALTER WHITEHEAD moved, and Dr. GODSON seconded:

That in any Bill aiming at the suppression of unqualified practice, the act of having practised medicine, surgery, or midwifery for gain or profit by a person unregistered under the provisions of the Medical Acts should be made penal.

Mr. WHITEHEAD made a long and effective speech on the subject, and gave a *précis* of the Solicitors' Act, which he held afforded a very good model for any Bill amending the penal clauses of the Medical Acts. This Act made it penal for any unqualified person to practise as a solicitor, and if an unqualified person is prevented from practising it becomes a matter of very secondary importance what titles he may not assume. This Act affords a very good precedent for similar legislation on behalf of another profession, and Mr. Whitehead argued that it was of much greater moment that the public should be protected from quacks than from amateur solicitors.—An animated discussion followed, in which the following gentlemen took part: Drs. and Messrs. CARTER, FORBES ROSS, MARTIN, GORNALL, SINCLAIR, COLIN CAMPBELL, BRISTOWE, MCNAUGHT, J. BRASSEY BRIERLEY, HOLDEN, and O'SULLIVAN.—Drs. CARTER and SINCLAIR strongly expressed the opinion that midwives in the exercise of their vocation, so far as they exercise such vocation properly, should be exempted from the penal clauses of any such Bill. The other speakers supported Mr. Whitehead's motion, and some of them clearly expressed the opinion that midwives should be brought within the scope of such a Bill. The motion was carried by a very large majority.—On the motion of Dr. J. BRASSEY BRIERLEY, seconded by Dr. H. HORBURY PRESTON, it was resolved:

That our representatives on the Parliamentary Bills Committee be requested to oppose the introduction of any Bill before Parliament which directly or indirectly recognises any class of irregular practitioners in medicine, surgery, or midwifery, and that our representatives be instructed to bring Mr. Whitehead's resolution before the Parliamentary Bills Committee with the view of having its principles embodied in any such proposed Bill.

Alteration of Branch Rules.—On the motion of Mr. COLIN CAMPBELL, seconded by Dr. O'SULLIVAN, it was resolved:

That it is the opinion of this Branch (*a*) that every member who has paid his annual subscription is entitled to record his vote at the election of the officers and council of the Branch; (*b*) that members who are unable to attend the annual meeting of the Branch should therefore be empowered to transmit their voting papers by post.

The Secretary now proposed a series of alterations in the laws, but as the hour was getting late and a great number of members had left, it was decided, on the suggestion of the President, that another special meeting should be called for the consideration of the Secretary's proposals.

Vote of Thanks.—A vote of thanks to the President terminated the proceedings.

Dinner.—A number of members dined together at the Adelphi Hotel in the evening.

SOUTH-EASTERN (OF IRELAND) BRANCH.

Election of Officers.—At a meeting of this Branch, held at Cork on February 27th, a scrutiny of the voting papers for the election of officers for the ensuing year resulted as follows:—*President:* C. E. James, M.B. (re-elected). *Honorary Treasurer:* Richard B. Carey. *Honorary Secretary:* J. Cooper L. Stawell, M.B. *Council:* Messrs. Hackett, Morris, Norton, and W. H. O'Meara.

The Recess.—The voting on the question of whether the recess of the Branch should be during the winter months or during the summer as at present was considered, and, as it was found that the voting on both sides was even, the matter was adjourned for further consideration.

The Profession of Cork and the Benefit Clubs.—The following resolution was proposed by Dr. Hackett, seconded by Dr. Carey, and passed *nem. con.*:

That this Branch of the British Medical Association considers the action of the members of the medical profession in Cork with reference to the benefit clubs in that city highly commendable and deserving of every support. This Branch also stoutly condemns the conduct of any medical men who take appointments in connection with these bodies under existing circumstances. The Secretary is requested to send a copy of this resolution to the Honorary Secretary of the South of Ireland Branch of the British Medical Association.

Miscellaneous Business.—Some names having been proposed for ballot and routine business transacted, the Branch adjourned.

STAFFORDSHIRE BRANCH.

The second general meeting this session was held at Stafford on February 28th.

New Members.—The following gentlemen were elected members of the Branch: Mr. Thomas Dixon, Eccleshall, Staffs; Mr. F. E. Fernie, Stone, Staffs; Mr. Arnold E. Thorpe, Newport, Salop; Dr. J. P. Tildesley, Willenhall.

Amendment of the Medical Acts.—A report of the Council of the Branch upon the draft Bill for the Amendment of the Medical Acts was presented, and, after full discussion, adopted. It stated that the Council had considered the Bill, and that it had their general approval. It was thought, however, that certain of its clauses might with advantage be amended on the lines of the following resolutions:

1. That in any Bill aiming at the suppression of unqualified practice, the act of practising medicine, surgery, or midwifery for gain by any unregistered person, or person not entitled to be registered, should be penal.

2 (Clause 1, *b*). That the representative of the Branch on the Parliamentary Bills Committee be instructed to suggest to the Committee the desirability of enlarging the term "grievous bodily harm," so that it shall have a wider meaning.

3. (Clause 2). That this clause be approved, with the suggestion that after the word registration in Subsection C, the words "in the United Kingdom" shall be added in substitution for the words "in the *Medical Register* as a foreign or Colonial practitioner."

4. (Clause 3). That the representative of this Branch on the Parliamentary Bills Committee be instructed to suggest to the Committee that it should be made penal for any person to have his name associated with any qualified person or persons, so as to mislead the public.

Cases and Specimens.—Dr. Deanesly showed a specimen of Complete Regeneration of the Tibia after removal of the Shaft from the Tubercle to the Lower Epiphysis for Total Necrosis, the result of Acute Osteomyelitis. The new bone was slender, and of very irregular shape but completely restored the continuity of the tibia. After removal of the dead shaft the periosteal sheath had been brought together by deep sutures in the form of a cylinder drained at both ends where it joined the epiphyses. The result, though interesting from a physiological point of view, was unsatisfactory, owing to the persistence of sinuses, and to displacement of the axis of the new tibia, which rendered the limb useless. He had therefore amputated at the knee-joint three months after the first operation.—Dr. Edge showed a specimen from a case in which he had operated by Abdominal Section for *Post-partum* Tubo-Ovarian Abscess. The operation was followed by a fæcal fistula.—Mr. Vincent Jackson showed Four Calculi removed by perineal median lithotomy from the prostate of a man, aged 37, who had suffered for years from incontinence of urine, and their presence had been missed in more than one sounding of the bladder.—Dr. Blumer showed (1) a man, all of whose tendons immediately over the dorsum of the left wrist-joint had been divided by a heavy piece of iron falling on them, with consequent Complete Wrist-drop. He extended the incision upwards, brought down the proximal ends, and stitched their respective ends with sterilised silk. Primary union was obtained, and the result was sound reunion of all the tendons without any adhesions to the cicatrix. All the movements of the hand were perfect, and the man had since been following his employment as a stoker. (2) A lad whose Right Patella he had drilled and sutured seven months ago for recent Transverse Fracture. The result was firm bony union with free and perfect movement of the joint, the lad being able to use it equally well as the other.

Paper.—Dr. Blumer read a paper entitled Notes on a case of Anthrax. He also exhibited the patient, whom he had treated by free excision of the pustules on the eighth day after inoculation, and after pronounced constitutional symptoms had appeared.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

A meeting of this district was held at Arundel on February 6th, 1895: Mr. Walter Blaker, of Bognor, in the chair.

Unqualified Practice.—A resolution

That it is desirable for the Council of the British Medical Association to acquire powers to proceed against unqualified practice and quackery and in other ways to protect the interests of the medical profession,

was passed, and was ordered to be communicated to the Council.

The late Dr. Withers Moore.—A resolution expressing sympathy with the family of the late Dr. Withers Moore for the loss they have sustained in his death was passed.

Papers.—Professor H. E. Spencer read a paper on Delivery in certain cases of Impaction of the Trunk of the Fœtus, which will be published.—Mr. W. C. Blaker read a paper on the Treatment of Acute Rheumstism by Salol. He had treated eight consecutive cases with this drug, and from this experience of it he considered that (1) the duration of the disease was shortened; (2) the risk of heart complications was diminished; and (3) the disagreeable toxic effects of salicylate of soda were avoided; 10-grain doses were used, and Mr. Blaker urged pushing the drug till its effect on pain and temperature was marked, and then diminishing the frequency of its exhibition.

WEST SOMERSET BRANCH.

The spring meeting of this Branch was held at Taunton on March 7th, Mr. A. D. Willcocks (President) in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Absent Members.—Letters and a telegram were laid before the meeting accounting for the absence of fifteen members from illness and other causes.

Abuse of Medical Charities.—The recommendations issued by the Committee appointed by the Council of the Association to report upon the abuse of medical charities were considered and discussed. It was resolved that the recommendations be forwarded to the Committee of the Taunton and Somerset Hospital.

Amendment of the Medical Acts.—The draft Bill for an Act to amend the law relating to unqualified persons who practise medicine and surgery, which had been forwarded by the Parliamentary Bills Committee for the consideration of the Branch, having been discussed, it was resolved:

That this meeting desires to express its entire approval of the principles embodied in the draft Bill.

Scoliosis and its Treatment.—Mr. C. S. Abbott read a paper on this subject. He described the causes of different kinds of lateral curvature and gave a full account of the treatment which he recommended and had found successful. An instructive discussion followed.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

An ordinary general meeting of this Branch was held at Aberdeen, on February 20th, Professor Stephenson (the President) in the chair.

Confirmation of Minutes.—The minutes were read and approved.

Communications.—Professor Stephenson read a paper on the Ethical Aspects of the Pharmacy of To-day, a full abstract of which will be published.—Professor Finlay read notes on Two Cases of Renal Disease, and exhibited a specimen of Calculus of the Kidney. He instanced cases which showed that the presence of a renal calculus did not always cause characteristic symptoms, and advocated exploratory incisions in cases of doubtful calculus or tuberculous disease of the kidney.—Dr. Don read notes of a Severe Case of Diphtheria, which Professor Ogston and he had treated with antitoxin with apparent success, but in which a rash like measles, with catarrhal symptoms, followed after an interval of twelve days from injection. Microscopic preparations and a coloured sketch of the rash were next exhibited.

Proposed Donations.—Professor Ogston moved that the sum of 20 guineas be given to the Aberdeen University Extension Scheme from the funds of the Branch. This was seconded by Dr. J. Scott Riddell, and carried.—Dr. Garden gave notice that at the next meeting he would move that the sum of 20 guineas be given to the Aberdeen Royal Infirmary.

SPECIAL CORRESPONDENCE.

PARIS.

Typhus in France.—Increase of Alcoholism in Paris.—Comforts for the Madagascar Expedition.—The Paris Theatres and Paris Students.—Sanitation of Slaughterhouses.

The report on the Paris epidemic of typhus in 1893 has now been published. The conclusions to be arrived at after perusing this document are as follows: Typhus is very rare in Paris and in the Seine department. It is endemic in some parts of France, and these can at any moment constitute a source of contagion for the capital. Tramps coming from a typhus centre in Brittany can infect every locality they pass through. The Paris epidemic clearly showed that the tramps who seek a shelter in the night refuges are conductors of typhus. Many of them find their way to the lock-up and to the prisons, which explains the initial appearance of this malady in these establishments. In 1893 typhus broke out in the Paris lock-up, which permitted the epidemic to be more easily stamped out by active measures of disinfection. The lock-up house was entirely disinfected, and the outbreak was suppressed. At the present moment there is a permanent disinfecting service at the depôt.

Dr. Lancereaux recently stated before the Paris Academy of Medicine that the increasing use of alcoholic drinks among the Parisian population is a state of things that renders it incumbent on everyone not only to attempt to check the evil, but to seek for a remedy. M. Lancereaux eloquently condemns the practice of taking *amers* and *apéritifs*, which are dangerous essences. During several years he has observed among his hospital patients a constant increase of cases of chronic absinthism, whilst alcoholism remained stationary. M. Lancereaux applied to the Director of the Contributions Directes, who furnished him with statistics showing that the consumption of absinthe and similar beverages increases yearly to an alarming extent. It appears that among twenty patients admitted into hospital wards receiving such diseases as those treated in Dr. Lancereaux's wards, there are ten of cases resulting from an abuse of alcoholic drinks, five from wine, and five from absinthe and similar beverages. He proposes that the number of *cabarets* should be reduced; that the tax on cider and beer should be as low as possible without the quality of these drinks suffering from the reduction; that the use of wine should be popularised as much as possible, and that only pure wine should be sold; that the tax on potable alcohol should be increased; that the sale of beverages known as *amers* and *apéritifs* should be prohibited, as the essential oils they contain have a most pernicious effect on the public health.

The Countess Foucher de Careil, President of the Association des Dames Françaises, having informed General Duchesne that the Association intended to send to the soldiers at Madagascar a cargo of articles both "useful and agreeable," the General has sent the following list, which he thinks will realise the intention of the *Dames de l'Association:* Chocolate biscuits, preserved fruits, preserved vegetables of the best quality, condensed milk, burgundy, champagne, Mariani wine for invalids, writing materials of every kind, portable inkstands, different kinds of games, and illustrated papers for the amusement of the invalids; tobacco, cigarettes, pipes, matches, soap, candles, mineral waters, flannels, and woollen shirts. These articles are to be packed in cases each weighing no more than between 50 and 60 lbs.

All the Paris theatres allow the students of the different Paris faculties to attend their representations at a considerably reduced price. The Comédie Française sends daily to the Students' Association five tickets, excepting on "first nights." To prevent any abuse of the liberality of the theatrical managers, every student in future will by decree of the General Council of the Faculties be furnished with a photograph of identity. Sham students will thus be readily detected.

The Senate is discussing the question of improved sanitation in the Paris slaughterhouses, and aim at organising a more satisfactory system of meat inspection.

BERLIN.

The Cantharidin Treatment of Tuberculosis: A Correction.—The Balneological Congress.—A New Epidemic.

A mistake occurred in the Berlin letter published in the British Medical Journal of March 2nd, which I take this opportunity of correcting. In the account of Liebreich's lecture on the treatment of lupus by cantharidin it was stated that a dose of 2 decimilligrammes of cantharidin may be taken for years without affecting the kidneys. Such is not the case. So large a dose continued for any length of time might produce albuminuria or strangury. Liebreich's exact prescription is as follows: 0.2 gramme cantharidin is dissolved in 1 litre of tinct. cort. aurant. Every cubic centimetre of the solution then contains 2 decimilligrammes. The solution is not given to the patient, but is dispensed to him by his medical attendant as follows: Into a quarter of a wineglassful of water, 0.4 or 0.5 or more cubic centimetres of the solution are poured from a Pravaz syringe. The dose varies according to the individuality of the patient. Only in rare cases is a whole syringeful (1 cubic centimetre, containing 2 decimilligrammes of cantharidin) given. Liebreich's theory is that the drug strengthens the vital powers of the cells, which thus are enabled to battle with the bacilli, which he calls not true parasites, but nosoparasites.

The Congress of Balneologists was held this year in Berlin from March 7th to 11th, and was presided over by Professor Liebreich. In his opening address the President dwelt on the important part played by balneologists in modern therapeutics. He said that in spite of the various specifics recommended for phthisis in recent years, the only reliable method hitherto was aërotherapeutics, which was first brought into notice by Brehmer, a balneologist. At one time Villemin's researches on phthisis as an infectious disease seemed to point against climatological treatment. But lately the conviction that phthisis is essentially a disturbance of nutrition is gaining more and more ground—it is shared by such an authority as Leyden, for instance—and consequently the belief in the efficacy of climatic influences has again grown

stronger. Of course this by no means excludes that certain drugs may strengthen the organism, and thus act on the disease.

A curious epidemic has broken out in one of the southern districts of Berlin, the Friedrichstadt and Hallesche Vorstadt. The symptoms are vesicles in the mouth and on the tongue, which after a time burst, occasioning great pain. Only liquid food can be taken; the illness generally lasts four to five days, and leaves great weakness behind, but is not otherwise of a serious nature. It is said that Virchow sees in the epidemic a modified foot-and-mouth disease, and that he thinks the milk supply responsible for the infection. Disinfecting gargles and rinsings with camomile tea relieve the symptoms.

Erratum.—Professor Pictet's address on frigotherapeutics, referred to in the letter from our Berlin correspondent published in the British Medical Journal of March 2nd, was not given at the Berlin Medical Society, as there stated, but in Professor Pictet's own laboratory.

ROME.

The Health of the Pope.—Influenza in Rome.—A Proposed Medical Association.—Dispensaries for the Children of the Poor.—Reopening of the Universities of Rome, Naples, and Palermo.

The health of the Pope is excellent at the present time. A little time back he had a slight cold for a day or two, which would not have been worth mentioning but for the absurdly exaggerated reports which appeared in certain English papers.

Rome has been visited with influenza, but in a very mild form. The first cases appeared about three weeks ago, and the disease has been rather prevalent for the last ten or twelve days. It has, as a rule, been accompanied with bronchial catarrh in those persons suffering from the disease. I am able to state, on the authority of the Director of the Office of Hygiene, Dr. Gualdi, that up to the present date (March 10th) not a single case of death due to influenza has been reported this year in Rome. In other respects the health of Rome at the present time is excellent.

On March 14th a meeting was held at the University of Rome for the purpose of inaugurating a medical Association, to be called the "Ordine dei Medici della Provincia di Roma." The Committee is a very influential one, and includes Professor Baccelli as Honorary President and Professor Durante as President. The Association has for its object the upholding of the honour of the profession and the guardianship of its interests.

Professor Ferreri, in 1891, published a little work in which he strongly advocated the establishment of dispensaries for sick children in Rome, to be supported by the voluntary contributions of the wealthier classes, without the intervention of State aid or State control. His idea was so warmly taken up that a dispensary has been opened on the Esquiline which is entirely supported by voluntary contributions, is doing good work, and at the same time is economically managed. During the year 1894 the number of children treated at the dispensary was 1,854, and the total expenditure, including medicines, nourishment, and orthopædic apparatus for the little ones, as well as management, was 4 700 francs, a little more than 2½ francs for each child. The medical staff give their services gratuitously. It is hoped that similar institutions will soon be established in other poor districts of Rome.

The Universities of Rome, Naples, and Palermo were reopened on March 4th. That of Naples was reopened on the conditions already published in the British Medical Journal, and those of Rome and Palermo with the warning that a renewal of the disturbances will cause the loss of the summer session of examinations to the students of the various faculties.

Dr. John MacCombie, medical superintendent of the South-Eastern Hospital, New Cross, was on March 5th presented with his portrait by the chief officers and charge nurses of the hospital, in commemoration of the opening of the home for nurses at the hospital, and as a token o the esteem and respect in which he is held.

CORRESPONDENCE.

GENERAL PRACTITIONERS AND THE ABUSE OF CLUBS.

Sir,—I read with great interest your editorial in the British Medical Journal of March 9th, on the universal abuse of the club system, and a letter signed "A G. M. P. and a Member;" indeed, it is high time that this vital question was everywhere taken up. From all parts of the kingdom the cry goes up. Our medical brethren are abused and sweated by the managers of these clubs and associations, benefit, provident, aid, or whatever called. They are all, or nearly all, founded on a right basis, but so grossly abused that now they stand foremost as huge sweating organisations, taking mean advantage of the doctors' honourable and humane natures. Was this state of things to continue? Those plucky Cork men have taught us a deep lesson. All honour to them, staking their positions and means of livelihood for the sake of right and fairness, trusting on the sure hope that our great Association, the British Medical Association, and all right-minded men throughout the world, will eventually enable them to carry out their reasonable demands. From what I can learn they would wish for simultaneous action to be taken by all the Branches. It has been stated that Irishmen are fickle and incapable of organising. How much the reform must have been needed which compelled men of all shades of religion, politics, and position into one coherent mass, and kept them so. I anxiously await the time which will see them and others in like position righted, and these poor-minded individuals who, having cast aside all the noble traditions of their calling, have taken up the relinquished posts, made to feel that they cannot with impunity act unfairly, and made to regret the day they entered on such a course.—I am, etc.,

March 10th. Fair Play.

LONDON COUNTY COUNCIL AND ITS PROPOSED MEDICAL INVESTIGATORS.

Sir,—I must confess to not being able to see the force of Mr. Nelson Hardy's criticism on your recent article on the proposed reform of the coroner's court in the metropolis.

Although there are obvious objections to a needless multiplication of officials, the proposal that the pathologist shall be absolutely chosen for this work alone is a sound one. In cases in which the life and liberty of the subject may be at stake, the pathologist should make his investigations in a thoroughly impartial manner, and simply give evidence as to what he actually finds in the course of the necropsy; a medical investigator, on the other hand, who has made all sorts of inquiries, and from the evidence thereby obtained may have propounded to himself various theories as to the cause of death is by no means the best man to make the necropsy; even with the best intention he is apt to make his pathological facts fit in with his preconceived notions, and if the public have no more guarantee for its special pathological knowledge than the fact that he is a police surgeon, the confidence felt in the character of the *post-mortem* examination will certainly be no greater than at the present time.

Police surgeons, also, for another reason, would be objectionable for this office: in a certain number of inquests which take place annually the conduct of the police is apt to be called in question; inquests are sometimes held on cases which die in police cells, and the question whether a man was "drunk or dying" has more that once engaged the public attention. Few, I believe, would consider it fitting that necropsies in such cases as these should be made by police surgeons.—I am, etc.,

A General Practitioner and Member
March 9th. of the B.M.A.

PAYING HOSPITALS.

Sir,—I do not wish to discuss the right or wrong of paying wards in general hospitals; but it is connected with another matter in which I am interested. This is the provision of accommodation for patients who, though considerably above the rank of hospital cases, are yet unable to pay the fees

which are asked, and I have no doubt quite justly asked, by small nursing homes. All the poorer members of the professional classes, smaller tradesmen, upper clerks, and many skilled artizans, would fall into this group.

At the present moment there are two classes of people in London who receive the very best medical and surgical treatment that money can buy. These are the richest and the poorest, the latter treated in hospitals, the former in their own homes.

When middle-class people fall seriously ill they are every bit as much in need of these advantages as are their superiors and inferiors. To a great many—to solitary bachelors for instance—it is impossible to get proper attendance at their lodgings, even in an ordinary medical disease if severe enough to confine them to bed. A surgical ailment requiring operation needs still more appliances and assistance. These people accordingly either sponge on hospitals, where, since they are not suited to their surroundings, they give a great deal of trouble and are extremely dissatisfied, or they go to a small nursing home, where they have to pay a great deal more than they can properly afford.

The solution to this difficulty is to start some large institution at which they shall be able to obtain treatment at a lower charge. This end could be reached in two ways. In the first place, while providing everything needful, such a hospital could save a good deal by cutting off luxuries; and, in the second place, it ought by its size to be able to manage things at a much cheaper rate. I am convinced that there would be a very good business to be made in this way. Some such hospitals do now exist, but on far too small a scale to really pay their owners.

Since such a hospital would only be meant to provide nursing and accommodation where it could not be obtained at home, the patients ought to be attended by their own doctors. It ought in fact to be conducted on the lines of the present nursing homes.—I am, etc.,

Upper Wimpole Street, W. March 8th. W. P. HERRINGHAM.

THE GENERAL MEDICAL COUNCIL AND THE OBSTETRICAL SOCIETY.

SIR,—The minutes of the Executive Committee of the General Medical Council of February 25th, 1895, contain a copy of some communications which have passed between the General Medical Council and the Council of the Obstetrical Society. On December 16th, 1892, the General Medical Council forwarded a copy of its rule relating to the granting of certificates in midwifery to the Obstetrical Society and other practitioners; and on January 10th, 1893, the Society replied that the words of their diploma which qualified the holder to attend natural labours were "merely an expression of opinion on the part of the Society." On June 11th, 1894, the General Medical Council again passed a rule, and sent a copy of it to the Obstetrical Society; and on July 26th, 1894, the Society replied to the General Medical Council to the effect that their diploma "had been subjected to legal criticism on this point." On January 14th, 1895, the Society asked the General Medical Council "to point out in what respect the certificate of the Obstetrical Society of examination in midwifery is a colourable imitation of diplomas conferring a legal right to admission to the *Register*, and contravenes the spirit of the Medical Acts, and is calculated to deceive the public." On February 25th, 1895, the Executive Committee of the General Medical Council, after considering communications from the Obstetrical Society, passed the following:

That the Executive Committee are of opinion that the words in the diploma, "a skilled midwife competent to attend natural labour," are open to legal objection, seeing that under the Medical Act, 1884, midwifery is one of the three branches in which a regular practitioner must pass an examination in order to obtain a registrable qualification.

The above cited words suggest that the holder has a registrable qualification. This both contravenes the spirit of the Medical Act of 1886, and is calculated to deceive the public.

Again, the formal character of the document, which is described on its face as a diploma, is fitted to deceive the more ignorant part of the public, that part which most needs protection.

That the Executive Committee request the President and Council of the Obstetrical Society of London to inform the General Medical Council within one month what steps they have taken to bring their certificate within the terms of the resolution of the Council.

As regards the certificate issued by the City of London Lying-in Hospital, the Executive Committee of the General Medical Council passed the following:

That as this Council has been instituted to regulate the education of practitioners in medicine, surgery, and midwifery, as well as to enable the public to distinguish between qualified and unqualified practitioners, the Executive Committee cannot approve of any document professing to qualify persons for any practice in medicine, surgery, or midwifery issued by any body or institution which is not a medical authority under the Medical Acts.

The Executive Committee further declare that medical practitioners who sign such documents will be liable to the censure of the Council in accordance with the following resolution passed by the Council on May 22nd, 1894.

It will be recollected that the General Medical Council has stated that it will consider the issuing of such diplomas to be "infamous conduct in a professional respect."

Now, taking the above important facts into consideration, I wish to ask, Do all the "Fellows" of the Obstetrical Society approve of the Council of the Society defying the General Medical Council? Is it right to take up the time of Council when it has so much work to do? Do they think it right that societies and bodies, other than the medical authorities under the Medical Act, should take up this examination and granting of documents which profess to entitle the holder to practise any branch of midwifery, or medicine, or surgery? Surely not, else the Medical Act will be repealed. Again, is the Council of the Obstetrical Society acting in the name and with the full sanction of its Fellows? There are some 700 Fellows, and it will not be pleasant if they are all found guilty of "infamous conduct." The above quoted words—"on the part of the Society"—show that their Council speaks in their name. Dr. Herman, in the BRITISH MEDICAL JOURNAL of January 12th, is reported to have said that the action of the Medical Council "might be regarded as a general threat only, which he did not think they would dare to enforce." Dr. Playfair, in the JOURNAL of January 26th, terms the resolutions of the Medical Council as "insulting," while Sir J. Williams, in the JOURNAL of January 19th, thinks that the Medical Council "cannot be fully aware of the full significance of its resolution."

I would again ask—Do these three Fellows of the Obstetrical Society reflect the full and open opinion of the 700 Fellows? Do the 700 Fellows agree to the principle that any body of medical practitioners grouping themselves into a society have a right to establish a system of examining and granting documents to persons who cannot pass the usual medical examining bodies and which profess to entitle the holder to practise either midwifery or medicine or surgery?—I am, etc.,

Liverpool, March 9th. ROBERT R. RENTOUL.

OBITUARY.

CHARLES H. ROBINSON, F.R.C.S.I.

WE regret to have to announce the death of Mr C. H. Robinson at his residence in Kingstown, co. Dublin, on March 1st, after two days' illness. Mr. Charles Robinson, who was born in Dublin on January 19th, 1839, was the son of Mr. William S. Robinson, late Comptroller of Her Majesty's Stationery Department, Ireland. He received his professional education in the College and Ledwich Schools and the Adelaide Hospital. He obtained his first qualification before he attained his twentieth year, and soon afterwards went to Egypt. Subsequently he was appointed surgeon in the P. and O. Company's service. He became a Fellow of the Royal College of Surgeons of Ireland in 1873, and Member of the Royal College of Physicians shortly after that diploma was instituted. He had become a Licentiate in 1862. From 1872 to 1881 he lectured on anatomy at the Ledwich School, and at a later date on botany and zoology. In 1886 he was appointed Examiner in anatomy, physiology, materia medica, botany, and pharmacology in the Royal College of Surgeons in Ireland. He was Consulting Surgeon to the Carogh Orphanage, and Surgeon to the Ladies' Home. He contributed papers on clinical subjects to the *Dublin Journal of Medical Science*, to our own columns, and to other medical

periodicals. Mr. Robinson was a Mason of high rank, and few men were better known in the profession in Dublin. His kindness of disposition, professional courtesy, and the painstaking manner in which he devoted himself to the practical duties of his profession endeared him to a wide circle.

SAMUEL HOPPUS ADAMS, M.D.Lond.

We regret to have to announce the death of Dr. S. H. Adams, of Bedford, on March 1st. Samuel Hoppus Adams was educated at Bedford Modern School, and matriculated at the University of London, obtaining high honours in botany. Subsequently he proceeded to University College, London, where he had a distinguished career. He graduated M.B. in 1859. He proceeded to the degree of M.D. in 1861. Shortly after taking his degree he was appointed as surgeon in the P. and O. Co.'s service, and while acting in that capacity suffered an attack of sunstroke in the Red Sea; to this may, in part at least, be attributed the impaired health from which he suffered in after years. He settled in Bedford, where he practised at first in partnership, and afterwards independently. His position as surgeon to the Bedford Provident Dispensary brought him into contact with a large number of the humbler classes, by whom he was greatly beloved. They showed their appreciation of his services in the large number who followed his remains to the grave. He was buried according to the rites of the Moravian Church, of which he was a member. He leaves a widow and three children.

Dr. Adams was greatly esteemed by his patients as well as by his medical brethren. His unobtrusive and kindly manners, combined with a wide knowledge of many departments of science, procured him many sincere friends. He retained his love of botany throughout life, and we believe that among those who owed their early botanical training to Dr. Adams are to be numbered Professor Hill Owen, of Birmingham, and Professor Green, of the Pharmaceutical Society.

MARSHALL HALL HIGGINBOTTOM, M.R.C.S.Eng., L.S.A. Mr. Marshall Hall Higginbottom died on February 24th, at his residence in Nottingham. He had suffered from an attack of pneumonia about Christmas time, from which he recovered, but a second attack led to a fatal result. Mr. Higginbottom, who was born in 1822, was the son of Mr. John Higginbottom, F.R.S., who married a daughter of Mr. Robert Hall. The deceased studied at Guy's and St. Thomas's Hospitals, and obtained the diploma of M.R.C.S.Eng. in 1844, and that of L.S.A.Lond. in 1845. After qualifying he travelled abroad on several occasions with patients of his uncle, the well-known Dr. Marshall Hall. He married a daughter of one of Dr. Marshall Hall's brothers, Mr. John Hall, surgeon, of Sheffield. Mr. Higginbottom eventually entered into partnership with his father in Nottingham, and on the dissolution of this partnership settled in Shakespere Street, Nottingham, where he practised for thirty-eight years, retiring from practice about ten years ago. While engaged in practice he achieved considerable success, and was highly esteemed by his patients.

We have to record the death, at the age of 82, of Dr. James George Davey, on February 20th. He began the practice of medicine at Portsmouth in 1835, but in 1840 he was appointed one of the medical officers at Hanwell Lunatic Asylum, an office which he retained until 1844, when he was appointed to arrange and superintend an asylum to be built at Colombo, Ceylon, for natives. This post he retained for six years, when the Government resolved to place the institution in charge of an army medical officer. Shortly after his return to England he was appointed one of the medical officers to the then new Colney Hatch Asylum. In 1853 he became proprietor of the Northwoods Asylum, near Bristol, which had formerly belonged to Dr. Henry Fox. Here he remained until, in 1872, he went to reside at Redland, Bristol, and practised as a physician, especially in lunacy cases. In 1886, on the death of his wife he retired altogether from practice. Dr. Davy was a frequent attendant and a fluent and pleasant speaker at the meetings of the Bath and Bristol Branch of the British Medical Association, of which he was President in 1859. In 1882-3 he was President of the Bristol Medico-Chirurgica Society. He was a practitioner somewhat of the olden type, and believed in the efficacy of old-fashioned drugs, if given in sufficient doses. He also held somewhat old-fashioned views with regard to the physiology of the central nervous system, but was highly esteemed by his professional brethren, especially for his social qualities. He was a voluminous writer on medical, ethical, and political subjects, and published a treatise on the physiology and pathology of the ganglionic nervous system in an octavo volume. By his special desire his body was cremated at Woking.

The death is reported of Mr. C. F. Sutton, jun., of Hyde, Cheshire, at the early age of 26 years. The deceased held the diplomas of M.R.C.S.Eng. and L.R.C.P.Lond. He studied at Owens College, Manchester, and was for some time House-Surgeon at the Manchester Infirmary. Afterwards he was appointed Medical Officer to the Cheadle Convalescent Hospital. On leaving there he went to Africa, officiating as medical officer to an expedition organised by Lord Delamere. He remained in Africa about a year, and then went to Hyde, where he joined Dr. Tinker in his practice. The deceased was the son of Dr. Sutton, of Holmes Chapel.

Georges Octave Dujardin-Beaumetz, the well-known Paris physician, whose death was recently announced in the British Medical Journal, was born at Barcelona of French parents in 1833. He studied medicine in Paris, where he graduated in 1862, after carrying off the much-coveted prize of the *internat*. In 1865 he was appointed *Chef de Clinique* of the Faculty, and in 1870 physician to the Paris hospitals. He was attached first to the Hôpital Saint Antoine, and afterwards to the Hôpital Cochin, where he remained till his death. In 1880 he was admitted a Member of the Academy of Medicine. Though not a Professor, Dr. Dujardin-Beaumetz was very popular as a teacher, and he contributed a large quantity of valuable work—mainly in the domain of therapeutics—to medical literature. He took a large part in the preparation of the *Grand Dictionnaire de Thérapeutique* (1883-1885), and he was the author of *Recherches sur l'Alcoölisme Chronique* (1884); *Les Nouvelles Médications* (1885); *L'Hygiène Thérapeutique* (1888); *L'Hygiène Prophylactique* (1889). He also published a *Formulaire* in collaboration with M. Yvon and he was editor of the *Bulletin de Thérapeutique*. M. Dujardin-Beaumetz was also prominent in questions relating to public health, and took a leading part in the deliberations of the Sanitary Council of the Seine Department. He was a man of frank and amiable character and greatly liked as well as respected by his professional brethren. His unaffected kindness made him beloved by his patients, and many a pupil owed his start in life to the generous help of Dujardin-Beaumetz.

Deaths in the Profession Abroad.—Among the members of the medical profession abroad who have recently passed away are Dr. Marjolin, Surgeon to the Paris hospitals, and one of the few surviving original members of the Société de Chirurgie, aged 83; Dr. Weichselbaum, of Fürth, the oldest practitioner of Bavaria, in his 94th year; Dr. B. F. Fessenden, of Brooklyn, who held the rank of Surgeon-General in the Confederate army, and was Medical Director of the State of North Carolina throughout the Civil War, aged 76; Dr. John E. White, of Toronto, one of the founders and for many years Secretary of the Ontario Medical Association, aged 47; Dr. F. W. Ostrander, the oldest practitioner of Brooklyn, New York, in his 91st year; Dr. F. W. Lorinser, of Vienna, formerly Director of the Wieden Hospital, and an orthopædic surgeon of considerable reputation, aged 78; Dr. Andreas Beketoff, for thirty-four years Professor of Surgery in the University of Kasan; Dr. Ludwig Gueterbock, a prominent member of the profession in Berlin, aged 80; Dr. Jakob Schulz, formerly Chief Medical Officer of the Post and Telegraph Department of Russia; Dr. Middeldorpf, Director of the Communal Hospital of Hanau; and Dr. D. F. Ljambl, some time Professor of Therapeutics in the University of Warsaw, aged 70.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

FLEET-SURGEON C. L. VASEY has been placed on the retired list of his rank from March 4th at his own request. He was appointed Surgeon September 30th, 1873; Staff-Surgeon September 30th, 1885; and Fleet-Surgeon, December 18th, 1894.

Surgeon EDWARD ALAN ROGERS died at the Royal Naval Hospital, Stonehouse, on March 4th. He joined the Royal Navy as Surgeon November 14th, 1883.

The following appointments have been made at the Admiralty: JAMES O'B. WILLIAMS, Staff-Surgeon to the *Terror*, March 8th; ALEXANDER M. FRENCH, Staff-Surgeon to the *Tourmaline*, March 8th; JOHN B. B. TRIGGS, Staff-Surgeon to the *Boscawen*, March 8th; GEORGE D. TWIGG, Staff-Surgeon to the *Canada*, March 8th; GEORGE F. WALES, Staff-Surgeon to the *Thunderer*, March 8th; GERALD T. S. SICHEL, Surgeon to Haslar Hospital, March 8th; ARTHUR H. H. VIZARD, Surgeon to the *Excellent*, additional, March 8th; OCTAVIUS S. FISHER, Surgeon to Jamaica Hospital, March 8th; CHRISTOPHER L. W. BUNTON, Surgeon to the *Humber*, March 8th; HENRY B. BEATTY, Surgeon to the *Impregnable*, March 8th; EDWARD T. P. EAMES, Surgeon to the *Wildfire*, March 9th; BERNARD LEY, Surgeon to the *Victory*, March 9th; TIMOTHY J. CROWLEY, M.D., Staff-Surgeon to the *Barham*, February 26th; THOMAS T. JEANS, Surgeon to the *Raven*, March 7th; WALTER H. S. STALKARTT, Surgeon to the *Edinburgh*, April 1st; WILLIAM B. MACLEOD, Surgeon to the *Sealark*, March 14th; WILLIAM G. PECK, Surgeon to the *Pilot*, March 14th; HARRY SPICER, Surgeon to the *Martin*, March 14th; HAROLD P. JONES, Surgeon to the *Seafloxer*, March 14th; FREDERICK F. MANN, Surgeon to the *Liberty*, March 14th; ALEXANDER G. W. BOWEN, Surgeon to the *Partridge*, March 14th; JOHN DOWSON, Surgeon to the *Duke of Wellington*, April 1st; ROBERT S. BERNARD, Surgeon to the *Bonaventure*, March 9th; JOSEPH C. WOOD, Surgeon to the *Minotaur*, March 9th; SHIRLEY H. BIRT, Surgeon to the *Lion*, March 11th; JOHN GRANT, M.B., Surgeon to the *Mosquito*, March 11th.

ARMY MEDICAL STAFF.

LORD SANDHURST, the newly-appointed Governor of Bombay, has selected Surgeon-Major HENRY MARTIN, M.B., to be his Medical Officer. It will be remembered that Surgeon-Major Martin has occupied the same position under the late Governor, Lord Harris, since April, 1890.

It is officially announced that the tenure of the appointment of Surgeon-Major-General A. F. BRADSHAW, C.B. as Principal Medical Officer to H.M.'s forces in India has been extended to March 9th, and that his successor, Surgeon-Lieutenant-Colonel A. A. Gore, M.D., has been directed to proceed to Simla to take up the appointment.

Surgeon-Captain ALFRED WRIGHT is seconded for service with the Cape of Good Hope Colonial Medical Service, February 23rd.

INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL F. A. SMYTH, Bengal Establishment, who entered the service as Assistant-Surgeon, October 1st, 1869, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from January 12th.

The Government of India have fixed the salaries of the commands and staffs of the army in India with effect from April 1st next. The salary of the Principal Medical Officer in India is fixed at Rs. 2,000 a month, the present occupant, however, receiving Rs. 2,500 during his tenure of office. The personal assistant to the Principal Medical Officer, if a Surgeon-Captain of the Indian Medical Service, is to receive Rs. 600 a month.

ARMY MEDICAL RESERVE.

THE promotion to be Surgeon-Major of Surgeon-Captain S. B. MASON is dated November 1st, 1884, and not, as stated in the *Gazette* of December 28th last.

Surgeon-Captain J. W. HODGSON, M.B., 1st Devonshire Volunteer Artillery (Western Division Royal Artillery), to be Surgeon-Captain, March 13th.

Surgeon-Lieutenant P. M. YEARSLEY, 16th Middlesex Volunteer Rifle Corps, to be Surgeon-Lieutenant, March 13th.

THE VOLUNTEERS.

M. JOHN PIRIE, M.B., is appointed Surgeon-Lieutenant to the Queen's Rifle Volunteer Brigade, the Royal Scots, March 13th.

Surgeon-Captain C. TEMPLEMAN, M.B., 1st (City of Dundee) Volunteer Battalion the Black Watch (Royal Highlanders), has resigned his commission, March 13th.

Surgeon-Major C. E. ABBOTT, 2nd Volunteer Battalion the Essex Regiment, has resigned his commission, with permission to retain his rank and uniform, March 13th.

THE ARMY ESTIMATES.

IN the memorandum of the Secretary of State relating to the Army Estimates 1895-6, the expenses set down for medical establishments, pay, etc., is £292,000, an increase of £2,000 over the estimate for 1894-5. It is stated that of the increased expenditure upon new buildings, the whole of that for barracks (£58,000) is for hospital and urgent sanitary services, and that half of the increase (£21,000) for store buildings is taken to further the scheme of the Corporation of Dublin for improving the sanitary condition of that city.

THE PRINCIPAL MEDICAL OFFICER IN INDIA.

VARIOUS rumours were in circulation in India as to appointment of Principal Medical Officer in India. One of these named as Surgeon-Major General Bradshaw's successor Surgeon-Colonel Harvey, but this officer will, we believe, be appointed Principal Medical Officer of the Punjab Army Corps. However this may be, we are in a position to state on good authority that it is in contemplation to make an absolute rule that the Principal Medical Officer of India shall be invariably an officer of the Army Medical Staff.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ALLEGED COVERING.

COUNTRY G. P. writes: In the colliery town in which I live there resides an unqualified practitioner who has already been fined on at least one occasion (I think more than one) for unqualified practice. He keeps a shop, which he describes as "—— and Co.'s Drug Stores," and on the door appears a brass plate bearing a legend of "——, L.M., Accoucheur." This man does a considerable amount of cheap practice, and conducts a good many labours.

Last week a message was left at my house in my absence asking me to attend a woman in labour. My qualified assistant responded to the summons, and on arriving at the patient's house he was told that "two doctors" were already upstairs with the patient, and the patient's husband invited him to go up to the bedroom also. On inquiry he found that the "two doctors" alluded to were the above-mentioned unqualified man and a local qualified practitioner. My assistant, of course, refused to have anything to do with the case, and left the house. I arrived there a little later, and was told that "the doctors" had completed the labour and had both left. I ascertained that they had both remained till the completion of the case, and that one of them had administered an anæsthetic whilst the other performed the necessary manipulations.

The practitioner in question excuses himself by saying that the unqualified man was present as "a midwife." It would be interesting to know whether any of these so-called qualifications in midwifery carry with them the right to administer anæsthetics. I would point out that "the midwife" was spoken of by the patient's friends as "a doctor," and was evidently regarded as such by them. I have discovered further that when the unqualified man found he would require assistance in the case he sent a note to the qualified man asking him for help, and it was only owing to the latter being out of his house when the note arrived that I was called to the case at all. Does not the above conduct amount to "covering," and would the General Medical Council be likely to take up the case if the facts were forwarded to them?

**** If our correspondent has evidence that the proceeding he describes is habitual, the case appears *primâ facie* to be one of "covering," and should be communicated to the General Medical Council. An isolated act, which might be attributed to emergency, would probably not be deemed sufficient proof of the offence.

A QUESTION OF FEE.

MUSSELS.—If our correspondent will refer to the *Medico-Chirurgical Tariffs* (London: H. K. Lewis. 2s.), under the headings of Night Visit, Night Charge of, and Sitting Up with Patients, Detention, Subcutaneous Injection, etc., he should experience no difficulty in arriving at a just conclusion as to what his fees should be. If he fails in so doing, and will forward to us a detailed account of his proposed charges (to be subsequently totalled for transmission to the patient), we will endeavour to assist him. Possibly, however, under the exceptional circumstances of the brief attendance, the patient would be better satisfied, and more willing to pay, if an itemed statement were sent in.

TOWN COUNCILLORS AND NOTIFICATION FEES.

X.Y.Z. asks: Is a medical man on a Town Council allowed to accept the usual fees for notifying infectious diseases, or is he liable to the £50 fine for so doing?

**** Section 11 of the Infectious Disease Notification Act, 1890, provides that a payment made to a medical practitioner in pursuance of that Act shall not disqualify him from serving as a member of the Council of any county or borough. There seems, therefore, to be no risk of incurring a penalty for taking the fees.

AN ALLEGED MISCARRIAGE OF JUSTICE.

IT is open to anyone who considers that there has been a miscarriage of justice to communicate with the Home Office asking for a fresh inquiry, or to prefer an indictment against any person whom he wishes to charge with felony before the Grand Jury at the assizes, or to institute proceedings for perjury against any witness who gave evidence before either the coroner or the magistrate. On the cases, however, as reported, the decisions of the two Courts cannot be said to be wrong. The evidence was such as to rouse strong suspicion, but was not conclusive. The section quoted from the Draft Code is not law at present, and if it were a jury might refuse to convict on such evidence as the reports sent disclose.

UNQUALIFIED ASSISTANTS.

OMEGA.—We may refer our correspondent to the resolutions adopted on February 27th, 1888, by the General Medical Council, which were reprinted in the JOURNAL on December 22nd, 1894, page 1361. The Council hold that a registered medical practitioner renders himself liable to the censure of the Council if he employ an unqualified assistant, "either in complete substitution for his own services, or under circumstances in which due personal supervision and control are not, or cannot be, exercised by the said registered practitioner." We believe that if a communication were addressed to the President of the Council, 299, Oxford Street, he would cause an inquiry to be made in any case in which there was *primâ facie* evidence of failure to comply with the regulations of the Council.

NOTIFICATION OF SUCCESSION.

SUCCESSOR.—No legitimate ethical objection can, in our opinion, be urged against the transmission of an autograph note, or lithographed *facsimile* thereof, by the legal representatives of the deceased practi-

tioner to the *bond fide* patients whose names appear in the books for the last three years, such being the period on which the value of practices for disposal is generally based. Printed circulars are held objectionable, inasmuch as such are the usual medium of trade in contradistinction to professional announcements.

DEVON.—If our correspondent thinks the subject matter of his letter relative to another practitioner worth notice (which we do not), it might be well to call on the editor of the newspaper referred to, or by courteous note to ascertain, if possible, the source of inspiration of the paragraph in question, and acquaint us with the result. We may add that the discerning public can hardly be misled as to the real object of the ungrammatical self-advertising note of the practitioner alluded to.

CHARGE OF MANSLAUGHTER AGAINST A MIDWIFE.

AT the conclusion of the hearing at the case against Mrs. Rake—a midwife charged with the manslaughter of a woman by communicating to her puerperal fever—the accused was committed for trial.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

Medical Division of the War Office.—MR. HANBURY asked the Financial Secretary to the War Office whether he was now in a position to state the result of the inquiries promised during the debate on the medical vote last year, into the distribution of the duties in the medical division of the War Office.—Mr. WOODALL, in reply, said that the Secretary of State made full inquiry into the distribution of work in the medical division of the War Office, and satisfied himself that the professional officers and the civilians were appropriately employed on professional and clerical work respectively. Medical officers, who were necessarily changed frequently, could not properly discharge the duties which devolved upon the principal civilian clerk.

Rabies.—Mr. H. GARDNER, in reply to Major RASCH, said that the number of cases of rabies in dogs was—in 1889, 312; in 1890, 125; in 1891, 79; in 1892, 32; in 1893, 93; and in 1894, 248. The large increase in 1894, as compared with 1893, was in the West Riding of Yorkshire. He was in communication with the authorities as to the best measures to be taken to bring about an improvement.

Bovine Tuberculosis Commission.—In reply to Mr. HAYDEN (for Mr. FIELD), Sir J. HIBBERT said that the total cost of the Tuberculosis Commission might be put approximately at £7,500. That included a sum of £4,672 for special scientific investigations (covering experiments and professional services), and an estimated expenditure of £660 on printing. He understood that the proceedings of the Commission would not extend beyond the present financial year.

Injurious Trades.—Mr. KNOX asked the Home Secretary what processes or descriptions of manual labour had been certified by him, in pursuance of Section 8 of the Factories Acts, 1891, to be dangerous or injurious to health or dangerous to life and limb; and whether it was intended by Clause 26 of the Factories and Workshops Bill to empower the Secretary of State to prohibit the employment of women or children or young persons in any of these occupations.—Mr. ASQUITH said in reply that the processes dealt with had been the manufacture of white, red, and orange lead, and lead smelting, tinning, and enamelling works, the manufacture of colours, lucifer match factories, the making of earthenware, certain processes in the manufacture of explosives, chemical works, electric accumulator works, flax mills and linen factories, brass mixing and casting, and quarries. The clause in question was directed to the case of trades where, from the nature of the industry itself, whatever precautions may be taken to ensure the safety of those concerned, particular processes could not be carried on by particular classes of workers from reasons of age or sex without running exceptional risks to life or health. In the white lead industry, for instance, as the report of the Departmental Committee showed, young persons ought not to be employed at all, and there were certain processes in which no women, and others in which no woman under a certain age, could safely engage. At present the Secretary of State was powerless to deal with such cases.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,625 births and 7,117 deaths were registered during the week ending Saturday, March 9th. The annual rate of mortality in these towns, which had increased from 18.7 to 32.9 per 1,000 in the six preceding weeks, further rose to 35.0 last week. The rates in the several towns ranged from 16.1 in Derby, 19.2 in Blackburn, and 19.6 in Leicester to 42.8 in Halifax, 45.2 in Liverpool, and 48.0 in Plymouth. In the thirty-two provincial towns the mean death-rate was 30.7 per 1,000, and was 10.5 below the rate recorded in London, which was as high as 41.2 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.7, while it averaged 1.8 per 1,000 in the thirty-two provincial towns, and was highest in Salford, Bolton, and Newcastle-upon-Tyne. Measles caused a death-rate of 1.7 in Sheffield, 1.8 in Plymouth, 2.0 in Newcastle upon-Tyne, and 2.2 in Bolton; and whooping-cough of 1.0 in Norwich, and 1.1 in Oldham and in Halifax. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 62 deaths from diphtheria in the thirty-three towns included 34 in London, 6 in Liverpool, 4 in Birkenhead, 3 in Birmingham, and 3 in Salford. A fatal case of small-pox was registered in Derby, but not one in London or in any other of the large towns. There were 54 cases of small-pox under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 9th, against 67, 75, and 68 at the end of the three preceding weeks; 8 new cases were admitted during the week, against 18, 19, and 8 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,657, 1,658, and 1,621 at the end of the three preceding weeks, was 1,619 on Saturday last, March 9th; 141 new cases were admitted during the week against 159, 152, and 143 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 9th, 961 births and 1,180 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 23.9 to 42.8 per 1,000 in the five preceding weeks, declined to 40.9 last week, but exceeded by 5.9 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 28.5 in Greenock to 44.5 in Edinburgh. The zymotic death rates in these towns averaged 5.0 per 1,000, the highest rates being recorded in Edinburgh and Aberdeen. The 588 deaths registered in Glasgow included 31 from whooping-cough, 11 from measles, 4 from scarlet fever, and 1 from small-pox. Thirty fatal cases of measles, 3 of diphtheria, and 2 of small-pox were recorded in Edinburgh, and 20 of measles in Aberdeen.

WORKHOUSE INSPECTORS.

A WORKHOUSE MEDICAL OFFICER OF MANY YEARS' STANDING asks

1. By whom are the inspectors of the workhouses appointed?
2. Are they purely political pieces of patronage?
3. Are they appointed by merit as tested by examination?
4. Are they chosen on account of knowledge, skill, and experience acquired in the Poor-law work?
5. Are they required to have any knowledge of medical matters or sanitary skill or to have had any previous acquaintance with Poor-law matters as it affects Poor-law medical officers and other officers in the same service?
6. May I ask the antecedents of Mr. P. Thomas, recently appointed to the Eastern counties?

*** 1. By the Local Government Board.

2. Perhaps some correspondent can answer this.

3. The President of the Local Government Board stated lately in the House of Commons that no examination or special test was required before being appointed.

4. They are usually raised from being assistant inspectors to inspectors.

5. They acquire their knowledge as assistants. The President of the Local Government Board stated in the House of Commons that special knowledge in medical and sanitary matters was not considered by him to be essential!

6. They are unknown to us.

DUTIES OF MEDICAL OFFICERS OF HEALTH UNDER THE NOTIFICATION ACT.

IN reply to G.G.S. and to several other correspondents who have again raised the question of the duties of medical officers of health under the Notification Act, we think we cannot do better than publish the letter which, with the omission of names, was printed in the BRITISH MEDICAL JOURNAL of February 14th, 1891, p. 386. It shows sufficiently the view which the Local Government Board takes of the duties of medical officers of health in regard to the patients of other practitioners under the Notification Act:

"Local Government Board, Whitehall, S.W.,
February 8th, 1891.

"Sir,—I am directed by the Local Government Board to advert to your letter of the 27th ultimo respecting your duties . . . . in connection with certificates received by you under the Infectious Diseases (Notification) Act, 1889, and with regard to your inquiry on the subject I am to state that the Act does not impose fresh duties on a medical officer of health but merely increases the sources of information upon which he acts in the discharge of his existing duty in relation to infectious diseases. Neither the Act itself nor any order of the Board imposes on a medical officer of health any obligation to visit each case notified to him for the purpose of testing by personal examination of the patient the accuracy of the certificate, and it appears to the Board that it would usually be inexpedient that he should undertake such a personal diagnosis unless he has reason to believe that the certifying medical practitioner is not acting in good faith.—I am, Sir,

"Your obedient servant,
"ALFRED D. ADRIAN,
"Assistant Secretary."

MILK SCARLATINA.

DR. EDWARD GAYLOR (M.O.H., Belper Rural District Council) writes: In an annotation in the BRITISH MEDICAL JOURNAL of March 9th, under the above heading, you mention the "Belper Rural District" as the neighbourhood from which the infected milk had been sent from to Hornsey. The village of Hatton is not near the Belper District by many miles. I fancy it is in the Repton or Burton-on-Trent District. I may now say that in my Belper Rural District there is at present no case of scarlatina where any milk is sent to London or the district.

FEE FOR CERTIFICATION OF DANGEROUS LUNATIC.

INQUIRER writes: I was called to attend a farmer five miles off who had been stabbed by his daughter. I informed the relieving officer that I considered the latter insane, and next day was requested to meet him at the house of the patient and then to accompany him to see a magistrate four miles further on and eight miles from my home in order to certify to it sanity. The guardians will only pay me one guinea for the duty, which included travelling sixteen miles. Can I demand more?

*** Any further fee can only be procured by order of the magistrate, who has the power to order the guardians to pay any reasonable fee. We consider two guineas might fairly be claimed for this case, and this amount, if paid by the guardians, could be recovered by them from the patient or perhaps from her friends, if they are in a position to pay it.

POST-MORTEMS IN WORKHOUSES.

C.E.S.F. writes to the effect that the master of a provincial workhouse declined to allow him or his assistant to make a *post-mortem* examination on the body of a woman who died in the workhouse, but who had been a patient of "C.E.S.F." before her admission there. He states that he is not officially connected with the workhouse, but was authorised in writing by the medical officer of the house and by the friends of the patient to make a *post-mortem* examination of the body. He asks, Was the workhouse master justified even by rule in doing as he did?

*** This is not a very easy question to answer, as the law in reference to the making of *post-mortem* examinations is somewhat doubtful, but we are not surprised at the workhouse master declining to permit a non-official to make a *post-mortem* examination on the body of an inmate. He might have been censured by the guardians if he had allowed the necropsy to be made.

PERRANZABULOE AND ST. AGNES.

IN cases where a medical officer under the Poor Law has charge of a large area, difficulties are apt to arise when a new doctor settles in an outlying portion of his district. It perhaps is not unnatural that the newcomer should wish for the appointment, nor can we wonder that the residents wish for the services of a doctor at their doors. This seems to have been the condition of affairs at Perranzabuloe, which is in the district of Dr. Whitworth of St. Agnes; and at the Truro District Council on February 27th a memorial was presented praying that a petition might be forwarded to the Local Government Board with a view to the division of the district and the appointment of an additional medical officer.

In support of this various statements were made reflecting upon Mr. Whitworth; they appear, however, to have been satisfactorily answered, and a resolution was passed to that effect. It was also resolved that there was no necessity for an alteration of the district. Dr. Whitworth, however, undertook to appoint Mr. Postlethwaite, the newcomer, to be his deputy.

SANITATION IN SOUTH LONDON.

REFERENCE was made in the BRITISH MEDICAL JOURNAL of February 23rd to the manner in which certain reports of the medical officer of health of the district were received by the Vestry of St. George's Southwark. At the meeting on February 26th a special report by Dr. Waldo dealing with the points raised by his critics was referred back to the Public Health Committee. At the same meeting the Vestry was recommended by its medical officer to pass the necessary resolution under Part II of the Housing of the Working Classes Act with respect to a number of dwelling houses, and was urged to again ask the London County Council to take action with regard to the Falcon Court area under Part I of the same Act. Dr. Waldo also alluded to the need for the erection of a proper incinerator for the destruction of infected articles. The Vestry does not seem to be easily moved to do its duty.

HYGIENE IN THE SCHOOLROOM.

UNDER this title Dr. Edward Magennis has published (Bristol: J. Wright and Co.) a paper read at a recent sanitary congress. It is devoted to the discussion of details in the construction, ventilation, lighting, and heating of schoolrooms, regarding each of which hints are given. It is rather a matter for surprise that, under the heading of ventilation, no reference is made to the use of fans as a means for ensuring the extraction of foul air.

THE PREVENTION OF EPIDEMIC INFLUENZA.

THE "Memorandum on Epidemic Influenza" issued last week by the Local Government Board demonstrates the great difficulties which have to be overcome in preventing the disease. The difficulties are mainly (1) extremely short incubation period of influenza; (2) intense infectivity; and (3) the early onset of its infectious quality. The last mentioned is, indeed, the most important; influenza is infectious often "before the disease is fully recognised." Moreover the malady is met with in such varied forms that it is at times never diagnosed, and hence propagates itself under the guise of other and milder forms of indisposition. Another and very important factor in the spread of influenza is the readiness with which people run into danger of contracting it. The official memorandum speaks of the avoidance of unnecessary assemblages of persons during times like the present. Will this piece of advice be taken by the public to whom it is addressed? At least those in a position to do so may well adopt the measures of disinfection (especially of patients' sputa), of cleansing, and of aeration of living and public rooms which are recommended in the memorandum.

A VACCINATION SUMMONS DISMISSED.

AT the Brentford Petty Sessions, on Monday last, an adjourned case of non-compliance with the law was heard. The defence was threefold—that the parents were suffering from eczema, that the child was suffering from eczema, and that the vaccinating officers failed to obey the orders of the Local Government Board in not examining the children brought to him with sufficient care. As regards the eczema, the evidence of two medical men was opposed by certificate, promptly declined by the magistrates. At the adjourned hearing it was stated that one of the medical witnesses for the eczema had "gone abroad that day," but the other one was in court, and gave evidence of unfitness for vaccination. Then the grandmother of the child gave evidence of the unfitness of the father of the child for vaccination till he had entered the Postal service at the age of 19, when, presumably, he had been found to be fit for vaccination. She also gave evidence of the evil effects of vaccination on an uncle of the child at the age of 19 years. Finally, a person who was stated to be a nurse gave evidence of the non-examination, or very superficial examination, of children whom she had taken to be vaccinated. After all this evidence, perhaps, we ought not to be surprised that the magistrates dismissed the summons, without costs.

TUBERCULOUS MEAT.

A PENALTY of £20 and costs was imposed on a man at Oldham recently for depositing for sale, or for preparation for sale, a portion of a carcass which was affected with tuberculosis.

VACCINATION AND THE ROYAL COMMISSION.

THE protracted delay on the part of the Royal Vaccination Commission in at least announcing their final decision is giving rise to the idea amongst the public that there is some doubt about the utility of vaccination; and every now and then we hear of some Board of Guardians deciding to insist no further on compulsory vaccination until after the final report of the Commission. The Stoke Newington Board of Guardians furnish the latest example of this. According to the report in the *Times* they have rescinded previous resolutions authorising their officers to prosecute persons for not having their children vaccinated, and have resolved to take no further proceedings "until after the report of the Royal Commission." The antivaccinators are taking advantage of the inaction of the Royal Commission, and the ordinary guardian, who is not prepared to argue the point, timidly gives way when he is led to suppose that that Commission cannot make up its mind.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

PATHOLOGY.—Dr. W. S. Lazarus-Barlow, of Downing College, has been appointed Demonstrator of Pathology, in the place of Dr. J. Lorrain Smith, who has been appointed Lecturer in Pathology at Queen's College, Belfast.

DIPLOMA IN PUBLIC HEALTH.—The first part of the examination in Sanitary Science for this diploma will begin on April 2nd, and the second part on April 4th.

DEGREES.—At the Congregation on March 7th the following medical degrees were conferred:—*M.B.* and *B.C.*: G. P. Mathew, B.A., Trinity Hall, and L. Moysey, B.A., Caius.

UNIVERSITY OF EDINBURGH.

MR. CHARLES W. CATHCART has been appointed Extra Examiner in Clinical Medicine in the University of Edinburgh.

MEDICAL NEWS.

THE annual dinner of the Evelina Hospital for Sick Children, Southwark, will be held at the Hôtel Métropole (Whitehall Rooms) on Wednesday, March 20th, at 7.30 P.M.; the Right Hon. the Earl of Rosebery in the chair.

M. CAHEN, a diamond merchant, recently deceased, has bequeathed 1,100,000 francs (£44,000) to the city of Paris for the creation in the suburbs of the French capital of an asylum for sick children under the age of 14. The institution is to contain 100 beds, and admission is to be in the hands of the Prefect of the Seine on the advice of a special committee.

THE DENTAL HOSPITAL OF LONDON.—The annual report of this institution presented at the meeting on March 13th expresses regret that the larger portion of the donations still emanate from members of the dental profession, and not from the public. The number of cases treated during 1894 was 39,240. Towards the fund for a new hospital a sum of over £11,000 has been received.

MEDICAL AID FOR CYCLISTS.—The Committee of Management of the Union Vélocipédique de France has decided to appoint a Committee of Medical Assistance. This Committee includes the names of Dr. Ramonat as President and Dr. Minart as Vice-President, with seven other members. The object of the appointment of this Committee is to minimise the evil consequences of accidents occurring to cyclists, and to study questions belonging to the domain of

medicine which may interest the Union Vélocipédique and its members. It is intended to establish medical stations fixed and movable, for the treatment of accidents to cyclists.

Proposed Association of Qualified Assistants.—On March 11th, at the Examination Hall, Victoria Embankment, a meeting to promote the formation of the proposed Association of qualified assistants, junior medical officers, and *locum tenens*, was held under the presidency of Dr. F. J. Glover. Dr. T. H. Brocklehurst read a number of letters which he had received from assistants in various parts of the country, heartily sympathising with the movement, and promising aid. The Chairman, in addressing the gathering, said he thought the proposal was a good one. The qualified assistants of the country were a numerous and important body. He estimated that they numbered between three and four thousand. They had the same professional interests as their principals, but they were in a very different position. They had to contend with two great disadvantages: one was the competition of unqualified assistants, the other was the entire dependence of the assistants, who were a detached body of men. This was a great source of weakness throughout the whole medical profession. Something had been done in the way of improving the status and prospects of qualified assistants by other bodies. A great deal had been done by the General Medical Council; half or a-third of the time at each meeting of the Council was occupied in judicially judging men who employ unqualified assistants, thus excluding the qualified ones, and covering men who were not qualified by putting them in the position of qualified assistants. A great deal more had been done by the General Medical Council; a great deal had been done, also, by other bodies, especially by the Medical Defence Unions. It was chiefly through their agency that the General Medical Council was set in operation, and he was bound to admit as a member of the Council that their agency had been very effective. He thought, therefore, they should consider in taking the steps contemplated how far they would go, and how far they should make use of the existing organisations of the profession. He thought they would enter upon rather a rash course if they immediately set up as an independent organisation, but that qualified assistants had great interests to be preserved, and would be justified in forming an Association for the consideration and advancement of those interests, he thought there could be no doubt whatever. The days of unqualified assistants were, he thought, over: they occupied a false position. Whenever the public applied to the medical profession it had a right to expect that it was getting qualified assistance. He could not help regretting that there was not a larger attendance. Dr. C. Legg said that among the advantages which the Association proposed to offer would be the formation of an engagement bureau and the conduct of agency work at less expense than at present. It would also have the effect of improving the status and position of qualified assistants, the dealing with principals, in giving legal advice, and so on. Dr. J. W. Oliver, of the Hackney Infirmary, moved, and Dr. Probyn, of Shoreditch, seconded a resolution constituting a provisional committee, which consisted of the following names: Dr. T. H. Brocklehurst and Dr. C. Legg, joint organisers; Drs. Oliver, of Hackney; Probyn, of Shoreditch; Orme, of St. Pancras; Mannsquarry, of Lambeth; Fenton, of Liverpool; Moffat, of Beverley, Yorks; Farman, of Biggleswade; Morgan Richey, of Cork; Rostaub, of Barking, Essex; Camieson, of Dromore, co. Down; Whitmore, of Uppingham, Rutland; C. R. Baucknell, of Hammersmith; Swindells, of Barking, Essex; R. L. Shaw, of New Mills, Derbyshire; E. Courtney Drake, of Grantham; J. J. Brown, of Grantham; and Charles J. Coates, of Monmouthshire. A hearty vote of thanks was passed to the Chairman for presiding, and the proceedings terminated.

MEDICAL VACANCIES.

The following vacancies are announced:

ASTON UNION.—Resident Assistant Medical Officer for the Workhouse, Gravelly Hill, near Birmingham; doubly qualified. Salary, £100 per annum, together with furnished apartments, rations, washing, etc. Applications to Jno North, Clerk to the Guardians, Union Offices, Vauxhall Road, Birmingham, by March 21st.

BELGRAVE HOSPITAL FOR CHILDREN, Gloucester Street, S.W.—House-Surgeon. Board, lodging, fuel, and light provided. Applications to the Honorary Secretary, at the hospital before March 20th.

BETHLEM HOSPITAL.—Two Resident Clinical Assistants; doubly qualified. Appointment for six months. Will be provided with such apartments, rations, washing, and attendance as the Committee shall consider reasonable. Applications, endorsed "Clinical Assistantship," to the Treasurer, at Bethlem Hospital, before March 31st.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon; doubly qualified; age not to exceed 25. Salary, £80 per annum, with furnished apartments, board, and attendance. Applications to Mr. Peter Kevan, Honorary Secretary, 12, Acresfield, Bolton, by March 26th.

CHARING CROSS HOSPITAL.—Assistant Physician. Applications to Arthur E. Reade, Secretary, by March 30th.

CITY OF GLASGOW DISTRICT LUNACY BOARD.—Medical Superintendent of the new Asylum at Gartloch. Salary at the rate of £450 per annum, with free house, coal, gas, etc. Applications and testimonials to Mr. Dempster, Clerk to the Board, 318, Parliamentary Road, Glasgow, by March 25th.

CITY ORTHOPÆDIC HOSPITAL, Hatton Garden, E.C.—Honorary Assistant Surgeon; must be F. or M.R.C.S.Eng. or Edin. Applications to the Committee of the Hospital by March 22nd.

DALMELLINGTON PAROCHIAL BOARD.—Medical Officer. Estimated income from public appointments and private practice and works appointments, £700 per annum, inclusive of medicines except in private practice. Applications to Alex. S. Glass, Inspector of Poor, Dalmellington.

DISTRICT ASYLUM, MULLINGAR.—Female Junior Assistant Medical Officer; unmarried; not more than 30 years of age, and a Graduate of Medicine and Surgery. Salary, £100 per annum, with board, furnished apartments, attendance, and laundry. Applications to the Medical Superintendent.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Surgeons. Must possess surgical qualification and be registered. Appointment for six months. No salary, but residence, board, and washing provided. Applications and testimonials, with certificate of registration, to Howard J. Collins, House-Governor, by March 30th.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Junior Assistant Medical Officer; unmarried, and not over 30 years of age. Salary, £100 per annum, with board (no beer or wine), lodging, washing, and attendance. Applications to the Medical Superintendent by March 26th.

GOLBORNE URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £30 per annum. Applications, marked "Medical Officer of Health," to Charles S. Bennie, Clerk, by March 26th.

HORTON INFIRMARY, Banbury.—House-Surgeon and Dispenser, duly qualified; must be M.R.C.S.Eng., and registered. Salary, £60 per annum, with board and lodging. Applications and recent testimonials to Mr. C. H. Davids, Honorary Secretary, 21, Marlborough Road, Banbury, by March 23rd.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Medical Registrar and Pathologist. Appointment for one year. Honorarium, 50 guineas. Applications to the Secretary by March 26th.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar, from April 1st. Salary, £100 per annum. Applications and testimonials to G. Q. Roberts, House-Governor, by March 29th.

LONDON MALE LOCK HOSPITAL AND OUT-PATIENTS' DEPARTMENT, 91, Dean Street, Soho, W.—House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Must possess legally-qualified registered diplomas in medicine and surgery. Applications, with not more than three testimonials, to the Secretary by March 18th.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—Demonstrator of Physiology. Applications to the Secretary, 30, Handel Street, Brunswick Square, W.C., by March 31st.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, and Assistant House-Surgeon. Appointments tenable for six months. The House-Physician and House-Surgeon will each receive a salary at the rate of £60 year. Candidates must possess registered English medical and surgical qualifications. Applications and testimonials to Charles H. Byers, Secretary, by March 18th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Clinical Assistant for the Out-patient Department, and Assistant Anæsthetist. Appointment for one year. Applications to the Secretary by March 27th.

RADCLIFFE INFIRMARY, Oxford.—Honorary Physician. Candidates must be legally qualified to practise as Physician in England. Testimonials to A. C. Virgo, Secretary, by March 25th.

RICCARTSBAR ASYLUM, Paisley.—Assistant Resident Medical Officer. Salary, £70 per annum, with board and apartments. Applications to Rob Rowand, Inspector of Poor, Paisley, by March 19th.

ROYAL COLLEGE OF PHYSICIANS.—Milroy Lecturer. Applications to the Registrar, Royal College of Physicians, Pall Mall East, S.W., by April 9th.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon, must be M.R.C.S. Eng. Salary, £60 per annum, with board, lodging, and washing. Appointment for six months. Applications to W. Stockwell, Secretary-Superintendent, by March 20th.

RURAL DISTRICT COUNCIL OF WELLS.—Medical Officer of Health. Salary, £70 per annum. Applications, marked "Medical Officer of Health," to Alfred Geo. Russ, Clerk, Poor-law Offices, Wells, by March 19th.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Demonstrator of Physics and Chemistry. Stipend, £100 per annum. Application to the Medical Secretary, St. Thomas's Hospital, S.E., by March 25th.

SUSSEX COUNTY HOSPITAL, Brighton.—Fourth Resident Medical Officer, doubly qualified, unmarried. Emoluments are board, residence, and washing, and a salary not exceeding £30 per annum. Applications to the Secretary by March 18th.

TAUNTON AND SOMERSET HOSPITAL.—House-Surgeon; doubly qualified. Appointment for three years. Salary, £100 per annum, with board, lodging, and washing. And Honorary Physician; must reside within two miles of the hospital. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by April 4th for the first appointment and April 6th for the second.

WELLINGTON UNION, Wellington, Somerset.—Medical Officer for the No. 2 District. Salary, £38 18s. per annum, inclusive of all extra medical fees except those for midwifery, for which 10s. per case is allowed. Applications to W. Sydney Price, Clerk, by March 21st.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments tenable for six months, from April 1st. Board and lodging are provided. Candidates must be registered under the Medical Act. Applications and testimonials to R. J. Gilbert, Secretary-Superintendent, by March 20th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Medical Registrar; must be a legally qualified medical practitioner. Appointment for twelve months. Salary, £40 per annum. Applications to Sidney M. Quennell, Secretary, by March 26th.

YORKSHIRE COLLEGE, Leeds, Department of Medicine.—Demonstrator of Anatomy. Applications to the Registrar.

MEDICAL APPOINTMENTS.

BELL, Walter L., M.D.Edin., appointed Surgeon to the Lowestoft Hospital, *vice* A. H. Jackson, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

BEVAN, Richard, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health for Lydd.

BURDWOOD, James Watson, L.F.P.S.Glasg., L.M., L.S.A.Lond., Fell.Brit. Inst.Pub.Health, Mem.San.Inst., reappointed Medical Officer of Health for the Bourne Rural Sanitary District.

CALLAGHAN, Thomas, L.R.C.P., L.R.C.S.Edin., reappointed Extraordinary Physician to the Cork Fever Hospital.

CLEGG, Walter, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Boston Rural District Council.

COLBY, J. G. E., D.P.H.Camb., reappointed Medical Officer of Health for the Malton Rural Sanitary District and the Norton Rural Sanitary District.

DREAPER, John B., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Ashbourne Rural District Council.

FLOWER, Frederick I., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Warminster Rural District Council.

FLYNN, D. J., M.D.R.U.I., L.M.R.C.P.I., reappointed Physician to the Cork Fever Hospital.

GANGE, Fredk. W., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer of Health to the Faversham Rural District Council.

GAYLOR, Edward, L.R.C.P.Edin., L.F.P.S.Glasg., reappointed Medical Officer of Health to the Alfreton Urban District Council.

GLENNIE, J. A. R., M.B.Aberd., appointed Physician to the Aberdeen Dispensary, Vaccine, and Lying-in Institution, *vice* R. G. McKerrow, M.B., resigned.

GOTCH, Francis, B.A.Lond., B.Sc., M.A.Oxon., M.R.C.S., appointed Waynflete Professor of Physiology at Oxford University, *vice* John Burdon Sanderson, M.D.Edin., F.R.C.P.Edin.

HAWORTH, Dr., appointed Medical Officer of Health for Darwen.

HILLIER, Sydney, M.D., appointed Medical Officer for the Stowmarket District of the Stow Union.

JONES, T. H., M.B., C.M.Edin., appointed Senior House-Surgeon to the Infirmary for Children, Liverpool.

KEMPE, C. M., M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Shoreham Urban District Council.

LANGDALE, H. M., M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Workhouse of the Uckfield Union.

LAVER, Henry, M.R.C.S.Eng., L.S.A., reappointed Surgeon to the Essex and Colchester Hospital.

MACKINTOSH, A., M.D.Glasg., L.F.P.S., reappointed Medical Officer of Health to the Clay Cross District Council.

MILLER, J. T. Roger, L.S.A.Lond., reappointed Medical Officer and Public Vaccinator for the Leavening District of the Malton Union.

MILNES, G. H., B.A., M.B.Cantab., M.D., L.R.C.P., appointed Physician to the Derbyshire Infirmary.

MORIARTY, T. B., A.B.R.U.I., M.D., L.R.C.S.Edin., reappointed Physician to the Cork Fever Hospital.

MURPHY, Daniel, M.B., B.Ch., B.A.O.R.U.I., reappointed Resident Medical Officer to the Cork Fever Hospital.

MURPHY, James E., L.D.S.R.C.S.I., appointed Consulting Dental Surgeon to the Derbyshire Infirmary.

PRICHARD, Robert D., L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer and Public Vaccinator for the Second Central District of Neath Union, *vice* Moses Morgan, M.D., deceased.

RICHARDSON, Richard Tippetts, M.R.C.S.Eng., F.Br.Inst.P.H., reappointed Medical Officer of Health for Trowbridge, Wilts.

ROBERTSON, John, M.D.Edin., L.R.C.S.Edin., reappointed Medical Officer of Health to the Cockermouth Urban District Council.

SEATON, Douglas, M.B., Ch.B.Vict., appointed Resident Casualty Officer to the General Infirmary, Leeds.

SKINNER, Stephen, M.B.Aberd., appointed Medical Officer of Health to the Clevedon District Council.

WORTS, Edwin, L.R.C.P.Lond., M.R.C.S.Eng., reappointed Surgeon to the Essex and Colchester General Hospital.

WRIGHT, J. Lister, L.R.C.P.Edin., M.R.C.S.Eng., appointed Surgeon to the Derbyshire Infirmary.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. R. Marcus Gunn: Cataract. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. George Stoker: Impaired Movements of the Vocal Cords.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor C. Stewart: On a Revision of the Endoskeleton in the Physiological Series in the Museum of the College. Lecture IV.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Hyslop: General Paralysis of the Insane.

ROYAL COLLEGE OF PHYSICIANS, 5 P.M.—Dr. H. D. Rolleston: On the Suprarenal Capsules (Goulstonian Lecture No. I).

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. W. Robertson: The Immunisation of Horses. Drs. Washbourn, Sims Woodhead, and others will continue the adjourned debate upon the Pathology of Diphtheria. Mr. Lennox Browne will show specimens of the Pseudo-bacillus of Diphtheria. Dr. Voelcker: Carcinoma of Ureter. Mr. J. Jackson Clarke: Sarcoma Mammæ.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Alopecia; its Varieties. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Secondary Progressive Glaucoma.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor C. Stewart: On a Revision of the Endoskeleton in the Physiological Series in the Museum of the College. Lecture V.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 P.M.

NORTH-WEST LONDON CLINICAL SOCIETY, 8.30 P.M.—Clinical meeting.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Dr. Hunter: Medical Cases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, 3 P.M.—Lecture by Dr. Beevor.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Taylor: Infantile Paralysis. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. Penrose: Cases in the Wards. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Dr. Howship Dickinson: Cases in the Wards.

ROYAL COLLEGE OF PHYSICIANS, 5 P.M.—Dr. H. D. Rolleston: On the Suprarenal Capsules (Goulstonian Lecture No. II).

HARVEIAN SOCIETY, 8.30 P.M.—Clinical evening. Cases will be shown by—Mr. Mayo Collier: Flat Foot (Hallux Rigidus). Mr. Edmund Owen: A boy Convalescent from Pyæmia after Osteomyelitis, Mr. Keetley: Exophthalmic Goitre after Enucleation of Thyroid Tumours. Dr. Sutherland: Pulmonary Fibrosis. Dr. L. Guthrie: Two Cases of Scaphocephalus.

SOCIETY OF ANÆSTHETISTS, 20, Hanover Square, W., 8.30 P.M.—Discussion on the Administration of Anæsthetics for Abdominal Operations.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 5 to 5 P.M.—Professor Crookshank: Lecture: Erysipelas and Suppuration. Practical Work: Cultivations of Streptococci.

CANCER HOSPITAL, Brompton (Free), 4 P.M.—Mr. W. H. Elam: Cancer of the Stomach.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor C. Stewart: On a Revision of the Endoskeleton in the Physiological Series in the Museum of the College. Lecture VI.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Clinical cases will be shown. Every member will receive a card of agenda before the meeting.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Hyslop: General Paralysis of the Insane.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

LIVINGSTONE.—On February 21st, at Clarence Villa, Barry Docks, the wife of J. Livingstone, M.D., of a son.

STOCKER.—March 12th, at Weedon, Northamptonshire, the wife of E. Gaved Stocker, M.R.C.S., of a son.

DEATHS.

HIGGINBOTTOM.—On February 24th, at 56, Shakespeare Street, Nottingham, Marshall Hall Higginbottom, Surgeon, aged 72.

PHIPPS.—On February 14th, at his residence, 246, Oxford Street, Manchester, George Constantine Phipps, M.D., F.R.C.S.E., in his 61st year.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

ANSWERS.

R. B. M.—There is no evidence that the advertisement emanates from a qualified medical practitioner.

M.D. AND TWENTY-FIVE YEARS SUBSCRIBER.—We shall be obliged if our correspondent would forward a complete copy of the paper containing the advertisement of the water to which he draws attention.

A. H. B.—The degrees and diplomas of candidates constitute only one class of circumstances, which must determine the choice of a selection committee.

H. C.—The articles on the relative efficiency of water filters were published in the BRITISH MEDICAL JOURNALS for November 10th, 17th, and 24th, and December 15th and 29th, 1894.

E. W. D. might consult the works referred to by Dr. Bezly Thorne in his paper published in the BRITISH MEDICAL JOURNAL of March 9th, and also a small pamphlet, *Die Behandlung der chronischen Herzkrankheiten*. Von Dr. Theodor Schott. (Berlin: Eugen Grosser).

HOSPITAL SOUP.

T. M. writes: In answer to "Hospital Surgeon," in the BRITISH MEDICAL JOURNAL, March 9th, p. 571, about soup, I can commend, both for cheapness and nutritive quality, the following recipe: To 1 lb. of lentils add 10 breakfast-cupfuls of water, 1 onion, and a small piece of carrot and turnip; pepper and salt, and a small piece of butter, fresh dripping, or ham bone. Boil two hours and a-half and strain.

CHRONIC ERYTHEMA OF THE NOSE.

W.P., M.B. writes: In answer to "F.S.J.B." in the BRITISH MEDICAL JOURNAL, March 9th, p. 571, to suggest the following prescription: R, Aloin, gr. ½; ferri sulph., gr. ½; ext. nucis. vomicæ, gr. ½; pulv. myrrhæ, gr. ½; saponis, gr. ½. Ft. pil i. To be taken once, twice, or three times a day, according to action on bowels; and to avoid all alcoholic stimulants.

TREATMENT OF CHRONIC DIARRHŒA.

W. P., M.B., writes: In answer to M. M., in the BRITISH MEDICAL JOURNAL of March 9th, p. 571, I can highly recommend arsenic, either in solution or as arsenious acid in pill—one hour before meals.

W. G. B. writes: M. M. might test the motions with litmus papers on each occasion, and see if they be acid; or with turmeric papers, and see if they be alkaline; and, on discovering the reaction, try alkaline medicines, as chalk, in the first case, and acid remedies, as sulphuric, in the second case, each along with some astringent and anodyne.

W. A. recommends M. M. to try liq. hydrarg. perch. *B. P.* gr.ij every half hour in a little pure water, commencing an hour before rising; or the following: R Resina podophylli gr.j, spir. vin. rect. 3ss. Of this give gr.ij every half hour, commencing an hour before rising, and, if possible, remain an entire day in recumbent position, with milk diet.

SMALL DESTRUCTORS.

S. C. S. writes: A small destructor for a small fever hospital will probably be found very unsatisfactory. The great essential to the good action of a destructor is that it should be in almost constant operation. It is extremely difficult to ensure complete combustion of the gases produced unless the brickwork is kept at a high temperature, and there must be many times in the year when the general refuse, ashes, etc., of a small hospital would be quite insufficient to produce the requisite amount of heat. It might be well to read Dr. Vivian Poore's work on *Rural Hygiene*, showing how effectually organic refuse may be got rid of by systematic and immediate superficial burial, before going to the expense of a destructor, and to bear in mind that in the plan for a small isolation hospital recommended by the Local Government Board earth closets are the means indicated for excrement disposal.

MEDICAL AID SOCIETIES AND CLUBS.

PALINURUS.—We cannot congratulate our correspondent on his position as medical officer to a medical aid society. The question is not whether such an appointment may be more remunerative than an ordinary "club," but whether the principle on which a society of this kind is carried on ought to be tolerated for a moment by the profession. However poor the rate of payment among club doctors generally—and it must be confessed that in some cases it is disgracefully low and ought to be amended—such appointments may be held by a practitioner without the same loss of professional dignity that must inevitably ensue from having any connection with societies of the medical aid species.

NOTES, LETTERS, Etc.

REMUNERATION OF RAILWAY SURGEONS.

A SURGEON OF THE GREAT NORTHERN RAILWAY COMPANY sends us what is in effect a serious indictment of the arrangement made by the Great Northern Railway Company to remunerate the surgeons employed to attend on their *employés*. It seems monstrous that one of the chief railway companies in the kingdom should pay their surgeons no more than 8s. per annum per member—this to include attendance on the wife and family—and that in this membership are included clerks, inspectors, and even stationmasters. Our correspondent reckons that the total remuneration comes to about "1s. 6d. per head per annum," and further states that the surgeon is not infrequently put to expense varying from 10s. to 15s. a time to get to the homes of patients, when summoned on emergencies and local trains do not happen to be running. If the state of affairs here pourtrayed is correct, there certainly would seem to be abundant grounds for complaint; and if all the surgeons of this company were to unite and memorialise the directors, we can scarcely imagine the latter would shut their eyes to such obvious injustice. This is the second complaint from surgeons in this company's service. Comments on the same subject appeared in the BRITISH MEDICAL JOURNAL of March 2nd.

SPANISH DELIVERY PAN.

PROFESSOR SIMPSON[1] describes a curious popular obstetric appliance used in the South of Spain. It consists of a strong glazed earthenware pan, about a foot deep, resembling entirely the pan of a close stool, except for a wide excavation on one side, through which the hand of the attendant may reach the patient's pudenda, and the child can be guided forward. Dr. Russell Ross, of Huelva, was called in to consult in a difficult case, and found the patient sitting on a pan of this kind, known as the *bacin* (a term given to a slop pail or close stool), *recado* (implement) or *parideras*. Her legs were wide apart, a midwife sat in front on a low stool examining through the aperture in the pan. The waters and blood collected in the bottom of the receptacle. This pan, Professor Simpson remarks, is more serviceable and safe from a sanitary point of view than any of the "delivery chairs" produced by the ingenuity of the master minds in obstetrics in past days and in far climes.

CLUBS AND MEDICAL FEES.

IN a letter to the *Buckingham Advertiser* a correspondent draws attention to our recent approval of the action of a local Oddfellows' Lodge in raising the rate of remuneration of their club surgeon. The writer, who has held office in the lodge, expresses the opinion, which we cordially endorse, "that the lodge will not be losers by their conduct," and points out that, since the change has been made, there has been an increase of membership rather than a falling off.

MIDWIVES AND PRACTITIONERS.

DR. H. COATES, L.R.C.P., etc. (Forest Gate), writes: I learnt in a confinement case, where I was called in, that the midwife here, to induce people to engage her, tells them that if everything goes well no doctor is needed, and she will do the work for half the fee; but in case of necessity, which is rare, a doctor can be sent for, and she will take a lower fee still, thus making it just the same as if they had engaged a doctor beforehand. I therefore charged double my ordinary fee, because I was not engaged beforehand. This should be made a definite medical rule with all practitioners to protect us from having just the most difficult and anxious cases and not the easy ones also.

"TO SPIT OR NOT TO SPIT."

SURGEON-LIEUTENANT-COLONEL J. MCCULLOCH, writes: Your correspondent, to whom you replied in a leaderette in the BRITISH MEDICAL JOURNAL of March 2nd, might like to hear what I myself witnessed before entering the medical profession thirty years ago. I was one day assisting at haymaking on my father's farm, and during a rest was smoking with others beside a little marshy spot caused by the overflow from a spring well; an inquisitive horse leech found its way on to a flat stone in our midst, and one of our hands making a mark of the leech expectorated once only full upon it. It was dead in about ten seconds. That spit was better out of the mouth than in it.

SEA TRIPS FOR CONVALESCENTS.

MR. MALCOLM M. MCHARDY writes from Genoa: A week since, terribly enfeebled with much weakened heart action after a sharp attack of influenza, I was urged to have a restful sea trip south. There were many ways of doing this, and I decided to travel to Genoa or Naples and back by the North German Lloyd steamships. Your readers may be convenienced to learn that my experience has been unexpectedly agreeable. Accustomed to the sea and the ways of English and French passenger steamers, I was quite unprepared for the unvarying courtesy, the thoughtful attention to the passengers' every reasonable—and indeed unreasonable—or invalid-like whim, exhibited by all belonging to the *Preussen*, in which I came out. The cooking and service have been admirable. There has been abundant room between Southampton and Naples, and a noisy state room has been promptly changed for some other. Indeed no private yacht could afford greater ease and comfort

[1] *Edinburgh Med. Journ.*, March, 1895.

for an invalid, with less of those galling restrictions which have too usually survived on the modern floating hotels from the obsolete packets. The quiet orderly fashion in which the ship's work is done in every department amply testifies to the perfection of discipline.

I shall be glad if this note may lead other victims of influenza to court renewed health, and to avoid prolonged invalidism by utilising, as I have done, the accommodation and good service which are left available through the long distance passengers adopting the overland route between Naples and England or Germany.

LONDON HOSPITALS AND MEDICAL MEN.

UNDER this title *St. Paul's* has issued a supplement devoted to views of hospitals, likenesses of eminent medical men, and many kindly notices of both. The views are interesting. The portraits, though small, are good. They show evidence, however, in many cases of having been taken long, long ago, and we fancy that many of the eminent men whose portraits adorn the pages of *St. Paul's* would sacrifice many fees to be again as young as they are there depicted.

THE ANSWERING OF FOOLS.

MOST people will probably question whether it is worth while entering into argument with people who have shown themselves either incapable of understanding reason, or determined not to listen to it. Fighting with sweeps is not agreeable, nor is arguing with anti-vivisectors. Nevertheless, as it is by the constant reiteration of their untruths that they persuade the great malleable public, which listens but does not think, it may be well that they should now and again be met and contradicted on their own ground, even in a daily paper. Mr. J. Poppin has undertaken this task in the *Bristol Mercury*. We may quite honestly wish him every success, but argument with such people is a Sisyphus-like task.

AN ACADEMY OF STOMATOLOGY.

THE Academy of Stomatology is the name of a new association of dental practitioners in Philadelphia, organised for the purpose of investigating and studying all matters connected with the mouth, its function in health and their aberrations in disease. One purpose of the Academy is to establish a library and museum devoted to stomatology, which may be consulted by dental practitioners throughout America.

ALCOHOLIC TEETOTAL DRINKS.

UNLESS something more is done to secure the honesty of alleged temperance beverages it would appear that the drinkers of such liquors are as likely as not to unconsciously imbibe an intoxicant article. At least such would apparently be the case, according to the *Brewers' Journal*, which states that from 40 examples examined an analysis proved that these contained on an average 4·8 per cent. of proof spirit, ranging from 3·1 to as high as 8·2 per cent.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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THE GOULSTONIAN LECTURES
ON
THE SUPRARENAL BODIES.

Delivered before the Royal College of Physicians of London,

By H. D. ROLLESTON, M.A., M.D., F.R.C.P.,
Fellow of St. John's College, Cambridge; Assistant-Physician and Lecturer on Pathology at St. George's Hospital.

Lecture I.

The Anatomy, Histology, and Morbid Anatomy of the Suprarenal Capsules.

[In his preliminary remarks the lecturer thanked the College for the honour conferred on him, and said that since the suprarenal capsules were attracting considerable attention at the present time, it seemed opportune to review the state of our knowledge concerning them.]

Method of Removal.—The most satisfactory method of examining the suprarenal bodies and removing them in the course of a necropsy was described.

The Right Suprarenal Capsule.

The right suprarenal capsule embraces the inner, upper, and anterior part of the corresponding kidney. Its outline, as seen from the front, is roughly triangular, with angles pointing respectively (1) outwards, (2) upwards, and (3) downwards. It is flattened and presents two surfaces, anterior and posterior, each of which is divisible into two secondary areas.

The anterior surface is not uniformly flat; along its upper and inner borders there is a continuous depressed area. This bears a varying proportion, one-third to a-half, to the whole extent of the anterior surface, usually about a third. The two areas thus formed on the anterior surface are separated by a furrow. The furrow is overhung by the margin of the larger, outer, and comparatively elevated area.

Section of the suprarenal capsule shows that the furrow corresponds to a projection on the posterior surface.

This undulation on the anterior surface follows the curve of the upper and inner borders. At a point on this undulation, corresponding to the upper and inner angle, the suprarenal vein issues from the medulla in the furrow, and runs upwards to enter the inferior vena cava.

The depressed area is uncovered by peritoneum; the part which lies adjacent to the upper border is in immediate contact with the right lobe of the liver, while that part which corresponds to the inner border lies underneath the inferior vena cava.

The remaining or elevated area on the anterior surface presents (1) a non-peritoneal portion (Anderson)[1] for the hepatic flexure of the duodenum near its lower angle; the extent of this portion varies very considerably (St. John Brooks);[2] and (2) a portion covered by the peritoneum forming the hepato-renal fold.

The posterior surface is divided by a projection into two secondary areas. This projection, which is the counterpart of the furrow on the anterior surface, fits into the groove between the kidney and the right crus of the diaphragm. This undulation in the suprarenal body is oblique, and the process on the posterior surface looks outwards. Of the two secondary areas the inner is flattened by the pressure of the right crus of the diaphragm, and is larger than the outer area, which is so tilted upwards by the underlying kidney that it looks backwards and downwards.

The Left Suprarenal Capsule.

The left suprarenal capsule is applied to the inner margin of the upper half of the left kidney, which it overlaps; it passes into the upper margin of the kidney for a short distance only. The inner border is convex, and looks slightly upwards; the outer border is concave. There are two angles: the upper which is pointed, and the inferior rounded and covering the renal vessels. There are two surfaces—anterior and posterior. The anterior has a crescentic outline. It is flat, and traversed by a groove or furrow, from which the suprarenal vein runs downwards to join the left renal vein. This groove runs from above downwards and inwards, and thus divides the anterior surface into two secondary areas: (*a*) an outer and inferior, and (*b*) an inner and upper. Near the superior angle these areas are of equal size, but below the outer becomes the larger, and forms the lower rounded angle of the suprarenal body.

Relations of the Anterior Surface.—The anterior surface is divided into (1) an upper portion covered by the peritoneum of the lower sac, and in relation with the cardiac end of the stomach near the entrance of the œsophagus, and below that with the superior extremity of the spleen; and (2) the lower part uncovered by peritoneum, and in direct contact with the pancreas and splenic artery. On the posterior surface there is a projection corresponding to the furrow on the anterior surface. This projection passes between the kidney and the crus of the diaphragm almost at right angles to the plane of the anterior surface. This undulation is vertical, thus contrasting with the oblique undulation in the right suprarenal body. External to the projection there is the external area larger than the internal. This external area is thin, and is expanded by the pressure of the underlying kidney. The renal vessels as they pass into the hilum lie under cover of this area. Internal to the projection is the smaller internal area which rests on the crus of the diaphragm; it is thick and compact, and may cover the left semilunar ganglion, but this is not a constant relation.

Anatomical Conformation.

The different folding, as shown by the oblique and vertical directions of the undulations respectively in the right and left suprarenal bodies, depends on the differences in the packing of the two organs. The probable explanation of the more complicated form of the undulation on the right side is the close relation to the firm liver, and the pressure thereby exerted on the suprarenal body. Each of the organs weighs about a drachm or rather more, the left being rather the heavier.

In cases where the kidney is displaced, the corresponding suprarenal capsule remains in its normal position. When a horseshoe kidney exists the position of the suprarenal bodies undergoes no change, even though the kidney is situated over the promontory of the sacrum. In an example of this kind the suprarenal bodies lay on the crura of the diaphragm, and were flat and not thrown into their normal undulations. This observation shows the influence which the pressure normally exerted by the kidneys has on the conformation of the adrenals.

The suprarenal body has a firm capsule of fibrous tissue, and running in from it are septa containing small arteries which traverse the cortex and reach the medulla.

The arteries derived from the aorta, renal and phrenic arteries, enter the cortex and pass inwards towards the medulla: at the hilum the cortex thins away and exposes the medulla, from which the suprarenal vein issues.

The suprarenal vein in the medulla is surrounded by large bundles of smooth muscular tissue, which form a prominent feature on section. Guarnieri and Magini[3] suggest that the circulation through the organ may be slowed by the contraction of these muscular bundles.

In fœtal life the large and very vascular suprarenal capsules are relatively, though not absolutely, larger than in adult life. Their large size and vascularity make it probable that their functions are more extensive and active in fœtal life. At the third month of intrauterine life the kidneys and suprarenal capsules are of the same size; at the sixth month the kidneys are twice the size of the suprarenal capsules and more than twice their weight. At birth the kidneys are about three times heavier than the suprarenal capsules, while in adult life, the kidneys weighing on an average 5½ ounces and the suprarenal bodies 1 drachm each, the relation is 44 to 1. After birth the suprarenal capsules continue to increase in size, and, like other organs, attain a size varying roughly with that of the whole body. At what time they cease to grow it is impossible to say; but the general impression left on my mind from examining more than 1,000 pairs is that they are larger about 40 years of age than at other periods of life. Probably some of the increase in size is due to fatty change. Their growth after birth shows that they cannot be regarded as mere fœtal relics.

In old age they diminish in size and, like other parts of the body, contain less fat.

It is often stated that the suprarenal bodies are larger in negroes than in the white races. Duckworth[4] mentions five dissections of negroes in which the suprarenal capsules were not larger than in whites. Professor Macalister has kindly informed me that in four negroes and in one Malay dissected by him the suprarenal bodies presented no unusual features.

ABNORMAL SUPRARENAL BODIES.

The different shape of the two suprarenal bodies depends on their different relations and packing. I have seen the left expanded, and the right approaching the shape of the left.

I have met with abnormal projections from the suprarenal body on both sides. The figure, from a photograph kindly done by Mr. W. Paul Jones, shows one on the right side. If more pedunculated it might resemble in appearance an accessory suprarenal body.



Fig. 1.—Right suprarenal body with abnormal process; nearly twice natural size.

In anencephaly and hemicephaly the suprarenal capsules may be atrophied or absent; on the other hand, they may be normal. Alexander[5] has not been able to find any cases of fœtuses in which atrophy of the suprarenal bodies was associated with a normally developed brain and spinal cord.

Zander[6] attributes the atrophy of the suprarenal bodies to the maldevelopment of the nervous system; while Alexander considers that the primary lesion is in the suprarenal bodies, and that suppression of their function is one, among several, of the causes influencing the development of the central nervous system. This view is of considerable interest in connection with the severe lesions which Tizzoni found in the brain and spinal cord as a result of removal of the suprarenal capsules.

ACCESSORY SUPRARENAL BODIES.

Accessory suprarenal bodies are very commonly present in the connective tissue in the immediate neighbourhood of the two organs. They are found when looked for, but do not otherwise, as a rule, attract attention, as they are so small. They are yellow in colour, oval or round, and usually about the size of a grain of corn. They are often in contact with the main organ, or may be attached to it by tags of fibrous tissue, of various lengths, containing small vessels.

The number of accessory suprarenal bodies varies. I have seen as many as five on one side (the right), but this was in a case in which that capsule contained caseous material, so their presence may have been the result of some compensatory hypertrophy taking place, especially as the case was that of a boy of 17 years dying of chronic phthisis without any symptoms of Addison's disease. Stilling[7] has shown that hypertrophy of accessory adrenal bodies may take place in young animals after the experimental removal of the organs. Although there is no evidence of compensatory hypertrophy occurring in adult man, it is possible that it may occur in early life. The largest accessory suprarenal I have seen was as large as a cherrystone, and was attached by a loose tag of connective tissue to the right suprarenal.

The accessory suprarenal bodies may be found among the fibres of the renal or solar plexus and in close relation to the semilunar ganglia. It is said that accessory suprarenal bodies may occur in the substance of the main organ, but it is probable that the structures observed were adenomata or portions of a much convoluted suprarenal body cut in section. The presence of accessory suprarenal bodies in such distant parts as the broad ligament of the uterus and along the course of the spermatic vessels was pointed out by Marchand,[8] and explained on embryological grounds. Examples of accessory adrenal bodies on the spermatic vessels near the inguinal canal are quoted by Schmorl.[9]

Structurally the larger accessory suprarenal bodies show a division into cortex and medulla, while in the smaller ones this is not the case.[10] In children the cells are not pigmented, while in adults pigment is present.

SUPRARENAL "RESTS."

Instead of being in the loose connective tissue, accessory suprarenal bodies may be found embedded in the kidney or liver, and are then often spoken of as suprarenal "rests." They are more commonly recognised in the kidney than in the liver, though Schmorl records four examples of suprarenal "rests" occurring in the liver in 510 examinations. In these four cases the "rests" were in the right lobe of the liver. This writer thinks it probable that the liver tissue surrounds the accessory suprarenal bodies, as in two of his four cases the right kidney was displaced, and the resistance to the growth of the right lobe of the liver, normally due to the adjacent kidney, was absent.

In the kidney suprarenal rests appear in two forms: (1) The commoner, small round masses embedded in the cortex, and often so extensively degenerated into fat, that they have been called "renal lipomata."[11] They resemble the dried-up cysts not uncommonly seen on the cortex of the kidney. Like the suprarenal rests in the liver they may be multiple. They occur in any part of the cortex of the kidney. Histologically they have been described as conforming in different cases to the type of each of the three zones in the cortex of the suprarenal capsule, or even to the medulla. (2) Flattened plaques of suprarenal tissue, the medulla being represented as well as the cortex, which are placed partly inside, partly outside, the capsule of the kidney. Dr. Newton Pitt[12] has described this condition on both sides; I have seen it on one side. This condition occurs in the upper part of the kidneys, where pressure is exerted by the liver and spleen. The pressure probably flattened out the accessory suprarenal bodies or rests, so that the difference in form of these two varieties is due to their respective positions.

THE HISTOLOGY OF THE SUPRARENALS.

The Cortex.—The cortex is usually described as consisting of an outer zone (the zona glomerulosa), lying internal to which are the zona fasciculata and the zona reticularis; between the latter and the medulla no hard and fast line can be drawn. The cells found in the cortex are large epithelial cells, which have been compared by Creighton[13] to the cells in the stratum granulosum of a Graafian follicle. The cells in the outer part of the cortex are larger than those in the inner, the transition being a gradual one. The arrangement of the cells, especially in the zona glomerulosa, has suggested the idea that there are capillary ducts between the cells, but nothing very definite can be made out. The radial arrangement of the cells in the cortex probably depends on the septa, blood vessels, and lymphatics running inwards towards the medulla.

The cells of the cortex very readily become occupied with

large globules of fat; this is so commonly met with in adults as to be considered normal. The presence of extensive fatty change and the much smaller relative size of the suprarenal capsules to the rest of the body in adult life make it probable that the function or functions discharged by them are more active in fœtal life.

Histology.

Ganglion cells are described as being sometimes seen on the outside of the cortex, but are never present in the substance of the cortex. In the inner part of the cortex small vascular dilatations may be seen between the cells.[14]

The cells in the innermost layers of the zona reticularis are granular, and stain brown with chromic salts; they resemble the cells of the medulla, and contain a varying amount of pigment. The presence of granules in the cells is of interest, as they are possibly the precursors of a material secreted by the cells—a zymogen, analogous to that of secretory glands. In negroes the cells of the cortex are said to be extensively pigmented.

Canalis[15] has observed indirect nuclear division in the cortex of adult animals, and concludes from this that the suprarenal bodies remain functionally active. By the kindness of Dr. Hill, Master of Downing College, Cambridge, I am allowed to mention his, as yet unpublished, opinion that from active mitosis occurring in the deeper layers of the zona reticularis, it appears probable that the growth of the adult suprarenal capsule occurs in that situation, and that the cells pass outwards to form the cortex, and inwards to form the medulla. Gottschau[16], however, believes that the cell formation goes on in the zona glomerulosa and outer part of the zona fasciculata, and that the destruction of cells which takes place in the zona reticularis and medulla provides some substance of unknown function, which passes into the blood.

The extreme frequency with which a fatty condition of the outer part of the cortex is met with, makes it somewhat improbable that these cells are responsible for the growth of the organ. These facts, together with the absence of karyokinesis from the medulla,[17] make it highly probable that the suprarenal body grows from the zona reticularis.

The Medulla.

The cells of the medulla are of different forms; some of them appear to be branched, but their outlines are far from easy to make out. A rodded appearance of the cells, like that seen in the convoluted tubes of the kidney, has been described by Guarnieri and Magini.[18] The cells of the medulla are granular.

When fresh the cells of the medulla stain brown with bichromate of potassium. This reaction is only obtained soon after death; it becomes less marked as the interval increases, until, twelve hours after death, it is completely lost. Stilling[19] describes these cells as chromophile, and in animals he finds them in the sympathetic and intercarotid gland as well as in the suprarenal body. These cells stain blue with persulphate of iron.

The brown reaction with chromic salts of the cells of the medulla has long been known; it appears to have been first pointed out by Henle. Creighton[20] says that this coloration affects the nuclei and also the blood in the lacunar spaces between the cells of the medulla, while recently Manasse[21] has noticed in suprarenal bodies hardened in Müller's fluid homogeneous, brown material in the veins, which he traced to its origin in the cells of the medulla. These appearances could not be made out in specimens hardened in spirit, as spirit dissolves this "hyaline" material. Auld[22] regards the medulla as a tubulo-alveolar gland, and describes colloid matter as being present in its acini at rare intervals. If these acini are in reality blood spaces, the colloid material described by him, and the hyaline casts of Manasse, would appear to correspond to each other.

Guarnieri and Magini describe cylindrical bodies with a refractile index between, or more often inside, the cells of the medulla, which do not appear to be fat, and which may be the same as the bodies described by Auld and Manasse.

The cells of the medulla do not become so readily infiltrated with fat as those of the cortex, but they certainly do to a minor degree, though Alexander considers that very possibly the particles are not fat, but something else.

Orth refers to a green coloration of the medulla on adding a solution of perchloride of iron as a sign of chromogen in the cells of the medulla.

Much discussion has taken place as to the existence of ganglion cells in the medulla. These are all transitions between typical epithelial cells and cells which, if met with elsewhere, would be described as ganglion cells. Leydig and Luschka considered the cells of the medulla to be nerve cells. Virchow and most writers describe ganglion cells as being present. Auld describes ganglion cells and modified ganglion cells. Holm[23] has described large cells with large nuclei, which he calls "doubtful ganglion cells"; they are, however, probably the groups of epithelial cells found surrounding grey nerve fibres described by Guarnieri and Magini.[24]

Alexais and Arnaud,[25] and Guarnieri and Magini,[26] deny the existence of any nerve cells in the medulla.

Probably there are some few ganglion cells in connection with the numerous grey nerve fibres present in the medulla, which form a network, and have in places groups of epithelial cells surrounding them; in their description of these non-medullated nerve fibres Guarnieri and Magini say they have never been able to find their termination. Fusari,[27] using Golgi's silver nitrate method, has found a delicate fibrillar termination of the nerve fibres between the cells.

The medulla contains a reticulum of connective tissue, in which lie epithelial cells and blood sinuses with thin walls, which receive the blood from the arterioles of the cortex, and eventually open into the central vein. The vessels of the suprarenal capsules, with the exception of the central vein, have thin walls composed of little more than endothelium. Lymphatic vessels have been described between the cells. The blood spaces are surrounded by the cells, so that there is some resemblance to the arrangement in the liver of cells and capillaries; Manasse has described groups of cells projecting into the lumen of the veins, and pouring out, as a kind of secretion, brown hyaline matter.

Relation of the Cortex and Medulla to Each Other.

At the present time the cortex and the medulla of the suprarenal body are generally considered to be distinct in origin, structure, and function. The cortex is regarded as being glandular or hæmatopoietic, and the medulla as being nervous and connected with the sympathetic.

From an embryological standpoint Balfour and Mitsukuri[28] have shown the medulla to be connected with the sympathetic, and the cortex to be derived from the mesoblast. Weldon[29] considers the suprarenal cortex to be derived from the Wolffian bodies, and that it secondarily encloses blood vessels and nerves to form the medulla.

In connection with the view[30] that the adrenal bodies are derived from the germ epithelium, the observations of Creighton[31] are interesting. In the cortex of the horse and of the dog he occasionally found tubes resembling the aborted Graafian follicles of the ovary; he therefore divides the suprarenal body into two parts—these tubes in the cortex, and the remainder (which consists of ordinary medulla and most of the cortex). These tubes degenerate and pass into the ordinary cortex—in the horse fading into the zona fasciculata, in the dog into the zona glomerulosa. These tubes correspond to the follicles in the cortex of the ovary, while the remainder corresponds to the stratum granulosum in the corpora lutea and to the interstitial cells of the ovary.

The distinction between the cortex and medulla of ordinary anatomy Creighton considers quite arbitrary, as there is no real difference between their constituent cells. The central part or medulla is only more spongy than the rest. Arnold[32] considers the difference between the cortex and medulla as being due to modifications in the arrangements of the interstitial supporting tissue and of the blood vessels, and draws attention to groups of cells near the central vein which closely resemble the zona glomerulosa.

At the sixth month[33] of intrauterine life there is no difference between the cortex and the medulla, if the sympathetic nodules which are about to disappear be excluded, and on the microscopic examination of the adult organ the transition is seen to be very gradual.

From these considerations I should be inclined to regard the suprarenal as a functional whole, the medulla and cortex

performing the same work, though possibly in unequal degrees, since the cortex very commonly undergoes considerable fatty change. This speculation based on anatomical grounds, receives strong support from the observation that the medulla alone provides an active extract.[34]

VARIOUS MORBID CONDITIONS OF THE SUPRARENAL BODIES.

ATROPHY.

How often atrophy of the suprarenal capsules occurs does not seem to have been investigated, and its presence is only recorded when there were indications of Addison's disease during life. The suprarenal capsules normally diminish in size in advanced life. In an examination of the organs in 1,050 *post mortems* I found them small in 6 cases under the age of 45; in 3 both were small, and there were no signs suggesting Addison's disease; in 1 case there was caseation in the right and atrophy of the left without any symptoms; and in 2 cases of phthisis, where there was slight pigmentation, the suprarenal bodies were small. I have never seen the extreme degree of atrophy described in some cases of Addison's disease in which the organs were reduced to the size of peas.[35]

HÆMORRHAGE INTO THE SUPRARENAL CAPSULES.

As the result of severe injuries, such as fracture of the spine or rupture of the liver and spleen, blood is often poured out around the suprarenal bodies. Hæmorrhage into the suprarenal bodies is not infrequently met with under these conditions; the extravasation is almost always into the medulla.

As the result of traumatism during birth hæmorrhages frequently occur into the suprarenal capsules. On an examination of 130 stillborn children Dr. H. Spencer[36] found extravasations into these organs in 26; in 2 of these the hæmorrhage occurred in the cortex, in the remaining 24 it was into the medulla, and in half the cases it was bilateral; in 3 cases the hæmorrhage had ruptured the capsule. These hæmorrhages occurred more often in difficult labours, and were more frequently met with in pelvic than in cephalic presentations.

The question as to what changes take place in the suprarenal capsules as a result of such extravasations, if the child lives, is an interesting one. Wainwright[37] has recorded the case of a child 2 months old in whom the suprarenal bodies showed changes which were probably due to imperfect absorption and organisation of blood extravasated into the medulla. It is possible that organisation of extravasated blood might finally result in the cirrhotic atrophy of the adrenals, which, when bilateral, has been associated with the symptoms of Addison's disease. Unilateral atrophy with a fibrous increase, which is sometimes met with accidentally, could thus be explained by a former unilateral hæmorrhage.

Apart from traumatism hæmorrhage into the medulla of the suprarenal capsules has been recorded in a variety of conditions, in which the most common factor is venous congestion.

CLOUDY SWELLING.

Softening and cloudy swelling of the suprarenal capsules occur in febrile conditions, and it is noteworthy that the spleen and the adrenal bodies show very similar changes under these conditions. The medulla appears sodden and blood-stained, and microscopically small extravasations may be found in the cortex. The softening often leads to a separation between the cortex and the medulla, and thus produces an apparent cavity. This ancient observation finds a permanent record in the term "capsule."

In pyæmia small vascular streaks in the cortex, or more rarely minute abscesses, due to embolism, may occur. In pyæmia set up experimentally in guinea-pigs, Langlois and Charrin[38] have described swelling and hæmorrhages in the suprarenal bodies.

FATTY CHANGE.

Fatty change is so commonly met with in the suprarenal bodies of adults as to be generally considered a normal condition, while in young children these organs have hitherto been thought to be free from fat. The fat occurs as large globules in the cells. This change may be present throughout the whole of the cortex, or be best marked in the zona fasciculata. The medulla is occasionally seen to be occupied by fat, but never to the same extent as the cortex. Attlee,[39] in a paper as yet unpublished, has recorded the results of the examination of the suprarenal bodies in infants.

In marasmic infants the suprarenal bodies were found to be extremely fatty (Fig. 2), and to have undergone this

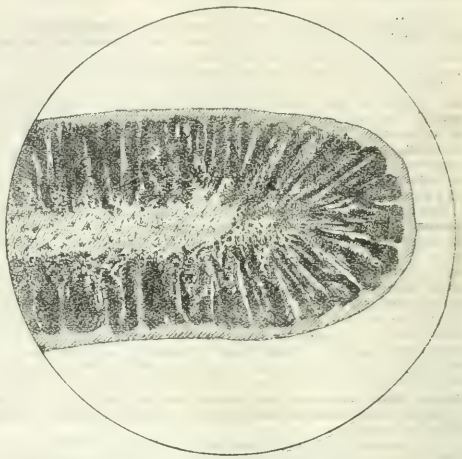


Fig. 2.—Suprarenal body stained with osmic acid showing extensive fatty change. Marasmic infant. Low power.

change more constantly than the liver. Thus in nine cases the cortex showed fatty change in all, and in six of them the medulla was also affected, while in eight of these cases in which the liver was examined it was found to be affected in four and normal in the other four.

In stillborn children, on the other hand, fatty change was found to be very moderate in degree and slight as compared

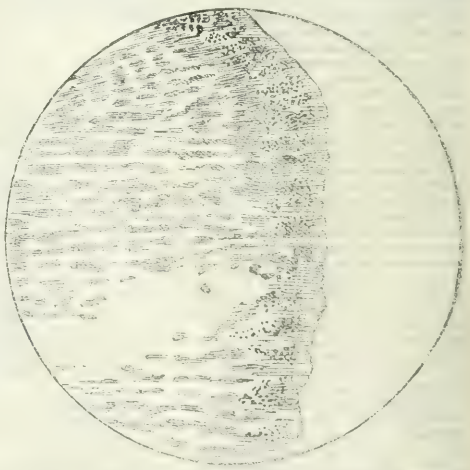


Fig. 3.—Cortex of suprarenal body from stillborn child, very little fat. High power.

with that seen in marasmic children, while in children dying

from diseases other than marasmus fatty change was found, but not to the same extent as in that condition. As far as my observations go, they agree with these results. (I am indebted to Dr. Attlee for Figs. 2 and 3).

Experimentally, Attlee found that in young rabbits in which the suprarenal bodies normally are free from fat, starvation gave rise to marked fatty changes in these organs, and that here, as in marasmic infants, the liver might escape. Martinotti [40] made the curious observation that starving guinea-pigs for three or four days increased the normal amount of karyokinesis in the cortex. In adult rabbits the suprarenal capsule may normally show considerable fatty change, but starving, extensive suppuration, and poisoning, whether acute or chronic, appeared to give rise to marked fatty change. With regard to these changes two questions arise (1) what is the nature of the change, and (2) what is the significance of its occurrence?

The large size of the fatty globules, the distribution of the fat in the cortex, which, since this area receives the blood first from the branches of the suprarenal arteries, may be thought to be analogous to fatty infiltration of the liver, and the frequent association of fatty infiltration in the liver and subcutaneous tissues (obesity) points rather to its being a storage or infiltration of fat. The occurrence after experimental poisoning and in marasmus, on the other hand, would favour the view that it is a degenerative change. Since it is difficult, perhaps unimportant, to decide as to its nature, it is perhaps best to describe it as a fatty change. As to the significance of the change, its presence accords with the recent observation that the cortex does not yield the active principle[41] of the suprarenal extract, and that relatively the suprarenal bodies are far more active in early life than afterwards.

After removal of one suprarenal body in young animals, Stilling [42] noticed that the remaining one hypertrophied; while so doing fat disappeared from the cortex for a time but returned after some weeks. Fatty change, though it may be a result of morbid processes elsewhere, cannot be said to give rise to any symptoms on its own account. It is interesting to note that while atrophy of these organs may be associated with symptoms of Addison's disease, fatty change has no such causal relation.

Lardaceous Disease.

When attacked by lardaceous disease the suprarenal capsules appear but slightly increased in size, and have a somewhat translucent appearance on section. On applying the iodine test the cortex becomes a dark brown, while the medulla remains of a grey or greyish yellow. The appearance thus presented is the reverse of that seen in health. The suprarenal bodies are among the organs which undergo the lardaceous change comparatively frequently. In fifteen cases of well-marked lardaceous disease I found the suprarenal capsules affected in eight; in three of the cases it was slight, so that microscopic examination was necessary to determine its presence.

According to Cornil and Ranvier[43] it is rare, and only attacks the vessels of the medulla. In my cases, however, it was always best marked in the vessels running vertically through the cortex; and, though it may be present in the medulla, it is always less marked there than in the cortex. Orth[44] describes the lardaceous change as occurring chiefly in the region of the zona fasciculata.

Cysts.

Cysts in the suprarenal body are very rare; the occurrence of echinococcus may be mentioned,[45] and cysts the result of former hæmorrhages have been met with. I have seen a cyst the size of a cherry containing tenacious fluid. Virchow has suggested that cysts may be formed by a softening down of adenomata of the suprarenal capsules. In primary sarcomata of the suprarenal bodies cysts frequently occur.

Tubercle.

In general tuberculosis a few scattered miliary tubercles are occasionally seen in the cortex. In chronic tuberculosis the inflammatory process begins in the medulla. In the early stages, before caseation has occurred, the inflammatory granulation tissue has a firm speckled appearance, and microscopically contains numerous vessels. Caseation, softening, or calcareous infiltration, may all follow as in other tuberculous formations, but it is highly improbable that caseous material is ever absorbed or disappears. Tubercle is frequently found without any signs or symptoms having been present. In 1,050 *post-mortems* in which I have examined the condition of the suprarenal bodies, there were 131 cases in which death was directly or chiefly due to tuberculous disease, and in 18 of these cases there was caseation in the suprarenal capsules, without there being any evidence of Addison's disease. In 11 instances the caseation was unilateral, and in 7 bilateral.

In the decennial periods it is noteworthy that in the 23 cases in which death occurred under 10 years of age, no tubercle was found in the suprarenal bodies, while out of 17 cases in the period between 10 and 20 years of age caseation occurred twice on both sides and three times unilaterally.

There appears, therefore, to be immunity from tuberculous inflammation in the first few years of life in the case of the suprarenal bodies:

Years.....	1-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	Total.
Cases of tubercle...	23	17	20	20	17	10	5	1	131
No. of tuberculous suprarenals	0	5	2	6	1	2	2	0	18

Syphilis.

Gummata are occasionally found in the suprarenal bodies.

Actinomycosis.

Extension of an actinomycotic abscess from the right lobe of the liver into the right adrenal body has been recorded.[46]

Simple Tumours.

Adenomata may be of two kinds, of which the first is much the commonest: (1) Multiple small yellowish nodules, situated on the cortex of the organ; they are not marked off by any capsule from the surrounding tissue, but differ from it in being the seat of very advanced fatty change. In other respects, the cells composing them are like the cells of the suprarenal cortex. They are sometimes mistaken for tubercles undergoing caseation; in this connection it is well to remember that chronic tuberculosis begins in the medulla. Virchow described adenomata of the medulla as gliomata, taking the view that the interstitial tissue of the medulla was akin to neuroglia. Manasse[47] has described giant cells in adenomata; I have never met with this appearance. (2) Large adenomata are almost always found singly in the suprarenal capsule, though they may be bilateral. They do not involve the whole of the organ, but form distinctly localised tumours, which may attain a very considerable size. They arise as a rule in the cortex, either from one or from more of its zones, and project usually from one side, though the whole thickness of the organ may be affected. They are a magnified edition of the small multiple suprarenal adenomata. Small ones may be present with them in same organ.

The cells contain a large amount of fat, and this accounts for the pale yellow colour of the adenomata. They may be distinguished from sarcomata by the absence of extravasation into their substance, and by their microscopic structure. Occasionally the fatty change is so advanced that they appear softened or necrosed. Commonly they have no more supporting fibrous tissue than the rest of the organ, but in other cases the quantity of fibrous tissue is much in excess, so that the term fibro-adenoma may be used. I have seen an example of this variety in which the cells did not show any fatty change, and in which hyaline degeneration of the vessels, which were numerous, was well marked.

Virchow described them under the name of struma lipomatosa suprarenalis: and recently from analogy they have been termed adrenal goitres, though it must be regretted that a name of such purely local application as goitre should be applied to a tumour in the abdomen.

Suprarenal "rests" taking on adenomatous growth in the kidney are, according to Hern,[48] responsible for some of the tumours which have been called adenoma of the kidney.

The existence of adenomata or hyperplastic tumours of the suprarenal bodies suggests the interesting speculation whether any symptoms can be correlated with this condition. Addison's disease and myxœdema have some analogies. Exophthalmic goitre is apparently due to altered structure and secretion of the thyroid gland. Is there any disease analogous to Graves's disease connected with the adrenals? The absence of any symptoms in association with adenoma or hyperplasia of the suprarenal bodies may be due to the fact that they nearly always show extreme fatty change, and so cannot be functionally active. Schäfer and Oliver[49] have quite recently shown that the cortex does not yield the active principle of suprarenal extract; hence hyperplasia of the cortex would not lead to any modification of the suprarenal secretion. A specimen of ganglionated neuroma has been described.[50] Dr. Payne[51] has recorded a case of angeioma of the suprarenal capsule; there were similar growths in the ovaries and many in the liver.

PRIMARY MALIGNANT GROWTHS.

Both carcinoma and sarcoma of the suprarenal capsules have been described, but generally the histological structure seems to be a vascular rather large-celled sarcoma. In some cases both organs have been the seat of primary malignant growths. The growth starting in the suprarenal body expands it, and may grow down the suprarenal vein or into the inferior vena cava.

By direct continuity the growth often invades the upper part of the kidney and, on the right side, the corresponding lobe of the liver. In some cases the growth may involve the pelvis of the kidney and give rise to hæmaturia. When the growth is extensive and invades the whole of the kidney, it is necessarily very difficult to say whether it began in the suprarenal or in the kidney. Secondary growths occur in the liver most frequently, but also in the lungs, kidneys, bones,[52] and skin.

Dr. Dickinson[53] mentions that in a case of sarcoma of the suprarenal body, the colon did not form an anterior relation of the tumour, as is the case in renal tumours; and since reading this I have seen two cases in which the tumour appeared above the colon, which was somewhat displaced downwards. The soft vascular growths have a tendency to necrose, and so to become excavated into hæmorrhagic cysts; a specimen of a cystic sarcoma as large as a cricket ball is in the London Hospital Museum.

In young children excessive development of hair and of the genital organs has been noted in connection with suprarenal sarcoma.

H. Morris and Sutton speak of tumours of the suprarenal bodies which give rise to secondary growths as being analogous to those rare and interesting cases of bronchocele[54], which produce secondary growths in bone and elsewhere. Morris[55] described the growth in one of these cases as being composed of tissue like that on the medulla of the suprarenal body. It seems difficult to distinguish between such a tumour and a vascular large round-celled sarcoma.

Sutton[56] described an adenoma of the suprarenal body in a marmot giving rise to numerous secondary nodules on the liver, which on section presented a curious mottled appearance, and also to a single nodule in the spleen. Histologically the growth resembled suprarenal cortex, and was therefore not considered malignant. Abnormally low bodily temperature has been noticed in primary suprarenal sarcoma,[57] but the temperature in a rapidly growing sarcoma from the right suprarenal body[58] in a coloured girl aged 8 was on an average 100°.

Examples of renal sarcoma arising in suprarenal "rests" have been described. Not only is their structure much like that of primary suprarenal sarcoma, but they show a similar tendency to the formation of hæmorrhagic cysts and to undergo necrosis. Lubarsch[59] has found glycogen in eight cases, and regards this as indicating their embryonic origin. Schmorl[60] suggests that some of the primary neoplasms of the liver may similarly be due to proliferating changes in a suprarenal "rest."

SECONDARY GROWTHS IN THE SUPRARENAL BODIES.

In 1,050 *post-mortem* examinations carcinoma of various parts of the body occurred 63 times, and in 7 of these the suprarenal bodies contained secondary growths.

There were 24 cases of sarcoma, and of these only 2 cases showed metastatic growths in the suprarenal bodies.

Norman Moore,[61] in 123 cases of new growth (102 carcinoma, 21 sarcoma) found secondary growths in the suprarenal bodies in 8. Three of these were carcinoma, 3 sarcoma, and 2 are described as endothelioma, the primary growth being in both cases in the heart.

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THE PATHOLOGY OF ŒDEMA.[1]

BY WALTER S. LAZARUS-BARLOW, M.D., M.R.C.P.
[From the Pathological Laboratory, University of Cambridge.]

THE subject of œdema has so frequently been discussed that it is only the introduction of some new information derived from experimental sources that can warrant its being made the subject of this lecture. The additional facts which I propose to bring forward before you to-day have been ascertained during the past two years from experiments made by me in the Pathological Laboratory of the University of Cambridge. If they be corroborated by other investigators they will materially alter our conceptions of to-day upon the pathology of œdema.

Œdema has long been recognised by the medical profession. The other name—dropsy—by which it is known is evidence etymologically of the fact; and yet the pathological explanation of the condition was not questioned until the year 1680, when Richard Lower ligatured the inferior vena, and obtained œdema of both lower extremities. From this experiment he came to the conclusion that œdema depends upon an increase of pressure in the veins, which is transmitted to the capillaries, and which leads to an increased exudation of plasma from these vessels. This view, though it was not universally accepted by Lower's contemporaries, nevertheless held its own for 200 years, when the first formidable attack upon it was made by Ranvier in 1869. Ranvier repeated Lower's experiment, but with negative results; he therefore added to ligature of the inferior vena cava section of the sciatic nerve on one side. On this side he obtained œdema, whereas in the other limb, which was equally exposed to the effect of the venous obstruction, but which was free from the effects of nerve-section, no œdema appeared. Ranvier therefore ascribed œdema to vasomotor action. A few years later Cohnheim, who investigated the subject more thoroughly than any of his predecessors, stated it as his opinion that passive œdema was the result of two antagonistic pressures: venous obstruction and arterial pressure,

[1] The expense of some of the experiments referred to in this paper were in part defrayed by a grant from the British Medical Association.

which raised the pressure in the capillaries, and therefore led to increased exudation from them. The œdema obtained by Ranvier's method, he maintained, resulted from the fact that section of the nerve causes arterial dilatation, and consequently modifies the pressure unfavourably on one of the two sides of the capillaries. As the result of this criticism, Ranvier altered his position somewhat, and in 1881 he and Cornil wrote: "If in an animal in which one has tied a vein, the vasomotor nerves be cut, the arteries being dilated, a larger amount of blood reaches the part, and the tension becomes sufficient to lead to transudation of serum. This increased tension is the true cause of dropsy; if this tension be sufficient, independently of obliteration of the veins, œdema will occur. All kinds of œdema, except, perhaps, the œdema of cachexia, may be referred to the same cause." In 1892, at a discussion upon renal dropsy at the Royal Medical and Chirurgical Society, Sir George Johnson expressed his opinion that œdema is the result of an "active vital secretory process consequent on an accumulation of various morbid fluids and solids in the blood."

From the foregoing words it is seen that the explanations which have been given of œdema are of two kinds, mechanical and vital secretory. Many modifications have been introduced into the mechanical explanation, particularly those which cause the lymphatic vessels to enter into the question, but it is unnecessary to stop for their consideration at present.

Now œdema occurs under a variety of circumstances. There is the œdema which occurs as the result of too tight a ring or bandage; this variety, along with the œdema which occurs in cardiac disease, is usually spoken of as "passive œdema;" then there are "renal œdema," "inflammatory œdema," "cachectic œdema," "œdema of the lungs;" and all of these have been regarded as being dependent upon different causes, so that the number of explanations of œdema as a whole is legion. They agree in one point, however, they are all more or less mechanical with the exception of the "vital secretory" explanation. The mechanical explanation of œdema can best be considered in that variety which comes on after a period of passive congestion. In its simplest form it is represented by the tight ring or tight bandage.

It is essential, if the mechanical explanation be true, and if the vessel wall act like a filter, that the increased exudation should show itself in the tissues immediately after the pressure in the veins has been raised. It is beside the mark to say that œdema comes on "after some hours" or "next day." It is essential upon the mechanical explanation that it should come on at once. Since, however, it is impossible to detect minute quantities of œdema by the rough methods of measurement, pitting on pressure, etc., when investigating this question I made use of numerical values derived from the specific gravity of the blood and blood plasma, arterial and venous, and the specific gravity of the muscles and skin. It is obvious that if fluid leave the blood vessels of lower specific gravity than the blood and of lower specific gravity than the muscles and skin, the specific gravity of the blood must rise, and the specific gravity of the muscles and skin must fall. There is no need for me here to describe the methods I used, they can be found in detail elsewhere.[2] My results, however, have a direct bearing upon the subject we have in hand.

I raised the pressure in the femoral vein of a dog to 50 mm. of mercury by means of an elastic bandage placed round the whole limb. Inasmuch as the normal pressure in that vein is about 3 or 4 mm. of mercury, if as much, the amount of obstruction produced was very considerable. At the same time, the pressure in the carotid was taken, and speaking generally, it was 100 mm. of mercury. It is obvious, therefore, that though impeded, there was a flow of blood through the limb. I kept the pressure in the femoral vein constant for an hour, and at the end of that time took the specific gravity of the blood, blood plasma, and tissues as mentioned. These I compared with values taken at the commencement of the experiment. The values were identical, and I provisionally concluded that increase of pressure in the femoral vein does not lead to exudation from the vessels, that is, venous obstruction does not cause œdema.

It was of course possible that though no changes were found in the specific gravity of the blood and tissues exudation might have occurred, but might have been prevented from showing itself owing to an increased rate of flow through the lymphatics of the part. I therefore investigated the amount of lymph flow under normal conditions, and when there was increased pressure in the veins, and found that venous obstruction does not cause an increase in the amount of lymph flow.

This experiment corroborated my provisional conclusion, and I definitely decided that an increase of venous pressure in a limb for one hour does not cause œdema of that limb. It is impossible in the light of these facts to still hold to the explanation of œdema as being a purely mechanical filtrate from the blood vessels. Inasmuch too as the ligature by means of which I produced an increase of pressure in the femoral vein embraced the whole limb, any view which regards œdema as the result of an obstacle to the lymphatic flow is equally untenable. Section of the sciatic nerve, as in Ranvier's experiments, in no way modified the results given by my method. What then is the explanation of passive œdema? Upon a moment's consideration it will be seen that all forms of œdema coming under this heading are dependent upon anæmia of the part, by the word anæmia being understood not an absence of blood, for that is evidently not the case, but an insufficiency of blood, or an insufficient renewal of blood to meet the requirements of the tissues. In other words, passive œdema is always preceded by starvation of tissues, and it is to the importance of the tissues in determining œdema that I wish above all to direct attention. That anæmia of a part is of itself a cause of œdema is seen in cases of ligature of the main artery. Thus surgeons after ligature of the femoral artery for aneurysm or other cause occasionally see œdema of the leg, which obviously does not depend upon obstruction to the veins, and as obviously depends upon the cutting off of the normal blood supply to the limb. Supposing the case to go on favourably, the œdema disappears after the collateral circulation has become established. This explanation of œdema as the result of anæmia I have confirmed in the following way. By means of an Esmarch's bandage I rendered the limb of a dog bloodless, while at the same time of course most of the lymph was removed from the part. After keeping the limb thus anæmic for from two to three hours I removed the bandage, and now by means of the specific gravity method I found that œdema came on. The arterial blood rose in specific gravity, the blood in the femoral vein rose in such a way as to show that more fluid was being lost during the passage through the limb than normal; the muscles and skin fell in specific gravity. Starvation of the tissues therefore plays an important part in the causation of passive œdema.

In view, however, of the fact that venous obstruction is almost invariably followed by œdema, whereas anæmia of the part is not so definitely a cause, it was necessary to consider the effect of venous obstruction more closely. The difference in the two cases is the "venosity" of the blood. In simple anæmia a part is starved; with venous obstruction it is not only starved, it is being poisoned, partly by the metabolic products in the blood, partly by the metabolic products of its own life and activity, which are dammed back instead of being removed, as is usually the case. If, after a part has been starved, as in my experiments just mentioned, the pressure in the vein be raised by means of a ligature, this poisoning process is superadded to the starvation, and the amount of œdema becomes greater.

This point I confirmed in the following way. I exposed the sciatic nerve, rendered the limb anæmic with an Esmarch's bandage, and stimulated the nerve strongly for a quarter of an hour, allowed the products of metabolism to remain *in situ* for a further quarter of an hour, and then removed the bandage. The amount of œdema I obtained after an interval was far greater than that after three hours' anæmia alone, and I therefore came to the conclusion that the presence *in situ* of the metabolic products of functional activity plays a part in the causation of œdema even greater than that of simple starvation. This view is strengthened by certain experiments performed by Wooldridge to which reference will be made later.

Now, the methods by which I obtained œdema are so

[2] *Phil. Trans. Roy. Soc.*, 1894.

clearly the same as processes which are of constant occurrence in the normal physiological condition of the body that it was necessary to see whether the pathological differed from the physiological process. Tissues are constantly requiring food and constantly forming metabolic products; do we under normal conditions find variations in the amount of lymph in the tissues in agreement with the varying requirements for nutriment?

Upon the question of anæmia the evidence has been given above. As the result of three hours' starvation the tissues become œdematous, though not to any marked extent. Further, in accordance with the well-recognised law that active congestion follows on anæmia, I found that active congestion occurred in my experiments. The object of this active congestion is obviously to supply the part with the food which has been denied, and it is the endeavour of the vascular system to meet the demands of the tissues. For a time it is insufficient, and the demand continuing, more and more fluid is poured into the part from the blood vessels. This extraordinary amount of fluid is beyond the powers of the lymphatics to remove, and therefore a portion remains in the tissues to constitute the œdema fluid, although a larger amount than normal may be flowing away by the lymphatics. By degrees, however, the increased demand of the tissues ceases, the outpouring from the blood vessels diminishes, the excessive amount of lymph in the part—the œdema fluid—is removed, and the tissues again return to a normal condition. The supply is excessive simply because the demand is excessive.

Upon the effect of the storage *in situ* of the products of functional activity on the causation of œdema the following experiment throws some light. Let the two gastrocnemii be removed from a frog with a length of nerve attached and be placed in a vessel of oil, and let one of the muscles be caused to contract until with a maximal induced current a minimal contraction occurs. If now the two gastrocnemii be removed from the oil simultaneously and be placed in normal saline solution for a minute or two, it will be found on removing them that the muscle which has been caused to contract is of lower specific gravity than its fellow. Functional activity of a muscle, therefore, is accompanied by changes which lead to an absorption of water. But the primary effect of functional activity upon metabolism is to cause an increased formation of waste products, and therefore we may conclude that the storage of waste products leads to an absorption of water. Whether this be a vital process or one depending upon the osmotic coefficient of the substances produced it is impossible as yet to say. If the experiment be performed in the body the same result is obtained with regard to the specific gravity. Now, functional activity is always accompanied by active congestion or active dilatation of the arteries; it is not unreasonable to suppose that one of the functions subserved by this increased supply of blood is to give a larger lymph supply to the part and therefore to remove the waste products formed.

It is seen, therefore, that normally tissues, when deprived of nutriment or when exercising their function, have a tendency to become œdematous, and one is therefore driven to the conclusion that the œdema of passive congestion is an excess of a normal process whereby the nutrition of the tissues and the removal of the waste products of their metabolism is carried out.

It is easy to see why normally tissues do not become "œdematous" in the pathological sense of the term. The reserve power of the heart and the degree of dilatation which the arteries can undergo is considerably greater than is usually called into play, and these two factors are able to meet any call that is likely to be made upon them, and, therefore, starvation and storage of waste products do not occur to any extent. On the other hand, when there is some failure of the central organ as in cardiac disease, or when there is an impediment to the circulation, as in the case of a tight ring or bandage, the action of which is prolonged, or when there is an insufficient supply of blood to meet the normal requirements of the tissue, as in ligature of the main artery of a limb starvation or storage of waste products, or both together, are in excess of the powers of the circulation, and the tissues are in a constant condition of calling for more lymph. This is supplied in as large quantities as possible, and the excess, owing to the limited capacity of the lymphatic system, remains in the tissues as œdema fluid.

It is worth notice in this context that œdema of the feet only occurs in heart disease after the heart has begun to fail. Whatever the lesion if compensation be effected there is no œdema, but when compensation fails œdema is invariable. The effect of rest, too, is easily explained on the view given above. Œdema in cases of heart disease frequently disappears as the result of rest alone, if the œdema be in an early stage. But rest in bed does away with the formation of waste products of functional activity, and, therefore, supply and demand are equalised by diminishing the demand. Later, rest in bed will not remove dropsy, for there still remains the formation of waste products as the result of the mere nutrition of the limb. Digitalis, strophanthus, strychnine, and iron are now of use; demand cannot be further reduced, therefore the supply must be increased. The drugs mentioned improve the condition of the heart muscle; supply again equalises demand, and again the dropsy disappears. But there comes a time when the heart can no longer be braced up, and when, aided to its utmost by drugs and by reduction to a minimum of the demand, it is nevertheless unable to meet the requirements of the tissues. Dropsy now never leaves the patient, but from causes that can easily be understood, it gets worse and worse until death closes the scene.

The distribution of dropsy in cardiac disease, however, is so characteristic, that it has long been regarded as a strong support of the mechanical explanation of œdema which on other grounds we have already found to be untenable. It is necessary to see in what way an explanation can be given of the fact that cardiac dropsy shows itself first in the neighbourhood of the ankles.

It is obvious in the case of cardiac failure that all parts must suffer proportionately if not equally. To this point we shall return later, but it is clear that all parts must suffer. Why, then, should œdema show itself first in the feet and not in the hands? The effect of gravity in the case of the foot is double. In the first place it aids the arterial flow, and in the second place it impedes to an equal extent the venous flow. The effect of gravity in the case of the hand is precisely similar. Gravity, therefore, does not produce any effect upon the rate of flow through the hand and foot. It increases, however, the pressure on the blood in the capillaries, and there is a difference between the two cases, for the lower limbs are more frequently in a vertical position than the arms, and therefore the capillaries in the foot have to bear the effect of gravity more than those of the hand.

It has been said above that increase of venous pressure for one hour does not lead to an increase in the amount of lymph secreted. This is true for the normal condition of the limb, but after a modification has been introduced, leading to starvation or storage of waste products, this law does not hold good. On the contrary, when there is active congestion, that is, when œdema is about to come on, the amount of lymph secreted per unit of time varies directly with the pressure in the femoral vein, rising when the pressure in the vein is raised, falling when that pressure is again allowed to fall to the normal. Given, therefore, that the pressure on the capillary wall is greater normally in the foot than in the hand and that in active congestion lymph flow varies directly with venous pressure, it is easy to understand that œdema is bound to show itself first in the foot. Whether lymph flow varies with venous pressure in the degree of active congestion that occurs in every-day life I am unable to say; with considerable degrees of starvation and of storage of waste products it occurs to a marked extent.

In what way the demands of the tissues are made known to the blood vessels it is impossible to say. The active dilatation of the arteries in active congestion seems to be brought about by means of some peripheral mechanism which is largely independent of the vasomotor system, for section of the sciatic nerve, as in Ranvier's experiment, which leads to a dilatation of the blood vessels that cannot be distinguished but by its results from that of active congestion, does not lead to œdema or an increase in the amount of lymph flow—at all events, until after some hours has elapsed. It has been thought by some to be dependent upon the carbonic

acid which is formed as the result of metabolism, but of this there is no proof, and indeed there are certain facts against this view. At present the *modus operandi* of what is an undoubted fact is quite unknown.

It is obvious that many other forms of œdema are open to explanation in the same way as that given above. In the œdema of chlorosis it is evident that there is a chronic starvation of the tissues, at all events of oxygen; while the constipation which is usually present may possibly enter in some way into the question. It is also possible, in view of the fact that anæmia is frequently accompanied by a pulse of high tension, as shown, independently, by Archibald Garrod and Dickinson, that a renal element may play a subordinate part.

Cachectic dropsy manifestly depends upon starvation of the tissues. To take three typical examples. Dropsy of the ankles occurs at the end of cases of pulmonary tuberculosis, of malignant disease, and of malaria. In tuberculosis the heart is always small and ill-nourished; in malignant disease the blood supply is largely diverted for the growth of a tissue which is physiologically outside the body; in malaria there is a great destruction of corpuscles. In all these cases, therefore, there is ample explanation for starvation of the tissues, and the effect of starvation has already been considered. Œdema of the lungs is a subject of more uncertainty. The lung tissue obtains its nutriment through the bronchial arteries, which are small in comparison with the area they have to supply. Whether the lungs obtain food from the blood of the pulmonary artery it is impossible to say, though such a source seems improbable. Having regard, however, to the fact that in cardiac disease œdema of the lungs is a sign of cardiac failure as much as is œdema of the ankles, we may provisionally regard œdema of the lungs as the result of a failure in nutrition of the lung tissue. The subject, however, is so fraught with difficulties from an experimental point of view that the solution given must not be regarded as more than a possible one.

(To be continued.)

REMARKS ON THE CHEMICAL PATHOLOGY, SYMPTOMS, AND TREATMENT OF URIC ACID GRAVEL.

By VAUGHAN HARLEY, M.D., M.R.C.P.,
Assistant Professor of Pathology and Teacher of Chemical Pathology, University College, London; Grocers Research Scholar.

Experimental medicine has during the last two decades been especially turned towards bacteriology, and consequently the important branch of pathology embraced in the word "metabolism" has received but scant attention. In spite of this, as regards the question of uric acid formation so much has been done in this direction that it may be said our views are entirely different from what they were a quarter of a century ago, and we are now able to treat patients suffering from uric acid disease on new scientific instead of old empirical principles.

As it would take up too much time to discuss the entire uric acid diathesis, I will merely call attention to that form known under the name of uric acid sand or gravel, and leave the question of its concretions with gout entirely out of the question.

Our first step in an inquiry into the causation of uric acid gravel is as regards the formation of uric acid in the organism. Until quite recently uric acid was regarded as one of the normal products resulting from the breaking down of proteids in the processes of metabolism. Sir William Roberts regarded it in man as a vestigial feature of some ancestral form. Chemists had succeeded by a process of oxidation and hydration in converting uric acid in the test tube through the transitional stages of alloxan, parabamic acid, oxaluric acid, and oxalic acid into the final products of urea and carbonic acid. Physiologists considered that proteids passed through the stage of uric acid in the animal body before being converted into urea by oxidation. If, then, uric acid is under normal circumstances oxidised in the animal body into urea and carbonic acid, one might expect that in diseases in which oxidation is hindered there would be an increase in the uric acid eliminated into the urine. Contrary to this expectation, Senator, as early as 1868, failed to find any increase in the uric acid in the urine when the respiratory processes were artificially interfered with, and Naunyn and Reiss equally obtained negative results when tissue oxidation was retarded by venesection. Further, pathology shows us that in simple anæmia there is no increased elimination of uric acid.

Bunge explains the failure of the oxidation theory by calling attention to the fact that in birds in whom respiration is most active the bulk of the nitrogen is eliminated as uric acid. While Frerichs, Wöhler, Zabelin, and others had previously shown that when uric acid was given, either by the mouth or intravenously, it appeared in the urine as urea, and no increase of uric acid could be recognised. Haig has lately pointed out that this is probably due to precipitation of uric acid in the organs, and if it is given while the blood is kept alkaline there is really an increased elimination of uric acid in the urine. It thus follows that, experimentally, we have no evidence that uric acid is converted into urea in the organism.

The researches of Horbaczewski, Kossel, etc., have led to the view that uric acid is not derived from the metabolism of the general proteids which yield urea, but from nuclein derived from the nucleo-albumin of the cells. Horbaczewski showed that when splenic pulp is mixed with blood and kept for some time at the temperature of the body it yields xanthin bases; and that when the same process is carried out in the presence of an abundant supply of oxygen instead of xanthin bases uric acid is formed.

The constituent of the spleen which yielded these xanthin bases was found to be nuclein. Other observers, in addition, found that all the tissues of the body that contain nuclein are in like manner capable of yielding uric acid.

Horbaczewski further showed that feeding animals with nuclein, or injecting it subcutaneously, causes an increase in the elimination of uric acid, not only in animals, but also in man. This last statement has been contradicted by Stadthagen in the case of dogs, in whose urine he says he found, if anything, the amount of uric acid decreased, and, on the other hand, the urea markedly increased.

These contradictory statements have likewise been made, as already stated, as regards the effects of feeding with uric acid, and we must leave them for the present for further investigation.

We can now turn to observations made on man to see if we find this nuclein view of uric acid formation supported.

Marès examined the urine as to the quantity of uric acid excreted from time to time, and found that, after a meal, it rose rapidly, so that in two to five hours it had reached double or even three times what it was during fasting; it then slowly fell for the first thirteen hours after food, and then remained constant until fresh food was taken. He found the rise was greatest after animal less after vegetable diet. Urea, on the other hand, does not begin to be increased in quantity until some time after food, and only reaches its maximum nine or more hours after the meal, and then still more gradually falls. It is known that after a large meal, especially of animal food, a great increase of leucocytes takes place in the blood, and at the time that they are being destroyed and their nuclein liberated it appears that there is this increase in the amount of uric acid eliminated in the urine.

As early as in the year 1868 Bartels showed that in leucocythæmia four times the normal amount of uric acid was eliminated with the urine in twenty-four hours. Schultzen, Ebstein, and others have confirmed the statement that the quantity of uric acid is always markedly increased in this disease.

Fleischer and Penzoldt, on comparing the quantity of uric acid passed by a leucocythæmic patient with that of a healthy patient on the same diet, found that while the first was more than double the amount of uric acid eliminated by the healthy man, the quantity of urea excreted was the same in both cases. This fact of the urea remaining the same shows that the nitrogenous matter taken as proteids in the food was equally eliminated in both cases, while the excess of leucocytes in the blood of the one caused an excessive break-

ing down of them in this case and a proportionate excess of uric acid.

Lately von Jaksch found that in pneumonia, when there is an increase of leucocytes in the blood, there is at the same time an increase in the uric acid present.

Moreover, it has been for some time past known that phosphorus and pilocarpin induce a leucocytosis which is also accompanied with an increase of uric acid in the urine. The same thing again holds good for alcohol; both Chittenden and Cameron found that both in animals and man the taking of alcohol caused an increase in the quantity of uric acid in the urine.

If we have these pathological supports to the nuclein view of the uric acid formation, we find we have an equally good physiological one in the case of children. In early life the number of leucocytes to red blood corpuscles is much greater than in adult life, as shown in the following table:

Table showing Number of Red Blood Corpuscles to Leucocytes at various Ages in Males.

Author.	Age.	White.	Red.	Proportion of White to Red Corpuscles 1=
Dupérié	2 months	8,200	4,433,000	541
"	2 years	3,900	4,805,000	1,232
Bouchut and Dubrisay...	2½ to 15	6,704	4,269,000	618
Rieder	11 to 15	9,800	—	—
Dupérié	18	3,900	5,704,000	1,463
"	26	6,700	6,138,000	916
Bouchut and Dubrisay...	24 to 30	6,113	4,192,687	700
" " " ...	30 to 58	—	4,080,113	616
Dupérié	69	4,700	4,898,000	1,042
"	78	5,400	4,712,000	873

The quantity of uric acid eliminated daily is also relatively larger than in later life, so that clinical experience supports the view that uric acid is a derivative of nuclein.

The Seat of Uric Acid Formation.

As regards the organs or organ in which uric acid is formed, we are still very much in the dark. Schröder, who experimented by either extirpating the kidneys or shutting them off from the circulation in hens, found that the uric acid accumulated in all the organs of the body; and that in snakes which survived the operation for some days, this increase in the quantity of uric acid in the organs was still more marked. It thus appears that both in the case of birds and snakes uric acid cannot be said to be formed only in the kidneys. Clinically, in kidney disease, in which elimination of urine has been hindered, an increase in the uric acid of the body has been found to follow, so that in all probability the same holds good for man.

Meissner in 1868 pointed out that normally the quantity of uric acid is always higher in the liver than in the blood of birds.

Minkowski, who succeeded in keeping geese alive from six to twenty hours after extirpation of the liver, found that, while in the normal goose from 60 to 70 per cent. of the total nitrogen is eliminated as uric acid, after the liver is extirpated only from 3 to 6 per cent. is passed as uric acid. On the other hand, the ammonia increases after the hepatic extirpation, so that 50 to 60 per cent. of the total nitrogen is in this form, while in healthy geese only 9 to 18 per cent. of the nitrogen appears as ammonia.

From the results obtained in the above-alluded-to experiments, one is led to look upon the liver as the principal seat of uric acid formation. Indeed they might have been regarded as conclusive had not experiments made conjointly by Hahn, Massen, Nencki, and Pawlow led to opposite conclusions. They shut the livers of dogs almost completely off from the general circulation by diverting the portal circulation into the inferior vena cava, and found that, although the dogs passed less urea (the nitrogen being nearly all eliminated in the form of carbamate of ammonia), the uric acid voided was considerably increased.

From this summary of the recent experimental work on the genesis of uric acid, it appears that, although we have made considerable progress in discovering what are the precursors of uric acid in metabolism, the actual seat of its formation is a point still unrevealed to us.

The Cause of Uric Acid Precipitation in Urine.

It has been shown by Sir William Roberts that the uric acid always exists in the urine in the form of quadriurates. According to him, the first step in the precipitation of uric acid is the breaking up of the quadriurates by the action of water into a biurate, and the setting free of a quantity of uric acid, which from being but slightly soluble is precipitated, while the more soluble biurate remains in solution. The next step is that the biurate is acted upon by the monometallic phosphate and thereby converted into the quadriurate, and the phosphate itself being converted into dimetalic phosphate—$2\ MH\dot{u}+MH_2\ PO_4=H_2\dot{u}$, $M\dot{H}u+M_2\ HPO_4$. This process is continued either until all the urates are precipitated as free uric acid or alkaline fermentation sets in.

If this view be correct, it follows that in urines which do not precipitate uric acid there must be a something which hinders this breaking up of the quadriurates by the action of the water. This something appears to be the sulphates, chlorides, and phosphates, as well as the colouring matter of the urine; the potassium salts appear to act more powerfully in this way than the sodium or ammonium ones, while a fixed alkali entirely prevents the change taking place.

The acidity of healthy urine is now known to be due not to the presence of free acids, but to the acid salts such as acid phosphate of soda ($Na\ H_2\ PO_4$). This is derived from the blood, and it was supposed the basic sodic phosphate ($Na_2\ HPO_4$) was converted into the acid by the uric acid, hippuric acid, sulphuric acid, etc., taking themselves part of the soda, or that acid salts more readily diffused through the kidney.

Neither of these explanations was very satisfactory, and Liebermann has now shown that the kidney substance contains an acid-reacting substance (lecithin-albumin) which is capable of converting an alkaline reacting salt (such as $Na_2\ HPO_4$) into an acid one, and that even blood serum, or defibrinated blood, when filtered through a layer of lecithin-albumin, is converted into an acid filtrate. An alkaline solution of $Na_2\ HPO_4$, when artificially circulated through a freshly extirpated dog's kidney, yields an acid urine. In the normal formation of urine the bases which combined with the acid lecithin-albumin are in their turn broken down by the carbonic acid formed in the tissues, so as again to set free the acid lecithin-albumin for renewed action. If this view is correct, under ordinary circumstances, a sufficient quantity of alkaline ($Na_2\ HPO_4$) salts being present in the blood, the renal cells do not break up the soluble urates in their passage into the urine. When, however, this equilibrium is upset by a diminution of the alkaline salts, the soluble urates being in normal quantity, the renal cells will set free uric acid, which will be precipitated in the urinary tubules; or, if the urates are in excess, the alkaline salts may fail to be in sufficient quantity to keep the urates in a soluble form.

Liebermann found if a saturated solution of uric acid in Na_2HPO_4 be divided into two parts, and one of them diluted with water and the other with Na_2HPO_4, when they are passed over lecithin-albumin, the latter contains the most uric acid, from less of it having been retained—that is, precipitated. An excess of lecithin-albumin in the kidney, it is thus seen, would lead to an acid urine being excreted; and it looks as if the alkaline urine of herbivora is due to the amount of lecithin-albumin in the kidneys not being sufficient to break up the alkaline salts of their diet.

The Cause of Uric Acid Gravel.

Having discussed the chemistry and physiology of uric acid, it behoves me now to turn to the pathology of the state we know as uric acid gravel.

Under the head of uric acid gravel we place that diseased condition in which uric acid is precipitated in the urine either in the tubules of the kidney, urinary tract, or in the urine immediately after being passed. We have already seen that uric acid under normal conditions is kept in solution in the urine by certain means, and, further, the quantity found in the animal body depends upon certain definite circum-

stances. The appearance of a precipitate of uric acid can arise from two causes:

First, an excessive formation of uric acid whereby the solvent power of the urine is insufficient to keep the increased quantity in solution.

Secondly, a diminution in the quantity of the natural solvents for uric acid in the urine, which leads to its precipitation, although the total quantity may be normal or even less than the normal standard.

As regards the first cause we know that hereditary predisposition plays an equally important part in uric acid gravel deposits as it does in gout. The hereditary cases in which there is a total daily increase of uric acid may be put down, according to our present knowledge of the matter, to some more or less marked form of leucocytosis. In children, in whom uric acid gravel is common, new cells are both rapidly built up and rapidly broken down, and in them the leucocytes of the blood are in a greater proportion than in adults, as has been previously stated.

In the next place, the kind of diet is supposed to have an important influence on uric acid gravel, animal proteids seemingly increasing it more than vegetable. As regards the daily quantity of uric acid passed, A. Herman found on a vegetable diet 0.478 grammes, on a mixed diet from 0.636 to 0.674 grammes, and on an animal diet as much as 0.981 grammes. Marès obtained equally strong results favouring the supposition that animal proteids lead to a larger formation of uric acid than vegetable proteids do. Alcohol, also as already stated, increases the quantity of uric acid formed. The taking of large quantities of water was found by Schöndorff and others to have no influence on the quantity of uric acid eliminated. The former found the following tabulated results in an experiment extending over a month:

Diet.	Uric Acid per Diem.	Total Nitrogen per Diem.
	Grammes.	Grammes.
Ordinary diet	1.184	18.5
,, ,, +2,000 c.cm. H_2O... ...	0.931	20.4
,, ,, +4,000 c.cm. H_2O... ...	1.016	20.6
,, ,, +1,000 c.cm. H_2O... ...	1.143	23.8

Muscular exercise has also an effect on the daily amount of uric acid excreted. Levison found—that in his case being subject to uric acid gravel—horse riding increased the uric acid output in one experiment from 0.6 grammes to 0.981 and 0.955 grammes, and in another to 1.089 grammes. Excessive muscular exercise tends to a leucocytosis, so would explain the increased uric acid elimination. The exercise may not be excessive in the ordinary sense of the word, but horse riding in one not accustomed to it would be classed under the same head.

If we turn to the second cause of uric acid gravel, we find heredity here also probably plays an important part. It has been by many observers noticed that urines that tend to deposit uric acid are often very pale. I have frequently found these pale urines depositing uric acid, although the total quantity is not increased, are to be especially met with in people suffering from the condition we now recognise under the head of neurasthenia, and this is, as you all know, often hereditary.

Diet alone also plays an important part in this form of uric acid precipitate when no excess of uric acid occurs. The mere taking of food poor in salines increases the tendency to gravel, and that even when the daily quantity of uric acid excreted is very small, as, for example, when an almost starving amount of food is being taken. Sir W. Roberts pointed out that uric acid concretions are common among Hindus, who live almost exclusively on rice, a food poor in salines. Hutchinson showed that uric acid gravel is rare among sailors, who eat salt meat and consequently take in a superabundance of salines, while naval officers, who live much the same life but take fresh meat, are by no means immune. Muscular exercise, when carried to excess, has also a tendency to increase the acidity of the urine, and hence the deposit of uric acid by this means.

Symptoms and Diagnosis of Uric Acid Gravel.

The principal factor in this condition is naturally the presence of free uric acid crystals in the urine either before or immediately after being passed. The recognition of these crystals is often somewhat difficult from a specimen of the day's urine being examined. It is as well always to remember the urine is most acid after a long fast, such as takes place during the night, and therefore one ought to examine an early-morning specimen.

In cases where the precipitation of uric acid takes place in the urinary tubules it irritates their epithelial lining and hence causes the formation of hyaline casts. In some cases the irritation is to such an extent as to cause albumin or even blood to appear in the urine.

Ultzmann and Leube say that the so-called periodical albuminuria is often due to uric acid sand.

I think all observers who have employed the centrifuge in the separation of the urinary deposit are agreed that hyaline casts are a common accompaniment of uric acid crystals. I have frequently met with them as well as occasionally cases in which uric acid crystals were embedded in granular casts. These uric acid casts are best found in urine passed in the early morning and centrifuged while fresh. *Débris* of epithelial cells are nearly always found when the centrifuge is employed, and in some cases the deposit reveals the existence of a pyelitis.

In cases belonging to the second group, in which the uric acid is not in excess, the urine is nearly always very acid, and generally much paler than normal urine. In fact it is what one would call a very watery urine.

A good rough test to recognise a tendency to uric acid deposit, even when no precipitate occurs, is to pour very slowly into a test tube nitric acid so that a layer forms. The urine thus treated, if it shows a cloudy ring above the junction of the two liquids before it has stood five minutes has a tendency to deposit uric acid; if between five and ten minutes it is normal; while when it takes longer than ten minutes either the total quantity of uric acid is below normal or it contains more than the usual amount of solvents. This uric acid ring lies above the ring formed when albumin is present, so in such cases one gets two rings.

The symptoms of uric acid gravel vary from being most marked and pointing definitely to the urinary tract to very doubtful ones. I only intend here to mention those symptoms which arise from the presence of uric acid crystals in the urine, and not those due to its excess or otherwise in the blood. In a typical attack lumbago-like pain in the kidney region extends down in front, along the course of the ureters, into the groin, accompanied by pain in and retraction of the testicles (in women pain in the ovary). This pain is accompanied by a frequent desire to pass water. There is inability to stretch down the legs, and the necessity of keeping them in a flexed position, with the feet towards the scrotum, and the knees thrown outwards. Great relief is here obtained by putting a pillow under the knee and bending the leg over it.

When gravel is impacted in a ureter pain may be intense, and the tenderness on pressure apt to be mistaken for peritonitis. The tenderness does not radiate so much over the abdomen. Vomiting frequently occurs, and when pain is very acute one may even have delirium. These symptoms are so closely allied to those of renal calculus, and as I am now only dealing with the smaller forms of uric acid gravel, I will now turn to the more indefinite ones.

In slight cases the lumbar pain may be expressed by the patient as merely a "tender feeling" over the loins, or it may be a heavy, dull pain which ceases on going to bed, to return on rising in the morning. This pain may diminish somewhat during the day, but never entirely goes away. It is aggravated each time the patient assumes a new position, and is often on that account mistaken for a lumbago.

The pain may radiate from the back in various directions, either towards the stomach or the shoulders, and even occasionally, according to Levison, down the arms. I oftener find it in the legs, and have had it described to me as a sciatica, which it can as a rule be distinguished from by the course it takes being more towards the front than the back of the thigh.

Various forms of neuralgia—as, for example, migraine, angina, asthma, etc.—are said by Da Costa to accompany uric acid gravel. Irregular action of the heart is a frequent accompaniment of the passing of gravel. Levison says constipation is a common occurrence; but this as a rule is, I think, due to some other cause than mere gravel. Frequent micturition is an accompaniment of even the mildest forms of uric acid gravel, and can be explained by reflex irritation.

In children, in mild cases the presence of uric acid sand is often overlooked on account of the child never complaining of any actual pain. Such cases only are recognised by examination of the urine on account of the child suffering from a frequent desire to micturate, which may be attended with sudden fruitless desires to go to stool, and a general restless nature. An ordinary examination of the urine often fails to discover anything abnormal about it. If, however, a fresh specimen of the morning urine is examined by means of the centrifuge, crystals are recognised and the case easily diagnosed.

In more severe cases, as pointed out by Sutherland, Goodhart, etc., the symptoms are more marked. Pain commonly occurs, which is as a rule not referred to the kidneys but to the umbilical or iliac region. The children are restless and active, sleep badly, and often talk while asleep. Besides the presence of uric acid crystals in the urine, albumin is often intermittently present, and tube casts, when properly looked for, are usually found. Frequent desire to micturate and the desire to go to stool also accompany these cases.

Treatment.

The treatment of uric acid gravel takes two directions, according as we desire to increase the solubility or decrease the amount of uric acid formed. It is well to remember that in the majority of cases uric acid deposits are due to an increased tendency to precipitation, and not to excessive formation of uric acid.

In cases due to an increased tendency to precipitation, we have to give drugs which help to hold uric acid in solution. In spite of the recent outcry against piperazin, I must say I have found it of great service, particularly in all cases in which gravel has been due to diminished solvents and not excessive formation of uric acid. In fact it appears to me to have no action whatsoever on the quantity of uric acid daily formed in the organism, but merely on its solubility. On this account I always give it in such cases in combination with alkalies either in the shape of alkaline waters, or potash bicarbonate combined with iodides. It is as well to remember that as the urine is naturally most acid at night and early morning, and therefore most likely to deposit uric acid, we can get over this by following Sir William Roberts's advice, and give the alkalines at bedtime. The diet in these cases is not of so much importance except in favour of salines and vegetables.

In cases, again, when the uric acid deposit is due to excessive formation, a carbohydrate diet is the most useful. Starch, sugar, and vegetables should, therefore, be the staple diet, and meat and fish only in small amounts. The old idea that sugar causes an increase of uric acid has no foundation, as I found in a series of experiments performed on myself when I took as much as a quarter or even a pound of sugar a day without causing any noticeable increase in the uric acid passed. Alcohol, on the other hand, should be prohibited, as it causes an increase in the quantity of uric acid voided.

Quinine and arsenic decrease the quantity of uric acid because they diminish the quantity of leucocytes, and therefore in cases where gravel is due to an excessive formation of uric acid they are most valuable. While moderate muscular exercise is of service, excessive exercise is, on the other hand, harmful.

In cases of excessive formation, although alkalies are of some assistance, they, like piperazin, are only of secondary importance by increasing the solubility of the uric acid formed.

The subject of treatment could well be gone into much more fully, but I think I have said sufficient to indicate the general principles on which it should be conducted.

IN WHAT WAY DO DIET AND DRUGS WHICH CLEAR THE BLOOD OF URIC ACID AFFECT THE ARTHRITIS IT PRODUCES?

By ALEXANDER HAIG, M.A. & D.M.Oxon., F.R.C.P.Lond.,
Physician to the Metropolitan Hospital and the Royal Hospital for Children and Women.

It appears to have been concluded by some of those who have read my previous writings that drugs which clear the blood of uric acid, and may *under certain circumstances* produce arthritis in doing so, must of necessity produce arthritis under all circumstances whenever administered. And so I have been asked to explain how it is that iodides and other drugs which I have shown clear the blood of uric acid are nevertheless useful in uric acid arthritis.

A similar question has also been recently raised in the *Medical Record*, January 26th, 1895, p. 113, with regard to the effects of meat diet in arthritis in connection with my paper on the direct introduction of uric acid in the British Medical Journal of December, 1894; and it is there evidently concluded that as meat diet introduces a lot of uric acid into the body, it must of necessity produce arthritis, and cannot possibly cure or prevent it,

I believe that a very brief consideration of the actual causation of arthritis by uric acid will suffice to show that these difficulties and apparent contradictions are without any foundation in fact.

I have often produced arthritis in myself working under conditions where, all the factors being recorded day after day, I could see every move in the process; I have unintentionally done the same in others, and have seen it done very often indeed by others. The patient is of course said to have had a relapse; but look at the list of drugs used, and note their effects on the solubility and excretion of uric acid, and you will often have no difficulty in saying why the relapse occurred.[1]

From such experience I see that if I was going to produce an arthritis—and I have complete confidence that I can do so at pleasure—I must bring about two things: (1) A considerable excess of uric acid in the blood, in solution probably with some salt of potash or soda; (2) the sudden supervention on (1) of some condition unfavourable to the solubility of uric acid in the blood so as to precipitate it on the joints. Unless (2) duly supervenes on (1) no arthritis results; and either excess of uric acid in the blood, or its absence from the blood, may occur alone without any arthritis.

Now as to mineral waters containing sulphates, it is. I believe, well known that their first effect is often to precipitate an attack of gout[2], that is to say, the patient comes to the Spa with (1) and the water taken produces (2), and the result is a more or less severe attack of arthritis according to the amount of uric acid present, and the rapidity with which it is driven into the joints. But when this attack has passed over, absence of urates from the blood continues, the sulphate water being continued; and there is no further arthritis as (1) is now absent, and the gout is said to be cured. With (2), and as its result, there is a general stimulation of nutrition and metabolism throughout the body[3], and the blood is kept clear of urates for a considerable time, perhaps till the following spring or summer; but then, if not sooner, a repetition of the water is required, and the same sequence of events is repeated.

I believe, further, that a considerable number of drugs, or combinations of drugs, which I have no space to mention, owe their reputation for the cure of gout and rheumatism to their power of keeping the blood clear of uric acid. Now, it follows from what I have just said about drugs, and have previously said about diet, and am quoted as saying in the *Medical Record*, January 26th, 1895, p. 113, that meat diet, if it is well taken, well digested, and if the patient is young

[1] Excretion of Uric Acid in a Case of Gout, *St. Bartholomew's Hospital Reports*, vol. xxiv, p. 217; and *Uric Acid*, 2nd edition, pp. 84, 160, 292, and 316.

[2] I believe that physicians at these Spas tell their patients that the attack is a sign that the water is going to do good, and so it is. See also *Uric Acid*, pp. 31 and 292.

[3] *Uric Acid*, 2nd edition, Ch. iv.

enough to have his nutrition stimulated by it, will produce absence of urates from the blood, and so long as it continues to do so there will be no arthritis. An excess of uric acid is being introduced, but it does not remain in the blood because the conditions are unfavourable to its solubility.[4] Hence meat diet may prevent rather than produce arthritis.

Unfortunately, however, some patients are too old, others are already too feeble and wasted, to respond to any stimulus; and others may at first respond to the stimulus of meat diet, and later, from old age or other causes, fail to do so, and then their blood will become a good solvent of uric acid,[5] and all the urate they have previously been introducing in meat diet, or retaining with drugs or mineral waters, will come through their blood and produce all the worst effects of severe uric-acidæmia. For this reason I believe that the other way out of the difficulty—namely, to prevent the production of (1) by diminishing the intake and formation of uric acid is decidedly the better of the two; and it is by no means as difficult to accomplish as some would have us believe.

I conclude, therefore, that drugs which clear the blood of uric acid may, if there is much of it in circulation when they begin to act, produce an arthritis, but if there is but little in circulation the signs of arthritis may be so slight as to escape notice. After the first arthritis is over, and so long as they keep the blood clear of uric acid, they will prevent rather than produce arthritis. Meat diet, or uric acid itself regularly administered, act in the same way, and may produce the same results.

THE VISUAL TESTS FOR RAILWAY SERVANTS AND MARINERS.

By J. B. LAWFORD, F.R.C.S.Eng,

Ophthalmic Surgeon to St. Thomas's Hospital, and Assistant Surgeon to the Royal London Ophthalmic Hospital; Member of the British Medical Association Committee for the Efficient Control of Railway Servants' and Sailors' Eyesight.

The two cases of which I give brief notes have come under my notice within the last three weeks at Moorfields Eye Hospital. In both instances the lack of a properly conducted examination of the eyesight has proved a serious hardship to the individual; and although it is a matter for congratulation that in the case of the railway official the tests are now sufficiently well carried out to detect his colour blindness, it is more than likely that the examiners who passed this man as fit for a fireman also passed other men with equal defect as fit for engine drivers.

Case I.—W. B., aged 30, an engine driver's fireman in the employ of one of the large railway companies, came to the hospital to ask if he was colour blind. He had been examined before promotion to the rank of engine driver twice in the previous week, and had failed in the colour tests on each occasion. The examiner was an "inspector," not a medical man. The patient's eyes are perfectly sound, his acuity of vision and refraction normal, but he is the subject of typical red-green blindness. He entered the railway company's service eleven years ago as engine cleaner; four years later he became fireman on a locomotive after passing the so-called tests for vision and colour vision. He is now, seven years later, qualified as an engine driver, but is thrown out by reason of his colour blindness, which ought to have been detected at the previous examination. The examiner was not the same on the two occasions.

Case II.—W. W., a sailor, aged 33, came to the hospital complaining that he could not see properly when on the look-out. He had been at sea since boyhood, and had only recently found his sight defective. On examination, he was found to have healthy eyes, but with abnormal refraction—a high degree of hypermetropia. With suitable lenses his vision was normal; without them it was reduced to $\frac{1}{6}$, and this he found insufficient to enable him to "pick up" lights, etc., at sea. Colour vision was normal. Thus, after spending the best years of his life, he becomes disqualified for his calling by reason of a defect which, although latent, could easily have been detected by a skilled examiner before the lad went to the sea.

[4] See paper in British Medical Journal, December, 1894.
[5] *Uric Acid*, Second Edition, p. 120.

These cases are illustrative of several of the points in relation to the testing of vision of railway servants and sailors—both from the side of the travelling public and that of the men themselves—which the Committee of the British Medical Association have recently brought before the notice of the Board of Trade. I have therefore thought it worth while to send them to the British Medical Journal for publication.

A CASE OF SCARLET FEVER COMPLICATED BY ABSCESSES OF RIGHT EYELID AND OF TIBIA, AND BY BRONCHO-PNEUMONIA: RECOVERY.

By MARK JACKSON, M.D.,

Surgeon to the North Devon Infirmary.

The publication of the cases of scarlet fever with œdema of the eyelid by Dr. Sidney Phillips in the British Medical Journal of January 26th, 1895, has induced me to send you the notes of a similar case.

A boy, aged 12, was sick on August 25th, 1894, and complained of sore throat, which developed into scarlet fever followed by "profuse desquamation of the skin." The rash, when the case was first seen in bed on August 31st, resembled measles, and was accompanied by marked congestion of the conjunctivæ. The temperature for the first week ranged from 103° to 104° F.

On September 2nd, there was noticed slight œdema of the right eyelids, chiefly of the upper lid. This subsided temporarily, but by September 8th the right upper lid had become very œdematous, red, and shiny, occluding the eyeball, though pus issued from between the lids. On September 16th, this swelling burst and discharged pus freely.

The boy was noticed to be slightly deaf on September 8th, and there was enlargement of the cervical glands of both sides of the neck. On this day too the temperature rose from 101° to 103·6° F., with pulse-rate of 106.

Next day signs of broncho-pneumonia were detected in the left lung, with more general bronchitis on the right side. About this time there was otorrhœa from the right ear, accompanied by œdema of the scalp above the right ear and over the mastoid process with tenderness down the right side of neck. Movement of the head was resented because of the pain induced.

On September 10th the pulse was 102, the temperature 103.4°, and the respirations 36. There was free sweating, more marked on the left side of the face, and the patient complained of feeling cold. The conjunctiva of the left eye was very congested; the pupils were equal and there was no squint.

On September 14th the pulse was 108, the temperature 101.6°, and the respirations 36. He had complained of pain in the left leg on September 13th. There was slight swelling over the tibia about 2 inches from the knee-joint. The following night the boy was very restless and could not sleep owing to the pain in the leg. The left pupil was dilated.

On September 21st chloroform was given and an incision made into the swelling over the tibia, which discharged pus, exposing the bone. Later it was found necessary to make a counter-opening at the posterior surface to secure better drainage, and convalescence was soon established and the lung symptoms cleared up. There was a trace of albumen in the urine on September 11th.

Remarks.—It will be seen that this case resembled closely those published by Dr. S. Phillips, though further complicated by abscess over the tibia and broncho-pneumonia of the left lung. For days the boy's condition was most critical and I feared suppurative meningitis. It can scarcely be doubted that infective elements obtained entrance into the circulation and caused the two abscesses of the lid and of the leg and also the broncho-pneumonia. Œdema of the lid was noticed as early as September 6th, before the occurrence of otorrhœa had been observed. Dr. Macewen, in his able work on *Pyogenic Diseases of the Brain and Spinal Cord*, states that "in thrombosis of the cavernous sinus the eye symptoms, though unilateral to begin with, become bilateral at a later

stage," and urges that "this alternation of symptoms from one eye to the other is a diagnostic distinction between inflammations confined to the orbital cavity and cavernous sinus thrombosis." In this case, as in those published by Dr. Sidney Phillips, the eye symptoms remained unilateral, and what is more, all the cases recovered, whilst Dr. Macewen states that "absolutely all those cases due to infective thrombosis (of cavernous sinus) end fatally."

ON TAPPING THE PERICARDIAL SAC.

By GORDON SHARP, M.B.EDIN.,

Late Research Scholar in Pharmacology, Owens College.

IN December, 1891, a girl of 11 was seen in a second attack of acute rheumatism, the first attack having taken place some years previously, when she was under the care of another practitioner. After the first few days following the onset of the symptoms of rheumatism, the breathing became rapid and laboured, and on examination of the precordial region a to-and-fro murmur was heard over the whole area. Dulness extended from the upper border of the second rib on the left side down to the upper border of the fifth rib on the same side as the child lay on her back. Sodium salicylate was given in 10-grain doses every four hours for three or four days. The joint pains were relieved, but the effusion into the pericardial sac increased rather than decreased, and the breathing went up to 60 in the minute.

In consultation it was agreed to tap the pericardium, but to confirm the diagnosis I inserted a hypodermic syringe of 20 minims' capacity between the third and fourth ribs on the left side, and, close to the sternum, withdrew a syringeful of serous fluid. In a few minutes the patient breathed more freely and with less frequency, illustrating a point that has been emphasised by Professor Sir Thomas Grainger Stewart, namely, that the withdrawal of even a small quantity of fluid from the vicinity of a vital organ makes a profound impression upon that organ. Had I rested content with the benefit received by my patient it might have been the best plan, but, hoping to get further benefit, I was advised, and thought fit to remove a larger amount of fluid by means of the aspirator. I thrust in the needle near the original spot some five hours after the first operation and withdrew 2¼ fluid ounces of a serous fluid tinged with blood.

I may say I selected the space between the third and fourth ribs because it appeared to me to be the spot where the dulness was most marked.

Immediately after this second operation the breathing became more laboured, and the child appeared to be distressed to an alarming degree. However, in the course of half an hour she calmed down, and became comparatively comfortable; but this was only of short duration, for in the course of an hour or more the breathing again became laboured and more frequent, and the patient gradually sank, death taking place twelve hours after the second aspiration.

I do not think that I should again tap the pericardium in a case of effusion attendant on rheumatism, for I believe such cases are best left alone. In confirmation of my belief I may mention a case which I had under my care some twelve months after the one just related.

A woman, aged 30, had repeated attacks of acute and subacute rheumatism, and in connection with the one I am about to relate she had considerable effusion into the pericardial sac. The breathing was much affected, and to one inclined to aspirate there was every indication for performing the operation. Instead of doing this, the salicylate of sodium was given in medium doses, and a large amount of liquid nourishment was administered at frequent intervals. The result was that the woman got well in the course of a few weeks.

WILLS AND BEQUESTS.—The late Mr. William Frederick Rawdon, of Clifton, York, has by his will bequeathed to the Middlesex Hospital, for the female cancer ward, called when he was a dresser there in 1822-23 Whitbread's Ward, £1,000; to the York Dispensary,' £2,000; the York County Hospital, £1,000.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ACUTE DERMATITIS.

C. J. was seen by me at my own house on December 11th, 1894. The girl, aged 22, an outdoor worker at a farm, had hitherto been healthy. On December 4th, while menstruating, she first felt the itching; it began in the thighs and forearms. On the 11th there was no eruption on the skin; the bowels were very costive and the breath foul; the tongue was covered with a yellow fur; there had been no rigors. On December 14th I was summoned to see her. The itching had now become intense; the most irritable parts were the thighs, especially the left, and the skin on the upper two-thirds of these was of a deep red colour, with papules of a faint red colour closely studded over the more deeply-coloured surface. The anterior and inner surfaces of the thighs were of a darker red than the external and posterior ones. The girl was not confined to bed; the pulse was 70 and the temperature normal; she did not feel ill.

On December 18th the neck and chest were covered with an eruption composed of maculæ and blotches, some of the latter being large; the arms and forearms as far as the wrist were of a diffuse red colour, with no papules: the hands and wrists were still free. The skin at the flexures of both elbows was moist and fissured, and there was induration to a slight degree there; the back was covered with an erythematous rash; the skin of the thighs was swollen, covered with minute vesicles and moist; there were discrete papules below the knees; the feet were free. The face was still unaffected; the axillary and inguinal glands were enlarged and tender, the submaxillary and cervical glands unaffected.

On this day for the first time the patient felt ill; on sitting up in bed she became giddy; the pulse was 72 and the temperature 100; the bowels were constipated, the breath foul, and there was no appetite. The patient noticed that as soon as the rash appeared on any part the itching ceased there.

On December 19th the face was still free, the hands and wrists covered with raised red spots; the right elbow was so much swollen that it was kept in an extended position; the left thigh had begun to desquamate; the feet were now involved; the pulse 72, the temperature 100°.

On December 21st the pulse was 72, the temperature normal, and appetite was returning. On the right cheek was one large red blotch, nearly as large as a penny piece, the rest of the face being free; the eruption on the neck and chest had now become confluent, and was covered with vesicles; the thighs and flexures of the elbows were casting off flakes of varying size, those shed from the left thigh being as large as a five-shilling piece. For the following four or five days desquamation continued, the hands and feet now throwing off large flakes; the one patch on the face threw off powdery scales, as did also the neck. There were no scabs; the hair and nails were not affected; there was no albuminuria.

On January 10th the skin over the affected surfaces was renewed except that on the feet; that over the flexures of the elbows was somewhat cracked; there was no induration; no other member of the family was affected.

On January 12th the dermatitis again set in, and ran a course similar to that of the first attack. It was preceded by urticaria, which appeared one hour after the patient had eaten a hard-boiled egg.

Jedburgh, N.B. DONALD MACGREGOR, M.A., M.D.Edin.

MALE NURSES' CO-OPERATION.—We are glad to learn that the first year's work of the Male Nurses (Temperance) Co-operation has been most successful. The average net earnings of each man have been at the rate of £97 2s. 5d. for the year. The Co-operation has had to meet a certain amount of prejudice against male nurses on the score of their tendency to intemperance, but this difficulty has been successfully met, and all the men employed, we are told, are total abstainers. The secretary of the Co-operation is Mr. F. Rouse, 8, Great Marylebone Street, Portland Place, W.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

F. W. Pavy, M.D., F.R.S., President, in the Chair.

Tuesday, March 19th, 1895.

The Pathology of Diphtheria.

Mr. William Robertson renewed the discussion by reading a paper on the Immunisation of Horses for the Preparation of Diphtheria Antitoxin. He found that suitable horses of the heavy draught class could be purchased for from £3 10s. to £7. Before being placed among the other horses each animal was tested with mallein (generally twice), and with tuberculin. The usual seat of inoculation was in front of the shoulder, the part being previously washed with ether and then with carbolic acid solution (1 in 20). Very small doses were used at first, the initial dose being as a rule 1 c.cm. The local lesion following the first inoculation was as a rule well marked, and took the form of a diffuse soft swelling, slightly painful on pressure. This reached its greatest height in six or seven hours, persisted two or three days, and then disappeared. At the same time there was a rise of temperature, which reached its maximum at the same time as the swelling was at its greatest, and generally fell to normal in thirty-six hours. When the local lesion had disappeared and the temperature fallen to normal the inoculation was repeated, the consecutive doses running somewhat as follows: 1 c.cm., 1 c.cm., 5 c.cm., 10 c.cm., 10 c.cm., 25 c.cm., etc. When the dose had risen to 50 c.cm. this was repeated three times a week for a fortnight, and if this produced no reaction, the dose for the next fortnight was increased to 100 c.cm., and for the next to 200 c.cm. three times a week. The interval between the inoculations varied somewhat, the guide being the disappearance of the local and general symptoms produced. No two horses were found to be alike in their power of resistance to the action of diphtheria toxin. In one horse the dose was increased from 10 c.cm. to 100 c.cm. without producing any very marked effect, while in another the initial dose of 1 c.cm. produced violent local and general reaction, and a second dose of 2 c.cm. caused paralysis, so that the animal had to be destroyed; and this was from extra susceptibility in the animal, not from any special virulence in the toxin. The temperature reached after inoculation varied from 103° to 105° F., but however high the temperature the horses never refused their food. Some animals, however, had distinct rigors. In a very few cases there had been necrosis of the skin and subcutaneous tissue at the seat of inoculation. When the horse was considered to be sufficiently immune it was allowed to rest a clear week before being bled. The vein chosen for bleeding from was the jugular, found on the side of the animal's neck lying in what was termed the jugular furrow and separated from the skin by the panniculus carnosus, the sheet of muscular tissue stretching subcutaneously over the upper part of the horse's body. The part was shaved and washed thoroughly with ether and carbolic acid solution (1 in 20). The vein was then raised by pressure with the fingers, and by means of a scalpel a small incision was made about half an inch in length through the skin and panniculus carnosus. The edges of the wound were then drawn asunder, displaying the vein at the bottom of the incision. The cannula, connected to the Kitasato's flask by a piece of quarter-inch rubber tubing, was then inserted into the vessel, which was held by the fingers of the left hand. When one flask was sufficiently filled it was easy to check the flow by pinching the tube, while another flask was being attached. The amount of blood generally taken was 10 litres, but 16 litres had been removed without injury. It was best, however, not as a rule to go beyond 10 litres, as if more were taken it was found not to clot properly and the serum was of a pink colour. When sufficient blood had been taken the vein was pressed upon anteriorly to the cannula. This was withdrawn, the wound sponged gently with carbolic solution (1 in 20) and the edges of the incision were brought together with two catgut sutures. The part was then dusted with iodoform, and covered with sterilised wool dipped in collodion. There had never been any difficulty in stopping bleeding, and the wounds had always gone on satisfactorily. The veins had never become obliterated or obstructed, and in one horse which had been bled fourteen times the vessel had remained as pervious as in any other animal. All instruments were boiled for half an hour previous to an operation. The animals usually stood quiet enough when being bled, but in this they differed somewhat. The three orifices of the flasks were plugged with cotton wool, and the flasks were placed in the sterilising steamer for three hours on three separate occasions. When the flasks were full and the clot had been separated from their sides by twisting them, they were placed in a cool cellar, and in twenty-four hours a large amount of serum was found to have separated. The branch tube was then flamed in a spirit lamp, the wool plug removed, and the serum poured off into sterilised Winchesters. The branch tube was then wiped free from serum by repeated pellets of sterile wool and replugged. As a rule, a 2-litre flask of blood yielded 1 litre of serum.

Dr. J. W. Washbourn remarked that Dr. Hunt's paper had raised many points of the greatest interest. He had given us many interesting facts with reference to the production of toxins by the diphtheria bacillus. His observations confirmed those of Roux that free access of oxygen favoured the formation of toxin, and the experiments of making little rafts of corks in order to keep the bacilli near the surface were very ingenious. The production of toxins only occurred when the reaction of the cultivation changes from acid to alkaline. Dr. Hunt considered the alkalinity of the cultivation to be the essential factor in the production of toxin, and considered the action of oxygen to be due to its influence in preventing the formation of acid. Although this was a possible explanation, yet the speaker could not think that very conclusive evidence had been brought forward in its support. In fact, the experiments Dr. Hunt quoted with calcium carbonate yielded negative results. Direct experiments could easily be made by the continuous addition of alkali to the cultivations. He was particularly interested in the question about the diminution in the virulence of the toxins when the cultivations were freely exposed to oxygen for some days. Dr. Hunt had said that after fourteen days the toxicity declined rapidly. This was an important practical point, and he would ask Dr. Hunt to give further details of experiments in this connection. It was also suggested that free access of oxygen rapidly destroyed the bacilli; in experiments made with methylene blue the cultivation died out in nine days. He would ask whether this was the case with cultivations through which oxygen was passed? It was certainly not what one would expect. Possibly the methylene blue acted deleteriously upon the cultivations in other ways than by simply carrying oxygen. Another question of importance in this connection was the relation between virulence and the production of toxin. Roux had stated that the original virulence of the cultivation was no index to the amount of toxin it would produce. Dr. Hunt went still further and said that a cultivation which had produced a powerful toxin did not necessarily contain bacilli of great virulence. Now, as some of his theoretical conclusions were based upon this statement, the speaker would like to hear further details of his experiments. With regard to the nature of the toxin there was still much to be learnt. Dr. Hunt had told us that the toxin was a specific proteid poison, but that we must clearly understand that it was not necessarily the proteid which was the poison, but only its disposition and its active and specific quality. He could not help feeling that the author was passing beyond the boundaries of pathology, and trespassing upon the realms of metaphysics. Surely a body could only act by virtue of the properties it possessed. He hoped that Dr. Hunt would pardon him if he offered the criticism that his paper was rather too speculative, and that he had formulated theories upon facts that were too scanty. How dangerous this was could be shown by the reliance Dr. Hunt had placed upon the supposed non-formation of tetanus antitoxin in fowls. Fowls were not affected by the injection of large doses of tetanus toxin, and Kitasato stated that after treatment with toxin no antitoxin was found in the blood. Now, as Dr. Kanthack had already pointed out, this statement had been refuted by M. Vaillard, and experiments shown

to Kitasato in Paris convinced him that he was wrong in his first conclusions. The contradiction was probably due to the time at which the blood was removed after the last injection. The eighteenth to the twentieth day was the most suitable time. If the blood was renewed too early, instead of being antitoxic it was toxic. In a paper upon the pneumococcus, which the speaker read recently before this Society, he insisted upon this, and stated that one of the important factors in obtaining a pneumonic antitoxin was the withdrawal of blood at the right period after the last inoculation. It seemed to him that Dr. Hunt's failure to obtain also diphtheria antitoxin from mice after injection of toxin was due to an error of this nature. He observed that the antitoxic property of the blood was not tested later than sixteen hours after the injection of the toxin. With regard to the question whether antitoxin was simply toxin converted by the cells, or a secretion from the cells under the stimulation of the toxin, he would not at present like to give an opinion. The evidence was not yet sufficient. According to Roux and Vaillard, there is no correspondence between the amount of toxin injected and the antitoxin formed. The same quantity of tetanus toxin was injected into two rabbits in the course of two months, the one receiving 33 small doses and the other 9 large doses. The antitoxic properties of the blood were then tested and found to be much more potent in the case of the rabbit which received the toxin in small, frequently repeated doses. From this they might conclude that the antitoxin was secreted by the cells. These results might be due to an elimination of the toxin by the urinary tract when given in large doses, and this would account for the scanty formation of antitoxin. The chief argument against the actual conversion of the toxin into antitoxin was the experiment that the antitoxic power of the blood was not sensibly diminished after removal of a quantity of blood equal to that of the whole body. Dr. Hunt explained this by supposing that a store of toxin was still present and locked up in the various organs. He would ask him if there was any direct evidence in support of this view. The next point was with regard to the specific nature of antitoxin. Dr. Hunt looked upon this as quite settled. The speaker would remind him that Duntsman had shown that the serum of animals immunised to symptomatic charbon protected against the septicæmia bacillus, and that M. Calmette had shown that the tetanus antitoxin protected against snake poison, and that the same was true of the serum of animals protected against hydrophobia. Another interesting question was that with reference to the difference between the infection with living bacilli and with their toxins. It had been shown in several cases, such as hog cholera, that the serum of immunised animals would protect against living bacteria, but not against their products. Was this perhaps after all only a question of degree? He could not feel that the experiments made in this respect were quite satisfactory. There was one point which appeared to him of importance, and that was, what was exactly meant by saying that an animal was immune? The mere fact that an animal survived after an inoculation was not a sufficient proof that it was immune. He thought that the only proof of immunity should be that the animal suffered no local or constitutional effects after inoculation. Surely we did not consider a patient to be immune to any infectious disease because he had recovered after being infected. With the pneumococcus he had frequently rendered rabbits so immune that inoculation with a virulent cultivation produced no local reaction and no fever. The question of natural immunity was assumed by Dr. Hunt to be due to the bactericidal property of the blood. The speaker did not think that this was by any means definitively settled; but that opened up the whole question of immunity, and he thought that this could hardly be entered upon at the present time. One of the most interesting questions in regard to the pathology of diphtheria in the human subject was the presence of living diphtheria bacilli in the throat long after the symptoms had subsided. Were the bacilli under these circumstances continually secreting poison, and was the effect of the poison annulled as soon as it was absorbed? The same remark applied to those instances where virulent bacilli had been found for long periods in the throats of healthy individuals without producing symptoms. It would be very interesting to know if the blood serum of such persons possessed antitoxic properties. The association of other bacteria with the diphtheria bacillus was another question of great interest. There were two ways in which such an association had been considered harmful. The one was by the association of putrefactive bacteria producing a septic intoxication, and the other was the association with streptococci, causing a mixed infection. When the exudation was examined microscopically many kinds of bacteria could be found. The majority of these did not grow upon blood serum, and it was probable that many of these produced putrefactive changes. In a series of cases examined by Drs. Goodall, Card, and himself, they were unable to find that the preponderance of any particular kind of bacterium in the exudation had any influence upon the severity of the case. With regard to the association with streptococci there was no doubt that secondary complications, as bronchopneumonia or septicæmia, might arise from such an association. The majority of so-called "septic" cases of diphtheria were, however, not due to a mixed infection with streptococci, but to direct poisoning with the diphtheria toxin. In diphtheria it was rare to get suppurating glands or metastatic suppuration. This contrasted with what occurred in scarlet fever, where a secondary streptococcal invasion was frequent. He certainly thought that the influence of the association with streptococci had been much exaggerated, and felt sure that a bacteriological examination of the throat did not point to any association of other bacteria being of serious import. As a matter of fact, we found that the more diphtheria colonies that developed in the tubes the more severe the case. The last point was with reference to the varieties of the diphtheria bacillus. Three varieties had been described—the long (or usual) variety, the medium, and the short. These varieties were virulent in the order named. He must say that with the short he had rarely produced a fatal effect in guinea-pigs. He looked upon the short variety as the most usual form of the pseudo-diphtheria bacillus. He did not know whether these varieties can be converted into one another. Mr. Peters had been making investigations upon this subject at Guy's Hospital, and, though these were not yet completed, he had found that the varieties kept their characters through several generations. Were mallein and tuberculin reliable as diagnostic agents when used to test the health of horses before inoculation with diphtheria toxin? Mallein, he believed, was; but tuberculin not absolutely so in the case of animals. Dr. White and Dr. Hayward had recommended hydrocele fluid in place of blood serum, but there was no difficulty in preparing the latter if it were allowed to stand, and well clot before being removed from the slaughter-house.

Dr. Sims Woodhead commenced his remarks by noticing that there were great differences in the amount of toxin produced in different broth cultures, even when made with the same bacillus, and when Roux's methods of ensuring oxygenation, etc., were adopted. The speaker had tried the effect of passing air through cultures in flasks by means of continuous agitation; the luxuriance of the growth was not less than by the other method in which the fluid was allowed to remain still and as a thin layer, but the toxin produced was small in quantity. Oxidation was here in progress, and hence the smallness in the total amount of toxin. In Roux's method the oxygen produced its effects upon the bacillus; in the other case it acted deleteriously on the toxins. Micro-organisms, though only saprophytes—as in the case of the saprophytic form of bacillus anthracis—might nevertheless produce toxins. Next, as to the subject of alkalinity he could state that although the fluid was kept alkaline with soda, the same yield of toxin did not take place, as in the case when oxygenation alone was resorted to; he did not think, therefore, that the result of oxygenation could be wholly explained by the alkalinity it induced. The differences in result offered by different horses, on which Mr. Robertson had insisted, was an important fact; sometimes the yield was much greater than at others; the more resistance the longer is the formation of antitoxin deferred. Dr. Hunt's statement that animals naturally immune did not yield antitoxin was not wholly correct; in fowls and dogs, if large doses of tetanus toxin were administered, the serum was more powerful in antitoxin than was that obtained from susceptible animals. Roux held

that the antitoxin was elaborated by the body cells; it was wonderfully rapid, and it was found in the blood drawn from the rabbit's ear immediately after the introduction of the toxin. The best antitoxin was obtained from horses, by the method of using small doses of the toxin at short intervals of two or three days; this was the practice the speaker was at present adopting. Like Dr. Kanthack, he had found the diphtheria bacillus in the lung in five cases out of fifty *post-mortem* examinations. When streptococci were found in the lung, in almost every case tracheotomy had been performed. In the examination of impure cultures it was impossible to state positively in all cases that the diphtheria bacillus was absent; it might be found in the second culture from a case, and not in the first or third; it might be, in short, overlooked. As to Dr. Washbourn's question on mallein, he stated that it was quite reliable; if there ensued a swelling that progressed after twenty-four hours, accompanied with a marked rise of temperature, glanders was certainly present: even when none of the ordinary clinical signs existed, it would detect disease which after death might be found in the lung. Tuberculin, as a diagnostic material, was less certain; but tuberculosis was not common in the horse. Besides the long, medium, and short forms of the bacillus, it presented many involution forms—wedge-shaped, clubbed, and the like. The short forms were associated with the period of convalescence.

Mr. LENNOX BROWNE showed two specimens of the so-called pseudo-bacillus of diphtheria. The first was from a child under the care of Dr. Roux, of Paris, who was treated successfully with one dose of antitoxic serum. The microscopic appearances showed no variety from those of a typical specimen of the virulent form, and the criterion of its pseudo-character was that injection of a mixture of the colonies and sterilised bouillon into a guinea-pig gave entirely negative results. The second case was that of a male patient, aged 25, first seen by the speaker in November, 1894. Clinically this case resembled lacunar tonsillitis rather than true diphtheria, but a bacteriological examination demonstrated an almost pure culture of the Klebs-Loeffler bacillus of the long variety. The patient made a good recovery without paralyses. On February 28th this patient's tonsils were removed, and on March 2nd the wound was seen to be partially covered with patches of pearly-grey exudate, which on removal exposed a freely bleeding surface. A culture from this exudate on blood serum showed sparse colonies of short segmental bacilli of the short variety. A subculture showed colonies still more sparse and consisting mainly of cocci, and a further subculture failed to produce any development of the bacillus, the whole growth consisting of cocci. Eleven days later, although the tonsillar wound had healed, the surface was still cloudy, and a culture taken from it yielded an almost pure growth of staphylococcus aureus. The speaker remarked that the term "pseudo bacillus" was a most unfortunate one, for these specimens, which were typical of what was usually found in similar circumstances, proved that they were true bacilli which were undergoing a process of attenuation in development and in virulence. The speaker also took occasion to protest against any importance being attached to the presence of the "Brison" coccus, this being an organism frequently found in the secretions of the oral cavity and respiratory passages quite irrespective of diphtheria and absolutely without either diagnostic or prognostic significance.

Mr. BOKENHAM described a modification in the apparatus mentioned by Mr. Robertson. The serum was drawn off from below the clot; this was effected by pushing the tube of outlet far into the filter, so that the clot was prevented from lying against the bottom. His observations had shown him that antitoxins in general were not antibiotic. Dr. Klein's diphtheria antitoxin, however, destroyed both the bacillus and the toxin.

Dr. BERTRAM HUNT, in reply, observed that in the blood of children with diphtheria there was antitoxin present, and probably the presence of antitoxin explained the fact that the pseudo-diphtheritic bacillus was harmless. Local treatment was to be advocated, as it tended to destroy the micro-organisms, and so limited the production of toxin. When air was passed over bouillon cultures of the diphtheria bacillus, after four weeks the micro-organisms stained very badly and were mostly dead. Although animals naturally immune to a disease *might* be made to yield antitoxin, it was relatively to such small amount that no practical result could be so obtained. As to virulence, he believed that it was increased by the coexistence of streptococci. When staphylococcus occurred with the bacillus in diphtheritic membrane the disease, he believed, ran a milder course.

Mr. W. ROBERTSON, in his reply, stated that, although mallein was in general reliable, it at times failed as a means of diagnosing glanders, as proved on *post-mortem* examination.

HARVEIAN SOCIETY OF LONDON.

J. E. SQUIRE, M.D., Vice-President, in the Chair.

Thursday, March 7th, 1895.

DORSAL AUSCULTATION OF HEART SOUNDS AND MURMURS.

Dr. WM. EWART drew attention to the desirability of taking a fresh view of the subject of dorsal auscultation of the heart; for though it probably had been studied by various observers, their results had not been published, and apparently no later account was available than that given by Walshe. The statements of that great authority deserved to be tested and confirmed by fresh observations. A study of the conduction of the normal heart sounds must necessarily precede any study of the murmurs, but the method to be followed was the same in both, and implied a previous inquiry into the topography of the heart in connection with the back, and into the intrathoracic anatomical relations which might favour or impede the dorsal conduction of sound waves. An "auricular" and a left "aortic" auscultatory site were in this way suggested, as it were *a priori*, by anatomical considerations; but other auscultatory sites were situated at a distance from the heart and aorta, and their recognition had been purely empirical. To these belonged the site at the lower angle of the left scapula, where auscultation was constantly being practised. For the auscultation both of heart sounds and of murmurs the rigid stethoscope was to be recommended. In the investigation valuable assistance had been received from Mr. Bertram Cooper, Mr. Scott Elliot, Dr. Sydney Ransome, and by Dr. Eric France, who in a series of thirty children had tabulated the results of his own auscultation of the heart sounds at the various sites. The paper dwelt in detail on the audibility of sounds and murmurs at the several auscultatory sites. The main results closely agreed with those which had been published by Walshe. Attention was drawn to the conduction of heart sounds and murmurs at the right base, apparently along the upper surface of the liver—a subject upon which further observations might probably throw interesting light. Meanwhile the area at the left scapular angle still retained its prominent position among the dorsal auscultatory sites as supplying the most definite practical conclusions in connection with the differential diagnosis of some of the cardiac murmurs.

The CHAIRMAN asked Dr. Ewart whether in the case in which the cardiac impulse was observed in the back there was a cavity in the lung. In his (the Chairman's) experience an impulse synchronous with the heart's beat might be seen or felt in almost any part of the left side, either front or back, in cases of pulmonary cavity. The conduction of cardiac sounds to the back was often of more significance with reference to the condition of the lung than in direct connection with the heart itself, though undoubtedly murmurs originating on the left side were most likely to be conducted to the back because of the position in which the heart lies. The mitral presystolic murmur was occasionally audible in the back below the angle of the scapula, and Dr. Squire had recently a case under his care in which this was exemplified. In reference to murmurs heard in the back, there was a murmur, systolic in point of time, which was well heard just below the angle of the scapula and sometimes in other situations, and which was produced in the air tubes, and therefore not strictly cardiac, though caused by the beating of the heart. It was a "whiffing" sound, and was most plainly heard during inspiration, or only during this act. It was well to bear this murmur in mind, as it might be mistaken for a true cardiac murmur.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

D. ARGYLL ROBERTSON, M.D., F.R.S.E., President, in the Chair.

Thursday, March 14th, 1895.

CASE OF DOUBLE OPTIC ATROPHY, WITH PECULIAR VISUAL FIELDS.

DR. GEORGE OGILVIE read notes of this case. The patient was a man, aged 57, who was a sorter of cigars, and a moderate smoker. His vision failed in December, 1893. He had formerly epileptic fits, and came of a family with a very neurotic history. The movements of the eyes were normal, the pupils acted sluggishly to light. In October, 1894: V. R. $\frac{6}{9}$; L. fingers at 10 feet, with eccentric fixation. Mixed astigmatism in both eyes. He had floating opacities in the vitreous. Both optic discs were pale, the retinal veins were tortuous; there was a congenital crescent in both eyes. R. visual field was contracted for white and colours; there was a sector down and in wanting. L. visual field: Contraction of the field, and complete inferior hemianopia. There was neither sugar nor albumin in the urine; no history of syphilis or alcohol. His knee-jerks were exaggerated, some ankle clonus was present. The character of the visual fields pointed to change in the optic nerve itself; it was a question if it were a primary atrophy or the result of a neuritis. From an old Moorfields letter in his possession, it was found out that he had attended there when there was optic neuritis. In February, 1895, the upper and inner quadrant of his R. visual field was missing, giving an appearance of R. lateral hemianopia.

DR. JAMES TAYLOR thought it was not necessary to go further than the nerve to explain the ocular symptoms in this case. It was not a case of destructive lesion in the occipital lobe; there was a history of past optic neuritis, and this was the explanation of the changes. He asked whether the vitreous opacities in this case were not pathognomonic of syphilis.

DR. BRONNER asked if there was any possibility of lead poisoning.

A CASE OF FILARIA LOA.

Further notes of this case, which he had brought before the Society in October, 1894, were read by the PRESIDENT. After removal of the parasite the patient was not troubled again for six weeks; on February 6th the worm was felt and seen again, and was sought for in vain. Two days later a swelling appeared in the right temporal region. On February 13th the worm was felt beneath the right upper eyelid: it wriggled across, and then remained coiled up there. An incision was made, and, after some dissection, a fine filamentous body, smaller than the ordinary filaria, was found; this was identified later as part of the expressed oviduct; a well-formed filaria was found deeper in the tissues, with its oviduct protruding. The blood had been examined many times in the last six months, but no traces of the filaria or its embryos could be found. The patient had occasional swellings of the skin of the arm, such as occurred often among residents in Old Calabar. As to the origin of the worms in this case, although the patient had been careful about her drinking water, for ten days before leaving Old Calabar she had been too ill to purify the water, and she may have become infected by impure water then.

CASE OF TRAUMATIC CATARACT WITH A FOREIGN BODY EMBEDDED IN THE LENS.

MR. W. SPENCER WATSON read this paper. A plumber, aged 29, had several injuries of the right eye, but only accidentally discovered that the right was affected some time after the more serious injury. He was not aware that a foreign body had entered his eye. The foreign body was seen, however, in the cataract, which was dealt with first by discission, and subsequently by linear extraction, the foreign body being removed at the second of these operations. Everything went smoothly, and when the patient was seen a year after there was a normal-looking pupil, and vision remained good. Mr. Watson pointed out that the time for extraction when a foreign body was present required very careful regulation, the gradual softening of the lens being watched until it became of a gruelly consistence, and the operation performed before it had become fluid.

DR. DRAKE-BROCKMAN mentioned the case of a native soldier who received a splinter from a bullet in his left eye. When seen there was a wound of the cornea, the lens was opaque, there was a small piece of lead in the anterior chamber fixing the iris down to the lens. The part of the iris containing the foreign body was removed with the lens, and the man made a good recovery.

MR. JOHNSON TAYLOR asked the nature of the foreign body.

MR. MARSHALL related a somewhat similar case.

In reply, MR. SPENCER WATSON said the nature of the foreign body was not ascertained.

A FORM OF IRITIS NOT USUALLY RECOGNISED.

DR. BRAILEY read this paper. After a summary of cases, he arrived at the following conclusions: That a late iritis sometimes follows an acquired syphilis, and that the average time of its attack does not vary much from thirteen years from the primary sore. That such iritis is generally double-sided, and its usual form an iritis serosa, that is to say, an iritis or rather an irido-cyclitis with comparatively little tendency to the formation of posterior synechiæ, and accompanied by dots on the posterior corneal surfaces and also by a tendency to secondary glaucoma. That the patient may show other late manifestations of syphilis, as in the cases shown, of which one had ozæna and the other choroiditis disseminata. That a similar late iritis may follow an inherited syphilis, and that the average age of the subject of it, though varying within wide limits, approximates to twenty-one. That in inherited, as in acquired syphilis, the usual form is a double serous iritis. The iritis may, however, be of a much severer type, with varying tension and with the occlusion of the pupillary area with a layer of lymph, such lymph being, however, comparatively free from the iris at the pupillary edge. That such an iritis may also be accompanied by larger and more cloudy dots on the posterior surface of or perhaps deep in the cornea, such deposits with the others resulting in the formation of a dense non-vascularising triangular plaque deep in or behind the lower part of the cornea. That the iritis may more rarely be of a different type, either the gummatous with occasionally peripheral anterior synechiæ, or the adhesive leading even to occlusion of the pupil and consequent secondary glaucoma. That apart from the iritis which simply attends and is quite secondary in degree to severe interstitial keratitis, the late serous iritis of inherited syphilis may show a close relation to interstitial keratitis. Thus a slight interstitial keratitis may be followed after a distinct interval by a gummatous iritis, while the iritis with blocked pupil, deep triangular corneal plaque, and varying tension may be accompanied by fine filmy or denser and wider spread opacities in other parts of the cornea. Notched teeth are rare or perhaps even uniformly wanting in the pure iritis serosa of late inherited syphilis, while they are present in increasing frequency as the disease approximates in its associated characters to interstitial keratitis. It is very noticeable that the subjects of the late serous iritis of inherited syphilis are often of extremely good physical development.

MR. HIGGENS thought that one of Dr. Brailey's cases looked like an old case of interstitial keratitis, and he asked if such an intercurrent attack could have occurred.

MR. SPENCER WATSON said he would be glad if Dr. Brailey would emphasise the points of novelty in these cases; he had been familiar with them for some time, and thought they were generally recognised.

MR. JESSOP said that one of the cases showed punctate dots on the front of the iris, similar to those he had shown recently at the Society.

MR. LANG said there were ring synechiæ between the periphery of the iris and the cornea, or sometimes isolated peripheral anterior synechiæ in these cases.

DR. HERN asked if the iritis was primary, or an extension from keratitis.

DR. BRAILEY said in these cases the iritis was independent of keratitis; as to the case of which Mr. Higgens spoke, the boy had been continuously under observation, and the white plaque had developed from a keratitis punctata, and not from an interstitial keratitis.

Card Specimens.

Dr. Sydney Stephenson: An Improved Test Type. Dr. A. Bronner: Wire Eye Shields, for use after cataract operations. Messrs. Hartridge and Griffith: Cholesterine in Sub-retinal Fluid of a Detached Retina, in the Eye of a Child removed for Buphthalmos. Mr. Hartridge: Cholesterine in the Anterior Chamber. Mr. C. Devereux Marshall: Microscopical Sections of (1) An unusual Syphilitic Growth, and (2) Tuberculous Growth. Mr. Jessop: Primary Sore on Upper and Lower Lid. Mr. Vernon: Case of Pulsating Tumour of Orbit.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Joseph Bell, M.D., Vice-President, in the Chair.

Wednesday, March 6th, 1895.

Patients.

Dr A. L. Gillespie showed: (1) A case of Abnormality of the Hands in a man who had only two fingers and thumb on each hand. The fingers appeared to represent the index and little finger. Though there was a radius and ulna, there was little power of supination. (2) Two Deaf and Dumb Sisters with goitre, rapid pulse, etc., who had been improved by iodide and bromide of strontium. Other two sisters, also deaf and dumb, had developed goitre. (3) A girl with a Persistent Anterior Fontanelle and partially separated frontal bones. The age was 9, and the patient deaf and dumb. (4) Dr. Gillespie also gave a demonstration of Lip Reading in the deaf and dumb, with the assistance of two boys.—Dr. Norman Walker showed a curious case of Skin Affection, apparently of the nature of eczema, with linear distribution. It had begun on the wrist and then spread up the arm and down the chest. He also showed a young girl with a form of Lichen.

Pathological Specimens.

Dr. William Russell showed: (1) A Malignant Ovarian Tumour. (2) The Lungs from two cases of Influenzal Pneumonia. (3) An Aneurysm of the Abdominal Aorta. (4) An Impacted Gall Stone, the gall bladder adherent to the hepatic flexure of the colon, and quite functionless.—Dr. R. F. C. Leith showed a Pancreas with Multiple Abscesses from Gall Stones.

Photographs.

Dr. Leith also showed photographs of a case of Aneurysm opening into the Superior Vena Cava.

Suppuration in Osseous Cavities.

Dr. McBride read a paper on Some Questions with regard to Suppuration in certain Osseous Cavities. He dealt first with suppuration of the middle ear, and secondly of the accessory cavities. He discussed the various operative modes of treatment. Recent cases (that is, cases of a few months' standing) were usually curable by Schwartze's operation, provided the drum had not been extensively damaged. As to subacute cases, therefore, the question arose whether the mastoid should not be more frequently opened than now. In chronic cases a cure was rarely got (by a cure he meant only the absolute cessation of discharge). He did not approve of draining through the mastoid in such cases. On suppuration of the accessory cavities, he indicated points of differential diagnosis as to sites whether antrum, frontal sinuses, anterior ethmoidal spaces, sphenoidal sinuses, etc. Supposing the antrum excluded by all known methods—posture, illumination, exploration, etc.—we were driven to the other sinuses, and probably then even the most accomplished rhinologist could only hazard an opinion. Exploration was required. He indicated the difficulty of diagnosing suppuration of the frontal sinus, and the still greater difficulties as to the posterior ethmoidal and sphenoidal spaces. In empyema of the antrum it was best to drain through the alveolar process. An opening through the meatus was difficult to maintain. In more obstinate cases Janson's operation might be tried. He thought such cases ought to be opened early, a tooth removed, a passage made into the antrum, a vulcanite plug, and regular washing.

The Chairman deprecated too great haste in operating in chronic middle-ear suppuration, especially in children.

Dr. R. MacKenzie Johnston and Mr. David Wallace also spoke; and Dr. McBride replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

J. A. Scott, M.D., President, in the Chair.

Friday, March 8th, 1895.

Symmetrical Gangrene of Ears.

Dr. H. C. Tweedy exhibited the heart and lungs of a male patient, aged 35, who had suffered from symmetrical gangrene of the ears. In the heart the left ventricle was hypertrophied, the mitral valve narrowed, thickened, and covered with vegetations. The aortic valves were healthy but the aorta itself was atheromatous. The right ventricle was greatly dilated, and the tricuspid valve was surrounded with hard atheromatous nodules. There was an infarct of large size in the upper lobe of the right lung and one of smaller size in the left lung. The left kidney was enlarged, and contained numerous cysts. The gangrene of the ears had commenced nineteen months before, in the autumn of 1893, and in opposition to the contention that the case was one of Raynaud's disease, Dr. Tweedy urged (1) the absence of typical paroxysmal pains; (2) the absence of defective circulation in the hands or feet; (3) the absence of vesicles, bullæ, or ulceration in the parts affected; (4) the steady continuity of the morbid process, there having been apparently no successive attacks with intervals between; (5) the age and sex of the patient; and, lastly, that the general condition of the circulation, as the result of the disease in the mitral valve and the atheromatous condition of the vessels, supplied a possible explanation for the morbid change that had taken place in the ears. As there was no history of rheumatism, it was possible that the condition of the heart and blood vessels might have been secondary to the morbid process, which was considerably advanced in the kidney.

Remarks were made by Dr. M'Weeney, Dr. Daly, Dr. Bennett, Dr. Woods, Dr. Parsons, Dr. Daly; and Dr. Tweedy, in reply, said the brain and spinal cord had not been examined. There was no definite pain till the hard masses of slough formed, and caused him pain to lie on it. He still thought the cardiac disease sufficient to cause the condition of his ears. It could not have been a frost bite, as the disease commenced in the early autumn. The heart trouble must have been pretty chronic from the *post-mortem* appearances. He had only seen one other case of Raynaud's disease. It was in a child, and the little toes were gangrenous, and in addition there were vesicles and bullæ present. The child had also paroxysmal pain. In this case the hands and feet were frequently very cold. He had not examined the urine for methæmoglobin, as the man had only been a short time in hospital, and had died suddenly.

Cirrhosis of Liver in a Child.

Dr. O'Carroll showed a cirrhotic liver taken from a child of eight years. The specimen was remarkable by reason of the fact that from the under surface protruded downwards a large mass, consisting of nut-like islands of hepatic tissue surrounded by thick bands of glistening fibrous tissue, and which during life had given rise to the suspicion of a tumour of the liver or in its neighbourhood. No previous history of the patient could be obtained sufficient to settle the question of causation, but the large amount of perihepatitis seemed to hint at a syphilitic origin of the disease.

Dr. Tweedy said he was struck by the great number of new bile ducts present, though they were not so abundant as in the hypertrophic form.

Dr. Parsons thought it was syphilitic, because there was part of the liver in which there was nothing else but fibrous tissue.

Dr. M'Weeney thought with Dr. Parsons that syphilis was probably the cause.

Dr. Bennett said that, so far as his experience went, the naked-eye appearance was against its being due to syphilis.

Spindle-cell Sarcoma of Female Urethra.

Professor M'Weeney showed an example of this rare con-

dition. The patient, aged 32, had suffered from pain in micturition for some months, and was admitted to the Mater Misericordiæ Hospital under the care of Dr. Madden and Mr. Hayes, who found a soft vascular tumour the size of a pigeon's egg projecting from the urethral orifice. It could be traced along the urethral roof into the bladder. On removal it proved to be a typical spindle-cell sarcoma. Sections were shown, and the paucity of recorded instances of this condition pointed out. Ziegler, however, mentioned the occurrence of sarcoma in the urethra.

Epithelioma of the Cervix Uteri.

Professor M'Weeney also showed this specimen with sections. The tumour, which fungated through the os externum of a multipara, aged 55, was evidently derived from the stratified squamous epithelium, but exhibited here and there a curious mimicry of glandular tubules. The centre of some of the columns was hollowed out so regularly as to suggest large glandular spaces lined with several layers of columnar epithelium. The central space was loosely filled with polynuclear leucocytes and large detached epithelial cells. Under the name adenocarcinoma uteri, Ziegler, and also Delafield and Prudden, figured conditions very similar to that now shown. Was it to be regarded as penetration by columns of leucocytes, and therefore indicative of decay, or was it a mimicry of the arrangement of the closely adjacent columnar epithelium?

Section of Obstetrics.

R. D. Purefoy, M.D., President, in the Chair.

Friday, March 1st, 1895.

Intraligamentous Cyst.

Dr. Scott said the specimen described by Mr. Macan at a former meeting had been placed in his hands by the Reference Committee for examination. It consisted of the greater portion of the uterus and the appendages of both sides. In the portion of the uterus he found the cavity to be 1 inch deep, while the body contained three myomata about 1½ to 1½ inch diameter and some about ½ inch diameter or less. The total uterine mass measured about 4 inches antero-posteriorly and about 2 inches laterally. The Fallopian tube on the left side measured about 3 inches, and, with the ovary, was apparently normal. On the right side the broad ligament was distended by a large sac measuring about 4½ inches antero-posteriorly and about 6 inches laterally. The Fallopian tube was stretched by the cyst until it measured 8 inches, and was so very closely incorporated with the cyst wall at its uterine end that microscopical sections had to be made to trace its position. The right ovary was rather smaller and more elongated than the left. The ovary and Fallopian tube lay at opposite sides of the sac. Sections through the sac in the neighbourhood of the ovary showed that the cavity was separated from that organ by several layers of dense fibrous tissue, of which the cyst was composed, outside which was a less dense and more vascular layer, which seemed to merge into the vascular stroma of the somewhat degenerated ovary. In the sections of the cyst wall no epithelial lining could be seen, but this was probably removed by examination since the operation, as by scraping the inner surface and staining the scrapings distinct isolated epithelial cells could be found. The cavity of the cyst was somewhat pear-shaped, the narrow end being next the uterus and lying between two of the myomata alluded to in the body of the uterus. On separating these slightly it was found to terminate with a somewhat rounded extremity. The position of the sac in the broad ligament, filling up the space between and being attached to both the ovary and Fallopian tube and its epithelial lining, would point to an origin from the remains of that part of the Wolffian body known as the parovarium or from the small portion of the Wolffian duct which was sometimes attached to the tubular portion of the parovarium. Its attachments and relations with the surrounding organs rendered an ovarian origin unlikely; but while, from a careful examination, he leaned to the former origin, it was impossible, from the present condition of the cyst epithelium as well as the possible changes in a chronic growth, to be absolutely certain.

Dr. Alfred Smith showed two ovarian tumours removed by cœliotomy from an unmarried woman aged 25. Recovery was rapid.

Dr. Smyly thought the case was very like a tubal pregnancy. In any case Dr. Smith did the right thing in operating at once.

Dr. F. W. Kidd said it was interesting to note what a number of pelvic tumours had the symptoms of pregnancy occurring simultaneously. He had seen a case which turned out to be an intraligamentous cyst which developed all the symptoms of pregnancy of the fourth month, and a great many of the signs.

Dr. Winifred Dickson saw a case operated on in Berlin. She presented the symptoms of ruptured tubal fœtation, and a tumour could be made out on one side. When the abdomen was opened the tumour was found to be an ovarian cyst, but on the opposite side was a small ruptured extrauterine fœtation which had given rise to the symptoms.

The tumour was referred to the Committee of Reference for pathological investigation.

Ovary and Tube Removed for Pyosalpinx.

Dr. F. W. Kidd exhibited an ovary and tube removed for pyosalpinx from a patient, aged 30, married ten years, who assigned as a cause of her illness the fact of her having got wet in August, 1894, when on an outing. She was menstruating at the time. This function suddenly ceased and the abdominal pain set in. She had been quite an invalid ever since. One week after the operation the stitches were removed. There was perfect union of the abdominal incision. Hectic fever had ceased, and the temperature had not gone above 100° F.

Remarks were made by Dr. Smyly.

Leucorrhœa: Its Causes, Varieties, and Treatment.

Dr. More Madden read a paper on this subject, which was discussed by Drs. Tweedy, Alfred Smith, Smyly, Alfred Scott, Parsons, Winifred Dickson, and Bewley.

LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

J. E. Eddison, M.D., in the Chair.

Friday, March 1st, 1895.

Exhibit.

Dr. Hellier showed Marchand's Lacto-butyrometer, by which the amount of fat in breast milk could be quickly and simply estimated. The process consisted essentially in dissolving the fat with ether, and then throwing it out by admixture with absolute alcohol. The specific gravity of the milk was also taken. In good milk the specific gravity and fat percentage were correspondingly high; but when the specific gravity was high and the fat percentage low infants would not thrive well upon it, and the milk must be looked upon as abnormal.

Ruptured Tubal Gestation.

Mr. W. A. Stott reported this case. Special mention was made of an anomalous sign which was elicited about twenty-four hours after the rupture, and which gave rise to an appearance of perforated gastric or duodenal ulcer. The patient was thirteen weeks pregnant, and her symptoms of severe peritoneal hæmorrhage immediately followed an act of micturition. When first seen, nine hours after the onset, everything pointed to ruptured tube, although retroversion and fixation of the uterus, together with great thickness and rigidity of the abdominal walls, prevented a satisfactory bimanual examination. Fifteen hours later it was found that the liver dulness had vanished. In addition all pain had become localised over the stomach, and was rendered intense by anything swallowed. Pain had entirely left the pelvic region, and slight abdominal distension had come on. As soon as permission could be obtained the abdomen was opened twenty-seven hours after onset. The plan intended was to make two incisions (*a*) a median hypogastric one to allow of free washing out from above, to be used afterwards for drainage; and (*b*) an epigastric incision to deal with the stomach lesion. The first incision made and exploration proved the absence of free gas or food in the peritoneum, and the correctness of original diagnosis. The left Fallopian

tube and nearly 3 pints of blood were removed; the middle portion of the tube was distended, and showed a large T-shaped rent. The patient made a rapid and perfect recovery.

The paper was discussed by Dr. Hellier, Dr. Kilner Clarke, Dr. Churton, Mr. Littlewood, Mr. Croft, Dr. Eddison, and Dr. Griffith.

Enteric Fever with Complications.

Dr. Churton read notes of a case of enteric fever complicated by phlebitis and pleuro-pneumonia, and followed by tonsillitis and peripheral neuritis, in a woman, aged 24.

The paper was discussed by Dr. Eddison, Dr. Solly, Dr. Kilner Clarke, Dr. Chadwick, Mr. Brown, and Mr. Hartley.

Traumatic Gluteal Aneurysm.

Mr. W. H. Brown read notes of a case of traumatic gluteal aneurysm treated by the old operation—turning out the clots and sac and ligaturing both openings of the vessel. He drew attention to the small number of recorded cases, to the advantage of a very free incision, and to the absolute necessity of a trustworthy surface marking: in this case that of Lizars having been used.

Mr. Atkenson related the case of a corpulent middle-aged man, admitted under his care some years ago, with a large hæmatoma of the buttock from a kick received in a brawl. Three weeks' rest in bed with evaporating lotions reduced the swelling so much that, at his request, he was allowed to go home, but returned next day with a tumour larger than ever. Rupture of the gluteal artery was diagnosed, a long incision was made over the swelling, the clots turned out, and the torn vessel found. This was with difficulty ligatured.

Dr. Eddison referred to Syme's classical case of gluteal aneurysm. He was present at the operation.

Cases, etc.

Cases, pathological specimens, etc., were shown by Dr. Gordon Sharp, Dr. Churton, Mr. W. H. Brown, Mr. Hartley, Mr. Lee Wells, Dr. T. Wardrop Griffith, Mr. Littlewood, and Mr. Mayo Robson.

MANCHESTER MEDICAL SOCIETY.

F. A. Southam, M.B., F.R.C.S., President, in the Chair.

Wednesday, March 6th, 1895.

Agglutination of Vocal Cords.

Dr. Moritz showed a woman, aged 24, who came under observation six months previously, suffering from great dyspnœa and aphonia. The vocal cords were then found coherent in their anterior two-thirds, but there were no other cicatrices or ulcers visible in the larynx. Some white scars, however, on the palate, the consequence of an ulceration from which the patient had suffered three years previously, pointed to the syphilitic origin of the affection. Tracheotomy had to be performed, and, when examined a week later, the glottis was found entirely occluded by the complete agglutination of the vocal cords. Though this had been incised several times and dilated with Schrötter's catheters, the opening always closed up again in a few days. The author intended, after making a fresh incision, to introduce a modified O'Dwyer tube, and, if the result should not be satisfactory, thyrotomy and excision of the cicatricial tissue would be performed.

Secondary Hæmorrhage.

Mr. J. E. Platt mentioned four cases in which he had been called upon to treat secondary hæmorrhage from the arteries of the upper extremity. Three of the cases were hæmorrhage from wounds with division of an artery, in which the vessel had not been ligatured in the first instance, and the fourth was a case of hæmorrhage from ulceration into the brachial artery. In two cases—a wound of the ulnar artery ten days old, and a wound of the superficial palmar arch a fortnight old—the wounds were aseptic, and the vessel was easily found and ligatured. The other two were examples of secondary hæmorrhage from sloughy wounds, and the treatment adopted was a modification of that usually advised in text-books. The first was a case of ulceration into a branch of the brachial artery close to the main trunk; the wound was explored, and the artery ligatured on each side of the branch. Thirteen days later hæmorrhage again took place, and the patient was again anæsthetised and the wound enlarged; the artery was found in a sloughy condition, and it was therefore traced upwards and downwards until perfectly healthy portions of vessel were found; the artery was then divided, and the intermediate diseased portion, which was 4 inches in length, was entirely removed; in order to prevent any further trouble from ligatures the divided ends were twisted. From this time the case made an uninterrupted recovery, and the patient regained perfect use of the limb. The fourth case was that of a man who came to hospital a fortnight after receiving a punctured wound of the radial artery. The vessel, which was in a state of suppurative arteritis, was situated in a large sloughy wound. The whole of the diseased vessel—a portion 2¾ inches in length—was removed, and the divided ends torsioned, from which time the case progressed favourably. The opinion was expressed that this method of treatment might be found very useful in dealing with arteries in sloughy wounds, especially in the upper extremity, and that in the case of the brachial artery the excision of the suppurating portion of vessel probably saved the limb from amputation.

Lantern Demonstration.

Dr. Ernest S. Reynolds showed a series of thirty-three lantern slides illustrating various cases of Nervous Disease from the wards of the Manchester Workhouse Infirmary.

Pneumonia.

Dr. Leech read a paper entitled The Causes of Death in Pneumonia.

British Gynæcological Society.—At a meeting on February 14th, Dr. Clement Godson, President, in the Chair, four gentlemen were elected Fellows of the Society, and thirty-three were proposed for election.—The President delivered his inaugural address on the Evolution of Obstetrics and Gynæcology, for which a vote of thanks was passed to him.—Dr. Macnaughton Jones showed an Intrauterine Non-pedunculated Fibroid removed from a patient, aged 32, recently married. She had suffered for two years from most severe dysmenorrhœa, with attendant menorrhagia and metrorrhagia consequent upon a fall. Before he saw her she had, in 1893, been treated by dilatation and curettage. The uterus was retroverted, with an intramural fibroid in the posterior wall. The displacement had been previously treated. Replacement of the enlarged uterus (nearly 4 inches), with the internal and local use of uterine hæmostatics, had no effect. The patient was intensely neurotic and most difficult to examine. The question of oöphorectomy or the alternative, free division of the cervix, was considered, and the latter step determined on. Under ether the os uteri, being patulous, was dilated, and the intrauterine fibroid shewn was discovered, which, without very great difficulty, was removed by the *écraseur* beyond its fundal attachment. The embedded portion of the sessile tumour was evidently dragged out as the wire was pushed further up. The patient had since had a healthy menstrual period without pain. The case taught two important lessons: (1) The value of anæsthesia in examination and diagnosis; (2) the need for careful exploration of the uterine cavity in all cases of persistent dysmenorrhœa before resort to oöphorectomy. The case was discussed by Dr. Heywood Smith, Dr. Srene Keith, Dr. Routh, Dr. Bantock, Mr. O'Callaghan, and the President; and Dr. Macnaughton Jones replied.—Dr. Leith Napier showed a Uterus which he had removed by Vaginal Hysterectomy for Procidentia of Ten Years' Standing from a patient, aged 65. As she was very stout, and suffered from chronic cardiac disease and asthma, he thought ventrofixation inadvisable. She had had hæmorrhages, and the cervix was eroded. Dr. Shaw-Mackenzie had examined the specimen, and reported that it measured 4½ by 2½ inches; on longitudinal section there was no evidence of gross disease. Microscopically the tissues presented the usual atrophic conditions met with in senile uteri. The whole structure was almost devoid of vascularity. The patient made a good recovery, and was now in excellent health. Dr. Bantock observed that when women over 60 had hæmorrhages malig-

nant disease existed or deve'oped in 90 per cent. of the cases. He therefore thought Dr. Napier had adopted the best possible course in removing the uterus.

HUNTERIAN SOCIETY.—At an ordinary (pathological) meeting on March 13th, Mr. CHARTERS J. SYMONDS, President, in the chair. Messrs. William T. Partridge, Thomas Rushbrook, and E. B. Landon were unanimously elected Fellows of the Society.—Mr. OPENSHAW showed a Congenital Sacral Tumour (and the child from whom it had been removed), presenting microscopically epithelial and striped muscle tissue. He also showed specimens of Sarcomatous and Cystic Tumours removed from the same region. The PRESIDENT, Mr. HALLIDIE, and Sir HUGH BEEVOR made remarks.—DR. FRED. J. SMITH showed the Cranial Vault and Brain of a woman, exhibiting the growth of a large sarcomatous tumour, which, starting from the brain, had perforated the dura mater and bone by several small processes, and then formed a swelling as large as a fœtal head beneath the scalp. The duration of the case had been less than a year from beginning to end, and yet the tumour showed considerable caseation (the microscope left no doubt of its sarcomatous nature). The case was discussed by the PRESIDENT, Mr. OPENSHAW, Mr. HALLIDIE, Dr. RUTTER, Dr. J. H. SEQUEIRA, Dr. TURNER, and Sir HUGH BEEVOR.—Specimens of Gall Stones causing obstruction which ultimately proved fatal were shown by the PRESIDENT, Mr. OPENSHAW, and Dr. H. FOX. The cases were discussed by Dr. COTMAN, Sir HUGH BEEVOR, and Mr. HUMPHREYS.—Mr. HOPE GRANT showed a specimen of Scirrhous Carcinoma causing œsophageal stricture just above the stomach.—Mr. OPENSHAW showed a specimen of Cystic Sarcoma of the Kidney which had been hardened in formol (a much superior liquid to alcohol for the purpose). The specimen had been removed from a child aged 3. Sir HUGH BEEVOR and the PRESIDENT made remarks.—Mr. SYMONDS showed specimens of Carcinoma of Stomach and Liver taken from the body of a patient whom he had previously exhibited to the Society as an illustration of the excellent result he had obtained by his method of performing gastrojejunostomy. The patient lived in comparative comfort for over ten months after the operation was performed.

KIDDERMINSTER MEDICAL SOCIETY.—At a meeting on February 8th, Mr. S. STRETTON in the chair. Mr. J. L. STRETTON read notes of a case of Castration for enlarged prostate. J. D., aged 60, had had difficulty in passing urine for some months, and for six weeks had not passed any urine except by the catheter. He was first seen by Mr. Stretton on January 4th. A No. 8 catheter entered the bladder easily; *per rectum* the prostate could be felt as large as a hen's egg. The right testicle was enlarged and nodular in places. The urine contained a considerable quantity of pus and *débris*. On January 15th both testicles were removed through a single incision. Ten days later the patient passed urine naturally for the first time. On the 28th he passed 8 ounces at one time. He developed delusions and became very troublesome, and passed his urine in bed. This condition lasted for about a week or ten days, and he then began to improve. He passed his urine naturally; its condition had improved, but he was still being washed out with nitrate of silver solution. The prostate was about half its previous size. In the discussion which ensued several members were able to confirm the shrinking of the prostate. The report on the right testicle showed it to be tuberculous, and this, it was pointed out, rendered the case more unfavourable, but apparently this did not interfere with the success of the operation. Mr. J. L. Stretton also read notes on a case of Enterotomy in a man aged 55, who was seized with pain in the abdomen after a meal of bread and cheese the previous night. Symptoms of obstruction came on, and the vomiting having become fæcal, the abdomen was opened. The small intestine was much distended and congested. This was traced in both directions with a negative result. As the patient's condition was bad, a coil of distended intestine was opened and stitched to the abdominal wall. There was a copious discharge of liquid fæces. The following day he was much more comfortable; the distension had disappeared, and he had no pain, but his pulse was bad. During the next four days he several times became collapsed, and, in spite of the free use of stimulants, he died in this state on the sixth day. On *post-mortem* examination twenty-four hours after death the bowels were nearly empty. No cause of obstruction could be discovered, and there was no sign of peritonitis. Mr. Stretton pointed out the difficulty of diagnosis in such cases, and maintained that the operation performed offered the best chance of recovery.—Mr. BETHUNE showed a large Fibroid, about the size of a lemon, removed from a multipara, aged 37, immediately after the birth of her ninth child. No bad symptoms supervened. The case was discussed by Mr. HODGSON MOORE.—Mr. M. JOHNSTONE read a paper on Malarial Fever.—Mr. J. L. STRETTON brought forward the Form of Account demanded by the local authority for notification certificates; he doubted whether this, which was in reality a second report of each case, could be legally enforced. [The form has since been withdrawn.]—Dr. EVANS read notes of a case of Cerebral Abscess in a girl aged 16, which he had evacuated after trephining. On November 3rd a consultation was held, and it was decided that the patient was suffering from cerebral abscess, probably on the temporo-sphenoidal lobe, and that an attempt should be made to evacuate its contents. The patient was accordingly anæsthetised with chloroform, and a semilunar scalp flap dissected down over the region of the lower part of the right fissure of Rolando. The periosteum having been raised from the bone, the trephine was applied over the region of the motor centres for the face, and, on the dura mater being exposed, it was seen to bulge into the wound, and there was complete absence of brain pulsation. The dura mater was opened by a crucial incision, and the brain substance probed in several directions with a fine aspirating needle; the needle was eventually introduced in a forward direction for a distance of about 2½ inches, when pus was seen exuding from the end of it; the abscess cavity was then aspirated, and about 3½ ounces of very offensive pus was evacuated; the opening in the brain was then enlarged by means of a long sinus forceps, introduced by the side of the needle, and the little finger was passed apparently into the abscess cavity; a small drainage tube was next passed down to the bottom of the opening, and the parts well washed out with boracic acid solution. The semilunar flap was replaced and fastened in position with sutures, an opening being made in its centre for the passage of the drainage tube; there was free bleeding from the scalp, which was stopped with pressure. The patient died on the morning of the fourth day after the operation. On *post-mortem* examination an abscess the size of a large hen's egg was found occupying the right frontal lobe; the abscess had a well defined wall about one eighth of an inch thick, and in it was found the opening that the aspirating needle had made, but no other opening. Dr. Evans also showed a case of a man who had fallen from an apple tree and sustained a compound fracture of the thigh, and considerable injury to the shoulder, probably fracture of the surgical neck of the humerus, with fracture of the acromion and of the neck of that bone as well. At the time the patient left the hospital he could walk with the aid of a crutch, and there was about three quarters of an inch shortening of the injured leg. He could move his arm in almost any direction, placing his hand on his head without difficulty. Dr. Evans also showed a Uterus he had removed *per vaginam* for malignant disease, having first ligatured the round ligaments through an abdominal incision. The patient died of shock about twelve hours after the operation.

LIVERPOOL MEDICAL INSTITUTION.—A meeting was held on March 14th, 1895, Mr. CHAUNCY PUZEY, President, in the Chair.—Dr. PERMEWAN presented a communication on two cases of Laryngeal Paralysis. In one there was a history of dysphagia, with attacks of spasmodic dyspnœa. No œsophageal stricture could be detected at first, but there was complete bilateral abductor paralysis of the cords. Organic disease, involving both recurrent laryngeal nerves, was diagnosed, and the patient eventually died of starvation. At the *post-mortem* a cancerous mass was found surrounding both recurrent laryngeal nerves. The other case was one of Bulbar

Paralysis. The paralysis started with the abductors, and it was only after nine months that the adductors became affected.—Mr. Larkin read notes of a case of Renal Calculus in a woman, in which the symptoms closely resembled those of anal fissure. There were no symptoms referable to the kidney except a trace of pus in the urine, but under chloroform a slight enlargement of the right kidney was detected by palpation. The patient was relieved of all pain by removal of the calculi. The President and Drs. Carter and Davies made remarks.—Mr. George Hamilton related a case of Vesical Hæmorrhage, in which suprapubic cystotomy was performed. He showed Cathcart's vacuum drainage apparatus.—Mr. F. W. Lowndes read a paper on Death Certification and the Recommendations of the Select Committee of the House of Commons. He went through the recommendations of the Select Committee *seriatim*, adducing instances which showed that carelessness in giving death certificates facilitated wholesale poisoning. He also urged that greater care should be shown by coroners in their informal inquiries, and that they should have power to remunerate medical practitioners in cases where they did not consider an inquest necessary. Dr. Hope (M.O.H.) drew attention to the importance of discriminating between mischief arising from defects in the law regulating registration, and from evasion of the existing law. He considered that a fee should be payable by the governing body in respect to every death certificate; this would conduce to greater accuracy, which was greatly needed. In the event of public medical certifiers being appointed, he did not think that the medical officer of health should be called upon, but an independent coroner's assessor might discharge such functions. The President, and Drs. Carter, Whitford, Imlach, Permewan, and Davies took part in the discussion.

Nottingham Medico-Chirurgical Society.—At a meeting held on March 6th, Dr. T. S. Tew, President, in the chair, Mr. Anderson read a paper on Some Cases of Renal Surgery, and detailed 6 cases in which nephrolithotomy had been performed and 6 of nephrorrhaphy. In one of the former a large branched stone was removed from the right kidney and a small one from the left ureter by extraperitoneal ureterotomy. All the cases recovered. Of the nephrorrhaphies, 2 were of recent date and the ultimate results could not be recorded, but the remaining 4 had been entirely relieved of their symptoms, the kidneys remaining fixed. The President and Messrs. Cattle, Tompsett, Watson, and Tresidder took part in the discussion; and Mr. Anderson replied.

Bristol Medico-Chirurgical Society.—The sixth meeting of the session was held on March 13th.— The President, in feeling terms, spoke of the loss the Society had sustained in the death of a past President, Dr. J. G. Davey.—Dr. Christie showed a patient with Asymmetrical Development of the Cranium and Lower Jaw, with Spinal Symptoms; and another patient with Peripheral Neuritis, showing Trophoneurotic Changes. Drs. Firth and Clarke discussed the cases.—Mr. Greig Smith exhibited (1) a Large Sarcoma of the Breast. (2) Hydronephrotic Kidney, due, he considered, to pressure on the ureter, from a woman with extreme prolapse of the uterus. (3) Subphrenic Abscess Cavity, caused by a perforating ulcer of the stomach. (4) Gall Stones from two recent operation cases. (5) A Small Calculus from a Female Bladder. Dr. Clarke commented on the stomach specimen, and Dr. Aust-Lawrence disagreed with the opinion given by Mr. Greig Smith as to the cause of the hydronephrotic kidney. — Dr. Harrison exhibited a specimen of Neurosis of the Lower Jaw in a Polar Bear; and Fracture of the Base of the Skull in a Brahmin Bull. Dr. J. G. Swayne and Mr. Ewens commented on the specimens. — Dr. Michell Clarke read a paper illustrated with numerous diagrams and specimens on two cases of Extradural Pressure on Spinal Cord (1) from inflammatory swelling in a case which presented symptoms of syringomyelia: (2) from a localised tuberculous mass in caries. Mr. Barclay described the operation he had performed in the former case, mentioning the great difficulty he experienced in stopping the excessive hæmorrhage.

—Mr. Paul Bush read a paper on a case of Foreign Body in the Bronchus of a child aged 8, and exhibited a steel hat pin over 3 inches in length, which had been expelled through the mouth three months after tracheotomy had been performed. Dr. Fisher commented on the absence of lung symptoms, and Mr. Morton, Dr. Rogers, Dr. Newnham, Dr. Harrison, Mr. Barclay, Dr. Clarke, Dr. Christie, and Dr. Firth considered various points in connection with the paper.

Bradford Medico-Chirurgical Society.—At a meeting on March 5th, Dr. Adolph Bronner, Vice-President, in the chair, Mr. Horrocks showed a specimen of Sarcoma of Femur taken from a woman, aged 61. There had been trouble with the knee for two years. The growth proved to be a periosteal sarcoma of the lower end of the femur.—Dr. Major showed a Cerebellum containing a large Cyst, and read notes on the case. The patient, aged 11 years, came under his care in September, 1894, and died on October 18th, 1894. The symptoms were headache, vomiting, interference with power of locomotion, going on to inability to walk, failure of sight, and emaciation. On admission there was double optic neuritis, paasing on to atrophy, mental apathy, and a tendency to fall backwards on standing; the knee jerks were diminished on both sides; there was no paralysis. *Post mortem*, a cyst containing 2 ounces of clear fluid was found in the left cerebellar hemisphere; there were no signs of hydatid disease.—Mr. Althorp read notes on Cysts of the Cerebellum, referring to their origin as probably being due to some error in development, and suggested the advisability of surgical interference in suitable cases.—Dr. A. Bronner read notes on some Reflexes of Nasal Origin. The treatment recommended was both local and general. In all cases of asthma the nose should be examined.—Dr. S. A. Shiach read a paper on Microcephalic Idiocy with notes on two cases, and showed photographs of the patients. The morbid anatomy of this condition was discussed, and the propriety or not of craniectomy was gone into. The clinical history of two cases of microcephalic idiocy was fully given. Dr. A. Bronner, Dr. Bell, and Dr. Major spoke on the paper, and Dr. Shiach replied.

Medico Psychological Association.—A general meeting of this Association was held at the Powick Asylum, near Worcester, on February 21st, under the presidency of Dr. Conolly Norman. An address was delivered by Dr. Cooke, the Medical Superintendent, entitled, A Review of the last Twenty Years at the Worcester County and City Lunatic Asylum, with some Conclusions Derived Therefrom. After briefly describing the additions and alterations that had been made in the accommodation provided for the patients, and the improvements in the sanitary and heating arrangements since 1875, he said that during the period under review there had been an increase in the number of the patients, due partly to an addition to the population, partly to a decreasing death-rate, and partly to the fact that a number of imbeciles formerly kept in the workhouse are now sent to the asylum. Everything possible had been done to ameliorate the condition of the patients and to promote their cure, and by more systematic training and in various other ways every effort had been made to render the nurses and attendants fully capable of discharging the important duties imposed upon them. A discussion followed, in which the President, Drs. Nicolson, White, Spence, Whitcombe, Fletcher Beach, Mr. Brinton (member of committee), and others, took part. —Dr. Bond read a paper on Atrophy and Sclerosis of the Cerebellum. An account was given of the clinical history and *post-mortem* appearances of a well-marked case occurring at Banstead Asylum. The chief features of the case were the long duration: marked ataxia had been noticed for fifty-three years, that is, since the age of 7; the practically total destruction of the organ by conversion into fibrous tissue: and the fact that during life very pronounced mental deficiency existed, at least from the age of 7 years, though at death but little cerebral atrophy was found. Allusion was made to several other published cases of cerebellar disease, and by a comparison of them certain deductions were attempted. The microscopical appearances were illustrated by a photo-micrograph. Dr. Bond's paper was discussed by

the PRESIDENT and Drs. COWAN and FLETCHER BEACH.—The GENERAL SECRETARY read (for Dr. MCCLAUGHRY) a paper entitled Influenza as a Factor in the Increase of Insanity in Ireland. The etiology of the disease had for the past few years absorbed the attention of eminent medical men, and, according to the report of Drs. Parsons and Klein to the Local Government Board, there seemed no doubt as to the influence of a bacillus which caused the disease. The author had addressed a series of questions to the medical superintendents of the various asylums in Ireland, and he analysed and made remarks upon the replies. It seems that in 49 cases the apparent cause of insanity was influenza, and that the most common type of the former disease was melancholia. Although most of the medical superintendents did not believe that insanity was directly or indirectly due to the disease, the author thought that, taking the aggregate number of cases admitted during one year into the twenty asylums from which he had received replies, influenza was as powerful a cause as tea drinking, tobacco smoking in youth, and ether drinking, all of which have been assigned as potent factors in the increase of insanity in Ireland. A discussion followed, in which the PRESIDENT and Drs. COOKE, FLETCHER BEACH, and SEYMOUR TUKE took part.

THE DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—At a meeting on March 14th, Dr. PYE-SMITH, President, in the chair, Mr. George F. Hentsch and Mr. W. Winkelried Williams were elected members.—Mr. GEORGE PERNET read notes of a case of Acute Fatal Pemphigus.—Dr. STOWERS read (for Dr. WALDO, of Clifton) notes of a case of Acute Nephritis with Uræmia, attended with an erythematous rash and extensive desquamation.—The following cases were exhibited: Mr. SHEILD: A female patient with Chancre on Right Cheek.—Dr. PAYNE: Erythema Induratum Scrofulosorum, or Bazin's Disease.—Dr. ABRAHAM: Bazin's Disease, Adenoma of Alæ Nasi, Pustular Prurigo, Lupus Erythematosus.—Dr. EDDOWES: Folliculitis Decalvans, Alopecia of Scalp, Lichen Ruber Planus.—Dr. STOWERS: Lupus Vulgaris on Buttock, Lupus Erythematosus with result of treatment.—The PRESIDENT, Mr. BUXTON SHILLITOE, Mr. HUTCHINSON, and Dr. CROCKER took part in the discussions.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 28th, Mr. SIMEON SNELL in the chair, Mr. PYE-SMITH showed a Breast removed that day from a woman aged 91. It contained a growth which appeared to the naked eye to be a sarcoma. This had grown recently at the site of a small lump which had been present, it was believed, for sixty years, having followed an injury.—Dr. BLACK MILNE showed an almost perfect example of Congenital Asymmetry in a female child aged 19 months. The right side was the larger, and the inequality was shown in the head, face, trunk, limbs, and in the following structures—namely, ala nasi, palate, tongue, tonsil, and labium. On the right side the palpebral fissure was wider, and the globe looked larger. Cutaneous congestion occurred on both sides but was more marked on the right. No varices or nævi were present. On the two ends the arteries appeared equal, and there was no difference in the temperature. Six teeth were present on the right side and one on the left. Reasons were given for thinking that there was deficiency of the growth of the left half of the body as well as over-development of the right. The patient was the first child of young parents, who presented no anomalies in themselves or in their relations.—Mr. PYE-SMITH read notes of the following case: A man, aged 30, had fallen on his back from the top of a house. He had dyspnœa, with signs of obstruction to the left bronchus, dysphagia, and absence of the right radial pulse. On the eighteenth day impending suffocation was warded off by tracheotomy and a long tracheal tube, but vomiting of blood occurred next day, and the patient died on the following day. At the necropsy a traumatic aneurysm was found in the posterior mediastinum on the obturant right subclavian artery. This had caused pressure on the left bronchus, and later on the œsophagus, trachea, and right carotid artery. Finally it had ulcerated into the œsophagus.—Dr. MARTIN read a paper entitled "A New Method of Dividing Bone in Surgical Operations Illustrated." The novelty he suggested to mitigate the defects of saws, chisels, etc., was shown in his instrument with two opposing blades similar to bone pliers, but having a deeply indented cutting edge. The teeth, spear pointed, sharp on either side; the lever handles, actuated by strong closing screw, approximated until bone was divided. The dentated edge was applicable to chisels of various sizes; these were exhibited. Sundry bones were experimented on with good results, the cut surfaces having fairly even aspects throughout.

REVIEWS.

MEDICAL NURSING; NOTES OF LECTURES GIVEN TO THE PROBATIONERS AT THE LONDON HOSPITAL. By the late JAMES ANDERSON, M.D., F.R.C.P., Assistant Physician to the London Hospital; Physician to the National Hospital for the Paralysed and Epileptic; Lecturer on Pathology at the London Hospital; and Joint Lecturer to the Nursing Staff, etc. Edited by ETHEL F. LAMPORT, formerly Hospital Sister at the London Hospital; with an Introductory Biographical Notice by Sir ANDREW CLARK, Bart., late President of the Royal College of Physicians, London. Second Edition. London: H. K. Lewis. 1895. (Cr. octavo, pp. 184. 2s. 6d.)

OWING to his premature death, Dr. JAMES ANDERSON left little published work behind him. This is greatly to be regretted, as his knowledge was wide and exact, and he had the happy faculty of conveying what he knew to others. Though a public memorial has been instituted to perpetuate his memory, it was a happy idea of Miss Lamport to edit Dr. Anderson's medical lectures to nurses at the London Hospital, which form a permanent record of his teaching, his knowledge, and his character. We say of his character, for throughout the volume evidences of his high aims and lofty ideals are found.

The work, fitly prefaced by an obituary notice by the late Sir Andrew Clark, which is a brief but eloquent testimony to Dr. Anderson's work and the spirit that actuated his life, commences with an introductory lecture on the qualifications of the medical nurse, and an apology for teaching her elementary physiology. This lecture will be read by all with special interest, as it displays his high opinion of the qualifications of the modern nurse. He offered great encouragement to the nurse, pointing out that her office is one of great responsibility and usefulness. She is no mere machine to carry out blindly the orders of the doctor, but is to be to him an additional pair of eyes and hands to share in the care of the patient.

After this introductory lecture, Dr. Anderson proceeds systematically with elementary physiology, taking the various systems in turn, giving just such an amount of knowledge as was necessary, and at every point illustrating the scientific principles inculcated with practical lessons of their application to nursing. Thus, in the second lecture on Feeding the Patient, a large number of useful hints are conveyed which could be given only by one who had extensive experience in the treatment of disease.

Then follow lectures on Digestion and Absorption, which subjects are very ably dealt with, and must render the work of the nurse more interesting by explaining to her the principles which govern the selection of particular diets for the various kinds of disease. The practical guidance in the administration of nutrient and other enemata is particularly good, the importance of straining meat preparations through muslin being indicated, so as to avoid introducing into the bowel substances incapable of absorption.

Then the Blood and Circulation and Diseases of the Heart are discussed, and the same aim to give the necessary information and its practical application is fully carried out. The various causes of fainting and the means of dealing with these are very clearly explained. The Respiratory System and Diseases of the Throat and Chest are equally effectively dealt with; artificial respiration is described, the Sylvester method—very properly in the circumstances—being the one alone taught. Work and Waste, the Kidneys, the Skin and

Skin Diseases follow. We are pleased to see the temperature of baths of various degrees are given, as curiously this information is sometimes omitted in elementary treatises. The standard adopted by Dr. Anderson differs from that of most writers on therapeutics, nearly all of whom, however, differ amongst themselves, and from the *Pharmacopœia* of the London Hospital. The differences are but slight, and Dr. Anderson's scale has the recommendation that it deals with round numbers, and is therefore easily remembered. Thus baths are given as of four degrees: (1) Cold, varying from 65° to 70° F.; (2) tepid, from 80° to 90° F.; (3) warm, 90° to 100° F.; and (4) hot, from 100° to 110° F. The Temperature, Infection, and Fevers and their Nursing, and the Nervous System and Nervous Disease bring the lectures to a close. There is an Appendix on Medicated Baths and the Peptonisation of Foods. It will thus be seen that the scope of the work is complete, and we may add the information is conveyed with lucidity, and with a just sense of proportion. It is one of the most difficult of tasks to convey elementary knowledge—to avoid flying over the heads of the hearers or readers, and yet not to sink to childish and inane descriptions and explanations. Dr. James Anderson avoided both of these difficulties, and his teaching is brief, adequate, and impressive. There are few statements which are incorrect or involved, but in places, as almost necessarily occurs in posthumous works, there is evidence of the need of that final revision which could not be supplied by the "touch of a vanished hand."

It is a book we can cordially recommend both to those who undertake the duty of instructing nurses, and to nurses in all stages of their career. No nurse can read the book without profit and instruction, and without acquiring an increased sense of the responsibilities and high aims of her calling. Dr. Anderson's Lectures on Nursing evidently meet an existing want, and we are pleased to see that a second edition has been already called for. In this a few alterations and additions have been made without in any way altering the scope or character of the book.

Colour Vision: being the Tyndall Lectures delivered in 1894 at the Royal Institution. By Captain W. De W. Abney, C.B., D.C.L., F.R.S., late Royal Engineers. London: Sampson Low, Marston, and Co. (Demy 8vo, pp. 230, 1 coloured plate and 41 diagrams. 12s. 6d.)

Captain Abney's right to speak with authority on all matters connected with light and colour is well known. He declares himself to be no physiologist, but his description of the eye—"the primary apparatus with which our experiments in colour have perforce to be made"—embraces all the physiology essential for his purpose, and he is a master in methods of physical research. The book deals, in the graphic style of a lecture, both with the scientific side of colour and light perception, including the experimental evidence concerning the sensations produced by simple colours and their mixture, and the theories based thereon relating to normal and abnormal colour vision, and the practical question of the detection of colour blindness in its various forms.

It need hardly be said that the recent report on colour vision drawn up by a special committee of the Royal Society, which was largely instrumental in inducing the Board of Trade to adopt only last year an improved method of testing the vision of candidates in the mercantile marine, was based on Captain Abney's labours. The present work explains more fully the fallacy of testing colour vision by asking the examinee to name the colours submitted to him, and lays down the scientific basis of the Holmgren test now adopted. For the further examination of candidates who may not be satisfied with the result of the Holmgren test, and desire to appeal to a higher court, the spectrum test is recommended. It is a quantitative as well as a qualitative test, and by its means the colour blind can always be made to match a red or a green with a white light of a certain brilliancy. The spectrum test, moreover, is an unfailing detector of malingering. A seaman desiring to escape from his contract might conceivably, after some coaching with the coloured wools, learn to simulate colour blindness sufficiently well to impose on the examiner, but no amount of knowledge or ingenuity will enable him to do this under the spectrum test.

In this connection, also, the author points out that the Board of Trade system, although now based on a trustworthy test, is still practically defective in some points. The endorsement of the candidate's certificate as having failed to pass the colour test is no adequate check, for it is still open to shipowners to employ such men. If a candidate fails in theoretical navigation, on the other hand, his certificate is withheld altogether, and "surely," says Captain Abney, "it is as dangerous that a signal should be misread as that the logarithm of the sine of an angle should be misunderstood." With regard to the test employed until last year, he says: "We know of many instances in which candidates have passed the colour test, though they ought to have been rejected, and are at present in the service."

With regard to the rival theories of Young-Helmholtz and Hering, Captain Abney does not commit himself. Pointing out certain objections to each, he inclines on the whole to the former, and suggests a modification of it. Having shown that underlying every colour sensation is a simple light sensation devoid of colour—that is to say, that every coloured light, when continuously reduced in brightness, is ultimately seen as colourless light before it disappears—he suggests that each of the three primary colour sensations (Young-Helmholtz) is compounded of fundamental light and of colour in definite fixed proportions, and not the same proportion in each; and further, that the apparatus in the eye which is responsible for each sensation has two functions, one of which is to respond to the fundamental light sensation, the other to the colour. This modification of the Young-Helmholtz theory differs from Hering's theory in that it makes the white sensation a part of the colour sensation, instead of a distinct sensation; it accounts for the existence of the residuum of light after the sensation of colour is lost equally as well as Hering's theory, and without its drawback. The book is one to be carefully studied by those interested in the scientific side of the question.

A Treatise on Diseases of the Ear. By T. Mark Hovell, F.R.C.S.Edin., M.R.C.S.Eng., Aural Surgeon to the London Hospital, etc. London: J. and A. Churchill. 1894. (Demy 8vo, pp. 744. 18s.)

In this solid-looking volume Mr. Hovell has placed before the profession the results of a very considerable experience in the special province of practice indicated by the title of his book. Although there is no lack of treatises on diseases of the ear in the English language, there is always room for a work which, like that under review, embodies the results of careful observation carried out under exceptionally favourable conditions. Mr. Hovell has looked at Nature for himself, not through the spectacles of others; while giving the opinion of others on doubtful points he never leaves the reader in doubt as to the view which he himself takes of the matter under consideration.

The work comprises forty-nine chapters and covers the whole subject of diseases of the organ of hearing, including its anatomy and physiology and the affections of the nose and pharynx which conduce to aural disease. An analytical review of a work of this character would be of little use to the reader even if it were possible within the space at our command. We must content ourselves therefore with calling attention to a few points which lie outside the esoteric mysteries of otology and that concern details of treatment which the ordinary practitioner may be called upon to carry out. Thus in speaking of the passage of the Eustachian catheter—a little operation which is looked upon with exaggerated respect by many practitioners who are non-specialists—Mr. Hovell says the mistakes usually made are: (1) holding the catheter too firmly, (2) using force in introducing it, (3) using too large an instrument.

The catheter should always be disinfected after use; according to Mr. Hovell catarrh as well as syphilis may be communicated by an imperfectly cleaned catheter. In syphilitic cases he uses a catheter with a copper collar fitted to the funnel-shaped portion to distinguish it from those employed in non-infectious cases. As regards the method recommended by some authorities of passing bougies along the Eustachian tube with the aid of the catheter in order to test its permeability or for the relief of stricture, Mr. Hovell doubts the

efficacy of bougies thus used and thinks they are capable of doing serious mischief.

He is opposed to the use of the nasal douche, because it is liable to be followed by acute inflammation of the middle ear from some of the lotion having passed along the Eustachian tube, or by severe and persistent headache owing to some of the fluid having forced its way into the frontal sinuses. He has found an ordinary spray producer quite efficient for the clearing away of inspissated mucus from the nostrils or naso-pharynx. He strongly condemns the barbarous method of tearing polypi from the nostrils still practised by some surgeons.

In the excision of enlarged tonsils he is strongly opposed to the administration of a general anæsthetic. In adults and some children, a 2 to 5 per cent. solution of cocaine may be sprayed on the fauces a few minutes before the operation, but in young and nervous children he thinks this drug better dispensed with, as its application is apt to cause as much alarm as the operation itself. For the arrest of severe hæmorrhage after tonsillotomy Mr. Hovell has found the following plan very useful: "Mix together tannic acid, 3 parts; gallic acid, 1 part; and add a few drops of water; then knead the powder until it is a hard mass, and from it take a piece sufficient to form a ball the size of a small marble. Place this on the forefinger of the hand corresponding to the side of the patient from which the hæmorrhage is occurring, and by this means introduce it into the patient's mouth, and rub it firmly against the bleeding surface, making counter-pressure with the palm of the other hand placed on the side of the head over the region of the tonsil."

In treating of adenoid vegetations, Mr. Hovell expresses his disagreement with the teaching of some authorities that it is unnecessary to operate on patients who have passed the age of puberty on account of the retrogressive changes which are taking place in the growths. He holds that as long as the abnormal conditions caused by the growths remain, so long will the mischief which has been produced progress. He has operated with marked benefit on patients of more than 21 years of age. He invariably uses an anæsthetic; he thinks it best in most cases to place the patient fairly deeply under ether, and to keep up the anæsthesia with chloroform whilst the operation is in progress. In dealing with infants, chloroform or the A. C. E. mixture should be employed in preference to ether. He lays stress on the importance of thorough removal of the growths in order to remove the source of the naso-pharyngeal catarrh which usually exists. He holds that the establishment of free nose breathing should not be the only object for which the operation is undertaken; attention should also be paid to the complications very frequently associated with such growths.

He operates with the patient lying on his back on a low sofa, with a small soft pillow under the neck to keep the occiput lightly resting on the surface of the couch. He thinks it a great mistake to throw the head far back, because in this position there is pressure upon the veins of the neck, with the result that hæmorrhage is increased. He does not approve of instruments for scraping, because of the injury to healthy tissues either surrounding or subjacent to them. If the growths are small, soft, and few, they may be removed with the finger nail; in all other cases they are best taken away with forceps.

The following simple method of relieving odynphagia deserves to be better known, as it is applicable to all cases, whether the cause be malignant disease, scarlet fever, diphtheria, tonsillitis, or any other affection. It is carried out as follows: A person standing behind the patient, who should be seated on a chair or in bed, places the palm of each hand, with the fingers pointed directly upwards, over the ear on the corresponding side, and then makes firm pressure towards the mesial line. The greater the pressure the greater will be the relief from the pain during swallowing.

Mr. Hovell points out, in treating of chronic suppurative inflammation of the middle ear, that persons suffering from this condition may be a source of danger to others. He quotes the following case which came under his own notice: A medical practitioner thus affected attended several women during their confinement; intervals of several weeks elapsed between the attendances, but all the women were attacked by puerperal fever. No cause could be discovered, and the medical man was led to suspect that the discharge from his own ear had caused the mischief, and he ceased to attend cases of midwifery. Mr. Hovell thinks it probable that in these cases the poison was conveyed by the fingers, and he raises the question whether a practitioner or nurse suffering from chronic suppuration of the middle ear is justified in attending cases of midwifery or surgical cases requiring the application of dressings, etc.

There is a particularly valuable, though brief, chapter at the end of the book on Life Assurance and Diseases of the Ear. Mr. Hovell thinks that cases of chronic suppurative inflammation of the tympanum should be unhesitatingly rejected if there be a large perforation in the membrane with granulations or polypi in the cavity, if there be at the same time evidences of caries of the osseous walls, fistulous openings in the mastoid process, or signs of facial paralysis. The presence of exostoses in the meatus he looks upon as a decidedly unfavourable addition to chronic tympanic suppuration. A history of attacks of giddiness and disorders of co-ordination in connection with some aural disease should also disqualify.

A useful feature of the book is a summary of the regulations with regard to the hearing of recruits in force in the armies of Prussia and Austria.

We must congratulate Mr. Hovell on having produced a work which is likely to be useful to the general practitioner as well as to the specialist. It is clearly written, all superfluous details and refinements are omitted, and the essential facts of the subject are conveyed in simple but precise language. The whole book gives the impression of having been written from an experience not merely extensive but mature.

The book is handsome in appearance, extremely well and, as far as a pretty close scrutiny enables us to judge, correctly printed. The only slip of any consequence that we have discovered is that the name of Michel, the well-known otologist of Cologne, is given as "Michael" at p. 101 and elsewhere. While speaking of mistakes of this kind, we must express the pleasure with which we note that Shrapnell's name is correctly spelt, instead of being Germanised into "Schrapnel," as it often is in English books. The illustrations are good and not too numerous. The index might with comfort to the reader have been rather more full.

On the whole, we know of no book in the English language which we can with more confidence recommend both as an introduction to the subject for beginners and a trustworthy guide to practitioners.

ON PRESERVATION OF HEALTH IN INDIA. By Sir J. FAYRER, K.C.S.I., M.D., F.R.S. London: Macmillan and Co. 1894. (Fcap. 8vo, pp. 51. 1s.)

THIS is a reprint of a lecture originally delivered to the students of Cooper's Hill College. It is a concise and useful description of the conditions—geographical, climatic, meteorological, and otherwise—which are encountered in the various parts of the Indian Empire, and many of which make strong demands on the powers of vital resistance and adaptation to an unwonted and often unfavourable environment possessed by Europeans. The precautions as regards dwelling, clothing, food, drink, occupation, and amusement, which are necessary for the preservation of health under such circumstances, are fully and sensibly indicated, and good practical hints are given regarding the treatment of fever, cholera, dysentery, congestion of liver, and other ailments for which the engineer, forest officer, planter, or sportsman is not always able to secure medical advice. The importance of ventilation, conservancy, moderation in food and drink, boiling and filtration of water, and other sanitary precautions is strongly urged. Persons proceeding to India or other tropical countries would do well to "read, mark, learn, and inwardly digest" the excellent precepts contained in this admirable little book.

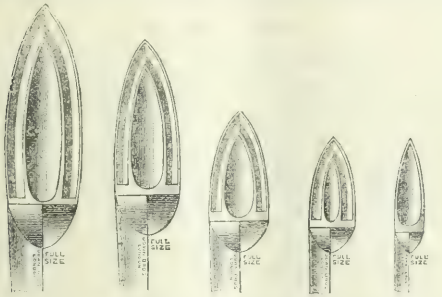
DENTAL HOSPITAL OF LONDON.—Mr. Henry Harben, J.P., has, in addition to £500 already contributed by him, promised a further donation of £1,000 towards the amount required for building the new Dental Hospital in Leicester Square, conditionally upon a sum of £13,000 being contributed by the public within reasonable time.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

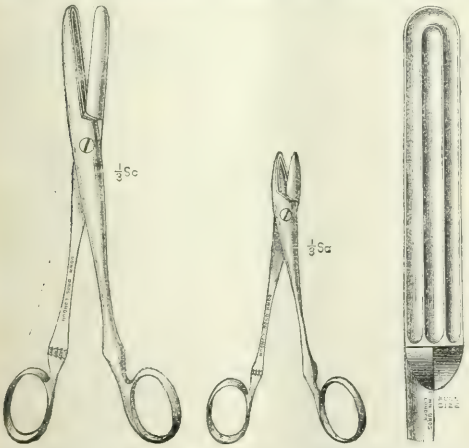
MODIFICATION OF SIR SPENCER WELLS'S CATCH FORCEPS.

Professor J. Greig Smith, M.A., M.B. (Bristol), writes: For some years past I have been using in abdominal and general surgery a modification of the Wells forceps, which I like so much that I venture to recommend it to my professional brethren.

The general character of the instrument is sufficiently indicated in the accompanying engravings. Instead of the serrated jaws in ordinary use there is a sort of double hawk's bill, without any transverse serration. Thus the tissues caught, instead of being pressed into a corrugated ribbon shape, are nipped and sharply compressed along one or two lines. Ordinary forceps, with flat serrated jaws, can be pulled



upon only in the direction of the handles; they may slip, on being tilted laterally, so as to place a ligature. These forceps cannot slip in whatever direction they are pulled. The pad of uncompressed tissue in the centre of the jaws



gives enormous holding power. For catching and holding slippery or friable ovarian cysts they have clear advantages. In holding a divided broad ligament the impossibility of the tissues slipping out sideways will be appreciated by those who know what such an accident means.

As hæmostatics they are, I think, superior to the ordinary pattern. They cause division of the inner coats and the outer coat is spread out and commingled with the surrounding tissues. In abdominal surgery it is hardly ever necessary to apply a ligature in the parietal incision or on divided adhesions if these forceps are used. The sharp-pointed forceps, with one lip for dissecting or picking up the peritoneum, is a favourite instrument with all who use it; indeed, so efficient is it that it is doubtful if the second lip is necessary in the smaller forceps.

The tips of the smaller forceps are pointed on the Tait plan, so that a ligature slips over them easily. They may be had of any size, of any shape, bent or straight or T-shaped. Messrs. Down Bros., of 5 and 7, St. Thomas's Street, Borough, London, S.E., are the makers.

A NEW SPONGE HOLDER FOR USE IN PHARYNGEAL AND THROAT OPERATIONS.

Mr. H. Bendelack Hewetson, F.L.S., M.R.C.S. (Honorary Surgeon to the Eye and Ear Department of the General Infirmary at Leeds), writes: For some considerable time my mind has been turning on how best to improve, as well for immediate surgical convenience as for considerations of antisepsis and sterilisation, the various forms of sponge holders with which to entirely and rapidly cleanse the pharynx of the free hæmorrhage which takes place during operations on the naso-pharynx, and which it is all-important to check and remove as quickly and effectively as possible. My most favourite instrument has hitherto been a sponge lashed carefully on to a convenient stick or wooden handle 10 inches long. However, these are not easily kept sterilised, and it is a constant trouble for the nurses to keep this form of sponge holder ready for immediate employment, a number being required at an operation. The metal holders such as those which clamp with a ring I think are somewhat dangerous. They bend and get out of repair, and there is a tendency for the prongs to apply themselves too roughly to the back of the throat when unprotected perchance by the small sponge during the firm and rapid sponging which must take place to staunch the free hæmorrhage whilst the removal of postnasal adenoid growths and other such operations is being performed. I have therefore suggested to Messrs. Reynolds and Branson, of Leeds, that they should make a sponge holder for me, either in turned wood, or celluloid, or vulcanite, through the hollow stem of which would pass a whipcord tied to a small sponge. The two ends of the cord pass upwards towards the handle, as shown in the illustration, and are tied to a sliding ring, which slips over the graduated handle of the holder until the ring "jams" and holds the sponge tightly in the slightly trumpet-shape orifice of the holder. The grip on the handle prevents the ring and its cord from slipping upwards, thus firmly retaining the sponge, which is attached to the cord if desired, as I said before, by a single knot, but which has been found to hold firmly in its place even without the knot, the twitch power being sufficiently great a constriction on the sponge, making it project and thus guarding entirely and covering the end of the sponge holder. To enable the instrument to be cleaned and sterilised perfectly it is preferably made of celluloid, and is accompanied by a small brush attached to a twisted wire, with a hook at the opposite end made for replacing the cord after cleansing. The whole thing can be thus kept perfectly clean, and is so simple in its construction that it is not possible for it to get out of order. I may add that I have tried various forms of wire, catgut, and the like in place of whipcord, but I am inclined to think that whipcord is the best. My drawings have been placed in the hands of Mr. Fred. Reynolds, of the firm above mentioned. I am indebted to that gentleman for the great care he has exercised in following out and executing my suggestions.



REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XLI.—FOREHOE, NORFOLK.

In the village of Kimberley, three miles from the interesting town of Wymondham, stands the quaint old workhouse of the Forehoe Union. It was built in 1777 for 450 inmates, but nothing like that number of beds are now occupied. The master gave us every facility for seeing the quarters of the sick.

The Infirmary Wards

are in the house, the men being in one wing and the women in the opposite wing, with the width of the house between them. A wide oaken staircase gives access in each case to the wards, 2 on each side. There are 12 beds for the men and 12 for the women. These wards are the old dormitories, divided by partitions, which makes them warmer and more home-like; the pitched roof remains as it was. There was an air of cheerfulness and comfort about the rooms, due in a measure to the blue and white check curtains at the head of each bed.

The Patients,

9 in all, could hardly be called sick, they were mostly infirm; 2 men were in bed, the one with rheumatism, the other a case of senility. There was also a little boy who had been brought in on the previous day suffering from sore throat (there was diphtheria in the village). The wardsman was washing him, and, in reply to the matron's question, said that there was now nothing amiss with the throat. On the female side 3 patients were in bed—cases of senility. There is a nurse, not trained, and a wardsman or wardswoman to each wing. The bedsteads are old fashioned wooden frames, and the bedding is mostly straw; a few feather beds have been brought in by inmates. It was all quite sweet and wholesome. The sanitary appliances are very rudimentary. In the women's ward one end is partitioned off, leaving the gable open; here there is a commode; on the men's side the commode is enclosed on the landing. There is not a closet in the house, and the same arrangement is made for the able-bodied at night, a commode in the middle of each ward. No water is laid on to any part of the house; hot water is obtained from a copper in the kitchen, and the matron is careful to keep a copperful hot through the night. All slops, etc., have to be carried downstairs. Baths are not used in the infirmary; there is a movable bath for use in the house.

The lying-in ward is so seldom used that the matron makes use of it as a sewing room.

The Nursery

is on the ground floor in the further wing, a cheerless stone-paved room, destitute of comforts, not even a mat for the babes to crawl on. The cradles are the ancient wooden boxes, and along one wall is a frame holding sloping bins, intended in past days to hold the infants. The babies are in the care of the children's caretaker helped by an inmate. The only two imbeciles were in the house under the care of the matron.

Recommendations.

The two crying wants are the supply of earth closets in suitable places all over the house—no difficult or costly matter in the country—and the provision of a proper nursery for the infants, with all suitable appliances for the care of young children. Since labour is scarce in almost all these Norfolk unions, it would be well to lay on a supply of water upstairs for the infirmary, and to provide some means for emptying it. In other respects the most was done for the sick with the material that the officers had at their disposal. Again we throw out the suggestion of the practicability of organising these country workhouses as the centres of medical relief for the district.

Basingstoke.

The report of the Local Government Inspector, Mr. Baldwyn Fleming, on Basingstoke Union Infirmary, urges the appointment of a night nurse on the guardians. There are two day nurses for 71 patients, many of whom are bedridden. According to the report these nurses have to rise in the night when the wardsman or wardswoman is in need of skilled help. The report goes on to deal with other details, such as the position of the waterclosets, the contents of which are removed through the wards; the want of bath rooms; the nurses' quarters, which are so situated that there is very little privacy; the need of improved bedsteads, especially for the acute cases; and of one or more isolation wards. The nursery and its management are severely criticised. The room is unsuitable, ill-ventilated, and the floor soiled; there is no responsible officer, the infants are in the care of two old inmates, the milk seems to be served out once a day and to be kept in the ward, and the tube bottle is in use and is condemned by the inspector.

Okehampton and Crediton.

We are tempted to bracket these Boards, having before us just now the criticisms with which our reports have severally been received. The Committee of the Okehampton Board has taken our Commissioner's report in connection with the circular of the Local Government Board, and has based its recommendations on the lines laid down in these two documents, and, though heavily handicapped with an unsuitable building, is doing what lies in its power to work improvements within the four walls. The Crediton Board, on the other hand, received a contradictory report from the master who denies the statements made by our Commissioner, is satisfied that the report in the British Medical Journal is "an unjust one," and takes no personal trouble to see which report is true or which is false. A Board so actuated does not move with the times.

IRISH MEDICAL SCHOOLS' AND GRADUATES ASSOCIATION.

The annual general meeting was held at the Medical Society's rooms on March 16th, when the following officers were elected: Officers for 1895-96: *President:* Sir R. Quain, Bart., M.D. *Vice-Presidents:* Dr. R. Fegan, Dr. G. H. Kidd, Dr. Gilbart-Smith, Director-General J. N. Dick, C.B., R.N. *Honorary Treasurer:* Mr R. Jocelyn Swan. *Council:* Dr. P. S. Abraham, Dr. W. H. Bourke, Mr. R. Maitland Coffin, Dr. James Davison, Surgeon-Major Grier, Dr. John Hadden, Mr. C. H. Hartt, Dr. J. J. Lough, Dr. J. D. Macdonogh, Sir Philip Smyly, Mr. Geo Stoker, Dr. J. A Waring, Dr. W. D. Waterhouse, Miss Helen Webb, M.B., Dr. C. Wells. *Honorary Auditors:* Dr. Douglas Lithgow, Mr. R. O'Callaghan.

The annual report was read, and votes of thanks passed to the retiring executive.

The St. Patrick's Festival Dinner took place at the Café Monico on the evening of the same day, when the members not only celebrated St. Patrick's Eve, but received the congratulations of their officers and numerous guests on the continued success of the Association.

The chair was taken by the President, Dr. Phillips-Conn, and numerous guests were present, including many ladies. After the toast of "The Queen" had been proposed by the President, that of "Our Defenders" was proposed by Sir William MacCormac, and responded to by Surgeon-Major Bourke and Captain Milner.

"Our Guests" was proposed by Dr. Gilbart-Smith, and responded to by Sir W. B. Richardson, Mr. Edmund Owen, and Mr. Costelloe: Sir B. W. Richardson waxing eloquent as to the beauties of the island, the charm of its inhabitants, and the pleasures of travelling there.

In responding to the toast of "Ourselves," which was proposed by Mr. J. Y. W. Macalister, the President showed the steady progress the Association was making, and pointed out the utility of its aims, referring especially to its endeavours to open the English hospitals to the holders of Irish qualifications.

The health of "The Ladies" was proposed by Dr. Abraham, who paid a high tribute to their helpfulness in the affairs of the Association.

The toast was acknowledged in fitting terms by Miss Helen Webb, who had recently been elected on the Council of the Association, and was also spoken to by Dr. Cagney, who said that they were glad to welcome the ladies not merely to grace the festive board, but because by their sympathy, their advice, and their intellectual support, they were able greatly to advance the more or less public objects of the Association.

The pleasure of the evening was greatly enhanced by some capital songs given by Mr. Franklin Clive and Surgeon-Major Bourke.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 23rd, 1895.

SICK CLUBS AND THE PROVIDENT PRINCIPLE.

The subject of sick clubs is a wide one, for, on the one hand, it is impossible to consider it fairly without entering on the analogous topic of provident dispensaries, and, on the other hand, it would be as improper as it would be useless to look at it from the point of view of the medical profession alone. The club system is of quite as much importance to the working man, and his side also must be considered if we are in any way to understand the question.

It is only in accordance with the nature of things that people should desire to insure against sickness and its attendant expenses as against other irregular calls upon their purse, but when they contract, they must consider what they are contracting for. There is a difference in medical attendance even when the skill and the drugs are just the same; the element of time has to be considered. Club patients do not demand that their medical attendant shall stay and chat, or shall call at specified times, or keep him waiting in the drawing room, or argue endlessly about the diagnosis, or want the medicine sent, nor do their relatives require each a separate clinical lecture on the diagnosis, prognosis, and treatment of the disorder. They are content that the doctor shall call "on his rounds," that he shall attend to the patient alone, and they are willing to send for the medicine at a convenient hour. To a doctor who, in attending his ordinary patients, has to go all over a town every day the attendance on a few patients of this sort is no great additional labour.

Another aspect of the case, however, must be considered. Between the pauper poor and those people who can afford to pay ordinary fees there are great classes who certainly cannot pay these fees and yet are honest, self-respecting workers. Till the pinch of sickness comes they are independent, and they send for the doctor, in all honesty intending to pay. But, after a long illness, pay they cannot, and without clubs a large proportion of them would fall practically on the charity of the medical profession—an unthanked and unadmitted, but still none the less real, gratuitous medical service. As against this drain on the profession, enforced by that public opinion which does not hesitate to say that a doctor should "in common humanity" go when sent for, the clubs are at any rate a certain protection. They are better than repudiated or bad debts, and that feeling, no doubt, has influenced many men to accept them at rates which are really unremunerative.

It is necessary to state all this to show clearly why it is that medical men hold so jealously to the "wage limit." On the one hand, club practice, say what people will, has in it, if properly carried out, an element of charity; it does not pay; the doctor could not live on it alone. On the other hand, people in a better position are not content with, and will not accept, the sort of attendance for which alone they pay when they join clubs.

The common sense is that contracts are quite right if proper payment is made for the thing contracted for, but that a penny a week will in no way pay for the sort of attendance which people who earn good salaries are accustomed to demand. What a penny a week will supply is fairly shown by some of the provident dispensaries. Take, for example, the one at Sunderland. An admission fee is charged, so as to prevent people rushing in just when taken ill; then each adult pays 4d. a month, man and wife 8d., a child 2d., and man, wife, and all children under 16 years of age 1s. a month. Drugs are provided by the dispensary, where patients attend when they are able. Three-fifths of the money goes direct to the medical officers and two-thirds of any surplus that may be left after expenses are paid.

The provident department attached to the Metropolitan Hospital works on very much the same lines: 4d. a month for each adult, 2d. for each child, but 6d. will include all under 16 years of age. One penny is charged every time medicine is supplied, and extra fees are charged when cards are sent in after 10 A.M. Here, again, there is a wage limit. The doctors are paid a fixed stipend of £100 a year.

The dispensaries and clubs attached to the Metropolitan Provident Medical Association charge the same rate, and here also about three-fifths go to the doctors, and the rest, aided by subscriptions, to expenses. It will be noticed that in all these cases the patients are expected when able to attend at the dispensaries. There are, however, several clubs in connection with the last named Association, and in those the drugs and surgery-room being found by the doctors, practically the whole of the members' fees go into their pockets. We may take it, then, that what is deducted in the case of the dispensaries is really the cost of the drugs and the dispensing, so that the basis of 4d. a month, rising by degrees up to 1s. or 1s. 2d. for an entire family, may be taken as representing what reputable dispensary or club attendance can be given for. We are quite aware that many will maintain that this rate of payment is far too low and is derogatory to medicine, and it is indeed difficult to believe that the great bulk of the working classes are unable to pay at least twice as much as they now pay to remunerate their club doctor for medical attendance during sickness, and that the average payment for this purpose should be no more than one penny is far from satisfactory. But we have to look at facts. On the one hand, the price of ordinary medical attendance is fixed by open competition; pulled down by competition among medical men for practice, pushed up by competition of the public for the services of known good men. On the other hand, the fees for attendance on paupers are pulled down to the lowest level by penurious guardians, but always on the understanding that patients are to be seen in the round or at fixed times, and that by the necessity of getting an order endorsed "urgent" calls are reduced to a

minimum. It is urged that there is an opening for an associated system between these two extremes, and that there is ample room for a proper provident system. Two conditions are essential—first, that the patients shall be content to accept the attendance of the medical officer as it comes in his round, and to come at fixed hours to the surgery; the other, that a strict wage limit be enforced.

As to the first of these, every medical man will at once recognise its necessity. The only way in which a man can honestly offer cheap medical attendance is by so arranging his work that he can see a large number of patients, and this can only be done by method and system—things to which the ordinary private patient has a rooted objection. Above all things, the private patient wants to be seen just when he likes, and it is the running about which this entails that makes it impossible, even at ordinary fees, to make much of a livelihood, until such a position is attained as renders it possible to disregard the fancies and vagaries of patients. Then, no doubt, money can be made; but if the fancies and vagaries of patients could be eliminated earlier, much lower fees could be accepted, and this is what is attempted by provident dispensaries, etc. As regards the wage limit, it is by some argued crudely that if it pays the doctor to see one man at a penny a week, it pays him to see another quite irrespective of what he earns. It must, then, be definitely stated that, although clubs, etc., may pay the men who accept them, partly as being better than nothing, or than the less than nothing involved in bad debts, and partly as being an introduction, they certainly do not and cannot offer any proper return for the expense of a medical education in any other way than as a stepping stone to something better, and when worked in with better-paid practice. The admission of all sorts of people wipes away the chance of better-paid practice or the prospect of something better in the future. The abolition of the wage limit doubtless makes the stepping stones rather firmer, but leaves nothing at the other side, for no one surely will suggest that the position of dispensary or club doctor is sufficiently attractive as an ultimate goal to make men study medicine as a science. The medical profession must recognise, if the public does not, that the abolition of the wage limit in clubs means the gradual abolition of private practice, except for a very small number at the top of the tree. Against such an organised attempt to crush their earnings down to the lowest living wage, acceptable to the least scrupulous among them, medical men may well combine, as they have done in Cork.

The existence of a class of people who, although not paupers, cannot pay ordinary fees, is admitted on all hands. The advantages of the provident principle are also fully recognised, and the clubs and benefit societies are endeavouring to fill up this hiatus. But while doing this, a thing in itself not only right but praiseworthy, they have been tempted by their power and their commercial instincts to beat down fees, and, for the sake of subscriptions, to draw better class people into their organisations. In both directions they are acting wrongly, and will do a great injury to the medical profession and ultimately to the public.

It may be questioned, however, whether medical men might not do better than enter into merely defensive combinations. For the gap remains to be filled, and attendance has to be provided for those weekly wage-earners who cannot pay bills. If it is true that the provident principle has a good foundation, and is properly applicable for the supply of medical attendance, why should we go cap in hand to all these little clubs, and ask them to take both the organisation and the profits, instead of organising in every town a provident dispensary or provident club embracing all members of the profession willing to join, employing its own collector, making its own rules, fixing its own wage limit, and, if desired, arranging a sliding scale within fairly wide limits, so as to occupy the ground thoroughly?

We have every sympathy with the medical men of Cork in their resistance to the combination which has been brought against them, and we have every confidence that they are acting rightly. But if they can maintain such unanimity and stand together so firmly as they seem now able to do, could they not put it to some permanent service by so occupying the ground that little clubs should cease to make a trade of catering for medical attendance?

THE RECENT CIRCULAR OF THE LOCAL GOVERNMENT BOARD.

The circular recently issued by the Local Government Board is significant of the advance of opinion towards a generally humane and considerate treatment of the pauper. It bears evidence of having been drafted with ample knowledge of the varying conditions amid which the local authorities have to work and assures them of the hearty co-operation and sympathy of the Board in carrying through such reforms as may suggest themselves. After reading the circular no fair-minded person can miss the conclusion that the Local Government Board, as at present constituted, is alive to the need of better classification, of more efficient nursing of the sick, especially at night, of more responsible care of the infants, of the rational education of the children, and of the construction of better buildings for the infirmaries, and that it desires to strengthen the hands of the medical officer in his official dealings with his Board.

But beyond this testimony to good intentions the circular has no real authority and carries with it no weight of obligation. Any Board of Guardians may, if it so pleases, order the circular to lie on the table until the dust of another sixty years has obliterated its fair characters. It represents the mind of the Local Government Board on these matters, but unless it is backed up by local public opinion it might as well have been a blank sheet of paper.

Those who are conversant with the workings of the Poor Law are aware that the only authoritative regulations for the conduct of a workhouse are those known as the general orders, which specify in the utmost detail the whole duty of the ratepayer to the pauper, as this was conceived at the time they were framed. These orders have the weight of an Act of Parliament, and were most of them drawn up, for the guidance of the guardians, at the time of the Poor-law Amendments Act of 1834, or during the few years of active legislation on the subject which followed the passing of that Act. In the same thick volume in which the general orders may be studied we find footnotes and passages in smaller type, embodying many excellent recommendations with regard to the care of the sick and kindred matters. But—and the distinction is a capital one—these last repre-

sent merely the opinion of the department at the time they were framed, and have not the same binding force as the general orders.

The general orders make the matron responsible for the care of the sick and infirm, and direct her to choose from among the able-bodied inmates such as seem to be most suitable to attend upon them. If a nurse is appointed by the Board of Guardians, the qualifications and duties required of such a functionary are set forth in three paragraphs. The first states that she is to attend on the sick and lying-in women, under the directions of the medical officer; the second that she is to point out any defects in the wards to the medical officer; and the third that she is to see that a light is kept burning all night in the sick wards. The omissions here are more remarkable than the requirements.

When we turn to the regulations for the medical officer, we note the contrast between the meagre detail respecting his relation to the sick and the narrow powers given to him in regard to their nursing, with the vast amount of red tape which surrounds his relations with his Board.

The mutual relations of the guardians and their officers are completely controlled by the Department. A master, matron, medical officer, or chaplain may only be dismissed after an inquiry conducted by a Local Government official, nor is their appointment legal until confirmed by the Department. These provisions safeguard the interests of the officer, but anyone conversant with administration will see that they must hamper a Board desirous to carry out reforms which are not welcome to the officials. An unprogressive Board may then, if it pleases, entrench itself behind the general orders. While it leaves the control of the sick department to the matron, or appoints an official called a nurse competent to carry out the duties comprised in the three paragraphs above referred to, it has done all that the law requires.

Under these circumstances, taken in connection with the revelations of the present condition of the sick poor in many a provincial workhouse, it seems clear that something more coercive than a well-drafted circular is required to amend so bad a state of things, and that it has become necessary to bring the general orders more up to date. Sixty years have elapsed since the bulk of them were framed; they are antiquated and cumbersome, and they date from a time when the best minds of the country were directed to the repression and coercion of the pauper, with a view to delivering the land from the terrible and growing evils of the lax old Poor Law. Pauperism then ruined the honest poor, and the urgent need of the day was to enforce the workhouse test, and to make it act as a deterrent to the idle and worthless. The aged, sick, and infirm, who found themselves in destitution through force of circumstances, and who now form the majority of adult paupers, were hardly considered. The light of long experience still indicates the necessity of dealing sternly with the idle and worthless, and of enforcing the workhouse test, but it also points to the need of discrimination, and of recasting the general orders, which place the fate of all classes of paupers in the hands of the local authority.

It is often asked how it is that the Local Government Board is powerless to enforce its mandates. Wherein do its powers differ from those, for instance, of the Education Office or of the Lunacy Commissioners, whose requirements are fulfilled at once? The matter lies in a nutshell. The Local Government Board has not, like the Education Office, the power to give or to withhold a grant from the Imperial Exchequer; nor has it, like the Lunacy Commissioners, direct executive powers, but it must act entirely through the local authority. The guardians alone can raise the necessary money from the rates; they alone control the expenditure; holding the purse-strings, they are practically masters of the situation. The medical officer of the Department may state his opinion as an expert upon the requirements of the sick in any workhouse; the Local Government Board may issue circular after circular breathing the spirit of sweetness and light; but the weight which these recommendations carry depends on the force of public opinion behind them.

Some are inclined to think that the remedy for existing evils lies in the appointment of more and differently qualified inspectors, and doubtless this might be a gain. Yet the recent circular shows that the department lacks neither information nor enlightenment. Others remind us that the power to appoint guardians who shall be efficient administrators is now in the hands of the people. True; but even popularly elected bodies may err through ignorance or perversity. School Boards are forced to maintain a certain minimum standard of efficiency by the controlling force of a central authority. Such authority is already possessed by the Local Government Board, but only, it would seem, within the limits of the general orders. We would fain see the general orders recast in the spirit of the recent circular, whose humane principles would then be followed in practice instead of remaining, as they now in many cases must remain, a pious opinion, to be safely disregarded by those who do not share it.

It is stated that the new law for the regulation of medical practice in France, which was passed on November 30th, 1892, will shortly be extended to Algeria.

We are glad to hear that Dr. Arthur Gamgee is now recovering from a severe attack of broncho-pneumonia following influenza contracted during the course of practice at Lausanne.

Mr. Herbert W. Allingham was elected Assistant Surgeon to St. George's Hospital on Monday, March 18th. Mr. Allingham has held in turn the posts of Demonstrator of Anatomy in the Medical School and Surgical Registrar.

The announcement of the death of Mr. Ernest Turner, F.R.I.B.A., at the early age of 51, will be received with sincere regret by all who have had public or private relations with him. Mr. Turner devoted himself chiefly to sanitary work, and at the time of his death was Chairman of the Council of the Sanitary Institute.

The Queen has appointed Mr. Thomas Smith, F.R.C.S., to be one of the Surgeons Extraordinary to Her Majesty in the room of the late Sir William Savory. Mr. Thomas Smith was appointed Assistant Surgeon to St. Bartholomew's Hospital in 1864, and Surgeon in 1873. He was elected a member of the Council of the Royal College of Surgeons in 1880, but he is better known to many generations of St. Bartholomew's students as a genial clinical teacher and a very able operating surgeon.

Dr. Canini, of Leghorn, a well known Italian specialist in diseases of children, who died recently, has bequeathed his entire estate, amounting to 2,300,000 lire (£92 000) for the foundation of a hospital in which poor children suffering from diphtheria may have the advantages of the serum treatment gratuitously.

THE REPORT OF THE ROYAL COMMISSION ON VACCINATION.

After an interval of five months the Royal Commission on Vaccination met again on March 20th, under the presidency of Lord Herschell. The method of preparing the report was discussed, and the Commission, after adopting a resolution of regret at the death of Sir William Savory, adjourned for about three weeks.

THE BLOOD SERUM OF THE HORSE AS A REMEDY FOR TUBERCULOSIS.

Dr. Paul Paquin, Professor of Bacteriology in the State University of Columbia, and member of the State Board of Health of Missouri, has, as we learn from the New York *Medical Record*, been experimenting for some time with the blood serum of the horse in the treatment of tuberculosis. Having convinced himself that the horse is naturally immune against tuberculosis, he has for some months been using the blood serum of selected horses, carefully injecting the serum under the skin of patients suffering from tuberculosis. Dr. Paquin maintains that the horse being naturally immune against the disease, the blood can be used direct without any artificial immunisation. The serum is said to have been used in about fifty cases with almost uniformly satisfactory results.

ROYAL NATIONAL PENSION FUND FOR NURSES.

The report presented to the annual meeting of this Fund last week showed that the amount of investments and assets was over £200,000, an increase of £34 000 The number of new policies was 536 as against 497 in 1893, and the proportion of withdrawals was less. Sick pay to the amount of £739 had been received by 149 beneficiaries, while the benevolent fund in connection with the Pension Fund had distributed £465. The Chairman, Mr. Walter H. Burns, stated that Mr. Herbert Gibbs had been appointed to the vacancy on the Council created by the death of Mr. Clifford Wigram. Mr. Henry C. Burdett, the deputy chairman, stated that the President, the Princess of Wales, had expressed her intention of identifying herself in the future even more closely with the Fund, an institution in which she took a peculiar interest.

THE REMUNERATION OF NURSES.

A perusal of the recently published annual report of the Guy's Hospital Trained Nurses' Institution may well make the reader, who remembers his Virgil, apply with the needful difference a certain quotation on the blessedness of husbandmen ("O fortunati nimium, sua si bona norint") to those nurses who are employed on the private nursing staff at Guy's. We learn that in the twelve months ending December 31st last, there have been from 82 to 85 of these nurses at work, that they have earned close upon £6,000, have nursed 832 cases, have refused 120 applications, have added £250 to the reserve fund, now standing at £1,000, and have withal had £500 divided amongst them by way of bonus. In the case of the senior nurses this bonus reaches the sum of £80, in addition to a salary of £40 per annum and all found. Last year we gave prominence to the scheme for profit sharing then introduced, and to the plan whereby the bonus additions were invested with the Royal National Pension Fund for Nurses to provide superannuation allowances at the age of 55 years. The Treasurer states that the arrangement has met with wide approval, and "has without doubt attracted the patronage of medical men throughout the country." The fact that, in a year which has been characterised in general by a slackened demand for nurses, such excellent results should have been attained by this institution appears to bear out the opinion thus expressed.

THE CHAIR OF PHYSIOLOGY AT LIVERPOOL.

We learn that Professor Sherrington, F.R.S., of the Brown Institution, and of St. Thomas's Hospital Medical School, and Secretary of the Physiological Society, is a candidate for the Holt Chair of Physiology at Liverpool, just rendered vacant by Professor Gotch's appointment to the Oxford Chair. Dr, Sherrington's transfer to Liverpool would be a great loss to London, and a curiously practical comment upon the excessive modesty of educational enterprise in the metropolis. In this instance the combined resources of the University of London and of a leading medical school are apparently unable to afford either the emoluments or the laboratory, failing which another of the most efficient London teachers is likely to be promoted to a provincial school.

HOSPITAL ELECTIONS.

A correspondent who signs himself "Disgusted" draws our attention to a series of advertisements containing addresses of candidates for the appointment of surgeon to the Devon and Exeter Hospital which have appeared in the local newspaper. While we thoroughly sympathise with our correspondent's protest, it must at the same time in justice be admitted that the publication of such advertisements is the inevitable result of the objectionable mode of election in this instance. As the appointment is made by a majority of a large body of subscribers, a candidate may reasonably suppose that he has no chance of success unless he does his best to bring his claims both directly and indirectly under the notice of every voter. This mode of election is fortunately quite exceptional at the present day, and will, it is to be hoped, soon become obsolete. We trust that the writer will be able, by his own influence and that of his professional brethren, to bring about so desirable a change in the rules relating to the election of medical officers to this important institution. Appointments to the medical and surgical staff of hospitals are now commonly made either on the recommendation of the Medical Committee, or of a special Selection Committee upon which both the medical staff and the lay governors are represented.

THE FROST AND THE WATER.

Much has been said lately regarding the miseries caused by failure of the water supply during the frost; but there is another side to the relation between frost and water supply which seems to have attracted far less attention than it deserves—namely, the impurity of such water as has been available for those who could get it. Perhaps the acuteness of the distress and annoyance produced by want of water made people less particular as to the character of such as was supplied, but it is curious that the report published by the Registrar-General has attracted so little notice; for, among the various modes in which the frost has caused injury to health, it is difficult to believe that the accompanying deterioration of the water of the metropolis which is there described can have been entirely without effect. After giving a table of the number of microbes in the different waters, Dr. Frankland says: "This table shows that a continuance of very low temperatures during the month again prevented most of the filters from working efficiently. Indeed, the results were in nearly all cases more unsatisfactory than even during the previous month; for, although there was in every case a great reduction in the number of

microbes per c.cm., it was only in some of the filters of the Grand Junction Company that the number was brought within the standard limit of 100 per c.cm." It does not appear that this is the result of any formation of ice upon the filters, but that, so far as filtration is a vital rather than a physical process, cold has an influence in checking its efficiency. . . . It would thus appear that, in very cold weather at least, the initial number of microbes has an important influence upon the number in the filtered water . . . . the greater the number of microbes in the raw water the larger the number passing the filters." The filters, in fact, are inefficient in the cold, and when we consider the nature of the land off which the water flows, and the number of towns whose drainage enters into the river from which it is derived, we need not hesitate to be somewhat anxious as to the result of such a failure of the purifying power of the filters. The purity of the London water confessedly depends entirely upon the perfection of its filtration. Now, in December, 1894, the West Middlesex general well of filtered water, as supplied, contained 6 microbes per c.cm., while in February, 1895, it contained 286; the Grand Junction general well at Hampton in December, 1894, contained 48, in February, 4 944; the East London No. 1 Essex well in December, 1894, contained 50, in February, 5,200; and in one case the filtered water of the Southwark Company contained in February 6,260 microbes in each c.cm., while the raw Thames water, after mere storage for a fortnight without any filtration, contained only 720 microbes per c.cm. We have then to face the fact that not only does frost interfere with our getting the water, but it interferes also with the quality of such water as we get. Filtration fails, and while both in December and in February alike the deep well water of the Kent Company contained only 8 microbes per c.cm., the filtered water of the East London Company contained in February 5,200 and that of the Southwark Company 6,260.

FLOWERS AND THEIR EFFECT ON THE VOICE.

Miss May Yohe has confided to an interviewer the interesting fact that she cannot bear to have flowers near her when singing, as their perfume utterly destroys her voice. The lady added that she could not account for this "curious fact." The effect of flowers on the voice has recently excited a good deal of attention in France, and Dr. Joal, of Mont Dore, has published an elaborate paper on the subject. He relates a number of cases which have come under his own observation in which thickness, huskiness, and even complete loss of voice are always caused by penetrating odours. In some persons it is only the perfume of particular flowers that produces this effect; in others the odour of incense or musk or the smells of the kitchen, tanyard, or smithy act in the same way. The bad effects of flowers on the voice is so well known among singers that M. Faure, Madame Krause, and other eminent teachers caution their pupils against having them in their dressing rooms, and a jealous *prima donna* has been known to secure herself against the possible triumph of a rival by treacherously presenting her with a magnificent bouquet just before she went on the stage. Testimony to the evil effects of flowers on the voice is borne by Madame Christine Nilsson and other famous singers, and by laryngologists like Dr. Fauvel and Dr. Gouguenheim, of Paris. The flower which has the worst reputation in this respect is the violet, but there is no evidence that it is really more harmful to the voice than other sweet-smelling flowers, such as the rose, the mignonette, the heliotrope, the lily of the valley, the gardenia, the lilac, and the tuberose. The explanation of this curious idiosyncrasy is probably to be found in a special sensitiveness of the olfactory mucous membrane to the action, mechanical or chemical, of certain odorous particles. The mechanism is, roughly speaking, congestion of the mucous membrane and underlying erectile tissue of the nasal fossæ, followed by reflex vasomotor disturbance of the vocal apparatus. Dr. Joal says that the effect manifests itself not only in congestion of the nose, nasopharynx, and larynx, but in paresis of the constrictor muscles of the glottis and spasm of the bronchial tubes. The respiratory capacity as tested by the spirometer is notably reduced, and the voice not only loses brilliancy and volume but part of its compass, and the singer is much more easily fatigued than in his natural state. The moral seems to be that singers who are the subjects of this particular infirmity must banish not only flowers but all strong perfumes from their environment, if they wish their voice to be at its best; in particular they must be careful not to accept bouquets from injudicious admirers or rival artists.

ARGON IN COMBINATION.

It is interesting, and at the same time somewhat surprising, to learn from M. Berthelot, the distinguished French chemist, that he has succeeded in inducing argon to enter into combination with benzene. The original discoverers of the new gas were unable to induce it to combine with any substance, even under the most tempting conditions. M. Berthelot showed some years ago that nitrogen combines under the influence of the silent electrical discharge with hydro-carbons such as benzene, with carbo-hydrates, and even with derivatives such as ether. Experimenting with a specimen of argon sent to him by Professor Ramsay, M. Berthelot found that it behaved in the same way under the influence of the silent electric discharge. It would appear, therefore, that under conditions which commonly exist in the atmosphere, argon, like nitrogen, is capable of entering into hydrocarbon compounds to form new bodies, and that there is reason also to believe that it combines in a similar way with carbo-hydrates, and may thus constitute a more or less important part of the constituents of plants usually classed as nitrogenous.

THE INFLUENZA EPIDEMIC.

It is satisfactory to notice that the fatality of influenza in London last week showed a considerable decline. The number of deaths directly attributed to this disease, which had rapidly increased from 24 to 473 in the four preceding weeks, fell to 349 during the week ending Saturday last, March 16th, although this number exceeded the highest recorded in any week during the last two influenza epidemics. Of these 349 deaths, 55 were of persons aged under 20 years, 27 of persons aged 20 and under 40, 81 of persons aged 40 and under 60, and no fewer than 186 of persons aged upwards of 60 years, of which 47 were of persons who had reached their 80th year. The proportional mortality among elderly people again showed a very large excess, for while among persons under 60 years of age the death-rate from influenza last week was equal to 2·1 per 1,000 estimated to be living at that age-period, among persons aged upwards of 60 years it was as much as 34·5 per 1,000. In other words, among equal numbers living, to 1 death from influenza among persons aged under 60 there were nearly 17 deaths among persons aged upwards of 60. Among persons above the age of 80 the mortality from influenza in London last week was no less than 135·4 per 1,000 estimated to be living at this advanced age. Although there was a general decline last week in the mortality from influenza in London, in several districts, such as Chelsea, Stoke Newington, Newington, Lee, and Lewisham, there was an increase in the number of fatal cases. In Kensington, Fulham, St. George Hanover Square, Hampstead, St. Giles, Bethnal Green, Mile End Old Town, and Camberwell, there was, however, a marked decline. In proportion to population West London still shows the highest death-rate from influenza, while Central and East London show the lowest rates from the disease. The deaths referred to diseases of the respiratory organs in London, which had been 840, 1,120, 1,448, and 1,366 in the four preceding weeks, further declined to 1,031 last week, but exceeded the average

by as many as 507; of these 1,031 deaths, 700 resulted from bronchitis, against an average of 332, and 247 from pneumonia, against an average of 140. Doubtless very many of these deaths were indirectly due to influenza. In some of the large provincial towns where influenza is fatally prevalent very high death-rates were recorded last week; in Preston the rate was equal to 40.3, in Oldham to 44.0, while in Brighton it was as high as 48.0, and exceeded that recorded in any other of the thirty-three principal English towns. Influenza continues in epidemic form, though there are now signs that it is abating: 233 deaths were recorded in Edinburgh last week, equivalent to an annual mortality of 44 per 1,000. Diseases of the chest accounted for at least 160 deaths, and zymotic causes for 24. Sixty-five deaths were in persons over 60 years of age.

THE SICK POOR IN PROVINCIAL WORKHOUSES: FOREHOE.

WE marvel, in reading the reports of the organisation of country workhouses, how it is that Boards of Guardians can be content with the extraordinarily primitive arrangements that are found in so many of them, and how it is that officers are found content to work under such conditions. At Forehoe Workhouse—a house licensed for 450 inmates (though with the thinning of the Norfolk population the demand for accommodation has fallen far below that number)—no water is laid on, and there are no closets of any kind within the walls according to the report of our Commissioner. That a house where the sick are nursed, children reared, the able-bodied temporarily sheltered, should be without these necessaries of modern civilisation is only explicable in virtue of the bad old tradition that anything is good enough for the pauper—a tradition which is now repudiated in theory, but lingers in practice, opposing by its *vis inertiæ* any suggestion of reform. Why also are the nurseries so often the worst rooms in the house? If the pauper infant is not to be a pauper all its life it will require all the advantages of physical health and careful training to help it to overcome the hereditary taint of idleness, vice, or disease. It is, however, usually left in the country to the care of a pauper in a dreary stone-paved room. The country guardians have not to deal with the numbers that are the despair of the great cities; why should they not try to do better for the few infants for whose future they are responsible?

CLERICAL THERAPEUTICS.

ABOUT two years ago we called attention to the appearance in a list of testimonials, published in the advertisement of a "croup, cough, and whooping-cough mixture," of one from the Bishop of Swansea. For some time after this, we understand, this testimonial ceased to appear, but a correspondent now sends us a copy of the *Western Mail* of February 27th containing a highly sensational article entitled "Doomed to Die; a True Story of a Mother's Devotion." The mother's devotion consisted in giving the child the mixture referred to. In another column is an advertisement, or perhaps we should say another advertisement, of this wonderful mixture, and appended to the "important information" about the mixture and directions for use is a copy of the testimonial purporting to be given by "the Right Rev. the Lord Bishop of Swansea", who, it will appear, still as in 1893, gladly takes every opportunity of recommending this mixture to his friends. This is an extraordinary example of the habit so common among the clergy of pouring drugs, of which they know little, into bodies of which they know less. It hardly seems consonant with the dignity of a Church which is still established that one of its highest dignitaries should place himself at the disposal of a dealer in a nostrum, more especially when this advertisement of a chemist's wares appears in association with a sensational story obviously designed to bring the profession of medicine into contempt. Another correspondent sends us a most extraordinary handbill purporting to be issued by "the Rev. J. E. Woodrow, The Vicarage, Ormskirk." It announces in large type "A Sure and Certain Cure for Influenza." This sure and certain cure is stated to be pure phenol, "24 drops in an 8-ounce bottle of water, well mixed. Dose: Two tablespoonsful three times a day. Children half the dose. One dose will be enough to prevent, three doses will be enough to cure. Price of the medicine, 3d. to 6d., according to the profits of the chemist. The medicine, taken as above, is perfectly harmless, and may be taken by anyone at any time." The handbill adds that this recipe was given to Mr. Woodrow by a physician in the West Indies as a sure remedy in malarial and other fevers. The rev. gentleman having come to the conclusion that influenza was "a kind of low fever," tried the remedy with success. "I have now," he adds, "used it in scores of cases without a single failure." The light-hearted manner in which this ecclesiastic embarks upon the unqualified and illegal practice of medicine is only equalled by the bishop's readiness to recommend a secret remedy for some of those diseases which are so largely responsible for the terrible mortality among children in this country.

THE POSITION OF SANITARY INSPECTORS.

SIR WALTER FOSTER, Parliamentary Secretary of the Local Government Board, received on March 16th a deputation from the Council of the Sanitary Inspectors' Association who desired to urge upon the Local Government Board that sanitary inspectors should not be removable without the sanction of the Local Government Board, and that a minimum salary of £200 a year should be given, with retiring pension. Sir Walter Foster, in reply, praised the efficiency with which the Public Health Acts were administered, instancing the fact that in 1893, though cholera obtained a lodgment in no fewer than 64 places in this country, only 135 deaths were caused by it. Had the mortality been in proportion to that which occurred in 1866, the number of deaths would have been nearly 20,000. To afford security of tenure to sanitary inspectors would require an Act of Parliament, and that there was no prospect of obtaining during the present session. In any case the Local Government Board could only be a supervising body, and the tendency of public opinion, which was reflected in the Legislature, was to throw more responsibility on local authorities. He would do his best to urge local authorities to give sanitary inspectors a longer tenure of office, if not a permanent position; but the most hopeful course would be for the representatives of the inspectors to endeavour to influence local authorities to give proper remunerations and pensions to their sanitary inspectors.

MEDICAL MEN AND PUBLIC COMPANIES

A CORRESPONDENT calls our attention to a circular which has been issued by the managing director of a limited company, carrying on the business of manufacturing chemists and wine merchants, announcing that he desires to sell certain debentures in the company, but that before offering to the public he thinks it right to place them before the medical profession, as the success of one of the articles manufactured by the company "is mainly due to the kind recommendations of the medical faculty." Our correspondent, who signs himself "One Who has the Dignity of the Profession at Heart," expresses the opinion that medical practitioners should not expose themselves to be influenced by the bias which financial interests can hardly fail to produce. This opinion will undoubtedly command general acceptance from the profession. We may recall the fact that some years ago a company circularised the medical profession inviting them to accept founders' shares on the understanding, apparently, that those who accepted the offer would push the sale of the goods manufactured by the company. Certain registered practitioners fell into the trap, and the matter was brought

to the notice of the General Medical Council, which, on November 30th, 1893, adopted the following resolution:

That the Council, having heard with regret that certain registered medical practitioners had agreed to accept founders' shares in a company in consideration of advertising the wares of the company, expresses its condemnation of the action of such medical practitioners who have accepted such shares, and of the system of giving testimonials of this nature.

It is, of course, clear that the offer to which attention is now drawn differs in material respects from that which called forth this very serious pronouncement, but the new offer bears sufficient resemblance to make it worth while to reproduce the exact terms of the resolution.

EXPULSION OF THE FŒTUS AFTER DEATH.

Mr. Evan Jones, surgeon to the Aberdare Cottage Hospital, sends us the following particulars of a case which was briefly reported by him at the meeting of the South Wales and Monmouthshire Branch on February 28th: The case referred to is that of M. M., aged 37, whom I saw in consultation with Dr. Thomas, of Hirwain. She was eight months gone in pregnancy. When seen she appeared *in articulo*; she had general dropsy, and was violently convulsed. The os was unusually rigid. I managed to dilate so as to admit an index finger. During manipulation her condition got so critical that we thought it advisable to delay dilatation. Dr. Thomas saw her four or five hours before death, and the os was then in the same condition. He saw her again five hours after death, and the child was *in utero*. He then assisted the midwife to lift her on to the bed. Two days afterwards the undertaker, putting the body in the coffin, found the child and placenta between her legs, with fluid running freely from the vagina.

VERDICTS WITHOUT EVIDENCE.

Dr. Thomas J. Frost calls our attention to two inquests which have recently taken place at Llanhilleth. In both cases, according to the reports before us, the deceased were illegitimate infants. In neither was any medical evidence called; and while in one the verdict was that "fits" were the cause of death, in the other the cause was found to be "death from natural causes." It is obvious enough that an inquest carried out in this manner fails entirely to discover the real cause of death, and we are glad to understand from a letter written by the coroner to Dr. Frost that it is his intention in future to ask a doctor to attend in all inquests on illegitimate children. So far as it goes, this is very satisfactory; but it must be recognised that the failure to call medical evidence at inquests is only part of a general laxity concerning the registration of deaths to which we have frequently called attention, and which was the subject of inquiry by a Committee over which Sir Walter Foster presided. So long as it remains possible for any old woman to get a certificate for burial from the registrar on her mere statement that the deceased died from measles, or fits, or what she chooses to say, we must not perhaps be much surprised to find a coroner and jury, after an ordinary inquiry among friends and neighbours, and without any medical evidence, returning a verdict to the same effect.

COUNTY MEDICAL OFFICERS OF HEALTH.

At the instance of Surgeon-Lieutenant-Colonel Anderson, supported by Lord Francis Hervey, the West Suffolk County Council are about to take into consideration the appointment of a county medical officer and the formation of a Public Health Committee. This question was treated at some length in the British Medical Journal of February 23rd, p. 428, and it is unnecessary to repeat what was then said. Doubtless the customary inertia arguments, which have done duty elsewhere, will be brought forward in West Suffolk. In the absence of evidence it will be tacitly assumed that there are no material pollutions of rivers, no unsatisfactory water supplies, no need for the enforcement of the Isolation Hospitals Act, and, in short, no laxity on the part of sanitary authorities in the county—none, at least, that the county council need trouble about, since the local authorities are content. It will be said, too, that county councils have no direct power, responsibility, or concern in sanitary administration, absurd as the statement may sound to those who are acquainted with the Local Government Acts of 1888 and 1894, the Rivers Pollution Prevention Act, the Isolation Hospitals Act, and the Housing of the Working Classes Act, or have watched the effective action which certain county councils have already taken with regard to water supplies, drainage, hospitals, and the like. No doubt Surgeon-Lieutenant-Colonel Anderson will be able to quote from the experience of some of these pioneer counties, such as Worcestershire, in order to discount the cheerful optimism which is apt to prevail as to the exceeding wisdom of not opening one's eyes too soon or too widely in sanitary matters, except in presence of epidemics.

RAILWAY SERVANTS' EYESIGHT.

The question put to the President of the Board of Trade by Sir John Leng in the House of Commons on March 18th refers, we understand, to the action of the North British Railway Company. For many years past this important company has employed very inadequate visual tests for its servants. They were condemned in this Journal several years ago. The late manager was warned that his method of colour testing was fallacious, and that men could enter the service with only one-sixtieth of normal vision for distance. It was not, however, until the close of last year that steps towards reform were taken. On the recommendation of the lay officials of the company, Holmgren's wools were adopted as the colour test, and the "spot" test at 15 feet was introduced as the measure for distant vision. This is not a severe test, for, as has recently been publicly stated, it demands only one-third of normal vision. Yet the natural result on this railway has been to discover a large number (about 100, it is said) of drivers, firemen, and guards who have failed to pass. These men have received notice that their services will not be required after March 31st, at least in their present capacities; and, though it is rumoured that work will be found for them, it will certainly be at reduced wages and in positions of relative inferiority. These men should never have been admitted to railway service at all, and a serious responsibility rests on the company for the ruin of their careers. So long as this and other companies employ lay examiners for the highly technical duty of sight testing, these difficulties will be perpetuated.

MEDICAL ADVERTISING.

That the present century has been an age in which the art of advertising has been pushed to the most surprising limits is undeniable: nowhere has greater ingenuity been shown than in this department, and in many cases, where its use may be considered legitimate, as in most of the enterprises of the commercial world, it may be regarded as one of the factors of the enormous industrial prosperity of this epoch. Great, however, as may be its advantages from a commercial point of view, advertising has always been forbidden by every rule of professional ethics; indeed, nothing has usually been considered more degrading than for a practitioner to make use of such means to procure professional advancement. Speaking generally, few, if any, medical men would have any hesitation in condemning every form of advertisement as commonly met with in commercial life; the difficulty only commences when the question arises as to what is and what is not "advertising." Many practitioners of the most blameless reputation, who would shudder at the very idea of advertising in the ordinary sense, will at times allow themselves to drift into practices, which, if not done for the purpose of advertisement, are utterly unintelligible; many of them, too, would be the first to criticise the action of the struggling dispensary doctor

who systematically distributes his handbills by house-to-house visitation; yet when critically examined inexorable logic would compel us to confess that some of these practices are little, if any, better. Neither must it be forgotten that any system of professional ethics which condemns the latter and shuts its eyes to the former will inevitably be destitute of all moral sanction. Advertising, it is to be feared, is by no means entirely confined to the humbler branches of the profession, and although equally objectionable wherever found, ought to be certainly not less condemned when in high places. The various ways in which this transgression against true professional etiquette is brought about are doubtless familiar to many of our readers, and it is needless to specify them, but one form is of such common occurrence that it is only right that some mention should be made of it. We have before us two cuttings from provincial newspapers with advertisements relating to the Northampton General Infirmary; in both of these the names of the visiting staff are published. These gentlemen no doubt would condemn advertising as most unprofessional, and would not dream of being personally guilty of such an impropriety. But we would ask them candidly to consider this matter, and, after due reflection, to inform us in what lies the necessity for this publication of names.

THE CHICAGO MEAT TRADE.

IF there be any truth in the statements which have recently appeared in the *Times*, there is urgent need for strict investigation of the manner in which meat is prepared at Chicago for export to England and elsewhere. It is stated that diseased carcasses are condemned, but that, in the absence of efficient supervision, the condemned meat, though set aside for conversion into manure, is in reality bought back and packed with the rest. Actinomycosis is especially mentioned in this connection, and it is added that the tongue often escapes even nominal condemnation and is smoked, canned, and exported as if it were sound. Complaint has been made to the Department of Agriculture at Washington, but it seems to have been found that no effectual remedy could be applied under the existing law, and a Bill conferring further powers is before Congress. Some disgusting particulars are also given, and others hinted, concerning the preparation of a compound sold under the name of "extract of beef." Whatever may be the shortcomings of the law, it is scarcely credible that such abominable and dangerous practices could be carried on if the authorities were in earnest in their attempts to exercise proper control. As it stands, the charge is one of fraud on the part of the traders and grave dereliction of duty on the part of the responsible authorities. It affects the reputation of Chicago as well as the safety of the consumers of one of its staple products, and the sooner the actual facts are officially and exhaustively investigated, and the results made public, the better.

HERBALISTS AND BOTANIC DOCTORS.

THE General Medical Council, at its meeting in November, 1893, gave instructions that legal steps should be taken to test the validity of certain titles purporting to be granted by a body calling itself the General Council of Safe Medicine, Limited. In consequence, proceedings were taken under the Medical Act of 1858 against one Joseph Steel at the Houghton-le-Spring Petty Sessions for using the title of M.D. (Bc.) conferred upon him by the body mentioned. The magistrates convicted, imposing a penalty of £10 and costs. The conviction was appealed against, but the Court of Queen's Bench upheld the decision, and dismissed the appeal with costs. The report of the solicitor, printed in the minutes of the Executive Committee of the General Medical Council of February 25th, contains the sequel of these proceedings. From it we learn that a writ was issued by the Attorney-General, at the relation of the General Medical Council, against the General Council of Safe Medicine, Limited, and its fourteen managers for a declaration that the objects of the Council of Safe Medicine were illegal and injurious to the public, and that the conferring of such degrees and diplomas purporting to be degrees and diplomas in medicine was contrary to law and injurious to the public. An order of the High Court of Justice will in consequence be issued, embodying a perpetual injunction to the General Council of Safe Medicine not to issue or confer any degree or diplomas of M.D. (Bc.), or any like degree or diploma, or any degree, diploma, or licence, certificate, or document purporting to confer on the person to or on whom the same is issued or conferred, a degree, diploma, licence, testimonial, or qualification in medicine, surgery, or midwifery, or to qualify or authorise such person by any other method to treat disease.

THE HEALTH OF THE PREMIER.

IT appears that Lord Rosebery's convalescence has been much retarded by continued want of sleep and that it has been thought best that he should not attend to any except the most urgent business. Nevertheless we believe that notwithstanding this and the reducing effect of the illness from which he has lately suffered there are no symptoms of any loss of nervous tone. As is not uncommon in such cases, the amount of rest obtained at night varies, and with that the condition of the patient in the morning. There is, however, a definite improvement, in so far that Lord Rosebery is now always able to get some hours' sleep in the early part of the night. It is proposed that he should go down to Walmer Castle, but he probably will not do so until he gets a little more confidence in his power of sleep, as his present locality is a favourable one. He drives, and walks, and rides, and appetite is retained. It is considered desirable that he should be spared all unnecessary labour, but his malady is a purely functional disorder, and although the loss of sleep has been very great, it is a trouble from which Lord Rosebery has suffered in more or less degree for a long time, and it appears to have told upon him much less than it would upon many.

MEDICAL MAGISTRATE.—Deputy-Surgeon-General E. McKellar, of Woodleigh, Preston, has been appointed to the Commission of the Peace for the Borough of Brighton.

THE late Dr. Alfred L. Loomis, of New York, has left real estate to the value of 400,000 dollars (£80,000), and personal property amounting to 600,000 dollars (£120,000). The income of 25,000 dollars (£5,000) is given to the Loomis Laboratory, and whatever part of the income is not used is to be paid to the Professor of Pathology of the University of New York. A sum of 10,000 dollars (£2,000) is bequeathed to the New York Academy of Medicine, the bequest to be known as the Loomis Entertainment Fund, and the interest to be used in providing entertainment for the Fellows of the Academy. The testator bequeaths his medical library to his son, Harry Patterson Loomis.

THE CRAIG COLONY FOR EPILEPTICS.—The report of the managers of this institution to the New York State Board of Charities shows that they fully recognise the importance of the task which devolves upon them. In it they say that while the State makes provision in separate institutions for the insane, the blind, the deaf and dumb, and others suffering from chronic maladies, the epileptic is sent to the poor-house where his condition rapidly becomes worse. He is shunned and feared by all who are not actually responsible for his welfare, and he really should be more an object of sympathy than either the blind, the deaf, or the dumb. The proposal is to establish a home for epileptics on an estate of 1,850 acres of farm land, and it is intended to avoid as far as possible all "institutional" features in the buildings which will be erected, the whole of which will be arranged to resemble a group of private dwellings.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

CASES TREATED BY DR KLEIN'S ANTITOXIN.

Leicester Infirmary.

Dr. Michael B. Foster, House-Physician, sends the following report of a case under the care of Dr. Pope:

L. Y., a girl, aged 8, was admitted on the afternoon of January 28th. She had complained for two days of pain in the throat and headache. A sister had died four days previously of diphtheria. On admission the child was very pale. There was no dyspnœa. Temperature 99.6°, pulse 96, small and regular. An enlarged tender gland was felt at the angle of the jaw on each side. The urine contained no albumen. The lungs were free. A sharply-defined patch of membrane was present on the inner aspect of each tonsil about the size of a threepenny piece. The uvula and soft palate looked red, shiny, and œdematous. There was a little bleeding on swabbing the throat. The examination of the membrane gave a negative result. At 8.30 P.M. ʒjss of Klein's antitoxic serum was injected into the right loin.

On the morning of January 29th no membrane could be seen on the tonsils or soft palate, but both looked red and shiny. Temperature 99° at 10 A.M. There was some difficulty in taking food. The urine contained no albumen. Pulse 90, small and regular.

In the evening of January 29th the temperature rose to 100.4° and on the morning of the 30th it was 100°. A small patch of membrane was present on the right tonsil. Pulse 90, regular but weaker. 4 P.M.—Klein's antitoxic serum, ʒj, was injected in the left loin.

On January 31st, at 2 A.M., the temperature was 101°; later it was normal. No membrane could be seen. The child took food well and looked better. Pulse 84, stronger. The urine contained no albumen. From this point recovery was uninterrupted and the child was discharged on February 16th.

Devon and Exeter Hospital.

Mr. Henry Andrew, House-Surgeon, sends the following report of two cases:

Case I.—W. H., aged 9, was admitted on February 7th. He was heavy and listless. There were rather large patches of white membrane on both tonsils and one patch on the uvula; there was a slight croupy cough. The patient had first complained of sore throat on February 2nd, when he was said to have had a lump in his neck. On February 5th he seemed "tight" on his chest, and coughed up a large piece of membrane; he was delirious at night. On the 6th he coughed up more membrane. A doctor was called in, who pronounced it to be diphtheria. Temperature 103°; the patient was very restless and delirious during the night.

On admission at 6 P.M. the temperature was 101°, pulse 120 respirations 33; urine acid, urates, 1024, albumen thick cloud. 10 P.M. Temperature 99°, pulse 112, respirations 31. The patient was still listless and restless. Antitoxin 1¼ drachm injected.

February 8th. 2 A.M. He has slept soundly since injection: temperature 98°, pulse 96, respirations 24. At 10 A.M. he was quite bright and cheerful. From this time onward the temperature remained slightly subnormal, and pulse and respirations came down within two days.

On February 12th the membrane had disappeared.

On March 7th the albumen had steadily decreased, and only a faint trace still remained in the urine. The patient had had no other symptoms. A specimen of the membrane was sent with the usual precautions to the Clinical Research Association. The report was as follows: Culture. No characteristic growth after twenty-four hours' incubation. Microscopic examination shows presence of streptococci and large bacilli in chains.

In this case, although the bacteriological report shows diphtheria to have been absent, the injection certainly seemed to produce a very marked effect on the general condition.

Case II.—F. S., aged 2, was admitted February 17th. The fauces were covered with membrane, and the child had a croupy cough with marked dyspnœa. There was slight retraction of chest. The patient was very restless. Antitoxin 1½ drachm injected on admission. The parents absolutely refused to allow any operation, and the child died within twelve hours of admission from asphyxia before any effect on the membrane or general symptoms could be noted. The membrane was not examined.

Westminster Hospital.

Dr. Alfred M. Gossage, Medical Registrar (now Assistant Physician), sends us the following report of cases treated in the Westminster Hospital:

Case I.—C. H., aged 3 years, admitted January 3rd, 1895, under Dr. de Havilland Hall. The child had been quite well up to two days before admission, when it was noticed that he had a cough, which soon became "croupy" in character. Another child of the same family had come home from a fever hospital seven days before after an attack of diphtheria.

On January 2nd there was a slight attack of epistaxis.

On January 3rd the breathing became very distressed, and the mother brought him to the hospital.

On admission he had very severe stridor, and tracheotomy had to be performed almost at once. At the operation a good deal of diphtheritic membrane was found in the trachea, and a good deal had been seen about the fauces. The breathing was greatly relieved by the operation. Klein's antitoxin mxxx was then injected into the back, and the patient put in a steam tent and treated with stimulants. He, however, died of asthenia twelve hours after admission.

A *post-mortem* examination was made thirteen hours after death by Dr. Hebb. The body was well nourished; there was slight rickets. Tracheotomy: sanious discharge from wound. The cervical and submaxillary glands were much enlarged; the faucial tissues were much swollen. Diphtheritic membrane was present on the faucial and laryngeal mucosa. The mucosa of the trachea and bronchi was covered with copious sanious muco-purulent fluid. The greater part of both lungs was in condition of hæmorrhagic bronchopneumonia. They were of a dark purple colour generally, and were studded with spheroidal hæmorrhagic consolidations, which were practically confluent. The pleuræ were smooth, free, and shiny. Other organs were normal.

Case II.—C.S., aged 2 years, admitted on January 31st, 1895, under Dr. Donkin. One brother was stated to be suffering from sore throat. He was quite well up to January 24th, when his mother noticed some lumps under his jaw on both sides, which seemed to be painful. He also had a slight cough. On January 28th he had some difficulty in swallowing. Difficulty in swallowing and prostration increased up to admission, and he seemed to have great difficulty in passing his urine. His motions were very offensive. On admission he was found to be well nourished, but slightly rickety. Temperature 100.2°, respirations 48, pulse 132. The heart was normal. The lungs were normal except a few bronchitic signs. The glands in the neck were much swollen. Patches of diphtheritic membrane were observed on both tonsils and on the uvula: there was a thin ichorous discharge from the nose, and the nostrils were excoriated. The patient was able to swallow fairly well, and did not seem very prostrate. Eight hours after admission ʒjss of Klein's antitoxin was injected into the back. The temperature became normal on February 2nd. The membranes cleared off the fauces very rapidly, disappearing by February 3rd, on which day the discharge from the nose ceased. The swelling of the glands in the neck rapidly disappeared.

On February 12th the temperature suddenly rose to 104°, remaining high two days. No abnormal physical signs were found to account for this rise.

Between February 15th and February 19th there was also a slight rise of temperature, for which no cause could be found. He left the hospital on February 23rd apparently quite well.

Remarks.—The first of the two cases is not of much value for statistical purposes, since it was practically hopeless from the first. The serum was only injected in this case to give the patient a possibly greater chance of recovery. The second case, which was not a severe one, although the nose was affected, seemed to show that the membrane disappears exceptionally rapidly after the use of the serum. I regret that, owing to an unfortunate accident to the tubes containing the

membrane sent for examination, in neither case was the Klebs-Loeffler bacillus looked for.

CASES TREATED BY ANTITOXIN OBTAINED FROM THE BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

BRISTOL GENERAL HOSPITAL.

F. ERNEST PEAKE, M.R.C.S., L.R.C.P., Assistant House-Surgeon, Bristol General Hospital, writes as follows:

For permission to record the following case I am indebted to Dr. Barclay J. Baron, Physician to the Throat and Nose Department, under whose care the patient was admitted.

W. M., aged 14 years, was admitted into the Bristol General Hospital on January 13th, complaining of sore throat, difficulty of breathing, general *malaise*, anorexia, and headache; about an hour previously to admittance he had an attack of epistaxis. The symptoms, which first appeared on January 10th, had gradually increased in severity, and incapacitated the patient from following his usual occupation. On examination a large thick piece of membrane was observed covering the back part of the soft palate, the uvula, and tonsils. Numerous tender glands were present on both sides of the neck. The patient constantly breathed with his mouth open, nasal breathing being impossible. The temperature was 100°, pulse 120, respirations 18. Urine specific gravity 1030, slightly acid, no blood, contained 1½ gramme per cent. of albumen.

About two hours after admission (5 P.M.) 10 c.cm. of antitoxin was injected by means of a sterilised syringe into the subcutaneous tissue of the abdomen. A mixture of perchloride of iron, chlorate of potash, quinine and glycerine was ordered every six hours, and a lotion of boracic acid to be used as a throat spray and for syringing the nose. At 6 P.M. the temperature was 99°, and at 10 P.M. 97°, when the patient had difficulty in breathing, with retraction of the ribs and drawing-in of episternal notch. There was no movement of the trachea on respiration. The pulse was 120, and respirations 16 per minute. Bacteriological examination of the membrane showed the presence of Loeffler's bacillus, together with numerous streptococci and staphylococci.

January 14th, 10 A.M. Temperature 98.2°, respirations 16, and pulse 130 per minute. The patient had slept nearly all night; there was much less difficulty in breathing; no retraction of ribs. The membrane on the uvula and left tonsil was apparently thinner; a thin layer of fresh membrane had reformed over the site of the original patch which had been removed. The urine contained ½ gramme per cent. of albumen. 2 P.M. Temperature 99.6°, respirations 16, pulse 114; 10 c.cm. of antitoxin again injected into subcutaneous tissue of abdomen. 10 P.M. Temperature 98°, pulse 104, respirations 18.

January 15th. Membrane still present on soft palate, uvula, and left tonsil; whilst gargling several small pieces of membrane came away; breathing was much easier, and the mouth was not so widely opened. 10 A.M. Temperature 99.8°, pulse 104, respirations 16; urine contained ½ gramme per cent. of albumen. 2 P.M. 10 c.cm. of antitoxin again injected as before.

On the morning of January 16th the patient was better; several pieces of membrane came from the throat and nose whilst using boracic lotion; the membrane at the back of the throat was very nearly detached; this was easily removed by forceps, very little bleeding following; temperature 98.6°, pulse 100, respirations 14; urine contained ½ gramme per cent. of albumen.

On January 17th a very thin piece of membrane about the size of a shilling had reformed over the back of the soft palate, over the area from which it was removed the previous day; temperature 98.6°, pulse 96, respirations 16; urine contained ½ gramme per cent. of albumen; 10 c.cm. of antitoxin again injected.

January 18th. Membrane disappearing; general condition very good. The patient sleeps with his mouth closed; temperature normal, pulse 80, respirations 14.

On January 19th the membrane had almost entirely disappeared. Temperature normal, pulse 82, respirations 16.

On January 20th the patient felt quite well; the membrane had entirely disappeared. Temperature normal, pulse 80. The amount of albumen present in the urine had increased to 2 grammes per cent.

On January 23rd the patient was quite convalescent, and could take food well. Albumen was still present in the urine. Speech was indistinct, and slight palatal paralysis was present. No regurgitation of fluids into posterior nares on swallowing. Temperature normal, pulse 72.

On February 14th there was still some indistinctness of speech, but no difficulty in swallowing, and no regurgitation of fluids. No albumen in the urine. On bacteriological examination no bacilli could be found.

From the above notes it will be observed that the patient came under treatment on the fourth day of the disease. Four injections each of 10 c.cm. of antitoxin were injected on the fourth, fifth, sixth, and eighth days of the disease respectively. After each injection there was a fall in temperature, which was again followed by a rise after about eight to twelve hours. Loeffler's bacillus was proved to be present.

The antitoxin was obtained from the British Institute of Preventive Medicine. There was no appearance of any rash following the injections, nor at any time during the course of the disease. The only sequela was a very slight attack of paralysis, causing the indistinctness of speech, occurring about the fifteenth day, this being preceded by an increase in the amount of albumen present in the urine.

The bacteriological examinations were very kindly carried out by Dr. Davies, Medical Officer of Health of Bristol.

REMARKS BY DR. BARCLAY BARON.—This case was one of moderate severity, and in this connection the presence of numerous staphylococci and streptococci may be worthy of note.

Dr. EUGENE S. YONGE (Manchester) reports the following case:

G. W., a previously healthy boy, aged 5, first showed signs of illness on February 21st. He came under my care on the evening of the third day of the disease. His history was that he had had an attack of vomiting on the morning of the 21st, followed by loss of appetite, restlessness, feverishness, and a sore throat. Subsequently to this it was noticed that his breathing was accompanied by "bubbling" sounds, that he breathed solely through his mouth, and that there was a considerable amount of nasal discharge. When I first saw him he was breathing rapidly; his temperature was 103.4° F., pulse 120; both tonsils were covered with membrane and muco-pus, and there was a quantity of mucopurulent material exuding from the nose. Albumen was absent from the urine, but a moderate amount appeared next day.

The treatment adopted until antitoxin could be obtained—a day and a-half later—was alternately gently swabbing the throat with glycerine of carbolic acid, and spraying the parts with a solution of carbolic acid, iron, and iodine. The nasal cavities were syringed with carbolic lotion, and alcohol and tr. ferri perchlor. administered in suitable doses.

During the fourth and early part of the fifth day the patient's condition showed no improvement. The pulse and temperature remained about the same, with a slight morning fall in the latter: epistaxis appeared as a new feature; the nasal discharge continued profuse, and a raw patch on the right tonsil became recovered with membrane.

At noon on the fifth day I injected 15 c.cm. of antitoxin, procured from the British Institute of Preventive Medicine. Another dose of 15 c.cm. was administered on the following day, and 12 c.cm. given the day succeeding that, the remedial measures mentioned above being continued.

Improvement began on the evening of the fifth day, when the patient appeared markedly brighter. Several shreds of membrane and a little blood were expelled from the nostrils during the use of the nasal douche. The temperature fell to normal on the seventh day, and the membrane rapidly diminished. On the eighth day the throat and on the tenth the nasal cavities were free of it. The evidences of nasal obstruction practically disappeared on the seventh day.

The mother stated that for the first three days of the illness about half the usual quantity of urine was passed; the amount was measured from the fourth day onwards. The first observation indicated ℥xv in the twenty-four hours, and averaged one pint in the same period during the remainder

of the illness, in spite of the somewhat large amount of antitoxin administered. Albumen certainly increased after the first injection of serum, but disappeared finally on the eighth day. The pulse rate appeared to be unaffected by the serum, and digitalis (mv 4tis horis) was exhibited with good effect. The rapidity slowly diminished, but did not fall below 100 until the tenth day of the disease. On the sixth and seventh days a slight cough was noticed. The child is now rapidly convalescing, and up to the present time no paralytic symptoms have been manifested. An itching papular eruption appeared on the trunk and limbs on the fourteenth day.

A portion of membrane, bacteriologically examined by the British Institute of Preventive Medicine, showed the characteristic Klebs-Loeffler bacillus.

Dr. Vicars H. Fisher (Howden, East Yorks), sends us the following report of six cases of diphtheria treated by antitoxin obtained from the British Institute of Preventive Medicine. Dr. Roux's syringe was used. The diagnosis was confirmed by the Clinical Research Association:

Case I.—S. H., aged 3 years and 4 months. First seen on December 29th, 1894. Diphtheria was diagnosed. Membrane was present on both tonsils, and spread rapidly to the soft palate and uvula, subsequently invading both larynx and trachea. On January 1st, 1895, as he had violent attacks of dyspnœa, and was partially cyanosed, and there was retraction of the chest walls during inspiration, tracheotomy was promptly performed under chloroform, which afforded considerable relief; at the same time antitoxin 10 c.cm. was given. During the next twenty-four hours there was marked improvement, the membrane becoming detached, and coming away through the tube. On January 2nd antitoxin 5 c.cm. was administered, and on January 3rd 10 c.cm. Improvement continued steadily from this date until convalescence. Albuminuria was present during the course of the illness, and some of the glands were slightly enlarged. No paralysis occurred.

Case II.—M. H., aged 2 years and 9 months. The illness commenced at same time as in Case I, but the symptoms were not quite so severe. Undoubtedly the larynx was invaded by membrane, but the administration of antitoxin 10 c.cm. on January 1st and 3rd was promptly followed by relief. A rash of an erythematous nature appeared on January 12th, with swelling of the hands and feet, and a moderate rise of temperature; it subsided on January 14th. There was no pain in the joints. Subsequently there was partial paralysis of the lower extremities, with internal strabismus of one eye, but by the end of February these had quite disappeared.

Case III.—Baby H., aged 4 months. Seen at same time as the two preceding cases. The tonsils and soft palate and the larynx were affected, also the nose to a very great extent. Antitoxin was given in doses of 10 c.cm. on January 2nd and 3rd, and considerable improvement followed promptly, and recovery was uninterrupted.

Case IV.—Mrs. H., mother of above three children. Membrane appeared on the tonsils on December 30th, and gradually spread to the soft palate, difficulty in swallowing and speaking being much increased during several days following. On January 3rd antitoxin 10 c.cm. was given, and repeated on the following day; the membrane then disappeared rapidly, and the patient made a good recovery.

Case V.—Nurse C. She had looked after Case I, and had in many ways been exposed to the infection. On January 15th membrane was present on both tonsils and soft palate, which afterwards spread to the pharynx. Antitoxin 10 c.cm. was used on January 16th and 17th, and as the improvement was not rapid another dose was given on January 19th. This was followed by a complete disappearance of membrane from the throat. In this case some of the joints were very painful on January 22nd, and a rash appeared on the extensor aspect of both arms near the elbow. This patient also made a rapid recovery.

Case VI.—Miss L. This patient had been nursing the preceding cases, and on February 19th she first called my attention to her throat; membrane was present on both tonsils. On the same day antitoxin (10 c.cm.) was given, and repeated on the following day. The throat cleaned rapidly. The temperature never rose above normal, and recovery was rapid.

It will be observed that in the above cases the full dose (10 c.cm.) was given without regard to the age of the sufferers, and in the youngest case no toxic effects showed themselves. The administration of antitoxin was usually followed by a rapid fall of temperature, and general improvement followed in addition to the membrane becoming rapidly detached. Iron and chlorate of potassium were given throughout, but the effect was *nil* until supplemented by the use of antitoxin.

Warrington Fever Hospital.

J. Guest Gornall, M.B.Cantab., sends the following report:

J. H., a girl aged 4, was first seen with Dr. Langdale, house-surgeon at the Warrington Infirmary on December 21st, 1894. She had been brought up to the infirmary eight days previously, suffering at that time from bronchitis, and had been treated at home. She was now found to have a membranous patch on the left tonsil, and was removed to the Warrington Fever Hospital the same evening. On admission, at 8 P.M. on December 21st, there was slight laryngeal stertor and barely noticeable retraction of the ribs; the child was very pale. Temperature 102°, pulse 160, respirations 40. There was a patch of membrane on the left tonsil and enlarged glands in the neck. In the chest there was some evidence of bronchitis; air entered fairly well. Emetic doses of vinum ipecacuanhæ, though repeated, were ineffectual in producing vomiting. Late at night the child appeared more comfortable.

On December 22nd, at 10 A.M., her temperature was 99.2°, pulse 156, respirations 44. She had slept at intervals during the night, but had appeared much worse since 7 A.M. The retraction of the ribs had increased. At 12.40 mxv antitoxin, obtained from the British Institute of Preventive Medicine, were injected. At 1 P.M. the temperature was 98.2°. At 2 P.M. the child was very restless and was with difficulty kept in the recumbent position. Pulse 150, irregular; respirations 48; stertor more marked. From 3.15 to 3.40 the child slept; at 4 P.M. she died suddenly, apparently of syncope. Small doses of brandy were given throughout.

Unavoidable circumstances prevented any membrane being obtained for bacteriological examination. Only an ounce or two of urine was passed during the short time in hospital, and this was lost. The child was already much exhausted by difficulty of respiration when the injection of antitoxin was made, but tracheotomy was refused by the parents.

CASES TREATED WITH BEHRING'S ANTITOXIN.

J. B. Gillam, M.B., B.C.Cantab. (Holt, Norfolk), writes:

I append brief notes of six cases of diphtheria occurring in the same village, in members of the same family, two of which were treated with antitoxin.

Case I.—I. P., aged 8 years. The first symptoms were noticed on October 30th, 1894. She was seen by me on October 31st. There was membrane on both tonsils, and respiration was impeded. Tracheotomy was refused. She died on November 2nd from asphyxia.

Cases II and III.—M. P., aged 1½ year, and L. P., aged 3 years, brother and sister of above, had sore throat on November 15th, 1894. They were seen by me on November 16th. There was membrane on both tonsils, with laryngeal obstruction. Tracheotomy was refused by the parents. Case II died of laryngeal obstruction, and Case III of cardiac failure on November 17th. I was unable to obtain a supply of antitoxin for the treatment of these cases.

Case IV.—R. P., aged 5, cousin of the above children, had sore throat on January 3rd, 1895. She began to be hoarse on January 4th, and was seen by me on January 5th. There was membrane on both tonsils, the breathing was stridulous. There was a croupy cough. Temperature 100°.

On January 6th the breathing was more laboured. There was more membrane on the tonsils, and there was slight recession of ribs. Temperature 101.2°.

On January 7th the breathing was very much impeded, and in every respect the child was worse. Tracheotomy offered but refused by parents.

On January 8th, 12 noon, the child was restless, irritable; refused medicine and nourishment of any kind. The breathing was stridulous, there was a croupy cough, and recession of ribs. Pulse 145; temperature 101.6°. Fifteen mm. Behring's antitoxin were injected in the thigh. At 8.30 P.M. the child was much worse. Respirations 45, laboured, stridulous. There was much recession of ribs, with frequent harsh croupy cough. The child was very restless and irritable; it was impossible to see the throat or to take the temperature. Pulse 150. No nourishment was taken during the day, and the child had no sleep. Fifteen mm. antitoxin were injected.

January 9th, 12 noon.—Child has had a little sleep. The breathing was less laboured and there was less recession of the ribs. Pulse 135. The cough was not so frequent and appeared slightly looser. Fifteen mm. of antitoxin were injected. At 9 P.M. the child was sleeping quietly. The breathing was still laboured but regular without much recession of the ribs. The cough was looser. Pulse 130. The patient had taken milk several times during the day; she was not so restless or irritable. Temperature 98°. Fifteen mm. of antitoxin injected.

January 10th. The child slept from 4 A.M. till 7 A.M., when she awoke and had a violent fit of coughing and brought up membrane consisting of a cast of the larynx and upper part of the trachea, about 2 inches long, and a number of fragments. At 11 A.M. she was sleeping quietly and breathing well. Pulse 120, temperature 98°.

From this date the child got rapidly well without any relapse and no symptom up to the present of paralysis. This case was treated in a brick-floored kitchen with the door opening to the outside air. The child had no nursing beyond what was given her by her parents, who were unable to get her to lie in bed or to take any medicine whatever. The only treatment of any kind she had was the injection of antitoxin.

CASE V.—J.P., aged 1 year, brother of the above was taken ill with diphtheria on January 10th and died on January 11th suddenly from cardiac failure.

CASE VI.—A.P., aged 20, an inmate of the same house as the first three cases, was first seen on February 15th, when both tonsils were found to be covered with membrane. Temperature 100.2°, pulse 80.

On February 16th the tonsils, uvula, and fauces were covered.

From February 17th to 20th the condition of the throat remained unchanged.

On February 21st the patient was very weak. Temperature 97.6°, pulse 100.

On February 23rd the throat appeared blocked up with membrane. Temperature 97.2°, pulse 106. The patient was very weak and restless and felt cold. He took plenty of nourishment and stimulant.

On February 25th the throat showed no sign of improvement and the boy was in a very serious condition; he felt very cold and faint. The pulse was 110 and weak, temperature 96.6°.

On February 26th the condition was the same. The patient had had no sleep and very little nourishment; 1 drachm Behring's antitoxin was injected.

On February 27th the throat was slightly better. The patient had had some sleep; took nourishment well. Temperature 98°; pulse 190; 45 mm. antitoxin injected.

On February 28th the throat was much better; the palate, uvula, and all except the tonsils were clean. Temperature 98.6°; 45 mm. antitoxin injected.

On March 1st the throat was quite clean. Temperature 99°. The patient had had a good night, and took nourishment well.

Up to the present date (March 11th) the patient has made very rapid strides towards complete recovery.

This case was of a very asthenic type, and appeared to be rapidly going to the bad. The throat daily got worse, although all routine methods of treatment were adopted, and showed no sign of improvement until the injection of antitoxin, when it rapidly got better. The alteration in the temperature too was remarkable.

THE Paddington Green Children's Hospital has received a donation of £50 from the Clothworkers' Company.

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA.*

VIII.

THE BOTANY OF THE *BRITISH PHARMACOPŒIA.*

BY J. REYNOLDS GREEN, Sc.D., F.L.S.,
Professor of Botany to the Pharmaceutical Society.

IN discussing or criticising the botanical work which is contained in the present edition of the *Pharmacopœia*, it is important to remember that there is a very great difference between the state of botanical science to-day and that of ten years ago. Not only has much more accurate histological work been published during the interval, but the whole question of botanical nomenclature has been revised, and many plants used in medicine have now been more satisfactorily referred to appropriate genera.

In the remarks I propose to make upon the botany of the *Pharmacopœia*, therefore, I wish at the outset to point out that many of the defects existing in the work are not the results of any careless preparation by the editors of the present edition, though they may fairly be remedied by those responsible for the new one which is pending.

The extent to which botanical detail should be admitted to a *Pharmacopœia* is one which may be the subject of some controversy. I think all will agree, however, that so much at least should be given that the plant or the part of the plant described should be easily recognised by the pharmacist. The identification should in the first instance be based upon macroscopic characters, and these should be set forth in sufficient detail to enable an observer to distinguish the plant with accuracy from the adulterations which either have been or may easily be mixed with it. Detailed directions for the detection and recognition of these adulterations seem hardly necessary provided that sufficient positive characters of the drug are recorded.

Macroscopic characters are, however, in many cases insufficient; in such cases microscopic characters should also be given. It is difficult, for instance, to be certain of the identification of the leaves of atropa belladonna, or of those of digitalis purpurea by a description of their external features only. Their internal structure, taken in conjunction with their external features, however, enables recognition to be positive. Belladonna leaves contain in certain of their cells aggregations of minute crystals of calcic oxalate, looking under the microscope almost like grains of sand. These are very distinctive. The leaves of digitalis contain no crystals, but are furnished with curiously shaped hairs, which are very distinctive tests of identity. The peculiarities of the epidermal cells of the leaves of senna and the characters of the hairs upon them are distinguishing marks which might well supplement the description of the form of the leaves. Nor is it only in the case of leaves that such anatomical details are desirable. The bark of the two species of Rhamnus may be mentioned. In that of R. purshiana patches of sclerenchyma are to be seen plentifully scattered through the tissue; in that of R. frangula there is little or no sclerenchyma. The root of scammony would be identified with greater certainty by regarding the form of the starch grains which it contains, which are peculiar in shape and characteristic of this plant.

Even description of microscopic features in certain cases fails to ensure identification. The fruits of various plants of the natural order Umbelliferæ are very important in medicinal preparations, and their diagnosis from merely verbal description is extremely difficult. The natural order is a large one, and one of its principal marks is the structure of the fruit. This consists of a cremocarp, splitting when ripe into two mericarps, which show peculiar arrangements of ridges on their external surfaces, various shapes of the endosperm they contain, and groups of peculiar oil glands or vittæ in the capillary walls.

The different genera, though agreeing in general arrangement and structure of the fruit, can only be distinguished

from each other by minute details or variations of shape, size, and distribution of these three characteristic structures. So much alike are many of them, that language alone fails to indicate their differences. The ridges must be described by somewhat vague terms, such as blunt, acute, broad, narrow, etc.; the whole fruit may be called flattened, or roundish, or ovoid: the endosperm described as curved or straight, and so on. But, however such a general description may be worded, many of these fruits would fit in with it, and mere verbal indication of the relations are therefore not sufficient for identification. The description of the dill fruit (Peucedanum graveolens) is thus given: "Broadly oval, about one-sixth of an inch long, flat, and surrounded by a broad membranous border. It has a brown colour, the membranous border being paler. The half fruits or mericarps are usually distinct in the fruits of commerce. Odour and taste agreeably aromatic." A great many of the umbelliferous fruits would correspond fairly well to such a description. The description of the hemlock fruit is a little more detailed: "About one-eighth of an inch long, broadly ovoid, somewhat compressed laterally, and crowned by the depressed stylopod, dull greenish-grey. As met with in commerce, it consists usually of the separated mericarps, each of which presents five prominent more or less crenated ridges, with the furrows smooth, and without evident vittæ. Reduced to powder, and rubbed with solution of potash, it gives out a very strong and disagreeable odour." Anyone attempting to identify a fruit from this description alone would speedily find how vague and indefinite the points are, and how many fruits would fit in with them.

In the case of these fruits it must also be borne in mind that the recognition must not be confined to the few which are used in medicine, but must be so accurate as to ensure that others of the British flora are not confounded with them in practice, many of these being extremely poisonous.

In the case of such structures as these umbelliferous fruits a figure of the particular one under description would be very valuable. The position and shape of the ridges, the characters of the endosperm and of the vittæ, could be depicted therein with accuracy, and much space saved in the descriptive text. If a diagram of the whole fruit and of its transverse section were inserted it would occupy but little space. Indeed this mode of indicating characters might be extended to many other fruits used by pharmacists. It may of course be argued that the introduction of figures into a *Pharmacopœia* would lead to too great an addition to its volume. The question of space is naturally worth careful consideration, but if the figures were inserted the description need not be so lengthy as under the present conditions, and considerable assistance would be afforded for accurate diagnosis.

On looking carefully through the descriptions of plants and parts of plants which are found in the present volume, one can hardly help noticing a certain looseness or indefiniteness, which might well be avoided in future. The vagueness of the description of the dill fruit has already been noticed; there are many other instances. The fig is described as the dried "fruit" of Ficus carica, and said to consist "of the enlarged hollow succulent receptacle, bearing very numerous seed-like achenes on its inner surface." If this description is to be taken in a botanical sense it is altogether inaccurate. The structure called the "fruit" is not a botanical fruit at all, but an inflorescence. The true fruits are curiously spoken of as "seed-like achenes." Why seed-like? What sort of seed do they resemble? Structurally none; in appearance few. Seeds include all sorts of forms from a broad bean to a poppy seed. The term "seed-like" is therefore not definite; nor is it necessary, for an achene is a much more constant structure than a seed.

The description of the lettuce, on page 219, is noteworthy: "The flowering herb of Lactuca virosa (Linn); *Bentl. and Trim. Med. Pl.*, vol. iii, plate 160." Surely, if the *Pharmacopœia* is to have a description of the plant at all, this does not meet the case. To identify the plant the unlucky pharmacist must procure a copy of a botanical work not universally accessible—indeed, in many places quite impossible for him to reach.

The same looseness of description is found under the head of conium leaves, page 124. They are said to be "more or less divided in a pinnate manner, the lower leaves decompound, and sometimes 2 feet in length, glabrous, and arising from a smooth stem, which is marked with dark purple spots, by clasping petioles of varying lengths, those of the lower leaves being hollow. Odour strong and very disagreeable, more especially when rubbed with solution of potash." Such a description would apply to almost any of our British Umbelliferæ. The only point given which is at all distinctive is the spotting of the stem, and this is very variable, and many stems or parts of stems do not show it. The description of the leaves as "divided in a pinnate manner" is vague and not entirely accurate. The smell has a distinct resemblance to the odour of mice, which should be stated instead of its being called "strong and very disagreeable." A point about conium leaves which is fairly distinctive is that the margins of the young leaflets or segments of the leaves are frequently tinged with white near their points; this is not stated.

The descriptions of certain barks and woods may be similarly criticised. Much that is said of many of them is characteristic of many barks, and might very well be omitted, stress being laid instead on definite peculiarities. In the description of Quassia wood on page 341 it is said to be "dense, tough, porous, and of a pale yellowish-white colour." It is a little difficult to see how it can be at once dense and porous; the two things vary inversely; the more porous a wood is the less is its density. Again, the material is said to be "the chips, shavings, or raspings of the wood of Picræna excelsa," and the first character given for identification is "in billets or logs, varying in length and size, but frequently as thick as a man's thigh, and covered by a dark grey bark."

In the present volume no description is given of the microscopic characters of powdered drugs. When we consider that in the present day most pharmacists purchase many drugs in the condition of powders, it appears desirable that they should be able to identify the powder apart from the drug in the unaltered condition. This can be done only by a microscopic examination. Many of the constituents of vegetable tissues have a very definite value in this respect; many starches are extremely distinctive; the tissues of seeds are very unlike those of roots, and so on. It is only necessary here to call attention to a few illustrations of this point. Ipecacuanha, when powdered, can be recognised with tolerable certainty by two points—the vascular elements are in the form of perforated tracheïds, true vessels being absent; the starch grains are of a peculiar appearance. Jalap in powder again shows distinctive starch grains, peculiar crystals, and numerous resin-containing cells. The powdered seeds of Strychnos nux vomica would be easily identified by the application of the micro-chemical tests for brucine and strychnine.

Many powders need special investigation, of course, to enable accurate diagnostic tests to be ascertained; for example, rhubarb, liquorice, and gentian powders. A new *Pharmacopœia* would be much improved by the introduction of the distinctive features which such powders present, and these could without much difficulty be determined.

Within the last ten years much more accurate information has been obtained on the point of the definite micro-chemical tests which various constituents of vegetable tissues respond to. Those which are given in the present *Pharmacopœia* are often negative, and some depend on very variable constituents. In the case of many decoctions it is stated that they do or do not give an indigo-blue colour with iodine. This test is of little value as given; it, of course, is only a test for the presence of starch in the drug under discussion. The presence of starch in many roots will depend upon their condition when gathered; the quantity of starch, and therefore the depth of the colour of the decoction, on addition of the iodine, will vary very greatly from time to time. In many cases where this test was said to give a negative result, the reason for applying it is not apparent. The value of the test will depend on its distinguishing the drug under examination from another for which it might be mistaken, which does contain starch. In such a case why should not the two drugs be mentioned as differing in this respect?

Some of the micro-chemical tests given are not only not distinctive, but actually inaccurate. Thus Cusparia bark is

said not to give an arterial red coloration when the fractured surface is touched with nitric acid. In many cases this treatment does produce a red colour, though perhaps not quite that of arterial blood. Presumably this test is meant to distinguish Cusparia bark from that of Nux vomica.

An instance of new tests which are quite distinctive is furnished by cubebs. When the tissues of the true cubeb are touched with strong sulphuric acid a scarlet colour is produced in consequence of the presence of the active principle. Other cases of a similar kind will be remembered by many botanists.

The differences between the seeds of the two species of Sinapis are not accurately stated, It is said that white mustard seeds are inodorous; so are those of black mustard when quite dry. It should be pointed out that the white mustard seeds should be moistened in order to see whether they give off any distinctive odour.

I have already mentioned that in some cases the nomenclature of the plants is faulty. It is a matter of common knowledge that frequently the same plant has been differently named by different botanists, and it has been necessary to quote more than one appellation. Now that the *Index Kewensis* has been completed no doubt greater accuracy in nomenclature is possible, and in all cases the generally accepted name can be ascertained and used. Though not a very important point, this will no doubt receive, as it deserves, attention.

Meanwhile enough has been said to indicate that in order to render the *Pharmacopœia* entirely satisfactory from the botanist's point of view, steps should be taken for the careful revision of the botanical details it furnishes.

LITERARY NOTES.

THE March number of *Clinical Sketches* (Smith, Elder, and Co.) contains a characteristic portrait of the late Mr. J. W. Hulke.

Four new medical journals have recently appeared in France: The *Journal Ophtalmologique*, a monthly periodical, edited by Dr. R. Jocqs; *La Chirurgie Pratique*, edited by Dr. Belin; *La Dosimétrie*, an "independent" therapeutical journal, edited by Dr. Toussaint; and *Le Bulletin de la Société de Pathologie et d'Hygiène Coloniales*, edited by Dr. Cornet.

The interesting memoir of the late Mr. George Rainey, which was contributed by Mr. W. W. Wagstaffe to the *St. Thomas's Hospital Reports* (vol. xxii) has been reprinted. Mr. Rainey was a man who, like Professor Viner Ellis, of University College, gave his whole life to the teaching of anatomy. He was a pioneer in the teaching of histology at a time when only the most enthusiastic students worked with the microscope. He was one of those thorough though unostentatious workers who lay the foundations of scientific method deep and firm in the minds of their pupils, and who spend themselves in the service of truth, without thought of reward in the form of wealth or honours. In these days of self-advertisement it does one good to read the record of a life like that of Mr. Rainey, given with absolute singleness of heart to duty. From first to last he lived "for ever in his great Taskmaster's eye."

The Russian Medical Society has started a journal in memory of the late Professor Pirogoff. The editor is Dr. S. Korssakoff, Professor of Psychological Medicine in the University of Moscow.

From a report recently presented to the General Council of the Paris Faculties, it appears that during the academic year 1894 the number of the visits paid by students to the Library of the Medical Faculty was 158,754. The number of volumes supplied to readers in the room was 255,000, and 1,500 were lent out. In the course of the year 5,035 volumes and pamphlets were presented to the library.

Dr. Idelson proposes that a universal exhibition of the medical press should be held in connection with the forthcoming International Medical Congress at Moscow. He suggests that all the medical journals published throughout the world should be represented, and that a special catalogue should be drawn up in which particulars of each journal should be given. These particulars should include the date of the foundation of the journal, and of its discontinuance if it has ceased to appear, the names of the editor and publisher, the price, the place of publication, and the number of subscribers. As regards this last item, Dr. Idelson is decidedly sanguine if he expects that trustworthy information on so delicate a point would be forthcoming from all journals.

A Short Sketch of the New York Medical College, with its Charter and Complete List of the Officers and Graduates, is the title of an interesting pamphlet prepared in 1883 by the late Edwin Hamilton Davis, M.D., and found among his papers. It gives the following sketch of the strange eventful history of the institution which it commemorates:

> The College in 1858-9 had the misfortune to lose thirty odd diplomas, and under the following circumstances. The class had been examined, the diplomas ordered and properly signed by the Faculty, and awaiting the insertion of the names of the graduates, when, a few nights before the commencement, a violent storm occurred which blew off a skylight, and deluged the closet where the parchments were kept. A new set was ordered, and the damaged ones were carelessly left uncancelled. Some months after this occurrence the janitor of the College was dismissed, and with him disappeared the wrinkled diplomas. It was discovered afterwards that he had disposed of many of them in this country and a few in London, as two have been sent from the latter place to our city authorities for certification. The late law requiring physicians to register their diplomas has brought to light quite a number here. These facts show how important it is to place in the hands of the profession a complete and authentic list of its graduates. Another reason for this publication is that, since the College closed in 1864, its alumni feel somewhat as orphans, and desire to have something to show that their *Alma Mater* was a veritable institution, and highly respected.

The College obtained its charter from the New York Legislature in 1850, in the interest of higher medical education. The institution struggled along for ten years without sufficient patronage, although upon its faculty were the names of many men of high standing in the profession. Fearing still greater losses owing to the withdrawal of Southern students occasioned by the war, the faculty, nine in number, resigned. On April 21st the school was reorganised, with a new faculty. During the next three years there were numerous changes in the faculty; and finally, in 1864, the college building was sold, and the school discontinued.

On December 15th the publication of *La Tuberculosi*, a bimonthly periodical founded by the late Professor Cantani, and discontinued at his death, was resumed under the direction of Professor Edoardo Maragliano, of Genoa, assisted by Dr. A. Crotto. The title of the periodical sufficiently indicates its scope.

The adulteration of wine is not a new invention, although in these days it has no doubt been carried to a degree of perfection unknown in prescientific times. A quaint old work, entitled *Police de l'Art et Science de Médecine*, by André du Breil (Paris, 1580), contains vehement denunciations of the adulterations practised in the sixteenth century by wine merchants, innkeepers, etc., "whence come an infinity of strange, long, and difficult diseases to those who drink them, not knowing the causes: such as catarrhs, distillations on the lungs, crudities of stomach, vomitings, dysenteries and other fluxes of the belly, pleurisies, gravel and stone, obstructions in the ducts and vessels of the kidneys, liver, and spleen, mesenteric veins, and other veins, arteries, and nerves. Whence proceed inflammations, fevers, dropsies, phthisis, apoplexies, paralyses, convulsions, gout, and other divers diseases, according to the difference of mixtures, temperatures of the bodies, and seasons of the years." The author complains that it is no longer possible, "on account of the insatiable avarice of the said vintners, to drink a single drop of good, pure, and natural wine without any hocussing with other liquors or drugs." The science of "blending" would appear to have been carried to considerable perfection, red wine being mixed with white and strong with weak; French wines with those of Burgundy. Ay, Orleans, Anjou Gascony, Oleron, Madeira, Spain, Greece, etc. Wine was also mixed with cider, perry, verjuice, and other substances, and sugar, honey, etc., were added for flavouring purposes. Lime, salt, alum, cinders, ginger were added to strengthen weak wines. Various substances were also used as colouring matters. Thus, in the words of the author, which may find an application in our day, "are mortiferous poisons disguised as pleasant drinks, which alter human bodies, shorten the life of men, and deserve the same regulation and punishment as poisons."

BEQUESTS TO HOSPITALS.—The late Mr. Hyman Montagu has by his will left £50 each to the Jews' Hospital, the London Hospital, and St. Mary's Hospital.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 24th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

March 21, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, April 3rd, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at the Cottage Hospital, Faversham, on March 28th, at 3 P.M. Dr. Selby, of Teynham, in the chair. Dr. Alexander, of Faversham, kindly invites members and visitors to luncheon at his residence, Gatefield House, from 1.30 to 2.30 P.M. Members intending to avail themselves of Dr. Alexander's hospitality are requested to send acceptances by Tuesday, the 26th, or they will not be expected. Agenda: The Chairman: Observations on Cases of Typhoid Fever. Dr. Alexander: *Post Hoc* and *Propter Hoc*. Mr. Brian Rigden: Some Points in Relation to Life Insurance. By the kindness of the Chairman tea and coffee will be served after the meeting. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—THOS. F. RAVEN, Honorary District Secretary, Barfield House, Broadstairs.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of the above District will be held at the White Horse Hotel, Dorking, on Thursday, March 28th, at 3.30 P.M.; Mr. Alex. C. Brock, of Dorking, in the chair. Dinner at 6 P.M.; charge 6s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. Agenda: To decide where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. Election of Honorary Secretary. To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read: J. H. Morgan, F.R.C.S.: Surgical Treatment of Empyema. Dr. R. Boxall: Malignant Disease of the Uterus in its Earlier and Later Stages. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, ALEX. HOPE WALKER, Cranleigh.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of these Districts will be held at the Sussex County Hospital, Brighton, on Thursday, March 28th, at 3.15 P.M.; Mr. T. Jenner Verrall in the chair. Demonstration of clinical cases by members of the hospital staff. Dinner at the Grand Hotel at 5.30; charge 6s., exclusive of wine. Arrangements will be made for conveying members from the hospital to the Grand Hotel.—FRANK HINDS, Honorary Secretary, West Sussex, 14, Steyne, Worthing; J. W. BATTERHAM, Honorary Secretary, East Sussex, Bank House, Grand Parade, St. Leonards.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the session will be held in the Medical Library of University College, Bristol, on Wednesday evening, March 27th, at half-past 7 o'clock, Nelson C. Dobson, F.R.C.S., President. The following specimens will be exhibited: B. M. H. Rogers, M.B.: Bothriocephalus Latus. J. Michell Clarke, M.D.: Tumour of Posterior Mediastinum invading the Vena Cava and the Auricles. The following communications are expected: J. G. Swayne, M.D.: Cases of Induced Premature Labour for Diseases of the Mother not causing Obstruction to Delivery. A. E. Aust-Lawrence, M.D.: A Series of Fifty Cases of Abdominal Section. J. P. Bush: A Case of Resection of Intestine treated with Murphy's Button. H. Waldo, M.D.: The Paralysis of Osteo-Arthritis. J. Freeman: On the Administration of Ether as an Anæsthetic.—E. MARKHAM SKERRITT, Clifton, and W. M. BEAUMONT, Bath, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—A general meeting of this District will be held on Thursday, April 4th, at 4 P.M., at the North-West London Hospital, Kentish Town Road, N.W. Dr. Handfield-Jones will open a discussion on Some Points in the Treatment of Menorrhagia and Metrorrhagia. Interesting clinical cases will be shown by the hospital staff. Dr. Cleveland will preside.—HUGH WOODS, Honorary Secretary, 11, Archway Road, Highgate, N.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.—The spring meeting of this Branch will be held, by the kind permission of the Directors, at the Stirling District Asylum, Larbert, on Friday, March 29th, at 3.30 P.M. Dr. McVail will preside. Dr Batty Tuke will give an address, illustrated by lantern slides, on Recent Researches in the Histology and Pathology of the Brain Cortex. An opportunity will be given to members to inspect the asylum, and conveyances will be provided to convey members to and from Larbert Station, meeting trains arriving between 2 P.M. and the hour of meeting. A meeting of the Council will be held at 3 P.M.—C. J. LEWIS, Honorary Secretary, Sutherland House, Stirling.

MONTREAL BRANCH.

THE annual meeting of this Branch was held on December 20th, 1894, Dr. W. H. HINGSTON (President) in the chair. Among those present were Drs. J. C. Cameron, Proudfoot, Perrigo, James Bell, James Stewart, Kenneth Cameron, Springle, Hutchison, MacPhail, F. G. Finley, J. H. B. Allan, G. Gordon-Campbell, Geo. E. Armstrong, Lafleur, and others.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The Annual Meeting of the Association.—The CHAIRMAN read a letter from the President of the Association, announcing that the next annual Association meeting would be held in London, and inviting a delegation from this Branch.

Proposed Invitation of the Association to Montreal.—The CHAIRMAN informally brought up the subject of extending an invitation to the Association to hold their annual meeting in Montreal at some future time, and recommended that the members take this matter into consideration.

Reports of Secretary and Treasurer.—The SECRETARY'S report for 1894 stated that the Branch numbered 78 members, of whom 66 were resident and 12 non-resident. Five new members had been elected during the year, namely, Drs. James Henderson, of Grafton, Ont.; J. E. Tomkins, of Ulverston; H. M. Duhamel, W. Sutherland, and W. F. Hamilton, of Montreal. One resignation had been received. One meeting of the Branch had been held during the year, at which the attendance was 21. No meeting was held in May or October owing to the inability to make up a programme.—The TREASURER also presented his report. Both reports were adopted.

New Members.—Drs. James Gun, of Durham, Ont., and J. L. Walker, Montreal, were elected members of the Branch.

Cholecystotomy.—Dr. ARMSTRONG read a paper on cholecystotomy, reviewing the history of the operation and the *technique* of the perfected operation as at present performed, and reporting two successful cases. He thought there might be pain and distress from the presence of a gall stone in the gall bladder not due to the engagement of the stone either in the cystic or the common duct. As the gall bladder was a viscus sometimes empty and sometimes full, with a framework composed of longitudinal and circular muscle fibres containing a plexus of nerve, another plexus lying beneath the peritoneal investment, it was conceivable that a rough stone, small enough to roll about when the bladder was full, yet too large to engage in the cystic duct, might excite sufficient peristaltic action during active exercise to cause pain and uneasiness. The relief that always followed rest and quiet in one of the cases reported would seem to support this view. Some reasons were given for thinking that the pathology of large and small stones might not be the same. Dr. Armstrong had one specimen in his possession made up of three large stones with seventy-eight small ones, all removed from the same gall bladder at the same time. Another reason for advising operative treatment in cases of suspected gall stones in persons past 40 years of age was

suggested by the frequency of the occurrence of gall stones and malignant disease in the neighbourhood of the gall bladder in the same patient. A better appreciation of the safety of cholecystotomy and an earlier diagnosis should render it extremely rare to find instances of gall stones ulcerating their way through into the bowel, or into the peritoneal cavity, or into blood vessels causing fatal hæmorrhage.

Streptococcus Infection.—Dr. JAMES BELL read a report on a series of four cases of streptococcus infection, in which direct infection from one individual to another could be traced, and originating from a necropsy held upon a woman dying of acute peritonitis. He laid stress upon the necessity of antiseptic measures being taken by those exposed to such infection.

Cirsoid Aneurysm.—Dr. FRANCIS J. SHEPHERD read a paper on two cases which had been successfully operated on by him in the Montreal General Hospital. The first was that of a man aged 30, who had a large cirsoid aneurysm in the occipital region, which was connected with both occipital arteries. The aneurysm, which was about the size of a large orange, and pulsated freely, had followed a blow on the head received some six years before. First the occipital arteries were tied, but only with a temporary improvement, so the growth was dissected out. Hæmorrhage was very free. The wound healed by first intention, and the growth did not recur. When last seen, two years after the operation, the man was quite well. The second case was that of a girl aged 16, who had a large pulsating aneurysm in the right temporal region. This commenced a year before as a small nodule, which pulsated and came on without known cause. The growth measured 3 inches by 4 inches. It had been previously operated on without effect before coming to hospital, and the temporal and posterior auricular arteries had been tied. The growth was dissected out as in the former case, and although a rubber band was placed around the head below the growth, still the hæmorrhage was enormous. After operation, saline injections were administered *per rectum* with good effect and the girl rapidly recovered, the wound healing by immediate union, and giving no further trouble. The author stated that in another case he would first dissect up a crescentic flap as in brain operations, tying the vessels as he went along, and afterwards he would dissect out the tumour from the skin. No doubt in many of the cases of peripheral ligature without dissection the failure to cure was due to the fact that the growth was nourished by vessels from the bone itself, as well as directly from the vessels of the scalp.

Proposed Affiliation with the Medico-Chirurgical Society.—Dr. J. C. CAMERON gave notice of the following motion:

That in the interests of the profession and this Branch it would be advisable to arrange some basis of affiliation between the Medico-Chirurgical Society and this Branch, without interfering with the autonomy of either, and that the Council of the Branch be authorised to take the necessary steps.

Election of Officers.—The following were elected officers for the ensuing year: *President:* W. H. Hingston, M.D. *Vice-President:* T. G. Roddick, M.D. *Secretary:* John Anderson Springle, M.D. *Treasurer:* J. Alex. Hutchison, M.D. *Council:* Drs. Proudfoot, Perrigo, and Mills.

SPECIAL CORRESPONDENCE.

PARIS.

Gratuitous Medical Assistance in the French Provinces.—Whooping-Cough in the Hôpital Trousseau.—The Transmission of Diphtheritic Membranes by Post.—"Phosphorisme."—Poisoning by Spider Stings.—The Expenses of Disinfection.—General News.

THE organisation of gratuitous medical assistance in the provinces is unsatisfactory to the medical profession. The fees for visits and operations are fixed without consulting the local doctors, with the result that the following is the tariff: Extracting a tooth, 10d.; bleeding, 1s. 8d.; opening abscess, 10d.; examination with speculum, 1s. 8d.; hypodermic injection and material for the same, 10d.; reduction of hernia by taxis, 1s. 8d.; puncture of a hydrocele, 2s. 6d.; operating for phimosis, 4s. 2d.; putting up fracture of the lower jaw, 4s. 2d.; of the arm, 4s. 2d.; clavicle, 2s. 6d.; femur, 9s. 4d.; tracheotomy, £1 4s.; administration of anæsthetic and finding material, 4s. 8d.; turning, 9s. 4d.; separation of the placenta, 9s. 4d.; application of forceps, 9s. 4d.; cauterisation of anus, 1s. 8d.; emergency amputation of a limb, £1 4s. The administration has put aside the report sent in by the departmental association of medical men, one of whom has written to say that until more satisfactory arrangements are made, the medical profession will attend the poor for nothing.

M. Comby, who has charge of the whooping-cough wards of the Trousseau Hospital, complains that the patients cannot be properly treated owing to want of space; in consequence of overcrowding they contaminate each other; treatment has no effect on them, and the children frequently die of broncho-pneumonia. Of sixteen patients suffering from whooping-cough, M. Comby has lost five from broncho-pneumonia. Among 431 M. Roger lost 51. M. Comby declares that the hospital accommodation must be greatly improved, or patients must be refused admission. The *Assistance Publique* has adopted the latter course.

The postal and telegraphic administration has considered the question of transmission by post of diphtheritic membranes to the Pasteur Institute. The following regulations have been formulated. The phial containing the specimen must be made of very thick glass, firmly corked, and covered with sealing wax. The phial must be placed in a metal case, with a thick layer of cotton-wool between the phial and the case. The metal case must be placed in a wooden box thoroughly well closed. The words "diphtheritic membranes" must be written on the box by the side of the address. These parcels can only be addressed to the Pasteur Institute or well-known laboratories.

M. Magitot, well known for his study on the effects of phosphorus, has recently described a new condition observed in factory workers, which he calls *phosphorisme*. This consists in a peculiar cachexia resulting from slow intoxication. It is universal among the factory hands; it is manifested by a slight yellow tint of the skin, a garlicky smell of the breath, anæmia, defective nutrition, albumen in the urine, and imperfect metabolism. Sometimes chronic enteritis or obstinate diarrhœa are among the symptoms; sometimes bronchitis and brittleness of the bones; they break easily, unite very slowly, and consolidation is very imperfect. Rupture of muscular fibres is not infrequent; finally, the well-known necrosis of the lower jaw takes place. The condition often ends in death. *Phosphorisme* should be treated by milk diet, the use of ozone, and the administration of turpentine. Prolonged treatment is always necessary. As a prophylactic measure, M. Magitot recommends that the use of white phosphorus should be prohibited in match factories. This measure has been urged repeatedly, but hitherto to no purpose.

Dr. Guibert of Marseilles, and Dr. Gombert, of Bize, report the following cases: Two labourers working in the fields were stung by an insect closely resembling a spider. One of them, who had been stung on the knee, felt a very slight pain, and continued working half an hour. Subsequently the pain became more acute, and spreading towards the groin, the nape of the neck, and the loins. He had cold sweats, trembling, cramps, a feeble quick pulse, and great oppression, and anxiety; two very small brown specks on the knee indicated the site of the sting. There were no other local symptoms. This condition lasted several days. The patient was restless and talkative, and complained of colicky pains in the abdomen; there was no albumen in the urine. The colic became worse, but no action of the bowels took place till an enema had been given. This brought away bloody-looking material. After eight days of suffering the patient recovered. In the other case the symptoms were similar but more serious. The man vomited blood, and passed it by the bowel. Recovery took place in this case also.

During the discussion in Parliament of the Budget of 1895, the proposal to allocate £2,000 to defray the expenses of disinfecting in the Communes was rejected. The Minister of the Interior stated that disinfection is not compulsory, and could not be until a law to that effect is voted by Parliament. The question will probably come up again in connection with the Budget of 1896.

Dr. Lannelongue has obtained from the Chamber of Deputies the sum necessary for a chair of chemical analysis at the Pharmaceutical School.

Mme. Tourangin, M.D., of Paris, has been appointed physician to one of the Paris Lycées in succession to the late Dr. Dujardin-Beaumetz.

MELBOURNE.

The Victorian Branch of the British Medical Association.—The Australian Branches, and the Australian Medical Gazette.—The Retiring President's Address.

The Victorian Branch of the British Medical Association has just completed its working year, has elected its new council and has had its address from its retiring President. The work and the character of the papers read compare favourably with the scientific and clinical work accomplished in previous years. The meetings have been well attended and altogether a very healthy interest has throughout been evinced. The roll muster contains 200 members who have regularly paid in their subscriptions, and all those whose names show arrears of two years have been erased from the privilege of membership. Owing to the deep interest and tact exhibited by the honorary treasurer Dr. L. Kenny, the funds of the Branch are in a flourishing condition, and a very decent sum is on interest to the credit of the Branch. The honorary secretary, Dr. W. L. Mullen, has brought an indefatigable energy to his work, and it is to his assiduity the Branch is mainly indebted for its present activity and popularity. A great feature in the realm of medical politics in which the Branch has shown unusual effort has been the legal prosecution of quacks and so-called herbal doctors. The expenses of the proceedings amounted to £117, and the costs recovered were £100. The Branch has further taken advantage of the opportunity afforded it by the purchase of the *Australian Medical Gazette* by the New South Wales Branch of accepting the invitation of the latter Branch in federating with it by passing a by-law making it compulsory on the part of the members of the Victorian Branch to take the *Gazette*, and so constituting the *Gazette* the official organ of the Branches in the Australian Colonies. The subscription to the Victorian Branch will be henceforth £2 2s., per annum which will include the British Medical Journal, the *Australian Medical Gazette*, and the membership of the Branch. Each Branch will elect its own editor and the Victorian Branch has for this year selected Dr. Springthorpe as its editor. In this arrangement it is but just to acknowledge the very generous manner in which the Sydney Branch has performed its part of the negotiations, as the pecuniary sacrifice and responsibilities of the sister Branch are not only greater but have also been almost independently borne by themselves. It is to be hoped that this new and great medical federation will be the means of not only bringing the profession into a more united and pleasanter relationship, but will in the interest of scientific medicine induce a spirit of co operation which must powerfully act in creating a spirit of emulation in following out and imitating the noble principles of the greater British Medical Association.

The retiring President, Dr. Felix Meyer, at the annual meeting of the Branch delivered a very interesting address. After paying tribute to the zeal of Dr. Neild and Dr. Henry, who after long years of service on the council of the Branch had voluntarily decided to withdraw from candidature for the council, and stating that they had watched with unswerving devotion the passage of the Branch over the shoals and shallows of infantile life to the development of its present healthy and vigorous adult age, and were now content to sail along with it on what promises to be a calm sea and a prosperous voyage, he congratulated the Branch on the selection of its new President, Dr. W. Snowball. Dr. Meyer then discoursed on the progress of medical knowledge during the past, referring prominently to the great and and continued advance in bacteriology. He believed that shortly every form of disease will be associated with some discovered germ activity, and will be successfully treated with its antitoxin. Of Koch's tuberculin he stated that while it may not have come up to expectations, still as a diagnostic agent it is of incalculable value. The outlook with regard to the treatment of diphtheria, he thinks, is still more promising, as evinced by the reduced mortality from that disease by the administration of antitoxin. As Dr. Meyer's speciality is that of gynæcology, he naturally devoted the bulk of his observations to it. He drew an interesting contrast of the position of that subject as it was regarded forty years ago and its present position. He strongly condemned the tendency of specialists to regard the abnormal conditions of a woman's special organs as the *fons et origo* of a woman's total unhealthiness, and the exclusion of the consideration of general pathological conditions which are very often the primary cause of a womans unhealthy generative system. He considers that the failures of operative treatment are due to the fact that the primary causes of pain and neuroses are in many instances to be found in the cerebro-spinal system or in pathological conditions other than uterine. Of the invention of Sims's speculum, he says, that it has been to diseases of the womb what the printing press is to civilisation, what the compass is to the mariner, what steam is to navigation, what the telescope is to astronomy. Habits and fashions, the unnaturalising and enervating effects of our nineteenth century civilisation, have largely to do with the increase of diseases in women. With this knowledge of the etiology of women's diseases there should be more prevention. The "newer woman" should by natural evolution equal, if not excel, the best type of the past. The mortality in the midwifery department of the Melbourne Women's Hospital was, during the five years 1889 to 1893, 41 deaths out of 4,578 confinements being 0.89 per cent.

HONG KONG.

The Plague.

During the past month a wordy war has been waged here as to whether plague is raging in the neighbourhood or not. From Amoy particularly come exact statements that plague was rife in the native city. These at last became so positive that the Government and the Chamber of Commerce of Hong Kong sent requests to the British Consul and the medical men in Amoy to furnish replies after careful investigation. The answer was that no plague was to be found in Amoy. Dr. McDougall offered a reward to anyone who could show him a case of plague. The rumour, however, still persists that, although in the immediate neighbourhood of the European quarter plague cases do not occur, a deadly disease is carrying off the Chinese rapidly in the native town. Some ascribe it to typhoid, whilst a few from the symptoms given in detail declare the disease to be plague. The Spanish authorities in Manila, ever on the watch for thwarting commerce in any phase, impose a two days' quarantine on all vessels touching at Amoy, on the mere supposition that plague might be there.

In the Tong-Koon district of the Kwangtung (Canton) province it has been currently reported that plague is prevalent. The Tong-Koon district embraces a large area, including many villages and a few large cities. It is situated in the country lying between the city of Canton and Hong Kong, and abuts upon the Canton river. Rumour of plague here induced the Government to despatch Surgeon-Major Westcott, M.S., to the district reported to be infected. That officer has just returned and reported that he has no doubt that plague is the disease which is carrying off the natives in the district. By no amount of diplomacy, nor by offers of considerable sums of money, however, could he get to see a case. The natives did not deny that they had been visited by a fell disease, but although funerals were excessive, cases were not to be found. The experience is in keeping with all efforts of the kind when similar inquiries are made in any part of Asia or Africa. The writer knows from experience of cholera in Egypt how upon the approach of the foreign doctor patients were hidden anywhere in the house; most frequently amongst the grass before the buffalo. But Surgeon-Major Westcott undoubtedly has established the fact that plague did exist in this district, his evidence being gathered from inquiries amongst the natives and foreign missionaries.

It is scarcely to be wondered at that plague should be there—nay, it may even be expected to be. Plague is a slow travelling disease, it sticks a considerable time to an infested district, and seeing it is only four months since it disap-

peared from Canton and Hong Kong, that it should be met with within a given radius is more than probable. The dwellers in Hong Kong dread its reappearance this summer, although why summer more than winter will scarcely bear a scientific test, as it is prevalent now—January—within two days' journey. The reported repeated attacks of plague in London seem to justify the belief; but such an experience is at variance with the outbreak of any infectious disease. Moreover, the bubonic plague of South China does not seem to be the same disease as the Black Plague of London. We may have plague again in Hong Kong at an early date, but it will be a reinfection, not a relapse. The wave of the disease, which is pursuing an efferent course from Hong Kong, may recur, but although we have found the ripple of the receding wave of disturbance in Tong-Koon, its crest is away from us, and we hope to escape any backwash which may occur.

CORRESPONDENCE.

LONDON COUNTY COUNCIL AND ITS PROPOSED MEDICAL INVESTIGATORS.

SIR,—My attention has been directed to a letter in the BRITISH MEDICAL JOURNAL of March 16th, signed "A General Practitioner," on the London County Council and its proposed medical investigators. My experience as Chief-Surgeon to the Metropolitan Police for twenty years leads me strongly to support the contention of Mr. Nelson Hardy and the Association of Police Surgeons, that no body of men could be more fit in every way for these duties than the divisional surgeons of police. Mr. Hardy has shown unmistakably what official confusion and what waste of money would be caused by employing other persons to make *post-mortem* examinations in cases which the divisional surgeon has seen during life, and on which his evidence is necessary. In such cases the divisional surgeons are now called upon by the coroner to make the examination when necessary, and I have never heard any complaint of the way in which it is done. Why should not the same confidence be placed in them in other cases? Your correspondent objects to the divisional surgeon holding this office: first, for the singular reason that he may have seen the case during life, and "made all sorts of inquiries" (which would surely render him more, not less, fit to conduct the inquiry after death); secondly, because the public "have no guarantee for 'its' (his?) special pathological knowledge."

But has the public any such guarantee for the special knowledge of "hospital pathologists?" These when first appointed are young men with no special knowledge. They acquire such knowledge, it is true, in the course of time, but do not generally hold the office long. Besides, there is the fatal objection that over more than one-half of London there are no hospitals within easy reach, and the hospitals could not be expected to assent to an arrangement which would deprive them of the services of so important an officer for more than a strictly limited period. Of course, my opinion on the subject furnishes no guarantee; but I have had ample opportunity for forming one, and I think that the appointments could not be placed in more competent hands.

As to the "other reason" for which your correspondent thinks the police surgeon objectionable as a "medical investigator," it is founded on an error. The "conduct of the police" has often been called in question in cases of death in police cells; but this is quite a different thing from the conduct of the divisional surgeon. In the (probably very rare) cases in which his own conduct was questioned common sense would induce the divisional surgeon either to get some one else to act for him, or at any rate to secure the attendance and the testimony of some disinterested medical man.—I am, etc.,

T. HOLMES,
Formerly Chief Surgeon to the Metropolitan Police.

Sussex Place, W., March 18th.

SIR,—Your correspondent, "A General Practitioner and Member of the B.M.A.," has either not seen, or at all events has passed by without notice, the most important points in my letter. Let me recapitulate them for his benefit:

1. I pointed out that in an article ostensibly defending the scheme of the County Council against the criticisms of coroners and others, that some suggestions as to medical investigators had been introduced which differed materially from those which the Council had publicly authorised its Committee to lay before the Lord Chancellor, and I asked if these were to be regarded as the latest version of the scheme. On this point your correspondent has nothing to say.

2. I pointed out that the "one or more" new medical investigators to each of the ten London coroners, acting independently of the police, would be much less likely than the 150 police surgeons acting with the force to obtain the earliest evidence in cases in which it might be of the utmost importance to do so. It needs, of course, some slight acquaintance with medical jurisprudence to understand this point, and your correspondent appears to have missed it altogether.

3. I mentioned that even now coroners were not permitted (on account of the expense) to call more than one medical witness at an inquest without making a special report of the circumstances to the County Council, and that much less would they probably be allowed to summon three medical witnesses in future, whereby important evidence might be lost; and your correspondent is either satisfied that this should be so, or does not think the point worthy of notice.

His remarks as to metropolitan police surgeons might, or might not, have had more weight if he had had the courage to put his name to them, but even then they could hardly have out-balanced the official declaration of the Home Secretary that in his judgment police surgeons were the proper persons to be appointed medical certifiers.—I am, etc.,

Dulwich, March 18th. H. NELSON HARDY.

A UNIVERSAL LANGUAGE FOR MEDICAL MEN.

SIR,—I think the revival of Latin is a cause which would have pleased Cato but not the gods. For medical men Latin is not only dead but decomposed. Scholarship stops the nose at the putrid remnants of a so-called classical education which strew the pages of modern medical literature. To give only a few of the commoner barbarisms which can be culled from certain medical journals almost any week; we have *labiæ* intended for the plural of labium, *gummæ* as the plural of gumma, *fenestrum* for fenestra, *materia medica* intended as a neuter plural, *bronchiæ* as a plus-quam plural of bronchia, which is itself a plural; *pubis* for pubes. *Spicula*, *sputa*, and *scybala* are as often as not treated as singular forms—as indeed they are, in a different sense, to the grammarian's eye. Medicines are said to be given *per orem* in defiance of the rule as to the accusative of neuter nouns. Then there are the nouns of the fourth declension, like *meatus*, *processus*, *fœtus*, etc., to which a plural in *i* is assigned regardless of grammar. The whole tribe of Greek-derived nouns in *—ma* is treated as belonging to the first declension and the feminine gender. The dermatologists are, perhaps, the worst offenders in this particular point, and their papers swarm with such monstrosities as eczema *seborrhoica*, erythema *exudativa*, etc.; but they do not stand alone. Your gynæcologist not infrequently writes about what he calls deciduoma *maligna*, and many syphilographers take *condyloma* to be a feminine substantive. "The vulva were inflamed," which I noticed in a contemporary a week or two ago, may pass as a misprint, but I think it not unlikely that the author had written "the *vulvæ*," for this is a form which, for some inscrutable reason, is greatly affected by the average medical writer. On the other hand, "memoranda" is often treated as a noun singular, and quite recently in a paper by a F.R.S. and F.R.C.P. I noticed "phenomena" dealt with in a similar *supra grammaticam* fashion. But for the full bloom of barbarism the curious inquirer may be referred to the *Pharmacopœia* of a certain hospital for women, which might have been published as a "Pill to Purge Melancholy" in scholars. Nor are we in this country much worse than our neighbours, for Latin of a kind that might make Priscian turn in his grave may be found in French, Italian, and Spanish medical books; and German writers on medicine add to the uncouthness of Latin style for which their scholars are notorious, a disregard of the elementary decencies of grammar which is all their own. The greatest fertility in the production of barbarism, however, is seen in the writings of our Transatlantic cousins, as might be expected from the superior inventiveness of that ingenious people.

While on this point, it may not be superfluous to inquire how far Latin ever was the language of medicine as a science. We know, of course, that scholarly physicians like Heberden, Mead, and Halford wrote beautifully in the Babu-ish dialect which passes among the moderns for Ciceronian Latin, but what about the men who really advanced the art of healing? Ambroise Paré, who humbly laments that "n'a pleu à Dieu faire tant de grâce à ma jeunesse qu'elle aye esté en Grec ou Latin instituée" had to be smuggled into the Paris College of Surgeons in defiance of their rule that candidates should pass their examination in Latin. John Hunter's famous retort to the critic who twitted him with not knowing the dead languages implicitly admits his ignorance of them. It is tolerably certain that Sydenham availed himself of the services of a "ghost," and we may take it that he is not responsible for the Latinity of the *De Podagra*.

We know that at Edinburgh last century, and at Berlin and doubtless elsewhere at a much later day, needy scholars made a regular trade of putting the theses of candidates for medical degrees into Latin. A good case might, I am inclined to think, be made out for the disuse of Latin having proved a not unimportant help in the advance of medicine. In any case it is impossible, even if it were desirable, to revive it. In this matter the best thing we can do is to leave the dead to bury their dead.—I am, etc.,

March 20th. PHILISTINE.

SIR,—In consequence of the recent letters in the BRITISH MEDICAL JOURNAL recommending Latin to be used as an international language by medical men (as it was by diplomatists in the time of Milton, who was Latin secretary to Oliver Cromwell), I made inquiries, the result of which I beg to lay before your readers.

Sir Edward Sieveking suggested the "Colloquies of Erasmus" as a model, and though the recently published lectures by the late Professor J. A. Froude on the *Life and Letters of Erasmus* had called attention anew to that eminent man, I had difficulty in obtaining the book. Ordinary booksellers merely said they did not keep it, and they believed it was very scarce and very dear, but in course of time I found it at 270, Strand, where Mr. David Nutt, the classical bookseller, gave me some interesting information. He keeps an edition in two volumes, about 400 pages each, price 2s. 9d. the set, a stereotyped book published at Leipzig.

The Latinity of Erasmus is not difficult, but students have so much to do that I fear they cannot be expected to read it unless the Examining Boards agree to use the "Colloquies" instead of some other textbook. One of your correspondents proposed the formation of a society for publishing a magazine in Latin analogous to the New Sydenham Society, and, if this were done, Mr. Nutt said he would be glad to publish it, and to find an editor on moderate terms.

There seems to be a widely diffused feeling in the world that a magazine in Latin is desirable for international use, as Mr. Nutt showed me two such publications already, one called *Alaudæ*, from F. A. Brockhaus, at Leipzig, in Europe, and another called *Præco Latinus*, from Arcadio Avellario, at 1328 Spring Garden Street, Philadelphia, in the United States of America. And the BRITISH MEDICAL JOURNAL in England, with others on the Continent, last year called attention to a Latin letter to the International Medical Congress at Rome in 1894, signed by nearly a thousand medical men in India, recommending the establishment of a Latin international journal for medical and sanitary subjects. If writers in Europe and America have Latin journals, surely British authors will not hold back; so will some "men of light and leading" in the profession form a committee for publishing a Latin journal in London? If competent leaders come forward, it seems that they would be duly supported, and I for one shall be glad to subscribe for the purpose.—I am, etc.,

R. TEMPLE-WRIGHT, M.D.,
Brigade-Surgeon-Lieutenant-Colonel, retired.

Fontenay, Jersey, C.I., March 16th.

GENERAL PRACTITIONERS AND THE ABUSE OF CLUBS.

SIR,—As the South of Ireland Branch of the British Medical Association is fighting the question of medical remuneration by clubs, and as it is to be hoped that other Branches of the Association may take up this subject, and succeed in effecting some practical benefit to a large section of the members of the Association who hold such appointments, I would point out what appears to me to be a matter of great importance. By the present system of payment we are defrauded of the pittance for which we accept these appointments by the secretaries. We have practically no check, and accept what they offer. Many times I have had men come to me for medical attendance who were not on the list, and who the secretary confessed had paid. Some are said to be in arrears, others to have gone away, and the doctor has no means of proving the truth or falsehood of the statement; and if he by chance catches the secretary and exposes him, or finds fault with him, a party is made against the doctor, and probably he loses the appointment.

The remedy is for the rule to be quarterly prepayments, and a list of the members. If some such rules were formulated by the Association and sent to the head office of the chief clubs, I feel sure there would be no real difficulty in getting them enforced.—I am, etc.,

February 23rd. NEMO.

THE MEDICAL GUILD.

SIR,—The numerous sympathetic articles which have appeared from time to time in the BRITISH MEDICAL JOURNAL on the grievances of medical practitioners, local and general, and the letters you constantly publish under such headings as "General Practitioners and the Abuse of Clubs," etc., indicate the existence of a strong and widespread feeling amongst members of the profession that their environment frequently subjects them to injustice and oppression in these days of combinations and of co-operation. The urgent need for a remedy is expressed on all hands, and the time seems opportune for making an effort in that direction. The fault of all the evils we suffer lies for the most part at our own doors; we have been too much like "clay in the hands of the potter," and have permitted our destiny to be shaped for us by submission to the desires of others outside our own ranks. The remedy is in our own hands; individuals alone can do nothing, but all acting together could do much.

The difficult question is how best to achieve our object and safeguard the honour and interests of the profession, and of every member of it. We have become so accustomed to look for aid in times of difficulty to the British Medical Association and to its invaluable JOURNAL, that our eyes naturally turn thitherward, and so will they still continue to turn, whatever other help may be forthcoming. But the energies of the Association are specially devoted to the promotion of scientific medicine and its application in practice; and it is therefore doubtful if it would be wise, or wisest, to burden the Association with the sole care of our material interests as well. Those interests will always be a claim upon its consideration, but their first care would be best served by an organisation formed for that purpose.

In Manchester there has recently been formed an association called the "Medical Guild." The objects, as stated in the rules, are as follows:

> "To aim at the organisation of the profession in order to secure united action and the co-operation of all for the common good; to gather up and guide medical opinion in all matters affecting the profession, and give public or private expression thereto when deemed advisable; and to foster *esprit de corps*."

It is to be hoped the guild will grow and ultimately become national in extent, with branches in every town or convenient district, until there shall exist a network throughout the country, an organisation through which information can be obtained as to the condition of medical matters in any locality, and the weight of organised professional opinion brought to bear in the settlement of questions in dispute.

At present, if the practitioners in a district take concerted action, they may achieve something, but more likely their efforts will be paralysed and brought to nought by the readiness of outsiders to accept every vacant post, without consideration for the causes of the vacancy. Is the time not ripe for every well-wisher of the future of our profession to lend a hand in remedying this defect, and in creating a means for providing mutual help and support against the suicidal

effects of weakness within and against the encroachments of exacting combinations from without?

I shall be glad to forward a copy of the rules of the Medical Guild to any practitioner who will apply, and to give every information in my power with reference thereto.—I am, etc.,

ALEXANDER STEWART, M.D.,
Honorary Secretary of the Medical Guild.

Pendleton, Manchester, March 19th.

PAYING HOSPITALS.

SIR,—Dr. Herringham's scheme for the establishment of nursing homes or hospitals for the benefit of the lower middle class would, if carried out on his lines, tend to still further reduce the general practitioner's income.

If the proposed hospitals must be large to make them pay, then the plan cannot commend itself to the rank and file of the profession. That patients should continue to be under the care of their own doctor is without doubt earnestly intended by your correspondent. But this will only be possible to those medical men who happen to be located within an easy distance of the institution; for it is obvious long journeys would not "pay" at ordinary fees. Another point is there should be no consulting staff; patients and their doctors should be as free to call in whom they like in consultation as they are at present.

By these modifications of an otherwise commendable scheme, not only would the specified class benefit, but the profession all round would not be the loser—a matter too frequently lost sight of.—I am, etc.,

Weymouth Street, W., March 19th. CHAS. W. CHAPMAN.

SIR,—I quite endorse everything that Dr. Herringham has said in his letter. We want nursing homes, not hospitals, where patients can be taken in at 2 guineas a week, and attended there by their own private medical attendants. The lowest charge at existing nursing homes is 5 guineas a week, and this is quite out of the power of a clerk, unmarried, and earning, let us say, £200 a year, to pay. He is thus driven to enter the pay hospitals which compete with the general practitioner. Such a patient could well afford to pay the customary medical fee of his ordinary attendant, and 2 guineas a week for the nursing and accommodation. A home of this description might be started in every district of London by the co-operation of the medical men in that district, and, if properly worked, would pay a decent interest upon the money invested. Money placed in such a scheme by a local medical man would be well invested, for not only would he receive at least the current rate of interest upon it, but he would be spared the chagrin of seeing his middle-class patients when seriously ill pass out of his hands into some charitable institution. One reason why fees are so high at a nursing home is that the proprietors who live out of it must make at least 50 per cent. upon the money invested to enable them to do so.

This would be avoided at a co-operative nursing home. It might be arranged that the subscribing medical men had the first right for beds, and after that the patients of non-subscribing medical men of the district could be accommodated if there was room. If fifty medical men in a district took each a £10 share, £500 would be raised. This would be ample to furnish and equip a house large enough to hold fifty patients, and surely the aforesaid fifty medical men could always manage to keep, let us say, forty patients in the home between them. This would bring in an income of £4,000 a year, amply sufficient to keep the concern going, pay a handsome dividend, and put away a fund against future emergencies or slack times.—I am, etc.,

Queen Anne Street, W., March 17th. GEORGE HERSCHELL.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A NON-REGISTERED DENTIST.

On March 16th Mr. Louis Levey appeared before the Dublin police magistrates charged with having described himself as a dentist, not being at the time registered under the Dentists Act of 1878. This was the first prosecution of the kind in Ireland. The charge was admitted, but it was urged in mitigation that defendant was in partnership with a registered dentist, the firm styling themselves American dentists. The defendant was fined £5, with £2 2s. costs.

QUACKERY.

A CORRESPONDENT writes to inquire whether it would be wise for him to take any action against a person under the circumstances specified in his letter. We gather from the letter the following facts, namely, that our correspondent had attended a club patient who consulted him respecting a severe wrench he had sustained of the first phalangeal joint of the middle finger of the left hand; that the patient did not call again till twelve or fourteen days afterwards, and then only for a certificate to declare off the funds of the club, stating that he had in the meantime been under the care of an unqualified person who follows the calling of a Primitive Methodist minister. This person, it appears, had told the club patient that our correspondent had overlooked a dislocation, but that he had successfully returned it. Further, that the unqualified person referred to whilst on his ministerial journeys carries a bag of nostrums, including a liniment "Black Wonder Oil" at 1s. 6d. and 2s. a bottle, "guaranteed to cure every disease known"; that payment for services is demanded and received in every case.

The above statement of facts suggests three courses which might be taken: (*a*) Proceedings for slander at the instance of our correspondent personally; a solicitor should, however, be consulted before writing or taking any steps in reference to this. (*b*) Proof of purchase of a bottle of the oil with the label representing the ailments for which it could be applied might be forwarded to the Commissioners of the Inland Revenue, Somerset House, Strand. (*c*) If evidence is forthcoming from two or three persons that the unqualified person in question has prescribed and compounded medicines for them in cases requiring medical, as distinguished from surgical, treatment, particulars of such cases might be forwarded to the Clerk to the Society of Apothecaries, Blackfriars, London.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

Poor-law Officers Superannuation Bill.—Mr. W. LONG, in moving the second reading of this Bill, explained that its object was to give a statutory right of pension to Poor-law officers. The Poor-law official had to make a contribution similar to that which was made under the Civil Service Pension Fund, to vary according to the rate of the number of years' service. He believed it to be a compromise which could be accepted generally by the House, and which, if passed into law, would remove what had been for more than twenty years a very vexed question.—Mr. SHAW LEFEVRE said that, on behalf of the Government, he had no hesitation in supporting the second reading of the Bill. It would require a good deal of consideration in Committee, but, so far as he could understand, its general principle was not unfair to the public. Mr. LOGAN objected.—Mr. J. A. PEASE, Mr. WARNER, and Captain NORTON appealed to the hon. gentleman to withdraw his objection, but he persisted, and the debate stood adjourned.

Eyesight Tests for Railway Servants.—Sir JOHN LENG asked the President of the Board of Trade whether it was obligatory on railway companies to subject experienced guards, drivers, and signalmen to eyesight tests for colour blindness; whether it had come to his knowledge that a railway company in Scotland had adopted a theoretical test which men had failed to pass who had never mistaken the semaphore arms and flags by day or lamps by night as practically used in railway working; and that notices of dismissal had been given to a number of old servants of the company, thus causing great uneasiness and alarm amongst the railway employés; and whether this was consequent upon any action of the Government or any order by the Board of Trade.—Mr. BRYCE said that railway companies were not legally compellable to subject their servants to eyesight tests for colour blindness. The facts stated in regard to the railway in Scotland had not come to his knowledge. Having no powers, the Board of Trade had made no order. The subject was, however, one of great interest and importance to the companies and the travelling public whose interests obviously required that adequate tests for colour vision should be applied. In 1892 the Board of Trade communicated to the railway companies the report of a committee of the Royal Society on colour vision, and corresponded with the companies in order to ascertain what action they had taken or proposed to take to test the colour vision of their servants.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.—The third examination for the degrees of M.B. and B.C., Part I, will commence on April 23rd; Part II will commence on the same day. The examination for the degree of M.C. will commence on April 26th. The names of candidates for these examinations must be sent to the Registrary on or before April 11th. Candidates who are members of the Senate may send their names to the Registrary direct. All other names must be sent through the Præelectors of the respective Colleges. The first examination for the degree of M.B. and B.C., Part I, Chemistry and Physics, will commence on June 7th; Part II, Elementary Biology, on June 10th. The second examination, Part I, Pharmaceutical Chemistry, will commence on June 15th; Part II, Human Anatomy and Physiology, on June 7th. The names of candidates for these examinations must be sent to the Registrary through the Præelectors of their respective Colleges on or before May 27th.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The last post on Wednesday is the latest by which these announcements can be received.

A SURGEON-CAPTAIN, with two years to serve at home, desires an exchange with an officer serving, or about to serve, in the Colonies or Mediterranean; Gibraltar or Egypt preferred. Address — Surgeon-Captain H., care of Holt and Co.

THE NAVY.

THE following appointments have been made at the Admiralty: RICHARD E. BIDDULPH, Staff Surgeon, and GEORGE R. MCMAHON, Surgeon, to the *Dreadnought*.

Staff Surgeon ARCHIBALD MCKINLAY has been promoted to be Fleet Surgeon, March 2nd. He was appointed Surgeon, March 31st, 1874, and Staff Surgeon twelve years thereafter. He was Surgeon of the *Mosquito* during the Egyptian war of 1882, and has the medal and Khedive's bronze star.

Mr. ERNEST B. CUTTING has been appointed Surgeon and Agent at Mandesley, and Mr. C. F. RUDD at Pulling, Bacton, etc., both dated March 14th.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT COLONEL W. S. M. PRICE is promoted to be Surgeon-Colonel, *vice* W. C. Robinson, retired, February 27th. Surgeon-Colonel Price was appointed Assistant Surgeon, September 30th, 1864, and became Surgeon, March 1st, 1873; Surgeon-Major, September 30th, 1876; and Brigade-Surgeon-Lieutenant-Colonel, November 7th, 1889. He was in the Afghan war in 1878-80, and took part in the operations in the Bazar Valley, including the engagement at Deh Sarakh (medal); and in the Nile expedition in 1884-85 with the Korti Field Hospital (medal with clasp and Khedive's star).

Surgeon-Lieutenant-Colonel J. M. BEAMISH, M.D., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* W. S. M. Brice, February 27th. His previous commissions are dated as follows:—Assistant-Surgeon, April 1st, 1871; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; and Surgeon-Lieutenant-Colonel, April 1st, 1891. He was in the Afghan war in 1878-79 with the siege train of the 1st Division of the Cabul Expeditionary Force in Dadur and the Bolan Pass (medal), and with the Burmese Expedition in 1885-6 (medal with clasp).

Brigade-Surgeon JOHN COATES, M.D., late of the 21th Regiment, died at Hythe, Kent, on March 15th, at the age of 68. He entered the service as Assistant Surgeon, April 2nd, 1850; and was made Surgeon, January 25th, 1856; and Surgeon-Major, November 16th, 1869. He was granted retired pay, with the honorary rank of Brigade-Surgeon, October 15th, 1881.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN J. W. T. GILBERT, 1st London Volunteer Artillery, to be Surgeon-Captain, March 20th.

Surgeon-Captain R. L. SPARROW, 6th Volunteer Battalion the Manchester Regiment, to be Surgeon-Major, March 20th.

The promotion to be Surgeon-Lieutenant Colonel of W. R. SMITH, M.D., is dated February 21th, 1894, and not as stated in the *Gazette* of January 8th.

INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL THOMAS ROBINSON, M.B., Bengal Establishment, is permitted to retire from the service from March 30th. He was appointed Assistant-Surgeon, October 1st, 1869, and becames Surgeon-Lieutenant-Colonel, October 1st, 1889. He served in the Afghan war in 1879, and was present with the Zaimusht Expedition, including the assault of Zawa (medal), and with the Mahsood Wuzeeree Expedition in 1881.

Surgeon-Colonel D. O'C. RAYE, M.D., Bengal Establishment, succeeds Surgeon-Colonel Cleghorn as Inspector-General of Civil Hospitals, Punjab; and Surgeon-Colonel W. P. WARBURTON, M.D., becomes Inspector-General of Civil Hospitals in the North West Provinces, vacant by the retirement of Surgeon-Colonel Pilcher, on March 29th.

Surgeon-Lieutenant-Colonel A. B. STRAHAN, Bengal Establishment, has retired from the service, which he entered as Assistant-Surgeon, October 1st, 1868.

The retirement of Brigade-Surgeon Lieutenant-Colonel W. R. HOOPER, Bengal Establishment, and of Surgeon-Lieutenant-Colonel J. A. HOWELL, Bombay Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, received the approval of the Queen.

THE VOLUNTEERS.

MR. JAMES SAMUEL YEAMAN ROGERS, M.B., is appointed Surgeon-Lieutenant to the 1st (City of Dundee) Volunteer Battalion the Royal Highlanders, March 20th.

THE ARMY MEDICAL SCHOOL.

A CORRESPONDENT points out how original terms of subjects survive when the primary objects have long passed away and entered other phases of existence. For instance, the terms "gardens" and "fields" remain in street names where no such spaces are to be found; and so it is with the term "school" applied to the great army institution on Southampton Water. That is now a misnomer, and the term "college" if more fitting; unfledged pupils are not sent to Netley, but doctors of standing. We read of Royal Colleges of Music, Engineering, and Veterinary Science, and such should be applied to the so-called Army Medical School.

THE P.M.O. INDIA

THE selection of Surgeon-Colonel Gore for this appointment is connected not only with his eminent fitness for the position, but further with the fact that of all the officers above him on the list considered fit for advancement by the Promotion Board, he is the only one who can hold the appointment for three years clear before retirement by age, the requirement of the Indian Government being that all principal medical officers shall not be liable to removal before this time. Surgeon-Major-General Walsh (Madras) will be moved to the Bengal Army Corps, headquarters Nynee Tal.

PARKES MEMORIAL PRIZE.

THIS triennial prize of 75 guineas and a gold medal for the best essay on "Malarial Fevers: their Causation and Prevention," illustrated as far as practicable by facts personally observed by the writer, has been awarded to Surgeon-Major R. Ross, of the Indian Medical Service. The assessors by whom the prize was adjudged were: Dr. Veale, Dr. Patrick Manson, and Professor A. E. Wright. The other essays will be returned on application to the Secretary, Parkes Memorial Fund, Netley.

THE SOCIAL POSITION OF THE ARMY MEDICAL STAFF.

THE publication of a note from "Surgeon-Major" on this subject in the BRITISH MEDICAL JOURNAL of February 23rd, 1895, has led to our receiving a very large number of letters, some of them supporting "Surgeon-Major's" view, others, and these the majority, calling it in question. A distinguished correspondent, who signs himself "Surgeon-Major-General," writes as follows:

I presume the surgeon-major on arrival at the station paid certain visits of courtesy to the general officer commanding and to the several messes, where he entered his name in the visitors' book and left his card. If so, he did exactly that which custom demands from every officer. The general officer seldom returns any junior officer's visit, while the messes, as a rule, acknowledge the visit by asking the visitor to dinner, by making him an honorary member of their mess, or by the payment of both of these compliments. Such, at all events, is my own experience. It is not stated what the lady's action was. As a stranger it would not be in harmony with English custom to call upon residents or upon the ladies of the garrison whose arrival had preceded her own, or, if she did so, it is, perhaps, not surprising that her visits were not returned.

The fact is that in all large garrison towns, and particularly in those near London, social relations are so complex and acquaintances and engagements so numerous that visits are but seldom interchanged, save between old acquaintances and ladies of the same corps. If "Surgeon-Major" asserts that an officer of the Army Medical Staff by his professional character alone is debarred from social intercourse with other military officers and their families, he is, I think, strangely mistaken and singularly unfortunate in his experience. I entered the Army Medical Service in the old regimental days, and have gone through all the ranks, and after a wide experience of army customs I have no hesitation in stating that a man is esteemed in the service as elsewhere, not by his rank or calling, but by his own personal and professional worth. The intimacies with staff and regimental officers which so many of us have formed have added greatly to the happiness of our lives, and in looking back there is, I think, no greater certainty than that the professional element has been one of the chief factors in cementing that friendship. I consider, therefore, that "Surgeon-Major's" letter is unfortunate and misleading; moreover, it tends to create the very feeling he deplores.

In conclusion, I may be permitted to express my own belief, and that of many others, that the incessant craving for rank and position is acting disastrously on our own position, not, perhaps, so much from want of justice of the demand, as from the indiscreet efforts of self-appointed agitators.

LOYALTY writes: The Medical Staff of the Army will ever be what its officers choose to make it; and to advertise these isolated cases of unfortunate individual experience—thus attempting to deter the graduates of the great colleges from entering the service—is disloyal to the army and to the nation at large. I entered the army from the largest medical school in London; I have never met with the treatment which your correspondent describes, and I have never regretted the day upon which I became the recipient of Her Majesty's commission.

CONCORDE believes that misunderstandings arise owing to some medical officers entertaining the mistaken opinion that "the others don't want to know them;" but thinks that good might follow were the officers of the medical staff to show more *esprit de corps*, and enter into the sports and pastimes of the station and neighbourhood. Another Surgeon-Major writes very much to the same effect.

T. E. L. L., while admitting that there is an adverse feeling in the service to the Army Medical Staff amongst a few officers, chiefly departmental, has never seen one of his brother officers universally tabooed unless he deserved it personally. And both he and a Brigade-Surgeon-Lieutenant-Colonel agree that such letters as "Surgeon-Major's" are calculated to increase any breach which exists.

Another BRIGADE-SURGEON-LIEUTENANT-COLONEL believes that the craving for military rank and the ostentatious display of military titles has to a great extent contributed to the widening of the breach already existing since young medical officers were introduced into the service with the relative rank of captain.

On the other hand, a SURGEON-LIEUTENANT-COLONEL believes that the position of medical officers will remain unsatisfactory until they receive military titles pure and simple.

We have also received other letters somewhat to the same effect, which it appears unnecessary to print; but we may note the view of one correspondent writing from Cheltenham, who thinks that much injury is done to the social status of the army medical officer by too great complacency in invaliding.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,914 births and 6,534 deaths were registered during the week ending Saturday, March 16th. The annual rate of mortality in these towns, which had increased from 18.7 to 35.0 per 1,000 in the seven preceding weeks, declined again to 32.2 last week. The rates in the several towns ranged from 15.6 in Norwich, 20.7 in Leicester, and 21.3 in Derby to 40.3 in Preston, 44.0 in Oldham, and 48.0 in Brighton. In the thirty-two provincial towns the mean death-rate was 31.3 per 1,000, and was 2.1 below the rate recorded in London, which was 33.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.4, while it averaged 1.6 per 1,000 in the thirty-two provincial towns, and was highest in Croydon, Newcastle-upon-Tyne, and Burnley. Measles caused a death-rate of 1.1 in Manchester, 1.2 in Plymouth and in Sheffield, and 1.3 in Bolton; and whooping-cough of 1.6 in Burnley and 2.3 in Croydon. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 52 deaths from diphtheria in the thirty-three towns included 27 in London, 4 in West Ham, 4 in Birmingham, and 3 in Sheffield. One fatal case of small-pox was registered in London, but not one in any of the thirty-two provincial towns. There were 57 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-Pox Hospital on Saturday last, March 16th, against 75, 68, and 56 at the end of the three preceding weeks; 12 new cases were admitted during the week, against 8 in each of the two preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,658, 1,621, and 1,619 at the end of the three preceding weeks, was 1,615 on Saturday last, March 16th; 133 new cases were admitted during the week, against 152, 143, and 141 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 16th, 954 births and 1,014 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 42.8 and 40.9 per 1,000 in the two preceding weeks, further declined to 35.1 last week, but exceeded by 2.9 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 31.7 in Aberdeen to 45.8 in Edinburgh. The zymotic death-rates in these towns averaged 3.8 per 1,000, the highest rates being recorded in Leith and Edinburgh. The 480 deaths registered in Glasgow included 15 from measles, 14 from whooping-cough, 7 from scarlet fever, 2 from diphtheria, and 1 from small-pox. Nineteen fatal cases of measles were recorded in Edinburgh, and 5 in Leith.

SANITATION IN SOUTH LONDON.

AT the meeting of the Vestry of St. George the Martyr, Southwark, on March 12th, the report of the Committee instructed to inquire into the points at issue between certain members of the Vestry and the medical officer of health was presented. The report reproved both sides concerned in respect of particular questions, but its general tenour appears to have been that the work of the medical officer was beset with difficulties, that he had been harshly criticised, and that the matter should be no further discussed. It now remains to be seen whether the Vestry will give effect to Dr. Waldo's recommendation and put in force the statutory provisions which the medical officer considers should no longer be allowed to remain in abeyance.

HOME ISOLATION OF SCARLET FEVER.

THE Cheadle Rural District Council are without any proper isolation hospital, and have recently had an illustration of the consequences of being unprepared for the inevitable. Application was made to them for the admission of two children, suffering from scarlet fever, to the fever hospital attached to the workhouse. The patients in question lived in a small two-roomed house, and slept in a room occupied by two other children, and by the mother, who was dangerously ill. The workhouse hospital, being wanted for other purposes than the reception of infectious cases, it was decided that it would be best to isolate the children at home, in the upper room, under the charge of a nurse provided by the council. The medical attendant pointed out the inadequacy of any possible home "isolation" in this case, first in the application to the council, and subsequently in a letter to a local paper. This led to a reply from the medical officer of health, and to a discussion at the next meeting of the district council. Exception was taken to the course adopted in writing to the press upon such a matter, but it seemed to be generally admitted that there was ground for complaint, and that it was desirable to combine with neighbouring districts in order to secure an isolation hospital. Removal of infectious cases from outside to a workhouse hospital is a practice which the Local Government Board very properly discountenances, but it seems to have been suggested here as a means of escape from the worse alternative of leaving the children at home. Isolation under the circumstances described is better than nothing; but it could only be imperfect at best, and unsatisfactory for the protection of either the public or the other inmates of the house. The case exemplifies the need for an efficient isolation hospital; and as the district council appeared to be satisfied with the inadequate precautions which they had been able to secure, there was no impropriety whatever in appealing to public opinion. It has, at all events, elicited an academic opinion from the council in favour of providing such a hospital. Meanwhile, another of the children has, we are informed, been attacked.

APPOINTMENT OF DISTRICT MEDICAL OFFICER.

INNOCENCE writes to ask: (1) Whether a Board of Guardians is compelled to appoint as district medical officer a new-comer who has just settled in the district, on the expiration of the present holder's term of office, the latter being non-resident; (2) if it is not usual for a new-comer to acquaint his professional brethren in the vicinity of his intention to start in practice?

*** (1) The guardians are not compelled to appoint a new-comer simply because he resides in the district; (2) it is, or ought to be, the custom for a new-comer to call upon medical men already in practice in the neighbourhood in which he settles.

THE DISCHARGE OF PATIENTS FROM INFECTIOUS HOSPITAL.

X. Y. Z. puts the following case: A fever hospital in a country town is under the control of the sanitary authority, and is supported out of the rates, so far as the great majority of patients is concerned, a charge being made for rural patients and for paupers. Patients are attended there at their own cost by their ordinary medical practitioners. An experienced nurse is at the head of the resident staff. Should the opinion of the visiting practitioners as to the freedom of their patients from infection be accepted as final or should such opinion be invariably subject to revision by the medical officer of health for the district?

*** It is difficult to answer this question categorically and without reference to local issues and facts which are not before us, but, broadly speaking, it is proper that the medical officer of health should have a veto upon the discharge of any patient. If there be difference of opinion the public safety should have the benefit of the doubt. It would be anomalous in the extreme if the official medical adviser of the local authority had to report that a patient had been dismissed from their own hospital while still, in his opinion, in an infectious state.

SALARY OF MEDICAL OFFICER OF HEALTH: VACCINATION GRANT.

DISTRICT MEDICAL OFFICER asks whether, since the formation of county councils the whole of a district medical officer's salary is paid by them or not? He also inquires as to the cause of delay in notification of grant for successful vaccination.

*** A contribution amounting to half the salary if claimed by the sanitary authority is paid by county councils on the certificate of the Local Government Board. The Local Government has control over the tenure of office only in those instances where a portion of the salary is repaid to the sanitary authority.

As to the second question we need only observe that there is frequently a long interval between inspection and the issue of the grant.

M.O.H. asks: Is a medical officer of health, half of whose salary is paid by the county council, debarred in consequence from becoming a candidate for the same?

*** The repayment by the county council is to the district council, not to the medical officer of health. We are not aware that this disqualifies the medical officer of health for election as a county councillor, if that is what is meant.

OBITUARY.

EVAN PIERCE, M.D., F.R.C.S.E.,
Coroner for West Denbighshire.

WE regret to have to record the death on March 15th of this veteran practitioner, than whom few men have been better known in the Principality during the last half century.

Dr. Evan Pierce, who was born near Denbigh, North Wales, was educated at Denbigh Grammar School, and after a term of apprenticeship in that town studied in Edinburgh, London, and Paris. Towards the end of his period of study at Edinburgh in 1832, he was assistant to Dr. Mackintosh at the Drummond Street Cholera Hospital. Subsequently he went to Musselburgh, where the disease had broken out, and on the subsidence of the epidemic there returned to Denbigh, only to find that the cholera was raging there. In all these places his unwearied efforts earned him the respect and esteem of all with whom he came in contact, and were of the utmost value in restoring public confidence. He commenced practice in Denbigh. Here he soon acquired a very high reputation, and for many years maintained a small private hospital at his own expense. He early commenced to show a great interest in public matters, and in 1848 was appointed coroner for West Denbighshire, an office which he held to the time of his death. He was for fifty-one years a member of the Town Council, and was Mayor for five years in succession from 1866. Upon his retirement from this office his fellow-citizens desired to erect some public memorial to his services; and in

spite of Dr. Pierce's wish that the memorial should take the form of a scholarship at one of the universities, a column, bearing on its top a life-sized statue, was erected on a piece of ground given by Dr. Pierce as a public pleasure ground. This was unveiled in November, 1876. In 1881 his portrait was painted by subscription, and placed in the Denbigh Council Chamber. Dr. Pierce was a thorough Welshman, a strong friend of the national movement, and added to his many public and professional activities a love of sport which led him to maintain a pack of hounds, with which he hunted regularly twice a week for fifteen years.

Dr. Pierce retained his vigorous health until about two years ago, when at the age of 85 he became somewhat enfeebled. On February 28th he contracted a severe attack of influenza, from the effects of which he gradually sank.

THOMAS ALEXANDER GOLDIE BALFOUR, M.D., F.R.C.P.E., F.R.S.E.

Dr. T. A. G. Balfour, of Edinburgh, died somewhat suddenly on March 10th. He had been seeing patients up to a late hour on March 8th, became ill later that night, and died at 11 P.M. on March 10th of aneurysm. He was 70 years of age. He graduated M.D. at the University of Edinburgh in 1851, and was elected F.R.C.P.E. in 1869. He was one of a family of thirteen, of whom nine were either clergymen or doctors or married members of these professions. The late Professor Balfour, who long occupied the Chair of Botany in Edinburgh University, was one of these brothers.

Dr. Balfour was educated at the High School and University of Edinburgh. He studied first for the Free Church of Scotland, but later took to medicine, which he practised for more than forty years. He was a deeply religious man, and wrote several religious or theological books. He made some contributions to the medical journals. He was a strong Conservative. He is survived by a widow, three sons, and a daughter.

M. Alphonse Guérin, the distinguished French surgeon, who recently passed away in his 78th year, was born at Ploermel (Morbihan) in 1817. He began his medical career in an informal manner as a pupil in the Hospital of Bourbon, Vendée, where, as he himself used to relate, he fainted on seeing a patient bled. In due course he proceeded to Paris, where he won for himself the appointment of *interne* in 1840. He took his degree in 1847, and was appointed surgeon to the Paris hospitals in 1850. He did duty successively at the Lourcine, Cochin, and Saint Louis Hospitals, finally passing to the Hôtel Dieu in 1872. In 1879, having reached the limit of age, he had to retire while still intellectually in his prime. M. Guérin was President of the Académie de Médecine in 1884. His name will live in the history of surgery as one of the earliest preachers of the gospel of cleanliness in the dressing of wounds. He used to say of himself that he was the first surgeon that ever thought of washing his hands before operating. His cotton wool dressing marked a transition stage between the bad old days of water dressing *au naturel* and the antiseptic method. His writings include a treatise on operative surgery (1855), one on the diseases of the female genitals (1864), one on his cotton wool dressing (1885), besides numerous papers on miscellaneous surgical subjects. M. Guérin was a man of frank and open nature, with something of the native roughness of the Breton, which all his intercourse with the great world could not entirely polish. His sturdy independence of character and bluntness of speech somewhat interfered with his professional success, but he was always recognised both by his colleagues and by the public as one of the leading surgeons in Paris. He was several times called in to see the late Pope Pius IX, and it is mentioned with a mixture of pity and contempt by one of his biographers that the simple-minded Breton did not put this stroke of luck to use as an advertisement.

Dr. Petronio, Professor of Surgical Pathology and Teacher of Surgery in the University of Naples, died on March 1st at the age of 55. He published several works, including *A Guide to Clinical Surgery*. He was Director of the Hospitals della Pace and Pellegrini, and of the lunatic asylum. He also took an active part in politics, and was Radical deputy for Caserta.

MEDICAL NEWS.

The Mayor of Birkenhead, on March 9th, opened the new infectious hospital in Tollemache Road, Claybrick Hill, Birkenhead, which is to take the place of the present institution in Livingstone Street.

The annual dinner in aid of the funds of the Evelina Hospital for Sick Children at Southwark was held at the Hôtel Métropole on March 20th, under the presidency of the Lord Chancellor. Subscriptions and donations amounting to £2,550 were announced.

The Governors of the Richmond Lunatic Asylum, Dublin, have appointed Miss Eleonora L. Fleury to be Assistant Medical Officer on the female side of the house. Miss Fleury obtained highest honours with the first Exhibition at the M.B. Examination, Royal University, Ireland, 1890, and the Gold Medal with the degree of M.D. in 1892.

The Death-rate in Dublin.—The deaths in Dublin last week were 77 over the average of the past ten years, and represent a rate of 42.4 per 1,000. This increase is largely due to diseases of the respiratory organs and the general complications of influenza. Small-pox is on the decline; the admissions were only 30, the lowest number reached since November.

Baby Farming.—Last week, at Darlington, a midwife and her daughter-in-law were committed for trial on a charge of manslaughter in the case of an illegitimate infant, aged 3 weeks, placed in their charge in consideration of a weekly payment. The evidence, as reported in the *Darlington and Stockton Times* of March 16th, showed that the child died of inanition, and that the prisoners had displayed unusual anxiety before its death about getting a certificate.

Dr. Dobie of Chester.—Dr. Dobie has recently resigned the post of Physician to the Chester General Infirmary after many years of distinguished service, and a committee has been formed among his friends and patients in Chester to present to him his portrait as a testimonial of the warm regard universally felt for him in Chester and the district, where, as the Duke of Westminster observed at a meeting held a short time ago, "he has a host of friends and no enemies." The portrait will be painted by Mr. W. W. Ouless, R.A. The honorary treasurer of the fund is Mr. J. R. Thomson, Parr's Bank, Chester; and the secretary is the Rev. J. S. Howson.

The third annual dinner of the London and District Poor-law Officers' Association will be held at the Holborn Restaurant on April 5th. The chair is to be taken by Mr. Walter Long, M.P., who was Parliamentary Secretary to the Local Government Board in the last Government. As Mr. Long has brought in the Poor-law Officers' Superannuation Bill, which is now before the House of Commons, and has been accepted by the President of the Board on behalf of the Government, it is hoped that a large number of officers and friends will attend on the occasion of this dinner. Further particulars can be obtained from Mr. Francis H. Birch, Holborn Union, E.C.

Wills and Bequests.—The will of the late Mrs. Rose Louise Kay, of Park House, Earl's Court Road, South Kensington, who died on November 9th, 1894, was proved on February 9th, the value of the personal estate amounting to £102,552. The testatrix, after leaving numerous legacies, leaves the residue of her real and personal estate upon trust for her adopted son, George Louis Howard Kay. After the death of the said George Louis Howard Kay, the testatrix bequeaths £500 each, free of legacy duty, to numerous charities, including the Hospital for Consumption and Diseases of the Chest, the Cancer Hospital, Charing Cross Hospital, the Royal Free Hospital (Gray's Inn Road), St. Mary's Hospital (Paddington), the East London Hospital for Children and Dispensary for Women (Shadwell), the British Lying-in Hospital, St. Thomas's Hospital, and the Hospital for Sick Children (Great Ormond Street).

Pasteurism in Chicago.—A report published by Dr. A. Lagorio, Director of the Pasteur Institute of Chicago, in the

Chicago Clinical Review to March, 1895, shows that the total number of persons treated there by preventive inoculation against hydrophobia from the opening of the Institute on July 2nd, 1890, to December 31st, 1894, was 366. Of this number 341 were bitten by dogs, 9 by horses, 7 by cats, 5 by skunks, 2 by wolves, 1 by a mule, and 1 by a pig. 195 persons received severe and multiple bites on the hands and wrists, 47 on the head and face, 47 on the arms and shoulders and 77 on the legs and thighs. In 123 cases the animal that inflicted the bite was proved experimentally or by the results of the bites in other persons to have been rabid; in 160 the diagnosis of rabies was based on the clinical phenomena. In 83 the animals were "strongly suspected." Among the 366 patients treated only 2 died, giving a mortality of 0.54 per cent. In addition to these, 372 other persons applied at the Institute, but were judged not to require any treatment beyond dressing of their wounds, which was done free of charge.

The Clinical Research Association.—The results of the first half year's working of this Association have been satisfactory. It now numbers over 800 members, and during the last six months considerably over 2,000 specimens have, we are informed, been received. The Association is about to issue a handbook for the guidance of members of the profession who desire to make use of the facilities which it affords for the examination of sputum, urine, blood, pus, and other morbid products, of tumours, of bacteria, of poisons, and of drinking water. There is at present no entrance fee or annual subscription, but medical practitioners who subscribe 5s. before the end of the current year will be enrolled as original members and will receive a set of receptacles for the transmission of morbid products to the laboratory of the Association. The Association is under the patronage of many distinguished members of the medical profession, and the laboratory is directed by three gentlemen of acknowledged skill. Further particulars may be obtained from Mr. C. H. Wells, Secretary of the Association, 1, Southwark Street, London Bridge, S.E.

American Jottings.—According to the New York *Medical Record*, an Anti-cigarette League, representing 25 000 public school boys, has been organised in New York.—A Bill has been introduced into the New York State Legislature, giving the Board of Health power to regulate the sale of patent medicines.—According to the *Journal of the American Medical Association*, there are in round numbers upwards of 118 000 medical practitioners in the United States, which, with a population of some 65,000,000, gives an average of 1 doctor to 550 persons. The population increases at the rate of 2·5 per cent. per annum, but the medical population increases at the rate of more than 5 per cent. per annum.—A member of the Illinois State Senate has introduced a Bill for the regulation of the fees for physicians and surgeons. The Bill provides that the maximum fee for any surgical operation shall be 100 dollars (£20).—The House of Representatives has passed the Senate Bill granting permission to the American Surgical Association and the Alumni Association of the Jefferson Medical College to erect a statue in memory of the late Professor Gross in Philadelphia. The Bill appropriates 1,500 dollars for a pedestal.—A Bill was recently introduced into the Senate at Washington providing for the treatment of inebriety in the District of Columbia. The Bill provides for the erection and maintenance of a hospital and the following salaried officers: A medical superintendent at 1 800 dollars (£360), one hospital steward at 600 dollars (£150), one male attendant at 480 dollars (£96), one matron at 360 dollars (£72), one cook at 180 dollars (£36), one laundress at 144 dollars (about £29), and one female servant at 120 dollars (£24). The hospital will receive persons who are unable to pay, but those who are in a position to pay will have to do so. The health officer has endorsed this Bill, and the Commissioners have reported favourably on it, so it is hoped the Bill will pass.—It is proposed to hold a congress on yellow fever during the Cotton States and International Exposition to be held at Atlanta. The Atlanta practitioners propose to invite the leading physicians of the South Atlantic and Gulf cities with a view of securing concerted action in quarantine measures and methods of dealing with the disease.

MEDICAL VACANCIES.

The following vacancies are announced:

BETHLEM HOSPITAL.—Two Resident Clinical Assistants; doubly qualified. Appointment for six months. Will be provided with such apartments, rations, washing, and attendance as the Committee shall consider reasonable. Applications, endorsed "Clinical Assistantship," to the Treasurer, at Bethlem Hospital, before March 31st.

BLOOMSBURY DISPENSARY, 12, Bloomsbury Street, W.C.—Physician. Must be F. or M.R.C.P.Lond. Honorarium £105 per annum. Applications to the Secretary by April 2nd.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon; doubly qualified; age not to exceed 25. Salary, £80 per annum, with furnished apartments, board, and attendance. Applications to Mr. Peter Kevan, Honorary Secretary, 12, Acresfield, Bolton, by March 26th.

BRADFORD INFIRMARY AND DISPENSARY, Bradford.—House-Surgeon. Unmarried. Salary, £110 per annum, with board and residence. Applications, endorsed "House-Surgeon," to William Maw, Secretary, by March 26th.

BRIGHTON THROAT AND EAR HOSPITAL, 23, Queen's Road, Brighton. Non Resident House-Surgeon. Salary at the rate of £52 per annum. Applications to the Secretary by April 3rd.

BROMPTON AND KNIGHTSBRIDGE PROVIDENT DISPENSARY, 28, Fulham Road, S.W.—Medical Officer. Applications to the Senior Medical Officer by March 27th.

CHARING CROSS HOSPITAL.—Assistant Physician. Must be F. or M.R.C.P.Lond. Applications to Arthur E. Reade, Secretary, by March 30th.

CITY OF GLASGOW DISTRICT LUNACY BOARD.—Medical Superintendent of the new Asylum at Gartloch. Salary at the rate of £150 per annum, with free house, coal, gas, etc. Applications and testimonials to Mr. Dempster, Clerk to the Board, 318, Parliamentary Road, Glasgow, by March 25th.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY, Wakefield.—Junior House-Surgeon. Unmarried. Honorarium £10 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by March 28th.

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer. Unmarried, and not more than 30 years of age. Salary commences at £100 per annum, with prospects of annual rise of £25 to £200, with further increase according to promotion, together with furnished apartments, board, attendance and washing. Applications to the Medical Superintendent.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell E.—House-Physician. Board, lodging, etc., provided; no salary. Applications to the Secretary by April 8th.

GENERAL HOSPITAL, Birmingham.—Two Assistant House-Surgeons. Must possess surgical qualification and be registered. Appointment for six months. No salary, but residence, board, and washing provided. Applications and testimonials, with certificate of registration, to Howard J. Collins, House Governor, by March 30th.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Junior Assistant Medical Officer; unmarried, and not over 30 years of age. Salary, £100 per annum, with board (no beer or wine), lodging, washing, and attendance. Applications to the Medical Superintendent by March 26th.

GOLBORNE URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £30 per annum. Applications, marked "Medical Officer of Health," to Charles S. Bennie, Clerk, by March 26th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Medical Registrar and Pathologist. Appointment for one year. Honorarium, 50 guineas. Applications to the Secretary by March 28th.

LEEDS UNION.—Assistant Medical Officer for the Workhouse Schools and Infirmary in Beckett Street, Leeds. Doubly qualified, unmarried, and not above 35 years of age. Applications (on forms to be obtained of the Clerk), endorsed "Assistant Medical Officer," to Jno. King, Clerk, Union Offices, East Parade, Leeds, by April 1st.

LEICESTERSHIRE AND RUTLAND ASYLUM.—Assistant Medical Officer. Unmarried, and between the ages of 25 and 30. Salary, £150, increasing £10 yearly to £200, with board, lodging, and washing. Applications to W. J. Freer, Clerk to the Visitors, 10, New Street, Leicester, by April 3rd.

LINCOLN COUNTY HOSPITAL.—House-Surgeon. Under 30 years of age, and unmarried. Salary, £100 per annum, with board, lodging, and washing. Applications to the Secretary by April 6th.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar, from April 1st. Salary, £100 per annum. Applications and testimonials to G. Q. Roberts, House Governor, by March 29th.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—Demonstrator of Physiology. Applications to the Secretary, 30, Handel Street, Brunswick Square, W.C., by March 31st.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £30 per annum, with board, residence, and washing. Post tenable in the first instance for six months. Applications to the Honorary Secretary by April 4th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Clinical Assistant for the Out-patient Department, and Assistant Anæsthetist. Appointment for one year. Applications to the Secretary by March 27th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Physician. Must be F. or M.R.C.P.Lond. Applications to T. Glenton-Kerr, Secretary, at the Office, 27, Clement's Lane, E.C., by April 16th.

RADCLIFFE INFIRMARY, Oxford.—Honorary Physician. Candidates must be legally qualified to practise as Physician in England. Testimonials to A. C. Virgo, Secretary, by March 25th.

ROYAL COLLEGE OF PHYSICIANS.—Milroy Lecturer. Applications to the Registrar, Royal College of Physicians, Pall Mall East, S.W., by April 9th.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Demonstrator of Physics and Chemistry. Stipend, £100 per annum. Application to the Medical Secretary, St. Thomas's Hospital, S.E., by March 25th.

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Junior Medical Officer. Salary commencing at £100 per annum, with furnished apartments, board, etc. Applications to the Medical superintendent.

SURREY COUNTY LUNATIC ASYLUM, Brookwood, near Woking, Surrey.—Second Assistant Medical Officer. Salary, £120 per annum, with board, lodging, attendance, laundry, but not beer. Applications to the Medical Superintendent by April 1st.

TANCRED'S CHARITIES.—Two Studentships in Divinity at Christ College, and one Studentship in Physic at Gonville and Caius College, Cambridge. Each student will receive £50 a year and a share in the surplus rents and profits (the stipend not to exceed £100 a year); the student in Physic until admission to the degree of Bachelor of Medicine, and for three years afterwards, or for such shorter term as may be determined by authority. Candidates must be natives of Great Britain, members of the Church of England, unmarried, and not below the age of 16 or above the age of 22. Forms of petition and all information may be obtained from Mr. George Edgar Frere, 28, Lincoln's Inn Fields, W.C., Clerk to the Tancred's Charities, to whom petitions must be sent by April 20th.

TAUNTON AND SOMERSET HOSPITAL.—House-Surgeon; doubly qualified. Appointment for three years. Salary, £100 per annum, with board, lodging, and washing. And Honorary Physician; must reside within two miles of the hospital. Applications to J. H. Bidulph Pinchard, Secretary, 13, Hammet Street, Taunton, by April 4th for the first appointment and April 6th for the second.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Medical Registrar; must be a legally qualified medical practitioner. Appointment for twelve months. Salary, £40 per annum. Applications to Sidney M. Quennell, Secretary, by March 25th.

MEDICAL APPOINTMENTS.

AUST-LAWRENCE, A. E., M.D., reappointed Physician-Accoucheur to the Bristol General Hospital for a third period of ten years.

BREW, Richard William, B.A.Dub., M.B., B.Ch., appointed Medical Officer for the Enniskerry Dispensary District, *vice* Dr. Hamilton.

BULLMORE, W. King, M.D., appointed Medical Officer to the Workhouse of the Falmouth Union, *vice* F. C. Bullmore, M.R.C.S., resigned.

COOMBES, George Noble, L.R.C.P., L.R.C.S. Edin., L.F.P.S.Glasg., appointed Medical Officer to the Government of His Highness the Rajah of Cochin, Southern India.

CORTHORN, Alice M., M.B.Lond., appointed Assistant Medical Officer at the North-Western Fever Hospital, Haverstock Hill, N.W.

COUNSELLOR, William Parkinson, M.D.Durh., L.R.C.P.I., reappointed Medical Officer of Health to the Clitheroe Rural District Council.

DENT, Ernest A., M.B., C.M.Edin., appointed House-Surgeon to the Devonshire Hospital, Buxton.

DUN, H. W., M.B., C.M.Edin., appointed Junior Resident Assistant Medical Officer and Dispenser to the Sheffield Union Workhouse.

EDGAR, J. C., M.R.C.S., L.R.C.P., appointed Resident Clinical Assistant to the Barnes Convalescent Hospital, Cheadle, near Manchester.

EDMUNDS, Flavell, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator to the Chesterfield Workhouse and District, *vice* John Bluett, M.R.C.S.Eng., deceased.

FLEURY, Eleonora Lilian, M.D.R.U.I., appointed Assistant Medical Officer to the Richmond Lunatic Asylum, Dublin.

FLOWER, Frederick J., M.R.C.S.Eng., reappointed Medical Officer of Health to the Warminster District Council.

GRAYSON, Francis D., M.R.C.S.Eng., reappointed Medical Officer for the Hadleigh and Rayleigh District of the Rochford Union.

HAWORTH, Dr., appointed Police surgeon at Darwen, *vice* W. H. Armitrge, L.R.C.P.Edin., L.F.P.S.Glasg.

HEARE, William Wallace, M.R.C.S.Eng., L.R.C.P.Lond., apointed Chief Medical Officer to the Hospitals and Estates of the New London Borneo Tobacco Company, British North Borneo.

LINDSAY, Francis W., L.R.C.P., L.R.C.S.Edin., reappointed Honorary Surgeon to the Victoria Eye and Ear Hospital, Hereford.

MESSITER, Dr., appointed Medical Officer of Health to the Isle of Axholme Rural District Council.

NETTLE, William, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Liskeard Town Council.

NUNN, Thomas William, F.R.C.S.Eng., Consulting Surgeon to the Middlesex Hospital, appointed Consulting Surgeon to the London Skin Hospital, Fitzroy Square, W.

PATTERSON, Dr. John, appointed Medical Officer for the Berriew, Llanmerewig, Llandyssil, and Forden Districts of the Forden Union.

PULFORD, Herbert, M.A., M.B., C.M.Cantab., appointed Third Assistant Medical Officer to the Worcester County and City Lunatic Asylum.

REES, D. Valentine, L.R.C.P.Lond., M.R.C.S., appointed Medical Officer of Health for the Brecon Urban District, *vice* A. Whyte, M.D.Aberd., resigned.

ROTHSAY, C. Stewart, M.R.C.S., L.S.A., appointed Medical Superintendent to the Leicestershire and Rutland Asylum, *vice* W. H. Higgins, M.B., resigned.

SHARPE, W. C., M.B.Edin., appointed Senior Physician to Smedley's Hydropathic Institution, Matlock.

SHERRITT, E. Markham, M.D.Lond., F.R.C.P., reappointed Physician to the Bristol General Hospital for a third period of ten years.

THOMPSON, Robert, M.D., B.S., etc., appointed Honorary Ophthalmic Surgeon to the Ipswich Hospital, Queensland, and Visiting Ophthalmic Surgeon to the Blind Institute, Brisbane, Queensland.

THOMSON, D. G. P., M.B., C.M.Edin., appointed Medical Officer of Health to the Penrith District Council, *vice* J. D. Robertson, M.D., L.R.C.S.Edin.

WESTMACOTT, Frederic H., F.R.C.S.Eng., reappointed Resident Medical Officer to the Barnes Convalescent Hospital, Cheadle, near Manchester.

WHYTT, Alexander, M.B., C.M.Edin., appointed Assistant House-Surgeon to the Devonshire Hospital, Buxton.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. A. Stanford Morton: Ocular Injuries. London Throat Hospital, Great Portland Street, 3 P.M.—Dr. Law: Demonstration of Cases.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor Joseph Griffiths: Observations on the Testes. Lecture I.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Bland Sutton: On a Case of Tubal Pregnancy and one simulating Tubal Pregnancy. Mr. L. A. Bidwell: An Operation for Extrauterine Gestation involving Resection of Intestine.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Impulsive, Homicidal, and Moral Insanity.

ROYAL COLLEGE OF PHYSICIANS, 5 P.M.—Dr. H. D. Rolleston: On the Suprarenal Capsules (Goulstonian Lecture No. III).

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Dr. James Taylor: On Nervous Symptoms and Morbid Changes in the Spiral Cord in Certain Cases of Profound Anæmia (with lantern demonstration).

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, 4.30 P.M.—Dr. Dundas Grant: On the Diagnosis and Treatment of Diseases characterised by Visible Changes in the Organs of Hearing.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Ringworm and Vegetable Parasitic Diseases. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. W. Lang: Squint.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor Joseph Griffiths: Observations on the Testes. Lecture II.

HUNTERIAN SOCIETY, London Institution, 8.30 P.M.—Dr. Fortescue Fox: The Varieties of Rheumatoid Arthritis.

WEST LONDON POST-GRADUATE COURSE, West London Hospital, W., 5 P.M.—Dr. Ball: Throat Cases.

THURSDAY.

LONDON POST-GRADUATE COURSE, National Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Mr. Victor Horsley: Surgery of the Nervous System. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. Penrose: Cases in the Wards. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Mr. John Hopkins: Cases in the Wards.

ROYAL COLLEGE OF PHYSICIANS, 5 P.M.—Dr. G. F. Blandford: On the Diagnosis, Prognosis, and Prophylaxis of Insanity (Lumleian Lecture No. I).

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: Tetanus, Rabies, and Cholera. Practical Work: Examination of Comma Bacilli, Chemical and other Tests.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor Joseph Griffiths: Observations on the Testes. Lecture III.

CANCER HOSPITAL, Brompton (Free), 4 P.M.—Mr. E. Cotterell: Cancer of the Œsophagus.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 11 A.M.—Dr. Craig: Lunacy Law.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BEARDSLEY.—On March 16th, 1895, at Mentone House, Grange-over-Sands, the wife of R. H. Beardsley, L.R.C.P. and S.E., etc., of a daughter.

BATTERSBY.—At Rawal Pindi, Punjab, India, the wife of Surgeon-Major J. C. Battersby, Army Medical Staff, of a daughter.

DEATHS.

EVANS.—On March 13th, at Hawarden, of acute pneumonia, Arthur Llewelyn Evans, M.R.C.S., L.R.C.P., aged 41.

GAINER.—On March 19th, at Belmont House, Thrapston, Margaret, the wife of J. W. Gainer, M.B.Edin. No cards.

TURNER.—March 11th, at the Priory, St. Neots, Mary Kate, wife of A. C. Turner, F.R.C.P. and M.R.C.S., aged 45.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

THE INFLUENCE OF ALBINISM ON THE EYE.

DR. GEORGE M. GOULD, ophthalmologist to the Philadelphia Hospital, is conducting an inquiry into the condition of the eyes of albinos, and asks for the co-operation of members of the profession who may have the opportunity of observing such cases. He has drawn up a schedule, showing the points upon which information is particularly desired, and copies will be forwarded on application to him at 119, South Seventeenth Street, Philadelphia, U.S.A.

P. M. asks to be recommended the drug most appropriate for removing the unpleasant odour from the clothing, etc., in cases of incontinence of urine in paralytic patients?

G. T. G. has a patient, a young woman, aged 24, whose black hair is fast turning grey; is there, he asks, any harmless method that could be employed to restore it to its original colour?

BOOKS ON DENTISTRY.

A MEMBER (Bombay Presidency) asks to be recommended a small practical book on dentistry. I am stationed, he adds, in a small cantonment many miles from a dentist, a journey to whom is very irksome, and where a knowledge of the best means of stopping teeth and treating them generally would remove much suffering.

*** Our correspondent might obtain *Dental Surgery*, by Sir John Tomes (London: J. and A. Churchill. 15s.), or *Diseases and Injuries of the Teeth*, by A. M. Smale and J. F. Colyer (London: Longmans, Green and Co. 15s).

PRIVATE LUNATIC ASYLUM.

MR. ROBERT GRAY (The Mall, Armagh) writes: I am informed that an effort is being made in England to suppress all existing private lunatic asylums (1) by refusing to grant new licences, (2) by refusing the extension of existing licences. Is this so, and where are private patients to be sent? Will the same law apply to Ireland; and, if the private asylums are suppressed, must we then send patients to the Continental asylums?

*** The two points mentioned have been statutory and obligatory on the licensing authorities for the past five years and a-half, and in England and Wales only. The tendency of the Lunacy Acts to check private asylums is not due to the two provisions mentioned but to others. We are not aware of any intention at present to extend these Acts to Ireland.

GOOSE-SKIN WAVES.

E. H. F. writes: A patient under my care who is willing and able to consult anyone who could relieve him, is troubled with a distressing sensation of cold, from which he has suffered for eight years. He first noticed it after sleeping out on the open prairie on a cold frosty night. Nearly every morning waves of dry cold travel all over the body and leave each part of the skin over which it has passed in a state of goose-flesh (cutis anserina). Sometimes it affects only one arm or one leg. The same sensation will come on slightly if he accidentally burns himself with a cigar end or sustains any slight surface injury. The temperature is never raised, he never has any rigor or any shivering. While the fit is on no fire or warm clothes can relieve him, and he is capable of nothing mentally or physically for hours after. He has no evidence of malaria or ague, but all anti-malarial drugs have been exhibited and without effect. If any of your readers can refer me to an authority I shall be most grateful for the information.

ANSWERS.

BREASAIL.—We do not feel prepared to give an opinion upon a hypothetical case.

DR. J. W. HOGG (Queensland).—Our correspondent should advise his missionary sister to get Crosse's little work on the diseases of the Niger. In this the treatment of African fevers is very sensibly dealt with.

DOUBTFUL.—The address of the Home Hospitals Association is Fitzroy House, Fitzroy Square, London, W. Possibly the arrangements at St. Thomas's Home in connection with St. Thomas's Hospital might meet our correspondent's requirements.

A. M. C.—The conclusion with regard to the duration of the infectious period of scarlet fever in the *Report of a Committee appointed by the Clinical Society of London to Investigate the Periods of Incubation and Contagiousness of Certain Infectious Diseases* (Supplement to vol. xxv.), is as follows: "Scarlet fever is infectious from the onset of the earliest symptoms, and until long after convalescence has been established. Infection certainly persists as long as there is any desquamation, and may still be active eight weeks after the onset of the disease."

F. C. H. P.—In reply to a similar query asked a few months ago it was stated that the most widely-used stove with purely saturated steam was Geneste and Herscher's of Paris; that Lyons's stove, employing some degree of superheat, was used considerably in this country; that the latter would cost £200 to £250 (full size), apart from the expense of building a two-roomed station, which is, of course, common to all kinds.

HOSPITAL SOUP.

DR. C. M. JESSOP writes: "Hospital Surgeon" might refer to *Light Diet*, by Dr. Seager, published by Simpkin and Marshall, 1887, where he will find a great variety of receipts for soups, etc.

A CASE OF URTICARIA.

SURGEON-MAJOR writes: In reply to M.B. I have had several cases of urticaria in the tropics, where dyspnœa was a prominent and very distressing symptom. I had no doubt in my mind at the time that it was due to the respiratory tract being affected in a similar manner to the skin. The dyspnœa subsided with the disappearance of the rash under ordinary treatment.

MEDICAL ADVERTISING.

FAIR PLAY.—It is to be regretted that the gentlemen connected with the Manchester and District Dispensary have not withdrawn their names from the advertisement referred to. We fear, however, that no other influence beyond the force of professional opinion can be brought to bear on such conduct, the matter being purely an ethical one.

TREATMENT OF MALARIAL CACHEXIA.

OLD CALABAR need not despair of getting rid of his malaria. A visit to Carlsbad and a course of the waters there would do him a great deal of good. This, with attention to diet, warm clothing, avoidance of chill and all excess, and 5 grains of quinine three times on one day of every week ought to be of great service to him. Hydropathic treatment, provided it is not overdone, and acts as a tonic, might be useful.

RULES OF MEDICAL AID SOCIETIES AND WORKING MEN'S CLUBS.

H. J. B.—Our correspondent could probably obtain what she requires from any Foresters' Court or Oddfellows' Lodge; their book of rules will give all particulars. With regard to medical aid societies, we can only refer her to the headquarters of the societies in question; she will almost certainly find the rules and regulations of such societies most unsatisfactory as they affect the medical officers.

TREATMENT OF TAPEWORM.

SURGEON-CAPTAIN WALTER G. PRIDMORE, I.M.S. (Fort Dufferin, Mandalay, Burmah), writes: In No. 1778 of the BRITISH MEDICAL JOURNAL of January 26th, 1895, "Bombay" wishes to know the best method of destroying tapeworm. He will find that the following treatment, if carefully carried out, rarely fails. The patient must be starved for twenty four or thirty hours, during which time he should take nothing except beef-tea and port wine sparingly. No milk should be taken. At the end of this period administer 1 ounce of castor oil. One hour after administering the oil give 15 minims of liquid extract of male fern every twenty minutes for four doses. Forty-five minutes after the last dose of male fern give another ounce of castor oil. It is expedient to stretch a piece of muslin closely over the pan of the commode, into which the stool should be passed. Whatever is contained in the muslin should be then carefully washed by pouring clear water slowly over it. A diligent search must then be made for the head of the tapeworm, and if every detail has been carefully adhered to it is generally found. If due care be not taken the head may be missed, as it is often discovered enveloped in small pieces of male fern. This treatment I learnt from Dr. J. Kingston Fowler, and have found it most successful both in England and India.

NOTES, LETTERS, Etc.

THE LATE MR. HULKE AND THE DUKE OF WELLINGTON.

THE following letter was written for the press by Mr. Hulke immediately after the decease of the Duke, to correct the erroneous statements which had appeared in several of the papers:—

"On Tuesday morning, September 14th, my father received a note from Walmer Castle, stating that the Duke of Wellington wished to see him. He immediately went to the Castle, where he arrived at a quarter to 9 o'clock. His Grace complained of uneasiness in the chest and stomach, was perfectly conscious, and answered the questions put to him correctly. Some medicine was ordered, and during its preparation he took some tea and dry toast.

"At this time there were no symptoms indicative of danger, and my father came home. Shortly after he received another communication

stating that his Grace was much worse; he had had fits similar to those he was subject to. My father and I directly went to the Castle. His Grace was in bed, unconscious, breathing laboriously. Remedial measures which in former attacks had been useful were now of no avail. Dr. McArthur soon arrived and advised an emetic to be given, as this had been very serviceable on a former occasion.

"Soon after 1 o'clock his Grace became very restless, the eye glassy. He tried to turn on the left side. There was occasionally twitching of the left arm. Respiration was extremely difficult, but easier when his Grace was raised. This induced us to place his Grace in an easy chair, and his breathing became immediately much more free, but the pulse sank. He was now brought into a more horizontal posture; the pulse rallied for a short time, and then gradually declined. Respiration became very feeble, and at 25 minutes past 3 o'clock P.M., his Grace expired. So easy and gentle was the transition that, for the moment, it was doubted. I held a mirror before his Grace's mouth; it remained bright, and he was, indeed, no more."

"John Whitaker Hulke."

155, Lower Street, Deal. The cause of death was given as epilepsy.

The Water Supply during the Frost.

A correspondent writes: In a note on the influenza in London, which appeared in the British Medical Journal of March 16th, it is suggested that "another factor in the production of much of the recent widespread disease is the dryness of the atmosphere and the absence of water from the sewers." I, in common with the great majority of the residents in London, am quite convinced of the sanitary evils of the prolonged deprivation of water from which we have been suffering, but I venture to doubt whether the mode in which the water famine has done harm has been by lessening the quantity flowing down the sewers. So far, in fact, as relates to the water supplied to London, and poured into the drains, the amount so used was far greater during the frost than at ordinary times. The total number of gallons of water supplied in December, January, and February for the last two years is as follows:

	Gallons.		Gallons.
December, 1893... ...	182,927,660	December, 1894	184,352,703
January, 1894... ...	202,442,984	January, 1895	196,989,975
February, 1894... ...	187,920,100	February, 1895	220,149,332

Showing that during the frost of February, 1895, more than 23,000,000 gallons of water was supplied to London in excess of that supplied during the preceding month, and 32 millions more than in February, 1894.

As a fact the sewers have been discharging as much as in any dry season, and comparing the daily outflow at Barking during February this year and last, it is found that some weeks one year is in excess and other weeks the other. The evil has not been in the sewers, but in the houses and the streets. The frozen soil pipes, the foul closets, the sparing use of water for purposes of cleanliness and decency, have been quite enough in themselves to cause much sickness and greatly to aggravate much more. A water famine is a much more serious matter to us now than it was to our grandfathers. We have built up a sanitary system which works by water, and becomes an insanitary abomination if the water is cut off. This system is practically forced upon us by the sanitary authorities whom we have elected to rule over us, and who, in devising this notable scheme of water carriage, seem entirely to have failed to secure the water supply, on the continuance of which the whole things hinge. It is no use making by-laws unless they are enforced, and we may fairly lay the blame of a great deal of the present unhealthiness of London to that laxity of inspection which has allowed the rule of laying water pipes 2 feet 6 inches below the surface to be continually evaded.

Hysterical Deafness and Malingering.

Audio writes: The case of hysterical deafness mentioned in Sir William Dalby's communication reminds me of the anecdote of an impostor who affected to be completely deaf. Suspicion having been aroused in a mind of an inquiring turn, a pistol was fired off close to the deaf one, who was unmoved by the noise. He was then verbally asked if he heard "that," and he answered "No!"

Dr. Arthur H. Cheatle (Harley Street, W.) writes: In Dr. Hector Mackenzie's interesting case of hysterical deafness, described to the Medical Society and reported in the British Medical Journal of March 16th, p. 587, it seems from the report that the most important point, as to whether the patient was really deaf with the affected ear, was not accurately determined. In Professor Gruber's *Textbook*, pp. 508 and 509, various methods are described for detecting cases of simulated deafness; these methods, if they had been tried in the case recorded, would, I think, have been extremely valuable in determining the point in question.

Lateral Curvature of the Spine.

We have received a letter from Mr. B. E. Brodhurst with regard to Mr. Christopher Heath's lecture on this subject. Mr. Brodhurst takes exception to the treatment recommended by Mr. Heath, and adds:—Mr. Heath continues thus: "I remember two sisters being brought to me suffering with new instruments." One, he proceeds to say, had a slight curvature. "And then I examined the second girl's back, and found that her back was perfectly straight: there was nothing the matter with it. 'Well,' the said, addressing the girl), 'your back is quite straight.' 'Oh yes,' she replied, 'I know it is, but the doctor said if I did not wear the apparatus it would soon be like my sister's.'"

This is doubtless a good story, and it is well devised to amuse the class, but I would ask how much of a lecture is to be believed when such wonderful tales are introduced? And I would suggest that the loss of his diploma and a money fine might well be inflicted on any member of the profession so abusing his position. Mr. Heath could easily establish the truth of his statement before the colleges, and let him instigate proceedings in a court of law. A man behaving as Mr. Heath describes deserves to be punished.

Licentiates and the Title of "Dr."

A Scotch Graduate and Double Diplomate (Separate Examinations) writes: "M.R.C.S., L.R.C.P." complains that, having taken the double diploma of London, with his eyes open, let us remember, and with a full knowledge (for we suppose he passed a preliminary educational examination) that there existed in England five universities; in Scotland four; and in Ireland two, granting the Doctorate in Medicine, it is hard he may not use a title which he knew perfectly well at the commencement of his medical career he was not entitled to. He now asks if it is not "in the power of the General Medical Council, in justice to London diplomates, to authorise the adoption of the title of 'Dr.'" He ought to know that he would get as near "the adoption" of the title he covets by going to the General Post Office as the General Medical Council. Where does the injustice come in with regard to the London any more than to the Edinburgh or Dublin diplomate? I never can get a satisfactory answer to this. Neither want of opportunity nor expense can be plead as a London student, for the fees at London University are less than anywhere, and no residence is required. Why, if he wants a degree, does he not go for it? There can obviously only be one answer. He would be much better employed in occupying the few years he has to spare, subsequent to qualifying, instead of going about the country as an assistant or *locum tenens*, and grumbling that he cannot "adopt" what he has not tried to possess, in which will read, "authorise the adoption" of the title he so much covets. The remedy is in his own hands.

A similar correspondence is to be found in the British Medical Journal for October (7th, 14th, 21st), 1893, to which I beg to refer your correspondent.

M.D. writes: I was very much amused with the questions of "M.R.C.S., L.R.C.P." in reference to the title of "Dr." The same questions were asked thirty years ago. I settled it for myself; I set to work and, at very great inconvenience and expense, I worked for my degree—some time after taking M.R.C.S., L.R.C.P.Edin. Let him do the same, or else be satisfied with the proper definition, Physician and Surgeon, which is perfectly honest and quite good enough for a man who has not thought it worth while to get a degree and now wants to be called "Dr."

Another L.R.C.P.Lond. writes: May I add my testimony to the gross injustice we L.R.C.P.Lond.'s labour under? Here am I in practice with an M.D. of Brussels on one side of me and an M.D.St And. on the other. Of course both these gentlemen—on their doorplates, visiting cards, and in private conversation—announce themselves as M.D. and physician. I am constantly asked by my patients and friends if they shall address me as "Dr.," and, as things are at present, I am obliged to say No; and when I claim that I am a physician I am always met with the reply, How can you be when you have no M.D. degree? Nevertheless, my two neighbours invariably announce themselves as physicians. I have been in practice sixteen years, and I can truly say that this one fact has taken £100 year out of my pocket. May I ask you by what right the universities arrogate to themselves *ad eundem* the title of "Dr."? In Sweden the title of "Dr." is far older than most, if not all, of our universities. Have they any right whatever to deprive all outsiders of the title of "Dr." under to give a fictitious value to their own degrees? I think, sir, it is quite time that the College of Physicians did something for her unfortunate diplomates, who have suffered so long in pocket and reputation, for her neglect of us by granting an M.D. degree to all her Licentiates on easy terms, and so put us on equal terms with the students of every other medical school in the world.

The Lower Depths of Medical Practice.

A case tried lately at Edmonton County Court illustrated some of the lower depths of medical practice. It appeared from the evidence, as reported in the *Lower Tottenham Weekly Herald*, that two "medical gentlemen" of the names of Cowen and Collins were anxious to have cards circulated, drawing attention to the advantages of their dispensary, situated at 194, St. Ann's Road, Tottenham, and stating that "any patient presenting this card at the above surgery may obtain, for the sum of 1s., medicine and advice three times."

The plaintiffs were engaged to circulate these cards, for which a charge of 1d. was made to each person who took one, and this penny, together with 3d. commission on each card sold, was to be the plaintiffs' payment for their services. The defendants, however, maintained that this commission was only to be paid when these cards were presented at the surgery, a circumstance which only happened in about half-a-dozen cases. The wisest men make slips sometimes; still it certainly shows a curious blindness to the humours of the situation that these "medical gentlemen," after sacrificing their dignity to such a degree, should still imagine that the public would pay a penny for accepting an advertisement.

Anæsthetics and Ventilation.

Dr. Fred. Edge (Wolverhampton) writes: In your report of the Liverpool Medical Institution, contained in the British Medical Journal of March 9th, Mr. C. G. Lee has a very interesting paper on the laryngeal irritation from which surgeons suffer when chloroform is given in an ill-ventilated room in proximity to a gas flame (p. 537). Perhaps it may be of assistance to those interested in this matter to point out that this subject has been investigated by Stobwasser and Kyll, who find that chloroform, in proximity to a petroleum or gas flame, gives off free chlorine and hydrochloric acid. Zweifel has also noticed this, and points out that inflammation of the respiratory tracts may be thus caused. I cannot name the papers in which these facts are given, but no doubt a reference to the *Index Medicus* would quickly yield their correct locality and date.

Careless Testimonials.

When will people learn the importance of taking a little reasonable care as to the nature of the documents to which they so carelessly append their signatures? They seem never to think of the harm which is done when well known names are advertised as a guarantee of the good faith of the performers at exhibitions of an objectionable nature. A long statement regarding Mrs. Longshore-Potts appears as an adver-

tisement in the *Scotsman* of February 23rd, but we fancy that a good many of the people whose names purport to be appended to it must feel somewhat ashamed of the cause they are made to appear to espouse, including the lecture on "Maternity," illustrated by "positively the most beautiful views in the world." It would be well if these reverend signatories could realise what such lectures lead to.

DANGEROUS DOCTORS.

A WRITER in the *Cincinnati Tribune*, who objects to the doctrine of the contagiousness of consumption, carries the war into his enemies' country in a somewhat amusing manner. He proposes that all physicians who attend consumptives should be shunned and avoided as carriers of infection and absolute dangers to their associates. Happily this world is full of compromises, and people who persist in carrying matters to what they seem to think their logical conclusions are looked upon rather as bores. It is odd, however, that such a stickler for symmetry and completeness as this writer seems to be should fail to suggest that the proper thing would be straightway to cremate all consumptives, be they birds, beasts, or humans!

THE CASE OF MR. C. BRYAN TOWNSHEND.

THE following subscriptions, in answer to the appeal of Mr. Henry Morris, have been received or promised:—

	£	s.	d.
Mr. Henry Morris	5	5	0
Dr. Buzzard	5	5	0
Dr. Williams, Sherborne ...	1	1	0
Dr. Turtle, Woodford ...	1	1	0
Dr. F. Elliott, Bodmin ...	1	1	0
Dr. Herbert K. Spencer ...	2	2	0
Dr. F. Vacher, Birkenhead	2	2	0
Dr. W. Adams Frost, 17, Queen Anne Street ...	1	1	0
Dr. E. Hill, Fulham, S.W....	0	10	0
Dr. H. S. Hughes Lewes ...	2	2	0
Dr. N. Davies-Colley, 36, Harley Street	2	2	0
Dr. Henry Steer, Saffron Walden	2	2	0
Dr. W. Donnett Stone, 19, Oxford Terrace, W. ...	2	2	0
Dr De Havilland Hall, 47, Wimpole Street	0	10	0
Dr. W. Lovell Hunter, Pudsey	1	1	0
Dr. Hamilton, Burton-on-Trent	1	1	0
Dr. Charles Terry, Bath ...	5	0	0
Dr. J. Terry, Bath	5	0	0
Dr. Joseph Kidd, Blackheath	5	0	0
Dr. A. G. T. Hanks, Chelsea	1	0	0
Dr. Calthrop, London ...	2	2	0
Dr. W. Vawdrey Lush, Weymouth	2	2	0
Dr. Hugh Ealand, Puckeridge	1	1	0
Dr. E. B. Holwell, Leeds ...	1	1	0
Dr. J. T. Musgrave, Belsize Park	1	1	0
A. B.	2	2	0
Sympathiser	1	1	0
Dr. Bower, Bedford	2	2	0
Dr. K. H. P. Williams, Llandudno	0	10	0
Dr. J. J. Swindell, North Finchley	1	1	0
Dr. A. W. Orwin, 15, Weymouth Street, W.	2	2	0
Fr., Retford	0	5	0
Fr., London, S.E.	0	5	0
Dr. J. Sadler Curgenven, 12, Craven Hill Gardens...	1	1	0
Dr. Dickinson, Bournemouth	1	1	0
Dr. Chas. J. Woodd, Penge	1	1	0
M.B. B.Ch.	0	10	0
E. Walter Greene, Esq., Nether Hall, Bury St. Edmund's	2	2	0
Anonym., Manchester ...	0	10	0

It is earnestly requested that further donations be sent in, as at least £200 will be wanted to place the family in a self-supporting position.

Rev. H Townshend, 41, King Henry's Road, will receive and gratefully acknowledge all subscriptions.

SALICYLATE OF SODIUM IN INFLUENZA.

DR. WILLIAM RUSHTON PARKER, M.A. (Kendal) writes: Your correspondent who writes under the above heading in the BRITISH MEDICAL JOURNAL of March 16th claims to have been the first to suggest this treatment,[1] but he will find that I not only anticipated him by six months[2], but mentioned several others who had anticipated myself. I quite agree about the value of this treatment, but instead of his 20 grains every two or three hours, I much prefer 5 grains every half-hour for six or eight doses, then every hour till all pain has vanished, then every two hours for a day or two. He recommends adding bicarbonate of potash, but Dr. Alexander Haig has shown[3] that potassium and sodium check the action of salicylic acid, whereas acids, ammonia, calomel, morphine, antipyrin, strychnine, etc., increase the action. I therefore now prefer the ammonium to the sodium salt, adding a fluid drachm of liquor ammoniæ fort to 80 grains of salicylic acid to make an 8-ounce mixture for tablespoon doses. If about 10 fluid ounces of liquor ammoniæ fort. are added to 1 pound of salicylic acid, and made up to 5 pints with water, a concentrated solution is made containing 10 grains of salicylate of ammonium in each fluid drachm, which is very handy for dispensing purposes.

DR. W. HALL CALVERT (Melrose, N.B.) writes: In the BRITISH MEDICAL JOURNAL of March 16th I observe Dr. Rawlings writes pointing out the efficacy of salicylate of soda in this disease. I have often, and so have others, found that drug very unsatisfactory. It tends to increase the headache and causes sounding in the ears without any specific action upon the disease. We are glad to give it in rheumatic fever notwithstanding these disagreeable symptoms, because we know in nine cases out of ten it will cure.

Dr. Rawlings's addendum is most instructive: "It agrees better combined with bicarbonate of potash." Therein lies the secret of his success. If for the future he prescribes the latter in such doses as he recommends the salicylate, and leaves that drug out of his prescription altogether, he will find the result most satisfactory. The treatment of influenza by the bicarbonate of potash was originated by Dr. Crerer, of Maryport, and is undoubtedly more nearly specific than any other remedy which has been suggested. It prevents complications when given in time, and prevents sequelæ in the experience of a considerable number of practitioners. I usually give 30 grains along with 20 minims of glycerine and half an ounce of liquor ammoniæ acetatis every three hours.

[1] BRITISH MEDICAL JOURNAL, January 30th, 1892, p. 245.
[2] BRITISH MEDICAL JOURNAL, July 11th, 1891, p. 111.
[3] *Med. Chir. Trans.*, vol. 71, p. 131, and in other writings

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BOOKS, ETC., RECEIVED.

On Digestive Proteolysis, being the Cartwright Lectures for 1894. By Professor R. H. Chittenden. New Haven, Conn.: Tuttle, Morehouse, and Taylor. 1895. $1.25.

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The Physician's Vade Mecum. By Dr. S. J. Wimmer, with additions by Dr. F. S. Parsons. Philadelphia: The Medical Publishing Company. 1894. 1·50 dol.

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*** In forwarding books the publishers are requested to state the selling prices.

REMARKS
ON
THE TREATMENT OF WOUNDS.[1]

By Sir GEORGE HUMPHRY, M.D., F.R.S.,
Professor of Surgery in the University of Cambridge; and Consulting Surgeon to Addenbrooke's Hospital.

Some years ago, before the days of antiseptics, at a combined meeting of these Branches of the British Medical Association in this place (Bedford), I gave a short history of the treatment of wounds in past times, and added that apposition of surfaces was the thing to be aimed at, and that, speaking generally, nothing further was really required. I said that incised wounds would, with few exceptions, heal well if only the cut surfaces were maintained in good apposition and allowed to be at rest; but that the great difficulty in effecting this was the escape into the wound of serum or blood which separated the surfaces, and, further, caused trouble and suppuration by itself undergoing decomposition. I based this statement much upon the observation of wounds of the lips and cheek, which scarcely ever fail to heal at once when the skin edges are united by sutures, the reason being that any escaping serum or blood does not rest in the wound but passes into the mouth. The same occurs commonly in the scalp where the pressure upon the resisting cranium prevents the lodgment of products in the wound. To prevent this escape and accumulation at other parts, as after the removal of fatty tumours, I recommended careful securing of vessels; and, secondly, the spending some time before the final closure of the wound in expressing the blood and serum, and then applying moderately firm and equal pressure over the divided parts. I felt at that time, and still feel, that the union or healing of wounds is the natural and inevitable process, unless interfered with, and that, therefore, our business is to prevent interferences in the way of accumulations in the wound, disturbances by movement and so forth; in short, in this, as in so many things, to let Nature have her perfect way. I also at that time practised and advocated the plan of leaving the wound in many cases entirely uncovered and exposed to the air, thus avoiding all dressing and the pain and evils of redressing. I found this answered well, and it certainly was a great relief to the patient, and a great saving of trouble to the surgeon. Since that time the great and rapid improvements in the treatment of wounds have thrown much of previous views and plans into the shade, and have raised that which was formerly an opprobrium into that which is now the greatest glory of practical surgery, and one of the great advances of our marvellously advancing age. These improvements are, first, the use of clips or pressure forceps, which arrest hæmorrhage during operations, and so close up the orifices of the smaller vessels as to prevent leakage from them. Secondly, the use of animal materials for ligatures which undergo absorption and can be cut short, and, therefore, offer no impediment to the healing of the wound. Thirdly, the employment of drainage when necessary. Fourthly, the most important improvement of all has resulted from the recognition and practical application of the antiseptic, or anti-organism, principle, which will ever be gratefully associated with the name of Lister.

For the acceptance of this we were prepared by the observation of the differences in the course of a compound fracture from those of a simple fracture. We knew that in the former case the evil results were due to the admission of air causing decomposition or other changes in the blood and serum effused into the fracture, but we did not know to what quality in the air these effects were due. We knew also that various other substances, animal and vegetable, can long be preserved without change by the exclusion of air; but the knowledge that air pure and simple is devoid of offence, and that its deleterious qualities are due to the presence in it, the admixture with it, of micro-organisms, and can be prevented by the removal or destruction of these organisms, may be regarded as the great medico chirurgical discovery of our time. This discovery is remodelling the whole science of pathology, and is carrying our thought a stage further along the line of causation into the region of the prevention, and we hope also the cure, of disease. In no instance has this discovery been attended with so good results as in the treatment of wounds; at any rate, in none do we obtain such obvious practical evidence of the good result. We have learned from it that if organisms be excluded, or admitted only in such small quantity as to be combated and destroyed by the living energies of the part, the serum or blood that may be in the wound is innocuous and may be absorbed, and the apposed surfaces of the wound, coming into contact, will unite; but if, on the contrary, they be in sufficient force to overcome or to pervert Nature's guard of leucocytes, they give rise to decomposition of effused products, to suppuration, and the further evils with which, happily, we are less familiar than of old. This is the one great, simple, fundamental piece of knowledge—and great additions to practical knowledge are commonly simple—upon which we base our present treatment of wounds, and by the careful application of which such good results are obtained.

The question which naturally arises in our minds is, Whence do these organisms come—these accompaniments and apparent instigators of suppuration, of decomposition, and of other evils; these streptococci, and staphylococci and other micrococci, as well as bacilli, to which we have lately been introduced, and the varieties of which are daily growing in our knowledge? Whence come they and whither go they? It is a question of profound interest, and it is likely long to remain so, for these organisms seem, like the wind, to blow where they list, and no one can tell whence they come and whither they go; and with regard to these and so many other points in the deep mysterious recesses of the natural as well as of the spiritual world we are still—

> Children crying in the darkness,
> Children crying for the light
> And with no language but a cry.

There are, however, points connected with the subject at which we may hope to arrive at a clearer understanding, such as the occurrence of acute suppuration in the knee-joint of an otherwise healthy vigorous young woman, lately in Addenbrooke's Hospital, in whom no trace could be found of any discharge or sore upon the surface. Whence did the organisms of suppuration spring, and how did they find their way into the knee-joint? The same remark applies to acute suppurative periostitis, where they have long been known to be present in great abundance and in great virulence. It may be, it not improbably is, the case that in certain persons the bacilli exist in greater or less quantity in a more or less innocuous or inactive and non-toxin-producing state, and that when the vitality of any part is lowered by a blow or strain or an inflammatory attack they take their opportunity, cluster in it, and germinate, and acquire increased virulence or toxin-producing quality, and do mischief, causing suppuration and other troubles. This may account for their presence in such cases as I have mentioned, and the general prevalence in animal bodies of these organisms would account also for some of the other phenomena associated with them. It may truly be said of them that they are of the earth earthy, and the higher we ascend into the regions of the atmosphere the less numerous and the less potent do they become, the less able to hold their own. Though air is their habitat and means of conveyance, yet air simple—air pure and fresh, which seems to be synonymous with air in motion—appears to be their antidote. The closely shut up stuffy apartments, of which the bedchambers in our houses, and especially in our cottages, present so many examples, are their favourite breeding places. If we could build our hospitals, instead of our castles, in the air, high up, we should have little need of antiseptic appliances.

I need scarcely say that it is in dealing with internal cavities that the greatest exploits of modern surgery have been achieved—exploits surpassing everything that was formerly conceived. The peritoneum, which used to be the dread, is now entered fearlessly as if it were the playground of surgery.

[1] Intended for the combined meeting of the South Midland and Cambridgeshire and Huntingdonshire Branches of the British Medical Association at Bedford, but read at the meeting of the Cambridge Medical Society.

Let it be understood that the organisms take their effect first and chiefly in the fluids—blood and serum—which lie in the wound These, detached, as it were, from the body and its vital influence, have little resisting power and easily fall victim to deleterious influences. In these the organs live and multiply, and cause the decomposing and suppurative products which soak into and react upon the adjacent tissues. The tissues left to themselves are commonly able to defend themselves against their insidious foes. In them an influx of active organism-devouring leucocytes, summoned to the rescue, suffices usually for the purpose and routs the invading force; but these defenders are liable to succumb if the hostile foes are allowed to accumulate, and still more if they are allowed to exercise their noxious influence in the extravasated fluids.

In the treatment of a wound, therefore, there are two main points to be attended to: first, to endeavour to reduce to a minimum the media upon which the organisms act; and secondly, to reduce to a minimum the organisms themselves. Either of these would suffice, if effectually carried out; but, as we cannot be certain of fully accomplishing either, we resort to both. By careful securing of vessels and careful pressure upon the region of the wound we endeavour to prevent oozing and accumulation in the wound, and by the antiseptic agencies we endeavour to prevent the accession of micro-organisms. By a successful employment of these means the apposed surfaces are kept in contact, and, there being nothing to interfere with the natural process of union or healing, this takes place almost invariably. We have, indeed, thus at length attained to the desideratum which I spoke of in this place many years ago, and do now succeed in preventing the interferences which for ages barred the successful treatment of wounds.

Among the advantages which may be mentioned as resulting from this better treatment of wounds are:

1. The diminution of the risks of secondary hæmorrhage, which was often the result of ulceration of the tied vessels consequent on the septic hemp ligatures we formerly used. This was one of my trials—and a great one it was—through many years of practice. Now, however, for a long time I have not seen an instance of the kind. I am not aware that secondary hæmorrhage has occurred in our hospital since the use of the catgut ligatures, which are cut short and disappear under the absorbing influence of the unimpaired leucocytes, and the vessel walls are allowed quietly to unite.

2. The infrequency of the various indications of general blood poisoning and erysipelas, which is undoubtedly the greatest benefit which the antiseptic treatment has given.

3. I would mention the less frequent occurrence of tetanus. This terrible malady may manifest itself at any period during the healing of any wound. The quicker, therefore, the wounds heal the less time and opportunity is there for the formation and introduction into the system of that peculiar poison, probably of organismal character, which concentrates its evil influence on the neuromotor system. Previously to the last ten years I not infrequently saw instances of tetanus coming on during the healing of wounds. In these last ten years I have seen only one or two cases, and I should be glad to know whether the experience of those present is in this respect in accordance with my own.

I have on several occasions called attention to the quick and good healing of wounds in aged persons, and cases illustrating the same have not infrequently appeared in our journals. This result, I apprehend, may be attributed, in part, to the little susceptibility which the aged body shows to many septic influences. As the old person is less liable than the young to the contagion of measles, small pox, diphtheria, and other similar maladies, so it may be assumed that his wounds are less liable to be disturbed by the presence of the organisms which interfere with healing. I do not think, however, that this is the sole cause, for we find that ulcers in old people heal quickly as well as wounds. Indeed, when treating ulcers on the legs of young women I often observe that they would heal in half the time if the patients were 80 years old instead of 18; and it will have been remarked that the healing processes in stumps left by the separation of parts which are the seat of gangrœna senilis often show no lack of vigour. This is the more striking because they are carried on in a region contiguous to the parts which have been unable to maintain their vitality at all. This healing quality encourages to the performance of amputation in gangrœna senilis under certain conditions; and, provided there be sufficient power to withstand the shock, the loss of blood, and other attendant evils of the operation, and the immediate effects of the incision upon the wound, the healing will commonly go on well. There seems, in short, to be what may be described as a healing energy in old people in addition to the comparative insusceptibility to organismal contagion.

Rarely, it may be said, is there absolute purity, even in things good and apparently pure. The antiseptic principle, having its basis in purity, ought to have, and I believe has, little alloy if any. The greater number of operations which it induces ought not to be set against it, for it has thus proved itself to be a means of cutting short many maladies that formerly were deemed incurable; and the somewhat greater length of time required in the first dressing of the wound is amply compensated for by the less time, to say nothing of the less suffering, required in subsequent dressings. Indeed, it needs a sharp, an almost hypercritical eye to discern the evils attendant upon the antiseptic treatment. I sometimes fear that the sort of fervour with regard to it, and the thoughtlessness with which it is somewhat indiscriminately applied, may lead to a revulsion—a reaction as we call it—against it; just as the carbolic spray, about which we used to take so much pains, and which seemed a reasonable mode of purifying the atmosphere and affording some additional security in our often crowded operating theatres, has, I believe, quite gone out of use. I sometimes think there is a needless, possibly a rather harmful, piling on of antiseptic dressings in cases which, in the nature of things, cannot be aseptic, as in operations about the anus, and where freer escape of discharges and freer admission of air would be advantageous; and in wounds of the face, which heal perfectly well without any dressings, these are, for the most part, better omitted. I say "for the most part," because, when erysipelas is prevalent, they may serve as a protection against that malady. The mention of such points shows how slight are the real objections to the practical application of the great principle; and probably they would occur only to the thought of one who was long wedded to the open-air method of treating wounds.

While recognising the evils of accumulations from oozing into the wound, we must not fail to appreciate the value of the presence of a slight amount of coagulating material whereby the divided surfaces are agglutinated and held in contact, and in which repairing work is carried on. In slight wounds the retention and protection of this material between the closely-approximated surfaces is all that is required, and the sealing up of a wound in its own blood is the best of treatment. In a wound of the hand, for instance, the best plan is to cover at once with collodion or a piece of adhesive plaster thoroughly soaked in hot water and bound on till it is dry. The soaking and softening of the plaster enables it to be adapted accurately and minutely to the surface so that it will adhere, undisturbed by subsequent washings, till it wears off and leaves the part healed. The blood covered in by it forms a solid cake with it, which further aids in protecting and allowing the healing work to go on. When, some years ago, I cut my left forefinger rather badly in pruning a tree, I bound the part up with several layers of rag and soaked these with glue, so as to form a solid case, which was left on for a month, which was an effectual defence, and which enabled me to use the hand and finger with little impediment. When this solid case was removed, the wound was soundly and firmly healed.

These remarks recall to mind and contrast with the narratives we have read of the treatment of wounds in former days, when they were plugged to the bottom by pledgets and irritating unguents to ensure cleansing from peccant humours, and to promote suppuration from the depths of the wound, it not occurring to the officious surgeons that these peccant tumours were the produce of the treatment. So firmly were this evil theory and its associated practice rooted in the chirurgical and popular mind, that it required the ingenious device of the "sympathetic cure" to eradicate them. By this the irritating appliances and the mischievous attentions were transferred to the weapon which inflicted

the wound, and which was accredited with exerting a sympathetic influence upon it, while the wound itself was simply covered up and left to itself. The beneficial effects of this surreptitiously, as it were, introduced method can scarcely be overestimated, and it is an illustration of the manner in which long-standing and erroneous impressions are, now and then, by counter and equally erroneous, though less mischievous impressions, summarily dislodged.

THE GOULSTONIAN LECTURES

ON

THE SUPRARENAL BODIES.

Delivered before the Royal College of Physicians of London,

By H. D. ROLLESTON, M.A., M.D., F.R.C.P.,

Fellow of St. John's College, Cambridge; Assistant-Physician and Lecturer on Pathology at St. George's Hospital.

Lecture II.

Physiology of the Suprarenal Bodies.

Brown-Séquard, stimulated by the pathological researches of Addison, investigated the physiology of the suprarenal capsules in dogs, cats, rabbits, and guinea-pigs, by removing them and noting the results. From a series of sixty experiments on animals he came to the following conclusions:

1. That the suprarenal capsules are absolutely essential to life.

2. That suppression of their functions is more rapidly fatal than suppression of the secretion of urine.

3. That the function of the suprarenal bodies was to modify or to destroy a substance which had the property of transforming itself into pigment. When the suprarenal capsules are removed or destroyed the pigment collects in the blood, but there is no pigmentation of the skin.

4. That in an animal from whom the suprarenal capsules have been removed the blood becomes poisonous, and when injected into other animals of the same species often produces death.

Dominicis[1] quite recently has found removal of the suprarenal capsules invariably fatal in a very few hours. Gratiolet[2] repeated Brown-Séquard's experiments; he often removed the left suprarenal capsule in guinea-pigs without any serious symptoms resulting, but the additional removal of the right one was fatal in three days, and since peritonitis and hepatitis were present, the fatal result was thus explained by him.

Philippeaux[3] removed both the suprarenal capsules from rats without producing any symptoms, and therefore considered that death, when it follows this experiment, is due to lesions of other organs. Tizzoni[4] criticises these results, and considers that a sufficient time was not allowed to elapse after the operation, and that because the animals did not die soon after the removal of the suprarenal capsules it was too hurriedly assumed that they had recovered.

George Harley[5] came to the conclusion that the suprarenals are not absolutely necessary to life; that when death follows their removal it is in most cases due to injury to neighbouring tissues, chiefly the sympathetic. He successfully removed both suprarenals from rats which survived the operation without ill effects for months.[6]

Schiff, Nothnagel,[7] Martin-Magron, Chatelain,[8] and recently Pal[9] and Berdach,[10] obtained results in favour of the view that the suprarenal bodies were not necessary to life. In a later paper Brown-Séquard expressed himself as convinced of the correctness of his views, and further stated that the results of removal could not be explained by any concomitant lesions such as peritonitis, hepatitis, damage to kidneys, renal veins, inferior vena cava or sympathetic.

In addition to Tizzoni's criticism there is this objection that even when both suprarenal bodies have been completely removed the presence of accessory suprarenal bodies in various situations mentioned above may compensate for the removal of the normal glands. Stilling has shown that under such conditions the accessory adrenals may undergo a compensatory hypertrophy. Alexander points out that, owing to the very close connection of the right suprarenal capsule with the inferior vena cava it is not improbable that fragments of it might be left behind, and by compensatory hypertrophy might prevent the development of symptoms due to complete removal.

MacMunn,[11] by means of spectroscopic examination, found a histohæmatin in the cortex and free hæmochromogen in the medulla of the suprarenal capsules. Hæmochromogen, the writer considers, is an excretory stage in the history of of blood pigment, and is probably formed by a downward metabolism from hæmoglobin and histohæmatins. He put forward the hypothesis that the function of the suprarenals is to pick out of the circulation the effete or worn-out pigments of the blood and their accompanying proteids. He further stated that when these pigment-metabolising organs are diseased there should be present in the urine incompletely metabolised pigments. This he found in a body he called urohæmatoporphyrin.

Foà and Pellacani[12] found injection of aqueous and alcoholic extracts of suprarenal bodies fatal to frogs, rabbits, and dogs. Alexander[13] believed that in the preparation of these extracts artificial poisons were produced. Schäfer and Oliver[14], by injection of large quantities (equal to 50 grains of the gland) of aqueous suprarenal extract, produced death in rabbits in twenty-four hours.

The poisonous body has been thought to be neurine, which, being continually formed by the activity of the muscular and nervous systems, is eliminated or destroyed by the suprarenal bodies (Marino Zucco,[15] Carbone[16]); it is said to have been found in urine of Addison's disease.[17]

It was suggested that the toxic effects were due not so much to neurine as to combinations of phosphoric acids with that base (Marino Zucco[15]), the toxic properties of the extract being destroyed by the addition of hydrochloric acid, which broke up the phosphate of neurine.

Oliver and Schäfer showed that the symptoms of toxic doses of suprarenal extract do not correspond to those of neurine, and that the phosphate and hydrochlorate of neurine have the same effect as the base. Supino[19] repeated Marino Zucco's experiments with a negative result as regards neurine.

What the active principle of the extract of the suprarenal bodies may be is at present not established. Bodies such as leucin (Virchow), lecithin,[20] taurocholic and hippuric acid (Vulpian and Closz), and benzoic acid have been extracted from the suprarenal capsules, but there is nothing to show that the effects of injection of suprarenal juice are due to any of them, or that they have been picked out of the circulation, and are in process of being removed by the instrumentality of the suprarenal bodies.

Mr. Moore[21] has found that the active principle of suprarenal extract is not a proteid or a carbohydrate. It is not affected by acids or by boiling for some minutes, but is destroyed by alkalies, reducing agents, and by continued boiling. It dialyses and it has a powerful reducing action. It has not been isolated; its properties resemble those of a reducing agent found in 1856 by Vulpian in the medulla of the suprarenal bodies.

As leucin is a product of downward metabolism of proteids, its occurrence in extracts of the suprarenal bodies is probably explained as the result of decomposition taking place. Leucin is not poisonous. Subcutaneous injections of increasing quantities of leucin into animals have been described as giving rise to nephritis[22] and albuminuria. These results do not follow removal of the suprarenal bodies or the injection of suprarenal extract, and since leucin is normally transformed by the liver into urea, there is no reason to believe that leucin has anything to do with the suprarenal bodies.

Lecithin is found in most parts of the body; in itself it has no toxic effects, but it may be changed into choline,[23] which has poisonous properties like those of neurine. The effects of neurine and of extract of suprarenal capsules have been shown by Schäfer and Oliver to be different; hence as the properties of neurine and choline are alike,[24] it may be concluded that the presence of choline or lecithin cannot explain the activity of suprarenal extract, or an accumulation of these bodies in the blood account for the toxic symptoms resulting after removal of the suprarenal capsules.

In the same way benzoic, hippuric, and taurocholic acids cannot be held to be responsible for the active properties of

suprarenal extract, or, on the hypothesis that they accumulate in the body on removal of the capsules, for a toxic condition of the blood.

Tizzoni,[25] in experimental removal of the suprarenal capsules in rabbits, obtained remarkable results, which are the same whether one or both organs are removed or whether one is first removed and later the other. It makes no difference if the crushed suprarenal capsule is left to be absorbed in the body. Leaving the crushed suprarenal capsule in the body does not lead to any symptoms of auto-intoxication, as might have been expected if the suprarenal capsules excreted any poison from the body.

Death occurs either shortly after the operation or after a long interval—130 to 997 days—the symptoms being much alike in either case, but after the prolonged interval the symptoms resembled those of Addison's disease more than in the former case. It is interesting to compare these results with the acute and chronic myxœdema[26] produced by experimental thyroidectomy in monkeys. Pigmentation came on slowly, first around the mouth and nostrils, then on the oral mucous membrane and on the tongue.

Pigmentation occurred in 13 out of 30 rabbits dying at a period remote from the operation, whereas Nothnagel found it in only 3 out of 153 cases in which the suprarenal bodies were crushed. Death was ushered in by diminution of motor power and blunting of sensation, coma, convulsions, and opisthotonos.

The changes in the nervous system were occasionally visible to the naked eye, but though microscopic changes were present in the majority of cases they were by no means universal.

In cases which died soon after operation, disturbance of the circulation, congestion, and hæmorrhages were seen in the grey matter of the cord, especially around the central canal and also in the medulla, where hæmorrhage about the vagus nucleus accounted for death. The change was more intense in the cervical and upper dorsal regions than in the lumbar part of the cord. The pia mater was inflamed, and the grey matter of the cerebrum and the lining of the lateral ventricles underwent a similar, though more diffuse, change to that in the grey matter of the cord. In animals dying long after the operation the parts of the cord affected were the same, and showed inflammatory exudation with atrophic changes of the nerve elements, while in addition a systemic degeneration may be seen in Goll's columns. Degenerative changes occur irregularly in the peripheral nerves. In connection with the situation of these changes which tend to descend towards the suprarenal bodies, it should be noted that Arnaud and Alexais[27] have observed, after removal of the suprarenal bodies, an ascending degeneration starting from the region of the suprarenal bodies, through the semilunar ganglia to the lateral region of the cord.

Connection of Removal of the Suprarenal Bodies with the Observed Changes in the Nervous System.

Tizzoni argues that as the same result follows removal whether of one or of both organs the cause cannot be a toxic agent, and sees nothing to support the theory that it is due to changes or any trophic influences exerted by the adrenal bodies on the central nervous system. He considers that the nervous lesions are due to alterations in the circulation through the blood vessels, due to influences travelling in the sympathetic, and primarily due to the destruction of the suprarenal bodies. However, he finds that changes in the solar plexus and semilunar ganglia are not always present. He suggests that in cases of some standing, where no change is found, degenerative changes did occur but have now passed away. He, however, leaves the connection between removal of the suprarenal bodies and the nervous lesions open. The fact that death sometimes occurs soon, at other times after a prolonged interval from the operation, he believes is due to the varying amount of damage done in the process of ablation. He concludes by considering the suprarenal bodies of importance from their close relation to the sympathetic, and does not regard them as functional glands.

Stilling[28] thinks that Tizzoni's plan of removing the suprarenal bodies from the back may cause the changes in the central nervous system by a direct extension of the inflammatory process from the wound to the cord. Stilling reached the suprarenal bodies by laparotomy, and though he examined for changes in the central nervous system, never found any. After removal of the suprarenal bodies from dogs, Berdach[29] noticed an abnormally low temperature, and attributes this to the influence of the sympathetic. Abelous and Langlois,[30] in a series of papers, have come to conclusions of a very different nature from those of Tizzoni.

Removal of one suprarenal body from frogs and guinea-pigs leads to no bad results, while removal of both rapidly causes death by toxæmia. The toxic substance is produced by general metabolism of the body, especially of the muscles, it has some resemblance to toxic bodies in blood of tetanised animals, and acts like curare on the motor nerve endings, and in addition on the muscles themselves. Injections of suprarenal extract postpones this toxæmia, and a piece of suprarenal capsule, if introduced into the dorsal lymph sac of a frog whose suprarenal bodies have been removed, acts in the same way.

Repeated injections of the blood from an animal whose suprarenal bodies have been removed into a normal animal bring on symptoms like those produced by removal of the suprarenal bodies, which are, however, transient; if injected into an animal deprived of its suprarenal bodies death is hastened. Therefore the suprarenal capsules are active glands which normally produce an internal secretion to antagonise toxic bodies formed during metabolism, and thus diminish the toxic properties of the blood. On destruction of the suprarenal capsules the poisonous bodies accumulate in the blood and give rise to symptoms resembling those of curare poisoning.

Supino,[31] from experimental research, believes that rabbits can survive the removal of one or both suprarenal bodies, but finds that their blood, when injected into frogs, produces a toxic effect like curare. This toxic property of the blood lasts for years.

Langlois and Chassevent[32] find that the blood in the suprarenal vein contains less oxygen than arterial, though much more than ordinary venous, blood. The suprarenal bodies thus receive an excess of arterial blood like other important glands—as, for example, the submaxillary gland.

According to Boinet,[33] ligature of the pedicles, including the veins, of the suprarenal capsules is more fatal than removal of the glands themselves. This has an important bearing on the question whether removal of the suprarenal bodies produces ill effects by suppression of their function or from damage done to the neighbouring sympathetic. Ligature of the pedicle of the gland abolishes the functional activity, while it gives rise to much less injury than the ablation of the glands. From this observation it follows that ill effects are due to interference with the function of these bodies rather than to irritation of the sympathetic set up by their removal. Boinet found that after ligature of the pedicle of one adrenal body and removal of the other, which was then engrafted into the peritoneal cavity, life was prolonged for a very considerable time.

In addition to Boinet's work the observations of Thiroloix[34] show that the results of ablations are to be explained by interference with the functional activity of the suprarenal bodies, and not by the mere traumatic effect of their removal. Removal of one suprarenal body in dogs was followed by hypertrophy of the other and by no symptoms; subsequent removal of the remaining organ led to coma and death. It is very improbable that this was due to injury to the sympathetic, because if the remaining organ was separated from all its nervous connections and left *in situ* no symptoms resulted. The last procedure would entail fully as much, if not more, damage to the sympathetic as removal of the organ.

In the history of all important ablation experiments, for example, the thyroid, pancreas, and kidney, the typical symptoms and physiological changes have been explained by some observers as due rather to secondary effects on the surrounding nerves than to the specific effect of removal of the gland.

G. Oliver and Schäfer,[35] working with suprarenal extracts (watery, glycerinic, or alcoholic) of man, calves, sheep, and dogs, and injecting them into dogs, cats, rabbits, and frogs, have found:

1. A rise of blood pressure due to arterial constriction.

This is best seen after section of the vagi, which prevents the concomitant inhibition of the heart. The blood pressure may rise to double or even quadruple the normal and is not affected by stimulation of the depressor nerve. In a limb the constriction of the vessels may be shown by the diminution in bulk, as measured by the plethysmograph, or in the kidney, by Roy's oncometer. As this effect remains after section of the cord or of the nerves going to the limb it is due to peripheral and not to central influences.

2. On the heart suprarenal extract exerts a marked inhibitory effect through the vagus; the beats become feeble and slow. On cutting the vagi the heart beats much more quickly than normally, and its force is much augmented.

3. After a hypodermic injection of extract (equal to 1 or 2 grains of the gland) a frog shows absence of knee-jerks, and appears paralysed. The muscles react to direct stimulation or to stimulation of their nerves, but the contractions are modified, the relaxation period being greatly prolonged, as in veratria poisoning. The effect is not at all comparable to that produced by curare. The effects come on thirty seconds after intravenous injection, and do not pass off so rapidly as the cardio-vascular phenomena; hence it appears that the extract becomes stored up in the muscles.

4. The active principle of the extract is present only in the medulla and not at all in the cortex.

Suprarenal extract acts on the arteries in exactly the opposite way to thyroid extract. Schäfer[36] does not commit himself as to whether the extract contains a useful substance, secreted by the suprarenal bodies, to be subsequently used in the economy, or whether the extract contains a poison which is formed by the tissues during their activity and is carried by the blood to be rendered innocuous by the adrenal bodies. But from the encouraging results he obtained in the treatment of Addison's disease it appears that Dr Oliver[37] probably regards it as a useful internal secretion.

Three deductions are possible from these researches into the physiology of the suprarenal bodies:

1. That they have no proper function, and are important only from their close relation to the sympathetic.

2. That they are excretory glands, removing pigment and toxins from the circulation.

3. That they are secretory glands, providing an internal secretion which is of use in the economy.

With the exception of Tizzoni's results, all modern work points strongly to the conclusion that the suprarenal capsules are functional, and that their importance does not depend on their anatomical relation to the sympathetic. The presence of accessory adrenal bodies or incomplete removal have been shown to be possible explanations of the negative results obtained by some of the earlier investigators.

The evidence is sufficiently strong to warrant the conclusion that the adrenal bodies are functional glands. It is, however, more convenient to postpone any discussion as to whether that function is of the nature of an excretion or a secretion until the explanation of Addison's disease is dealt with, since the physiology and pathology of these organs are so inextricably blended.

Condition of Suprarenal Capsules in Addison's Disease.

In Addison's original paper (published in 1854) 11 cases are recorded; 5 of these cases had caseous tubercle in both suprarenals, and in 1 case tubercle was present in one suprarenal. One case (No. 4) appears to have been an example of cirrhosis and atrophy. In 3 cases there were secondary carcinomatous growths in the suprarenals, bilateral in 1 case, and unilateral in the other 2. In 1 additional case there was a secondary nodule of carcinoma blocking the right suprarenal vein associated with hæmorrhage into the corresponding capsule, but without any growths in either.

While the discovery was Addison's, the general recognition of this disease is, perhaps, chiefly due to the vigorous and loyal efforts of Dr. Wilks.

After the publication of his original memoir, Addison appears to have been inclined to modify his views as to a multiplicity of morbid conditions of the suprarenal capsules giving rise to the same series of symptoms, and to have wished to have removed from among the cases in his monograph those of carcinoma of the suprarenal capsules. While, with regard to the cause of the symptoms, he conjectured that the intimate connection of the suprarenal bodies with the sympathetic had a large share in the production of the symptoms, thus in some degree throwing over his expressed opinion that the interruption of some special function of the suprarenal capsules was the explanation of the characteristic symptoms.

According to Dr. Wilks all genuine cases of Addison's are due to one and the same lesion of the suprarenal capsules. This view might be called the unity of Addison's disease. This lesion could now be considered to be tuberculous, but Dr. Wilks considered it to be a primary inflammation[38] comparable to hepatic cirrhosis, and regarded the atrophied cirrhotic condition of adrenal bodies sometimes seen as the last stage of the fibro-caseous change.

Dr. Greenhow[39] was a follower of the view of the unity of Addison's disease, and therefore criticised severely all the recorded cases in which the morbid condition of the suprarenal bodies was other than the fibro-caseous change, and concluded either that the symptoms (especially the pigmentation) were not characteristic of Addison's disease, or that the lesion found was incorrectly described.

The fibro-caseous change begins first in the medulla, and spreads gradually throughout the whole of the organ, and after destroying the cortex may set up inflammation in the adjacent tissues and adhesions to neighbouring organs. The semilunar ganglia and solar plexus are often described as being invaded by the inflammatory process, and again have been found quite free from any morbid change. Typically this lesion is bilateral, but cases of well marked Addison's disease occur with a unilateral lesion.[40]

The caseous change has very frequently been shown to contain bacilli, though in others repeated examinations have failed to demonstrate their presence. I am indebted to Professor Delépine's kindness for leave to mention such a case of Addison's disease with caseous suprarenal bodies in which no tubercle bacilli could be found. Subcutaneous inoculation of caseous material into guinea-pigs after Villemin's method[41] did not lead to tuberculosis. So that although the lesion is generally tuberculous, it is not necessarily so in all cases. This condition is certainly the one more commonly found in association with Addison's disease. In 285 cases (collected by Lewin) of the disease this lesion was present in 211. Tuberculous inflammation of the suprarenal bodies, like that of the lungs, is much commoner than any other form of chronic inflammation. It is interesting to contrast the liability of the suprarenal bodies to tubercle with the marked immunity of the thyroid gland.

The late Dr. Habershon[42] first showed that as the result of inflammation spreading from the suprarenal bodies the semilunar ganglia and their branches may become surrounded by dense fibrous tissue. Sclerosis of the abdominal sympathetic has been confirmed in cases of Addison's disease by many observers.

Dr. Greenhow[43] described two stages in the process: (1) a stage of irritation of the semilunar ganglia and the nerves connecting them with the suprarenal capsules, as shown by redness and swelling; and (2) a further stage of atrophy and fatty degeneration.

On the other hand, the absence of any alteration of these same structures has been repeatedly recorded. The extremely careful examinations made by Dr. Robinson for Dr. Mann[44] on two cases of Addison's disease serve as a model for such investigations since a control examination was made at the same time of the same structures from a patient of the same age where there was no reason to suspect anything abnormal.

Von Kahlden[45] criticises the published observations as to the condition of the semilunar ganglia and sympathetic in cases of Addison's disease, and does not consider either the positive or negative results of much value.

He examined two cases of Addison's disease, and found[46] the following changes in the semilunar ganglia: Hyaline degeneration and thickening of the vessel walls, small cell infiltration, and hæmorrhages in connection with their adventitia, and pigmentary atrophy of the ganglion cells and thickening of their capsules. He considers that these changes have a direct causal relation to the symptoms of Addison's disease. He found the splanchnic nerves in the two cases quite healthy. Jurgens, however, has described degeneration of the splanchnics in Addison's disease. The bearing of these

observations must be considered in the light of Hale White's[47] description of the normal histology of the semilunar ganglia in adults. The cells are pigmented and atrophied, the degree of atrophy increasing with age; the fibrous tissue was often very much increased in amount, and in a few instances the section was crowded with leucocytes without any apparent reason. No constant arrangement in small blood vessels could be discovered. These changes occurring normally have such a close resemblance to those to which von Kahlden attaches importance as being responsible for the symptoms of Addison's disease that it seems very doubtful whether the changes described by this observer had anything to do with the production of the symptoms of Addison's disease.

Malignant disease of the suprarenal capsules occasionally gives rise to some of the symptoms of Addison's disease, such as gastric disturbance, extreme debility, and pigmentation. Typical cases of Addison's disease are naturally those in which there is no other organ affected, and in which the disease runs its own course without any complications. When growths develop secondarily in the suprarenal bodies the primary growth may give rise to symptoms which throw into the shade or obscure any that may be due to interference with the suprarenal bodies. The comparatively rapid progress of the primary malignant disease may kill the patient before the secondary affection of the suprarenal bodies has had time to lead to any distinct symptoms.

Again, in many cases the presence of malignant disease, if ascertained, would be quite sufficient to explain any symptoms which otherwise might be due to suprarenal disease.

It is undoubtedly true that the suprarenal bodies may be apparently almost completely destroyed by carcinoma, and yet no special symptoms result. The same, however, is true of tubercle, and especially where there is extensive tuberculous disease elsewhere. Perhaps in both cases death has occurred before symptoms characteristic of Addison's disease have had time to develop.

Well-established examples of simple atrophy[48] of the suprarenal capsules, without any fibrous increase in the substance of the organ, or of any fibrous adhesions around them, have often been described as giving rise to the typical clinical picture of Addison's disease. The atrophy in some of the cases was extreme, the organs in many cases requiring very careful and minute dissection. In some instances they are described as being of the size of peas. It cannot be wondered at that in some cases, as in Dr. Spender's, they are described as being absent. These cases are of great importance, as will be seen later, in supporting the view that the symptoms of the disease are due to the absence of the functional activity of the organs, and not to irritation of the neighbouring important sympathetic nerves. In these cases of atrophy the sympathetic plexuses and semilunar ganglia were in most instances carefully examined, and stated to be normal. The subject of atrophy of the suprarenal bodies has already been referred to.

Chronic interstitial inflammation[49] of the suprarenal bodies, leading to atrophy, and homologous with atrophic cirrhosis of the liver, has given rise to typical Addison's disease. The chronic fibrosis is quite unconnected with the production of any caseous material, and does not show any evidence of tubercle, such as bacilli. The late Dr. Haddon compared this change in the suprarenal bodies to those met with in the thyroid gland in myxœdema, and expressed his opinion that the essential factor in Addison's disease is, as in myxœdema, a destructive change, the anatomical condition being of no consequence as long as it is destructive.

A few cases[50] showing an apparent connection between hæmorrhages into the suprarenals and blood cysts occupying them, on the one hand, and the symptoms of Addison's disease, on the other, have been recorded. Apart from disease of the suprarenals of the various kinds already mentioned, there are some cases recorded of symptoms like those met with in Addison's disease being associated only with alteration of the semilunar ganglia or abdominal sympathetic.

Guay[51] records two such cases: (1) Under the care of M. Raymond, of lymphadenoma, with some of the symptoms of Addison's disease the semilunar ganglia and solar plexus where found enclosed in masses of growth, but the suprarenal capsules were intact. (2) Under the care of Dr. Brault, a man with advanced phthisis, who was in the last stage of debility and markedly pigmented. The suprarenal bodies appeared normal to the naked eye, though microscopically there was a little chronic inflammation in the right one. In the right semilunar ganglion there was a small caseous nodule.

Dr. J. K. Fowler[52] has recorded a case under the care of the late Sir George Paget, in which the suprarenal capsules were healthy, but the semilunar ganglia and solar plexus were buried in a mass of lymph-adenomatous growth. Clinically the case had marked pigmentation.

Von Kahlden[53] quotes a similar case recorded by Niesykowski in the *Gazette des Hôpitaux*, 1867.

To summarise the conditions of the suprarenal bodies recorded in cases of Addison's disease, there are the following:

1. The fibro-caseous lesion due to tuberculosis—far the commonest condition found.
2. Simple atrophy.
3. Chronic interstitial inflammation leading to atrophy.
4. Malignant disease invading the capsules, including Addison's case of a malignant nodule compressing the suprarenal vein.
5. Blood extravasated into the suprarenal bodies.
6. No lesion of the suprarenal bodies themselves, but pressure or inflammation involving the semilunar ganglia.

The first is the only common cause of Addison's disease. The others with the exception of simple atrophy may be considered as very rare.

Anatomical Distribution of Cutaneous Pigment in Addison's Disease.

The pigmentation is an exaggeration of the normal, and is met with therefore on the face, neck, hands, anterior folds of axilla, nipples, perineum, and genitals. The occurrence of small pigmented spots on the skin is, according to Dr. Greenhow, characteristic. Any cause of irritation, such as pressure, the application of blisters, or inflammation of the skin, is followed by marked pigmentation. During the progress of the disease the hair has been noticed to become darker. Microscopically the pigment is found in the cells of the stratum Malpighii, the more superficial layers of the epidermis being quite or almost free from any pigment.

The dermis shows a few pigmented cells, "carrier cells," which it is thought convey the pigment from the blood vessels of the dermis to the stratum Malpighii. These wandering cells are found around the vessels in the superficial parts of the dermis, where they absorb pigment from the blood vessels,[54] the method of absorption being doubtful. That hæmoglobin is not absorbed directly is shown by the absence of iron from melanin, so that if the melanin in normal and abnormal pigmentation of the skin is eventually derived from the blood considerable metabolism must intervene.

Demiéville and Riehl[55] have found that the vessels of the cutis in the pigmented areas show small cell-infiltration and small hæmorrhages in their adventitia, and conclude that the extravasated blood pigment passes up to the cells of the stratum Malpighii, not in a soluble form as a chromogen, but as pigment particles, and thus accounts for the pigmentation of the skin.

Von Kahlden believes that the pigment of the stratum Malpighii is derived by means of carrier cells from the blood, but does not consider that disease of changes in the vessel wall or hæmorrhages around the vessels have any causal connection with pigmentation.

Nothnagel regards the exaggeration of the normal pigmentation met with in Addison's disease as due to functional, not organic, change in the vessel wall allowing increased transference of pigment to the stratum Malpighii.[56]

The general consensus of opinion is that the melanin of the stratum Malpighii is ultimately derived from the hæmoglobin, and that in abnormal pigmentation this process is exaggerated. Delépine,[57] however, has put forward the view that by the activity of the cell protoplasm of the stratum mucosum the melanin is manufactured, and passing out of the cells into the lymphatics of the corium is carried away and tranformed into hæmoglobin. On the view that melanin is an antecedent and not a derivative of hæmoglobin, the carrier cells might be regarded as transferring the melanin from the epidermis to the lymphatics and vessels of the dermis. Averbeck and Burger[58] believe that the pigment in Addison's disease is due to very active metabolism in the cells of the stratum Malpighii.

Pigmentation of Mucous Membrane.

Pigmentation of mucous surfaces is rarer, occurs in more

advanced cases, and is usually regarded as being a sign of more value than cutaneous pigmentation. It may be found along the line of contact of the lips, on the cheeks, gums, or tongue, especially if there be any cause of irritation, such as a carious tooth. It is said to occur in the vagina[59]. The conjunctivæ[60] may in some cases, though very rarely, be pigmented.

Situation of the Pigment on the Mucous Membrane.—According to Dr. Greenhow[61] the pigment in the tongue is found in the same layer as in the skin, namely, the stratum Malpighii or mucosum. Haddon[62] found the pigment quite as plentiful in the corium as in the stratum mucosum of the buccal mucous membrane.

Tizzoni,[63] in the pigmentation produced experimentally in the buccal mucosa of rabbits, found pigmented carrier cells in the corium, and pigment in the deeper layers of the stratum mucosum.

Dixon Mann[64] draws a sharp distinction between pigmentation of the mucous membrane and that of the skin. Pigmentation of mucous membrane is not general; it requires certain local conditions (friction, local hyperæmia) for its development, and the pigment has a different histological site. The corium contains pigmented carrier cells, as is the case in the skin, but the stratum mucosum contains no pigment, possibly because the cells composing it do not have the finger-like processes[65] which in the skin are thought to receive the pigment from the carrier cells. When, exceptionally, pigment was found in the stratum mucosum it was seen to be not in, but between, the cells.

Pigmentation of Serous Membranes.—Addison[66] described discrete pigmentation of the peritoneum in one of his cases, and a similar case is mentioned by Dr. Wilks.[67] Dixon Mann[68] has described the same appearance; the intestines are described as being otherwise normal, and no mention is made of any old peritonitis or tuberculosis.

Dr. Greenhow[69] records a case of Addison's disease with pigmented tubercle of the peritoneum, accompanied by signs of past peritonitis. The same writer also quotes[70] a case recorded by Van Andel of pigmentation of the peritoneum, but no mention is made of the presence or absence of tubercle or of past peritonitis. As its occurrence is so rare, it is probable that when present pigmentation is due to past inflammation, and probably of a tuberculous character of the peritoneum. No instance of similar pigmentation in the pericardium or in synovial membranes has been recorded. The marked pigmentation of the pia mater observed by the late Dr. Carrington[71] seems to be unique, and might possibly have been due to the melanæmia of ague.

Other Anatomical Lesions met with in Addison's Disease.

In some of Addison's cases a hypertrophied condition of the lymphoid follicles in the stomach and intestines, as well as some enlargement and softening of the spleen, were noted. The exaggeration of the lymphoid tissue has been frequently noted since, and Dr. Greenhow[72] considered it as one of "the characteristic, though perhaps not quite invariable, lesions" of the disease. There does not appear to have been any diarrhœa in the cases in which this condition was marked. It might, perhaps, be considered that this condition of the lymphatic follicles is to some extent in favour of the view that when the suprarenal bodies are functionless, whether from destruction or atrophy, some toxin is circulating in the body. The occurrence of leucocytosis after the injection of bacterial poisons or even the injection of albumen[73] is presumably accompanied by increased activity of the lymphoid tissue of the organism. In some cases persistence of the thymus gland has been recorded.

A softened condition of the brain with an increased amount of cerebro-spinal fluid has been recorded in some cases[74] of Addison's disease, and was probably accidental, but its occurrence is of interest from the marked inflammatory changes resulting from removal of the suprarenal bodies in animals in Tizzoni's hands

Tizzoni[75] quotes two cases of Addison's disease in which lesions of the central nervous system were found: 1. Bourredi's case: Caseous change in the suprarenal bodies associated with hyperæmia of the cord, perivascular inflammation, degeneration of nerve fibres, and changes of varying degree in the ganglion cells. 2. Semmola's case: A normal condition of the suprarenal capsules accompanied by mucoid degeneration of the stroma of the abdominal ganglia of the sympathetic and small cell infiltration around the central canal of the spinal cord.

In connection with the view that Addison's disease is of the nature of a toxæmia, it would be natural to expect to find changes corresponding to those described by Bowman[76] in the spinal cord in pernicious anæmia.

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THE PATHOLOGY OF ŒDEMA.[1]

By WALTER S. LAZARUS-BARLOW, M.D., M.R.C.P.

[From the Pathological Laboratory, University of Cambridge.]

(*Concluded from page 687.*)

We come now to the consideration of the œdema which accompanies inflammation. This œdema has long been regarded as the result of an injury to the blood vessel walls, whereby they allow fluids to exude with more ease than normally. That exudation from the blood vessels occurs as the result of a stimulus which is sufficiently powerful to impair the vitality of the tissues, though stopping short at actually destroying them, there is no doubt. The question we have here to consider is the reason for that exudation. Now the explanation of the œdema of inflammatory origin as dependent upon damage to the vessel wall really depends upon the fact that injury to the tissues is known to occur, and it is assumed that the blood vessels are injured as well. No doubt this is true, but if the exudation occur from damaged blood vessels it is necessary to prove that this exudation takes place in the actual region of damage. This, however, is not the case; the blood vessels which exude the fluid, namely, those which are actively congested, are at

[1] The expenses of some of the experiments referred to in this paper were in part defrayed by a grant from the British Medical Association.

some little distance from the initial seat of injury, and therefore are least likely to be damaged. Moreover, in the case of passive œdema I have over and over again in frogs made microscopical examination of the small blood vessels, veins, arteries, and capillaries, and in no case have I found any evidence of alteration from the normal either in appearance or in their behaviour to staining reagents.

If we dismiss from our minds for the moment the question of damage to the vessel wall, and consider the phenomena accompanying the exudation in inflammation, we see that there is no line of demarcation between the physiological and the pathological. If the hand and arm be placed in warm water at 40° C., they become red, the arteries are actively dilated, and presumably the lymph flow is increased.[2] The reason is that the increased temperature leads to increased metabolism, and increased metabolism means an increased need of nutrition. This increased nutrition can only be carried out by means of a greater interchange of blood, and that interchange by active dilation of the arteries. So far everyone will allow the phenomena are physiological. Increase the temperature of the water somewhat, and inflammation occurs; the phenomena are exactly the same, but more marked. It is not necessary to call in the action, or rather the want of action, of a vessel wall; the increased need of the tissues is amply sufficient to explain the excessive amount of exudation, as has been seen in the case of passive œdema. Further, inflammation is an essential part in the process of repair, and repair is a physiological and not a pathological process.

For these reasons, I would suggest that the œdema which accompanies inflammation should be regarded as beneficial in object, though excessive by reason of the excessive degree of starvation of the still living tissues. The processes whereby it is brought about are exactly similar to those occurring whenever the supply of food is not equal to the demand, and I therefore think it unnecessary to introduce a hypothetical injury to the vessel wall.

That the vessel walls themselves are modified in some way within the area of activity of the cause of inflammation there can be no doubt. They must suffer neither more nor less than the tissues around them. In other words they must be starved also; but this is not quite the same as saying that they are damaged, though no doubt the line between starvation and damage is a difficult one to draw. That their function is in some way modified by their condition of starvation is probable, though we have no evidence of the fact beyond the alteration in the nature of the fluid which leaves them. The œdema fluid in inflammation is of higher specific gravity, and contains more albumen than does ordinary lymph, and this we may perhaps regard as a sign of modified function, but we can go no further at present. Heidenhain's work on lymph formation, however, goes far to prove that the lymph is secreted, and it is easy to understand that, if such be the case, variations in composition of the lymph may be brought about by modifications in the nutritive condition of the secreting cells.

There is, however, the phenomenon of stasis and the adhesiveness of the white blood cells to the vessel wall, which is regarded as evidence of an alteration in the condition of the vessel wall. But such appearances are only those compatible with a slackening of the flow and a thickening of the blood. They do not prove that there is a modification of the vessel wall any more than the deposit of precipitate on a filter after the filtrate has passed through shows a modification of the filter paper. In both cases fluid leaves the containing vessel, which is of lower specific gravity than the mixture in that vessel; the material left behind is of higher specific gravity and the particles are more closely packed together. A greater force therefore is necessary for the propulsion of the thickened material than before. In the case of the blood vessels this is not forthcoming, and as a natural consequence the blood comes to rest. The adhesiveness of the white cells is also explicable in a very simple manner. Normally, the white cells being of lower specific gravity than the red, they occupy the plasmatic layer of the blood; slacken the flow somewhat, and they are enabled to remain in contact with the wall in doing which friction also comes to their aid. But the very fact that they are less readily detached than normal as a result of the slower stream of blood, causes the numbers at any given moment and at any given place to be greater than normal. This, however, is not evidence of a modification of the vessel wall. It were equally just to ascribe the altered condition to a perverted disposition on the part of the white cell.

The evidence, therefore, of injury to the vessel wall as being the cause of the exudation in inflammation being unsatisfactory, it seems best to turn to phenomena which are known to exist. Increased exudation to meet increased demand for food we have already seen to occur with increased metabolism as well as in passive œdema, and since it adequately explains the œdema of inflammation, it is reasonable to regard this last as the endeavour of normal but actively dilated blood vessels to supply the need for increased nutrition in a part where such nutrition is imperatively necessary. Here also I would urge that it is the tissues which determine the occurrence, and not primarily the blood vessels.

There remains now for consideration the dropsy which accompanies disease of the kidneys. Of this there are three distinct varieties, namely, acute tubal and glomerular nephritis, chronic interstitial nephritis, and lardaceous disease, and corresponding to these there are forms of œdema which have somewhat different characters, and therefore it is advisable to consider them separately.

The whole question of renal dropsy was exhaustively treated of by Dickinson in a paper read to the Royal Medical and Chirurgical Society in 1892, but inasmuch as Dickinson treated the subject principally from the clinical point of view, for my present purpose I cannot refer so fully to the paper as its value deserves. He sums up, however, his view so far as concerns acute renal dropsy in the following words: "It cannot be doubted that renal dropsy is essentially a matter of increased exudation, not diminished absorption, and that of this the capillaries are the seat. The process is connected probably with some change in themselves or in their relation to the blood associated certainly with increased pressure behind them."

Speaking in the broadest way, it is undoubtedly true that in renal disease the œdema varies inversely with the amount of urinary secretion and inversely with the power of the heart; there are no doubt exceptions to these two rules, but they are in the main true. Now, I have made some experiments that bear upon the first of these two points.[3] It was necessary in my experiments on the passive variety of œdema to produce anæmia of a dog's hind limb. This I did by means of an Esmarch's bandage. The effects upon the limb in question at a later part of the experiment have already been considered; let us now consider the effects upon the body to the exclusion of that limb. Instead of now holding the normal amount of blood and lymph, that amount was now increased by the fluid removed from the anæmic limb, and therefore there was a condition of plethora, produced, be it remarked, in a much simpler manner and one less open to objection than methods hitherto employed, in that the extra fluids thrown into the circulation were absolutely similar to those already in the body. The results were unexpected, for within a very short time—under half an hour—the tissues such as muscle and skin fell in specific gravity to a marked extent, or in other words became slightly œdematous. It is unnecessary here to go further into particulars, but this experiment, which I have confirmed in other ways, shows that the volume of the circulating fluid in the body is a matter of great importance, and if this volume be increased the tissues immediately take up a certain amount of the plasma and reduce the volume towards the original. If we now consider the bearing of this experiment, we may easily see how in acute renal disease, in which the renal secretion is to the greatest extent interfered with, the volume of circulating fluid is necessarily increased, assuming the intake of water be not regulated. If, therefore, the tissues act as a reservoir for the water, it is not astonishing that the amount of dropsy varies inversely as the amount of urine.

Probably, however, the question is not quite as simple as

[2] Later experiments have proved that the exudation of lymph is greatly increased. The subject of inflammatory œdema is still under investigation.

[3] *Proc. Physiolog. Soc.*, May, 1894.

might be supposed from the preceding words. It has been seen that a most important factor in the pathology of passive œdema is the storage in the tissues of the metabolic products of tissue change; it cannot be doubted that in renal disease this storage must also come in. But the removal of these waste products is hindered by the condition of the kidney in acute renal disease no less than is the removal of the water. Moreover, since they and the water are circulating in the blood over all the body, it follows that the whole of the tissues must be exposed to their influence. Now in the absence or abeyance of the excretory system the possibility of the equalising of supply and demand on the part of the blood and the tissues is out of the question, for if there exist a demand in the tissues, and the circulatory system endeavour to meet it in the usual way by active congestion, the effect is that not only is more lymph thrown into the part, but at the same time a proportionate increase of the same waste products which the tissues are so anxious to get rid of is unavoidably thrown in also. Under these circumstances it is hardly to be wondered at that the amount of dropsy in renal disease is excessive, that it comes on in so short a time, or that it is generally distributed over the body. In acute renal disease, therefore, it seems probable that two factors are at work both of which occur in the normal physiological condition—namely, an exudation of the watery part of the blood in order to keep the volume constant, and also an absorption with the object of removing the stored-up waste products. In the latter case, however, it is the demand of the tissues primarily that leads to the œdema, whereas in the case of plethora it is difficult to see exactly what part of the organism initiates the transudation, whether blood vessels or tissues.

In the same way it is intelligible that increased force of the heart's beat and increased tension (which means increased output of the ventricle) should lead to a diminution of dropsy. For both these factors are favourable to a re-establishment of the renal secretion, and therefore to a re-adjustment of the balance between the contents of the blood vessels and the amount of fluid in the tissues on the one hand, and the formation and the removal of the waste products of tissue change on the other hand.

The characteristics of the œdema which accompanies chronic interstitial disease of the kidney suggest that in some degree there is a difference between it and the œdema which accompanies acute parenchymatous nephritis. The distribution of the dropsy is similar, it is true, in many cases though not in all. In chronic interstitial disease the œdema frequently takes on a "cardiac" type—that is to say, it frequently shows itself to a considerable extent in the legs before it is more than indicated in the face. The explanation of this, no doubt, as has long been recognised, is that the dropsy is truly of cardiac origin, and depends upon failure of the hypertrophied left ventricle. To this result it is probable that the anæmia so frequently noticed in the subjects of chronic granular kidney materially contributes. Owing to the polyuria which accompanies this form of kidney disease, it is perhaps doubtful whether the effect of an increase in the volume of the circulating fluid (such as probably exists in acute renal disease) upon the occurrence of dropsy comes into play. It is frequent, however, to find that when these subjects of chronic renal change become affected to a considerable degree with œdema, the amount of urinary secretion has become diminished. So also the dropsy is greatest in those cases in which an acute parenchymatous change has been engrafted upon the chronic interstitial change. Both of these facts render the effect of the chronic disease upon the volume of the circulating fluids doubtful. The excretion of urea, however, is certainly diminished in most cases, and this, together with the anæmia and the failure of the left ventricle, which invariably supervenes if the patient live long enough, forms a collection of causes sufficient to explain the occurrence of dropsy, while the abnormally small amount of urea excretion probably increases the amount of urea in the blood, and therefore poisons the tissues in the manner already pointed out. That the amount of urea (or, speaking more generally, nitrogenous waste products) in the blood is actually increased in chronic granular kidney is not absolutely known from experiment, however probable it may appear. If it occur it is ample reason for the general disposition of the œdema which distinguishes renal dropsy from cardiac dropsy.

The dropsy of lardaceous disease of the kidney has always been a subject of much uncertainty on account of the marked differences which occur, especially in the cardio-vascular apparatus, between this and other forms of Bright's disease. Judging from the fact that the lardaceous material is deposited in the coats of the blood vessels, and that it therefore causes narrowing of their lumen, which, moreover, is not compensated for by cardiac hypertrophy, it seems probable that the dropsy in lardaceous disease depends upon the anæmia of the tissues. To this it must be added that the causes of lardaceous disease, namely, prolonged suppuration and syphilis, are particularly likely to induce a cachectic condition, and, therefore, to bring the tissues into a devitalised or starved condition. It must also be remembered that the lardaceous change is a general one, not confined to the kidneys, and that, apart from the dropsy of lardaceous renal disease, which is often really the dropsy of acute parenchymatous nephritis imposed upon a primary lardaceous condition of the organ, there is a general doughiness of the skin met with in the subjects of this particular change which is not usually termed "œdema" but which is certainly akin to it, if not a more extensive but more indistinct manifestation of it. The acute parenchymatous, chronic interstitial, and lardaceous diseases of the kidney are certainly the most important, if not the only, causes of renal dropsy, and with these I will conclude what has necessarily been an imperfect sketch of the whole subject of œdema. Other but less important and rarer conditions in which dropsy occurs I do not propose to mention, as they probably do not differ materially in pathology from the forms already given.

There remain two small points, however, which are of interest, and they are the following: Whence comes the fluid which finally constitutes the œdema fluid of a part? and why do the skin and muscles, but particularly the skin, show to the naked eye and to touch evidences of œdema to the exclusion of other parts?

Taking these questions in order, it is evident that the œdema fluid comes immediately from the blood, but this is not all, as can be seen on closer examination. In my experiments on localised œdema I have considered parts other than the œdematous limb and have found that not only does the specific gravity of the muscle and of the skin fall in the œdematous part, but also that the specific gravity of the muscle and of the skin in the rest of the body rises. The tissues, therefore, of the body at large give up water to the blood to supply the drain on the blood that is taking place in the region of œdema—a further proof of the importance of the tissues in the pathology of œdema. It is probable that the method by which this outpouring of lymph from the muscles and skin into the blood takes place is the converse of that which occurs in plethora, as we have already seen, but it is also possible that the needs of one particular part which requires food (the part which is becoming œdematous) is able to make known its wants to the rest of the economy, whereby other parts are able to assist in meeting that excessive demand.

In the second question it is a matter of common experience that œdema is usually recognised exclusively in the skin. So far as I am aware no observations have been made in the *post-mortem* room on the specific gravity of the tissues, but clearly there is room for work in this direction. More particularly is it necessary to know whether in cases in which there is marked œdema the muscles share in this œdema. In experimental cases there is no doubt of the fact, and in all probability it will be found that the muscles of the human subject in cases of dropsy are below the normal in specific gravity. The fact remains, however, that œdema is principally manifested in the skin and muscles; and yet the whole body must suffer from malnutrition in disease of the heart or kidneys. Moreover, one would be inclined to think that organs such as the brain and heart, which are particularly sensitive to any alterations in the quality or quantity of their blood supply, would feel the effects to the greatest extent. The brain can ill bear starvation, and hence, its demand being greater than that of the skin, one would think that the brain ought to become œdematous sooner and to a greater

extent than the skin, if œdema depend upon starvation and poisoning of the tissues. Voit's researches upon the proportionate losses in weight of the various organs in starvation offer an explanation, however, of this apparent paradox. It will be remembered that Voit's experiments show that those organs which are of the greatest importance to the economy are nourished in prolonged starvation at the expense of those organs which are of less importance. Thus, the brain and spinal cord lose only 3 per cent. of their weight while fat loses 96 per cent. Now, in the starvation which leads to œdema the same law no doubt holds good, and since the brain, for example, gets its full complement of food when the heart is failing or when there is renal disease, it follows that not only must the less important tissues, such as fat, skin, and muscle, get a diminished supply, dependent upon the cardiac or renal cause, but that that diminution must be further augmented by reason of the deficiencies which are being made up in the brain. The brain, therefore, does not suffer, but the skin, etc., suffer doubly. It is no cause for wonder, consequently, that œdema manifests itself principally in the skin.

It would be reasonable to expect that in renal disease the requirements of the brain should not be so fully met as in cardiac disease, on account of the greater degree to which poisoning enters into the question in renal disease. I speak with great reserve on this point, but I think the brain in renal disease is seen *post mortem* to be "watery," whereas such a condition is uncommon in other diseases. The question can be properly settled only by direct investigation.

The last point to which I wish to draw attention is that in 1889 Wooldridge gave reasons for believing that the œdema of cardiac disease depends upon poisoning by "tissue fibrinogen." He injected into the veins a solution made by extracting the tissues, and obtained œdema of the lower limb after ligaturing the femoral vein. Under normal conditions ligature of this vein does not cause any trace of œdema. It is obvious that what Wooldridge did in his experiment really was to increase the amount of metabolic waste products in the body, and to confine them to some degree in the lower limb by ligature of the vein. Under these conditions we have already seen that œdema occurs. Though the meaning of Wooldridge's experiment was unfortunately not seen during his lifetime, it was undoubtedly the first experiment which pointed to the importance of the storage of waste products in a part upon the occurrence of œdema in that part.

To sum up: 1. There are certain experiments which show that œdema does not depend upon purely mechanical causes even in the cardiac variety in which those causes have hitherto been deemed sufficient. 2. There is no evidence that the blood vessels are damaged in any other way than that which constitutes starvation. 3. Anæmia of the tissues, meaning thereby an insufficient supply of blood to carry out their proper nutrition, and the removal of waste products has been shown by experiment to lead to œdema. 4. Poisoning of the tissues by waste products is a more potent cause of œdema than pure anæmia. 5. Increase of volume of the circulating fluids in the body leads to an absorption of fluid from the blood by the tissues. 6. The processes occurring in œdema have their counterpart in the normal physiological state. 7. In both the pathological and the physiological conditions the tissues become œdematous, or tend to become so, as the case may be, through the medium of an active dilatation of the arterioles supplying the part. 8. The tissues of the body other than the affected part are drawn upon to supply the excessive amount of fluid which is being poured out in any particular region that is becoming œdematous.

Upon these facts I would base the view of œdema as being an excess of the normal process whereby the nutrition of the tissues and the removal of their waste products are carried out, this process being initiated by the tissues and not by the vascular system.

The next meeting of the German Dermatological Society will take place at Graz on September 23rd and two following days. Among the questions proposed for discussion are the following: The Pemphigus Question; and the Relation of Tertiary Syphilitic Manifestations to Treatment in the Early Stage.

NOTES ON FIFTY-EIGHT CASES OF HÆMORRHAGIC DIPHTHERIA.

BY

HAROLD AUSTEN, M.D., B.S.Lond. and HARRY COGILL, M.R.C.S., L.R.C.P.,
Assistant Medical Officers, Western Fever Hospital.

During the years 1893-94 there have come under our care at the Western Fever Hospital, Fulham, a large number of cases of diphtheria which presented the symptom of hæmorrhages into the skin and from the various mucous membranes.

This variety of the disease is but scantily described in the literature of diphtheria, though most writers on the subject have recognised its extreme malignancy. The occurrence of cutaneous hæmorrhages is of especial value as a prognostic sign in cases in which the issue is otherwise doubtful, and it is more particularly for the purpose of describing this symptom that we record the cases which have come under our notice.

From January 1st, 1893, to January 31st, 1895, 880 cases of diphtheria have been treated at this hospital. Of these cases 58, or 6.59 per cent., presented cutaneous hæmorrhages, all of which, with one doubtful exception, proved fatal.

Sex and Age.—These 58 cases comprised 27 males and 31 females, at the following age periods:

0 to 5 years	24	20 years	1
5 to 10 years	27	41 years	1
10 to 15 years	4	65 years	1

Local Symptoms.—These were all cases easily recognised clinically as diphtheria from the presence of false membrane in considerable quantity (except in 3, in which there was but little membrane present), and acquired early a severe local character. In the majority of cases the false membranes, together with the surrounding and subjacent mucous membrane, became the seat of hæmorrhages of greater or less extent, and soon underwent decomposition, in spite of energetic local treatment. All the cases presented membrane on the tonsils, uvula, and soft palate, while in addition 18 were laryngeal, 3 nasal,[1] 2 glossal, and 2 nasal and laryngeal. Although so large a proportion presented laryngeal symptoms, the obstruction caused was only sufficiently severe to call for operative interference in 3 cases.

Other Symptoms.—All the cases had marked cervical adenitis, in many of great severity; in only 1, however, did the inflammatory process lead to suppuration. Another symptom common to all was profuse rhinorrhœa, and albuminuria was present in every case in which examination could be made.

Hæmorrhages.

1. *Cutaneous.*—These presented two well-marked varieties, which, however, in a few instances assumed an intermediate type.

(*a*) *Ecchymoses* closely allied to ordinary traumatic bruises, varying in colour from a deep purple to a light green or brownish yellow. It was noticeable that the colour bore but little relation to the age of the ecchymoses, and gave a false impression of their duration to one not familiar with this characteristic. The shape was generally circular, with a tendency to oval elongation; the area from about 2 lines in diameter in the smallest to 1½ inch in the largest. They were in some cases palpably raised, and numbered from 2 to 20. In 23 cases they occurred on the face, in 36 on the extremities, being, as a rule, more marked on the extensor surfaces, but not uncommon in the flexures, and in 43 cases on the trunk, the lumbar and sacral regions being the most common site.

(*b*) *Purpuric Spots*, varying from minute petechiæ to hæmorrhages the size of a split pea. They were in some cases almost innumerable, in others not more than half a dozen were present. In 23 cases they were noted on the trunk, in 9 on the extremities, and in 1 case on the face. Unlike the ecchymoses, they showed a preference for the flexor surfaces.

These two varieties were not uncommonly combined in the same case, this occurring in 16, while in 25 cases ecchymoses alone occurred, and in 16 purpura. In 1 case the

[1] The term "nasal" is applied to those cases in which membrane was visible in the nasal passages.

character was not defined. The following table gives the day of disease on which the cutaneous hæmorrhages appeared, and the day of disease on which death occurred. In 10 of the cases the hæmorrhages were present on admission; of these 4 were admitted on the fourth day of disease, 1 each on the fifth, sixth, and seventh days, and 3 on the eighth. In 1 case no definite day of onset could be ascertained.

Day of Disease.	Onset of Hæmorrhage Cases.	Death Cases.	Day of Disease.	Onset of Hæmorrhage Cases.	Death Cases.
3rd	2	—	10th	1	6
4th	4	3	11th	2	2
5th	7	—	12th	1	4
6th	9	4	13th	—	2
7th	14	15	14th	—	2
8th	6	8	15th	—	2
On admission	10	—	doubtful	1	1
9th	1	8			

2. *Hæmorrhages from Mucous Membranes.*—Epistaxis, generally of a severe character, occurred in 18 cases. Hæmatemesis (excluding cases in which this symptom depended on swallowing blood from nose), 10 cases. Melæna was only noted in 2 cases, but it is probable that a few more escaped observation, Hæmaturia did not occur.

General Course of Disease.

Apart from the invariably fatal termination of these cases, they presented no absolutely distinctive characters other than those already noticed. They early manifested the toxic effects produced by the disease: extreme pallor, a quiet but very sleepless condition, without seeming discomfort. The temperature was but seldom raised much above normal, and almost invariably subnormal for the last few days of life. Vomiting was a marked symptom in nearly all, the power of the heart rapidly failed, and there was a tendency to anuria, apparently depending upon the last two conditions. Lung complications were infrequent. Of the three mild faucial cases mentioned above, two had laryngeal diphtheria. The third was the only case of the series which recovered; three ecchymoses were present on the extensor surfaces, and were possibly traumatic; the mother stated that the child had always bruised easily. This case was treated with diphtheria antitoxin, coming under treatment on the second day of disease.

Death as a rule occurred within 48 hours of the appearance of the hæmorrhages, 30 of the cases dying within twenty-four hours. In 2 cases, however, life was prolonged until the ninth and eleventh day after the appearance of this symptom. In all cases death was due to cardiac failure, sudden or gradual.

Post-mortem Appearances.

Examinations were made in the majority of cases, and in all (with one exception) internal hæmorrhages were present. They were most noticeable in the thoracic cavity, the serous surfaces being the usual seats. The hæmorrhages were frequent in the visceral layers of the pericardium and pleuræ. In the former the posterior and basal cardiac surfaces, and in the latter the anterior and posterior surfaces of the lower lobes of the lungs, were the usual situations. Extravasations of blood were invariably found in the loose tissues around the aorta, œsophagus, and trachea.

Endocardial hæmorrhage was present in one case. The cavities of the heart were frequently dilated, but the myocardium appeared normal.

In the alimentary canal hæmorrhages were found into the lower part of the œsophageal mucous membrane, and into that of the stomach, in the latter situation being sometimes so closely set and numerous as to entirely alter the aspect of the mucosa. In the intestines they were less frequent, being found in the duodenum in 3 cases, and in the Peyer's patches of the ileum in 2. In only 2 cases did they occur in the peritoneum.

The kidneys were rarely affected, but subcapsular extravasations occurred in 2 cases, and in 1 there were small hæmorrhages into the calices. The spleen and liver invariably appeared normal.

Hæmorrhages into the muscles were of frequent occurrence, and, when these had been superficial, were the cause of ecchymoses noted during life.

Bacteriological Examination.

Bacteriological examination of the fauces was made in the last 11 cases of the series, including the 3 mild faucial cases above referred to. In 5 almost pure cultures of the Klebs-Loeffler bacillus were obtained. In the remaining 6 large numbers of these bacilli were present, but associated with staphylo- and streptococci, the former more numerous. Diplococci were present in 1 case, single cocci in 2 cases, and short thick bacteria in 3.

Treatment.

The cases were treated on ordinary principles, and in addition in 12 (including the recovery) the antitoxin treatment was carried out. Six, however, of these cases were admitted either moribund, or so far affected by the toxic products of the disease as to preclude all hope of recovery. In 3 cases local and temporary constitutional improvement followed the injection of the serum; in these 3 the membrane had entirely cleared from the fauces before death.

Remarks.—Hæmorrhagic diphtheria presents analogies to hæmorrhagic varieties of the other specific fevers tending to rapidly fatal issue, profound changes in the blood being set up by the circulation of toxic products. In diphtheria, however, the disease being primarily local and general manifestations secondary, it is not surprising that the course is more prolonged. Degenerative changes in the blood vessels have been described by Oertel as occurring, and may determine the seat of hæmorrhage, traumata, too slight to cause extravasations under ordinary circumstances, being in some cases the exciting cause.

A CASE OF PITYRIASIS RUBRA TREATED BY THYROID TABLOIDS.

By WALTER SCATCHARD, M.R.C.S.Eng., etc.,
Boughton-sub-Blean, Kent.

W., aged 72 years, a woman of active disposition, possessing a good previous history, with the exception of being totally deaf and more or less dumb owing to an attack of scarlet fever when a child, and whose family history was free from rheumatism or gout, began in December, 1893, to suffer from redness and scaliness of the skin of legs and arms, accompanied by itching.

Her symptoms increased in severity, until on August 19th, 1894, she was persuaded to take medical advice. Her general health appeared normal in every way. She complained of no pain, but of intense itching, which had produced some irritability in her naturally amiable disposition. The skin on the legs and forearms presented large patches of redness, and thickening, over which were numerous large flat translucent scales, which became easily detached. There was no discharge. This condition increased in severity, and on October 5th, 1894, the skin over the whole of the body was more or less affected, with the exception of the cheeks; and wherever she went she left signs of her presence by a considerable sprinkling of scales. About this time her general health began to give way, and her appetite to fail, causing her to lose flesh and to become very much depressed. The treatment up to this time (October 5th) had consisted of local applications of eucalyptus ointment, lotio plumbi subacet. dil., oatmeal water, and ichthyol "Unnacloth," with the internal administration of the following drugs: iodide of potassium, salicylate of sodium, perchloride of mercury, and arsenic. The arsenic was pushed until she took ♏x of liquor arsenicalis *B.P.*, three times a day. None of the above drugs had the slightest effect in curing the patient.

On October 5th, 1894, I put her upon thyroid treatment, beginning with half of one of a 5 gr. thyroid tabloid (B., W., and Co.'s), to be taken daily after her dinner, and ordering her to lie down as much as possible (she refused to go to bed). Her pulse at this time was 114, small, and compressible. I increased the dose of thyroid by one tabloid every

two days, watching carefully her pulse and general condition, until, on October 13th, she was taking four tabloids daily.

The effect of this treatment was remarkable. On October 17th (that is, twelve days after commencing the thyroid treatment) she began to show decided signs of improvement, which improvement continued without a break until, on December 24th, 1894, the skin presented its normal appearance, with the exception of a slight tendency to a fine branny desquamation in some parts. On January 8th, 1895, even this had quite disappeared, leaving the skin quite normal in appearance. She ceased to take the tabloids on November 12th, 1894, but as there were slight signs of the pityriasis returning, on December 9th I ordered her to take one tabloid daily. Her skin now (January 12th, 1895) looks quite normal, with the exception of slight patches of eczema on the ankles, which under local treatment are improving. The thyroid treatment seemed to have no effect on the eczema, and the itching still continues, though it is much less severe.

Her general health suffered considerably under the thyroid treatment. She became much emaciated, depressed, anæmic, and short of breath (owing to heart failure), but these symptoms soon passed off upon ceasing the tabloids and giving strychnine and wine.

THYROID MEDICATION IN ICHTHYOSIS.

By ATHELSTANE NOBBS, M.B.,
Assistant Medical Officer, County Asylum, Morpeth.

THE case which is represented in the accompanying photographs is one of typical ichthyosis in a man who was admitted into the County Asylum, Morpeth, on August 24th, 1891, suffering from general paralysis. The history of the patient, a nomadic Irishman, aged 46, was unfortunately unobtainable, though he stated that he had suffered from this skin disease all his life. It is not my present purpose to do more than indicate the lines of treatment adopted for the cure or improvement of the ichthyotic affection, and to advert to certain results obtained from its use.

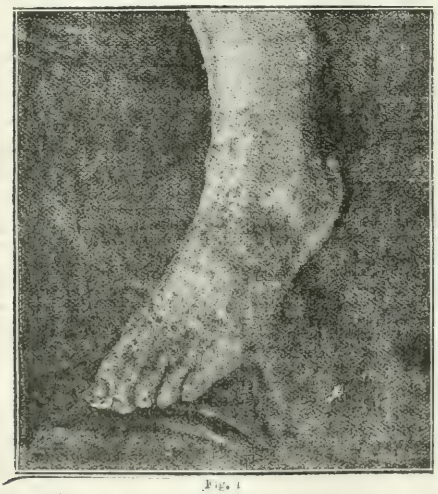


Fig. 1.

Towards the end of October, 1893, I commenced by giving the patient 10 minims, thrice daily, of extract of thyroid gland, the preparation of a local firm of manufacturing chemists. It was at this time that photograph No. 1 was taken, and it represents with great faithfulness the then appearance of the man's left foot.

The following brief notes, taken at the same time will serve as a general description of his condition: "Hair on scalp is iron grey, wiry, sparse, and dry, the skin showing through it. Scurf is readily shed. Face is pitted with old small-pox. The skin is universally very dry, even in the perineum and axillæ. Over the trunk it is desquamating in large flakes. On the elbows, wrists, knees, ankles, and on the dorsum of the metatarsal and metacarpal regions are numerous dingy, greenish squames, varying from the size of a lentil to almost that of a threepenny-piece. These are firmly adherent, and when forcibly detached leave a dry, white scaly base."

The patient being very ataxic and much palsied, he was treated in bed. The extract was administered for about seven weeks, but unfortunately through some misunderstanding was discontinued. Three weeks later it was resumed, and improvement, which at first had been barely appreciable, became marked. The strength of the extract used was 1 in 3, so that the patient was only receiving the equivalent of 10 grains of thyroid gland. This line of treatment was continued until the middle of March, 1894, when as an experiment tabloids of the gland in a dried state were substituted. The dose was likewise increased to the equivalent of 10 grains of the gland thrice daily, and was broken up among food. Exactly a month later a note was made to the effect that improvement was marked. Shortly thereafter Photograph No. 2 was taken, and the change for the better is evident.



Fig. 2.

On September 1st 1894, treatment was suspended. Except for a somewhat dry condition of the cuticle and a faint scaliness on the exposed surfaces of his joints cure might almost be said to have been effected. The skin of the hands, notably, was as soft as that of a child. The patient was now allowed up for increasing periods daily, but whether because of the cessation of the stimulating thyroid treatment or because the effort of being up after so long a rest in bed was too much for him he showed signals of distress, and ten days later went back to bed, the tabloids being resumed.

Apart from the marked benefit to the ichthyosis there can be no doubt that his general health while under this special treatment improved. His appetite became better, his facial expression brighter, and for a time at least his personal habits altered in the right direction, but his graver malady, the general paralysis, pursued its usual progressive course, though the deterioration was decidedly slow. Although the latter remarks may be very wide of the subject of a skin affection the facts to which I have alluded may possibly be not altogether devoid of interest.

At present the dosage is being gradually diminished as the possibility of impairment of the cardiac function consequent

on a too abrupt suspension of the treatment must not be overlooked. More heroic measures might have been adopted, but the feeble state of the patient had to be borne in mind and the quantities administered considered accordingly.

A CASE OF PSORIASIS OF MANY YEARS' STANDING TREATED WITH THYROID EXTRACT.

By HARRY R. PREECE, L.R.C.P.Edin., L.R.C.S.Edin., etc.,
Birkenhead.

Miss P., aged about 26, first consulted me about the beginning of March, 1894, complaining of a rash on the face and body, which was accompanied by intense itching. The eruption was of red erythematous character on the face, whilst at the junction of the forehead with the hair there were numbers of yellowish dry scales. On separating the hair the scalp was seen to be pretty well covered with them. On the back the eruption was scaly, the scales being more silvery and the eruption so thick that one could hardly see any natural skin over the whole surface. On the elbows and knees was the true scaly eruption of psoriasis.

The patient's family history is rather interesting, as bearing upon the disease. Her mother was troubled for a very long time with the same affection, whilst her sister has very intractable eczema of the face, for which she has been under my care for some time. She herself tells me that the eruption has been on her body ever since she can remember, but has never appeared on her face before. She has been under treatment, but has never experienced anything but the most temporary relief.

I placed her on iron and arsenic three times a day, with an ointment of boracic acid and vaseline to relieve the irritation, and prohibited meat diet. The face got much better, but the rash remained distinctly visible, the scales still being persistent at the root of the hair and on the body and legs. I then tried unguentum sulphuris co. (*B.P.*), but still the eruption remained, though not so bad as before.

On April 1st I ordered her to take thyroid extract tabloids (B., W., and Co.), four in the day. I saw her a week later, when there was a marked improvement. The scales were becoming detached from the body, the face was perfectly clear with the exception of a few scales at the root of the hair.

On April 14th I saw her again, and was much struck by the most wonderful improvement in her condition. There were hardly any scales in the hair, and the face was quite well. On examining the body the scales were falling off, leaving a reddish eruption underneath. The irritation was much less. I should remark that at this time I used in conjunction with the tabloids (of which she was now taking six in the day) an ointment of oxide of zinc, boracic acid, and oil of tar. The same evening I was called in to see her, and found her suffering from a severe headache with slight pyrexia, the temperature being 99° F. I stopped the tabloids for the time being, and ordered antipyrin grs. 10. The next day the headache was better and temperature normal, but she was giddy when rising. I did not recommence the tabloids until the next day, and then only ordered one a day. In a few days the number was increased to four, and I found that the patient in a short time in her enthusiasm increased the number of her own accord to six. Her condition continued to improve, the only unpleasant symptom being occasional attacks of intense headache. When these came on I invariably stopped the tabloids, much against the patient's wish, as she would rather put up with the headache than stand the risk of her affection gaining ground. In June I examined her body again and found it quite free from scales; the only place where these were present was behind each ear. I now sent her away for change of air, and she went to Leamington, taking her tabloids with her. On her return, in about a month, much to my dismay, I found her much worse. The eruption had returned on the face and head, whilst the irritation was unbearable. However, I determined to stick to the thyroid extract for a little longer before discarding it, but there did not seem to be much progress. I then began to suspect that there must be something wrong with the tabloids, so I wrote to Messrs. Burroughs, Wellcome, and Co., and they kindly sent me a supply. I used these, and was delighted to find that great improvement took place, the eruption disappeared, also the irritation, and from that time until now she has never gone back, and at the present moment she has not a trace of the disease upon her. I may mention that I received great help from the patient herself, as she faithfully carried out all my directions. I kept her entirely on a light diet, prohibiting butcher's meat, also ordering her to use Wright's liquor carbonis detergens in the washing water. I am hopeful that she is now cured and that the disease will not return.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE OF MYXŒDEMA TREATED WITH THYROID EXTRACT.

M. A., single, aged 45, first consulted me in August, 1894. She complained of swelling of the whole body, breathlessness on exertion, etc. She attributed her illness to exposure to cold and wet during menstruation about eleven years ago. Her condition had gradually become worse until the time of coming under my notice.

She presented a general œdematous appearance, especially well marked in the connective tissue around the eyes, also in the lips and hands. The face was pale and waxy, with a circumscribed malar blush. The lips were swollen and translucent. Her tongue was also swollen and appeared too large for her mouth, otherwise the alimentary system was normal. No trace of thyroid gland was to be felt. The first sound of the heart was faint but there was no murmur. The respiratory and urinary systems were normal. The skin was dry and harsh, the hair was very scanty. She had had complete amenorrhœa for about eleven years, while during the year previous to its entire cessation menstruation had been very irregular. Her speech was slow and thick and her memory was almost completely gone. Her movements were very slow and her gait uncertain and tottering. The diagnosis was myxœdema.

She was put on thyroid extract tabloids (B., W., and Co.) commencing with one half daily and gradually increasing to three a day.

From the first I noticed an improvement which has gradually increased until now the œdema has entirely disappeared. Her speech has lost its thickness, her memory has returned, and menstruation is now quite regular; in fact my patient says that "she feels as well to-day as ever she did in her life."

I consider this case worthy of publication owing to the prolonged amenorrhœa and the return of menstruation under treatment at so late a period in life.

Wallis, Shetland. Matthew Elder, M.B., C.M.Edin.

CINNAMON IN INFLUENZA.

In the British Medical Journal of March 16th you publish a letter from my friend Mr. C. G. Grant, on cinnamon in influenza. Acting on his theory I have tried the drug in some fifty cases of the disease, and have certainly found it far more useful than the ammoniated tincture of quinine. I give simply ʒj doses of the tincture three times a day. At least thirty of the above cases were benefited, and I generally found from the patients' statements that the pains in the head and back were relieved after three or four doses.

H. A. Stonham, M.R.C.S., D.P.H.,
Medical Officer Stepney Union, etc.

THROAT AFFECTIONS IN INFLUENZA.

In this neighbourhood we are in the middle of a rather severe epidemic of influenza. The symptoms have been aching of limbs with generally rather severe headache, mostly frontal, and this headache has, contrary to my experience in other epidemics, lasted some days after the fever

has abated, and has had a great tendency to recur as severe neuralgia if the patient exposes himself too early. I think I may say that nearly every case, whether mild or severe, has had an inflamed purplish-red œdematous appearance of the uvula and surrounding parts, with a very troublesome dry cough, and, as we should expect, more troublesome on lying down, and the patients generally express surprise when told this cough arises mainly from the throat, as they very seldom complain of or say that they feel any pain there when asked. Backache is not a very constant symptom and a rash is the exception.

F. W. Jollye, M.R.C.S., L.R.C.P., D.P.H.,
Medical Officer of Health to the Alresford Rural Sanitary Authority.

EFFECT OF UNILATERAL ATROPHY OF THE TESTICLE ON THE SIZE OF THE PROSTATE.

I have recently had the opportunity of examining a prostate associated with atrophy of one testicle in a patient, aged 49, who was the subject of chronic brain disease. It had been thought for at least five years that the left testicle was absent from the scrotum; how much longer could not be ascertained. The bladder, prostate, right testicle, cords, etc., and a very rudimentary left testicle, which was lodged in the upper part of the left side of the scrotum, were removed entire. The right lobe of the prostate was found to be only slightly larger than the left: to touch, both had equal consistence. Situated immediately posterior to the vesical opening of the urethra was a small elevation of the mucous membrane, as if a small pea were beneath it. Except the slight difference of $\frac{1}{8}$ inch in the width of the lobes no difference could be detected between them. The prostate measured $1\frac{3}{4}$ inch from side to side and $1\frac{1}{8}$ from before back. The specimen is in the museum of Middlesex Hospital.

Aslett Baldwin, M.R.C.S.Eng., L.R.C.P.Lond.
Middlesex Hospital, W.

SULPHONAL POISONING: RECOVERY.

W. G., aged 14, weighing 23 kilogrammes, took from 5 to 6 grammes of sulphonal in the form of tabloids, which he mistook for harmless lozenges. Two hours later his stomach was artificially emptied. He was then very drowsy, and shortly afterwards fell into a deep sleep, from which, however, he could be partially roused. He remained in a semi-comatose state for twenty-four hours. When he had so far recovered as to be able to answer questions he complained of headache, lassitude, extreme giddiness, and sleepiness. Two days passed before he could stand. When he attempted to walk he staggered and fell. His attitude and look bore a striking resemblance to the effects of alcoholic intoxication. Giddiness, somnolence, and muscular inco-ordination continued for a week after taking the tabloids. The last sign to disappear was inability to walk in the dark. His urine was increased in quantity, and was of low specific gravity (1002 to 1012). It contained at no time hæmatoporphyrin, albumen, or formed elements. The red corpuscles of his blood were found to form rouleaux, as in health. There was no disposition for the corpuscles to remain separate, as E. Schäfer has observed in instances of chronic poisoning with this hypnotic. Constipation was the only disorder noticed in his digestive system. The temperature and pulse remained unaffected.

C. Birt,
Bombay. Surgeon-Captain Army Medical Staff.

SCARLET RASH AFTER ENEMATA.

I have frequently observed a scarlet rash following the use of soap and water enemata, such as described by Mr. G. E. Hale in the British Medical Journal of March 2nd: indeed, at the present time I have a case under my care. Notwithstanding Dr. Suckling's view, I cannot help thinking the cause is due to the irritating effect of the particular soap used in the enemata rather than to the absorption of liquefied fæcal matter. If Dr. Suckling's view be correct, why is it that the rash does not show itself before the enema is used, for surely there is in many cases a certain amount of the more liquefied part of fæcal matter being absorbed?

Bournemouth. A. Kinsey-Morgan, M.D., etc.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL EDINBURGH ASYLUM, MORNINGSIDE.

A CASE OF CHRONIC INSANITY WHICH RECOVERED UNDER THYROID TREATMENT.

(By Charles C. Easterbrook, M.A., M.B., Assistant-Physician.)

The following is a case of undoubted cure by the use of the thyroid gland, which has recently been applied to the treatment of insanity by my colleague, Dr. Bruce:

G. S. R., a single woman, aged 24, a bookfolder, was admitted into the Royal Edinburgh Asylum on June 7th, 1892, suffering from puerperal mania.

Family History.—There was merely a neurotic heredity, evidenced by the fact that the patient's brother, father, and paternal grandmother (who was also asthmatic) were all subject to severe migrainous headaches; otherwise the family was a healthy one.

Personal History.—The patient, who had pertussis and measles with bronchitis in early childhood, also became the subject of migrainous headaches, which increased in severity as she grew up. Puberty came on at 13, and she developed into a healthy good-looking girl, of a cheery but simple disposition. During her adolescence, however, she lacked stability, and was inclined to be vain, extravagant in dress, and over-religious. At 19 she had a "hysterical attack due to a fright." She then became idle, got into bad company, and at 21 had an illegitimate child, after which she suffered from an attack of puerperal mania, from which she recovered somewhat suddenly after being for thirteen months under treatment in the Royal Edinburgh Asylum.

Present Illness.—Two years later she unfortunately became a second time pregnant, and, after the birth of the second illegitimate child, she again had puerperal mania, for which she was admitted on June 7th, 1892, into the asylum. She was in a condition of mania with grandiose delusions, her looks, utterances, and actions being those of a lady of great importance. She remained thus for fully half a year and then settled into a state of secondary stupor. She was in this condition a year after her illness began, and, instead of awakening from it, she during the next year and a half slowly developed the symptoms of secondary dementia. Recovery seemed practically hopeless, fully two years and a-half having elapsed since the onset of her illness. It was decided to put her through a course of thyroid treatment. This was begun on December 12th, 1894, her bodily health being good and her weight 90 lbs. She received twelve thyroid tabloids (60 grains) a day for seven days. A moderate febrile reaction ensued. She was out of bed on the fourteenth day (December 26th, 1894), when it was found that she had lost 6 lbs. in weight (84 lbs.). A complete mental change had now set in; in her own words, she said: "I feel as if I had come out of a long dream." She looked bright and cheery, smiled pleasantly, and began to work. A few days later she was dancing joyously at the New Year Ball, and singing merrily at her work. The mental improvement has continued, and her father states that she is as well in mind now as she ever was. What, perhaps, is quite as remarkable is that during the following eight weeks she gained 40 lbs. (nearly 3 stone) in weight, her weight on February 28th, 1895, being 124 lbs. At the date of writing (March 9th) her weight is 130 lbs. Amongst several of our insane patients who have been greatly benefited by the thyroid treatment this is certainly as yet the most striking case.

Dr. Carl Seiler has resigned the post of Clinical Professor of Laryngology in the University of Pennsylvania on the ground of impaired health.

An Austrian Otological Society has just been founded in Vienna. The President is Professor Joseph Gruber, the Vice-President Professor A. Politzer, the Treasurer Professor V. Urbantschitch.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

Tuesday, March 26th, 1895.

NERVOUS SYMPTOMS AND MORBID CHANGES IN THE SPINAL CORD IN CERTAIN CASES OF PROFOUND ANÆMIA.

DR. JAMES TAYLOR read this paper. Lichtheim's observations in 1887 were referred to as the earliest recognition of the association of nervous symptoms and spinal cord changes with pernicious anæmia. The subsequent very exhaustive examination of that observer's cases, and of others by his pupil Minnich, was next mentioned. These observations showed that in certain cases of pernicious anæmia symptoms of sclerosis in different areas of the cord were present. The actual degeneration found in the cords, chiefly marked in the posterior columns, was described, and also the conditions found in cords of patients the subjects of pernicious anæmia, but in whom during life no symptoms of cord disease were present. The subsequent confirmatory observations of Van Noorden, Eisenlohr, Nonne, and Bowman were briefly noticed. Allusion was next made to a series of cases published by Dr. Putnam, of Boston, of diffuse degeneration in the spinal cord in enfeebled persons past middle life, to a case observed by Sir T. Grainger Stewart, ascribed by him to the same class as Dr. Putnam's, and to a case of hyaline degeneration of the cord published by Dr. Bulloch. All these cases the author, from a study of the clinical symptoms and of the distribution of degeneration in the cord, believed to belong to the same class as Lichtheim's cases. He next described two cases observed by himself—the first that of a woman aged 50, admitted to hospital with symptoms of ataxy and in a condition of considerable anæmia. She gradually became weaker, developed excessive spasticity of the limbs, lost control of sphincters, and died of exhaustion. The cord showed marked degeneration in all areas of the white matter, and little or no change in the grey. The second case was that of a man aged 43, admitted with symptoms closely simulating those of locomotor ataxy. He became gradually weaker, retinal and subcutaneous hæmorrhages were present, and he died of exhaustion. Similar extensive degeneration was found in the white matter of the cord, the cells in the grey matter being unaltered. The association of extreme anæmia and spinal cord changes was, in the opinion of the author, no mere accidental one. The cord changes he looked upon as of double origin: (1) Sclerosis resulting from small hæmorrhages similar to those occurring in the retina in the same disease; (2) sclerosis the result of a blood state; and he instances as analogous the posterior sclerosis found by Williamson in cases of diabetes, and the sclerosis present in the cord in cases of pellagra.

A lantern demonstration of the scleroses present in the cord in cases described by the author, Leyden, Lichtheim, Putnam, and Bowman followed the reading of the paper.

DR. JOHN HARLEY discussed the question whether the fatal anæmia had any direct relation to the changes in the cord. In some of the cases described or quoted in the author's paper the anæmia developed after the nervous symptoms, and so appeared to be a sequel of the cord changes. In five cases of well-marked pernicious anæmia he had not noticed any changes in the cord, and therefore was inclined to regard their association as accidental.

DR. GOWERS spoke in the highest terms of the excellent paper, and thought this occasion a very opportune one for this discussion, since the mechanism of the nervous lesions in profound anæmia was probably akin to that of the nervous changes in the early stages of syphilis, so recently discussed at this Society. In typical cases of the lesion met with in profound anæmia the resemblance to post-syphilitic scleroses of the cord might be very striking. In tabes and in profound anæmia there was the same strict localisation of the changes to the fibres under the trophic influence of the cells in the ganglion on the posterior root. This distribution was also met with in other toxic conditions, such as lead and arsenic poisoning, and even in diphtheria. The fibres of the pyramidal tracts were specially susceptible to other poisonous bodies, which set up degeneration in the lower nerve endings of the pyramidal fibres, and thus led to lateral sclerosis. He thought a toxic body must be present in the blood in pernicious anæmia, and that it produced the described changes in the nerve elements.

DR. W. HUNTER considered the paper of great interest both to neurologists and to students of pernicious anæmia, since it suggested that toxic agents might give rise to systemic degenerations of the cord, and drew attention to the presence of a fresh lesion in pernicious anæmia. He had worked for many years at pernicious anæmia, and seven years ago[1] had come to the conclusion that this disease was a specific infection due to the absorption of poisons from the portal area. On *a priori* grounds, and from a consideration of Dr. Taylor's cases, he would not have concluded that the relation between anæmia and the nervous changes was a close one. He had had a case of pernicious anæmia under his care in which the disease began four years ago, and ran so rapid a course that in four months the patient was confined to bed, being delirious, collapsed, and universally œdematous; characteristic blood changes were present, and in addition numbness and tingling of limbs, loss of knee-jerks, atrophy of the extensors and deltoids, and marked pigmentation of the skin. Under arsenic and perchloride of mercury the patient had recovered and remained well for three years, but had lately relapsed. Observation of this case and the rarity of cord changes in pernicious anæmia suggested that the sclerosis was due, not to the toxic condition of the blood, which was always present, but to some exceptional event, such as small hæmorrhages into the cord.

DR. BUZZARD said that in connection with the question whether profound anæmia caused the nerve changes, it was important to remember that in ordinary chlorosis functional spinal symptoms developed, and passed away when the anæmia was cured. He had published cases of chlorotic young women in whom the knee-jerk was absent during the course of that disease. He referred to a case of chlorosis with symptoms strongly suggesting organic paraplegia, and to another closely simulating cerebral tumour, in both of which the cure of anæmia brought with it perfect recovery from the nervous symptoms. There was no doubt that in anæmia very marked symptoms might be present without any organic change in the cord.

DR. MOTT had examined a case of advanced pernicious anæmia in Charing Cross Hospital, in which during life the knee-jerks were exaggerated. The pyramidal cells in the motor area of the cerebral cortex showed marked fatty degeneration. The pyramidal tracts in the cord were normal, but he thought it highly probable that had the man lived longer the degeneration would have spread to the processes of the pyramidal cells, and so have given rise to a descending degeneration in the pyramidal tracts. In Dr. Taylor's cases the degeneration was best marked in the nerve fibres, such as those in Goll's columns, which were furthest removed from their trophic cells, and so were more likely to be damaged by toxins. He expected that the peripheral nerves in Dr. Taylor's cases would have shown degeneration changes, since the trophic cells in the posterior root ganglia gave off a T-shaped process, from which ran centripetal and centrifugal fibres. Marie had thus explained the central and peripheral changes in tabes.

DR. BOWMAN thought it important to examine all cases of pernicious anæmia both clinically and pathologically for nervous changes. Out of 5 cases in which no nervous phenomena were present during life he had made necropsies in 3, and had found the cord normal in all, but he had not examined the brain.

DR. ORMEROD considered the most important point brought out was in connection with the etiology of spinal sclerosis. Neither pernicious anæmia nor morbid changes in the cord were sufficiently common to warrant the conclusion that their association was accidental. Random hæmorrhages could hardly account for the systemic degeneration found, and he thought the causal factor was of a toxic nature. He criticised the author's deduction that, because the lesions found in Dr. Putnam's cases of "enfeebled persons past middle life, especially women," were the same as those occurring in profound anæmia, those two conditions were

[1] *Lancet*, September and October, 1888.

the same. They should not be classed together unless anæmia was constantly present in Dr. Putnam's cases. He pointed out that the large doses of arsenic commonly given to patients with pernicious anæmia might by inducing peripheral neuritis simulate the symptoms of sclerosis of the cord. This fallacy applied only to clinical, not to pathological observations.

Dr. Taylor, in reply, said that the frequency with which profound anæmia and sclerosis occurred together negatived the suggestion that it was merely a coincidence. The close resemblance of the distribution of the sclerosis in Dr. Putnam's cases and in his own was a strong argument for grouping the cases together. The remarkable symmetry of the lesions in the cord was against the view that hæmorrhages were entirely responsible for the nervous changes, but he thought that hæmorrhages certainly played a part as a causal factor. He had not examined the cerebral cortex in his cases.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., Vice-President, in the Chair

Friday, March 22nd, 1895.

Clinical Evening.

Sequel of Nephrectomy in an Infant.

Mr. Malcolm showed a child, aged 4½, on whom he had performed nephrectomy for adenoma two years and four months ago. The case was before the Society in January, 1894. Abbe, of New York, had published two similar cases, one in the *Annals of Surgery* a month before Mr. Malcolm's. Abbe's patients were still living, one having now survived three years, the other two years and four months. Mr. Targett had reported that the structure of the growth in the case exhibited was essentially tubular. The first of Abbe's cases contained tubules with sarcomatous tissue; the second muscle cells in sarcomatous tissue. He attributed the success in his own case to his free removal of the growth.

Mr. Howard Marsh said that the removal of renal tumours in infants was usually regarded as a forlorn hope, and suggested that possibly these successful cases belonged to a different group. He hoped that good illustrations of the microscopical appearances of the growth would be published.

Mr. Alban Doran said the moral of this case was that large malignant adenomata of the kidney in children ought always to be removed.

Meningocele in the Region of the Lateral Fontanelle —Probably Traumatic.

Mr. H. Betham Robinson related the case of a child, aged 7 months, who had first come under his care in December, 1894, with a swelling on the right side of the head, over the posterior part of the parietal bone. The child was the first-born of a healthy-looking mother, and was born after some difficulty. The presentation was cranial and instruments were used. The head appeared to be bruised all over, but most of this swelling went away within the month, leaving the tumour under consideration. The mother said the swelling seemed then about the same size as it was on the first visit to the hospital—about 4½ inches by 4½ inches (December 4th)—, and from the time she first noticed it she thought that it "throbbed." On examination the swelling was round and soft, with the skin quite free over it. It was placed over, or a little anterior to, the right lateral fontanelle. On deep pressure there could be made out some deficiency in the skull, the edge being very irregular and everted, especially anteriorly; the deficiency seemed to be chiefly in the posterior part of the parietal bone. The skull as a whole was asymmetrical. There was very marked impulse and increased tension on coughing or straining. On pressure when the swelling was lax no definite external pulsation could be made out. Pressure on the swelling did not affect the child at all. No history of fits. The tumour had not been tapped. The diagnosis of traumatic meningocele was entertained because of its situation, which was a very rare position for the congenital forms, and from the history of the difficult labour and use of forceps. Such a cause for the traumatic form seemed not previously to have been described.

Mr. Morgan observed that the occipital bone seemed to have yielded, producing the swelling; but whether this was the result of injury during delivery or of defective development seemed uncertain. It was probably not an encephalocele, or its increase in size would have been more marked.

Mr. Gould thought it was probably traumatic, as a tumour in that situation from any other cause was very rare.

Mr. Marsh suggested that it might be hæmatocele.

Mr. Robinson, in reply, said that he proposed to tap the swelling shortly, when the diagnosis would be settled.

Cases Illustrating Local Treatment by Oxygen.

Mr. G. Stoker showed three cases illustrating the treatment of wounds by immersion in oxygen gas. The first case was that of an old woman who had for several years suffered from an intractable ulcer of the leg, involving almost its entire circumference. She had been under treatment as in-and as out-patient for years without benefit. Under treatment by oxygen baths cicatrisation had rapidly set in. The second case was that of a man, who came with extensive and intractable ulceration of the hand following a poisoned wound. The wound had now completely healed. The tissue was not cicatricial, but resembled the neighbouring skin. The third case was that of a girl who had lost all her hair, or nearly so, in consequence of alopecia areata. She was fitted with a rubber cap, into which oxygen was pumped, and she was already getting quite a respectable head of hair.

Syringomyelia with Perforating Ulcer.

Mr. Morgan and Dr. Mott showed a man, aged 24, who was well until 16 years of age. Then after a chill he developed perforating ulcer of the left foot, for which the leg was subsequently amputated. Eighteen months ago another ulcer formed on the right foot. The foot was in the position of talipes equino-varus, with pes cavus. There had been no crises.

Dr. Mott added that there was wasting of muscles of the hands and arms, and that the muscles did not react to even the strongest faradic current, although they reacted to galvanism. Below the knee no sensation of any kind existed, but in other parts of the body there was the dissociation of sensation characteristic of syringomyelia. The disturbance of sensation with the wasting of muscles and existence of perforating ulcers established the diagnosis.

Pseudo-bulbar Paralysis.

Dr. Mott showed an elderly man who, twenty years ago, had fits followed by right hemiplegia. The reflexes were increased, but there was no wasting of muscles. Since he had been under observation the bulbar symptoms had improved. On examining the larynx it was seen that on inspiration the two sides of the epiglottis fell together. Articulation was very imperfect, and on one occasion he had been fined for being drunk. The symptoms might possibly be due to sclerosis of the pyramidal tracts, which interfered with the nutrition of the glosso-pharyngeal centres.

Dr. James Taylor had some time ago a somewhat similar case which Dr. Hughlings Jackson considered to be one of pseudo-glosso-pharyngeal paralysis; in other words, a case of double cerebral lesions simulating disease of the bulb, although other physicians diagnosed it as an ordinary case of glosso-pharyngeal paralysis. Hæmorrhage caused the patient's death, and unfortunately rendered it impossible to ascertain the exact condition of the brain; but there was descending degeneration of equal extent on both sides, and the cells of the hypoglossal nucleus were normal. The author's case resembled that one. The patient's voice was very peculiar; he only remembered to have heard that intonation in one other case.

Facio-Humeral Type of Myopathy.

Dr. Beevor showed a patient, aged 27, who began to feel weak in his legs when 15. At 22 he could not walk without help. There was considerable wasting of muscles of the trunk and some lateral curvature of the spine, with pronounced lordosis.

Fracture-Dislocation of the Spine after Operation.

Mr. Ballance showed a railway guard, aged 48, who fell

from a train in rapid motion in November, 1893. He was unable to get up after the accident, and he developed cystitis, with incontinence of urine and fæces. When admitted to hospital he was quite unable to stand or sit, owing to loss of power in the lower limbs. Below the knees the muscles were paralysed and wasted, and the gluteal muscles were also wasted. Tactile anæsthesia was nowhere absolute, but there were well-defined areas of dissociation of sensation to heat, pain, and cold. The twelfth dorsal vertebra projected very markedly. On June 12th, 1894, seven months after the injury, Mr. Ballance made a 7-inch incision with its centre immediately over the projecting vertebra, and removed the laminæ and spinous processes of the tenth, eleventh, and twelfth dorsal, and the first two lumbar vertebræ. He did not open the theca. Two months later the patient had regained perfect movement of the hips and knees, sensation was much improved, and the sphincters were under control. The patient was actually in the condition of a man who had undergone double amputation of the legs below the knees, and it was quite open to question whether or not he would be better off without the two wasted pegs which were all that remained of the limbs below that level. He could only walk with crutches. Mr. Ballance recalled a case in which a patient, a footman, had both feet removed under similar circumstances.

Local Asphyxia of one Hand.

Dr. J. B. Parkinson showed a girl, aged 19, who suffered from occasional attacks of enlargement and discoloration of one hand, lasting from some hours to several days, specially provoked by cold. The hand became cold and lost sensation. The nerves on the ulnar side appeared to be less sensitive, and pressure on that ulnar nerve did not give rise to any sensation in the hand as on the other side. She had suffered from amenorrhœa of five months' duration.

New Form of Aspiration Instrument.

Dr. G. C. Garratt exhibited this instrument, designed by himself, which is airtight and has no intervening tap. A rubber tube connects the cannula with a syringe for exploration, or drain tube fitted with water for drainage, or a Potain's bottle for aspiration. A special syringe is supplied for exploring, which can be entirely taken to pieces and boiled, and the thickness of the plunger is adjustable to ensure fit. It will do for antitoxin injection if attached to a needle instead of to the cannula.

Syphilitic Cranial Necrosis Treated by Trephining.

Mr. Page showed a patient, aged 41, who was admitted suffering from fits which had gradually become more and more frequent, indeed he was almost unconscious, being roused only with difficulty. There was a history of syphilis and long continued pain in the head. No optic neuritis. The scalp was pulpy and the symptoms appeared to point to wide-spread pressure on the brain rather than any definite cerebral tumour. He trephined over the Rolandic area and at once came across some inflammatory material between the scalp and the bone. Having removed the piece of bone he found much broken-down gummatous matter between the bone and the dura mater, of which he removed as much as he could. As the dura mater itself appeared healthy he did not open it. Since then the patient had been free from fits and had had no return of the pain. In 1890 he had had a very similar case in which spontaneous relief was afforded to the pressure by erosion of the bone, but the patient died after a time from pyæmia.

Mycosis Fungoides.

Dr. F. de Havilland Hall showed a man, aged 52, suffering from mycosis fungoides. He first complained of pains in the arms and legs, to relieve which he rubbed in acetic acid. Between two and three years ago the skin where he had applied the acid began to be affected, especially on the outer side of each arm. The rash spread to the thighs, and in September, 1894, a swelling the size of a goose's egg appeared on the right hip and next on the right elbow. The tumours lasted from six to nine months, some of them breaking down and discharging, others disappearing without going on to that stage. In June, 1893, tumours made their appearance on the feet, head, and face. Since October he had complained of sore throat, and tumours of the same nature could be seen in the pharynx and on the arytenoid cartilages.

MEDICAL SOCIETY OF LONDON.

Sir William Dalby, M.B., F.R.C.S., President, in the Chair.

Monday, March 25th, 1895.

Extrauterine Pregnancy.

Mr. J. Bland Sutton read notes of two cases, one of tubal gestation, and another in which that condition was simulated. He said that sometimes the signs of abortion or rupture of a gravid tube were so clear that they could not well be mistaken, while in others the signs were very obscure. The gravest sources of error in those cases were abdominal conditions which simulated rupture of a pregnant tube. He had seen lesions of every organ in the female abdomen, except the adrenal, misinterpreted for rupture or abortion of a pregnant Fallopian tube. The first case was that of a woman, aged 35, who felt something give way in the belly. Her last child was 5 years old, since the birth of which she had menstruated regularly until January, the last period being represented only by the escape of a few drops of blood nine days before the attack. He found the patient in intense collapse, and there was pain in the left iliac fossa. The belly, though somewhat distended, was dull to percussion over a small area in the left flank. The uterus was slightly enlarged, the os patulous, and the cervix soft. There was some fulness to the left of the cervix. The breasts afforded no evidence of pregnancy. He concluded that it was a case of rupture of a very early gravid tube. He opened the abdomen and found a pyriform swelling near the uterine end of the left tube, which he ligatured and removed, along with a large quantity of blood and clot. On the fourth day she felt pains in the pelvis, and after a mimic labour she discharged the decidua in shreds. Convalescence was complete in four weeks. The parts removed were hardened, but he failed to find either embryo or mole, but the next day he alighted upon a rounded body in the gestation sac no larger than a pea, which he at once recognised as a mole, in which he was subsequently enabled to demonstrate on microscopical section many chorionic villi. This was the smallest tubal mole he had ever seen, its diameter measuring only 8 mm. Sections from other parts of the tube showed a normal lumen, but the epithelium was detached from the summits of the tubal plicæ. The abdominal ostium of the tube was unchanged. The ovary contained a large true corpus luteum. The specimen showed that when an impregnated ovum lodged in the uterine half of the tube it was less likely to lead to occlusion of the abdominal ostium than if it were retained in the ovarian half of the tube. It also illustrated the fact that primary rupture of gestation sac near the uterine end was nearly always intraperitoneal. Within twelve hours after dealing with the foregoing case he was called to another, suspected to be one of tubal pregnancy. The patient was 35 years of age, and had been married seven months. On January 8th she was seized with pain in the left iliac fossa, with metrorrhagia. She had missed two periods, and believed herself to be about three months pregnant, the condition of the breasts supporting this view. The lower part of the abdomen was occupied by a smooth hard rounded swelling dull to percussion. *Per vaginam* the cervix could be felt just within the vulva and displaced backwards; the os was patulous, the cervix soft, and some offensive blood escaped. The fundus of the uterus could not be felt above the pelvic brim, and the right half of the abdomen was resonant. It was clear that the patient was pregnant, but it was impossible to make out whether the embryo occupied the uterus or the broad ligament. He seriously entertained the possibility of the swelling being due to the presence of a tumour, probably ovarian, complicating pregnancy. The displacement of the uterus prevented the introduction of the sound for more than an inch. The next morning, in consultation with Dr. Champneys, it was found that the patient had discharged a three months' fœtus along with the placenta, and it became clear that they had to do with uterine pregnancy complicated either with an ovarian tumour or a myoma of the uterus. They decided

to let the puerperal month pass without interfering, but a few days later symptoms occurred indicating grave trouble in the abdomen. The temperature fell suddenly to 96°, then rose to 103° F.; the tumour became tender to the touch, and the patient's condition was extremely grave. On January 18th—nine days after the miscarriage—Mr. Sutton performed abdominal section and found a pedunculated myoma growing from the fundus of the uterus as large as a big cocoanut, and recently adherent to intestines and omentum. The pedicle was clamped and the growth removed. The stump quickly sloughed, and the clamp came away in twelve days. The patient made an uninterrupted recovery. The tumour was a soft myoma, which had become inflamed, softened, and inflammatory, and necrotic tracts were seen on section. The first case, he observed, showed the necessity of decision, the other of deliberation.

Mr. Bidwell read a paper on a case in which he had operated at the tenth month of pregnancy. The fœtus had been dead for some time, and was probably about 7½ months old. The transverse colon and part of the ileum were adherent to the sac; the former was easily separated, but on attempting to free the ileum the muscular coat peeled off, and a rent occurred in the mucous membrane. All the part which had been adherent to the sac, about 5 inches in length, was therefore resected, and the ends united by Maunsell's method. The patient made an excellent recovery. Although a slight fæcal fistula appeared on the tenth day, and continued to discharge for five days, it was now soundly healed. Mr. Bidwell attributed the success of the anastomosis to the fact that he had excised all the damaged gut, and had inserted his sutures into healthy tissues. He did not think that abdominal cases required isolation or special nurses, and if there was no vomiting he treated them as regards diet in the same way as any other serious surgical case.

Mr. Alban Doran commented on the free hæmorrhage to which even a small gestation sac sometimes gave rise on incision. In one case this seemed to be due to an artery comprised in an adhesion of the sac with the mesentery of the vermiform appendix. Cases of tubal pregnancy seemed to be much more frequent now than formerly, judging from the rarity with which this cause was assigned in hospital records of times past. He alluded to the fact that decidua formed beneath the epithelium of the uterus, the epithelium being shed on the arrival of the impregnated ovum. This growth sometimes involved the parenchyma of the tubes themselves. He pointed out that the inflammatory changes associated with tubal pregnancy were consequent on the gestation, the ostium remaining patent, while in the other forms of tubal inflammation the ostium was early occluded.

Mr. Harrison Cripps pointed out that the question of operating must depend upon the direction of the hæmorrhage, whether into the peritoneum—in which unless checked by the surgeon it must almost of necessity prove fatal—or into the broad ligament, where spontaneous arrest usually took place, rendering operative interference unnecessary. There was a third class of cases in which the hæmorrhage was limited to Douglas's pouch by adhesion of the omentum. This was probably caused by previous trivial effusions of blood having set up inflammation. He hesitated to say what was the best treatment in this class of cases. He referred to a case in which a hæmorrhage of this kind, apparently limited to Douglas's pouch, went on well for a few days, when a fresh hæmorrhage rendered it necessary to operate. He discussed the advisability of attempting to break down firm adhesions to the gut at the risk of having to perform resection of intestine. He himself had left portions of the sac wall *in situ* without any untoward results.

Dr. Herman said that cases of direct severe hæmorrhage into the peritoneal cavity were rare, small hæmorrhages having almost always taken place previously. In all the cases he had seen or heard of, the abdomen had been found to contain clots of different dates, which proved that there had been more than one hæmorrhage. On the whole, when there was reason to suspect that there had been previous repeated hæmorrhages, it was better to operate at once without waiting for a more severe hæmorrhage. In hæmorrhage into the broad ligament the connective tissue leading to the sacrum was infiltrated, forming a ring which could be felt encircling the rectum.

Mr. Clutton referred to the case of a lady, aged 40, who had had no child for twelve years, who was suddenly seized with vomiting and faintness. She had menstruated regularly, and had a large firm uterine fibroid. She had passed no flatus or fæces for some hours, but when he opened the abdomen he discovered that it was a case of ruptured tubal gestation. Such a case was obviously extremely difficult to diagnose.

Dr. Lewers related the case of a lady on whom he had operated for right tubal gestation. A year later she returned with similar symptoms, and as there was a distinct swelling on the left side and another in the middle line, the latter evidently an enlarged uterus, he took it to be a case of second tubal gestation on the opposite side, and prepared to operate. Before the operation was performed she discharged a blighted fœtus, but as the left swelling remained unaltered he operated and removed a cystic ovary, which must have attained its present size since the previous operation, seeing that no enlargement was noted on that occasion.

Mr. Bland Sutton, in reply, did not think that there was really any increase in the frequency of tubal gestation, the apparent increase being due mainly to the fact that these cases were now recognised, whereas formerly they escaped recognition. The class of cases mentioned by Mr. Cripps was well known. Some effusion of blood took place into Douglas's pouch, floating up the intestines, which, in consequence of the reactive inflammation, contracted adhesions and shut off the cavity. Then subsequent hæmorrhages dilated the cavity, until the patient sought advice. These were the cases that obstetric physicians had all along described as "intra-peritoneal hæmatocele."

Mr. Bidwell, in reply, said he preferred anastomosis to leaving a septic focus in the abdomen in the shape of a portion of the sac wall. He supposed the fæces had escaped along the track of the sutures in Maunsell's method.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

E. Malins, M.D., in the Chair.

Friday, February 22nd, 1895.

Specimens.

Dr. Carter showed a specimen of Melanotic Sarcoma of the Pleura.—Dr. Foxwell showed (1) a Multilobular Cirrhotic Liver weighing 5¾ lbs., taken from the body of a chronic drinker; (2) the Stomach of a man, aged 74, which had a Perforation the size of a Threepenny-bit on the Posterior Surface of the Smaller Curvature near the Pylorus. There was no evidence of recent ulceration, the walls of the ulcer being very smooth and fibrous, and greatly thickened; the floor had evidently been formed by the peritoneum alone. Death occurred within forty-eight hours. There was general purulent peritonitis.—Dr. Douglas Stanley showed a specimen of an Aneurysm of the Right Posterior Aortic Cusp, the Size of a Large Pea. It bulged downwards and towards the lumen of the vessel.—Mr. Albert Lucas showed a specimen of a Cured Aneurysm of the Common Femoral Artery. The patient was a feeble old man, aged 58, who died of bronchitis and heart failure 101 days after ligature of the external iliac artery. Ballance and Edmunds's "stay knot" was used, and the material being stout catgut, no trace of the ligature could be found, the artery about the seat of ligation being converted into a firm fibrous cord. The aneurysmal sac was filled with a firm laminated clot.—Dr. Kauffmann showed a specimen of Cancer of the Ovary, secondary to cancer of the rectum, which had also caused secondary deposits in the liver. The patient was an elderly woman whose uterus was the seat of multiple fibromyomata, one of which was very soft. The total mass in the upper part of the pelvis had blocked the sigmoid flexure and had produced complete obstruction of the gut. On the way to the hospital the patient's great intestine was ruptured, and she died of fæcal extravasation.

Epidemiological Society.—At a meeting on March 15th, Mr. Shirley F. Murphy (President) in the chair, Dr. Joseph Priestley read a paper on the Value of Eucalyptus Oil as a Disinfectant in Scarlet Fever. To Mr. Curgenven belonged the credit of calling attention to its undoubted value, but his praises were extravagant. Dr Priestley, however, was convinced as to its usefulness in shortening the period of infectiveness, for while "return cases" showed that the eight weeks' subsequent detention with all possible precautions was not sufficient, with the careful use of eucalyptus oil he had found six weeks quite long enough, and indeed, when 144 cases of scarlatina were sent home in every stage of desquamation to make way for the small-pox patients, no further spread of the disease was observed. He believed that desquamation in itself was not a means of infection; the vitality of the congested epidermis was destroyed, and no cultures therefrom had ever been successful. He used Tucker's eucalyptus disinfectant, which left no stickiness, rubbing it over the whole body twice daily for three days, and once a day for the next week, giving it also as a throat spray and inhalation, but not internally; each inunction required about one ounce of the oil. He had tabulated the results in 120 cases in which the oil was employed, and 100 treated in the ordinary way—that is, large doses of tr. ferri perchlor. and cold or tepid affusion. The cases were taken in rotation as notified, and none but those with well marked rash were included. The respective death-rates were 1·6 and 4·3; the return cases were 4·2 and 6·4; complications other than renal 22·5 and 26·8, and renal 1·7 and 10·6; while the stay in hospital of the non-fatal cases was 34·4 and 42·7 days, or, roughly, five and six weeks respectively. He believed that there was something in it, though far less than Mr. Curgenven alleged. The experience of others, he admitted was still less encouraging, but they had rarely, if ever, carried out the treatment as directed by its originator. The discussion that followed was for the most part unfavourable.

Society of Medical Officers of Health.—At a meeting on March 18th, 1895, Mr. S. R. Lovett (President) in the chair, Mr. H. C. Jones, Clerk to the St. Giles District Board of Works, read a paper on Drains and Sewers. After a rapid review of the drainage of the cities and palaces of Assyria, Greece, and Rome, and of the references to sewers in our statute books from the earliest period to the present century, he gave a series of definitions popular and technical, and in particular those contained in the Metropolis Management Acts, 1855 and 1862, and the Public Health Acts of 1875 and 1891. He then dwelt on the recent decisions, especially the cases of Travers *v.* Uttley, Pilbrow *v.* the Vestry of St. Leonard's Shoreditch, and the Vestry of St. Martin's-in-the-Fields *v.* Bird, the points at issue in the first and last of these being illustrated by diagrams. A number of other important cases were referred to, and the various dicta of the judges discussed. He explained the action of the Association of Municipal and County Engineers, and the legislation proposed to be initiated by the London County Council, suggesting that if the Society approved of the proposed alterations in the law they should petition Parliament on the subject. He remarked that neither the Metropolitan Board of Works nor the London County Council had ever availed themselves of the powers conferred on them by the Metropolis Local Management Act to make by-laws as to house drains, but that the matter had been left to the action of each local authority. The President, Drs. Sykes, H. Manley, Allan, Yarrow, and others took part in a discussion, which, on the motion of Dr. R. Dudfield, was adjourned to the next meeting of the Society.

British Orthopædic Society.—At a meeting on January 31st, 1895, Mr. Ewens, of Bristol, was voted into the chair, and made a few introductory remarks.—Mr. Muirhead Little showed a case of Inveterate Talipes Equino-varus in both Feet successfully treated by removal of wedges of bone from the astragalus and os calcis. Messrs. Keetley, Reeves, Noble Smith, Brodhurst, Walsham, and Freer and the Chairman discussed the case, and Mr. Little replied.—Mr. Tubby presented a case of Contracted Elbow, Wrist, and Fingers due to pressure on the median nerve by scar tissue. The nerve was freed by operation, and the flexor tendons of the wrist were subsequently divided with complete restoration of the functions of the hand. Messrs. Keetley, D'Arcy Power, Reeves, and Walsham discussed the case, and Mr. Tubby replied.—Mr. Luke Freer brought forward a specimen, the Amputated Left Leg of a case of Congenital Talipes Varus due to deficiency of the left tibia.—A paper was read by Mr. Keetley on the Causes of Rotation in Scoliosis. An animated discussion followed.—The Society adjourned after arranging for the next meeting at Liverpool in May.

Midland Medical Society.—At a meeting on March 20th, Mr. T. F. Chavasse (President) in the chair, Dr. Leslie Phillips presented a man, aged 30, in whom four years ago a squarish bald patch came on the occipital scalp upon which hair had never since grown, and which was now hide-bound. Two years later at the vertex appeared a round patch apparently of alopecia areata. The hair had grown here, but a ring of baldness existed around it, on which pale-coloured hair was now growing. There was a similar horseshoe-shaped patch at the occiput, and a band over the right ear: this latter gave the impression of partial adhesion to underlying tissue, and pressure here caused pain at the nape. In the right cheek there was a vertical band of apparent sclerodermic infiltration. The disease was apparently circumscribed sclerodermia simulating alopecia areata, and if this view of the case was correct the regrowth of hair on one patch was notable. The alternative, but less probable, diagnosis was that morphœa and alopecia areata coexisted.—Dr. Short showed a man, aged 26, with Violinist's Palsy. The patient was a jeweller, using his hands for fine work during the day, and for several years he had practised the violin in the evening. He first noticed a sense of numbness between the ring and little fingers of the left hand, followed by weakness of the arm and hand, so that he had to rest his elbow on his knee when playing. The marked features of the case were the absence of spasm or cramps, and the rapid wasting of the thenar, interosseous, and lumbrical muscles. He had been under treatment by massage and electricity for about two months, with marked improvement in the muscular power of the hand.—Mr. John Taylor showed a Uterus, the seat of malignant disease, which he had recently removed by Doyen's method of vaginal hysterectomy. In this operation the broad ligament was secured by two pressure forceps with elastic blades, and a considerable portion of the ligament might be removed on each side of the uterus without danger of injury to the ureters.—Mr. Wood White showed a middle aged woman with a Large Fungating Epithelioma, involving the outer half of each eyelid on the left side, and spreading on to the cheek and temporal region. It had been growing for six years.—Dr. Douglas Stanley showed Cultures in Various Stages of the Loeffler Diphtheria Bacillus.—Mr. Henry showed a Number of Specimens Illustrating Diseases and Injuries of the Eye.—Dr. T. Nelson read a paper on Some Points in Invalid Dietetics, in which he reviewed the possibilities of the kitchen in providing a more varied diet for those suffering from fevers, gastric and liver disorders, and other affections. He pointed out the usually perfunctory directions of the medical attendant, gave examples of dietaries with methods of preparation of various food stuffs, and concluded by urging some form of instruction in the principles of cookery for medical students as a necessary accompaniment of success in practice.—The President, Drs. Short, Stanley, Pursloe, Johnstone, Kirby, etc., took part in the discussion.

Folkestone Medical Society.—At a meeting on March 20th Dr. Chubb read a paper on Antiseptic Midwifery. In discussing the pathology of puerperal fever he pointed out that septic micrococci were normally present in the genital canal of pregnant women, and therefore it was advisable to sterilise the vagina before the onset of labour. The superiority of the antiseptic over the non-antiseptic mode of conducting labour was proved by statistics. The different kinds of antiseptic solutions were discussed in detail, the important differences in their germicidal and toxic powers being dwelt upon. Personally, he strongly advocated creolin in a 1 per cent. solution. This was an efficient germicide, and produced

no toxic symptoms. With regard to routine douching after normal labour, he held that in private practice this was probably not necessary. In no case should it be carried out by the nurse without definite instructions from the medical attendant, who on his part should never entrust the douching to a nurse of whose competence he was not assured. Unskilful douching was productive of most disastrous results. By skilful douching he meant a rigid adherence to those details without which it was impossible to render the operation antiseptic. Want of attention to these details had in the past been the cause of failures; and such failures were apt to bring unmerited discredit on the system.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a clinical meeting on March 19th, 1895, Dr. S. JOHNSTON (President) in the chair, Mr. HORROCKS showed (1) a case of Lupus of the Tongue. (2) An Epithelioma of the Temple, in which, after freely excising the growth, skin grafting by Thiersch's method was successfully employed. (3) A case in which the Astragalus was Excised for Tuberculous Disease; a transverse incision was made, gauze packing employed for two days, then the stitches tightened; the result was good. (4) A case of Epithelioma of the Penis, in which Thiersch's amputation had been done, the enlarged inguinal glands being removed. —Mr. CHAPMAN showed, for Dr. MAJOR, (1) a case of Functional Paralysis simulating Sclerosis. (2) A boy, aged 12 years, with symptoms of Cerebellar Tumour. Twelve months ago there were headache, vomiting, and double optic neuritis; afterwards the sight failed, and at present the patient is blind (optic atrophy). (3) A case of Aortic Aneurysm.—Dr. KERR showed (1) a man with Habit Spasm of sixteen years' duration. (2) A girl who had Tetanus following a fall on the ice, with injury to forearm.—Dr. A. BRONNER showed (1) cases of Retinitis Pigmentosa illustrating the early and late stages of the disease. (2) A patient on whom he had performed Stacke's Operation for Disease of the Attic.—Dr. H. BRONNER showed a case of Obscure Brain Lesion, the symptoms being indistinctness of speech, general mental failure, and implication of the third, fifth, and twelfth cranial nerves on the left side.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—A meeting of the Scottish Division of this Association was held in the Hall of the Faculty of Physicians and Surgeons, Glasgow, on March 14th. After the preliminary business had been transacted, a resolution expressing the sense of the great loss which the Association had suffered in the death of Dr. Hack Tuke was submitted by Dr. IRELAND, and unanimously adopted.—Dr. G. M. ROBERTSON read a paper, Sane or Insane, which was followed by considerable discussion; and Dr. TURNBULL showed the plans of an addition, in the shape of a Hospital Block, which had recently been made to the Fife and Kinross District Asylum.

ERRATUM.—In the report of the Sheffield Medico-Chirurgical Society, published in the BRITISH MEDICAL JOURNAL of March 23rd, the "New Method of Dividing Bone in Surgical Operations" was described by Dr. Thomas H. Morton, not by "Dr. Martin," as there stated.

REVIEWS.

HEART STUDIES, CHIEFLY CLINICAL. Part I, Pulse Sensations. By WILLIAM EWART, M.D. London: Baillière, Tindall, and Cox. 1894. (Medium 8vo, pp. 512. 15s.)

THE SENILE HEART. By G. W. BALFOUR, M.D., etc. London: A. and C. Black. 1894. (Demy 8vo, pp. 308. 5s.)

IN previous reviews of works upon the heart and circulation we have found cause of complaint in the manner in which cardiac physics were dealt with. Physicians of great experience seemed to think it necessary to thrust into the midst of their valuable clinical teaching perfunctory chapters on physics, either of no value or positively inaccurate. There are few more mischievous contributions to serious work than those which pretend to accuracy on an insufficient basis and profess to set forth facts in positive and measured terms with which we have but an approximate acquaintance. Before we plot out schemes and curves let us ascertain whether our means of experimentation are certain or fallacious. Any curve revealed by a good sphygmograph, for example, is not, as such, valuable; nor do the records of the most careful pressure adjustments necessarily deserve attention as a series. As we have before pointed out, the limits of the efficiency of the sphygmograph are narrow, and it can analyse movements within these limits only. To apply the instrument to cases beyond its powers of adaptation, to seek information from it which, in its present shape at any rate, it cannot give, and to record pressure adjustments which at almost every moment are vitiated by the instability of the conditions of its application is not to forward clinical medicine but to retard it.

We are forcibly reminded of these comments on taking up Dr. EWART'S first volume of *Heart Studies*. Among many other excellent things, Dr. Ewart warns us that in interpreting a sphygmogram we are in danger of forgetting the artificial disproportion of its parts—a sphygmogram being, as Dr. Ewart says, a "kind of caricature"—the rigid application of the force or weight; the inconstancy of the structures which surround the artery; the linear conversion of all incident forces; and we may add, of course, the incessant interference of various degrees of inertia. To warn the student of these sources of error is, we need not say, a very different thing from telling him that the sphygmograph or cardiograph, when carefully used and interpreted, is of no service to the investigator.

Dr. Ewart, while fully appreciating the great value of the recent instrumental analyses of the times and motions of the circulation, and himself making the fullest and most grateful use of it, reminds us that nevertheless all this work must be supplemented by that use of the "accommodative" finger upon which our forefathers wholly relied until Marey's time. To the tactile method—far too much neglected of late—we can now return with our perceptions educated and our knowledge increased by the revelations of other methods.

The great differences between the pulse as felt by various tactile methods and as exhibited by the sphygmograph are pointed out, and their relative values estimated.

The methods of tactile observation are very fully given, and the various kinds of information obtainable by each and all of these described. A very important discussion is then given of the meaning of the words "arterial tension" and "arterial blood pressure," and of the limits within which these terms may be used convertibly, distinctions which have often been insisted upon in these columns. Dr. Ewart is aware, of course, that the calibre of the artery, among other things, is a very important factor in "pulse tension."

Successive chapters then deal with "tactile analysis" of the pulse, the pulse wave, intracardial pressures, ictus, the anastomotic pulse, and so forth. In these chapters many very interesting matters come up which we would gladly consider did space permit.

Under the head of Dicrotism the author, in harmonising the opinions of Professors Roy and Adami with the facts of clinical experience, finds difficulties of the same nature as those previously mentioned in these pages. The statement on page 263 that pulse frequency must be high to produce dicrotism should be qualified: it must be relatively high, no doubt—higher, that is, than the normal for the individual; but if that normal be 60, dicrotism may appear at a rate of 70 or 75.

With Dr. Ewart's views on the "anastomotic" or reflex pulse we are in agreement, and in respect of his remarks on page 371, we may say that a disposition to dicrotism and a marked anastomotic pulse have often seemed to us to be associated in the same persons.

On first opening this volume we were curious to see whether the author, among the many conflicting opinions, would give any of his own. The arrangement of his materials in this respect strikes us as very good. The several opinions of leading authorities are fully discussed first, and then the author in a separate section formally weighs them and advances his own. Thus clearness is given to very difficult and complex subjects. Dr. Ewart may be heartily congratulated on this instalment of an able treatise on a most important department of medicine.

The volume on the *Senile Heart* by the veteran teacher

Dr. George Balfour has given us pleasure of a different kind. It is far more than the chatty clinical reminiscences of a veteran. No doubt it is a book of totally different kind from that of Dr. Ewart; it is the result of no great recent labour, and problems of pathology are not investigated in the same methodical and experimental way. Still no clinical physician can turn over Dr. Balfour's pages without being much interested, nor without recognising in these apparently slight sketches the hand of a well skilled and long experienced master in his craft. There is plenty of room for both kinds of teaching, and few men, we think, can fail to find pleasure in recognising their old difficulties and fighting their old battles over again in Dr. Balfour's pages, or admiring the ability, shrewdness, clinical insight, and memory which he brings to the discussion of the difficulties of our daily practice. No physician, whatever his experience, can afford to neglect the records of such an observer, who has watched his cases, not for weeks or months, but for decades of years, and can tell us what became of this obscure case of so-called functional cardiac disturbance or of that and the other insidious degeneration which for years and years defied accurate diagnosis. We scarcely need add that Dr. Balfour writes as one fully aware of the most recent advances of cardiac physiology.

It is our duty to express our regret that the publishers, by their lavishly spaced out and widely distributed advertisements of this book in the lay journals, have run counter to the whole tenour of the life and example of the modest and accomplished author.

Exposé de l'Enseignement Clinique. [An Exposition of the Method of Clinical Study.] (Leçons d'Ouverture) Par G. A. Zakharine, Professeur de Clinique Médicale à la Faculté de Moscou. Avec une Introduction par Henri Huchard. Paris: O. Doin. 1894. (Demy 8vo, pp. 66. Fr. 1.50.)

Leçons Cliniques sur les Maladies Abdominales et sur l'Emploi Interne des Eaux Minérales. [Clinical Lectures on Abdominal Diseases and on the Internal Administration of Mineral Waters.] Par Professeur G. A. Zakharine de Moscou. Avec une Introduction par Henri Huchard. Paris: O. Doin. 1893. (Demy 8vo, pp. 184. Fr. 4.)

In his introduction to Dr. Zakharine's opening lectures on the examination of the sick, M. Huchard tells us that there are two centres of medical activity in Russia—the one at St. Petersburg and the other at Moscow—which differ somewhat in their methods. The method of the school of St. Petersburg, under the guidance of the late Professor Botkin, has become of an "abstract" kind, and concerns itself rather with physical objective signs than with "subjective and functional" symptoms. This method tends to make medicine, "if not too much of a science, at any rate too little of an art." The school of Zakharine, on the contrary, relies more on the history of a case and on cross-examination of the patient, making even interrogation itself an art.

The present "exposition" we are bound to say, in spite of the eloquent introduction of the editor, contains little, if anything, more than such a careful survey of the methods of examining patients as would be formulated by any able medical registrar of a large hospital. Of course the instructions are good and complete; but, indeed, the subject scarcely admits of much diversity of handling.

Dr. Zakharine is not very anxious to show to his students a great variety of cases in a short time; he does not aim at a "kaleidoscopic clinic," but he desires to teach the art of individualising each case in its turn. For this reason he would put out-patient teaching, not early, but late in a student's career; and here we think he is right. An early introduction to out-patient work leads to superficiality and "cocksureness."

On diagnosis the author makes the following remarks, which are as true as they are interesting: "It is wrong to suppose that a diagnosis is made only after examination, or that the latter is but a mechanical process, an orderly collection of facts. On the contrary, as data are obtained by observation and questioning certain suppositions are formed in the mind which in their turn are tested in due measure and without bias. Thus the diagnosis develops during the examination, the final process being a differential diagnosis, the less probable suppositions being rejected while the more probable remain." Nothing is more tedious than to listen to the exhaustive interrogatories of some "careful" physicians, who insist on piling up every attainable fact without a due sense of their relative values, unless it be to submit to them as a patient. Rapidity of insight must go hand-in-hand with industrious inquiry.

In the second work under review the Moscow professor exhibits to us his method in action, and ruthlessly he uses it. He takes a case of chronic gastro-intestinal catarrh due to rough food and other hard conditions of life, and he occupies no fewer than 147 pages in the clinical examination of this one patient. This is indeed to "individualise" a case. Far be it from us to say that any information is superfluous, but life is short and man is weak, and we must confess that this clinical conference is very tedious. The patient, it seems, happily recovered—the Russian peasant is a patient creature. The Russian student, however, is reputed to be naughty at times, at any rate, in the etymological sense of the word, and we are tempted to wonder how many of them turned up at the ninth (!) clinical lecture, each of two hours in length, on "le premier malade."

Professor Zakharine tells us triumphantly how much better a diagnosis he can make with his interrogatories than the laboratory man with his stomach sound, his test meals, and his sample vomits. Now we admit with Professor Zakharine and his sponsor M. Huchard, that all knowledge does not lie in a test tube, on the slide of a microscope, or in bacteriological cultures. We admit, moreover, more than willingly, that it is necessary to study the individual case "in which a patient is striving against disease with his own individual aptitudes, original or acquired." But while we do the one we should not leave the other undone; a master of clinical medicine should seek knowledge on all sides, on what these professors rather unintelligibly call the "abstract" as well as on the "concrete" side. M. Huchard, at any rate, we know already, and we find that these clinicians are as fond of quoting general pathology, when it serves their purpose, as another person is said to be of quoting Scripture, and it may be added that when they do so they can err quite humanly.

The truth is, we cannot afford to overlook information wherever it lies hid, and if some of us think that after many centuries of what MM. Zakharine and Huchard call "observation of the individual" a little attention to accurate weighing and measuring of phenomena may brace us up wholesomely, yet, on the other hand, we are none of us likely to forget the great debt we owe to those of our brethren who from Hippocrates to Sydenham and from Sydenham to Graves, Trousseau, and Watson, have excelled rather in reading the story of the life of a sufferer, and have left for us imperishable descriptive records.

Coal Gas as a Fuel: A Concise Guide to Fitters and Users. By Thomas Fletcher, F.C.S. Fourth Edition. Liverpool: Tinkling and Co. 1892. (Cr. 8vo, pp. 106. 1s.)

This is a pocket manual, showing how gas may best be used as a fuel. It is full of information and useful hints, and although no doubt its primary intention is to teach fitters how to get the best effect from the apparatus they have to fix, it contains much that is interesting to others. The book shows on every page that it is written by a man of large experience, who has set his mind to work out the sometimes very complex problems involved in gas heating.

The following paragraph regarding flues is of interest, for many are the cases in which gas fires have drawn upon themselves an ill repute in consequence of the flues being deficient. After stating that a sheet-iron or copper flue 3 inches in diameter and 20 feet long will be quite cold at the end furthest from the fire, and that the mere weight of the products of combustion may reverse the current, he says: "It may be taken as a rule that in any ordinary dwelling house which has chimneys in it the making of a new or temporary flue will be a very difficult matter, owing to the

strong inward current caused by the pull of existing chimneys: and in cases of this kind it is much more satisfactory to carry the required flue into an existing one which is known to have a satisfactory upward draught. If the flue is taken through a wall, whatever the form of pipe or cowl used, the result may be taken almost invariably as a total failure."

A Textbook on Diseases of the Eye. By Henry D. Noyes, A.M., M.D., of New York. Second Edition. London: H. K. Lewis. 1894. (Demy 8vo, pp. 832. 28s.)

Many additions have been made to the second and revised edition of this well-known textbook; some of the chapters have been rewritten or considerably modified, and many new illustrations have been inserted. The sections on the anatomy and pathology of the brain which are concerned in affections of the eye have been much enlarged; the origin and connections of the optic nerve, and of the motor nerves of the eye muscles, are well and fully treated, so that this part of the book presents a valuable summary of our knowledge on these subjects. It is claimed in the preface that the spirit of the book is clinical; this is true, yet a useful account of the functions of the several parts of the eye, and of the changes effected in it in disease, is given. The author quotes largely from his own experience, but a full appreciation is given to the work of other ophthalmologists, both English and Continental, and copious references to their works are made. The text is well and liberally illustrated, and a number of coloured ophthalmoscopic drawings of the fundus is added at the end. The book is an excellent one for the advanced student of ophthalmology, as well as for the practitioner in need of a comprehensive book of reference on diseases of the eye.

Outlines of Biology. By P. Chalmers Mitchell, M.A., Lecturer on Biology, Charing Cross Medical School. London: Methuen and Co. 1894. (Cr. 8vo. Illustrations 74. Pp. 312. 6s.)

In this little volume, although dealing only with the usual elementary biological types, the author seems to have grasped more fully what is wanted in biological teaching than the writers of many so-called advanced textbooks, dealing with a far larger range of the subject. Mr. Chalmers Mitchell is to be congratulated on his volume. What is gained, we take it, from biological teaching is not a memory training—the result of learning long catalogues of arteries, muscles, and other animal parts—but a more general mental training, and one, moreover, of a peculiar nature; for while it lacks the accuracy of that gained from physical and mathematical sciences, yet it has an element, difficult to define, which can only be culled from the study of living matter. It is just this element which is of paramount importance to the future medical man. The author has attempted to instil this rather vague quality, which is in fine but the basis or principle on which that part of the subject which is at all scientific rests. Consequently we find much space devoted to the consideration of such matters as the Cœlom and Gastrula theory, and cognate matters. For this reason, if for none other, we commend the volume to all students, but more especially to those to whom its scope is fitted, it being designed primarily for the syllabus of the Conjoint Examining Board of the Royal College of Physicians and Surgeons of England. The book is well illustrated by boldly-executed diagrammatic drawings, most of which are original.

NOTES ON BOOKS.

The Ninth Volume of the *Westminster Hospital Reports* (London: J. and A. Churchill, 1895, 6s.) is edited by Dr. R. G. Hebb. It contains a portrait of the late Dr. Octavius Sturges and an appreciative biographical notice by Dr. H. B. Donkin. From a postscript to this notice we learn that a book entitled *In the Company's Service*, which Dr. Sturges always spoke of as the work of his niece, was in the largest part due to his pen. It is a story of Addiscombe and military life in India at the time of the Mutiny. Mr. George Cowell contributes to this volume of the reports a short notice of the late Mr. Barnard Holt. Among the scientific contributions to the volume is a paper by Mr. Philip De Santi, F.R.C.S., in which the value of intubation of the larynx in selected cases is pointed out. Dr. Palmer contributes a report of an interesting case of recurrent perityphlitis; Mr. Fremlin, a note on the differences between bacterium coli commune of different origins, and the Editor a note on the comparative value of the Fehling and phenyl-hydrazin tests for sugar in the urine. The volume also contains a long series of interesting cases reported by Dr. Gossage, Mr. De Santi, and Dr. Hebb, as well as the reports of the registrars, and notices of the proceedings of the Guthrie Society, and of the Westminster Hospital United Sports Club.

We have received the first volume of a new annual, the *King's College Hospital Reports, being the Annual Report of King's College Hospital and the Medical Department of King's College*, edited by Dr. Nestor Tirard, Mr. Watson Cheyne, Dr. John Phillips, and Dr. W. D. Halliburton. The volume opens with the first part of a sketch of the history of King's College and King's College Hospital by Professor Curnow. It contains also a series of clinical papers and reports from the various departments of the hospital. The volume is of much the same character as the reports issued by some other hospitals, and the only novel feature which we notice is a list of the names of old King's men, with the offices which they now hold and short notices of books or papers published recently by them. Corrections or additions to this list should be sent to Dr. John Phillips, 71, Grosvenor Street, London, W., but the volume can be obtained from the printers, Messrs. Adlard and Son, 20, Hanover Square, price 7s. 6d.

The Report of the Department of Pathology of University College, London (Vol. IV, December, 1894), consists of a collection of papers from the laboratory published in the *Philosophical Transactions* of the Royal Society. It is the second volume issued during the year, and bears striking witness to the high character of the work done under the inspiration of the Professor of Pathology, Mr. Victor Horsley, with whom is joined as co editor of this volume Dr. Vaughan Harley, the teacher of chemical pathology. The present report contains five papers on neurology, and one, by Professor Boyce and Dr. Surveyor, on madura disease in bacteriology.

Clinical Records from the Glasgow Royal Infirmary. By Geo. S. Middleton, M.A., M.D. (Glasgow: Alex. MacDougall. 1894. Imp. 8vo, pp. 88.)—This book contains the annotated records of some 12 exceptional cases which have been published by the author in the *Glasgow Medical Journal* during 1894. The first case is one of combined stenosis of the tricuspid, mitral, and aortic orifices in a patient aged 44, the symptoms having probably existed for eight years. The three cases of fæcal tumour are very interesting. In two of them, both children, recovery occurred, but in the third case, a woman aged 40, death resulted from ptomaine poisoning after the obstruction had been relieved. Among cases of nervous disease one is recorded of apparently acute spinal paralysis in an adult with very considerable improvement, and another of multiple neuritis of unknown origin, involving the face as well as all four extremities, and ending in complete recovery. A case is reported of a man with all the symptoms of myxœdema, who was greatly benefited by the thyroid treatment. About three months after his discharge he was again admitted, and again improved under the specific treatment, but died four months later of a mediastinal tumour. Besides the intrathoracic sarcoma, the thyroid gland was much atrophied, its microscope structure having almost entirely disappeared. There was no new growth in it. The other cases consist of necrosis of the pancreas, purulent necrotic mediastinitis resulting from a suppurating submaxillary gland, hæmoptysis and surgical emphysema from fracture of a necrosed larynx, acromegaly with joint affections, and a case illustrating acropathology. This series of cases, clearly and succinctly told, is in every sense very instructive.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CLINICAL DIAGRAMS.

Dr. George Herschell has prepared, and Messrs, Baillière, Tyndall, and Cox have published, some clinical diagrams for recording cases of heart disease. The diagrams are put up in books of twenty-five, price 1s. (or, without the directions, price 6d.). Each page contains three outlines of the chest, showing the ribs and sternum, and the designer proposes that upon one of these chest outlines should be recorded the areas of pain and tenderness, on another those of dulness and impulses, and on the third the areas over which murmurs are heard. On the same page which contains these chest outlines is another diagram, which is reproduced in Fig. 1. This is printed four times on the page, and is used for recording the rhythm of murmurs and the characters of sounds in the aortic, the pulmonary, the mitral, and the tricuspid areas respectively. The two parallelograms represent the first and second sounds of the heart respectively, the interval between the two the short silence, and the base line beyond the long silence. The base line has been extended to the left for convenience in recording presystolic murmurs. Accentuation of a heart sound may be indicated by drawing a pointed top to the parallelogram that represents it, as is shown in Fig. 2. Increase of loudness may be shown by raising the top of the figure, feebleness by lowering it. Thus Fig. 3 would represent an abnormally loud first sound with a feeble second sound. Reduplication may be expressed by doubling the front line, as in Fig. 4. Murmurs may be represented by vertical shading; thus Fig. 5 shows a presystolic and systolic murmur; Fig. 6, a post-diastolic murmur, while a double murmur accompanying but not replacing the heart sounds may be expressed as in Fig. 7. The diagrams are ingeniously devised, and will no doubt be found convenient by those who prefer to record facts of this nature by the graphic method.



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.



Fig. 7.

WRITING BY THE BLIND.

Under the name of the "Skotograph," Messrs. D. Horwitz and Co., 20, High Holborn, London, W.C., have introduced a writing slope arranged with mechanically acting guides, with the object of facilitating the act of writing by the blind. By aid of flexible guide rods the writer is enabled to place his words in proper line across the paper and by certain stops, which can be varied for different sizes of paper, he receives a warning when he is approaching and when he arrives at the end of a line. The guide rods are moved down the page by a mechanical key, by which means the lines of writing are kept at an even distance apart, and an arrangement is made by which, if it is found necessary to cease writing in the middle of a line, the place can be found at which to recommence. Warning is also given when the bottom of the page is reached. We have no doubt that with a little practice a blind person would be able to write fairly comfortably with this apparatus. This, of course, many can do with no more apparatus than a drawing board and a few pins, but this apparatus has the great advantage of keeping the lines straight so that they do not run across each other, of giving a warning before the edge of the paper is reached, of keeping the spaces between the lines equal, and of enabling unfinished work to be taken up again at any time. The apparatus is nicely made and readily comprehended by the fingers.

CALIFORNIAN WINE.

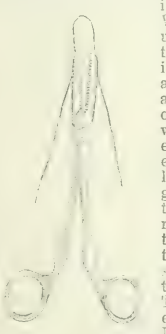
We have received samples of burgundy, claret, and hermitage produced at Gilroy, California, by the "Solis" Wine Company, and placed upon the English market by Messrs. Hague, Smith, and Co., of 6, Dickinson Street, Manchester. From the results of our analysis of the sample of burgundy we are able to state that it had the composition of a genuine wine of burgundy character, and that it was of excellent quality. The production of good and sound wine of this kind is deserving of every encouragement. It appears from the statements of the proprietors that the circumstances as to soil and situation are particularly favourable for the growth of the vines. We believe that the wines are well worthy of the attention of the medical profession, when it is thought well to recommend a wine of this character.

"FOOTBALL" ROLLED OATS.

Messrs. Simpson, Roberts and Co., of Liverpool, have introduced a form of oat food which is well worthy of attention and commendation. The food, of which we have analysed samples, consists of oats which have been flattened out by rolling and partially heated. The value of oats as food has, perhaps, hardly been sufficiently recognised in England and Ireland, and this preparation of them will be found decidedly more palatable than the ordinary coarse oatmeal of commerce. In view of the fact that adulterated oatmeal has recently appeared in some quantity on the English market, we have the greater satisfaction in recommending this preparation since it is quite free from adulteration.

FORCEPS FOR COMPRESSION OF UTERINE FIBROIDS.

Mr. T. S. Ellis (Consulting Surgeon Gloucester Infirmary) has invented a modification of Sir Spencer Wells's clamp for the compression of uterine fibroids. It is intended that the middle part of a wire, about 20 inches long, be passed round the tumour as if for using an *écraseur*. The ends are then passed through tunnels drilled, one in each blade, from the points towards the handles of the forceps. The ends are next joined by binding over each other, so as to form a complete loop. This loop of wire serves (1) as a guide to direct the blades between the tumour and the uterine walls; (2) as a means of drawing between the blades that part of the tumour farthest from the operator; (3) to prevent undue pressure of the points of the blades against the uterine wall beyond the tumour. The blades, which are detachable from each other, may be introduced separately. Mr. Ellis's idea has been satisfactorily carried out by Messrs. Allen and Hanburys.



A SPLINT FOR FRACTURE OF THE PATELLA.

Dr. W. M. Russell, Senior Surgeon, Union Steamship Company, Limited, Southampton, writes: In the British Medical Journal of March 9th particulars are given of a splint brought out by Mr. Bracey, of the General Hospital, Birmingham. I do not wish to detract anything from the merits of Mr. Bracey's invention, but at the same time I think it only fair to let him know that his splint is a modification of one brought out by Mr. W. J. Wheeler, of Dublin, which was

general use in that city more than twelve years ago. In selecting mechanical apparatus for the approximation of the fragments in a transverse fracture of the patella, it should be borne in mind that the lower portion drops down principally from gravity, while the upper is drawn up forcibly by the contraction of the anterior muscles of the thigh, consequently a much greater force is required to overcome muscular contraction and draw down the latter than to raise the former. In Mr. Bracey's splint the same amount of force is exerted on both fragments, which I think will prove a serious objection to its use in the eyes of a good many practical surgeons.

REPORT ON VACCINATION AS A BRANCH OF PREVENTIVE MEDICINE.

By ERNEST HART, D.C.L.,

Chairman of the Parliamentary Bills Committee of the British Medical Association.

III.

(Continued from page 599.)

In the town of Willenhall, with 16,000 inhabitants, there occurred between March and July of 1894, 501 cases of small-pox, 30 in children under 5 years of age, and 471 in persons above that age. Of the 30 children, 24 had never been vaccinated, and of these 7 died. Nearly all these 24 cases were very severe, and in the survivors the illness will be followed by permanent disfigurement. Of the remaining 6 cases, 5 had been vaccinated, but in only one instance with any approach to efficiency. All these 5 cases were very mild, and will not be followed by permanent disfigurement. The remaining one of these 6 cases was only vaccinated a few days before the disease broke out, and the attack was a mild one. In considering these figures, it should be borne in mind that there cannot be fewer than 2,000 children in the town less than 5 years old, the bulk of whom are known to be more or less efficiently vaccinated. Of the 22 persons who died from small-pox at all ages, 10 had never been vaccinated; it is doubtful whether 2 others had been, whilst only 3 had four vaccination scars. None had been revaccinated. Dr. Hartill, the medical officer of health, in reporting these facts, deplored the dissemination of doctrines which have led to a growing neglect of vaccination in Willenhall. "Speaking," he adds, "with the knowledge acquired by an experience which only falls to the lot of a few, I can say revaccinated persons are almost proof against contracting small-pox, and for practical purposes I believe them to be quite proof against contracting it in a severe form."

The most recent small-pox scare in London, that which occurred in July, 1894, in the Portland Town district of the parish of St. Marylebone, supplies just the same evidence in favour of vaccination as that provided elsewhere throughout the whole country. Here is an extract from the report of Mr. E. C. Greenwood, the public vaccinator of the parish: "I have from time to time visited the small-pox hospital ships to ascertain the effect of the disease on those vaccinated and those unvaccinated. There have been, up to the present (that is, September 23rd, 1894), 224 cases from St. Marylebone. Of these, 91 were unvaccinated, and 133 vaccinated (of the 133 vaccinated, it is only right to say that a third were but imperfectly vaccinated). Of the unvaccinated there were 22 under 5 years of age, of which 15 were severe, and 7 mild; over 5 years and under 15, 46 cases, of which 33 were severe, and 13 mild; over 15 years, 23 cases, of which 18 were severe, and 5 mild. Of the 133 vaccinated, none were under 5 years of age, 16 were over 5 years and under 15 years, and there were only 3 severe cases; over 15 years there were 112 cases, 31 being severe and 81 mild. There have been only 5 cases admitted into the hospitals of persons who have been revaccinated, all of whom had the disease very slightly, with the exception of 1 who suffered from chronic alcoholism and bronchitis, and ultimately died. There have been in all 19 deaths; of these, 14 occurred in unvaccinated people, and 5 in vaccinated, all the latter being over 23 years of age.

"The effect of vaccination upon the disease is also clearly shown by the length of stay in hospital. From the statistics which I have been able up to the present to get I find the average stay of the unvaccinated is 35 days, and that of the vaccinated 25 days. It is interesting to note that there has been only one case of small-pox occurring amongst all those who have been vaccinated or revaccinated during the epidemic. This one case was that of a child of 1½ year of age, who had contracted the disease previous to being vaccinated; the vaccination, however, was beneficial in considerably modifying the attack."

Immunity of Doctors, Nurses, etc., in Small-Pox Hospitals

Undoubtedly one of the most powerful and unanswerable arguments in favour of the usefulness of efficient vaccination and revaccination is the comparative immunity of the vaccinated and revaccinated doctors, nurses, and others employed generally in and around small-pox hospitals. This convincing phenomenon has long been established, but fresh evidence on the point is daily coming to hand. Writing on the subject in *Quain's Dictionary of Medicine*, Dr. Collie, who for many years was superintendent of one of the hospitals of the Metropolitan Asylums Board, says: "During the epidemic of 1871, 110 persons were engaged in the Homerton Fever Hospital in attendance upon the small-pox sick; all these, with 2 exceptions, were revaccinated, and all but these exceptions escaped small-pox. The experience of the epidemic of 1876-77 was of the same kind, all revaccinated attendants having escaped, whilst the only one who had not been revaccinated took the disease and died of it. So, in the epidemic of 1881, of 90 nurses and other attendants on the Atlas Hospital Ship (small-pox), the only person who contracted small-pox was a housemaid who had not been revaccinated."

Not long ago a Vaccination Committee of the Epidemiological Society independently reinvestigated this subject, confining its attention to those "in personal attendance on cases of small-pox," with the result that, out of 1,500 such attendants, only 43 were found to have contracted small-pox, "and not one of these 43 had been revaccinated."[1]

The Highgate Small-Pox and Vaccination Hospital furnishes some very direct evidence on this point, in respect of a lengthened period. In a letter to a friend, dated May 9th, 1893, the late Dr. Herbert Goude, who was at that time medical officer of the institution, remarked that "the statement I made in 1885 that no nurse or other official of this hospital had contracted small-pox, with one exception—that of a gardener who escaped revaccination—holds good to the present date, so that now we have an unbroken record of 58 years, during which no nurse or servant has contracted the disease, even in a modified form; and this, too, though the nurses and attendants on the sick have on many occasions accidentally inoculated themselves with variolous matter, thus putting the protection afforded by vaccination to a really crucial test. We have had no injurious effects from revaccination beyond those apparently inseparable from the operation, such as *malaise* and occasional tardy healing of the vesicles."

Further, on turning to the reports of the Metropolitan Asylums Board for 1892, we find a summary by Dr. T. F. Ricketts, the medical superintendent of the Small pox Hospital Ships, showing that out of 1,201 persons who had been engaged on board the ships since 1884, and who had therefore been exposed to the infection of small-pox, only 6 contracted the disease, and all recovered. One of these cases was a stoker who had become infected before joining the staff; 2 of the others were vaccinated unsuccessfully on the day of joining only; another was vaccinated unsuccessfully on the day after joining the staff, and with partial success a week later, with the result that her attack of small-pox consisted of "a few spots" only; another of the cases was vaccinated, after joining, on three occasions unsuccessfully; and the sixth case was a ward maid who was vaccinated after joining on three occasions unsuccessfully, on the fourth trial successfully, but too late to prevent her being attacked by small-pox. Her attack was a "very mild discrete" one however. In Dr. Ricketts's report for 1893 we find that of the 307 persons employed on the hospital ships during the year, 6 contracted small-pox and all recovered. In one of these cases the disease developed three days after joining the hospital, showing that the infection had been contracted from an independent source. Of the other 5 cases, vaccination in 2 instances was altogether unsuccessful, and in 3 it was not successful until the third attempt; meanwhile the small-pox

[1] See *Transactions of the Epidemiological Society*, vol. v, new series.

had laid hold of these imperfectly protected individuals, though the attacks were not severe or fatal in any case. During 1893 also 5 temporary workmen employed at the ships caught small-pox and recovered. Four of these men had foolishly evaded vaccination, whilst the fifth, whose attack was a mild one, had been vaccinated twice unsuccessfully. The failure to secure prompt success in the vaccination of these persons is extremely unfortunate, and is accounted for by Dr. Ricketts by the fact that stored lymph has necessarily to be relied upon at the ships.

It is to be hoped that this exposure of a serious flaw in the protective armour of the staff of the hospital ships has led to a revision and amendment of the arrangements in force. It is absolutely essential that attendants, before going on duty, should be efficiently protected, either by vaccination or by a previous attack of small-pox. There should be no doubt in the matter.

To my mind all this goes to prove conclusively the great protective value of vaccination and revaccination. Here we have, between 1884 and 1892, some 1,195 officials of all sorts—doctors, nurses, and others—who have been efficiently protected by vaccination or by previous small-pox, living securely in an infected atmosphere, whilst the remaining 6 who have not been so protected are promptly attacked by the disease; and in 1893 we see 301 efficiently protected officials escape, whilst 6 unprotected of the same group are attacked.

How do these facts compare with those as to the attendants on other infectious fevers? Taking the year 1893, we find that of 2,484 persons employed in the 9 Metropolitan Fever Hospitals, 130 became infected, and 2 died; 4 assistant medical officers, 10 nurses, 43 assistant nurses, and 16 ward servants were attacked by scarlet fever, 2 assistant medical officers, 6 nurses and 15 assistant nurses by diphtheria, 2 nurses and 3 assistant nurses by enteric fever, etc. Comment on this comparison is surely unnecessary.

Throughout the country the experience as to the immunity of properly revaccinated small-pox nurses, etc., is similar to that of London. At Leicester, where the authorities who laugh vaccination to scorn have been challenged unsuccessfully to complete their gigantic experiment by employing none but unvaccinated people as nurses and attendants at their small-pox hospitals, the influence of vaccination and revaccination in protecting the nurses from small-pox has been characteristically illustrated. During the epidemic of 1892-3 there were 40 officials connected with the Leicester Small-pox Hospital. Of these, 34 were efficiently protected, either by previous small-pox or by revaccination, and they all escaped small-pox. The remaining 6, however, were inefficiently protected; they refused to be revaccinated, and 5 of them caught the disease. The only inefficiently protected official who escaped was the matron, who, of course, was not much exposed to the contagium. Dr. Hill, of Birmingham, reports that during the epidemic there in 1893, over 100 persons were engaged on the staff of the City Small-pox Hospital, all of whom had been recently revaccinated. Not one of them contracted small-pox. In Derby the whole of the staff connected with the hospital had been revaccinated, and not one of them was attacked with small-pox. Not one of the 23 nurses, etc., at the Warrington Small-pox Hospital caught the disease during the epidemic of 1893. The same is the invariable and convincing experience at the hospitals at Sheffield, Halifax, and numerous other places of which information is available.

How is it, also, that the deaths of medical men from small-pox are only 13 per million as against 73 per million of the general population; whereas in scarlet fever, against which doctors have no special means of protection, there is the remarkable fact that 59 medical men per million die from that cause, as against 16 per million of the public? When these facts are borne in mind, and accentuated by the remarkable immunity enjoyed in the presence of small-pox by the revaccinated postmen, policemen, soldiers, sailors, etc., the propriety of not only compulsory primary vaccination, but compulsory revaccination at puberty is irresistibly forced upon us.

What is Efficient Vaccination?

A careful study of the recent statistics and a comparison of them with the older figures teach a variety of lessons. The most obvious and important is that, allowing for the few exceptions which prove the rule, efficient vaccination in infancy affords an almost absolute immunity from small-pox up to about 10 years of age, but that after that age the operation needs to be efficiently repeated. Efficiency, however, is a *sine qua non*. Mr. Alexander Wheeler (Q. 8,688 etc., before the Royal Commission) and his antivaccination friends wish to frame their arguments on the assumption that all vaccination—good, bad, and indifferent—must be regarded as equally protective, or rather unprotective, against small-pox. It would be scarcely less absurd to argue that the mere visit to a public vaccinator's surgery should be regarded as proper vaccination, or as sufficient treatment for a broken limb. In view of the lesson taught by a study of the foregoing evidence that a deplorably large proportion of the nominally vaccinated to-day have been most inefficiently vaccinated, and are consequently in many cases almost unprotected against an attack of small-pox, it cannot be too often repeated that efficiency in vaccination is of vital importance. Nothing has done so much to damage the cause of vaccination as the fact that, in consequence of inefficient vaccination, cases of post-vaccinal small-pox, modified though they be by the vaccination, occur in every epidemic. It has been clearly shown to all but the wilfully blind that when the operation has been efficiently performed in the first instance it seldom, if ever, loses altogether its protective property. But so long as medical men are found ready, in their mistaken good nature, to pander to the ignorance of applicants for vaccination, and make only one, or perhaps two, insignificant insertions of lymph in a child's arm, and certify cases of that kind as successfully vaccinated, so long shall we have cases of small-pox occurring in vaccinated subjects, and shall have to struggle against the fallacies and sophistries of antivaccinators. Better let such applicants depart unvaccinated until they learn wisdom than place them in a state of false security, and at the same time endanger one of the greatest prophylactics of modern times.

What, then, is efficient vaccination? To secure it the official instructions of the Local Government Board prescribe that public vaccinators shall "in all ordinary cases of primary vaccination make such insertions of lymph as will produce at least four separate good-sized vesicles or groups of vesicles, not less than half an inch from one another. The total area of vesiculation on the same day in the week following the vaccination should not be less than half a square inch."

There is abundant evidence of the correctness of this instruction, and of the need for its observance as a minimum of efficiency. Between 1836 and 1867 the late Mr. Marson, who as Surgeon of the London Small-pox Hospital had exceptional opportunities of making reliable observations over an extended period, recorded the facts concerning 13,755 cases of small-pox. The results are shown in the following table, which was laid before the Royal Commission by Dr. Thorne Thorne:

Mr. Marson's Cases.

13,755 Cases of Small-pox, Classified according to the Vaccination Marks Borne by Each Patient respectively.	Percentage of Deaths in Each Class respectively.	
	1836-51 (3,094 Cases).	1852-67 (10,661 Cases).
Stated to have been vaccinated, but having no cicatrix	21.7	39.4
Having 1 vaccine cicatrix	7.6	13.8
„ 2 vaccine cicatrices	4.3	7.7
„ 3 vaccine cicatrices	1.8	3.0
„ 4 or more vaccine cicatrices ...	0.7	0.9
Unvaccinated...	35.5	34.9

To the same effect has been the experience of the hospitals of the Metropolitan Asylums Board and of every large town. The following table records the facts as regards 10,403 cases

of small-pox which came under the personal observation of Dr. W. Gayton whilst he was Medical Superintendent of the Homerton Small-pox Hospital and of the North-Western Fever Hospital of the Metropolitan Asylums Board. It was explained to the Royal Commission by Dr. Gayton himself:

Dr. Gayton's 10,403 Cases.

Condition as to Vaccination.	Under 10 Years.			Over 10 Years.		
	Cases.	Deaths.	Per centage.	Cases.	Deaths.	Per-centage.
Vaccinated, with good marks ...	267	2	0.75	1,818	60	3.3
Vaccinated, with imperfect marks	714	48	6.72	4,140	407	9.8
Said to have been vaccinated, but no visible marks	325	87	26.7	970	265	27 3
Not vaccinated ...	1,187	563	47.4	982	375	38 2

Here is a classified summary of 2,361 cases of small pox treated during 1893 in the Hospital Ships of the Metropolitan Asylums Board:

Character of Vaccination.	Cases of Small-Pox.		Totals.		
	Discrete.	Confluent.	Cases.	Deaths.	Percentage of Deaths to Cases.
Under 10 years of age:					
Having scars of $\frac{1}{2}$ square in. total area	21	0	21	0	—
" " between $\frac{1}{4}$ and $\frac{1}{2}$ square in. area...	12	2	14	0	—
" " less than $\frac{1}{4}$ square in. area... ...	19	0	19	0	—
" " unrecorded area	2	0	2	0	—
Over 10 years of age:					
Having scars of $\frac{1}{2}$ square in. total area	794	30	824	17	2.06
" " between $\frac{1}{4}$ and $\frac{1}{2}$ square in. area...	215	13	228	6	2.60
" " less than $\frac{1}{4}$ square in. area ...	345	21	366	12	3.20
" " unrecorded area	128	12	140	7	5.00
Total vaccinated { Under 10 years	54	2	56	0	—
{ Over 10 years	1,482	76	1,558	42	2.60
Evidence of vaccination inconclusive { Under 10 years	10	9	19	6	31.50
{ Over 10 years	173	58	231	38	16.00
No evidence of vaccination { Under 10 years	217	65	282	63	22.50
{ Over 10 years	140	75	215	31	14.40

The following table shows the classification of 1,105 cases of small-pox treated in the Sheffield Borough Hospital in the epidemic of 1887-8, as recorded in Dr. Barry's report:

Character of Vaccination.	Cases of Small-Pox.				Totals.		
	Variloloid.	Discrete.	Coherent.	Confluent.	Cases.	Deaths.	Per-centage.
No visible cicatrix, or 1 only ...	19	47	25	4	95	13	13.
Two primary cicatrices ...	73	132	50	4	259	21	9 3
Three primary cicatrices ...	149	193	27	3	372	21	5.
Four or more primary cicatrices	52	41	5	1	99	2	2.0
Total vaccinated ...	293	413	107	12	825	60	7.2
Unvaccinated	0	50	175	55	280	93	33 2

The 590 cases of small-pox which occurred in Warrington in 1892-3 are classified in the following table:

Character of Vaccination.	Cases of Small-Pox.			Totals.		
	Discrete.	Confluent.	Hæmorrhagic.	Cases.	Deaths.	Per-centage.
Under 10 years of age:						
1 primary cicatrix	1	0	0	1	0	—
2 " cicatrices	5	1	0	6	0	—
3 " "	9	1	0	10	0	—
4 " "	3	0	0	3	0	—
5 " "	4	0	0	4	0	—
Said to have been vaccinated in infancy	0	1	0	1	1	—
Unvaccinated	7	25	1	33	13	39.3
Over 10 years of age:						
1 primary cicatrix	44	15	2	61	4	—
2 " cicatrices	156	54	2	212	20	—
3 " "	116	30	0	146	7	—
4 " "	42	12	0	54	1	—
5 " "	3	2	0	5	0	—
Said to have been vaccinated in infancy	18	3	0	21	1	—
Unvaccinated	6	25	2	33	13	39.3
Total vaccinated { Under 10 ...	22	3	0	25	1	6.4
{ Over 10 ...	379	116	4	499	33	
Total unvaccinated { Under 10 ...	7	25	1	33	13	39.3
{ Over 10 ...	6	25	2	33	13	

From Bristol comes the evidence to be gathered from the following table:

Condition as to Vaccination.		Under 15 Years.			Over 15 Years.		
		Small-pox Cases.	Deaths.	Per-centage.	Small-pox Cases.	Deaths.	Per-centage.
Having 1 vaccination mark	1887-8 ...	13	0	—	67	7	10.4
	1893 ...	2	0	—	25	0	—
Having 2 vaccination marks	1887-8 ...	19	0	—	78	1	1.2
	1893 ...	5	0	—	33	4	12.1
Having 3 vaccination marks	1887-8 ...	14	0	—	38	0	—
	1893 ...	2	0	—	41	3	7.3
Having 4 or more vaccination marks	1887-8 ...	18	0	—	24	3	12.5
	1893 ...	3	0	—	27	1	3.7
Unvaccinated or doubtful	1887 8 ...	22	12	54.5	33	14	42-2
	1893 ...	15	6	40.0	11	5	45.4

Of 46 cases of small-pox treated in the Derby Borough Hospital in 1893, 14 had no marks of vaccination; 5 of these 14 died, and 3 others had the disease in a severe form. Of the remaining 32 vaccinated cases only 2 died, and these two had been vaccinated very imperfectly, one in one place only, and the other in two places. These two fatal cases were the only severe cases amongst the vaccinated.

These experiences could be multiplied indefinitely; but, if what has already been given does not carry conviction, it is to be feared that this result would not be secured by wearisome iteration. It is clear that there is vaccination *and* vaccination, and that the severity of an attack of small-pox is in proportion to the efficiency or otherwise of the original vaccination. Parents, ignorant but otherwise well-meaning towards their children, will always be found who first object to more than "one mark" on their child's arm, and who prefer to go to those doctors that will pander to their whim and "not hurt their babies." There are many such medical men in practice who are ready to fall in with this foolish request, on the ground that half protection will be better than none at all. But, in face of the experiences, of which a few have been referred to already, medical men will do well to refuse absolutely to perform anything but vaccination of the most efficient sort. If a firm, united stand of that kind were made against the foolish prejudices of ignorant mothers, cases of post-vaccinal small-pox would be prac-

tically abolished amongst children, and would become much more rare amongst adults. Such a result could not fail to break down utterly the opposition to vaccination.

Mitigation of Small-Pox by Vaccination.

The influence of vaccination in mitigating the severity of an attack of small-pox is further shown in the records of the "pitting" or permanent disfigurement following the disease, and also of the length of stay of patients in hospital. Thus, in the recent Leicester outbreak we find, from Dr. Priestley's very full and precise report, that of 134 unvaccinated cases of small-pox that recovered, as many as 112 are more or less "pitted," most of them severely; whilst out of 177 vaccinated individuals who recovered, only 43 have any "pitting" whatever, and in only 4 cases is the "pitting" at all severe.

From Dr. Barry's report on the Sheffield epidemic of 1887-88 (page 190), we find that out of 451 vaccinated children under 10 years of age attacked by small-pox, only 24 showed any "pitting" on recovery, whilst Dr. Barry reports that "in nearly all the children of the unvaccinated class who were incidentally inspected in the course of the inquiry, the attack of small-pox was of a severe type, and in the majority of cases was followed by considerable 'pitting.'" The same experience has been furnished by the other epidemics of recent years.

As regards length of stay in hospital of the different cases, the experience of Leicester last year is that amongst children under 10 years of age the stay of the vaccinated was 14.5 days, and of the unvaccinated 47.3 days. Amongst persons over 10 years of age, the average stay was 28.6 days in the vaccinated, 14 days in those who had had small-pox previously, but as much as 44.2 days amongst the unvaccinated.

In Keighley the average duration of the illness was 36 days among the vaccinated, as compared with 53 days in the unvaccinated. Broadly speaking, this is the experience of every small-pox epidemic.

Again, in past times blindness has been a very common result of small-pox, but happily vaccination has produced a marked improvement in this respect.

(To be continued.)

A REPORT

ON THE POSSIBLE CONVEYANCE OF CERTAIN WATERBORNE DISEASES, ESPECIALLY TYPHOID FEVER, BY OYSTERS AND OTHER MOLLUSCS.

V.

The Frost.—The Isle of Wight Fisheries.—The Medina.—The Isle of Wight Sewage.—Sea Water and Pathogenic Organisms.

Owing to the prolonged frost and the blocking of harbours and estuaries by ice, it was necessary to suspend the inspection of various typical oyster stations which it was proposed to make in the course of this inquiry. It has, however, recently become possible to visit the Isle of Wight.

The sheltered waters of the Solent and its ramifications have, like those of the estuaries on the west of East Anglia, been from time immemorial the favourite haunts of the oyster, although in the course of centuries the surroundings and the state of the beds have been greatly influenced by the growth of population, and, in most cases, for the worse.

Until we can avail ourselves of the results of the bacteriological and chemical examination of the water and mud, we shall refrain from expressing any positive opinion as to the precise degree of danger, or the actual state of the beds, and content ourselves with a mere statement of facts which are in themselves indisputable, and of the inevitable inferences therefrom.

The geological structure of the Isle of Wight is remarkable, and, for so small an area, very varied. A ridge of chalk hills runs from east to west, the beds to the north and the south of these being respectively the more recent tertiaries and the older greensands, with a few spots in which underlying wealden beds come to the surface. But while the strata in the north are horizontal, and those approaching the cliffs on the southern shore are inclined, the chalk in the middle, with certain marly sands and argillaceous strata adjacent, is almost, or quite, vertical, as is well seen in the striped cliffs of Alum Bay.

There are only two streams that can claim to be called rivers—the Medina and the Eastern Yar: but there are several estuaries, of which, since the reclamation of Brading Harbour, the chief are the Medina and the harbours of Newtown and Yarmouth. Each of these drains a certain area, but the volume of fresh water is so much smaller than that of the salt entering with every tide that through their tidal reaches and ramifications they shrink at ebb to rivulets in an expanse of mud, swelling with the flood to considerable arms of the sea. The sudden expansion of the Medina at Newport is partly due to the accession of the Lukeley, and the waters of the two streams are easily distinguishable for some distance below their junction by their respective colours, a greenish-grey and a yellow-brown, due to the characters of the soils drained by each. The greater part of this mud is sooner or later deposited in the course of the lower river, though the stream is decidedly turbid to its very mouth.

The sewerage of the towns, some of them growing rapidly, is in a very unsatisfactory state. The sewage of Newport is discharged into the Medina immediately below its junction with the Lukeley in a perfectly crude state, and from the very feeble current in the running stream, the great volume of the tidal flow to which it is opposed, and the shallow shelving character of the channel, it is estimated that about three and a-half days elapse before the Newport sewage can reach the sea. While the tide is rising the waters from the upper reaches are held back, a condition very favourable to deposition of suspended matters. The sewage from Parkhurst barracks and prison is supposed to undergo a process of "treatment" by means of lime and iron alum, but a "sanitary authority" that does not even make a pretence of treating its own sewage cannot be expected to exercise any very strict check on the action of another body.

The whole of the sewage from East Cowes is discharged in a crude state well within the harbour, the mouth of the sewer being protected by a penstock. From West Cowes, also, a number of small drains open into the river, though there is a so-called "main sewer," the outfall of which is at Egypt, about a mile to the west of the river's mouth. That the sewage from East Cowes ascends the Medina with the rising tide appears to be generally admitted, and considering the strength of the eastward current in the Solent at such times, it would be very unsafe to assert that some from Egypt does not follow it. The harbour is also at certain seasons crowded with yachts and with small craft engaged in the coasting traffic, but it is not likely that any cases of enteric fever would be knowingly retained on board. It appears, therefore, to be the case that the entire sewage of Newport passes in a crude state into the Medina, within three miles of the oyster beds, and that it is in no part of its course subjected to the purifying action of a large volume of fresh running water, but oscillates with the ebb and flow for three or four days; and that much of the Cowes sewage also is probably carried up the river with every rising tide.

Under any circumstances this would be bad enough, and the condition of the Medina has frequently been the subject of complaint and of inquiries, but owing to the general badness of the water supplies, public and private, alike derived from dry-steined wells sunk in a chalk riddled with fissures and pervious cesspits, enteric fever is endemic in Newport and its neighbourhood. Notification has only recently been adopted, but the number of cases notified last year in the Urban Sanitary District alone having a population of, perhaps, 10,500 (at the last census 10 216) was no less than 389, the actual number being, it is believed, considerably over 400. The whole of their excreta must, according to the data given above, have floated in the river for three or four days. Cholera too has been extremely severe and fatal whenever it has reached Newport.

The oyster fisheries in and around the island have fallen off greatly of late years. The once famous Solent native is almost displaced by a very similar French variety, which is imported from Arcachon and laid down in the beds in the Medina, together with Portuguese and other decidedly marine

strains, the salt water being in overwhelming proportions in these estuaries. The beds extend from Cowes itself to "The Folly," the highest being about two and a-half miles from the sewer outfall at Newport. There are a number of ponds, or pits as they would be called in the Eastern counties, in which the young oysters are laid when first spatted; in these the water was remarkably clear, but, we were told by the manager, so deficient in "food" that unless early removed they were starved and stunted. While waiting for the market the oysters are stored in the well of "the ark," a square wooden cage working like a lift in the centre of a barge or houseboat moored near Medham.

There are also oyster beds in the estuary or harbour at Newtown, once, under the name of Francheville, a thriving port, but now in utter decay. Wild or uncultivated oysters are dredged, when the demand is great, along the coast, especially between Cowes and Ryde, where the fishery is free and open to all.

In estimating the degree of danger attaching to the use of oysters from beds so situated, we must bear in mind that the conditions differ from those of a water supply on the one hand, and of the consumption of the flesh of foul-feeding animals on the other. The instances of Caterham and Croydon, and of Plymouth, Pa., U.S.A., show that no initial purity and no degree of dilution can neutralise the effects of the addition of even a single enteric evacuation, and those of Lausen in Switzerland and of Gloucester, that under certain circumstances five miles of gravel subsoil and twenty of a strong running river, were alike unavailing for purification. Were the Medina below Newport a fresh-water stream, no amount of filtration could justify its use as a water supply. On the other hand, fish and crustacea, the natural scavengers of the waters are, like those of the land—swine, ducks, etc., always cooked, to say nothing of the probable destruction in their stomachs of bacteria and toxins. Again most molluscs, too, are boiled, oysters alone being generally eaten raw, and preferably while perfectly fresh and enclosing a drachm or two of the water in which they last opened their shells. This at first is unmistakably "a sup o' caller sea water," but later acquires a characteristic flavour of the oyster probably due to some secretion; while the mud and grit adhering to the outside of the shell is that of the bed towards which suspended particles of sewage, etc., tend to subside, especially in sluggish streams and tidal waters, but more or less in all save where, as in the Rhine, the Rhone, and the Solway Firth, the current scours the bottom with resistless force.

The question, then, put in a few words is this: Is there, or is there not, any danger of the communication of waterborne diseases, as enteric (and cholera), by the ingestion of small quantities of water from a stream which is constantly receiving the crude sewage of a population in which the disease is endemic, and which, apart from the question of its salinity, could not be deemed wholesome or safely potable after any practicable process of filtration?

As to the action on these pathogenic organisms of the sodium and magnesium chlorides, in the proportion in which they are present in ordinary sea or brackish tidal waters, we have not as yet sufficient data; it may be unfavourable, it cannot be described as germicidal, and it may possibly under some conditions even favour their development. These questions are far too complex to admit of being answered offhand, and the obvious conclusion is that the rigid exclusion of sewage from all estuaries where oysters are cultivated or dredged would conduce in the end to the advantage of the local population, the public, and the trade.

MUSSELS AND TYPHOID FEVER.

In view of the present uneasiness regarding the connection between the eating of certain molluscs and the occurrence of typhoid fever, the report of Dr. Piggott, medical officer of health for Teignmouth, is of interest. He says that a case of enteric fever "was removed to the Isolation Hospital on July 23rd, and remained there some three months. The hospital drain discharges into the River Teign below low water mark, and the channel in this neighbourhood is a favourite spot for the collection of mussels and cockles. Under the conditions then existing at the hospital it is impossible to be certain that the excreta were efficiently disinfected, and thus the molluscs in the tideway may possibly have become infected with the typhoid bacillus. Within the next two months 8 cases were notified from various parts of the town, and of these, 4 had partaken of the shellfish in question within fourteen days of the attack, while 3 of the remainder were directly connected with the fishing industry. Without desiring to urge the above facts as explaining the greater prevalence of enteric fever during August and September, they cannot be passed unnoticed in an attempt to determine its origin. The possibility of such a source of infection must be admitted. In some of these cases all the essential conditions seem to have been satisfied. Neither milk or water appear to have been concerned in spreading the disease." The *Western Mercury* adds that the River Teign receives the sewage of Newton Abbot, and in the estuary below are important beds for the cultivation of the oyster and other shellfish, and that the sewage of Teignmouth also finds its way into the river, whence it is carried by the tide away to sea.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE FRIENDLY SOCIETY.

The usual monthly meeting of the Executive Committee of this Society was held at 429, Strand, on March 14th.

There were present Dr. De Havilland Hall, Chairman; Mr. H. H. Clutton, Treasurer; Dr. Jas. B. Ball, Dr. Major Greenwood, Dr. Walter Smith, Mr. F. Swinford Edwards, Mr. Edward Bartlett, Dr. W. Knowsley Sibley, and Dr. Alfred S. Gubb.

The accounts presented showed that the business of the Society was being carried on at a very low rate of management expenditure, for the Medical Assurance Society still maintains its position as the most economically managed Friendly Society in the United Kingdom.

An unusually long list of current sickness claims was presented. A large proportion of these are due to influenza, and for the most part seem light cases, not likely to be of long duration. In some instances, however, serious complications have been reported, and there is reason to fear that in these cases the members will have to draw sickness pay for many weeks. No death from influenza has been reported, and the epidemic seems to be subsiding.

Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Assurance Society, 33, Chancery Lane, London, W.C.

American Jottings.—There are said to be 130 female ophthalmologists in the United States.—The State Legislature of Missouri has before it a Bill restricting the use of hypnotism. The proposed measure is probably the outcome of a recent trial for murder, in which the accused escaped conviction because the jury believed he had acted under hypnotic influence.—A scheme is on foot to erect a ten-storey office building in Chicago to be known as "The Medical." It is intended to be let in offices to medical practitioners, and the rooms are to be specially arranged and fitted for the purpose.—The Memphis (U.S.) Board of Health has sent a communication to the Tenessee State Board of Health asking it to take such action as shall lead to legislation prohibiting insurance of the lives of infants and children, on the ground that the practice leads to criminal negligence of children, and to that extent is prejudicial to the public health.—A Bill has been introduced into the New York State Legislature for the incorporation of a "Pedic Society," and for the regulation through its agency of the practice of chiropody. The Bill provides that all persons wishing to practise as chiropodists must in future pass an examination to be conducted by a board of examiners of the Pedic Society on the anatomy and physiology of the feet, therapeutics and chemistry (? of the feet), minor surgery and bandaging. The Bill makes it a misdemeanour to practise chiropody without conforming to these conditions.

The estate left by Dr. Oliver Wendell Holmes is valued at 72,117 dollars (about £14,423). It may surprise many readers of his books, who remember with what complacency he often refers to his rare old volumes, to learn that his library is valued at little over £150.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 30th, 1895.

WATER CARRIAGE v. CONSERVANCY.

Among a considerable section of the public sanitary science is supposed to concern itself more or less exclusively with drains, and what Smollett termed the Temples of Cloacina, and their belief will perhaps be strengthened by the recent revival of the old dispute as to the comparative merits and demerits of water carriage and conservancy systems. Dr. Poore, whose admirable essays on Rural Hygiene are widely known, has returned to the charge in an address to the Sanitary Institute, an abstract of which appeared in the British Medical Journal of February 11th. He has proved both by experiment and by actual experience upon property of his own, that "dry methods" are not only possible, but cleanly, inoffensive, and economical. On the other hand Dr. Boobbyer, Medical Officer of Health for Nottingham, and Mr. Tattersall, who holds a similar appointment at Oldham, have lately published reports which show that one after another the towns are abandoning dry systems, pails as well as privies, and introducing water latrines of some sort. Dr. Boobbyer's report contains the most complete and lucid statement of the points at issue, from the standpoint of the health officer of a densely-populated inland town, that has yet appeared.

Although the controversy is old the conditions have greatly changed in recent years. For one thing the question of river pollution has at last come to the front, and a large and increasing number of towns have had forced upon them schemes of drainage and sewage purification. Before many years are over it will no longer be possible to point, as Dr. Boobbyer does, to a total of fifteen of the larger towns, exclusive of London, which discharge the crude sewage of two and three quarter millions of people into inland rivers. Improvement and extension of drainage has given, and will give, greater facilities for water carriage, and modern advances in the direction of adequate public water supplies have tended in the same direction. Then as regards many of the great towns there has been increasing difficulty in disposing of the town refuse, and more and more of it has to be got rid of, or at all events rendered inoffensive, by cremation. Destructors are coming to be regarded as a necessary part of the sanitary equipment of a large town, and at Bradford much of the night soil is dealt with in this way, there being no demand for it for manurial purposes. Under such circumstances it is important to limit the production of solid refuse, as well as that of liquid sewage.

To some extent the introduction of waste-water closets has advanced the cause of water carriage, by removing the objection of the cost of a separate supply of clean water, and also the risk of being frozen up in winter, but latrines of this kind are not free from drawbacks, nor have they yet stood the test of time. They seem to be still practically unknown in the south of England, although largely adopted in several manufacturing towns in the north and in the Midlands. The dawn of bacteriology and the closer study of etiology have added much to our knowledge of the sources of infection in zymotic diseases. Such agencies as infected water or milk, or infected lower animals, have now to be thought of in investigating the origin of those diseases which at one time were credited without hesitation to the seldom-wanting defects of drainage, in the absence of any history of direct infection from another case. It is not that we have ceased to believe in sewer gas and foul smells generally as significant antecedents of enteric fever, for instance, but rather that we have had to recognise other factors no less important which were unknown two or three decades ago. It is not permissible nowadays to say that because there is diphtheria the drains must be wrong. Hence the objection to water-carriage on the score of infection of sewers has lost some of its weight, even apart from the fact that much has been done to prevent the access of sewer gas to houses. The present tendency of opinion is to limit the significance of drain effluvia to certain filth diseases, and to regard them as predisposing causes only, incapable of giving rise to a specific disease in the absence of the specific germ.

For these and many other reasons water-carriage systems have become more available, and their claims to preference more generally admitted. At the same time, public opinion has grown more sensitive as to the storage of excremental refuse near to dwellings, and as to the nuisance which is practically inseparable from the process of removal. Sanitary authorities meanwhile have learned that nothing but incessant supervision by their own officers can prevent misuse and consequent nuisance, no matter whether the system in vogue be one of conservancy or not. That being established the triumph of water carriage, as the most cleanly and wholesome, is assured, and not least in crowded courts and alleys, where fresh air is never too abundant. In many of the large towns active progress is being made in the conversion of "dry" closets into slop closets, trough closets, or ordinary waterclosets, and in some of them, as at Sheffield, large sums of public money have been voted as a contribution to the cost of alteration. It appears from Dr. Boobbyer's summary that in at least four towns—Hull, Rochdale, Warrington, and Darwen—it is intended to retain and extend the dry systems in use, but taken as a whole the verdict of the great towns is inclining more and more conclusively to water carriage.

It is not until we come to conditions of rural sparsity of population that the methods for which Dr. Poore pleads so well can be practically successful. What he has demonstrated is that with constant care the solid and liquid refuse of a household can be disposed of in a garden, and that this method of disposal is not only economical in the sense of saving the cost of long drains and sewers, with the alternatives of nuisance or further expense at the outfall, but is beneficial to vegetation, and need not cause harmful pollution of water supplies, even if derived from wells in the garden itself. Only three things are requisite—the garden,

the simple arrangements for collecting the waste matters and conveying them to the soil, and lastly the constant care, Given the first condition, the second presents no difficulty, but the third can scarcely be taken for granted by anyone who has had to do with actual sanitary work in a mixed population. Some degree of discipline and some small amount of daily attention and trouble are needful, and in the absence or intermission of these nuisance will arise. There are careless people in every community, and, apart from this, it will happen from time to time that the routine is broken. Constant efficiency can be secured only by constant supervision, whether by private or public authorities. Where this is forthcoming, as it doubtless was upon Dr. Poore's estate, the system leaves nothing to be desired either from the hygienic or from the economic standpoint. The crowded and gardenless houses of our towns and villages are irretrievably committed to sewers, and water carriage of excreta will follow; but rural communities which still have to face the question of drainage would do well to consider the alternative which Dr. Poore's scheme offers to all householders who are blessed with gardens.

THE ETIOLOGY OF NERVOUS DISEASES.

THE advance which has been made in the knowledge of the physiology of the nervous system and of its disorders during the present generation has been very great. Clinical observers have collected an immense mass of material, and this has been classified with much industry and insight. The diagnosis of diseases of the brain and spinal cord has become a fine art, and in some directions remarkable progress has been made towards a complete comprehension of their etiology. Thus, the influence of chronic degenerations of the vascular system has been studied with much success, and the consequences of new growths, whether malignant or syphilitic, have been very thoroughly worked out and even made amenable to therapeutic methods.

Less progress has been made in the etiology of those diseases in which the nervous substance itself is primarily diseased. There are many cases of acute nervous disorder—acute paraplegia, ascending paralysis, anterior poliomyelitis—and many forms of chronic systematic disease of the spinal cord, in which, though some suspicion may exist, certainty has not yet been reached. A great step was made when it was recognised that syphilis was an exceedingly frequent antecedent in the history of cases of locomotor ataxy. Another important step was taken when it was shown by the collation of cases that widespread acute nervous disorder might be produced by many of the commonest acute infectious diseases. It would have been rash in the discussion of etiology to bring into too close relation acute processes appearing during or immediately after the acute exanthems and chronic conditions associated with the later stages of syphilis, but the broad facts could not fail to be impressive and to suggest comparisons with the nature of the paralysis observed with such remarkable frequency after diphtheria. The recent discussion at the Royal Medical and Chirurgical Society on affections of the nervous system occurring in the early (secondary) stage of syphilis will be memorable because for the first time, so far as we are aware, it brought out prominently the fact that there is, as Mr. Jonathan Hutchinson observed in his opening remarks, a class of cases of nervous disease occurring in the early stage of syphilis which affords a parallel to the nervous affections occurring as early sequelæ of the acute exanthemata. The syphilitic cases are not all of one kind, but the interesting point to note is that among them are cases of acute myelitis which resemble in their clinical features those observed after the acute infectious diseases. The pathological evidence afforded by the cases quoted during the debate (Lamy's case and the case examined by Dr. Mott) is in favour of the view that the mode of origin of the lesion in the cord is identical. The description of the appearances in the two cases mentioned above is in almost the same words as the description given by Dr. Penrose of the lesions in the cord from Dr. Barlow's case of early disseminated myelitis occurring in the exanthem stage of measles.[1] In both the lesion of the nervous system appeared to start from the immediate neighbourhood of the minute vessels of the cord.

MM. F. Vidal and F. Bezançon have contributed to the February number of the *Annales de l'Institut Pasteur* an interesting paper on Infectious Myelitis produced Experimentally. The paper contains a useful summary of previous observations, with copious references. Their summary shows very clearly that a considerable number of microorganisms, including certain pyogenic microbes and the bacillus coli communis, are capable, under certain circumstances not yet fully ascertained, of producing myelitis of disseminated type. Their own researches, carried on in Professor Cornil's laboratory, were made with streptococci. In 6 per cent. of the cases symptoms of spinal-cord disease were produced. In four there was complete paraplegia, and in one of these the affection was ascending, and involved one of the upper limbs. In all these cases the disease progressed rapidly, and terminated fatally in two to four days. In the remaining three cases the progress of the disease was less rapid, and the paralysis was accompanied by contracture. Histological examination showed in all the cases diffuse lesions of a degenerative character, affecting both the grey and the white matter. The blood vessels were gorged with blood, and at some points extravasations had occurred. The ganglia and peripheral nerves were unaffected. Careful search was made for the streptococci in the cord, both by microscopical examination and by cultivation experiments, but in no cases were they found, although they were isolated from the blood. The observers are therefore led to the conclusion that the lesions in the cord must have been due to the action of a soluble poison elaborated elsewhere in the body by the streptococci.

Dr. Gowers, in his very interesting speech in the debate, pressed home the analogy between the diphtherial and the syphilitic paralysis, using that term for convenience in its widest sense, and he suggested that as Sidney Martin and Roux and Yersin had shown that the lesions in the nervous system produced by diphtheria are due to the circulation in the blood of a soluble toxin elaborated by the specific microbe, so the same might hold good for syphilis.[2] The suggestion is a pregnant one, though it leaves, as is indeed inevitable at the present stage of the inquiry, much unex-

[1] *Medico-Chirurgical Transactions*, vol. xvii, 1887.

[2] In his Lettsomian Lectures on *Syphilis and the Nervous System*, (London Churchill 1892.) Dr. Gowers had made a similar suggestion, and quoted Strumpell's observations to the same effect.

plained; in particular, how is it that locomotor ataxy, for instance, should develop many years after the initial attack of syphilis, and long after all other syphilitic manifestations have ceased? Are we to suppose that some residuum of active syphilitic virus has remained somewhere in the body through all the intervening period, to be roused into activity and virulence by some accidental injury or some disorder of a non-specific nature? Or are we to imagine that the circulation of the specific poison during the acute attack inflicted some permanent but not obvious damage on the nervous centres, rendering them peculiarly liable to degenerate under slight causes, or perhaps only in consequence of the changes in vascular supply and nutrition which attend age?

Professor Emmerich, of Munich, has been summoned to Constantinople to investigate the cholera question.

The Erasmus Wilson Lectures at the Royal College of Surgeons will be delivered on April 1st, 3rd, and 5th, at 5 P.M., by Mr. J. H. Targett, Curator of the Pathological Museum, who has chosen for his subject "Certain Forms of Neuropathic Joint Disease."

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

The Right Hon. Arthur J. Balfour, M.P., will take the chair at the dinner in aid of the funds of the Royal Medical Benevolent College, which will be held on May 15th at the Queen's Hall, Langham Place. It is confidently hoped that at this meeting the Council will be able to announce that the scheme for augmenting the annuities of all non-resident pensioners to £30 a year will be carried into effect on July 1st. The early attainment of this end, which has been sought for some years, and the scheme for which was formulated by Dr. Holman in 1892, is largely due to funds coming to the College under the will of the late Dr. Bowen, of Melbourne. In order to ensure the permanent success of the scheme, continued and generous support is still required, a support upon which we make no doubt the institution can confidently reckon. Any gentleman willing to act as steward at the festival, or otherwise to contribute to its success, should communicate with Dr. Holman, the Treasurer, at the London Offices of the Royal Medical Benevolent College, 37, Soho Square, W.C.

THE DISCUSSION ON DIPHTHERIA ANTITOXIN AT MUNICH.

We are asked to make known the following alteration in the programme of the German Congress of Internal Medicine which is to be held at Munich in the first week of April. The discussion on the antitoxin treatment of diphtheria has been fixed for Tuesday, April 2nd. In addition to Professor A. Baginsky, of Berlin; and Drs. Seitz, of Munich; Trumpp, of Graz; and Reger, of Hanover, the following have announced their intention of taking part in the discussion: Professors von Widerhofer, of Vienna; von Bergmann, of Berlin; von Ranke and Buchner, of Munich; Escherich, of Graz; Bokai, of Buda-Pesth; Kohts, of Strassburg; Körte, of Berlin; Hagenbach, of Basel; and Grawitz, of Berlin.

A POINT FOR LONDON "REFORMERS."

From the report of Dr. Collingridge, in respect of the Port of London, for the last half of 1894, it appears that the Sanitary Committee of this the first port of the world is unable to signify to the Council that the prayer of the health officer for an additional steam launch should be acceded to. With only two steam launches and a rowing boat the officers of the Port sanitary authority find it possible to bring only one-third of the coasting traffic under inspection. Of these two launches one or other is often of necessity laid up for a time. It is to be hoped that the present refusal of the Committee will shortly give place to the wiser course of perfecting the system of inspection which is in force in the Port so far as it is possible to make it so. We are glad to learn from the same report that the vexed question of the inspection of alien immigrants has been placed on a satisfactory basis. A new arrangement with the Jewish Shelter Committee provides for the detention and tracing of the poor people who come over to this country, addresses and so forth being registered; and, again, the result of the system of inspection has been to engender more general cleanliness among the poor, so much so that in the past year it has not been found necessary to reject anyone as being in a "filthy or unwholesome condition."

AMBULANCE ORGANISATION IN BERLIN.

Our Berlin Correspondent writes: Profiting by the example of the Emperor, who is in the habit of taking by surprise the garrisons of the German towns he visits, the Committee at the head of the Berlin stations for help in accidents decided the other day to test their efficiency by a fictitious "alarm." Accordingly at midday one day last week the alarm was given from one of the large breweries on the outskirts of Berlin by telephone to the twelve accident stations situated in every part of the town. The result was thoroughly satisfactory; in about a quarter of an hour two doctors, a carrier, and a stretcher made their appearance, followed in a few minutes by four different transport carriages. Within three-quarters of an hour the emissaries of the last, that is the most distant station, had arrived. There were eighteen doctors in all, with carriages, stretchers, attendants, instruments and bandaging apparatus, and even a small transport carriage in velocipede form, which was a novelty.

RESPIRATION AT HIGH ALTITUDES.

Dr. A. Berson, on December 4th last, ascended from Stassfurt, in Prussia, in a balloon inflated with 70,600 feet of hydrogen. At noon, an hour and a half after starting, a height of 22,150 feet was reached, and the temperature was 20° below zero. At this time Dr. Berson began the artificial inhalation of oxygen, with, according to the report in *Nature*, excellent results. About two hours and a-half after starting a height of 31,500 feet was marked; the thermometer had dropped to 54° below zero. Being alone, Dr. Berson considered it prudent to descend, but he had obtained observations at a greater altitude than ever before. During Mr. Glaisher's ascent in 1862 the last observations were made at 29,000 feet.

EPILEPTIC AND DEFECTIVE CHILDREN.

At a recent meeting of the London School Board the School Management Committee brought up a report to the effect that a further communication should be made to the Education Department with reference to the Bill which the Board had suggested should be introduced into Parliament for the education of epileptic and defective children. The Committee proposed that the Bill should be described as an Act to extend the provisions of Act 56 and 57 Victoria, chapter 42—that is, the Elementary Education (Blind and Deaf) Act, 1893—so as to make better provision for the elementary education of defective or epileptic children. Some discussion arose as to the definition of these classes of children, and it was ultimately decided that "the expression 'defective' means too defective, owing to mental or physical disability, to be taught with other children the ordinary subjects of instruction in an elementary school," and "the expression 'epileptic' means a child who is certified by a medical practitioner to be subject to epilepsy." The report was adopted. This enlightened movement is the outcome of the attention recently given to the subject. The views of experts were formu-

lated by the Committees appointed by the British Medical Association and the seventh International Congress of Hygiene and Demography to inquire into the mental and physical condition of children. These and other committees have been at work for some years, and various brief reports, giving the results of the work done, have from time to time been issued; information has also been supplied to several public bodies. A full report, which will furnish a reliable statement of the conditions found among 100,000 children seen in schools, and making suggestions as to improved methods of management of children who suffer from mental or other deficiency, will shortly be published. There is no doubt that the information therein contained will be of use, not only to the London School Board and to all School Boards throughout the country, but to those who had to do with the framing of the Act in question. With regard to the treatment of these children, further schools for the education of those who are defective will require to be opened by the School Board; and for those who are epileptic an arrangement with the National Society for the Employment of Epileptics, part of whose scheme is the education of epileptic children, could, no doubt, in time, be made.

RESPONSIBILITY FOR FROZEN WATER PIPES

Some people suffering from the buffetings of evil fortune derive satisfaction, although but little profit, from the knowledge that a means of redress, however vague, remains open to them. To such the answer of Mr. Shaw Lefevre in the House of Commons in regard to the frozen water pipes may have been consolatory. To people of ordinary experience, however, and to those who have felt the hardness of struggling against organised corporations, there must have appeared an element of sarcasm in the suggestion which was put forward as to the manner in which reform could be forced upon the water companies. It would appear that if the failure in the water supply were due to the freezing of the mains, and if this were due to their being laid at an insufficient depth to guard against the frost, and if a complaint as to the quantity or quality of water supplied were made in writing to the Local Government Board signed by not fewer than twenty householders paying rents and supplied with water by a company, it would be lawful for the Board, within two months after the receipt of such complaint, to appoint a competent person to inquire into the ground of such complaint and report to the Board; and that if, after the receipt of such report, it should appear that the complaint was well founded, the Board would give notice in writing to the company, and that, after the receipt of such notice, the company would be required to remove within a reasonable time the ground of such complaint. All this may be very just and reasonable, but to people who for weeks have been without their proper water supply, who have had to drink water carried in dubious vessels from doubtful sources in distant streets, and whose sanitary arrangements have all the time been absolutely at a standstill, the remedy does not seem to accord with the acuteness of the disease. It is outside our province to discuss the ethical question which has lately been raised so many times as to the justice of being called upon to pay for water which has never been received, but it is our duty to insist on the fact that the matter is by no means one of mere payment for goods received, and that the equity of the case from a sanitary point of view would by no means be met even were the companies entirely to forego all payment for the period during which the water supply was not available. Water is an absolute necessity, and it is generally recognised that a dwelling unprovided with water is unfit for human habitation. It is not a question of water rate alone, but of rent and rating, for Poor-law, municipal, and imperial purposes. All these depend upon the habitability of the house, which in turn depends upon the efficiency of the water supply. The conditions have entirely changed since the time when the water companies obtained their Acts. For good or for evil we have made the scavenging of London depend upon the continuity of the water supply. A great system of watercloset has been introduced, and has been practically forced upon the householders of the metropolis by the action of the inspectors of the various sanitary authorities. The prominent feature in the reports of most inspectors is the number of defective closets discovered. Landlords everywhere are being compelled to bring their closets up to the standard which is now recognised as necessary to health. The screw which is being thus put upon the landlords is only justifiable on the hypothesis that the proper action of these closets is essential to health. The sanitary system of the metropolis hinges on the rapid and complete and immediate removal of all excreta by water carriage.

THEORY AND PRACTICE.

Dr. E. Frankland has been attacking the problem of the conditions affecting the life of micro-organisms in river water; and his results, if not directly conclusive on this much vexed problem, afford material for reflection to those interested in public health matters. He has made observations on Thames water, mainly at Teddington, on the number of microbes as relating to sunshine and temperature. Dr. Marshall Ward, it will be remembered, concluded that sunshine possesses a powerful germicidal action, but its action in this respect, Dr. Frankland considers, is much modified by the thickness of the stratum of water which the solar rays have to pass through before reaching the organism. The main interest of his researches lies in his conclusions as to the number of micro-organisms found in the water under varying conditions of rate of flow of the river, conditions which are, of course, determined by the rainfall. Here we find that conclusions drawn from laboratory experiments are not altogether applicable to apparently the same phenomena in a state of Nature. The discrepancy, of course, depends on the infinite variety of the conditions which exist in Nature, and which, especially in the case of organisms with such protean characteristics as bacilli, cannot be accurately allowed for in any experimental inquiry with our present means of investigation. The moral seems to be that our precautions against waterborne disease must not be relaxed in spite of what those engaged in research may tell us from conclusions drawn from definite and circumscribed conditions, for it is always possible that some unforeseen contingency may interfere and break down our barriers of defence. These therefore should, wherever possible, provide a wide margin of safety.

COTTAGE NURSES AND THE POOR LAW.

We have received the first annual report of the Dorset Health Association, which we have read with a certain qualified admiration. Of the good intentions of the founders there is no question, nor can there be any doubt that in their own way they are conferring a considerable benefit upon the districts in which they are operating. In face of the entire lack of anything in the form of nursing in some country districts it is easy to persuade one's self that any style of nursing is better than none; and there is no doubt that what are called cottage nurses fill a gap. Moreover, it may be quite true that, on the benefit or provident system, it is entirely out of the question for the poor to provide themselves with trained nurses, and that nursing in country districts must be done either as a charity or by an inferior grade of only very partially trained women. We are by no means blind to the difficulties of the situation; at the same time we must not be blind to the dangers of any plan by which nursing is relegated to any but nurses. By dint of great care in selection, by constant supervision, and by the exercise of more common sense and enthusiasm than can usually be relied upon for the purpose, a system of nursing by so-called "cottage nurses" may here and there be successful; but it is a step on the down grade, and it is diffi-

cult to know where things will end if these people are to be recognised as nurses. The drift of the tendency, however, is shown by a paragraph in the report, which says that "in one or two unions the local association is undertaking the nursing of the outdoor paupers at the scale of fees fixed by the request and at the expense of the guardians." We should like to know whether these nurses who are thus officially recognised are of the "trained" or of the "cottage" type.

INFECTIOUS AMBULANCE WORK IN LONDON.

Nothing can better illustrate the immensity of the task undertaken by the Metropolitan Asylums Board in dealing with the infectious diseases of London than a consideration of the report of the Ambulance Committee of that Board, dealing as it does with the apparently simple detail of getting the patients to and from the hospitals. During the year 1894 a total of 29,688 patients were moved from place to place, the great mass of them from home to hospital, some from one hospital to another, others from hospital to home. The number of patients removed by the land ambulances was 29,688, the journeys run being 19,536, and the number of miles traversed by the vehicles 201,091, while the river ambulance steamers carried 1,101 patients and ran 21,785 miles. This was no small task, especially as it was not evenly spread over the whole year, but came in rushes, which severely tried the efficiency of the service. During the sudden outburst of small-pox which occurred in Marylebone in July, 37 cases were removed to the ships in one day, and when it is remembered that each removal of a patient from Marylebone to the South Wharf involved a journey on the part of the ambulance of nearly twenty miles, besides the river transit, it becomes obvious that however expensive it may seem to maintain a large permanent ambulance staff, its existence is an absolute necessity. Immediate removal is the very essence of the successful stamping out of epidemics, and the protest that during certain seasons the ambulance arrangements are in excess of the requirements is entirely beside the mark. After all, taking the whole year's work, the cost of the land ambulance service was only about 1s. 7d. for each mile run, which included both horse, carriage, driver, and nurse. In more than half the journeys more than one patient was removed.

SMOKING AS A PROTECTION AGAINST LUNG DISEASE.

Tobacco has a doughty champion in Dr. Charles J. Montgomery, who, writing in the Philadelphia *Medical News*, maintains that smoking is a preventive of pulmonary disease. According to him, tobacco smoke is not only an antiseptic and germicide of considerable power, but by its action on the pulmonary circulation it is useful in relieving or preventing any tendency to chronic congestion of the lungs. Even when the smoke is inhaled into the lungs he holds that it does no harm, unless it be mixed with irritating or poisonous substances produced in the burning of inferior kinds of paper often used in the making of cigarettes. In support of his contention, Dr. Montgomery alludes to the comparative immunity from pulmonary disease which is enjoyed by workers in tobacco factories. He quotes Dr. Rueff, who says that he has known some who entered the factory in a state of emaciation, with blood-spitting and cough, and who there got rid of all symptoms of lung disease. Consumption is said to be unusual in tobacco factories. That tobacco kills microbes has been proved by Tassinari,[1] who made an elaborate series of experiments as the result of which he strongly recommended smoking as a means of protection against cholera and other infectious diseases, and in particular as a disinfectant of the mouth. Wernicke[2] also showed that tobacco destroys the cholera vibrio. Still more germane to the subject of Dr. Montgomery's paper are the observations of Visalli,[3] who during the epidemic of influenza in 1889 was struck by the fact that the workers in tobacco factories almost entirely escaped the prevailing scourge. In Genoa, for instance, out of 1,200 workpeople, not one was attacked. In similar establishments in Rome the number of workers who suffered from influenza was so insignificant that the works never stopped, and no special precautions were considered necessary. These facts are interesting, but not everyone can spend his days in a tobacco factory, and it is, to say the least of it, doubtful whether the same effect can be got by smoking cigarettes. As far as the prevention of lung disease is concerned, a partially antiseptic atmosphere, such as that caused by tobacco smoke, is no doubt to some extent a safeguard against micro-organisms, but there are other organs—notably the heart and the nervous system—which have to be taken into account. We do not believe that smoking *in moderation*—that is, well within the limits of tolerance, which vary in different individuals—is in the least injurious, but there is no doubt that many persons smoke far too much, to the grievous damage of body and mind. While allowing that Dr. Montgomery's doctrine has (in addition to its *a priori* plausibility) a distinct basis of fact to support it, he himself would agree that it must be applied with discrimination. It would hardly be wise, for instance, for a young lady with a tendency to "chest delicacy" either to smoke much herself or to spend an hour or two every day in a smoking compartment on the Underground Railway.

[1] *Annali dell'Istituto d'Igiene Sper. della R. Univ. di Roma*, vol. 1, 1891.
[2] *Hygien. Rundschau*, No. 21, 1892.

BLACK WITCHCRAFT.

The spring of 1895 has been disgraced by sporadic cases of witchmania. White witchcraft has long flourished in those parts of the United Kingdom in which the Celtic race predominates, and in this country it is still rampant in what used to be West and North Wales. We had fondly hoped, however, that black witchcraft was extinct, and that the treatise of Upham and the great bicentenary meeting held at the Essex Institute of Salem in 1892 marked the last phase of an epidemic which was once universal. A distressing story of horrible cruelty comes from Tipperary, and upsets our preconceived idea that questions of black witchcraft were no longer of interest to anyone but to the student of rationalism. A woman, aged 27, the wife of a cooper, has been burnt to death under the supposition that she was a counterfeit or changeling who, being hurt, would disappear, whilst the real woman, held as a hostage by the fairies or good people, would be returned. The episode is one full of interest to the student of folklore, but it does not surprise him. It merely takes him back to the time of Kilmeny and to that of Thomas the Rhymer, and it shows him that the same train of thought is still possible within a short day's journey of the most cultivated intellects. The method adopted has been the one in use from time immemorial. Fire in one form or another has always been regarded as the great restorer and purifier. It is only in the oldest rituals, however, that the fire is actually employed to compel the restoration of the changeling, so that the present instance appears to be a return to the most ancient and savage form of the custom. Children, especially those who had not been christened, were most liable to be changed, a confounding, no doubt, of cause with effect; for at a time when baptism had more than a symbolical meaning, only those children were left unbaptised who were too ill or too puny to be taken to church, and it was especially such children who were likely to become marasmic and so to appear as changelings. The treatment recommended for such children was that the mother should heat the oven very hot, a servant or friend being instructed to ask in a loud voice: "Why do you heat the oven so hot?" The mother would then reply: "I am going to burn my child." The question was asked and answered three times. The changeling was then put upon

[3] *Gazetta degli Ospitali*, 1889.

the peel as if to thrust it into the oven, when it was expected that the fairy would rush in and save her offspring, at the same time restoring the original child. In other cases, as in the island of Lewis, the Dessil fire was carried round children night and morning until they were christened to prevent them being carried off by the fairies. It was easy to detect a changeling apart from its wizened aspect, for it could readily be made to betray its age. The usual method was to boil water over the fire in eggshells, when the changeling would cry out: "Well, I am as old as the Westerwald, but I never saw anything boiled in eggshells before." Or, as in the Breton folksong, where he sees his fostermother cooking for ten servingmen in one eggshell, and cannot forbear betraying himself by the remark: "I have seen the egg before it became the white hen and the acorn before the oak; I have seen it acorn and oak, and in Brezal wood, but never aught like this." Old as these stories are, however, it would appear that they are the echoes of a still older time when it was the changeling himself who was put into the pipkin symbolised by the eggshell, and was boiled to death in much the same way as the wretched subject of the recent Irish atrocity.

MORE HUMOURS OF HOMŒOPATHY.

IN these days, when the "new humour" is eclipsing the gaiety of nations, and the latest novel is generally a treatise on pathology or political economy in disguise, it is difficult for the weary man to find anything in the shape of light literature that is not more depressing than his work. In the general dulness of contemporary literature we should be grateful to our friends of the homœopathic persuasion for continuing to provide us with so much matter for honest laughter. To anyone suffering from the depression that follows influenza, we can confidently recommend a book by Dr. W. A. Dewey entitled *Essentials of Homœopathic Therapeutics*, and published by Messrs. Bœricke and Tafel, of Philadelphia. We are indebted to our excellent contemporary the Philadelphia *Medical News* for bringing us acquainted with this delightful work, which will, as our forefathers used to say, "desoppilate" the heaviest spleen. We cannot give anything like an analysis of the book, which indeed, like homœopathic medicines, defies analysis; we can give only a few specimens, taken almost at random, of the unconscious humour which pervades its pages. The grammar, it will be observed, matches well with the matter, and the personification of the drugs gives a final touch of whimsicality. Take, for instance, the sad case of a drug which has hitherto been considered fairly respectable. We are told that "stramonium has visions of animals coming towards him from every corner." Perhaps stramonium had been fortifying "himself" with whisky. Thuja also would seem to be in a bad way, but as "he" (or is it "she"?) lies under suspicion of heresy, our sympathy is not so keen as it would be for an orthodox drug in similar circumstances. Still it is distressing to learn that "the diarrhœa of thuja is a chronic diarrhœa traceable to vaccination forcibly expelled like water from a bunghole," and we hope neither Mr. Tebb nor Mr. Hutton will get to know of this fresh misdeed of their particular "bogey." Here is a conundrum which we must confess ourselves unable to solve: "What drug has nausea at the thought of food? Even mention food and he vomits." If we were asked to state what produced the following symptoms: "Patient thinks she will go crazy, is suspicious, has visions of rats, etc., is conscious but can't help it," we should with some confidence say gin. Does anyone wish to know the symptoms caused by anacardium? "It produces a weak memory, he imagines he hears voices; and another condition is a propensity to swear," possibly, it may be hinted, in response to the "voices." Nitric acid also is said to "produce a disposition to swear," therefore, on the homœopathic principle, it should cure that evil habit. Perhaps some philanthropic golfer will try it and report the result. The following is an interesting question: "What drugs have the symptom that the patient has to think how words are spelt?" Whatever may be the case with the disciples of Hahnemann we regret to say that in "allopaths" this symptom not infrequently exists independently of drugs. There is a pretty close connection between sulphur and certain schools of theology; it is therefore not altogether surprising to learn that the "mental symptoms of sulphur" are as follows: "Patient fears she will not be saved, there is anxiety about her own soul, but perfectly indifferent about the souls of others." An occasional dose of sulphur might be useful to some well-meaning but mistaken people. But enough of this nonsense. Clearly some of the homœopathic fraternity dilute their sense as well as their drugs to the infinitesimal degree. Their silliness is like unto Bottom's dream, for it hath no bottom.

THE HEALTH OF THE PREMIER.

LORD ROSEBERY has improved considerably in health during the week. We understand that he has been able to sleep much better and entirely without narcotics. He probably will not leave the Durdans till next week.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.

MR. T. HOLMES, Hunterian Lecturer, will deliver three lectures in the School, in the month of June, on The Experience of the Hospital in Abdominal Surgery (excluding gynæcological operations) from 1888 to 1894 inclusive. Dr. W. H. Dickinson, Baillie Lecturer, will deliver three lectures in the School in the same month: 1, on Some Points touching Valvular Disease; 2, on Some Recent Observations relating to the Cardio-vascular Change of Renal Disease; 3, on Dropsy. These lectures will be public, and members of the profession will be admitted on presenting their cards. The dates and hours will be announced later.

THE INTERCOLONIAL MEDICAL CONGRESS.

As has already been announced in the BRITISH MEDICAL JOURNAL, the fourth meeting of the Intercolonial Medical Congress will be held at Dunedin, New Zealand, in February, 1896. In 1886, Dr. Benjamin Poulton, of Adelaide, suggested that a Congress should be held in each of the capitals of Australasia in rotation. The first took place in Adelaide in 1887; the second in Melbourne in 1889; the third in Sydney in 1892. The remaining capitals—Brisbane, Hobart, and Perth—will be the scene of future meetings, though in what order has not yet been decided.

THE INFLUENZA EPIDEMIC.

THE mortality from influenza in London last week showed a further marked decline from that recorded in the two preceding weeks. The number of deaths primarily referred to this disease, which had been 111, 296, 473, and 349 in the four preceding weeks, further declined to 225 during the week ending Saturday last, March 23rd. The cases in which influenza was noted as a secondary cause also showed a considerable decline. Of the 225 deaths directly attributed to this disease last week in London, 37 were of persons aged under 20 years, 24 of persons aged 20 and under 40, 50 of persons aged 40 and under 60, and no fewer than 115, or more than half the total number, were of persons aged upwards of 60 years, of which 26 were of persons who had reached their eightieth year. Although the decline in the mortality from influenza last week was greatest among old people, the mortality among elderly persons, in proportion to population, again showed a very large excess; for while among persons under 60 years of age the death-rate from influenza was equal to 1.4 per 1,000 estimated to be living at that age-period, among persons aged upwards of 60 years it was 21.3 per 1,000. Thus, among equal numbers living, to 1 death

from influenza among persons aged under 60 there were 15 deaths among persons aged upwards of 60 years. Although there was a further general decline last week in the mortality from influenza in London the disease again showed very fatal prevalence in Paddington, Islington, Hackney, Shoreditch, Wandsworth, Camberwell, Greenwich, Lee, and Sydenham. The deaths referred to diseases of the respiratory organs in London, which had been 1,448, 1,366, and 1,031 in the three preceding weeks, further declined to 740 last week, but were 254 above the corrected average; of these 740 deaths, 442 resulted from bronchitis, against an average of 291; and 243 from pneumonia, against an average of 143. In some of the large provincial towns influenza is fatally prevalent, and caused high death-rates last week. In Blackburn the death-rate from all causes was equal to 36 4, in Manchester to 36.5, in Wolverhampton to 37.1, and in Oldham to 38.1; while in Brighton it was as high as 47.5 per 1,000, and considerably exceeded the rate recorded in any other of the thirty-three principal English towns. Our Edinburgh Correspondent telegraphs: Although the influenza epidemic has now greatly abated in Edinburgh, an unusually high death roll still continues to bear witness to its dire results. The deaths last week were 197, of which at least 137 were due to diseases of the chest. The mortality of the four preceding weeks was 188, 180, 225, and 233. Last week's record was equivalent to an annual mortality of 38 per 1,000; 56 deaths were of persons over 60 years of age. Zymotic diseases were responsible for 23 deaths. There have been some tragic occurrences in connection with the influenza epidemic in Edinburgh. In a family of 6, all stricken with the disease, 4 have died and the other 2 are in a critical state. In another family 3 members died within forty-eight hours; the family doctor died a few days later—though not of influenza—and a fourth member shortly after. In a third case an entire family of 4 children died within twenty days. There has been at least one suicide in consequence of the epidemic. The deaths at Leith last week were equivalent to an annual mortality of 42 per 1,000.

THE MANCHESTER ROYAL INFIRMARY.

It has been recognised for several years past that the accommodation for in-patients in the Manchester Royal Infirmary—the chief hospital of Manchester and the seat of clinical instruction—is quite inadequate to the needs of the city, and also that the existing building is highly inconvenient, and totally lacking in many modern requirements, such as clinical laboratories, isolation wards, and the like. Although, however, there is a general consensus of opinion that the hospital requires considerable enlargement and improvement, there is much discussion as to the best means of providing the necessary accommodation. The Board of Management and the medical staff are almost unanimously in favour of providing a larger hospital on the present site, which is in the heart of Manchester, and indeed is practically the central point of the town, being the focus of its tramway system, and nearly equidistant from all the railway termini. On the other hand, the authorities of the Owens College are anxious to see the proposed extension upon their "hospital estate," a large plot of land situated about half a mile from the college and about a mile and a half from the centre of the town, which was presented to the Owens College by the trustees of the late Sir Joseph Whitworth, for purposes of hospital accommodation, more or less closely under the direction of the college authorities. Lastly, the owners and occupiers of property near the present infirmary object strongly to any of the considerable area of vacant land now surrounding the hospital being covered by buildings. As a resultant of these forces four schemes have been submitted to the public of Manchester, or rather to the "infirmary trustees"—that is, those subscribers who are entitled to vote in connection with the government of the institution. The first and most obvious of these schemes was the enlargement of the existing hospital by the addition of lateral wings—a plan which has been definitely negatived. A second suggestion was to add a fourth floor to the present building, thus obtaining the required accommodation without covering more of the open space, but this proposition has also received very little support, and may be regarded as disposed of. Practically, the two remaining schemes hold the field. The one is to rebuild the hospital upon its present site, obtaining the accommodation by rearrangement of details and by adding to its height; the other is to build a new hospital on the Owens College estate. At a meeting of the trustees held on March 26th, it was decided to remit the question to the consideration of a Special Committee consisting of the Board of Management, together with an equal number of gentlemen to be nominated by the Lord Mayor, the President of the Chamber of Commerce, and the Chairman of the Board of Management. To the deliberations of this body no time limit has been fixed, but as the situation has been fully discussed for some three years, and the pressure upon existing resources is extreme, it is to be hoped that they will not be unduly prolonged, and that Manchester may shortly obtain a general hospital worthy of the city and of its medical school.

THE VALUE OF ELECTRICAL TREATMENT.

Mr. Victor Horsley, in his lecture at the London Institution on Electrical Currents in the Living Body, devoted part of the time at his disposal to a consideration of the therapeutic uses of electricity. While admitting that it is useful as a means of stimulating the activity of nerve and muscle, he was not inclined to credit it with much more value. After mentioning that nutrition may be beneficially affected in certain cases, he said that the use of electricity for this purpose was quite empirical and arbitrary without scientific evidence to prove that there was any quantitative acceleration or increase of tissue changes in the manner indicated. D'Arsonval, however, has shown experimentally that the metabolic processes of the body can be largely modified and increased by electrical currents. Debedat, in some experiments on rabbits, has obtained clear evidence of the effect of electricity upon muscular growth; and Truchot has published some experiments showing a marked effect produced by electrostatic charges upon himself. Electrotonic and electrolytic effects are also believed by many to be of use in treatment. Although the construction of a scientific basis for medical electricity is not yet very far advanced, it is none the less in progress. The chief need at the present time is for more investigators, and for a more general sympathy with a branch of medical treatment which has hitherto been somewhat unfortunate owing to the manner in which it has been exploited by ignorant pretenders.

HELIUM AND ARGON.

At the anniversary meeting of the Chemical Society on March 27th, Professor Armstrong, the retiring President, announced that the Faraday medal had been conferred on Lord Rayleigh, in recognition of the extreme value of his researches, and of the unwearied perseverance and consummate skill which had resulted in the discovery of the new gas—argon. Lord Rayleigh would in consequence accept the office of Faraday lecturer. Lord Rayleigh, in expressing his thanks, repudiated altogether the suggestion which had been made in some quarters that an antagonism existed between chemists and physicists in the matter of the discovery of argon; in this discovery Professor Ramsay stood on a footing of absolute equality with himself. Professor Ramsay then formally made the startling announcement—which had already become known as a matter of rumour—that another new element had been identified on the earth. In an experiment upon the mineral clevite, which, according to an observation of Hildebrand's, yielded nitrogen when treated with sulphuric acid, he had ascertained that the gas actually given off was, as had been

partly suspected, argon. Spectroscopic examination of the gas obtained from this source yielded the interesting observations that the spectrum contained a very bright yellow line, identical in position with the yellow line observed in the spectrum of the sun's chromosphere, and attributed to the hypothetical element helium. Whether helium could be separated from argon remained to be seen.

GRAND OLD MEN OF MEDICINE.

Dr. R. Baynes, of Rockland, Maine, who is still in practice at the age of 99, should be added to the list of "grand old men" of medicine. He is said to live on "Graham diet," which is a form of vegetarianism; he eschews potatoes, but eats fruit. His drink is almost entirely water, milk, and chocolate; he condemns the use of tea, coffee, liqueurs, and tobacco. He has an almost perfect set of natural teeth, and his sight is excellent. Like most old men who live to a great age Dr. Baynes has a "fad," to which he attributes the chief part in prolonging his life. This is the avoidance of beds. Except when away from home, he has not slept in a bed, or even on a mattress, for over fifty years. He has a reclining chair of iron framework, over which he spreads a few blankets and rugs. But perhaps the oldest medical man in practice is, if a Dalziel telegram speaks correctly, Dr. Boisy, of Havre, who is 103 years old. He goes, it is said, his rounds every day, his practice lying chiefly among the poor. At one time, it is stated, he was in practice in India. He has taken alcoholic beverages and smoked tobacco since his youth, though he has been moderate in the use of both. His father, it is added, died at the age of 108. In connection with this subject of "grand old men" of medicine, we take the opportunity of congratulating Mr. William Salmon, J.P., D.L., of Penlayne Court, near Cowbridge, Glamorganshire, who recently celebrated his 105th birthday. Mr. Salmon was born at Wickham Market in 1790, and became a Member of the Royal College of Surgeons in 1809, the year Mr. Gladstone was born. It is comforting to the members of a profession in which the average of life is somewhat low to be able to point to two such centenarians as Mr. Salmon and Dr. Boisy.

THE CARE OF THE SICK AND WOUNDED IN THE JAPANESE ARMY.

Dr. Ishiguro, Chief Surgeon of the Japanese Army, has published an open letter to the families which have members serving in the war, in which he gives particulars of the clothing and rations of the troops, which show that the most enlightened care is taken by the Japanese Government to secure the physical wellbeing of the soldiers. The death-rate among the wounded under the care of the surgeons is given as 4 per cent.; that among the sick as only 2.9 per cent. The Japanese army, however, suffered a good deal from dysentery, typhus, and other epidemic diseases in Corea, and climatic conditions have also been responsible for a considerable amount of sickness. The total number of "military medical attendants" with the army is 1,350; of these 380 are surgeons and pharmacists, the rest being male nurses. The Red Cross Society has 138 surgeons and nurses with the army, besides a much larger number who look after the sick and wounded in the various barrack hospitals in Japan. As showing the progress made in medicine and surgery in Japan, Chief Surgeon Ishiguro points out that, while in the Satsuma civil war the mortality among the wounded was 170·5 per 1,000, in the present campaign it has been only 27.2 per 1,000.

SOOTHING SYRUPS.

At an inquest held recently in Sheffield with regard to the death of an infant, aged 5 months, the coroner, Mr. D. Wightman, uttered a timely warning. It appeared from the evidence of the father, as reported in the *Sheffield Independent*, that the mother of the child was in the habit of giving it some "infant mixture" daily. The father did not know "why his wife had given the cordial, but thought it was only because she was in the habit of doing so." In reply to a juror, the coroner said that the mixtures given to children no doubt contained some kind of opiate. The coroner spoke very strongly of the "silly habit" of administering opiates to infants. Not all the children thus treated were killed, but their health was ruined and a craving for opium in later life created. In the discussion on legal restraint upon the employment of women in factories before and after childbirth, in the Section of Public Medicine at the annual meeting of the British Medical Association at Nottingham, several speakers drew attention to the evil consequences which followed from the habitual resort to this practice, and Dr. Aldred pointed out that where children were put out to nurse by day the old women who looked after them were in the habit of giving a dose of some narcotic, which caused the children to sleep all day and thus give little trouble. In the evening, having recovered from the effects of the narcotic, the mother was distressed to find her child unnaturally lively, and was very apt to repeat the dose. In this way the child was drugged day and night.

MEDICAL PRACTICE IN SPAIN AND ITS COLONIES.

In August, 1894, the Spanish Government issued an order making it compulsory on all who wished to practise medicine or surgery to take out a licence (*patente*). This licence was to be granted only to legally-qualified practitioners, and anyone practising without one was to be liable to criminal prosecution. The licences are grouped into classes, according to the number of inhabitants in the town or district in which the practitioner resides. There are ten classes, each of which is subdivided into five grades. The cost of the licences varies according to the class and the grade in each class; it ranges from 25 to 600 pesetas (£1 to £24). This annual licence takes the place of the old *Contribucion Industrial*—a species of income tax collected quarterly. The effect of this new order will be to prevent any foreigner from practising in Spain or any of her dependencies until permission has been obtained from the central authorities.

BICYCLE OR HORSE EXERCISE FOR WOMEN?

Dr. Dickinson, of Brooklyn, declares that bicycle riding has certain advantages over the present style of horseback riding. The fashionable contorted seat does not develop the body symmetrically, and the awkwardness due to the fact that the transverse diameter of the pelvis and the transverse diameter of the upper trunk do not correspond means strain, to say nothing of the useless effort entailed in trotting. When women get into the habit of riding part of the time with the stirrup on the right side and part with the stirrup on the left, one objection to the spiral rotation and the unsymmetrical development will be overcome; and it is to be presumed, Dr. Dickinson thinks, that eventually they will all ride astride as their ancestresses did before the days of Queen Elizabeth. The expense precludes this form of exercise for most women. Cheapness, safety, accessibility, and the small amount of preparation required are all on the side of the wheel, and holds good to even a greater degree for the woman than for the man. The woman on a bicycle is at an advantage as compared with the woman on horseback, as custom does not enforce the tailor-made, hour glass, shop-window figure, and she can wear a jacket open in front with a short waist beneath it. Dr. Dickinson commends the elegant costumes worn in Paris by bicyclists. In view of woman's disabilities, and the disadvantages under which she has suffered in attempts to obtain interesting and beneficial muscular exercise, Dr. Dickinson considers that it seems hardly too much to say that the promise from the bicycle is far reaching. Through it and the habits it will engender we look for better dress, freer dress, shorter dress in bad weather; for better exercise, for out-of-door activity, for steadier nerves, and stronger muscle.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

Dr. Klein asks us to state that he will not be able to supply more fluid antitoxin serum. The experiments for the production of the serum in a dry state are now nearly complete, and it is hoped that a supply of antitoxin in this form may be available by the end of next month.

The Ormskirk Rural District Council have resolved to supply diphtheria antitoxin serum and sterilised apparatus to all registered medical practitioners for use within the district free of charge. The Medical Officer of Health, Dr. Herbert Peck, will upon request supply a sterilised syringe and a sufficient quantity of the serum. Arrangements have also been made for bacteriological examination, and sterilised swabs and full directions for use will be supplied for use in any suspected case.

CASES TREATED BY DR. KLEIN'S ANTITOXIN.

Addenbrooke's Hospital.

Mr. H. S. Wild, House-Physician, sends the following report of a case of diphtheria, under the care of Dr. Bradbury:

The patient was a boy, aged 5 years, who contracted diphtheria from his sister. She had been removed from the hospital four days previously apparently convalescent. The girl's throat was examined on the day that her brother was admitted, and found to contain the diphtheria bacillus. The patient was a well-nourished boy, with flushed face, alæ nasi working freely, inspiratory and expiratory stridor, and harsh, barking cough. There was moderate recession of the lower sternal, supraclavicular, and suprasternal regions. Membrane was present on both tonsils. The glands beneath the jaw were enlarged; knee-jerks absent; pulse 120, respirations 24, temperature 100·8°.

On admission, Klein's antitoxin (7 c.cm.) was injected into the left thigh, with the usual antiseptic precautions. Twenty-four hours after the injection the temperature had fallen to normal; there was no retraction, but slight cough and stridor. Thirty-six hours after injection the membrane had commenced to separate from the left tonsil, and by the end of forty-eight hours all membrane had disappeared; the temperature remained normal, pulse 84, respirations 20. There was no stridor, the boy having apparently quite recovered.

On the morning of the fifth day of the disease, and three days after the injection of the antitoxin, he became restless, and complained of frontal headache, thirst, and drowsiness. The temperature rose rapidly to 103°, pulse 132, respirations 26. Nothing was found to account for this sudden change. There was no membrane visible in the throat. The site of puncture was quite healthy, without any sign of inflammation. Next day, at 4 P.M., the temperature had risen to 104°, pulse 140, respirations 38. The child lay with his mouth open, from which saliva was escaping; his lips were dry and cracked. The mucous membrane of gums, lips, and cheeks was spongy and indented. The tongue was swollen, and covered with a thick white coat, its edges being indented by the teeth. The glands were much enlarged. There was no membrane on the throat, and nothing abnormal found in the chest or abdomen. In the evening he complained of slight abdominal pain, and the abdomen was slightly distended, but its walls were flaccid. The bowels acted once, the motion being loose, of a light yellow, and very offensive.

On the seventh day the boy was delirious at times. The tonsils and palate were much swollen, and the glands had still further enlarged. No membrane was seen. There was no distension of the abdomen.

On the eighth day the tonsils and palate were less swollen, and the glands had slightly diminished in size. A symmetrical, dusky red, slightly papular eruption, most marked on the elbows, knees, and legs, where it tended to become petechial, appeared. In the groins and the lower part of the abdomen it closely resembled the eruption of scarlet fever. The soles of the feet, the palms of the hands, the scalp, and the skin behind the ears were unaffected. It did not itch. From this to the tenth day the boy was in a drowsy state, refusing food. On this day a grey membranous patch appeared on the left tonsil; the glands had not diminished in size.

On the eleventh day membrane was present on both tonsils; there was an abundant, thick, muco-purulent nasal discharge, causing excoriation of the alæ nasi and upper lip. The lips were cracked and bleeding. Pulse 160, respirations 44. The child's aspect was pale and general condition unsatisfactory.

On the thirteenth day there was some slight improvement. The nasal discharge had much diminished; the mucous membrane of the lips and cheeks appeared normal; the tonsils were less swollen, and the membrane had diminished. The glands were less swollen. The rash had almost disappeared, only a few petechiæ remaining on the legs. The conjunctivæ were slightly injected, with slight muco-purulent discharge from the eyes.

The next day the conjunctivitis had ceased, the rash had entirely disappeared, and the glands had still further diminished.

On the fifteenth day fine desquamation began on the legs. A satisfactory view of the throat could not be obtained, being obscured by post-nasal discharge.

On the seventeenth day there was no improvement in general condition. There was a discharge of muco-purulent fluid from the left ear.

On the eighteenth day desquamation had ceased on the legs, but was proceeding on the fingers and back of the hands.

On the twentieth day the child had become much wasted, and complained of pain in the left forearm and knees. There was no tenderness or redness. The abdomen was tumid. The liver was enlarged and tender; the upper limit of dulness was the sixth rib, and the edge was felt 3 inches below the costal margin in the nipple line. The spleen was enlarged and tender, its lower edge being felt midway between the costal margin and the anterior superior iliac spine. Pulse 172, easily compressible, regular, even; respirations, 60. The child was in a drowsy condition, and his face being very pale.

On the twenty-fifth day there was no improvement in the general condition. Nasal discharge had ceased. The temperature fell to normal, this fall being coincident with an increase of the aural discharge. He vomited.

On the twenty-sixth day the condition was grave. Temperature subnormal, pulse 120, respirations 36. There was almost complete suppression of urine, only 1 ounce being passed in twenty-four hours. During the early part of the day a small amount of blood was lost from the mouth and nose, and later dark blood was passed *per rectum*.

On the twenty seventh day bleeding took place from the left nostril. In the evening convulsive movements began on the left side of the face, which soon became general. During the convulsions urine and fæces were passed involuntarily. The convulsions lasted two hours, at the end of which time the patient died.

To sum up: On admission a cultivation was obtained from the throat which showed the diphtheria bacillus. The urine, which was passed in fair quantities till just before death, contained a trace of albumen throughout. Albumen was never present in any large amount. No blood or casts were found although frequent examinations were made. Knee jerks were absent throughout. Membrane was absent from the throat on the fifth day of disease and reappeared on the tenth. A rash appeared on the eighth and disappeared on the fourteenth day. Desquamation began on the fifteenth, joint pain appeared on the twentieth, day, when the liver and spleen were found to be enlarged. There was bleeding from the gums, nose, and intestinal canal.

Death, which occurred on the twenty-seventh day, was preceded by convulsions. Symptoms were treated as they arose. Stimulants were given as required.

Necropsy.—Both tonsils were of a dark greyish black colour. On section each exhibited a very offensive, black, gangrenous core about the size of a hazel nut. The vocal cords were swollen and covered with thick secretion. The whole of the respiratory mucous membrane was congested and exhibited

small hæmorrhages. There were some small patches of collapse and of catarrhal consolidation in the lungs. The heart muscle was pale. There were some petechial hæmorrhages into the pericardium. The kidneys were very pale with many small hæmorrhages. The liver was very pale. The stomach was fairly natural. The upper two-thirds of the intestine were fairly natural, the ileum was much congested and contained some blood-stained fluid. The spleen was a little enlarged, not particularly soft. There was some discharge from the left ear. (Left temporal bone removed for examination.) A white clot was found in the left lateral sinus. There were some suppurating glands behind the sterno-mastoid on the left side.

Oxford City Hospital.

Mr. Alfred Winkfield, F.R.C.S., reports the following cases. It should be premised that in all the cases a routine local treatment was adopted, namely, having the throats sprayed every two hours with a solution of borax and carbolic acid in glycerine and water, and mopped every six hours with perchloride of iron tincture.

Case I.—W. A., a boy aged 2¾, had been ill for a week with sore throat, cough, discharge from the nose, etc. On admission on December 24th, 1894, there was considerable swelling of both tonsils with large yellowish patches upon them, and upon the uvula; the glands were enlarged on both sides of the neck; the breathing was laboured and noisy, and there was some tucking in of the intercostal spaces during respiration; the voice was husky. The boy had a cough, somewhat croupy in character, and there was discharge from both nostrils; his pulse was 160, and very feeble; temperature 100.6°, respirations 40. During sleep he held his breath, owing to the swelling of his throat and the falling back of his tongue, until his face became quite livid; there was no albumen in the urine. At 7 P.M., antitoxin (6 c.cm.) was injected in the buttock; after this the temperature dropped to 98.8° F., and he broke out into a profuse perspiration, which lasted throughout the night; his pulse was rapid and at times very feeble; his breathing laboured, and very irregular during sleep. On December 25th he was drowsy, with occasional croupy cough; his breathing was very irregular and laboured; his throat was much the same as the day before. At 11 A.M., antitoxin (4 c cm.) was injected in the buttock; this was again followed by profuse perspiration. The temperature dropped to 98.6° F.; pulse 156, feeble; respirations 38. He took liquid nourishment pretty freely. On December 26th the breathing was easier, his cough only occasional and less croupy, his throat was less swelled, the membrane separating, and the discharge from nostrils had ceased. On December 28th he had passed a good night, and was generally improving; his throat was much cleaner, his temperature normal; the breathing was easy, and the urine free from albumen. On December 30th his throat was quite free of membrane, and he was steadily progressing towards recovery. There were no symptoms of paralysis. Dr. Ritchie found the diphtheria bacillus in the membrane.

Case II.—A. G., a boy aged 6 years, a puny delicate child, had been ill four days with sore throat, difficulty in swallowing and in breathing. On admission, on January 1st, his breathing was laboured, and there was copious thin discharge from the nostrils. The glands on the left side of the neck were much enlarged, and those on the right side slightly enlarged; he could swallow fluid in small quantities, his breath was very offensive. The tonsils were red and swollen with a large patch of membrane upon the left one. Temperature 100.6°, pulse 120, respirations 28. At 10.10 P.M., antitoxin (6 c cm.) was injected between the shoulders. On January 2nd he had slept fairly well, and had slight general perspiration through the night; his breathing was noisy and laboured. There was slight cough, and a free discharge from the nostrils, and also from right eyelids. He complained of pain at the seat of injection. His urine was albuminous, and there was difficulty in swallowing nourishment. Temperature was 96.6°, pulse 99, respirations 20. There was membrane upon both tonsils, one large piece had become detached during the night. Antitoxin (5 c.cm.) was injected between the shoulders. On January 3rd he had slept well, his breathing was still laboured at times, and there was a good deal of discharge from the nose. Temperature 98.8°, dropping in the course of the day to 97°; the membrane was peeling off the tonsils; the swelling of the glands was subsiding, and there was less albumen in the urine. On January 4th he was decidedly better, the membrane was peeling off both tonsils, he swallowed with less difficulty. The urine was free from albumen. Temperature 97°. On January 6th the throat was quite clear of membrane, the temperature was subnormal. He took nourishment well. There was slight epistaxis. On January 24th, albumen was again found in the urine. This condition lasted for nine days; the quantity of albumen at one time being considerable. He then slowly but steadily progressed until recovered. Dr. Ritchie verified the diagnosis by examination of the membrane.

Case III.—K. R, a girl aged 10 years, was taken ill on January 12th with sore throat and sickness. She had scarlet fever five years ago. When admitted on January 13th her face was flushed, her breathing fairly easy, the tongue very foul, and her breath very offensive. There was swelling of glands on both sides of her neck; both the tonsils were much swollen, and covered with yellowish patches of membrane; there was no discharge from her nose. Temperature 100.6°, pulse 140, respirations 20. At 9.40 P.M. antitoxin (6 c.cm.) was injected between the shoulders. On January 14th she had passed a restless night, sleeping only at intervals, her breathing was noisy and irregular when she was asleep; she lay with her head thrown back to relieve her breathing; she had slight cough, not croupy in character; her breath was very offensive, her skin hot and dry. Temperature 100.8°, rising to 101.4°, pulse 144, respirations 24. The swelling of the glands in the neck was considerable. She took nourishment with difficulty. At 5 P.M. antitoxin (4 c.cm.) was injected between the shoulders. On January 15th she had had a restless night, her breathing was still loud and difficult; she had slight discharge from her nose, and occasional cough. The left side of the neck was still more swollen; her throat was much the same, the membrane becoming detached and reforming. At 3.30 P.M. antitoxin (4 c.cm.) was injected in the buttock. On January 16th she had a better night, though restless at times and talking in her sleep. Her breathing was easier. Temperature 98.6°, dropping in course of day to 97°, pulse 124, respirations 24. There was no albumen in the urine; there were large pieces of membrane detached from her throat. On January 17th she had slept better; her throat was steadily clearing; there was less swelling of glands. Temperature 97°. The urine was free from albumen. She steadily improved until January 22nd, when the throat was quite clear of membrane, and she became practically convalescent. Dr. Ritchie verified the diagnosis by examination of the membrane.

Case IV.—H. S. W., a boy aged 16 years, was taken ill on January 21st with sickness, headache, and sore throat. On admission on January 22nd there was some pain on swallowing, and both tonsils were much swollen; the left was covered with a yellowish patch of membrane; there was no discharge from the nostrils, but the glands were considerably enlarged on the left side of neck. Temperature 103.2°, pulse 137 (feeble), respirations 24. No albumen in the urine. At 7.30 P.M. antitoxin (8 c.cm.) was injected between the shoulders. The temperature rose to 104.2° in the evening, and profuse perspiration set in, which lasted through the night. On January 23rd he had passed a comfortable night, sleeping well and quietly at intervals; the temperature dropped to 98.8°, but rose again in the morning to 101.4°. The membrane was clearing off the tonsil, the swelling of glands was subsiding, and he had taken nourishment well. On January 24th he had slept well, and perspired very freely during the night. The temperature at midnight was 99.4°, pulse 104. The throat was much clearer, only small separate patches of membrane left. There was no albumen in the urine. He took nourishment freely. On January 25th the throat was quite clear of membrane, and the patient was steadily improving. There were no drawbacks in his progress towards recovery. Dr. Ritchie examined the membranes, and found diphtheritic bacilli and many streptococci.

Case V.—A. W., boy, aged 4 years, was taken ill on January 19th with sore throat, and some discharge from the nostrils. On admission on January 22nd his face was flushed, there was copious discharge from the nostrils, the glands on both sides of the neck were considerably enlarged, the tonsils were

swollen the right much so, and both were covered with thick yellowish membrane, and there was a similar patch on the uvula. Temperature, 100.2°; pulse 124; respirations, 40. The breathing was noisy, and rather laboured. No albumen in the urine. At 7.30 P.M. antitoxin (4 c.cm.) was injected between the shoulders. On January 23rd he had slept fairly well; his pulse was feeble, and somewhat irregular; no sweating; the membrane on the uvula had extended. There was copious discharge from the nostrils. At 12 noon antitoxin (6 c.cm.) was injected between the shoulders. General sweating began at 2.30 P.M., and the breathing became easier. He had taken nourishment pretty well. On January 24th he had passed a fair night; the breathing at times was very low and laboured. There was less swelling of glands; pieces of membrane became detached from the throat. On January 25th the throat was clearer. The glandular swelling was subsiding. He had slept and taken nourishment well. The temperature was 100.4° at midnight, but dropped during the day to 98.8 he had a little diarrhœa. On January 27th the throat was quite clear of membrane. The discharge from the nostrils had ceased. No albumen in the urine. The diarrhœa lasted for a few days, and was controlled by a bismuth mixture. The lad then became convalescent. Dr. Ritchie examined the membrane, and found diphtheritic bacilli and streptococci.

Children's Hospital, Birmingham.

Mr. R. Hickinbotham, Resident Medical Officer, sends notes of two cases:

Case I.—M.M., aged 7, had been ill since December 13th; first complained of sore throat on December 16th; admitted on December 17th, 1894. On admission, the throat was red, the tonsils swollen; there was a large white patch on the right tonsil and a smaller one on the left. The glands at the angle of the jaw were a little swollen; temperature 101.4°; haze of albumen in the urine. A mixture of chlorate of potash and perchloride of iron was prescribed. On December 18th the patch appeared to be stripping off from the right tonsil; temperature 99.4° in the morning, 99.8° at night. On December 19th, temperature 102°, the throat condition and general condition remained the same. On December 20th the membrane was then extending over the uvula and fauces; temperature at 2 P.M., 98.2°; ℥j of Klein's antitoxin was injected into the buttock; temperature at 6 P.M., 99·4°, pulse 98; at 10 P.M., temperature 97.6°, pulse 86; bacteriological examination showed diphtheria bacilli. On December 21st the membrane was clearing off the left tonsil; that on the right tonsil and uvula was about the same: temperature 97.8° in the morning, 97° in the evening, pulse 90. On December 22nd the membrane was clearing off the right tonsil and uvula very rapidly; there was a cloud of albumen in the urine. On December 23rd no membrane could be seen in the throat; the child was much better. From this point the progress of the case was uninterrupted.

Case II.—G. K., aged 13 months, was well until December 26th, 1894, when he began to be croupy. He rapidly became worse. On admission on December 27th he was livid and getting cold. The dyspnœa was extreme. There was great recession of the chest wall. Pulsus paradoxus was well marked. A slight improvement was noted after a warm bath, but did not continue. Tracheotomy was performed one hour and a half after admission. A membranous cast of the trachea and beginnings of the bronchi presented in the wound and was removed. On December 28th ℥jss of Klein's antitoxin was injected into the buttock. Bacteriological examination showed the presence of diphtheria bacillus. The patient, however, showed no improvement, and became very stuffy. The temperature, which before had been subnormal rose to 101° in the evening; pulse 104. December 29th. ℥j½ antitoxin injected at 12.45 P.M. A quantity of sticky hard membrane was removed from the wound. The child gradually became weaker, and died at 7 P.M.

Fleming Memorial Hospital, Newcastle-on-Tyne.

W. B. Mercer, M.B., B.C., Resident Medical Officer, sends us the following notes of a case resembling diphtheria under the care of Mr. G. Black, F.R.C.S., Senior Surgeon to the hospital:

A. W., aged 6 years, was admitted on January 26th, to be operated on for the radical cure of an inguinal hernia. The operation was duly performed on January 30th, and, except for a slight rise of temperature on the two evenings following (due to a little bronchitis), the patient made an excellent recovery. The wound was not dressed until February 8th, when it was found to be practically healed. On the night of February 12th the temperature went up to 102°, and the child passed a restless night. On the morning of the 13th the temperature was 101°. On examining the throat both tonsils were seen to be inflamed, and on both of them were small, white, multiple patches. On the evening of the 13th the temperature went up to 103.6°. The patches on the tonsils had spread and coalesced, and presented all the appearance of diphtheritic membrane. Pulse 130, respirations 34. No albumen in the urine. At 8.30 P.M. ℥jss of Klein's antitoxin was injected into the right buttock, the temperature at the time being 102.8°. At 10 P.M. the temperature was 101°, and, except for a slight rise at 11 P.M. and midnight, it continued to fall ever afterwards. The pulse rate slowed down to 103 an hour after injection. The patient had a good night, and on February 14th the temperature was 100.5°, respirations 28, pulse 96, good volume. The membrane was much looser, and appeared to be peeling off both tonsils. A piece was detached for bacteriological examination. No albumen in urine. On February 15th the temperature was 97.6, pulse 68, respirations 28. Very good night. The membrane was coming away rapidly. No albumen in urine. On the 20th the membrane had entirely disappeared. No albumen in the urine.

The history of this case, the membrane on the tonsils, the quick reaction to antitoxin, etc., all read very like a case of diphtheria. The piece of membrane detached was sent down in a sterilised and carefully sealed test tube at once to the Bacteriological Laboratory of the College of Medicine here, and cultivation experiments were made by Dr. George Murray, Pathologist to the hospital. No diphtheria bacilli colonies were found, only colonies of cocci. Dr. Murray wished to make another examination of the membrane from the tonsils, but unfortunately it was found impossible to detach a suitable piece, and we had to be content with the one examination. The absence of diphtheria bacilli from the cultivations made, the absence of albumen from the urine, and up till the time of discharge the absence of any paralytic symptoms are in favour of this being a case of acute follicular tonsillitis. Moreover, the child had been in hospital a fortnight, and there have been no other cases of diphtheria admitted, neither have any other cases occurred amongst any of the children in at present. No history of any "bad throat" at child's house could be obtained. These rough notes may be interesting and helpful as showing the difficulty without careful bacteriological examination of making a diagnosis between true diphtheria of the fauces and tonsils, and acute follicular tonsillitis.

CASES TREATED WITH ANTITOXIN OBTAINED FROM THE BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

Dr. D. M. Wilson, Upper Edmonton, writes: I send notes of six cases treated within a fortnight in two houses, five of them being in one house. Each of the first two proved fatal within a few hours of being seen. In these cases it was impossible to get antitoxin in time to be of any use, while in the subsequent four cases, which were injected with antitoxin, a most satisfactory recovery took place. In the first five cases occurring in one house the disease was well marked, and having regard to this, and to the fact that two were fatal, I deemed it superfluous to have the diagnosis verified microscopically. In the sixth case a shred of membrane was sent for examination to the British Institute of Preventive Medicine, and was certified to contain the bacillus diphtheriæ. The serum was, in all the cases, got from the British Institute of Preventive Medicine, through Messrs. Allen and Hanburys.

Case I.—M.D., a girl, aged 3 years. I first saw her on February 25th, at 11 A.M. Both tonsils, the uvula, and the soft palate were covered with diphtheritic membrane. She was evidently in a state of collapse, and though stimulants were freely administered she died within three hours. The other

children were at school with the exception of the baby, who was asleep. As no complaint was made as to the state of his health I did not examine it. On the following night, at 7, I was sent for to see

CASE II.—E.D., a female infant, aged 14 months. Her throat was in a very similar state to that of her sister, and she died at 11 P.M. Next morning in daylight I examined the throats of the other members of the household and found two more children affected.

CASE III.—E.D., a girl, aged 5 years. She was first seen at 8.30 A.M. on February 27th. The left tonsil and uvula were covered with characteristic membrane which had also just commenced to invade the soft palate. Antitoxin was sent for and 15 c.cm. were injected into the loose tissue between the scapulæ at 5.30 P.M. By this time there was a patch of membrane on the inner side of the right tonsil, and it had also spread somewhat forward on the soft palate. Temperature 100.5°, pulse 120, small and regular. February 28th, 8.30 A.M. Palate free from membrane, while that on the tonsils and uvula seemed to have lost some of its vitality, and to be attached rather loosely. Temperature 99°, pulse 120. There was at 6 P.M. no membrane on either the right tonsil or the uvula, while that on the left tonsil was hanging in shreds. Temperature 99°, pulse 116. On March 1st the temperature was 98°, pulse 96. There was no membrane to be seen, and a sound surface was present where the patches had been. The patient felt hungry. In this case I did not repeat the injection as I required all the antitoxin I had for the following case, and the result of the first injection seemed so striking that I thought repetition unnecessary. From March 1st to 5th the patient made capital progress, eating well and apparently convalescent. On March 6th she was seized with headache and shivering. Temperature 102.4°. The urine, which showed at first traces of albumen, was now pretty well loaded with it. The heart sounds were regular but feeble, pulse 140; eyelids and face somewhat puffy. Iron and diuretics were administered, and by March 13th, a fortnight from the commencement of the diphtheritic attack, the urine was free from albumen. There have been no further complications, and the patient is now convalescent and able to be out of doors.

CASE IV.—T. H. D., a boy aged 10. On February 27th, at 6 P.M., both tonsils and uvula were covered with membrane. There was a sanious discharge from the nostrils and a good deal of inflammation and swelling of their mucous membrane. The angles of the jaw were much enlarged. Temperature 101°, pulse 144. Antitoxin (15 c.cm.) was injected between the scapulæ. February 28th, 8.30 A.M. Temperature 100°, pulse 140. There was not much change in the patient's state except that the nostrils were less swollen and inflamed. The urine was free from albumen. Ten c.cm. antitoxin injected. At 6 P.M. the membrane had commenced to come away in shreds. Temperature 99°, pulse 120. From this time forward the boy made an uninterrupted recovery. On March 1st an erythematous rash appeared on both thighs, which lasted for three days, but caused no inconvenience. It disappeared without treatment.

CASE V.—A. D., a girl aged 7, sister of the other four children. I had been examining her throat daily. On March 2nd there was a large patch of membrane on the left tonsil and the side of the uvula adjoining. Temperature 100.2°, pulse 100. No albuminuria. Fifteen c.cm. antitoxin immediately injected between the shoulders. On March 3rd the uvula and half the tonsil were clear. Temperature 98.6°, pulse 100. On March 4th no trace of membrane was visible. The child made a good recovery. No sequelæ.

CASE VI.—A girl, aged 11 years. I first saw her on the morning of March 11th. The left tonsil and uvula were covered with membrane. Temperature 101.4°, pulse 118. At 9 P.M., with the assistance of Dr. Burns, of Lower Edmonton, I injected 20 c.cm. of antitoxin into the loose tissue over the abdomen. By this time the membrane had spread very much, and, as Dr. Burns remarked, had come "quite forward to the teeth." Temperature 101°, pulse 120 and fairly strong. There were traces of albumen in the urine. Respiration was laboured. On March 12th, at 8 A.M., the palate was nearly clear of membrane. Temperature 99.6°, pulse 100. The child could not yet take much nourishment. At 6 P.M. only the uvula and tonsils were still covered. Temperature 99°, pulse 100. On March 13th there was not much change in the state of the throat. Temperature 100°, pulse 100. I injected 10 c.cm. antitoxin in the interscapular region, as I found that the injection over the abdomen had caused slight inflammation, which prevented the patient from being able to bear the pain of being propped up for the purpose of taking nourishment, etc. Next morning the temperature was normal, and the right tonsil and adjacent side of the uvula were clear. On March 15th Dr. Burns again saw the patient with me, and was gratified to find that only a small patch of membrane on the uvula was now visible. Temperature normal. On March 16th the temperature and pulse were normal, and there was no membrane to be seen. The child has since continued to make satisfactory progress. There have been no complications. The urine is free from albumen, and she has practically quite recovered. In all the cases a mixture of tinct. fer. perchlor. and glycerine was given.

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA.*

IX.

DOSAGE OF THE *BRITISH PHARMACOPŒIA*, WITH SUGGESTIONS FOR UNIFORMITY.

BY WILLIAM WHITLA, M.D.,

Professor of Materia Medica and Therapeutics in the Queen's College, Belfast; Physician to and Lecturer on Medicine in the Belfast Royal Hospital.

THE objections to the dosage in the present issue of the *British Pharmacopœia* are threefold:

1. The doses of many substances are inaccurate, in a few instances even dangerous, and in some so small a dose is given that the drug has no effect. This objection may be briefly summarised by the word "inaccuracy."

2. The doses of the different preparations of a remedy are frequently formulated without any reference to their strengths: thus, under the name of the crude drug or salt, a certain dose is given, and when the infusion, tincture, or liquor of the substance is referred to, it may be found that its official dose represents many times more or less of the amount of the drug or salt. This might be defined as "inconsistency."

3. The doses of the members of the great Galenical groups, such as the powders and tinctures, vary so widely as to constitute a grave difficulty in prescribing. This might be defined as want of uniformity, or, if the word be permitted "inuniformity."

It is the object of the present article to point out a few examples of this official inaccuracy, inconsistency, and inuniformity, though the writer is conscious that, especially on the question of dosage, he enters upon highly debatable ground; but the greatest good must result if the views herein expressed will elicit such ripe and invaluable criticisms as those from the able pen of Professor Burney Yeo in a recent number of the BRITISH MEDICAL JOURNAL.

The objections to the *British Pharmacopœia* dosage are not taken from the standpoint of fault-finding. Therapeutics is a progressive science, and many of the official doses simply prove that they were formulated upon the basis of the knowledge of the day, which has now broadened and become more accurate.

1. The aconite preparations claim notice first: thus the maximum dose of the extract is given as 1 grain and of the tincture as 15 minims; before the action of the drug was properly investigated these doses were sometimes administered, though with risk. Aconite is a drug now chiefly employed in the treatment of acute inflammatory conditions, in small and often repeated doses, and if this quantity of the tincture was prescribed to be taken say four or six times a day, serious consequences might be expected. Physicians treat such cases successfully by the exhibition of doses of ½ minim to 1 minim, often in the aggregate not exceeding 10 or 15 minims from the beginning to the end of the acute

affection. Dr. Lauder Brunton suggests "that it would be a distinct advantage if the maximum quantity of a drug to be given in a day was indicated as well as that for each dose." Such an arrangement would be valuable in the case of remedies like aconite. A young physician, knowing that this remedy is nearly always used in often-repeated doses, looks up the *British Pharmacopœia*, and ordering, say, the medium dose of 10 minims every hour or every two hours, might have a fatal result. The dose of 1 gr. of the extract is even more serious, and if the revisers would place the maximum dose of these potent agents at the present minimum amounts they would not make any serious mistake. The same remarks apply to the tincture of veratrum viride, though it is used in America in heroic doses.

The maximum dose of both extracts of colchicum is fixed at 2 grs., an amount bordering upon the dangerous, especially if administered two or three times a day in gout. It is difficult to see why two extracts of this drug should take up the valuable space of the *British Pharmacopœia*.

Another serious overdose is that given for the alcoholic extract of gelsemium, that is, 2 grs., which is dangerous. Poisonous symptoms have been reported from smaller amounts. Moreover, gelsemium is a drug used chiefly for neuralgia, in frequently repeated doses, and a fatal result might soon follow if the maximum amount was prescribed every few hours, as is the rule with drugs used for the relief of severe pain.

Before leaving the extracts it is worth while pointing out that the dosage of the two extracts of belladonna might be easily muddled up by both the dispenser and the prescriber, and lead to serious results; that of extractum belladonnæ is given as ¼ to 1 gr., whilst that of the extractum belladonnæ alcoholicum is only $\frac{1}{15}$ to ½ gr. If the former be retained a distinctive adjective, such as viride, should be appended to its present title.

The dosage of the iron preparations requires complete revision if that of ferrum redactum (that is 1 to 5 grs.) is to be taken as a basis.

The dose of the hypodermic injection of apomorphine is given as 2 to 8 minims. This is rarely given, except as an emetic; the minimum for this purpose is useless and the maximum is too high. It is not safe to exceed $\frac{1}{10}$ gr. hypodermically. It may be noted that the dose of the drug by the mouth is not given, and this is a serious mistake, since the difference is so remarkable: ten times the lethal hypodermic dose has been given by the mouth without causing vomiting.

The maximum dose of liquor potassæ is given as one teaspoonful; an exception might be made in the case of this corrosive liquid, and fatal results guarded against, by the addition of the warning that it should be largely diluted, or as in the case of liquor ammoniæ no dosage at all should be mentioned. This latter plan would prevent its being prescribed without consulting special authorities.

The dose of 30 grs. of boric acid and 10 grs. of antifebrin might be reduced with advantage; the former drug in this dose often causes serious gastritis, and the latter substance occasionally produces symptoms of collapse.

Nearly all the official pill masses are given in doses of 5 to 10 grs.—that is, 1 to 2 large pills; but, as Dr. Lauder Brunton has pointed out, these are quite too large or bulky for use. In almost every instance reduction in size can be accomplished by the exclusion of inert substances, and the resulting concentration will bring the dose down to 3 to 6 grs. All the pills containing aloes, if made with aloin, will be improved, and their dosage minimised, without sacrifice. Recent experience has proved that the maximum dose of chrysarobin will very often produce grave disturbance; it should be reduced from ½ to ¼ gr.

It is manifest that it is a more serious matter to sanction a dangerous dose than to legalise one which is inadequate; nevertheless, a few examples of this latter error may be pointed out. An instance about which there cannot be any difference of opinion is seen in the extractum filicis liquidum, where the dose is given as 15 to 30 minims. All physicians agree that a dose smaller than 1 drachm is useless, and this erroneous official dosage has brought unmerited discredit upon one of our most valuable remedies, and annoyance and disappointment to the practitioner who follows the guidance of the *British Pharmacopœia*. It would be safe to fix the dose at 45 to 90 minims.

Succus conii is given as ½ to 1 drachm; 10 to 20 times this amount has been given without unpleasant symptoms, and it is safe to affirm that the drug is valueless in the official dose. In a previous article it has been pointed out that the dose of 6 grs. of the extract is inert, as many drachms have been swallowed owing to the faulty process by which the preparation is made.

In the case of drugs like male fern, where a single dose is expected to be followed by an obvious result, there is not so much room for a difference of opinion about the amount to be administered. This is evident in the official blunder of fixing the dose of Rochelle salt in the various revisions of the *Pharmacopœia* at ¼ to ½ oz., and in the case of Epsom salt, where the maximum dose is also but ½ oz. The maximum amounts in the cases of calomel and quinine are fixed at 5 grs. and 10 grs.; double these quantities are daily prescribed, and found necessary to produce the effects desired.

The official dose of iodide of potassium is 2 to 20 grs., but that of the less depressing sodium salt is only given as half this amount. This is the more regrettable since the iodide of sodium was introduced for exhibition in those diseases like tertiary syphilis where large doses had to be taken for long periods, and it was found desirable to avoid the depressing effects of the potassium base by substituting sodium for it. It is difficult or impossible to conceive why the dose of pulv. opii co. is fixed at ½ to 5 grs.; all its constituents are inert in this dose save the opium. This, however, might be more correctly mentioned as a typical example of the next variety of error.

2. In the consideration of what has already been defined as inconsistency in the official dosage, at the start it may be said that it is not reasonable to expect that in every case the dose of the various preparations should be made exactly to correspond upon the basis of their strength in the crude drug. Thus the dose of quinine being given as 10 grs. it would be unwise to expect that the dose of the tincture should be the equivalent of this, that is, 10 fluid drachms. The alkaloid is intended in such doses to be exhibited for its antiperiodic or antipyretic action, whilst the tincture should be reserved for its tonic properties. No one should argue that the dose of paregoric should be calculated from the amount of opium contained in it, as is the case in settling the dose of laudanum. After making all possible allowances upon this score, it will be found that the *Pharmacopœia* contains very many inconsistencies, which could have been easily avoided by the exercise of a little care and arithmetic. An example will make this obvious: thus the extract of nux vomica, which is now standardised so as to contain 15 per cent. of total alkaloids, has its maximum dose fixed at 1 gr., which represents less than ¼ gr. of alkaloids. Upon turning to the tincture of nux vomica, it will be found to consist of this standardised extract dissolved in alcohol and water, and its maximum dose is given as 20 minims—a quantity which corresponds to only $\frac{1}{75}$ gr. of the alkaloid. If the dose of the extract be correct, then that of the tincture of this powerful drug should be nearly 70 minims.

The dose of iodide of arsenic is given as $\frac{1}{30}$ gr., whilst the dose of its liquor is 30 minims—a quantity representing ¼ gr., or ten times that of the iodide. The maximum dose of oxide of antimony is 4 grs., but when mixed with twice its weight of inert phosphate of lime in the pulvis antimonialis it is only 1⅓ grs.

The dose of gelsemium rhizome is fixed at 30 grs. (maximum); the maximum dose of the tincture only contains 2½ grs. of the rhizome. Ergot has a dose of 30 grs.; the amount of the drug in the fluid extract is correctly and consistently made to contain 30 grs., whilst that in the dose of the infusion is 22 grs., and in the tincture only 7½ grs. Nearly all the essential oils have a maximum of 4 minims, but when dissolved in alcohol their maximum is a little over 1 minim in each dose.

The maximum dose of aloes in the decoction is 8½ grs., in the pill 5 grs., in the vinum 4 grs., and in the tincture 2⅔ grs.

If we investigate such potent agents as digitalis, the maximum dose of the leaf is 1½ gr; the infusion dosage is made to correspond with this, but the dose in the tincture represents 4 grs. Thus in some instances the proportional dose of

the tincture is one-third that of the crude drug, whilst in others it is three times greater.

The maximum dose of jaborandi is fixed at 60 grs., in the infusion at 43 grs., in the tincture at 13½ grs. In contrasting the dosage of the tincture with the crude drug it may be said that, owing to speedier absorption, a smaller dose of the tincture is required, but the dose is increased in the case of digitalis as just mentioned. The instance of hydrastis in the 1890 additions is instructive: the dose of the liquid extract represents 30 grs. of the rhizome, and that of the tincture represents only 6 grs., both being fluid preparations. The same is true of ergot and other drugs.

Only the most obvious of the numerous inconsistencies have been pointed out as examples. Indeed, anyone who takes up the *Pharmacopœia* and pursues this line of investigation cannot fail to be struck with the defects evident upon every few pages; and he probably will lay down the volume with the conviction that it is "a mighty maze without a plan," and will cease to wonder why it is regarded with such disfavour by all but those responsible for its contents.

3. The third defect in the official dosage is a more important one, inasmuch as it is more difficult to remedy, and it cannot be considered apart from a subject which opens up the most serious of all the many difficulties to be met by the revisers. This is the question of uniformity. Doubtless it is most desirable to have the strength of all the members of each Galenical group quite uniform; for example, it would be a very great gain to have all tinctures made 1 in 10, or some other convenient percentage. It would be equally desirable, or more so, to have the doses of all identical; but a moment's reflection will show that this is impossible. It may at the start be accepted that uniformity of dose and uniformity of strength are absolutely incompatible. If there must be a tincture of aconite and of calumba, each of the strength of 1 in 8, the dose of each must widely differ. If their doses be the same, it is manifest that their strengths must be far apart. It thus becomes a question of how far an approach to uniformity can be obtained. The question is, as already stated, a most difficult one; but it is not hopeless, though it has been evidently regarded as hopeless by the former compilers, judging from the motley character of their official patchwork, whose want of uniformity is its worst or most obvious fault.

Two courses seem open—either to make all the tinctures of one strength or all of such various strengths that their doses will be the same. In the case of the pill masses and the syrups, a fairly successful attempt was made, the dose of the former being fixed at 5 to 10 grs., whilst the great majority of the syrups were made so as to have a uniform dose of 1 drachm. It may be found by thoroughly practical pharmaceutical experts that in the case of, say, a group like the tinctures, there would be insuperable difficulties—arising from different solubilities, exhaustion, etc.—in establishing an absolutely uniform standard of strength. If so, there need be no insuperable difficulty as regards making them all of such strengths that the dose will, say, amount to 30 minims.

There are 75 tinctures; of these 37 are of the strength of 1 in 8; of the remaining 38, 8 are of the strength of 1 in 10, whilst 30 vary from a strength of 30 grs. to 10 ozs. in each pint. Apparently no attempt has been made at a uniform dosage, the dose varying from 5 to 15 minims in the case of several to 1 oz. in the case of rhubarb.

The want of uniformity in the dose of the powders is striking, and their strengths vary as widely; there is no difficulty which cannot be got over in making their strength so variable that the average dose would represent say 30 or 60 grains, except in the case of seidlitz powder. The doses of all infusions and decoctions could be easily made uniform by a rearrangement of their strengths. The liquors are a very complex group, and already an attempt has been made at uniformity in the strength of the alkaloidal solutions.

The recognition of the cause of the extraordinary want of any attempt at uniformity in the *Pharmacopœia* is the first step towards a solution of the difficulty. The writer has stated his opinion of this state of matters in a former article, when he ventured to suggest that it arose out of an attempt to reconcile the claims of the representatives of the old London, Edinburgh, and Dublin *Pharmacopœias* by the introduction of preparations which were popular in the different divisions of the kingdom at the time when the *British Pharmacopœia* was compiled.

Any scheme for perpetuating those preparations which have only a historic interest must now be given up, and the work of revision commenced boldly. The idea of adhering to ancient formulæ so that synonyms may be introduced and prosecutions secured in the law courts against druggists, as has been recently contemplated, must be abandoned as tending to perpetuate old and introduce new incongruities. As a basis, then, for remedying the want of uniformity in dosage, it is clear that the best plan for the revisers to work upon is to aim at making a uniform dose for each group of Galenical preparations, and where this is found to be impossible the alternative should be accepted, and the preparations made of uniform strength. Always, it must be acknowledged, a few exceptions may be inevitable, no matter which plan be followed. In the new issue it is desirable to give the doses in the present weights and measures, and also in their metric equivalents. It would be greatly appreciated by practitioners if the authorities could see their way to give the doses suitable for a child, say, of 1 year old, in the case of those medicines most frequently prescribed for children. This might be regarded as a serious innovation, but it would tend to make the new work popular.

CONGRATULATIONS TO SIR JOHN ERICHSEN, SIR RUSSELL REYNOLDS, AND SIR JOHN WILLIAMS.

On Wednesday evening, March 27th, a congratulatory dinner was given by the staff and old students of University College Hospital, London, to Sir John Erichsen, Bart., President of University College and Consulting Surgeon to the hospital; Sir Russell Reynolds, Bart., Consulting Physician to the hospital; and Sir John Williams, Bart., Consulting Obstetric Physician to the hospital.

The chair was taken by Lord Reay, G.C.S.I., and over one hundred and eighty sat down to dinner. Among the guests were Sir Richard Quain, Sir William Broadbent, Mr. Justice Charles, Sir William Mac Cormac, Sir William Roberts, Sir George Young, Surgeon-General Sir James Mouat, V.C., Mr. Thomas Smith, Mr. Howard Marsh, Dr. Champneys, Dr. Herman, Mr. Knowsley Thornton, and many members of the profession now holding various offices in London and elsewhere whose medical education was obtained at University College.

After the toast of "The Queen" had been duly honoured,

Lord Reay proposed the toast of the evening, prefacing his remarks by a brief sketch of the progress of medical thought in the modern epoch. He quoted the saying of the Emperor Joseph, the consort of the Empress Maria Theresa, that the most valuable capital of a nation was men, and observed that the public relations of the medical profession rested upon the fact that its efforts were directed to the conversation of this capital. After a brief reference to the scientific work achieved in the laboratories of University College, and particularly to the brilliant discoveries of Professor Ramsay, of the new gas, argon, and of the still newer gas, helium, first recognised on March 22nd, and as to which a telegram was sent to M. Berthellot, the French chemist, on March 23rd, Lord Reay turned to the special object of the meeting. This was to give expression of the gratification felt by all University College men at the signal honour paid, not only to the individuals but to the College and the profession to which they belonged, by the conferring of baronetcies on their three guests. Speaking of Sir John Erichsen, he said that official recognition had followed the natural selection of the fittest by those best able to judge. In its relations to the medical profession the State was conspicuous by its absence—except when it created baronets. The profession was self-governed, and independent of the State, and this autonomy was a possession in which it might be envied by some other professions. It was felt as a reproach to London that he was not able to greet their three guests as members of the medical faculty of a true University of London. When that faculty was formed it

would leap at once into a foremost place among the faculties of the universities of Europe; London had the colleges, it had the laboratories, it had the men, it wanted only the organisation.

Sir Henry Thompson followed, and recalled some early reminiscences of the days of his fellow-studentship with Sir Russell Reynolds. He recalled, also, that he had been the first house-surgeon to Sir John Erichsen, and in that capacity had assisted him in the first operation he had performed in the theatre of the hospital.

Dr. F. H. Champneys also spoke as a representative of that branch of the profession of which Sir John Williams was the acknowledged leader in England; that position had been gained not merely by ability, but because Sir John Williams, though he had achieved success, had never worked for success. He had never feared to risk unpopularity in what he felt to be a just cause, and had earned the respect and trust of all.

Sir John Erichsen, after a few touching words which appealed to the deeper sympathies of his hearers, said that his life's work had been done in the sight of the public and the profession, and the honour which had been done him by the Crown he regarded not as a personal distinction, but as a distinction conferred through the individual on the profession to which he belonged. The public knew little of the intellectual life, of the aims, and of the devotion of the profession of all ranks, and such recognition by the Crown as had been received by himself and his two fellow guests was the guinea stamp which could be appreciated by the public.

Sir Russell Reynolds in expressing his thanks for the honour done him, referred to the distinguished position held by many old medical students of University College, and not only by the students of the medical faculty, but also by those of other faculties, for the legal faculty could claim the present Lord Chancellor and the late Sir George Jessel. As an illustration of the effect of titular honours on the public, he related an incident which had befallen him during the past few days. He had seen a gentleman in consultation, and meeting a common friend the next day this gentleman had told him that on inquiry at the patient's residence he had been told by the butler that his master was much better since he had seen Sir Joshua Reynolds, President of the Royal Academy!

Sir John Williams also replied, and after expressing his indebtedness to University College and his old teachers and pupils there, thanked Dr. Champneys for the kind terms in which he had referred to him.

Sir William Broadbent, in proposing the "Health of the President," referred to the good work he had done in the cause of higher education, and in particular in furthering the movement for a teaching university in London. The honours conferred upon individual members of the medical profession, which was the occasion of the assemblage he addressed, had been but the ratification of the deliberate judgment of the profession.

The toast was briefly acknowledged by Lord Reay, and the proceedings terminated.

CORK SOCIETIES MEDICAL OFFICERS' INDEMNITY FUND.

The following additional subscriptions are acknowledged by Dr. Denis Dempsey Donovan, King Street, Cork, Treasurer to this fund:

	£	s.	d.
Dr. Henry Stear, Saffron Walden, Essex	1	1	0
Dr. T. Jenner Verrall, Brighton	1	1	0
Surgeon-Major R. T. Beamish, the Citadel, Portland ...	2	2	0
Lincolnshire Division Midland Branch British Medical Association	4	5	0

LITERARY NOTES.

Mr. B. Burford Rawlings, the Secretary and Director of the National Hospital for the Paralysed and Epileptic (Albany Memorial) has printed at the Chiswick Press, under the title *Things Seen are Greater than Things Heard*, a short account of the work of this admirable institution.

An English edition of the *Annales d'Oculistique* is now published in New York under the editorship of Dr. George T. Stevens.

An American contemporary states that a sum of 10,000 dollars (£2,000) is to be presented to Dr. John S. Billings as a mark of appreciation of his *Index Catalogue of the Surgeon-General's Office*.

We have received the first three parts of the sixth revised and enlarged edition of Dr. Fritz Elsner's *Praxis des Chemikers*, which deals mainly with the practical work of laboratories for hygiene and public medicine. The work is issued by the firm of Leopold Voss, of Hamburg and Leipzig, and will be complete in ten parts, price 1.25 mark each. The publisher promises confidently that the whole work shall be complete at an early date.

We have received from Mr. Young J. Pentland a *Selected List of Medical Periodicals and Transactions of Medical Societies, with their Abbreviated Titles*. It has been compiled for the most part from the *Index Medicus*, and has been drawn up with the view of securing the adoption of a more uniform system of reference in the books and periodical publications issued by the firm. It is certain that a uniform system of reference would be a distinct boon to authors, editors, and printers' devils.

The *Daily Lancet* is the title of a new medical journal which has just come into existence in Philadelphia. It is edited and published by Dr. Joseph F. Edwards. The only other medical "daily" that we know of is the *Riforma Medica* of Naples, which has for years had a prosperous career under the able editorship of Professor Gaetano Rummo.

Reference was made in a recent issue of the British Medical Journal to a Bill regulating medical fees which had been introduced into one of the American State Legislature. This is not the first attempt of the kind which has been made on the other side of the Atlantic, as is shown by the following extract from the Laws of Virginia, enacted at a Grand Assembly in James City on March 23rd, 1662. The 92nd law reads as follows:

> Whereas the excessive and immoderate Prices exacted by divers avaritious and griping practitioners in Physic and Chirurgery, hath caused several hard-hearted masters, swayed by profitable more than charitable respects, rather to expose a sick servant to a hazard of recovery than put themselves to a certain charge of a rigorous though unskilful physician, whose demand for the most part exceedeth the purchase of the patient; many other poor people also being forced to give themselves over to a lingering disease, rather than ruin themselves by endeavouring to procure an uncertain remedy; Be it enacted, That it shall be lawful for any person or persons conceiving the Account of the Physician or Chirurgeon unreasonable, to arrest the said Physician or Chirurgeon to the General or County Court, where the Physician or Chirurgeon shall declare upon his oath, the true Value, Cost, and Quantity of the Drugs administered; for which the Court shall grant order against the Plaintiff with fifty per cent advance, and such consideration for his Cure, Visit, and Attendance as they shall judge he hath deserved; and if it shall appear by Evidence that the said Physician and Chirurgeon hath neglected his Patient while he was under his Cure, the Court shall censure him to pay so much as they in their discretion shall think reasonable.

The Astor, Lenox, and Tilden libraries in New York have recently been consolidated. This arrangement gives the city a splendid library, which at present comprises more than 450,000 bound volumes and a very large number of rare and valuable pamphlets. The total property and endowments of the united libraries amount to over 8,000,000 dollars (£1,600,000). The property of all three institutions is thrown together into a common fund, which is controlled by a consolidated Board of twenty-one members. The site of the new library has not yet been decided upon.

The *Canadian Medical Review*, which began to appear in the Dominion at the beginning of the present year, is a monthly periodical which, as regards both matter and appearance, is very creditable to the editors and the publishers. It is published at Toronto, and the editorial staff consists of the following members of the profession: W. H. Aikins, M.D.; A. B. Atherton, M.D.; J. H. Burns, M.D.; G. Sterling Ryerson, M.D.; J. Ferguson, M.D.; Albert A. Macdonald, M.D.; and Allen Baines, M.D.

Science Progress for March contains interesting papers by Dr. E. Klein on Antitoxin (in which, by the way, Dottoressa Cattani's name is more than once misspelt Cettani), and by Professor Halliburton on Peptone.

The medical department of the Italian navy has now, like the corresponding department of the Italian army, a journal of its own. The *Annali di Medicina Navale* is published in Rome, under the auspices of the Minister of Marine, Dr. S. Scrofani; the editor is Dr. T. Rosati.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 24th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

March 21, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, April 3rd, June 20th, and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election. FRANCIS FOWKE, *General Secretary*

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—A general meeting of this District will be held on Thursday, April 4th, at 4 P.M., at the North-West London Hospital, Kentish Town Road, N.W. Dr. Handfield-Jones will open a discussion on Some Points in the Treatment of Menorrhagia and Metrorrhagia. Interesting clinical cases will be shown by the hospital staff. Dr. Cleveland will preside.—HUGH WOODS, Honorary Secretary, 11, Archway Road, Highgate, N.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Cardiff on Tuesday, April 30th. Members wishing to read papers, or show cases, specimens, etc., are requested to send titles to Dr. Sheen, Cardiff, not later than April 16th.—A. SHEEN, D. A. DAVIES, Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place at Gravesend on Thursday, May 16th, Mr. R. J. Bryden in the chair. Members wishing to read papers, or exhibit patients or specimens, are requested to inform the Honorary Secretary, EDWARD GROUND, M.D., 1, Ashford Road, Maidstone, not later than April 21st.

LANCASHIRE AND CHESHIRE BRANCH.—Dr. JAMES BARR, Honorary Secretary, 72, Rodney Street, Liverpool, gives notice that a special general meeting of this Branch will be held in the Memorial Hall, Albert Square, Manchester, on Thursday, April 4th, at 4 P.M., to consider certain alterations and additions to the rules of the Branch, drawn up with the view of giving effect to the resolution adopted at the special meeting of the Branch held at Liverpool on March 8th, and printed in the BRITISH MEDICAL JOURNAL of March 16th, p. 617. The Secretary also gives notice that the memorandum drawn up by the General Practitioners Committee appointed by the Council of the Association on January 15th will be submitted for the consideration of the members of the Branch. [The list of subjects set out in this memorandum was published in the JOURNAL of February 9th, 1895, p. 326.]

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT. THE spring meeting of this District was held at Upper Norwood on March 14th, E. H. GALTON, F.R.C.S., of Brixton Hill, in the chair.

Confirmation of Minutes.—The minutes of the Reigate meeting were read and confirmed.

Next Meeting.—On the proposition of Mr. AIRD, seconded by Mr. ECCLES, it was resolved that the next meeting should be held at Croydon on Thursday, May 9th.

Honorary Secretary and Representatives on Council.—Mr. Prangley, of Tudor House, Anerley, was re-elected Honorary Secretary on the proposition of Dr. HENRY HETLEY, seconded by Dr. SHEARER. Dr. J. H. Galton, Dr. C. Parsons, and Mr. T. J. Verrall were nominated for representatives on the Council of the Association.

Vote of Condolence.—It was proposed by Mr. PRANGLEY and seconded by Dr. HENRY HETLEY that a vote of condolence should be accorded to Dr. John Galton, who is recovering from a severe illness. This was unanimously passed, and on being spoken to general appreciation was expressed of the work done by Dr. John Galton in the interests of the Branch.

Communications.—Dr. GOODHART read a paper on Influenza, Mr. TUBBY one on the Diagnosis of Pott's Disease of Spine, and Dr. P. HORROCKS one on *Post-partum* Pneumonia.

Dinner.—After the meeting eight members and visitors dined together.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

AN ordinary general meeting of the Branch was held at Aberdeen on March 20th, Professor STEPHENSON, President, in the chair.

Confirmation of Minutes.—The minutes were read and approved.

New Members.—Drs. Gillespie, Marischal College; Marnoch, 22, Union Terrace; and Philip, Elmhill House, were admitted members of the Branch.

Communications.—Dr. MCKENZIE BOOTH exhibited (1) a Boy, aged 12, the subject of Congenital Syphilis, who had suffered from laryngeal stenosis due to formation of a cicatricial web at the lower border of the ventricular bands. Severe dyspnœa and commencing collapse of the base of the right lung necessitated tracheotomy, after which the laryngeal aperture became distinctly larger. (2) A Man, suffering from Naso-pharyngeal Stenosis and Laryngeal Obstruction resulting from tertiary syphilis.—Dr. ROSE showed a patient suffering from Albuminuric Retinitis and read a paper on the case. Interesting discussions followed.

Proposed Donation Negatived.—Dr. GARDEN moved that the sum of 20 guineas be given to the Royal Infirmary, Aberdeen, from the funds of the Branch. Dr. EDMOND seconded. The motion was negatived.

MIDLAND BRANCH: LINCOLNSHIRE DISTRICT.

A MEETING was held at Stamford on March 21st, Dr. J. W. WALKER, President of the Branch, in the chair.

The Cork Practitioners and the Benefit Societies.—The following resolution was unanimously passed:

That this meeting approves the action of the Cork medical men in severing their connection with the clubs in that city, and expresses its condemnation of the action of the medical aid societies.

A subscription of £4 5s. was collected in the room.

Communications.—The following papers were read: By Dr. NEWMAN: The Treatment of Prostatic Enlargement. By Mr. T. P. GREENWOOD: Two cases of Appendicitis; Operation; Recovery. By Dr. CARLINE: Sudden Death following an attack of Hysteria. The following cases were shown:—Dr. NEWMAN: (1) An Enlargement near the Distal End of the Metacarpal Bone of Middle Finger. (2) Epithelioma of Floor of Mouth with Secondary Glandular Deposit.—Mr. GREENWOOD: Case of Excision of Knee-Joint.

Visit to Burghley House.—Several members visited Burghley House in the morning.

Luncheon.—About thirty availed themselves of the invitation of the staff of the Stamford Infirmary to lunch at the George Hotel.

GRAHAMSTOWN AND EASTERN PROVINCE BRANCH.

THE annual meeting of this Branch was held on February 14th in the Albany General Hospital; Dr. W. G. ATHERSTONE in the Chair.

Report of Council.—The report of the Council was read and approved.

New Members.—Drs. Adam, Chew, and Lee were elected members of the Branch.

Election of Officers.—The following gentlemen were elected

office-bearers for the ensuing year:—*Honorary President:* Dr. W. G. Atherstone. *President:* Dr. Greathead. *Vice-President:* Dr. Becker. *Honorary Secretary:* Dr. Caldwell. *Honorary Treasurer:* Dr. Greenless. *Members of the Council:* Drs. Robertson, Dyack, Chute, Adam, Eddington, and Saunders.

Banquet to Dr. Atherstone.—It was resolved to give a banquet on March 22nd to Dr. Edwin Atherstone, on the occasion of his departure to England.

SPECIAL CORRESPONDENCE.

PARIS.

"Phosphorisme" and the Académie de Médecine.—The New Public Health Bill.—Chloride of Zinc as a Deodoriser in Butchers' Shops.—Alcoholism in France.—The Students and the Mi-carême Fêtes.

M. Magitot's paper on "phosphorisme," read before the Paris Academy of Medicine, has induced that body to pass a resolution that the use of white phosphorus be prohibited in all match factories. A Commission will be formed, composed of M. Rèche, M. Proust, M. Albert Robin, M. Moissan, and M. Magitot for the purpose of devising means of protecting match makers against the dangers of their calling.

The Senate Commission is examining the new Bill on the Protection of Public Health, as remodelled by Professor Cornil. The Bill provides that the establishment of disinfecting services shall be compulsory. In towns numbering less than 20,000 inhabitants the disinfecting services will be organised by the departmental administration or municipalities. In towns of more than 20,000 inhabitants a health office will be organised as well as disinfecting services. Disputes between private individuals will be settled by the law courts and not by the Public Health Committee, as the Chamber of Deputies decided.

M. Miquel and M. Crinon, after a series of experiments, have ascertained that an aqueous solution of zinc chloride of 3·5 per cent. prevents the putrid fermentation of bones and *débris* in butchers' shops and slaughterhouses. It also prevents the transmission of septic bacteria existing in the meat to another organism by flies. This solution removes all smell and allows the material to be used for industrial purposes. M. Nocard considers a 2 per cent. solution is efficacious.

The *Actes du Congrès de la Ligue Française de la Moralité Publique* are now published, and contain many papers of great medical interest. First is Dr. Legrain's important contribution to the literature of alcoholism. As chief physician to the Ville Evrard Asylum Dr. Legrain has had unusual opportunities of studying the progress and effect of alcoholism. His wards are filled with victims of intemperance. M. Legrain describes in a vivid manner what he calls "collective alcoholism"—the influence exercised by intemperance on social and political phases of life. Public meetings are frequently held at wine shops, and alcohol is apparently an unavoidable element in political discussion. Alcohol plays a fatal part in elections. It takes a prominent share in multiplying and fomenting strikes. In short, it is an enemy to the prosperity, not only of the individual, but of the State.

The President of the Republic received most cordially a deputation from the students' committee for the Mi-carême Cavalcade. A number of *Au Quartier Latin*, a journal published by the students, and containing contributions contributed from nearly all the most celebrated authors, among them Zola and Coppée, was presented to the President. The paper bore the following dedication:

Président cher et respecté,
Que votre nom heureux à nos fêtes s'allie
Si la folie est ennoblie
Lorsqu'on y joint la charité,
Pardonnez à notre folie
Souriez à notre gaîté.

The proceeds of the sale of the paper are to be applied to the relief of the poor. The President asked for information as to the spirit prevalent among the medical students. He placed £20 at the disposal of the committee for the benefit of the Mi-carême *fêtes*.

The annual ball of the medical students was this year especially brilliant, and especially interesting from the fact that the President of the Republic and Ex-President were both present. Apparently a general feeling of mutual satisfaction reigned. The President left a substantial souvenir of his visit in the form of £40, as contribution towards the expenses of building La Maison des Etudiants.

GLASGOW.

Close of the Winter Session.—Anderson's College.—St. Mungo's College.—Action for Slander.

The winter session of the Scottish medical schools closed last week amid the usual rejoicings on the part of students. The session, so far as the Glasgow centre is concerned, has been one of unusual activity and success. The University has a large body of students hailing from all parts of the world, and the addition of the fifth year to the curriculum has not palpably diminished their numbers. It is, however, to the extramural schools perhaps that one looks most closely and hopefully for signs of vitality. These are not wanting.

Anderson's College, situated beneath the shelter of the Western Infirmary in Dumbarton Road, bids fair to be a formidable rival to the more stately university school immediately contiguous to it. The session just closed has seen the largest attendance on record. The official figures placed at our disposal indicates that 240 students have matriculated or been in daily attendance at the classes of this institution. Certain changes in the staff have taken place; among others in the professorship of surgery, vacated by the resignation, through illness, of Dr. James Dunlop, after a tenure of nearly twenty-six years. The chair has been filled by the appointment of Dr. Dalziel, the Dean of the School, and Assistant Surgeon to the Western Infirmary, whose translation leaves vacant the Chair of Medical Jurisprudence. The aural surgeon, Dr. Barr, has been appointed teacher in aural surgery in the University. This chair in Anderson's is likely to be conferred on Dr. James Erskine. There is also a vacancy in the Physics Chair caused by the death of Professor Alexander, a very distinguished graduate in arts of the University, and widely known as a teacher of mathematics and physics. Professor Gemmell attracts crowded classes to his lectures on the practice of medicine; and Professor Alexander Buchanan, to whose energy this school largely owes its position, has made the teaching of anatomy at Anderson's College an excellent training for practical surgery and the daily work of the medical profession.

St. Mungo's College, at the opposite end of the town, has also had a successful year. Its situation at the remote end of the town does not enable it to draft students from the University, but it can boast of twenty-six new students who have entered, as it were, for the full curriculum. This College presents a field for clinical study unexcelled in the United Kingdom by its proximity to the wards of the Royal Infirmary of Glasgow. The classes are small and well arranged, and present in this respect a contrast with the clinical classes conducted at its more aristocratic neighbour at the western gate.

There has just been settled in the Court of Session, after a jury trial lasting four days, an action raised by Dr. Hugh Arthur, of Airdrie, against the Procurator-Fiscal for the Airdrie Division of Lanarkshire, and two others, one a writer in Airdrie, and the other a wood merchant, for alleged slander. It was alleged against the Procurator-Fiscal that he had represented Dr. Arthur as having failed to attend his child at a time when it was seriously ill, although he had been repeatedly sent for. Dr. Arthur is a member of the Homing Pigeon Club, and himself keeps pigeons, whose care is one of his leisure occupations and ways of relaxation. The Procurator-Fiscal, it was alleged, had represented him as occupying himself with this pursuit to the neglect of his professional work—at least in this instance. Another of the defenders, it was alleged, had blamed Dr. Arthur for neglect in connection with a case of accidental burning; and Dr. Arthur's name had been associated with a case of alleged neglect in the Airdrie Hospital, of which he was the surgeon, and for which the matron had some time ago been put upon her trial. At the trial on May 9th, 1894, after the evidence of the leading witnesses for the Crown had been taken, the

charge was withdrawn at the suggestion of the judge. Only one of the three defenders, namely, the Procurator-Fiscal, put a counter issue before the jury, and that issue was that Dr. Arthur had failed to attend the Procurator-Fiscal's child when he had promised to do so, and when he had been repeatedly sent for, and that when sent for he was found in his pigeon house. The jury found it proved that the Procurator-Fiscal had slandered Dr. Arthur, who had not been guilty of neglecting his patient for the sake of his pigeons, and that one of the other defenders, the wood merchant, had also slandered Dr. Arthur in connection with the burning case. The jury decided in favour of the third defender. The damages awarded to Dr. Arthur were assessed at £250 against the Procurator-Fiscal, and at £25 against the other defender.

CORRESPONDENCE.

TAPPING THE PERICARDIAL SAC.

Sir,—Dr. Gordon Sharp's cases of paracentesis pericardii, recorded in the British Medical Journal of March 23rd, deserve comment: first, because of the peculiar place selected for puncture; secondly, because of the benefit derived from the removal of an infinitesimal amount of fluid; and, lastly, on account of the conclusions he draws.

The third intercostal space near the sternum is theoretically about the most dangerous place to choose for the operation, for the heart can never be far away from the chest walls here, and though in the prone position the heart generally falls away from the sternum, still this is not always so, and indeed in Dr. Sharp's case it probably did not do so, for, as I understand, friction was distinct. Still, general rules must be modified to suit individual cases, and there were, no doubt, the best of reasons for selecting the place chosen. I have tapped the pericardium several times in unusual places, but I always attack the region near the base of the heart with misgiving and with extra care.

The improvement which followed the removal of only a few minims of fluid cannot be referred to any relief given to the pressure on the heart. This must fall into that curious category of cases in which a single dry puncture is followed by improvement without any obvious cause. I have seen this happen so many times, both in the case of the pleura and of the pericardium, that it cannot be a simple coincidence. What explanation to give to it is another question.

With the conclusions he draws, namely, that pericardial effusions of rheumatic origin do not as a rule require paracentesis, I quite agree. I have seen very large effusions spontaneously disappear almost as rapidly as they developed. For all that paracentesis will be necessary in some instances, and in a large number of cases in which paracentesis pericardii has been performed with success and recovery the effusion has been of rheumatic origin. The use of the ordinary trocar and cannula of the aspirator in the position selected would be attended with extra risk. In the only fatal result I have myself seen, though not a case of my own, the puncture was made in this place with the ordinary trocar and cannula. The trocar, which projected as usual about one-third of an inch beyond the cannula, reached the heart, tore a hole in it, and the patient died from hæmorrhage into the pericardium within a few minutes of the operation. An aspirator is hardly ever necessary for paracentesis pericardii, for the fluid is under pressure and flows away readily enough. A sharp hollow needle is much to be preferred to any form of trocar and cannula. Such a needle can be passed quite easily and quietly through the chest walls without any undue force, and is much more under control than any trocar and cannula can be, for this often sticks at the collar at the end of the cannula, and requires so much force to drive it through that it is likely to jump and go farther in than is intended. This is what occurred in the case I have just referred to; though the cannula was only well within the sac, the trocar reached the heart and caused laceration in the left auricle. I have never had such an accident myself, possibly because I have always used a sharp hollow needle and gone very steadily and carefully to work.—I am, etc.,

Wimpole Street, W., March 25th. Samuel West, M.D.

CLUBS AND THE PROVIDENT PRINCIPLE.

Sir,—In reference to your excellent article on this subject, I should like to state that the questions which you ask in conclusion have been long ago practically answered in this district. For twelve years past we have had a medical aid society worked upon the principles which you recommend. It is managed entirely by its medical staff, who make the rules, limit the membership strictly to the artisan class, employ and control the collectors, and divide the entire profits *pro ratâ* according to the work done by each medical officer. Having been during the above period hon. treasurer to the society, I can assert that nothing can be simpler than its management; and why one has not long ago been established in every district is more than I can understand. Our society was started by a few medical men, none of whom put a penny of capital into it, as it was self-supporting from the first. It now enjoys an income of about £1,200 per annum, and is open to any practitioner in the place. Let the medical men of Cork and other places where lay committees rule supreme "go and do likewise."—I am, etc.,

Wandsworth, March 25th. W. G. Dickinson.

Sir,—I was, no doubt like many others, very glad to see your excellent article on Clubs. The question is now, beyond doubt, a very urgent one, and it has occurred to me that it might be brought considerably nearer solution in the following way: Let a resolution be drafted and submitted to the Association at the London meeting. I would suggest that the resolution should embody a declaration of the urgent necessity for the general adoption by medical men of a few fundamental principles for their guidance in club practice, with regard to such matters as wage limit, some sort of sliding scale, the abolition of "touts," acknowledged or in disguise, etc.

I believe that such a resolution, carefully drawn on broad principles, would command the support of an overwhelming majority of the Association, and if placed on record would be the means of inducing many, if not all, practitioners to take a firmer and higher stand in the face of the monstrous and growing abuses which are degrading us as a body.—I am, etc.,

March 27th. A Member.

Sir,—Being from home, the report of the Dawson Street Branch of the Manchester and Salford Provident Dispensary was first observed in the British Medical Journal of March 9th.

As one of the staff I at once wrote to the Secretary, taking objection to the statement that there was no wage limit, and that application for membership was open to all.

At my desire a special meeting of the Committee was called. There was a unanimous feeling that a gross error was inadvertently made. It was resolved, therefore, to make retraction, and to publish a revised version of that part of the report in the same paper as contained the objectionable statement. It now reads: "There is no wage limit: members shall be artizans and others whose application for membership shall be considered suitable by the Committee."

Trusting you will insert this in your next issue,—I am, etc.,

Salford, March 26th. Robert Forsyth, M.B.

LONDON COUNTY COUNCIL AND ITS PROPOSED MEDICAL INVESTIGATORS.

Sir,—Notwithstanding Mr. Holmes's criticism, I must confess that I am still of opinion that a judicial pathologist should come to his work absolutely unbiassed by any preconceived opinion as to the cause of death, and should be prepared to state before the Court exactly what he has found in the course of his necropsy; to be, in short, a witness of facts, and although he might reasonably, when required, give his opinion on these facts, his essential function ought to be the former rather than the latter. This view may appear "singular" to some, but I believe it will not be destitute of support either in the profession or outside it; and when it is considered that the most important inquests are usually the prelude to criminal prosecutions and it is in these pathological investigation is chiefly required, and that in all such cases the police authorities must necessarily be the prose-

cutors, it seems to me that we have not got far to go to see obvious reasons why the pathologist in the case should not be a police official.

As to the discredit thrown on hospital pathologists by Mr. Holmes, his argument, if it proves anything, proves too much, for it would equally tend to destroy the confidence of the public in the other members of the hospital staff as being more reliable than ordinary practitioners in their particular departments, for most of these when first appointed are generally young men. Neither am I concerned that the hospitals could not in many cases spare the services of their pathologist, for where this is the case, my contention is that, whatever official is chosen for the post of pathologist, the public should have a substantial guarantee that the officer in question shall be a specialist in pathology, or at least shall be able to point out that he is more qualified in this branch of professional knowledge than an ordinary practitioner, whether a police surgeon or not.

Mr. Holmes thinks this appointment could not be placed in "more competent hands" than police surgeons. Does he mean by this to imply that the ordinary police surgeon is a more competent pathologist than any of his professional brethren in the district? If so, this opinion might be considered singular by some when the registered qualifications of many of the police surgeons are compared with those of their professional neighbours.

With regard to Mr. Nelson Hardy, I must confess that I have passed by without notice many points in his letter; my purpose in writing was not to deal with these, but to draw the attention of the profession to the obvious suggestion made by that gentleman, that police surgeons are better pathologists than other general practitioners, and that therefore a certain amount of the professional emoluments now accruing to the latter in the shape of *post-mortem* fees should pass into the pockets of the former. This suggestion might have a specious plausibility in the eyes of the public if not warned of its fallacy, especially when backed up by the official statement of a Home Secretary. That the police surgeons ought to be better pathologists than other practitioners is a proposition that I am quite willing to admit, but that they are so, or are likely to be so, under the present system of making these appointments, nine out of every ten practitioners will unhesitatingly deny, and Mr. Nelson Hardy can easily test the truth of this by raising the question at any general meeting of medical men, where all present are not police surgeons.

As this question may not unlikely be raised at the approaching annual meeting of the Association in London, Mr. Nelson Hardy will have ample opportunity of explaining to his brethren by what magic the nomination by the chief surgeon of the metropolitan police to the post of divisional surgeon renders its recipient a better and more reliable pathologist than his less fortunate professional neighbours.

—I am, etc.,
A General Practitioner and
March 24th. Member British Medical Association.

SCARLATINIFORM RASH IN INFLUENZA.

Sir,—Dr. Ashby in the British Medical Journal of March 9th, p. 563, called attention to scarlatiniform eruptions in influenza, and asked for observations there anent.

During the recent epidemic in this town children aged from 2 to 8 who have been suffering from the disease have very commonly exhibited this form of rash. An eruption resembling that of measles most medical men who have seen much of the disease in children are familiar with, but a punctiform eruption, indistinguishable from that of scarlet fever, has been more usual here.

The chief features of the cases from a diagnostic point of view seem to be that the eruption appears within a few hours of the sudden onset characteristic of influenza, the child being in its usual health one day and showing the rash well developed all over the body the next. There is an absence of "strawberry tongue," the papillæ being not at all enlarged usually. The intensity of the rash bears a direct proportion to the amount of fever present, and in the slighter cases, which are those chiefly met with, it fades in about a day, and is not followed by desquamation. In a severe case aged 8 the child, whom I attended for a bad attack of scarlet fever three months ago, the brilliant rash lasted three or four days. There is the usual cough of influenza. The parotids and submaxillary glands are commonly enlarged, and there is inflammatory swelling of the fauces, but an absence of ulceration. Where two cases occur in the same house I have noticed that the second follows within three or four days of the onset of the first attack, suggesting a shorter period of incubation than that of scarlet fever.—I am, etc.,

Burnley, March 26th. A. Sutcliffe.

PAYING HOSPITALS.

Sir,—Will you allow me space to point out that to appoint a consulting staff to such an institution as I advocated would be entirely contrary to the whole idea of the scheme, and is, indeed, directly excluded by the last paragraph of my letter?—I am, etc.,

Upper Wimpole Street, W., March 28th. W. P. Herringham.

RAILWAY MEDICAL OFFICERS AND CLUBS.

Sir,—The several letters that have recently appeared in the British Medical Journal on the subject of clubs and railway sick funds in England, induce me to ask the favour of space for the following figures, showing the fees paid to their medical officers by the various Irish companies.

Name of Company (Irish).	Amount Per Annum Per Man.	Amount Per Week Per Man.	Wives and Families.
Great South-Western	Pay an average of £20 to £25 to each medical officer	—	Yes, midwifery £1 1s.
Great Northern	2s. 6d. to 4s.	½d. to 1d.	No.
Midland	1s. 6d.	Less than ½d.	Yes.
Belfast and Northern Counties	2s. 6d.	½d.	No.

Limerick and Waterford pay nothing, but give a district pass in return for medical attendance and drugs.

In every case the medical officer supplies the medicine. The Great South-Western gives a general pass; on the other lines the pass is confined to the district the medical officer is in charge of.

In 1893 the Midland Company Sick Society had 1,117 members. If one-third of these were married, each with an average of three children, there would be 2,977 entitled to the services of the medical officer. There were sixteen surgeons, whose united salaries was £175, that is fourteen pence halfpenny, or say one farthing a week for each individual entitled to medical attendance and medicine.

Though the fees are so low, there is no medical examination previous to admission to the sick fund, no extra allowance for accidents and surgical cases; the subscriptions to the fund vary in proportion to the weekly wage, the medical officer derives no advantage.

I find on inquiry that no English railway company having a sick fund pay less than 4s. a head a year, and there is usually a medical examination prior to admission to the society, and a scale of extra fees for surgical cases.

I am in the service of the Great Northern, on which line the wages vary from 14s. a week upwards. The minimum subscription to the sick fund is 2d. weekly, rising in proportion to member's wages, to 6d. My pay is about two-thirds of a penny a week a man; my district extends about twelve miles each side of Enniskillen, over which I have the privilege of a free pass. The request for even an occasional extended pass is courteously refused.

The company, though the society is called the "G. N. R. Sick Fund," say the medical attendance is a matter of subsidiary importance, the primary object being to provide "sick pay;" but, obviously, without honest medical supervision the society would be swamped in a year.

I am glad to report that a movement is on foot amongst the medical officers to several lines to combine in making an effort to obtain fair remuneration for our services, which the several sick funds can afford without any oppression of the working man, as a part of the income is derived from subscriptions by the company.

It has been proposed to hold a meeting for the discussion of this matter, establish an association of railway surgeons, and draw up certain rules for its guidance. For this movement I ask the sympathy and support of the rank and file of the profession, and dare express the hope that none will be found willing to accept service at rates lower than those fixed on by the association as fair and in proportion to the work and responsibilities.

Clubs and societies have enjoyed the full advantage of keen competition and want of combination in an overcrowded profession, till the fees have dropped almost to the vanishing point. Combination and *esprit de corps* may yet recover the lost ground. In supporting one another let us remember the fight is not only for those in possession of appointments, but also for their successors for all time. The medical profession wants one association absorbing every registered practitioner, and the several defence and minor associations; then its organised strength could be efficiently used to protect the interest of its members.

Every member of the British Medical Association should endeavour to induce those not on its roll to join.

While we applaud the plucky fight in Cork seems a fitting time to arrange for the discussion of club practice at the Ethical Section at the London meeting.—I am, etc.,

Enniskillen, March 25th. L. Kidd, M.D.

OBITUARY.

WILLIAM TOWERS SMITH, M.R.C.S.

We regret to have to announce the death of Mr. Towers Smith, a well-known member of the profession in London. William Towers Smith was born in Normandy in 1836. He came of a family distinguished in military history; his uncle, Sir Lionel Smith, was an aide-de-camp to His Royal Highness the Duke of Kent; his father was a captain in the 2nd Queen's; and he himself, at the age of 18, received a commission in the 17th Lancers, and served with that gallant regiment in the Crimea. A few years later he left the army and went to study medicine at Edinburgh, where his genial manners and the enthusiasm with which he adopted the interests of his new profession enabled him to form a lifelong friendship with many of the leaders of the Scottish school of medicine. Coming to London, he finished his course by attending lectures at St. Mary's Hospital, where he had the benefit of instruction at the hands of both the Lanes, of Sibson, Coulson, and Handfield Jones. For his teachers and associates, both in Edinburgh and St. Mary's, Mr. Smith had a profound affection and veneration, and his mind was stored with personal anecdotes, which he had a remarkable faculty for relating.

Becoming a Member of the College of Surgeons in 1861, he entered at once upon the duties of busy practice in Kensington, where he resided for more than twenty years, and was universally respected. Nearly ten years ago, however, his health failed, and he was obliged to give up work and retired into the country. Once more restored to mental, and in some degree to bodily, vigour, he returned to London, and practised for a time in the neighbourhood of the Courts of Justice. While there he had medical charge of the witnesses for the *Times* during the famous Parnell Commission trial. Having now for the first time in his life both health and leisure he applied himself to the study of dietetics, and matured the system in connection with which his name has become most familiar. Recognising the influence of the body weight upon health, and the great importance of dealing with excessive obesity, he carefully considered the various methods which have from time to time found advocates, eliminated their several fallacies, and choosing what was best in each, put his views to the test of experience in the workhouses and elsewhere, and already, before he had been generally heard of in his new pursuit, had achieved a large measure of success. His reputation quickly grew in the first instance exclusively amongst the members of his profession.

His relations with his colleagues were always of the most cordial character, and he was rarely accessible but through their medium. This, added to his great knowledge of foods, his large experience as a practitioner, his great enthusiasm, and, above all, the valuable personal gift by which he endeared himself to his patients and obtained a firm hold on their confidence secured for him in a few years a considerable amount of professional success.

Three years ago, however, his health suffered severely from an attack of influenza followed by pneumonia. He had long suffered from emphysema and chronic bronchitis, and when, on March 11th, he was again seized with influenza, quickly followed by pneumonia, it was shortly evident that he must succumb. He died on the morning of the 16th, regretted by all who knew him and, unhappily, too soon to have reaped a just harvest for the excellent seed of work that he had sown. He leaves a widow and two children.

EDWARD PARKE, M.R.C.S., L.S.A.,

West Derby, Liverpool.

One of the oldest and most respected members of the profession in Lancashire has passed away in the person of Mr. Edward Parke, whose death took place at Southport on March 12th. Mr. Parke was born on May 24th, 1808, at Edgehill, then a village on the outskirts of Liverpool; and was educated at the school of Dr. Shepherd, at Gateacre. He was apprenticed to his brother, Mr. J. Parke, who was in practice as a surgeon at Edgehill; and thence proceeded to Guy's Hospital, and subsequently to Paris. In 1836 he settled in practice in West Derby, then a country village, where he remained until his retirement in 1881. During his long and prosperous career he carried on a large and high-class practice, and enjoyed the entire confidence of his patients, with whom he was deservedly popular. He was much devoted to outdoor exercises, especially archery and fishing, and in his pursuit of the gentle craft he visited nearly every part of the United Kingdom, generally in the company of some congenial friend. He was also a good judge of art, and himself a painter in oil and watercolour of no mean ability. For some time he was a member of the West Derby Local Board, but otherwise he took little part in parochial affairs. Lithe, active, energetic, and spare in form, he did much of his professional work on foot, especially in his earlier days. A few years before his retirement he took into partnership Dr. T. R. Judson, also a Guy's man, who succeeded to the practice. Since 1881 he has lived in Southport, occupying himself largely with literary and other congenial pursuits.

GEORGE THOMAS LEE, M.R.C.S., L.R.C.P.

In dying at the early age of 34, Mr. Lee has left but partly fulfilled the promise of a useful life, and prematurely closed a career which bid fair to prove valuable in his selected line of practice—psychological medicine. Mr. Lee obtained his medical training in London at University College Hospital, and upon qualifying in 1883 at once commenced the active practice of lunacy by taking the post of assistant medical officer in the Fisherton House Asylum, Salisbury. He devoted his life to this work, taking posts at the Institute for the Insane, Coton Hill, Stafford, and finally settling down at the County Asylum in that city, where he pursued his duties to within a fortnight of his death. Mr. Lee was greatly beloved by his fellow workers, and his loss will be deplored while his memory will be respected.

LOUIS FLORENTIN CALMEIL, M.D.

Dr. Louis Florentin Calmeil, the oldest and one of the most justly celebrated specialists in psychological medicine in France, died on March 11th in his 97th year. Born at Yversay, Poitou, in 1798, he studied medicine first in the preparatory school of Poitiers, and afterwards in Paris. He was for some time *externe* under Dupuytren, but having been "shaken" on one occasion by that great but rough-mannered surgeon, he had himself transferred to another service. In due course he obtained the post of *interne*, and was appointed to the great lunatic asylum of Charenton. He was at that time about 24 years of age, and he remained attached to Charenton till he was 74. He served there as *interne* first under Royer-Collard, and afterwards under Esquirol, who took a particular interest in his career. Calmeil held all the

medical posts at Charenton in succession. He was physician-in-chief of the asylum for twenty-two years, continuing to hold the appointment until he retired from active professional life in 1872. He spent the remainder of his days amidst books and plants, to both of which he was passionately devoted, in a charming house not far from the asylum which had been the scene of his life's work.

Calmeil was a man of a modesty equal to his talents and acquirements, and he took no pains at any time to push himself into notoriety. So devoted was he to his poor patients at Charenton that he refused the most tempting offers to embark on work of a more profitable kind. He was a man of the most kindly nature, though strict in matters of duty, in which he himself set the best possible example. His contributions to the literature of his speciality cover almost the whole ground of diseases of the mind. His thesis for the doctor's degree, which he took in 1824, was on the seat of epilepsy and its influence in the production of insanity.

Among his larger works may be mentioned: *On Paralysis in the Insane* (1826); *Diseases of the Cord* (1839); *On Madness from the Pathological, Philosophical, Historical, and Judicial Points of View* (1845). In this excellent work are described the great epidemics of simple or complicated delirium which have prevailed in various countries, and particularly in monastic establishments; and an account is given of the miscarriages of justice to which the non-recognition of insanity has given rise. Among his other works are *A Treatise on Inflammatory Diseases of the Brain* (1859), for which he received the Cross of Officer of the Legion of Honour.

The death is announced of Mr. James Davis, M.R.C.S.Eng., at his residence in Dublin. Mr. Davis, who was aged 88, was for 40 years engaged in the active practice of his profession. In 1834 he settled at Newport, Mayo, where his district was of enormous extent, reaching into the Isle of Achill on the one side, to Ballycroy on the other. During the trying famine and epidemic periods in the West of Ireland his devotion to duty and heroic self-sacrifice gained for him the special recognition of the authorities. On his retirement he was granted the maximum pension under the Poor Law Board, and was presented with an illuminated address, accompanied by a purse of 100 guineas, by his patients and friends. Dr. Davis while actively engaged in practice acquired a special reputation for his skill in obstetrics. He was a man of upright character, whose sterling good qualities and readiness to give help in difficulties won for him the respect and affection of all who knew him. His eldest son entered the Medical Service of the Royal Navy, and had attained the rank of Staff-Surgeon when he died on the Pacific Station. His second son also entered the medical profession, but has since retired from practice, while his third son is Dr. Arthur N. Davis, Medical Superintendent of the Plymouth Borough Asylum.

We regret to announce the death of Mr. Daniel Ball, F.R.C.S.Eng., which took place at his residence at Stoke-on-Trent on March 17th in his 96th year. The deceased entered in 1821 as a student at St. Bartholomew's Hospital, became a Member of the Royal College of Surgeons in 1825, and was elected a Fellow in 1844. After qualifying he settled in Burslem, and continued to practise there until 1859. Mr. Ball had served on the staff of the North Staffordshire Infirmary from 1835, in which institution he took a great interest. The funeral, which took place on March 21st, was attended by a great number of sorrowing friends.

Dr. William Godfrey Dyas, one of the oldest practitioners of Chicago, who was recently run over by an express train in that city of reckless traffic, was born in Ireland. He was educated at Trinity College, Dublin, and went to Chicago in 1859. He was for some years editor of the *Medical Journal* of that city, and up to the time of his death he took a very active part in the professional life of Chicago. He was Consulting Surgeon to the Cook County Hospital and to the Women's Hospital, and an ex-President of the Chicago Medical Society. Dr. Dyas contributed comparatively little to medical literature. He had prepared an important work embodying some of the results of his large clinical experience, but the MS, together with a large mass of material which he had collected for it perished in the great fire which destroyed Chicago in 1871. Dr. Dyas was naturally discouraged by this accident, and he was never able to screw his courage to the point of rewriting the work. He was 87 years of age.

Dr. M. R. Marjolin, whose death, at the age of 83, was recently announced in the British Medical Journal, was the oldest of the hospital surgeons of Paris. He was a son of the distinguished surgeon of that name, formerly Professor of External Pathology in the Paris Faculty, and took his degree in 1839. He was one of the last surviving founders of the Société de Chirurgie. He was the author of a number of papers on subjects connected with operative surgery and hospital hygiene.

The death is announced of Dr. Charles John Mill, of Kirriemuir, in the 81st year of his age. Dr. Mill, who was a native of Arbroath, practised in Kirriemuir for fifty-two years and down to his retirement in 1887. He was well known in the district and highly esteemed.

Mr. Richard Leacroft Freer, M.R.C.S., L.S.A., who died on March 13th, was born in 1818 and was the eldest son of Mr. W. H. Freer, surgeon of Stourbridge, whose father also had been in practice in that town. Mr. R. L. Freer was educated at the Bridgnorth Grammar School, and subsequently studied at St. Bartholomew's Hospital. In 1840 he commenced practice with his father at Stourbridge, and on the elder gentleman's death in 1858 was joined by Mr. Alfred Freer. He continued in practice until 1880, when failing sight compelled him to retire. Mr. Freer, who served for a long time in the Yeomanry, was also a magistrate for the counties of Worcester and Stafford, and was very highly esteemed in Stourbridge and the neighbourhood.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Brunhes, Dean of the Faculty of Science of Dijon; Dr. Emile Bodast, of Brussels, Physician to the household of the King of the Belgians; Dr. Augustin Faucon, Burgomaster of Œculx (Belgium), aged 65; Dr. Chabrely, a former President of the Bordeaux Society of Medicine and Surgery, and Vice-President-elect of the Congress of Internal Medicine, which is to be held at Bordeaux this year; Dr. Schoenfeld, of Berlin, formerly a Counsellor in the Prussian Cultusministerium; Dr. Waldau, of Berlin, a well-known ophthalmic surgeon, aged 73; Dr. de Larabrie, Professor of Clinical Surgery in the Medical School of Nantes; Dr. Fr. Müller, formerly President of the Swiss Federal Commission for Examination in Medicine; Dr. Carl Boedecker, some time Professor of Physiological Chemistry in the University of Göttingen; and Dr. F. A. Sawyer, Vice-President of the Massachusetts Medical Society, aged 62.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CHARGE OF EXPOSURE OF INFECTIOUS PATIENT.

At the Guildford Petty Sessions on March 23rd Mr. Bird, of High Wycombe, was summoned by the Woking sanitary authorities, under Section 126 of the Public Health Act, 1875, "for that he being in charge of Sara Williams, a person suffering from a dangerous infectious disorder, to wit scarlet fever, exposed her without proper precautions against spreading disorder in a street, public place, or public conveyance."

The facts stated were as follows: The two children of Mr. Bird were suffering from scarlet fever. He applied to the Hanover Institute of Nurses for a nurse. On January 14th Nurse Sara Williams arrived, having been sent by the institute. On January 18th she complained of being ill and said she thought the symptoms pointed to scarlet fever. In this view she was confirmed by Dr. Browne. According to the nurse, Mr. Bird insisted on her leaving at once. The defendant said she at once decided to leave. At all events, she elected to go to Woking, where the Hanover Nurses' Institute have a quarantine cottage for their nurses. She accordingly travelled to Paddington, and thence by cab to Waterloo, and on to Woking, and thence in a cab to the Institute. When in the train there were other passengers in the same compartment. On arrival at Woking the rash was well out on the neck and arms. High Wycombe has not adopted the Notification

of Infectious Diseases Act, and it was argued on behalf of the defendant that he had neither paid nor selected the nurse, and as she elected to go to Woking his client was not a person in charge. But the Bench inflicted a fine of £5, the full penalty; they decided to grant a case for the decision of the superior court.

Previously to the hearing of this summons on the same date the nurse was charged with having exposed herself while suffering from a dangerous disease as aforesaid. The summons was dismissed.

Dr. Browne was also summoned on the same charge as Mr. Bird, but in his case the summons was not proceeded with. It must be borne in mind that Mr. Bird, being a defendant, could not give evidence in the case against him, neither could his wife. They would have been called as witnesses against the nurse, and the nurse would have been called as a witness against Mr. Bird, but the prosecution declined to call her, and the Bench would not accede to the suggestion that the two summonses should be disposed of at once, and both Mr. and Mrs. Bird and the nurse be given the opportunity of stating their cases on oath. Mr. Bird naturally desired to clear himself of the imputation that he had literally turned the nurse out of doors. No evidence appears to have been given to substantiate such a suggestion. The consideration of the wider bearings of the case cannot be entered into pending the appeal on the technical point.

A CIRCULAR.

TWO correspondents call our attention to a small ornamented handbill announcing the hours of attendance and other particulars with regard to a "private dispensary and consulting rooms" at Greenwich. The circular differs from others which have been brought to our notice, inasmuch as the statement as to fees is merely as follows: "Dispensary fees. Midwifery cases are attended at reduced rates." We are informed that this circular has been distributed in an indiscriminate manner. However this may be, the distribution of such a circular at all is derogatory to the professional status of the practitioner from whom we must assume it emanates, though his name is not mentioned.

THE LATE MEDICAL BATTERY COMPANY.

ON March 20th, Mr. Justice Williams, sitting as an additional judge of the Chancery Division, made a winding up order against the Medical Electric Institute (Limited), which in October, 1894, was formed to take over the business of the Medical Battery Company (Limited).

OBLIGATIONS OF *LOCUM TENENS*.

E. W. O.—Unless the bond contained a special clause prohibiting our correspondent from acting as a *locum tenens* in the town in question no valid objection can or ought to be, in our opinion, raised to his undertaking such temporary duties for the usually brief period, such as during the absence of a practitioner on his holiday trip; but if it be for a more or less prolonged term, as, for instance, in a protracted illness of the principal, exception thereto may not unfairly be taken.

DENTISTS AND THE MEDICAL PROFESSION.

MADRILLO asks: What is the usual custom among dentists of the better class when treating medical men professionally? What is the usual scale of charges (1) for medical men themselves, (2) for the wives of medical men, (3) for the children of medical men? Does the same rule hold good whether the medical man is in practice or not?

"*** We have referred this question to an experienced London dental surgeon, who writes: There is no ethical rule on the subject you inquire about, each dentist following the dictates of his own feelings, but endeavouring as far as possible to comply with any wish on the subject expressed by his medical patients. The custom is that father, mother, and children, so long as the latter are unmarried, shall receive the same consideration. The various methods adopted are as follows, and are given perhaps in the relative frequency of their adoption: (1) All operative work to be performed without fee, but half or one-third of the ordinary fee to be accepted for dentures or the patient to pay the dentist's out-of-pocket expenses. (2) Half fees to be paid for either operation or denture. (3) All dental work, whether operative or mechanical, to be done without fee. (4) All small operations to be gratuitous, but modified (say, half) fee expected for long operations or dentures. (5) To require full fees for any work done, and to insist upon paying them to doctors for any services rendered. These customs hold good although the medical man may not be in active practice.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.

Richmond Asylum, Dublin.—In reply to the Earl of ERNE, Lord RIBBLESDALE said that the medical officer of health for Dublin had recently reported in favourable terms on the healthiness of the site of the Richmond Asylum. He considered that the limited contamination of the soil by leakage from old drain pipes could be remedied. The Inspectors of Lunatics had advised that if certain alterations, now about to be made, were carried out the asylum could be continued. The resident medical superintendent had expressed the opinion that the site was not suitable for an asylum, but much had been done to improve it by the execution of a complete system of drainage and the purchase of additional land. The alterations and additions now in contemplation would improve the buildings. The asylum was situated on elevated ground on the north side of Dublin, and was in close proximity to tenement houses on one side only. The reason for the Board of Control advising the abandonment of the site of the existing Londonderry Asylum was that it was wholly insufficient and overlooked on either side by occupied buildings; this was not the case with the Richmond Asylum.

HOUSE OF COMMONS.

Vaccination.—Sir WALTER FOSTER, in reply to Mr. HOPWOOD, said it was not the practice of officers of the Local Government Board to offer themselves for examination before a Royal Commission. Some inquiry was made as to the attendance of Sir George Buchanan and Dr. Ballard before the Royal Commission on Vaccination, and it was the fact that both those gentlemen were then prevented by indisposition from attending. He regretted to state that Sir George Buchanan was still out of health, and on that account he undertook the chairmanship of the Royal Commission on Tuberculosis with great reluctance.

The Factories and Truck Bills.—In reply to Sir CHARLES DILKE, the CHANCELLOR OF THE EXCHEQUER stated that it was hoped to take the second reading of the Bills before Easter and to refer them to a Grand Committee.

NAVAL AND MILITARY MEDICAL SERVICES.

HEALTH OF THE NAVY.

THE statistical report for the year 1893 contains much information supplied in simple and precise language, and summed up in valuable tables for reference in an appendix reflecting great credit on the compiler.

Though the volume takes the usual form, some important improvements have been introduced, for example, as stated in a note: "Since the year 1887 the total force has been estimated on a new basis, and in 1889 it became possible for the first time to make a comparison under the new method, for a plurality of years, consequently a biennial comparison was then inaugurated. This year a sexennial one has been adopted throughout the report, and this system of a yearly increment will be maintained in each future report until a maximum period of ten years shall have been attained.

The total force in the service afloat for 1893 has been estimated at 60,130 officers and men. The utility of the new system will be seen in the following statement: "The total number of cases of disease and injury entered on the sick list was 57,380, which is in the ratio of 954.42 per 1,000, being an increase, compared with the previous year, of 20.03 per 1,000, and a decrease of 31.79 per 1,000 when compared with the average ratio of the last six years."

The total number of persons invalided was 1,626, or 27.04 per 1,000, showing an increase of 0.83 per 1,000 compared with the previous year, and also an increase of 0.34 per 1,000 contrasted with the average of the last six years.

The effect of a single catastrophe on the general death rate is shown in the following paragraph: "The number of deaths was 679, which gives a ratio of 11.28 per 1,000, and exhibits an increase of 5.71 per 1,000 in comparison with 1892, and of 4.69 on the average of the last six years, but if the deaths consequent on the loss of the Victoria are excluded, the total number would be 317, equal to a ratio of 5.27 per 1,000, or 0.31 below that of the preceding year."

It is a remarkable fact that solitary cases of virulent maladies very often prove fatal; this was so in the solitary instance of yellow fever recorded in the returns of the South-East Coast of America Station.

Under the heading of "General Diseases A. Sub-Group 4," the most superficial observer cannot fail to observe the terrible prevalence of venereal diseases.

It has been very truly said that statistics may be made to prove anything, and hence the insufficiency of plain figures, so-called, without a rational exposition of the facts in the background to disarm that kind of reasoning which is wilfully fallacious.

A summary of the records in question for 1892 and 1893 may be thus given for comparison:

	Haslar Hospital.		Plymouth Hospital	
	1892	1893	1892	1893
Primary Syphilis	666	624	409	558
Secondary Syphilis	374	368	186	231
Gonorrhœa, etc.	886	963	480	514
Totals	1,926	1,955	1,075	1,303

Taking the total number of entries from all causes at Haslar to be 5,895 and the same for Plymouth to be 4,008 for 1893 alone, it is clear that venereal diseases must have constituted more than one-third of the whole.

THE NAVY.

STAFF-SURGEON W. E. BRETON, M.D., is promoted to be Fleet-Surgeon, February 24th. He was appointed Surgeon, September 30th, 1874, and Staff-Surgeon twelve years thereafter.

The following appointments have been made at the Admiralty: HENRY F. NORBURY, C.B., Inspector-General of Hospitals, to Plymouth Hospital, March 26th; ALFRED CROPLEY, Surgeon, to the *Excellent*, March 28th; WILLIAM H. STEWART, Fleet Surgeon, to Portsmouth Dockyard, April 20th; GEORGE B. MURRAY, Fleet Surgeon, to Plymouth Division Royal Marines, April 20th; JOHN TYNDALL, Fleet Surgeon, to Haslar Hospital, April 20th;

Anthony Gorham, Fleet Surgeon, to the *Royal Sovereign*, April 20th; Thomas C. Hickey Fleet Surgeon, to the *Empress of India*, April 20th; Alfred T. Corbie, Fleet Surgeon, to the *Resolution*, April 20th; Evelyn R. H. Pollard, Fleet Surgeon, to the *Excellent*, April 20th; James L. Sweetnam, Fleet Surgeon to Sheerness Yard, April 20th; Henry A. W. Richardson, Fleet Surgeon, to the *Repulse*, April 20th.

INDIAN MEDICAL SERVICE.

Surgeon-Colonel G. C. Ross, Bengal Establishment, Sanitary Commissioner in the Central Provinces, will succeed Surgeon-Colonel R. Harvey, as Inspector-General of Civil Hospitals, Bengal.

Surgeon-Major-General W. R. Rice, M.D., C.S.I., Bengal Establishment, Surgeon-General and Sanitary Commissioner with the Government of India, is permitted to retire from the service from March 29th. He was appointed Assistant-Surgeon November 20th, 1856, and became Surgeon-Major-General March 24th, 1890. He served in the Indian Mutiny in 1857, receiving the medal for the campaign. He was awarded a good-service pension in 1891.

Surgeon-Captains G. Jamieson, M.B., Bengal Establishment, A. O. Evans, Madras Establishment, and M. A. T. Collie, M.B., and W. H. Quicke, Bombay Establishment, having completed twelve years' full pay service, become Surgeon-Majors, from March 31st.

MILITIA MEDICAL STAFF CORPS.

Surgeon-Lieutenant A. R. Chater resigns his commission, March 27th.

THE VOLUNTEERS.

Mr. W. P. Ryall, formerly a Surgeon-Lieutenant Army Medical Staff, is appointed Captain in the 2nd Devonshire Artillery (Western Division Royal Artillery), March 27th.

Mr. Joseph Atkinson is appointed Surgeon-Lieutenant to the 2nd Volunteer Battalion the Durham Light Infantry, March 27th.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

The next examination in Sanitary Science will begin on Tuesday, April 2nd.

Scholarships in Natural Science.—At Trinity College the following have been appointed: L. Blaikie, O. F. F. Grunbaum, B. H. Slater; and the following elected to Sizarships: W. H. Maxwell, H. H. Dale, H. E. L. Newberry, S. W. Richardson. The exhibition scholarship held by Mr. A. C. Hill of the third year has been continued.—At Gonville and Caius College the Shuttleworth Scholarship of the annual value of £57, tenable for three years, for proficiency in Botany and Comparative Anatomy, has been awarded to Leslie Johnson Paton.

UNIVERSITY OF EDINBURGH.

Medical Schools.—The medical classes in the University of Edinburgh, and extra academical schools, brought their winter session to a close on March 22nd. The summer session opens on May 1st. The First Professional Written Examination for Degrees in Medicine took place on March 23rd, 25th, and 28th. The *viva voce* examinations began on March 27th, and will be carried on *de die in diem*. The Second Professional Written took place on March 28th and 29th. The *viva-voce* examination began on March 29th.

UNIVERSITY OF DURHAM.

At the recent preliminary examination in Arts for the M.B. and B.Sc. Degrees sixteen candidates were successful, and in addition two candidates satisfied the examiners in Greek.

SOCIETY OF APOTHECARIES OF LONDON.

Pass List, March, 1895.—The following candidates passed in:

Surgery.—T. B. Abbott, Leeds; R. N. De Beauvais, Aberdeen; A. Harding, Royal Free Hospital; F. E. H. Keogh, St. Mary's Hospital; W. E. Kirby, University College; P. Kitchin, Leeds and St. Mary's Hospital; A. E. Philipps, Guy's Hospital; J. A. K. Renshaw, Cambridge University and Manchester; J. Spears, London Hospital; G. E. Williams, London Hospital.

Medicine, Forensic Medicine, and Midwifery.—G. W. Brown, St. Thomas's Hospital; W. J. Gillespie, St. Bartholomew's Hospital; A. Harding, Royal Free Hospital; P. Kitchin, Leeds and St. Mary's Hospital; R. W. Middleton, Leeds; H. S. Oliver, Charing Cross Hospital; A. E. Philipps, Guy's Hospital; E. P. Staples, St. Mary's Hospital.

Medicine and Forensic Medicine.—T. H. Wilkins, Charing Cross Hospital.

Medicine.—S. H. L. Archer, London Hospital; R. G. Jones, London Hospital.

Forensic Medicine and Midwifery.—J. S. A. Murphy, Leeds; G. A. Skinner, Guy's Hospital.

Forensic Medicine.—G. C. Jackson, Cambridge University and St. Mary's Hospital; A. L. M. Churchill, Westminster Hospital.

Midwifery.—G. Downs, Dublin; T. B. Abbott, Leeds.

To Messrs. Archer, Churchill, Gillespie, Harding, Kitchin, Middleton, Philipps, Skinner, Spears, Staples, and Williams was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

At the recent examination in Arts thirteen candidates passed all in the second class; eight other candidates passed in certain subjects.

The Twelfth Congress of Polish Surgeons will be held at Cracow in July.

The German Otological Society will hold its annual meeting this year at Jena on June 1st and 2nd.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,693 births and 5,635 deaths were registered during the week ending Saturday, March 23rd. The annual rate of mortality in these towns, which had been 35.0 and 32.2 per 1,000 in the two preceding weeks, further declined to 27.7 last week. The rates in the several towns ranged from 18.9 in Birkenhead, 19.9 in Swansea, and 20.6 in Halifax to 37.1 in Wolverhampton, 38.1 in Oldham, and 47.5 in Brighton. In the thirty-two provincial towns the mean death-rate was 29.0 per 1,000, and was 3.0 above the rate recorded in London, which was 26.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.4, while it averaged 1.6 per 1,000 in the thirty-two provincial towns, and was highest in Blackburn, Manchester, and Bolton. Measles caused a death-rate of 1.3 in Brighton, 1.6 in Manchester, and 3.1 in Bolton; scarlet fever of 1.2 in Wolverhampton; and whooping-cough of 1.5 in Norwich, and 1.8 in Leicester and in Blackburn. The mortality from "fever" showed no marked excess in any of the large towns. The 50 deaths from diphtheria in the thirty-three towns included 24 in London, 5 in Leeds, 4 in Birmingham, 3 in West Ham, and 3 in Manchester. One fatal case of small-pox was registered in Derby and 1 in Liverpool, but not one in London or in any other of the large towns. There were 58 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-Pox Hospital on Saturday last, March 23rd, against 68, 56, and 57 at the end of the three preceding weeks; 14 new cases were admitted during the week, against 8, 8, and 12 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,621, 1,619, and 1,615 at the end of the three preceding weeks, had further declined to 1,587 on Saturday last, March 23rd; 184 new cases were admitted during the week, against 143, 141, and 133 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, March 23rd, 1,010 births and 900 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 42.8 to 35.1 per 1,000 in the three preceding weeks, further fell to 31.2 last week, but exceeded by 3.5 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rate ranged from 25.1 in Greenock to 42.0 in Leith. The zymotic death rate in these towns averaged 4.0 per 1,000, the highest rates being recorded in Edinburgh and Leith. The 333 deaths registered in Glasgow included 17 from whooping-cough, 9 from measles, and 6 from diphtheria. Nineteen fatal cases of measles were recorded in Edinburgh, 17 in Leith, and 9 in Aberdeen.

THE REPRESSION OF SMALL-POX.

Dr. Manley, in his report on the borough of West Bromwich for last year, states that there were no fewer than 24 separate importations of small-pox into the town in the year, 41 cases in all occurring in 24 houses, and yet in no instance did the disease spread beyond the house invaded. Of the imported cases, 16 were traced to the place of origin, and did not so much result from the immigration of vagrants as from the employment of West Bromwich residents in the workshops and factories of neighbouring towns. But, however brought in, great credit is due to the sanitary administration which led to such admirable handling of a constantly menacing danger. Rapid isolation of notified cases and thorough disinfection of infected houses were practised.

VACCINATION WITH CALF LYMPH.

Public Vaccinator need not hesitate about the use of calf lymph for vaccination, as the Local Government Board rather encourages than opposes its use. He will obtain a supply (gratis) to begin with by writing to the National Vaccine Establishment, offices of the Local Government Board, Whitehall, London, S.W.

AN INTERNATIONAL EXHIBITION OF HYGIENE.

An International Exhibition of Hygiene will be held in Paris in the Palais des Arts Libéraux, Champ de Mars, from May 15th to September 15th. The Exhibition will be divided into ten classes: Hygiene of the Dwelling; Hygiene of the Town; Prophylaxis of Communicable Diseases; Demography and Sanitary Statistics; Sanitary Science; Hygiene of Infancy; Industrial and Professional Hygiene; Alimentary Hygiene; Hygiene of Clothing; Physical Exercises.

BRECON BOARD OF GUARDIANS.

We see in the *Brecon and Radnor County Times* the report of a recent meeting of the Brecon Board of Guardians, at which, after much discussion, it was decided to reduce the salaries of all the medical officers of the Board—namely, workhouse, district, and M.O.H. The clerk expressed his opinion that the Board had no power to reduce the salaries in the way proposed, and very properly declined to forward any reasons to the Local Government Board for this line of action unless specially ordered to do so.

*** We cannot think that the Local Government Board will sanction this indiscreet, and in our opinion unjustifiable, reduction of salaries, as it must be evident that it will not ultimately be for the benefit either of the patients or the ratepayers.

MEDICAL NEWS.

THE Senckenberg Society of Scientists of Frankfort-on-the-Maine has awarded the Liebermann prize to Professor Behring for his researches on serotherapeutics.

THE annual meeting of the British Association is to be held this year at Ipswich, and the date settled for the opening address is Wednesday, September 11th.

THE Poor-law Schools Committee held their 31st meeting on March 22nd. The taking of evidence having concluded, the committee adjourned to an early date in May, when they consider their report.

THE Spanish Government has conferred on Dr. José M. Vilches, Dean of the Medical Faculty of the University of Cadiz, the Grand Cross of Isabella the Catholic with remission of the customary fees.

THE Merchant Taylors' Company has granted £525 to the St. Thomas's Hospital Special Appeal Fund for opening the closed wards. It will be paid in annual instalments of 100 guineas.

CENTENARY OF THE ABERNETHIAN SOCIETY.—The centenary of the Abernethian Society at St. Bartholomew's Hospital will be celebrated by a *conversazione*, to be given in the Great Hall of St. Bartholomew's Hospital and in the Medical School Buildings on Wednesday, May 1st. Past members of the Society who desire to be present should communicate with the Secretary of the Society before April 15th, when a card of admission and (if desired) a ticket for a friend will be forwarded. We are asked to state that the number of tickets issued will be limited.

A MEETING of the South Western Division of the Medico-Psychological Association will be held at the City Asylum, Fishponds, Bristol, on Thursday, April 4th, at 2.30 P.M. A discussion will be opened by Dr. Law Wade on the question of granting gratuities to the widows or orphans of asylum officials who may die after long service, or be injured fatally in the discharge of their duties. Papers will be read by Dr. H. Bristowe, Dr. J. V. Blatchford, and Dr. MacDonald. A dinner will be held at the Grand Hotel at 5.15.

MEDICAL VACANCIES.

The following vacancies are announced:

ABERTILLERY URBAN DISTRICT COUNCIL.—Medical Officer of Health. Appointment for one year. Salary, £50 per annum. Applications to J. A. Shepard, Clerk to the said Council, Town Hall, Tredegar, Monmouth. Election on April 1st.

BARNSTAPLE UNION.—District Medical Officer. Salary, £70 per annum, and midwifery fees. Applications to Wm. Henry Toller, Clerk, by April 2nd.

BETHLEM HOSPITAL.—Two Resident Clinical Assistants; doubly qualified. Appointment for six months. Will be provided with such apartments, rations, washing, and attendance as the Committee shall consider reasonable. Applications, endorsed "Clinical Assistantship," to the Treasurer, at Bethlem Hospital, before March 31st.

BLOOMSBURY DISPENSARY, 12, Bloomsbury Street, W.C.—Physician. Must be F. or M.R.C.P.Lond. Honorarium £105 per annum. Applications to the Secretary by April 2nd.

BRIGHTON THROAT AND EAR HOSPITAL, 23, Queen's Road, Brighton. Non-Resident House-Surgeon. Salary at the rate of £52 per annum. Applications to the Secretary by April 3rd.

CAMBERWELL HOUSE.—Assistant Medical Officer, must be registered and unmarried. Salary to begin £100 per annum, with board, lodging, and washing. Applications to the Medical Superintendent, 33, Peckham Road, Camberwell.

COUNTY ASYLUM, Dorchester.—Second Assistant Medical Officer, unmarried, and not over 30 years of age. Salary to commence £130 per annum, rising £10 yearly to £180. Applications to Dr. MacDonald, Medical Superintendent, by April 8th.

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer, unmarried, and not more than 30 years of age. Salary commences at £100 per annum, with prospects of annual rise of £25 to £200, with further increase according to promotion, together with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell E. Hoole, Physician. Board, lodging, etc., provided; no salary. Applications to the Secretary by April 8th.

HOLBORN UNION.—Medical Officer for the Union Schools at Mitcham, Surrey. Salary, £100 per annum, non-resident. Applications, endorsed "Application for Medical Officer," to Harry O. Hill, Clerk to the Guardians, Holborn Guardians' Office, Clerkenwell Road, E.C., by April 3rd.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY.—Two Honorary Medical Officers for the Rupert Road Branch, doubly qualified. Applications to Charles Walton Sawbridge, Honorary Secretary, 68, Aldermanbury, E.C.

LEEDS UNION.—Assistant Medical Officer for the Workhouse Schools and Infirmary in Beckett Street, Leeds. Doubly qualified, unmarried, and not above 35 years of age. Applications (on forms to be obtained of the Clerk), endorsed "Assistant Medical Officer," to Jno. King, Clerk, Union Offices, East Parade, Leeds, by April 1st.

LEICESTERSHIRE AND RUTLAND ASYLUM.—Assistant Medical Officer. Unmarried, and between the ages of 25 and 30. Salary, £150, increasing £10 yearly to £200, with board, lodging, and washing. Applications to W. J. Freer, Clerk to the Visitors, 10, New Street, Leicester, by April 3rd.

LINCOLN COUNTY HOSPITAL.—House Surgeon. Under 30 years of age, and unmarried. Salary, £100 per annum, with board, lodging, and washing. Applications to the Secretary by April 6th.

LONDON COUNTY ASYLUM, Hanwell, W.—Fifth Assistant Medical Officer, doubly qualified, and between 23 and 30 years of age. Salary, £120 per annum, rising by £5 a year to £150, with board, furnished apartments, and washing. Applications, on forms to be obtained at the office, to R. W. Partridge, Clerk to the Asylums Committee, Asylums Committee Office, 21, Whitehall Place, S.W., by April 6th.

LONDON HOSPITAL MEDICAL COLLEGE.—Assistant Demonstrator in Anatomy. Salary, £90 per annum. Applications to the Warden by April 25th.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—Demonstrator of Physiology. Applications to the Secretary, 30, Handel Street, Brunswick Square, W.C., by March 31st.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £30 per annum, with board, residnce, and washing. Post tenable in the first instance for six months. Applications to the Honorary Secretary by April 4th.

NORFOLK COUNTY ASYLUM, Thorpe, Norwich.—Junior Assistant Medical Officer. Salary, £110 per annum, increasing £10 annually to £150, with board, lodging, and washing. Applications to Dr. Thomson, Medical Superintendent.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Physician. Must be F. or M.R.C.P.Lond. Applications to T. Grenton-Kerr, Secretary, at the Office, 27, Clement's Lane, E.C., by April 16th.

ROYAL COLLEGE OF PHYSICIANS.—Milroy Lecturer. Applications to the Registrar, Royal College of Physicians, Pall Mall East, S.W., by April 9th.

ROYAL HOSPITAL FOR SICK CHILDREN, Glasgow.—House-Surgeon and Assistant House-Surgeon. Salary, £60 per annum for the former and £36 for the latter, with board and washing in each case. Applications to M. P. Fraser, 91, West Regent Street, Glasgow, by April 6th.

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Junior Medical Officer. Salary commencing at £100 per annum, with furnished apartments, board, etc. Applications to the Medical Superintendent.

SURREY COUNTY LUNATIC ASYLUM, Brookwood, near Woking, Surrey. Second Assistant Medical Officer. Salary, £120 per annum, with board, lodging, attendance, laundry, but not beer. Applications to the Medical Superintendent by April 1st.

TANCRED'S CHARITIES.—Two Studentships in Divinity at Christ College, and one Studentship in Physic at Gonville and Caius College, Cambridge. Each student will receive £50 a year and a share in the surplus rents and profits (the stipend not to exceed £100 a year); the student in Physic until admission to the degree of Bachelor of Medicine, and for three years afterwards, or for such shorter terms as may be determined by authority. Candidates must be natives of Great Britain, members of the Church of England, unmarried, and not below the age of 16 or above the age of 22. Forms of petition and all information may be obtained from Mr. George Edgar Frére, 28, Lincoln's Inn Fields, W.C., Clerk to the Tancred's Charities, to whom petitions must be sent by April 20th.

TAUNTON AND SOMERSET HOSPITAL.—House-Surgeon; doubly qualified. Appointment for three years. Salary, £100 per annum, with board, lodging, and washing. And Honorary Physician; must reside within two miles of the hospital. Applications to J. H. Biddulph Pinchard, Secretary, 13, Hammet Street, Taunton, by April 4th for the first appointment and April 6th for the second.

WEST RIDING ASYLUM, Menston, near Leeds.—Third Assistant Medical Officer. Salary to commence at £130 per annum, rising £10 annually to £160, with board, lodging, and apartments. Applications to the Medical Superintendent at the Asylum by April 6th.

MEDICAL APPOINTMENTS.

ADAMS, Webster, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the No. 6 District of the Woodbridge Union.

ADYE, Wm. J. A., M.R.C.S.Eng., reappointed Medical Officer for the No. 3 District of the Bradford-on-Avon Union.

ALEXANDER, S. R., M.D.Lond., M.R.C.S.Eng., appointed Medical Officer for the First District of the Faversham Union.

ASKIN, T. C., B.A.Dubl., M.D., B.Ch., reappointed Medical Officer for the No. 2 District of the Woodbridge Union.

BEHRENDT, M. R. J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Brumby and Frodingham Urban District Council.

BODY, H. M., M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Tedburn St. Mary District of the St. Thomas's Union.

BROMET, E., M.A., M.R.C.S., L.R.C.P., appointed House-Surgeon to the West London Hospital, Hammersmith.

BROOKS, Chas., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Gerrard's Cross District of the Eton Union.

Bury, Edward Chas., M.D.St.And., M.R.C.S.Eng., appointed Medical Officer of Health to the Wisbech District Council.

Cuttfield, Arthur, B.A.Cantab., M.R.C.S.Eng., appointed Medical Officer to the Man of Ross Oddfellows' M. U., *vice* E. M. Knapp, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

Date, W. Horton, M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health to the Wellington Rural District Council.

Edington, Geo. Henry, M.B.Glasg., late R.M.O. Glasgow Hospital for Sick Children, appointed Surgeon to Glasgow Central Dispensary, *vice* Dr. J. Wilson Mathie, resigned.

Edwardes-Ker, G. C., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the No. 7 District of the Wcodbridge Union.

Elliott, John, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Erith District Council.

Evers, Chas. J., M.D Durh., M.R.C.S.Eng., reappointed Medical Officer of Health for the Faversham Borough and Port Sanitary Authority.

Flegg, F. A. Martin, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., appointed House-Surgeon to the Seamen's Infirmary and General Hospital, Ramsgate, and Visiting Surgeon to the Ramsgate and St. Lawrence Royal Dispensary.

Fleming, G. G., M.D., appointed Medical Officer for the first District of the Ely Union.

Gange, Fredk. W., M.R.C.S.Eng., L.R.C.P.Lond., reappointed Medical Officer for the Faversham Urban Infectious Hospital.

Gault, Edward Leslie, M.A., M.B., B.S.Melb., appointed Ophthalmic Surgeon to the Alfred Hospital, Melbourne.

Gibson, T. H., M.B., C.M.Edin., appointed Police Surgeon for Kirkby Stephen.

Godson, Leonard J., M.R.C.S., L.R.C.P., appointed Senior House-Surgeon to the Infirmary, Shrewsbury.

Gunn, F. W., M.D.Durh., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer for the Fourth District of the Morpeth Union.

Hurley, James, L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Magor District of the Newport Union.

Jones, J. Arnallt, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the Borough of Aberavon.

Kerr, J. C., M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the No. 8 District of the Woodbridge Union.

Lambie, J., M.B.Glasg., L.F.P.S., reappointed Medical Officer for the Islandshire District of the Berwick-on-Tweed Union.

Mackeith, A. A., M.B., C.M.Glasg., reappointed Medical Officer for the Brampford Speke District of the St. Thomas's Union.

Mackintosh, Angus, M.D., L.F.P.S.Glasg., etc., reappointed Medical Officer of Health to the Chesterfield Rural District Council, and also to the Urban District Councils of Clay Cross and Dronfield.

Mitchell, Dr. R., appointed Medical Officer for the Hooton Pagnell District of the Doncaster Union.

Murdoch, Mary C., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Assistant Medical Officer to the North-Eastern Fever Hospital, Tottenham.

O'Leary, Dr., appointed Medical Officer for the Courcey Dispensary District.

Paget, Owen F., M.B., B.C.Cantab., appointed Resident Medical Officer to the St. George's and St. James's Dispensary, W.

Palmer, Ambrose M., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Whittington Urban District Council.

Puddicombe, E. L., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the Rewe District of the St. Thomas's Union.

Reynolds, Francis M., M.B., C.M.Edin., appointed Medical Officer for the Newton Poppleford District of the St. Thomas's Union.

Russell, W. A. G., M.A., M.B., C.M.Aberd., appointed Medical Officer for the Wingage District of the Easington Union.

Shaw, Cecil Edward, M.A., M.D., M.Ch.R.U.I., appointed Assistant Surgeon to the Belfast Ophthalmic Hospital.

Smith, George, M.B., C.M.Edin., reappointed Medical Officer for Greys District of the Henley Union.

Smyth, H. J., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the Eleventh District of the South Molton Union.

Smith James, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg., reappointed Medical Officer to Falkirk Cottage Hospital.

Taunton, W., L.R.C.P.Edin., M.R.C.S., appointed Medical Officer for the Linton District and the Workhouse of the Linton Union.

Thomson, J. A. M., L.R.C.P., L.R.C.S.I., reappointed Medical Officer for the No. 1 District of the Bradford-on-Avon District.

Waters, A. C., M.B., B.S.Durh., M.R.C.S.Eng., appointed Medical Officer of Health for the Borough of Southend-on-Sea, *vice* G. F. Jones, M.R.C.S.Eng.

Watson, William, M.R.C.S.Eng., L.S.A, reappointed Medical Officer of Health to the Rochester Town Council.

Watts, Dr., appointed Medical Officer to the Ilchester Almshouse Charity Trust, *vice* Dr. Daunt, resigned.

Webb, W. H., M.D Durh., L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer of Health to the Kingsbridge Rural District Council.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, 5 P.M.—Mr. J. H. Targett (Erasmus Wilson Lectures): Certain Forms of Neuropathic Joint Disease. Lecture I.

Odontological Society of Great Britain, 40, Leicester Square, 8 P.M. Mr. G. G. Campion: Studies in Superior Protrusion (illustrated by lantern slides). Casual communications by Mr. G. Brunton.

TUESDAY.

The Clinical Museum, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

Royal College of Physicians, 5 P.M.—Dr. G. F. Blandford: On the Diagnosis, Prognosis, and Prophylaxis of Insanity (Lumleian Lecture No. II).

Pathological Society of London, 8.30 P.M.—Dr. Voelcker: Carcinoma of Ureter. Dr. F. Hawkins: Cogenital Obliteration of Bile Duct. Mr. Jackson Clarke: Sarcoma Mammæ. Mr. E. Willett: Carcinoma of Bed of Thumb Nail. Mr. L. A. Bidwell: Carcinoma of Stomach treated by Gastro-duodenostomy. Dr. Lee Dickinson: Duodenal Ulcers in Women. Dr. P. Weber: Cirrhosis of Liver in a Child. Card specimens will be shown by Dr. A. A. Kanthack, Mr. C. B. Lockwood, Mr. E. Lloyd, Dr. C. P. White, Dr. Voelcker, Dr. H. Snow, and Dr. Lee Dickinson.

WEDNESDAY.

Royal College of Surgeons of England, 5 P.M.—Mr. J. H. Targett (Erasmus Wilson Lectures): Certain Forms of Neuropathic Joint Disease. Lecture II.

The Sanitary Institute, Parkes Museum, Margaret Street, W., 8 P.M.—Discussion on Combined Drainage from the Point of View of Health, Construction, Administration, and Law, to be opened by Dr. J. F. J. Sykes and Mr. W. N. Blair.

West London Post-Graduate Course, West London Hospital, W., 5 P.M. —Dr. Abraham: Parasitic Skin Affections.

Obstetrical Society of London, 8 P.M.—Specimens will be shown by Dr. Cullingworth and Dr. Duncan. Adjourned discussion on Dr. Probyn-Williams's and Mr. Leonard Cutler's paper on Some Observations on the Temperature, Pulse, and Respiration during Labour and Lying-in. Dr. Remfry: List of Ovariotomies in Women over 80; a Case aged 83, complicated by Epithelioma of the Vulva.

THURSDAY.

Harveian Society, 8.30 P.M.—Dr. Howard Marsh A Clinical Study of the more Important Forms of Abscess.

Royal College of Physicians, 5 P.M.—Dr. G. F. Blandford: On the Diagnosis, Prognosis, and Prophylaxis of Insanity (Lumleian Lecture No. III).

FRIDAY.

West Kent Medico-Chirurgical Society, Miller Hospital, Greenwich, 8.15 P.M.—Discussion on Antiseptics, in which Mr. John Poland, Dr. Horrocks, Dr. Newton Pitt, Dr. Ezard, and Dr. Ernest Clarke will take part.

Cancer Hospital, Brompton (Free), 4 P.M.—Mr. E. Cotterell: Excision of the Rectum.

West London Medico-Chirurgical Society.—Special general meeting, 8 P.M.; ordinary meeting, 8.30 P.M. Dr. Coutts: Treatment of Empyema in Children. Mr. S. Paget: Three Cases of Secondary Malignant Disease of Pleura. Card Specimens by Dr. Parkes Weber, Mr. Lane, and Mr. S. Paget.

Royal College of Surgeons of England, 5 P.M.—Mr. J. H. Targett (Erasmus Wilson Lectures): Certain Forms of Neuropathic Joint Disease. Lecture III.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

Ramsay.—On March 24th, at Jesmond Dene, Bournemouth, the wife of F Winson Ramsay, M.S., F.R.C.S.Eng., of a son.

St. Leger.—On March 20th, at Westbury, Watford, the wife of Robert A. St. Leger, M.B., of a son.

MARRIAGES.

Carter—Just.—On March 26th, at Westbury-on-Trym, by the Rev. S. Baker-Penoyre, Thomas Moravian Carter, M.R.C.S., L.R.C.P., to Adelheid Clara, youngest daughter of H. W. Just, Esq., Bristol.

Macdonald—Gilmour.—In St. Michael's Church, Linlithgow, on March 19th, by the Rev. John Ferguson, assisted by the Rev. C. C. Macdonald and the Rev. Robt. Fraser (father and uncle of the bridegroom), R. Cadell Macdonald, M.B., C.M., L.R.C.S., L.R.C.P.Edin., to Margaret, eldest daughter of Surgeon-Lieutenant-Colonel A. Gilmour, J.P., Provost of Linlithgow.

Robertshaw—Cowine.—At "Greenbank," Dalrymple Crescent, Edinburgh, on March 21st, by the Rev. H. Robertshaw, of Stocksbridge, near Sheffield (father of the bridegroom), assisted by the Rev. James Gregory Edine, and the Rev. A. R. Henderson, M.A., of Augustine Church, Edinburgh, Walter Midgley Robertshaw, M.B., C.M., to Janie, third daughter of T. O. Cowine, Esq.

DEATH.

Lee.—On March 23rd, at "Glenthorn," The Avenue, Surbiton (the residence of his sister), George Thomas Lee, M.R.C.S., L.S.A., son of Fred. Bowreman Jessett, F.R.C.S., aged 34, for eight years Senior Assistant Medical Officer of the Stafford County Lunatic Asylum.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to any private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

ITTEN would be glad to know any particulars as to circumcision in young adults without ether, or chloroform, or any anæsthetic. Are results satisfactory? Are there usually any untoward sequelæ (that is, shock)? Is a strong solution of cocaine liable to be absorbed with symptoms of poisoning?

ANSWERS.

BREASAIL.—We would advise our correspondent not to take any part in the use of a remedy the composition and preparation of which are not fully stated.

MAIDA.—The M.D. degree of the University of Brussels, if obtained subsequently to 1887, is not registrable on the *Medical Register* as an additional qualification.

J. A.—Poor patients suffering from chronic rheumatism are received at the Royal Mineral Water Hospital, Bath, and also at the Devonshire Hospital and Buxton Bath Charity, Derbyshire. We should recommend our correspondent to communicate with the secretary of one or other of these institutions.

CONSTITUTIONAL can obtain a very serviceable battery from Messrs. Miller and Woods, 2, Gray's Inn Road, Holborn, W.C., price 8 guineas. It is fitted with a constant current apparatus and an induction coil, and has a galvanometer. It keeps in good order without attention for a year or two, according to the amount of work required of it, and can easily be refitted with new cells when they are wanted. If "Constitutional" wants only an induction coil apparatus he can get one from K. Schall, 55, Wigmore Street, W., or from the firm mentioned in his letter—Messrs. Hockin and Wilson.

LANTERN SLIDES.

WE should advise "M.B." to apply to the various dealers in lantern slides in order to obtain those he seeks. Failing this, slides are made to order at a small cost if diagrams from books are provided. Wood and Co., 74, Cheapside; Newton and Co., 3, Fleet Street; W. Tyler, Waterloo Bridge Road, are well-known dealers in slides.

TREATMENT OF BORBORYGMI.

FLATUS.—A question in regard to the prevention and treatment of borborygmi, of very much the same nature as that sent by our correspondent, was inserted in the BRITISH MEDICAL JOURNAL of December 22nd last, and certain replies will be found in the JOURNAL of January 5th, 1895, page 58. In reply to a similar question inserted a couple of years ago, Mr. F. F. Jones recommended mxv of tincture of nux vomica in an ounce of water every morning before breakfast, and another correspondent recommended the following mixture: R Bismuth. carb. 3ij; sodæ bicarb. 3ij; glycerin. acid. carbolic. mxlviij; pulv. tragacanth. co. q. s.; sp. chloroformi 3j; aq. menth. pip. 5vj; ½ ter die sum. M., F. m.

ENTERIC FEVER AMONGST BRITISH TROOPS.

OBSERVER.—The causation of enteric fever as it originates and spreads amongst British troops in tropical and subtropical countries is a difficult subject, and has given rise to wide divergence of opinion amongst competent observers. It would not further investigation by eliminating all climatic causes, whatever they may mean. Our correspondent, we suppose, will agree that among predisposing, outside of specific causation, factors two are recognised in hot countries—temperature and the age of the soldier; the former, of course, must come under the head of climatic influences. The period of the highest annual temperature in the subtropics is the time, and the subjects of the disease the youngest soldiers. These may only be predisposing, but are none the less essential factors in the disease. If our correspondent will glance at the map, he will see that Bengal, Egypt, Malta, and Bermuda lie within certain parallels of latitude in the subtropics. It may be only a coincidence, but it is a curious and suggestive fact. We may believe that perfect hygiene would eliminate climatic influences; but until such is brought about the influence of climate in the spread of enteric fever amongst our troops in hot countries cannot be ignored.

REMUNERATION OF RAILWAY SERVANTS.

LATE SURGEON OF GT. N. RY. CO.—The described case is a hard one, and illustrates the terrible want of *esprit de corps* in the profession. It is greatly to be feared that any resignation of such an appointment on account of inadequacy of fees would lead to no reform owing to the facility with which other medical men are found to take the posts thus vacated. It might be different, however, if all the railway surgeons were to combine and approach the company as a body, bringing their grievances before the directors.

NOTES, LETTERS, Etc.

ERRATUM.—In the notice of the appointment of Miss Eleonora L. Fleury to the Richmond Lunatic Asylum it should have been stated that she took the degree of M.D. in 1893, and not 1892.

LICENTIATES AND THE TITLE OF "DR."

WE have received several additional letters on this subject:

A SCOTCH GRADUATE AND DOUBLE DIPLOMATE writes to point out the absurdity of finding fault with the Colleges of Physicians and Surgeons for not granting the title of "Dr.," since this is a degree which can only be granted by universities under charter. He repudiates the suggestion that degrees in medicine can or should be obtained from universities in this country "on easy terms." The secret of the success, he adds, of the northern university is to be found in the better methods of teaching (especially in Scotland), better opportunity for study, fewer temptations to waste time in amusements, and greater economy of expenditure.

A LICENTIATE, in reply to a previous letter from the above correspondent, says that the failure of the majority of London students to take a degree in medicine is due entirely to the fact that there is no teaching university in London, and that the matriculation examination of the London University is not only "stiff," but must be passed entire, failure in one subject meaning failure in all. It is not, he observes, until a student has been studying his profession for a year or more in London that it dawns upon him that, though he is passing examinations which may be of as high a standard as those of some universities, he will when qualified be a "mere diplomate."

M.R.C.S., L.R.C.P.LOND. also writes in reply to "Scotch Graduate and Double Diplomate," and refers him to the BRITISH MEDICAL JOURNAL of January 12th. He points out that it is in relation to the London University degree of medicine that London students and diplomates are placed in an unsatisfactory position, leading to a misconception in the mind of the public as to their professional status and ability.

A DOCTOR OF THE MEDICAL FACULTY OF A UNIVERSITY writes to urge that the fact of being a medical man gives no right to the title of "Dr." which should belong only to the doctors of some faculty of a university.

*** While fully aware of the interest which this question has for many, its further discussion at the present moment can hardly lead to any practical result. Until we have a properly constituted teaching university in London, medical students in the metropolis must remain under a certain disadvantage with regard to medical degrees. The uncompromising attitude of certain opponents of the scheme approved by the Royal Commission and by all the corporate bodies interested will, it is to be feared, give the Government an excuse for further postponing the necessary legislative action. A report of the observations of the Premier in reply to the deputation which waited upon him on January 22nd will be found in the BRITISH MEDICAL JOURNAL of January 26th. Lord Rosebery expressed his own views on the question very clearly, but at the same time indicated with equal distinctness the circumstances which were likely to retard the progress of the question. While we recognise, from the very numerous letters which have been addressed to us during the last few years, that there is a rankling feeling of injustice on both sides, we cannot help thinking that it is useless to continue further a controversy which can lead nowhere. The index of the BRITISH MEDICAL JOURNAL contains references to the matter in 1892, vol. i, four times; in vol. ii, seven times; in 1893, vol. i, nine times; in vol. ii, eight times; in 1894, vol. ii, once; and already in this volume four times, several of the entries covering many letters; and much the same can be found during many years.

INFLUENZA AND ITS TREATMENT.

M. A. BAMBY, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg. (Rotherham), writes: Like Dr. Terry and others, I have observed marked pharyngitis and tonsillitis as a complication of influenza. In all my cases, however, the pain in the throat was severe and constant, and was at times—particularly on swallowing—accompanied by an excruciating dart towards the ears. There was also much glairy secretion, which was with difficulty expelled. The glands in the neck were painful, but not much enlarged. The tonsillitis as a rule occurred early, and in several of the cases the local symptoms were so severe as to mask the general disease for a time. Local treatment gave much relief. I used a glycerine paint internally of menthol, cocaine, and borax, the cooling sensation left by the menthol being particularly liked. The glycerine was preferred to a gargle by most patients, as its effects lasted longer.

Externally belladonna and glycerine was smeared over the throat, and a poultice kept on. General treatment consisted in getting the patient quickly under the influence of sodium salicylate. Under this drug the temperature quickly falls, the muscular pains and headache disappear, and the throat inflammation rapidly subsides. It is advisable, however, to continue the salicylate in smaller doses during convalescence to prevent a relapse, which I have sometimes noticed. There was not much cough, nor did I notice any skin eruption. Might not this, in Dr. Terry's cases, have been due to the drugs employed, which, as we all know, not infrequently cause a rash, particularly the coal-tar series? The tongue generally was broad and flabby, and coated with a moist creamy fur. Constipation was a marked feature. The subsidence of the tonsillitis coincides with the fall of the temperature, and both of these, as well as other favourable results, are quickly and safely brought about by the use of the salicylate, when commenced early. I have seldom had to employ acetanilid or its allies. Constipation is best met by daily enemata, which do not weaken the patient nor derange the stomach, as laxatives are apt to do. As it is, there is generally much nausea throughout the disease. This is overcome by giving peptonised preparations such as Benger's peptonised jellies, or by combining a power of bismuth carbonate and lactopeptine with each meal. Small pieces of ice sucked at intervals afford much relief to the throat, and help to quiet the stomach.

MR. H. ELLIOTT-BLAKE, M.R.C.S., L.R.C.P. (Fressingfield, Suffolk), confirms the statement of previous correspondents as to the frequent occurrence of catarrh or acute congestion of the pharynx and fauces in this year's epidemic of influenza. He thinks that the disorganised condition of nervous resistance produced by the onset of influenza leads readily to the acutest congestion in the weak parts of the body, such as the throat and lungs, no longer protected by the full powers of nerve action. The severity of the throat catarrh varies; in some cases he has seen the soft palate marked by livid congestion, in others covered with herpetic vesicles. The best local applications he has found to be a weak solution of carbolic acid in glycerine or a strong solution of boracic acid in glycerine.

DR. SEYMOUR TAYLOR (London, W.) writes, with reference to the first use of salicylate of sodium in epidemic influenza, that he published an article on the advantages of this drug in influenza in 1890. He adds that he does not claim priority in recommending this line of treatment.

MR. ALBERT E DAVIS, F.R.C.S.Edin. (Liverpool), writes that in 1891 he advocated the use of salicylate of sodium in influenza. He recommends that the drug should be given in three large doses of 20 grains each, with an equal quantity of bromide of potassium, every hour, to be followed by smaller doses. He also states that by far the best flavouring agent is ext. glycyrrhiz. liq. For the pains in the back, headaches, and weakness left after influenza and when the temperature is below 100° F., he finds no drug more useful than sulphate of quinine—2 grains three times a day for two or three days. Stimulants ought to be given between the doses of the salicylate.

DR. C. R. ILLINGWORTH (London, S.E.) writes to say that in the epidemic of 1891 he treated many cases in which there was no chest affection, but great pain in the head and limbs and a temperature of 104° F. with half-drachm doses of a solution (1 in 1,000) of biniodide of mercury, combined with small doses of aconite and acetate of ammonia.

A FEMALE RAILWAY SURGEON.

MISS CARRIE LIEBIG, who has recently been appointed a divisional surgeon to the Northern Pacific Railroad at Hope, Idaho, is the first female medical practitioner who has obtained admission to the railway service in America.

ROQUEFORT CHEESE AND DISEASE AMONG SHEEP.

THERE is bad news for the lovers of that high-flavoured delicacy, Roquefort cheese. There is a widespread outbreak of scab among the sheep in the *arrondissements* of Millau and Saint Affrique. That region of the Aveyron supports more than 800,000 ewes, from the milk of which nearly twenty millions of francs' worth of Roquefort (£800,000 sterling) is produced every year.

THE DEATH OF THE DUKE OF WELLINGTON.

DR. JOHN DOUGALL (Pollokshields, Glasgow) writes: In the letter under the above heading in the BRITISH MEDICAL JOURNAL of March 23rd, it is stated *inter alia* that a Dr. McArthur was present in consultation with Mr. Hulke during Wellington's last illness. It may interest some of your readers to learn that Dr. McArthur, who was my maternal grand uncle, was the son of a highland crofter at Strachur, on Lochfyneside, opposite Inverary, and a Licentiate of the Faculty of Physicians and Surgeons, Glasgow, 1795. He and a Dr. Beattie were the two surgeons on board Nelson's flagship *Victory* at Trafalgar, 1805, and on their return to England both were made K.C.B. After holding various high positions in naval medical affairs he retired to Walmer, where he died soon after Wellington. It is interesting to think that the son of a highland crofter attended in their dying moments Britain's greatest naval and military heroes, Nelson and Wellington.

CHRONIC RENAL DISEASE IN THE INSANE.

DR P. H. WALKER (Lechlade) writes: While I was assistant medical officer in the Govan Poorhouse and Asylum in 1885-87, the frequent occurrence of adherent capsule attracted my attention in the *post-mortem* room. Unfortunately, my notes have now disappeared; but, as far as my recollection goes, this condition was as common in the sane as the insane. It was present in various degrees. In some cases the adhesions existed around the hilum only; in others not more than a third of the whole capsule would peel off cleanly. Both kidneys were equally affected; in no case was there much alteration in size; and certainly during life no symptoms pointing to nephritis showed themselves. I think that in those instances where the urine found in the bladder was tested, no albumen was found; but after this lapse of time I cannot be certain. From Dr. Bond's paper it does not appear that the urine was tested. Perhaps he will supply the omission in a further communication. As to the causation, I am sorry as a temperance man to throw doubt on Dr. Bond's theory; but my impression at the time was that this capsular adhesion was a mere chronic change due to senility and enfeebled circulation. It certainly only occurred in elderly subjects, and the appearance of the kidney in no way resembled what was found in true interstitial nephritis or in primary arterial hypertrophy. Then again, the vense stellulæ are first attacked exactly where we would expect the circulation to be most feeble. I think it can hardly be regarded as an incipient alcoholic nephritis, since the inmates of asylums at least are guarded from the temptations of alcohol; and it would be hardly fair to whisky to blame it for these changes that begin so many years after it was or may have been imbibed.

MATERNAL IMPRESSIONS.

DR. W. G. TERNAN, L.R.C.P.I., L. and L.R.C.S.I. (Dublin) writes: The cases referred to by Dr. H. Lewis Jones and Dr. J. Jenkyns in the BRITISH MEDICAL JOURNAL of February 23rd and March 2nd induce me to mention, as bearing upon this subject, that in my case of supernumerary toe, published in the JOURNAL of February 23rd, the mother informed me that during her pregnancy she had been told of a family every member of which had six toes on one foot, that the story had made a deep impression upon her, and that she thought it the probable cause of the deformity in her child, none of her other children nor any of her relatives having been so deformed, as I stated when previously relating the case. I do not myself give the maternal impressions as the cause of deformity, but, like Drs. Lewis Jones and Jenkyns, give the case for what it is worth.

DR. JAMES MACMUNN (Finsbury Pavement, E.C.) writes: The instances of the above, related in the BRITISH MEDICAL JOURNAL of February 23rd and March 2nd, are interesting. It is remarkable, however, that in the first case Nature made a couple of pairs of bifurcate toes, at the instigation of one pair of fused fingers, and in the second case a split lip at the suggestion of a torn nose. But then it may be said that the first act of Nature is generally "a misfit." A friend told me the other day of a peculiar example of "maternal impression," which I also give "for what it is worth." A collector for a certain provident club called several times ineffectually for an overdue subscription on a man whose wife was *enceinte*. The last time the club collector called he saw the woman only, and his severe and expostulatory remarks had such an effect, it is stated, that not only did a miscarriage result, but the child presented a club-foot!

TREATMENT OF CHRONIC DIARRHŒA.

W. A. writes: In my suggestions to "M. M." on the above in the BRITISH MEDICAL JOURNAL of March 16th, of the two liquid preparations mentioned, the dose in each is given in *grains* instead of *minims*. Regarding the former preparation, I have used it largely and with unfailing success in the hill diarrhœa of India, and also in choleraic diarrhœa. It was long ago recommended by Ringer. The very dilute solution of podophyllin I have found very useful in the treatment of certain forms of diarrhœa in children. Both these remedies have recently been quoted under other formulæ by Professor H. A. Hare, *University Medical Magazine*, October, 1890.

MEDICAL ANNOUNCEMENTS IN LAY PAPERS.

A CORRESPONDENT has forwarded a copy of the *Sheffield Daily Telegraph* containing an announcement of the London address to which a provincial surgeon has removed, coupled with a statement that this gentleman has been elected honorary secretary to a professional association, and has obtained an appointment on the staff of a special hospital in London. It is not in good taste, but we must hope it is due to the ill-regulated zeal of some friend "connected with the press," rather than to the initiative of the medical man concerned.

A CASE OF SPURIOUS PREGNANCY.

MR. T. PRICHARD ROBERTS, L.R.C.P., L.S.A.Lond. (Eastleigh, near Southampton) writes: Mrs. P. came to my house and asked me to attend her in her confinement in May. This was in January. She had one child 6 years old; none had been born since, and she had had no miscarriages. She menstruated last in July, 1894. Her abdomen was greatly enlarged, but with the exception of some varicose veins she was in good health. At the end of February last she sent a note asking me to be in readiness to come at any moment, as she had had pains all day and the night before at intervals, with a show of blood, adding that she would not send until she was sufficiently advanced. I heard nothing more of the case for a fortnight, and, as I was passing the house, called in, and found to my surprise that the pain had left her shortly after writing me the note, the distended abdomen had gone down to its natural size, and, with the exception of some leucorrhœa, the patient was in perfect health. She declared she felt the child move in November quite distinctly, and there was sickness, capricious appetite, fulness of breasts, etc., in the earlier months of this supposed pregnancy. I may add Mrs. P. is a sensible intelligent woman, with no traces of hysteria about her.

WENDELL-HOLMESIANA.

THE American papers are still publishing stories of Dr. Oliver Wendell Holmes. The following are selected examples: In the older days of the Harvard Medical School, when funds were scarce and professors scarcer, Dr. Holmes was the lecturer on anatomy, physiology, medical chemistry, and a few other subjects. One day the president of the college met him in the street, and congratulated him on his then recent election to a professorial chair of medicine. "Chair!" flashed out the doctor. "You're mistaken, my dear sir; it isn't a chair of medicine that I occupy. It's a whole settee!" Another tale is also a medical one, and relates to a meeting of several of the leading physicians of a bygone generation. They were all, except Holmes, big men physically as well as mentally, and for some time the little doctor walked disconsolately about amid his six-foot colleagues. Then, jingling the loose change in his pocket, he said, calmly: "Do you know, gentlemen, I feel like a three-cent piece among a lot of pennies."

CHINESE AND JAPANESE SOLDIERS.

DR. ISHIGURO, Medical Director-General of the Mikado's army, has made an interesting report on the physical condition of the soldiers on each side. "It was once thought," says the *Seil-kwai*, "that the Chinese are physically stronger than the Japanese, but as we have won every battle so far the reverse must be the case." Comparing over seventy Chinese soldiers captured and maintained in good health with an average of fourteen thousand Japanese troops, Dr. Ishiguro finds that the Chinese are deficient in everything excepting height and circumference of the chest. Even in height the average excess of the Chinaman is only made out at seven-tenths of an inch. The excess of chest measurement is one and four-fifth inch. In weight, expansion, and capacity of the lungs and hand-power the Japanese have the advantage. Much of this advantage in favour of Japanese soldiers must be due to superior selection of recruits, better drill, and better feeding.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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THE LUMLEIAN LECTURES

ON THE

DIAGNOSIS, PROGNOSIS, AND PROPHYLAXIS OF INSANITY.

Delivered before the Royal College of Physicians of London on March 28th, April 2nd and 4th, 1895,

By G. FIELDING BLANDFORD, M.D.Oxon., F.R.C.P.Lond.,

Lecturer on Psychological Medicine, St. George's Hospital.

Lecture I.—The Diagnosis of Insanity.

Mr. President and Gentlemen.—The diagnosis of insanity is easy in the majority of cases. We are not in doubt when we see the noisy raving or hilarious chattering of mania, the gloom of melancholia, or the fatuous silence of dementia. But there are others where the diagnosis will not be easy. It may be necessary to consider whether a man shall be placed under restraint "for his own or the public safety," or to prevent him from squandering his fortune and impoverishing his family. In a number of cases we cannot wait and let time come to aid us in our decision. We have to decide then and there, and if it is a question of placing the individual under restraint, it is one of the greatest importance to him and to us. If we shirk the responsibility and leave him at large, homicide or suicide may follow, or he may be reduced to beggary. If we sign a certificate without sufficient ground we may be assailed by an action at law. Many at the present time will not sign certificates; but in one way or other most men in practice are brought into contact with insanity, and cannot avoid giving an opinion upon some patient whom, perhaps, they are attending for another ailment, or who has done something which raises the vexed question of criminal responsibility, or has made a will which is disputed.

In very many cases, no doubt, the symptoms are well marked and the need of restraint urgent, and without further delay a certificate of insanity is signed. In others we can decide with equal confidence that a certificate cannot be signed. But here and there we meet with a case which admits of doubt, and is not urgent. We can go home and think it over, and consider whether it falls under one or other of the varieties of insanity which are described in books, or of which we have had previous experience. I purpose to bring some of these before you, but prior to so doing I would say a few words as to the origin and conditions of mind disorder which may throw some light on the diagnosis to be made. In the sane and healthy mind the highest brain centres, the seat of the highest feelings, reason, volition, and memory, work harmoniously in ordered action and reaction in a sane and healthy body. But if anything interferes with the healthy working, the highest brain centres, those which are the latest evolved and the least organised, will be the first to show symptoms of strain or fatigue, and will be, to use the modern but well-recognised phrase "reduced." Then the lower impulses are not controlled as they should be by the higher. The higher, which by some are called the "altruistic sentiments" (H. Spencer), by others "the relational feelings" or "object consciousness," are weakened by the diminished functional activity in the realms of the cerebrum correlated thereto (Bevan Lewis). The egoistic feelings or subject consciousness rise in proportion: the patient becomes more and more selfish, indifferent to the wishes and wants of others; takes no pleasure in the society or pursuits of others, even those of his own family; neglects his business, and in all outward relations is an altered man; while, at the same time, he displays an equal alteration in himself, in his egoism, his indecision, and general failure of mental power. The decline of the highest mental attributes, and the rise of the lower egoistic, the self or subject consciousness, are noticeable throughout all the stages and varieties of insanity. It is hailed as a good sign if a melancholic patient will so far forget himself as to ask after his family or children. The general paralytic at the opposite end of the scale boasts of the asylum being his palace, and proclaims his personal strength when he cannot stand without assistance. The self feeling has no check and no control from the higher centres, which become more and more enfeebled from the progress of the disease.

When we turn to the origin and causation of mental disorder we see at once how much more prone are some to such rise of subject consciousness. There are many who, by reason of a faulty inheritance, are egoistic throughout life. Selfish at school, they are selfish when adolescent. They are selfish in their love-making and selfish in their religion. The whole life of many is devoted to the gaining of wealth, and a trifling loss in business is sufficient to turn their brain. Others are suspicious; they suspect their medical adviser, their lawyer, their clergyman, their friends. They listen to every tale of servants or the gossip of a village, and embitter their lives by their suspicious fancies. Others are jealous, their jealousy ranging from that of boys and girls, manifested at an early age, to that which renders miserable the life of married people, and often approaches, if it does not reach, insanity. Another variety of this insane temperament is excessive fear. Women, and even men, are afraid of all kinds of things, and if one of these is depressed by some bodily ailment, as influenza, he straightway imagines that everyone is plotting against him, and conspiring to kill or ruin him. Another form of fear is hypochondria. Patients are so afraid for their health, and so wrapped up in the task of taking care of it, that they can do nothing else, and neglect their business and family in the vain search for remedies for imaginary ailments. All these egoistic people are prone to insanity, but the diagnosis is difficult, for the insanity grows out of the inherited temperament, and it is not easy to say where the one ends and the other begins, or to fix the point where the normal must be considered to have passed into the abnormal.

Far easier is the diagnosis when we find that instead of an exaggeration of the natural character of the man a total change has come over him and he is altered in every way—in habits, disposition, and feelings. In many a certificate we read that the patient is "totally changed," and no better symptom of insanity can be adduced than such a change, if we are so circumstanced that we can mention it as a fact. Now it is clear that patients whose whole condition is altered by mental disorder must have their nervous system far more "reduced" than those whose insanity is only an exaggeration of their previous state, and whose "reduction" is comparatively slight. The latter are persons with an insane diathesis or temperament—a very small matter suffices to throw them off their normal balance. They are the cases where the friends tell us that they can in no way account for the attack. Such people, for the most part, have a history of heredity. They break down, perhaps, without any apparent reason, recover and break down again, and pass often into a state of recurrent insanity which may last through a long life. In the patients whose character is totally changed we more often find an adequate cause. Long-continued overwork or worry has reduced the health of the brain cells, or bodily illness, such as influenza, has undermined the nervous force of the individual, and insanity, chiefly of the repressed kind, is the result. This does not pass away speedily, but is often very tedious, a long uphill process of repair being required to bring the nerve power to its normal level.

Whether the reduction be an exaggeration of the individual's peculiarities, or a total change of habits and character, if it only goes deep enough, we find sooner or later delusions. Delusions aid us much in the diagnosis of insanity, especially for the reason that they do not appear at the commencement of the disorder, but indicate that it has existed for a certain time, and proceeded to a considerable depth. Many patients suffer from simple melancholia without definite delusion. They are depressed, out of spirits, they cannot tell why. Their business or even their amusements are a nuisance to them. They dislike seeing their friends, find even writing a letter a bore, and are often irritable to those about them in a way they never were before. But as yet there are no distinct delusions. Conversely, patients will display a state of exaltation and of change in this direction without delusion. They talk in an excited and rapid way, much more so than is their wont. They are inclined to speculations, they build new houses or buy things they do

not want, are disposed to quarrel, and by no means willing to take advice. They sleep but a short time, rising very early and expecting others to do the same, and their whole conduct is foolish, often causing in their friends a fear that they have been giving way to drink. But all the time there may be no delusions. In the latter class of cases insane conduct generally precedes delusions, because the patient is active, restless, and eager to be doing something. In the former delusions generally come earlier, and we have less difficulty in diagnosing insanity and taking the necessary steps for protection, the depressed person being for the most part more docile and more easy to deal with.

That the delusions of the depressed grow out of their condition of nerve prostration is recognised by many observers, and according to the idiosyncrasy of the individual they will arise early or late. In many the self consciousness which I have already mentioned is a prominent feature and comes readily to the surface. Such people are timid, fearful of criticism, and distrustful of others. They feel great depression of spirits, for which they cannot account. They may at the same time feel bodily discomfort, pain in the head, indigestion, and constipated bowels. Forthwith they imagine that their food is poisoned; at first perhaps they think only that it has been tampered with, or unwholesome provisions have been supplied; then that poison has been put in it by some person or persons known or unknown. Feeling themselves peculiar and changed, they think that the people in the street look at them, then that they point at and deride them. Next they fancy that the newspapers write about them and that all the mysterious advertisements refer to them. There is a plot and a conspiracy to rob, ruin, and destroy them, and they try to run away from it and hide themselves from their enemies. Here it is evident that there is a complete loss of adjustment between the environment and the patient. Instead of living in harmony with his surroundings he dreads them and would flee from them. How does all this affect our diagnosis of the case? Our diagnosis is for the purpose of treatment, for legal restraint, or legal interference with a man's property and business. The depression I have spoken of demands in the first place treatment, and this is often efficacious. Mere removal change of scene and surroundings I have known to be sufficient to allay the fear with which the sufferer is overwhelmed.

Having conceived the idea that those about him wish to poison him, to mock or ruin him, he feels the utmost relief when removed from their reach, and finds himself surrounded by others in whom he has every confidence. More than once I have known patients escape from those placed to guard them, escape to friends or acquaintances, and then recover by the feeling engendered through the new set of surroundings. This is the reason why in almost every case change of scene does good, though possibly only for a time. It is the reason why almost every patient is better when first admitted into an asylum, though the improvement may not last long. The reduction of the brain centres may become deeper and the delusions increase. The patient will be afraid of his new found friends after a few days, or will think that his former enemies can reach him in his new abode. Then as his subject consciousness becomes more and more developed and his self-feeling intensified, being always pervaded by the nerve depression, he thinks not only that all his environment is conspiring against him, but that all is wrong with himself. He has done wrong, has neglected his business and ruined his family, or has robbed his partner or employer, he has committed the unpardonable sin—the sin against the Holy Ghost—and is eternally lost and about to suffer torments in this world or the next, or he has some loathsome disease as syphilis or leprosy, or is about to have hydrophobia because perhaps a dog licked his hand some years ago. All such patients come before us for treatment, and our diagnosis will be largely influenced by this, that all such people are to be looked upon as suicidal.

It is difficult to say when a patient may begin to be suicidal. Some will commit the act, or attempt it, when only a very moderate degree of depression has been noticed, and their friends will express the greatest surprise at their so doing. The diagnosis is difficult, but we may render it easy if we choose to treat all melancholia, however slight, as suicidal, and insist on a patient not being left alone.

Far different is the state of those who suffer from mental exaltation. This will vary much from excitement of a kind which can hardly be considered insanity to the hilarious delirium of acute mania. I am not here to discuss the pathology of mania or melancholia, but I cannot help thinking that in the former we have an opposite state of things, that there is an overaction of the brain circulation due to the failure of the centres which control it. This overaction is shown in the flushed face, the quickened pulse, the general "explosiveness" of the maniac. Here, more perhaps than in melancholia, we remark the "alteration" of the patient. His highest centres are "reduced" and very much "reduced." Judgment, reasoning, and attention are all in defect. If we engage such a man in conversation he cannot keep to the point—he will commence the answer to our question but soon wanders off; his ideas have no coherence, and we write him down as incoherent. There may as yet be no delusion, but it is impossible to say that there is no defect of intellect. His every act betokens that his highest cerebral centres have lost control, and the lower and egoistic self-feelings are carrying him along in an uncontrollable flood. The most typical cases of mental exaltation are the general paralytics. Their hilarity and self-satisfaction, the grandeur of their ideas, extravagance of expenditure, and delusions of wealth and magnificence are known to all; yet these delusions point to a condition of brain for which there is no cure. Instead of the slow and defective action of the melancholic who recovers after years of insanity, we find a coarse brain disease which terminates life after a short time.

Many maniacs with exalted delusions are not general paralytics; they are under the delusion that they are descendants of some noble family, and the rightful heirs of this or that noble house, and they lay claim to a title in accordance with the idea. They may have cards engraved with the title, and coronets placed on their notepaper. Others will imagine that they have discovered some wonderful invention which is to make their fortune, and on the strength of the riches which are to come they squander what they have in the most reckless way. Exaltation of any kind will make us suspect that the patient is suffering from incipient general paralysis. I know nothing more difficult than the diagnosis here if physical signs are wanting, nothing more easy if they are present. By the time that exaltation has reached the stage of delusions, the physical signs of general paralysis will be noticeable in the majority of cases if the disease is present. The expression of the face is often peculiar. The patient looks dull and demented when at rest, and abnormally excited when speaking, with twitchings of the facial muscles and general tremor. When asked to show the tongue he jerks it out and in with a kind of convulsion, and if we ask him to keep it out we notice a fibrillar tremor of the muscles of it. And besides the facial and tongue muscles those of the lips will show signs of the disorder. There is a tremulous condition of the latter, said by Sir John Bucknill to be like that seen in persons about to burst into passionate weeping. In some this tremor will be noticeable, while in others we see a stiffness and unnatural immobility of the lips, especially the upper. And these affections of the lips and of the tongue bring about another symptom which is very characteristic of general paralysis, namely, defect in the articulation. This is a stopping or stutter in the enunciation of a word, or the various syllables of a word, especially a long one. It is somewhat like the thickness of speech of a man who has had a little too much liquor, and many are thought to be in this condition if they are disorderly in public places. It may vary on different days; if a patient is speaking with an effort, and loudly, he may get his words out clearly enough; but if he is excited, and talking quickly and hurriedly, the defect will be conspicuous. Then there is another physical symptom very frequently present in this stage, which we call the second, or that of delusion; this is inequality of the pupils of the eyes. This, taken in conjunction with exalted delusions, is perhaps the most pathognomonic sign of general paralysis that we can find. There can be no question as to this. About the stammer observers may disagree, but if one pupil is larger than the other, and is fixed to light or contracts but little, it is almost conclusive. Sometimes both pupils are extremely small and contracted, do not alter under light, and may remain constantly in this state during the patient's

life. The knee-jerk in the early stages of the disorder is generally exaggerated; later on it is altogether abolished in the majority of cases. There are often epileptiform attacks, even in the early stage, which may materially aid us in our diagnosis. And it sometimes happens that the physical symptoms may be more marked than the mental, and that we may be able to note inequality of pupils or want of reaction, difficulty in gait, or slowness of speech at a time when there is only an alteration in mind, when we are not able to sign a certificate of insanity. I have seen two such cases within a short period. From time to time we see a case of acute alcoholism where there are such symptoms of dementia, with perhaps some amount of paralysis, that we pronounce it to be one of general paralysis. We are greatly astonished to find improvement take place under proper treatment, and ultimately recovery. Did time permit I could give the particulars of an interesting example of this disorder.

In the insane we meet not only with delusions, but also with hallucinations; sometimes both coexist in the same individual. Hallucinations are extremely common in acute insanity, especially those of sight and hearing. They depend upon disturbance of the centres of the special senses, of those of general sensation and visceral and sexual feeling. They may occur not only in the insane, but also in the sane, if there is acute febrile disorder or even feeble bodily health. As regards diagnosis the hallucinations of acute insanity have no special significance; they are a symptom of the acute disorder, and as this passes away the hallucinations, like the delusions, vanish and recovery takes place. When, however, they exist in a chronic state, and are perhaps the only symptom of insanity, they are of the greatest importance. The most common are those of hearing—hearing "voices" as they are often termed; these are very common and very incurable, and often very hard to detect: but for these "voices" such people may be in all respects sane, and conduct themselves as ordinary members of society, yet they are always to be looked upon with suspicion. One day they may be able to control themselves and disregard the "voices;" the next they may feel bound to obey the voice and do what it commands, whether it be homicide or suicide. It often happens that a patient will not reveal what the "voices" say, or confess that he hears them at all, and our ignorance of the hallucination may make it difficult to arrive at a diagnosis or to account for the patient's peculiar conduct. We may sometimes detect them by noticing that the patient, while we are talking to him, is inattentive and evidently listening and trying to catch something which he hears going on. If there is a forensic contest and hallucinations are advanced as evidence of insanity, we shall be told that sane people have hallucinations. It is quite true that persons who are not insane in the ordinary sense have hallucinations both of sight or hearing if they are out of health, or are suffering from an acute attack, whether it be delirium tremens or some febrile disorder. But nobody can pretend that there is nothing wrong with the brain of such patients. For the time, at any rate, their brain and mind are disordered as much as is that of the insane person. Then we shall be told that various well known people had hallucinations. Dr. Johnson heard his mother's voice calling "Sam," when she was far away. Lord Byron saw a spectre, Napoleon saw a star, and Cromwell a vision. We have nothing to do with these stories, which are very doubtful; the authority for them we cannot cross-examine. It is when hallucinations affect conduct that we are concerned with them, or when they are likely to affect it, for we cannot wait till a man assaults or murders another under the idea that he is insulted. Similarly with regard to delusions. Erroneous opinions are not insane delusions. There are people who believe in spiritualism and mesmerism, in homœopathy, and the like. There were many who believed that the Claimant was the real Tichborne. But these are not the delusions of the insane man who believes in some fact which personally concerns himself, and on which he is prepared to act in spite of all the reasoning and demonstration which is brought and put before him by others, friends or advisers, whose opinion he would undoubtedly accept were he in his right mind.

Hitherto I have considered those forms of insanity which are characterised by delusions and hallucinations, and the large majority of insane patients have delusions or hallucinations or both, as the prominent symptoms of the mental disorder. There are some, however, whose unsoundness of mind, to use a comprehensive term, is shown by insane conduct rather than insane ideas, or who, by congenital or other defect, are unable to take care of themselves or manage their property or business.

The first class—those whose insanity is characterised by insane conduct rather than ideas—are those to whose disorder has been applied the term of "moral" or "emotional" or "affective" insanity. The patients, it is said, are insane, but with an apparently unimpaired state of the intellectual faculties. Here, as in so many cases, there is beyond all question a very great dispute about words. One writer uses a word to mean a great deal which another does not, or the latter may use the same word in a totally different sense. Physicians are quite agreed that there are patients whose acts are insane yet who have no delusions in the ordinary sense of the word. Everyone can from his experience call to mind such cases, but controversy exists with respect to the name by which we are to designate them. If we lay aside for the moment the divisions of the mind—such as intellect, emotion, volition, and the like—and look upon it as the working of the highest cerebral centres, which have been gradually evolved in ever-increasing complexity from savage to civilised races, and from the child to adult man, we see that according to the degree of evolution will be the complexity of feelings and the relations of feelings, and the composition and ideas of relations of which mind consists. There cannot be highly complex ideal feeling without equally complex intelligence. The highest mental attainment which civilised man can reach is a right rule of conduct regulating the affairs of life with judgment, prudence, and restraint. But if this standard is never reached, owing to congenital defect or imperfect development or training or if the highest centres are reduced by insanity or epilepsy or alcohol, then mind is likewise reduced from a higher to a more automatic condition. There is over-action of the lower centres from the removal of the controlling influence of the higher. Applying this to conduct, we find that the reduced brain gives way to the gratification of the senses regardless of consequences, permits indulgence in pleasure to the detriment of self or family, may set at defiance the conventional laws of society, or, possibly, the law of the land. The patient is reduced to the level of a child, or an uneducated and untrained person, and the reduction may go on till it brings him to a level lower than that of a savage. This is no special variety. Any cause which operates injuriously upon the brain function may reduce the individual in this way. He is an altered man. He may possess a perfect memory, may be able to converse brilliantly and argue keenly. He presents no delusion or hallucination, and yet his conduct is different from what it was before. He may not be immoral; immorality is only one form of this so called moral insanity, but he is altered—and altered for the worse. He is wrapped up in self. The egoistic part of his mental constitution comes prominently forward, owing to the loss of the higher controlling centres. His affection and feeling for his wife, family, and friends are estranged. He is extravagant or penurious. He devotes his time and money to objects he would formerly have despised, or associates with people beneath him. This will go on for a time, and then he will get worse and descend to a lower level of delusion and more marked insanity. From this he may recover, to reach again the level of alteration, but never regain perfect sanity. He remains an altered man, altered in feelings towards those he loved best, altered in habits, character, and conduct. He presents the spectacle of a half cured patient. Nowadays, as soon as a patient is somewhat better, the friends clamour for his release from the asylum or restraint in which he has been placed; and those who have the care of the insane, whether officials or others, are prone to release patients, owing to such popular clamour, as soon as improvement reaches a certain point. Consequently, many who might have been cured by longer care and treatment are turned out to take care of themselves in the world at large, and to remain half cured for the rest of their days.

The insanity of a man or woman in whom we can find no delusions must be shown by his or her conduct, and in forming an opinion we must examine the case as we would any

other in other branches of practice. What is the history of the individual and his relatives? Does insanity exist in his forefathers, or in other members of his family? What has been his manner of life? Has he been intemperate, has he had epileptic attacks or apoplectic seizures? Is he altered; and, if so, how long has he shown signs of alteration, and have these increased lately? Close examination of one of these altered men may reveal to us the physical signs of general paralysis. Unequal pupils, the fibrillar trembling of the tongue, or the peculiar dull look of the face will explain beyond doubt the nature of the change, and make a diagnosis easy which otherwise might be difficult. For the early stage of general paralysis is one which in many cases presents a typical moral insanity. The patient makes silly purchases, boasts in a silly way, is forgetful of times and appointments, drinks more than usual, possibly indulges in immorality or theft. Yet no one act is unquestionably that of an insane man, and no one idea is palpably a delusion.

I now pass to the consideration of another variety of insanity about which there has been much controversy. I refer to the so-called impulsive insanity, which comes before us chiefly in cases of insane homicidal impulse. In our ordinary state of health an impulse to do something sudden or violent occurs to many. Some feel an impulse to throw themselves down from a height, or over the side of a vessel into the water. One person has a desire to scream out in a crowded church or theatre, another to smash something valuable on the table. All these impulses are by the healthy mind resisted and controlled. But when the mind is not healthy, when by disease the controlling power of the higher centres is inhibited, then insane impulse may be let loose in any direction, homicide, suicide, mere wanton smashing, or causeless violence. It is often urged that this impulsive insanity is something invented by medical men to excuse crime, but examination of patients and of recorded cases will reveal disorder of very serious extent. There is a close connection between these sudden impulses and epilepsy, and in more than one recorded case a well-marked *aura* has been known to precede the homicidal impulse. In others the latter appears to take the place of an epileptic convulsion, constituting what has been termed *epilepsie larvée*. And not infrequently it follows and is the result of an epileptic attack, and of this both the patient and his friends may be ignorant if it has occurred in the night when he has been sleeping alone. It also much resembles epilepsy in this, that it is not always present in the patient's mind, but is periodical, recurring, like epilepsy, without any special cause. Many are quite conscious of the feeling and of their inability to resist it, and many have sought the assistance and restraint of an asylum, being unable to control themselves. In examining such a person we shall have first to consider the character of the deed, the mode of committal, and the absence or presence of motive. The act may be so motiveless, so contrary to the previous nature and feelings of the perpetrator, that no one can doubt it must have been that of a madman. It is not the amount of wickedness displayed in the act, but the senselessness of it that we are to regard. And even when the nature of the deed sufficiently stamps it as insane, we shall, if we seek diligently, generally discover other symptoms of insanity. The individual's history must be carefully examined and the occurrence of epilepsy or insanity in the family noted. The time of life and condition must be taken into account, for instability of the nervous centres is specially liable to be exhibited at the periods of puberty or the climacteric, or those of pregnancy, parturition, and lactation. Nor must it be forgotten that homicidal impulsive attacks may occur in other forms of insanity.

That caution must be observed in signing certificates of lunacy I need hardly insist on here, but in no class of cases ought greater caution to be used than in those where the insanity, or alleged insanity, is complicated by alcoholism. We have at present in this country no means of restraining inebriates but by confining them as lunatics under the statutory order, petition, and certificates. As they are a terrible torment to their friends, and ruin their health and the property of themselves and families; as they are frequently violent to those about them both in language and in act, and are often found wandering, lying in the gutter, and absent from home all night, the relatives seek our assistance, and entreat us to sign certificates that they require care and treatment. But if we examine one of these individuals what do we find? He may be drunk, but drunkenness is not insanity, and we must wait till he is sober: and then we may be able to detect no delusion or hallucination. He may deny most of what is alleged of him, and may be incensed with his relatives for calling us in. If we find enough in his history and in himself to warrant our signing a certificate and he is sent to an asylum, this usually happens. Drink is cut off, the man sleeps, his appetite returns, and in a very short time the asylum authorities are obliged to release him, and often the relatives are worse off than they were before. That there is an insanity from alcohol we know, but the insane symptoms of this are strongly marked, and persist even when drink is stopped. If possible I require that a patient shall be kept without drink for twenty-four or forty-eight hours before I examine him; it is of no use to examine a man in the middle of his potations.

I now proceed to the consideration of patients whose mental symptoms are not those of exaltation or depression, are not marked by hallucinations or delusions, but are characterised rather by enfeeblement and deficiency. These are of two kinds: those whose mental defect is congenital or the result of an arrest of development at an early age, and those who from former attacks, from coarse disease of brain or old age, have come to the condition which is commonly called dementia. And first of those who through congenital defect or as the result of disease in early life are through life deficient, not idiots, but weak-minded imbeciles, children in mind throughout life. They come before us in various ways. Though children in mind they are often men and women in wickedness and vice, and it may be necessary to place them under restraint, or to protect their property from being squandered and themselves from being robbed. I know no class over whom controversy is so likely to arise, or where we may have greater difficulty in forming a diagnosis. They are not idiots, many of them have acquired a fair amount of education, can construe a Greek play or master a proposition of Euclid. Their memory is excellent, and we cannot compare their condition with a former one, for they have never been any better, so that this test fails us. They have no delusions or hallucinations, and are not insane in the ordinary sense of the word. With regard to many there is no difficulty. When a man or woman of 40 submits to be treated like a child of 10, to be taken out and amused, and to have sixpence a week pocket money, we have not much difficulty in forming an opinion. But the development of others is not so low, yet they are deficient in reason and judgment and often in conduct. There is a tendency to low and depraved habits, to brutish and sensual enjoyment, to low company amongst whom they are of more importance, and if remonstrated with they show an absolute disregard for truth or for right behaviour. Lawyers will defend these patients, and say that they are not insane, and the celebrated Windham case shows what can be done by their aid. In examining any such individual we must consider his conduct in regard to his environment and bringing up. What might be passed over in the lower walks of life is in the higher evidence of a degraded mental state. Every case must be judged by itself, and the question must be asked: Is this person able to take care of himself and his affairs? But to sign a certificate is often very difficult, as we may not ourselves witness the insane conduct, all of which we arrive at only by hearsay. It is not to be forgotten, however, that imbeciles are very prone to display violent explosiveness of their nerve centres, and this is specially likely to happen as they advance from the period of puberty to adolescent life.

"Last scene of all" there is the dementia of old age, of chronic insanity or brain disease. In the vast majority of such cases the diagnosis presents no difficulties. Loss of memory, loss of attention, the mere oblivion and childishness, enable us to say that such a person is unable to take care of himself or his affairs, and never will be able. The prognosis is attended with as little doubt as the diagnosis. Here and there we see a patient whose dementia has not advanced very far, who varies a good deal, having good days and bad days, and is capable of being "coached" into giving tolerably rational answers to our questions. About such a one legal questions may arise, and a forensic contest. If

there is no urgent necessity it is better to wait. The dementia is sure to increase as time goes on, and a case which is difficult now may be easy enough to diagnose in six months' time.

THE GOULSTONIAN LECTURES

ON

THE SUPRARENAL BODIES.

Delivered before the Royal College of Physicians of London,

By H. D. ROLLESTON, M.A., M.D., F.R.C.P.,
Fellow of St. John's College, Cambridge; Assistant-Physician and Lecturer on Pathology at St. George's Hospital.

Lecture III.

The Nervous Theory of Addison's Disease.

The experimental work of Phillipeaux, Harley, and Tizzoni point to the absence or unimportance of any function on the part of the suprarenal bodies. As already seen this negative view as to the functions of the suprarenal bodies held the field from Addison's discovery until quite recent times. On such a physiological basis the connection between disease of the suprarenal capsules and Addison's disease was explained by the secondary morbid changes, induced by the lesions in the suprarenal bodies, in the neighbouring semilunar ganglia, solar plexus, and sympathetic nerves. This conception will be for ever associated with the name of Dr. Samuel Wilks. It was based on *post-mortem* investigation showing the spread of inflammation from the tuberculous suprarenal bodies to the semilunar ganglia and other branches of the sympathetic.

Dr. Greenhow[1] inferred that at least all the more important features and prominent symptoms of the disease are due to morbid changes in the nerves, the changes in the nerves being (1) irritation and (2) atrophy. The collapse and the extreme state of debility are thus explained as the result of the altered condition of the sympathetic in the abdomen. The vomiting and pigmentation are referred to the direct irritation of the sympathetic by the caseous material in the suprarenal bodies, or from the same cause acting reflexly through the cerebro-spinal system.[2]

The view of Wilks and Greenhow may be summarised thus: The lesion is primary in the suprarenal bodies, and always of the same nature, while the symptoms of the disease are due to the secondary effect on the adjacent sympathetic, the solar plexus, and semilunar ganglia. Arnaud and Alexais[3] accepted the principle, but by limiting the nervous changes to the ganglia in the fibrous capsule of the adrenal bodies they were able to explain the fact that in Addison's disease the solar plexus and semilunar ganglia may be healthy.

A natural modification of these views is that Addison's disease is due to changes in the abdominal ganglia and sympathetic, which may be due to disease of the suprarenal bodies, but is quite independent of a special, or indeed of any, lesion in them. This theory was supported by Jaccoud, von Kahlden, and others from the clinical and morbid anatomy point of view, and by the experimental researches of Tizzoni. Semmola[4] carried this view to an extreme degree; he believed that not only had changes in the suprarenal bodies nothing to do with Addison's disease, but, when they did exist, that they were trophic lesions due to injury to the nerves which presided over their nutrition.

The nervous theory does not explain the numerous cases recorded of typical Addison's disease, in which special attention has been paid to the condition of the semilunar ganglia and adjacent sympathetic, and in which they have been found to be normal, since continued irritation could not last for any time without setting up inflammatory changes *in situ*. Still less does it explain the occurrence of the symptoms of Addison's disease associated with simple atrophy of the adrenal bodies. Apart from these facts, which by so directly contradicting the data of the theory put it out of court, there are considerable difficulties in the working of the theory. Some of the changes described as responsible for the disease have considerable resemblance to those normally found in adult life, that is, those in the semilunar ganglia. The changes in the sympathetic, etc., according to Greenhow, are (1) irritative in the early stage, followed by (2) atrophic changes corresponding to two stages of the disease. The disease cannot be divided into an early stage showing symptoms the result of a discharging lesion, and a later with symptoms due to an atrophic change in the sympathetic. "Vomiting in advanced cases is seldom absent, and may be spontaneous and irrepressible."[5] Convulsions not uncommonly occur shortly before death, and never in the earlier stage, when according to this view they would naturally be looked for. Pigmentation is nearly always a symptom occurring late in the course of the disease, whereas, according to the view that it is due to irritation of the sympathetic, it should always appear fairly early.

Dr. Bedford Fenwick[6] has suggested that when the medulla of the suprarenal body is affected the constitutional symptoms result, and that when the lesion spreads to the cortex bronzing follows. This would explain the sequence of events, but it would also logically necessitate the constitutional symptoms of Addison's disease appearing whenever the medulla is affected, which is very far from being the case. Experimental removal of the cœliac plexus leads to rapid emaciation, low temperature, diminution in the amount of urea in the urine, acetonuria,[7] though this is disputed,[8] and acetonæmic coma. These results do not support the view that Addison's disease is due to an irritating and destructive lesion of the sympathetic around the suprarenal bodies.

There are numerous examples of slow irritation of the abdominal sympathetic by enlarged glands, spinal caries, surgical and tuberculous kidney, abdominal aneurysm, and chronic peritonitis, where there are no symptoms of Addison's disease, except perhaps some pigmentation. Although it is the sign by which this disease is perhaps most often recognised, the bronzing is not only variable in degree and late in appearing, but is also met with in other diseases, as in exophthalmic goitre.

Now, since in exophthalmic goitre changes in the sympathetic have been described, it might be thought that there are analogies between it and Addison's disease. It may then be well briefly to consider this point. Professor Greenfield[9] in his Bradshaw lecture showed that exophthalmic goitre is associated with subacute inflammation of the pons, medulla, and parts of the sympathetic, and ascribed these changes to excess or alteration of the internal secretion of the thyroid gland.

Addison's disease and exophthalmic goitre differ very considerably in the clinical picture they present; but they have, though far from constantly, two classes of symptoms in common, namely, gastro-intestinal disturbance and anomalies of pigmentation. Supposing that these common symptoms are both connected with irritation of the nervous system, the conditions are not fairly analogous. For according to the nervous theory of Addison's disease the irritation is simple, and due to the extension of chronic inflammation to the abdominal sympathetic, while in exophthalmic goitre the changes and irritation of the nervous system constitute only half the morbid factors present. In addition there is probably a poison present which, independently of the nervous changes it produces, may very well be capable of producing textural lesions and functional disorders. In other words, a consideration of exophthalmic goitre does not lend any support to the purely nervous theory of Addison's disease. As has been already seen, the nervous theory is untenable, since the sympathetic in the neighbourhood of the suprarenal bodies is not constantly altered.

Theory of Suprarenal Inadequacy.

Since the nervous theory does not explain Addison's disease, the rival theory of suprarenal inadequacy must be examined. This theory assumes that the suprarenal bodies are active glands, and that interference with their functions gives rise to Addison's disease.

Since the morbid symptoms are connected with some change in the constitution of the blood, this theory might, on contradistinction to the nervous theory, be called the chemical theory of Addison's disease.

In the foregoing sketch of the physiology, the suprarenal bodies were shown to be functional glands, but discussion of the nature of this function was postponed. The two views as to their physiology were:

1. That the suprarenal bodies are excretory or katabolic in function. That they pick up and remove from the circulation effete blood pigment and toxic bodies, and destroy them.

2. That these organs are secretory or anabolic. That they manufacture some fluid which passes into the blood vessels or lymphatics, and is of use in the economy.

Before discussing which of these theories is correct, three questions must be considered:

(1) How do the facts of morbid anatomy bear on the hypothesis that Addison's disease is due to the loss of function of the adrenal bodies?

(2) Is the disease likely to be a toxæmia?

(3) Can the symptoms of the disease be explained on this hypothesis?

I.—Bearings of Morbid Anatomy on Theory of Adrenal Inadequacy.

It is known that destructive tuberculous lesions and atrophy of the suprarenal bodies may give rise to the symptoms of Addison's disease.

But the following objections may be raised to the theory of suprarenal inadequacy:—

1. The existence of cases where *post mortem* the suprarenal bodies are found to be extensively destroyed by tubercle or new growth, and in which definite clinical symptoms of Addison's disease have been absent during life. 2. Secondly, that there are cases clinically of Addison's disease in which *post-mortem* caseation of comparatively small amount is found in the suprarenal capsules—perhaps only in one—and in which the amount of damage is even less than in cases which have presented no sign of Addison's disease. Since a comparatively small part of the available suprarenal substance is thus rendered functionless, it has been argued that the concomitant symptoms cannot be due to abolition of the function of the organs. And (3), lastly, that there are examples of Addison's disease in which the suprarenal capsules themselves are healthy, though the surrounding sympathetic nerve plexuses and semilunar ganglia are involved in dense adhesions or by a growth, such as lymphadenoma.

In reply to these the following considerations may be brought forward:

1. In cases where the organs are extensively destroyed by tubercle or invaded by new growth the absence of symptoms may be explained in two ways: (*a*) The change in the adrenal bodies is usually a secondary result of advanced disease in other organs, which has killed the patient before the symptoms of Addison's disease usually a chronic affection, have had time to develop. (*b*) That some compensation for the destruction of the suprarenal glands is present in accessory suprarenal bodies, and that, as in the case of the thyroid gland, symptoms due to the destruction of the main glands are thus avoided.

2. In reply to the objection that when the lesion of the suprarenal substance is not of considerable amount the remaining part of the organ, if healthy, should produce compensation, and thus prevent the development of symptoms, it may be urged that failure in this power of compensation may be due to inherent want of vitality, to concomitant atrophy, or possibly—and this is a point requiring investigation—to the tuberculous growth interfering with the efferent vessels. The common tuberculous caseous change always begins in the medulla, and thus might easily obstruct the vascular connections of the organ, and so render it functionless, even though there was a sufficiency of secreting gland tissue left.

3. In the few cases of Addison's disease, where the suprarenal bodies are described as healthy, while the sympathetic and semilunar ganglia were involved in dense adhesions or in a growth, it is possible that the vessels and lymphatics of the suprarenal capsules were thus interfered with and so the organs were placed outside the circulation and rendered functionless. The sequence of events, then, may be compared to Boinet's experimental ligature of the pedicle (and veins) of the suprarenal bodies, with its resulting fatal toxic effects. Hence it may be concluded that obstruction to the efferent vessels of the suprarenal capsules is quite a possible cause of Addison's disease. The facts of morbid anatomy, then, appear to be compatible with the view that Addison's disease can be explained by suprarenal inadequacy.

II.—Is Addison's Disease Likely to be a Chronic Toxæmia?

Addison's disease and myxœdema are in many ways analogous. The destruction of the thyroid gland or its experimental removal leads to a train of symptoms—myxœdema—which can be satisfactorily obviated by artificially supplying the organism with the extract of the thyroid. The same is probably true of the suprarenal bodies.

In myxœdema the cause of the symptoms might be (1) a toxic condition of the blood due to the suspended secretion of the thyroid gland, or (2) a condition of general apathy of the nervous system from the absence of its normal stimulus provided by the secretion of the thyroid gland.

According to the general view myxœdema is due to the absence of thyroid secretion causing a loss of functional activity on the part of the tissues, on which, in all probability, the accumulation of mucin depends. Possibly some toxic body accumulates in a similar manner to mucin, and exerts a poisonous action on the central nervous system. In support of this the toxicity of the urine has been found to be increased by thyroidectomy, the curve of the toxicity varying with the morbid symptoms.[10] In experimental removal of the suprarenal bodies the blood acquires a toxic property, as shown by its effect on other animals.[11]

The extreme debility and languor of Addison's disease, with the periodic exacerbations in the progress of the disease, are very like the same events in pernicious anæmia. The phenomena of pernicious anæmia are best explained by the view that absorption of toxic bodies occurs in the portal system.

Addison's disease and uræmia present certain analogies. In both there is a combination of symptoms suggesting paralysing and irritating factors at work—the drowsiness and not infrequent paralysis of uræmia and the extreme languor and occasional convulsions before death in Addison's disease.

Bouchard has found that in normal urine there are seven toxic bodies. In uræmia these poisons are retained in the body, and the urine is harmless. Now in Addison's disease, since the kidneys are nearly always healthy, the toxic bodies need not be retained in the body, and so might be found in the urine. It is therefore a point urgently requiring investigation as to whether the urine in Addison's disease is more toxic than in health, and what are the results obtained by injecting it into animals as compared with Bouchard's results with healthy urine. The solution of this problem would go far to settle the question whether Addison's disease is a chronic toxæmia.

Quite recently Schäfer and Oliver[12] have found that extracts from the urine of patients with Addison's disease, when injected into animals, have the same effect as normal urine. This observation they regard as being important evidence that the suprarenal bodies do not excrete poisons, but it also militates against the view that Addison's disease is a toxæmia.

From analogy and from the toxic condition of the blood in animals deprived of their suprarenal bodies it would seem probable that Addison's disease is a toxic condition, but the absence of special toxic bodies from the urine is strongly against this view. Further experiments are required, and for the present the question as to whether Addison's disease is or is not a toxic condition should be left open.

III.—On the Assumption that Addison's Disease might be a Chronic Toxæmia, Can its Symptoms be Explained on Such a Hypothesis?

The extreme debility might be due to a toxin possessed of properties like those of curare. Since, however, suprarenal extract has marked toxic effects, it might well be argued that its absence fully accounted for the extreme debility and languor of Addison's disease, and that it was quite unnecessary to invoke a hypothetical toxin for this purpose. Experimentally, however, the injection of blood from acapsulated animals into others gives rise to a temporary condition of extreme languor; so it is not unreasonable to consider this phenomenon in the human subject as possibly due to the presence of a toxin having an action like that of curare.

The gastro-intestinal symptoms might well be due to the effects of a toxin exerting an irritating effect on the central and visceral nervous systems. Pigmentation might be the

result of the constant influence of a toxic substance on the sympathetic nervous system. A similar explanation accounts for pigmentation in exophthalmic goitre. The influence of the nervous system on pigmentation of the skin, though not proved physiologically, is extremely probable from clinical observations.

The increased pigmentation is an exaggeration of the normal, and the influence of the sympathetic is probably exerted by altering the condition of the vessel wall, and so allowing increased transference of pigment by the carrier cells to the epidermis. But it must be remembered that there is the hypothesis that stimulation of the sympathetic nerve fibres increases an active formation of pigment by the cells of the stratum Malpighii. The existence of chromatogenic nerve fibres[13] has been suggested, but cannot be considered to have been proved.

The extreme debility may be considered either as a result of a toxic condition or as a state of atony due to the absence of a necessary stimulus. The vomiting, gastro-intestinal disturbances, and pigmentation point to there being some positive irritation rather than to a mere absence of a normal stimulus. On the whole, the symptoms of Addison's disease are better explained as the result of a toxæmia than on the supposition that they are solely due to the absence of the stimulus normally provided by the internal secretion of the adrenals to the body generally.

Having seen that the facts of morbid anatomy are compatible with the view that Addison's disease is due to inadequacy of the suprarenal bodies, and that it is an open question whether Addison's disease is due to a toxic or to an atonic condition, let us examine the two theories as to the function of the suprarenal bodies.

The Theory that the Suprarenal Bodies Remove Pigment and Toxic Substances from the Blood.

What evidence is there that blood pigment undergoes any change in the suprarenal bodies?

The hæmoglobin is freed from the red blood corpuscles chiefly in the spleen, and possibly to some extent in the red marrow of bone,[14] but the former is the important seat of this change, otherwise hæmoglobin would appear in the urine. The katabolic changes undergone by hæmoglobin take place in the liver.[14]

MacMunn's view is that the suprarenal capsules perform this function, and that when they are destroyed an accumulation of effete pigment occurs in the circulation. No such accumulation of solid pigment has ever been found in the blood in Addison's disease. Brown-Séquard and Boinet are the only observers who have ever recorded pigment granules in the blood after experimental removal of the suprarenal capsules. In animals killed by toluylene diamine, Pilliett[15] noticed products of blood destruction in the medulla of the suprarenal capsules giving rise to pigmentation, but this poison produces hæmolysis so freely that this observation lends no support to the view that normally any changes occur in the medulla of the suprarenal bodies.

But it might be argued that, even if there is no solid pigment free in the blood, there might be an increased amount of soluble pigment or chromogens in the circulation as the result of destruction of, or interference with, the suprarenal capsules. Such an excess of soluble pigment might be thought to provide the cells of the stratum Malpighii with satisfactory pabulum for pigment formation. But such soluble pigment should pass freely into the urine. Is there any evidence of such increase of urinary pigments in Addison's disease? Thudichum,[16] in a continuous examination for sixty-five days of the urine of a case of Addison's disease found a deficiency in the colouring matters. A similar result was obtained by Dr. A. E. Garrod, who most kindly made some analyses of the urine of a case of Addison's disease for me, and by Dixon Mann.[17]

MacMunn based his theory on the belief that hæmoglobin and histohæmatins become changed into hæmochromogen, histohæmatins being found by him in the cortex, and hæmochromogen in the medulla of the suprarenal capsule. Hæmochromogen, according to this author, is blood pigment in an excretory stage, and is also found in the bile. In Addison's disease the interference with this pigment-metabolising function of the suprarenal bodies was shown by the presence of a pigment, urohæmatoporphyrin, in the urine. He found this body, however, in the urine of diseases such as enteric fever, measles, cirrhosis, meningitis,[18] etc., in which the suprarenal capsules are not specially affected. In addition it has been shown that urohæmatoporphyrin is not a definite chemical compound, but a mixture of a larger quantity of hæmatoporphyrin and a smaller quantity of urobilin,[19] both of which are among the normal urinary pigments.[20] Garrod[21] has found hæmatoporphyrin in considerable quantities in the urine of tuberculous subjects, and, since Addison's disease is usually tuberculous, an increased amount of hæmatoporphyrin, if present, would be thus accounted for.

As shown above, the urinary pigments are not increased in Addison's disease, and hæmatoporphyrin in the analysis Garrod kindly did for me was only present as a trace. Even if hæmatoporphyrin were present uniformly in large quantities in Addison's disease this would prove little, since it has been shown to occur in considerable amounts in such various conditions and diseases as sulphonal poisoning,[22] gout,[23] chorea,[24] phthisis, and pneumonia, and not to be increased in pernicious anæmia. Indican has been found in the urine in increased quantities in Addison's disease, but its presence is a sign of intestinal disturbance, and points possibly to an auto-intoxication, but not to any change in metabolism of the pigments of the blood. From these considerations it appears highly improbable that the suprarenal bodies have any action on the effete pigments of the blood.

What evidence is there that in the suprarenal capsules poisonous bodies are destroyed or rendered innocuous? On removal of these organs the animals die, and their blood, when injected into healthy animals, gives rise to symptoms resembling those seen after removal. This toxic property of the blood might be due to non-excretion on the part of the suprarenal bodies, or to their internal secretion no longer neutralising this toxic property of the blood.

Now, Tizzoni[25] and Nothnagel[26] crushed the suprarenals, and left them to be absorbed *in situ*, without any signs of toxæmia resulting. If, therefore, the former alternative be set up as a hypothesis, at any rate the suprarenal bodies do not contain the poisonous substances which they might be supposed to remove. This same hypothesis is further opposed by the experiments of Abelous and Langlois.[27] They showed that the toxæmia due to ablation of the organs can be counteracted by injection of suprarenal extract. Now, if the suprarenal bodies excreted a poison, which when accumulating in the blood gives rise to toxic symptoms, injection of suprarenal extract would only increase these toxic effects.

These two observations, then, are both opposed to the hypothesis that the suprarenal bodies excrete a poisonous substance. On the other hand, it is known[28] that injection of very large quantities of suprarenal extract, equal to several times the weight of the suprarenal bodies, produces death.

At first sight this might seem to tend in the opposite direction, but it does not really do so. It only proves that an abnormal and poisonous dose of suprarenal extract or secretion has been used.

Again, Abelous and Langlois[29] showed that after removal of the suprarenal bodies a toxic body with properties like curare appeared in the blood. But, on the other hand, Schäfer and Oliver found that the effect of suprarenal extract was not at all comparable to that of curare.

These two experiments are not contradictory; they only show that the body or bodies extracted from the suprarenal capsules are not the same as those present in the blood of animals whose adrenals have been removed. This is a strong argument against the theory that the suprarenal bodies are excretory glands.

There is, then, evidence, that the suprarenal bodies do not remove effete blood pigment from the blood or absorb toxic bodies and render them harmless.

Theory that Addison's Disease is Due to an Inadequate Secretion on the Part of the Suprarenal Bodies.

Since the function of the suprarenal bodies is not excretory we are left with the alternative view that they are secretory glands providing an internal secretion like the thyroid. The researches of Abelous and Langlois[30] and of Schäfer and Oliver[31] form the basis for this belief.

* Schäfer and Oliver[32] lately showed that healthy human suprarenal capsules yield a powerful extract, but that in cases of Addison's disease no active extract can be obtained. This points strongly to the conclusion that Addison's disease is due to arrest of secretion of the suprarenal bodies.

In seeking for an explanation of the phenomena of Addison's disease in a cessation of the secretory function of the suprarenal bodies the next step is to inquire whether the facts available point (1) to this secretion directly antagonising a poison which is continually being formed in the body. This antagonism might be conceived of (*a*) as occurring in a manner analogous to the neutralisation of an acid by an alkali, or (*b*) as being due to the secretion exerting a ferment-like action on these hypothetical toxins and destroying them. Or (2) to the secretion acting as a stimulus to the various tissues of the body. This tonic effect on the tissues might act conceivably in three ways: (*a*) by regulating their nutrition and activity; in the absence of this restraining influence, the tissues, so to speak, run riot, and might even produce toxic bodies.[33] (*b*) By increasing the resistance and defensive powers of the cells of the body, including the white blood corpuscles, so that they are able to withstand the poisonous bodies possibly resulting from the general metabolism of the body, and to destroy them. (*c*) By increasing their functional activity without any reference to the presence of toxic bodies.

Schäfer and Oliver's[31] experiments show that suprarenal extract has a very definite effect on healthy animals, being among other things, a powerful vascular tonic. This observation proves that the secretion is not merely a chemical antidote.

In order to prove whether suprarenal extract or secretion has any such neutralising action on the toxic bodies in the blood of animals deprived of their suprarenal bodies, experiments should be performed on the lines of Buchner's[35] experiment with antitoxin. Guinea pigs are twenty times more susceptible to tetanus than white mice. A mixture of tetanus toxin and antitoxin was prepared so that no effect followed its injection into white mice, but when tried on guinea-pigs a fatal result was produced. So the immunity conferred by antitoxin is not due to a mere neutralisation, but to the effects of antitoxins on the tissues. Suprarenal extract should, like antitoxin, be mixed with toxic blood from animals dying from ablation of the suprarenal bodies, and the point be settled whether the amount of suprarenal extract required to counteract the accompanying toxins is the same for all animals, in which case it would appear to be a process of neutralisation, or whether it varies with the susceptibility of different animals.

With regard to the possibility of the suprarenal extract containing a ferment which destroys hypothetical toxins in the blood, it must be borne in mind that such a ferment would be destroyed by boiling. One of the extracts employed by Schäfer and Oliver was made with boiling water. Mere boiling does not affect the action of the extract, but continued boiling abolishes its activity. It is probable, therefore, that the active principle is not of the nature of a ferment; its action is not limited to the neutralisation of a poison in the blood. It certainly has direct stimulating powers on the tissues, as shown by Schäfer's and Oliver's experiments. It is tempting to jump to the conclusion that its curative properties are due to stimulation of the tissues, including the white corpuscles, and to increased defensive activity on their part; but at the present time there is not enough evidence to warrant any definite opinion.

To sum up, Addison's disease is due to an inadequate supply of suprarenal secretion. Whether the deficiency in this internal secretion leads to a toxic condition of the blood, or to a general atony and apathy, is a question which must remain open.

TREATMENT.

In conclusion, a few words about the treatment of Addison's disease by suprarenal extract will not be out of place, since such a course of treatment is the logical outcome of a belief in the view that Addison's disease is due to an absence of the internal secretion of the suprarenal bodies. But few observations have been published. Dr. G. Oliver[38] treated two cases for three months with suprarenal extract by the mouth; they improved, in that they gained weight, became less pigmented, and were freed from nausea and anorexia.

I have had a woman with Addison's disease under treatment at St. George's Hospital since June, 1894. She is stronger and less subject to nausea and vomiting since taking suprarenal extract by the mouth; and though still pigmented is on the whole decidedly better. The quantity of the extract that should be given is a point which it is important to ascertain, otherwise disappointment may result because inadequate doses are employed; a dose equal to 45 grains of the original gland spread over the twenty-four hours is certainly not too much. Since each suprarenal capsule of a man weighs about 1 drachm, and since the medulla is the only part containing the active principle, this dose is nearly equal to two suprarenal bodies a day.

Dr. T. Oliver[37] mentions hypodermic injections of suprarenal extract; but the treatment was not given a fair trial, as the patient did not remain under observation. A more extended course of subcutaneous injection by Chauffard[39] was also unsuccessful.

Sir D. Duckworth, in an article in the *Encyclopædia of Medicine*, New York—the proofs of which he has most kindly allowed me to see—quotes a case of Sir T. Grainger Stewart's, in which feeding with the suprarenal bodies produced no good effect.

Dr. G. Oliver's and Professor Schäfer's physiological experiments suggested the use of the extract as a hæmostatic agent. The remedy is on its trial, and will probably, like thyroid extract, be found to be useful in diseases other than that for which it was first employed.

Since the action of suprarenal extract on the vascular system is the reverse of that of thyroid extract, Dr. G. Oliver has suggested its use in exophthalmic goitre. Inasmuch as the extract has such an extreme power of constricting the vessels, Dr. Oliver thinks it may be useful as a hæmostatic in purpura, hæmophilia, etc., and in the various conditions of vasomotor relaxation and paresis, such as occur at the menopause, in "cyclic" albuminuria, and in diabetes.[39] Possibly it might be useful in cases of shock and collapse. Dr. Douglas Stanley[40] has found that it increases the number of red blood corpuscles in pernicious anæmia. Oliver and Schäfer[41] have found that suprarenal extract is not damaged by artificial gastric digestion, so that giving the drug by the mouth is physiologically correct.

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* I take this opportunity of thanking them for the generous manner with which they have put me in possession of the contents of their communication to the Physiological Society on March 16th, 1895, before the publication of that paper.

HEALTHY HOMES.—A series of popular lectures on this subject has lately been given at Lowestoft by Dr. Clark, medical officer of health for that borough. The evils of overcrowding and the various sanitary deficiencies common in houses were pointed out, and reference was also made to the advantage of periodical inspection of school children and to various other matters bearing upon sanitation.

SUCCESSFUL VACCINATION.—Mr. Wm. Donaldson, Public Vaccinator for the St. Mary Cray District, has been awarded for the second time the Government grant for efficient vaccination.

PROPOSED COMPULSORY INSPECTION AND REGISTRATION OF STILLBORN CHILDREN.

By ROBERT REID RENTOUL, M.D.,
Liverpool.

When in 1890, a Midwives Bill was introduced, I recognised that it would be a danger if any persons, other than medical practitioners, were empowered to grant certificates of the cause of stillbirth. I therefore sent out a circular letter, and found that at 71 Burial Board cemeteries, 6,321 stillbirths had been interred in 12 months. Sir C. Cameron called attention to my statement in the Commons, and moved for a return showing the number of stillbirths interred. This Parliamentary Return (No. 352, July, 1891) shows that during 12 months 17,335 stillbirths were interred in Board cemeteries. The return is very incomplete, as it does not include Scotland or Ireland, nor the various parish and other burial grounds.

Stillbirths occur much more frequently among illegitimate than legitimate births—in the proportion of 1 in 18, or 1 in 20 among the legitimate; and 1 in 8 or 1 in 10 among illegitimate. Bertillon says that the chance of an illegitimate child being stillborn, when compared with the legitimate, is as 193 to 100. In Denmark, of 100 legitimate births, 2.6 per cent. are stillborn; and of the illegitimate, 4.1; while in first labours, 1 in 11; and in other labours 1 in 32 are stillborn. In England, in 1889, 40,627 illegitimate births were registered; in Scotland, 9,537; and in Ireland, 2,827.

It is to be feared that the criminal causing of stillbirth is frequent. Coroner B. Hicks says: "Many children who are termed stillborn are not really so, but have been born alive, and die soon after, sometimes from natural causes, but also from suffocation and other illegal means. In fact it is to be feared that many children termed stillborn are disposed of in other ways." Tidy says: "So notorious is it that a large number of these cases could be averted, that some legislation is urgently needed." Stevenson says: "There is reason to believe that non-registration of births of children born dead leads to many being disposed of as stillborn, which in reality came living into the world, but have died from neglect, exposure, or violence." In the above return the following occurs: "The Secretary of State has reason to believe that in some cases the practice prevails of entering in the cemetery book, as stillborn, children who have survived their birth by only a few hours, and over whose body no religious service has been performed."

The present state of our law conduces to criminal stillbirth. In this country a woman may be hanged, if pregnant, but if she has not "quickened." In France "the plea of pregnancy" is a sufficient bar to execution. In this country the child in the womb, although medically "alive" is legally "dead." Again, section 60 of the 24 and 25 Vict. cap. 100, 1861, which relates to the concealment of birth, does not give any protection, as it refers to a "child," the "dead" body, and to "secret disposal," legal terms which have given rise to three different rulings. This section was enacted in order to prevent the secret disposal of a liveborn child with the ultimate view of child murder. Nor does the Scottish Act of 48 Geo. III, cap. 14, March, 1809, relating to concealment of pregnancy, give any real protection. Neither do sections 58 and 59 of the 24 and 25 Vic., cap. 100, which relate to the procuring of miscarriage, apply to criminal stillbirth. The Registration of Births and Deaths Act, 1874, in so far as it refers to still births, takes notice of the interment of such; while it enacts that any person present at the birth, or the father or mother, or the person in charge of the child, may sign the declaration which states that the infant was stillborn. It does not even ask the cause, so that the person signing might have murdered it and then sign the declaration.

In other countries the law insists that all stillborn children should be not only inspected, but registered. In Denmark it is so by the laws of January 2nd and September, 1877; in Holland, by Article 32 of the Civil Code; in Switzerland by section 14 of the Federal Law of December 24th, 1874; in Sweden by the Circular of April 27th, 1860; in Norway by an order of the Board of Trade of November 18th, 1797; in Italy by Article 56 of the Ordinance of the Civil State, 1865; in Spain by the Royal Order of January 30th, 1871; in France by the Decree of July 4th, 1806; in Germany by section 23 of the Act of February, 1875; and in Austria by a Decree of the Imperial Ministry of the Interior of April 1st, 1890. Inspection and registration are also compulsory in Belgium, Hungary, Province of Ontario, Western Australia, and in some of the States or chief towns of the United States of America. In these countries inspection is carried out either by official medical verifiers of the fact and cause of stillbirth, or by the medical practitioner present at its birth. Registration is generally carried out by the ordinary registrars of births and deaths, and heavy penalties are provided for failing to notify still births.

What is a stillborn child? Here medicine and law differ. In legal language, a "liveborn" child is one whose whole body, being completely born, shows some definite "sign of life." "Completely born" means that the entire body must be outside its mother, but it is not required that the after birth be delivered. Therefore, legally, so long as the infant is in the womb, it is not a living being; it is not *rerum natura*.

What is a "sign of life?" This means any vital movement of the infant after complete birth—a movement of a limb, a twitch of a muscle, the heart or cord seen or felt to beat. It will thus be seen—and this is a most important medico-legal point—that only those present at the birth can say whether the child was actually stillborn. It is a question of fact only.

The law does not ask whether the child was "viable," mature or immature, healthy or diseased. It would, therefore, be much better if the law were amended, so that, for the purpose of conviction, proof of complete birth were not required, but proof only that the infant was alive during birth, and that it died from injury inflicted during birth. In the charge of infanticide the injury causing death must be inflicted after "complete birth," or that it died after complete birth from the injury inflicted during birth.

What is the earliest age at which stillbirths should be inspected and registered? When an infant is completely born at such a time of life as will allow it to show a "sign of life;" then, if stillborn, it should be registered. R. Barnes states that a 4-month conception has lived for some hours after birth. Atthill tells me he has seen a child under 4 months breathe after complete birth. In some countries all stillbirths having the outward form of a child must be inspected and registered. Again, it might be held that the earliest age at which the sex can be determined would be a good starting point, that is, from the third to fourth month, and upward. In Italy no definition of the stillbirth is given, and all dying within twenty-four hours after birth are registered as stillbirths. In Spain stillbirths of 6 months and 1 day and upward are registered. In France the definition varies in different communes, and all infants dying within three days after birth are registered as "stillbirths." By the judgment of the Court of Besançon of October 31st, 1844, a stillbirth in which the sex can be recognised must be registered. In Paris the earliest age is the fourth month of intrauterine life. In Germany stillbirths of seven months and upward must be registered, and in the Grand Duchy of Hesse all stillbirths having human form. In Austria "viable" stillbirths; in Denmark conceptions of twenty-eight weeks; in Switzerland those of six months; in Sweden "viable" children; and in New South Wales infants of six months' intrauterine life and upwards, when stillborn, must be inspected and registered. I propose that they be registered in a special book as stillbirths, and by the present registrars of deaths. In other countries abroad the system of registration varies.

What would a system of inspection and registration cost? According to Farr, the cost of registering a death is, on an average, about 1s. 6d. No extra cost on account of offices, clerks, etc., would be required for registration of stillbirths. At present each registrar is paid at the rate of 2s. 6d. for each of the first 20 entries of births or deaths, and 1s. for each additional birth or death registered during the quarter. If he make a return to the local sanitary authority he is also paid 2d. opposite each death so notified. Therefore, supposing 60,000 stillbirths were registered in the United Kingdom each year, and that the registrar be paid 1s. 6d. each, this

would cost at most £4,500. Next, I propose that the fee paid to a practitioner for each certificate of the fact and cause of stillbirth, and for inspection of the body, should be the same as that paid for notifying an infectious disease—that is, 2s. 6d., when the stillbirth has occurred in private practice, and 1s. when it occurs in a public institution. I calculate this would cost about £7,500 yearly, so that for £12,000 a year we could have a perfect system of inspection and registration of stillbirths. In 1892 £21,357 was paid in England for notifying infectious diseases, and £5,311 in Scotland. In Paris alone in 1893 £10,800 was paid to 100 medical verifiers for verifying all births and deaths.

If we can induce our law makers to extend further statutory protection to the children in the womb by passing an Act to provide for the inspection and registration of all stillborn children, then we, as medical practitioners, possessing the power of harmonising law with medical knowledge, will be able to say that we have not neglected our duty. If we bear in mind that the actual difference in the medical and in the legal definitions of what constitutes "live birth" is, that from the legal standpoint the child performs some vital act outside its mother, which very same act it performed when in the womb, we can see that the difference is one of locality only. Let our law friends be guided by medicine, and so throw their protection over the infant during as well as after birth.

Summary of Recommendations.

1. That all stillborn children shall be registered by the present registrars of deaths in a special book, and as stillbirths only; and that the fact of stillbirth shall be notified to the registrar of deaths within twenty-four hours, by the persons now required by the Births and Deaths Registration Act, 1874, to notify a death to the registrar.

2. That, for the purposes of registration, a stillborn child is a child which has completed the fourth month of intra-uterine life or upwards, and which has not shown any "sign of life" after complete birth; the age of such child being calculated from the last day of the last menstrual period of its mother; or, in the absence of this, by the sex of the child.

3. That it be illegal for any registrar of deaths to accept any certificate of the cause and the fact of stillbirth unless such certificate is signed by a registered medical practitioner, or by a coroner, or procurator fiscal: and that when such certificate is signed by a practitioner who has a registrable qualification, but which is not actually registered, it shall be invalid.

4. That each registrar of deaths in the United Kingdom shall be furnished with a yearly copy of the *Medical Register*, and at the expense of the public funds.

5. That the certificate issued and signed by a registered medical practitioner be a certificate of the fact of stillbirth, the cause of stillbirth, and of the identity of the stillbirth.

6. That it be illegal for any registered medical practitioner to issue and sign such certificate until he has personally inspected the body of the stillborn child referred to in the certificate.

7. That in all cases the certificate be forwarded forthwith by the registered practitioner signing it direct to the registrar of deaths of the district in which the stillbirth was born, and that it be illegal for any other person to forward such certificate.

8. That each registered practitioner shall be paid a fee of 2s. 6d. for each certificate of the cause of stillbirth when such stillbirth has occurred in his private practice; and that a fee of 1s. shall be paid when such stillbirth occurs in a public hospital, institution, or asylum, to which he acts as medical officer; such fees to be paid out of the public funds.

9. That the form of the certificate of the fact of stillbirth, the cause of stillbirth, and of the identity of the stillbirth be supplied to registered medical practitioners free of cost by the Registrar-General's Office; that such certificate, when so supplied, be furnished with a halfpenny postage stamp; that such certificate be scheduled in the Act; that it be illegal to use any form of certificate other than that scheduled in the Act; and that the names and addresses of the local registrars be printed on such certificate.

10. That it be illegal for any registrar to issue a certificate of registry (or burial order) until he has received a duly signed certificate of the fact and the cause of stillbirth, or an order from a coroner or procurator fiscal. Provided that, when an informant attends before the registrar to register a stillbirth in connection with which there is no medical certificate of the cause of stillbirth, the registrar shall inform the public medical verifier of the district in which the body lies, and at the same time furnish him with the necessary form to fill in, and such verifier shall return such form, either to the registrar or to the coroner, as the case may be.

11. That it shall be illegal for any person to bury any stillborn child in any burial ground or in any other place, or to dispose of such body by cremation or in any other manner whatsoever, until the registrar has issued his burial order, or until the coroner or procurator fiscal has issued such order.

12. That such burial order shall be scheduled in the Act, and that it shall be illegal to use any other form of burial order.

13. That such burial order shall not be delivered to the person who informs the registrar of the stillbirth, but shall be forwarded by the registrar of deaths to the burial authority having control of the place in which the body is to be buried or otherwise disposed of; that the registrar or clerk of such burial authority shall specify the place and date of interment on this burial order, and shall return it forthwith, duly signed, to the registrar of deaths from whom the registrar of the burial authority received such order.

14. That each registered medical practitioner must conform with any "suggestions" issued for his guidance by the Registrars-General.

15. That the following be the certificate of the fact and the cause of stillbirth, and of the identity of such stillborn child:

I certify that I ....., registered medical practitioner, residing at ....., have personally conducted the confinement of (name of woman), whose occupation is stated to be (state occupation), and whose condition is ..... (state whether married, or single, or widow), on the ..... day of ....., 189...; that I have inspected the body of a ..... (state sex) child, which has attained the ...th month (state month) of intra-uterine life; that this child was stillborn; that I (state name of practitioner present at the birth, or in default the name of adult who identifies the child) identify the child as being that of which its mother was delivered; that the cause of its being stillborn is ..... (state probable cause of stillbirth); that it died ..... (state whether child died in the womb or during birth), and that the cause of its being stillborn is not due to accident, poison, violence, or criminal neglect.

This certificate must be filled in by the medical practitioner present at the birth, or, in default, by the public medical verifier. In case the practitioner cannot identify the child, then that part of the certificate relating to its identity must be filled in by some adult present at the birth.

16. That it be illegal for one or more registered medical practitioners to issue more than one certificate of stillbirth for each stillbirth so certified.

17. That when a woman has not been attended in her confinement by a registered medical practitoner, the public medical verifier shall visit the place at which the body of the stillborn child lies, and shall make such examination of the body (including, if necessary, a "*post-mortem* examination") as will enable him to form a true opinion of the cause of stillbirth, and the fact of stillbirth, and if he is satisfied that the stillbirth is due to natural causes, he shall forward a certificate forthwith to the registrar of deaths to this effect. If, however, he is of opinion that the cause of stillbirth is due to accident, poison, violence, or neglect, he shall at once forward his written report to the coroner, or procurator fiscal, as the case may be.

18. One or more such public medical verifiers (who must be registered medical practitioners) shall be appointed in each sanitary district by the coroner or procurator fiscal having jurisdiction over such district; and each public medical verifier shall appoint his medical deputy, who shall act for him in his absence. The public medical verifiers shall be paid out of the public funds for the duties performed by them under this Act; the fee for verifying the cause of stillbirth, including the certificate or report to the coroner, being

10s. 6d.; and the fee for a *post-mortem* examination, including report to the coroner, being £1 1s., such fee being exclusive of the fees paid, under the Coroners Acts, for giving evidence at the inquest if held.

19. That it shall be illegal for any registrar of deaths to give a book of forms, or a form, of the certificate of stillbirth until he shall have received from the practitioner desiring such book of forms a written request signed by the applicant in the presence of the registrar, and until he shows to such registrar his certificate of registration as granted by the General Medical Council.

20. That it be illegal for any coroner, procurator fiscal, or registrar of deaths to use any form of certificate other than that provided by the Registrar-General's Office.

21. That each registrar of deaths in the United Kingdom shall notify the sanitary authority all particulars required by such authority concerning all the stillbirths registered by him.

22. That it shall be illegal for any person to keep the body of a stillborn child in any dwelling place or in any other place for more than four days, unless by order of the coroner or procurator fiscal.

23. That when a coroner orders an inquest to be held concerning a supposed stillborn child, the jury summoned shall consist of five persons only.

24. That the present law be altered so that the plea of pregnancy, and not the plea of quickening, shall be a valid reason why a pregnant woman shall not, until after she shall be confined, suffer capital punishment.

25. That the criminal law relating to infanticide be amended, so that for the purpose of conviction "complete birth" be not required, but proof only that the child was living during birth, and that it has died from criminal violence inflicted during or after birth.

In connection with this public question, it must always be remembered that in almost all stillborn cases, only those present at the birth can be certain as to whether the stillbirth is due to criminal causes. It is a question of fact only.

It is my earnest wish that the above recommendations be discussed by all the Branches of our Association, and by medical and coroners' societies, and that such send copies of resolutions in favour of registration and inspection of stillbirths to their local members of Parliament. It is only by bringing this important question prominently to the front in these days of pressure of public business that we can expect to secure legislation. I need only refer to the work done by Sir Charles Cameron, M.D., and Sir Walter Foster, M.D., in connection with the Select Committee of the House of Commons on Death Registration to show that we may count upon their continued efforts. In order that any one who wishes to work up this subject may do so, I shall refer such to the following works mentioned beneath. I cannot let this occasion pass without publicly expressing my thanks to those of Her Majesty's Consuls and Ambassadors who have supplied me with facts relating to the laws of foreign countries bearing upon the inspection and registration of stillborn children.

[*The Burial Laws*, by Little (Shaw and Sons); *The Law Relating to the Registration of Births, Deaths, and Marriages*, by W. C. Glen and A. Glen; Jervis *On Coroners*, fifth edition (Sweet and Sons); Seton's *Practical Analysis of the Acts Relating to the Registration of Births, Marriages, and Deaths in Scotland* (Edmonston and Douglas); *Nomenclature of Diseases*, second edition (Royal College of Physicians, London); *Regulations issued by the Registrars-General of England, Scotland, and Ireland to Registrars and Superintendent Registrars of Deaths*; *Official List of the Registrars-General, showing the Occupation of Registrars*; *Stillbirth Interments*, Parliamentary Return No. 352, July, 1891; *Protection of Infant Life*, Parliamentary Report No. 372, July, 1871; *Death Certification*, Parliamentary Report No. 373, September, 1893; *Stillbirths in England and other Countries*, Parliamentary Return No. 279, June, 1893; Registration of Births and Deaths Act (England), 1874; Registration of Births and Deaths Act (Ireland), 1880; an Act to provide for the Better Registration of Births, Deaths, and Marriages (Scotland), 1854.]

German Medical Press Association.—The German Medical Press Association, which came into existence at the meeting of the German Scientists and Physicians, held in Vienna in September, 1894, now includes the editors of all the leading medical journals published in the German language. The object of the Association is to increase the influence of the medical press, and safeguard its interests, and on all occasions to promote its proper representation, especially at congresses and similar meetings. The Association will meet this year in Berlin, under the presidency of Professor Eulenburg.

THE PROPHYLAXIS OF INFLUENZA.

By J. G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin.,
Senior Physician to the Royal National Hospital for Consumption, Ventnor.

The annual recrudescence of influenza in epidemic form with more or less virulence renders its prophylaxis a matter of extreme urgency. My experience in this connection has confirmed the opinion that in quinine we have an almost unexceptionable preventive of the scourge. I was first led to the use of this remedy by recalling to memory a passage I had noted some years ago in a very amusing and interesting book by De Windt, entitled *From Pekin to Paris*. The author made the observation that the frequent change of encampment of the nomad Tartar tribes of the Central Asian steppes was not so much determined by the necessity for fresh pasture as by the circumstance that, if the encampment were not changed at intervals, influenza attacked them, and developed with increasing intensity until change of location was effected. This, of course, points to a *materies morbi* of telluric origin intensified by what French pathologists term *encombrement*, at first endemic and then epidemic in character. This agrees with the natural history of the epidemics of influenza of recent years. It was called by the Russians the "Chinese Influenza," from its Tartar cradle, and, when passed on its pestilential career to the west, became the "Russian Influenza" to the Germans and other nations of Northern Central Europe.

The following experience will, I think, show that my opinion of the protective properties of quinine in influenza is well founded. On the appearance of the epidemic in October, 1891, I was consulted by the principals of a large educational establishment, mostly patronised by foreign pupils, as to whether I would advise them to close the institution, or could recommend some efficacious preventive. The school consisted of nineteen resident pupils, besides teachers, servants, and day pupils. I advised that every resident inmate of the house should take immediately after breakfast a gr.v pill of sulphate of quinine. This injunction was strictly obeyed during the prevalence of the epidemic, with the result of complete exemption. One of the domestic servants who went to an adjacent town to attend her mother, who died of the epidemic, returned to her duties evidently suffering from it, but did not communicate it to any of the other inmates of the house.

A singular corroboration of this protective potency was afforded more recently in this same institution. All the inmates were put upon the matutinal quinine regimen as formerly, with the exception of one of the principals, who was induced to refrain, from other considerations in connection with her health. The result was that she alone took influenza in a rather severe form, but did not communicate it, not even to her colleague who shared her room throughout, but who was protected by quinine. My own personal experience is further corroborative. In the same epidemic of 1891-2, I similarly placed my whole household, consisting of fourteen persons, on quinine. In consequence of my mind being very much preoccupied with professional and other anxieties, I neglected after a few days to take my breakfast dose of quinine, the result of which was that I contracted the disease from some of my patients, and in a very severe form, with pneumonic consolidations of the right base. My temperature for nearly a week was recorded nightly at 103.8° I was so gravely ill that my solicitor was sent for, and spent more than an hour at my bedside. He was unable to rise next morning, and the disease spread to his family and servants; they all had severe pulmonary complications, and his wife succumbed. No other member of my family or household was attacked, because, as I am strongly convinced, they were protected by quinine.

I have since seen, in very many instances, further and equally convincing proofs of this prophylaxis. I am further impressed with the fact that the symptoms of influenza more rapidly yield to quinine with salicin if there be muscular or joint pains, or with ammonia in pulmonary complications, with a large administration of old dry champagne, for which indeed there seems to be almost as strong a craving as for air in the agonies of dyspnœa, than to so-called antipyretics, or

other depressants, which not only retard the resolution of the morbid phenomena, but to which I largely attribute the subsequent debility and protracted convalescence which characterise so many cases of this ailment.

INFLUENZA IN AN INFANT, COMPLICATED WITH HYPERPYREXIA.

By JOHN McCAW, M.D.,
Physician to the Belfast Hospital for Children.

I was asked to see baby P., aged 4 months, on March 18th. He had been ailing for two days with a slight cough, which evidently gave him pain; he was restless and peevish, and "his skin was hot." The temperature was 101°; the pulse good at 98; there was good deal of coryza, and he was evidently tender generally over the body as he cried when handled; the bowels were a trifle over-active and the motions curdy; examination of the chest revealed moderate bronchial catarrh. The mother and another child were suffering from influenza of a mild kind, with symptoms akin to those of he baby.

Confinement to one room, a simple sedative diaphoretic mixture, and careful regulation of the diet were ordered, and everything seemed to progress favourably until the evening of March 20th, when violent general convulsions supervened at 8 P.M. As I live some distance away, a doctor living quite close was called in in the emergency. He treated the baby skilfully and with success, the convulsions being subdued in two hours. However, they returned again at 2 A.M. on March 21st, and I was sent for. I arrived at 3 A.M. and found the baby generally convulsed. I gave a whiff or two of chloroform and 5 grains of bromide of soda, the former bringing relief for a time, but the convulsions returned as its effect wore off. The temperature in the rectum was 107.6°. To make sure I took it again with another thermometer, and the same point was reached. Here, then, we evidently had the cause of the convulsions; and now the question arose, how was this temperature to be brought down?

A bath was got ready, the water being comfortably warm to the hand (I regret there was not a bath thermometer in the house), and the child, completely stripped, was put in, the water covering him almost entirely. At this time his respirations were 90 per minute, and pulse about 200. By the addition of cold water the bath was now somewhat quickly lowered until a point was reached at which it felt decidedly "cool." Gradually the child ceased to twitch, the respirations fell to 35, and the pulse to 110 a minute, at the same time becoming fuller and better. The following is the record of the temperature:

1.5 A.M.	temperature in the rectum			...	...	107.6° F.
4.10 A.M.	,,	,,	,,	...	...	105.0° F.
4.15 A.M.	,,	,,	,,	...	...	103.2° F.
4.20 A.M.	,,	,,	,,	...	...	101.0° F.
4.30 A.M.	,,	,,	,,	...	...	99.0° F.

At this point he was taken out, and he immediately fell into a sound sleep, in which I left him.

I visited him again at 11.30 A.M., when I was informed he had slept soundly for four hours or so, but since he awoke had gradually become restless and hot. The temperature had risen again to 105.6°, the respirations to 90, and the pulse to 180, so I again had recourse to the cold bath.

11.30 A.M.	temperature in the rectum			...	...	107.6° F.
11.35 A.M.	,,	,,	,,	...	...	105.0° F.
11.40 A.M.	,,	,,	,,	...	...	104.5° F.
11.50 A.M.	,,	,,	,,	...	...	102.8° F.
12. 5 P.M.	,,	,,	,,	...	...	101.6° F.

As he was getting pinched-looking at this point he was taken out and while he was evidently relieved of all his urgent symptoms to a considerable extent, the effect of the bath was not so marked as on the previous occasion; he slept for two hours and then relapsed into much the same state as before. I saw him again the same evening at 9.45, and as his temperature at this time was 106°, I repeated the cold bath, with the following results:

9.50 P.M.	temperature in the rectum			...	...	106.0° F.
10. 0 P.M.	,,	,,	,,	...	...	104.6° F.
10.10 P.M.	,,	,,	,,	...	...	102.8° F.
10.20 P.M.	,,	,,	,,	...	...	101.0° F.

was now obliged to take him out as he was getting pinched-looking and cold. I saw him the following morning; he had a restless night, and was now evidently weaker. The temperature was 104·6° and the pulse 180. Careful examination of the chest revealed nothing but moderate bronchial trouble, there being no evidence of pneumonia to be found. He became gradually weaker and died the same evening, quietly and without any return of convulsions. With the exception of the convulsions brain symptoms were absent throughout. After the first bath 1-grain doses of quinine hydrobromate and phenacetin were given every three hours, but without effect on the temperature.

ON THE REMOVAL OF ADENOID VEGETATIONS IN THE NASO-PHARYNX,

WITH A DESCRIPTION OF A NEW FORM OF SCRAPER.

By H. BENDELACK HEWETSON, M.R.C.S.ENG., F.L.S.,
Ophthalmic and Aural Surgeon to the Leeds General Infirmary.

THAT most excellent early form of scraper suggested by Dr. Hartmann, of Berlin, I have employed since its invention some years ago, but it now seems to me to require some modification. Hartmann's scraper is stirrup-shaped and triangular in form; the double semi-sharpened edge being set at somewhat less than a right angle to the shaft, pointing towards the posterior nares.

It frequently happens that vegetations exist in such a position in the naso-pharynx that the non-scraping portion of the instrument is presented to them, and it is only by awkward manœuvring that the scraping edge can be brought to bear on the vegetations lying behind, and in some cases below, the scraper when *in situ* behind the soft palate.

I have tried to design a scraper which would be quite blunt towards the soft palate, and set at an obtuse angle on the shaft. It presents a semicircular scraping double edge, which can by an alteration of pressure be made to scrape with its presenting curve upwards, backwards, and even downwards, attacking adenoids even occupying the pharynx at the same introduction of the instrument. I have used it now frequently, and find it quite comes up to my expectation. In some instances I have removed with it large pendulous vegetations, for the removal of which I have previously invariably employed Loewenberg's forceps. Whatever form of scraper we use, these forceps must continue to be required in removing some of the growths effectively.



I believe that to remove post-nasal adenoid vegetations effectively an anæsthetic must be used, and, after some years of trial, I have come to the conclusion that ether, skilfully administered by means of Clover's inhaler, is the best and the safest. I never allow the patient to be put deeply under its influence, and certainly never get rid of the cough reflex. It is wise to recollect that frequently these conditions are associated with nasal stenosis and confirmed mouth breathing, and that greater care than usual is needed in the administration of the anæsthetic.

I used to operate with the patient's head hanging back over the end of the operation table; but I found that there was a danger of asphyxia from bending of the trachea over the cervical vertebræ in persons with long necks; in fact, I observed in some cases that the patients ceased to breathe when the head was thrown back over the end of the operation couch in the position chosen by some operators. I find that a safe and convenient position is to remove all pillows on a level couch and allow the head of the patient to roll over towards the operator to the right, so that the right hand of the operator may be used whilst his left steadies the head.

The instrument I have suggested is readily introduced behind the soft palate, and, used as I have described, a few rapid and well-directed lateral movements suffice to scrape

away the adenoids. The free hæmorrhage is allowed to drain into the right cheek, and is speedily swabbed away, the gag always being *in situ*, with tongue forceps, if not actually in use, ready at hand. After the first free bleeding is checked, it is my custom to feel with the finger for remaining growths, these being removed either with the scraper or Loewenberg's forceps. If enlarged tonsils are present I remove them with the guillotine before the administration of an anæsthetic, either at the time or a day or two before.

In this paper I have avoided touching upon the treatment of nasal stenosis, so frequently an associated condition, but have only gone sufficiently into the subject of the treatment of adenoid vegetations to show the advantages as they appear to me of my modification of Hartmann's scraper. It is obtainable in three sizes of the makers, Messrs. Reynolds and Branson, Leeds.

A NEW METHOD OF FIXING THE SIGMOID IN INGUINAL COLOTOMY.

By LEONARD A. BIDWELL, F.R.C.S.,
Senior Assistant Surgeon to the West London Hospital.

The following method is so simple that I venture to suggest it in all cases where an artificial anus will be required permanently. In this method, too, a bridge of normal skin separates the openings into the upper and lower portions of the sigmoid, so there is no chance of any fæces finding their way into the rectum.

The incision being made in the ordinary position, the peritoneum is stitched to the skin: a loop of sigmoid is brought out of the wound, and a good-sized hole scratched in its mesosigmoid. A silkworm-gut suture is passed through the whole thickness of one edge of the wound; it is then carried across the wound through the hole in the mesosigmoid, and is finally passed through the whole thickness of the other edge of the wound. When the suture is tied, the two edges of the wound are united within the hole of the mesosigmoid. This stitch should be inserted at the junction of the middle and lower thirds of the incision. No other sutures are necessary; but as I find that, after the gut is divided, it is desirable to stitch the four corners of the upper portion to the skin, so as to keep the opening free, I usually pass two sutures through the skin on each side of the incision, and leave their ends untied, so as to avoid having to give chloroform when the gut is divided.

On the fourth day the bowel is completely divided on a director passed beneath it, and the sutures, previously passed through the skin, are inserted into the upper end of the gut and are tied. The stitches are removed on the eighth or ninth day.

I do not give an anæsthetic when completing the operation, since the section of the gut does not appear to be painful; traction on the bowel, on the other hand, usually gives rise to a good deal of pain. The cases on which I have operated after this method have been very satisfactory.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

DIVERGENT DISLOCATION OF THE ELBOW—ULNA BACKWARDS, RADIUS FORWARDS.

The above injury is admittedly rare. Many of our textbooks make no mention of it; others refer to it as very infrequent. Keen and White (Ed. 1893) state that 11 cases have been reported. Nowhere have I been able to find it described in detail. These facts should invest each new case with some interest, and as the following example presented entire absence of certain of the classical signs of elbow dislocation I venture to record it:

A gentleman, aged 30, hurrying to catch a train, slipped over a very high kerbstone and fell. How his arm was placed in falling he could not recall, but he found it lying under him when his thoughts got cleared. He was taken to a hotel, where he spent the night, and next morning made a journey home of nearly fifty miles. I then saw him for the first time, when I found great swelling around and above and below the elbow-joint. The arm was fully extended and the hand slightly off the supine. Any attempt at flexion or rotation was resisted. The tip of the olecranon was found, when compared with the sound limb, to be raised an inch and a-half upwards on the back of the humerus. Owing to the swelling and the difficulty of rotation the head of the radius could not be located with certainty. On reduction of the swelling and administration of chloroform, however, there was no difficulty in finding the latter bone to have been pushed upwards in front of the external condyle of the humerus. It was no easy matter to replace it, but this was at last accomplished, and a little manipulation effected the same result as regards the ulna. The arm, though being still at rest—six days after reduction—is now capable of its proper movements.

Perth. James Ferguson, M.B., C.M.

CINNAMON IN URINARY FŒTIDITY.

In the British Medical Journals of March 16th and 30th allusion is made to the efficacy of cinnamon in influenza. This simple drug has a wider sphere of usefulness than it is generally credited with. For instance, I have had lately a case of very foul-smelling urine, which rendered life miserable, accompanied with a slight degree of cystitis, which nothing relieved so well as oil of cinnamon internally.

If in such cases this drug be combined with sodæ hyposulphis in, say, mist. amygdal., we have a pleasant and an exceedingly efficacious mixture.

Finsbury Pavement, E.C. James MacMunn.

TREATMENT OF AFTER-COMING HEAD.

I was called to attend a black married woman, aged 20, in her first labour. On arriving I found a dead child at full term tightly impacted. The woman had been all night in labour. There was no room for the forceps owing to a contracted pelvis. An army medical friend near by assisted me by giving chloroform, and I perforated the head and delivered. About a year after I attended this woman again. At the seventh month I induced labour, and with the forceps delivered her of a living male child, who is now a healthy, well-grown boy.

Two years after the second labour I was called to this woman, who had gone farther away from me, and had allowed her pregnancy to run on to full term. She had been in labour for over sixteen hours, and, being in the hands of an ignorant nurse, did not seek medical assistance until all movements of the child had ceased. I found a head and funis presentation and a dead child. I had no instruments with me, but luckily an ample supply of chloroform. I at once placed my patient fully under chloroform, and without much difficulty brought the feet down, but, on attempting to complete the delivery through a narrow pelvis, the head parted from the body. The uterus was acting pretty vigorously, and soon contracted on the child's head within it. I made the nurse press down the uterus, and, hooking my right index finger into the mouth, attempted to deliver the head, but to my great disappointment the lower jaw began to give way, and, not wishing to leave a jagged surface to wound the soft parts of the mother, I at once desisted, and by steady digital manipulation in the absence of a pain, I was able to turn the head so as to bring the vault of the skull within touch. I then passed my finger through the posterior fontanelle, and took away as much brain as I could; this diminished the calibre of the skull, and after some hard work I happily delivered the "after-coming head" without hurting the woman, who made a speedy and good recovery. She is now a widow, and I have advised her to remain one.

In my opinion, where the harmony of the child's head and mother's pelvis is at fault, the head had better be separated and diminished than forcibly pulled through by such powerful leverage as the body affords. The muscles of a dead child are more easily torn than those of a living one, but in any case it is quite possible to tear them away and at the same time badly wound the soft parts of the woman.

St. Andrew, Jamaica. Jasper Cargill, M.D.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

MANCHESTER ROYAL INFIRMARY.
(Under the care of Mr. SOUTHAM.)

CASES OF CHOLECYSTOTOMY FOR THE REMOVAL OF GALL STONES.

CASE I. *Distension of Gall Bladder owing to Obstruction of Cystic Duct; Removal of Gall Stones from Gall Bladder and Cystic Duct.*—Mrs. W., aged 27, was admitted October 12th, 1894, suffering from a small swelling on the right side of the abdomen, which had been present for about twelve months. As it had caused her no inconvenience, she had paid little attention to it until about three months previously, when she showed it to her medical attendant, Dr. Scotson, who tapped it and drew off a small quantity of clear fluid. It refilled in the course of a month, and was tapped a second time with a similar result; but as after a few weeks the swelling again appeared, he advised her to come into the hospital. On admission there was a well-defined rounded tumour, the size of an orange, situated to the right of and a little above the umbilicus. It was quite superficial, freely movable in all directions, painless, and not tender upon pressure. There was no history of any attacks of biliary colic or of jaundice, the tumour having never caused her the slightest pain or trouble of any kind. The diagnosis was somewhat difficult, as the absence of any of the usual symptoms of cholelithiasis and the character of the fluid were opposed to the view that the swelling was connected with the gall bladder, its free mobility and the apparent absence of any deep connections rather pointing to its being of the nature of a cyst possibly omental in its origin.

October 18th. The abdomen was opened by an incision along the right linea semilunaris, and upon exposing the tumour it was at once evident that it was a distended gall bladder. Several ounces of a clearish fluid were drawn off with the aspirator, and an opening was made into the fundus, which was easily drawn up to the surface. On introducing the finger into the interior of the gall bladder, it was found to contain several small calculi, which were removed with forceps. On exploring the cystic duct a gall stone the size of a marble was felt, so firmly impacted that it could not be dislodged until it had been broken up *in situ* by a small Volkmann's spoon introduced from the gall bladder into the centre of the concretion, which was meanwhile steadied between the finger and thumb outside the walls of the duct. All the fragments of the calculus having been removed and the ducts beyond found clear, the margins of the opening in the gall bladder were stitched to the wound in the abdominal wall, a drainage tube being inserted.

The following morning the dressings were stained with bile, showing that the cystic duct was quite clear.

The patient made a good recovery from the operation, though her convalescence was retarded by some troublesome suppuration in the neighbourhood of the wound, the pus burrowing in the subcutaneous tissue and necessitating counter openings in the loin.

January 5th. She left the hospital, bile continuing to discharge from the wound, which was not quite healed.

March 20th. The biliary fistula is still present, though the discharge of bile is gradually decreasing.

CASE II. *No Distension of Gall Bladder; Removal of Gall Stones from Gall Bladder, Cystic and Common Bile Ducts.*—Mrs. C., aged 42 years, was admitted in August, 1894, under the care of Dr. Harris. She had enjoyed good health until about four months previously, when she began to suffer from typical attacks of biliary colic, accompanied by vomiting and followed by jaundice. On several occasions gall stones were found in the motions. On examination of the abdomen no enlargement of the gall bladder could be detected, though the liver was slightly increased in size and somewhat tender on pressure. As it was evident that her symptoms were due to gall stones, cholecystotomy was recommended, the ordinary palliative treatment having been followed by no benefit. Being anxious, however, to avoid an operation she went home for a time, but returned at the end of November in order that it might be performed, as the attacks of colic kept recurring, and were becoming more severe.

December 8th. An incision was made downwards from the ninth costal cartilage on the right side, and the peritoneal cavity was opened. Great difficulty was at first experienced in recognising the gall bladder, as it was extremely contracted and hidden in a mass of dense adhesions at a considerable depth from the surface. It was exposed after some trouble, and on opening it several gall stones were found and extracted without any difficulty. A number of small calculi were also present in the cystic and common ducts; these were crushed with the finger and thumb through the duct walls, and then removed with forceps and spoon introduced into the ducts from the gall bladder. As it was impossible to close the opening in the gall bladder, or to bring it up to the surface owing to its depth and the friability of its walls, it was shut off from the general peritoneal cavity as completely as possible by suturing the omentum to the parietal peritoneum and margins of the incision in the gall bladder, and a glass drainage tube was left in the wound. There was no escape of bile after the operation from the wound, which slowly healed. The patient left the hospital on January 3rd, 1895, a small opening being still present, from which there was a slight discharge of clear fluid.

March 20th. There has been no recurrence of the attacks of pain since the operation. The discharge has ceased, and the wound is firmly healed except at one point, where there is a small patch of granulations.

REMARKS.—The interesting point in connection with Case I was the entire absence of any of the usual symptoms of cholelithiasis, though the gall bladder contained several calculi, and was distended with retained mucus owing to blocking of the cystic duct by a gall stone, which was so firmly impacted as to be incapable of removal until it had been broken up *in situ*. Case II illustrates the difficulty sometimes experienced, first in recognising and subsequently in dealing with the gall bladder when it is shrunken and surrounded by a mass of adhesions, the result of attacks of inflammation recurring in and around its walls in consequence of the irritation caused by the presence of gall stones in its interior.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.
F. W. PAVY, M.D., F.R.S., President, in the Chair.

Tuesday, April 2nd, 1895.

CARCINOMA OF THE URETER.

DR. F. VOELCKER exhibited a specimen obtained from a man aged 68. Four months before admission to the Middlesex Hospital he noticed bloody discoloration of his urine, and when admitted complained of pain across the loins and nausea. There was marked progressive enlargement of the liver, and loss of weight. After death nodules of new growth were found in the liver; the right ureter was dilated and thickened. In the lower 2 inches of the left ureter there was a new growth, the free surface of which was villous; it deeply infiltrated the walls of the canal, and projected on the external aspect. Microscopic examination showed the tumour to be a villous carcinoma similar to those which affect the bladder. The secondary growths in the liver had a similar structure, the epithelial cells covering the branching stroma being pyriform or kite shaped. Secondary formations of carcinoma in the ureters had been recorded, but none that were primary. The secondary involvement of the liver was noteworthy, as it was especially rare after villous carcinoma of the bladder. In addition to the disease of the liver, the retroperitoneal glands were infected. The left kidney was smaller than the right, and the author suggested the possibility of the passage of a calculus as an indirect cause of the local appearance of the disease.

Mr. J. H. TARGETT observed that secondary invasion of the ureter after primary disease of the bladder, whether carci-

noma or sarcoma, was not so rare. Villous tumours he had seen growing at the lips of the ureter, and Dr. Voelcker's specimen was closely related to one of disease in this situation.

In this opinion Mr. A. A. Bowlby concurred.

Congenital Obliteration of the Common Bile Duct.

Dr. F. Hawkins recorded the case of a male child suffering from jaundice and inguinal hernia. The jaundice was noticed eight days after birth but its intensity varied and the stools at times were colourless at others lightly coloured. After death the hepatic and cystic ducts were found pervious, the gall bladder was empty, but the common bile duct was reduced to the size of a thread. Two such cases were recorded in the Society's *Transactions;* in neither was life prolonged over three months. He thought the jaundice probably due to changes in the liver itself such as are observed in the later stages of cirrhosis.

Sarcoma of the Breast.

Mr. J. Jackson Clarke described the histology of a lobulated growth of the breast removed by Mr. Edmund Owen from a middle-aged woman. It was a typical alveolar sarcoma. There was no ulceration. Most of the cells of the tumour contained intranuclear bodies, which did not occur in the nuclei of normal cells. These bodies were stained reddish-yellow by the hæmatoxylin-eosin process, and a brownish-red with Biondi. They appeared to contain one or more vacuoles, and most of them were provided with stiff peripheral processes which in many cases terminated in a round knob. In many instances the intranuclear bodies were attached by a pedicle to the nuclear membrane. They attained a size averaging 10 μ, and the larger the intranuclear body the smaller was the amount of chromatin remaining in the nucleus. Some of the larger bodies could be traced escaping from the nucleus into the cytoplasm of the cells of the tumour or into intercellular spaces. Having escaped from the cell nucleus they became enlarged, and usually chromatin appeared within them, and so was constituted a series of forms leading up to the cells with giant mitoses. The latter entirely corresponded with the bodies he had described in squamous epithelioma[1] and in sarcomas as free and sporing parasites, but they showed two important additional features. That is, besides the forms of sporing previously described by Mr. Clarke, ciliated zoospores and acineta embryos could be detected. The latter were identical in appearance with the smallest of the intranuclear bodies, and the former closely resembled some of the parasites described by the author in vaccinia.[2] The author had observed in all the cancers and sarcomas he had recently described intranuclear bodies similar to but less distinct than those in this sarcoma. He concluded that they represented an early phase of the parasites he had previously described. Up to the present time the only logical course had been to refer the parasites to the sporozoa. As he had stated elsewhere, and as had recently been demonstrated by Sanfelice,[3] those who recognised only a few of the forms of the parasites of cancer could not logically refer them to the protozoa at all. They might just as well belong to the protophyta. In investigating the so-called psorosperms of the ureter he had been able to refer them to the protozoa by the character of their ectosarc, their nuclear forms, and mode of sporing. And in the absence of the special characters of the suctoria (ciliated swarm spores and acineta forms) the only logical position was to refer them to the sporozoa; in this he had recently been confirmed by v. Kahlden.[4] In cancer and sarcoma many of the parasitic forms were identical with the psorosperms of the ureter, and in spite of careful search until the present instance he had been unable to find ciliated spores and acineta embryos, so that the logical conclusion was that they were to be counted as sporozoa. Now, however, in the presence of the ciliated spores and acineta forms of this alveolar sarcoma a modification of the position was necessary, and the parasites could only be referred to the suctoria. The change might prove to be no great one. It was quite possible that the suctoria formed a link between the sporozoa and the ciliata; this was for biologists to determine. The result of the examination of this sarcoma was quite in harmony with what the author had already advanced respecting cancer and sarcoma. It was noteworthy that the parasites of variola and vaccinia were identical in form with many of the phases of the parasites in this sarcoma. Syphilis, again, constituted another link between infective processes and malignant neoplasms. Doehle[5] had observed flagellates in the blood in primary syphilis, and Mr. Clarke now stated that he had found bodies similar to the parasites of variola and cancer in the primary, secondary, and tertiary lesions of syphilis. A few words were to be added with regard to molluscum contagiosum. An observation had been made by Mr. Hitchens and brought forward by Mr. Jonathan Hutchinson by which it appeared that this disease had been communicated by a dog to a human subject. This evidence came as a confirmation of the careful work of Neisser and L. Pfeiffer. A still farther observation tending to show the parasitic nature of molluscum contagiosum had been made by Mr. Clarke.[6] Some material obtained from molluscum lesions was given to him for examination by Mr. Malcolm Morris, a strong believer in the parasitic nature of this disease. Some of this material, after being kept in a moist chamber for five days, contained great numbers of flagellates, and afforded evidence that the latter were produced from the molluscum corpuscles.

Mr. S. G. Shattock remarked that the statements of the preceding speaker were plausible enough in themselves, but so had been those made by the same speaker some time previously on carcinoma. Nevertheless, Mr. Clarke had not, he believed, succeeded in convincing the majority of those who had had the opportunity of examining his specimens of the accuracy of his views. He proposed, therefore, that Mr. Clarke's specimens should be submitted to a committee with the object of confirming the author's description of fact. As to the speaker's statement in regard to the cultivation of flagellates from molluscum contagiosum, he could not accept it; the assertion required to be put beyond suspicion of fallacy. Mr. Ballance and he, in some careful experiments made with freshly excised molluscum contagiosum, and carried out by means of wet sand, and under conditions favourable to aëration, had found no indications whatever of the growth of protozoa in the neighbourhood of the material, though the examinations were repeated up to a period of five months.

Dr. A. A. Kanthack observed that, with respect to Mr. Clarke's statements on vaccinia and variola, Dr. Klein and Dr. Copeman had repeated the experiments originally carried out in Germany, and had seen nothing of the protozoa described. He himself, in conjunction with Mr. Hardy, had, moreover, found similar bodies to those described in the epithelium raised by blisters in the human subject. The more minute histology of normal tissues had in fact not been sufficiently carefully investigated as a check on such statements. In epithelioma cell fusions were common and such became infiltrated with leucocytes; various kinds of degenerations ensued, with fragmentation of chromatin, the resulting products staining especially well with acid fuchsin. To draw a life history from different appearances in a section was not true evidence: what must be done was to trace such a history in its living progress beneath the microscope. If so many diseases as Mr. Clarke had named—carcinoma, sarcoma, vaccinia, variola, syphilis, and others—were due to a similar cause, where did specificity come in, for they had scarcely anything in common? The speaker thought that the different appearances described by Mr. Clarke were degeneration products.

Carcinoma of Bed of Thumbnail.

Mr. Edgar Willett exhibited this specimen, the tumour surrounding the terminal phalanx, tilting up the nail and destroying the osseous tissue. Its structure recalled that rather of a rodent carcinoma; there were no nests. It was removed, by amputation of the phalanx, from a lady, aged 80, and had been noticed for seven years. Injection of methyl

[1] See *Morbid Growths and Sporozoa;* also *Centralb. f. Bakt.*, 1894.
[2] *Lancet*, January 19th, 1895.
[3] *Centralbl. f. Bakt.*, January 31st, 1895.
[4] *Ziegler's Beiträge*, 1894.
[5] *Cent. für Bakt.*, 1892, p. 906.
[6] *Clinical Journal*, March 13th, 1895.
[7] *Cent. für Bakt.*, February 28th, 1895.

violet had been practised into it every other day for three weeks but with no special result. The patient was still alive, but with a secondary growth in the glands of the axilla.

Mr. J. H. Targett had also examined this growth, and considered it a modified form of squamous-celled carcinoma; it was devoid of nests.

Gastro-enterostomy for Pyloric Carcinoma.

Mr. L. A. Bidwell recorded the condition of the parts in Halsted's operation after the lapse of ten days. The operation was performed on a woman, aged 31, who had presented symptoms of pyloric obstruction for about a year, removal of the tumour being found impracticable. The jejunum was stitched to the posterior surface of the stomach, and a piece of omentum wrapped round the completed anastomosis, etc. Death occurred from broncho-pneumonia. At the necropsy the abdominal wound was found quite healed; there were no signs of peritonitis, even the omentum being scarcely adherent to the junction; the mucous membrane of the stomach was soundly united to that of the jejunum; the sutures were not seen.

Duodenal Ulcers in Women.

Dr. Lee Dickinson, after citing the case of a woman who died collapsed after perforation of a duodenal ulcer, having previously suffered from pain in the hypochondrium, adverted to the rarity of such in women as compared with men, whereas, on the contrary, the gastric ulcer was commoner in women than men. Excluding those resulting from burns, Dr. Perry and Dr. Shaw had given the proportion of duodenal ulcer in the sexes as 42 males to 14 females. He had collected details of 4 cases in females. There was no anæmia in any, though this was not absolutely constant. He thought that anæmia had little share, and in this the case contrasted with that of gastric ulcer; the two diseases had probably a different etiology. It was rare to meet with subphrenic abscess after perforation of a duodenal ulcer; the ensuing inflammation was generally diffuse. This, again, constituted a certain difference between the ulcers in question.

Cirrhosis of Liver in a Child.

Dr. P. Weber recounted the case of a girl, aged 14, in whom jaundice had been present since birth; the spleen was enlarged, and death was ushered in with irregular fever. The superficial abdominal veins were enlarged and there was ascites. After death the liver weighed 26½ ounces, and presented macroscopically and microscopically the appearances of ordinary cirrhosis. There was green inspissated bile between or in the hepatic cells. The mother, who died of phthisis, was a great drunkard, but the author did not state whether there was a history of alcoholism in the child.

Secondary Sarcoma of Pleura.

Dr. H. B. Meakin described a specimen obtained from a girl who had been submitted to amputation for a subperiosteal sarcoma of the lower end of the femur. Though the pleural growth was very extensive, there was little pain in the chest, and only slight shortness of breath, without cough. The case was at first thought to be one of pleurisy with effusion, but an incision revealed its nature after tapping had failed to evacuate fluid.

Mr. Stephen Paget adverted to the great relief the inhalation of oxygen had afforded at the time of the operation, when it saved the patient's life; and it never failed to relieve the paroxysms of dyspnœa.

Card Specimens.

Dr. A. A. Kanthack (with Mr. C. B. Lockwood): Psammoma of Tunica Vaginalis; Psammoma (?) of Mesentery; Psammoma of Vermiform Appendix and Ovary; (with Mr. E. L. Lloyd) Metaplasia of Omental Epithelium into Squamous Epithelium; (with Dr. C. P. White) Giant Cells in Innocent and Malignant Growths of Epithelial Origin.—Dr. F. Voelcker Ulceration of Gall Bladder in Typhoid Fever.—Dr. H. Snow: Malignant Reversion of Mammary Cystic Fibromata.—Dr. Lee Dickinson: Solitary Kidney with Two Ureters.—Dr. F. Hawkins: Adhesion of Vocal Cords in case of Leprosy and Laryngeal Stenosis.

BRITISH GYNÆCOLOGICAL SOCIETY.

Clement Godson, M.D., President, in the Chair.

Thursday, March 14th, 1895.

Chloride of Zinc Paste in Malignant Disease of the Uterus.

Mr. F. Bowreman Jessett showed a specimen representing a cast of the entire uterus, which he had removed by packing the cavity of the uterus with chloride of zinc paste. The patient, aged 48, had had an offensive discharge, with pain and loss of flesh, for seven months. The uterus was found fixed; the cervix was the seat of advanced ulcerated epithelioma. After scraping away as much of the growth as possible with the dredger, the paste was packed into the cavity in the way previously described. Three weeks later the whole uterus came away as a slough. For a time there was a vesico-vaginal fistula. Four months after the operation there was no trace of malignant disease.

The President had seen many cases of this kind formerly at St. Bartholomew's Hospital, and this one would then have been regarded as beyond relief. This patient had at least had temporary relief, and her life had been prolonged.

Dr. Purcell remarked that the surrounding structures in these cases escaped injury in a way one would not expect. He had not been able to tell in his own cases whether the peritoneal covering of the uterus came away with the rest. The cases had so far done well.

Dr. Routh said he had used not only the chloride of zinc, but also nitric acid, the acid nitrate of mercury, and bromine. The last answered well in a 20 per cent. solution; the chief disadvantage of it was pain for about two hours after operation, but he thought this might be remedied with cocaine. He had obtained good results from the bromide.

After some remarks from Dr. Napier, Mr. Jessett said the pathologist had not been able to detect the presence of peritoneum in the sloughs, and fortunately none of the twenty patients operated on had died. He had not found bromine satisfactory. He promised to bring the later results before the Society.

Dangers of Morphine in Gynæcological Practice.

Dr. Macnaughton Jones considered the subject from the following points of view: The influence of temperament on the action and effects of morphine; its physiological and psychical influences; the precautions to be observed during administration. Temperament played a most important part in the predisposition to intoxication from morphine. Dr. Macnaughton Jones briefly reviewed the literature of the subject, from the time that Nussbaum first drew attention, in 1864, to the abuse of injections of morphine. Regnier divided morphine takers into two broad classes: *morphinists* and *morphimonanes*. In the former the habit was under control, in the latter the craving was irresistible. Zambaco made three classes: those having recourse to morphine for painful chronic diseases; those cured of such affections, yet still continuing its use; those abandoning themselves to morphine for mere pleasure's sake. Pain, such as that of cancer, accounted for a certain immunity from the toxic effect of the drug, also in acute mania. Voisin had increased the dose to a drachm of morphine in twenty-four hours without causing intoxication at its relinquishment. Age, sex, condition of health, frequency and method of administration influenced the effects. Persons connected with the medical profession furnished by far the largest proportion of victims; women some 25 to 30 per cent of the entire number. Morphinomania had been recorded in females as early as 13 years of age. The principal troubles incidental to morphinism were disorders of digestion; constipation; vesical irritation, with abnormal changes in the urine; visual disturbances; lessened reflexes; rotatory oscillations of the arms; defects of memory and moral perversion; psychical apathy; hepatic disturbances of function; and occasional cardiac changes. In women arrest of the catamenial function, sterility, and effects on the embryo had to be remembered. Hysteria, neurasthenia, neuralgia, cephalalgia, ovarian crises, dysmenorrhœa, spinal neuropathies, neuro-mimicries were the correlated conditions often

associated with sexual disturbances, which stood in the forefront of the etiology of morphine abuse in women. They were, unfortunately, the conditions for which it was frequently prescribed. The special dangers of morphinism in pregnancy, both to mother and foetus, through the circulation and nervous system, should not be forgotten. Cases were quoted to show the enormous quantities of morphine which were obtained and taken on old prescriptions without the knowledge of any medical man. As to the use of morphine after abdominal operations, the author agreed with Greig Smith and other surgeons, who condemned its routine employment. The responsibility involved in the administration of morphine to women subcutaneously was considerable. No patient should be permitted to inject herself; rarely should friends or relatives be allowed to do so; only small quantities should be ordered at a time; its effects should be carefully watched and some provision be made to prevent the dispensing of large quantities of morphine solutions not bearing the recently-appended signature of a physician. The morphine syringe should be sterilised before use.

Dr. Dudley Buxton had seen much of the bad effects of indiscriminate prescribing of morphine in gynæcology. He went further than the lecturer, and thought no chemist should dispense any poison a second time from one prescription unless initialled by the prescriber; nor should a medical man delegate to any other hands the hypodermic administration of such a potent drug.

Dr. Chapman Grigg said that in many cases large doses of morphine did not relieve pain better than small ones. By combining a 10 per cent. morphine solution with a 3 per cent. solution of chloral, the analgesic effects could be obtained with very small doses, such as $\frac{2}{3}$ gr. of morphine per diem.

Dr. Walker Smythe deprecated the use of opium for the after-pains of labour. He considered that it increased the risk of hæmorrhage.

Dr. Bennett and Mr. Jessett having spoken, the discussion was adjourned to the following meeting.

Leakage of an Ovarian Cyst in a Girl aged 13.

Dr. Walter (Manchester) gave particulars of an abdominal enlargement in a girl aged 13, which had been noticed for six months. The girl had rapidly lost flesh. The physical signs were those of ascites, and in the region of the umbilicus some hard nodular masses could be distinctly felt. There was no history of any sudden pain or change in the contour of the swelling. The diagnosis arrived at by all who had seen the patient was either tuberculous peritonitis or malignant disease of the abdomen with ascites. An exploratory incision proved that the fluid in the peritoneal cavity was entirely ovarian, and the masses referred to consisted of a multilocular cystoma of the left ovary. On its upper surface a round aperture $\frac{1}{2}$ inch in diameter was found, and through this opening fluid similar to that in the abdomen was seen to escape. The cystoma weighed 4 lbs. 4 oz., and the fluid weighed 9 lbs. 6 oz. The girl made a rapid recovery.

The President failed to see how Dr. Walter could have arrived at any other conclusion than the one he did on the facts before him.

Dr. Bantock said it was not quite correct to speak of a case of this kind as "rupture," though this might occur, as after a fall. Multilocular ovarian tumours were very prone to a colloid degeneration, owing to which a small hole often occurred in the wall, and gradually extended. If the hole occurred in a septum the loculi were thrown into one, till in extreme cases all that was left of the septa was a series of bands of connective tissue like trabeculæ. Some years ago he had pointed out that ovarian cysts were hardly ever unilocular at first.

Dr. Macnaughton Jones believed that a true rupture, apart from degeneration, could occur spontaneously; he had seen two cases, in one of which the patient recovered, while the other was fatal. He could not agree with Dr. Bantock that these cysts were never originally unilocular.

Mr. Jessett gave an account of an unusual case in which a cyst ruptured, and the abdominal cavity was found full of small free cysts. The case proved fatal.

Dr. Napier spoke; and Dr. Walter replied.

LARYNGOLOGICAL SOCIETY OF LONDON.

Felix Semon, M.D., F.R.C.P., President, in the Chair.

Wednesday, March 13th, 1895.

The Diagnosis and Treatment of Empyema of the Antrum of Highmore.

After the President, in the name of the Society, had offered a cordial welcome to the members of the Odontological Society present, Dr. A. Bronner introduced the discussion. He said it was necessary to distinguish between the mild and the severe cases. The former were mostly due to nasal disease, and could be cured by treatment through the middle or inferior meatus. If syringing out with a boric acid solution did not affect a cure, the insufflation of powder was to be recommended. At first boric acid and iodoform, then the iodoform should be discontinued and aristol used, iodoform often causing abnormal growth of granulation tissue. If a diseased tooth were found this should be removed and the antrum opened through the alveolus. The patient could syringe or blow in powder through a small Eustachian catheter. In cases where a polypus or much granulation tissue existed the canine fossa should be opened, the finger introduced, and if necessary the antrum scraped with a sharp spoon; big openings he did not recommend. It was not always necessary to introduce through and keep in a tube in the alveolar process when opened. Forty per cent. of his cases were cures, and the length of time taken for treatment was under five or six months.

Dr. Greville Macdonald maintained that it was the custom to trust for diagnosis too implicitly in the replacement of pus in the middle meatus on bending forwards the head. Frontal sinus suppuration, with or without antral disease, produced the same phenomena. As far as treatment was concerned—and his remarks did not refer to cases with co-existing nose disease—he recommended the alveolar method in recent cases, that is of not more than six months' duration. In longer standing ones he had found it necessary to make an opening large enough for the insertion of the finger, and after scraping away granulations, etc., he had always secured a cure; but when speaking of a cure, he did not mean more than the cessation of suppuration, believing that a chronic catarrh frequently remained in spite of all endeavours, and such catarrh often made it desirable that some form of drainage should be permanently secured. The whole point in the treatment was free drainage.

Mr. Cresswell Baber, in a letter, stated that transillumination was a valuable diagnostic aid, and attached especial importance to the illumination of the outer half of the infra-orbital region. Certainty of diagnosis could only be arrived at by flushing out the antrum through the socket of a tooth or opening through the inferior nasal meatus, after the method of Moritz Schmidt. With regard to treatment he always first tried the alveolar method, allowing the patient to syringe out himself with an antiseptic solution through a catheter attached to a Higginson's syringe, and only when this failed to resort to a larger opening in the same position or in the canine fossa, for the purpose of exploring and, if necessary, scraping and packing the cavity.

Dr. Hill, before stating his own opinion, read a letter from Mr. E. Lane, who had been associated with him in the treatment of several cases. Mr. Lane, bearing in mind that in 6 out of 7 cases the walls were found covered with either granulations or polypi in addition to caseous *debris*, had come to the conclusion that the most rational method was to open the antrum through the canine fossa and thoroughly scrape out with a sharp spoon. It was essential that the cavity should be thoroughly inspected and digitally explored. Dr. Hill, in endorsing Mr. Lane's remarks, explained that the alveolar method had been first carried out for many months in the cases mentioned, and in 1 for two years without result. In severe cases he recommended the thorough exploration of the antrum through a large opening in the canine fossa and an additional opening in the nose was useful. He had never seen any deformity result, and so far from having to complain of the hole in the canine fossa remaining patent the difficulty, in his experience, had been to prevent the opening healing too soon.

Mr. Walsham considered that the only absolute diagnostic sign was the detection of pus in exploration. Transillumina-

tion was a valuable aid. In some cases there was merely a shadow below the eyelid on the affected side. In two or three cases the only symptom was intermittent fœtor, and in one case this was only evident to the patient himself. Marked dulness on percussion on the affected side was sometimes met with. He explored through either the inferior nasal meatus, an empty alveolus, or the canine fossa. The advantage of the first method was that it could be done under cocaine. He, however, preferred one of the other two situations, employing gas. He only punctured through the alveolus when a tooth was absent or carious. He would not remove a sound tooth. He generally effected a cure by merely washing out and leaving the small spiral tube *in situ* during the intervals. In exceptional cases he made a large opening in the canine fossa, introduced his finger, and scraped out. He had removed granulation-like matter, never true polypi. Had met with two cases where the large opening never closed.

Dr. Dundas Grant agreed with Dr. Macdonald that mucopus in the meatus was not absolutely diagnostic of antral empyema. Transillumination was of the greatest value. He relied chiefly on exploratory puncture and irrigation through the inferior meatus. He considered diagnosis of the cause important. His cases had, as a rule, been treated by the alveolar method, but some through the canine fossa. Those cases which had a tube fitted by a dentist, and in which peroxide of hydrogen was used, did best. He thought the alveolar puncture was too exclusively employed. The great facility with which the patient could practice irrigation was in favour of the operation. In some cases, however, where after long-continued alveolar irrigation they remained stationary, rapid advance took place after puncture through the inferior meatus, and still more when the alveolar opening closed. Two cases in which the latter method had been employed had been cured in a few weeks. He recommended it where there was no evidence of dental origin, where the irrigation could be carried out by skilled hands, or where the alveolar method had been employed and the case was stationary before resorting to more extensive operations.

Dr. Scanes Spicer said transillumination was decidedly valuable. He had not had any success in treatment by the alveolar method. Gold tubes sooner or later caused irritation and pain, with perpetual suppuration. He had employed lately the method of opening through the canine fossa, curetting and superadding a large opening through the inferior nasal meatus, so that the patient could keep the antrum clear by blowing air from the nose through the antrum, and washing out thoroughly. The objections raised against the operation were its severity, the deformity which it caused, and the fact that smokers could not draw their pipes properly. As to its severity, the temperature seldom rose, and patients need not be confined to their rooms more than a few days. He recommended this treatment now in all cases, and would only modify it in cases where the teeth were diseased without nasal trouble.

Dr. Ball considered that simple means should be employed at first by using the alveolar method where possible, or the canine. He had followed this plan in 16 cases. Of these, 6 got well after a varying number of months, and had remained well. Of the remaining 10, 3 were abroad, and 1 lost sight of; 3 declined further interference. In 3 cases he had enlarged the alveolar opening sufficiently to pack the cavity with iodoform gauze. He had kept it packed for a week or two, changing the gauze daily until the opening contracted. After this irrigation two of these cases got well, the third was in no way benefited. He therefore quite agreed that there would always be a residuum of cases that would require more radical treatment.

Mr. Walter Spencer mentioned three cases that differed widely from those already discussed, since the pus was formed in connection with acute necrosis of the jaw. In one he removed the alveolar process of the superior maxilla. Another had previously been treated by an incision through the cheek, and endeavours had been made to remove portions of the bone. When first seen by Mr. Spencer a most ugly puckering had been produced without any relief. A wide alveolar opening was then made, and the case soon got well. A third case seen *post mortem* had died of septicæmia from acute necrosis of the maxilla, and pus was found in the antrum and in the spheno-maxillary fossa. All these cases were considered to be of syphilitic origin.

The President thought heroic measures ought to b adopted only after failure of milder means. In conjunctio with Mr. England he had treated between 20 and 25 case during the last few years, and in an overwhelming majority the alveolar method, with subsequent insertion of a gold tube, had been used, washing out through the tube with a Heath's apparatus. He laid stress upon giving minute directions for the use of the patient. His rules were the following: After the operation and insertion of the tube the patient was to sit before a mirror and inject a weak astringent solution; he was thus able to see the fluid come out through the nose. As soon as it returned clear he was to stop injecting. This was done twice daily at first, then daily, and so on until finally a week's interval was reached. If a fortnight passed without pus it was time to remove the tube. In this manner he had succeeded in curing the great majority of the cases. If from presence of necrosed bone or polypi this method failed, more energetic measures were required; but he regretted that in the few cases that he had resorted to a big opening through the canine fossa, with scraping out, etc., the results had not been satisfactory.

Mr. England showed the tube he usually made for these cases fitted to a cast of the mouth. It was a straight gold tube, with a collar that fitted to the teeth on either side; there was a small split plug in the tube so that the patient could keep the aperture closed if necessary.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

W. Thornley Stoker, P.R.C.S.I., President, in the Chair.

Friday, March 15th, 1895.

Varicocele, Nævus, and Varicose Veins of the Leg.

Dr. Charles Ball read a paper on the arrest of bleeding by sutures, with special reference to the operations for varicocele, nævus, and varicose veins of the leg. In varicocele the mass of spermatic veins were separated from the vas deferens. Clamp forceps were applied above and below and the entire mass excised *en bloc*. The cut surfaces were now brought together by a very fine continuous suture passed all round the cut extremities and the ends firmly knotted together; the forceps were then removed, and if any bleeding took place additional sutures were put in. No ligatures were used; reliance must be placed altogether on the sutures to stop bleeding, as in the operation for hare lip; by this method the spermatic circulation was occluded altogether, the vitality of the testes being provided for by the deferential arteries and veins. Union between cut extremities of the veins effectually braced up the testicle. In a period of five years this operation had been performed nine times with complete cure by primary union, no case of recurrence being met with. In nævus a number of needles were passed under the growth, each of which was threaded with boiled silk. An elastic ligature passed round under the needles temporarily arrested bleeding; the nævus was excised down to the needles; the elastic ligature was now removed, the needles pulled through, and the silk sutures firmly knotted. In this case also bleeding was controlled by the sutures if sufficient were put in and union took place rapidly. In varicose veins of the leg an incision was made over the portion to be removed, two pair of catch forceps applied to the vein, which was divided between them and dissected up to each angle of the incision. Boiled silk sutures were next passed under the entire length of the wound, the ones at each angle closed completely controlling the vein, which was cut away close to the sutures; a fine continuous suture was applied to the margin of the wound, and the remaining deep sutures closed. Here again no ligatures of any kind were applied to the veins.

The President said with regard to the question of the avoidance of ligatures, he agreed with Mr. Ball. He did not approve of the removal of large portions of veins. He would prefer several operations over a limited area. He had done hundreds of operations for the cure of varicose veins, and both he and his colleagues had given up large operations on veins. In operating for varicocele his own practice was to excise from half to one inch of the pampiniform plexus, pass

a sterilised catgut ligature round the stump, and ligature the cut ends. He only tied the ligature round the stump tight enough to stop hæmorrhage. The part did not then necrose, and no slough was left. One great difficulty was the exact ligaturing of the skin of the scrotum, owing to the inversion of the skin produced by the dartos muscle. He had learned a plan from the late Mr. Stapleton, of Jervis Street Hospital. It was called a *post-mortem* suture, and was passed from the deep surface to the skin. This produced eversion.

The paper was further discussed by Mr. Bennett, Dr. S. M. Thompson, Mr. Kendal Franks, Mr. W. Thomson, and Mr. Taylor; and Mr. Ball replied.

New Operation for the Cure of Rotation Inwards of the Entire Limb.

Mr. Swan read a paper on a new operation for the cure of rotation inwards of the entire limb, after aggravated equinovarus, with an attempt to explain the anatomy and etiology of the distortion. He showed that the factors of foot inversion commenced below the knee. The tibia was in its normal position, but the lower extremity of the fibula was deflected forwards, and was considerably in front of the position which it should normally occupy. This anterior position of the fibula was normally found in the quadrumana. He proposed to remedy this condition by a careful transverse division of the tibia alone at the junction of its middle and lower thirds. The fibula must be left intact. The lower fragment was rotated outwards, and the foot thus brought into a straight position. He had adopted this method in many cases with perfect satisfaction.

LIVERPOOL MEDICAL INSTITUTION.

Chauncy Puzey, F.R.C.S., President, in the Chair.

Thursday, March 28th, 1895.

Gastrostomy for Perforating Ulcer of Stomach.

Mr. Paul described the case of a lady, aged 31, who had suffered from gastric ulcer for years. On the night of December 12th, 1894, perforation occurred. Nine hours later he opened the abdomen and found that an old ulcer in an almost inaccessible position had given way. It was imperfectly closed with sutures, and, in order to avoid further leakage, a glass tube was ligatured into the front wall of the stomach. The peritoneal cavity was well washed out but not drained. The patient rallied well. For the first week rectal feeding was mainly relied on, but plenty of warm water by the mouth was allowed; subsequently food was given, almost entirely by the mouth. The gastrostomy tube was retained until December 27th, and during all this time no leakage took place around it. A fortnight after its removal the fistula closed. Before the operation the patient was chlorotic with loud hæmic *bruits;* since, she had entirely recovered from dyspepsia, had a good colour, and had gained 23 lbs. in weight.

Removal of Loose Cartilages from the Knee-joint.

Mr. Banks related these cases. In the first he opened the knee-joint widely by dividing the internal lateral ligament; in the second he discovered the loose cartilage in the intercondyloid notch without having occasion to divide the internal lateral ligament.

Neuritis from Poisoning by Carbon Monoxide.

Dr. Glynn related the case of a boy, aged 16, who, when admitted into the Royal Infirmary on March 6th, was quite unable to walk, and had been confined to his bed for five months. He was an engine cleaner, and worked in a shed where twelve engines were cleaned every night. In this shed there was a furnace, and he had to carry red hot coals to start the engine fires. The engines took four hours to get up steam, and he often found the fumes from the fires very irritating. Five months ago he had pains in the calves; a month later he had dyspnœa on exertion and swelling of the legs. His urine became albuminous, and he lost all power in his lower extremities. On admission there was weakness of the muscles of the legs, and especially the extensors of the feet. There was tenderness of the muscles and loss of faradic irritability; there was some loss of sensation and paræsthesia; knee and plantar reflexes absent; marked spasm of gastrocnemii. When admitted there was no dyspnœa or anæmia; the amount of hæmoglobin and the number of red cells were normal. In the hospital he rapidly improved under iodide of potassium and hot fomentations to the legs. He could now walk fairly well, though the extensors were still weak and the knee-jerks absent.

The Mental Aspect of some Traumatic Neuroses.

Mr. Herbert Page (London) read a paper on this subject. Having defined a traumatic neurosis as a disorder of the nervous system following injury, functional or dynamic in character, and independent of gross structural or as yet known lesion in the nervous centres, he pointed out that the evolution and elaborated structure of the nervous system in man seemed to predispose it to instability of equilibrium. The close relationship of distant parts of the body through the nervous system made it unavoidable that prolonged physical pain should cause mental anxiety and derangement of the general health. He showed how trifling physical injury to the peripheral nerves might lead in time to considerable mental disturbance, while psychical shock, acting on the cerebral cortex, might bring about serious impairment of health by causing functional derangement of the organic processes of life; as instances of the former effects, he cited cases of injury to extraspinal structures. Railway collisions and kindred accidents, accompanied by great terror, provided examples of the neuroses beginning in cerebral disturbance. It was a mistake to look on the symptoms in these cases as either imaginary or feigned, nor could treatment be successful if this were the view entertained of them. The close relationship of mind and body must not be forgotten, and due regard to the psychical element in all these nervous disturbances was essential for success in treatment. It was all-important, moreover, that diagnosis should be prompt, so that the patient might be saved from lines of treatment likely to perpetuate his ailments by reason of continued apprehension and introspection. The various determining factors in the traumatic neurosis were specially alluded to, and it was shown how suggestion might play a part in originating new phenomena and prolonging those which had arisen directly from the accident.

Drs. and Messrs. Puzey, Banks, A. Wiglesworth, Barr, Carter, Sheldon, Paul, and Davidson took part in the discussion.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Professor Sheridan Delépine, M.B., in the Chair.

Wednesday, March 13th, 1895.

Tuberculous Salpingitis and Peritonitis.

Dr. Percy Ashworth showed specimens from a woman aged 57, whose family history was good, but who had married a tuberculous husband, by whom she had five children, the first two healthy, and the others tuberculous. When seen seven months before death the patient was greatly emaciated, and the abdomen was filled with fluid. After tapping, a hard mass was found in the pelvis. She was tapped twenty-one times in all; at the thirteenth tapping a hard nodule was discovered in the abdominal wall at the seat of puncture. *Post mortem* this nodule was found to be a piece of tuberculous omentum adherent to the abdominal wall; the intestines were studded with tubercle, and the pelvis contained a large mass, from the midst of which the two thickened and dilated Fallopian tubes filled with thin pus could be isolated. There was no doubt that in this case the tuberculous mischief commenced in the Fallopian tubes, and the interesting point was, whether the infection had thus been communicated by the tuberculous husband.

Epithelioma of the Œsophagus with Perforation into the Trachea.

Dr. Leech and Dr. Grosvenor reported the case of a patient, aged 55, who commenced three years ago with symptoms of discomfort in the throat, and an alteration of the voice. Two years ago he had occasional attacks of choking and difficulty of swallowing, which increased for six months, when it was suddenly relieved. A month afterwards the patient was seized with violent paroxysms of coughing, and he could not swallow even a drop of water,

death occurring in six days. *Post mortem*, an epithelioma was found in the middle of the œsophagus, encircling the tube, and two inches in length; there was a large perforation into the trachea.—Dr. LEECH and Dr. WILD mentioned a case of ulceration of the œsophagus perforating the aorta and right lung during the course of typhoid fever.

PARALYSIS OF THE DIAPHRAGM WITH NEURITIS OF THE PHRENIC NERVES IN ALCOHOLIC PARALYSIS.

Dr. WILLIAMSON showed a microscopic specimen of the phrenic nerve, which presented well marked parenchymatous neuritis. The specimen was taken from a case of alcoholic paralysis, which was under the care of Dr. Steell. During life there had been the usual signs of alcoholic neuritis, and finally paralysis of the diaphragm. The anterior tibial nerves also showed marked parenchymatous neuritis. The spinal cord, macroscopically and microscopically was normal in the cervical, dorsal, lumbar regions.

MISCELLANEOUS.

Dr. ROBINSON showed a Congenital Malformation in the heart of a sheep, and card specimens were shown by Dr. KELYNACK, Dr. MILLIGAN, and Mr. WOLSTENHOLME.

HUNTERIAN SOCIETY.—At a meeting on March 27th, 1895, Mr. CHARTERS J. SYMONDS, President, in the chair, Dr. FORTESCUE FOX read a paper on the Varieties of Rheumatoid Arthritis. Cases naturally divided themselves into three groups: (1) those occurring during childhood and young life; (2) those at or about the climacteric in women; (3) those occurring in elderly people, say over 60. He gave particulars of one or two typical cases in each class. He considered briefly the pathology of the disease, noting especially its constitutional and nervous origin, while considering the relation which anæmia, tubercle, shock, etc., bore to it. Prognosis was better in the cases advanced in life than in those occurring in youth. Treatment was largely concerned with warm baths, massage, etc., while arsenic and iron were the most reliable drugs.—Dr. FRED J. SMITH thought that Dr. Fox's paper threw much light on the numerous arthritic cases occurring amongst hospital out-patients which would not range themselves under the heading of gout or rheumatism as type cases. Treatment from an out-patient view was very disappointing.—Sir HUGH BEEVOR asked for further information on the morbid anatomy, hinting at the possibility of changes being found in the spinal cord as marked as those found in other acknowledged cord diseases.—Dr. LOUIS BLANC (Aix-les-Bains) remarked on the relative frequency of the disease in England compared with France, and thought one factor might be the imperfect drying and exercise after the morning tub.—Dr. ARCHIBALD GARROD regretted the absence of knowledge of the anatomical condition of the affected joints in young people. He did not agree that the prognosis was worse in youth. To the syrup of the iodide of iron he was inclined to give the first place amongst drugs, arsenic being the next most useful, but he agreed with Dr. Smith that treatment in out-patients was disappointing because many months rather than a few weeks were required.—Dr. GLOVER drew special attention to anæmia as a contributory factor and thought that measures conducive to the improvement of the blood were the best to be employed. He agreed with Dr. Garrod and others that a full diet stimulating in character was an essential feature.—Dr. FOX replied.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.—At a meeting on March 14th, Dr. J. G. GLOVER in the chair, Dr. ARCHIBALD CHRISTIE read a paper on the Selection of Cardiac Tonics. The importance of bearing in mind the different factors occurring in any individual case of heart disease, namely, the blackening of the myocardium, the disorders of the cardiac innervation, the condition of the arteries, was strongly emphasised as being essential in choosing the tonic best adopted to the case. The action of digitalis was then illustrated by means of numerous sphygmographic tracings taken during the course of treatment. The disadvantages of the drug was insisted on, especially in cases where, for various reasons, it was inadvisable to cause a rise of blood pressure. Digitalis was the worst cardiac tonic to employ. Strophanthus for general use was the most useful cardiac tonic. Illustrations were given of its use, and the rapidity of its action was brought prominently into notice. Twenty minims of the tincture of strophanthus by mouth produced a distinct effect on the pulse tracing of healthy individuals in fifteen minutes. The actions of convallaria, caffeine, and strychnine were also described and compared. This paper was illustrated throughout by lantern slides of sphygmograms obtained from patients during the course of treatment.—Mr. CHARLES KING described the case of a lady, aged 50, who had for twenty years or more suffered from general psoriasis in a most aggravated form. After the use of all the usual remedies, in November last she was treated with thyroid extract. At first there was considerable constitutional reaction, but in a short time the psoriasis disappeared, and now the patient was practically well. Mr. King remarked on the value of the use of thyroid extract in chronic scaly skin diseases.—Dr. BURNET and Mr. MACREADY showed the specimen and drawings, and read an account of a case of Aneurysm of the Thoracic Aorta in a woman, aged 31. She came under observation on account of difficulty in swallowing. Gastrostomy had to be performed on account of the increasing dysphagia, but she died exhausted two days later. After death an aneurysm of the aorta was found in the posterior mediastinum. The œsophagus was compressed between the heart and the aneurysm, and a narrow vertical opening communicated between the heart and the aneurysm, which was blocked by firm coagula in the recent state. The œsophagus at the point of greatest pressure was in a sloughing condition, and was in communication also with an abscess cavity. The authors remarked on the comparative rarity of aneurysm of the thoracic aorta below the arch, and especially in females. In 167 cases of aneurysm of the thoracic aorta collected by Crisp this combination did not occur once, in 24 cases of aneurysm of the descending portion collected by the authors it occurred only twice in females. In this case there was good reason to suspect syphilis as having to do with the causation of the aneurysm.

HARVEIAN SOCIETY OF LONDON.—At a meeting on March 21st, Sir JOHN WILLIAMS, Bart., President, in the chair, Dr. LEONARD GUTHRIE showed two cases of Scaphocephalus, or Boat-shaped Skull, in children, aged respectively 4 years and 10 months. The younger child was very rachitic. The fontanelles of both were said to be closed at birth. Dr. Guthrie believed that the cause of this deformity was synostosis of the sagittal suture. Dr. SHUTTLEWORTH related similar instances and showed drawings. Mr. GORDON BRODIE referred to a case of his in which there was also exophthalmos.—Mr. EDMUND OWEN showed a boy convalescent from Pyæmia after Osteomyelitis. He commented on the frequency of pyæmia as a sequela of septic osteomyelitis in children and the readiness with which they recovered from it.—Dr. WILLIAM HILL showed a case of Disease of the Accessory Sinuses of the Nose, which he referred to dental irritation. Dr. C. W. CHAPMAN suggested that the cause was rather to be found in direct extension of inflammation from the nose. Dr. PEGLER believed that the mischief had extended from the posterior ethmoidal cells, and advised an exploration of the maxillary antrum by way of the inferior meatus. Mr. MAYO COLLIER also commented on the case.—Dr. SUTHERLAND showed a case of Pulmonary Fibrosis in a youth with Phthisis. Dr. C. W. CHAPMAN remarked on the chronic nature of these cases of fibroid lung, and mentioned a case where the heart was drawn over nearly to the right axilla without serious impairment of health.—Mr. MAYO COLLIER showed two cases of Hallux Rigidus with Flat Foot, and called attention to the spasm of the short flexors in this condition. He also described the changes in the articular surfaces. Dr. GUTHRIE inquired as to the cause of spasm of the short flexors. He thought that partial subluxation of the joint might be the initial condition. Such subluxation of other metatarso-phalangeal joints accounted for the condition of anterior metatarsalgia described by Pollosson of Lyons, and a similar condition of the smaller toe-joints was known to cause much suffering.

PRESTON MEDICO-ETHICAL SOCIETY.—At the March meeting of the Clinical Branch of this Society, Dr. TURNBULL-SMITH, President, in the chair, Dr. GARNER read notes of a case of

Cholecystotomy, and showed thirty-six gall stones which he had removed. There were also numerous other small stones removed which he had not collected. Before opening the gall bladder 7 ounces of bile were aspirated. The patient was progressing favourably. Dr. Garner also showed a Modification of Barnes's Bag, which he had had made to prevent the bag from slipping into the uterus during its inflation.—Dr. Collinson exhibited a case of Amyotrophic Lateral Sclerosis. A bricklayer's hod carrier, aged 31, with an alcoholic history and a history of Hunterian chancre, but no secondary symptoms, had been exposed to cold and wet. The symptoms were first noticed two years ago after a heavy drinking bout. Treatment: Antisyphilitics and, latterly, daily hypodermic injections of from $\frac{1}{120}$ to $\frac{1}{75}$ of a grain of nitrate of strychnine, until symptoms of excess appeared. The disease was steadily advancing; there was great atrophy and fibrillation of the upper limbs. There was slight affection of the speech and jaw reflex, and a spastic state of the lower limbs, with commencing atrophy. Dr. Collinson discussed the recent anatomy and physiology of the cord bearing upon dystrophies and descending degenerations, illustrating his remarks with numerous diagrams and microscopic specimens. In the discussion which followed the President, Drs. Raynor, Garner, Fraser, Pimley, and Sellers took part.

Sheffield Medico-Chirurgical Society.—At a meeting on March 14th, 1895, Mr. Makeig Jones, President, in the Chair, Dr. Ernest Knight related a fatal case of Jaundice in a boy 6 years of age. A month after recovering from a slight attack of jaundice he came under observation again with intense icterus and a much enlarged liver. Toxic symptoms set in a month later, and in two or three days after this the liver began to diminish in size. The patient died four weeks after the onset of the second attack of jaundice. At the *post-mortem* examination, which was limited to the abdomen, a mass of tuberculous glands was found in the portal fissure compressing the hepatic duct. There was no sign of tuberculosis elsewhere.—Mr. Makeig Jones showed a man, aged 47, the subject of Mixed Melanodermia and Leucodermia. After an obscure illness three years ago he noticed that his face, trunk, and arms became brown, and then white spots appeared which gradually enlarged into big patches. Except for the discoloration the skin appeared normal. The hairs on the white patches in the axillæ were also white.—Dr. Alfred Robinson showed a man with Progressive Muscular Atrophy.—Dr. Burgess showed a specimen of Malignant Stricture of the Cardiac End of the Œsophagus. Vomiting sometimes as long as an hour after taking food was complained of, but throughout the illness the patient was never aware of any difficulty in swallowing.—Dr. Hunt related a case of Exophthalmic Goitre with marked bronzing of the skin. Reference was made to a similar case recorded by Garrington in the *Trans. of the Ophth. Soc.* for 1886.—Mr. Richard Favell reported a case of Puerperal Eclampsia, and made remarks on the treatment of this affection.—The President, Dr. Keeling, Dr. Martin, Mr. Dale James, Dr. Arthur Hall, and Dr. Burgess took part in the discussions.

Clinical Society of Manchester.—At a meeting on March 19th, 1895, Dr. Buckley (President), in the chair, Mr. Bain mentioned a case of Sudden Death from Spinal Hæmorrhage.—Mr. Stanmore Bishop read a short paper on Retroposition of the Uterus: its cause, symptoms, means of prevention, and the various operations proposed for its treatment. He drew special attention to Mackenrodt's operation of vagino fixation.—Mr Southam showed two women, aged 27 and 42 years, upon whom cholecystotomy had been performed for the removal of Gall Stones. In one case, distension of the gall bladder was present, owing to impaction of a calculus in the cystic duct. In the other calculi were removed from the common and cystic ducts, as well as from the gall bladder, which was extremely contracted, and hidden in a mass of adhesions.—Mr. William Armstrong (Buxton) read a paper on the Value of Massage, Wet and Dry, in the Treatment of Latent, Irregular, and Chronic Gout. He mentioned the various forms in which irregular gout showed itself, went over the causes of gout, showed how the morbid material causing it lodges especially in the muscular and lymphatic systems, and laid down the indications for treatment as follows: (1) To promote elimination of waste; and (2) to prevent accumulation of waste. He then pointed out how these indications were fulfilled by massage, especially by deep *pétrissage*, and showed how each particular movement in massage influenced the general state of the body. He described wet massage, both in the form of the Aix system, and also in the reclining form as used at Buxton, and mentioned a number of cases, including, amongst others, gouty angina, sciatica, migraine, eye and throat affections, which had been greatly benefited by this treatment.

REVIEWS.

Professor Koch on Cholera. Translated by George Duncan, M.A., with a Prefatory Note by W. T. Gairdner, M.D., LL.D., F.R.S. Edinburgh: D. Douglas. 1894. (Demy 8vo. pp. 158. 6s.)

This translation of Professor Koch's essays on cholera was originally published in the *Scotsman*. As now issued in permanent form, it deals with three topics: (1) the present state of the bacteriological diagnosis of cholera. (2) water filtration and cholera, (3) the cholera in Germany during the winter of 1892-93.

The first is the most important, for on it the deductions in the second and third depend, but the last is the most interesting as throwing important light on the etiology and mode of distribution of the disease.

Cholera may be looked upon from two quite distinct points of view. We may take the bacillus as everything, saying that where the bacillus is there is cholera, and where it does not exist there cholera is not; or, while equally saying that cholera cannot occur without the microbe, we may admit that this can exist in the intestines without producing cholera at all. The latter view is the one taken by Koch, and the great interest in his description of the winter epidemics lies in the proof he gives of the presence of cholera bacilli in persons, and in the stools of persons not affected by cholera, and in the inference therefrom that in an epidemic there are, round about the actual sufferers from cholera, a large number who, although apparently free from the disease, are capable of transporting it to fresh places.

The extreme importance both as regards etiology and public health of the suggestion that cholera infected persons may be going about carrying the infection, and yet not having the disease, is apparent. The "march" of cholera, its spread into new districts, and its complete disappearance for years, are points which have always been recognised; and, although an admission of the widespread diffusion of the infection makes it far easier to account for apparently isolated cases, it makes it all the more necessary to show some further cause to account for their epidemic prevalence.

As in the case of tubercle it would seem that the cause of the disease is the growth of the bacillus, but the cause of the bacillus being able to grow is something else, and that is what we have to find out. In a rough sort of way we know that it is dirt and dirty living, and there is much reason to believe that the real bar to cholera is the general attention to cleanliness and other sanitary principles, which is brought about through the dread of it.

An Introduction to Comparative Psychology. By C. Lloyd Morgan, Principal of University College, Bristol. London: Walter Scott. 1894. (Cr. 8vo, pp. 396. 6s.)

Mr. Morgan proclaims himself a monist like "nearly every philosopher." He starts on the assumption of the correctness of the Darwinian theory of evolution and the survival of the fittest, and adopts the doctrine of spontaneous generation. Those who wish to use his phrases and definitions, examine his diagrams, and follow his trains of thought, must take this for granted. Of late years psychologists have been eager to gain new facts by observations and experiments on animals and children. From the latter has been obtained a series of

dates when the child begins to notice sights or sounds, to weep or to spit, but these dates are not, of course, the same in all children. The studies of the psychology of animals are of much more importance. Mr. Morgan observes that we should be wary in our interpretation of any mental manifestation in the invertebrates, seeing that their sensory organs and central nerve ganglia are so different. His own observations upon the first actions of chickens and ducklings have been conducted in a philosophic and critical spirit. He lays it down as a basal maxim: "In no case may we interpret an action as the outcome of the exercise of a higher psychical faculty, if it can be interpreted as the outcome of the exercise of one which stands lower in the psychological scale." It is true that naturalists have occasionally made too free a use of their imaginations in some of their anecdotes illustrating the intelligence of animals. On the other hand, as the higher mental manifestations in brutes are all of a feeble character, if the author's definition be rigidly insisted upon, then a very wide gulf will be kept between the animal and the human intelligence.

Mr. Morgan holds that these automatic actions, which are invariable, are instinctive, whereas when they are improved this shows consciousness and adaptive intelligence. Below this we may have consciousness as an "epiphenomenon." He does not say how this epiphenomenon is made evident to those who subscribe to his basal maxim. Coming to the question, Is mental development in all its phases entirely, or even mainly, dependent on natural selection through elimination? Mr. Morgan answers "No;" but explains that "the development of definite and self-consistent artistic, ethical, and other ideals is due to selective synthesis, under the conditioning restraints of a psychical environment, we have herein all that can reasonably be required by anyone who is content to adopt an interpretation of Nature, including psychical nature, based on the principles of evolution."

What selective synthesis is the reader must go to the author's own pages to learn. When one forgets the words, he forgets all. Though styled an introduction, the book fairly covers the whole subject. In every page do we feel the workings of a vigorous and highly-cultivated intelligence. The book is not only instructive, but stimulating to thought.

How to Live in Tropical Africa. By J. Murray, M.D. London and Liverpool: George Philip and Son. 1895. (Cr. 8vo, pp. 264. 5s.)

This little work, the fruit of considerable personal experience, contains many useful hints on tropical hygiene, and also on the management of tropical disease—particularly malarial disease. It cannot fail to be of service to the traveller and the resident in Africa. We regret to note a considerable number of inaccuracies—misprints they may possibly be, but none the less misleading—which it would be well to correct in any future edition. For example, at page 137, where it is said that 15 to 30 drops of the formula given for hypodermic injection of quinine contains 4 to 8 grains of the drug instead of ½ to 1 grain. In this connection we see no mention of the acid hydrochlorate—the strongest and most suitable of the salts of quinine for this purpose.

The British Guiana Medical Annual and Hospital Reports. Edited by J. S. Wallbridge and E. D. Rowland. Georgetown, Demerara: Baldwin and Co. 1894. (Demy 8vo, pp. 200. 5s.)

The present issue of these Reports quite maintains the high character of its predecessors, and is an admirable testimony to the harmony and enthusiasm of the band of professional brethren who, in defiance of isolation and many climatic and other drawbacks, are vigorously endeavouring to acquire and spread knowledge of tropical disease in a remote colony. We remark with satisfaction that the fevers of the country are being studied by Dr. Ozzard from the standpoint of Laveran's parasite, and we trust this important study once begun will be pursued to some definite issue. Of the several papers there are two on leprosy by Dr. Neal which well repay perusal. Dr. Daniel's notes on the *post-mortem* examinations in the public hospital in Georgetown are of permanent value dealing as they do with large numbers, as well as with a great variety of races. The prevalence of Bright's disease in Demerara—228 in 926 cases—is a very remarkable fact, and suggests further study. There are other papers of merit in these reports well worth the attention of the student of tropical medicine.

We understand that it was to the initiative of Dr. Grieve, whose retirement on account of ill-health we announced some time ago with much regret, that these reports were instituted, and that it was to him that much of the efficiency and scientific activity of the medical service in British Guiana are owing. We trust that the impulse he gave to the study of tropical disease in that colony will suffer no abatement now that he has ceased to take an active part in its affairs.

Atlas und Grundriss der traumatischen Fracturen und Luxationen. [Atlas of Traumatic Fractures and Dislocations.] Von Prof. Helferich. Munich: J. F. Lehmann. 1895. (Cr. 8vo, pp. 126, 166 illustrations, mostly in colours. 8s.)

This is a small handbook of fractures and dislocations, in which the treatment as well as the pathology are illustrated and described. Considering the very moderate price of the work, the illustrations are on the whole to be commended. Amongst the best are those representing dissections of Pott's fracture and outward dislocation of the forearm with fracture of the internal epicondyle; some, however, are very crude, and a few (for instance, those supposed to illustrate the mechanism of Kocher's reduction-method in shoulder dislocation) are quite useless. By an oversight in binding, four of the plates (20 to 23) have wholly wrong descriptions attached to them. Although the reader is led to believe that the illustrations were all drawn from Nature, some of them are obviously incorrect in important details.

Some of the views advocated are open to considerable criticism. Thus, in fractures of the femur in children, vertical weight-extension of the injured limb alone (by means of a gallows arrangement) is praised. This method is cumbrous and difficult to carry out, and in cold weather is open to obvious drawbacks. In treating fractured pelvis with rupture of the urethra Professor Helferich recommends suprapubic cystotomy with catheterisation from behind. For fractures involving the elbow joint removal of the splints and bending of the elbow every four or five days is advised, surely a meddlesome interference with Nature's method of repair. The common subluxation of the radius in young children is spoken of as though its pathology were still in doubt. In the case of backward dislocation of the first phalanges no mention is made of the most important obstacle to reduction formed by the glenoid ligaments. In treating the subject of "greenstick fracture" of long bones the periosteum is neither mentioned nor depicted. Fractures of the skull are dealt with in a most meagre fashion. On the whole the book, although good in some respects, can hardly be recommended as giving a full or correct view of its subject.

NOTES ON BOOKS.

Methods of Operating for Cataract. By Surgeon-Captain G. H. Fink, Indian Medical Service. (London: J. and A. Churchill. 1894. Cr. 8vo, pp. 78. 5s.)—The author describes the method he has employed in the extraction of five hundred cataracts in India. After explaining his method of dealing with the instruments by cleaning and plunging into boiling water, the author proceeds to the operation. The patient is placed upon the table, atropine having previously been instilled into the eye, the lashes are then cut short, the operation is proceeded with in the usual way, iridectomy being performed. Before delivering the lens the anterior chamber is washed out with a solution of perchloride of mercury, the upper lid is then everted in order to widen the palpebral aperture as much as possible. In making the incision if the iris falls over the edge of the knife an incision is

made in the corneo-scleral line with a keratome, the iris is then drawn away from the knife by a hook and the incision is completed. Testing the sight immediately after operation is strongly advocated to allay the anxiety of the patient; if the sight is then found defective the hyaloid membrane is at once divided with a cystotome to avoid the necessity of dealing with the thickened hyaloid by a secondary operation. Where soft cortical matter remains behind the patient is put upon a course of grey powder and iodide of potassium. Coming to results there are 90.6 per cent. of successes, 6.6 per cent. of accidents and complications, and 2.8 per cent. of suppurations. No visual results are given so that it is not possible to estimate the actual degree of success, but the author has not found it necessary to perform a secondary operation in any case.

Mnemotechnik der Receptologie. Von Dr. Med. C. Th. Huetlin. (Wiesbaden: J. F. Bergmann. 1895. Cr. 8vo, pp. 22. M.1.)—In this little work an attempt has been made to overcome the difficulty which the medical student finds in learning and remembering the doses of medicines. The mnemonical method employed is an exceedingly simple one, and although it is in this book only applied to doses less than a gramme, it is capable of being extended to those above that amount. The vowels *a*, *e*, *i*, *o*, *u* are made to represent respectively the figures 1, 2, 3, 4, 5. The mnemonical word contains two vowels, distinguished by being printed in black type; the first vowel stands for cyphers, the second for figures. The word *ascariden*, for example, is given for santonin, the first *a* represents one cypher, the second *a* the figure 1, and since the cypher before the decimal point is counted, the dose of santonin is 0.1 gramme. The word containing the vowels refers generally to the medicinal action or some special property of the medicament. Argenti nitras is Stein der Hölle, the vowels in the word stein ($e = 2$, $i = 3$) giving 0.03 grains as the dose. The author, on the whole, has succeeded in finding very suggestive words and phrases, which no doubt will assist the German medical student in remembering the maximum doses of the most potent drugs.

The Cruelties of Civilisation. Edited by H. S. Salt. (Humanitarian League's Publications. London: William Reeves. Cr. 8vo, pp. 40. 1s.)—The pamphlet consists of a series of essays, setting forth with much vehemence the cruelty of the law, the small relation between punishment and offence, the horrors of penal servitude, the treatment of prisoners awaiting trial, the evils of the imprisonment of children, and the hardship of the legal definition of moral responsibility. The distressful state of women workers, the lowness of their wages, the conditions of their work, the dangerous trades in which they are engaged, are all described, and finally the humanising of the Poor Law is insisted on. For the aged the almshouse or cottage-home system started by the guardians of the West Derby (Liverpool) Union is advocated, and for the children it is shown that the breaking up of the large workhouse schools is necessary for many reasons. In fact the recommendations go further than this, for it is advised that the education of the children should be taken out of the hands of the Poor-law authorities altogether. It is a great pity that the book is published without a date, for it is very difficult to make sure whether one is reading modern or ancient history; the different articles, moreover, are of very different value, but the tendency of the book is good.

Manuel de Percussion et d'Auscultation. Par le Dr. Semon. (Paris: Félix Alcan. 1895. Cr. 8vo, pp. 256. Fr.4.)—This book deals with percussion and auscultation not only as applied to the examination of the chest, but to that of any organ of the body. These subjects, discussed both in their theoretical as well as their clinical aspects, are first treated of in relation to the lungs, then to the heart and great vessels. Abdominal percussion and also obstetrical auscultation are fully dealt with. Under Auscultation of the Digestive Organs, the subject of auscultatory percussion is mentioned. This method of determining the outlines of some of the abdominal organs has recently promised to find a more extended application. The chapter on auscultation of the head contains little of any real practical value. The descriptions given in this book are clear, the order logical, and theoretical considerations are wisely reduced to a minimum; but whether it is altogether expedient to separate percussion and auscultation from other methods of physical examination, thus multiplying books, may be open to some doubt.

Notes on First Aid. By J. F. Sutherland, M.D., (Glasgow and Edinburgh: John Menzies and Co. 1894. 32mo. pp. 16 Two illustrations. 2d.)—These notes contain a large amount of information in a small space, and may prove useful to many who have some knowledge of the subject. We think, however, that pupils should be encouraged to store this sort of knowledge in their brain, as valuable time may be lost whilst the *vade-mecum* is being consulted.

REPORT ON VACCINATION AS A BRANCH OF PREVENTIVE MEDICINE.

By ERNEST HART, D.C.L.,

Chairman of the Parliamentary Bills Committee of the British Medical Association.

(*Concluded from page 711.*)

IV.

Sanitation in Relation to Small-Pox.

It will be useful to glance at some of the main arguments advanced by antivaccinators, in their struggles to explain away this accumulating mass of evidence. Those arguments, being oftentimes very plausible and arrived at by deliberate suppression of important considerations, have, unfortunately for the community, already misled a large number of worthy people who are not ready or perhaps able to make more than a superficial study of the subject, and who do not therefore see how many vital considerations are wilfully withheld from them by their antivaccination teachers. Thus we are seriously asked by Dr. A. R. Wallace and others to regard the fact that the small-pox mortality in this country has fallen enormously since the introduction of vaccination, as merely a "casual coincidence." The improved sanitation of modern times, the change for the better which has taken place in our habits as a nation, the introduction of a much larger supply of fresh vegetables and fruit, the extended "use of tea and coffee," the better drainage and more cleanliness; these and such-like beneficial influences are held up as the real enemies of small-pox. This is one of the trump cards played by the opponents of vaccination, but in playing it the remarkable and indisputable change which has taken place in the age incidence of small-pox is deliberately ignored. We have it on the Registrar-General's authority that whilst the general death-rate in this country has decreased 9 per cent., that of small-pox has fallen as much as 72 per cent. We also have it on the same authority that this decline in the small-pox mortality has been entirely limited to persons under 15 years of age, there being actually an increase at every age above 15 years. But how can such a marvellous change in the age incidence of the disease be, with any consistency, attributed to the improvement in sanitation by which all ages alike are affected? We find no such changed incidence in the case of the "filth diseases," which long have been proved to be amenable to good hygiene. The decrease in the fever mortality, as we should naturally have expected, has been common to all age periods; it has not been restricted to children. Further, if we take those diseases—scarlet fever, measles, whooping-cough—which are favoured by conditions that favour small-pox, we find that, unlike small-pox, the share of the mortality which is borne by children is practically identically the same now as it was half a century ago. In the case of no other disease has there been such a lessened incidence on children at the vaccination age as in the case of small-pox.

Then, again, apart from vaccination, there is no reason why small-pox should be affected to a greater extent by sanitation than, say, measles or whooping-cough. Yet, during the same period that small-pox has declined 72 per cent., measles has only fallen 9 per cent., and whooping-cough little more than 1 per cent.

It is an undisputed truism that all insanitary unwholesome conditions, all circumstances which lower the vitality of the individual, operate for evil and retard the recovery of the sick, and in the case of those infections, such as small-pox and scarlet fever, which are aërially conveyed, overcrowding would specially tend to spread an epidemic. An instance of this is furnished by the report on the recent Walsall epidemic. But, beyond this, it is contrary to the experience of all competent observers throughout the world that small-pox should be affected by sanitary conditions.

Some very direct evidence on this point is to be found in some of the reports on recent outbreaks of small-pox. Thus, Dr. Ainley, the health officer of Halifax, reports that during the epidemic in that town in 1892-93 special record was kept of the sanitary condition of every house in which the disease occurred, with the result that 56.7 per cent. of the houses were in a cleanly condition, 29.4 per cent. were in a fair state, and only 11.1 per cent. were dirty; or, in other words, upwards of half of the invaded houses were clean and sanitary, nearly a third were very fair, and only a ninth were dirty.

Dr. Niven, again, reports that in Oldham, during the epidemic of 1892, the disease mainly occurred amongst the better class of artisans, and singularly spared the worst parts of the town. That was, no doubt, in great measure an accident, for it was not so in the previous epidemic. But what occurred in 1892 shows the fallacy of the contention that small-pox is a "filth disease" in the true sense of that term. At Warrington "there is a great deal of bad property, dating from the period when the place was remarkable for the large population stowed away in a very small area, and was notoriously unhealthy." Yet it was observed, during the small-pox epidemic of 1892-93, that the disease showed no special prevalence in those parts. Further, out of 2,424 persons inhabiting 397 houses invaded by small-pox, 22.4 per cent. were attacked by the disease and 2.3 per cent. died. Of these persons 2,313 were vaccinated and 20.7 per cent. of them were attacked and 1.3 per cent. died; whilst of the remaining 112 unvaccinated, 57.1 per cent. were attacked and 21.4 per cent. died. Of 606 vaccinated children under 10, 2.9 per cent. were attacked and 0.16 per cent. died; whilst of 57 unvaccinated children under 10, 57.8 per cent. were attacked and 22.8 per cent. died. All this is quite inconsistent with the theory that sanitation governs the distribution of the disease. Here it is seen, that of a mixed population of vaccinated and unvaccinated in invaded houses in the same area, exposed to precisely the same sanitary conditions, the incidence of the disease was vastly heavier on the unvaccinated than upon the vaccinated.

Leicester on this point also furnishes evidence. A particular group of 54 houses had their drainage arrangements individually examined with the smoke test. Nine of these 54 houses had been invaded by small-pox, and although 4 of them showed some sanitary defects, 5 of them showed no defects. The remaining 45 were not invaded by small-pox, and yet 9 of these showed sanitary defects.

Objections to Division into "Vaccinated" and "Unvaccinated."

Another antivaccination argument, and one which has no more foundation than that just referred to, is that the separation of the vaccinated from the unvaccinated is not a fair separation; as, to use Dr. Wallace's description to the Royal Commission (Q. 7421), "the unvaccinated would be necessarily to a very large extent of the very lowest class, including the tramps and the criminal classes, and also children who were too delicate to be vaccinated, and children who got small-pox before they were vaccinated." Much the same point was urged by Mr. A. Wheeler, another leader amongst the antivaccinators. Referring to the difference in the mortality amongst the vaccinated and the unvaccinated, he said he "should expect the vaccinated to come off better in cases of small-pox than the unvaccinated." He "should be surprised if they did not, because they are a selected population; whereas the unvaccinated include the whole of the poor children who are rejected as unfit for vaccination, and they include all the postponed because not being totally unfit they are to a certain extent unfit, and those form a considerable portion of a minority of the population, of a small minority according to the Government account."

This is a very ingenious way of trying to account for a very remarkable set of facts; but what does it all amount to? If the unvaccinated are such a feeble, sickly lot, they ought to suffer from other infectious diseases than small-pox to a greater extent than the vaccinated. But no evidence of anything of the kind is forthcoming. When asked to furnish some evidence in support of his assertion, Mr. Wheeler bravely referred to the "Sheffield Report," and on being pressed further he "opened it at page 48." What does that page show? That out of 22 fatal cases of small-pox (20 of whom had never been vaccinated, 1 had been vaccinated only one day, and the other only five days before the appearance of the small-pox eruption), the previous health of 1 is recorded as "very good," of 12 as "good," and of only 5 as "delicate." In only 3 of the cases had ill-health been the cause of the neglect of vaccination. Six of the cases were under 1 year, and 7 others were under 10 years of age. The same kind of record is to be found on page after page of the Sheffield Report. On pp. 198 and 199 Dr. Barry has summarised the results of his personal inquiry with reference to the fatal cases of small-pox which occurred in Sheffield during 1887 and the first three months of 1888. He there shows that out of 246 deaths among the vaccinated class, the previous health of the deceased was satisfactory in 129 instances, and unsatisfactory in 79 cases; whilst out of 343 deaths amongst the unvaccinated class, the previous health of the deceased was satisfactory in 210 cases, and unsatisfactory in only 77 cases. In only 52 of the 343 fatal unvaccinated cases had "ill-health" been given as the reason for the non-vaccination. It is needless to remark that if these facts are the kind upon which Mr. Wheeler's argument is based, it entirely falls to the ground.

Keller's "Celebrated" Statistics.

Dr. Wallace, in support of his assertion, appealed to "the celebrated statistics of Dr. Keller in Austria." Dr. Wallace was apparently not aware that those "celebrated" statistics had been exposed as false and partly fabricated, but such is the fact. These statistics related to some 60,000 officials and workmen employed on the Imperial Austrian State railways, and as set out by Keller they told strongly and strangely against vaccination; but the result was so extraordinary and so altogether contrary to all other experience, that Keller's figures were looked upon with suspicion. Other reliable inquirers went over the same ground, and got results totally different from those of Keller; and in 1887 Herr Körösi found that Keller had directly falsified the returns originally supplied to him by the various railway surgeons so as to serve his antivaccination ends, figures having been altered, such as 68 to 38. At the International Medical Congress at Washington in 1887 a committee was appointed to thoroughly examine Keller's statistics, and eventually reported that all the returns submitted to them were, without exception, "falsified in such a manner as to raise the mortality from small-pox amongst the vaccinated, while that of the unvaccinated was lessened." These statistics are certainly "celebrated," but in a sense very different from that which Dr. Wallace meant when he first so confidently referred to them.

Risks of Vaccination.

There remain to be considered the alleged risks connected with vaccination. The importance of this branch of the subject is obvious, and if half the contentions of the antivaccinators as to vaccination itself being the "cause of disease and death" could be maintained, there would be much justification for the position they have taken up. In that case, however, the crusade would be unnecessary, for the practice would not be countenanced by the medical profession. In the early days of the present century Jenner's opponents prophesied a fearful future for the vaccinated human race. One cannot read without amusement the wild predictions of these early prophets of evil, and their extravagant descriptions of the fairyland cases which they professed to have met with. In one instance, the face of a vaccinated boy was "in a state of transforming, and assuming the visage of a cow." In another, a child had its former natural disposition absolutely changed to the brutal, so that it ran upon all fours

like a beast, bellowing like a cow; and so on from one absurdity to another. Later on diarrhœa, cholera, enteric fever, scarlet fever, puerperal fever, bronchitis, and one malady after another was laid at the door of vaccination, with usually no stronger proof than the fact that it occurred after the vaccination instead of before. Any marked increase of mortality from a disease was attributed to vaccination. The latter day antivaccinators, however, have dropped one disease after another out of their list of the maladies whose prevalence and mortality are alleged to be affected by vaccination, until at the present time the only diseases which need to be at all seriously considered in this connection are syphilis, cancer, and erysipelas.

The average mortality from syphilis in England during successive five-year periods, between 1850 and 1879, is given by Dr. Wallace as 37, 51, 64, 82, 81, 86 per million, and it is alleged that the rise here shown is attributable to vaccination. But without going deeper into the question, the fallacy of the contention is readily seen by a comparison of the statistics of Scotland and England. In Scotland, vaccination is not compulsory until 6 months of age; and yet, taking the three years 1882 to 1884, we find that in that country 43.8 per cent. of the total deaths from syphilis were in children under 3 months of age, 21.3 per cent. between 3 and 6 months, and 11.6 per cent. between 6 and 12 months; that is to say, 65 per cent. of the deaths occurred before the expiration of the vaccination age. In England, on the other hand, 3 months is the limit after which vaccination is compulsory, and we should, therefore, expect to find a greater share of syphilis mortality in this country within that period, or at all events within 6 months of age, if vaccination had any influence on it. Yet, taking the same three years, we find the proportions practically identical with those of Scotland: 42 per cent. of the mortality occurred in children under 3 months, 22.5 per cent. in children between 3 and 6 months, and 11.3 per cent. between 6 and 12 months. As Sir Walter Foster stated during the last important debate on vaccination in the House of Commons on May 13th, 1893, the increase shown in recent years in the prevalence of infantile syphilis is a matter of improved diagnosis. Deaths from syphilitic diseases of the brain, liver, etc., are now diagnosed as syphilis, which twenty or thirty years ago were not so classed. The apparent increase of deaths from syphilis is in great measure thus satisfactorily accounted for.

Further, if syphilis and vaccination are at all associated, we should expect to find in some large community, where infantile vaccination has been in abeyance, a lower syphilitic death-rate amongst children than elsewhere. Leicester is such a community, yet, as a matter of fact, we find that, whilst the syphilitic death-rate amongst infants has gone up some 25 per cent. in England and Wales generally in the last twenty years, it has risen as much as 69 per cent. in Leicester. Neglect of infantile vaccination in Leicester, therefore, has not arrested increase in its infantile syphilis death-rate.

That it is possible to inoculate syphilis in vaccination is not disputed, but the risk of its being so inoculated in actual practice, with the most ordinary precautions, is so infinitesimal as to scarcely need consideration, and, as recommended by the German Vaccination Commission of 1884, could be altogether avoided by the use of calf lymph.

As regards cancer, we find that the increase has been altogether in the later years of life, the mortality under 5 years of age having actually diminished from 22 per million to 13 per million, and that the increase of mortality has been much greater among males than among females. It is therefore obviously unjust to lay at the door of vaccination any of the increase which in fact is, to a great extent, more apparent than real, being due to improved diagnosis and more careful statement of cause on the part of medical men.

Erysipelas following vaccination stands on a somewhat different footing, being almost invariably the result of improper treatment of the vaccine vesicles, which could and ought to be avoided by the use of reasonable care and proper antiseptic methods. Speaking of this matter, Sir George Buchanan has pithily remarked: "I find from the last published annual report of the Registrar-General that 974 children under 1 year old were suffocated in a twelvemonth by bedclothes; the fact gives a reason for care in the use of bedclothes, but gives no reason for going without them." So in regard to vaccination and the occasional occurrence of post-vaccinal disease.

Considering the millions of vaccinations that have been performed, if evil results after vaccination were a rule rather than the rarest of exceptions it ought to have been a comparatively easy task to collect such an imposing array of disasters as would have condemned vaccination for ever. Yet after travelling throughout the world in search of such disasters, a very poor collection, comparatively speaking (judging at least from the evidence already published), has been laid before the Royal Commission on Vaccination. What the Commission think of that evidence remains yet to be seen; but antivaccinators cannot at all events complain that they have not been allowed the freest of hands in the presentation of their case.

Conclusion.

The evidence in favour of vaccination has been by no means exhausted in this report. The space at command has not admitted of more than an indication of the chief arguments for and against. But sufficient has been given to show the overwhelming nature of the evidence in favour of vaccination, and the comparative thinness, as well as the frequent untrustworthiness and exaggeration, of the arguments on the other side. Speaking broadly, it has been shown that, taking the whole population, small-pox is no longer the scourge of infancy that it formerly was; but it has at the same time been seen that the unvaccinated children of to-day suffer in the presence of an epidemic as severely as such children ever did, and that the decrease both of attack and of mortality is confined to the vaccinated. It has been shown that efficient infantile vaccination protects almost absolutely from death and from severe attack, and, with comparatively few exceptions, from small-pox attack of any kind during the first ten years or so of life, but that after that age its protective power gradually wears off unless the vaccination be efficiently repeated. It has further been shown that, notwithstanding the gross exaggerations and distortions of the antivaccinators, the risks attending vaccination properly performed are, when compared with the gigantic saving of life, health, and beauty which vaccination has effected, so infinitesimal that they may be disregarded, excepting so far as they should accentuate the care to be taken by medical men in performing the operation. It is urged by some people, with some show of plausibility, that, however beneficial vaccination may be, to have it generally compulsory is an intolerable infringement of the liberty of the subject. These good people overlook the fact that the proved benefits of vaccination affect specially the helpless infantile portion of the community, who have as yet no voice in the matter, and that a person who neglects to avail himself of the means of protecting himself against small-pox is a serious menace, nuisance, and indirect cause of expense to the community in which he resides. Others, again, think that, as in the "Leicester system," the proper substitute for vaccination is compulsory "quarantine" for ten or twelve days, forgetting, apparently, that even Leicester, the parent of this Utopian system, still finds it absolutely necessary to protect its small-pox hospital staff, etc., by vaccination. Most people will agree, after looking seriously at the question, that a quarantine of ten or twelve days is a form of compulsion vastly more costly, dangerous, "leaky," and individually irksome than that of vaccination. I happen to have before me a copy of a report of an outbreak of small-pox last year in a Midland village of some 1,300 inhabitants, from which it appears that on the introduction of the first case, the house in which the patient had taken up her quarters was "barricaded all round," no one being allowed to go near it, and all food, etc., being placed at a distance by a person appointed by the local authority, and left there until some of the inmates of the house could fetch them. This reminds one of the plague in the Middle Ages rather than the closing years of the 19th century. Proper vaccination and revaccination would have effected the desired object much more humanely and cheaply. As it turned out, the unfortunate healthy inmates of this house caught the disease in due course.

In conclusion, I would urge upon the general public not to accept, without careful investigation and full proof, any

assertion or contention against vaccination, and not to allow a natural dislike to a temporary sore on a child's arm to prejudice them against an operation which has been shown to be otherwise beneficial. Upon the Legislature I would urge that revaccination, as well as primary vaccination, should be made compulsory, as in Germany; and medical practitioners I would strongly urge not to vaccinate in any case except in the most efficient manner. If these suggestions were acted upon, vaccination would soon be completely vindicated.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XLII.—AYLSHAM, NORFOLK.

The workhouse belonging to this Union presents a palatial appearance; it is a modern red brick building, with two wings and a central block, standing in well kept gardens, and, as seen from the railway, might easily be mistaken for the residence of a county magnate. It was built in 1846 to accommodate 600 inmates, but the largest number that has sought its shelter of late years is 130. There were about 100 inmates when we visited the house. The Medical Officer, Dr. Morton, having furnished us with an introduction we were shown round the house by the master.

The Sick and Infirm

are lodged in the main building on the first floor. A sick house was built a few years ago at some little distance from the house, but the master prefers to use some of the empty rooms in the house for the sick, keeping the detached building for infectious cases. The interior of the house is disappointing; the passages are narrow and dark, and the staircases also are narrow and enclosed; the inside might be twice as old as the outside.

The Wards

for the men hold nine beds in two rooms; the smaller ward for four beds is not occupied at the present time. Two men were in bed; one with paralysis of the bladder and the other a case of old age; the rest of the patients were seated in the armchairs about the room, among them a little boy suffering apparently from rickets, who had been brought in from the nursery to have the more thorough nursing of the infirmary. There is no day room, but the master said that the men used the empty ward, and they also have the use of the airing courts, which are the gardens in the recess formed by the projection of the wings.

The Female Wards

are in the same part of the building, the nurse's room forming the division between their quarters and those of the men. The women's room is much larger; there are eight beds in it, and of these, five were occupied by patients; a young woman of 18, to all appearance in an advanced stage of phthisis, an older woman with the same disease, the mother of the child with rickets in the men's ward, two cases of senility, and one of paralysis; the other patients were up. There is a small unoccupied ward which can be used as a day room if required. The bedding is straw or flock, except in the case of the paralysed man; he was on a mattress.

Fire Escape Lift.

In the passage communicating with the wards the master showed us a fireproof lift working outside one of the windows, which would, he felt, be of the utmost service in rescuing the helpless patients in the event of a fire. It seemed to us that this lift would be of more service in moving the sick than the staircase.

The Lying-in Ward.

We were not so well pleased with this department. The ward is at some distance from the nurse's quarters, and was the drying room before it was adapted to its present purpose. It accommodates two beds, has two windows, and is warmed by a stove with a long iron chimney. There are no separate offices, and it is deficient in the appliances for its work. We doubted the possibility of regulating the heat and ventilation, and consequently the sanitariness of the room. There are about four confinements a year.

The Nursery

is on the ground floor; it is a stone-paved room, large and dreary, with a couple of benches by the fire, and at a little distance two large wooden boxes on rockers, capable of holding three or four babes together. There were two infants in charge of an old pauper, whom the master praised highly for her care and skill in rearing the young children. Two younger women were nursing the babes. We suggested that a little matting or old sacks on the floor would be an improvement, but the master said that these had been found unsatisfactory in practice; this was presumably because the paupers in charge have no idea of disciplining and educating the infants. We understood that there was a proposal to move the nursery upstairs, to a room with a south aspect and a boarded floor; the fireplace of the proposed room being adapted to this purpose.

The Sanitary Appliances.

There is a watercloset on each landing for the male and female wards, with a good flush; hot and cold water is drawn from taps on the landings; movable baths are in use as there are no bath rooms.

An Old Married Couple

are living together in a room at the end of one of the wings, and the guardians, with thoughtful consideration, are preparing a piece of ground as a little garden for them to cultivate.

The Nurse

is not a certificated midwife, nor is she trained, but she has had long experience in the work. The present nurse has only recently been appointed, succeeding a similar officer. Paupers help in the nursing of the patients, making the beds, washing and attending to the sick. There is no night nurse, nor are any of the inmates on duty at night. The nurse stated that there was no feeding at night, and that the patients helped each other if necessary.

Recommendations.

The weak points in the arrangement of this house appeared to be the lying-in ward and the nursery. If the room shown to us as the labour ward is the only one available, we would suggest an open fireplace of a good size, with a spacious chimney, and a small boiler added to it would be found most useful.

As the nursery is to be moved we have nothing to say about the present room, but in furnishing the new one we would suggest cradles instead of the insanitary old boxes, and boat-shaped bottles instead or the tube feeding bottle.

THE BATH WORKHOUSE INFIRMARY.

The guardians at Bath have received a report of their hospital committee recommending various changes in the structure and management of the workhouse and the infirmary. In regard to the latter it will be remembered that in a previous report of this committee the guardians were recommended to limit the nursing staff to a superintendent and six nurses, but on the repeated statement of the Local Government Board, contained in a letter of February 28th, 1895, and on the advice of the medical officer, the committee now recommend that the full complement of nine be at once engaged. The Bath guardians, however, are not to be judged of by their hospital committee, and when this proposal was brought forward they promptly vetoed it by passing the following resolution:

"That the nursing staff be at present a superintendent nurse and six nurses, and that the hospital committee be empowered to advertise for these and recommend suitable persons to the Board for election; and that the consideration of that part of the report of the committee which recommends the immediate engagement of nurses, making up a complement of nine, be deferred until the committee shall report further."

So far, therefore, as the nursing is concerned, with the exception of the appointment of a superintendent, the policy of the Board appears to remain unchanged. Much will depend on the choice of a superintendent.

As to the structural alterations which it is proposed to make in the infirmary, it is impossible to speak definitely until we see the plans. So far as we can judge, however, the inclination seems to be in favour of doing as little as possible. The report admits that the present building

is old, and of a type which would not now be accepted as satisfactory, and the committee seem to apologise for the smallness of the suggested improvements by the old excuse that the number of patients suffering from acute disease, and in respect of which the appliances and conveniences of a hospital are really needed, is relatively very small. The improvements which they recommend in the infirmary are practically limited to the addition of bath rooms and duty kitchens to the two most modern wings of the infirmary, and the division of an upper room to form a labour ward, leaving the older part of the building as it is. There is an obvious want of completeness about the whole scheme, and before they are through with the business the guardians will probably wish they had accepted the advice of our Commissioner, and built a new infirmary on a proper plan.

THE POLAND STREET WORKHOUSE.

In spite of the advance which has been made in various quarters in regard to the treatment of the sick in separate infirmaries, Westminster, notwithstanding its inclusion in the Central Sick Asylum District, still keeps to the old plan of allocating as "sick wards" certain rooms in the body of the workhouse. We are, therefore, not surprised to find that the guardians of Westminster are also backward in other matters. According to a report which appeared lately in the *Sun*, an application was made at one of their meetings for a pair of scales for the mortuary, and it was explained by one of the guardians that, owing to the want of a special instrument, "after the scales had been used in the mortuary for weighing the entrails of dead bodies they were taken back to the dining hall and used for weighing out the food for the inmates." It is stated that at the same meeting Dr. Axham presented a report in explanation of a statement he had recently made to the effect that he wished to see the sick wards at the top of the house made habitable, for, as it was, they were slowly killing the patients. The report stated that during the cold weather the patients made daily complaints of the draughts in the sick wards. The windows were the only means of ventilation, and had to be left open in all weathers. Complaints were especially made by two men who had since died. Dr. Axham further stated that he had done his best to bring the unsuitable nature of the top floor as a sick ward before the Board. He had made reference to the state of affairs in various reports since September, 1893, and in the past fortnight he had collected the evidence of twenty men who had complained of the ill-effects of the draughts. After a long discussion the clerk was instructed to present the report to Dr. Axham on the subject at the next meeting. Our experience of workhouses is that where the sick are not properly cared for there will be found also laxity and bad administration in other directions. The use of the dining-room scales in the *post-mortem* room is a good commentary on the treatment of the sick in attic wards within the workhouse instead of in a separate infirmary, as is the case in almost every other union in the metropolis, and as the Westminster Guardians have power to do under arrangement with the managers of the Central London Sick Asylum.

THE PENZANCE BOARD AND THE NURSING QUESTION.

The question of trained *v.* untrained nurse has been again hotly debated by this Board; previously a successful attempt, led by some ill-advised members, had been made to appoint an untrained nurse in the infirmary. The question was reopened at a recent meeting of the Board, and after a warm discussion a resolution was passed to secure the services of a certificated assistant nurse. We are still of opinion that there will be some want of co-ordination in the nursing arrangements, as the services of the old nurse as head nurse are to be retained, the trained nurse coming as assistant; but as the old nurse has done twenty-one years of good service, she deserves consideration on the part of her employers.

EAST GRINSTEAD WORKHOUSE INFIRMARY.

We have before us the report on this infirmary laid before the Board by the Visiting Committee, which reveals a state of things perhaps as bad as any we have hitherto placed before our readers. The space provided for the sick is insufficient, the distribution of the wards increases the labour of the nurses, and renders proper supervision impossible; there is no classification, acute medical and surgical cases being mixed up with idiots, imbeciles, infirm and aged; there is no night nurse; pauper help is relied on to supplement the work of the nurses, of whom there are four, to nurse in the workhouse wards, the infectious hospital, and the infirmary proper. There is no midwife, women in labour being attended to by a charwoman, and the medical officer's comment on the nursing is, "There is no such thing as nursing in the usual acceptation of the words." All sanitary appliances are quite inadequate, medical appliances insufficient, and the bedding and general arrangements of the wards are on the same beggarly lines. The recommendations with which the report concludes are most thorough, suggesting a new infirmary, separation of its administration from the workhouse officials by placing a trained superintendent-nurse at the head of it, modern appliances both sanitary and medical, proper classification, and we especially commend the one other recommendation that the superintendent-nurse act under the medical officer's orders as regards the treatment of the sick, and be entirely responsible to the Board for the nursing and general administration of the infirmary. We shall watch with interest the action taken by the Board in this matter.

DEVONPORT BOARD AND THE NURSING QUESTION.

The increase of the nursing staff at this infirmary is recommended by the House Committee on the report of the medical officer. As too commonly happens, the Board is satisfied that the female inmates of the house are suited to the task of nursing the sick and helpless, and that, nine-tenths of the cases being of a chronic nature, skilled nursing, especially at night, is an unnecessary luxury. The result of the discussion was that the cheese-paring members carried their amendment, and only one nurse was to be advertised for instead of two, as recommended by the medical officer and the Committee. This, it would appear, will leave the care of the sick at night to the pauper inmates.

LISKEARD INFIRMARY.

The Local Government Board is putting pressure upon the guardians to build a new infirmary, on the ground that the accommodation is insufficient for the needs of the locality, and that the infirmary itself is bad and deficient in the conveniences usually looked for in every modern hospital. Our readers may remember the report of Liskeard Workhouse Infirmary in these columns. We note with gratification that the recommendation of the Local Government Board inspector coincides in every respect with that furnished by our Commissioner. We trust that the Board will set to work without delay to put its house in order.

CIVIL RIGHTS DEFENCE COMMITTEE.

The Anderson (Privy Council) Appeals.

At the meeting of the Committee, on March 15th, 1895, the following resolution was unanimously adopted:

That the thanks of the Civil Rights Defence Committee are due and are hereby tendered to Dr. Branch and the members of the Leeward Islands Branch of the British Medical Association for their generous and practically unanimous support to this Committee in the defence of the civil rights involved in Mr. Anderson's case, and for their support and sympathy with Mr. Anderson in his arduous and protracted struggle for the defence of these rights. That such support coming from the West Indies, where the attack upon those rights occurred, is of special value, and is especially appreciated by the Committee.

The following is a list of additional subscriptions to the Anderson Privy Council Appeal Fund to March 31st:

	£ s. d.	£ s. d.
Anonymous Sympathiser, per Mr. A. M. Lee ...		1 1 0
Dr. Dukes, Rugby, as per list:		
Mr. T. Duke, M.A., Rugby	0 5 0	
Mr. Sutton Pratt, Rugby	0 5 0	
Mr. Bernard Reilton, Rugby ...	0 5 0	
Mr. W. A. Waller, Rugby	0 5 0	
Dr. J. H. Simpson, Rugby	0 10 6	
		1 10 6
Mr. W. G. Groves, Woodford Green		0 5 0
Members of the Leeward Islands Branch of the British Medical Association, collected by Dr. W. J. Branch, St. Kitts:		
Mr. J. D. Bell, Nevis	0 10 0	
Dr. W. J. Branch, St. Kitts	1 1 1	
Dr. J. H. Crooke, Nevis	0 10 6	
Mr. M. P. Duke, Montserrat ...	0 10 6	
Mr. A. E. Edwards, Antigua ...	0 10 6	
Mr. W. H. Edwards, Antigua ...	1 1 0	
Mr. J. Foreman, St. Kitts	0 10 6	
Dr. F. J. Freeland, Antigua... ...	0 10 6	
Mr. W. H. Fretz, St. Kitts	1 0 0	
Mr. J. S. Gabriel, Antigua	0 10 6	
Dr. P. J. Huggins, Nevis	0 10 0	
Dr. G. H. Mapleton, St. Kitts, ...	1 0 0	
Dr. H. A. Nicholls, Dominica ...	1 1 0	
Dr. F. L. Norris, Montserrat ...	0 10 6	
Mr. J. N. Rat, St. Kitts	0 10 6	
Mr. R. E. Semper, St. Kitts	0 10 6	
Mr. A. L. Wykeham, Antigua	1 1 0	
		12 0 0

It is particularly requested that all subscriptions to the present fund be sent direct to the Manager of the Union Bank of London (Chancery Lane Branch), and be made payable to the "Anderson Appeal Fund Account."

LITERARY NOTES.

Among recent new births in the journalistic world are *La Clinique*, a new medical periodical published in Montreal, and edited by Dr. H. M. Duhamel; and the *Journal of Diagnosis and Climatology*, which began its career in January as successor to *American Climates and Health Resorts*.

The third edition of the Norwegian *Pharmacopœia*, prepared in accordance with a decree dated June 20th, 1891, by a Committee composed of four members, has just appeared. It does not, however, come into force till January 1st, 1896. The text is in Norwegian, only the names of the drugs being given in Latin.

Dr. Parkhurst has added another to the already long list of "manias." A new word being in his opinion needed to express what he looks upon as the leading characteristic of the new woman, he has coined the term "andromania." But having the fear of the new woman—especially her who plays football—before our eyes, we leave this daring neologist to speak for himself:

There is an element in the feminine world that is suffering from what I shall venture to call "Andromania." The word is not an English one, for the reason, I suppose, that the English language makers never supposed

that we should need such a term. It is constructed on the same principle as the word "Anglomania," which means a passionate aping of everything that is English. "Andromania" means, similarly, a passionate aping of everything that is mannish.

La Abeja Medica publishes a lecture by Dr. L. M. Cowley, Professor in the University of Havana, in which he deals with the teaching of the Fathers of the Church from a somewhat novel point of view. Dr. Cowley brings out the fact that some of them laid particular stress on hygiene, and, contrary to notions that have been made current by modern writers who have probably never studied the originals, that they attached almost as much importance to the health of the body as to that of the soul. St. Clement of Alexander, in particular, deals largely with the preservation of health by the avoidance of excesses of all kinds, and especially in the matter of food; his teaching on this point is summed up in the axiom, "Great luxury in feeding prepares the way for disease." St. Clement shows a familiar acquaintance with the writings of Hippocrates, Celsus, and other medical writers, and he had evidently made good use of the opportunities of making himself acquainted with the principles of medical science as understood in his day afforded by the famous school of Alexandria. His hygienic teaching is contained in his *Pædagogus*, the second part of which is a complete treatise of hygiene. We are accustomed to hold up the Romans as exemplars of cleanliness, but it is clear, from the testimony of St. Clement, that the *cura cutis* was carried to excess among them; in fact many rich voluptuaries seem to have spent the whole of their day, except the time devoted to eating, in the bath, where every refinement of luxury was practised to the enervation of both mind and body. St. Clement is somewhat ascetic, according to modern notions, in his teaching as to sleep: he allows no more than six hours, and condemns sleeping during the day; he speaks strongly against soft beds in which the body buries itself by its own weight, giving rise to congestive headache and other troubles. He is also, perhaps, a little austere in his insistence that no one under 30 years of age should be allowed to drink wine. St. Ambrose, though he did not like St. Clement write a treatise on hygiene, gives proof of having given attention to the structure and functions of the human body and to the preservation of health, and in his *Hexameron* he sets forth a doctrine as to the influence of the brain which may be considered advanced for his day. St. Basil in many parts of his writings shows an acquaintance with medicine, and he was the founder of a hospital near Cæsarea in Cappadocia, which was long one of the monuments of the district. To him is assigned the first establishment of the leper houses which became so numerous in the Middle Ages. In St. Basil's Homilies there is an almost complete treatise of hygiene, especially as regards intemperance in eating and drinking; the nervous affections caused by drink, and in particular delirium tremens, are there graphically described. St. Augustine and other fathers of the Church in many passages refer to the preservation of health. St. Bernard's writings are full of passages on the hygienic virtues of temperance; he enjoins total abstinence from wine and strict moderation in food, and insists strenuously on the necessity of bodily exercise. St. Thomas Aquinas speaks in a similar strain. In general terms it may be stated that the Fathers and the early Christian writers generally preach hygiene as a moral duty.

In the *Edinburgh Medical Journal* Dr. George W. Balfour gives a gruesome account of the "heroic" bloodletting which our forefathers thought to be a cure for all earthly ills—as it no doubt was, in one sense at least, in a considerable number of cases. They thought nothing of drawing an unconsidered trifle of 50 ounces in inflammation of the lungs. Dr. Balfour tells of "a slender young girl" who was bled to 48 ounces for supposed inflammation of the chest; and he says 190 ounces (over 9 pints) and sometimes even more were occasionally taken from one person. The floors of hospital out-patient rooms used to be so slippery with blood that caution had to be exercised in walking over them. Many of the poor creatures thus drained of their vital fluid were weak and miserable for months; some never recovered their health. Many, however, survived an amount of bloodletting which is appalling to read of in these days. Such an one was Betsy Moffat, of whom Dr. Balfour tells the following marvellous tale:

Admitted to hospital with a sharp attack of pneumonia, she was freely bled from the arm, besides undergoing other lowering (so-called antiphlogistic) treatment; in a fortnight she was dismissed as cured. Ten days subsequently she was readmitted with a recurrence of all her symptoms, and a pulse of 130; she was treated as formerly by repeated venesections, etc. After two days she lay insensible, with a feeble pulse of 50, and a rattle in her throat like one dying; even her physician, Professor Gregory, admitted that she could not be further bled; but, after he had stimulated her with hartshorn and sack whey, he was able before leaving the ward to apply a few leeches to her head, and he was subsequently able to take 4 ounces of blood from her arm. It is satisfactory to find it recorded that Betsy Moffat recovered. One scarce knows whether to admire most the boldness of the physician or the luck of the patient. People in those days measured the therapeutic efficacy of remedies by their strength, like the Afghan medicine man mentioned by Dr. Balfour, who said to the traveller Ferrier, showing him some cyanide of mercury: "What devil is in this salt, for, of 100 patients to whom I have given it, only one has survived?" Bleeding had even a more powerful devil in it, if the following story, which is not quoted by Dr. Balfour, be true. Dr. Thomas Short, in his *General Chronological History of the Air, Weather, Seasons, Meteors, etc.* (London, 1749) says: In 1557 Europe was devastated by influenza. At Mantua Carpentaria, a small town near Madrid, 2,000 patients suffering from the disease were bled—and all died. Sangredo himself could not have done more. Dr. Balfour attributes the decline and fall of venesection largely to the influence of Hahnemann. Physicians found to their amazement that "inflammations" were dealt with just as successfully by infinitesimal dosing as by infinite bleeding. Thus it was brought home to them that Nature could dispense with the help of the lancet.

Dr. Howard A. Kelly writes as follows to the editor of the *American Journal of Obstetrics*:

A good friend with a fine English sense who occasionally looks over my shoulder as I write, left this note ("Female" or "Woman"?) pinned to one of my papers a few days ago. I think the fault common enough to be worth while correcting publicly. And as it is manifestly an error to which a gynæcologist is more prone than other men, the correction ought to appear in the *American Journal of Obstetrics*: "Take care not to used the word 'female' as meaning a woman. It is correct to speak of the female pelvic organs, but a 'female' is not a woman; it is a cow, a mare, any animal of the female sex. It is old-fashioned English to call women females, and the expression is coarse in this sense."

We confess that we had rather thought that "female" was considered by demisemi-literate people to be high-polite for "woman." With Dr. Kelly's main thesis, however, we entirely agree. In these days of the equality of the sexes we further think we are justified in entering a plea for the disuse of the word "male" as equivalent to "man."

STUDENTS AT THE METROPOLITAN SCHOOLS AND THE DEGREES OF THE LONDON UNIVERSITY.

THE following is the text of a circular letter, referred to at page 770, which has been sent by nine of the metropolitan medical schools to the head masters of all public grammar and intermediate schools in England and Wales. The circular is signed by the Deans of the medical schools of Charing Cross Hospital, Guy's Hospital, the Middlesex Hospital, St. George's Hospital, St. Mary's Hospital, St. Thomas's Hospital, of the Faculty of Medicine of University College, by the Warden of the College of St. Bartholomew's Hospital, and by the Warden of the London Hospital Medical College.

As you probably have boys in your school who intend to enter the medical profession and to pursue their studies in London, we beg to ask your attention to a point which is often overlooked, namely, that such boys should be urged to matriculate at the University of London before entering on their medical studies.

Disappointment is caused to many students who enter our schools without doing so, and who subsequently find that they must either forego the University course and the University degree in medicine or else return to their preliminary studies for a further period in order to matriculate.

Under the recent regulations of the General Medical Council, the University degree can be obtained after the same period of study as that required for other diplomas; and, as the matriculation examination is accepted as a preliminary examination by the Royal Colleges of Physicians and Surgeons, nothing is lost by entering on the University course, even though it may not be pursued to the end.

The matriculation examination is held twice a year, in January and in June. The next examination will begin on June 10th. Applications for forms of entry should be made to the Registrar of the University, Burlington Gardens, W., on or before May 6th, and candidates entered on or before May 13th.

[The requirements of the examination are detailed in an appendix.]

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 6TH, 1895.

THE ROYAL COMMISSION ON THE AGED POOR.

The report, or rather reports, of the Royal Commissioners afford further evidence, if such were needed, of the extreme difficulty of the subject with which they had to deal; there is nothing like a consensus of opinion in this body of able and judicious men, many of whom already possessed special knowledge of the matter. For many months evidence from all sources bearing on the question has been received and weighed, and in the result we receive a majority report, it is true, but many of its signatories add memoranda setting forth in what respect they differ from particular points contained in the report. Further, there is a minority report, signed by five members of the Commission, among whom are Mr. Chamberlain and Mr. Charles Booth, who have both in different ways made the subject their own. Finally there are further memoranda on this report by other members.

Broadly speaking, the divergence of opinion is on the question whether the remedy for the destitution, which, among the industrial classes, overtakes three out of seven of those who live to be over 65, should be sought in improved administration of the Poor Law, working in harmony with organised charity, or in some State-aided provision for old age independent of the Poor Law. The majority report expresses the opinion that no comprehensive scheme as yet propounded for the assistance in old age of those among the poor who have led respectable and industrious lives (other than the provision of indoor or outdoor relief from the guardians), is free from grave economic or financial dangers. The minority report, without apparently agreeing upon any one scheme, expresses regret that the majority report confines itself to destructive criticism of such schemes, and that the Commission has not endeavoured to formulate a constructive policy.

Though these results may seem to be an inconclusive and unsatisfactory outcome of months of labour, the inquiry has served a useful purpose, inasmuch as it has collected valuable evidence, and helped to form an intelligent public opinion on the subject. Nor is it an unhopeful sign that, instead of propounding a wholesale remedy which might after all produce evils deeper and more far-reaching than those it sought to amend, the Commissioners are content to suggest improvements in existing agencies, notably in the administration of the Poor Law.

The majority report does not advocate any restriction of the present powers of the Boards of Guardians to grant outdoor relief in the case of destitute aged persons; such relief should be adequate to meet fully the extent of the destitution. The appointment of more relieving officers and a more frequent review of permanent cases by Boards of Guardians would, it is thought, safeguard the ratepayers against the abuses incident to outdoor relief.

The paragraphs which relate to the workhouses are most valuable; they urge the better classification of the inmates, a reform advocated by the British Medical Journal on many occasions. "Every effort," says the report, "should be made to keep apart those whose language and behaviour make them unfit companions for the well-conducted inmates." The recommendation that the officials of workhouses, especially the master and matron, should be persons of kindness, sympathy, and intelligence, and the suggestion that the lack of these qualities should be recognised, equally with positive misconduct, as a reasonable ground for removal, will be welcomed by all who desire reform in our workhouses. While we freely recognise the fact that many of the present masters and matrons are doing excellent work, and are actuated by the highest motives, yet it is nevertheless certain that the above-mentioned qualities are often conspicuously absent in these officials. There is unfortunately at present no sign that men of the class which supplies the governors of our prisons, for instance, or women such as those who have revolutionised the nursing administration of our hospitals, are inclined to undertake similar posts in our workhouses. The removal of an officer is one of the few points in which the guardians are not free to act without the special sanction of the Local Government Board, and it is not easy to see how such defects as lack of kindness, sympathy, or intelligence are to be scheduled, or acted upon by a Government department.

The report, like the recent circular of the Local Government Board, calls upon Boards of Guardians to be more vigilant, more sympathetic, more intelligent, especially in the choice of their officers. With them lies the responsibility, to them falls the task of alleviating as far as in them lies the hard lot of the destitute aged poor; they must keep the golden mean between the undue harshness which is cruel and unnecessary and that sentimental and indiscriminate laxity which is a hotbed of pauperism. But, again, we ask: *Quis custodiet custodes?* Are we to wait until every Board of Guardians is educated up to the point of possessing and acting upon the best expert knowledge of the day? or are we to accept in the meantime the extraordinary variations in principle and practice which actuate different Boards, and the same Board at different times, and render any general reform difficult if not impossible? Would it not rather be better to readjust the relations between the Local Government Board and the Boards of Guardians, giving to the former some power of enforcing its recommendations and of bringing the administration of the latter up to a minimum standard of efficiency?

Dr. A. W. Crossley, Ph.D. (Würzburg), M.Sc. (Victoria), Berkeley Fellow and Demonstrator of Organic Chemistry in the Owens College, Manchester, has been elected Demonstator of Chemistry in the Medical School of St. Thomas's Hospital, in succession to Dr. W. H. Ince, who has been appointed Government Chemist at Trinidad.

THE STRAIT GATE.

The Wardens and Deans of nine principal London medical schools—Charing Cross, Guy's, London, Middlesex, St. Bartholomew's, St. George's, St. Mary's, St. Thomas's, and University College—have just addressed a joint circular letter to the head master of every public grammar or intermediate school in England and Wales, warning him that such of his boys as intend to enter the medical profession and pursue their studies in the London schools should be urged to matriculate at the University of London before commencing their medical studies.

It may seem strange that at this late date, more than half a century after the foundation of the University, such an admonition should be found necessary, but the fault is neither wholly the University's nor wholly the schoolmasters'. If head masters, being for the most part Oxford and Cambridge graduates, are so imbued with the traditions (may we venture to say, with the prejudices) of the older seats of learning as to regard the non-resident University with indifference or dislike, and discourage rather than not their pupils from entering for its examinations, the University has gone far to justify their action by its obstinate adherence to a scheme of matriculation examination which fits in ill with the traditional course of education pursued in English schools, and which seems chiefly designed for the encouragement of the professional "coach."

In a school conducted, as most of the best English schools are, with a view to the possibility of an Oxford or Cambridge career, the entrance of a small number of boys for the London examination involves a dislocation of the ordinary class work that amounts to a serious inconvenience. Had the University adopted a less irreconcilable attitude, had it been content to follow in the accustomed road for a while before attempting to strike out a new path, had it been careful to place itself in touch with educational institutions before attempting to lead them, it might have wielded a commanding influence over some nine out of every ten schools in the country. As it is, it has remained as it began, an isolated institution, neither guiding, nor guided by, the general course of education in the country. Schools of the lesser order look to the Oxford and Cambridge local examinations, to the examinations of the College of Preceptors, to any and every outside test of their work, rather than to that which the State University professes to supply.

But whatever the inconvenience to schools, for intending London medical students there is no option. If they aim at a degree in medicine they must needs enter by the strait gate and narrow way that Burlington Gardens in its wisdom has set; and the authorities of our medical schools, making the best of the matter, have wisely endeavoured to impress the fact upon the head masters of the schools from which their students are mostly drawn.

How much longer reform in London University matters is to be delayed it were rash to conjecture. A couple of ago and more there seemed some prospect of a speedy settlement. An influential deputation, having waited on the Lord President of the Council, and urged on him the desirability of proceeding at once with the scheme of the Gresham Commissioners, met with a sympathetic and hopeful response. Lord Rosebery, in no ambiguous terms, expressed his own desire to introduce an Act providing for the appointment of a statutory commission to carry out the Gresham Commissioners' scheme with such modifications as might be deemed desirable. The opposing deputation of objectors to the scheme, in anticipation of which the Lord President was bound to defer a positive statement of his decisions, was received a few hours later, and palpably failed to establish its case. The same day witnessed the final overthrow of the opposition in the Convocation of the University of London. This was on January 22nd, and up to the present no final response on the part of the Government has been given.

The secret of the delay, we fear, must be inferred from one of the closing passages of Lord Rosebery's speeches: "If the Government are able to announce," he intimated, "that they will proceed with the legislation required for the appointment of a statutory commission, they on their side would have to make a demand of their own. . . . It would be absolutely necessary, in view of the work of the session, that legislation on this point should not meet with any long or obstinate Parliamentary resistance." It is in the House of Commons, as we are credibly informed, that the rift in the lute is to be found. It is openly stated that certain members of the *intransigeant* faction among the graduates, foiled doubly and trebly in their attempt to block the progress of reform by debate in Convocation, have threatened to use their Parliamentary powers to prevent a University Act passing in the only way in which it can hope to pass in the present overbusy Parliament—as an unopposed measure. We trust, if this be really true, that these obstinate doctrinaires will consider the magnitude of the interests they are opposing, the crying injustice to medicine that they are assisting in perpetuating, and the significance of the weighty deputation of which Professor Huxley last January made himself the spokesman, and that they will see the grave impropriety of misusing the accident of their Parliamentary position to prolong an opposition to reform as ungracious as it must ultimately be futile.

The first *conversazione* of the Royal Society will be held at Burlington House on May 1st, at 9 o'clock.

We are glad to learn that Sir Joseph Fayrer has nearly recovered his health after the severe and protracted illness from which he has recently suffered.

At the Royal Institution after Easter Professor Ray Lankester will give a course of four lectures on Thirty Years' Progress in Biological Science. On Friday, May 3rd, Veterinary Captain Frederick Smith will give the evening discourse on the Structure and Function of the Horse's Foot.

Sir William Turner, the Professor of Anatomy in the University of Edinburgh, was, on April 2nd, presented with his portrait by his colleagues and former pupils, in recognition of his services in the cause of science and to the University of Edinburgh in particular.

PRESIDENCY OF THE ROYAL COLLEGE OF SURGEONS. Mr. Christopher Heath was elected President of the Royal College of Surgeons, in succession to Mr. J. W. Hulke, at a meeting of the Council held on Thursday, April 4th.

SCHOOL SLATES.

In one of a series of popular health lectures recently delivered at Perth, Dr. Ferguson drew attention to a very common practice among school children which may affect the spread of tuberculosis. He says that, in certain schools, slates are handed to the children, and that there is not the slightest attempt made to ensure that each child shall have the same slate time after time. Now the first thing the child does is to clean the slate, which is done in a primitive method, by means of the finger wetted with saliva. In this process the finger travels many times from mouth to slate, and *vice versâ*, and thus conveys to the mouth any material which may happen to be upon the slate. What this material may be depends largely on the health of the child who previously used the slate. Dr. Ferguson's special point was that tuberculosis might thus be transmitted from child to child; but it is even more obvious that such a disease as diphtheria might be diffused in this manner. Many people doubt the educational advantage of using slates at all; certainly if they are used every child should have his own, as is the rule in some American schools.

MUNIFICENT BEQUEST TO THE EDINBURGH ROYAL INFIRMARY.

The late Earl of Moray's trustees have just intimated to the managers of the Edinburgh Royal Infirmary that by the will under their administration the sum of £50,000 (free of duty) falls to be paid to the funds of that institution. By the same will a second sum of £50,000 has been left to various charities to be hereafter determined by the trustees. Doubtless some of the medical charities will benefit by this legacy.

THE SICK POOR IN PROVINCIAL WORKHOUSES: AYLSHAM.

The report of our Commissioner on the workhouse of the Aylsham Union calls for little comment. The services of the untrained nurse are supplemented by pauper help, and the infants are in the charge of a pauper inmate. It is fair to say, however, that the evils inherent in this system seem here to be minimised by good management, and that in other respects, such as the sanitary appliances and the structure generally, this house is above the average. We trust that the Board will take the recommendations of our Commissioner into consideration, and we would urge, moreover, that whenever possible, trained nurses should be engaged. The absence of night nursing ought not to be tolerated. "The patients help one another at night," we read; they are there to be nursed, and they are little qualified to render efficient help, if, indeed, they are willing; and who shall say that some helpless patient may not ask in vain for the ministrations of his neighbours?

INSTRUCTION IN TROPICAL DISEASES.

In an article entitled "The Ignorance of Tropical Diseases" published in the British Medical Journal of December 29th, 1894, we called attention to the anomalous fact that, whereas the British Empire included within its bounds many great tropical districts and countries, there was in the medical schools of Great Britain no regular system of giving instruction in tropical diseases, which, as is well known, present many peculiarities. So far as we are aware, Dr. Felkin's course in Edinburgh was then the only course on tropical diseases delivered in Great Britain and Ireland, and in London there has hitherto been nothing to resemble it. We are glad therefore to learn that this defect is about to be remedied, and that Dr. Patrick Manson has been appointed Lecturer on Tropical Diseases in the St. George's Hospital Medical School. Dr. Manson will give a course of some twenty lectures on the principal diseases peculiar to the tropics and Eastern Asia during the summer session of each year, commencing this year early in June. They will be illustrated by demonstrations of living patients and of microscopic objects shown by means of the electric lantern, with which the St. George's lecture rooms have recently been fitted. The lectures will be especially adapted to the needs of medical men preparing for tropical or Eastern service, and admission to them will not be limited to students of St. George's. The importance of this class of diseases as a subject of study in England, with its world-wide empire, can hardly be exaggerated, and it is not much to our credit that this should be the first time that any special provision for instruction in it has been made by an English medical school.

THE SUSPENSION OF THE VACCINATION LAWS.

The Brigg Board of Guardians have decided to suspend all prosecutions under the Vaccination Act pending the final report of the Royal Commission. It cannot be the intention of that Commission to make the law on the subject a dead letter, but a dead letter it is gradually becoming. Dr. Halahan has set a good example by confronting on a public platform two antivaccinators at Barnetby, near Brigg, subsequently to the above resolution, and obtaining a complete triumph over them by solid fact and sound argument. "A Magistrate of Several Years' Standing," writing in reference to the Brigg resolution, puts the matter in its true light when he says: "It is purely demoralising for persons to accept or seek office under a law, with the intention not of carrying out but of defeating or at least neutralising that law, they being its sworn servants and administrators."

THE CHICAGO MEAT TRADE.

In a paragraph under this title, published in the British Medical Journal of March 23rd, p. 664, we called attention to some astonishing statements which had appeared in a contemporary concerning the alleged ease with which dealers in Chicago, if they chose to be unscrupulous, might make use of carcasses or portions of carcasses in diseased animals. We then urged that it was desirable that the actual facts should be fully stated in this country. Messrs. Armour and Co., who are large makers and importers into this country of extract of beef, have placed at our disposal certain official documents, including the Regulations for the Inspection of Live Stock and their Products, issued by the United States Department of Agriculture. These regulations are extremely strict, and clearly show that it is the intention of the United States not to permit the use for human food of any diseased products. The inspections are carried out by Federal officers responsible to the Secretary of the United States Department of Agriculture. The proprietors of slaughter-houses and of establishments for the preparation of food products from cattle, sheep, or swine for export are required to make application for the registration of their establishment, and the Secretary of Agriculture designates an inspector to take charge of the examination and inspection of animals and their products from such establishment, and such assistants as may be necessary. The inspector and his staff have free access to all parts of the establishment. The cattle are first inspected at the stockyards or in the pen, and if found to be diseased or unfit for human food, are marked by placing in the ear a metal tag bearing "U.S. Condemned" and a serial number. They are only permitted to leave the pen on a special certificate signed by the inspector, they must be killed under supervision, and their carcasses treated in such a manner that their products will be rendered unfit for human food. Further the inspector or his assistant must at the time time of slaughter inspect all the animals and make a *post-mortem* report to the Department of Agriculture. The carcass may be condemned altogether, and must then be rendered by some process unfit for human food, or, if only certain organs are condemned, such parts as can be removed without damage to the carcass must be specially treated

immediately after condemnation. The condemned carcasses, or parts of carcasses, are in fact, we believe, converted into manure. The carcasses, or parts of carcasses, are not allowed to leave the establishment for inter-State or export trade until the inspector or his assistan thas affixed to them a numbered tag, issued by the Department of Agriculture for this purpose, and a record of the transaction is sent to the Department at Washington. Food products made from inspected carcasses must, after packing and before leaving the establishment for export, be stamped by the inspector, who must satisfy himself that the packages come from animals inspected by him and that they are wholesome, sound, and fit for human food. These regulations are made under an Act passed in March, 1891; and, according to the report of the Secretary for Agriculture for the year 1892-93, they were in that year applied to nearly four millions of cattle: the total number of animals inspected, including sheep and pigs, was nearly seven millions. Nine million packages of canned, salted, and smoked beef were stamped. From the same report we learn that, of the cattle inspected, 95 were found diseased *ante mortem* and 1,584 were condemned after *post-mortem* examination. The cause of condemnation in 583 cases was tuberculosis, and in 153 actinomycosis. Messrs. Armour and Co. inform us that their works, where condemned carcasses are converted into "fertiliser," are a quarter of a mile away from the packing house, so that occasions for the ghastly substitutions suggested in the communication to which we referred in our earlier paragraph can hardly arise. Altogether a consideration of all the regulations enforced by the Government of the United States and of all the circumstances of the case must reassure those who may have been alarmed by the sensational statements which have recently been circulated.

THE RETAIL MILK TRADE.

NOTWITHSTANDING the improvements in the methods of packing and distribution of almost every other article of food, people are still content to allow their milk supply to be very clumsily handled. A few dairies send a special can to each family, some will paste a bit of paper over the lid to ensure that the milk is not tampered with by the way, some will even supply a lock and key. Those, however, who are curious in such matters may see that the little cans are sometimes filled round the corner from the main churn which ornaments the centre of the milk cart; milkmen do not find it impossible to obtain possession of the labels which are supposed to give a guarantee of purity, and even the padlock is soon voted a nuisance both by cook and milkman. As regards the great mass of the milk supply, however, there is not even a pretence of doing anything but ladling it out from an open can in the public street. Although they may be washed and steamed, the cans themselves are far from tempting; the men who distribute the milk may have to push their arms down into the big cans to get the milk to fill the little ones, and they have to pour the milk from can to can, manipulating it so as to minimise, as far as may be, the unfair amount of mud which the last customer would otherwise receive. These processes are carried on in the open street. A correspondent tells us that he has seen the "bottoms" of a milk can filtered into another can through a pockethandkerchief, and expectoration from the top of an omnibus fly into an open milk can. Everyone knows the cloud of dried manure which in an east wind constitutes London dust, and in the midst of which the open-can milk trade is carried on. Added to all this we have the danger of the milkman being a carrier of infection. The recent outbreak of scarlet fever in North London, traced to farms in Derbyshire, has been followed by a second, although fortunately a smaller, outbreak, which from the remarks of the Chairman of the Hornsey District Council, as reported in the *Islington Gazette*, appears to have been traced to one dairy. It was stated that the milk was distributed by two men, and that at the houses at which one of these men delivered milk there were no cases at all, while at those at which the second man delivered there were 15 or 16 cases of scarlet fever. At this man's house a child had suffered from scarlet fever, and after three weeks of isolation had been allowed to mix with the other children; another child in this house began with the disease coincidently with the commencement of the outbreak in the milkman's rounds. It seems that the only way out of the dangers of the retail milk trade at present practicable lies in the distribution of milk in sealed bottles. It would carry far better, for in a full bottle it would not get appreciably churned; it would keep better, for the bottle, being washed and boiled by aid of proper appliances, would be far cleaner in a biological sense than the average milk bowl becomes when washed by the average cook; and the milk would not only be protected from adulteration and infection by the milkman, but it would be far less exposed to evil influences and bad odours in the kitchen and the larder. Moreover, it is no new thing. If milk in other countries can be supplied in bottles, why not in England?

THE ABUSE OF THE PROVIDENT PRINCIPLE.

WE are glad to find from communications which reach us from various parts of the country that there is an increasing disposition among members of the medical profession to take serious steps to check the abuses of clubs and of the provident principle by the only means likely to be effectual—that is to say, by united action in the localities affected. We are informed that quite recently in a western town the medical officer of a medical aid society resigned, and that all the members of the profession resident in the town have presented a united front in declining to come to terms with the society. In consequence, it has been placed in a position of some difficulty, and we would strongly advise all young practitioners who may be invited to become the salaried officers of companies trading on the services of medical men—whether such companies are known by the name of medical aid societies, or by any similar title—to inquire very carefully as to the conditions under which they will be required to practise. It would not be to their eventual advantage nor consonant with professional dignity to accept terms offered by any of these companies which have come under our notice.

IMBECILE AND EPILEPTIC CHILDREN IN WORKHOUSES.

A RETURN has recently been made by order of Sir Walter Foster showing the number, on September 1st, 1894, of imbecile and epileptic children under 16 years of age in each workhouse, separate infirmary, school, or other similar establishment belonging to the guardians of unions in England and Wales (excluding the metropolis), distinguishing the number of such children who were of dirty habits, and the number who would, in the opinion of the medical officer, be likely to be improved by special training.[1] On examining this document we find that the number of children who were imbecile only was 294, epileptic only 93, and both imbecile and epileptic 98. Of these 229 were of dirty habits, while 178 in the opinion of the medical officer were likely to be improved by special training. These particulars are contained in returns from 175 of the 618 extra-metropolitan unions in England and Wales; the remaining 443 having no such children in the workhouses. Lancashire heads the list with 148, of whom 88 are imbecile, 29 epileptic, and 31 imbecile and epileptic; the Ridings of Yorkshire come next with 35; Staffordshire has 30; Gloucestershire 27; and Northumberland 23, most of those belonging to this county living in Newcastle-on-Tyne. On the other hand, in Northamptonshire, where provision is made for pauper imbeciles, only one child was found. There is not much

[1] Ordered by the House of Commons to be printed on February 12th, 895. Price 2d.

doubt that there are a very large number outside the unions, for those of Manchester and Liverpool, according to the return, contain only 25, of whom 20 are imbecile, while the result of an inquiry made some time ago went to show that there were very many in these towns for whom special training was required. This is further proved by an examination of the return, for we find that West Derby accommodates no fewer than 23, and no one can for a moment suppose that there are only 2 more in towns with such populations as Liverpool and Manchester. Large manufacturing districts, as a rule, seem to supply more children of this class than agricultural districts, no doubt owing to the greater struggle for existence and unhealthy hygienic conditions which prevail in the thickly populated regions. The most important fact which this return shows is that there are 178 children who have been certified by the medical officers as capable of being improved by special training, and who receive no instruction whatever. If we add to these the very large number living outside the unions who also require special training, we can see clearly that institutions are required into which these imbecile children could be received for education and training. The results already attained in the asylums which have been for many years occupied in this work are so encouraging that no time should be lost in carrying on this work. For want of these, cases, as the return demonstrates, are now sent to lunatic asylums, which are most improper places for them, as they not only receive no training there, but imitate the habits of those among whom they live, and gradually deteriorate. Custodial institutions are also required in which those who have been trained may carry on their trades if boys, and sewing and domestic work if girls, and they should be kept there for life; if this is not done, as they grow up they propagate their species, and bring into the world numbers of illegitimate children who are afflicted in the same way as themselves. A case is on record in which an imbecile man and woman had over 200 descendants, all of whom were defective in some way or other. With regard to the epileptic children, no doubt arrangements could be made with the Local Government Board by which on payment they might be received into the schools which the National Society for the Employment of Epileptics intend to open when the scheme is further advanced.

THE CHAIR OF PHYSIOLOGY AT LIVERPOOL.

Dr. C. F. Sherrington, F.R.S., lecturer on physiology at St. Thomas's Hospital, has been appointed the Holt Professor of Physiology in University College, Liverpool, in succession to Professor Gotch, who recently accepted the Waynflete Chair of Physiology in the University of Oxford. Professor Sherrington, who obtained a first class in physiology in Part II of the Tripos, when he took the degree of B.A.Cambridge in 1883, was elected Fellow of Caius College in 1887. He had previously become a teacher at St. Thomas's Hospital, and in 1891 was appointed Professor Superintendent of the Brown Animal Sanatory Institution. Professor Sherrington has devoted special attention to the study of the physiology of the nervous system, and has frequently contributed papers on topics related to his special studies to the columns of the Journal.

TYPHUS FEVER IN BELFAST.

We regret to learn that there has been a recrudescence of typhus fever in Belfast, which has for some time enjoyed an almost complete immunity from this disease. Seven cases of typhus are reported as having occurred during the last four weeks, and unhappily a young medical man has succumbed to the malady. Typhus fever was a common disease in Belfast not many years ago, but thanks to the great progress made in sanitary reform, to the enlightened policy of the Corporation in resolutely clearing away all slums and "rookeries," and to the steady diminution of poverty and squalor, it is now exceedingly rare. The present outbreak is being energetically combated by the sanitary authorities, and it is hoped that it will be speedily controlled. The general health of the city has been on the whole good. Isolated cases of small-pox have several times occurred during the past winter, which is not surprising in view of the epidemics in Dublin and Newry, but in every case the spread of the disease has been successfully grappled with, and no epidemic has developed. Influenza has recently been very prevalent, but in a less severe form than on the occasions of most of the former visitations. The mortality from chest diseases has been high, but this is accounted for to a large extent by the season of the year and the severity of the weather. On the whole, there is decided evidence that the health of Belfast is undergoing a progressive improvement, although the death-rate is still too high.

THE INFLUENZA EPIDEMIC.

There was a further marked decline last week in the mortality from influenza in London. The number of deaths directly attributed to this disease, which had been 473, 349, and 225 in the three preceding weeks, further fell to 116 during the week ending Saturday last, March 30th. Of these 116 deaths, 19 were of persons aged under 20 years, 21 of persons aged 20 and under 40, 27 of persons aged 40 and under 60, and 48 were of persons aged upwards of 60 years, of which 7 were of persons who had reached their 80th year. Although the decline in the mortality from influenza last week was again greatest among old people, in proportion to population the mortality again showed a large excess among elderly persons; for while among persons under 60 years of age the death rate last week from influenza did not exceed 0.8 per 1,000 estimated to be living at that age period, it was equal to 9.8 per 1,000 among persons aged upwards of 60 years. The deaths referred to diseases of the respiratory organs in London, which had fallen from 1,448 to 740 in the four preceding weeks, further declined to 497 last week, but exceeded by 48 the corrected average number; the 300 deaths from bronchitis were 35 above the average, and the 161 deaths referred to pneumonia were 24 above the average. In some of the large provincial towns influenza is still fatally prevalent: although the mean rate of mortality from all causes last week in the thirty-three great English towns did not exceed 23.4 per 1,000, in Bolton the death-rate was equal to 37.1, in Wolverhampton to 38.3, and in Burnley to 42.4 per 1,000. Our Edinburgh correspondent writes that comparatively few fresh cases of influenza are now occurring, but much in the way of sequelæ still remains.

EASTERN EPIDEMICS.

An important step has been taken by the Russian Government in establishing a special medical staff at the Russian Consulate at Meshed, near the northern frontier of Persia, with the view of obtaining information of the appearance of epidemic diseases in Northern Persia. The staff will inspect caravans and individuals going from Persia into Russian territory, and issue certificates of health. The last epidemic which reached Europe travelled, there can be little doubt, through Persia, reaching the Trans-Caspian Railway from Meshed. A Reuter's telegram, dated April 1st, stated that cholera had broken out on board three vessels which have arrived at the Island of Kamaran, in the Red Sea, from Bombay, with pilgrims. On Kamaran is the great lazaretto where Indian pilgrims are compelled by the Turkish Government to land and to stay, whether well or ill, for a certain number of days Mr. Ernest Hart, in his address to the Mohammedan meeting at Hyderabad, pointed out the extreme inefficiency of the arrangements at Kamaran, and indicated this place as one of the great sources of danger both to the pilgrims themselves and to Europe. It is therefore very disquieting

to hear that already the epidemic has been brought to this crowded station, through which several hundred thousand Indian pilgrims pass every year on their way to the sacred places.

THE VALUE OF ELECTRICAL TREATMENT.

In a paragraph in the British Medical Journal of March 30th we alluded to a recent lecture by Mr. Victor Horsley at the London Institution on "Truth and Falsehood as to Electric Currents in the Living Body." After quoting his statement relative to the quantitative employment of electricity in producing known changes in nutrition, we referred to certain papers by D'Arsonval, Debedat, and Truchot, who have reported in these papers certain experimental work, which, however, it must be understood, does not meet the requirements laid down by Mr. Horsley as to the quantitative estimation of the electricity used and the changes, if any, induced. Mr. Horsley was fully justified in stating that at the present time there are no exact experimental data to show that any given quantity or degree of electricity will cause a known, that is a measured, amount of metabolic or nutritional change. It is desirable that this point should be made clear, as it is one of great importance, since the most prominent claim put forward by persons who trade in electricity—as, for instance, in the Harness "boom," now, happily, exploded—is that electricity causes a direct and mysterious change in the nutrition of the body, and that such is the basis of the marvellous cures these electricity mongers allege they produce. Mr. Horsley stated the true position in the following passage in his lecture[1]: "The use of electricity in treatment is a subject in which so little is known with actual truth, that this has, of course, been seized upon by the quack as a favourable field for his operation. In *bonâ fide* practice electrical currents are used in two ways. In the first place, simply as a mode of stimulating the functional activity of muscle or nerve when it appears probable that these are falling into abeyance from disuse due to disease; and, secondly, electrical currents (usually the constant current) are sometimes used quite empirically and arbitrarily, in the hope that they will help to bring about chemical changes in the tissues, so that the nutrition of the latter may be beneficially affected thereby, and the natural chemical processes underlying growth and functional activity be encouraged. It must be clearly understood that this use of the electrical current is purely arbitrary, and there is no scientific evidence whatever proving that there is any quantitative acceleration or increase of the tissue changes in the manner indicated. Unquestionably improvement occurs, but to what degree it is due to the electrical current, or in what way the latter may be supposed to act, are both points upon which no adequate research has yet given an answer." It is important that electrical experts and all medical practitioners should recognise fully what are the limitations of present knowledge on this subject, and that empirical surmises should not be mistaken for proved scientific facts.

HOSPITALS AND THE VOLUNTARY PRINCIPLE.

The biennial festival dinner in aid of the funds of the National Hospital for the Paralysed and Epileptic (Albany Memorial) was held on April 2nd, and the Duke of Cambridge, who was in the chair, in pleading the cause of the hospital, said that the addition of a new wing recently erected had added twenty beds to the accommodation provided by the hospital, which now contained provision for 200 in-patients. There was no class of sufferers, he said, among the poor who had stronger claims upon the charitable; and Lord Halsbury, who spoke on behalf of the Board of Management, emphasised this point by observing that epileptic patients were ineligible for admission to general hospitals. Lord Halsbury insisted upon the many advantages of voluntary hospitals; and the Duke of Cambridge, in acknowledging the toast of his health, expressed a very strong opinion to the same effect. "Do not," he said, "let us leave to the State to do what should come from the heart of the nation." His Royal Highness, speaking with some warmth, rejected the argument that in this matter we should follow the example of foreign nations. On the contrary, he said, we should be conscious that in this matter we had set a good example to foreign nations by showing them that the provision of hospitals for the sick should not be made a matter of compulsion and State administration, but should be the direct expression of the personal sympathy of the wealthier classes with their less fortunate fellow countrymen. The toast of "The Medical and Surgical Staff" was given by Sir Russell Reynolds, President of the Royal College of Physicians, who said that the school of neurology which had grown up at this voluntary hospital was second to none which had been established in foreign countries with the help of State subventions. Dr. Gowers, in acknowledging the toast, added the fact that since 1888, when a record was first kept, over 2,000 persons had attended the clinics of the hospital, some of them senior students, but many of them practitioners, not a few from foreign countries. The toast of "The Visitors and Subscribers" was given by Sir J. Crichton Browne, and duly acknowledged. Mr. Burford Rawlings was able to announce that the subscription list of the festival amounted to £4,440.

[1] *The Electrical Review*, March 1st, p. 256.

HARVEY'S MASTERPIECE.

Mr. Morton, of 42, Burgate Street, Canterbury, has recently issued to subscribers the *Exercitatio anatomica de motu cordis et sanguinis in animalibus*, Guilielmi Harvei Angli. It is privately reproduced in *facsimile* from the original edition printed at Frankfort-on-the-Maine in the year 1628. It is accompanied by a translation and a rather indifferent prefatory memoir. The volume is a supplement to the noble *facsimile* edition of Harvey's *Prelectiones Anatomiæ Universalis*, issued by a committee of the Royal College of Physicians of London in 1886. The *Prelectiones* are the rough manuscript notes used by Harvey when he delivered the Lumleian lectures before the College of Physicians in April, 1616. They treat of anatomy as a whole, the doctrine of the circulation being only introduced incidentally. The Anatomical Dissertation is a chapter elaborated from these notes. It is introduced by Harvey to Dr. Argent and other learned physicians, with the statement that: "I have already and repeatedly presented you, my learned friends, with my new views of the movement and function of the heart, in my anatomical lectures; but having now for nine years and more confirmed these views by multiplied demonstrations in your presence, illustrated them by arguments, and freed them from the objections of the most learned and skilful anatomists, I at length yield to the requests, I might say the entreaties, of many, and here present them for general consideration in this treatise." The *Exercitatio*, published when its author had reached the age of 50, therefore represents his mature thought upon the subject of the heart's action and the circulation of the blood. It was published at Frankfort at the expense of William Fitzer. Frankfort seems to have been selected for its issue because the celebrated fairs held in that town enabled the books appearing from its presses to be circulated with unusual rapidity throughout Europe. This little work of 72 quarto pages and a page and a-quarter of errata, due, no doubt, to the well-nigh illegible handwriting of Harvey, is perhaps one of the most interesting in the history of scientific medicine. The ease of its Latinity, so unlike the crabbed notes of the *Prelectiones*, the methodical arrangement, the temperate language, and the startling doctrine which it propounded, were well calculated to win for it a European reputation—a reputation which was enhanced by the attacks of such men as James Primrose, son of Gilbert, the principal surgeon to James VI of Scotland; of

Æmylius Parisanus, of Hoffman, and later of the younger Riolanus. The doctrine, though it was a hard saying to the men over 40 at the time of its publication, found favour in the eyes of the younger generation of physicians. It soon gained ground, facts pouring in upon all sides to prove its correctness. The discovery of the capillaries, and the evidence gained by the microscope that the blood corpuscles could be seen passing through them, forged the last link in the chain, and proved that Harvey, then lately dead, was in truth immortal.

POOR-LAW OFFICERS' SUPERANNUATION BILL.

We have been in communication with Mr. Walter Long, who has charge of this Bill, with a view to ascertaining whether it would not be possible to extend the advantages of its provisions to Scottish Poor-law officers. Mr. Long, however, is of opinion that, having regard to the fact that Scottish law and conditions differ so widely from English, it is impracticable to deal with both countries in the same measure. Poor-law medical officers in Scotland are most disadvantageously situated, in that they are still without the security of tenure which their English brethren, and even their fellow-officials in Scotland, the inspectors of poor, enjoy. We venture to suggest that a meeting of Poor-law medical officers might be convened in Glasgow or some large centre by those more actively interested in the matter. At that meeting a committee might be nominated to prepare, with legal assistance, the draft of a Bill dealing with the questions of superannuation and security of tenure. This committee might with advantage place itself in communication with the Association of Inspectors of Poor, with a view to securing concerted action in respect of the introduction of such a measure into Parliament next session.

EXTRA-UTERINE PREGNANCY.

The advance of abdominal surgery has very much increased our knowledge both of the nature and the treatment of ectopic gestation. Not many years ago the life of a patient subject to this grave anomaly in the reproductive process hung on a thread. The successful results of ovariotomy tempted surgeons to removal of tubal sacs. The operation often proved much harder than was expected. The sac was usually sessile, and buried in clot and firm inflammatory adhesions, but the difficulties were found to be not insuperable. One great result of these successful operations was the discovery of the true nature of hæmatocele, which is due to ectopic pregnancy far more often than was before suspected. The bold practice of immediate abdominal section when symptoms of rupture of the sac appear soon came into vogue, and the results justified the new operation. Lastly, it was found that the fœtus could, under certain circumstances, be removed from its abnormal position and saved. When once a class of operation of the type of ovariotomy becomes established, operators can extend and improve indefinitely. Thus the Russians were late in beginning ovariotomy. But within the last twenty years certain Russian surgeons, seeing the evils of isolated operations, boldly undertook ovariotomy on a large scale. The effect was of course the same as in this country. Very soon the results became satisfactory, they ended in deserving the term "brilliant." It will therefore not surprise us to learn from Zmigrodzky's recent publication[1] that Russian surgeons, learning the details of abdominal section from the excellent results of ovariotomy in their hands, have undertaken the treatment of extrauterine pregnancy by operative measures. At first their results were, of necessity, poor. Up till 1886, 51 out of 157 operations proved fatal. Yet these relatively unsatisfactory results perfectly justified the action of the operators. Had nothing been done very few of the unfortunate patients could have survived the dangers of the abnormal pregnancy. Since 1886 only 11 out of 97 similar operations have been unsuccessful. Yet the majority of the 86 in which the patient was saved were undertaken for rupture of the sac. Under these circumstances the patient is exhausted and in great danger, for the risk from the inevitable loss of blood preceding the discovery of symptoms is very high. In 1886 secondary operations (abdominal section after the death of the fœtus) were attended with a 26 per cent. mortality. Now the mortality has fallen to 11 per cent. Further efforts must be attended with better results. Only 31 cases of ectopic pregnancy in Russia since 1886 have been treated as unfit for operation. In 1 of these cases cure followed injection of morphine into the sac, in 1 a 5 per cent. solution of zinc chloride was used with good results. In 10 electricity stayed the advance of the pregnancy without, it would seem, entailing any evil effects. In 1 the same treatment proved useless. Surgery and therapeutics alike will look with suspicion on these palliative proceedings. They are carried on too much in the dark. In abdominal section the operator sees his way. Our Russian brethren must be congratulated on their good surgery and the brilliant results which have fully justified their practice.

[1] Summary of Literary Research on Extrauterine Pregnancy in Russia from 1885 to 1894 (in Russian). A careful abstract is published in the *Revue Internationale de Médecine et de Chirurgie Pratiques*, February 10th, 1895.

THE AUBERGINE OR BRINJAL.

Dr. Paterson, in the *Gardener's Chronicle*, has recently advocated the cultivation in this country of the "aubergine" of the French, the "brinjal" of India (*Solanum melongena*), partly on the ground of its being "an excellent remedy for those suffering from liver complaints." Both the aubergine and a variety more familiar in this country, known as the egg plant, have been cultivated here, more or less, as long as most of us can remember; but as ornamental or curious, rather than useful, plants. The egg plant has a white fruit, similar in size, shape, and colour to a hen's egg, and it is known in France under the popular names *plante aux œufs* and *poule qui pond*. Under cultivation the aubergine or brinjal proper has produced a number of very distinct varieties, differing mainly in the shape, size, and colour of the fruit, which is the edible part of the plant. The variety generally cultivated in France has large, club-shaped, violet fruits, but there are several other varieties, as is also the case in India, where its importance as a vegetable—for it is a vegetable in the culinary sense—is far greater than on the Continent. Indeed, it is more of a tropical plant than its near relative the tomato: hence it is not likely to become extensively cultivated in this country, especially as it has not the advantage of being palatable, both as a "fruit" and as a "vegetable." It took the English people many years to acquire a taste for the tomato, and the aubergine has no chance with it. The tomato, too, has a medicinal reputation, equal, if not superior, to that of the aubergine, but really only as an article of diet, not in a concentrated preparation; and, as already observed, the aubergine requires a warmer climate than the tomato, and probably would not succeed in the open air in this country, even in the most favourable seasons. Therefore it is unlikely that it will come into profitable cultivation.

DUAL PERSONALITY AND THE DOUBLE BRAIN.

A favourite theory with some speculative psychologists and one which appears to be gaining ground is that the two cerebral hemispheres are capable to some extent of independent activity. The theory has been evoked to account for those strange but well-established cases in which an individual appears to possess two states of consciousness, two personalities as it were—such cases as afford the basis of fact for Stevenson's weird romance of *Dr. Jekyll and Mr. Hyde*. Dr. Lewis C. Bruce, in the last number of *Brain*, records a case which is more strongly in favour of the double brain theory than any, so far as we know, previously reported. The man was an inmate of the Derby Borough Asylum. He was a Welshman by birth, and had been a sailor by occupation

He was a lunatic, but his mental characteristics were very different at different times. In one state he was English, in the other Welsh. In the English stage he was the subject of chronic mania. He spoke English, but understood and could converse in Welsh. He was restless, destructive, thievish, and fond of playing practical jokes. He exhibited a fair amount of intelligence, wrote, drew pictures of ships, related incidents in his past life, recognised the doctors and attendants, and was bold and fearless in his manner. His memory, however, was a blank as to what occurred in the Welsh stage. Thus, on one occasion he burnt his arm during the Welsh stage, but, passing a few days later into the English stage, he could give no account of how he suffered the injury. Yet he could remember events which had happened earlier in an English stage; for instance, a year later he could recall accurately particulars about Christmas decorations. He knew coins and their purpose, he recognised varieties of tobacco, and sought to obtain the weed by fair means or foul. He named the primary colours, and was pleased with the sound of a tuning fork. Taste, smell, and touch seemed to be unimpaired. His circulation was good (pulse of high tension), he had a good appetite, his bowels acted well, and he was very fond of his bath. Into the Welsh stage he passed either suddenly or by way of an intermediate stage; in the Welsh stage he was in a condition of dementia. He understood Welsh, but talked a gibberish in which, however, some Welsh words were recognisable; he did not understand English. He sat doubled up in a chair for hours, did not attempt to move at meal times, was sly and suspicious, did not recognise doctors or attendants, his circulation was weak, his extremities livid, his legs often œdematous (pulse of lower tension). He suffered from constipation, disliked bathing, did not recognise coins or tobacco, was alarmed at the sound of a tuning fork, and appeared to have no power of discriminating by smell or taste. As far as the symptoms so far mentioned go, it might be possible to explain the man's dual states, taking our clue from the fact that he retained some knowledge of Welsh in his demented stage, by supposing that some variation in the blood supply might have thrown in and out of action the more recently organised centres, which, as the man was born Welsh would be the organisation for speaking English, while the Welsh part of the speech-centre would still remain capable of some, though a very imperfect, form of activity. This hypothesis, however, appears to be negatived by the fact that he was right-handed while in the English stage, left-handed while in the Welsh stage. While in the intermediate stage, when this was observed, he was ambidextrous, and spoke a mixture of English and Welsh, understanding both languages. This fact seems to leave us no alternative but to conclude that in the English stage the left, in the Welsh stage the right hemisphere was the more active. In the Welsh stage, when he attempted to write, the result was practically illegible, but he used the left hand and traversed the paper from left to right. In the English he wrote with the right hand from left to right, and rather more legibly. He could also write with his left hand, but then traversed the paper from right to left, and his writing had the characters of mirror writing—that is, it could be read when held up to a mirror.

"AS ITHERS SEE US."

Dr. Brandt, who lately visited Paris, London, and several German universities for the sake of studying obstetrics and gynæcology, publishes his impressions in a recent issue of the *Norsk Magazin for Lægevidenskaben*. That the study of these subjects is so difficult in England the author attributes to two national peculiarities—the respect for the individual and the bashfulness of the women. He succeeded, however, in getting some insight into English gynæcology at one or two London hospitals. He was greatly struck by the scanty aseptic measures taken at operations. He noticed several times how the operator shook hands with newcomers, took off his eyeglass, and put it away in his pocket, and continued the operation without washing his hands. The wound was often in contact with the surgeon's beard. The nurses, who handed instruments and sutures, put their hands into their hair, opened doors, and carried out soiled solutions without redisinfection. The author asserts that were such sins against asepticism committed in Norway, they would have a mortality of 50 per cent. How the English surgeons, in spite of this, could get such good results was a constant source of wonder and discussion amongst the foreign doctors present. The author's explanations are: the strict speciality of English surgeons (abdominal sections were performed by surgeons, hysterectomies *per vaginam* by gynæcologists); their more general use of drainage after laparotomies; the few assistants present at the operation, as compared to what is usual abroad; the good and ample nursing; and last, but not least, the national cleanliness. Dr. Brandt also suggests that the damp atmosphere, by precipitating the dust, may be a factor in cleansing the air. He is of the opinion that diagnosis and treatment of disease amongst English physicians rests more often on a somewhat vague clinical basis than on a systematic application of pathological anatomy. This, however, does not exclude the fact that England possesses many first-class experimental pathologists and physiologists, but the subject is not made the chief one in the medical education. Sometimes this lack of systematism may even be an advantage; there are men in England who, for instance, are equally great as physiologists and as surgeons—two faculties which appear incongruous to the Scandinavian mind. The author would suggest that it is not only the national independence of mind which is at the root of this, but also the English wealth and the universal feeling of *noblesse oblige*.

WINDOW GARDENING.

We may expect, even this year, soon to see on every side evidences of the efforts made by town dwellers to bring into their lives some trace and some reminder of the country, even though it only take the form of a few flowers on the window sill. The practice of window gardening is one which has, during the last few years, undergone a considerable development, and, in the largest mansion or the smallest tenement alike, it is no uncommon thing to see windows quite blocked up with growing and flowering plants. We would point out then that there is a good and a bad form of window gardening. When it takes the form of growing flowers in boxes on the window sill, dangerous as it may in stormy weather be to the passer in the street, the practice is full of usefulness as well as of innocent enjoyment to the gardener. Windows which have probably been hardly opened through the winter are thrown wide open daily, free currents of fresh air are allowed to sweep through the house while the little garden is being tended, which would otherwise never gain entrance, and the desire to watch the progress of the budding plants causes windows to be cleaned which might otherwise retain that grimy coating by which such light as London has is so often debarred from access to London dwellings. Thus window gardening may be a means of introducing both light and air to city dwellings, an aid to health as well as a form of pleasure. There is, however, another mode of window gardening which is bad; it is the practice of blocking up windows with bowers of plants, often placed on tables, and so arranged as not only to prevent the access of light, but to make it difficult, if not impossible, to get at the window either to open or to clean it; light is thus kept out, the windows are not opened, and the process of window cleaning becomes so much more complicated that it is apt to be neglected. This stuffing up the windows with flowers from within is a practice which sins against sanitary axioms by encouraging dirt, and keeping out both light and air.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

CASES TREATED WITH ANTITOXIN OBTAINED FROM THE BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

Dr. Reginald C. Worsley, of Ramsgate, sends the following report: On January 25th, 1895, I saw E. B., aged 11. She had had sore throat four days. The tonsils were much enlarged and covered with yellowish-white membrane; the glands were enlarged at the angles of the jaws. Temperature 99.5°, pulse 110. The breath was very fœtid, and the tongue much coated. I gave a mixture of iron and chlorate of potash, and blew sulphur into the throat.

On the following day the tonsils met in the middle line. The uvula and part of the soft palate were covered with membranes. Albumen was found in large quantity in the urine, and the pulse was 120: temperature 99.5°. There was a purulent discharge from the nose. The following day the pulse was weaker and the breathing more laboured; the child was taking nourishment badly. I ordered stimulants, and swabbed the throat with perchloride solution (1 in 1,000). This being Sunday, I could not get any antitoxin. On the 29th the child was weaker and refused food. On the 30th the pulse was 100, the temperature normal, the uvula thickly coated, and the tonsils clearing slightly. The child complained of "something sticking in her throat," and in the afternoon she coughed up some membrane. At 7.30 P.M. I injected 14 c.cm. of antitoxic serum beneath the skin of the abdomen. The injection left a swelling of the size of half a peeled walnut; the pulse was 100, weak; temperature 98.4° at the time.

The next day the pulse was 84, the temperature normal. The child was much brighter, and swallowed fluid food fairly well. The membrane was disappearing rapidly; there was some still on the left tonsil but it was apparently loosening. The urine was loaded with albumen; the swelling on the abdomen had disappeared. On February 1st the child looked and felt much better; pulse 80. The tonsils were quite cleared; she was taking iron and potash mixture.

From this date the child improved for a week, then got into a very low, weak state, refused food almost entirely owing to obstinate vomiting, and had to be fed *per rectum* for a day or two. The pulse was rapid and feeble and the child restless, and constantly saying she wished to die; there was no rise of temperature. From this state she gradually recovered by careful feeding, stimulating, and nursing, and passed through a protracted convalescence. There was paresis of the palate, and of one side of the body subsequently.

The diagnosis of this case was confirmed by Dr. Ruffer by bacteriological examination. The serum could not, unfortunately, be obtained at once so as to be used early in the case, but the injection appeared to hasten recovery, and especially to promote separation of the membranes. Improvement in the general condition was marked and rapid after the injection, and that the child was suffering from a large dose of diphtheritic poison was indicated by the collapsed condition which ensued afterwards.

Glasgow City Fever Hospital.

In the *Glasgow Medical Journal* for March, Dr. Ernest L. Marsh gives details of 6 cases of diphtheria treated in the Glasgow City Fever Hospital with antitoxin procured from the British Institute of Preventive Medicine. Diphtheria bacilli were found in all of them on bacteriological examination. The ages and results are here tabulated:—Age 1 to 2 years, 3 cases—1 tracheotomy, 3 deaths; 3 to 4 years, 2 cases—2 recoveries; 4 to 5 years, 1 case—1 recovery.

Dr. W. S. Elliott, Malahide, Ireland, sends the following report:

A. H., aged 5 years, was the fourth case of diphtheria in a family, and the only one who recovered. Two died in Dublin, and the third, aged 2, was brought here apparently well, and was seen by me a few hours before death, which took place on February 17th. A. H. was quite well till the morning of February 21st, when she refused breakfast. She was taken for a walk afterwards, and seemed dull, and became tired; she complained of her throat. I visited her the same evening for the first time, and found her pale, heavy, and languid. The submaxillary and cervical glands were enlarged, and there were two pieces of exudation on the left tonsil. On February 22nd there was distinct membrane on the left tonsil and pharynx; the glands were more enlarged. The child was very pale, and had had a restless night. She complained of her nose. Temperature, 100° in the morning; 101.8° in the evening. On February 23rd, though she was looking better, membrane had developed on both tonsils and sides of the pharynx. There was a herpetic eruption under the jaw on the left side. Temperature 99.8° in the morning, 101.8° in the evening. On February 24th, at my morning visit I found the child weaker; she had had a bad night. There was much difficulty in feeding. She had been coughing and the nasal discharge had increased. The membrane was spreading downwards. I injected antitoxin, 2 c.cm. (Burroughs and Wellcome), into the back. At 12 15 P.M. (time of injection) the temperature was 100.4°; at 2 P.M. it was 101.6°; at 4 P.M., 102°; at 7 P.M., 102.8°; at 9 P.M., 101.8°. At the evening visit I found that the cough had increased, the breath was very offensive, the pulse much weaker. On the morning of February 25th the state of the throat was unchanged. I injected antitoxin (Ruffer), 5 c.cm. In the evening I found that she had been quieter, and was swallowing better. The pulse had improved. The child said her throat "did not hurt now." There was an eruption on the back near the site of punctures. I again injected antitoxin (Ruffer), 6 c.cm. Temperature at 11 A.M. 100.8° (second injection); at 2 P.M., 98.6°; at 5 P.M., 100.8°; at 7 P.M., 102°; at 11 P.M., 100° (third injection). On February 26th, at 2 A.M., it was 100.4°; at 4 A.M., 99.4°; at 8 A.M., 98.4°; at 11 A.M., 100.4°. There was a great change for the better in all respects. The membrane was distinctly less on the left side, and was becoming detached round the edges. It was also less on the other side. The nasal discharge had ceased. At 9 P.M. the temperature was 98°. The child had taken food well, and the improvement was continuing. On February 27th the patient was convalescent. The membrane had entirely disappeared. There were two tiny spots resembling lymph where it had been. Some enlargement of glands remained. One and a half drachm of tinct. ferri perchlor. were given each twenty-four hours. The nose and throat were powdered two or three times daily at first with magnesium sulphide. On the eleventh day after the first injection an urticarial eruption appeared on the back and posterior aspect of the limbs. The pulse-rate throughout average 120, and the respirations 26 per minute. There was no albuminuria throughout.

THE ANTITOXIN TREATMENT ABROAD.

Germany.—The German Government has issued an order that before antitoxin can be offered for sale in the German Empire it must be submitted to the Institute of Infectious Diseases at Berlin. After examination the institute will mark with a special stamp the date and number of the sample on the bottle. This regulation came into force on April 1st.

France.—A measure similar to that passed by the German Government is now before the French Legislature. The French Minister of War has decided that a supply of antitoxin for use in military hospitals shall be kept ready at the headquarters of the medical staff of each army corps. Reports of all cases in which the serum is used must be sent in to the proper authorities within fifteen days.

Belgium.—According to the *Presse Médicale Belge*, there is great dissatisfaction among the members of the medical profession in Belgium as to the difficulty of procuring supplies of antitoxin. On March 16th Dr. Charles, a member of the Senate, asked the Government to organise a service for the distribution of the serum. Professor Lefebvre spoke in the same sense, and M. de Burlet, the Minister, promised that steps would be taken to satisfy the demands of the medical profession on this point.

Holland.—Professor Spronck has been experimenting on the comparative immunising power of the serums of Behring and Roux. The results are published in the *Weekblad van het Nederlandsch Tydschrift voor Geneeskunde*, March 9th. Professor Spronck pronounces in favour of Roux's serum on the following grounds: 1. Roux's serum contains at least 153.8 units of immunising strength, against the maximum 140 of Behring's No. III. 2. He condemns the admixture of carbolic acid, which, when rather large quantities of the serum are required, must be injurious to the patients. 3. He objects to the form of dosage under which Behring's serum is distributed. He argues that much confusion and disappointment have been caused, and very unreliable statistics have been the consequence. He considers that the better results which have been obtained in France from the beginning are largely due to the rational manner in which the serum has been distributed.

Italy.—On March 8th the Minister of the Interior issued an order for the preparation and sale of the antidiphtheric serum in Italy. The Minister states that he has caused numerous investigations to be made in his laboratories which have shown that the serum sent out by Meister, Lucius, and Bruhning, and from Pasteur's laboratories do not possess the strength indicated on the phials, and two only of the serums prepared in Italy up to now presented for examination—that from the municipal laboratory of Milan and that from the projected antidiphtheria institute of the same city—attain, without being superior, the strength of those sent from abroad. Whilst, according to Behring, the serum ought to represent a strength of at least 100 immunising units per cubic centimetre it has been discovered that, following precisely his method and that of Ehrlich indicated for the determination of its strength the serum sent out from these places does not show a strength, of more than 60 units. The Minister, in view of this uncertainty, therefore, leaves the entire responsibility to the doctors who desire the use of those serums which have a strength of 60 units. He reserves, however, the power to revoke such authorisations to the said laboratories, foreign and Italian, in case it results that from the clinical trials which are still going on such strength does not assure the therapeutic efficacy wished for.

The Minister orders that no institute be opened for the preparation of the serum except under conditions as regards staff and equipment which ensure its efficiency. No serum is to be used prepared otherwise than by the national institutions fulfilling these conditions or by foreign institutions recognised by the Minister of the Interior. In every case the serum must reach at least a strength of 60 immunising units, proved according to the method of determination of Behring and Ehrlich. Every phial must be stamped with a suitable stamp of the institute which prepares it, and the label must in every case bear the name of the institute, the number of the series, the date of collection, and the strength of the serum. Depôts for the phials containing the serum can only be held for public distribution in: (1) the institutions already authorised for its preparation, (2) the offices of the provincial doctors [these correspond to the county health officers in England], (3) the offices of the communal boards of health, (4) pharmacies, and (5) hospitals. The contravention of this order will be punished, according to Clause 50 of the Sanitary Law, with a pecuniary penalty not exceeding 500 lire (£20) and with imprisonment for six months.

United States.—Assistant-Surgeon B. Ewing has been detailed by Surgeon-General Sternberg to establish an antitoxin "plant" at Jefferson Barracks, Missouri. Dr. Ewing has already procured a number of horses, which, after being subjected to the mallein and tuberculin tests, will be used for the purpose.

Dr. Hermann M. Biggs, Director of the New York Bacteriological Department, reports that the general mortality from diphtheria in that city has been reduced nearly 40 per cent., a result apparently due to the use of antitoxin.

According to the *Boston Medical and Surgical Journal* Dr. A. P. Ohlmacher, Director of the Pathological and Bacteriological Laboratories of the University of Wooster, Cleveland, Ohio, claims to have rendered a horse immune against diphtheria in one month and sixteen days. This horse, according to Dr. Ohlmacher, is the first one rendered immune to diphtheria in the United States.

Argentine Republic.—The preparation of the antitoxin has been begun in Buenos Ayres. Three horses are already in course of immunisation. Dr. José Badia has been provisionally appointed head of the serotherapeutic service.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 24th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

April 4th, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Cardiff on Tuesday, April 30th. Members wishing to read papers, or show cases, specimens, etc., are requested to send titles to Dr. Sheen, Cardiff, not later than April 16th.—A. SHEEN, D. A. DAVIES, Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place at Gravesend on Thursday, May 16th, Mr. R. J. Bryden in the chair. Members wishing to read papers, or exhibit patients or specimens, are requested to inform the Honorary Secretary, EDWARD GROUND, M.D., 1, Ashford Road, Maidstone, not later than April 21st.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held in the Radcliffe Infirmary, at 3.15 P.M. on Friday, April 27th. Members are requested to give notice to the Honorary Secretary, W. LEWIS MORGAN, 37, Broad Street, Oxford, as soon as possible, of any papers, etc., they wish to read.

NORTH OF IRELAND BRANCH.—The spring meeting of this Branch will be held in the Museum, College Square North, Belfast, on Thursday, April 18th, at 4 P.M. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting will kindly communicate as early as convenient with JOHN CAMPBELL, Honorary Secretary, 21, Great Victoria Street, Belfast.

NORTH WALES BRANCH.—The intermediate meeting will be held at the Owain Glyndwr Hotel, Corwen, on Thursday, April 11th, at 2 P.M.; luncheon at 1 P.M. After formal business the following papers will be read:—Dr. John Elliot: On Guaiacol in Acute Tuberculosis. Mr. Damer Harrisson, F.R.C.S.Edin.: A Case of Subdural Hæmorrhage produced

by Contre-Coup. Mr. Lawson Tait, F.R.C.S.: On Overdistension of the Female Bladder: its Causes and its Dangers, its Diagnosis and its Treatment.—W. Jones Morris, Honorary Secretary, Is-y Coed, Portmadoc.

Aberdeen, Banff, and Kincardine Branch.—An ordinary general meeting of this Branch will be held on Wednesday, April 17th, at 8 P.M. Business: Minutes, nominations, etc. Thereafter, by order of the Council, a special general meeting of the Branch will be held to consider the paragraph that appeared in the *Daily Free Press* of March 22nd last concerning the last ordinary general meeting of the Branch.—C. Thiselton Urquhart and J. Scott Riddell, Joint Honorary Secretaries.

Southern Branch: South East Hants District.—An ordinary meeting of this District will be held on April 9th, at 9 P.M., at the Medical Library, 5, Pembroke Road, Portsmouth.—C. C. Claremont, Honorary Secretary, 57, Elm Grove, Southsea.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The sixth meeting of the session was held on Thursday, March 14th, Mr. H. Langley Browne, President, in the chair: twenty-eight other members were present.

New Members.—The following were elected members of the Branch: Matthew Johnston, L.R.C.P., M.R.C.S., of Bewdley; H. W. Porter, L.R.C.P., M.R.C.S., of Birmingham; and W. A. Marris, M.B., of the General Hospital, Birmingham.

Medical Clubs and Societies.—It was resolved that the warm sympathy of this Branch be expressed to the Cork Branch in the course it has taken with regard to medical clubs and societies.

Nomination of Officers.—Nominations were received for the posts of President-Elect, Treasurer, Honorary Secretaries, Council, and Representatives on the Council of the Association.

Paper.—Mr. J. W. Taylor read a paper on a case of Loreta's Operation.

Communications.—Mr. F. Marsh showed a man, aged 30, whom he had Trephined for Abscess of the Temporo sphenoidal Lobes on January 19th. The patient had made a rapid recovery.—Dr. J. A. Codd showed a case of Laryngeal Stenosis, cured by Intubation. The patient, a boy, aged 4, was admitted under the care of Dr. Malet with urgent symptoms of laryngeal obstruction of a week's duration, for which Mr. Cholmeley immediately peformed tracheotomy. A fortnight later an attempt was made to pass a laryngeal probe and intubation tube, but the glottis would not admit it. About seven weeks later, his condition being nearly the same, Mr. Cholmeley passed a small Lister's sound into the larynx through the tracheal wound, and dilated the larynx up until the smallest intubation tube could be introduced. This was changed in a week for the next size, the tracheal wound having healed, and the full size for a four-years-old child inserted three days afterwards, which he wore for three weeks (being removed for cleaning once a week). On final removal he could breathe quite readily through the larynx and phonate loudly. The boy appeared to be cured of absolute dependence upon a tracheotomy tube.—Mr. J. T. J. Morrison showed a man, aged 32, on whom he had operated twelve days previously for a Swelling of the Left Half of the Scrotum and corresponding Inguinal Canal. The patient had for many years thought that the left testicle was larger than the right, but the enlargement gave rise to no inconvenience. About four months before admission, after unusual exertion, the swelling became larger, and continued to increase for several weeks; a dull pain, intensified by manipulation being experienced. The bowels were regular, and the general health remained good. The swelling was as large as a medium-sized cocoanut, pyriform, elastic, non-translucent, and covered by uninflamed skin. There was an obscure impulse on coughing, and the swelling presented irregularities of surface suggestive of omentum. Mr. Morrison considered the possibility of new growth of the testis, but thought the evidence was against that view, his diagnosis being omental hernia, and probably a thickened tunica vaginalis. At the operation on March 2nd a tightly-packed mass of great omentum weighing 14 ounces was removed from a congenital inguinal sac in which it lay in contact with the compressed testis. After reduction of the ligatured omental stump, the sac was stripped from the canal, and tied at the internal ring. Finally, the redundant part of the sac was removed, and the edges of the lower portion united by a continuous catgut suture, so as to constitute an artificial tunica vaginalis. The wound healed very quickly, and the patient was shown in excellent health.

SOUTH EASTERN BRANCH: EAST KENT DISTRICT.

A meeting of this District was held at the Cottage Hospital, Faversham, on March 28th. In the unavoidable absence, through illness, of Dr. Selby, the chair was taken by Dr. Alexander, of Faversham. Eleven members and visitors were present.

Representatives on Council of Association.—Dr. Parsons, Dr. J. H. Galton, and Mr. Jenner Verrall were nominated as representatives of the South Eastern Branch on the Council of the Association.

Notices of Motion.—Dr. Gosse gave notice of a resolution which he proposes to move at the annual meeting at Canterbury in May in support of the action of certain medical men in Cork in relation to medical clubs.—Dr. Welsford read a printed advertising letter, emanating from a member of the British Medical Association, in reference to which he intends to move a resolution at the Canterbury meeting in May.

Communications.—Dr. Alexander read a paper on *Post-hoc* and *Propter-hoc*. He pleaded for the careful record of cases coming under the notice of practitioners, and deplored the failure of the collective investigation scheme. He alluded to the immunity from influenza which was stated to result from the effects of diet, more especially he mentioned Charrier's observation that those who were taking cod-liver oil generally escaped. He discussed the questions of emotional pyrexia, of diet in cancer, and of maternal impressions; and on the latter point he suggested the possibility of employing agencies so as to affect the mother with favourable consequences to her offspring. Dr. Alexander concluded with a suggestion that subjects for future meetings should be chosen well beforehand, so as to ensure interest and promote debate.—In the absence of Mr. Brian Rigden, through domestic bereavement, the Honorary Secretary read his paper on Some Points in reference to Life Assurance. Three points were suggested for discussion: 1. Should all lives with mitral murmurs, if otherwise good, be rejected? 2. Should all cases of albuminuria be rejected? and 3. For the purpose of life assurance, was the question of the specific gravity of the urine of any real value?—A discussion followed the reading of each of these papers.

BRITISH MEDICAL ASSOCIATION.

SIXTY-THIRD ANNUAL MEETING.

The sixty-third Annual Meeting of the British Medical Association will be held in London on Tuesday, Wednesday, Thursday, and Friday, July 30th, 31st, August 1st and 2nd, 1895.

President: E. Long Fox, M.D.Oxon., F.R.C.P., Consulting Physician to the Bristol Royal Infirmary.

President-Elect: Sir J. Russell Reynolds, Bart., M.D., F.R.C.P., F.R.S., President of the Royal College of Physicians.

President of the Council: J. Ward Cousins, M.D.Lond., F.R.C.S., Senior Surgeon to the Royal Portsmouth Hospital.

Treasurer: Henry Trentham Butlin, F.R.C.S., D.C.L., Surgeon to St. Bartholomew's Hospital, E.C.

An Address in Medicine will be delivered by Sir William Broadbent, Bart., M.D., F.R.C.P., Physician-in-Ordinary to H.R.H. the Prince of Wales.

An Address in Surgery will be delivered by Arthur Edward Durham, F.R.C.S., Consulting Surgeon to Guy's Hospital.

An Address in Physiology will be delivered by Edward Albert Schafer, F.R.S., Jodrell Professor of Physiology, University College.

The Scientific Business of the Meeting will be conducted in Fifteen Sections, as follows, namely:

A. Medicine.

Lecture Theatre—Conjoint Examination Hall.

President: F. W. Pavy, M.D., F.R.S. *Vice-Presidents:* Sir Frederic Bateman, M.D.; D. W. Finlay, M.D.; W. S. Church, M.D.; J. W. Moore, M.D.; Stephen Mackenzie, M.D.; E Markham Skerritt, M.D. *Honorary Secretaries:* William Collier, M.D., St. Mary's Entry, High Street, Oxford; W. P. Herringham, M.D., 13, Upper Wimpole Street, W.; Sir Hugh R. Beevor, M.D., 18, Serjeant's Inn, Fleet Street, E.C.

B. Surgery.

Central Room, Second Floor—Conjoint Examination Hall.

President: Sir Wm. Mac Cormac, F.R.C.S. *Vice-Presidents:* T. Bryant, F.R.C.S.; C. N. Macnamara, F.R.C.S.; Reginald Harrison, F.R.C.S.; A. Willett, F.R.C.S.; Sir W. Stokes, M.D.; Mayo Robson, F.R.C.S. *Honorary Secretaries:* J. D. Harris, M.R.C.S., 45, Southernhay, Exeter; J. Bland Sutton, F.R.C.S., 48, Queen Anne Street, W; A. Marmaduke Sheild, F.R.C.S., 4, Cavendish Place, Cavendish Square, W.

C. Obstetrics and Gynæcology.

Large Theatre—King's College.

President: Sir Wm. Priestley, M.D. *Vice-Presidents:* A. R. Simpson, M.D.; J. Watt Black, M.D.; Sir Francis Laking, M.D.; J. Knowsley Thornton, M.B.; W. J. Sinclair, M.D.; M. Handfield-Jones, M.D. *Honorary Secretaries:* W. S. A. Griffith, M.D., 114, Harley Street, W.; A. H. F. Barbour, M.D., 4, Charlotte Square, Edinburgh; W. R. Dakin, M.D., 57, Welbeck Street, W.

D. Public Medicine.

Lower Hall—Exeter Hall.

President: Ernest Hart, D.C.L. *Vice-Presidents:* J. Spottiswoode Cameron, M.D.; C. H. W. Parkinson, M.R.C.S.; Wm. Collingridge, M.D.; Louis C Parkes, M.D.; P. Boobbyer, M.D.; John C. Thresh, M.D. *Honorary Secretaries:* C. E. Paget, M.R.C.S., Town Hall, Salford; Reginald Dudfield, M.B., Sanitary Department, Vestry Hall, Harrow Road, Paddington, W.; F. W. Clark, M.B., Lowestoft.

E. Psychology.

South Room, Ground Floor—Conjoint Examination Hall.

President: W. J. Mickle, M.D. *Vice-Presidents:* G. H. Savage, M.D.; T. Claye Shaw, M.D.; D. Nicolson, M.D.; Henry Rayner, M.D.; J. G. McDowall, M.D.; Lionel A. Weatherly, M.D. *Honorary Secretaries:* James Chambers, M.D., 99 Harley Street, W.; T. Seymour Tuke, M.B., 37, Albemarle Street, W.; James Taylor, M.D., 34, Welbeck Street, W.

F. Physiology.

Physiological Laboratory—King's College.

President: David Ferrier, M.D., F.R.S. *Vice-Presidents:* E. E. Klein, M.D., F.R.S.; Wm. Stirling, M.D.; De Burgh Birch, M.D.; J. Berry Haycraft, M.D. *Honorary Secretaries:* C. S. Sherrington, M.D., F.R.S., Brown Institution, Wandsworth Road, S.W.; E. H. Starling, M.D., 14, Grosvenor Road, S.W.

G. Anatomy and Histology.

Chemical Theatre—King's College.

President: Henry Morris, F.R.C.S. *Vice-Presidents:* A. Macalister, M.D., F.R.S.; W. J. Walsham, F.R.C.S.; A. H. Young, F.R.C.S.; B. C. A. Windle, M.D.; G. H. Makins, F.R.C.S.; A. W. Hughes, F.R.C.S. *Honorary Secretaries:* F. G. Parsons, F.R.C.S., St. Thomas's Hospital, S.E.; C. B. Lockwood, F.R.C.S., 19, Upper Berkeley Street, W.

H. Pathology and Bacteriology.

East Wing Room, Second Floor—Conjoint Examination Hall.

President: Samuel Wilks, M.D., F.R.S. *Vice-Presidents:* J. M. Purser, M.D.; J. F. Goodhart, M.D.; Sidney Coupland, M.D.; R. Saundby, M.D.; W. Watson Cheyne, F.R.C.S.; Anthony A. Bowlby, F.R.C.S. *Honorary Secretaries:* S. G. Shattock, F.R.C.S., St. Thomas's Hospital, S.E.; H. D. Rolleston, M.D., 13, Upper Wimpole Street, W.

I. Ophthalmology.

Large Committee Room, Ground Floor—Conjoint Examination Hall.

President: H. Power, F.R.C.S. *Vice-Presidents:* D. Argyll Robertson, M.D.; W. A. Brailey, M.D.; G. Anderson Critchett M.A., F.R.C.S.Edin.; W. Adams Frost, F.R.C.S.; A. Emrys Jones, M.D.; A. H. Benson, M.B. *Honorary Secretaries:* R. W. Doyne, F.R.C.S., Kilcrone, Oxford; E Treacher Collins, F.R.C.S., 84, Wimpole Street, W.; W. T. Holmes Spicer, F.R.C.S., 47, Welbeck Street, W.

J. Diseases of Children.

Theological Class Room—King's Colleye.

President: J. H. Morgan, F.R.C.S. *Vice-Presidents:* W. B. Cheadle, M.D.; F. A. Southam, F.R.C.S.; H. Handford, M.D.; W. Arbuthnot Lane F.R.C.S.; A. Foxwell, M.D.; D'Arcy Power, F.R.C.S. *Honorary Secretaries:* Dawson Williams, M.D., 25, Old Burlington Street, W.; Hugh R. Jones, M.D., 58A, Grove Street, Liverpool; Herbert F. Waterhouse, M.D., 81, Wimpole Street, W.

K. Otology.

Room 23—King's College.

President: Sir W. Dalby, F.R.C.S. *Vice-Presidents:* Charles Warden, M.D.; G. P. Field, M.R.C.S; E. Cresswell Baber, M.B.; J. Dundas Grant, M.D.; Edward Law, M.B.; C. A. Ballance, F.R.C.S. *Honorary Secretaries:* C. E. L. B. Hudson, F.R.C.S., 16, Harley Street, W.; G. C. Wilkin, L.R.C.P., 39, Weymouth Street, W.

L. Pharmacology and Therapeutics.

East Wing Room, Ground Floor—Conjoint Examination Hall.

President: Sir William Roberts, M.D., F.R.S. *Vice-Presidents:* J. Talfourd Jones, M.B.; T. Lauder Brunton, M.D., F.R.S.; J. Mitchell Bruce, M.B.; W. Hale White, M.D.; Donald MacAlister, M.D.; M. McHugh, M.B. *Honorary Secretaries:* Vaughan Harley, M.D., 25, Harley Street, W.; W. Soltau Fenwick, M.D., 10, Devonshire Street, W.

M. Laryngology.

North Room, Ground Floor—Conjoint Examination Hall.

President: Felix Semon, M.D. *Vice-Presidents:* Sir Philip Smyly, M.D.; W. Macneill Whistler, M.D.; F. de Havilland Hall, M.D.; Greville Macdonald, M.D.; Scanes Spicer, M.D.; A. W. Sandford, M.D. *Honorary Secretaries:* J. Middlemass Hunt, M.B., 55, Rodney Street, Liverpool; St. Clair Thomson, M.D., 28, Queen Anne Street, W.; E. B. Waggett, M.B., 66, Park Street, Grosvenor Square, W.

N. Dermatology.

West Wing Room, Second Floor—Conjoint Examination Hall.

President: H. Radcliffe Crocker, M.D. *Vice-Presidents:* McCall Anderson, M.D.; Malcolm Morris, F.R.C.S.Edin.; J. J. Pringle, M.B.; Wm. Anderson, F.R.C.S.; H. A. G. Brooke, M.B. *Honorary Secretaries:* J. Herbert Stowers, M.D., 41, Finsbury Square, E.C.; Jonathan Hutchinson, Jun., F.R.C.S., 15, Cavendish Square, W.

O. Ethics.

Room B—King's College.

President: W. F. Cleveland, M.D. *Vice-Presidents:* Thomas Bridgwater, M.B.; J. Hughes Hemming, M.R.C.S.; D. B Balding, F.R.C.S.; C. Parsons M.D.; W. H. Axford, M.B.; A. Dempsey, M.D. *Honorary Secretaries:* Major Greenwood, M.D., LL.B., 243 Hackney Road, N.E.; T. F. Pearse, M.D., 12, Norfolk Street, Southsea; Hugh Woods, M.D., 11, Archway Road, Highgate, N.

Honorary Local Secretaries:
Andrew Clark, F.R.C.S., 71, Harley Street, W.
Isambard Owen, M.D., 40, Curzon Street, W.

Honorary Local Treasurer:
George Eastes, M.B., F.R.C.S., 35, Gloucester Terrace, Hyde Park, W.

Programme of Proceedings.

Tuesday, July 30th, 1895.

9.30 A.M.—Meeting of 1894-95 Council. Council Room, Exeter Hall.
11.30 A.M.—Special Service at St. Paul's Cathedral. Sermon by the Most Rev. His Grace the Lord Archbishop of Canterbury.
2.30 P.M.—First General Meeting. Report of Council. Reports of Committees; and other business. Exeter Hall.
9.0 P.M.—Adjourned General Meeting from 2.30 P.M. President's Address, and Reception by Metropolitan Members, Imperial Institute.

Wednesday, July 31st, 1895.

9.30 A.M.—Meeting of 1895-96 Council. Council Room, Exeter Hall.
10 A.M. to 3 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine. Any business adjourned from First General Meeting at 2.30 previous day. Exeter Hall.

Thursday, August 1st, 1895.

9.30 A.M.—Meeting of Council. Council Room, Exeter Hall.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery. Exeter Hall.
7.30 P.M.—Dinner of the Association at Queen's Hall, Langham Place.

Friday, August 2nd, 1895.

10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Concluding General Meeting. Address in Physiology. Exeter Hall.

THE ANNUAL MUSEUM.

In connection with the Sixty-third Meeting of the British Medical Association this Museum will comprise the following Sections:

A. Drugs and Foods, including Chemical and Pharmaceutical Preparations, Prepared Foods, etc.

B. Instruments, comprising Medical and Surgical Instruments and Appliances, Electrical Instruments, Microscopes, etc.

C. Books, including Diagrams, Charts, etc.

D. Sanitary and Ambulance Appliances.

N.B.—The space allotted to the Annual Museum at the Examination Hall on the Victoria Embankment includes the whole of the first floor, which consists of five large rooms, approached by three staircases. The Sectional Meetings in Medicine, Surgery, Psychology, Pathology, and Bacteriology, Laryngology, Pharmacology, and Therapeutics, will probably be held in other rooms in this building.

A limited number of small rooms in King's College, where the following Sectional meetings will probably be held: Obstetrics, Anatomy and Physiology, Ophthalmology, Diseases of Children, Otology and Ethics, are also available for separate exhibitors at special rates.

The Terrace at King's College has been placed at the disposal of the Committee for the exhibition of sanitary and ambulance appliances.

For Sections A, B, and C the approximate charge for table space will generally be 5s. to 7s. 6d. per square foot, depending upon the position of the table, tables 3 feet and 3 feet 6 inches wide being provided.

In Section D, 1s. per square foot for floor space (all fittings to be provided by the exhibitor). If this space is utilised for any other purpose but the exhibition of sanitary and ambulance appliances, the charge will be an extra one, to be ascertained on application.

The Committee reserve the right to arrange for special rates for exhibits requiring considerable space.

The conditions upon which exhibits will be received can be had on application to the Honorary Secretary to the Committee.

Nestor Tirard, M.D., Chairman, 74, Harley Street, W.
J. W. J. Oswald, M.D., Honorary Secretary, 11, Chandos Street, Cavendish Square, W.
} Annual Museum Sub-committee.

SPECIAL CORRESPONDENCE.

PARIS.

Magistrates and Madness.—Health of the French Army.—A Death from Hydrophobia.—Dwellings for the Poor.—Examination for the Internat.—Cholera in Cambodia.—General News.

At a recent meeting of the Medico Psychological Society several members, in the course of a discussion on the magistracy and madness, brought forward facts demonstrating that notwithstanding the progress of mental science and criminal anthropology, the mental attitude of the magistrates shows that they are even less enlightened than formerly. Magistrates sign a decree declaring the criminal to be mad; other magistrates set at liberty these same criminals, often assassins, notwithstanding the evidence of experts they have themselves named, and declare they are not mad. The discussion also brought to light facts often dwelt on by Dr. Bourneville that even children thoroughly irresponsible from mental diseases who have been sentenced by the infallible magistrates for committing crimes whilst under the influence of their pathological condition are admitted into asylums. These painful facts show that the magistrates are ignorant of the law of June 30th, 1838.

The medical statistics of the French army for 1892, which have just been published, show that cases of slight illnesses were considerably fewer than in 1891. Those treated in the infirmary of the barracks were in the proportion of 890 per 1,000, and were principally men who had served less than a year. The divisions furnishing the largest number of invalids were the Paris Military Government, the Rouen Army Division, and the Oran, Algiers, and Constantine troops. The mortality was 6.24 per 1,000, as against 7.53 in 1891. The mortality was the lowest among the troops stationed at Lille, Bourges, and Clermont Ferrand. Paris ranks eleventh in the scale of mortality among 23 groups, Algiers and Tunis being the last. There occurred in these regions many cases of tuberculosis, paludism, and typhoid fever. The Paris sappers and miners, notwithstanding their constant residence in Paris, are ranked among the healthiest regiments. Altogether 11,239 soldiers have been invalided. From 1892 to 1893 537,786 vaccinations and revaccinations were performed. The lowest proportion of successful results was 34.9 and 48.9 per cent. and the highest 92.3 and 95.6 per cent. Among 328,054 reserve men called out in 1892 there were 29,917 patients suffering from slight illness, 7,159 admitted into the infirmary, and 2,969 into the hospital; 3,320 were invalided, and 87 died during their service. These statistics are considered to demonstrate an improvement in the army sanitation since 1892. In the division of the Military Government of Paris there were isolated cases of typhoid fever prior to the substitution of river water for spring water in May of that year.

M. Proust at a recent meeting of the Superior Sanitary Council read notes of a case of rabies followed by death three months after the bite was inflicted, after being treated at the Pasteur Institute. Death was preceded by three days' illness.

The Society for Providing Cheap Dwellings possesses 1,081 lodgings, inhabited by 8,000 lodgers, who pay a third less rent than their neighbours; nevertheless the profit is a little more than 5 per cent. Dr. O. Mesnil, at a recent meeting of the Society, showed the social importance of the undertaking of the Society for providing cheap dwellings.

The Commission appointed to examine the different changes proposed in the competitive examination for the *internat* has come to the following decision: The *vivâ voce* anatomy and pathology examinations are to be replaced by a written examination. Two hours will be accorded for these two examinations. There will be an examining body of ten, divided into two by drawing lots, so arranged that in each there will be two physicians, two surgeons, and an accoucheur. One division will examine papers on anatomy, the other on pathology. For the *vivâ voce* examination the ten examiners will unite.

A month ago cholera broke out at Cambodia; six cases followed by almost instant death occurred at Pnom-Penh. The Saigon Health Council, convened by the Lieutenant-Governor, immediately took steps to arrest the malady. Strict orders were given to the officials to overlook the sanitary condition of passengers coming from Cambodia. The epidemic, it is said, has thus been arrested.

M. Floquet, chief physician at the Palais de Justice (Law Courts) has published his statistics of attendance, which are as follows: M. Floquet and his assistant (Dr. Kartz) attended 241 patients at the Palais de Justice and Tribunal of Commerce.

At a meeting of the General Council of the Paris Faculties

held at the Sorbonne, the deans of each Faculty stated that a portrait of identity has been given to every student who has asked for one. The invitation addressed to the Council by the General Council of the Lille Faculties has been accepted for June 2nd, when the new University buildings will be opened.

The Paris Municipal Council has voted £3,000 for the purpose of furnishing the maternity wards of the Beaujon Hospital; they will contain 40 beds for lying-in women, 12 for pregnant women, and 6 for cases requiring to be isolated—a total of 58 beds. The actual maternity furniture will be utilised in a medical ward.

ROME.

The Manicomio di Roma.

As in the near future great changes are to take place both in the government of the Manicomio (the lunatic asylum of Rome) and the building itself, a brief account of this institution may not be inappropriate. In the early part of the sixteenth century persons of unsound mind wandered about the streets of Rome under no control. In 1548 two Spanish priests—Ruiz of Seville and Diego Angelo Bruno—collected them all, without distinction of sex, and placed them at first in rooms attached to the church of St. Caterina di Funari, where Ruiz was then chaplain, and afterwards in a house in Piazza Colonna. Ruiz had two powerful helpers, St. Carlo Borromeo and St. Philip Neri. In 1561 Pius IV by special bull approved of the new institution, with the title of Confraternità di Santa Maria della Pietà. Two years afterwards medical treatment for the male lunatics was introduced. In 1726 Benedict XIII had built on to the Hospital of Santo Spirito two wings, one for the male and the other for the female lunatics, and they were removed there from the Piazza Colonna in that year. Since that time up to to-day this place has been the home of the Roman lunatics. The only changes made in the government was the appointment of a priest as rector, who with the doctor formed the chief staff of the new Manicomio, which contained 85 men and 73 women. The Pope paid for each inmate, monthly, about 19 francs.

Towards the end of the eighteenth century great reforms were carried out in the building and in the treatment of the inmates, though the exertions of Dr. Flajani, Archiatro of Pius VI, and prefect of Santo Spirito. In 1844 a doctor of medicine was appointed resident medical inspector, and in 1850 the asylum was, for the first time, placed under medical control. The staff consisted of a resident medical director, a resident medical assistant, and two extern physicians and consultants. In 1863, at the express desire of Pope Pius IX, the building was enlarged, the Villa Barberini, with its grounds, being added to it. The same Pontiff also built a library, and the non-restraint system was introduced for the first time. Hydrotherapeutics were established, and as moral treatment, work in the gardens and in the various workshops was instituted for the patients. In the Villa Barberini was established a pension for the wealthier classes of both sexes. Five years later the Villa Gabriella was added, thus enabling the separate system, and the colonisation of the inmates to be carried out. In 1870, after the establishment of the present government, the Manicomio was placed under the control of the Hospitals Committee, and a few years after the village system, and the establishment of the industrial agriculture colony were further developed. Towards the end of last year the management of the Manicomio, as well as the Brefotrofio, was transferred to the Provincial Administration. As soon as this had taken place, the late Marquis Berardi, president of the Administration, appointed a commission, composed of specialists, including Professor Bonfigli, the present able director of the Manicomio, and some members of the Administration, to inquire into its working, etc. The original building of the present site will be destroyed, in the course of a few years, for the completion of the Tiber embankment, and new buildings are being erected in the neighbouring Janiculum. The Commission have presented a report to the Provincial Administration, recommending many changes in the management, and also new regulations in reference to the attendants, etc.; and it is believed that these recommendations will be soon sanctioned by the Administration.

CHICAGO.

The Cook County Hospital.—Report of the County Coroner.—Suicides, Accidents, and Violent Deaths.—Davis Professorship of Physiology.

Chicago's largest hospital (Cook County), situated not far from its geographical centre, affords some interesting figures of its work for the year ending December 31st, 1894. There were 771 patients in the County Hospital, January 1st, 1894. In January 1,595 patients were admitted and 79 rejected as not sick enough, and 148 cases dressed and sent home. There were 102 deaths. In February, 1,490 patients were admitted, 74 were rejected, and 151 cases were dressed and sent home; there were 72 deaths. In March, 1,781 were admitted, 81 rejected, and 181 cases dressed and sent home; there were 99 deaths. In April, 1,804 were admitted, 34 rejected, and 199 cases dressed and sent home; there were 88 deaths. In May, 1,079 were admitted and 23 rejected; there were 80 deaths. In June, 1,901 were admitted and 18 rejected; there were 91 deaths. In July, 1,316 were admitted and 12 rejected; there were 103 deaths. In August, 1,311 were admitted and 109 rejected; there were 100 deaths. In September, 1,233 were admitted and 86 rejected; there were 84 deaths. In October, 1,195 were admitted and 61 rejected; there were 90 deaths. In November, 1,113 were admitted and 40 rejected; there were 84 deaths. In December, 1,430 were admitted and 49 rejected; there were 85 deaths.

A review of the yearly report of the county coroner perhaps has greater interest for the average medical mind, as well as for the medical statistician. Taking suicides first, we find a total of 312 for the year ending December 31st, 1894, as against 365 for the previous year. Analysed we find that 48 were labourers, 24 housewives, and 12 were carpenters. Four physicians, one professional baseball player, and one professional gambler killed themselves. Not a lawyer took his life. Ninety-five of the 312 suicides are reported as of American birth. Germany contributes 93 and Ireland 10; 184 suicides were committed by married persons, and 81 by unmarried persons. Four widows and 16 widowers killed themselves; 115 took poison, 113 shot themselves, 41 used the rope, and 18 drowned themselves. Drowning is proved by the coroner's statistics to be almost as popular during the cold weather as in warm weather. The maximum number of suicides by this means for any one month during the year was reached in June, when 4 cases were reported, while January and September hold second place with 3 cases each. December and May are accredited with 2 each. Of the poisons used carbolic acid and morphine would appear to have the preference. The total number of cases handled last year by the coroner and his staff exceeds 1,800. About 20 per cent. of those accounted for in these officials records are dismissed without the formality of an inquest, but in each of such the coroner's physician must be satisfied, after an examination, that death was due to natural causes, and must issue a certificate in due form setting forth the same. The eighteen hundred odd deaths accounted for in the tables are attributed to 111 causes. Under the heading "Railroad Accidents," 303 in all, 57 of the deaths are shown to be those of the various companies' *employés*, while 246 are those of passengers and others; 38 is the largest number reported for any one month, this being the total for August. The fact of this large number is attributed to the great railroad strike of July, as the trains were manned in many instances by incompetent crews. With regard to nationality, the attention of the coroner has been called to the American 752 times, the German 307, and the Irish 165. With the exception of 50 cases, those of negroes, the rest were all of the white race. During the entire year the services of the coroner were not required in the case of a Mongolian. It is interesting to note the number of manners in which violent or unnatural death may be met. Deaths by drowning are shown to be frequent, the number for last year reaching nearly 200; this is, in fact, the third "cause" on the list, it being followed by homicide with a list of 142 names; 20 persons were the victims of accidental shoot-

ing, 20 succumbed to fractures of the skull, 28 to asphyxiation, 36 to alcoholism, and 40 to injuries sustained in street car accidents; falling from chairs, from waggons, buildings, on sidewalks, etc., were the causes of numerous deaths. When the ice broke up in the spring there were 29 cases of drowning during one month, many of which were those of overventuresome boatmen while others were skaters. In July there were 45 cases of drowning, in August 30, in September 22, and in October 10. During the dog days in July, 1 fatal case of hydrophobia was attended to by the coroner, it being the only one enumerated. There were 3 cases of sunstroke; they were reported in June, when the first hot wave struck Chicago. The maximum number of deaths occurred to persons between the ages of 30 and 40; 424 is the report of deaths between these ages; the cases of persons over 80 years of age numbered 9; 395 of the cases were those of men and women whose ages varied from 20 to 30 years; and 284 is the record for persons between 40 and 50 years of age. The vast majority of the coroner's cases were those of males. Over 1 500 appear in the columns provided for the enumeration of the deaths of males, while 300 covers the number of female cases. The report of the World's Fair year showed the total number of cases handled to be 2,740, about 50 per cent. in excess of the total for 1894. Of these 365 were suicides, as against 312 this year, while the railroad cases for 1893 outstrip the record for the present year by about 40 per cent. Dr. L. J. Mitchell, the coroner's physician, personally investigated 400 cases in the year 1894 in which people died without medical attendance. He held 422 *post-mortem* examinations, as against 293 in 1893, making an increase of 129 necropsies for 1894.

The faculty of the North-Western University Medical School has received from Zurich, Switzerland, the acceptance by Winfield Scott Hall, Ph.D., of the Davis Professorship of Physiology. Dr. Hall graduated as a Bachelor of Science in the College of Liberal Arts of North-Western University in 1887, and in North-Western University Medical School in 1890. During the years of 1890 91 he was first *interne* at Cook County Hospital, a position obtained by competitive examination. During 1891 92 he was Professor of Physiology in Haverford College, Pa. Since the summer of 1892 he has been abroad making a speciality of physiology in Berlin and Vienna, and received the degrees of Ph.D. and M.D. while there. He is in Zurich, Switzerland, studying bacteriology in its relationship to physiology, and will remain there until fall, when he will return to occupy the chair to which he has been elected. The endowment of the Davis Professorship of Physiology was by William Deering, and was named in honour of Dr. N. S. Davis, Dean of the Faculty, by whose request the chair was created. Several thousand dollars have been expended in equipping the new physiological laboratory, and 1,500 dollars more will be sent to Dr. Hall, with which he is to purchase what additional apparatus he may deem necessary for complete equipment. It is the purpose of this faculty to make this department equal to any.

MELBOURNE.

Treatment of Typhoid Fever.

At a recent meeting of the Victorian Branch, Dr. L. Henry read a paper on Some Points in the Treatment of Typhoid Fever, in which he drew attention to the changes which had taken place of late years in the observance of details in the management of this disease. The influence of bacteriological teachings was emphasised by the greater observance which was now being shown in attempting intestinal antisepsis. This idea, he indicated, was frequently misunderstood, as the patients were dosed with chemical antiseptics which were provocative of a good deal of mischief. In typhoid the micro-organisms were so situated that they were were not confined to the open intestine, but permeated into the intestinal glands, the kidneys, and the lungs. The nourishment for the patient should be so selected that it does not assist in propagating the microbes, but while supporting the patient should not contribute to the vitality of the invading enemy. He condemns broths and milk on that account, as these foods afford the best media for the cultivation of the typhoid bacilli. Medicine is a succession of paradoxes; for by means of the orthodox method of feeding, we attempt on the one hand to neutralise morbific elements with an antiseptic bludgeon, while we encourage their propagation by the best nourishment for them to live upon. He recommends the administration of fruit acids, fruit pulps, and vegetable infusions. The fruit acids are antagonistic and destructive to the phenomena induced by toxins. In addition to the infusions of cereals they contain sufficient nourishment for the patient.

In typhoid the digestive functions are also in abeyance. The liver is inactive and the antiseptic quality of the bile is withdrawn for a time, and, when flowing again by the withdrawal of non-animal food, the liver is relieved of heavy work, and its whole energy may then be concentrated in endeavouring to render the intestinal contents innocuous. He speaks with satisfaction of the results obtained by this dietary. There is no looseness of the bowels, no meteorism, the temperature at night rises very rarely above 103°, the remissions are uniform, the tongue quickly resumes a moist appearance, and convalescence is hastened. In addition to the barley, rice, and oatmeal infusions, he gives also malt extract. He regards collapse of the patient independent of perforation, as due to the influence of the alkaloidal poisons produced in the living body on the nervous system, and not so much to the high temperature. In typhoid the fever is merely a symptom resulting from Nature's effort to clear the system from a poisonous and offending substance. Nature should be assisted, and not suppressed. Where medicinal treatment is indicated he prefers the decoction of red cinchona bark administered every hour, as it possesses a strong percentage of tannic acid, which checks putrefactive changes and removes unpleasant odours. More attention should be given to the character of the pulse as an indicator of the condition of the heart and the vasomotor system. As a good vasomotor stimulant he prefers atropine and strychnine hypodermically to anything else. He lays stress on observing the conditions of the pupil as very often heralding significant changes.

CORRESPONDENCE.

LONDON COUNTY COUNCIL AND ITS PROPOSED MEDICAL INVESTIGATORS.

Sir,—It will not be necessary for me to answer the letter of "A General Practitioner," in the British Medical Journal of March 30th, at much length.

The first part of his argument rests on the assumption that "the police authorities" and a suspected criminal are fighting a sort of duel in which the public are merely concerned to see fair play, and that the divisional surgeon, being one of the police authorities, would have an unfair advantage if he were allowed both to investigate the circumstances during life and the body after death. Nothing can be further from the fact. The "police authorities," equally with the public, have no interest in the matter except the discovery of the truth, and the divisional surgeon (who is in no sense a "police authority," but a medical man employed by those authorities) is as perfectly impartial in these cases as any other member of the profession. And I contend that any knowledge of the circumstances which he may have gained during life must be an advantage to him in his examination after death and render him more capable of assisting in ascertaining the truth.

Your correspondent's insinuation that I am trying to discredit hospital pathologists is quite unfounded. These gentlemen are, however, usually inexperienced when first appointed, and they usually only hold their office for a short period. While in office they act under the guidance and observation of the hospital staff. In all these particulars they differ from the physicians and surgeons of the hospital, who are, as a rule, when appointed, already known as practitioners, who hold their office for the greater part of their lives, and who act independently for themselves; but your correspondent passes lightly over what I pointed out as the main objection to appointing "hospital pathologists"—namely, that there are no hospitals at hand in the greater part of London.

The third criticism which your correspondent makes on my letter is that by saying that the appointment could not be

placed in more competent hands than those of divisional surgeons, I must imply that these gentlemen are more competent pathologists than other practitioners. I know of no way in which any reliable opinion could be formed on such a point. To judge of it by the "registered qualification" of the parties, as "A General Practitioner" would do, appears to me extremely misleading. My contention really is that these gentlemen are already well known as doing their duty excellently under difficult circumstances, that they are by their calling brought into constant contact with medico-legal questions, that they are at hand in every part of London, and that in a large proportion of the cases which would demand the services of the "medical investigator" they have been already called in, and their evidence is necessary.—I am, etc.,

Sussex Place, W., April 1st. T. HOLMES.

THE SAC IN EXTRA-UTERINE PREGNANCY.

SIR,—Judging from the report of the discussion following the reading of Mr. Bland Sutton's paper at the Medical Society,[1] I fear that I failed to explain clearly my own opinion and experience.

The arteries in a tubal sac, I endeavoured to point out, bleed very freely, and the hæmorrhage does not tend to stop spontaneously. The vessels in adherent structures outside the sac, on the other hand, do not seem to share in this undesirable peculiarity; indeed, they do not bleed more than in adhesions to malignant pelvic tumours. In my case the blood spouted freely from a slight tear which I made on the surface of the tubal cyst, but there was no difficulty in securing the vessels of the pedicle. The only trouble arose from the artery of the appendix, which vessel happened to adhere, with its mesentery, to the sac, as is often the case in pelvic tumours. This artery and also the vessels in the pedicle were in no sense diseased through communication with the vessels in the sac.

My observation on the development of decidual cells under the tubal epithelium, an abnormal condition which may be the primary cause of tubal gestation, was simply a short statement of Dr. Clarence Webster's theory.—I am, etc.,

Granville Place, Portman Square, March 30th. ALBAN DORAN.

CLUBS AND THE PROVIDENT PRINCIPLE.

SIR,—Your readers must have been glad to learn from Dr. Forsyth's note, in the BRITISH MEDICAL JOURNAL of March 30th, that the report of the Dawson Street Provident Dispensary, containing the intimation "that there is no wage limit, and that application for membership was open to all, was a gross error, inadvertently made."

If Dr. Forsyth will consult the files of the Salford press during the last ten years, he may discover that the gross error in question has been made on many occasions during that period, whether inadvertently or otherwise. I have also a perfect recollection of having read the same intimation, as made by the present chairman of the Dispensary Committee, in the pages of the *Manchester Guardian* about ten years ago. Inadvertence of so many years' standing may fairly claim a certain measure of deliberation.

I confess that the correction which the Committee, at Dr. Forsyth's suggestion, has made in the report is, in my eyes at least, a correction without a difference. "There is no wage limit; members shall be artizans and others whose application for membership shall be considered suitable by the Committee."

It is no doubt a wise thing on the part of any profession to manage its own affairs, and the value of the judgment of a lay committee in deciding who shall be attended on provident dispensary principles at Dawson Street can only, I fear, be accepted with safety subject to a very large discount.

I am very pleased to observe that there is a certain "stirring of the dry bones" in Manchester and Salford at present among a very large section of the profession with reference to this provident dispensary question. Medical men are at last becoming alive to the importance of dealing wisely and promptly with the professional sweating and degradation which our local provident dispensary system inevitably implies. For my own part I can only hope that our profession may be wisely guided in the matter, and may be able to effectually check, if not abolish, the sweating, the "touting," and the advertising which have done so much to degrade the professional character of the Manchester and Salford Provident Dispensary system.—I am, etc.,

April 1st. A MEMBER.

[1] BRITISH MEDICAL JOURNAL, March 30th, 1895.

THE APPOSITION OF PERITONEUM TO PERITONEUM.

SIR,—Mr. Hawkins-Ambler, in No. 1776 of the BRITISH MEDICAL JOURNAL, draws attention to Mr. Greig Smith's article on the surgical error of peritoneo-peritoneal apposition, and from all operations he especially singles out the ventrofixation of the uterus as likely to benefit by Mr. Greig Smith's deductions.

While admitting that the procedure is by no means new in practice, I should think that the ventrofixatio uteri is the very operation where firm fibro-serous adhesions are not to be desired, especially as long as the possibility of a future pregnancy still comes under consideration. The soft and easily yielding sero-serous adhesions which are being formed under the present mode of operation allow the uterus to maintain to a great extent its physiological mobility, and even permit it to rise, as the bladder is being filled.

A scraping of the serosa uteri before suturing has been previously resorted to, and it has been abandoned again as unnecessary. But if, as Mr. Hawkins-Ambler evidently proposes to do, a piece of the uterine peritoneum was to be actually excised, the probability is that the newly-formed adhesions would be of such a firm and inelastic nature that in case of pregnancy serious symptoms of incarceration would follow, ending probably in miscarriage through early dilatation of the lower uterine segment, in consequence of the fundus being fixed and immovable.

On the other hand, disturbances of pregnancy after ventrofixation with sero-serous apposition appear to be remarkably rare, and this, I think, more than compensates for the disadvantages which I admit occasionally result through the adhesions giving way in course of time, disadvantages, moreover, which can be greatly reduced through an appropriate way of suturing.—I am, etc.,

Sydney, Feb. 18th. J. COLPE, M.D.(Leipzig).

WATER CARRIAGE *V.* CONSERVANCY.

SIR,—In your article on the above subject in the BRITISH MEDICAL JOURNAL of March 30th the reader might be led to suppose that I am a supporter of "Conservancy." This, however, is not quite true, for I hold that if "dry methods" are to be successful, whether in town or country, there must be daily removals from the house and a daily putting of the material to its proper use. In my paper before the Sanitary Institute, of which you were good enough to insert an excellent abstract, I gave several reasons why what is known as the "pail system" has not found favour in the majority of the towns where it has been tried, nor do I believe that the "pail system," as at present carried out, can ever be very popular because it does not, I think, meet those conditions which are essential for success.

I think, if I may venture to say so, that you over-estimate the care and attention which are necessary for the success of dry methods. With these methods all is above ground and the slightest mishap in the arrangements meets the eye at once and is at once rectified, whereas with water carriage all is below the ground and out of sight, and our first indication of anything wrong is an outbreak of sore throat or some similar trouble. The system which has been in use on what you dignify with the name of my estate (three acres of land carrying a house and twenty-three cottages) has now been carried out for over ten years, and without any difficulties whatever, notwithstanding a change on three occasions of the man upon whom principally the carrying out of the system devolves. The master's eye only occasionally inspects these arrangements, for I find it impossible to get down to Andover more than once in every few weeks. I have paid one visit since Christmas, and hope to go again at Easter. When the Association meets in London in July it will give me great pleasure to afford facilities to any member who may wish to see for himself what my arrangements are.

On March 23rd you drew attention to the great increase in

the microbes in the London water owing to the freezing of the filters during the late frost. It may interest your readers to know that the water in my surface well at Andover showed a degree of remarkable microbial purity when examined on March 2nd. This well is only 5 feet 6 inches deep, and the water in it has a depth of 3 feet 6 inches only, and it stands in the very centre of a garden which has been manured with human excreta for ten years. It is lined to the very bottom with concrete pipes, which have cemented joints, and the pipes are surrounded by some 3 inches of concrete. The well has a parapet and tight-fitting cover, so that no water can enter it except through the bottom, and all surface water must have filtered through at least 5 feet of earth before finding its way into the well.

On March 2nd I made three plate cultivations with water taken in a sterilised bottle from the very centre of the well. The pipette which I used dropped 36 drops to the cubic centimetre. One plate was inoculated with 3 drops, another with 4 drops, and a sixth with 6 drops. The plates were brought to London and kept in my room. By March 8th (six days later) only one colony of bacteria had developed, but there were some half dozen colonies of moulds. This shows a condition of practical purity as far as bacteria are concerned. During the frost the water pipes of the town were nearly all frozen, and my gardener and some of the neighbours drew their water supply from this well. I have frequently drunk the water myself, and I do so without fear. The water is clear and very palatable, but twice during the late autumn after a deluge of rain which caused the water to lie in pools for hours on the surface of the ground the water was turbid owing, I believe, to the sediment being driven off the bottom of the well by the inrush of water through the bottom.—I am, etc.,

Wimpole Street, W., April 2nd. G. V. Poore.

INDECENT ADVERTISEMENTS AND PAMPHLETS.

Sir,—In the British Medical Journal of March 9th you have called attention to what is a great and apparently an increasing evil. While agreeing entirely with you in your description of the evil, I think that your conclusion that "little or nothing can be done to remedy it" is altogether too despairing. In my opinion the Unqualified Practitioners' Act, which is now under consideration by the Branches of the British Medical Association offers a very excellent means of putting an end to this and other kindred abuses.

Quite apart from the question of the indecency of the advertisements of which you so justly complain, they are evidence that behind them, and responsible for them, is an army of illegal practitioners who practise in this particular manner.

The Unqualified Practitioners' Act, we presume, is intended to suppress the illegal practice of medicine, surgery, or midwifery; if that was not the original intention, the profession should see to it that it is the final intention, and should take care that the Bill will not be presented to Parliament until by additions or alterations it will have a reasonable prospect of serving the purpose for which it is intended; and especially ought it to be so framed that it will abolish the advertising by illegal practitioners.

The Bill in its present state, as your readers will see by referring to the Journal of January 12th, makes penal only two things:

Clause 1.—Section A. Assuming certain names or titles.
Section B. Assuming a title or description which would imply legal qualification or even skill.

Now it is perfectly clear that if the Bill became law in this form, any person might practise as much as he liked, and even advertise his skill in treating disease, providing always that he assumed no title or description implying a legal qualification or even skill.

The Bill does not touch these illegal practitioners to whose advertisements you refer. It has already been suggested in various quarters that the Bill should contain a clause making it illegal for an unqualified person to practise, whether he does or does not assume any title or description of a misleading character. Even with such a clause the "proof of practice" would be difficult, and my object in writing is to suggest for the consideration of the profession an addition to the Bill which, in my opinion, would have the effect of drawing the net still tighter around the illegal practitioner.

My suggestion is that there be added to Clause 1 of the Bill another section, as follows:

C. Or who issues or causes to be issued any pamphlet, handbill, advertisement, or any other notice whatever, whether spoken, written, or printed, stating or implying, directly or indirectly, that he is willing or able to treat any disease or injury, or that he is willing or able to cure any disease or injury, or that any drug, nostrum, medicine, instrument, or appliance, whether for internal or external use, which he supplies or sells, directly or indirectly, or in the supply or sale of which he is financially benefited.....is able to cure any disease or injury, shall for each offence be liable, etc.

The effect of this would be that it would abolish the advertisements of quacks and would largely modify without abolishing advertisements of patent medicines, belts, batteries, etc., and that, I think, as much in the interests of the public as of the profession.—I am, etc.,

Pendleton, March 25th. R. H. Quine, L.R.C.P.Edin.

ANTITOXIN.

Sir,—As the representative in this country of Dr. Aronson, of Berlin, I have to ask that you will be good enough to allow me to reply to the article headed "Commercial Science," which appeared in the British Medical Journal of February 23rd. My delay in replying has been caused by my wish to communicate with him on the subject, and also to ascertain the foundation in point of fact of the charge which you have brought against Dr. Aronson.

I need not point out the serious nature of the charge. You speak of him as having "violated the code of professional honour recognised in these islands," and say that he has offended against what you call "the rigid etiquette which forbids the attempt to establish an individual right in a medical or surgical discovery by the solicitation of a patent." If the code of professional honour and the rigid etiquette were such as you suggest, I submit that it would have still been becoming that you should use more guarded language in condemning a foreigner for having offended against them. I find, however, seeing that he might have acted in excusable ignorance, that the etiquette is not so rigid as you wish your readers to believe, and consequently that the alleged violation of the code of professional honour is questionable. There are instances of medical practitioners occupying a respected position in this country who have solicited and obtained patents. You are not, therefore, entitled to speak in such absolute terms of the existence of the rule to which you refer, and this being so the very foundation of your attack upon Dr. Aronson is gone. It may perhaps be true that the majority of medical men agree with you in thinking that the rule should prevail, but it cannot be just that you should attempt to brand Dr. Aronson with the serious charge of a violation of the code of professional honour when he has only done what other professional gentlemen have done before him. I do not, however, desire to leave Dr. Aronson's defence there. It was at my instance that he solicited the patent in question. He himself was not disposed to do so, but I was struck by what appeared to me to be the unfair manner in which the medical journals of this country had withheld from Dr. Aronson a just recognition of what I affirm to have been his indisputable merits in connection with the discovery and production of antitoxin. Long previous to 1893 he had been laboriously working to perfect the original discovery made by Behring and the Japanese *savant* Kitasato so as to improve the serum, which until then was imperfect and of weak antitoxic value. He did this by producing the antitoxin for the first time from the horse and intensifying the virulence of the poison by processes which he described in the *Berlin klinische Wochenschrift*, 1894, Nos. 18 and 19.

I claim, therefore, that Dr. Aronson was the first who produced a diphtheria antitoxin suitable for curative purposes, as is proved by the fact that the first successful cures were made in the Emperor and Empress Frederick Hospital in

Berlin with his antitoxin in the spring of 1894. Knowing this, and seeing that nevertheless his claims were ignored in the BRITISH MEDICAL JOURNAL and in others influenced by you, I urged him to allow me to patent his method to prepare antitoxin in the dry form, and thus to make generally known the merits of Dr. Aronson in this question. He yielded to my urgency, and permitted me to complete his patent.

So far is he, however, from the unworthy motives imputed to him in your article, that he in June, 1894, declared in the Berlin Medical Society[1] that he had given up the use of fixed antitoxin (which is the subject of his English patent) having then succeeded after several years' research in increasing the antitoxic value of serum in a manner never anticipated. The methods to which he owed this extraordinary efficacy of the serum were also explained at the same meeting, and are reported in the same journal.

On this ground, therefore, as well as because you are not justified in describing the alleged rule of professional honour as being so absolute and without exception as it is represented in your article I ask you in fairness to acknowledge that your attack on Dr. Aronson's personal character was made without justification and should be withdrawn.—I am, etc.,

Cross Lane, St. Mary-at-Hill, March 13th. AUG. ZIMMERMANN.

*** We publish the above letter from Dr. Aronson's business agent in this country, but we do not consider that the explanations given are satisfactory. It is very much to be regretted that Dr. Aronson should have acted upon the advice given him by Mr. Zimmermann. The contention that Dr. Aronson's claim to have contributed to the investigation of the antitoxin of diphtheria has not been mentioned in the BRITISH MEDICAL JOURNAL is not well founded. His investigations, so far as they have come to our knowledge, have been noted in the JOURNAL. If they have not been more fully described this must be attributed to the unfortunate course which Dr. Aronson has taken in omitting to give anything but general statements and incomplete descriptions of methods. We believe that the duty of all medical men to place freely at the disposal of the profession any means which they may have discovered for the better treatment of disease is recognised in every country. The rule ought to be absolute. So far as we understand, the "complete specification" for "the preparation of remedial substances" deposited at the Patent Office in this country by Mr. Zimmermann, acting as the agent of Dr. Hans Aronson, the only claim which can be made for Dr. Aronson is that he has by the application of certain chemical methods prepared an active antitoxin in a more concentrated form than that produced by previous experimenters. Whether this claim is well grounded or whether he now considers it the best available method or not we do not at present pretend to say, but that the attempt to obtain a patent violates the well-recognised principles which have always guided the medical profession in this country we must strenuously insist.

LATERAL CURVATURE OF THE SPINE.

SIR,—May I submit a few observations on Mr. Christopher Heath's recent clinical lecture?

He adopts the explanation that dorsal origin is due to the serratus. If this be correct, how is it that this curvature is so common in girls whilst boys who persistently play such one-sided games as cricket and rackets are practically exempt from it?

He avers that the lumbar origin is due to shortening of one of the legs, and gives local reasons for this. As a matter of fact, a shortened leg is more often due to a retarded nutrition of one side of the body by what might be called infantile trophic paresis.

He asserts that "when there is a primary curve in the lumbar region, all that is really necessary is to rectify the shortness of one leg." He evades or ignores the fact that in many cases there is no shortening of the leg at all, but simply an increased tension of the loin muscles of one side. Whether this tension is causative or resultant I do not know. Dr. W. R. Gowers, to whom I took one or two incipient cases, inclined towards its being resultant.

With respect to treatment, Mr. Heath is attached to the gymnastic and averse to the instrumental methods; yet as to the latter he makes two admissions: The first is that "when you lift the girl up and hold her with your hands you straighten the spine," but he qualifies this by saying that when this is done by an instrument it is a different matter, because it has not a separate base. I assert that, the pelvis of the patient being the base, the straightening is the same. The second is that in severe cases an instrument is serviceable "not to cure the disfigurement, but to prevent its becoming worse." Is there not something curious about the logic which argues that when the spine has passed into its worst state, and is quite off its balance, that then, and then only, an appliance can check its getting worse, and which yet denies that an appliance can check it in its earlier and more easily coped with stages?

When, however, Mr. Heath comes to strictures on his own profession his words are not minced. He says "it is a monstrous thing" that a gentleman orders a cog-wheeled instrument, and that the patient has to go to him once a week. Let me say that cog-wheeled instruments have been out of date for a quarter of a century. But if the weekly visit is "monstrous," what fuller epithet would Mr. Heath select for that gymnastic method which keeps patients months and months in residence for daily supervision. Actually a quarterly visit is all that is needed.

But that weak backs though straight may require safeguarding I may illustrate by an instance and its sequel. A few years since Sir John Erichsen sent me a girl who had just returned from India (with dysenteric trouble, which was speedily cured), but whose back, though straight, was so frail that he deemed a protective support advisable. With this she went about like other girls until a couple of years later she reached puberty, when the spine again appeared prone to give way. I wrote to the mother to take her again to Sir John, but the following day their family adviser (a fresh one) called and said he would take her to another eminent surgeon. In their consultation they decided that the back was straight; the instrument was removed; and the case passed from my hands. Feeling assured as to what would happen, I wrote eighteen months later to inquire. I have her answer before me, in which she says her daughter had "been for the last nine months entirely on her back in a splint, and now walks for half an hour a day in three ten minutes; it has been an inexpressible grief to us."—I am, etc., HEATHER BIGG, F.R.C.S.Edin.

Wimpole Street, March 18th.

THE EFFECTS OF UNILATERAL CASTRATION ON THE PROSTATE.

SIR,—Replying to the question of Dr. J. William White, of Philadelphia, in regard to the effect of unilateral castration on prostatic enlargement, I would state that of four such operations resorted to for other diseased conditions in elderly subjects within the past twelve months, that in two cases wherever there had been a well pronounced enlargement of the gland, that as a result of the operation there soon followed a remarkable diminution in the size. One case upon which I operated upon in St. Joseph's Hospital of San Diego, was for a continually recurring case of hydrocele which I had first operated upon some fifteen years ago, and some three times since then. I finally removed the testicle and cord, doing away with a possibility for the return of the disease; and the patient, who was past his 54th year, completely recovered, as well from a gradually increasing prostatic enlargement which I had diagnosed some three years previously, and which was and had been a source of considerable annoyance.—I am, etc.,

San Diego, California, March 21st. P. C. REMONDINO, M.D.

SIR,—I was in hope that there would have been a further account in the BRITISH MEDICAL JOURNAL of March 16th of the two cases of acute mania following castration mentioned by Professor Clark, of Glasgow, in the BRITISH MEDICAL JOURNAL of March 9th. Is it too much to ask those gentlemen

[1] *Berlin. klinische Wochenschrift*, 1894, p. 1026.

under whose care they occurred to let us know through your columns whether they regard such a very grave result as *post* or *propter hoc*? Whether it followed the operation at once or developed some time later? I am not aware that such a result has been noticed after the same operation performed in younger subjects for other reasons; but, on the other hand, it must be remembered that the mental condition of patients suffering from vesico-prostatic troubles is often in a state of peculiarly unstable equilibrium. Wyeth, for instance, has recorded three cases in which mental aberration followed continuous suprapubic drainage in old and feeble men long after the traumatic effects of the operation had subsided.

There are now nearly fifty cases on record in which the bilateral operation has been performed. It has proved fatal from various causes in several instances, and there can be no question that there is serious danger of its being tried indiscriminately in cases for which it is not suitable, such, for instance, as simple inflammation of the gland. It is greatly to be hoped therefore that the unilateral operation, as being less serious, may have a fair trial, and those who have performed it will give the profession the benefit of their experience as soon as may be.

It is interesting to note that Ramm, who was the first to perform the bilateral operation for prostatic enlargement, should also, independently of others, have suggested the unilateral one.—I am, etc.,

Wimpole Street, W., March 17th. C. Mansell Moullin.

CHRONIC RENAL DISEASE IN THE INSANE.

Sir,—Dr. Bond, in his article in the British Medical Journal of March 2nd, on chronic kidney disease in the insane, fails to take account of a circumstance which has an important bearing on his conclusions.

Chronic renal disease is comparatively rare among the young. In his statistics from St. Bartholomew's Hospital, 54.03 per cent. of the necropsies, and only 14.54 per cent. of the cases of renal disease, occur in persons under 30 years of age; in those from the Banstead Asylum the corresponding numbers are 7.7 and 4.05 per cent. It is evident that a comparison of series of cases into which the young enter in such different proportions must be misleading.

Eliminating from both tables cases occurring under 30 years of age, we have in St. Bartholomew's Hospital 194 necropsies, with 94 cases of renal disease, or 48.45 per cent.; in Banstead Asylum 142 necropsies, with 71 cases of renal disease, or 50 per cent.—a difference of only 1.55 per cent. This is hardly a sufficient difference to warrant the conclusions he draws as to the etiology of insanity.—I am, etc.,

Thetford, Vermont, U.S.A., March 25th. W. L. Worcester.

THE CAUSE OF RHEUMATISM.

Sir,—Dr. A. Newsholme, in his Milroy Lectures, points out that rheumatic fever occurs most frequently in this country with (1) a high mean temperature, (2) a small rainfall, and (3) low ground water; and he suggests that weekly returns, classified according to disease, should be made of the admissions to the various London hospitals, which would enable us to ascertain the relation between meteorology and disease.

It was, I believe, through the influence of Dr. Arthur Ransome that such returns were made by hospitals and dispensaries in Manchester and Salford to the Manchester and Salford Sanitary Association. While Secretary of that Association I compared the returns of some diseases with the meteorology, and made the acquaintance of Mr. Mackereth, to whom we were indebted for the meteorological observations.

On speaking to him about rheumatism, I found he believed that he knew the kind of weather that caused it. He told me that if I multiplied the height of the barometer by the difference between the wet and dry bulbs of the thermometer, night and morning, and made a chart of the difference between the two (that is, night and morning results), I would find that when there were great variations rheumatism would be bad, and when the chart showed a straight course people would be free from rheumatism. I made such a chart, and compared it with cases of rheumatic fever, and, though the number was small, I had reason to think there was some truth in Mr. Mackereth's observation.

Instead of comparing the meteorology with rheumatic fever, however, in places in this country, better results may be looked for by taking different countries where the meteorology is peculiar, and finding out to what diseases such countries are specially liable. Thus, for example, rheumatism is one of the most prevalent diseases in California, where they have no rain for nine months in the year, and where dust lies inches deep on the roads, and is a nuisance to travellers.

Meteorological returns are now numerous and complete in many countries, and if disease returns were as complete, being made by general practitioners as well as hospitals, our knowledge of the causes of disease might certainly be greatly improved.

There can be little doubt that the germs of many diseases depend much on the weather for their growth and spread, and perhaps, also, for their greater or less infectiveness, while others are directly produced by states of the atmosphere altogether apart from germs. This is a direction in which investigation is absolutely necessary to perfect the history of bacteria.—I am, etc.,

Hawick, N.B., March 20th. John Haddon, M.D.

THE EFFECT OF MASSAGE ON THE PULSE-RATE.

Sir,—I have read with interest Dr. Sturge's Note on the Treatment of Dilated Heart, as practised at Nauheim by Dr. Schott, but one remark in Dr. Sturge's paper conveys the misleading impression that the effect of "Dr. Schott's special method" of massage is to produce "a slowing and not a quickening of the pulse." Whatever may be the "special method" of massage practised at Nauheim the effect noted by Dr. Sturge is that which always follows systematic muscle-kneading, the influence of which in reducing pulse-rate was pointed out by me in a paper on the Physiological Effects of Massage,[1] and further exemplified in a communication on the Internal and External Temperature of the Human Body as Modified by Muscle Kneading,[2] in which it was shown that abdominal massage, as also vigorous kneading of the skeletal muscles, produced a marked reduction in the frequency of the pulse.

In an article on Mechanotherapy in Chronic Diseases of the Heart[3], the efficacy of massage followed by assisted and resisted movements and a modification of the Oertel treatment was recorded, and the views of the writer were subsequently confirmed by Dr. Lauder Brunton in his Harveian Oration of last year. I am not aware that Dr. Schott has published any reference to the employment of massage as a part of his treatment for chronic heart disease, and I am sure he would disclaim any originality in producing effects which have been well known to follow its use by all scientific practitioners of massage.

Some exponents of the Nauheim treatment have referred to Dr. Schott as the originator of "Widerstandgymnastik," although resisted movements have long been practised as a part of the Swedish movement cure, systematised many years before the present generation of medical practitioners commenced practice.

To Dr. Schott and his late lamented brother is due the combination of baths and mechanical exercises which they first so skilfully and scientifically brought to the aid of sufferers from chronic cardiac affections. In this sense they have been the originators of a tried and proved method of treatment, just as Weir Mitchell originated the system which bears his name.—I am, etc.,

Hertford Street, W., March 12th. A. Symons Eccles.

[1] *Practitioner*, June, 1887.
[2] British Medical Journal, December 1st, 1888.
[3] *Practitioner*, August, 1894.

We have been favoured with a copy of the first number of *The Clerk of the Weather*, "a monthly magazine devoted to the coming weather in all its bearings upon human industries and interests in every part of the world." As most of us probably feel a special interest at present in the weather "in its bearing upon human" amusements, we are pleased to note that between April 12th and 21st the meteorological omens as read by Mr. Clements are decidedly favourable.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The last post on Wednesday is the latest by which these announcements can be received.

A SURGEON-LIEUTENANT COLONEL, likely to be ordered to India early next trooping season, desires an exchange with an officer of that rank or Surgeon-Major having from two to two and a half years of home service unexpired.—Address "Ind.," BRITISH MEDICAL JOURNAL Office.

THE NAVY.

THE Greenwich Hospital pension of £50 a year for Fleet and Staff-Surgeons, vacant by the death of Deputy-Inspector-General David Lyall, has been bestowed upon Deputy-Inspector-General WILLIAM ROSS, M.A., M.D.

Staff-Surgeon CHRISTOPHER PEARSON and Surgeon ARTHUR GASKELL have been appointed to the *Retribution*, April 8th.

ARMY MEDICAL STAFF.

SURGEON-MAJOR-GENERAL A. F. BRADSHAW, C.B., is placed on retired pay, March 10th. Entering the service as Assistant-Surgeon May 27th, 1857, he became Surgeon, May 17th, 1871; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, March 12th, 1882; surgeon-Colonel, July 28th, 1886; and Surgeon-Major-General, March 10th, 1892. He was with the 2nd Battalion Rifle Brigade through the whole of its service in the suppression of the Indian Mutiny, including the capture of Lucknow and numerous affairs during the Oudh campaign (medal with clasp); with the Zhob Valley Expedition in 1884, as Principal Medical Officer (mentioned in despatches); and with the Hazara Expedition in 1891 as Principal Medical Officer (mentioned in despatches, C.B., and medal with clasp). He has but just vacated the position of Principal Medical Officer to H.M.'s Forces in India, where he has been serving since November, 1887. He was nominated a Companion of the order of the Bath in 1891.

Surgeon-Colonel A. A. GORE, M.D., F.R.C.S.I., is promoted to be Surgeon-Major-General, *vice* A. F. Bradshaw, C.B., March 10th. Surgeon-Major-General Gore was appointed Assistant-Surgeon, October 1st, 1860; Surgeon, September 2nd, 1868; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, August 18th, 1886; and Surgeon-Colonel, January 13th, 1892. He served at the bombardment and destruction of the Timmance town of Massongha on the sierra Leone river on December 10th, attack on Madoukia December 27th, storm and capture of the stockaded Fetish town of Roires on December 28th, 1861—mentioned in general orders for services and conspicuous bravery, and specially recommended for promotion in 1868. He was also in the Ashanti war in 1873 as Sanitary Officer, and was severely wounded in the action of November 3rd near Dunquah, and was also wounded at Quarman on November 17th (medal). He has been recently appointed Principal Medical Officer to H.M.'s Forces in India in the place of Surgeon-Major-General Bradshaw, retired.

Brigade-Surgeon-Lieutenant-Colonel WILLIAM TAYLOR, M.D., is promoted to be Surgeon-Colonel, *vice* A. A. Gore, M.D., March 10th. Surgeon-Colonel Taylor's previous commissions are thus dated: Assistant-Surgeon, September 30th, 1864; Surgeon, March 1st, 1873; Surgeon-Major, September 30th, 1876; and Brigade-Surgeon-Lieutenant-Colonel, February 5th, 1890. He has no war record in the *Army List*.

Surgeon-Lieutenant-Colonel H. A. CLERY, M.B., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* W. Taylor, M.D., March 10th. He was appointed Assistant-Surgeon, April 1st, 1871; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; and Surgeon-Lieutenant-Colonel, April 1, 1891. He was with the Nile Expedition in 1884-85 in charge of the Abu Dom Field Hospital, and received the medal with clasp and the Khedive's bronze star.

Brigade-Surgeon-Lieutenant-Colonel R. C. EATON, who has been serving in India since December 1893, is appointed to officiate as Principal Medical Officer Quetta District, *vice* Surgeon-Colonel F. B. Scott, C.M.G., who has been granted leave out of India.

Surgeon-Major-General T. WALSH has been appointed Principal Medical Officer to the Bengal Command of the newly-organised Indian Army. Surgeon-Major-General Walsh was Principal Medical Officer to the Madras Army, having been appointed to that position in July last. He has been in India since May, 1891.

Quartermaster WILLIAM MCCALLUM retires on retired pay, April 3rd. He was appointed Lieutenant of Orderlies, December 18th, 1880; and Quartermaster Army Medical Staff, July 1st, 1881; being granted the honorary rank of Captain, December 18th, 1890.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN EDWARD WILLIAMS to be Surgeon-Major, July 24th, 1894.

Surgeon-Captain F. J. WALKER, M.D., to be Surgeon-Major, April 3rd, 1895.

Surgeon-Major CHARLES E. ABBOTT, having resigned his Volunteer appointment ceases to be an officer of the Army Medical Reserve April 3rd.

INDIAN MEDICAL SERVICE.

SURGEON-COLONEL D. O'C. RAYE, Bengal Establishment, Principal Medical Officer Bundelcund and Nerbudda Districts, on return from employment under the Civil Department, is appointed to officiate as Principal Medical Officer Presidency District, *vice* Surgeon-Colonel A. Stephen, at present officiating as Principal Medical Officer Assam District.

Surgeon-Major D. D. ELCUM, Madras Establishment, is permitted to retire from the service from March 9th. He was appointed Surgeon, March 31st, 1877, and Surgeon-Major twelve years later. He was in the Afghan war in 1880 (medal), and with the Burmese expedition in 1885-87 (mentioned in despatches, medal with clasp).

Surgeon-Colonel R. HARVEY, M.D., D.S.O., Bengal Establishment, is to be the Principal Medical Officer of the newly constituted Punjab Command in India.

THE VOLUNTEERS.

SURGEON-LIEUTENANT A. H. JACKSON, 1st Norfolk Artillery (Eastern Division Royal Artillery), has resigned his commission, April 3rd.

Surgeon-Lieutenant H. G. ASHWELL, 1st Nottinghamshire (Robin Hood) Rifles, is promoted to be Surgeon-Captain, April 3rd.

The christian names of Surgeon-Captain HODGSON, 1st Devonshire Artillery (Western Division Royal Artillery), are JOSEPH WILLOUGHBY, and not as stated in previous *Gazettes*.

SURGEON-COLONEL GORE, P.M.O., INDIA.

THE departure of Surgeon-Colonel Gore from Mhow, Central India, where he has held the appointment of principal medical officer of the district, was signalised on March 1st by a dinner given to him by the officers of the Army Medical Staff and Indian Medical Service. The dinner was held in the large banqueting hall of the Masonic Hall, Mhow, which was kindly lent for the purpose. The health of the guest, proposed by Surgeon-Major Sargent, was very heartily received and suitably acknowledged. On the morning of March 4th, all the officers of the Army Medical Staff at Mhow paraded in uniform at the railway station to bid farewell to Surgeon-Colonel Gore and his family.

THE SOCIAL POSITION OF THE ARMY MEDICAL STAFF.

WE have received a communication from "Surgeon-Major," whose letter in the BRITISH MEDICAL JOURNAL of February 23rd raised a discussion on this subject. We, however, are unable to find space for the publication of further letters.

MEDICAL DEPARTMENT OF THE ITALIAN ARMY.

THE Medical Department of the Italian army consists of the following officers: 3 generals, drawing 9,000 lire (£360) pay; 16 colonels, drawing 7,000 lire (£280); 26 lieutenant colonels, drawing 5,500 lire (£220); 56 majors, drawing 4,500 lire (£180); 300 captains, drawing 3,500 lire (£140); and 376 lieutenants and sub-lieutenants, drawing respectively 2,200 (£88) and 2,000 (£80). There is no age for compulsory retirement; promotion therefore is extremely slow. The medical officers of the Italian army are allowed to engage in private practice, provided it does not interfere with the discharge of their military duties. They have the rank and privilege of combatant officers, but the lace on their uniform is silver instead of gold, as in the case of the combatants.

CONFIDENTIAL SANITARY REPORTS.

A CORRESPONDENT who signs himself "Truth" writes: Lord Stanley stated in discussing the Army Estimates that medical officers did not discover, and appeared to imply they did not want to find, insanitary conditions in barracks. The statement is neither fair nor correct. The War Secretary declined to produce certain reports in London barracks, on the ground that they were confidential. He refers to the half-yearly reports of the Principal Medical Officer, which it is absurd to regard as confidential; the publication would fix responsibility, which might prove inconvenient. The country has a right to demand these reports, and so pin down the responsibility.

*** A sanitary, if an official, is not necessarily a confidential report, and we are certainly in favour of publicity.

ARMY MEDICAL REFORM.

AN ARMY MEMBER writes from India: The number of medical officers allowed in India—4½ per 1,000 strength—is sufficient in time of peace and would always allow two months' leave in a year to each with a little arrangement between themselves. But the difficulty is everyone wants leave at the same time in the hot weather. Sometimes there are too many medical officers at a headquarters hospital, and the result is rust and bickering. What would breathe vitality into the department more than anything else is judicious selection for the upper ranks, men of such fibre, mentally and morally, as will command the respect and esteem of those serving under them. Such, of course, there are now, but judicious selection would increase the number. A higher ideal of duty is wanted in all ranks, more courtesy and *camaraderie*. Then encouragement should be given to the thinkers—not faddists—and the incubus of inaptitude removed; original research should be fostered. Even the assistant professors at Netley are ridiculously underpaid, getting nothing beyond their bare pay. I came into the army by the merest chance, but I thank God I did so in preference to private practice.

*** It is pleasant to find a correspondent winding up with an optimist confession. We heartily endorse his wish for wise selection in the upper ranks, but hardly think his opinion as to the sufficiency of medical officers in India, even in times of peace, will be generally endorsed. The margin for casualties we fear is very narrow, and there is no sufficient provision for sudden war mobilisation.

La Clinica Moderna is a new medical journal which appears twice a month in Florence. The first number contains papers by His Excellency Professor Baccelli, Professors Bozzolo, De Renzi, Barduzzi, A. Ceccherelli, and other well known leading members of the profession in Italy. The new journal promises to take a leading place in the medical press of Italy. One feature which will be welcomed by those who read Italian medical journals is that the lectures and papers which it contains are published complete, and not run on in driblets through an indefinite series of issues, to the irritation of the casual reader and the discomfiture of the earnest student.

MEDICO-LEGAL AND MEDICO-ETHICAL.

LEGAL INQUIRIES IN SCOTLAND.

J.S., M.B., C.M.—Clearly our correspondent having attended the case ought to have been present, and, indeed, ought to have performed the *post-mortem* examination. A polite note to the Crown Agent, Parliament Square, Edinburgh, stating the circumstances of the case, would probably suffice to prevent the recurrence of such an experience. The medical man employed by the Fiscal was justified, by the practice in such cases, in making the *post-mortem* examination without the presence of any assessor. "J.S." can claim a fee from the person who sent for him—in the event of its having been the police, from the Chief Constable.

UNFOUNDED RUMOURS.

Inquirer.—To contradict through the medium of the local press the rumour referred to would not only be an unprofessional proceeding, and justly subject our correspondent to severe criticism, but is, in our opinion, unnecessary in view of the fact that his public appointments cannot fail to afford him numerous opportunities to disavow it in person. Moreover, if such publicity be held insufficient, he can send an autograph note, or a lithographed *fac simile* thereof, to such of his *bond fide* patients as may be deemed judicious and expedient.

THE NEW DISTRICT COUNCILS.

Enquirer writes: B., a health medical officer, Cantab., Memb. B.M.A., has been continuously elected for twenty-two years by the Board of Guardians for a district of 100 square miles, and, with exceptional qualifications as to ability, analytical knowledge, and organisation during epidemics, etc., has carried on the work with the greatest courtesy and absence from friction. Under the new district council, B. comes up for election. Candidates are announced from London, also C., an urban practitioner, and D., a district young medical man, who gives no intimation to B. At the election no strangers appear, and C. therefore proposes to D. that they should both retire in favour of B. D. refuses, and is elected by these new district councillors, although D. has no D.P.H. nor any special qualification for the post. Is D.'s whole action in accordance with professional ethics?

*** Certainly not, under the circumstances as stated.

G. C. C.—Under the circumstances referred to, no autograph or other notification is, in our opinion, necessary or expedient. The usual and natural result of the demise of the partner will soon or later develop itself.

Etiquette.—In answer to our correspondent's first question, we may note that such a title on the door plate would not only be in bad taste, but, as we view it, not legal. To the second query our reply is that the diplomas referred to would not legally entitle him to the designation of "Physician and Surgeon."

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

Irish Asylum Boards.—Mr. J. Morley, in answer to Mr. Tuite, said a suggestion had been made to him with respect to an increase of the Government capitation grant for Lunatic Asylum Boards in Ireland. The Government Grant was first made in 1874, and was fixed at 4s. per week in respect of each patient. The average cost of maintenance was £24 1s. 2d. in the year 1875, as against £21 14s. in 1893 (the last year for which this information was available) so that no increase had taken place in those years in the cost of maintenance. The capitation grant was made with a view to the improved maintenance and treatment of the insane poor, and was not applicable to meet the cost of structural alterations of asylums, for which separate loans were granted under an Act of 1890.

Hospital Patients.—Mr. Bartley asked the President of the Local Government Board whether his attention had been called to the alleged cases of the consequences of the too early discharge of patients from the North-Eastern Fever Hospital; whether he was aware that, in the case of Mr. Holland's children, two died, and the father was attacked with scarlet fever, having cared for the fever, it was alleged, from the third child, who was sent home while still desquamating; and whether he would order an inquiry into the whole matter?—Mr. Shaw Lefevre replied that he had communicated with the manager of the Metropolitan Asylum District, who had caused full inquiry to be made into the case of Mr. Holland and the children. There appeared to be no justification for attributing the disease of the father and children to any infection arising from the premature discharge of the child from the hospital. The clerk stated that in the case of the two children there was strict evidence that the disease was diphtheria, and not scarlet fever.

The Notice of Accidents Act.—Sir A. Rollit: I beg to ask the President of the Board of Trade what steps the Board have taken, or intend to take, in order to inform themselves as to when it may be desirable or not to appoint a medical assessor in the terms of Section 3, Subsection 1, of the Notice of Accidents Act, 1894?—Mr. J. Bryce (The President of the Board of Trade): The accident returns are examined, and, in cases of sufficient importance, the Board of Trade appoint a competent person to hold an investigation. No inquiry has yet been held in which the appointment of a medical assessor has been found to be necessary, but each case will be considered on its merits.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

The following candidates have passed in the subject of Zoology at the First Professional Examination for the degrees of M.B., C.M.:

W. H. Dawson, F. Myers, F. J. Jude, E. E. Myers, M. L. Dhringa, M. A. Ghany, D. J. Hughes, J. C. Lauder, B. B. Hean, B. N. Brebner, G. A. Brogden, E. H. Brunt, W. Reid, A. B. Slater, D. Robertson, F. E. Robinson, H. O. Smith, G. B. Robinson, J. S. obie, T. S. Shepherd, A. K. S. Shand, V. E. Sorapure, S. outhall, B. Stracey, K. L. Seng, J. B. Thorburn, R. B. Turnbull, J. C. Smith, S. Newmark, F. Burne, M. Certhen, C. S. Clark, A. Dods, P. W. Hampton, F. J. Hathaway, J. F. Martin, F. N. Menzies, J. R. Munro, W. G. Thompson, E. J. Peill, A. S. M. Peebles, R. N. Pringle, A. Tweedie, K. H. Ullmann, C. S. Vartan, N. D. Walker, H. E. Wareman, C. H. Watson, R. Weatherston, W. G. Williams, H. D. Wilson, T. R. Robertson, T. O. Rowley, J. Anderson, J. W. Barrack, H. Baird, W. J. Barclay, E. A. Brown, J. M. Buist, D. A. Callender, P. C. Campariolé, H. G. Carlisle, R. G. Carr, J. B. Cassels, K. Chapel, B. J. Courtney, J. L. Craig, Y. A. Djedjizian, R. R. Easson, D. Fenton, D. Ferrier, Y. Fukuda, J. Fullarton, I. G. Galbraith, P. F. Gauteaume, F. A. Georgeson, B. K. Goldsmith, F. B. Gornall, G. Haddow, A. A. Bernardo, A. B. George, J. Cameron, A. M'W. Green, H. M'Calman, W. M'Niven, W. W. Thom, A. H. Wood, J. P. Bell, P. G. Bodington, W. M'Kay, A. B. Fleet, J. Thornhill, S. S. Steen, J. S. Bostock, A. W. Fuller, W. D. S. Harrison, R. Rutherford, E. Steyn, R. Bruce, R. Cameron, L. Crossley, E. G. Ford, C. Foxton, R. Forsyth, H. T. Holland, C. Holmes, R. D. Hudson, R. F. Jarvin, W. J. Jones, J. W. Kerr, H. C. Kenn, C. G. S. Leeds, G. D. Laing, J. L. Louis, G. Lowthian, J. Mackhoff, W. Macdonald, W. M. Mackay, M. M'Kenzie, H. M. M'Kenzie, J. C. M'Kenzie, G. Mackay, G. C. M'Leavy, R. A. M'Neill, L. W. Macpherson, H. H. Messmass, A. H. D. Moore, A. Mouat, W. A. Murray, A. C. Neethling, E. G. F. Nixon, J. R. Oakes, A. C. Kirkpatrick, G. R. Laing, J. C. Mavonaghey, E. Mcwinegar, R. H. Macdonald, J. MacGregor, A. M'Kay, G. A. Mackay, Sandrum, G. H. Menzies, F. G. Middleton, W. Raine, A. Shearer, F. H. Stirling, C. S. Stevenson, J. P. Thorn, A. H. Thomas, R. G. Thomson, J. M. Gray, P. W. Hopkins, W. Gilbert, E. G. Flench, A. E. Goldie.

Miss A. M. C. Geddes and Miss Mary Mannerli have passed the same examination.

The following candidates have passed in the subject of Botany of the same examination:

W. H. Dawson, M.A., B. E. Myers, A. Wood, R. N. Brebner, A. Cartner, H. Dodgson, J. Husband, H. E. Coghlan, J. W. Barrack, F. A. Barnardo, J. Cameron, A. M. C. W. Green, H. Mcalman, W. Macniven, W. W. Thom, A. H. Wood, F. R. Robertson, M. L. Dhringa, M. A. Ghany, and Miss A. M. C. Geddes.

The following gentlemen have passed in the subject of Chemistry for the same examination:

J. Anderson, J. J. Pillay-Anthony, H. Baird, C. A. J. A. Balck, W. J. Barclay, L. D. H. Baugh, G. H. Boyden, R. N. Brebner, H. H. Broome, W. J. D. Bromley, A. A. Brown, A. P. L. Brown, E. A. Brown, G. H. Brown, L. H. Brunt, J. M. Buist, F. Burne, D. A. Callender, P. C. Camperlicle, H. G. Cheshire, M. Cartlew, J. C. Carr, J. B. Cassels, K. Chapel, H. E. Coghlan, W. J. Colhson, J. Cullen, R. M. Dalziel, W. Darling, M. L. Dhringa, G. A. Djedjizian, A. Dods, F. H. Donnithorne, R. R. Easson, D. Ferrier, D. J. Ferguson, A. S. Frank, F. G. Firench, D. R. Forshaw, Y. Fukuda, J. Fullarton, J. J. Galbraith, P. F. Gauteaume, M. A. Ghany, D. K. Goldsmith, T. B. Gornal, T. Graham, A. H. Griffith, G. Haddow, P. W. Hampton, A. C. Heath, J. K. Hermon, A. M. Holmes, E. D. Hudson, D. J. Hughes, J. Husband, J. G. Jack, R. F. Jardine, F. J. Jude, H. C. Kenu, D. B. Kiggell, J. D. Laing, T. C. Lauder, T. Livingstone, J. L. Louis, J. Luckhoff, W. C. Macgonald, W. R. Macdonald, T. J. T. M'Hattie, W. M. Mackay, M. M'Kelvie, J. M. Mackenzie, T. C. Mackenzie, J. Mackie, P. A. Macfagan, L. C. Weddeburn-Mackagan, R. C. M'Leavlan, G. C. M'Leavy, R. A. Macneill, J. Macpherson, J. F. Martin, J. Masson, M.A., C. W. F. Melville, F. N. Menzies, G. R. Mercer, C. E. B. Mercy, J. G. Mitchell, H. A. D. Moore, A. Mowat, J. G. Mc Kay, J. Mcnoe, W. A. Murray, B. E. Myers, F. Myers, S. Newmark, A. D. Noble, F. P. Oates, J. H. C. Orr, T. S. A. Orr, L. J. L. de Pontbriand, A. S. M. Peebles, J. Pender, E. J. Perreous, A. Preston, R. N. Pringle, H. G. P. Rachara, W. Reid, M.A., J. Richardson, T. E. Holmes, G. F. Robinson, J. F. Robinson, W. Rogers, T. S. Shepherd, G. F. E. Simpson, R. M'K. Skinner, A. B. Slater, A. C. Smith-Shand, V. E. Sorapure, W. C. Spooner, H. B. Sproat, B. Steyn, W. A. Stuart, K. L. Teng, W. G. Thompson, R. G. Thomson, C. E. B. Tracy, A. Tweedie, K. H. Ullmann, C. S. Vartan, N. D. Walker, H. D. Wareham, C. H. J. Watson, R. Weatherston, A. Whitcombe, P. D. Whitekey, W. R. E. Williams, H. D. Wilson.

The following ladies have also passed in Chemistry:

H. A. S. Bird, J. A. Craig, J. D. Cameron, F. P. Crowther, A. M. C. Geddes, A. M. Hutchinson, T. M. Alexander, R. Mcgregor, R. Massey, C. A. Mayne.

The following have passed in Chemistry for the First B.Sc. Examination:

W. Blackadder, Gertrude Buist, Miss F. W. Garrett, P. S. Hardie, G. C. Hay, J. Y. Simpson, A. C. Smith, T. A. Spaguo, F. P. Walker.

UNIVERSITY OF GLASGOW.

The following have passed the First Professional Examination (old regulations) for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.):

T. S. Goodwin, C. D. Picken, A. J. T. Swann, E. M. Watkins.

The following have passed the First Professional Examination (new regulations) for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subject or subjects indicated after their respective names (B., Botany; Z., Zoology; P., Physics; C., Chemistry):

J. N. Baxter (B., P.), T. F. Bennett (Z., C.), W. Bennett (B.), W. Broad (B., Z., C.), A. Brownlee (P.), J. Brunton (B., P.), T. B. Calland (B., C.), R. D. Campbell (P., C.), J. Carruthers, M.A. (P.), A. H. Cassells (Z., C.), J. R. Chalmers (Z., C.), A. Clark (B.), D. M. Cowan (Z., C.), G. M. Crawford (B., P.), J. Cullen (P., C.), C. C. Cumming (Z., P.), A. W. W. Davidson (Z., P.), D. W. Davidson (Z., C.), J. L. Davie (B., P.), J. Dick (Z., P.), F. L. Dickson (Z.), J. Drummond (P., C.), C. McG. Finlay (Z., P.), M. W. Fraser (Z., P.), J. A. Garden (B., P.), J. Gracie (B., P.), G. H. F. Graves (Z.), A. W. Harrington (Z., P.), L. G. B. Head (Z., P.), R. Henderson (C.), I. M. Huey (Z., P., C.), T. Inglis (Z.), R. D. Kennedy (B., P.), A. Kerr (Z., P.), D. Littlejohn (B., C.), J. G. Millar (Z., P.), R. Millar (Z., P.), H. Miller (P.), N. M. Miller (Z., P.), A. MacCulloch (B., C.), J. H. MacDonald (Z., P.), A. T. MacEwan (P., C.), P. MacI. M'Fadyen (Z., P.), J. M'Gilchrist (Z., P.), D. D. F. Macintyre (B., P.), C. F. Maclean (Z., P.), N. F. MacLeod (Z., P.), W. J. MacLeod (B., P.), A. R. Macmillan (Z., P.), J. M'Millan (B., P.), R. R. Macnicol, M.A. (C.), T. Neill (B., P.), J. Patton (B., Z., C.), T. S. Picken (Z., P.), W. B. I. Pollock (B., P.), A. Robin (Z., P.), J. Scott, M.A. (Z., C.), J. Shaw, M.A. (Z., C.), J. Shearer (B., Z., P., C.), A. J. Smith (Z., P.), D. J. Smith (Z., P.), J. Smith (P., C.), J. J. Smith (B., C.), W. S. Stalker (P., C.), A. G. Stewart (Z., C.), P. R. Stewart (B., C.), J. D. B. Stewart (B., C.), P. D. Strachan, M.A. (B., C.), J. A. Sutherland (B., P.), C. P. Thomson (Z.), W. B. Thomson (B., P.), T. B. Tierney (P., C.), A. L. Watson, M.A. (Z., P.), A. S. Wells (Z., C.), R. O. Whyte (B., Z., P., C.), G. H. Wildish (Z., P.), M. W. Williams (P.), A. Wilson (Z., P.), W. Wright (Z., P.), J. D. Young (Z., C.).

Women Candidates.—S. Davidson (P., C.), M. K. H. Fleming (P., C.), J. D. Granger (P., C.), M. Hardie (P., C.), J. S. B. Hunter (P., C.), M. Longmire (B., P.), J. Lorimer (A., P.), A. L. M'Ilroy (B., P.), L. D. M'Neill (P., C.), M. L. M'Neill (Z., P.), S. M. Robertson (P., C.), M. Spencer (P., C.), G. F. F. Taylor (P.), G. L. Young (P., C.).

The following have passed the Second Professional Examination (old regulations) for the degrees of Bachelor of Medicine (M.B.), and Master in Surgery (C.M.):

W. B. Armstrong, J. T. Bowie, J. R. Burns, J. B. Cumming, J. J. Edgar, G. M. Le Fevre, R. H. Meikle, J. A. C. Macewen, W. F. M'Ewen, A. M'Glashan, L. M. Mackay, W. M'M. Pearson, J. H. Rankin, J. R. Ratcliffe, R. Shanks, J. Sillars, A. Stevenson, D. L. Stevenson, M.A.

The following have passed the Second Professional Examination (new regulations) for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subject or subjects indicated after their respective names (A., Anatomy; P., Physiology; M.M. and T., Materia Medica and Therapeutics):

A. S. Allan (A., P.), T. B. Broadway (A., P.), D. L. Cairns (A., P.), F. J. Charteris (A., P.), J. A. Clarke (A., P.), G. W. Coats (A., P.), J. D. Cochrane (A., P.), W. S. Findlay, M.A. (A., P.), J. F. Fleming (A., P.), A. A. Forrester (A., P.), L. W. Harrison (A., P., M.M. and T.), A. Lawrie (A.), W. M. Lindsay (A., P., M.M. and T.), W. G. Liston (A., P., M.M. and T.), J. Macdonald (A., P.), J. M'Haffie (A., P.), D. M'Kail (A., P.), J. M'Queen M.A. (A. P.), N. E. H. Scott (A., P.), A. B. Sloan (A., P.), S. M. Sloan (A., P.), D. S. Smith (A., P.), J. Strang (A., P.), M. L. Taylor (A., P.), W. L. Thomson (A., P.), W. Watson (A., P.), E. Watt (A. P.), E. R. Weir (A., P.), W. Wyper (A., P.), D. J. Young (A., P.).

Women Candidates: D. A. M. Clark (A., P.), M. E. M'Neill (A., P.), J. H. Smith (A., P.).

The following have passed the Third Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.):

A. Including Pathology.—J. Allen, S. Anderson, B.Sc., J. R. Brown, W. Burns, M. Campbell, J. Divine, M. Dunning, T. M'G. Fletcher, D. M'I. Glen, G. Hanson, A. Iredale, J. W. Jackson, J. Knight, J. W. Munro, W. M. M'Farlane, J. S. M'Kendrick, H. M'Laren, J. M. Laws, T. D. Newbigging, H. C. Patrick, D. S. Service, J. C. Taylor, N. C. E. Ward, H. Whitehouse, J. E. Wilson.

Women Candidates.—M. B. Hannay, M. S. Maclean.

B. Not including Pathology.—A. Charlton, D. Drummond, G. H. B. Harvie, R. Hastie, J. Hogg, E. B. Jago, J. Marshall, S. Martyn, J. R. G. Phillips, J. M. Robertson, N. Robson, W. K. Russell, E. F. D. Walker.

UNIVERSITY OF ST. ANDREWS.

The following registered medical practitioners, having passed the required examinations, had the degree of Doctor of Medicine conferred upon them on March 29th, 1895:

G. H. Darwin, F.R.C.P.Edin., L.F.P.S.Glasg.; S. B. Fairley, L.S.A.Lond., L.F.P.S.Glasg.; J. J. Fraser, L.R.C.P.Edin., F.R.C.S.Edin.; J. R. Haynes, M.R.C.S.Eng., L.R.C.P.Edin., L.S.A.Lond.; L. J. James, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg.; J. D. McCaw, F.R.C.S.Edin., L.R.C.P.Edin., L.S.A.Lond.; J. B. Ronaldson, L.R.C.P.Edin., F.R.C.S.Edin., L.A.H.Dub., D.P.H.; St. C. B. Shadwell, M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.; T. Willey, M.R.C.S. Eng., L.R.C.P.Lond.; and I. Williams, L.R.C.S.Edin., L.M.Edin.

Foundation of Medical Chairs.—At the half yearly meeting of the General Council of the University, held on March 26th, under the presidency of the Lord Rector, the Marquis of Bute, the question of the foundation of two additional medical chairs was raised. The matter has excited a great deal of interest and some rivalry between St. Andrews and Dundee. The meeting was largely attended, and included many graduates from different parts of England. Professor Pettigrew moved: "That the General Council hearty approve of the action of the University Court in founding from the Berry bequest two additional may two chairs at St. Andrews as calculated to improve the general usefulness of the University, and resolve that every available means be taken by the Council to ensure their success, as well as that of the extended medical school at St. Andrews as a whole." He said that there was a grave necessity for extending the medical school at St. Andrews, for he could not conceive any place better adapted for giving the first two years of fundamental medical training. They had the means for founding two new medical chairs, those of anatomy and materia medica. Sir B. W. Richardson seconded the resolution. Dr. Buist, of Dundee, moved the disapproval of the motion. He argued that it was impossible to carry on satisfactorily instruction in even the earlier subjects of a medical curriculum without a hospital. The amendment was seconded by Professor Purdie. Professor Meiklejohn then moved that the amount available from the Berry fund should be devoted to founding a chair of history and two lectureships, one in German and one in geography. It had, he said been found almost impossible to attract medical students to St. Andrews. After some further discussion Professor Pettigrew's motion was finally carried by 74 to 38, and a committee was appointed to promote the development of the extended medical school and system of medical graduation at St. Andrews.

THE VICTORIA UNIVERSITY.

Final M.B. Examination.

Part I.—G. F. Bowman, Owens College; A. Brushfield, Owens College; H. S. H. Callum, Yorkshire College; C. E. Ligertwood, Yorkshire College; F. C. Moore, Owens College; J. V. Shaw, Yorkshire College; S. Thorp, Owens College; R. H. Trotter, Yorkshire College.

Part II.—*H. Ainsworth, Owens College; C. S. Ashe, Owens College; R. E. Bickerton, University College, Liverpool; D. E. Darbyshire, University College, Liverpool; F. W. Fish, Owens College; †J. P. Hall, Owens College; J. J. H. Holt, Owens College; W. A. Newall, Owens College; H. A. Scott, Owens College; W. L. Spink, Yorkshire College; *J. S. Taggart, Owens College.

* Awarded First Class Honours.

† Awarded Second Class Honours.

Second M.B. Examination.

Anatomy and Physiology.—J. T. Auld, Owens College; M. Aungier, University College, Liverpool; T. F. Bamford, Owens College; W. H. Bateman, Owens College; W. Bradley, Owens College; J. J. Butterworth, Owens College; H. J. Crompton, Owens College; L. O. Delecourt, Owens College; J. E. Dutton, University College, Liverpool; W. Graham, University College, Liverpool; A. S. Griffith, University College, Liverpool; H. Hartley, Owens College; J. F. Hodgson, Owens College; D. G. Hurter, University College, Liverpool; R. Kelsall, Owens College; J. Kemp, Owens College; G. G. L. Lawson, University College, Liverpool; F. T. A. Lovegrove, University College, Liverpool; C. H. Mason, Yorkshire College; H. A. Mawdsley, University College, Liverpool; W. T. Melling, Owens College; J. Milne, Owens College; H. G. H. Monk, Yorkshire College; J. Mooney, Owens College; C. H. Moorhouse, Yorkshire College; J. Prestwich, Owens College; A. H. Priestley, Owens College; G. Renshaw, Owens College; J. H. Sheldon, Owens College; R. Sutherland, University College, Liverpool; H. Thorp, Owens College; L. S. Whitwam, University College, Liverpool; J. H. Willett, University College, Liverpool; J. Williamson, Yorkshire College; and D. S. Wylie, Owens College.

Materia Medica and Pharmacy.—D. A. Ashton, Owens College; J. T. Auld, Owens College; T. F. Bamford, Owens College; R. W. Bollans, Yorkshire College; H. N. Bridge, Owens College; Lucy Buckley, University College, Liverpool; W. J. S. Bythell, Owens College; H. L. Clarke, Owens College; F. Darlow, Yorkshire College; J. W. Dearden, Yorkshire College; W. Graham, University College, Liverpool; R. Hamer, Owens College; T. W. Hart, Owens College; H. Hartley, Owens College; W. Hickey, Owens College; D. G. Hurter, University College, Liverpool; R. Kelsall, Owens College; G. G. L. Lawson, University College, Liverpool; E. J. Martin, Owens College; T. O'Neill, Owens College; A. H. Priestley, Owens College; C. R. Schofield, Owens College; J. H. Sheldon, Owens College; H. Slater, Owens College; R. Sutherland, University College, Liverpool; H. de P. B. Veale, Yorkshire College; J. V. Watson, Owens College; and W. Wright, Owens College.

Candidates' names are arranged in alphabetical order.

The Scholarship in Medicine is awarded to R. Kelsall, Owens College.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

The following gentlemen passed the Second Examination of the Board in the subjects indicated. Monday, April 1st.

Anatomy and Physiology.—I. Taylor, student of Yorkshire College, Leeds; R. W. Pearson, H. H. Robinson, J. Bennett, and J. Wood, of Owens College, Manchester; J. Black, of Owens College, Manchester and Firth College, Sheffield; J. Gardner and N. Milner, of Firth College, Sheffield; F. Barnes, F. N. Deakin, W. H. Coltart, J. G. C. Taunton, J. Bradley, F. Pope, and J. A. N. Longley, of Mason College, Birmingham; A. W. Tuxford, of St. Mary's Hospital; W. R. Battye, of University Colleges, Bristol and London; and J. W. Hughes of Cambridge University.

Anatomy only.—H. Jinks, R. Wallwork, and H. Blakemore, of Owens College, Manchester; F. C. Morgan and C. M. Mitchell, of University College, Bristol.

Physiology only.—G. Renshaw and H. L. Laidman, of Owens College, Manchester; and O. T. A. Phillips, of University College, Cardiff.

Twelve gentlemen were referred in both subjects, 4 in Anatomy only, and 5 in Physiology only.

Tuesday, April 2nd.

Anatomy and Physiology.—W. E. Jones, student of Owens College, Manchester; W. E. B. Roberts, of Mason College, Birmingham; E. C. Sawdy and E. S. Graham, of St. Mary's Hospital; E. V. Foss and R. F. Moorshead, of University College, Bristol; G. L. Bates and W. J. May, of Charing Cross Hospital; R. W. C. Pierce, W. H. Tuck, and H. E. Hewitt, of St. Thomas's Hospital; C. C. Marrack, of St. Bartholomew's Hospital; H. J. Greaut, of Westminster Hospital; L. E. C. Handson, of Guy's Hospital; T. Jones, of London Hospital; A. Roman, of Strassburg, Tubingen, and Keil Universities; and H. A. Bruce, of Toronto University and University College, London.

Anatomy only.—E. S. Crispin, of King's College, London; J. L. Payne, of Guy's Hospital; A. J. Andrew, of St. Bartholomew's Hospital; F. C. Maitland, of Middlesex Hospital; and J. E. H. Parsons, of Cambridge University and Guy's Hospital.

Physiology only.—J. M. A. Manning, of St. George's Hospital; D. Acklaud, of Charing Cross Hospital; and A. R. O'Fiaherlie, of London Hospital and Mr. Cooke's School of Anatomy and Physiology. Ten gentlemen were referred in both subjects, 5 in Anatomy and 6 in Physiology only.

ROYAL COLLEGE OF SURGEONS IN IRELAND: SCHOOLS OF SURGERY.

CLASS PRIZES. Winter Session, 1894.

Descriptive Anatomy.—Junior: W. J. Anglim, 1; H. M. Clarke and J. M. Crawford (equal), 2. Senior: F. J. Palmer, 1; and R. H. D. Pope, 2.

Practical Anatomy.—First Year: S. R. Godkin, 1; and J. J. Huston, 2. Second Year: M. W. Faulkner, 1; and D. Hadden and J. Leventon (equal), 2. Third Year: A. S. Greene, 1; and A. McMunn, 2.

Practice of Medicine.—D. Kennedy, 1; and W. M. Power, 2.

Theoretical Surgery.—A. J. Eades, 1; and D. Kennedy, 2.

Midwifery.—G. A. Robinson, 1; and J. A. McMunn, 2.

Physiology.—F. J. Palmer, 1; and D. Hadden, 2.

Chemistry.—W. J. Anglim, 1; and S. R. Godkin, 2.

Pathology.—G. A. Robinson, 1.

Physics.—W. J. Anglim and D. A. Fitzgerald (equal), 1; and M. Gavin, 2.

The Schools opened on Monday, April 1st, for the three months' courses of Operative Surgery, Practical Chemistry, Pharmacy, Public Health, Forensic Medicine, Materia Medica, Histology, Biology, and Dissection.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,317 births and 4,731 deaths were registered during the week ending Saturday, March 30th. The annual rate of mortality in these towns, which had declined from 35·0 to 27·7 per 1,000 in the three preceding weeks, further fell to 23·4 last week. The rates in the several towns ranged from 14·5 in Swansea, 15·1 in Cardiff, and 16·5 in Birkenhead to 37·1 in Bolton, 38·3 in Wolverhampton, and 42·4 in Burnley. In the thirty-two provincial towns the mean death-rate was 25·0 per 1,000, and was 3·9 above the rate recorded in London, which was 21·1 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1·5 per 1,000; in London the rate was equal to 1·6 per 1,000, while it averaged 1·5 in the thirty-two provincial towns, and was highest in Manchester, Gateshead, and Bolton. Measles caused a death-rate of 1·5 in Sheffield and 2·2 in Bolton; scarlet fever of 1·2 in Wolverhampton; and whooping-cough of 1·2 in Plymouth and in Blackburn, 1·3 in Salford, and 1·6 in Gateshead. The 53 deaths from diphtheria in the thirty-three towns included 31 in London, 3 in West Ham, 3 in Manchester, 2 in Liverpool, and 2 in Birmingham. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two provincial towns. There were 55 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-Pox Hospital on Saturday last, March 30th, against 56, 57, and 58 at the end of the three preceding weeks; 10 new cases were admitted during the week, against 9, 12, and 14 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,819, 1,615, and 1,587 at the end of the three preceding weeks, had further declined to 1,555 on Saturday last, March 30th; 161 new cases were admitted during the week, against 141, 133, and 184 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, March 30th, 941 births and 732 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 42·8 to 31·3 per 1,000 in the four preceding weeks, further fell to 25·4 last week, but exceeded by 2·0 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rate ranged from 18·4 in Greenock to 31·2 in Leith. The zymotic death rate in these towns averaged 3·2 per 1,000, the highest rates being recorded in Aberdeen and Leith. The 383 deaths registered in Glasgow included 2 from small-pox, 3 from scarlet fever, 2 from diphtheria, and 12 from whooping-cough. Fifteen fatal cases of measles were recorded in Edinburgh and 9 in Leith.

VACCINATION WITH CALF LYMPH.

WITH reference to a paragraph headed as above in the BRITISH MEDICAL JOURNAL of March 30th, our attention has been directed to an extract (which we hasten to insert) from a letter recently received from the Local Government Board:—"The present system of public vaccination in England, with its periodical attendances at appointed stations and at fixed times, is designed to secure, as far as possible, vaccination with fresh lymph from arm-to-arm; the official Instructions to Vaccinators under control contain (Section 5) an express warning against departure from that system; and the granting of special awards is subject to certain specified conditions, one of which is compliance with the regulations embodied in those instructions, to the effect that the public vaccinator shall not, under ordinary circumstances, adopt any other method of vaccinating than with liquid lymph directly from arm to-arm. The Board would, therefore, point out that departure from this rule might involve the public vaccinators in loss of their awards; and at the present time, while the whole question of vaccination is under investigation by a Royal Commission, it seems to them specially undesirable that they should make any change in the official instructions in question." Our correspondent adds that, of course, it is the use of preserved calf lymph that is so much deprecated, and that, so far as his experience goes, the Local Government Board look with equal favour upon calf-to-arm and arm-to-arm vaccinations. The former is, as most of our readers well know, in use at the Animal Vaccine Establishment in Lamb's Conduit Street, London.

ONE-SIDED ARGUMENTS.

A MEDICAL man who is opposed to vaccination is indeed a *rara avis in terris*, but Mr. Walter R. Hadwen, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A. Lond., of Highbridge, Somerset, has been going about lecturing against vaccination. By simply ignoring all the facts which speak for vaccination, he makes out a plausible case to the ignorant; but the justice of such a procedure is questionable. Take the following example of his arguments. Mr. Hadwen in a letter to a local newspaper cites the Sheffield epidemic, and then tells the public that 98 per cent. of the population were vaccinated persons, and that in one year there were 6,000 cases amongst vaccinated persons, with 680 deaths. But he does not tell the public the other side at the same time, as he ought to do—name y, that the attacks amongst the unvaccinated were six times more numerous per cent. than amongst the vaccinated, and the deaths 68 times per cent. more numerous, up to March 31st, 1888, when the epidemic was distinctly declining. Thus the public only hear one side of the question from such debaters as Mr. Hadwen. The deaths among the vaccinated up to the above date were only 200, not 680, and but few more occurred.

BARNSTAPLE UNION.

WE understand that the medical officership of the Ilfracombe District of the Barnstaple Union is again vacant, and this for the second time within one year, and for the third time within five years. The cause of the present vacancy appears to be the inadequate salary paid by the guardians, this being the same as fixed forty years back, though the population of the district, largely composed of the working class, has enormously increased. Under these circumstances we cannot recommend this appointment as being a desirable one for any member of the profession to apply for.

THE SANITARY CONDITION OF ITALY.

PROFESSOR PAGLIANI'S Report on the Sanitary Condition of Italy during the second half of 1894 states that the various infectious diseases in human beings were not more prevalent than usual. There was an increase of small pox in Puglie, where it has existed since 1892, owing to vaccinations being difficult to carry out in sufficient proportions. Towards the end of the year the disease made its appearance at Trapani in considerable numbers. Diphtheria was most prevalent in July and August. Typhoid fever was rather prevalent in the provinces of Alexandria, Milan, and Pavia, but the only serious epidemic occurred in Syracuse in December, particulars of which have already been published in the BRITISH MEDICAL JOURNAL. In a few days there were 166 cases with 27 deaths, and the cause was due to the pollution of the well supply. The epidemic was quickly cut short by the energetic measures taken. The epidemic of cerebro-spinal meningitis, which was so prevalent in the first half of the year, showed a rapid decline in the second half.

During July, 1894, 10 cases of cholera were reported in the province of Alexandria. The disease was most probably introduced from Marseilles, where cholera was then prevalent. In August, September, and October there were 50 cases in Naples and its neighbourhood; here also the disease was imported from Marseilles. The only other cases of cholera that occurred in Italy during the six months were 1 suspicious case in the province of Campobasso and 2 or 3 in that of Caserta. On August 1st 1 death took place at Genoa on board a steamer which came from Marseilles. The remaining sections of the report deal with the various hygienic improvements carried out in the kingdom: the sewerage of Naples; regulations in reference to cemeteries, etc.; the appointment of provincial doctors (county health officers); the arrangements made for the manufacture and supply of the different antitoxins for man and animals; and regulations in reference to marine sanitation, and with the medical aid for the poor. The part relating to vaccination shows that in the Jennerian Section of the State Vaccine Institute during the year, 254 calves were inoculated; 22,547 applications for lymph were received, and 9,167 tubes and 1,986 points were sent to the various applicants. Altogether, from January 1st to December 31st, sufficient lymph to vaccinate over 3,000,000 persons was sent out.

MEASLES AND SCHOOL CLOSURE.

DR. MARK FENTON, the health officer of Coventry, is well qualified to speak on the subject of measles in its relation to sanitary administration, as that city has had a large acquaintance with the disease under the system of compulsory notification. In his annual report for the past year, Dr. Fenton says that the precautionary measures adopted in Coventry have availed little in respect of the repression of measles, except the entire closure of schools. Here he shows that much has been done, the rapid falling off in the numbers notified shortly after, as compared with the weeks preceding school closure, plainly demonstrating the efficacy of total closure. Thus, in four successive weeks of epidemic prevalence of the disease with the schools open, the numbers of cases were 182, 213, 275 and 492; whilst thereafter they at once fell upon closure of the schools to 306, 260, 134, 88, and 42 respectively. The same main action of school closure was shown in the epidemics of 1886 and 1889. One point to be noticed is that some of the schools did not act on the closing order for upwards of a week, because examination time was close at hand; and indeed one school, after protesting that no measles existed among its scholars, had three weeks later to apply for a compulsory closing order, as 35 per cent of its attendants were away with measles. What is wanted, says Dr. Fenton, is isolation of all early cases. Compulsory notification may be useful in enabling the authority at once to apply their measures of precaution by quickly learning of the presence of measles in their town. If the information is not at once made use of, the blame does not rest on the notification system.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

A SCOTTISH POOR-LAW MEDICAL OFFICER writes: I suppose most Poor-law medical officers in Scotland are under the impression that the Bill for this purpose at present before Parliament is applicable to Scotland as well as to England. This impression would naturally follow from reading the form of petition in the BRITISH MEDICAL JOURNAL of March 9th, p. 557, which states that "the petitioners are an association representing the Poor-law medical officers of Great Britain." I was, therefore, rather surprised to hear from the member of Parliament for our district that the Bill does not apply to Scotland. Now, Sir, I think this is rather unfair, for I am sure the position of the Scottish Poor-law medical officers is not superior in any way to that of their English brethren. For one thing their tenure of office is in this anomalous state—that they can be dismissed both by the Local Government Board and by the parochial boards or parish councils, whereas I believe the English medical officers, and even the Scottish inspectors of poor, can only be dismissed by the Local Government Board. I hope the Scots, who have never been behind when any fighting was going on, will not sleep any longer under these indignities, and that you, Sir, will advocate that justice be done all round.

THE DUTIES OF M.O.H. IN INFECTIOUS CASES.

M.O.H. (who has forgotten to enclose his card) has been called upon by his rural district council to visit every case of infectious disease notified to him. He asks if this is usual, and if there is anything in the Public Health Act which implies it.

**** It is not usual, and is not required by the Public Health Act. The order of the Local Government Board requires the M.O.H. to visit without delay the spot on which an outbreak of dangerous infectious disease is reported, but this has not usually been taken to mean an immediate personal visit to every infected household. In many instances it would be proper to accept the report of the inspector; and indeed, unless the M.O.H. has a small district and little else to do, he might often find it difficult to carry out personal inquiries in all cases notified.

MR. WM. C.—The medical officer of health was right in taking immediate action to satisfy himself that proper precautions were being observed in such an important centre as a post-office, especially if the intimation of the existence of a dangerous infectious case reaches him unofficially, with no guarantee of proper medical supervision being exercised. The delay in notification was therefore unfortunate. But he would not be acting with discretion in examining patients whom he knew to be under the charge of a medical man, without communicating with the latter. Much turns upon this point of knowledge, which our correspondent does not make quite clear.

NOTIFICATION FEES.

S. T. B.—The Local Government Board have repeatedly expressed officially the opinion which has on many occasions been given in the BRITISH MEDICAL JOURNAL—namely, that every practitioner called in to see a notifiable case must notify, and is entitled to the usual fee for doing so. A prior notification by another practitioner, even if known to a medical man called in later, does not relieve him of his legal responsibility to notify, nor the authority of their liability for the fee.

OBITUARY.

JAMES HENRY COVENEY, M.R.C.S.

WE have to announce with much regret the death, on March 26th, of Mr. James Henry Coveney, at Hawkhurst, Kent, to which place he had retired a few years ago, after some thirty-five years' active practice in Prestwich, Lancashire. Mr. Coveney received his professional education at St. Bartholomew's Hospital, and, after obtaining the diplomas of the Royal College of Surgeons and the Society of Apothecaries, migrated to Manchester, where, in the first instance, he held an appointment in connection with the Manchester Royal Infirmary. Later he held the Lectureship on Surgery at the Manchester Royal School of Medicine. While at Prestwich he was engaged in a large practice, and also held the appointments of Medical Officer of Health and District Medical Officer of the Prestwich Union. His work in Prestwich brought him into relation with both rich and poor, by whom he was much beloved, and who testified their affectionate esteem for him by presenting him on his retirement in 1886 with a handsome testimonial. At Hawkhurst, although relieved from the cares of practice, he found ample opportunities of rendering services to those among whom he lived, and his death, which occurred suddenly, has deprived many of a friend who could be ill spared.

☞ DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Augey, Mayor of Biarritz, and a prominent member of the Republican party; Dr. Victor Parisot, Professor of Clinical Medicine in the old medical faculty of Nancy, aged 85; Dr. E. F. Farge, honorary professor and formerly director of the medical school of Angers, and chief physician to the Hôtel-Dieu of that town; Dr. Ermete Coliva, a well-known practitioner of Florence, and inventor of an automatic bed for artificial respiration, aged 61; Dr. Milton N. Taylor, formerly City Physician, and afterwards a Commissioner of Health, of Baltimore; Dr. C. W. Breyfogle, a leading practitioner of Louisville, aged 54; Dr. Dufay, of Gisors (Eure), one of the oldest members of the profession in France, for more than seventy years the busiest practitioner in his district, aged 96; Dr. Jamin Strong, one of the best-known alienists of America, for many years Medical Superintendent of the Cleveland Hospital for the Insane; Dr. Zénon Pupier, formerly of Vichy, where he practised for forty years; and Dr. Pohl-Pincus, of Berlin, a well-known specialist in diseases of the skin.

INDIA AND THE COLONIES.

INDIA.

VACCINATION IN BENGAL.—The *Annual Statistical Returns and Short Notes on Vaccination in Bengal for the Year 1893-4*, by Surgeon-Lieutenant-Colonel W. H. Gregg, M.B., M.R.C.P.Lond., Sanitary Commissioner for Bengal, contains serried ranks of figures which well exhibit the wonderful organisation which now exists in India. In all the districts of the Bengal Province during the year 1893-4 the deaths from small-pox numbered 12,496, and the ratio of small-pox deaths per 1,000 of population was 0·17; the ratio per million of population was thus 170. The population is 70½ millions, and 1¾ millions were vaccinated during the year, including 3,782 successful revaccinations. The ignorance and religious scruples, but especially the apathy, of the native population are great obstacles to vaccination, and, under the circumstances, the report which Dr. Gregg has presented to his Government is gratifying.

THE IMPERIAL BACTERIOLOGIST.—The Government of India have sanctioned a revised establishment for Professor Lingard, M.B., the Imperial bacteriologist, with effect from April 1st next, when his establishment will be moved from Poona to the new premises in the hills. The establishment is not to cost more than Rs.4,500.

CANADA.

MEDICAL LEGISLATORS.—The Hon. Dr. Montague has been named a member of the Canadian Cabinet and a Privy Councillor. The roll of Canada's public men now includes, besides a large number of medical members of the Senate, Commons, and Legislatures, the names of the Hon. Drs. W. W. Baldwin and Widmer, Legislative Councillors; the Hon. Dr. Rolph, well known for his devoted work in the promotion of medical teaching in Ontario; the Hon. Dr. Blanchet, Speaker of the Commons; Sir Charles Tupper, M.D., High Commissioner to England; and Sir Étienne Taché, M.D., Prime Minister of the Canadas in two Administrations.

CAPE COLONY.

SANITARY ADMINISTRATION.—Dr. Gregory's interesting address to the second South African Medical Congress, which has been republished,[1] reveals a wider gap than is generally recognised between the mother country and some at least of the Colonies in the matter of health legislation. Registration of deaths is attempted only in some few towns in Cape Colony, and even there imperfectly, so that accurate statement of death-rates is impossible. The system of sanitary government seems to be equally chaotic, notwithstanding much patchwork legislation. There is little effective central control. Many urban centres have no local authority at all, and there the inhabitants—like the "village Boards" which represent sanitary administration elsewhere—are able to do pretty much as they please. Dr. Gregory evidently writes with intimate knowledge of the needs of the Colony, and the measures which he advocates are clearly and thoughtfully stated.

HONG KONG.

THE *Annual Report on the Medical Department (Hong Kong) for the Year 1895* (Hong Kong: Noronha and Co., Government Printers, 1894, fcap. folio, pp. 56), recently issued, contains much interesting information on the sanitary condition of the town of Victoria prior to the outbreak of plague last year. To this we have already adverted in connection with Drs. Ayres's and Lowson's paper at the Buda-Pesth Congress. In addition to this, and to the usual information on the medical establishments of the Colony, the present report embodies the views and experience of Dr. Ayres and his colleagues on the opium question. They are distinctly pro-opiumists. The statement which Dr. Ayres makes to the effect that opium smoked does not produce contraction of the pupil is interesting if of universal application. Experience associates contraction of the pupil with the physiological action of opium. Opium either produces or does not produce a physiological effect when smoked. If non-contraction of the pupil is evidence that it does not produce a physiological effect we wonder why it is smoked. Dr. Ayres should give his observations on so interesting a point in greater detail. His allegation, if true, may embody a therapeutic principle worth following up.

[1] *Health Legislation in Relation to the Requirements of the Cape Colony.* By A. J. Gregory, M.D., B.S., D.P.H., etc. Cape Town: J. C. Juta and Co. 1 94. (Roy. 8vo, pp. 24. 3s.)

HOSPITAL AND DISPENSARY MANAGEMENT.

ABERDEEN ROYAL LUNATIC ASYLUM.

Dr. William Reid, physician-superintendent of the Aberdeen Royal Lunatic Asylum, in publishing his annual report of the medical work of the institution, which is of the usual satisfactory nature, offered some remarks deserving of careful consideration both by the members of the profession and by the general public. Dr. Reid lays great stress on the question of heredity. He states that he endeavoured to make a minute investigation of each patient as to this point during the past year. The investigation proved unsatisfactory. A large number of the relatives of the patients were extremely reticent in giving an open family history. A study of the causes of insanity, he says, leads him to the conclusion that the chief agency is nerve instability transmitted from parent to progeny. The greater the force of this instability the less need be the immediately exciting causes which produce disorder of the brain functions. There is, in his opinion, no doubt that the tendencies towards intemperance and the commission of crime are referable to this inherited weakness. Can any suitable means be found to fortify him against such influences or protect him from them?

It is certainly the duty of the individual to battle against his infirmities, but is it not a hardship that he is handicapped at the start and still more so that through an inconsiderate marriage with one having similar tendencies he should transmit these evils, in a more aggravated form, to a still more unhappy offspring? He points out how little the family history and abnormal mental tendencies are studied by parties contracting marriage. And how often these are carefully hidden away in family secret vaults till something demands inquiry, and then the weak points are evident. Dr. Reid is not overstepping his duty when he indicates that the facts already established in connection with heredity point out an essentially useful sphere for State interference in a matter which is a festering sore in social life.

At any rate would that for the time when the State may be able to legislate on this point in a scientific manner, it is the duty of parents, physicians, and teachers to recognise these facts and to use every wise means to diffuse sound knowledge in this weighty matter.

MEDICAL NEWS.

Dr. Justin McC. McCarthy, of St. George's, Shropshire, asks us to state that the chief cause of his resignation of his seat upon the Council of the Medical Defence Union was the difficulty he encountered, owing to the facts not having been entered in the minutes, in obtaining knowledge of the exceptional circumstances which led the Council of the Union to take action in a recent case.

The monthly meetings of the Royal Statistical Society during the remainder of the present session will be held in the Lecture Theatre of the Royal United Service Institution, Whitehall, S.W.

At the annual meeting of the North London Medical and Chirurgical Society on Thursday, April 11th, at the Great Northern Hospital (8 P.M.), the President, Dr. J. G. Glover, will deliver an address on The Profession, its Place and Progress.

The Home Office Committee, appointed to report upon the sanitary conditions under which castings and workings in brass and kindred alloys are carried on, held a sitting in Sheffield last week; evidence was taken and workshops inspected. The inquiries of the committee have already been conducted in Birmingham and Walsall, London, Wolverhampton, and Glasgow.

The Caius Settlement.—The annual report of the Gonville and Caius College Cambridge Mission and Settlement at Battersea for 1893-4 shows that the educational, social, and religious work done at Caius Hall, Caius House, and Caius Mission House, continues to attain the high aims which the founders set before themselves. The scheme is, however, handicapped by want of adequate funds.

A stained-glass window containing the coats of arms or crests of members of the medical and surgical staff, past or present, of the London Hospital has been erected in the library of the London Hospital Medical College. These armorial bearings include those of Dr. John Andree, the first physician, and Mr. John Harrison, the first surgeon, who were appointed in 1740. Among the thirty-two shields are those of Sir William Blizard, Sir Andrew Clark, Richard Clement Headington, John Goldyer Andrews, James Luke, Thomas Blizard Curling, and Jonathan Hutchinson, all at one time or another Presidents of the Royal College of Physicians or of Surgeons. It is hoped that the armorial bearings of many others with whose descendants it has not hitherto been possible to communicate may eventually be added; and the Warden of the College, who is ready to show the window to any person interested, will be glad to receive communications from the present representatives of former members of the staff.

A pleasing and characteristic portrait of the late Mr. J. W. Hulke, President of the Royal College of Surgeons, has been issued by Messrs. Baillière, Tyndall, and Cox. It is printed from a copperplate by photogravure from a photograph by Messrs. Barraud, of Oxford Street. Messrs. Baillière, Tyndall, and Cox (20, King William Street, Strand) will supply the portrait, framed, at the price of 10s. 6d., and they ask us to state that the number of copies is limited.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM CITY ASYLUM.—Resident Qualified Clinical Assistant. Board and apartments provided. Applications to the Medical Superintendent.

BIRMINGHAM GENERAL DISPENSARY. Resident Surgeon; doubly qualified. Salary, £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance. Applications to Alex. Forrest, Secretary, by April 22nd.

BRITISH LYING-IN HOSPITAL, Endell Street, Long Acre, E.C.—Physician to the Out-patient Department. Applications to the Secretary by April 20th.

CARDIFF UNION.—Medical Officer for the Bonvilstone District. Salary, £45 per annum. Applications to Arthur J. Harris, Clerk, Queen's Chambers, Cardiff, by April 16th.

COUNTY ASYLUM, Dorchester.—Second Assistant Medical Officer, unmarried, and not over 30 years of age. Salary to commence £130 per annum, rising £10 yearly to £160. Applications to Dr. MacDonald, Medical Superintendent, by April 8th.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell E.—House-Physician. Board, lodging, etc., provided; no salary. Applications to the Secretary by April 8th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by April 18th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Surgical Registrar and an Anæsthetist. Appointments for one year. Honorariums of £40 and £15 15s. respectively at the expiration of term. Applications to the Secretary by April 23rd.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 annually, with furnished quarters, attendance, coals, gas, produce, milk, and washing. Appointment for two years in the first instance. Applications to Francis R. Howlett, Clerk to the Subcommittee of Visitors, 9, King Street, Maidstone, by May 1st.

LONDON HOSPITAL MEDICAL COLLEGE.—Assistant Demonstrator in Anatomy. Salary, £90 per annum. Applications to the Warden by April 25th.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, 32, Soho Square, W.—Two Clinical Assistants for the Electrical Department. Applications to Dr. Haydon or the Secretary by April 15th

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Physician. Must be F. or M.R.C.P.Lond. Applications to T. Glenton-Kerr, Secretary, at the Office, 27, Clement's Lane, E.C., by April 16th.

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Assistant. Board and residence provided. Applications to Dr. McDowell, Medical Superintendent.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Resident Medical Officer and Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 per annum is attached to the senior post. Applications to the Secretary by April 26th.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Surgeon to the Throat and Ear Department. Applications to the Secretary by April 22nd.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Honorary Surgeon. Applications to the House Governor by April 20th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon; doubly qualified. Appointment for six months. Rooms, commons, and washing provided in lieu of salary. Applications to the House-Surgeon by April 18th.

ROYAL COLLEGE OF PHYSICIANS.—Milroy Lecturer. Applications to the Registrar, Royal College of Physicians, Pall Mall East, S.W., by April 9th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners in Anatomy and four Examiners in Physiology for the Fellowship; candidates for the former must be Fellows of the College. Four Examiners in Elementary Anatomy (First Examination). Two Examiners in Elementary Biology (First Examination). Four Examiners in Anatomy (Second Examination). Three Examiners in Physiology (Second Examination). Four Examiners in Midwifery (Third Examination). Two Examiners in Public Health. Applications to the Secretary by April 25th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months. Salary, £100 per annum, with furnished apartments and board. Applications to the Secretary by April 24th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House-Surgeon; must be willing to engage for six months. Gratuity of £10 will be given at the end of this period if satisfactory. Board and lodging provided. Applications to T. A. Fisher Hall, Secretary, by April 24th.

SWANSEA GENERAL AND EYE HOSPITAL.—Clinical Assistant. Appointment for six months. Board, lodging, and washing provided. Applications to the Honorary Secretary of the Medical Staff by April 15th.

TANCRED'S CHARITIES.—Two Studentships in Divinity at Christ College, and one Studentship in Physic at Gonville and Caius College, Cambridge. Each student will receive £50 a year and a share in the surplus rents and profits (the stipend not to exceed £100 a year); the student in Physic until admission to the degree of Bachelor of Medicine, and for three years afterwards, or for such shorter terms as may be determined by authority. Candidates must be natives of Great Britain, members of the Church of England, unmarried, and not below the age of 16 or above the age of 22. Forms of petition and all information may be obtained from Mr. George Edgar Frére, 28, Lincoln's Inn Fields, W.C., Clerk to the Tancred's Charities, to whom petitions must be sent by April 20th.

MEDICAL APPOINTMENTS.

ADAMSON, Charles H., M.B., C.M., appointed Resident Surgeon to the Edinburgh Royal Infirmary.

ALEXANDER, S. R., M.D.Lond., M.R.C.S., reappointed Medical Officer for the No. 1 District of the Faversham Union.

ASHWORTH, J Henry, M.D.St.And., F.F.P.S.Glasg., M.R.C.P.Edin., etc., appointed Medical Officer to the Post Office, Halstead, Essex.

ASTIN, Wilson, M.B., C.M.Aberd., appointed Assistant Medical Officer to Oriolet Cottage Hospital for Cancer, Loughton, Essex.

BATELY, John, M.D Durh., L.R.C.P., M.R.C.S., reappointed Medical Officer for the Belton District of the Mulford and Lothingland Union.

BEATTIE, James M., M.B., C.M., appointed Resident Physician to the Royal Edinburgh Hospital for Sick Children.

BELSON, G. de Veulle, M.A.Oxon., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Third District of the Dulverton Union.

BOND, Reginald St. G. S., M.B., C.M., appointed Resident Surgeon to the Edinburgh Royal Infirmary.

BROOKS, C., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Chalfont District of the Amersham Union.

BUCHANAN, R. M., M.B., C.M., appointed Professor of Medical Jurisprudence at Anderson's College Medical School, Glasgow, *vice* T. Kennedy Dalziel, M.B., C.M.Edin., resigned.

CLARK, Andrew, F.R.C.S.Eng., appointed Surgeon to the Middlesex Hospital, *vice* J. W. Hulke, F.R.C.S.Eng., deceased.

COX, William, M.R.C.S.Eng., L.S.A., reappointed Medical Officer of Health to the Winchcombe Rural District Council.

CURREY, E. F. N., M.R.C.S., L.R.C.P.Lond., appointed House-Physician to the West London Hospital.

ERSKINE, James, M.A., M.B., appointed Lecturer on Aural Surgery at Anderson's College Medical School, Glasgow, *vice* Thomas Barr, M.D.Glasg., resigned.

GALLIE, J. Stuart, M.B., C.M., appointed Resident Surgeon to the Edinburgh Royal Infirmary.

GILLETT, G. E., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Third District of the Loddon and Clavering Union.

GOODFELLOW, James A., M.B., C.M.Glasg., reappointed Medical Officer of Health for the Brampton Rural Council.

HENDERSON, John, M.B., C.M., appointed Resident Physician to the Edinburgh Royal Infirmary.

KELLY, Bruce C., M.B., C.M., appointed Resident Physician to the Edinburgh Royal Infirmary.

KENNAN, R. H., M.B., B.Ch., B.A.O.Univ.Dub., appointed Assistant Resident Physician to the Birmingham Workhouse Infirmary.

LAWRIE, John, M.B., C.M., appointed Resident Physician to the Edinburgh Royal Infirmary.

LENTAIGNE, John, F.R.C.S.I., Surgeon to the Mater Misericordiæ Hospital, appointed Surgeon to the Children's Hospital, Temple Street, Dublin.

LINDEN, H. C., L.R.C.P.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Harptree District of the Clutton Union.

M'DONNELL, Dr. Joseph, appointed Medical Officer for the Workhouse of the Roscommon Union.

MARINO, William Robert, M.B., C.M., appointed Resident Surgeon to the Edinburgh Royal Infirmary.

MEAKIN, Harold B., M.B.Lond., M.R.C.S., L.R.C.P., appointed Senior House-Physician to the Metropolitan Hospital, Kingsland Road, N.

MOSSOP, Arthur George, M.R.C.S.Eng., L.R.C.P.I., appointed Medical Officer of Health for the Newhaven Urban District Council.

OSWALD, Landel, M.B., C.M.Glasg., appointed Medical Superintendent of the Asylum at Gartloch.

PARHAM, William M., M.D.Edin., appointed Medical Officer for the Brecon Union Workhouse, *vice* James Williams, F.R.C.S., resigned.

RICHARDS, W. H., L.S.A., appointed Medical Officer for the St. Mellon's District of the Newport Union.

ROBERTS, G. A. E., M.R.C.S.Eng., appointed Medical Officer of Health to the Winchester District Council.

ROPER, A. C., F.R.C.S., L.R.C.P.Edin., M.R.C.S., appointed Surgeon to the Devon and Exeter Hospital, *vice* James Bankart, M.B.Lond., F.R.C.S. Eng., resigned.

ROXBURGH, A. B., M.A., M.B.Oxon., F.R.C.S.Eng., appointed Surgical Registrar to the London Hospital.

SELBY, W. McDowell, M.B., C.M., appointed Resident Physician to the Royal Edinburgh Hospital for Sick Children.

STAUNTON, M. C., M.D., B.Ch.R.U.I., appointed Visiting Surgeon to the Children's Hospital, Temple Street, Dublin.

STEPHENS, Lockhart E. W., M.R.C.S., appointed Medical Officer of Health to the Warblington Urban District.

STEWART, J. Purves, M.B., C.M., appointed Resident Physician to the Edinburgh Royal Infirmary.

STILL, George F., M.A., M.B.Cantab., appointed Medical Registrar and Pathologist to the Hospital for Sick Children, Great Ormond Street, W.C.

WATTS, E. Croft, M.B., C.M., appointed Resident Surgeon to the Edinburgh Royal Infirmary.

WEBB, Thomas L., L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer for the Madely No. 2 District of the Madely Union.

WILSON, George John, M.A.Oxon., M.D.Dub., M.R.C.S.Eng., appointed Honorary Physician to the Radcliffe Infirmary, Oxford.

WILSON, R. Mervyn, B.A., M.D., B.Ch., appointed Honorary Medical Officer on the staff of the Derbyshire Hospital for Sick Children.

WILSON, T. A. M., M.B.Edin., appointed Medical Officer for the Morland District of the West Ward Union.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Clinical evening. Dr G. Johnston: Congenital Chorea. Dr. Beevor: Facial Hemiatrophy. Dr. L. Guthrie: (*a*) Friedreich's Disease, (*b*) Cerebral Disease. Mr. S. Edwards: Case after removal of a Papilloma of the Bladder by Suprapubic Cystotomy. Mr. Waring: Charcot's Disease. Mr Astley Bloxam: (*a*) Restoration of Nose by Means of Transplanting Portion of the First and the whole of the Second Phalanx of Middle Finger of Left Hand, (*b*) Mammocheilia. Mr Openshaw: Multiple Osteitis. Mr. Allingham: Large Renal Sarcoma removed from a Child aged 3. Dr. Abraham: (*a*) Subcutaneous Nodules in an Infant, (*b*) ? Devergie's Lichen Pilaris with Psoriasis.

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 197 High Holborn, 7.30 P.M.—Business: Election of President. Adjourned discussion on Mr. Jones's paper, Drains or Sewers.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. Reginald Harrison: A case of Large Pelvic Hydatid successfully treated by Perineal Incision and Drainage, with Observations.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, 8 P.M.—Dr. Arnold Chaplin: (*a*) Case for Diagnosis, (*b*) Case of Transposition of Viscera. Dr. Galloway: Cases of Lichen Planus. Mr. Openshaw: Cases of Cerebral Abscess.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 P.M.—Cases, Specimens, etc., will be exhibited by Mr. E. H. Crisp, Mr. A. Knyvett Gordon, Dr. Dundas Grant, Dr. de Havilland Hall, Dr. William Hill, Dr. J. Middlemass Hunt, Dr. Percy Kidd, Dr. Scanes Spicer, Mr. Charters J. Symonds, Dr. E. B. Waggett, and Mr. A. A. Bowlby.

THURSDAY.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Specimens. Adjourned discussion on the Abuse of Morphine in Gynæcology.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY, Great Northern Central Hospital, 9 P.M.—Closing meeting of the session 1894-95. Address by Dr. J. G. Glover, the President, on The Profession, its Place and Progress.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, 20, Hanover Square, 5 P.M.—Exhibition of Cases 4.30 P.M.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

GRINDON.—On March 26th, at Olney, Bucks, the wife of F. J. Grindon, M.R.C.S., L.S.A., of a daughter.

HEELIS.—On Sunday, March 31st, at Church Street, Lenton, Nottingham, the wife of Robert Heelis, M.D., of a daughter.

MARRIAGE.

WOOD—HIBBARD.—On March 28th, at St. John's, Weston, Bath, by the Rev. John Stedman, B.A., John Wood, M.R.C.S., L.R.C.P., of 20, Adrian Square, Westgate-on-Sea, only son of the late John Wood, F.R.S., F.R.C.S., of Wimpole Street, W., and of Mrs. John Wood, of Castle Hill Avenue, Folkestone, to Jessie, daughter of the late Edwin Hibbard, Esq., of Newport.

DEATH.

LEEDS.—On March 9th, suddenly, at the Europa Hotel, Gibraltar, Thomas Leeds, M.R.C.S.Eng., M.S.A.Lond., aged 55 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A MEMBER asks: (1) Is there any book or pamphlet on "embalming?" (2) Is there any book on "sea sickness," and what is the literature on this subject?

YOUNG MEMBER wishes for suggestions for treatment of a continually recurring, very irritable, erythematous rash in two children, aged 2 years and 1 year. The digestive functions have been attended to, and also iodide of potassium and arsenic exhibited, with no benefit.

DR. PHILIP LEE (Cork) asks for authentic information as to Dr. Radcliff, who was author of *Pharmacopœia Radcliffiana*—published in 1716—and as to any of his other works or life-history. Also for any particulars of Richard Russell, M.D., who published a dissertation on the use of sea water in diseases of the glands, published in Dublin in 1753.

M.P. would be glad for any advice about a case under his care. A working man, 50 years of age, in good health, has for the past 15 years been troubled with a most distressing cough, due to a membrane forming on the mucous membrane of the pharynx and larynx. About every fortnight he coughs up a complete cast of the larynx, and almost every day he gets rid of small portions of membrane, which seem to come from the pharynx.

TEETH-GRINDING IN CHILDREN.

A MEMBER would be glad of any hints for the curing of an inveterate habit of teeth-grinding in a boy aged 4 years, who, though fragile and anæmic, is healthy. The grinding is so violently done as to have chipped all the front teeth. There are no traces of worms or of brain trouble, but the child has lately had influenza severely for the third time.

WORKS ON MILITARY SURGERY.

SURGEON-CAPTAIN, A.M.S., asks what are the principal works in German on Military Surgery, corresponding to *Longmore* in English and *Delorme* in French?

*** We have been unable to ascertain that there have been any recent systematic works in German upon Military Surgery. The following list gives the more important works issued after the great war of 1870-1. Landsberger, *Handbuch der kriegschirurgirchen Technik*; Tübingen, 1875. Criegorn, *Lehrbuch der freiwithigen Kriegs-Krankenpflege*; Leipzig, 1890. Richter, *Allgemeine Chirurgie der Schussverlützungen im Kriege*: Breslau, 1877. Roth and Lex, *Handbuch der Militär-Gerundheitspflege*: 3 vols.; Berlin, 1872. Bruns, *Die Geschoss-Wirkung der neuen Kleinkaliber-Gewehre*; Tübingen, 1889. Neudörfer, *Handbuch der Kriegschirurgie und der Operationslehre*; 2 vols.; Leipzig, 1887. Mosetig-Moorhof, *Vorlesungen über Kriegschirurgie*; Wien and Leipzig, 1887. Esmarch, *Handbuch der kriegschirurgischen Technik*: Hanover, 1877; English translation by Curtis; London: Sampson Low and Co., 1888. Langenbeck, Surgical Observations on Gunshot Wounds of the Hip-Joint: being a translation of a paper read at the first German Surgical Congress in 1874. Translated by West, Birmingham, 1876. A new edition of Sir Thomas Longmore's work on *Gunshot Injuries* is, we are informed, in the press.

ANSWERS.

C. W.—May is a suitable and pleasant month for a Mediterranean trip, but it is rather early in the season for Norway or the North Atlantic.

MEMBER B. M. A.—Our correspondent might communicate with the Secretary of the Medical, Sickness, Annuity, and Life Assurance Friendly Society, 33, Chancery Lane, London, W.C.

DR. DOWSE.—Sir William Savory's *Life and Death* was not a contribution to the *Philosophical Transactions*, but the title of four lectures delivered at the Royal Institution and published by Messrs. Smith, Elder, and Co. in 1863.

MR. JOHN D'ARTH.—A prize was offered for a cheap attractive non-intoxicating drink a good many years ago. A number of competing beverages were submitted, but none of these was considered by the adjudicators to be entitled to the prize. Thereafter the prize was withdrawn by the intending donor, who has since died. We may add that, prior to the adjudication, the competing specimens were analysed by a competent well-known chemical expert, on whose report the decision was largely based.

M.O.H.—The money is paid to the medical officer of health not by the County Council, but by the District Council. The medical officer is therefore not employed by, and has no share or interest in any employment with, by, or on behalf of the County Council, and does not, as we are advised, come within the words of the Act which disqualify persons for membership of that Council. He is, of course, disqualified for membership of the District Council which appoints and employs him.

CHRONIC DIARRHŒA AND BINIODIDE OF MERCURY.

DR. C. R. BILLINGWORTH (Ventnor) writes: I have never found the following to fail in curing this disorder: R Sol. hydrarg. biniodid., 3vj; pot. iodid., 3j; ext. glycyrrh., 5ij; chloral hyd., 5j; tinct. belladon., 5j; aq. ad. 3vj. 3ss t. d.

In a second communication he writes as follows: I am so frequently asked what solution I use that I beg you will insert the following: I ask my druggist for a Winchester quart marked at 80 ounces. Into this bottle I put 40 grains of corrosive sublimate powdered and 2½ drachms of pot. iod., and fill up with water. This makes a 1 in 1,000 solution of biniodide at once. I have altogether discontinued the use of the crude drug in the form of pill and powder, as from its insolubility in the gastric juices, or indeed in anything but solution of pot. iod., it is absolutely inert. I flavour with some strong flavouring syrup and give children 10 to 20 minims every two hours and adults ½ to 1 drachm.

NOTES, LETTERS, Etc.

THE LOWER DEPTHS OF MEDICAL PRACTICE.

WE are glad to have received from Messrs. Cowen and Collins a statement which puts a different complexion on the matter referred to under the above heading in the BRITISH MEDICAL JOURNAL of March 23rd, than that which was apparent in the report published in the *Lower Tottenham Weekly Herald*, from which we quoted. We are informed that the cards to which reference was made were private notices entrusted to a servant to deliver to certain persons whose names were already on the books of the practice, and to them only. The persons thus selected already owed accounts, and it was thought improbable that they were in a pecuniary position to pay. The object of issuing the cards to them was to let them understand that when they required attention they must produce one, or they would be charged a full fee.

THE CASE OF MR. C. BRYAN TOWNSHEND.

THE REV. H. TOWNSHEND (41, King Henry's Road, South Hampstead, N.W.) acknowledges the following subscriptions to the above fund, particulars of which were given in the BRITISH MEDICAL JOURNAL of March 9th, p. 559:

	£	s.	d.
Surgeon-Major Tatham, London	1	1	0
Mr. Thos. Smith, 5, Stratford Place, W.	10	10	0
Mr. W. M. Kelly, 11, Crescent, Taunton	1	1	0
Mr. Hy. T. Sylvester, 12, Regent Place, S.W. ...	5	5	0
Mr. Alfred Emson, Dorchester	1	1	0
G. V. S.	1	1	0
Dr. and Mrs. Mutch, Brixton Hill	0	10	0
Mr. J. Cuthbertson Walker, St. Austell	0	10	6
Sympathiser	0	10	6
Mr. E. S. Cuthbert F. Atchley	1	1	0

Further donations are earnestly requested, and will be acknowledged by the Rev. H. Townshend.

NE SUTOR ULTRA CREPIDAM.

THE belated news which some of our best informed contemporaries will publish with regard to medical matters, if they come under the notice of the conductors of these journals in the form of a telegram from a foreign correspondent, is well illustrated by the following paragraph which was published in a London morning paper on March 29th. Paragraphs in very similar terms appeared in other papers: "It is announced that a young Viennese physician, Dr. Marmorek, at present with Dr. Pasteur in Paris, has discovered the bacillus the presence of which causes septic diseases. He has named this bacillus 'streptococcus pyogenes,' and states that it is the active cause of blood poisoning, of inflamed wounds, etc. An antidote has also been discovered." If a foreign correspondent were to send a telegram to a London paper stating that a young man named Smith, at present with Dr. Cecil Rhodes in Mashonaland, had discovered the sources of the Nile, and had found a large lake in Central Africa, would it be published as a piece of news, or would it be thought a bad joke? In another instance a long telegram from a foreign capital was published describing an operation, newly discovered of course; the medical press of this country were lectured on their supineness in not having made known this great discovery. It is almost incredible, but it is a fact, that this telegram had been anticipated by about two years by a description published in the BRITISH MEDICAL JOURNAL.

TREATMENT OF INFLUENZA.

SURGEON-CAPTAIN C. A. LANE, A.M.S. (Norwich), writes: In the BRITISH MEDICAL JOURNAL of March 16th and 23rd, I observe Dr. Rawlings writes, pointing out the efficacy of salicylate of soda in influenza, whereas Dr. W. Hall Calvert shows the inefficiency of the drug by its

tendency to increase the headache, while it has not any specific action upon the disease. I have treated a great many cases abroad and at home; at the beginning of the epidemics I began by using salicylate of soda and phenacetin, and from neither of these drugs have I found my patients express any relief; but, on the contrary, those on the salicylate of soda complained of intense frontal or occipital headache, which was generally worse after each dose. Possibly those with a rheumatic diathesis would experience great relief from the use of salicylates. I have now quite given up using either of the above drugs, and now give a mixture consisting of bicarbonate of potassium, liquor ammonii acetatis, mucilag., and decoction of cinchona. Owing to the intense prostration stimulants are generally needed from the onset, either in the form of weak brandy or champagne. Immediately the fever subsides patients generally complain of headache, giddiness, or aching in the eyeballs, for which I usually prescribe the following: ℞. Acid. nitric. dil. 3ij; succ. taraxaci, 3ijss; spt. chlorof. 3ij; inf. quassiæ ad 3viij., Misce. Dose, 3j thrice daily. I quite agree with Dr. Calvert that salicylate of soda affords no relief, but only increases the head symptoms in influenza.

THE ABUSE OF CLUBS.

DR. F. R. HUMPHREYS (Fellows Road, N.W.) writes: I have promised to read a paper shortly at one of the London medical societies on medical organisation, and in it shall refer to the abuses which appear to be almost inseparable from "cheap dispensaries." I have seen (and suffered from) a number of instances of unprofessional conduct myself, but feel that if I could obtain more general information through your columns my case would be much stronger. I shall, therefore, feel very grateful to any of your readers who will favour me with details of any circumstances which have come to their knowledge which throw light on the practices of such places. I should also be grateful for any suggestions as to the best method of dealing with these or other abuses which do not come within the cognisance of the General Medical Council. If desired, I will regard communications as private.

THE TEACHING OF DERMATOLOGY IN RUSSIA.

A FEW weeks ago a new clinic for diseases of the skin was opened in the University of Moscow. The Director, Professor Pospelow, delivered a discourse on the history of the teaching of dermatology in Russia. In 1870 there was only one skin clinic in Russia. Afterwards the University of Moscow appointed a teacher of the subject, but without a clinic. The new clinic has been built with money given by M. Ssolodownikow, a rich citizen of Moscow. It contains sixty beds.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) A.M.S.; A. E. B.; Messrs. Armour and Co., London; Antitoxin; Mr. C. Abbott, Burghead; Mr. D. Ainley, Halifax; Argon; Antitoxin. (**B**) Mr. M. M. Bagster, London; Mr. C. S. Brewer, Birkenhead; Mrs. H. Behrend, London; Mr. S. C. Beckett, Bradford; Dr. G. F. Blandford, London; Benefit of Clergy; Mr. F. Belbin, London; W. B. T. Burr, M.B., Birmingham; Miss A. Baker, Blandford; Dr. T. Barr, Glasgow; Mr. L. W. Bathurst, London; Mr. C. A. G. Browne, London; Dr. H. S. Ballance, London; Messrs. Baillière, Tindall, and Cox, London. (**C**) Mr. L. Cooke, Wigan; J. A. Codd, M.B., Wolverhampton; Mr. W. Campbell, Hastings; Dr. J. G. S. Coghill, Ventnor; Mr. G. C. Clarke, Lindfield; Mr. G. Christie, London; C.M.; Dr. J. H. Clarke, London; J. M. Campbell, M.B., Caerswys; Mr. J. B. Curgenven, Teddington; Dr. J. Colpe, Sydney, N.S.W.; Cymro; Miss M. Canning, London; Mr. E. Condin, Liverpool. (**D**) Dr. T. S. Dowse, London; D.P.H.; Mr. W. Donaldson, St. Mary Cray; Mr. H. de Beer, Kimberley; D. D. Day, M.B., Norwich; Mr. R. Dudfield, London; Dentist. (**E**) W. S. Elliott, M.B., Malabide; E. and L.; J. Edgar, M.B., Glasgow. (**F**) A. Forsyth, M.B., Salford; Mr. F. A. M. Flegg, Ramsgate; J. Ferguson, M.B., Perth; Fair Play; Mr. G. D. Freer, Malacca, Straits Settlements; Messrs. Funk and Wagnalls, London; Mr. T. Fletcher, Grappenhall; E. France, M.B., London; A. G. Faulds, M.B., Glasgow. (**G**) Mr. C. R. Graham, Ramsgate; Dr. J. Galloway, London; Mr. F. J. Grindon, Olney. (**H**) Dr. S. L. Haynes, Malvern; Dr. W. M. Harman, Winchester; Highlands; Dr. G. E. Harrison, London; Mr. H. Hewlett, London; G. E. Hale, M.B., Beaumaris; H. S.; Dr. R. Heelis, Nottingham. (**I**) Inquirer; Dr. C. R. Illingworth, Ventnor. (**J**) J. S. E., M.B.; Dr. H. M. Jay, Chippenham; Mr. E. James, London; Dr. Macnaughton Jones, London. (**K**) Mr. R. H. Kenan, Birmingham; J. J. Knox, M.B., East Moulsey; Mr. L. H. S. Kerr, London. (**L**) Miss Lyall, Cheltenham; Mr. H. Lund, Manchester; L.R.C.P. and S.E.; Dr. J. B. Lawson, Rothesay; Laryngological Society of London, The Secretary of the, London. (**M**) Dr. J. Moir, Fort George, N.B.; A Member and M.O.H.; W. Muir, M.B., Glasgow; M.O.H.; Dr. Weir Mitchell, Philadelphia; M.B. and C.M.; Dr H. Mackenzie, Edinburgh; Dr. J. McCaw, Belfast; Dr. G. Marks, London A. C. Munro, M.B., Paisley; Mr. A. D. Moffat, Glasgow; Mr. M. G. McEllicott, Belper; Member; Mr. J. MacMunn, London; Dr. T. Mitchell, Gorseinon; Mr. W. L. Morgan, Oxford; Mr. F. Maynard, Calcutta; Mr. H. B. Meakin, London; Member; M.P.; Dr. A. MacGregor, Aberdeen; J. W. Mason, M.B., Hull; A Member of the B.M.A.; Mr. C. C. Moor, London. (**O**) Mr. G. E. W. Offord, Norwich; Mr. E. A. Onyon, Eye; Mr. Openshaw, London. (**P**) Mr. H. Peck, Ormskirk; Dr. J. Pirie, Leamington Spa; Mr. E. J. Phillips, Leicester; Dr. G. V. Poore, London; Pater. (**Q**) Mr. R. H. Quine, Manchester. (**R**) Royal Eye Hospital, The Secretary of the, London; Mr. E. Ringrose, Newark-on-Trent; Mr. A. B. Roxburgh, London; Miss A. Ravenhill, London; Messrs. Radford and Frankland, London; Mr. T. F. Raven, Broadstairs. (**S**) G. F. Still, M.B., London; Sheffield Medico-Chirurgical Society, The Secretary of the, Sheffield; Saddle and Bridle; Dr. J. Shaw, Aylesbury; Mr. S. Scontheil, London; Mr. W. Smedley, Birmingham; Single Stick; Dr. Scallon, Bath; Mr. C. H. Shears, Liverpool; Mr. G. Smith, London; Dr. F. F. Schacht, London; Mr. S. Snell, Sheffield; Mr. P. Sharp, Newark-on-Trent; W. H. J. Sellers, M.B., Preston; Dr. L. Sambon, Rome; Mr. L. E. W. Stephens, Emsworth; W. C. Sharpe, M.B., Bathurst. (**T**) Dr. D. G. Thomson, Norwich; Mr. H. Townsend, London; Mr. R. W. Turner, London; E. Trevithick, M.B., Cheltenham; Mr. A. Thorne, London; Mr. A. Tucker, Broadstairs; Mr. H. T. Thompson, London; J. P. Topping, M.B., Teddington. (**U**) University of St. Andrews, The Secretary of the, St. Andrews; C. T. Urquhart, M.B., Aberdeen. (**W**) Mr. W. T. Wray, Hull; Mr. W. J. H. Wood, Boston; Mr. G. H. Warrington, Longfleet; Mr. A. Winkfield, Oxford; Mr. J. Williams, Brecon; Mr. G. J. Wilson, Oxford; Dr. R. M. Wilson, Derby. (**Y**) Young Member. (**Z**) Messrs. Zoulten and Co., London; etc.

BOOKS, ETC., RECEIVED.

King's College Hospital Reports; being the Annual Report of King's College Hospital and the Medical Department of King's College. Vol. i (October 1st, 1893—September 30th, 1894). London: Adlard and Son. 1895. 7s. 6d.

Beiträge zur Pathologie und Therapie der Gallensteinkrankheit. Von Dr. J. Kraussen. Zweite Auflagr. Berlin: August Hirschwald. 1895. M. 2.

Die Entstehungsweise der verschiedenen Formen von Peritonitis. Von K. Biesalski. Berlin: August Hirschwald. 1895. M. 2.

Précis Élementaire de Dermatologie. Par L. Brocq et L. Jacquet. Maladies en particulier. II. Paris: G. Masson. Fr. 2.50.

Les Tuberculoses Animales. Leurs Rapports avec la Tuberculose Humaine. Par E. Nocard. Paris: G. Masson. Fr. 2.50.

Maladies Congénitales du Cœur. Par A. Moussous. Paris: G. Masson. Fr. 2.50.

Traité pratique des Maladies des Yeux. Par Dr. E. Meyer. Paris: G. Masson. Fr. 12.

A Handbook of Hygiene. By Surgeon-Major A. M. Davies, M.D. London: Charles Griffin and Co. 1895. 12s. 6d.

Infancy and Infant Rearing; an Introductory Manual. By Dr. J. B. Hellier. London: Charles Griffin and Co. 1895. 3s.

A Primer of Evolution. By E. Clodd. London: Longmans, Green and Co. 1895. 1s. 6d.

Health and Condition in the Active and the Sedentary. By N. E. Yorke-Davies. Second Edition. London: Sampson Low, Marston and Co. 1895.

Die sociale Frage und die Ethik. Von Dr. C. Rappoport. Berne: Goepper and Lehmann. 1895.

The Bacteriological Test of the Purity of Water. By E. H. Hankin, M.A. Agra: *Star-Press* Artillery Bazar. 1895. 8 annas.

Benjamin Townson; a Record of a Doctor's Life and Work. By his Daughter. London: S. W. Partridge and Co. 2s.

Hygiene with Anatomy and Physiology; being an Amplification of Edwards's Catechism of Hygiene. By Dr. J. F. Edwards. New York: E. P. Slevin. 1895.

Huitième Congrès de Chirurgie, Lyon, 1894, Procès-verbaux, Mémoires, et Discussions. Paris: Félix Alcan. 1895. Fr. 20.

Anatomie normale et pathologique des Fosses Nasales et de leurs annexes pneumatiques. Par Professor E. Zuckerkandl. Traduit sur la 2e Édition Allemande par Dr. L. Lichtwitz et Dr. P. Garnault. Tome II (Atlas et Légendes). Paris: G. Masson. 1895. Fr. 40

A Standard Dictionary of the English Language. Vol. ii. M to Z. London, New York, and Toronto: The Funk and Wagnalls Co. 1895. 72s.

Dissections Illustrated. By C. G. Brodie, F.R.C.S. London and New York: Whittaker and Co. 42s. Also Part II. 10s.

*** In forwarding books the publishers are requested to state the selling prices.

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N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

THE LUMLEIAN LECTURES

ON THE

DIAGNOSIS, PROGNOSIS AND PROPHYLAXIS OF INSANITY.

Delivered before the Royal College of Physicians of London on March 28th, April 2nd and 4th, 1895,

By G. FIELDING BLANDFORD, M.D.Oxon., F.R.C.P.Lond.,

Lecturer on Psychological Medicine, St. George's Hospital.

Lecture II.—The Prognosis of Insanity.

Mr. President and Gentlemen,—I said at my last lecture that in many cases of insanity the diagnosis is doubtful and hazardous. When we proceed to consider the prognosis we find that our difficulties are not diminished, but, if anything, are increased. For the purposes of diagnosis we have to examine the state of mind of the individual at the time we see him; but to form a prognosis we have to look into the future, and to say what will happen to a patient under all circumstances—circumstances over which we may have no control, and treatment, or want of treatment with which we have nothing to do. The physician called to a case of ordinary illness receives a coherent and true account of the symptoms past and present from the sick man and his friends or nurse. He is generally enabled by what he hears and sees to form an accurate diagnosis of the malady, and his knowledge and experience enable him to give a confident prognosis of the result, knowing well that all will be done for the sufferer that can be done, that his directions will be strictly adhered to, and that the patient himself will second his efforts and try to get well. Contrast this with a case of insanity. The patient is excited and exalted. He denies that there is anything the matter with him, scoffs at physicians and at the notion that he requires one, says he was never better in his life, and will have none of medical treatment unless it is compulsory. Or he is not exalted but depressed: then he thinks that a physician can do him no good, that he is very wicked—too wicked to live—that his immortal soul is for ever lost, and if anyone is to do him good it is the parson and not the medical man. Another is suspicious, and thinks there is a conspiracy to poison or ruin him. He is very shy of a strange medical man, or of his own, if he includes him in the plot, and completely refuses to follow his advice. The information we receive from friends is untrustworthy; they minimise the symptoms and their duration. If we tell them that a patient is insane, and that to effect a cure restraint or an asylum is necessary, they vow they will not hear of such a thing. Our prognosis in certain cases will not be doubtful, but this is because we shall notice the symptoms of general paralysis, or the duration of the disease for two, three, or four years will lead us to the conclusion that the time for recovery is past.

If we examine the insane at the different periods of life, we find that the disorder is rare in those below the age of puberty. Occasionally we meet with a case, sometimes transient and commencing in the night, sometimes melancholic; the child avoids the society of brothers and sisters, mopes in the dark and is disinclined to eat. In my experience these children recover in a large proportion. More break down at the age of puberty, and inasmuch as this is a period of profound physiological change, of development of the procreative system and of the brain centres and mind, we should expect that insanity would be frequent. It is not so, however, not nearly so frequent as at the next epoch, though more so than during the years preceding puberty. In the Commissioners' report for 1894 we read that during the five years 1888 to 1892 inclusive the yearly average of patients admitted under the age of 15 was 323. Those between the ages of 15 and 19 averaged 835, while those between 20 and 24 were 1,520. These latter are the adolescents, suffering from what has been termed the insanity of adolescence, and the prognosis in this and the insanity of puberty is equally favourable, at any rate in the females: its character is almost always mania with excitement, exaltation, hilarious and noisy chattering, and restless movement. Dr. Bevan Lewis says that "of all the types of insanity that occurring at the puerperal period is one of the most recoverable, yet the recovery rate is nearly as high for the insanity incidental to adolescence." And he gives the recovery rate in puerperal cases at 80 per cent., while that of adolescent females is 73.3 per cent.; but he says "it is far otherwise with the same affection amongst men; in them, where depression is often largely present, the prognosis is far less favourable, and a wide margin must be allowed for partial recoveries, chronic incurables, and fatal cases." And he gives the recovery rate of adolescent males as 58.4 per cent. My own experience agrees with this. I have found a much larger proportion of young men remaining as a chronic residuum in asylums than of young women, and the majority of the former were patients whose insanity was melancholia, and not the noisy mania which is the characteristic form amongst the young.

It would seem that the prognosis is unfavourable where the insanity does not present the characteristics which should belong to the time of life. The young, when melancholic, do not recover rapidly, while of acute mania at the climacteric the prognosis is bad. There is one form, however, which occurs in the young which is one of apparent depression. This has been called "acute dementia," or "acute primary dementia," or "stupor with dementia," and has been confounded with the stupor of melancholia, *melancholia cum stupore*. It is not the same; it occurs in the young, its onset is rapid, the reduction is great. We never find so rapid a reduction in melancholia. The patient appears to be in a state of fatuous imbecility—lost, dribbling and dirty, grinning idiotically, or sunk in vacuous stupor. Yet the history may enable us to give a favourable prognosis. If we find that this all came on rapidly after some shock or fright, and we can ascertain beyond a doubt that it is not secondary dementia following an attack of acute insanity, and is not a state into which the patient has gradually drifted, we may pronounce hopefully in spite of the unfavourable symptoms.

Passing from the insanity of the young, the adolescents below the age of 25, I may consider that of the women mostly young who show symptoms of mental disorder during pregnancy, after childbirth or during lactation. The first, the insanity of pregnancy, is rare, and but few patients are admitted into asylums. In my own experience the cases have not been severe, and, so far as I know, all have recovered. In mild cases the prognosis is good, but of those which are severe enough to require asylum treatment the outlook is not so favourable, and almost all are desperately suicidal.

The insanity which, albeit acute, is the most curable of all is the puerperal, which in the majority of cases assumes the form of mania, rising from quiet and simple mania to the most acute delirium. The first thing to be noticed is loss of sleep, a matter often overlooked by the nurse, who may even disturb the patient to feed the child, or in other ways, neglecting to inform the medical attendant of the fact that sleep is defective. Then excitement commences, sleep is more and more absent, and in a few days the sufferer is in a state of acute or subacute mania. The first question will be where is such a patient to be treated. Our prognosis will be favourable if she can have proper treatment applied in a suitable place, skilled attendants, and all that is necessary for her welfare. Failing this, removal to an asylum will be necessary, and should be carried out without delay. If the woman is young, is not broken in health, and has not had many previous attacks, the prognosis is very good. Dr. Bevan Lewis gives the ratio of recoveries at 80 per cent., and Dr. Clouston as 75 per cent., a ratio higher than we find in any other form of insanity. And the ratio of deaths given by these two gentlemen agrees as closely as that of the recoveries, that of Dr. Bevan Lewis being 8.5 per cent., while Dr. Clouston's is 8.3 per cent. The reason for this high rate of recovery is not hard to find. Such cases are all of them acute, generally commencing in the first fortnight after delivery. The patients are under medical observation; if they are mild cases they are treated promptly at home, if too severe for home treatment they are at once removed to an asylum, where they recover rapidly and surely. They do not drift on for weeks or months without any treatment, as so many maniacal and melancholic patients do. These are Dr. Bevan Lewis's words: "The incalculable advantage of early treatment is very obvious in the recovery list, since of four-

and twenty who were placed in the asylum within one week of the onset of the insanity, thirteen recovered within three months, and the remaining eleven left recovered within five months, and this despite the fact that several had inherited strong neurotic tendencies." He also tells us that those who remained as chronic insane or died were either late admissions or women over 30 years of of age. That which is called the insanity of lactation may arise from the exhaustion of over-suckling, from defective uterine involution, or reflex irritation. The prognosis is favourable. The recovery rate in Dr. Clouston's cases was higher than that of the puerperal. It is more commonly seen among the lower than the higher classes, and my experience of it is very small.

The period of adult life, that from 25 to 45 years, presents the largest number of insane patients of all kinds. In the Commissioners' last report the average number of admissions of persons between these ages was 7,310 out of a total of all ages of 16,045. A large number will be cases of mania; the majority, also, of the general paralytics will be included, and there will be a proportion of melancholics. Under the term "mania" are comprised all the various states of exaltation, which range from a slight reduction of control to one of delusion or hallucination, and thence to the extreme of maniacal delirium. There is no absolute line of demarcation between these stages, yet acute delirious mania differs widely from acute mania with delusions. In the former the first question is, Will the patient live out the storm, or die? and our prognosis must be directed to this. If death does not occur in the acute stage, mental recovery usually takes place, unless there have been frequent attacks previously. Women withstand the fury of the delirium and want of sleep better than men, but both sexes survive in a large proportion in the early attacks if only they are properly placed for suitable treatment. Our prognosis will be largely influenced by this. A patient kept at home in perpetual restraint, strapped down to the bed to prevent his jumping through the window, will probably die of exhaustion. Proper apartments are necessary, safe rooms where a patient can be without restraint, skilled attendants to administer abundant food, and adequate medical treatment. The temperature is important. In many very delirious cases, with never-ceasing muscular movement and violence, the temperature rises but a little above the normal. A high temperature is unfavourable, and so is a very rapid pulse. If in the intervals of quiet the pulse falls to a frequency not much above the normal, it is a good sign. The tongue, through great excitement, may keep moist and clean. If it is coated with a thick sticky coat of dead epithelium, and this proceeds from yellow to brown, and brown to black, and the lips and teeth are covered with sordes, the prognosis is, I need not say, very bad.

There is an acute mania where there is no delirium. Acute delirious mania runs a rapid course of a few weeks, terminating in death or—in the majority of cases — in recovery; while the noisy, garrulous, exalted state of acute mania may last for six months, a year, or even longer, and then pass away and sanity return. The prognosis points to a different issue. It is not a question of life or death; we are not anxious about the lives of these patients. The important point is, Will they recover their reason or not? Sometimes we see noisy mania, varying from silly and frivolous hilarity to anger and abuse, yet without delusion; an absolute want of self-control constituting that moral insanity I have already spoken of. We inquire the duration of the attack, the history of previous attacks (if any), the condition of the patient during the interval between the attacks, the health and bodily strength, the probable cause, and the family history. The more recent the attack and the more rapid the onset, the better the prognosis. If it is one of a long series of attacks, and has lasted for months, we may have doubts, though sometimes patients have such attacks recurring at intervals through a long life.

The cases of simple mania or simple melancholia without delusions are not nearly so frequent as those in which we find delusions or hallucinations, or both. How is our prognosis affected by them? They are evidence, no doubt, of a somewhat advanced insanity and a considerable reduction of the brain centres, but the prognosis is not rendered unfavourable by these alone. The more acute the symptoms the less are the delusions likely to remain permanent after the acute stage has passed. It is a good sign if delusions change frequently. To-day the patient imagines one thing, to-morrow another. They do not become fixed and organised. But when all the acute symptoms have passed, when the patient recovers his sleep, and is able to employ and occupy himself, if one or two delusions remain persistently and cannot be dispersed, the prognosis is bad. The nature of chronic delusions varies considerably. Some have a fixed idea of persecution and of being tormented by certain people, others have hypochondriacal fancies, often very difficult to eradicate. And in every asylum we see patients with ideas of grandeur, who think themselves kings or queens, dukes or duchesses, and who dress themselves or sign their names in accordance with their delusions. The same remarks may be applied to hallucinations. Those which arise in an acute stage need not make us give an unfavourable prognosis any more than the snakes and rats of the patient in delirium tremens, but the chronic "voices" of a person who is in all other respects restored to mental health are of ill omen. If they vanish for a time they return again on any failure of health, and may render the man who hears them one of the most dangerous of patients.

We come now to another of the epochs of life, that known as the climacteric, an epoch of transformation, when various important functions with their corresponding nerve organisations come to an end. It is not surprising that we find it to be a period of nerve instability, when the various chances or accidents of life bring about an overthrow of the mental balance. The climacteric being a time of instability, causes, moral or physical, which would have been resisted at another age, produce insanity, or in persons prone by inheritance the change of life itself may suffice. What is the prognosis? The form incidental to this epoch is melancholia more or less acute; and a large number of the sufferers recover, probably 50 per cent. In forming our prognosis we take into consideration the duration of the malady, the question of early treatment, the number of previous attacks, the health of the patient, and such causes as alcoholic indulgence. There is a popular notion that the climacteric change of life will bring relief or even cure to those who are already disordered in mind or have suffered from periodical attacks. Such hopes are doomed to disappointment. In my experience all such patients are worse rather than better at the time of the cessation of menstruation.

Can climacteric insanity be said to exist in men? There is no such functional change in them, but they exhibit the same symptoms of mental disorder at a somewhat later age—namely, 65—which corresponds to the woman's change at 50; and this brings me to the prognosis of melancholia in its various aspects. The "simple" melancholia without delusion passes away often without treatment, and leaves the patient sane and sound. Some have such attacks periodically and get rid of them without our aid, and no medical treatment that I know will cut them short. The disorder runs a certain course, and disappears to return again at a future time. There is some risk of suicide, but as regards recovery the prognosis is decidedly favourable.

A more advanced stage of melancholia demands more active treatment—treatment which can hardly be carried out in a patient's own house amidst a number of terrified or sympathising relatives. Almost all such are suicidal; all must be so considered and kept guarded from everything by which they can hurt themselves. Many have to be sent to asylums, some because their means are not equal to the expense of private care, others because they refuse their food and have to be fed by force, or because they are so suicidal that in a private house they are not safe. But if properly cared for, with suitable attendants and adequate medical supervision, either in or out of an asylum, the prognosis is eminently good. The disorder is a tedious one; a slow process of repair has to restore and build up again the waste of nerve force. So slow is this that we do not despair if many months elapse with but little advance; it may even require years. After years of gloom the sufferer returns to the full possession of every faculty, reason, feeling, and memory, for the brain appears to have undergone no organic change.

There is, however, a class of patients in whom the brain disturbance is far more severe, and to it we apply the name of acute delirious melancholia. Instead of the quiet state or

stupor of ordinary melancholia, characterised by passive resistance and inertia, there is panic stricken frenzy and incessant motion. The sufferer paces the room, will not lie in bed, thinks the house is on fire, and that he is going to be burned, poisoned, or tortured. He will take no food or medicine, keep no clothes on, and resists to the uttermost everything that has to be done for him. Of such the prognosis is extremely bad. They are generally debilitated at the onset, and the violence of the disease soon exhausts them.

It sometimes happens that a patient has apparently recovered from an attack of melancholia; he seems quite well, and is about to return to his family and friends; we are told that he has not been so well for years, he is so full of life, energy, and enthusiasm. As time goes on, however, the good spirits become abnormal excitement, and the energy drifts into active mania, and instead of melancholia a maniacal attack supervenes through which the individual has to be led. Conversely, melancholia may follow mania after the same fashion. This alternating insanity may go on for years, one form succeeding the other with the utmost regularity. The prognosis is most unfavourable. Do what we will in the way of change, treatment, or removal of every supposed cause, the malady returns with fatal regularity. All periodicity in insanity is unfavourable. Some have alternate days of depression and excitement, but such patients do not recover. Others have recurring attacks of the same kind, not alternating. Here again the prognosis is bad. They are for the most part victims of hereditary transmission, and such attacks may commence early and be continued through a long life.

In forming a prognosis we may derive much help from a knowledge of the cause of the disorder. There may be an assignable reason—a moral cause as it is called—as grief, worry, or overwork; or a physical, as influenza, a blow on the head, or alcohol. In a large number of cases the cause is returned in the statutory statement as "unknown." Such insanity has been termed "idiopathic," which, in other words, means hereditary instability, a proneness to rapid reduction of the supreme centres through some cause so slight that it escapes notices, and would produce no result on a healthy brain. How is the prognosis affected by our knowledge that the disorder is hereditary? The popular idea is that such insanity is very incurable, but this is not borne out by experience. A vast number of the cases of insanity occurring in young people are of this kind—cases of the mania of adolescence and puerperal mania. I have said already that a larger number of puerperal cases recover than those from other causes, yet puerperal mania is generally hereditary. Those who are affected by hereditary insanity recover at any rate from the first attack quite as often as others; but they are specially liable to a return of the disorder, their unstable nature being easily upset by a slight cause.

Passing from the hereditary or idiopathic insanity to that which is acquired by the individual himself, we have to consider first the "moral causes," so called. These are given in the Commissioners' report as six varieties: 1. Domestic trouble, including loss of relatives and friends. 2. Adverse circumstances, including business anxieties and pecuniary difficulties. 3. Mental anxiety and "worry" (not included under the above), and overwork. 4. Religious excitement. 5. Love affairs, including seduction. 6. Fright and nervous shock. Now these are all called "moral causes," but some of them deserve the name of physical as much as any. The long-continued strain of the first three which may be comprised in two words, worry or overwork, must produce a physical effect on the brain cells and brain circulation. You will remember the experiments of Dr. Hodge, and his observations on the effect of normal fatigue on the sparrow, the pigeon, the swallow, and the honey bee. He found that the normal fatigue of the day's exercise caused a marked decrease of the nucleus of the nerve cell and a jagged and irregular, instead of a smooth and rounded outline. This was restored by the night's rest. In man, excessive stimulation in the shape of overwork or worry causes a want of control of the vasomotor system, hyperæmia, overaction of lower centres owing to obstruction of the higher, deposits of waste, and so on. These are physical effects, though they proceed from moral causes.[1] How does all this affect our prognosis? In proportion to the time that the excessive stimulation has lasted, so will our prognosis be unfavourable or the reverse. Long protracted overwork or worry may produce the same injurious effects on the brain cells and centres as a blow or alcohol. Therefore the duration must affect our verdict. Such acquired insanity must be looked upon very unfavourably. Causes such as the sudden loss of a friend, or a fright or shock, are likely to upset an unstable mind, and to produce a rapid reduction of the mental balance, but this will not be spread over a long time and will come nearer to that which we call hereditary insanity, and of this the prognosis is good in a first attack if it occurs in one not broken in health.

Passing to the physical causes given in the Commissioners' table, we find some which have been already considered: as puberty, pregnancy, parturition, and the change of life; another group is uterine and ovarian disorders. How far do these affect our prognosis? Under the head of uterine disorder we have to consider all the derangements of menstruation which are so commonly met with amongst the insane, and are so often assigned as the cause of the mental disturbance; of these, amenorrhœa is the most common. It may occur in the course of an acute attack, or have been noticed before any mental symptoms. The patient has declined in health and strength, and, as concomitant symptoms, the amenorrhœa and mental disorder have appeared. When by dint of rest, feeding, and sleep the bodily condition is brought again to its normal level, the catamenia reappear, and the patient becomes sane, but not as cause and effect. The amenorrhœa has not caused the insanity, the restoration has not cured it, both having a more remote origin. So, too, menorrhagia may have reduced the strength and insanity has followed. If the menorrhagia is stopped the patient may recover; neither of these conditions need make us give an unfavourable prognosis. That affections of the uterus (such as displacements, prolapse, and the like) may by a reflex irritation upset an unstable brain is evidenced by many recorded cases, and cures have followed when the uterine disorder has been remedied. The prognosis here will depend on the duration of the mental symptoms and the extent to which they have become organised. I have known a patient recover who had a severe prolapsus uteri which could not be dealt with, whilst another did not recover from whom an irritating pessary was removed which was supposed to have given rise to the insanity. Though there may be amenorrhœal and dysmenorrhœal trouble in many cases, I do not think the prognosis depends on this, and examination in the case of young unmarried women is likely to do more harm than good.

There is a variety of insanity which has received the name of traumatic. By this is meant insanity which is the result of an accident, causing a direct blow or injury to the head, or a shock or shake to the body generally without definite harm to the head. In either case we may find insanity rapidly supervening in an acute form as the result of shock, even when the damage done to the head has been slight; and then our prognosis will be favourable if there are no other conditions to prevent recovery. I have known mental symptoms follow falls and blows, and patients recover at all ages. In the young it has taken the form of acute primary dementia, and the issue has been recovery. In elderly persons acute mania or acute melancholia has supervened, and recovery here also has followed. Far other, however, is the prognosis in those cases where the advent of the mental malady is slow and insidious and we find at first a moral insanity, a gradual perversion and alteration of the whole man, the reduction leading to quiet and concealed delusions or to loss of memory and incipient dementia, or to the boastfulness and other symptoms of general paralysis. All these point to a chronic organic change which the brain is undergoing and which we are powerless to arrest. With traumatic insanity is often, but erroneously, coupled that which is said to proceed from "sunstroke." Sunstroke, in the strict sense of the word, rarely, in my experience, produces insanity, but heat, the continued heat of the tropics, especially in unhealthy places, produces a considerable amount. I have seen many from India, Burmah, the Straits Settlements and

[1] *Cf.* Dr. Batty Tuke, Morisonian Lecture, *Edin. Med. Journ.*, March, 1894.

such climates, both men and women. I have found such patients, when removed to a cold climate, recover in the large majority of cases; therefore the prognosis is good. But I have come to the conclusion that those who have once broken down and become insane in the tropics ought not to be allowed to return to those climates. If they do they undergo a great risk, even under the favourable conditions of hill stations in the hot weather and such-like precautions. It is not the hot days but the hot nights that try the nervous system and cause sleep to be broken and unrefreshing.

More like traumatic insanity is that to which we give the name of alcoholic. Very various are the symptoms and phases of this, and the prognosis will vary equally. This is an acquired insanity the direct result of alcoholic poisoning, but those who have an hereditary predisposition more readily fall victims, and it is not infrequently hereditary, the same propensity showing itself in successive generations. All the varieties of insanity may be produced by alcohol. We see acute delirium and acute mania exemplified by the symptoms we call delirium tremens. Less acute than this is the insanity with delusions either maniacal or melancholic, which is due to long-continued drinking. Now, with regard to the acute symptoms you are all familiar with them, and will agree with me that patients as a rule recover, at any rate, from the first attack. Many recover again and again, and have such illnesses periodically for many years. From the less acute insanity the majority recover at first if no unfavourable conditions arise. The stoppage of the drinking allows the poison to be eliminated, and the mind is restored. If the drinking is more protracted we may find evidence of organic brain change. Paralytic symptoms will be noticed, and signs of approaching dementia, as loss of memory and childish conversation. This is frequently the way in which the drinking of women terminates. In them delirium tremens rarely occurs, and after years of alcoholization paralytic symptoms are often the first to be noticed. Here the prognosis is very unfavourable, yet I have known them recover in a most unexpected manner, after being admitted in a helpless condition, with complete loss of power in the lower extremities. But recovery of all such means a return to their evil habits, and from a second attack they are not likely to emerge.

Insanity from other poisons, such as opium, chloral, or bhang, are rarely met with here. Here and there we find mental symptoms, chiefly depression, coming on in persons who are addicted to opium eating, or that which is now the prevalent fashion, hypodermic injection. The prognosis is not favourable. The patient improves when the morphine is withheld or lessened, for it is not always possible to stop it altogether, but I know no habit so difficult to break through, and though many times interrupted the victim goes back to his syringe unless he is in actual confinement. Of insanity from chloral I have had little experience. If it is stopped I should expect recovery, as the habit is not likely to have continued a long time. Insanity from bhang is common enough in the East, but here we do not see it. The patients recover at any rate in the earlier attacks.

There is an insanity which occurs in epileptic patients which is of a very serious nature, and is by no means uncommon. Epilepsy means a discharge of unstable grey matter which causes mental symptoms ranging from a loss of consciousness of a very brief duration to most acute mania, or, if of long duration and much severity, to complete dementia. There are many epileptics who have fits not very numerous or frequent which do not produce insanity, though a certain cloud may remain for a time after an attack; but if the fits are frequent, or occur a number at a time, they may be followed by very acute symptoms; these may pass away and the patient recover, yet the prognosis is unfavourable. Epilepsy in the adult is a very grave disease, of which cures are the exception rather than the rule, and the recurrence of the disease, and the resulting insanity, tends to that state of hopeless dementia which characterises the chronic epileptics of our asylums.

If the prognosis of insanity following epilepsy is unfavourable the outlook of that which follows apoplexy is still more loomy. After an apoplectic seizure well-marked symptoms of insanity, mania, or melancholia may appear either at once or after an interval. They may pass away or alternate, mania and melancholia succeeding one another. But if the more prominent features disappear there will be a weakness of mind and memory tending to the dementia so constantly found. As in all cases of organic mischief in the brain or its vessels the prognosis is unfavourable, especially in the cases of hæmorrhage where consciousness is more interrupted than where the damage is due to thrombosis. There are many important questions, such as the degree of mind, the capacity and responsibility of the aphasic, but I am not concerned with such at present.

More favourable is the prognosis in that insanity which has been termed post-febrile, and arises in the course or towards the decline of acute disorders, such as the eruptive fevers, pneumonia, or typhoid. This is not to be confounded with the ordinary delirium so often seen, and seen when the temperature is at its highest. The insanity I am speaking of has been well described by Dr. Hermann Weber.[2] It does not come on at the height of the fever, but during its decline when the temperature has fallen, and he says that the commencement in almost every case occurred immediately after waking from sleep. No doubt the brain in these cases becomes deprived of blood to a considerable extent, and on waking delirium takes place in a patient whose centres are unstable. Of this sudden insanity the prognosis is good, and the attack is usually transitory. Where insanity follows a long-continued illness, whether fever or any other exhausting malady such as influenza, the prognosis is decidedly unfavourable, and will depend on the general health and recuperative power of the individual. I have seen several patients who had had influenza, and who never recovered.

There is much difference of opinion as to the relations of syphilis and insanity. Can we speak of a syphilitic insanity? I do not myself think that insanity in the ordinary sense of the word is due to syphilis except when the latter acts as a moral cause. Syphilophobia is not uncommon. Patients who have or have had specific disease become melancholic and are possessed by the one idea that they shall die of it in its most loathsome form. Even those who have never had it may conceive a delusion that they have it, and point to every little spot and pimple in proof thereof. Syphilis does produce mental defects, but it does so, as Dr. Hughlings Jackson has shown, "by attacking the neuroglia, the fibrous tissue, blood vessels, lymphatics, membranes or bony coverings, involving the nerve tissue and its functions secondarily by pressure, so causing irritation, inflammation, and *ramollissement*, or by starvation from deficient blood supply, causing degeneration and atrophy."[3] The prognosis is most unfavourable in all cases where the brain is so damaged by syphilis, and I have rarely found that antisyphilitic treatment, which nowadays is so largely used, has produced any beneficial result.

There is a form of insanity which has received the name of the insanity of masturbation, on which a word or two may be said. Masturbation is very common amongst the insane, common amongst the males and also among the females, though perhaps in a less degree. Amongst the latter it is constantly found in an acute attack of mania, but it disappears when the acute symptoms are over. It is not to be supposed, however, that this evil habit is the cause of the insanity in every case where it exists. In many, I may say the majority, it is a symptom. In some neurotic persons with an inherited unstable organisation it may be a cause. Loss of control allows the habit to be indulged in to excess, and the irritation and exhaustion of this perpetual indulgence upset the weak brain and produce the mental phenomena which have been described as characteristic of this variety. These are morbid and exaggerated ideas of self, sometimes self importance and conceit, sometimes hypochondriacal fancies about health or delusions that the patient is not sufficiently valued by his relations and friends. At some time or other there will be an acute or subacute attack of mania or melancholia, and when this passes away there may be a period of remission and an apparent recovery, but the patient soon drifts into hopeless dementia. The prognosis in all such cases is extremely unfavourable.

As I began with the insanity of puberty and adolescence, so will I end with that of old age; and by this I do not mean

[2] *Medico-Chirurgical Transactions* vol. xlviii.
[3] Dr. Clouston, *Clinical Lectures*, p. 420.

the dementia which is the last scene in the history of many a once great mind. There may be difficulty in determining the extent of this at the commencement; questions of diagnosis and of mental responsibility may arise, but of the prognosis there can be no doubt. But one meets with a certain number of cases of mania, and more frequently of melancholia, in old people, many of whom recover in a surprising way.

The year before last I was asked to see an old lady of 75 years, whose mental and bodily strength had been failing, as her medical man had told me, for six months. She did not know where she was, though she was in her own house, where she had lived for many years, and she had all kinds of delusions. Being unmanageable there, she was removed to an asylum, and everyone supposed it to be the beginning of the end. She was in a somewhat acute state for some weeks, had hallucinations of sight and many delusions, and then gradually improved, became perfectly clear in her mind and memory, and went home to the old house in less than three months recovered.

Dr. Clouston gives the particulars of 203 cases of senile insanity, excluding 101 others which were cases of epilepsy, mania or dementia of long standing, or climacteric insanity. He says that heredity as a cause was uncommon. The age was from 60 to 90 years, and of these 203 persons, 72 were discharged "recovered"—"that is, in all of them their worst mental symptoms disappeared, they passing into normal senility. In many cases they became quite well in an absolute sense." This is in the proportion of 30 per cent.—a large number when the time of life is considered. So that our prognosis is not utterly without hope, though it may be doubtful or even unfavourable. It is to be remembered that all Dr. Clouston's patients and my own which I have mentioned recovered in asylums. I do not think the same results would be attained by any home treatment.

SOME RESEARCHES INTO THE CHEMISTRY OF TYPHOID FEVER.[1]

BY

W. SOLTAU FENWICK, M.D., M.R.C.P., Research Scholar of the British Medical Association; Assistant Physician to the Evelina Hospital for Sick Children.

and T. J. BOKENHAM, L.R.C.P., M.R.C.S., Late Research Scholar of the British Medical Association.

In a paper which we read at the Annual Meeting of the Association in 1893 we gave an account of some researches which we had carried out respecting the pathological effects of certain chemical substances extracted from the spleen after death from scarlatina. An opportunity having lately arisen of obtaining the spleens from five cases which had succumbed during the third week of enteric fever, it occurred to us that perhaps the same method of investigation might in this case also yield interesting results. In the following paper many of the minuter details of the work have been purposely omitted, since the method adopted was identical with that advocated by Sidney Martin in his various valuable papers on animal toxins, and followed by us in our former work.

Mode of Extraction, etc.

The spleens were removed from the body as soon after death as possible, and, having been freely incised, were placed in bottles containing strong spirit. On their receipt at the laboratories the organs were thoroughly minced and the pulp mixed with an excess of absolute alcohol and put aside for some weeks, in order to ensure the coagulation of all the albuminous matter which might be present.

The next procedure was to separate the precipitate by filtration through linen, and, after washing the precipitate with absolute alcohol, to add the resultant fluids to the original spirituous solution. This mixture contained (*a*) any albumoses or peptones which were present in the spleen, (*b*) alkaloids, (*c*) extractive matters and fat, (*d*) salts.

The solid residue was next extracted with distilled water, the process being aided by the employment of an automatic shaker. After a second filtration, which was generally a matter of some difficulty, a clear yellowish fluid was obtained, which contained nearly all the proteid material which had not been rendered insoluble by the action of alcohol. This watery extract was then added to the spirituous solution just mentioned, and the mixture concentrated *in vacuo* at a temperature not exceeding 40° C. By means of an apparatus devised by one of us, and now in frequent use at the laboratories, we were enabled to evaporate as many as six flasks at a time, the distillates being collected and preserved in separate vessels. The great saving of time secured in this way was an important point, since, owing to the low temperature at which the process of concentration had to be carried on, the operation was necessarily very tedious.

As soon as the contents of the flasks had attained a syrupy consistence, they were poured into a bottle containing a large quantity of absolute alcohol, the result of which was to produce a copious precipitate consisting of those proteid substances which had been dissolved in the water or weak spirit. As soon as the precipitate had settled, the supernatant fluid was poured off, evaporated as before, and the residue again treated with absolute alcohol, the manœuvre being repeated until further precipitation failed to occur. The various precipitates were then collected, thoroughly washed with fresh alcohol, dried *in vacuo* over sulphuric acid, and preserved in a dry and well-stoppered bottle.

The alcoholic filtrate was next evaporated several times to dryness, the residue being extracted on each occasion with absolute alcohol, and then finally collected and preserved. Both these extracts were found to contain a certain quantity of fatty material, which imparted an acid reaction to their solutions. To eliminate this recourse was had to extraction with anhydrous ether and chloroform, after the plan devised by Sidney Martin. By these various processes we were enabled to obtain amongst others, the following chemical substances:

1. A material which was insoluble in absolute alcohol but freely soluble in water, and which afforded all the chemical reactions of an albumose. The maximum quantity of this substance, or more probably mixture of albumoses, which was extracted from a spleen, was 3.93 g., and the minimum 2.1 g.

2. A substance which was extremely soluble both in water and in absolute alcohol, and possessed most of the characteristic features of an alkaloid. The maximum amount obtained from any case was 0.8 g.

3. A dark-coloured, semi-solid material consisting of a mixture of fat and fatty acids (1.2 to 0.9 g.).

Mode of Administration.

The animals which we employed in order to determine the pathological effects of the various chemical substances consisted of rabbits, guinea-pigs, and rats. In each instance the animal had remained for some time under observation prior to the commencement of the experiment, and a daily record was kept of its temperature and body weight. Each dose of the albuminous or alkaloidal substance was dissolved in 3 c.cm. of distilled water when required for use, but the fatty extract was reduced to a fluid state by the action of heat. In the case of the guinea-pigs and rats the injections were invariably made beneath the skin of the abdomen, but the rabbits were also submitted to the intravenous method of inoculation. The strictest antiseptic precautions were observed, and in no instance did we notice any signs of inflammation at the site of puncture. After an injection the animal was placed in a separate cage and its temperature recorded on a chart every hour or two. The condition of the appetite, the body weight, and the character of the dejecta were also noted day by day.

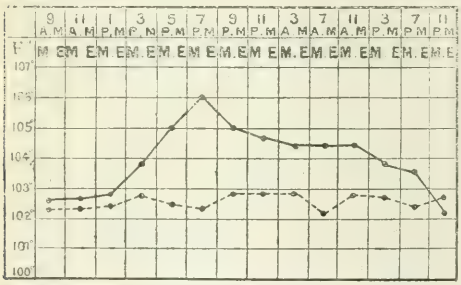
The animals were killed at intervals of time varying from a few hours to three weeks after the injection, and the principal organs of the body put aside for microscopical examination. The tissues were embedded in paraffin, cut with a rocking microtome, and the sections stained with hæmatoxylin and eosin.

[1] Report to the Scientific Grants Committee of the British Medical Association. This research was carried out in the laboratories of the Conjoint Board of the Royal Colleges of Physicians (London) and Surgeons (England), and we owe our best thanks to the Council of that body for the liberal accommodation provided, and to the Director, Dr. G. Sims Woodhead, for much valuable interest and criticism during the progress of our work.

1. *The Albumose.*—This substance gave rise to no immediate results when injected in the proportion of less than 0.02 g. per kilo. of the body weight, but larger doses were usually followed by symptoms of local irritation, the animals violently scratching or biting the site of puncture for some considerable time.

In rats and guinea-pigs the injection was sometimes followed by evidence of a general constitutional disturbance, characterised by a slow and laboured respiration, bristling of the hair, and frequent efforts at micturition and defæcation. These symptoms, however, rapidly subsided, and the animal usually regained its normal condition within an hour.

The subcutaneous administration of the albuminous extract in doses exceeding 0.02 g. per kilo. of the body weight was invariably followed by fever. In each variety of animal the first effect of the injection was to cause a slight fall in the temperature of the body, but this seldom exceeded 1.5° F., and did not persist for more than an hour. When this phase of shock had passed off the thermometer in the rectum failed to show any evidence of fever until after the lapse of from four to five hours, when the mercury commenced to rise, and continued to do so until it attained a maximum of 105° to 106.5° F. After remaining at this elevated point for a variable period of time, the temperature gradually but steadily declined, and finally regained its normal point from 18 to 32 hours after the commencement of the experiment.



Two-hour chart from a guinea-pig injected with 0.3 g. per kilo. of the albumose. The lower line indicates the temperature of the control animal.

During the pyrexial period the animal often exhibited a considerable amount of respiratory distress, and refused its food. The combined effect of the anorexia and fever was to cause a rapid diminution of the body weight, as much as 50 g. being sometimes lost in the course of the twenty-four hours. Occasionally the animal continued to eat sparingly, and to diminish in weight for some days after the defervescence of the fever, but as a rule the normal state of health was speedily regained.

It was observed that as long as the dose of the albumose did not exceed 0.8 g. per kilo. of the body weight, the degree of fever bore a fairly definite relation to the strength of the injection; but when larger amounts than this were administered, the relation between the size of the dose and the resultant pyrexia was destroyed, and the maximum temperature never exceeded 107° F., even after a dosage equal to 2 g. per kilo. As a rule, rabbits were more susceptible to the action of the albumose than the smaller animals, and among the same species some individuals reacted more readily than others. It was never possible to produce any degree of toleration to the drug by the use of repeated injections. Occasionally after a large dose of the albumose had been given, the urine was found to contain a trace of albumen, but this symptom did not persist after the fall of the temperature. Injections of the albuminous extract on alternate days for a fortnight, in doses varying from 0.1 to 1 g. per kilo. gave rise to a continued form of pyrexia, during which the animal lost flesh and strength. But as soon as the injections were discontinued, the health was rapidly restored, and in no case did a fatal termination ensue. Intravenous administration of the albumose to rabbits was also followed by pyrexia, but the fever was less severe and less abiding than in the former case. As a rule, the temperature rose within an hour of the injection, attained its maximum within four hours, and again fell to normal within the next three hours. *Post-mortem* examinations conducted upon the animals which were killed failed to demonstrate any macroscopic evidence of disease, even in those cases where large and repeated doses had been given. The gastro-intestinal tract appeared to be perfectly normal, and no enlargement of Peyer's patches, of the retro-peritoneal glands, or of the spleen could be detected. Under the microscope the various tissues of the body exhibited no deviation from the normal, except that, in a few cases, the renal epithelium gave evidence of cloudy swelling. But in these instances the glomeruli remained unaffected, and no indications of parenchymatous inflammation could be discovered.

2. *The Alkaloid.*—This extract was employed in doses varying from 0.05 g. to 0.5 gr. per kilo. of the body weight, and was administered both subcutaneously and by intravenous injection. No phenomena of interest followed the injection, and the temperature of the body remained unaffected. Death never occurred spontaneously, and the microscope failed to detect any morbid changes in the tissues in the animals which were killed.

3. *The Fatty Extract.*—This substance was liquefied by heat before its subcutaneous injection. Its only effect was to cause a temporary fall in the temperature, but neither fever nor visceral lesions followed its repeated injection.

Conclusions.

1. Three varieties of chemical substances can be extracted from the spleen after death from enteric fever during the third week of the disease—albumoses, alkaloids, and fatty bodies.

2. The injection of the albuminous extract into lower animals causes an elevation of the temperature of the body, which lasts for about thirty hours, and is associated with anorexia and emaciation. Under ordinary circumstances a fatal result is not observed, and no pathological changes of importance are to be detected in the tissues.

3. The administration of the alkaloidal and fatty extracts is unattended by any pathological results.

ON A CASE PRESENTING SYMPTOMS OF CEREBRAL TUMOUR, IN WHICH A LARGE AREA OF THE SKULL WAS REMOVED FOR RELIEF OF INTRACRANIAL PRESSURE.

BY

J. MICHELL CLARKE, M.A., M.D., M.R.C.P., Physician to the General Hospital, and Lecturer on Practical Physiology at Bristol.

and CHARLES A. MORTON, F.R.C.S., Surgeon to the General Hospital, and Demonstrator of Anatomy at University College, Bristol.

History of Case.

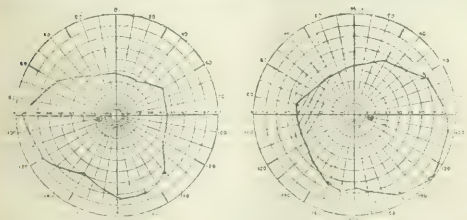
The patient, J. W., an iron moulder, aged 38, was first admitted to the Bristol General Hospital on February 15th, 1894, after he had been attending as an out-patient for some time. He complained of very severe headache and of fits, and attributed his illness to injuries to the head when a boy, and to a shock received from the death of a sister during her confinement two years previously. The family history was good, except that seven brothers and sisters died at or under 12 months from fits or convulsions; he had four brothers and six sisters alive and well. When 12 years of age he fell off a wall 14 feet high on to his head, was unconscious two hours, and laid up for two weeks; he recovered perfectly, except for occasional headaches. He was a temperate man; had syphilis at the age of 19. With the exception of a mild attack of rheumatism, two to three years previously, he had had no other illness. Six weeks after his sister's death he was getting up from a chair, when he suddenly became unconscious and fell; he became rigid, and the rigidity was followed by general convulsions; the loss of consciousness

lasted for some time; according to his statement nearly half an hour. On recovering he "talked nonsense," and a splitting headache came on, which had been more or less constant ever since. He had eight similar fits during the following night; he did not pass water nor bite his tongue in any of them. Altogether he had had at least twelve fits. His memory since they came on had been gradually deteriorating; it was good before. His mental capacity had also decreased. The headache was often worse at night, preventing sleep. Appetite was bad; the tongue furred, and the bowels constipated. The pulse was 72, regular, small, compressible.

He was a small man, well nourished, but rather grey, and looking older than his years. There was a large reddish scar over the left malar bone. The thoracic and abdominal viscera presented nothing abnormal, and the urine contained no albumen or sugar. The head was of normal size and shape; there was a large depressed scar over the upper part of the occipital bone, and a smaller one posterior to it; there were also two small scars on the forehead. The face was symmetrical, and there was no oculo-motor or facial paralysis. He put out the tongue straight. The pupils were equal, and reacted well to light and accommodation. V R = $\frac{6}{6}$ Hm.+1, reads Jaeger 1 at 7". fields of vision slightly contracted below; L $\frac{6}{6}$ Hm.+0.75. reads Jaeger 1 at 8", double optic neuritis of moderate intensity; no hæmorrhages. No motor paralysis anywhere. Dynamometer registered right hand 35, left hand 33. There was no rigidity or wasting of muscles. Sensation to touch and pain was normal over the head and face, and all other parts of the body. The superficial reflexes were normal, the knee-jerks active, the right slightly more so than left. Touch, taste, smell, hearing, and speech were normal. The head pains appeared to start from the right temple.

He was given iodide of potassium, beginning with a dose of gr. x, rapidly increased to gr. xl, three times a day, and antipyrin to relieve the exacerbations of pain. For the first fortnight he improved considerably, the headache grew less, and Mr. Walker, the ophthalmic surgeon to the hospital, to whom I am indebted for the care and trouble he took in examining the eyes, considered the optic neuritis decidedly better. During the next week, however, he suffered from an increase of pain, but improved again and left the hospital decidedly better, though not altogether free from pain, on April 15th. During his stay he vomited about six times, most often at night; the vomiting took place at long intervals from a meal, and no cause could be traced for it. When the headache was worst and the vomiting most frequent the pulse-rate fell to 60 or 64; at other times it varied from 72 to 84. The temperature was persistently subnormal, from 97° to 98.4°.

On May 28th he was readmitted, and said that soon after leaving the hospital the headache came on again, and gradually increased in severity. It was constant, but worse at night. The pains were over the vertex and the forehead. He has been sick several times irrespective of taking food. On May 19th he had a series of seven fits during the night. The fits were thus described: He suddenly felt sick and giddy, lost consciousness, and fell down; he foamed at the mouth, became livid, and breathed rapidly. Violent convulsive movements then came on, affecting both sides of the body, but it was thought that on some occasions the right side was most convulsed. The convulsions lasted 5 to 6 minutes, after which he recovered consciousness, feeling exhausted and sleepy. After about an hour the fits returned, though each succeeding fit was less severe. Since this series of fits the sickness has occurred more often, and he has had a feeling of "giddiness" like that preceding the fit. On examination, the physical signs were much as above given; the knee-jerks were equal, the abdominal and cremasteric reflexes absent, and the power of grasp the same in each hand. Pulse-rate 72. The optic neuritis had increased in intensity, and was more marked in the left than in the right disc. A chart of the visual fields is given herewith (Chart 1). The visual acuity was: R V' = $\frac{6}{6}$ v'' = $\frac{1}{12}$ v''' = $\frac{3}{36}$ L V' = $\frac{1}{12}$ v'' = $\frac{1}{12}$ v''' = $\frac{3}{36}$ There was no affection of sensation and no paralysis of any muscle.



Left Eye. Right Eye.

Chart 1.

On May 29th pain was, as usual, worse over the right temporal region. Since coming in he had been unable to pass urine. This day, whilst being examined, he complained of pain in the head and giddiness, and passed for a few minutes into a semiconscious condition, not entirely losing consciousness; the respirations became hurried and shallow, reaching 52 to the minute at the end of the attack. The pulse remained unaltered; there was no rigidity, and no muscular twitching. The pulse-rate throughout the day was 54, regular and weak. The next day it was 66. He was given iodide of potash and phenacetin for the paroxysms of pain. On June 8th the left pupil was larger than the right. At this time he seemed dull and heavy, and was slow in answering questions. He became dissatisfied and left the hospital, but returned worse after a fortnight.

On July 17th he was decidedly worse as regards headache, and had had several attacks of vomiting and frequent fits of giddiness. He said he had felt some numbness and twitching in the left hand and the calf of the left leg, but no affection of sensation could be made out. The right knee-jerk was very slightly more active than the left. He felt very weak, but could stand and walk well with eyes open or shut. There was no superficial tenderness over scalp, but he was tender to forcible percussion over the temporal and occipital regions. As the man was steadily getting worse, he was, after consultation, transferred to Mr. Morton's ward with the view of trephining him.

Account of the Operation by Mr. Morton.

Although the classical symptoms of cerebral tumour were present, there were no definite localising ones, hence the operation was not exploratory, but was simply undertaken to relieve these symptoms by reduction of the intracranial pressure. It was performed on July 20th. In order to avoid the superior longitudinal sinus, the lateral sinus, and the branches of the middle meningeal artery, the bone was removed from the parietal eminence and portion of skull immediately below and behind it. An area, almost a circle, with a diameter of 2½ inches, was removed, in three portions, by means of a 1½-inch trephine, the three trephine discs overlapping slightly, the angles being cut away with Hoffman's forceps. The bulging dura mater had to be depressed with the finger and flat copper spatulæ whilst the last disc was being removed, and then it projected slightly beyond the surface of the bone forming the margin of the large opening. It pulsated distinctly. The large flap which had been turned down was then replaced and sutured, a small drainage tube being inserted at each lower angle. There was no shock from the operation.

The second night after the operation was, he said, the best he had had for a long time, as he was quite free from headache. On the third night and day he had a good deal of pain in the neighbourhood of the wound, and on the morning of the third day his temperature rose to 102°, but there was no sign of suppuration about the wound. The pain did not continue, and the temperature was never again raised. Ten days after the operation the wound had healed, and he was up and going about the ward. He said "he felt as if he had a new head." The headache had entirely gone, and he thought his sight better. The optic neuritis seemed much the same. There was slight recurrence of headache during the first week in August, but after that only a very slight pain about the right temple and back of the right orbit. For this he took 5 grains of antipyrin at night, with complete relief. He was

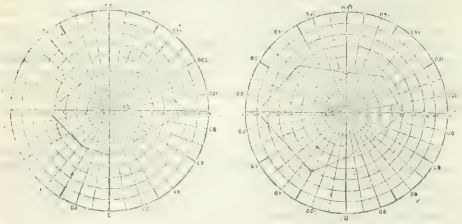
discharged on August 14th, and after that we lost sight of him for a time. The optic neuritis, when he left the hospital, seemed stationary.

I was much encouraged to perform this operation, not only by the recommendation of Professor V. Horsley[1] and the record of his case of cerebellar tumour[2] so greatly relieved by it, but also by the marked relief of symptoms in a case of tumour of the pituitary body recorded by Dr. Caton and Mr. Paul,[3] and I was careful in our case to remove nearly as large an area of bone. Dr. Beevor and Mr. Ballance consider[4] that removal of the bone alone without incision of the dura mater is not likely to relieve the intracranial pressure much; but the actual increase in the bulk of the cranial contents may not be considerable if the tumour is small, and the bulging of the dura mater even to a very limited extent may be sufficient to relieve the increase of intracranial pressure caused thereby. Clinical evidence, both in Dr. Caton and Mr. Paul's case and in our own, distinctly shows that removal of an area of bone alone is sometimes sufficient; and in connection with this point I must refer to some interesting cases reported by Dr. Kammerer and Dr. Wyeth to the New York Surgical Society.[5]

After-History.

The subsequent history of the case is as follows. He attended at irregular intervals as an out-patient, and remained quite free from headache and sickness, and in much better health than before the operation. His sight improved, and the optic neuritis subsided, leaving the discs white and partially atrophied, the left disc being the worse.

On November 27th, 1894, V. R=⅚, reads J. 1 well; L=⅚ badly, reads J. 6 slowly at 10 inches. Right field of vision contracted somewhat; left field markedly contracted all round, most below. At one of these visits I took a tracing with the cardiograph of the pulsation at the trephine hole.



Left Eye Right Eye.

Chart II.

On January 5th, 1895, his wife woke up at 12.50 A.M. to find him struggling and in a fit. The convulsions were general, and not of a unilateral type. He passed out of one fit into another, having twenty-four in all before the following night; the intervals of consciousness between the fits lasted from twenty to thirty minutes. They were all of the same character, and commenced quite suddenly. He remained on his back, not turning to either side, and neither the head nor eyes, which were turned upwards, showed any lateral deviation. He passed water and bit his tongue in some of them. After the eleventh fit he vomited two chamber-vessels full of dark brown grumous fluid. He had been strange in his head for several days before the fits came on. He got up and dressed in the middle of the night on January 4th, and went out into the street shouting. After the fits the scalp over the trephine opening became more bulging, and showed marked increase of pulsation.

After admission on January 9th he was quiet and gave no trouble, but did not seem very clear in his head, thought that the other men in the ward were smoking, and wanted to smoke too. He was given a mixture containing iodide and bromide of potassium. On examination the right pupil was a little larger than the left; both reacted well to light and accommodation. No paralysis of any cranial nerve. No paralysis of the limbs. No disorder of sensation anywhere detected. Dynamometer registered 40 on right and 39 on left side. Special senses normal (for sight see below). Reflexes knee-jerks equal. Right plantar reflex obtained with difficulty; others normal. No headache or sickness. Urine normal. Pulse 80, regular; good wave. Both optic discs white and atrophic, and vessels small; the left much more than the right, and there are white lines on the vessels in this disc. Vision: R=⅚ well, Jaeger 1, at 10″ to 15″; L=⅚ well, Jaeger 2 slowly, at 12″.

January 24th.—Since he entered the hospital he has had no return of fits, nor any other bad symptom. The bulging and pulsation over the trephine hole, so marked on admission, have both much lessened. He seems quite clear in his head, with unimpaired memory and intelligence, and is free from headache and vomiting. His only complaint is now of bad sight, and to the ordinary tests this defect is not great as regards central vision, though there is certainly contraction of the visual fields, especially on the left side (Chart II.) The temperature is normal instead of subnormal as formerly, and the pulse-rate 74 to 80.

Remarks.—On the patient's first appearance the cardinal symptoms of intracranial tumour: optic neuritis, headache of very intense (often agonising) character, vomiting of cerebral type were present, together with the occurrence of epileptiform convulsions. These symptoms had come on and gradually grown worse during two years. Secondary or localising symptoms were entirely absent, but it is well known that a cerebral tumour may attain a considerable size without giving rise to local destruction, whilst at the same time causing a general increase of pressure within the skull, and thus no focal symptoms are observed. Such a course is especially favoured by slow growth of the neoplasm. In our patient the symptoms slowly increased during two years. Failure of memory and impairment of mental faculties were the only other important symptoms. The man had had syphilis nineteen years before. It was therefore possible that a syphilitic neoplasm was present, and this was rendered more likely by the fact that his first stay of two months in the hospital under treatment with mercury and full doses of iodide of potassium brought about temporary amelioration of symptoms.

No other cause of optic neuritis, vomiting, headache, and convulsions could be discovered. The improvement mentioned above lasted but a short time, and during a second course of the same treatment in the hospital the symptoms grew progressively worse. There were still only the primary symptoms to go upon, as no focal symptoms of any value appeared. To the subjective feelings of transient stiffness in the right arm and leg after one or two of the fits, and of numbness in the left hand after another, no importance for localising purposes could be attached. The pressure symptoms were increasing, and it seemed time—two fair trials of antisyphilitic remedies having been tried without effect—to make some further effort to relieve the intense headache and the optic neuritis. The slow progress of the case seemed to indicate no immediate danger to life, and we were anxious to save the man from becoming blind. The case appeared, therefore, to be a suitable one for the removal of a large area of the skull with the object of relieving pressure, in the way that has been recommended and carried out by Professor Victor Horsley and others, and it was thought that such an operation, if done at all, should not be further delayed. The patient himself was anxious for the operation.

Mr. Morton, therefore, trephined merely to relieve pressure and not with any idea of seeking for the growth. If, later on, localising signs appeared, something more might still be attempted. So far, except for the recurrence of the fits five months afterwards, the operation has completely fulfilled the object for which it was undertaken. The optic neuritis has subsided, leaving, it is true, a certain amount of consecutive atrophy; but the patient has good vision, has been entirely free from headache ever since, and from vomiting, except once during the last series of fits; has recovered his mental powers, and been enabled to lead a comfortable existence.

[1] British Medical Journal, 1890, vol. ii, p. 1290; and 1893, vol. ii, p. 1365.
[2] British Medical Journal, 1893, vol. ii, p. 1366.
[3] British Medical Journal, 1893, vol. ii, p. 1421.
[4] British Medical Journal, 1895, vol. i, p. 8.
[5] *Annals of Surgery*, 1894, vol. xix, p. 685.

PUNCTURED FRACTURE OF THE SKULL; SYMPTOMS OF COMPRESSION FOR THIRTY-FOUR DAYS; OPERATION; RECOVERY.

By A. H. TUBBY, M.S.Lond., F.R.C.S.Eng.,
Assistant-Surgeon to Westminster Hospital, Surgeon to Out-Patients Evelina Hospital for Sick Children, etc.

The case now recorded is of considerable surgical interest on account of the serious nature of the injury, the depth to which a portion of bone had been forced by the blow, the suppuration extending over six weeks, the comparatively slight symptoms of compression and cerebral irritation, and the complete and rapid recovery after operation. The notes of the case are as follows:

On January 16th, 1894, Mr. P. J. De C., aged 43 years, was thrown from his horse, and alighted head foremost on a recently metalled road. He picked himself up, and although experiencing a certain amount of pain from wounds in his forehead and inconvenience from the accompanying hæmorrhage, was able to walk home; and at no time was there any giddiness nor unconsciousness. For the account of his condition from the date of the accident to February 19th, 1894, I am indebted to Dr. Hill, of Dursley, who kindly sent me the details. He saw the patient shortly after the accident, and found a lacerated wound on the right frontal eminence about an inch in length, extending down to bone, and bleeding copiously. In the middle line of the scalp, and at the anterior termination of the sagittal suture a second lacerated wound was seen. Here a distinct depression could be felt in the bone. The wound on the right frontal eminence healed up, but that on the vertex refused to do so. A small sinus discharging pus was left, and at the bottom of this a little loose bone could be felt. The patient was strongly advised by Dr. Hill to have the wound explored, but as he felt no serious inconvenience he decided to wait. Finding, however, that the discharge continued, he came to town. I saw him on February 19th, the thirty-fourth day after the accident.

The condition was then as follows: The pupils were widely dilated, and reacted badly to light: the pulse was 58, slow and full; the speech was deliberate and hesitating, the mind was clear, and the memory good. There was slight blurring of both optic discs. There was no paralysis anywhere. At the anterior extremity of the sagittal suture a discharging sinus, situated in the middle of some scar tissue, was seen. On pressure a few drops of pus oozed up, and from an inspection of the dressings I should think that about 1 drachm of pus was discharged in twenty-four hours. At the same time an oval depression in the bone could be felt. On probing the wound some small pieces of dead bone were encountered. The second wound, that on the forehead, was soundly healed. The temperature was normal. The patient was advised to be operated on at an early date.

On February 20th an incision was made through the scar tissue of the vertex wound, and three small portions of bone, lying close to the integuments, were removed. The edges of the aperture of the skull were then examined, and a small fracture of the inner table was found, the splintered portions of which were taken away. As the depression in the skull was an inch in its longest diameter, a considerable piece of bone must have been missing. Search was then made for this piece. The dura mater was not seen at this stage, but was separated from the bone by a mass of blood clot and granulation tissue. This was scooped out, and lying more than half an inch below the surface of the skull a considerable piece of dead bone was found. It was oval in shape, and measured seven-eighths by half an inch. The dead fragment comprised both inner and outer tables of the skull, and was apparently pressing between the cerebral hemispheres, pushing them apart. The dura mater was seen to be intact. The skull, however, must have been exceedingly thin, as the fragment was in no place more than one-eighth of an inch thick, while in parts it was almost paper-like in consistence. The wound was sutured, leaving a small aperture for drainage.

On February 21st the pulse had risen to 78 per minute, the speech was no longer hesitating, the pupils no longer dilated, and they reacted readily to light; the temperature was normal. On the next day there was slight giddiness, which was relieved after giving a purgative. The wound subsequently healed rapidly, the optic discs became quite clear, and the patient went home well in all respects on March 9th, and has remained so since.

Remarks.—The peculiar features of this case are the serious nature of the injury and the fact that it was attended by what seemed to be such apparently slight symptoms, but which were in themselves of serious import, the patient, I take it, being in danger of meningitis or intracranial abscess at any time; the depth to which the separated portion of bone was pushed—from half to three-quarters of an inch; the complete and rapid relief afforded by the operation. That the symptoms were not more pronounced was due to the position of the fracture, the bone pressing in between the hemispheres, and therefore not being so placed as to give rise to paralytic symptoms. In any case, the circulation in the superior longitudinal sinus must have been impeded, but no effects seem to have followed.

A CASE OF AURAL PYÆMIA WITHOUT SINUS THROMBOSIS TREATED BY LIGATURE OF THE INTERNAL JUGULAR VEIN AND PLUGGING OF THE LATERAL SINUS.

By EDWARD DEANESLY, M.D., B.Sc.Lond., F.R.C.S.Eng.,
Honorary Casualty Surgeon Wolverhampton General Hospital.

The subject of aural pyæmia, though much has been written on it during the last few years, is still of great surgical interest, and still contains several unsettled problems. The treatment of this condition when, as in the present case, unaccompanied by thrombosis of the lateral sinus, has not yet received as much attention as those in which the indications for interference are more obvious and clear. The fact that my own case was not successful in its ultimate result is, I think, an additional excuse for its publication, since there is no more useful guide to success than the records of previous failures, accompanied by an account of the conditions which determined the result. I record the following case in hope that it may prove useful in that way.

A female child, aged 4 years, eleven days after the onset of a severe attack of scarlet fever, developed on June 11th, 1894, double otorrhœa, which was both preceded and followed by much pain. On July 2sth an abscess appeared over the left mastoid, from which an incision two days later evacuated several drachms of fœtid pus. At this time pain had ceased, but the child looked thin and ill, and had a yellow earthy complexion. On August 1st she was seized with a sudden rigor, with much lividity. The temperature rose to 103°, and she vomited several times. The following day severe rigors occurred at 5.30 A.M. and 6.30 P.M. Both were followed by repeated vomiting. On August 3rd the temperature fluctuated between 98° and 101°, but there was no rigor. On August 4th, at 4 A.M., a most severe rigor occurred, during which the temperature rose to 104°. This was followed by much collapse and vomiting. Although there were no local indications of sinus phlebitis or thrombosis the general symptoms pointed so clearly to aural pyæmia (venous absorption) that I decided to ligature the internal jugular vein on the side which the mastoid abscess indicated as probably the seat of the most severe ear mischief. Accordingly at 3.45 P.M., August 4th, I ligatured the vein on the left side just above the omohyoid muscle with fine silk in two places, and divided it between the ligatures. The vein showed no sign of inflammation or thrombosis. The wound having been sutured without drainage and protected from infection as completely as possible, the left mastoid antrum was next opened by removing a sequestrum which lay immediately over it in the suprameatal triangle. The removal of a thin layer of bone with the gouge then exposed the sigmoid sinus, which being rendered tense by the previous ligature of the jugular vein was easily recognised. It showed no sign of inflammation, and on being incised bled profusely. This was checked by a pad of gauze placed over but not actually entering the sinus. The operation was borne well. The following morning, August 5th, the aspect was much improved and the temperature normal. At 12 P.M. the temperature rose to 100°, with a slight rigor. The evening temperature was 101°.

August 6th. The patient was not so well. At noon chloroform was given, and the head wound dressed. On removing the plug, free hemorrhage occurred from the lateral sinus. A narrow piece of carbolised gauze was therefore stuffed downwards right into the sinus in order to induce coagulation.

August 7th. She was very drowsy all day. The evening temperature was 105°, and there was slight puffiness about both eyes. The neck wound appeared to be healing without reaction. No rigor or vomiting had occurred since August 5th.

August 9th. On removing the plug from the sinus, a very fœtid brown

discharge occurred, but no hæmorrhage. The temperature did not rise above 99°.

August 10th to 12th. The temperature, which had previously been high at evening, but normal or nearly so all day, remained persistently between 101° and 103°. The general condition gradually became worse, though no rigor or vomiting occurred after the day following the operation. On August 12th at midday the neck wound was opened under chloroform (the skin had quite healed), and fœtid pus escaped from the situation of the ligatured vein. The upper part of the latter was dissected up for about 1½ inch and cleared of fœtid clot by syringing through to the open sinus. No improvement followed, the temperature remained persistently and continuously high, and death took place from exhaustion on August 17th without the development of any fresh symptoms.

Post-mortem Examination.—The vein was found to have been ligatured about one quarter of an inch below the common facial branch, which was firmly sealed with decolorised clot for about the same distance. The cardiac end of the divided jugular was sealed and occupied by a very small tapering decolorised clot, not reaching as far as the innominate vein. The dura mater was unusually adherent along the sagittal suture. The longitudinal sinus was greatly dilated, being almost as large as a man's little finger; it contained only a little filamentous *post-mortem* clot. It was continued directly into the left lateral sinus, but communicated with the right lateral sinus at the torcular by a circular opening a quarter of an inch in diameter. The straight sinus was continued into the right lateral sinus. The clot in the left lateral sinus did not extend towards the torcular more than one inch from the trephine opening. The other sinuses were quite healthy and free from clot. The left sigmoid sinus and jugular vein still contained a little fœtid clot. One small spot on the inner wall of the sinus near the jugular vein was yellow and soft, and nearly perforated into the arachnoid space. The brain and cerebellum were nowhere adherent to the dura, and showed no sign of meningitis or abscess in any part. A very great excess of clear fluid escaped from the arachnoid space and from the Sylvian aqueduct on dividing the latter, but the convolutions of the brain were not perceptibly flattened. The left tympanum and mastoid antrum were well drained by the operation, but pus had extended into the vestibule and cochlea, and a large drop escaped also from the internal auditory meatus on dividing the seventh and the nerves. The right tympanum and antrum were full of pus and extensively carious. The dura mater covering both temporal bones was nowhere inflamed or eroded. Both lungs were partially collapsed at the bases. In the left base there were in addition a small patch of pneumonic consolidation and two small purulent foci the size of a pea. There was no pericarditis.

REMARKS.—This case illustrates well some of the problems and difficulties of the treatment of aural pyæmia. The diagnosis was clear; the sudden onset the severe and repeated rigors and vomiting, clearly distinguished it from the less dangerous forms of toxæmic disturbance which may accompany any case of acute otitis media. The difference is probably not merely one of greater or less severity of the inflammatory mischief, but of the relation of the process to the adjacent large vein. The occurrence of rigors probably means that large quantities of septic poison are poured directly into the veins by the thrombosis of its small tributary channels in the petrous bone. In many cases extension of the mischief leads to thrombosis of the sinus itself, thus forming an imperfect natural barrier to the further progress of the disease. It has, however, been pointed out by Ballance that severe typical aural pyæmia may occur without any thrombosis of the sinus, an observation repeatedly confirmed by others. It would at first sight appear that a radical operative treatment of the primary focus of disease in the temporal bone would be all that was required to arrest the pyæmia. Ballance, however, has shown that this is not so, and quotes cases in which, in spite of the most thorough treatment of the disease in the tympanum and mastoid antrum without dealing with the vein, the rigors continued, and the cases terminated fatally. He, therefore, emphatically recommends that in all cases of clearly-marked aural pyæmia the vein be ligatured and the sinus plugged whether it be clotted or not. With this recommendation most surgeons will, I think, agree, since the procedure merely carries out in an effectual manner what Nature in some cases imperfectly attempts.

In the present case the presence of bilateral otitis and the absence of local signs of phlebitis rendered the choice of side for operation difficult. Under the circumstances the choice of the left side was made on the only indication available—namely, the side of the mastoid abscess. The equal amount of disease found *post mortem* on the right temporal bone deprives this indication of much of its force. It is possible that venous absorption took place on both sides, in spite of the arrest of the rigors and the temporary improvement after the operation. Under these circumstances a free opening of the right antrum in addition to what was done on the left side might have averted the fatal result. For this measure, however, during life there was little indication.

The ligature of the vein in any case having been decided on, it was clearly advantageous in many ways to perform this step before opening the mastoid antrum and lateral sinus. It was, however, a mistake to bury the upper end of the divided vein and to close the wound as was done. The object of the operation is to induce thrombosis of that part of the vein, and the clot cannot fail to become infected from above even if, as occurred in this case, the neck wound heals over it. The upper end of the vein should have been fixed in the wound until clotting had occurred, and then the clot could have been syringed out, as was afterwards done. It is worthy of note that the application of a pad to the sinus after opening it, although it arrested bleeding, did not induce coagulation. In order to insure this the plug must be actually inserted into the sinus. In this connection I may quote a remark by Mr. Arbuthnot Lane that "ligature of the internal jugular vein may stop the rigors only after the sinus has become thrombosed, and not till then."

In addition to the unexpected amount of disease in the right temporal bone, the *post-mortem* examination disclosed two other points of interest—namely, the unusual arrangement and communication of the cerebral sinuses, and the presence of what were evidently two small pyæmic infarcts in the lungs, in spite of the absence of thrombosis of either sinus before the operation.

In conclusion, I have to express my obligation to my friends, Messrs. R. K. Hogarth and F. Papillon, for their assistance in administering chloroform.

A CASE OF DOUBLE MASTOID DISEASE WITH SEPTIC THROMBOSIS OF THE LATERAL SINUS.[1]

BY H. SECKER WALKER, F.R.C.S.,

Assistant Ophthalmic and Aural Surgeon to the General Infirmary at Leeds; Lecturer on Ophthalmology and Otology in the Yorkshire College, Victoria University.

THE following are notes of a case in which long standing suppurative disease of both ears was followed by septic thrombosis of one lateral sinus with some general pyæmic symptoms:

M. H., aged 24, married, was admitted into the Leeds Infirmary on September 15th, 1894. The friends who brought her were unable to give an accurate account of her illness, but stated that for four or five years there had been an intermittent discharge from both ears. Four weeks before admission a swelling had appeared above the left ear, and shortly after another behind the right ear. Since then she had complained of severe headaches, persistent vomiting, and constipation. A fortnight before admission she began to have shivering fits, two or three every night. A week before admission the abscess over the left ear had been opened and matter had come away. For four days the patient had been much worse, the vomiting and shivering more frequent and violent; she had begun to squint, and said that she was going blind. The hearing power, never good, had disappeared entirely.

On admission, the patient was obviously very ill and in great pain; she seemed in a stupid and half-dazed condition, and lay groaning and tossing about: her face was pale and pinched, the pupils were widely dilated, the tongue dry and thickly coated; her skin was hot and dry, the temperature was 102.8°, and the pulse 130. In consequence of her extreme deafness and half-unconscious state it was difficult to communicate with her, and there was thus some doubt as to whether there was slight facial paresis on the right side. The movements of the arms and legs appeared normal. There was paralytic convergent strabismus; the pupils were widely dilated, and hardly reacted at all to a bright light. Optic neuritis was present in each eye. The urine was normal.

On the left side pus was found in the external auditory meatus, the posterior and upper wall of which was swollen and sinking forwards. The membrana tympani could not be seen owing to swelling of the meatal walls, but there was little doubt that a perforation into the middle ear existed. A large baggy fluctuating swelling extended over the whole left parietal and squamous regions, and behind the mastoid

[1] Read before the Leeds and West Riding Medico-Chirurgical Society.

2 inches posteriorly to the meatus. The mastoid region itself appeared healthy, and was not tender on percussion. On the right side the meatus was full of pus, the membrana tympani was perforated, and there was an extremely tender elastic swelling the size of a split walnut behind the mastoid process, but here again the mastoid region itself was normal and not tender. There was no swelling nor tenderness in the neck or in the course of the internal jugular vein of either side. No evidence of septic pneumonia, bronchitis, or visceral disease was found.

The diagnosis of suppurative otitis media, with extension into the mastoid cells of each side, was made, and in addition, and of most immediate importance, septic thrombosis of one lateral sinus, but beyond the fact of the falling in of the posterior wall of the right meatus there were no symptoms indicating on which side the disease was more serious or which sinus was thrombosed.

The patient was anæsthetised and the head shaved. The extent of the swelling on the left side was then seen more clearly. An incision was made through its lowest part over the postero-inferior angle of the parietal bone, and pus and blood clot escaped. The floor of the cavity was composed of bare bone all over, yellowish-white in colour. The ordinary 2-inch curved incision, half an inch behind the attachment of the left auricle, was made straight down to the bone, and extended backwards in a curved direction to meet the first incision, and the flap was then turned upward. The bone over the mastoid region appeared healthy, no soft carious bone nor pus being present. The antrum was opened with chisel and mallet immediately behind the meatus in the suprameatal triangle described by Macewen, and found full of caseated material and pus. The bone removed by the chisel was densely hard, and the antrum lay deep, five-eighths of an inch from the surface. The cartilaginous meatus was cut through, the ear turned forwards, the posterior wall of the meatus chiselled away, the remains of the membrana tympani and the ossicles removed, and the middle ear and antrum cleaned out by washing and gentle scraping. The roof of the tympanum and antrum was dried and carefully inspected with the aid of the electric search light, and examined by touch with a bent probe, but no perforation into the cranial cavity was detected. The whole cavity was then washed out with carbolic lotion, dried, and plugged with cyanide gauze. Next the bone was chiselled away posteriorly to lay bare and examine the condition of the lateral sinus. An area three-eighths of an inch in diameter was exposed and found covered with pus, the opening in the bone was extended, and a larger part of the sinus exposed, the vein opened with a scalpel, and a considerable quantity of pus and breaking down clot removed. There was no bleeding. A small Volkmann's spoon was then passed up the vein in the direction of its channel, and clot gently scraped away until a sudden gush of blood showed the way was clear. The bleeding was allowed to continue for a moment to wash away loose bits of clot, and then the sinus was plugged with Horsley's antiseptic wax, which immediately arrested the hæmorrhage. Attention was then turned to the lower part of the sinus; this was scraped out, well cleansed, and filled with wax. The rest of the wound and bony cavity was plugged with cyanide gauze, and the skin flap stitched in place.

The patient was turned over, the abscess behind the right mastoid opened; it contained about 3 drachms of very offensive pus, and its floor was formed by bare bone. The bone over this mastoid process appeared like the other to be perfectly healthy, but on opening the antrum pus and granulation tissue were found filling the cavity. This was quickly cleaned out, the dressings applied, and the patient sent back to bed. She was much collapsed; ether and digitalis were injected subcutaneously, and brandy given by the rectum.

The next morning the patient was rather better, the temperature subnormal, the pulse 116. During the day she vomited once, but there was no return of the rigors. The following day, September 17th, she volunteered the statement that she felt much better and had no pain, but asked that she might not have her left arm pricked. It was then found that there was distinct weakness in this arm and hand, but no numbness or loss of sensation. The movement and sensation in the legs were normal. No further vomiting nor rigors occurred.

On September 19th the patient complained of some pain in the head, the temperature rose to 101°, and she vomited. Two days later a swelling appeared at the back of the neck in the middle line; this was opened and a quantity of foul smelling pus was evacuated. The cavity led down to the external occipital protuberance, which was felt to be bare. After this the patient steadily improved, the optic neuritis almost disappeared, and on February 10th, 1895, the vision had returned so that she could read J. 2. The hearing power, which had been *nil* in both ears, had returned on the right side, so that she could hear loud conversation; it had not altered on the left side. The convergent strabismus had almost gone, but the paresis in the left arm and hand remained.

One point of interest in the case was the presence of a superficial abscess on each side of the head considerably behind the mastoid region, and the independence of these abscesses on any immediately underlying bone disease. In fact, as stated above, not only the skin but the bone over each mastoid when laid bare appeared perfectly healthy. These abscesses evidently did not arise by direct extension of the disease in the antrum, through the bone, but probably in the same manner as pyæmic abscesses elsewhere, and it is most likely that the abscess in the neck occurring after the operation arose in a similar way.

I am indebted to Mr. Whitehead and Mr. Trumper for the careful notes they have taken of the case.

LAMINECTOMY FOR COMPLETE PARAPLEGIA PRODUCED BY ANGULAR CURVATURE OF THE SPINE.

By ANDREW GRAY, M.B., C.M.Glasg.Univ.,
Out-Surgeon to the Hull and Sculcoates Dispensary.

T. F., aged 12, was seen by me on March 24th, 1894. There was a history of his having been knocked down on the ice in February, 1891, and, about six or seven months later, it was observed he was growing crooked. A felt jacket had been worn for a time, but ultimately it had to be abandoned on account of the discomfort produced. The date when the boy became paralysed cannot be made out clearly, but the mother is quite sure that by July, 1893, the boy had completely lost the use of his legs, and this paralysis is said to have crept on gradually.

I found complete paralysis of motion and sensation in both lower limbs; he was quite insensitive to the touch of the fingers or the pricking of a pin, and these conditions extended to about the sixth intercostal space. The spinal column presented a distinct postero-lateral curvature in the upper dorsal region, the most prominent part of the curvature being at the fifth dorsal spine. The curvature seemed to take in, as nearly as could be made out, the fourth, fifth, and sixth dorsal vertebræ. The reflexes were all present, both superficial and deep. The patellar tendon reflex was much exaggerated and so was ankle clonus. There were no rectal or bladder symptoms, the functions of these organs being undisturbed.

All active disease in the spine had subsided, and this then appeared to me a suitable case in which to operate with a view to relieving the pressure on the cord, which undoubtedly was the cause of the boy's paralytic condition. Accordingly on April 4th, 1894, chloroform having been administered, I removed the arches of the fourth, fifth, and sixth dorsal vertebræ. The wound was kept strictly antiseptic, and washed out with boracic acid solution. A drainage tube was inserted in the depth of the wound, in contact with the cord; the muscles were brought together by a continuous catgut suture, and the superficial sutures consisted of the usual silkworm gut.

On April 5th, the day after the operation, the temperature was 99°; only a little sanguineous discharge had escaped on to the dressings, and the drainage tube was removed. Sensation and voluntary movement were already returning, the patient was free from pain, and his whole general condition good.

The further progress of the case was uneventful. Suffice it to say that he went on uninterruptedly towards recovery, and

at the end of six weeks a plaster-of-paris jacket was applied, and the boy allowed to move about by the aid of crutches.

I showed the case before the Hull Medical Society on November 16th, 1894, and then he was quite recovered, and able to walk about without the help of crutches or any aid whatever, and indeed a few days ago I saw him running and flying a kite.

ON DELIVERY IN CERTAIN CASES OF IMPACTION OF THE TRUNK OF THE FŒTUS.[1]

By HERBERT R. SPENCER, M.D., B.S., M.R.C.P.,
Professor of Obstetric Medicine in University College, London; Obstetric Physician to University College Hospital.

In the present paper I purpose speaking briefly of some practical points in connection with the method of delivery in a class of obstructed labour which has received very inadequate treatment in the ordinary textbooks of midwifery, namely, those in which the obstruction caused by the trunk of the fœtus is an indication for embryotomy. I shall omit the consideration of cases in which with a large child or a small pelvis craniotomy alone is sufficient to remove the obstruction, and also those in which obstruction occurs in breech presentation, as embryotomy is rarely required and easily performed in such cases. My remarks will be limited to those cases of head presentation in which, after delivery of the head, it is found that the child's body will not pass through the pelvis without reducing its size and to those cases of presentation of the trunk in which embryotomy is called for on account of the impossibility of performing version or decapitation. Of the first class of cases I have met with several instances, of the second class only two.

In cases of head presentation it is sometimes found that it is impossible to deliver the child's body unmutilated after the head has been born, especially through a contracted pelvis. Apart from the rare cases of double monster and of tumours external to the child's trunk, the difficulty may be due to the large size of the child. The largest fœtus I have ever seen weighed 13½ lbs., and required mutilation on account of its great size. But through a small pelvis a child of half this weight may be unable to pass.

With a normal pelvis the obstruction formed by the child's trunk may be due to pathological conditions either in the serous cavities or the viscera. Disease enlarging the thorax to any considerable extent is very rare. A slight serous or bloody effusion in the pleura is very common, and I have once met with acute pericarditis in a newborn child; but these effusions very rarely enlarge the thorax sufficiently to cause obstruction in labour. The trouble will almost always be found in the abdomen.

One of the most common causes of obstruction is distension of the child's belly with the gases of putrefaction—a somewhat rare occurrence even in fœtuses which have been dead some time. It is, however, a good rule in all cases of obstructed labour to percuss the uterine tumour; a tympanitic note will indicate the cause of the obstruction. Another not infrequent source of distension is ascites or peritonitis, by which sometimes the belly is distended to an enormous size. I have seen the vagina distended sufficiently to form an abdominal tumour, and great distension of the bladder and uterus has been met with by other observers; but the only other causes of obstruction which I have personally met with have been distension of the colon by meconium in cases of imperforate anus, cystic kidneys, hydronephrosis, and distended ureters, and enlargement of the liver and spleen in syphilitic children. The diagnosis of the cause of the obstruction can usually only be made by careful exploration under anæsthesia. The question of treatment then arises. Traction upon the child's head in order to deliver the trunk should be made with caution and judgment; the employment of great force has caused rupture of the uterus.

If judicious traction fails to bring down the trunk it may be necessary to reduce the width of the child's shoulders. With this object I have found it a useful plan to snip through the clavicles with scissors, then, if necessary, to pass a blunt hook into the axilla and thus to bring down the arms. If delivery is still impossible it may be necessary to remove the head in order to gain room for further manipulations; but before decapitating it is advisable to seize the neck with a strong volsella furnished with interlocking teeth which will prevent the trunk from receding out of reach. Usually not much advantage is gained by opening the thorax, and the broken ribs are troublesome. The hand should be passed up to the abdomen, which should be opened with the scissors or the perforator, if the obstruction is due to gas or liquid effusion, the obstruction is immediately relieved and delivery effected; in other cases it may be necessary to remove the abdominal viscera.

And now to speak of the second class of cases. In transverse presentations it is rarely that version cannot be performed, and in impacted transverse presentation it is very rarely that decapitation is impossible. It has twice happened to me to meet with cases in which neither operation was possible. In both instances the pelvis was contracted and the soft parts œdematous, and in one there was the complication of placenta prævia. The uterus was retracted and as hard as a board: the back of the child presented; it was impossible to introduce the hand far enough to perform version or decapitation. I have never in midwifery met with such an *impasse* as these two cases presented, and the fact that Cæsarean section has more than once been performed for this state of affairs[2] is an indication of the difficulty that has been experienced by others. It is in the belief that the method which I successfully adopted in these two cases meets the difficulty that I place before you the following method of treatment:

Make an incision through the skin of the child's back, and cut through its spine with scissors, then apply Braxton Hicks's cephalotribe (the points of which meet when the instrument is closed) to the sides of the trunk of the child and screw up the instrument. By making traction with the cephalotribe the soft parts are brought down, and may be cut through with scissors. The delivery of the two halves of the child's body then presents no special difficulty.

[1] Read before the West Sussex District of the South-Eastern Branch of the British Medical Association.

A CASE OF BILATERAL HERPES ZOSTER OF THE FIFTH PAIR.

By C. E. DOUGLAS, M.D.EDIN., D.P.H.CAMB.,
Cupar Fife.

On January 5th I was asked to see N. M., aged 18, a Highland ploughman, supposed to have an infectious disorder. Three days before he had been attacked by headache and vomiting, and on the morning of my visit a rash had developed on the head and face. I found him in bed, still complaining of pain in the head, but as he did not speak English fluently, it was impossible to determine the exact seat and nature of the pain. The pulse and temperature were normal. I found the alleged "rash" to consist of patches having an inflamed well-circumscribed base, upon which numerous clear vesicles were implanted. They were most marked on the left side of the face, picking out very neatly the sensory distribution of the fifth pair. There was a patch near the root of the nose on the supraorbital ridge, another just below the orbit, another on the left side of the nose, and one or two spots in the moustache of the left upper lip. On the upper part of the helix of the left ear there was a small patch, and, curiously enough, upon the lower and back part of the neck, between the contours of sterno-mastoid and trapezius, was an oval patch of the same nature. On the right side of the face there were patches in the supraorbital region, on the chin, a large one on the cheek just beneath the outer end of the zygomatic arch, and one on the right temple. The development of the eruption had a good effect upon the pain, which, except for a little in the supraorbital region, very soon left for good, and by January 12th the dried-up crusts were separating.

[2] As by Professor Hubert, of Louvain, *Rev. Méd.*, Louvain, 1892-1893, xi, 385-388.

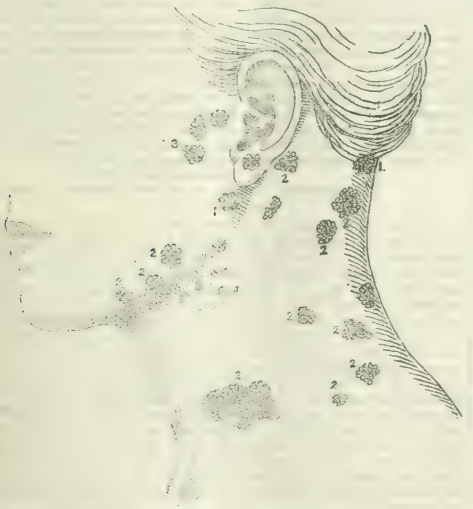
The case is worth recording on account of the great rarity of bilateral herpes zoster. Hebra,[1] in his definition of this disease, emphasises its unilateral tendency, and says: "It is only in rare and exceptional cases that herpes zoster attacks both sides simultaneously." Trousseau[2] says: "In all cases, however, there is only one side of the body affected." And Dr. Allan Jamieson[3] says: "It is very rare for nerves on both sides of the body to be simultaneously or consecutively affected, and still more rare for corresponding nerves on both sides."

REMARKS ON A CASE OF HERPES OF UNUSUAL DISTRIBUTION.

By H. DRINKWATER, M.D.,
Wrexham.

The following case, which recently occurred in my practice, presents some features which may help to throw a little further light on the pathology of this disease. The herpes was not confined to the area of distribution of one nerve, but of a set of nerves, namely, those of the superficial cervical plexus together with some others.

The patient is a young lady, aged 22. On April 9th, 1894, she came to me complaining of severe pain in the neck just over the occipital attachment of the trapezius on the left side. Nothing abnormal was discovered by sight or touch. Two days afterwards (April 11th) she presented several groups of herpetic vesicles on the left side of the neck (all those shown in the sketch with the exception of the groups near



the figure 3). One of her brothers had herpes some years ago, but she had never had it before. There was phthisis in the family, and the patient was rather anæmic.

I could assign no immediate exciting cause of the attack. She had not been taking arsenic; the last medicine she had contained principally hypophosphites.

The patient complained of very severe pain shooting up to the vertex behind the ear, in the district supplied by the small occipital nerve, but there was no rash to be discovered in this part. I infer from this that the nerve was affected as much as the nerves lower down were, but that owing to the density of the skin no vesicles were formed. In the lower portion of the ear, where the skin is intermediate in density between that of the scalp and the neck, there was an intermediate stage of the eruption.

Dr. Head, in the autumn number of *Brain* of 1893, showed that "herpetic eruptions on the head and neck.....correspond fairly with areas of tenderness produced by visceral disease" (p. 341); and, further, that these tender areas do not represent the supply of posterior roots of spinal nerves, but "correspond to the distribution of segments of the cords." He gives particulars of many cases, but there is none resembling mine in distribution (Case No. 22 approaches most nearly to it). The pain kept my patient awake.

On April 11th all the groups of vesicles were developed except those near figure 3, and these came out on April 14th. The groups of vesicles were distributed over the entire region supplied by the branches of the superficial cervical plexus, the main branches of which are the superficialis colli coming from the posterior border of the sterno-mastoid to the middle line anteriorly, and extending just to the chin and margin of the jaw. The descending branches extend just beyond the clavicle. The great auricular or auriculo-parotidean (Turner) is of great interest; it supplies the skin over the parotid and the lower two-fifths of the ear exactly—that is, the portion of skin seen to be affected with the patches in this patient. The late Mr. Hilton laid great stress on the distribution of this nerve, and gives an illustrative figure in his work on *Rest and Pain*. The distribution of the skin lesions in this case corresponded exactly to that of the nerves mentioned; but posteriorly they were found in portions of skin not supplied by the cervical plexus, for it does not supply branches posteriorly, at least not further back than the acromion. Viewed from behind, it was seen that the lowest spots were in the region supplied by the posterior division of the fourth cervical nerve—that is, all the nerves were affected from the first to the fourth inclusive posteriorly, and the same was true anteriorly, for the cervical plexus is formed by the anterior divisions of the four upper cervical nerves.

The explanation I would suggest is that the disease was due to some pathological process occurring in the superior cervical ganglion which distributes vasomotor nerves to the upper four cervical nerves. I cannot imagine any other explanation why all these nerves, and only these, should be affected simultaneously with the same morbid process. I did not form the opinion until the groups marked 3 came out on April 14th; for up to then I rather wondered why there were no spots visible on the parotid region.

The pain now became very severe, and the patient begged of me to do something to relieve it, as she could not get any sleep at night. I had given her opiates without any relief. Dr. Edward Woakes, in one of his works, says that tobacco has a paralytic action on the superior cervical ganglion, and that camphor has an antagonistic action. I assumed this case to be due to a paralytic action of this ganglion, and that the vasomotor paresis extended to the vessels supplied to the branches of the upper four cervical nerves, the dilated blood vessels exerting pressure on the nerve fibres, and thus causing pain and some trophic change resulting in vesical formation. If such were the case the camphor internally should afford some relief. Accordingly, on April 14th, I gave her five minims of spirits of camphor three times a day on loaf sugar. Up to this date the spots were spreading and the pain was getting worse daily. There was a remarkable improvement almost immediately; the night of April 14th she slept well; on April 15th she was quite free from pain, and it never recurred at all, but what struck me as most remarkable of all was that the group of vesicles that had come out last were all retrogressive, and those over the parotid were gone, leaving no sign of their former presence. That is they had not gone through the usual course of crust formation by evaporation of the contents; the contents had been reabsorbed.

I did not see her again until April 19th (she had gone up to town on business on April 16th). On this day there were only very slight remains visible, most of the vesicles having entirely disappeared; only a few dry thin crusts remained. Crust formation occurred in those that had been allowed to develop fully, whereas those that came out the day before

[1] *Dis. of Skin*, New Sydenham Society, vol. i, p. 372.
[2] *Clin. Med.*, New Sydenham Society, vol. ii, p. 291.
[3] *Dis. of Skin*, 2nd edition, p. 143.

the camphor was administered died away without forming scabs or even any visible scales.

To sum up, the two points upon which I wish to lay stress are:

1. The distribution showing that the disease was of sympathetic origin.

2. The effect of camphor. The improvement occurred so suddenly after its administration that I feel very much inclined to attribute the amelioration to its action, and would recommend its trial in herpes.

I am sorry that the illustration is not better. The lady would not consent to be photographed.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

INTUBATION IN DIPHTHERIA.

In the British Medical Journal of March 23rd Mr. Guest Gornall records a fatal case of diphtheria treated with antitoxin in a girl aged 4 years, in which he says that "the child was already much exhausted by difficulty of respiration when the injection of antitoxin was made, but tracheotomy was refused by the parents." As some time ago I had a somewhat similar experience—minus the fatal result, however—it may not be amiss to record it also.

On April 18th, 1894, a boy, aged 7 years, who had been under my care for a few days with well-marked diphtheria of the pharynx, presented symptoms of invasion of the larynx by the disease. Early on the morning of April 19th these became so alarming as to clearly indicate the opening of the windpipe, and I suggested this to the child's father, who at once said that that he would not under any circumstances allow the patient to be operated on. I thereupon sent for Dr. Hunter Mackenzie, who I knew had had an extensive experience of intubation in children. The father agreed to permit intubation, and this was accordingly performed by Dr. Mackenzie, who during the operation detached thick shreds of membrane from the larynx. For several days the child swam for his life, and it was only on the fifteenth day that the tube was permanently removed. On two or three occasions it was coughed up, and allowed to remain out for a few hours, until, in fact, the recurrence of laryngeal dyspnœa compelled its reinsertion. The urine, I may add, was laden with albumen. The child slowly recovered, with post-diphtherial paralytic manifestations. Antitoxic treatment and bacteriological examination were not in vogue in this country when this case was under treatment.

My object in briefly recording this case is to direct attention to intubation, which seems to me a most valuable auxiliary to the treatment of diphtheria by antitoxin not only in such cases as Mr. Gornall's and my own, where the parents will not consent to tracheotomy, but in all cases in which, at or before the commencement of the treatment by antitoxin, laryngeal obstruction is present.

Edinburgh. T. J. Thyne, M.B., F.R.C.P.Edin.

SCARLATINIFORM RASH IN INFLUENZA.

In the British Medical Journal of March 9th, p. 563, Dr. Ashby asked for observations of scarlatiniform eruptions in influenza.

On March 5th I saw a lady, aged 39, who had had influenza, with slight bronchitis, for three days. Some years ago she had an eruption diagnosed as acute eczema by her former medical attendant, and at the beginning of this year I had treated her for muscular rheumatism. When seen her temperature was 101.6°; the bowels had been constipated for three days, but the tongue was clean. There was a slight redness over the upper part of the chest, in front.

At 11 o'clock the same night I was sent for as the patient thought she had "erysipelas." I found the arms and legs and front of the neck almost covered with urticaria, and a few plaques over the lower ribs on the right side. There was a thick scarlatiniform rash all over the face, sides and back of neck, chest, and upper part of abdomen; it also covered the lumbar region thickly, but faded away on the shoulders. The temperature was 103°; there was slight congestion of the fauces, but the tongue was clean.

The bowels acted freely and spontaneously in a few hours, and in twelve hours the urticaria had almost disappeared without spreading to the trunk. The scarlatiniform rash was also fading, and there was no trace of it on the second day. No desquamation occurred.

The patient said she had had facial erysipelas, but never remembered a previous attack of urticaria. The slight constipation and febrile disturbance of the alimentary tract may explain the appearance of urticaria, but the other eruption would seem to be of the class referred to by Dr. Ashby.

The only other case in which I have seen it was in a girl of 20, and I have since examined twenty or thirty cases for this symptom with negative results.

Bristol. C. W. J. Brasher, M.R.C.S., L.R.C.P.

RAILWAY SERVANTS' EYESIGHT.

The two following cases may serve as supplementary to those recorded by Mr. Lawford in the British Medical Journal of March 23rd.

Case I.—A. B., aged 30, a guard on one of the large railways, was recently examined and failed to pass the colour tests. His eyes were sound, and his vision normal, but he was the subject of red-green colour blindness. He had now been reduced to an inferior position with less pay on account of a defect which ought to have been recognised before he entered the service of the company.

Case II.—C. D., a signalman in the employ of another of the large railway companies, came complaining of short sight. His distant vision was less than one-tenth ($\frac{1}{10}$) of the normal. He was found to have about four dioptres of myopia in each eye, and with proper correcting glasses his vision was practically normal. He carried in his pocket a pair of spectacles, without which he confessed that he could not be sure of signals, but he was obliged to be cautious in the use of his glasses, for he feared that if it became known that he had to wear spectacles he would be reduced or discharged. He said that his sight had never been tested by the company, but that recently they had been "getting more particular."

W. Tillinghast Atwool,
Ophthalmic Surgeon to the Torbay Hospital, Torquay.

A CASE OF SEPARATION OF AFTER-COMING HEAD.

At 2 A.M. on March 7th I was called to a collier's wife, who had been in labour at full time just twelve hours. This was her fourth child, and, labour being slow, the midwife sent urgently for me. It was a breech presentation, and on examination my finger came in contact with a rough edge of bone along the lower part of the spine, which proved to be a spina bifida. I hooked my finger round the thigh, and on making slight traction was astonished to feel the bone give way. After getting the body born, the arms gave way as did the thigh. Then I proceeded to get the head, foreseeing a possible separation, and, although only slight traction was made, the vertebræ cracked. I got my finger in the child's mouth to save the neck, and for half an hour tried with care to get the head; but the neck gave way and the head was left *in utero*. I then applied forceps; but there was nothing firm for them to hold by and they came off easily. On passing my hand into the vagina, I found the head very large and hydrocephalic.

I asked Dr. Berry, of Wigan, to assist me. We found the neck presenting. We then passed the perforator into the foramen magnum, one holding the uterus firm while the perforator was pushed through the foramen. There was some resistance, and, fearing the head might slip, Dr. Berry held the perforator while I put the forceps on. We had then a good hold of the head, and I was able to push the perforator home, opening it at the same time and turning it round to break up the brain matter. I next withdrew the perforator, and, passing the crotchet through the opening, was able to get a good purchase on the rim of the foramen magnum. Then we applied traction, the forceps well backwards and the crotchet downwards, until the head got below the brim of the pelvis; the head was then easily born. There was a rush of

fluid and brain matter through the foramen, which reduced the head, which was "fully twice the normal size."

The placenta had to be removed, being adherent at the upper part. For three days after delivery the temperature rose to 102.5° F. She was syringed with Condy's, and had not all the care one would wish, but she is now doing well and practically out of danger. Temperature normal.

By the above means of extraction there can be no danger to the uterus or vagina from the jagged bones, as the delivery is the same as it would have been had there been no separation of the head. With the forceps and crotchet there is a double purchase, and double force can be applied if required, besides which the head is compressed by the forceps.

Newtown, Pemberton. Geo. Wolstenholme, M.B., C.M.

URIC ACID IN THE EXPECTORATION (LIVER ABSCESS).

In the interesting paper by Dr. Berkart On the Pathology of the Gouty Paroxysm, published in the British Medical Journal of February 2nd, 1895, amongst the morbid transudations in which uric acid has been found no mention is made of its occurrence in the expectoration following the discharge of a liver abscess through the lungs, and as I do not remember seeing this noted elsewhere the following case may be of interest.

A Scotch police constable was admitted to the General Hospital, Singapore, on October 12th, 1891, complaining that for the last ten months he had suffered from general weakness, loss of appetite, and occasional attacks of fever. Two days after admission he suddenly began to cough and spit up large quantities of chocolate-coloured purulent matter; an analysis of this, made by Dr. Bott, the Government analyst, Straits Settlements, showed the presence, not only of urea, but of uric acid in small quantity. The urine at that time was acid, its specific gravity varied from 1018 to 1022, and the percentage of urea from 1.21 per cent. to 1.68 per cent. The diagnosis of the case was confirmed at a subsequent *post-mortem* examination.

[This case was afterwards mentioned in a paper contributed by me to the Straits Medical Association.]

G. D. Freer, M.R.C.S., L.R.C.P.Lond.,
Malacca, Straits Settlements. Colonial Surgeon.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GUY'S HOSPITAL.

TWO CASES OF TRAUMATIC PNEUMOTHORAX.

(Under the care of Mr. R. Clement Lucas.)

Case I. *Pneumothorax without Fractured Rib: Recovery.*—W. J. C., a male child, aged 2 years and 9 months, was admitted into Guy's Hospital under the care of Mr. Clement Lucas on April 7th, 1894. He was brought to the hospital by a police constable, with the history that he had been run over in the street.

April 8th. When examined the child showed considerable respiratory distress, and was blue and cold, but no fractured ribs could be detected. The breath sounds on the left side of the chest were exaggerated, the respiration prolonged, and moist *râles* were heard both on the back and front of the chest. The right side, on percussion, was found to be hyper-resonant, and a marked whistling sound was heard as if air were being blown in and out of a cylinder, whilst normal breath sounds were absent. A metallic tinkling was also to be heard on this side. The child always lies on the right side. The right side does not expand in respiration so readily as the left, and there appears to be some lateral flattening. Respiration 50, pulse 120, temperature 99.2°. The child was placed in a tent with a steam kettle.

April 9th. There is still greater distress in breathing. Respiration 60, and temperature 100.2°. Condition of the chest similar to what was found yesterday.

April 14th. The child has been gradually improving during the last few days. The respiration has fallen to 30 or 40, and the temperature to 97° or 98°. The child breathes more freely, and is more cheerful.

April 17th. The right lung has not yet recovered its normal respiration, but the breath sounds are fairly audible at the upper part. Rapidity of respiration diminished, and temperature normal.

May 3rd. The right lung has considerably improved, the breath sounds being now almost as distinct as on the left side. There is no metallic tinkling or hyper-resonance. Respiration normal. He was discharged convalescent to-day.

Case II.—*Extensive Fractures of Ribs: Pneumothorax: Collapsed Lung: Death.*—W. B., a man, aged 43, was admitted into Guy's Hospital, under the care of Mr. Clement Lucas, on April 10th, 1894. The patient was admitted about 9 P.M., having been found in a gateway by a carman, who had noticed on driving his van in that it had passed over some obstacle.

The patient was under the influence of alcohol when admitted, and was bleeding rapidly and groaning. There was some bleeding from the nose. On examination, extensive fractures of the ribs were discovered, especially on the left side, where some were broken in two places. Loud crepitus could be heard on this side when he breathed. Bronchial *râles* were heard all over the chest. On the right side some tubular breathing was heard, but no metallic tinkling. A subcutaneous injection of morphine was given to ease his pain, and the ribs were strapped and bandaged. A steam kettle was placed near.

April 11th. Patient complains of great pain on the left side, especially when he coughs. Urine loaded with lithates, specific gravity 1026. He breathes better, and is quiet.

April 12th. Remains about the same. Pulse 108, temperature 99.2°.

April 13th. Not so well. Pulse 114, respiration 24, temperature 99.4°.

April 14th. Breathing was very bad last night. He has frequent short cough, which causes great distress and pain in left side. Pulse 132, respiration 24, temperature 100.2°. His breathing is carried out with jerks, and he is very wheezy, owing to the retention of secretions in the bronchial tubes. He is afraid to cough owing to the pain it causes. There is some mucoid expectoration, but no blood.

April 15th. Patient died at 1 A.M.

At the necropsy the right lung was found compressed and collapsed from pneumothorax, and the second to the fifth ribs were fractured. On the left side there was recent pleurisy, especially at the base, and all the ribs, from the first to the twelfth, were fractured. The clavicles were not broken.

Remarks by Mr. Clement Lucas.—The first of these two cases, in which the symptoms referable to air in the pleural cavity were clearly marked, is of especial interest, since it is almost certain that the lung was ruptured by compression, and not punctured by the fractured extremity of a rib. Of course it is easy for the sceptical to presume that the rib injury was overlooked, but such critics are usually of the kind least fitted by their own observations to form an opinion. On the other hand, those familiar with the anatomical characters of the thorax of the child, of its extreme compressibility and elasticity, will not be slow to accept the explanation I have suggested—that the lung was rent within the pleural cavity as the result of the compression to which it was subjected. It might be urged that the pleura, being an air-tight cavity, and the thorax being subjected to atmospheric pressure equally on its exterior, the lung would be equally supported on all sides; but observation on a lung injected with wax will show grooves corresponding to all the ribs, and projections corresponding to the intercostal spaces. It is clear, then, that under severe distension the lung at one part would be less supported than at another. The explanation of this form of pneumothorax is probably as follows: The wheel in passing over the chest first obstructs the air tube supplying some part of the lung; then, continuing its pressure onwards, forces the air in the distended part beyond to rupture some of the air cells on the surface, and so allow the air to escape into the pleural cavity.

Happily, though the symptoms were for a time very severe, and the distress suffered by the child very great, recovery gradually took place. The blueness and dyspnœa subsided, and the child left the hospital convalescent, with the return of normal respiration on the side of the injury.

In the case of the man the injuries were so severe that it is extraordinary that he should have lived five days after meeting with the accident. All his ribs appear to have been broken on the left side, and only four on the right, yet the left lung seems to have been the lung by which he was able to live. Pneumothorax occurred at once on the right side so as to compress that lung; then pleurisy gradually setting in on the left side completed his suffocation.

A CASE OF UNIVERSAL TRAUMATIC EMPHYSEMA: TAPPING: RECOVERY.

W. J., aged 27, was admitted into the accident ward at Guy's Hospital on May 7th, 1892, having been knocked down by an empty waggon, both wheels of which apparently went over his right chest.

When admitted he was suffering intensely; his breathing was laboured, and his face cyanosed. Several ribs were found fractured on the right side. His neck and his right eyelids were greatly swollen from emphysema, and crackled under pressure. He became rapidly worse, and his chest visibly swelled, so that before fifteen minutes had elapsed after his admission it was almost impossible to distinguish either ribs or sternum, and his eyelids became enormously distended. His breathing became more laboured, and his face deeply cyanosed. Mr. Lucas was telegraphed for, but the symptoms becoming very urgent his house-surgeon, Mr. Hodgson, introduced several trochars and cannulæ into the subcutaneous tissue of the chest. The air literally whistled out. This relieved his breathing, and he became less blue. After dozing about half an hour he became very excited, and seemed to be choking, but a cough relieved the immediate distress. Cannulæ had been left in the chest wall, and air continued to escape; still the emphysema gradually extended down his arms and over his abdomen. Pulse fairly good. He was placed in a steam tent.

May 8th. He passed a fair night, but was very restless at times. Cough very troublesome, and he has coughed up a considerable quantity of blood. He says he feels choked. The eyelids are so distended with air that he cannot see. Emphysema has now distended the cellular tissue of the scrotum like a tissue bag full of air, and the skin of the penis is also distended. It has also extended down his legs, even to the dorsum of his feet and backs of his toes.

May 9th. Hæmoptysis continues. Temperature 100.4°. Emphysema has considerably diminished, especially on his face, his eyelids being nearly their normal size. Evidence of fracture of ribs was also detected on the left side of the chest to-day.

May 13th. The hæmoptysis has gradually lessened and cough less troublesome. Emphysema has cleared up on the legs and feet, but can still be felt as low as the knees and on the abdomen and chest.

May 15th. Yesterday, as he was much better, the tent was removed and his chest was strapped. Hæmoptysis ceased to-day. Emphysema still evident.

May 20th. Cough easier. Emphysema has disappeared from the extremities, but is still to be detected on the chest, abdomen, and scrotum.

June 6th. Emphysema has disappeared from everywhere except in the scrotum, where it has much diminished. Patient is progressing favourably.

June 15th. He left the hospital convalescent.

Remarks by Mr. Clement Lucas.—The foregoing case is of great interest as illustrating to what an extreme extent air may be forced into the cellular tissue without causing either suppuration or even the slightest symptom of inflammation. It shows, I believe, that the lung tissue forms an admirable filter and protection against bacterial infection. Certainly the air from the mouth could not be trusted to prove so innocuous when forced into cellular tissue. The late Mr. Edward Cock used to practise an original mode of curing hydroceles which had resisted the ordinary methods of irritant injections. After withdrawing the fluid he would apply his lips to the end of the cannula and blow air into the sac of the hydrocele. I have seen the most intense inflammation follow this operation, sometimes ending in suppuration and requiring incision, but more generally ending in a complete radical cure. It is not to be supposed that Mr. Cock's breath was more foul than that of the average person, and, if this were so, it must be granted that the air passing through the mouth and lungs and then escaping by a wound into the cellular tissue must be robbed of its inflammation-exciting materials.

The emphysema was so extensive in the case related that not only did it fill the eyelids so that the man could not see, but it filled the scrotum, distended the penis, and even reached the dorsum of the toes. The air at first collected about the upper part of the thorax and neck, and threatened to suffocate the man by its pressure, but my excellent house-surgeon's prompt interference with trocars and cannulæ enabled the air to escape, and greatly relieved the patient's breathing. The employment of cannulæ in these cases seems preferable to incisions, as after lancet wounds the fat is apt to protrude and plug the apertures.

A limited emphysema is so frequent after crushing injuries of the chest, and is often accompanied by so little distress in breathing that to suppose a pneumothorax to be a necessary accompaniment appears to me neither reasonable nor correct. On the other hand, the cases in which the physical signs and distress occasioned by pneumothorax are most marked, are often those in which no emphysema is to be detected. Yet the textbook explanation is that the air first escapes from the lung into the pleural cavity, and is then secondarily forced out into the cellular tissue. Only, it is said, when there are adhesions preventing collapse of the lung does air pass directly into the cellular tissue.

I am inclined to be very sceptical on this point, and to believe that the penetrated lung becomes pinned to the seat of fracture, and that the air of inspiration is directly carried into the intermuscular and cellular tissue. When this idea is considered in its anatomical relations, the correctness of the view becomes more obvious. The ribs being convex on the exterior, the fractured extremities, when driven in to such an extent as to penetrate the lung, will be so placed that their convex outer surfaces will lie in contact and their inner edges be divergent. When the fractured ends tend to return to their normal positions under inspiration, the divergent inner edges will approach, and so grasp any intervening lung tissue and pin it to the thoracic wall. In this way a direct route would be established between the lung and cellular tissue and the escape of air into the pleural cavity be prevented. As blood extravasated into the pleural cavity has a tendency immediately to coagulate, the sealing of the margin of the aperture by this means would probably occupy but a few minutes, and the air from the lung can then only escape in the direction made for it by the penetrating rib.

REPORTS OF SOCIETIES

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Tuesday, April 9th, 1895.

Large Pelvic Hydatid, Successfully Treated by Perineal Incision and Drainage.

Mr. Reginald Harrison read this paper. The patient, a physically fine and otherwise healthy man, aged 45, had never suffered any illness before the present. Nine years ago he began to have trouble about the bladder and rectum. This increased to such an extent that he was compelled to resort to large doses of morphine for relief, and was disabled from work. In 1893 he left Australia and came to London. The author saw him shortly after his arrival, at the suggestion of Dr. Batten. There was a very large tumour occupying the pelvis and lower part of the abdomen, extending almost to the umbilicus. The pain and difficulty about passing water and motions were excessive. Careful examination and the history led to the conclusion that the tumour consisted of one or more hydatid cysts. In October, 1894, an incision was made through the perineum corresponding with a lateral

lithotomy, but without opening the urethra. The cyst was reached and about half a gallon of fluid and cysts was evacuated. The cavity was washed out and drained. The greatest relief was experienced. The cavity gradually contracted and the wound healed. The patient was now in perfect health. The question for consideration in the case of such-like pelvic hydatids was as to where the opening should be made, whether through the abdominal wall through the rectum, or by incision through the perineum, as in this case. The last method was considered to be the best, as illustrated in this instance.

Dr. John Harley, in the 49th volume of the *Medico-Chirurgical Transactions*, had collected 100 cases of hydatid tumours, and had shown the futility of merely tapping them—a course that a physician might be inclined to adopt. In *St. Thomas's Hospital Reports* he had brought together a further 100 cases. Relief by simple puncture was fallacious. Diminution in the size of the cyst followed the operation. The case might for the time appear to be cured, but suppuration or cicatricial contraction with all its attendant troubles were apt to follow. Radical cure could not be obtained by any means short of removal of the parent cyst.

Mr. A. E. Durham congratulated the author on the success of the case. Hydatids in the abdominal cavity were common, but pelvic hydatids were rare, and their successful treatment even rarer. Some years ago he had made an exploratory incision into the abdomen of a patient who was *in extremis* apparently from intestinal obstruction. A large hydatid cyst was found and was stitched to the anterior abdominal walls and opened. Death resulted from acute peritonitis four days later. At the necropsy the relations of the hydatid cyst were the same as those in Mr. Harrison's case. In this class of case there was always some risk of leakage taking place into the peritoneal cavity if puncture or abdominal section were adopted, and, therefore, he thought perineal section was indicated as the treatment for pelvic hydatids.

Mr. Warrington Haward quite agreed that complete cure depended on the complete emptying of the cyst. Some cases of pelvic hydatids would be very difficult to deal with from the perineum. In a case of pelvic hydatid causing retention of urine he had opened the abdomen, attached the cyst to the abdominal wall, and drained it with complete success. In this case the cyst was so intimately connected with the pelvic viscera as to render removal impossible. When a pelvic hydatid projected into the abdomen the prospect of treatment by abdominal section was good, since drainage was easily effected. An advantage of opening the abdomen was that any concomitant abdominal hydatid cyst could be examined and treated.

Mr. Targett supported the view that pelvic hydatid cysts occurred, not in the recto-vesical pouch, but between the muscular coat of the bladder and the sheath of recto-vesical fascia by three arguments: (1) On careful dissection the cyst was found to be situated between the muscular wall and the recto-vesical fascia. This fascia intervened between the bladder in front and the vesiculæ seminales and vasa deferentia behind, hence the vasa deferentia and vesiculæ seminales were displaced backwards by these hydatids. (2) Experimentally the recto-vesical fascia could easily be separated from the muscular coat of the bladder. In an artificial recto-vesical cyst thus produced the vasa deferentia and vesiculæ seminales were displaced backwards, just as was the case in hydatids. (3) Sacculi and cystic tumours of the bladder displaced the vesiculæ seminales and vasa deferentia in the same way as pelvic hydatids. He did not consider these pelvic hydatids as secondary to hydatids elsewhere; they might be coeval but not secondary. In 70 cases of hydatid cysts in bones, there were only 5 cases in which there were hydatids elsewhere in the body, as in the lung or the liver. The hydatids occurred in the more vascular cancellous bones, such as the bodies of the vertebræ. In the Hunterian specimen of pelvic hydatid, recent dissection showed the anatomical relations to be the same as he had found in other specimens.

The President had years ago published cases in which simple puncture of hydatid cysts in the liver was successful. One of these cases, though apparently cured, returned some years later with a large cyst, which necessitated complete evacuation. Simple puncture might cure living hydatid cysts, but dead ones must be completely emptied. He thought that it was the general opinion of the meeting that in this case perineal section was the best method of treatment that could have been adopted.

Mr. R. Harrison, in reply, said that he had carefully considered the question of abdominal or perineal section, and that he had come to the conclusion that the latter was the safer course. He expressed his indebtedness to Mr. Targett for his contribution to the pathology of the case.

MEDICAL SOCIETY OF LONDON.

Clinical Evening.

Sir William Dalby, M.B., F.R.C.S., President, in the Chair.

Monday, April 8th, 1895.

Congenital Chorea(?).

Dr. G. Johnston showed a lad, aged 12, born at term without instruments, who ever since birth had exhibited involuntary movements resembling those of ordinary chorea, disappearing during sleep. The deep reflexes were brisk, but there was no ankle clonus. The lad was intelligent, and had no heart affection, though he had suffered from pains in the joints. The author pointed out that the movements of the hands recalled the fine movements of athetosis, but there was no evidence to lead one to infer the existence of any lesion of the brain to account for such a condition.

Dr. Garrod said he had a similar case under his care.

Dr. Shuttleworth agreed that the hand movements suggested athetosis, which was usually attributed to some lesion of the Rolandic area. The intelligence of the patient was not an argument against this view. He suggested that the lad should be sent to one of the centres under the London School Board, where special classes were held for such children.

Right Facial Atrophy.

Dr. Beevor showed a girl, aged 20, with marked facial atrophy on the right side of the face which had followed the decay and breaking off of two upper teeth two years before. The tongue and soft palate were normal, and sensation was not affected. He supposed the disease to be due to an affection of the trunk fibres of the fifth nerve.

A Case of Early Friedreich's Disease.

Dr. Guthrie showed a boy, aged 9, without family antecedents, who presented some of the symptoms characterising Friedreich's disease. There was ataxic gait, slight inco-ordination of the hands, and complete absence of knee-jerks. Speech and intelligence were unaffected, and there had been no lightning pains. The symptoms appeared to be increasing in intensity.

Dr. Ormerod pointed out that affection of speech, nystagmus, and family proclivity were described by Friedreich as characteristic of the affection, and in the absence of these symptoms he suggested that it was rash to include the case in that category, simply because they did not know of another disease to explain the symptoms, such as they were.

Dr. Beevor thought it was a case of Friedreich's disease, though he admitted it was difficult to be sure of this in the absence of the other symptoms described by Friedreich.

Suprapubic Cystotomy for Papilloma of the Bladder.

Mr. Swinford Edwards showed a man, aged 54, who was admitted for hæmaturia. He had first passed blood in his urine three months previously, and the day previous to admission he had had a stabbing pain in the right lumbar region, which was followed by dull aching, after which he again passed bloody urine. By cystoscopy the existence of a villous growth was made out on the left side of the base of the bladder. He opened the bladder above the pubes, and clamped and removed the papilloma, which was of considerable size, and the man made a good recovery. The urine was now quite clear and free from blood. He pointed out the difficulty that existed in distinguishing the source of the hæmorrhage, and asked whether, in the experience of those present, lumbar pain was ever due to a bladder affection.

Charcot's Disease (?)

Mr. Waring showed a woman, aged 45, who was first seen in November, 1893, when she presented marked symptoms of tertiary syphilitic affection of the knee-joints. Under increasing doses of iodide of potassium the symptoms disappeared in about two months, but three months later she returned with the joints swollen and full of fluid, which had come on quite suddenly. There were no signs of tabes except an obscure history of pains; the pupils were normal, and the knee-jerks were intact. Under iodide of potassium the left knee had improved considerably, and the right knee also improved for a time, but then relapsed. Three months ago the reflexes were slightly exaggerated, and this symptom was now even more marked. There was some irritability of the bladder. The electrical reactions were normal.

Dr. Ormerod urged that it was scarcely fair to describe it as a case of Charcot's disease, in the absence of any association with a nervous affection.

Dr. Beevor concurred in this view, in spite of the similarity of the symptoms.

Mr. Waring, in reply, said he himself regarded it as a case of tertiary syphilitic disease of the knee-joints simulating some of the symptoms of Charcot's disease.

Renal Tumour Removed from an Infant.

Mr. H. Allingham showed a female child, aged 3, from whom he had removed a renal tumour weighing 2½ pounds (shown). The child began to be ill in November, 1894. The tumour was adherent to the Fallopian tube, which led to some temporary difficulty in the diagnosis of its nature. The growth appeared to grow from the capsule inwards, the glandular structures not being much damaged.

Mr. Lockwood commented on the differences in structure which such growths presented, some of them, though apparently carcinomatous in structure, not recurring after removal. He asked what were the microscopical appearances of this growth.

Mr. Swinford Edwards asked what were the urinary symptoms, and also what course the author had adopted with the divided ureter.

Mr. Allingham, in reply, said that there had been nothing abnormal in the urine. He had ligatured the ureter, returning it to the abdomen.

Multiple Subcutaneous Nodules in an Infant.

Dr. Abraham showed an infant, aged 8 months, who presented numerous subcutaneous nodules over the body and head, the larger ones giving the sensation of fluctuation. He himself thought they were tuberculous, but he asked for suggestions as to diagnosis. The family history was strongly tuberculous.

Mr. Leopold Hudson mentioned a case under his care in which the nodules proved to be the result of chronic pyæmia probably due to infection during an attack of thrush. He had seen two other cases of the same kind, both of which turned out to be chronic pyæmia consecutive on ulceration of the navel.

Pityriasis Rubra Pilaris in a Child.

Dr. Abraham also showed a boy, aged 6, in whom bright redness of the palms and soles had been followed by profuse desquamation. There was a peculiar roughness on the back of the neck, etc., in which the hypertrophy of the follicles characteristic of Devergie's pityriasis rubra pilaris was observable.

Dr. Guthrie referred to a case under his care upon the nature of which the author's explanation had thrown great light. He asked what was the prognosis in such cases.

Dr. Abraham said the lad had recovered from a similar attack three years previously. Some of the cases recovered and others succumbed so that there was no definite prognosis.

Restoration of Nose.

Mr. Astley Bloxam showed a man who had lost his nose in consequence of tertiary syphilitic lesions. An attempt had been made before he saw him to repair the damage by the Indian operation of deriving a flap from the forehead, but with only limited success. After a vain endeavour to get a newly-amputated finger to adhere, he decided, on the patient's suggestion, to repeat the attempt with a stiff finger belonging to the patient. The tendinous parts of the finger were dissected away and some time after the finger was revived and made to fit in between the edges of an incision through the transplanted forehead flap which closed the nasal aperture, the terminal phalanx and nail having been previously taken away. Very satisfactory adhesion took place, and then after a suitable interval of time the finger was amputated in several stages by means of the electrocautery, and completed with bone forceps, giving rise to considerable bleeding from the arteries. Later on the finger, now become part of the nose, was transported higher up by removing a flap of skin at the root of the nose, and then steps were taken to secure union at the sides where adhesion had not already taken place so as to provide alæ. The result was very satisfactory, especially on the left side.

A Case of Macrocheilia.

Mr. Bloxam also showed a girl, aged 12, with marked thickening involving the left side of the face and chin dating from early childhood, upon which he proposed to operate. The tumour was freely movable over the deeper structures, and was not encapsuled.

Deformity of Left Side of Face.

Mr. Bloxam also showed a child, aged 15 months, who presented a curious deformity of the left ear. The left external meatus was absent and the external ear was represented by a lobulated fold of skin without any aperture. There was no other congenital defect.

OBSTETRICAL SOCIETY OF LONDON.

F. H. Champneys, M.A., M.D., President, in the Chair.

Wednesday, April 3rd, 1895.

Specimens.

The following specimens were shown: Dr. Cullingworth: (1) Embryo and Clot from a Tubal Abortion; (2) Diffuse Uterine Myoma.—Dr. Duncan: (1) Myoma undergoing Myxomatous Degeneration removed by hysterectomy; (2) Œdematous Myoma removed by hysterectomy; (3) Double Tubo ovarian cysts; (4) Dilated Tubes and Cystic Ovaries (early stage of tubo-ovarian cysts).—Dr. Lewers: Tubal Gestation of three months operated on before rupture.

Observations on the Temperature, Pulse, and Respiration during Labour and Lying-in.

The communication by Dr. R. J. Probyn-Williams and Mr. Lennard-Cutler which was read at the meeting on February 6th[1] was discussed.

Dr. Dakin congratulated the authors on their very important paper. Their observations on the temperature, which were made under circumstances most favourable for accuracy, showed what was the typical chart of a lying-in woman, namely, one differing in no way, except for some slight exaggeration of the evening rise and morning fall, from that of a person in ordinary health. The chart of the cases where perineal tears were present showed the advantages and the efficacy of the antiseptic methods in use at the General Lying-in Hospital at the present time, for it did not differ practically from that of cases where there were no tears. The pulse-rate, which they found to be the average, was perhaps more interesting, as it was opposed in some degree to what was stated in the textbooks. The authors' results were, however, what most of those who had large experience of lying-in women would expect. As regarded the tension, the authors again were at variance with what had been hitherto accepted. Fritsch and Meyburg found that the tension was diminished; and it became difficult to reconcile this with the slower rate. The authors' results showed that the pulse obeyed the ordinary laws of the circulation in these circumstances, and explained the tendency to a slow pulse by the high tension always present. Their results explained also the frequency of pulse which often preceded *post-partum* hæmorrhage if it were assumed, as it fairly might be, that the suddenly increased arterial tension which usually took place was due to a retraction of the vessels in unison with the retraction of the uterus. Then, if retraction of neither uterus nor arteries were com-

[1] British Medical Journal, February 16th, 1895, p. 367.

plete, there would be, as happened in the cases in the paper, a low tension and rapid pulse on the one hand, and a relaxed and bleeding uterus on the other. It was possible that the increased rapidity observed by the authors after the administration of chloroform was due to diminished tension, and the tendency to *post-partum* hæmorrhage, believed by some to exist in women who had had chloroform during their labour, might be thus explained. Dr. Dakin had never seen this effect from the drug. There was one effect of its administration for a fairly long time, and that was on the child at birth. This was often very lethargic, and did not begin to cry vigorously at once without considerable stimulation.

Dr. Remfry considered that the rise in pulse-rate after chloroform might be due to the fact that in the cases recorded chloroform had only been given in tedious labours and when instrumental or other manipulations had been necessary.

Dr. Peter Horrocks thought the increased rate of the pulse in *post-partum* as in any other form of hæmorrhage was physiological. Theoretically, half the amount of blood in the body could do the same work in a given time if it were circulated with double the velocity. The increase in number of heart beats was an attempt to increase this velocity *pari passu* with the loss. The precise way in which the loss of blood set up the increased rate was not, perhaps, known, but no doubt it was through the vasomotor system. He could not agree with Dr. Dakin regarding retraction of the heart and arteries. As a matter of fact, so long as the heart was completely refilled with blood there was no retraction. If it were underfilled there would be some retraction, and if it were not refilled at all there would be complete contraction during each diastole. The increased size of the left ventricle during pregnancy was a hypertrophy, and its subsequent diminution was an involution.

Dr. Amand Routh asked for more information as to the effect of chloroform upon the temperature of the lying-in woman. He thought that the administration of chloroform, by lowering the body heat, might in a measure account for the difficulty in reviving children after its use, which, as Dr. Dakin had stated, was not infrequently observed.

Dr. Duncan agreed with the authors in questioning the accuracy of the statement made in textbooks that the pulse-rate became slow after delivery. In years gone by he (Dr. Duncan) used to dread *post-partum* hæmorrhage if the pulse kept up to 110, but he found his fears were groundless, as he had never had a case of this accident, whilst a good many of his patients had a pulse of over 100 for some hours after delivery. He thought a high pulse-rate was met with most often in the upper classes of society, where a neurotic temperament was not rare.

The President said that a paper of this kind was much needed to test and correct accepted views which were apt to be quoted from book to book without sifting. The chief point in debate seemed to be the pulse. In his experience this was often rapid, especially after excitement either mental or bodily, without any undue loss of blood. But in this case the beats were distinct and the tension good. The pulse of hæmorrhage was running, the beats not well separated, and the tension low. Such a pulse often preceded hæmorrhage, and betokened a general vasomotor condition affecting heart, arteries, and uterus.

Dr. Probyn-Williams replied.

A List of Ovariotomies in Women over the Age of 80; a Case, Aged 83, Complicated by Epithelioma of the Vulva.

Dr. Leonard Remfry read this paper. The number given was 10, and every patient had recovered. The list included operations in England, America, Australia, and Germany. Dr. Remfry saw his patient in August, 1894. The epithelioma was at once freely removed. In November, as there was no sign of recurrence, and the tumour was larger, ovariotomy was performed. Convalescence was satisfactory. The paper concluded with some details of the various cases, and remarks on the powers of resistance in aged people.

Mr. Butler-Smythe congratulated Dr. Remfry on the success of his case, and asked if any mental symptoms had been observed previous to the operation. The patient had been under his care on two occasions, but had absolutely declined to have the tumour removed. Her mind then seemed to be extremely weak, and her conduct and language extraordinary. She had been to several hospitals, "to show herself to the doctors," but would not submit to any operative measures beyond aspiration of the cyst, which was twice performed. It was most gratifying to hear from Dr. Remfry that up to the present time there had been no recurrence of the epithelial growth.

Dr. Lewers hoped that the after-history of the case as regards the vulvar epithelioma would be given to the Society, as in his experience recurrence was much more likely to occur early than in cases of epithelioma of the cervix. He mentioned a case under his care where, after apparently complete removal, recurrence took place in the inguinal glands five months after operation.

Dr. Heywood Smith said that in his case, referred to in the paper, the tumour was of enormous size (47 lbs.) and prevented the patient from moving freely about. The adhesions to the abdominal wall were very strong, so that he had to leave a piece of the cyst wall the size of a dinner plate attached to the inside of the abdomen.

The President said that it must be remembered that old people of 80 years and above were selected cases; they had outlived their contemporaries, and might be expected to be unusually sound. Dr. Remfry's paper illustrated the fact that cases which would not seem favourable often turned out well, and that a selection of ovarian cases on *a priori* grounds was unsatisfactory. The good results of ovarian tumours with pregnancy illustrated the same fact.

Dr. Remfry, in reply, said that the mental condition of the patient was perfectly satisfactory during her stay in hospital, except during convalescence, when she wandered and was irritable and difficult to manage for three or four days. There had been no recurrence of the epithelioma, which was excised in August, 1894. It was always necessary to verify a patient's age by obtaining, if possible, the birth certificate. He considered that in old women particular care should be taken to prevent shock after ovariotomy by the administration of nutrient enemata.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Walter G. Smith, M.D., P.R.C.P.I., President, in the Chair.

Friday, March 22nd, 1895.

Hydroa Gestationis.

Dr. Ninian Falkiner showed a case of herpes gestationis. The woman, aged 38, had been married twice and had had six children. She was now in the third month of her seventh pregnancy and the third attack of the disease. The eruption commenced at the end of the third month on the back of the wrists, and continued advancing until it covered all parts of the body; after delivery it disappeared in about six weeks. This was the third time that Dr. Falkiner attended her. She stated that it came on only when she was carrying a male child.

The President, through the kindness of Dr. Falkiner, had seen the case a year ago. He had no doubt that it was a case of hydroa gestationis. He was not aware of any other cases of the same kind seen in Dublin except one by himself at the Adelaide Hospital dispensary.

Friedreich's Disease (Hereditary Ataxy) associated with Genetous Idiocy.

Dr. M. J. Nolan read a paper on this subject, illustrated by photographs. The subjects were three members of a family of eight, the remaining five healthy and intelligent. Family history of tubercle, brain disease (cerebellar? maternal grandmother, ataxic) and alcoholism. Father, chronic drunkard. No syphilitic taint. The ataxic subjects were aged 10, 15, and 22; symptoms evident in earliest infancy, progressively developed from lower to upper limbs, jerky movements of head, feet, and hands: "static ataxy" (Friedreich) and "ataxy of quiet action" (Friedreich), scanned speech; tremor and paresis of muscles; "static" and "ataxic nystagmus" (Friedreich). In one case knee-jerk retained; in one retained and exaggerated, and accompanied by ankle clonus; and in one lost. Lateral curvature, and

arrest of sexual development in girl. All psychically asexual. Large goitre in two senior cases. No club-foot deformity (a non-essential symptom). Negative symptoms: No ocular disease; the integrity of sphincters preserved; no marked disorder of sensation (apart from varying degrees of analgesia irregularly distributed in two of the patients); electrical reaction of muscles normal. Mental condition: Very low degree of intelligence; but marked tractability, and good humour of expansive type; no irritability; no tendency to unprovoked mirth. All symptoms, physical and psychical, progressively developed in intensity in inverse ratio to age, namely, youngest most affected. Special points: No previous cases recorded showing association of Friedreich's disease with genetous idiocy. The mental cast devoid of the waywardness, sexual depravity, and violent outbursts so common to idiots. The variety of physical symptoms presented points of resemblance to heredity ataxy of cerebellar origin (Sanger Brown, Nonne), to cerebellar heredo-ataxy (Pierre Marie); to heredo-ataxy of peripheral origin (Déjerine, Scottar) to family central diplegia (Freud). The symptoms scattered through the 3 cases had been regarded heretofore as of vital value in differential diagnosis, a position they could scarcely continue to hold. It had been agreed that the symptomatology was caused by errors in development of the nervous organisation, which broke down under stress of disease at epochs (puberty, etc.) of life. Gowers, however, laid down the rule that for a brief period, at least, the defective nervous system "suffices for perfect function." The present cases were exceptional, the morbid condition being manifest from the time of birth. It was suggested that Friedreich's disease and the allied groups above named differed in pathological basis only in degree, and in point of time of manifestation, not in essential character—all groups depending on a developmental error—a gliosis. In the three cases now recorded, the possibility of an extension of this gliomatosis to the cerebral hemispheres (idiocy so often arising from neurogliar sclerosis) was suggested as the explanation of this twin condition of genetous ataxy and genetous idiocy.

Typhoid Fever, with Prolonged Pyrexia.

Dr. A. R. Parsons read notes of a case of typhoid fever in which pyrexia was prolonged for a lengthened period. He exhibited a temperature chart which extended over 290 days. The patient recovered.

Dr. Ninian Falkiner read a note on a case of prolonged typhoid fever, and exhibited a temperature chart for 119 days.

Dr. Purser thought Dr. Parsons's case differed materially from Dr. Falkiner's. In the latter there were several complications, and the case was that of a young child in which the temperature was much more easily put up. Dr. Parsons's case seemed to have been uncomplicated except for a short attack of pneumonia at the beginning. He thought persons were apt to put too much weight on the single symptom of the temperature. He thought that the explanation of the case was that the thermotaxic mechanism was enfeebled, and that the person became for a certain time a poikilothermic animal, which young children always were. During a fever the temperature not only was higher but also more unstable and even after the temperature came down to normal it was unstable for a long time. If the patient's sensations were undisturbed and no physical signs could be found to account for the temperature, then there was not much cause for anxiety.

After remarks from Dr. Boyd, the President thought Dr. Parsons's chart the longest on record, and that there was no doubt about the diagnosis from the full account given. Dr. Parsons had mentioned that he had given quinine without its lowering the temperature. That was his experience also. He had once given 240 grains of quinine in twenty-four hours, with the result that the temperature only came down two degrees. He thought that a high temperature was of great value in putting persons on their guard and keeping the patient under observation, but in enteric fever he considered the mere range of temperature unimportant as compared with the aspect of the patient, the condition of his digestive system, and the state of his tongue. He had several times, when the patient was feeling well and had a clean tongue, allowed the patient up, although the evening temperature was 100° or 101°, and had found that the temperature had settled down within forty-eight hours.

Dr. Parsons and Dr. Falkiner replied.

MIDLAND MEDICAL SOCIETY.

T. F. Chavasse, F.R.C.S.Edin., President, in the Chair.

Wednesday, April 3rd, 1895.

Antitoxin Serum.

Dr. G. Sims Woodhead read a paper on antitoxin serum in diphtheria and tetanus. He first gave a history of the development of the theories of immunity; then taking up the question of the antitoxic serum treatment, he indicated the *rationale* of the process. A specific immunity was produced in one animal. When this had been brought about there appeared to be some substance held in solution in the blood which, exerting its influence on the tissue cells, made them able to withstand or counteract the action of the poisonous products by means of which specific bacteria were enabled to produce disease. The soluble substance formed in one animal might be transferred to another, where it continued to carry on its work in the same fashion, checking the disease because it enabled the tissues to do their proper work in the presence of the poisonous products of the disease germs. The prospect of obtaining good results by this method of treatment was, he thought, much more hopeful in the case of diphtheria than in tetanus. In the first case the disease was a local disease in the early stages. Important channels and structures were at once affected, and the symptoms connected therewith required urgent treatment. The poison, therefore, must be counteracted whilst its action was comparatively local. In the case of tetanus, on the other hand, the local lesion was usually held to be of slight importance; the disease was only recognised when the nerve symptoms, which were the result of profound structural changes, had become well developed. In the one case the organic lesions were slight, in the other they were most marked; in the one case the poison had had little or no time to act on important organs, in the other it had had time to produce important changes, and any treatment must be less hopeful; but beyond this the resistance of the tissues had in the one case not been strained to its utmost limit before the treatment commenced, whilst in the other it had been passed, and the cells could no longer react to any stimulus. The paper was very fully illustrated with photographs of bacteria, degenerate lesions, apparatus, etc.

At the conclusion of his address a hearty vote of thanks was proposed by Dr. Saundby and seconded by Dr. Carter to Dr. Woodhead, and carried with acclamation.

West London Medico-Chirurgical Society.—At a meeting on April 5th, Dr. Banning, President, in the chair, Dr. Coutts read a paper on the Treatment of Empyema in Children. He considered that there was a chance of cure by aspiration in cases with small cavities that were recognised in their early stages. If there were no improvement after two aspirations he thought the method was inadvisable. Statistics were given of 27 cases treated by simple incision, and of 61 cases treated by rib resection. Notwithstanding the unfavourable results of the former as compared with the latter, Dr. Coutts thought it should be tried in the more debilitated cases. After opening the chest he advocated washing out not only in cases with offensive discharge, but in those of large dimensions with high temperature. He gave statistics of 43 cases of empyema in children under the age of 2 years, with 27 deaths. Empyema was in itself so fatal at an early age that the responsibility for the high mortality did not rest on one operation or another. Although here again the statistics were favourable to the method of rib resection, Dr. Coutts was, on the whole, inclined to the opinion that simple incision was preferable in these infants. Dr. May referred to the treatment of empyema, after operation, by immersing the patient in a warm bath. Mr. Bidwell had known caries of the rib to follow resection for empyema in children, and therefore was inclined to recommend simple incision in any case where the pus was not fœtid. He thought, too, the patient's stay in the hospital was shorter

after simple incision than after resection of rib. Washing out was only employed when the pus was offensive, and in children he had found a warm bath of bichloride of mercury (1 in 10,000) very satisfactory. He had treated two cases by washing out combined with immediate closure of the wound. In one case the result was satisfactory after a second operation; and in the other resection of rib was subsequently required. Dr. Coutts replied.—Mr. Stephen Paget read notes of three cases of Secondary Malignant Disease of the Lung or Pleura: (1) Early stage of cancer of the pleura secondary to cancer of the breast, with a note on the removal of the whole mammary gland without removal of the nipple; (2) advanced cancer of the pleura with pleural effusion secondary to cancer of the breast, with a note on the value of repeated aspiration in such cases, and on the sudden sleep that sometimes followed the sudden return of the lungs to their natural action; (3) huge sarcoma of lung secondary to subperiosteal sarcoma of the femur, with a note on the possibility of making a diagnosis in this case between a solid growth and an effusion; on the influence, if any, of amputation at the hip-joint in preventing recurrence of the disease in these cases; the value of the inhalation of oxygen, and the use of Dr. Coley's erysipelas toxin. He said that the cases showed the value of a medical opinion in a surgical case and of a surgical opinion in a medical case; they also raised important questions as to the diagnosis of these cases and as to their treatment, both preventive and palliative. Mr. MacAdam Eccles pointed out the frequency with which recurrence occurred above the line of incision after amputation of the breast for cancer. With regard to the utility of amputation at the hip-joint for sarcoma of the thigh, he referred to two cases which were free from recurrence two and a-half years after operation. Mr. Bidwell deprecated the practice of leaving the nipple when amputating the breast for cancer. He also advocated the complete removal of the pectoral muscle in all cases where the growth invaded the muscle. Mr. Paget replied.

Nottingham Medico-Chirurgical Society.—At a meeting on April 5th, Dr. Tew, President, in the chair, an address was delivered by Mr. W. H. A. Jacobson, of Guy's Hospital, on Some Points connected with the Question of Operation in Acute Intestinal Obstruction. He drew attention to the great mortality attending these operations, and inquired why progress had not been so rapid as in many other forms of abdominal surgery. The small intestine was a peculiarly vital part, and in cases of obstruction there was not only local damage, but also far-reaching collapse on account of the important nerves at the root of the mesentery. It was futile to compare operations for the relief of internal obstruction with herniotomy; in the latter the operation was practically extraperitoneal, while in the former the sac was the whole peritoneal cavity. A large proportion of cases were and must necessarily remain fatal, partly on account of the inherent vulnerability of the parts and the attendant collapse, partly on account of the failure of operation to detect or relieve the seat of strangulation. Cases of obstruction by bands were among the most favourable for operation if the constricting band could be found: while the most difficult, if not impossible, cases to relieve were those in which a complicated matting and snaring of small intestine were found. Another favourable class for operation was that in which acute obstruction supervened upon an unsuspected chronic obstruction. The unsatisfactory results of operation had led many practitioners to advocate a purely medical treatment. No doubt some cases so treated recovered, but they were probably cases of incarceration, not of strangulation. Enemata by the long tube were useless for severe, acute obstruction. In discussing the question of operation he said every case should be submitted to exploration, if the patient's condition warranted it, and provided the surgeon had a clear knowledge of how far it was safe to go. He preferred a tolerably free incision, and described the method of rapidly searching for the obstructed point. No operation should be unduly prolonged; if the obstruction was not readily found, it was better to open a distended coil, insert a Paul's tube, and close the abdomen.

REVIEWS.

The Evolution of the Diseases of Women. By W. Balls-Headley, M.A., M.D.Cantab., F.R.C.P.Lond., Lecturer on Midwifery and the Diseases of Women at the University of Melbourne, etc. London: Smith, Elder and Co. 1894. (Roy. 8vo, pp. 396. 16s.)

"This book is not a compilation; all that is written is individual." This sentence, taken from its preface, truly applies to the above work. The general plan of the book, its governing ideas, are original, scientific, and suggestive; and, while not always unassailable, yet they embody much that is true and important. The leading idea is to describe diseases of women according to the natural order of events: first, the conditions producing disorder and disease of the female sexual organs; then their morbid anatomy and symptoms; and, lastly, their treatment. The author finds in our social system three great causes of disorder of the female generative organs: mental culture, by which physical development is often sacrificed to mental training; female dress, the faults of which it is needless to particularise; and unsatisfied sexual desire. The latter includes, of course, the unsatisfied desire for maternity. In civilised communities more than half the women under 30 are unmarried; in other words, the sexual instinct, during the first half of its existence, is in most women ungratified. Hence spring, in Dr. Balls-Headley's opinion, many sexual disorders.

Space does not permit us to follow in detail these general views in their application to particular forms of disease. What we have said will show that the author is capable of thinking for himself, and of framing broad and comprehensive views. The weak points of the book spring from its merits. It is the work of a man who, having laid a sound foundation by early study of the best textbooks, has allowed the general impressions of experience, rather than reading or exact research, to modify his views. Hence we find much unsound pathology which we thought had passed into limbo. Anteflexion is here regarded as a disease. Lacerations of the cervix have a chapter given to them, and are described as one of the most important factors in the production of morbid change. Erosion of the cervix is defined as ulceration with loss of epithelium. We think it established that it is an adenomatous growth; we know of no one who has examined microscopic sections of an "erosion" who takes any other view. Unsatisfied sexual desire is not only stated in a general way to be one of the causes of disorder of the organs concerned, but it is specifically mentioned as the great cause of many morbid conditions. It may be so, but we know of no evidence to that effect, and none is given or referred to here. Our impression is that most healthy unmarried English girls hardly know what sexual desire is; and we should think it very unfortunate for the rising generation of practitioners to start upon their life work with the idea that the theory we have referred to was the key to the understanding of menstrual disorders in the virgin.

Urinary Surgery. By E. Hurry Fenwick, F.R.C.S. Illustrated. Bristol: John Wright and Co. 1894. (Cr. 8vo, pp. 220. 4s.)

La Pratique des Maladies des Voies Urinaires dans les Hôpitaux de Paris. Par le Professeur Paul Lefert. Paris: Baillière et Fils. 1895. (Fcap. 8vo, pp. 288. Fr. 3.)

These two works resemble each other in the fact that both are compilations on diseases of the urinary organs, but they differ considerably in scope as well as in the arrangement of their contents.

Mr. Fenwick's book appears to be one of a series of "Epitomes of Modern Surgical Progress for Students and Practitioners," and it deals chiefly with those subjects in which most progress has been made of late years, namely, the surgery of the kidney, bladder, and prostate, including of course the use of the cystoscope and the urethroscope. In a work of this size it is obviously impossible to present anything like an exhaustive survey of the whole field of urinary surgery during the last ten or twelve years, and indeed a con-

siderable portion of the book consists either of reprints or abstracts of articles contributed to various periodicals by Mr. Fenwick himself. The references to the papers and books quoted in the text, which number 303, are not given in foot-notes, but are numbered and conveniently grouped together at the end of the book.

M. LEFERT's work is also one of a series of manuals on various subjects intended for the use of medical practitioners, but it is both wider and narrower in range than the book above mentioned—wider in that it includes the treatment of both medical and surgical affections of the urinary organs, narrower in that it represents only the practice of certain French physicians and surgeons attached to the hospitals of Paris. The subjects are arranged in alphabetical order, and under each heading are given in succession the plans of treatment recommended for that particular malady by the several physicians or surgeons, or both, as the case may be. There are no references given to any published books or papers.

Each of these books will, no doubt, be found useful in its own sphere. Those who wish for trustworthy information concerning the present position of urinary surgery, and especially operative surgery, will find what they require in Mr. Fenwick's book; while those who look for a well-arranged summary of the modern treatment of urinary diseases generally, cannot do better than procure M. Lefert's convenient and handy little volume.

SYPHILIS. By ALFRED COOPER. Second Edition, edited by EDWARD COTTERELL. London: J. and A. Churchill. 1895. (Demy 8vo, pp. 500, twenty plates. 18s.)

THIS new edition of Mr. COOPER's work may be recommended as giving a clear and well-written account of syphilis, differing mainly from the first edition by containing illustrations. Of these the coloured plates certainly add greatly to the value of the book. Some of them are too highly coloured, but on the whole they are very good, particularly those representing various skin eruptions. As to most of the black-and-white illustrations, it is not possible to say much in their praise. They represent only a few of the subjects connected with syphilis which lend themselves to illustration, and some are deficient alike in clearness and practical value. The different chapters are well arranged, and the account of the clinical features and treatment of acquired and inherited syphilis is on the whole accurate and very readable. Particularly good are the chapters on the affections of the skin and nervous system. The portions of the book dealing with treatment worthily represent Mr. Cooper's long and wide experience. With regard to the methods of giving mercury, its use is advocated as soon as a positive diagnosis of primary syphilis can be made, and its continuance for a long period in all cases, however mild, whilst the plan of merely treating symptoms of the disease as they arise is strongly condemned. He prefers to give mercury in the form of blue pill, and on the whole condemns inunction. Frequent and laudatory mention, however, occurs of the method of intramuscular injection, for which "sozoiodol" of mercury is praised. This is one of the very few novelties in the book, and its value remains yet to be proved. Another new suggestion, in the treatment of buboes, is immediate excision of the glands as soon as they become inflamed, but this appears to rest on as little practical experience as the use of sozoiodol.

Pathology is hardly a strong point in the book. In discussing the diagnosis of syphilitic orchitis the term cancer, "usually of the encephaloid variety," is used to cover all malignant growths of the testis, and there is no mention of sarcoma. Epididymitis (affecting the globus major) is said to be not an uncommon symptom of secondary syphilis, whereas it is held generally to be extremely rare. The few illustrations of microscopical sections are very disappointing, except those taken from Dr. Crocker's work on *Skin Diseases*. No mention is made of the magnifying power used, and what little can be ascertained from the drawings does not always correspond with the scanty descriptions appended. At page 50 occurs the surprising statement that "gonorrhœa originates not infrequently *de novo*, that is independently of direct contagion." This can surely be justified only by including all forms of urethritis under the term gonorrhœa.

Relapses of secondary syphilitic iritis are stated to be "somewhat frequent," whereas the rarity with which they occur is a striking peculiarity of the affection. Two forms of interstitial keratitis are described as being met with in acquired syphilis, and no mention is made of the fact that the recorded cases have been extraordinarily few and that some good observers are still doubtful as to their real origin.

The preface states that the book is not encumbered with notes, and there are comparatively few references to the writings of others. As a rule, however, due justice is done, although in many places we should have been glad to know on what foundation certain statements are made. Thus, for instance, the thymus gland is said to be frequently affected in hereditary syphilis, although it may be normal in size and appear healthy. The supposed syphilitic changes in the thymus are of doubtful nature, and full reference to previous writings on the subject should have been given to enable the reader who is interested to judge for himself.

TRANSACTIONS OF THE EPIDEMIOLOGICAL SOCIETY OF LONDON. New Series. Vol. xiii, Session 1893-94. London: Shaw and Sons. 1894. (Demy 8vo, pp. 290.)

IT is not often that an English medical society can issue a valuable work which has existed in manuscript for nearly two centuries and a-half without finding a printer. Yet this is what the Epidemiological Society has done in its thirteenth volume of *Transactions*. It has printed in the Presidency of Dr. F. J. Payne, whose reputation as an antiquary ranks nearly as high as his reputation as a physician, William Boghurst's *Loimographia:* an Account of the Great Plague of London in the year 1665. The work has long been known to students of the history of pestilences, for it gives an eye-witness's version of the last great outbreak of the Oriental plague in England; and it is comparatively untinctured by that reverence for the classic accounts which did so much harm to original medical research until long after the period at which its author wrote. Boghurst had ample opportunity for knowing the disease of which he has left us an account. He practised as an apothecary at the White Hart, in St. Giles-in-the-Fields, and almost as a plague specialist. He had "a Water, a Lozenge, etc. Also an electuary antidote, of but 8d. the ounce, price," and was "willing to attend any person infected and desiring his attendance either in the City, Suburbs, or Countrey upon reasonable terms." He tells us that he sometimes saw "40, 50, and 60 patients a day, and that he was often employed all day till six clocke at night, out of one house into another, dressing soares and being always in the breath and sweat of patients with the plague without catching the disease of any, and soe did many nurses who were in like danger." Dr. Payne has edited the treatise most carefully, and has supplemented it with an interesting account of the author, of his manuscript, and of plague literature in general. The manuscript, which has long lain in the British Museum Library, consists of 85 leaves neatly written, and evidently prepared for the press. The Epidemiological Society has published a facsimile of the title-page, which bears an autograph partially defaced, showing that it perhaps belonged to Edmund Curll, the notorious publisher of Grub Street, who was satirised by Pope and his friends in no measured terms. Dr. Payne thinks that the work has never been printed, unless, indeed, it was ready for delivery at the time of the Great Fire, when the whole impression may possibly have been burnt up, for it is well known that the stocks of most of the city booksellers were then completely destroyed. However this may be, our thanks are due to the members of the Epidemiological Society in general, and to Dr. Payne in particular, for rendering accessible so valuable an addition to our knowledge of the Great Plague.

The *Transactions* also contain Dr. Payne's inaugural address as President. He took for his subject the History of Epidemiology in England, tracing it through the accounts of Gilbertus Anglicus, Mirfeld, and Caius to Mead, Pringle, and Sir Gilbert Blane. Dr. Clemow and Dr. Dickson contribute papers upon cholera, and Dr. Dickson has summarised Dr. Camposampiero's account of the recent outbreak of cholera in Persia. Dr. McVail writes upon the Aërial Convection of Small-pox from Hospitals—a subject of perennial interest.

about which he believes there is still much to be learnt, though he entertains no doubt that the contagion of small-pox may be conveyed atmospherically to a distance much greater than has usually been admitted—a distance measurable by quarters of miles. Dr. William Hunter considers the Nature of Infection with special reference to the Action of Bacterial Poisons, and Dr. Caiger the Coexistence or the Occurrence in Close Succession of more than One Infectious Disease in the Same Individual. Dr. Franklin Parsons completes the volume with an elaborate statistical paper on the Distribution of the Mortality from Influenza in England and Wales during recent years.

Über traumatische Tabes und die Pathogenese der Tabes im allgemeinen. [Traumatic Tabes and the Pathogenesis of Tabes in general.] Von Dr. Edward Hitzig. Berlin: A. Hirschwald. 1894. (Royal 4to, pp. 50. M. 3.)

This pamphlet was presented on the occasion of the celebration of the bicentenary of the Halle University, by the distinguished neurologist, Professor Hitzig of Halle.

The first part is taken up with the discussion as to whether there is really such a thing as traumatic tabes. In addition to closely examining reported cases of this class, the author adds some nineteen cases in which there was a history of injury. Only two of these latter really stand the test of the author's rigid investigation; these two, added to other reported and apparently satisfactory cases, make a total of not more than ten or eleven cases which could really deserve at all to be called traumatic tabes. Although there are no clinical features which could be looked upon as characteristic of traumatic tabes, yet there still remains a certain number of cases in which no other etiology than trauma or trauma and cold is available. The number of these cases is too small to base a theory upon. As far as pathological anatomy is concerned there is no evidence to show that the lesion begins in the nerves on the peripheral side of the ganglion. Again, the effect of injuries would not be exercised on the posterior roots alone, but on other parts of the nervous system as well. The author lays down certain rules to which cases would have to conform before they could be classed as traumatic tabes.

In the section on etiology in general the author believes in the importance of the relations of syphilis to tabes. Professor Hitzig further believes in the single origin of tabes in so far as it is produced by a poison or poisons, but it must remain for the future to find out what these poisons are and how they act.

This suggestive and closely reasoned essay deserves careful perusal, as indeed does everything that comes from the pen of this distinguished authority.

A Manual of Ambulance. By J. Scott Riddell, C.M., M.B., M.A. London: Charles Griffin and Co. 1894. (Cr. 8vo, pp. 230, 164 Illustrations.)

This work is one of the most complete of its kind that we have seen. It begins with a popular description of the human body, and gives as much anatomy and physiology, in non-technical language, as is necessary for the ambulance student to master. The diagrams that are appended to render the text more easily intelligible appear to be well chosen and carefully drawn. In the second and third chapters are to be found a description of the various methods of applying the triangular and the roller bandage, and here again the diagrams will be found of much assistance to the learner. The next four chapters are devoted to Fractures, Dislocations, Hæmorrhage, and Wounds, and the mode of dealing with these accidents; the proper first aid to be rendered is indicated, the directions given being so clear as to be intelligible even to those whose general education has been neglected. The same may be said of the chapters describing the various causes of unconsciousness, and the proper way of examining and dealing with a person who is found insensible.

The work concludes with a description of the different means and appliances used for the transport of the sick and injured, and the methods of organisation and drill, both civil and military, together with a few brief hints to the uninitiated to tell them how to act should they be left in charge of their patient when in a hospital. The *Manual* is well adapted for a reference book in emergency cases.

Anleitung zur Massagebehandlung (Thure-Brandt) bei Frauenleiden für praktische Aerzte. [Introduction to the Employment of Massage in the Treatment of Disease of Women, for the use of General Practitioners.] Von Dr. Robt. Ziegenspeck, Privat-Docent an der Universität München. London: Williams and Norgate. 1895. (Demy 8vo, pp. 174. M.5.)

We have noticed in the British Medical Journal the work of Thure-Brandt, both in its first and its second editions, and have in those reviews given our readers some idea of what this treatment is, and why we do not desire its introduction into this country. The fact that a rising teacher of gynæcology should think it worth while to write a work on its application for the use of general practitioners, is at least an indication that in Germany the method is not looked on as outside the pale of rational medicine. We have looked through the book with some care to find either some scientific evidence that the treatment cures, or some specification of a class or classes of disease, not otherwise curable, which Thure-Brandt's treatment will cure. The book does not profess to do the former; it is didactic, not argumentative. As to the uses of massage, we find that the cases in which it is said to cure are just those which will get well without any treatment other than that of placing the patient under favourable conditions—such, for instance, as non-suppurative parametritis, adhesive perimetritis without suppuration, etc. We learn from the book of nothing that can be done by the massage treatment which cannot be attained better without it.

Diseases of the Upper Respiratory Tract, the Nose, Pharynx, and Larynx. By P. Watson Williams, M.D. Lond. Illustrated. Bristol: John Wright and Co. 1894. (Pp. 282 octavo.)

The intention of the author of this work to exclude anything non-essential is well illustrated at the very outset, where he refers his readers for a general idea of the anatomy of the parts to an excellent engraving forming the frontispiece; he limits description in detail to the outer wall of the middle meatus, the crux of the clinical anatomy of the nose. The general symptomatology is instructively described, and the directions for laryngoscopy excellent. To the latter might have been added the assistance afforded by the utterance of a "falsetto" note by the patient, and also a reference to the rare cases in which a good view of the larynx is only to be obtained if the tongue is not pulled out. The difficulty in opening the mouth in peritonsillar suppuration and the fixation of the head in retropharyngeal abscess are perhaps more characteristic symptoms than Dr. Williams's experience would seem to indicate. He is well advised in attaching importance to digital exploration in suspected cancer of the tonsil. The clinical pictures of the various forms of laryngitis give evidence of being taken from Nature. The "pulsus paradoxus" and the insuction of the soft portions of the thorax during inspiration in laryngeal obstruction might have been added to the other signs. The details of intubation are well described, and the indications for the operation, which is temperately advocated, are clearly given.

The chapter on diphtheria is "up to date," and the writer confines himself chiefly to the local disease in its clinical and bacteriological aspects. The chapter on the throat affections of infectious fevers, gout, and rheumatism is a very valuable one. The section dealing with typhoid is perhaps the most striking, the specificity of typhoid laryngeal ulcers being ably demonstrated. Similar remarks may apply to the remaining chapters, the diagnosis between the various forms of chronic nasal disease being made particularly clear. Nasal reflexes and hay fever receive very full and judicial discussion. The chapter on sinus disease might, perhaps, have borne somewhat further elaboration.

If there is one point deserving of exceptional praise, it is the beauty and typical character of the black and white drawings interspersed throughout the text. The student or

practitioner will have difficulty in finding elsewhere so much instruction conveyed readably in so little space. Ample mention is made of the writers whose works have been laid under contribution, so that readers desiring fuller information on any particular subject will have no difficulty in knowing where to look for it. The few easily-corrected slips in Latinity will not divert attention from the great merits of this work, which is certain to receive the recommendation of all teachers.

Schnitte durch das Erkrankte Rückenmark des Menschen. [Sections of the Diseased Spinal Cord in Man.] Von Dr. Paul Kronthal. London and Edinburgh: Williams and Norgate. 1894. (Folio, 15 plates with letterpress. 25s.)

This is a quarto atlas containing fifteen plates, each with two drawings of spinal cord sections, illustrative of the tracts and areas of degeneration in various spinal cord affections. The majority of the plates represent preparations stained by the Weigert-Pal method; some few are carmine specimens. They are reproduced by the Meisenbach (stippled) photographic process, and convey a fair idea of the appearance as seen with a low-power magnification. Owing to the nature of the method of reproduction, certain fine details are inevitably lost. The lesions illustrated are those of tabes dorsalis (showing degeneration in Goll's column and the adjacent part of Burdach), Friedreich's disease (crossed pyramidal and cerebellar tract), amyotrophic lateral sclerosis, and a few others, including syringomyelia and central gliomata.

The illustrations are good, but are apt to mislead somewhat, owing to the fact that certain fallacies are bound to occur in the process of differentiating the specimens; for example, excessive differentiation of the peripheral zone and of the anterior root fibres, a defect which must be inherent in all similar methods. It would be interesting to compare the results obtained in similar diseases with Marchi's methods. The atlas is a fair specimen of its class, and likely to be of use to workers in the degeneration of the spinal cord.

NOTES ON BOOKS.

Spinal Curvature and Awkward Deportment. By Dr. George Müller. English edition, edited and adapted by Richard Greene, F.R.C.P.Edin. (London: The Scientific Press. Crown 8vo, pp. 88, 21 illustrations. 2s. 6d.)—It is clear, and indeed we are reminded in the translator's preface that this work was primarily intended for the public, and not for the profession. It might be read by most parents and schoolmasters with advantage, for it sets out clearly the causes of common deformities and how to avoid them in plain, simple language. Some of the prescriptions are a little fanciful, notably when the German patient is advised to rub himself with French brandy. Again, describing the baby's bath: "After the fourth month, to make the bath more invigorating, an infusion of field cummin, sweet flag, and camomile may be used, producing an aromatic bath." But such peculiarities may be pardoned when one reads the sensible remarks on school benches and their construction, and finds it clearly laid down that there should be no home preparation; the child goes to school to learn, and spare time should be recreation. Would that this were always recognised.

Zeit und Streitfragen der Biologie. Heft I, Præformation oder Epigenesis. Von Professor Dr. Oscar Hertwig, Berlin. (Jena: Gustav Fischer. 1894. Roy. 8vo, pp. 144. M. 3.)—In the British Medical Journal of February 4th, 1893, p. 244, we drew attention to a lecture published by Professor Hertwig on the subject of Preformation and Epigenesis. The present monograph not only includes the subject matter of that lecture, but contains an analysis and a criticism of recent views of heredity. The student will find in this work a review of the opinions of physiologists previous to Wolff's great "theoria generationis"; and the chief modern theories of the fascinating subject, heredity, including the gemmules so essential to Darwin's speculations comprised under the name pangenesis, and the equally hypothetical idioplasm of Nägeli, Hertwig's idioblast, and Weismann's germplasm. The perusal of this monograph leaves the impression on the mind of the reader that in spite of the deep thought and minute investigation which have been devoted to the discovery of the determining factors of heredity, this subject still remains veiled in profound mystery.

The *Transactions of the Eighth International Ophthalmological Congress* have been edited by Mr. George A. Berry, with the assistance of Drs. Parent, Hess, and Fergus. The volume, which is printed at the Edinburgh University Press, contains in its 364 pages the text of the papers read during the Congress which met in Edinburgh in August, 1894, together with a report of the discussions. These reports are printed for the most part in the original language of the speaker, so that the reader plunges from French to English, from English to German, and from German back to English. The papers also are printed in the original languages. This system under the special circumstances of a well-organised speciality, such as ophthalmology, no doubt presents many advantages, but its general adoption would, we fear, be a source of some inconvenience. Among the foreign contributors we notice the names of Dr. Knapp of New York, of Professor Leber of Heidelberg, whose paper is printed in English, of Professor Pflüger of Bern, of Professor Panas of Paris, of Dr. Abadie of Paris, Dr. Vian of Toulon, of Dr. Menacho of Barcelona, of Dr. Rach of Würzburg, of Dr. de Wecker of Paris, of Dr. George M. Gould of Philadelphia, and of many other well-known ophthalmologists. The volume is well printed, contains some excellent illustrations, especially some black and white drawings of the changes in the macula associated with retinal inflammation and œdema, to illustrate a paper by Mr. Marcus Gunn. The many important contributions to ophthalmology which this volume contains render it one which no ophthalmologist can afford to neglect.

The *Transactions of the American Surgical Association*, Vol. xii, edited by Dr. De Forest Willard, and printed for the Association, forms a volume of over 366 pages. It contains the report of the proceedings of the Congress held in the last week of May, 1894. It is illustrated by numerous drawings and photographs, and will form a valuable work of reference in the future.

The nineteenth volume of the *Transactions of the American Gynæcological Society* contains the report of the proceedings at the annual meeting held at Washington last May. The President on this occasion was Dr. William T. Lusk, and his presidential address is the opening paper in the volume. The discussions which took place are reported after each paper, so that the volume forms a complete report of the proceedings of the annual meeting. It contains a few illustrations, including a portrait of the late Drs. John M. Keeting and Alexander Dunlap.

The *Transactions of the Royal Academy of Medicine in Ireland* (Vol. xii. Dublin: Fanning and Co.; London: Baillière, Tyndall, and Cox) are edited by Mr. William Thomson. The proceedings of the various Sections under which the academy carried on its business were reported in the Journal from time to time during the session 1893-94, so that it is not necessary to speak at length of them here, nor is it necessary to say that the volume contains much valuable information, but we may add that some instructive illustrations are given, and in particular a series of drawings to illustrate Professor Alec Fraser's address to the Section of Anatomy and Physiology, in which he dealt with certain points in the development of the central nervous system.

The *Atti e Rendiconti della Accademia Medico-Chirurgica di Perugia* (Perugia, Vol. v, 1893; Vol. vi, 1894) are issued in fasciculi, of which four appear in each year. The volumes contain communications made to the Academy and a certain number of reports from the university departments. The subjects discussed cover the whole field of medicine, with apparently a special leaning towards pathology.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

PEPTENZYME.

This is a digestive preparation, in the manufacture of which an attempt has been made to improve upon the production of ordinary pepsin by following the principle that in normal digestion the secretions of various glands play an active part in the process at one or other stage. Peptenzyme is stated to contain the digestive secretions of the salivary and peptic glands, of the pancreas, Brunner's and Lieberkuhn's glands, as well as those of the liver and spleen.

Peptenzyme is supplied in three forms—as a powder, in tablets, and as an elixir: and it is thought that it will be of use in all cases where digestion is feeble and the digestive agents deficient. It is stated that it will digest carbohydrates as well as every kind of nitrogenous food; but at the same time it is added that laboratory experiments are of little value in testing its efficacy in that respect, because it is impossible to carry out experiments under exactly the same conditions as exist naturally.

The result of examination of peptenzyme, according to the *British Pharmacopœia* test of pepsin, showed that it has some solvent action upon albumen, to the extent of four times the weight of the powder, while the elixir dissolves one-sixth of its weight within one hour at 130° F. Peptenzyme is prepared by Messrs. Reed and Carnrick, New York, U.S.A., and can be obtained from the Peptenzyme Company, 25, Alfred Place West, South Kensington, S.W.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XLIII.—HONITON, DEVONSHIRE.

Our tour brought us in due course to the town famed for its lace, an industry now, however, almost a thing of the past. We found a friendly matron quite prepared to show us over the house, which is built of the grey stone of the country, and stands close to the station on the outskirts of the town.

The Infirmary

is a part of the main building, but, being in a wing at the south end, and having a separate entrance, it is sufficiently apart from the rest of the house. The women's wards are above, those for the men below. There are 14 beds in each ward, but when we visited only half the number of beds were occupied. The clean, bright roomy wards of this infirmary were a refreshing contrast to the infirmary department at Crediton. The house is licensed for 250 inmates; 65 was the number at the time of our visit, and the matron said that 80 was the largest number that had been in the house for some time.

The Wards

are nearly square; the women's ward has a pitched roof and cross beams; the walls are colour-washed in both wards, and there are two open fireplaces in each ward. The windows are on one side and are the chief means of ventilation; they are of fair size. The bedsteads are low and narrow, of a very old-fashioned type, not suitable for old or bedridden folk, especially when of large stature. The bedding is straw, or a water mattress when necessary for an infirm patient. We saw no lockers or cupboards. There are commodes for use at night. Wicker easy chairs are provided for those who are able to be up.

In the Female Ward

three women were in bed—two cases of old age and one of rheumatism. In one corner of the ward an inmate had been allowed to gather round her some relics of her former home, and she had made it comfortable and bright with her treasured possessions. Among the men two patients were in bed. One was a chattering imbecile, who was also blind; he was too long for his bed, and looked thoroughly uncomfortable; he must have disturbed the ward with his unceasing talk. The other was a case of senility.

The Classification

of imbeciles, as may be observed from the above account, does not exist, and, indeed, we found them everywhere. There are no means of accommodating lunatics pending their removal to the asylum, nor did we see any means of isolating such a disturbing patient as the one just mentioned.

The Lying-in Ward

is on the same floor as the general female ward, across the landing. There are two wards each containing two beds: both rooms are small and ill-adapted for such work; ventilation and the proper regulation of temperature must be difficult with so small a window and fireplace, and scrupulous cleanliness in such crowded quarters almost out of the question. There are two women in the inner room, one with a month-old baby, the other with a baby of six weeks.

The Water

is pumped up, though the town supply might be available. All hot water is carried from the kitchen, and there are no baths or bathrooms. On each floor there is a closet with a fairly good flush, though they are not of modern make. The drains were, so we were informed, relaid a short time ago.

The Nurse,

for there is only one, has been in the service of the Board for thirty years, and though the appearance of her wards did her credit, we felt that she might fairly claim her superannuation allowance and retire. There is no night nurse, and the only other help is that of the usual wardsman and wardswoman, themselves well on in years. The nurse above mentioned is not trained, nor is she a certified midwife.

An Isolation Hospital

stands in the grounds; we thought it rather near to the main building. It has six beds, and is self-contained; it was empty at the time of our visit. We inferred that this hospital was the only one available for the town in the event of an outbreak of infectious disease.

The Nursery

has not been used for some time, and was destitute of furniture. It has a boarded floor, two small windows, and a small fireplace. It is dark and cheerless, and therefore not suitable for the purpose for which it is designed; it must be difficult to maintain the right temperature with the existing fireplace.

The Patients

are free to walk in the gardens or to sit on the terrace on which the house stands. As there are no day rooms attached to the sick department this is a necessary concession, especially for the men, most of whom were out in the grounds when we visited the wards.

Recommendations.

We were struck by the evident consideration shown to the old people by the officials, and our suggestions are addressed to the guardians, who have it in their power to make material addition to the comfort of the sick. We would ask, in the first instance, for wider bedsteads. We do not quarrel with the straw bed; when fully filled it is quite comfortable, but the narrow bedstead is unsuited to a full-grown man or woman. The low bedsteads, moreover, increase the nurse's labour. The lying-in ward requires enlargement, and a proper supply of hot and cold water, with bathing arrangements. This last remark applies to the whole hospital; bathrooms are wanted, a regular supply of hot and cold water, and a slop sink for the vessels. More attempt at classification should be made, by providing one or

more separation wards in the hospital, and especially a room for the detention of a lunatic pending removal. Any patient with fits, or such a one as we saw in the male ward, must be a perpetual disturbance to the other inmates of the ward. The question of nursing must shortly be dealt with, and we trust that the guardians will take the opportunity of appointing a trained nurse and a probationer, or junior nurse, to assist her. We feel more and more that these country unions might fill a most important function as the centre of the medical relief of the district, but if they are to serve this purpose the hospital department must be properly equipped. We would further suggest the use of gas in the infirmary. If the Board can be induced to make these improvements we think that the sick poor under their care will have little to complain of.

AMONG THE WOUNDED IN MANCHURIA.

Dr. Dugald Christie, of the Moukden Medical Mission, writing from Newchwang, North China, under date February 4th, 1895, sends us the following interesting particulars as to the arrangements made by European medical men in Newchang for the treatment of the Chinese wounded. His comparative observations as to the effects produced by the bullets of small calibre and high velocity on the one hand, and those of larger calibre, less hardness, and lower velocity will be read with special interest:

Want of Ambulance Arrangements among the Chinese.

The Southern Province of Manchuria is now occupied by thousands of soldiers from many parts of China; and one hardly knows which to deplore more deeply: the misery they cause among the people wherever they go, or their own helpless condition. We are quite powerless to alleviate the widespread general distress; and the suffering of the soldiers we can but touch, by tending the few who have come to our hospitals. Apart from those killed in battle, there must have been many thousands, from the beginning of the war up to the present time, whose lives might have been saved by proper treatment, but who were left to die on the field, or succumbed to neglected wounds. The Chinese military authorities make practically no provision for the wounded. In the army there are neither surgeons nor ambulance corps, and when the battle is over each wounded soldier has to look after himself. Here and there are those fortunate enough to have friends who will carry them to some place of shelter, and money can do much in hiring bearers; but there is no help for the many who are penniless and practically friendless. If too weak to save themselves they must lie and die where they fall, and in these winter nights, with a temperature below zero, the time cannot be long. If they can by any means drag themselves from the battle field, they make their way to some village or farmhouse; or, should they succeed in joining their comrades, they may be helped to the nearest town, for the Chinaman has a good deal of kindness latent under a selfish exterior.

Native Treatment.

The methods employed by the natives in treating wounds are worse than useless. They know absolutely nothing of anatomy or surgery, and cannot even tie an artery or amputate a finger. The commonest application is a black resinous plaster, which, by effectually preventing any discharge, often converts a slight wound into a serious one. No attempt is made to extract bullets, but Chinese doctors put medicine into the wound, which they say will melt the lead. For this purpose mercury is used, for when it flows out after a few days the patient is easily made to believe that this is the melted bullet. Another notable remedy in this province is cremated and powdered rat, the animal being burned entire.

Improvised Hospitals in Newchwang.

The first soldiers to come under foreign treatment in Manchuria were wounded in the battle of Ping-Yang, in Corea, on September 15th. In all sixteen were admitted to the Medical Mission Hospital in Moukden.

As the Japanese came nearer, and it became evident that fighting might take place in the neighbourhood of Newchwang, arrangements were made to establish a Red Cross Hospital in that port. A native inn was rented and opened on December 3rd, and during that month fifty came under our care, most of them wounded in the battle of Chin-chow, on November 21st. On January 10th a battle was fought at Kai-chow, about twenty-five miles from us, and for the next three days the wounded were arriving constantly from morning till night. It was a matter of great regret that no ambulance work could be organised, the present condition of the Chinese army making it quite impossible for foreigners to take any steps in this direction. In spite of this, however, 169 were admitted from that battle alone, and a second and larger inn had to be rented. Fortunately there are eight medical men in the port this winter, all of whom have most enthusiastically taken part in the work. Up to this date 236 cases have been treated in Newchwang.

Wounds Produced by the New Small-bore (Murata) Bullet.

Our experience has, of course, been too limited to allow of confident conclusions being formed, but it has been interesting to observe that there are two distinct classes of wounds, believed to have been produced by the old and new bullets respectively. At the battle of Ping-Yang the Japanese are said to have been armed with the new Murata rifle, and the wounds which came under observation in Moukden indicate a missile of small calibre. In Southern Manchuria, on the other hand (Cinchow, Port Arthur, Kaichow, etc.) the older type of rifle was chiefly used, with a calibre equal to that of the Martini-Henry. The new Murata bullet is encased in a hard jacket composed of copper and nickel; its diameter is 0.315 inch, its weight 238 grains, and it has an initial velocity of 1,850 feet per second. The older bullet is entirely of lead, and therefore much softer; it diameter is 0.45 inch, its weight 420 grains, and its velocity is not much more than half that of the former.

The wounds produced by these bullets differ considerably in their character. In the majority of the cases treated in Moukden the apertures were small, punctate, without contusion or laceration. No pieces of clothing were carried, and there was no appreciable difference between the wounds of entrance and exit. In one case the bullet passed through the right knee-joint, the articulation being penetrated near its centre, from within outwards. Although the patient travelled 200 miles, the wounds healed without a bad symptom, and he was discharged with a perfect joint. In several instances bones were cleanly perforated, without fracture or splintering; but in two cases the humerus was badly smashed, and splinters of bone caused a lacerated, ragged, and everted wound of exit. In three cases the lungs were penetrated, but the wounds were clean, and, no infective agent being carried, healed rapidly. The "explosive effect" said to be produced by modern bullets of great velocity were not observed, nor did shock seem to be prominent. Some of the soldiers spoke of comrades wounded in the abdomen who travelled a considerable distance before becoming aware that they were struck.

Wounds Produced by the Old Large Leaden Bullet.

Although the majority of the wounds treated in Newchwang were without doubt caused by the larger bullet, we have fairly conclusive evidence that some were produced by the smaller, and these are similar in character to those observed in Moukden. Of the former, twenty have been extracted from various parts of the body, and the wounds differ considerably from those already described. They are larger, especially the exit, which is sometimes ragged, contused, and everted. Pieces of wadded clothing are frequently carried, rendering the wound septic, with offensive discharges. In a large number of cases bones are badly shattered and splintered, and nothing but amputation could save the patient, to which operation the Chinaman is unfortunately slow to submit.

Results of Treatment.

Of the 236 cases admitted to the hospital here 8 have died. Three of these succumbed to wounds of the knee-joint. The first was admitted fifteen days after receiving the injury. The bullet entered in front of the internal tuberosity of the tibia, passed through the joint, emerging slightly posterior to the outer hamstring of left knee. There was severe in-

flammation and infiltration, extending from the ankle to the suprapatellar space. Deep abscesses formed, the pus burrowing among the muscles of the calf and thigh, and the discharge was profuse and very fœtid. In both of the other cases the patella was fractured, and the joint extensively involved. Splinters of bone and pieces of clothing were removed. None of these patients would allow amputation, so the joints were thoroughly drained, and antiseptics freely used. But although everything was done to improve the local and general conditions, the patients steadily sank from exhaustion and absorption of the products of putrefaction.

Wounds of the Lung.

Seventeen penetrating wounds of the lungs have been treated, of which four or five were evidently caused by the smaller bullet. In the only fatal case the bullet (lead) entered 1½ inch below the left posterior axillary fold, and was extracted ¾ inch to the left of the ninth dorsal spinous process. At the time of injury there was considerable hæmoptysis. For some days the patient seemed to progress favourably, but four days after admission, severe pulmonary symptoms developed indicating inflammation spreading from the track of the wound. This was quickly followed by a large effusion into the pleural cavity, filling the left side of the chest, and displacing the heart. A free opening was made, and a very large quantity of thin serous pus mixed with extravasated blood was evacuated. The cavity of the pleura was washed out with an antiseptic solution, but, although the patient felt much easier after the operation, the condition of the lung did not improve, and he died five days afterwards.

Injuries of the Brain.

Two succumbed to brain injuries. In one there was fracture at the junction of the coronal and sagittal sutures. The part was trephined, and it was found that the inner table was badly depressed, and splinters caused considerable laceration of brain structure. In the other there was a bullet score over the left parietal eminence, the bone being stripped of its pericranium. The external table was not fractured, but symptoms of compression soon developed, and the patient passed into a comatose condition.

Other Fatal Cases.

In the seventh case the bullet entered over the junction of the left sixth rib with its costal cartilage. The wound was larger than usual, one inch in diameter, probably owing to the bullet having "tumbled." It evidently lodged in the liver, as the patient complained of great pain over that region. On admission he was very weak, with rapid respirations and feeble pulse, and he only lived a few hours.

The last death was caused by a severe wound of the arm. Unfortunately the patient had been in the hands of the native doctors before coming to us, whose impervious plasters had made the condition much worse, by keeping in the discharges. The humerus was shattered at its upper third, and violent phlegmonous inflammation affected the whole limb, from the wrist to the shoulder-joint. Free exit was given to a large accumulation of putrid matter, but the position of the bullet, which was still in the limb, could not be detected. Ultimately the patient consented to amputation, which was performed at the shoulder-joint. But it was too late to save life, and the patient sank rapidly, with all the symptoms of pyæmia. The bullet (lead) was found, distorted and flattened, among several large fragments of bone. There have been a considerable number of compound fractures of the upper extremities, involving joints; but, so far, this is the only death that has occurred. It is most unfortunate that the superstitious ideas of the Chinese make it impossible to have any *post-mortem* examinations.

Comparison of the Effects of the New and Old Bullets.

I regret that I cannot obtain reliable information as to the exact distance at which any of the wounded were struck, but I may safely affirm that none of those under our care were wounded at closer range than 30 yards, and that the majority were not less than 400 yards from the enemy.

Judging from what has been seen and heard among the wounded here, one is naturally led to the conclusion that, while the new bullet of small calibre and great velocity may wound a larger number of men, it is less destructive in its effects on the tissues of the body, and therefore less fatal than the older missile.

	"Murata," New Rifle, with Lead Bullet, jacketed with Nickel and Copper; Weight 238 grs.; Calibre 0.315 in.; Initial Velocity 1,850 feet.	——— ? Old Rifle, Lead Bullet without Jacket; Weight 420 grs.; Calibre 0.45 in.; Initial Velocity 1,000 ? ft.
Apertures	Small; no difference between entrance and exit; no inversion or eversion of edges	Larger; appreciable difference between entrance and exit; in a few cases latter ragged and contused.
Soft tissues	Wounds punctate, clean, aseptic, without contusion or laceration; no pieces of clothing or infective agents carried	Considerable contusion and laceration; infective agents carried; inflammation and suppuration common.
Bones	Cleanly perforated, finely pulverised bone found at exit wound; few bones fractured or splintered	Fractured and often shattered; splinters driven before bullet; lacerating soft parts.
Lungs	Wounds small, healed rapidly with no bad symptom	Wounds often infected; serious pulmonary complications.
Blood vessels and nerves	Cleanly severed	Lacerated and torn.
"Explosive Effect"	Absent	Marked in several cases.
Shock	Slight	Considerable.
Bullets Extracted	None	Twenty.

DEATHS UNDER ANÆSTHETICS.

Chloroform.

Mr. Sidney H. Lee, Resident Medical Officer, Newport and Monmouth Infirmary, sends us the following report of death under chloroform at that institution.

A. B., a fairly healthy-looking girl, aged 15 years, was admitted into the infirmary on January 19th, with sinuses leading down to necrosed bone at the upper and lower extremities of the left humerus, the lower extremities of both femora, the sternum, and the right forearm, the result of multiple acute epiphysitis some months previous. On February 7th chloroform was administered, and sequestra removed from the sternum and both upper limbs. The operation lasted about one hour and a-half, and during this time she took the anæsthetic excellently. On March 14th, the patient's general condition having very much improved since the operation five weeks ago, she was again operated upon for the removal of sequestra from the lower extremities. She was again anæsthetised with chloroform, and took in all 6 drachms, the ordinary flannel inhaler being used. The operation lasted an hour, during which she took the anæsthetic extremely well, at no stage of the operation being at all deeply under its influence. The operation being finished, the inhaler was removed from patient's face. About half a minute after ceasing the administration of the anæsthetic patient's face suddenly became cyanosed, pupils dilated, and pulse could not be felt, though respiration continued. Restorative measures were promptly employed, the head being drawn over the end of the table. Amyl nitrite held to nostrils and injection of ether given. Almost instantly on drawing head over the end of the table the pupils contracted, though no pulsation could be detected at the wrist. Contraction of pupils, however, only lasted a few seconds; they then again became dilated. Respiration, which had continued all along, then became shallow and sighing, and in spite of artificial respiration, stimulation of heart by means of thrusting needle through wall of the ventricle, and connecting with battery and other forms of stimulation, the patient never rallied. No *post-mortem* examination could be obtained. Clinical examination of the heart previous to operation revealed a perfectly healthy organ. There are one or two facts of interest in the case: (1) On February 7th chloroform was administered for an hour and a-half, the patient taking it excellently, no other anæsthetic being used at all. (2) On March 14th chloroform was again administered, and for the second time she took it exceedingly well till the fatal occur-

rence took place, which developed absolutely suddenly, and after the administration of the anæsthetic had ceased. This time, too, no other anæsthetic was employed at all. (3) The heart first ceased to beat, respiration continuing for some very appreciable time afterwards.

We are indebted to Mr. J. L. Boden for the following particulars as to a case of death under chloroform at King's College Hospital. The patient was a woman, aged 41, suffering from intrauterine polypus. During the fortnight that she had been in the hospital she had also a slight cough. On January 29th it was determined to introduce a laminaria tent preparatory to an operation on the following day. As she was not willing to keep herself in the necessary position the assistant house-accoucheur administered chloroform as an anæsthetic on a folded towel. She had had some beef-tea two hours earlier, and had been given a simple enema half an before the anæsthetic was given. The patient took the anæsthetic well, breathing regularly and quietly. In rather less than a minute after a drachm had been used she struggled slightly and said a word or two. The pulse, as observed by the house-accoucheur, was full and regular. A few seconds later the breathing suddenly became stertorous. The towel was at once removed. The eyelids, which up to this point had been tightly contracted, opened suddenly, the eyeballs became prominent, the pupils widely dilated, and there was no corneal reflex, and the face had become very pale. The pulse at the wrist had become imperceptible. The tongue was drawn forward with forceps, and as the breathing became more shallow the patient was inverted and a hypodermic injection of liquor strychninæ hydrochloratis (mv and ether mxv) was given. Artificial respiration was commenced. The inversion was followed by a slight but very temporary improvement in the respiration. No cyanosis was noticed till after inversion, and when a few minutes later the heart sounds were listened for they could not be heard. Artificial respiration was kept up for half an hour without result. *Post-mortem* Examination: The left ventricle of the heart was empty, the right distended; the heart walls, to the naked eye, appeared healthy, and there was no valvular disease. There was evidence of slight bronchitis, but the other organs were healthy.

LITERARY NOTES.

In the *Annales de la Société Médico-Chirurgicale de Liége*, Dr. X. Francotte gives an account of a curious old work which he has unearthed, and which contains a description of some experiments on the intravenous injection of drugs made by a German physician in the sixteenth century. The full title of the work, which seems to have escaped the notice of medical historians, is, *Clysmatica nova sive Ratio qua in venam sectam medicamenta immitti possint ut eodem modo ac si per os assumata fuissent operentur; in animantibus per drastica, in homine per leniora hactenus probata et asserta.* The author was Dr. Elzholz Physician in Ordinary to His Serene Highness the Elector of Brandenburg. The book was published in Berlin in 1665. Thinking there might be some risk in injecting medicinal substances into the veins of the human subject, he first tried the experiment on dogs. He began by injecting water into the crural vein without any particular result. He next used a generous Spanish wine, but did not produce any symptom of intoxication, a failure which he attributes to insufficiency of dose. In a third case he injected extract of opium into "a very strong and savage dog," who promptly became quiet and then fell into a deep sleep, from which he did not awake till the following evening. In a fourth he injected *spiritus vitæ aureus sive cathartious*, a purgative preparation which Elzholz was in the habit of giving the Elector and his other exalted patients. The injection had some effect and the author shrewdly opines it would have been still more active if a larger dose of the medicine had been given. In a fifth case he injected *vinum emeticum ex croco metallorum paratum*, which seems to have been a preparation of antimony; the dog vomited and soon died. A sixth dog fell a victim to an injection of white arsenic. Elzholz thought these results warranted the application of the method to man, and he succeeded in gaining the consent of three soldiers of the Elector's guard, who were on the sick list, to be made the subjects of experiments. These experiments were of a somewhat primitive character, and the author's silence as to the therapeutic effects is probably, as Carlyle would have said, "significant of much." Elzholz was convinced, however, that the method (which he called *ars enematica* or *clysmatica nova* in contradistinction to the *clysmatica antiqua* or ordinary clysters) had a future before it, and he thought it would find its largest sphere of practical usefulness in the administration of narcotics. He would seem to have been of a decidedly experimental turn of mind, for he suggests that the dosage of the injections should be determined by experiments on condemned criminals. He gives a list of the diseases in which he thought intravenous injections would be useful; this includes faintness and syncope, "ardent" and petechial fevers, plague, poisoning, palpitation of the heart, phthisis, apoplexy, epilepsy, "suffocation of the womb," scurvy, gout, and cachexia.

The Medical Association of the Gironde has published a work on medical ethics, entitled *Conseils Professionels et Principes de Déontologie Médicale*.

The *Gentleman's Magazine* for February contains an interesting sketch by Mr. E. W. Adams of Sir Thomas Browne, the famous author of the *Religio Medici*. Browne, besides being one of the greatest writers of English prose, was the leading physician of Norwich, which in his day was (as may be read in Macaulay) one of the great centres of national life. He was a favourite author of Dr. Johnson, and it was perhaps from the author of *Urn Burial* and *Vulgar Errours* that the author of *Rasselas* derived his partiality for "words of learned length and thundering sound." Browne's rendering of a homely proverb, "Celerity should always be contempered with cunctation," or, as he puts it elsewhere, "Festination may prove precipitation," must have delighted the heart of Johnson. It is amusing, therefore, to find Browne of all people complaining that if "English pens maintain that stream we have of late observed to flow from many we shall within few years be fain to learn Latin to understand English." Browne in his way was an experimentalist. He strangled chickens and mice on the balance to prove that bodies are not heavier dead than living, and he fed turkeys with iron to disprove that ostriches can digest that metal—a remarkable piece of reasoning which some experimenters of a later day, however, could hardly afford to laugh at. Browne would appear to have been the originator of the idea of cutting through the Isthmus of Panama; in *Vulgar Errours*, Book VI, chapter 8, he suggests that this should be done on the ground that it is "but a few miles over and would open a shorter cut unto the East Indies and China."

As the question of an international language of medicine is at present exciting some attention, the following extract from a letter written by the late Professor Billroth shortly before his death to Dr. Jankau will no doubt be read with interest:

> I would recommend the most simple of the Romance languages, that is, Spanish as a common speech for the learned; after that would come Italian and French, and among the Germanic tongues, English only. The latter would be by far the most suitable of all, for it is also one of the simplest. But as the Latin races are so absolutely without the talent for learning foreign languages, it is necessary because of their other great attainments in the line of culture and science to make a concession to them in this regard, and select a Romance tongue as the international language.

The Surgical Diseases of Children, by Mr. D'Arcy Power, is the title of a new volume of Mr. H. K. Lewis's "Practical Series," which will be published immediately.

Dr. Leartus Connor, who has been editor of the *American Lancet* for twenty-four years, has resigned his post. Coincidently with the retirement of the editor, the journal has ceased to exist.

A question as to the origin of the term *la grippe* has lately been raised in the daily press. A Polish etymology from *chrypka* (hoarseness) has been suggested, but there can be little doubt that the word was first used in France to denote the influenza, and probably about 1750 to 1760. The meaning seems to have been merely taken from the verb *gripper*, to seize suddenly; and used for an epidemic catarrh, according to Littré, "parcequ'il grippe, saisit une foule de gens." The verb *gripper* is explained by Littré as being connected with the Gothic root which appears in English as *grip* or *gripe*. So in fact a very trifling alteration is required to make *grippe* a good English word. It is in fact used in this form in America.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 13th, 1895.

FACTORY STATISTICS.

So long ago as the close of December, 1893, the Home Secretary appointed a Committee charged to report on the scope and sufficiency of the statistics furnished to the Home Office in all matters connected with the administration of the Factory Act. The terms of reference laid down for the inquiry were: "1. What statistical information is at the command of (1) Her Majesty's Chief Inspector of Factories, and what at that of (2) the Secretary of State. 2. The shape in which the information may be most usefully tabulated and published; and 3. Whether further statutory powers are necessary to make the information more complete or more accurate." The information thus sought for demanded a general review of the several Acts of Parliament and of their accompanying schedules, so that the purposes aimed at by the returns called for might be ascertained.

The Committee entrusted with this inquiry consisted of Mr. Gould, a long-experienced superintending inspector of factories, Dr. Whitelegge, Mr. J. G. Legge, and Mr. Inspector Redgrave. To learn the views of the medical profession on the subject of returns required of the certifying factory surgeons, they wisely called for the assistance and co-operation of Professor C. J. Wright, Dr. Bate, and Dr. M. Baines, the two last being certifying surgeons of long standing.

The charge of precipitancy cannot be advanced as attaching to the conclusions of the Committee; but probably the delay in their appearance may rather be attributed to those precautionary arrangements inherent in public departments which obviate premature disclosures. Indeed in the present instance the delay is compensated for by the occasion furnished for comparing its recommendations with the provisions of the newly-introduced Factory Bill; and no one can fail to see that the conclusions of the Committee have had due weight with the Home Secretary in drafting his important measure.

As was required, the report before us opens with an account of the information at present at the disposal of the Secretary of State, which bears upon details of administration of the Factory Act, but as these possess little interest for the profession we pass them by, and confine our notice to those conclusions and recommendations which have a medical bearing. Speaking of these generally, we are pleased to recognise a more gracious appreciation of the value of the services rendered by medical men than of old, and we trust that when the whole subject of factory regulations is discussed in the House of Commons the importance of the medical profession in carrying out the purpose of factory legislation will be still more fully brought to light.

For the few last years the certifying surgeons have been called upon to make an annual return of the number of children and young persons submitted to their examination for fitness for employment in factories, and of the assigned causes for rejection. The demand so made has been attended to by the larger proportion of those officers, but it seems that the factory authorities have to regret the incompleteness of the returns received, and this circumstance they are disposed to attribute to the absence of remuneration for the trouble imposed; and not improbably their conjecture is in part correct, for the axiom that what is worth having is worth paying for will not be absent from the minds of many surgeons, willing though they are in most matters to sacrifice something for public advantage. But it is a point worth remembering that a very considerable number of certifying surgeons reap but a pound or two or even less, from their appointments, in small towns or villages where factories in the ordinary signification are absent, and nominally represented by a brickyard or two, or by some trifling manufacture where few or no hands require medical certificates in the course of the year, or where factory supervision falls to make itself felt. Whence it will happen that the number of factories on the official lists will appear larger than it practically is so far as regards the medical returns to be supplied by certifying surgeons; many districts appearing blank in respect of children examined.

However, it will be satisfactory to our medical brethren that the Committee, animated by the moral conviction that extra time and labour deserve reward, are disposed to recommend some remuneration for the services in question. Whilst making this suggestion the Committee has sought to improve the form of returns to be made, aiming chiefly at a better definition of the causes assigned for the rejection of candidates for employment. To this reform no objection can be taken.

There are many very cogent remarks contained in the section of the report on the purposes and value of the examination as carried on by the certifying surgeons, and we are obliged to concur with the strictures made as to the value of the rejection returns relatively to the vital statistics of the community:

"They have little relation even to the population of corresponding ages, and do not, of course, throw direct light on the health condition of the class of the working children which the applicants for certificates seek to join. In the first place, the numbers examined are many or few according to the requirements of the industry concerned, and in no way according to the numbers eligible by age for such employment. Secondly, they have to do solely with the children and young persons engaged in factories; those engaged in workshops are not subject to compulsory examination; and, further, the same individual may reappear more than once in the same year among the total number examined; if, for instance, he changes his place of employment, or passes from the 'child' to the 'young person' grade."

It will not fail to be observed that these excellent criti-

cisms point to a glaring defect in the present system of medical inspection, namely, that children employed in workshops altogether escape examination as to fitness. Thus it happens that not only are the unfit not eliminated, but the known absence of any such ordeal is likely to raise the percentage of unfit among workshop children to a higher point than among factory candidates of like age, where medical scrutiny and risk of rejection act as deterrents with parents to putting their children forward as factory workers; whilst at the same time it opens a way for those excluded from factory work on the ground of health to seek employment in workshops. That is to say, those deemed unfit for work in a factory are allowed to labour in a workshop where the work may be harder and all the surrounding sanitary conditions far more injurious to health than are met with in the former sphere of occupation, and where, too, inspectional supervision is considerably less searching and complete. Nevertheless, an extension of medical examination to workshops at large on the lines adopted in the case of factories must be admitted to be a proceeding surrounded by great difficulties, and it is pretty clear that a new direction must, sooner or later, be taken to fully accomplish the objects contemplated by the factory system.

In connection with this subject of medical examination we may recall to mind the short-sighted views entertained by Mr. Matthews when in office as Home Secretary. Supported by some examples assiduously supplied him by certain great textile manufacturers, where among large numbers of hands engaged the certifying surgeon seldom found cause for rejection, he contended that therefore medical examination as to fitness was unnecessary.

The fallacy of this argument we pointed out at the time, and we are now pleased to find it recognised by the members of the Statistical Committee, who justly remark that the value of medical inspection of boys and girls is not to be measured solely by the percentage of rejections—no more, we would add, than the number of arrests can furnish direct evidence of the value of the police as a deterrent force.

Other valuable remarks and propositions are advanced by the Committee, which deserve comment, but at present we must refrain from noting them, particularly as the new Factory Bill, brought in by Mr. Asquith, which is the first Order of the day in the House of Commons after Easter, remains for criticism and careful examination, and will again raise considerations of a like character.

"HOW THINGS ARE DONE."

Those of our readers who are curious to know "how things are done" in the way of small "special" charities, may derive some instruction from the study of a series of "annual reports" which have lately come into our hands, and which chronicle the rise and progress of a "Women's Free Hospital for Treatment of Special Diseases," in a retired street of Southampton.

The hero of the story—for chronicles are dull without a hero—is an enterprising young practitioner in the town, whom we will call "Dr. E." Thanks to the chronicler's skill or enthusiasm for his subject, his hero is no shadowy abstraction, but a personality drawn in bold relief. His generosity, his ability, his unremitting energy, care and attention, are solidly depicted in the chronicles, the growth of his private practice delicately hinted at, and the advantages he reaped from his visit to a congress of gynæcology in Berlin skilfully indicated. Though the "hospital," we learn, did not exist till 1890, our hero, in his impatient philanthropy, had "actually commenced" seeing outpatients on its original site in the preceding autumn.

By the close of 1891, however, we find the charity fully "established," with a house, an honorary secretary, an honorary treasurer, an honorary auditor, an honorary solicitor (*absit omen*), and a committee. Dr. E. having been, of course, duly "asked," has "undertaken the position of medical officer," and is supported by a consulting surgeon (in Birmingham), and a consulting physician (in London). The merits of the consulting surgeon, who appears to have taken an active part in the doings of the establishment, are also the theme of the chronicler's muse, but the consulting physician, who was seemingly never consulted, quietly drops out of the history in 1894, unwept, unsung, and not even alluded to by the historian, perhaps too engrossed with his hero to notice insignificant details.

On the whole, the enterprise does not seem to have been remarkably successful, though the details are somewhat puzzling to follow in the "reports." The high appreciation of the charity which we are several times assured its patients entertain is oddly illustrated by a progressive decline in their numbers, which even the offer of "single tickets" at the low rate of 5s. each seems unable to check. The liberal subscriptions, too, of the first two years show a sad subsequent decrease, and are for the most part replaced by methods not unknown in London in similar cases—bazaars, a concert, an amateur theatrical performance, and —well, no, we miss the familiar "Cinderella." A building "of a most satisfactory character" is "erected especially" for the "out-patient department," but who erected it, unless it were "the genius of the ring," is not apparent, as the charity seems neither to have paid nor to owe for it. The medical officer twice reports on the excellence of his specially trained "staff of nurses," but this admirable staff, we find, is equally ignored in the treasurer's accounts.

Defections, too, appear in the list of the Committee, bewept, indeed, in one case, but in none accounted for. Of the successors, some would seem to be truly of the kind who do their alms in secret, for their names make no figure in the subscription lists. One of the faithful remnant, whose total beneficence amounts to one guinea, does appear, it is true (unless the resemblance of the name misleads us), in the balance sheets—as a rather extensive creditor for "drugs"—drugs being an item accountable, apparently, for nearly half the reported expenditure and liabilities of the institution. These things are doubtless satisfactorily explicable, but they are certainly, as we said, somewhat puzzling as they stand.

Mention of a "staff of nurses" will suggest the existence of an in-patient department as well as an "out." The activity of the in-patient department is evinced by an imposing list of abdominal operations, but the basis on which it rests is one of the most original features of the enterprise.

First, a benevolent lady fits up a ward at the hospital house. Next, Dr. E. "asks permission" to furnish rooms there for his private patients, and also offers "to receive

any hospital patients on payment of two guineas a week, the finances of the hospital not permitting these cases to be received free.' Then it is found "not well for out- and in-patients to be in the same building." Dr. E. accordingly takes "a house for his private patients," and commences to receive the "hospital" patients there "at the same cost arranged at" the hospital house. Subsequently we read that "as far as possible patients are encouraged to pay a sum, however small, per week towards covering their actual expenses," and that "a good many" have "gladly" done so. Of all the financial business herein involved—of the weekly payments, of the "encouraged" contributions, and of the "actual expenses," we find, oddly enough, no mention in the published accounts.

We have before us, however, from another source a pictorial advertisement, duly fortified by a newspaper testimonial, of the house Dr. E. "took for his private patients." When we say that it is announced as a "private medical and surgical home" for both sexes and for all classes of cases, infection apart; that "special attention is given to massage;" and that "patients in the neighbourhood can attend at the home daily for massage," our readers will readily appreciate the force of our chronicler's remark that the object of sending the hospital patients there "is to avoid patients being operated on in a house where out-patients are attending twice a week." Still, on the whole, we think they will not be greatly surprised that medical men in Southampton are anxiously endeavouring to trace the line that separates the "free hospital" from its "medical officer's" private practice.

THE SURGICAL EFFECT OF RIFLE BULLETS.

The interesting communication which we publish elsewhere from Dr. Christie concerning his experiences among the wounded Chinese in the present war in the East presents some points of value as emphasising the differential features of injuries produced on the one hand by the older large bore bullets and those from the more modern small calibre rifles. The Japanese forces now operating in Manchuria appear to be armed partly with a weapon of 0.45 inch bore, somewhat after the pattern of our old Martini-Henry, and partly with the new Murata rifle, which is a small-bore weapon projecting a copper and nickel-coated bullet, whose diameter is 0.315 inch, and weight 238 grains, with a muzzle velocity of 1,850 feet per second. This latter weapon approximates closely to our own Lee-Metford magazine rifle, with a calibre of 0.303 inch, projecting a bullet weighing 215 grains, with a muzzle velocity of 2,000 feet per second.

The modern military small-bore rifle with its armoured bullet with a mantle of steel, copper, or nickel is the result of a process of evolution into the details of which we need not here enter. The reduction in calibre has gone on steadily, and it is a question whether the limit has yet been reached. Italy and Roumania have adopted a calibre of no more than 0.2569 inch, the American navy is about to be armed with a rifle of only 0.203 inch calibre, and Kruka and Hebler have obtained ballistic results with a bullet of only 0.198 inch calibre which are unapproached by projectiles of larger size. Practically now the armies of all civilised nations are armed with weapons whose calibre is under 0.315 inch or 8 mm.

In great measure our knowledge of the surgical results of this marked reduction of calibre is based on theory, or the results of experiments on the bodies of men and animals. A considerable literature has sprung up on this subject during recent years, and the work, begun by Rubin and Hebler, and carried out in France by Chauvel and Nimier, Delorme and Chauvasse, by Bruns and von Bardeleben in Germany, by Habart in Austria, by Demosthen in Roumania, La Garde in America, and by Horsley and Stevenson in this country, has been of great value in substantiating hypotheses and establishing facts. Dr. Christie's letter, while being a welcome contribution to the subject, is for the most part in agreement with the observations of the best authorities of the day. At all times the character of a bullet wound depends on the weight, form, density, and velocity of the projectile, and on the hardness and resistance of the part hit. The comparatively large soft bullets of the older and larger bored rifles, moving at a relatively moderate velocity, produced wounds with the character of which most medical men are familiar; but the new rifles of reduced calibre, increased range, velocity, and penetration, with hard mantled bullets, introduce new factors of importance from the surgical point of view. The softer and large-bore bullets produce wounds characterised by a broad zone of devitalised tissue about the point of entrance, with a wound canal lacerated by the easily deformed ball, extensively splintered bones, great explosive action, an aperture of exit much lacerated and gaping widely, and with relatively little hæmorrhage. In the case of direct hits, the action of the new bullets may be summed up by saying that they produce clean-cut, slightly lacerated wounds of the soft parts, exert less explosive action, and splinter and displace bones less, except at short ranges. Their wounds offer the best possible conditions for rapid and perfect healing, being small, aseptic as a rule, and clean cut, but prone to bleed freely and at once. At long ranges, towards the end of their flight, these long thin bullets tend to somersault, and, by striking sideways, often produce extensive splintering and comminution of bone. Indirect and ricochet hits with these new and mantled bullets are especially to be feared, as contact with any hard substance is sure to split the mantle, and the naked and deformed bullet core then acts like the hollow-point bullet of express rifles. This is a factor which may cause protective works to lose much of their value when attacked by troops armed with these small calibre rifles. The increased explosive action given to the new bullets by increased velocity is more than counterbalanced by their lesser liability to become deformed; hence their explosive action is on the whole less marked and less uniformly shown than that of the older kind. It occurs chiefly in the skull and in connection with the bones. In respect of this action on bones, especially long bones, it is probable that experiments made on horses, whose bones are much stronger and more resistant than those of man, have given us exaggerated ideas of the effects of the small bullets on these tissues, but, even so, the extensive fissuring and comminution are so severe that considerable actual experience is needed before we can be justified in regarding the new arm of small calibre as in any way minimising the horrors of war.

The minuteness of intestinal perforations following abdominal wounds by this bullet promise favourable results from prompt performance of laparotomy, while wounds of the lung may be expected to show better results by treatment than formerly. The enormous numbers of wounded likely to result from the increase of area of the zones of fire accompanying the use of modern rifles indicate clearly the impossibility of carrying out the European regulations now existing regarding "first aid" in the field, to say nothing of the risks to, and casualties likely to occur among, the *personnel* of the medical staff of an army; while our correspondent's communication, on the other hand, plainly shows the appalling amount of suffering and mortality which necessarily ensues from the absence of a properly trained and organised system of first assistance in war.

Dr. George Seaton Buchanan, M.D., B.S., B.Sc.Lond., has been appointed one of the medical inspectors of the Local Government Board.

A monument to Villemin, the discoverer of the infectivity of tuberculosis, was unveiled in the military hospital of Val de-Grâce on March 31st.

On Monday last, being the first Monday after Palm Sunday, the Fellows of the Royal College of Physicians proceeded, in accordance with the statute, to elect a President by ballot, when Sir J. Russell Reynolds was returned by an almost unanimous vote. This is his second re-election to office.

The scheme for providing fresh-air homes for the poorer children of the city of Glasgow is making steady progress, a sum of £1,800 for the purchase and equipment of an additional house having lately been placed at the Committee's disposal.

THE VAGARIES OF VESTRYMEN.

At a meeting of the Vestry of St. George-the-Martyr, Southwark, on March 26th, an unusual proposal was the subject of discussion. It appears that the vestry had directed its medical officer of health to visit *employés* (sewermen and others) who were sick, such "surprise visits," as a member of the vestry termed them, being considered desirable with a view to the detection of malingering. The medical officer of health pointed out the difficulties attending the carrying into execution of such a resolution, and very properly stated that it would be necessary for him to consult the medical man in attendance before making his examinations, and asked whether the vestry were prepared to pay consultation fees to the practitioners in question. The absurdity of the proposal seems to have been appreciated by some of the members of the sanitary authority, and the matter was referred to a committee for further consideration.

THE COST OF EPIDEMICS.

Mr. Herbert Peck, the health officer of the Ormskirk Rural District, gives some interesting figures as to the cost of a prevalence of scarlet fever in his annual report for 1894. Of 72 cases of the disease related to school attendance, he has been able to obtain from the medical gentlemen treating the patients in 52 instances the facts which go to show that the cost in respect of doctors' charges and other expenses amounted to upwards of £95. This in a monetary way; but in addition there were 3 deaths, much suffering and anxiety, and temporary loss of wages by parents in poor circumstances. Now looking to the much good that the Ormskirk Rural District Council have done in the past, it seems a great pity that they should have been so short-sighted as to have thus long allowed their district to remain without the benefits which would accrue from the provision of a properly equipped and administered hospital for the isolation of infectious disease. We have frequently pointed out that the provision of the means of isolating the earliest cases of infectious sickness is a measure of the truest economy, saving, as it frequently does, a slight outbreak from becoming a severe and costly epidemic, entailing misery, death, and lavish expenditure, to be, perhaps, over and over again experienced in the district. We trust the council will signalise their first year of office under their new title by providing this want of the community under their charge. The progress made in the matter of extension of water mains, to serve nearly half the aggregate of houses in the district as a whole, is ground for congratulation.

PRESENTATION TO PROFESSOR SIR WILLIAM TURNER.

Professor Sir William Turner was last week presented with his portrait by his colleagues and former pupils in recognition of his services to the cause of science and in particular to the University of Edinburgh. The portrait, a three-quarter length, represents Sir William in academic garb leaning against the lecture table, and has been painted by the President of the Royal Scottish Academy, Sir George Reid. The presentation took place in the anatomy lecture theatre, in the presence of a large and representative gathering, presided over by Sir James A. Russell. Apologies from various notabilities were received. Sir James Russell happily referred to Sir William Turner's distinguished services to science and to the University as a teacher and an investigator. Sir William Turner, in reply, referred to the various points in his career from the time when in 1854 he was, on the recommendation of the late Dr. Sharpey and Sir James Paget, appointed assistant to Professor Goodsir. He alluded to various changes in the University during his time, to the various offices he had held, and to many of his pupils now scattered abroad. Sir William Muir proposed a vote of thanks to Sir James Russell.

LIFE OF SIR HENRY HALFORD.

At the last Comitia of the Royal College of Physicians it was determined, on the advice of the Treasurer, that the College should undertake the publication of the *Life of Sir Henry Halford, Bart.*, on which Dr. Munk, the Harveian Librarian of the College, has been for many years engaged, and has now completed. The fact that Dr. Munk is the editor is a sufficient guarantee that the work will be done with all the skill which long and wide experience and a singular aptitude can secure, whilst the fact that Sir Henry Halford was the President of the College of Physicians for twenty-four years, a period considerably in excess of that of any of his predecessors or successors in office, as well as the other fact that he was court physician to no fewer than four successive sovereigns of this realm should make the book interesting both to the profession and the public.

A BISHOP ON PROVIDENCE.

The Bishop of Peterborough (Dr. Creighton) presided at the annual meeting of the Leicester and Leicestershire Provident Dispensary last week, and in a speech in support of the adoption of the annual report appears to have permitted himself to indulge in the most serious reflections on the honour, or rather on the common honesty, of the medical profession. At least this is what we read in the report of the meeting published in the *Leicester Daily Mercury*. He was speaking of the advantages of a provident dispensary, and is thus reported: "The doctor had a practical interest in keeping his patient well, which did not exist in the case of a different class of patients, as from a professional point of view it was to the doctor's advantage the oftener the latter came to see him." No doubt the Bishop, in his laud-

able anxiety to commend the virtue of providence to his hearers, hardly appreciated the serious character of the charge against the majority of the medical profession implied in this sentence. But a public man holding a position of great honour and dignity should speak in public under a constant sense of responsibility. The enormous improvement which has been effected in all that concerns the public health is almost entirely due to the persistent and unselfish advocacy by the medical profession of every means to diminish the incidence of disease. We have learnt not to expect much in the way of recognition or thanks from the State or the public, but at least we might be spared the suggestion of unworthy motives in the public utterances of ecclesiastical dignitaries. We would not say a word against the provident principle when properly applied to the remuneration of medical services, and no doubt one of the minor advantages which it has is that it encourages members to apply for advice at an early stage of an illness, when the disorder is most amenable to treatment. On the other hand experience shows that the application of the provident principle in this direction requires to be very carefully watched if it is not to work in a manner which is unjust to the medical profession. The Provident Dispensary in Leicester pays, it appears, to the medical staff on the average 3s. 3.6d. a year for each member; this does not include the cost of drugs, but if the special fees for midwifery and dentistry are not included, it appears that the medical staff receive only 1s. 10.9d. for each member. As we pointed out in an article published on March 23rd, on Sick Clubs and the Provident Principle, an organisation which makes payments on a scale so low is not a purely provident institution. It is an institution in which providence and charity, the charity partly of subscribers but mainly of the medical officers, are combined. This may be a necessary system under existing circumstances, it may even work very well and fill a real gap, but it ought to be called by its right name.

INADEQUACY OF THE PRESENT RATE OF CLUB REMUNERATION.

There can be no doubt that there is a strong and growing opinion in the profession that the present rate of club payments will have to be revised at no distant date. The subscription of one penny per week, as an insurance, to provide medical attendance and medicines in case of sickness is so preposterously low that if the amount of the contribution were doubled the extra burden would scarcely be felt, even by the most humble class of wage earners; and, indeed, it might not unreasonably be argued that where the individual was really unable to pay more than the present pittance he might fairly claim to receive medical aid gratuitously through the Poor Law. There was a time when things were widely different from the present; when a medical practitioner took a club more for the sake of the introduction it gave him, and the family practice it led to, than from any idea of making a remuneration out of the club fees; then it was usual for the club doctor to be called in to treat the families of his club patients at the usual professional rates, and there was also a large section of the public who belonged to no clubs, and afforded the means of gaining a fairly remunerative private practice. But all this has been long since changed; now the families of club patients themselves commonly belong to clubs or cheap dispensaries, and owing to the increase of institutions of this kind nearly the whole of that class which used originally to furnish the average practitioner with most of his private practice have become club patients. It is, therefore, obvious that the present practitioners are being compelled to rely more and more on the club payments alone to supply them with the means of living; and when the amount of these is considered, and we calculate the number of club members that would be required to furnish by their payments, say, a modest income of £300 or £400 a year, it becomes apparent that the profession has grave cause for dissatisfaction with the present state of affairs. The cost of medical education has gone up, the business expenses of medical men have become heavier, the wages of all classes of the community have on the whole been increased, but the income of the average practitioner has steadily diminished and is diminishing. This subject has been very fairly handled in the columns of a lay contemporary—*The Advertiser*—which circulates in the north-west of the metropolis. In an article published in the issue of March 29th, the writer points out very plainly some of the evils of the present system. He says: "Owing to the rapid spread of cheap dispensaries during recent years, and the extension of medical clubs beyond the poorer classes, for whom they were originally intended, to the comparatively well-to-do middle classes, thereby less and less margin is left to medical men for private practice and for the receipt of the customary legal medical fees; and owing, further, to the expensive nature of the remedies which have been recently introduced, the existing scale of medical club fees is altogether inadequate; and that the organisers of medical clubs, if they are to give members the benefit of the recent great advances in the science of medicine, must be prepared to pay a much higher scale of fees than has been usual heretofore." Here we have enunciated clearly evils which a large part of the profession feel to weigh on them only too heavily, and the burden of which is fast becoming intolerable. They have put up with them for a long time, for medical practitioners are long-suffering as a rule, and rarely complain so long as they can gain a fair livelihood. There is reason, however, to believe that it is becoming increasingly difficult to do even this, and if no reform takes place in this respect it is by no means improbable that within a few years the income of an average medical practitioner will be no more than that of an ordinary mechanic. Were the profession more united internally medical remuneration would never have come to such a pass. Even now, if individual members would study more the true interests of the profession, by ceasing to undersell one another, as is too often the case, nothing would be easier than to alter this, and to put medical remuneration on a true and just basis, to the incalculable advantage of the whole profession, and, in the long run, of the public.

SCHOOL BOARD CERTIFICATES.

A correspondent sends us a copy of a letter recently written by the Assistant Secretary of the Local Government Board which establishes a principle of considerable importance. The local School Board had proposed to make an annual payment of a fee of £5 to a medical man for furnishing all the certificates required by the School Board as to the inability of the scholars to attend school by reason of sickness. The Board does not feel itself in a position to sanction payment in this form; but it is added that the Board think "that there would not be any legal objection to the appointment of an officer to give certificates in cases where . . . . certificates can be paid for by the School Board. The remuneration of such an officer would have to be fixed at the time of his appointment, and the Board think that he should be paid a reasonable fee per case." The School Board in this locality has arranged in future to pay a fee of half a crown for such certificates. At the last meeting of the London School Board, on the recommendation of the School Accommodation Committee, it was agreed to appoint three doctors to examine cases in which medical certificates produced for non-attendance at school and when summoned before a magistrate are considered to be doubtful, in the East Lambeth division, and that a fee of 2s. 6d. be payable for each case examined. Mr. Diggle said the Board were trying to trade on the ignorance of the poor, as they had no power to demand a certificate. Some people were aware of this fact, some were not, but if the recommendation was passed

the ignorant would be imposed upon. We have always maintained that the School Board are acting beyond their powers in demanding of any parent a medical certificate in support of the statement that a child was ill and unable to attend school, and that if medical evidence was required it should be paid for by the Board. It has been suggested that the best plan would be to retain the service of certain medical practitioners in the various districts for this purpose, and that some such plan should be generally adopted. To submit medical certificates considered as unsatisfactory to the opinion of a second practitioner, who is probably not in charge of the case, at a fee of 2s. 6d. a head, is to discourage all men in practice from giving any certificate as to school attendance.

"PURE MILK."

Milk is so important an article of diet that it is somewhat distressing to find it stated, in the last report of the Local Government Board, that in 14·9 per cent. of all the cases in which it was analysed it was found to be adulterated. Besides this, however, many samples which were passed were reported as "poor," "very poor," "probably slightly watered," etc., and it is stated that "apparently in many cases the poverty of milk is the result of an attempt to water down the article to the limit of the poorest sample of genuine milk." The wide variation possible in the solid contents of undoubtedly pure milk is shown by the investigations made by Professor Bell who, on examining the milk of 273 cows, found that the total solids ranged from 10.33 to 15.83 per cent. Clearly if between these limits a high standard were fixed, the result would be to condemn much genuine milk, while if a low standard were adopted pure milk would often be watered down to it. The evils of watering milk are well pointed out by Mr. Teed, the public analyst for Camberwell, who says:

> The London vendor who dilutes his milk does so with London water and defrauds his customers. Water possibly kills off some poor infants through insufficient nutriment, but there his crime ceases. The country adulterator does all the above, and, in addition, may, by diluting with shallow well water—the well being in close proximity to a cesspool—send up to London an epidemic of typhoid fever. A bucketful of foul well water from some Surrey or Hampshire farm may mean a hundred deaths in Camberwell.

To such adulteration the fixing of a low standard is a direct temptation. In a large dairy pure milk which is below the standard can be mixed with richer milk and so the standard maintained, but the small farmer is helpless in the matter. The practical difficulty is great, and no solution which can be considered approximately satisfactory has yet been suggested.

OUR SANITARY DEFENCES.

Sir Walter Foster, in a recent speech to his constituents at Ilkeston, referred to the heavy administrative work of the Local Government Board in connection with the public health and the Poor Law and the recent development of local government. It will be remembered that very soon after Sir Walter Foster assumed office as Parliamentary Secretary of the Local Government Board, it became the duty of the Board, owing to the occurrence of cholera on the Continent, to investigate our defences against the importation of the epidemic, and to reinforce weak points. To meet the very responsible duty of protecting the country against this plague, a most complete cholera survey of the coast and many inland places was made, an intelligence department was instituted, by which the movements of cholera towards our shores was most minutely watched, and a staff of medical inspectors was kept ready for instant action whenever the disease landed on our coasts. In every case of a grave nature bacteriological investigation was made in London to determine if it were Asiatic cholera or not, and the results at once communicated to the local authorities. The surprisingly successful result obtained is a striking proof of the advantage which the public administration derives from having a highly-trained medical intelligence in the responsible position which Sir Walter Foster now occupies, and in which he not only serves well the general and commercial interests of the community but reflects much honour on the profession to which he belongs. How great the success achieved by Sir Walter Foster, with the able and unstinting co-operation of Dr. Thorne Thorne and the other permanent officers of the medical staff of the Board, the public perhaps hardly appreciate. On every other occasion in which cholera has been brought to our shores the epidemic has been most fatal. In 1832 the deaths were not accurately recorded, but probably more than 50,000 persons perished. In 1849 there were more than 53,000 deaths, in 1854 over 20,000, and in 1866 some 14,000. In 1892 only 35 cases reached our shores. Of those 11 died. In every instance the disease was stamped out. In 1893 a more serious condition had to be met. Cholera had spread widely in Western Europe in 1892, and the epidemic was renewed early in the following summer and reached England very soon. Over 280 cases, with 135 deaths, occurred in 1893. Sixty-four localities were attacked, but in only five places did more than 10 cases occur; in 42 localities the disease was limited to a single case, and this, although the malady was proved to be true cholera of the Asiatic type. That result is absolutely unique in the history of cholera and is the greatest triumph which sanitary administration has ever achieved.

THE SICK POOR IN PROVINCIAL WORKHOUSES: HONITON.

Honiton Workhouse boasts a sick department superior in many respects to that of other small country unions. The wards are airy and cheerful, with the important exception of the lying-in ward; and the nurse, though not trained, has thirty years' experience gained in the post which she now holds, a guarantee of character, at any rate. Our Commissioner speaks of the kindly consideration shown to the old people, and we therefore hope that the guardians will be willing to make those improvements in the hospital department which are still required. There are no bath rooms, and the water supply is unsatisfactory. Isolation wards are wanted, especially for the separation of the imbecile patients, who are now mixed with the others. When the present nurse has been pensioned off a trained nurse should take her place, with a probationer under her, or two if necessary, so as to do away with the pauper help except for cleaning and similar duties. It ought to be possible in a house licensed for 250 inmates, where the usual number of beds occupied does not exceed 80, to find a room for the nursery other than that condemned by our Commissioner as dark and cheerless.

MEDICAL MEN AND THE MAKING OF INDIA

Referring to Dr. Harvey's remarks in his presidential address at the recent Indian Medical Congress, on the excellent service rendered by the members of the medical profession to the old East India Company, *The Englishman* recounts the circumstances which led to the firmans granted in recognition of the professional services rendered by Drs. Boughton and Hamilton to Emperors of India. The first firman allowing the Honourable East India Company to trade in Bengal free of duty was granted at Dr. Gabriel Boughton's request in 1640 by Shah Jehan, as a reward for the physician's successful treatment of the Emperor's daughter, who was seriously burnt. The firman, however, was subsequently ignored, and Dr. William Hamilton went as surgeon to an embassy sent to the Emperor Farrukh Sizar in 1715, to complain of the Newab of Bengal having demanded duties or presents in return for permission to trade in Bengal. The embassy carried presents valued at £30,000 to the Emperor, but did not succeed in obtaining anything for months. Then the Emperor, who was about to be married, fell ill, and was treated successfully

by Dr. Hamilton, who was handsomely rewarded both with money and with gifts. The English physician also received the Emperor's assurance that the Company's request for free trade in Bengal would be granted.

THE PRIZE ESSAYS OF THE LEPROSY FUND.

Sir Joseph Fayrer, Sir Gayer Hunter, and Mr. Jonathan Hutchinson, the adjudicators, have awarded a prize of 50 guineas to each of the following essays, sent in in response to the invitation of the Leprosy Fund: "On the history of the decline and final extinction of leprosy as an endemic disease in the British Islands," by Dr. George Newman; "On the conditions under which leprosy has declined in Iceland and on the extent of its former and present prevalence," Dr. Edward Ehlers (Copenhagen); "On the facts as to the recent increase of leprosy at the Cape and its present prevalence in South Africa," Dr. S. P. Impey (Medical Superintendent, Robbin Island); "On the reputed recent increase of leprosy on the Australian Continent; its extent and possible causes," Dr. Ashburton Thompson; "On the conditions under which leprosy prevails in China, Cochin China, Batavia, and the Malay Peninsula," Dr. James Cantlie (Hong Kong). On some of the subjects for which prizes were offered no essays were sent in, and some of the essays sent in were held not to meet the terms of the competition. The successful essays will be printed and published at the expense of the Fund. The authors of unsuccessful essays can obtain their manuscript on application to Mr. Hutchinson at 1, Park Crescent, Regent's Park, N.W.

SIR JOSEPH LISTER.

Sir Joseph Lister was on April 9th presented with the Albert Medal of the Society of Arts by the Prince of Wales, as President of the Council of the Society. The medal was awarded to Sir Joseph Lister in recognition of "the discovery and establishment of the antiseptic method of treating wounds and injuries, by which not only has the art of surgery been greatly promoted and human life saved in all parts of the world, but extensive industries have also been created for the supply of materials required for carrying the treatment into effect."

SANITARY CONFERENCE IN MANCHESTER.

A three days' Sanitary Conference, beginning on April 24th, is to be held at Manchester. The nucleus of the scheme is the annual meeting of the Manchester and Salford Sanitary Association. For nearly fifty years the Association has been content with an afternoon meeting, at which reports have been presented by the various branches; this year a three days' meeting has been arranged, at which papers bearing on sanitary progress and reform will be read and discusssed. On the first day after the inaugural address, to be given by Sir Robert Rawlinson, the subject of air pollution will be taken up and papers read by Mr. A. E. Fletcher, Her Majesty's Chief Inspector of Alkali Works; by Mr. Herbert Fletcher, county councillor of Bolton; and by Mr. Herbert Phillips. The rest of the day is to be devoted to the question of sanitation of elementary schools. For the following day papers on recreation are promised by Cardinal Vaughan, the Earl of Meath, and others in the morning; and in the afternoon the question of Woman's Work in Sanitary Reform is put down for discussion, and an account of the valuable work carried on by the Manchester Ladies' Health Society is to be given by the President, Mrs. Hardie. The District Council for the Registration of Plumbers are sharing in the Conference, and important matters relating to registration and improvements in plumbing are to be discussed during the last two days. In addition to the Conference, there is to be a Health Exhibition, intended primarily to illustrate the subjects discussed and generally the progress of sanitary reform. This will be held in the St. James's Hall, and is under the control of the Sanitary Association, who are responsible for the admission of exhibits. Amongst these are promised some interesting models of perfect and imperfect sanitary appliances arranged in a full-sized house. The exhibition is to be opened on April 22nd, and will remain open until May 11th.

COTTAGE NURSES AND THE POOR LAW.

We have received a communication from Lady Baker, Honorary Secretary of the Dorset Health Association, with reference to a paragraph under this heading which appeared in the British Medical Journal of March 30th, page 716. She states that a considerable proportion of the nurses who are or will be entitled to wear the Dorset health medal are hospital trained, and also that among these are two of the three nurses we alluded to as being employed by the guardians. We are very glad to hear that trained nurses are so largely engaged in the work, but this does not alter the fact that people are employed who have not received what is generally recognised as a training. So far as can be gathered from the documents forwarded to us, the "cottage nurse" is a prominent feature in the Dorset system, and already both the county council and the guardians have recognised women who as nurses can only be considered as untrained. We turn then with interest to one of these papers which describes the final examination of cottage nurses, in which it is stated that "The subjects for examination will be those given in the St. John Ambulance Association book on *Nursing*, by Cosgrave:" a footnote adding: "The written examination is desirable, but may be omitted if the candidate has difficulty in reading or writing," etc. This does not restore our confidence, notwithstanding the *naive* statement in Lady Baker's letter that the system meets with "the full approval of our Local Government Inspector," and that "this is sufficient for us and should be for the public." We wish we could share so optimistic a view; but in the face of recent events the approval of Local Government Board Inspectors does not imply the highest praise. We have no doubt that by the exercise of an exceptional amount of care good work is being done in Dorset, but the system is one which in less careful hands is capable of producing a great deal of mischief.

MAISTER PETER LOWE.

The memory of Maister Peter Lowe, the Doctor of Medicine who, by obtaining from King James VI of Scotland, in November 1599, a charter to examine all persons who practised surgery or medicine in the West of Scotland, thus founded the Faculty of Physicians and Surgeons in Glasgow, has been perpetuated by the erection of a memorial tablet in the Cathedral of Glasgow. The tablet is of bronze, and has a suitable allegorical composition designed and executed in Glasgow by Mr. Macgillivray. It bears the inscription on the tombstone which has perpetuated the memory of Peter Lowe for nearly 300 years, but which is now in a crumbling condition and past any hope of repair. The ceremony of unveiling the memorial was performed by Dr. Bruce Goff, of Bothwell, the president of the Faculty, and was witnessed by a large number of Fellows and Members, among whom were Professor Gairdner, Dr. Hector Cameron, Dr. David MacVail, Dr. Lapraik, Dr. Lindsay Steven, Dr. James Adams, and Dr. Finlayson, the historian and librarian of the Faculty. Dr. Bruce Goff gave an account of the life and work of Dr. Peter Lowe up to the time when the comprehensive charter was obtained.[1] It gave powers to examine all persons who practised surgery or medicine in the West of Scotland, and to license them and to cite any one before them, and to fine or imprison those who did not make their appearance when cited. The charter also gave power to investigate cases of sudden death and to examine

[1] Some account of Peter Lowe's life and work was given in the British Medical Journal of January 12th, 1895, p. 105, and also May 24th, 1890, p. 1205.

all drugs and poisons sold in the city, and to visit the poor, foreshadowing in this way most of the great reforms in medicine which had only been accomplished within the last fifty years, such as the registration of medical qualifications, fiscal inquiries, and medical relief of the poor. The date of Peter Lowe's death is not absolutely known, but the tombstone bears the record of 1612, and he died probably at the end of that year. Dr. Finlayson after the unveiling pointed out that the claims of Peter Lowe to recognition by the medical profession were the fact that he founded the Faculty of Physicians and Surgeons, which for nearly 300 years had carried on the powers entrusted to it by James VI; that he had actually written the first original work on surgery published in the English tongue, and gave to the world the first translation of part of the works of Hippocrates into the English language. In those days as now reforms were with difficulty effected, and this departure from the usual Latin works led to his being denounced for having, as his friend Clomes of London said, "given forth his treatises in our English tongue." With regard to his character one could gather from his book that he had no mean opinion of his own status, abilities, practice, and surgical works. The relics preserved in the Faculty Hall of Glasgow show in what grand style he appeared in public. That he had a gaiety of spirit and much humour can be traced in his books and in the narration of his cases. The President subsequently entertained those present in the board room of the Royal Infirmary, and the proceedings terminated with the usual complimentary votes.

DIPHTHERIA ANTITOXIC SERUM.

As will be seen from the report printed in another column, the laboratories of the Royal Colleges have now made considerable progress in the task of preparing diphtheria antitoxic serum for the use of the hospitals of the Metropolitan Asylums Board. Four horses have already been subjected to the treatment for the production of immunity, and it is anticipated that the serum from them will shortly be available. At the present time the crude serum is a somewhat bulky material for use, and although knowledge as to its constitution is at present limited mainly to its physiological properties, there are good grounds for believing that the active principle contained in it which has a remedial action forms but a small part of its total constituents. Dr. Sidney Martin, as is well known, some years ago succeeded in separating from the membrane and from the spleen in cases of diphtheria, several distinct bodies producing definite effects, and the announcement that he has now undertaken a further research with a view of working out the mode of action of the antitoxic serum when used to counteract the effects of the various poisons separated by him will be read with satisfaction, since such an inquiry is likely to result not only in a valuable accession to our scientific knowledge on the subject, but also in important improvements in the present methods of using the diphtheria antitoxin as a curative agent.

THE PREVENTION OF WINDOW ACCIDENTS.

The importance of taking some steps to prevent the great loss of life which occurs every year from accidents while engaged in cleaning windows is steadily forcing itself upon public attention; and we were pleased on visiting the Building Trades Exhibition, lately held in the Agricultural Hall, to see the number of inventions which have been brought to varying degrees of perfection with the object of enabling windows to be cleaned from within the house, so as to avoid the dangerous practice of going outside on to the sill for the purpose. The examples exhibited mostly fell into one or other of two categories, one in which the sash is convertible into an inward-opening casement for cleaning purposes, the other in which the sash is made to turn on a horizontal axis, so that access can be readily obtained to the outer surface. Examples of the former type were Shurmer's Patent and Nowell's Patent Sashes; of the latter, the "N.A.P.," the "Simplex," Adam's Patent, and Kendall's Patent. The N.A.P. window, exhibited by the National Accident Prevention Company, has many features which will be likely to make it popular. The mechanism is very simple; there are no loose parts which might be lost, and, when the sash is in position for cleaning, it is held firmly in its place, and there is no chance, even in windy weather, of its becoming unmanageable. The same company also shows an admirable fanlight arranged for hospital use, and some very ingeniously contrived casements, which open either inwards or outwards as required. The aim of all these inventions—namely, the prevention of loss of life in window cleaning—is one with which all must have every sympathy, and, with the tall buildings now so common, the adoption of one or other of them becomes an absolute necessity.

EXIT BUCKS!

Not long ago we gave a summary of the action which had been taken or attempted in sanitary matters by the several county councils in England and Wales. In this list Bucks figured with some credit, for although it had not had the advantage of the guidance of a county medical officer of health, it had, at all events, appointed a Sanitary Committee, which, under the chairmanship of Mr. Frederick Verney, had done useful work in a quiet way. Now things are changed, and very much for the worse. The Bucks County Council have come to the truly remarkable conclusion that, for the better performance of their undoubted public health duties, it is expedient that a Sanitary Committee should not be appointed. They cannot plead ignorance, like some of the counties which have not begun to think of their responsibilities in this direction. Nor should indifference prevail in a county which is dependent upon its sanitary reputation for the prosperity of the milk trade, which forms one of its principal industrial resources. Bucks has towns and villages which have come under the notice of the Local Government Board on more than one occasion—sanitary authorities which, according to published official reports, have persistently followed a policy of masterly inactivity, and rivers which the Thames Conservancy Commissioners have discovered to be polluted, to the detriment of London water consumers. It has districts in which notification is not in force, and in which means of hospital isolation of infectious diseases are conspicuous by their absence. The Bucks County Council, knowing all this and having power to take action, elect to do nothing and disband their Sanitary Committee. After this who can reproach mere local authorities for inertia?

ANTIRABIC INOCULATIONS.

The number of patients who underwent Pasteur's preventive treatment for rabies at the Saigon (Cochin-China) Institute between May 1st, 1893, and May 1st, 1894, was 49. Of these 31 were Europeans and 18 natives. Of the 49 persons treated 2 died; in one of these the disease came on immediately after the completion of the treatment. The director, M. J. Pineau, points out that in the colony every native bitten by a dog suspected of being rabid is brought by the notables of the village to the administrator, who at once sends him to the Antirabic Institute, all charges being defrayed out of the public purse. The natives whether Annamites, Chinese, or Malabarese are alive to the benefits of the treatment, and avail themselves of it when the need arises. At Saigon itself the police regulations as to stray dogs are so strict that cases of rabies are now rare, and it is believed that the disease could, by the application of similar measures, be completely suppressed in French Indo-China.

An addition to the medical members of the French Senate has just been made in the person of Dr. Legludic, who has been elected a Senator for the Sarthe Department.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

CASES TREATED BY DR. KLEIN'S ANTITOXIN.

City Hospital, Edinburgh.

Dr. Muirhead sends the following notes. The bacteriological investigations were conducted by Dr. Mackay and the assistant resident medical officer, Dr. Forrester. Eleven patients were treated; their ages ranged from 3 years to 22. Six were females and 5 were males. Of these, 2 females, both aged 3 years, may be dismissed from further consideration; for, although they each received an injection of the antitoxin, they were in so helpless a condition when admitted into hospital that they both died within six hours thereafter. The membrane in all of these 9 cases were submitted to a bacteriological examination, and in every one of them were found not only Loeffler bacilli, but also micrococci, streptococci, and diplococci, and in 2 leptothrix in addition. The average day of illness on which these 9 were admitted was 4.4, the extremes being the second day and the eighth day of illness. Of these 9, 4 were comparatively mild cases, 2 severe, and 3 very severe. Out of the 9 cases, 1 died and 8 recovered, a mortality equal to 11.1 per cent.

The patient who died was a girl, aged 3 years and 9 months. A brother or sister was said to have died of the same disease at home before this child was brought to hospital. It was stated that she had only been three days ill. Probably, owing to the anxiety regarding the other child, her first symptoms had been overlooked, and she had really been longer ill than was stated with laryngeal diphtheria. Not till the third day after admission did the membrane appear in the throat, and the day before some congestion at the base of both lungs was detected, and this broncho-pneumonia carried off the child. The injection of antitoxin did not arrest the spread of the membrane. The effects of the antitoxin may be summarised as follows:

Membrane.—In all the other 8 cases the membrane ceased to extend after the first injection. In 1 case a large piece of membrane was expectorated within twenty-four hours after the first injection, and in all the others the appearance was greatly modified, becoming thinner, more easily removed by the cotton-wool swab, and less extensive. In the milder cases it disappeared in three or four days, being delayed in the severer forms.

Temperature.—As a rule, this rose from 2° to 3° within twelve hours after the injection, in the milder cases falling to normal after another interval of twelve hours. Where this did not result it seemed to be a call for further injection, which had the desired effect of reducing it to nearly normal.

Pulse.—Corresponding with the fall of temperature, though perhaps some hours later, the pulse gradually fell in rapidity.

Urine.—The amounts stated to be passed in twenty-four hours are not reliable. In no case was there anuria. In several the specific gravity was greatly raised, independent of the action of the antitoxin. In 8 cases out of the 9 albumen was present. This can hardly be attributed to the injection of the serum, for in 5 of these its presence was noted before the injection was given; in 1 it occurred for the first time the same day (the eleventh of the disease) as the injection was given; in another a trace was discovered the day after, being the eighth day of the disease; in another it appeared two days after the injection, also the eighth day of the disease; and in the third, six days after the injection, this being the eleventh day of the disease. Now, albumen commonly enough appears in the urine of the diphtheritic in the second week of the illness, and this fact must be borne in mind when judging of the effect of antitoxin in producing albumen in the urine. Our cases do not warrant the deduction that it has any effect other than increasing the amount of albumen in the urine should it be already present.

Skin.—In 4 cases rashes were observed scarlatiniform in character. In 2 it appeared the day after the injection, in the other 2 after nine and thirteen days respectively. In 2 this was accompanied with joint pain, in 1 case of very severe rheumatic character in both hips. In one girl, aged 12, a second rash made its appearance three days after the last injection, this time morbilliform in character, first on the legs and arms, then covering the body with a uniform erythema, which was followed by profuse desquamation. In this girl an abscess formed in the glands of the neck, which had to be opened. Another girl complained of pain in the knees and elbows eight days after injection. Injections were not given till the presence of Loeffler's bacilli had been established by bacteriological examination, as the supply of serum was so limited. Local and constitutional treatment was maintained after the serum had been used. The former, in the case of the very young children, was often confined to spraying up the nostrils with perchloride of mercury dissolved in peroxide of hydrogen, 1 to 1,000 and 1 to 2,000, and, after a preliminary syringing with warm boric and borax solution, to cleanse the parts from membrane, etc.

Oxford City Hospital.

Mr. Alfred Winkfield, F.R.C.S., sends the following further reports:[1]

Case vi.—H. F., a boy, aged 7, was taken ill on February 1st. When admitted on February 2nd the breath was very offensive; the glands on the left side, at the angle of the jaw, were considerably enlarged. There was no discharge from the nostrils. The boy had some difficulty in swallowing. The tonsils were red and swollen, and marked patches of membrane could be seen on both. Temperature 101°, pulse 128, respirations 32. No albumen in the urine. Antitoxin (6 c.cm.) was injected between the shoulders at 10.45 P.M. On February 3rd he had passed a fairly comfortable night; the breathing was loud and laboured when sleeping. Profuse general perspirations began shortly after midnight, and continued until morning. The temperature had dropped to 98.2°. There was less membrane to be seen, and the child took nourishment well. On February 4th he had slept well, and the membrane was still peeling off both tonsils, the swelling of glands subsiding, and the condition generally improved. There were occasional profuse perspirations during the day. On February 8th the throat was quite clear of membrane, the swelling of glands had subsided. No albumen in the urine. The boy from this time was practically convalescent. Dr. Ritchie found the bacillus diphtheriæ, streptococci, and staphylococcus pyogenes aureus in the membrane.

Case vii.—E. P., a girl, aged 5 years, had been ill for six days. She had had a previous attack of diphtheria in March, 1894. On admission on February 6th there was a copious, thin discharge from the nostrils; the glands at the left side of the neck were slightly enlarged. Yellowish patches of membrane could be seen upon both tonsils, which were much swollen. The breathing was somewhat difficult. Temperature 101°, pulse 160; no albumen in the urine. At 9.45 P.M. antitoxin (5 c.cm.) was injected between the shoulders. On February 7th she had passed a fairly good night; the breathing was loud, but not laboured. The membrane had spread, both tonsils and uvula being covered. Antitoxin (4 c.cm.) was injected at 11.30 A.M. The temperature, which had been 102° at 4 A.M., dropped during the day to 99°; the pulse was generally feeble. On February 8th several pieces of membrane were detached from the tonsils; there was some moisture about the skin, and nourishment was taken with less difficulty. Temperature subnormal. On February 12th the throat was quite clear of membrane: there was no swelling about the neck, and the discharge from the nostrils had ceased. No albumen in the urine. On February 21st an erythematous rash appeared about the elbows, knees, and legs, spreading over the whole body towards evening; temperature subnormal. After two days the rash had completely disappeared, and the child made a rapid recovery. Dr. Ritchie found the bacillus diphtheriæ, streptococci, and staphylococcus pyogenes aureus in the membrane.

Case viii.—H. S., a boy, aged 6 years, was taken ill on February 7th. On admission, on February 8th, the breathing was noisy; there was a slight discharge from the nostrils; the breath was very offensive, and the pulse feeble. The

[1] See British Medical Journal, March 30th, p. 722.

glands were enlarged on each side at the angle of the jaw, and large yellowish patches of membrane could be seen upon both tonsils, which were much swollen. Temperature 99.8°, pulse 120, respirations 28. Antitoxin (6 c.cm.) was injected between the shoulders at 11.20 P.M. On February 9th the child had passed a fairly good night. There was more swelling about the left side of the neck, more membrane about his tonsils, and a patch upon the uvula. Temperature 100.4°. He was very fretful all day. No albumen in the urine. On February 10th the membrane was found to be spreading each way, and there was more glandular swelling on the left side of the neck. Antitoxin (4 c.cm.) was injected at noon. The temperature, shortly after the injection, rose to 101.2°. Nourishment was taken freely. On February 11th several large pieces of membrane were detached from the tonsils, but quickly reformed. The throat showing no improvement on February 12th, a third injection of antitoxin (5 c.cm.) was given about noon. There was a distinct improvement in the condition of the throat on February 13th, the membrane peeling off in large pieces; and on February 14th the throat was quite clear. There was some urticaria about the limbs, back, and face on February 18th. No rise of temperature. The rash had faded by February 20th, and the boy became convalescent. Dr. Ritchie found the bacillus diphtheriæ, streptococci, and staphylococcus pyogenes aureus in the membrane.

Case IX.—F. W., aged 4 years, a boy, was taken ill on February 9th. On admission at 5.10 P.M., February 10th, the face was blue, the breathing loud and laboured, with some tucking in of the intercostal spaces and an occasional cough, markedly croupy in character. There was a copious thin discharge from the nostrils. Thick greyish membrane covered both tonsils, uvula, and soft palate. The breath was very offensive; the glands on each side were enlarged at the angle of the jaw. Temperature 102°, pulse 151, respirations 55. The urine contained a large amount of albumen. Tracheotomy was performed at 6.50 P.M.; the breathing immediately became easier. A Durham's tube was inserted, the child put into a steam tent, and antitoxin (6 c.cm.) injected at 7.10 P.M. On February 11th the patient had passed a restless night, sleeping very little. Several pieces of membrane were coughed up during the night, but the tube was quite dry after 8 A.M. The face was frequently blue, and many ineffectual attempts were made to cough, the breathing becoming more laboured each time. Nourishment, with brandy, was taken freely. There was still albumen in the urine. Antitoxin (2 c.cm.) was injected at 6.15 P.M. On February 12th the boy seemed much weaker after a very restless night. There was some diarrhœa and frequent sickness. The tube was removed and reinserted about noon, but his breathing became worse. The limbs were rigid at 3.35, and the child died at 3.40 P.M.

On *post-mortem* examination the fauces and larynx were covered with thick membrane, the trachea and bronchi were literally filled up with membranous exudation. Dr. Ritchie found the bacillus diphtheriæ, streptococci, and many bacilli, probably putrefactive, in the membrane.

Case X.—F. C., a boy, aged 7 years, was taken ill on February 10th. On admission on February 12th his face was very flushed, the skin rough and dry; there was considerable swelling on the left side of the neck; a large yellowish patch could be seen upon the left tonsil; both tonsils were red and swollen; temperature 103.6°, pulse 140, respirations 32; no albumen in the urine. On February 13th the child had passed a restless night; he was fretful and slightly delirious; the temperature rose to 104.4° at 4 A.M.; there were patches of membrane upon both tonsils. Antitoxin (5 c.cm.) was injected between the shoulders at 3.30 P.M. The temperature at 8 P.M. was 100°. There were slight general sweats from 7 to 10 P.M. On February 14th he had slept fairly well during the night; there was no albumen in the urine: no delirium; temperature 99.2°, pulse 100; the throat looked much the same. On February 15th the boy was considerably better; the glandular swellings had subsided, temperature subnormal. The throat was quite clear of membrane on February 18th, and the child became rapidly convalescent. In this case Dr. Ritchie did not find any bacillus diphtheriæ, but from its clinical appearances the case was considered to be one of diphtheria.

Aberdeen Royal Hospital for Sick Children.

Dr. A. MacGregor, Junior Physician, sends the following report. Notes of the cases were taken by Dr. George Marr, House-Physician, and Dr. Dean, Pathologist to the hospital, examined the cultures.

Case I.—N. B., aged 4 years and 9 months, complained of sore throat on December 22nd, and was admitted on the 23rd; his breathing was slightly stridulous, and his cough croupy. Temperature 101°, pulse 120, respirations 28. Both tonsils were considerably enlarged, and over the right were scattered several small yellowish-white spots; one spot was also seen on the left; the glands at the angle of the jaw were swollen. At 10.30 P.M. antitoxin (℥j) was injected. On December 24th he had passed a fairly good night, the breathing was quieter, the cough had lost its croupy character, and the laryngeal stridor was gone. Temperature normal, pulse good. There was only a very thin membranous appearance on the tonsils. On the 26th the throat was quite clean. On the 27th, the pulse being irregular, a mixture of digitalis and perchloride of iron was prescribed. On January 26th the patient was discharged cured.

Case II.—G. W., aged 7 years, was admitted on January 22nd suffering from a very severe attack of measles. When attacked she was under treatment for long-standing consolidation of the upper lobe of the left lung, and her condition was rendered all the more grave by rapid development of catarrhal pneumonia in the lower lobe and over the right lung. The patient, however, did well, and the acute chest affection was so much improved that on January 29th the poultices were left off. It was then noticed that the voice was husky, inspiration noisy, and cough croupy. Nothing was observed in the throat, but a culture taken showed Loeffler's bacilli. On January 30th laryngeal obstruction was more marked; a small patch was seen on the right tonsil. Temperature 101.8°. At 4.20 P.M. antitoxin (℥ij) was injected, at 8 P.M. the breathing was easier and the cough not so croupy. On February 1st the patient had continued to improve, the breathing was quite easy, the voice still husky; there was a trace of albumen in the urine. On February 4th a small piece of membrane was expectorated. On the 13th, although the patient was convalescent, the amount of albumen had increased. Iron was ordered, the albumen disappeared, and the patient was discharged cured on February 26th.

Case III.—A. M., aged 3½ years, a strong healthy child, was admitted on February 4th. The throat affection was observed "a few" days before that date. On admission, the face was livid, the breathing markedly stridulous, the voice hoarse and whispering. There was retraction of the epigastrium on inspiration. Temperature 98.4°, pulse 160 and strong, respirations 40. The tonsils were enlarged and covered by a thick membrane. At 2 P.M. antitoxin (℥1½) was injected. During the afternoon the temperature averaged 100°; at times the breathing was easy, but as a rule it was very laboured. At 8 P.M. tracheotomy was performed by Dr. Rose, who now took charge of the patient. A second injection of antitoxin was given next day. On February 7th a trace of albumen appeared in the urine; on the 17th a scarlatiniform rash appeared on the face and chest, but only for a few hours. The child recovered.

Case IV.—A. A., aged 8 years, was admitted on February 9th. Membrane was seen on the right tonsil the day before. On admission, the right tonsil and right side of uvula were covered by a thick greyish-white membrane; there was a glandular swelling at the angle of the jaw on the right side. Temperature 100°, pulse 102, respirations 24. At 2 P.M. antitoxin (℥ijss) was injected; at 4.30 P.M. the temperature was normal, but rose a degree in the evening. On February 10th the patient had had a good night. During the morning the temperature varied between normal and subnormal. At 12.30 P.M. antitoxin (℥ijss) was again injected. At night the pulse was somewhat irregular. On February 11th the throat was free from membrane. The pulse was 72, very feeble and irregular. A mixture of tinct. digitalis ℥iij and tinct. ferri perchloridi ℥x was ordered to be given every four hours. For a few days there was a trace of albumen in the urine, but this disappeared, and on March 4th the patient was convalescent.

Case V.—A. S., aged 2½ years, was admitted on February 5th suffering from measles. On the 7th the temperature was

normal, but on the 8th it rose to 102.8°, and the voice was somewhat husky. The tonsils were enlarged, but no membrane was seen. A culture taken showed Loeffler's bacillus. On February 10th membrane was seen covering the anterior pillar of the fauces on the right side. Temperature 102.8°, respirations 40, and pulse 144. At 12.30 P.M. antitoxin (℥ijss) was injected; the temperature in the afternoon fell to 99.4°. At 7 P.M. a second injection of ℥ijss was given. On February 11th the membrane had spread to the other side of the throat, and both tonsils were covered by it. Night temperature 103.4°. On February 12th the temperature, which had been normal in the morning, rose to 102.2°; but the child was bright, and played with toys during the day. During the next two days the temperature was very irregular, varying from 100° to 103.6; pulse 108 to 124, and respirations from 28 to 40. After the 16th the child continued to improve, and on the 28th was discharged cured.

Case VI.—A woman, aged 25 years, was admitted on February 9th. She had been nursing patients suffering from diphtheria, and first felt ill on February 8th. On the evening of the 9th the temperature was 101°, and the patient felt ill. On the 11th a patch of membrane of the size of a split pea was seen just behind the left tonsil, and there was also a very small spot on the right tonsil. At 12.30 P.M. antitoxin (℥iij) was injected. The patient declared she felt better within two or three hours after the injection. On February 11th the membrane on the left side had disappeared. Morning temperature, normal; evening temperature, 99.8°. For the next few days she continued to do well, and on the 19th she was allowed to leave bed. At night the temperature was 100°. She complained of "pains all over her." On the following day her condition was the same, but the evening temperature was 101°. On February 21st the temperature was 100°, and a rash, consisting of irregular, raised patches of brownish-red colour appeared on the knees, elbows, feet, and over the trunk, but not so profusely. In twenty-four hours this rash disappeared. On February 22nd the morning temperature was 101°, but at 5 P.M. the patient had a rigor, and the temperature rose to 103.6°. It fell in a few hours, but there followed severe pains in the shoulder and knee-joints, in the limbs generally, and in the back, accompanied by profuse acid perspiration. Salicin gr. xv and sulphate of quinine gr. ij, were ordered every four hours. There was no swelling of the affected joints. This rheumatic condition continued till February 28th, but after that date convalescence set in, and the patient seemed to make a good recovery. On March 22nd patient showed distinct signs of paralysis of the lower extremities, and is now under treatment for this. Owing to an accident the culture in this case proved nothing.

Case VII.—P. E., aged 6 years, was admitted on February 13th with throat symptoms, which were first complained of on February 11th. On the 12th the larynx was involved. On admission the face was livid, temperature 101°, pulse 168, respirations 24, very stridulous. There was marked recession of the supraclavicular spaces. The glands at the angles of the jaw were swollen, both tonsils were covered with a thick grey membrane. The case was a very severe one, and at 7.40 P.M. antitoxin (℥ vjss) was injected. Two hours later the breathing was easier, but it soon became so much worse that preparations for tracheotomy were made. An improvement, however, set in, and continued during the night. At 4 A.M. a large piece of membrane was expectorated. On February 14th respiration was quite quiet and free, cough was much softer; in the throat, however, membrane covered the posterior wall of the pharynx as well as the tonsils. On February 15th the patient was quite bright. The membrane had disappeared everywhere except a small patch on the left side of the pharynx and left tonsil. There had been profuse sweating since the injection of antitoxin. On February 18th there was still a small spot of membrane on the left tonsil. The patient continued to improve. The temperature was normal, but the pulse was slightly irregular and compressible. A mixture of tinct. digitalis (♏ij) and tinct. ferri perchloridi (♏x) was ordered to be given every six hours. A scarlatiniform rash appeared on this day on face and chest for a few hours. On February 27th patient was convalescent.

Case VIII.—G. G., aged 7 years, was admitted on January 12th, ten days after recovery from an attack of measles. At 2 P.M. the temperature was 99.6°, pulse 168, respirations 24. The face was swollen and flushed, the glands at the angles of the jaw considerably enlarged; the tonsils enlarged, and on each there was a well-marked patch of membrane; there was a slightly croupy cough. Antitoxin (℥j) was injected. On January 13th the membrane had spread on the tonsils, and was now seen on the back of the pharynx; the cough was less croupy. On January 14th the membrane had disappeared from the pharynx, and only a small spot remained on the tonsils; the patient was perspiring freely, and was brighter and much better. On January 15th the temperature was subnormal, pulse 90 and very irregular in force and rhythm; a mixture of tinct. digitalis ♏ij and tinct. ferri perchloridi ♏xv was ordered to be given every four hours. On February 11th the patient was discharged cured.

Case IX.—A woman, aged 21, was admitted on January 23rd. She had felt her throat sore more or less for a fortnight before admission, during part of which time she had been nursing a child suffering from diphtheria. On January 23rd the fauces and pharynx were intensely injected, and a patch of membrane the size of a sixpence was seen on the left tonsil; a gland at the angle of the jaw on the left side was swollen. Temperature 100.8°. A mixture of salicin gr. xv and sulphate of quinine gr. ij was ordered to be taken every four hours. On January 24th a culture taken the day before showed Loeffler's bacilli; therefore antitoxin (℥jss) was injected at 1.30 P.M. On January 25th the membrane had disappeared. Temperature 99°, and pulse good. On January 26th the temperature was normal; the pulse was slightly irregular. A mixture containing citrate of quinine and iron with liquor strychninæ was ordered. The patient continued to do very well till February 4th, when the temperature rose to 103°, and she complained of pains down the backs of legs and inner sides of the arms. The strychnine was left off, and on February 6th the temperature was normal, stiffness of the ring and fifth fingers was complained of, but the pains in the limbs were much less. On February 13th the patient was allowed to leave bed.

Dr. Vaisey, M.O.H., Winslow, Bucks, sends the following report:

Diphtheria was introduced into the village by a nurse who was discharged from a fever hospital where she contracted the disease. Sixteen children and 3 adults subsequently suffered from the disease, 4 children died, 2 of whom had been treated with antitoxin serum. Dr. Klein and Dr. Thorne Thorne kindly examined scrapings from the tonsils, and certified "crowds" of diphtherial bacilli.

Case I.—G. T., aged 3 years, seen on February 22nd, a previously strong boy, had been ill two days with a supposed cold. Both tonsils, the back of the throat, the uvula, and part of the soft palate were covered with membrane. On February 24th he was taking no food. Pulse 120, weak; temperature 101°. Antitoxin (15 ♏) injected. On February 25th the temperature was 99°; the child was sitting up in bed, the pulse was stronger; he took a little food. On March 1st he refused food. Temperature 98°, pulse feeble. Membrane was coming away with hæmorrhage. Antitoxin (10 ♏) was injected. The child died from failure of the heart on March 3rd. The membrane had all come away.

Case II.—F. T., a brother of the last child, 1 year old. Membrane was noticed on the tonsils, throat, and uvula on March 2nd. On March 4th the temperature was 99.8°, pulse feeble, 130; temperature 99.3°. On March 5th antitoxin (15 ♏) was injected. Bronchitis developed from the fact that the window had to be opened for ventilation. The child had to be forcibly fed. All membrane came away by March 7th, but the child died from the above complication, though much improvement had been effected for a time by removal to a warmer room and the use of steam.

Case III.—E. T., sister of the above, aged 2½ years. The tonsils, pharynx, and uvula were covered with membrane on March 2nd. The child took food, and the disease appeared to be yielding to ordinary treatment till the 8th, when difficulty of breathing and refusal of food occurred. On March 8th antitoxin (15 ♏) was injected. Temperature 99.9°. On March 9th antitoxin (15 ♏) injected. Great improvement took place. The child took food, and the membrane came away fast. On March 14th an abscess developed in the neck. It was opened on March 22nd. On March 25th (the date of

report) the child was doing well, with the exception of pain on micturition.

There was albumen in all the cases Glycerinum carbolici 1 in 4 was applied to all the throats daily. No redness or spots appeared after the injection. No blueness of lips, etc., was apparent on the dead bodies. Both children died from exhaustion.

CASES TREATED WITH ANTITOXIN OBTAINED FROM THE BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

Dr. Farquhar (Burbage, Marlborough) sends the following report:

H. B., who came from Bath, showed premonitory signs of an attack from December 24th to 28th, 1894, without the appearance of any throat slough till the latter date, when the membrane was present chiefly on the left tonsil. Symptoms of great prostration, difficulty in swallowing, and profound anorexia set in rapidly, with tendency to somnolency and fainting: pulse 68, temperature 99°. Antitoxin (10 c.cm.) was injected in the flank on the 28th, and again (7 c.cm.) on the 29th. There was some relief to the prominent symptoms within twelve hours of the first, which became pronounced shortly after the second injection. The sloughy tonsil healed very slowly. There was no albuminuria or paraiysis. Two or three ounces of black blood were spat up on the 30th and 31st, while an erythematous rash appeared on the ninth day after the injection; otherwise convalescence in the main was rapid and uneventful. Under purely local treatment I should say the above case would most probably have ended fatally.

CASES TREATED BY ANTITOXIN OBTAINED FROM OTHER SOURCES.

Dr. W. L. Muir, Glasgow, sends the following report:—

Case I.—J. M. F., aged 7 years, was first seen by me on the evening of March 1st, 1895. On examining the throat, I found the tonsils and arch of the palate completely covered with diphtheritic membrane. There was a slight discharge from the nose, also a slight huskiness of the voice, but no difficulty in breathing. Temperature 102·5°, pulse 120. Antitoxin (10 c.cm.) was at once injected, and the throat was ordered to be sprayed with sulphurous acid frequently. On March 2nd the morning temperature was 102°, pulse 120; the night temperature was 101°, pulse 115. There was no apparent difference in the membrane. On March 3rd the morning temperature was 100°, pulse 115. The membrane was beginning to look as if it was breaking up. Antitoxin (10 c.cm.) again injected. The night temperature was 99·5°, pulse 105. On March 4th the morning temperature was 100°, pulse 110. The membrane was hanging in shreds; the throat was raw, bleeding, and sore in swallowing. The evening temperature was 100°, pulse 120. On March 5th the morning temperature was 99°, pulse 100. The membrane was disappearing rapidly. The evening temperature was 99.5°, pulse 110. On March 6th the morning temperature was 99°, pulse 100. The membrane was almost gone. On March 7th the morning temperature was 98°, pulse 90. The membrane had disappeared. Recovery was uninterrupted. The child was well and going about the room within fourteen days of taking ill. No medicine of any kind was given in this case, and the only local application was spraying with sulphurous acid.

Case II.—P. D., aged 5 years, had not been very well for a few days, and, on the morning of March 4th she was seized with difficulty of breathing. I found the child with her head thrown back, the lips purely cyanotic, a very considerable difficulty on inspiration, and a dry brassy cough; the child was very restless, and the temperature could not be taken accurately; pulse weak, 150 or 160, almost uncountable. Antitoxin (10 c.cm.) was injected at once; the trachea was painted with lin. iodi and 30m vin. antim. given every fifteen minutes till the child vomited. I called several times during the day, but at night was only able to say the child was not any worse. The bronchitis kettle was constantly in use. On March 5th the child was decidedly breathing more easily and was not so restless; pulse 125. She was taking nourishment (milk and wine) freely. Lin. iodi and vin. antim. repeated. In the evening her breathing was very much better; pulse 120. On March 6th the child was quite out of danger; her breathing was almost natural. She was taking a little solid food. Pulse 95. From this date the recovery was uninterrupted, the child being able to be out of bed within eight days. I did not feel justified in this case in trusting alone to the antitoxin. I am much indebted to my friend Dr. W. Bryce, for assisting and sharing the responsibility in both these cases.

The antitoxin used in these cases was supplied by Messrs. Burroughs, Wellcome and Co. In both cases a rash came out on the limbs after the injection.

THE REPORT OF THE ROYAL COMMISSION ON OPIUM.

The text of the report of this Commission is now complete, and it will be laid upon the table of both Houses as soon as the necessary formalities are concluded. The absence of the Queen may, however, cause some slight further delay. We are, however, in a position to give the following summary of the general tenour of the report and of the conclusions arrived at:

The report has been signed by all the members of the Commission with the exception of Mr. H. J. Wilson; so that on the subjects dealt with it may be looked upon as an authoritative statement, the result of a most careful investigation and one which, it is to be hoped, will be accepted as setting at rest for a considerable period questions which have been the cause of much agitation for a long time back.

A separate memorandum is appended by Mr. Wilson, as also others by Mr. Haridas Veharidas and the Maharajah of Darbhanga. The medical member of the Commission also appends a valuable memorandum on the general features and the medical aspects of the opium habit in India.

The Commissioners state that the abuse of opium as a drug and for smoking purposes is much less in extent than has been stated by some, and that the people of India do not make such an intemperate use of the narcotic as the Europeans, even in India, may be fairly charged with in the matter of alcoholic stimulants.

In reference to the exportation of opium to China, and effect of the trade with that country upon the Chinese, the opinion is expressed that the growth and cultivation of the poppy in India have no appreciable effect upon the consumption of opium in China. It appears that India only sends to China about one-fifth of what that country uses, and that the rest is not entirely home grown, but is imported from other countries, notably from Persia. In view of all the facts of the case, the Commissioners are not in favour of prohibiting either the growth of the poppy or the manufacture or sale of opium in British India. While, however, they are opposed to prohibition, they make certain suggestions in regard to the regulation and restriction of the traffic, and recommend that the decision of the Indian Government to put a stop to the smoking of opium on licensed premises be put in force.

As regards the practice of eating or drinking opium, however, the non-medicinal use of the drug for pleasurable purposes appears to merge so into its medicinal use for the mitigation of suffering and the prevention of disease that it would be extremely difficult—indeed, impossible—to interfere with the one purpose without inflicting great hardships on those who use it only for the other, and who find in it their one resource in the various ailments which are so common in damp and malarious districts.

The amount of painful, wasting disease which is met with in India in which opium alone gives any relief makes it extremely difficult, and in the opinion of many most impolitic, to interpose any obstacle to the easy acquisition by the people of so important a household medicament. Those in fact who have followed the evidence and who are aware of the mode of life of many of the inhabitants of India, are well assured that it would be an act of terrible and wanton cruelty to deprive them of the only medicine of any value which is available for the alleviation of the maladies to which their circumstances expose them.

Whether or no opium is either a cure or a prophylactic against malaria may be a question, but that it affords comfort in many malarial diseases appears certain, and when it

became a question of whether or no to prohibit the cultivation of the plant and the manufacture of the drug, it was impossible to put on one side the extreme inconvenience which would be caused by any interference with its accessibility, and the Commissioners were no doubt much influenced in the framing of their report by the evidence which was given as to the sort of disease which was most fatal throughout India—malaria, dysentery, endemic diarrhœa, and cholera—and by the further evidence that in all these maladies opium was regarded by the natives of the country as a general panacea for their health troubles.

The investigations of the Commissioners make it clear that the habit of opium smoking in India is quite a subordinate affair compared with that of opium eating, and that it cannot be looked upon as a mode of the morphine habit, for the material absorbed consists not of morphine but of the products of its destructive distillation. It is in fact a habit, or a vice, of comparatively few, and is mostly confined to the towns, and a good deal of evidence went to show that its apparent evil effects were not due so much to the habit itself as to the surroundings amid which it was practised, and to the character of the people who indulged in it. It was clear that the *habitués* of the opium dens included a number of idle, dissipated, and vicious persons, and that the habit of opium smoking was often resorted to by sufferers from pulmonary diseases for the relief of suffering, and it became obvious to the Commissioners, and those who followed the evidence, that the diseases prevalent among opium smokers were by no means always due to the habit.

Under these circumstances it is not to be wondered at that the report is against enforcing any radical change in a custom which, in regard to opium eating and drinking, is the growth of centuries, and a perusal of the addendum written by one of the native Commissioners makes it clear that an alcohol drinking people can, but with evil grace, protest against a habit for which there is so much more excuse, and which produces so much less evil results than would follow what many consider the alternative, namely, the spread of alcohol or ganja.

The report is one of great interest, and will no doubt be received with the respect due to the labour devoted to the inquiry on which it is founded.

THE ROYAL COLLEGE OF PHYSICIANS.

On Monday, April 8th, in accordance with the statutes, an extraordinary Comitia of the College was held, for the purpose of electing a President Sir J. Russell Reynolds, Bart., President, was in the chair.

The President delivered the annual address, but before doing so he expressed in a few sympathetic words the loss which the College and the profession at large had sustained in the death of Mr. J. Whitaker Hulke, F.R.S., President of the College of Surgeons, and proposed that a resolution expressive of the feeling of the Fellows be transmitted to the sister College. He then proceeded with his address. The numbers on the College roll were: Fellows, 303; Members, 497; Licentiates under the old regulations, 5; Extra Licentiates, 12; Licentiates, 5 970. The College had lost by death five Fellows, most of them at a ripe old age, and after they had retired from the active practice of their profession. At the close of his address he gave brief obituary notices of them. They were Brown-Séquard, W. J. Little, Octavius Sturges, Bisset Hawkins, and Hack Tuke, and mention was also made of the late Dr Greenhill, of Oxford and Hastings, distinguished as scholar, sanitarian, and physician, who, though not a Fellow, had been offered the Fellowship. During the past year the conjoint examinations had been the subject of a visit and inspection from the General Medical Council, and in the report had been described as "good and sufficient," and in regard to the separate examination in Surgery for the College licence it had been decided to make it in all respects similar to that of the Conjoint Board. After alluding to the award of the Moxon medal to Sir W. Jenner, he mentioned that a portrait of the late Sir Andrew Clark by Mr. Lehmann, had been presented to the College by the subscribers. The establishment of the Weber-Parkes triennial prize and medals for the best essay on tuberculosis, and especially in relation to consumption in man, was due to the munificent generosity of Dr. Hermann Weber, and thanks to the liberality of the Goldsmiths' Company, the Laboratories Committee of the two Colleges had been able to undertake a thorough investigation into the treatment of diphtheria by antitoxin and the mode of preparation of antitoxin. At the Medical Congress in Rome, and the Hygiene Congress in Buda-Pesth, the College had been represented. The Committee appointed to carry out the decennial revision of the Nomenclature of Diseases had practically completed their labours and had passed the volume in proof a few days since, and it was about to be issued by the Queen's printers. Reference was also made to the University of London question, and to the deputation to the Prime Minister on the subject in which the College had taken part.

Sir R. Quain, in the absence of Sir Henry Pitman, moved a vote of thanks to the President for his address, with a request that he would allow it to be printed; this was seconded by the Treasurer and carried; and the President having briefly replied, took off his gown and left the chair, when a ballot was at once taken for the election of a President. In the result, Sir J. R. Reynolds received 76 votes, there being 81 Fellows present, and was at once installed in his office by the Senior Censor, and thanked the College for the compliment paid him.

The Treasurer then stated that Dr. Munk had completed the biography of the late Sir Henry Halford, a former President of the College, upon which he had been engaged for many years, and he moved that it should be published by the College; this was seconded by the Senior Censor and agreed to.

Communications were received from the College of Surgeons relative to the funeral of Mr. Hulke, and on other matters jointly concerning the two Colleges.

The resignation of his diploma by a Member was received and accepted, and a report from the Committee of Management relating to some criticisms by the Visitor of the General Medical Council on the Conjoint Examination for the Diploma of Public Health, was after some discussion referred for further consideration by the Committee of Management.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A quarterly Council was held at the College on April 4th; Mr. Reginald Harrison in the chair. The minutes of the last meeting having been read and confirmed, the Council proceeded to the election of a president for the remainder of the collegiate year, in the vacancy caused by the death of Mr. J. W. Hulke. As already announced, Mr. Christopher Heath was elected, and he then took the chair.

The Jacksonian Prize for the past year was adjudged to Mr. H. J. Waring, for his dissertation bearing the motto, "*Si torrere jecur quæris idoneum*," on "The diagnosis and surgical treatment of diseases of liver, gall bladder, and biliary ducts." The subject adopted for the Jacksonian Prize Essay of 1896 was "The pathology, diagnosis, and treatment of diseases of the prostate gland." The subject of the next Collegial Triennial Prize will be "The arrangement and topography of the different parts of the gastro-intestinal canal in man, with special reference to the variations in their relation to the peritoneum and of the abnormalities; the subject to be illustrated from development and a comparison with the customary arrangement in other mammalian animals."

On the recommendation of the General Purposes Committee it was resolved that the portraits of John and William Hunter be restored, varnished, and fitted with new frames. The portraits presented by the Hunter Baillie family have been restored, and will soon be exhibited at the College.

The Committee of Management presented a report upon the arrangements for the Third and Fourth Examinations of the Conjoint Board, and upon the examination in Ophthalmic Medicine and Surgery. This elaborate report was referred to a special Committee for consideration, consisting of Messrs. Hutchinson, Bryant, MacCormac, Pick, Howse, Marsh, and Morris, with the President and Vice-Presidents.

The Committee of Management recommend that the

following be added to the list of institutions for instruction in Chemistry, Physics, and Practical Chemistry:

(1) The Higher Grade Board School, Victoria Road North, Southsea. (2) Wellington College, Wellington, Shropshire. (3) The Grammar School, Bristol. For Biology only: (4) The Birkbeck Literary and Scientific Institution. For laboratory instruction in connection with the diploma in Public Health: (5) The Westminster Hospital Medical School. As a place of study during the fifth year of the curriculum; (6) The City of London Hospital for Diseases of the Chest.

The following report was received from the Committee of Management on the question of the inspection of schools applying for recognition as places of instruction:

1. That in the cases of institutions in London (and in some few other cases) applying for recognition, members of the Committee of Management have inspected such institutions and reported upon them.

2. That in the cases of other institutions, although inspection has not been made by a member of the Committee of Management, on no occasion have the Committee recommended the Colleges to recognise a school or college as a place of instruction in chemistry, physics, practical chemistry, and biology, without satisfying themselves that the institution is in every way fitted for the purpose.

3. That the usual source of information to which the Committee have applied is the Science and Art Department, South Kensington, from the officials of which great assistance has been obtained.

4. That the Department in question makes a thoroughly exhaustive inspection of the laboratories and teaching appliances in every school which desires to be affiliated to that Department, and inasmuch as the affiliation carries with it in most cases a grant for candidates successful at the examinations, the inspection and supervision of the Department must necessarily be thorough. The Committee have accordingly felt that when information could be obtained from the Department in reference to institutions applying for recognition by this Board, it was not necessary for the expense to be incurred of a special visitation on behalf of the Committee.

A report was received from the Laboratories Committee recording the work in diphtheria carried out for the Metropolitan Asylums Board. Since January 1st, 1895, 1,145 specimens have been examined and reported upon. In some cases the report was issued on the same day that the specimen arrived, but in the majority of cases the examination necessitated twenty-four hours' work. An accurate record has been kept of the examination of each case, including the various organisms found. During the first seven weeks the Director with two assistants examined all the cases, but since the third week in February Mr. Card has relieved the Director of the superintendence of the microscopic examination of some of the specimens. A full report will be made to the Metropolitan Asylums Board on every 500 cases examined. After some unavoidable delay the Board placed at the Director's disposal stabling for fifteen horses at Tooting; four horses have been prepared, all of them are in good health, and it is intended that one or two reserve horses shall be prepared.

The Laboratories Committee, seeing their way to placing a certain quantity of antitoxin serum at the disposal of investigators, have for the purposes of experiment determined to make a grant of £100 from the Goldsmiths' Company's grant to Dr. Sidney Martin for the purpose of working out the action of the antitoxic serum when used to counteract the effects of various poisons separated by him from the membrane and from the spleen in cases of diphtheria. This appears to the Committee to be a most important question, and one that must be settled before the mode of action of antitoxic serum can be understood, and they feel that no one can better undertake this work than Dr. Martin.

A letter was read from the Royal College of Surgeons in Ireland expressing the regret of that College at the death of the President and official head of the profession in England. It was resolved that the thanks of the Council be conveyed to the Royal College of Surgeons in Ireland for their kind words of sympathy.

The President, Vice-Presidents, and past Presidents were appointed to consider the question of obtaining busts of the late Sir William Savory and the late Mr. J. W. Hulke, and to report to the Council.

A letter was read from the General Medical Council stating that Mr. Charles Tomes had been appointed as a Visitor of the Dental Examinations of the College during the present year.

UNDER the will of the late Mr. William Andrew Guesdon, by a scheme sanctioned by the Court with the approval of the Attorney General, a sum of £45,000 in consols will be transferred into the names of the official trustees of charitable funds, to pay the interest to the Lord Mayor of London or the time being in trust for the Hospital Sunday Fund.

CHOLERA IN THE EAST.

The Meccan Pilgrimage: Cholera in the Red Sea: Outbreak of Cholera in Japan.

LATER advices state that the outbreak of cholera at Kamaran, the island upon which is the Turkish quarantine lazaretto in the Red Sea, was first reported on March 30th. The number of seizures had by the end of the first week risen to 30 a day with many deaths. It is stated that there were as many as 2,000 pilgrims at the lazaretto at the date of last advices, and that already as many as 11,000 have passed through this season on their way to Jeddah. During the next six or seven weeks a very much larger number must be expected to pass through, and the chief of the lazaretto has proposed to the Sanitary Council in Constantinople to stop the pilgrimage this year from British India and the Dutch Colonies. It is stated that the Sultan is, on religious grounds, reluctant to resort to such a sweeping measure, but the danger is imminent and presses for remedial measures.

As we observed last week the glaring imperfection of the arrangement at the Island of Kamaran was one of the main matters brought before the great Mohammedan public meeting at Hyderabad on February 16th last. Mr. Ernest Hart in his speech then pointed out that the Indian pilgrims were compelled by the Turkish Government to land at Kamaran, and to stay there whether well or sick for a certain number of days. He added that every Indian pilgrim paid to the Turkish Goverment fees amounting to 10 rupees, so that as some 300,000 pilgrims went every year from India, there were ample funds from that source alone to provide pure water, wholesome food, and healthy habitations. "Instead of this," he said, "there were miserable habitations, foul water, and a polluted soil, so that Kamaran frequently became a source of infection. This was an outrage on humanity, and the Mohammedans had a right to demand firmly, respectfully, but earnestly, that this tribute of life should not be levied, but that the pilgrims should be supplied at Kamaran with the means of healthy life, and with properly qualified Mohammedan doctors."

Among the resolutions put at this great meeting by the Prime Minister of Hyderabad, and adopted by acclamation by this unparalleled assembly of Mohammedans, was one which dealt specifically with this point in the following terms:

(1) The reform of the quarantine establishments at Kamaran, Jeddah, and Yambu and the substitution for the healthy pilgrims of a system of medical inspection by which the sick only will be detained in the quarantine establishments. This reform should include above all things the liberal supply of pure drinking water, the cleansing of the soil, the provision of suitable habitations, and an adequate system of conservancy. There should be an adequate staff of properly trained doctors, male and female.

The fears then expressed that the persistence of this scandalous want of foresight and of suitable provision for pilgrims would be followed by a repetition of the terrible loss of life recorded in previous years seem now about to be fulfilled, and it is to be feared that the procrastinating methods of Turkish administration will once more prevent the immediate application of the remedy which his co-religionists now join with the whole civilised world in pressing upon the Sultan. According to the statement made to the French Comité Consultatif d'Hygiène Publique by the Inspector-General, the first outbreak of cholera at Kamaran was on board the pilgrim ship *Mohamedi-Zubeda*, from Bombay, and the Inspector-General added that this news was of the utmost gravity on account of the Meccan pilgrimage, which would be in full swing in June.

Telegrams from Japan states that cholera is beginning seriously to affect the troops who have been engaged in the Chinese war. It is reported that the epidemic continues to increase at Moji, a village on the Kinshui side of the Straits of Shimonoseki, and that numerous cases have occurred on board the transports returning from China. It is reported also that cholera prevails among the troops in the Pescadores Islands, off the western coast of Formosa. There have already been 400 cases with 100 deaths.

THE Armourers' and Braziers' Company has contributed £105 to the Special Appeal Fund of St. Thomas's Hospital.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 24th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

April 4th, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Cardiff on Tuesday, April 30th. Members wishing to read papers, or show cases, specimens, etc., are requested to send titles to Dr. Sheen, Cardiff, not later than April 16th.—A. SHEEN, D. A. DAVIES, Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place at Gravesend on Thursday, May 16th, Mr. R. J. Bryden in the chair. Members wishing to read papers, or exhibit patients or specimens, are requested to inform the Honorary Secretary, EDWARD GROUND, M.D., 1, Ashford Road, Maidstone, not later than April 21st.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held in the Radcliffe Infirmary, at 3.15 P.M. on Friday, April 26th. Members are requested to give notice to the Honorary Secretary, W. LEWIS MORGAN, 37, Broad Street, Oxford, as soon as possible, of any papers, etc., they wish to read.

NORTH OF IRELAND BRANCH.—The spring meeting of this Branch will be held in the Museum, College Square North, Belfast, on Thursday, April 18th, at 4 P.M. Gentlemen who wish to read papers, show patients, or bring any other business before the meeting will kindly communicate as early as convenient with JOHN CAMPBELL, Honorary Secretary, 21, Great Victoria Street, Belfast.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—An ordinary general meeting of this Branch will be held on Wednesday, April 17th, at 8 P.M. Business: Minutes, nominations, etc. Thereafter, by order of the Council, a special general meeting of the Branch will be held to consider the paragraph that appeared in the *Daily Free Press* of March 22nd last concerning the last ordinary general meeting of the Branch.—C. THISELTON URQUHART and J. SCOTT RIDDELL, Joint Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held, by kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, May 2nd, at 8.30 P.M. (instead of April 18th). The chair will be taken by Dr. Daly, Vice-President of the District. Dr. Stephen Mackenzie will give a demonstration of cases of Nerve Disease. Visitors will be cordially welcomed.—H. E. POWELL, Honorary Secretary, Glenarm House, Upper Clapton, N.E.

GLOUCESTERSHIRE BRANCH.—The next meeting of the Gloucestershire Branch will be held at the General Infirmary, Gloucester, on Tuesday, April 16th, at 7 P.M., under the presidency of Mr. O. H. Fowler, when Dr. Eddowes, Physician to the Western Skin Hospital, London, will read a paper upon Recent Advances in the Treatment of Skin Affections.—S. T. PRUEN, Honorary Secretary, Sherborne Lodge, Cheltenham.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH.

THE spring meeting of this Branch was held at the Stirling District Asylum, Larbert, on March 29th, Dr. MCVAIL, the President of the Branch, in the chair.

Confirmation of Minutes.—The minutes of last meeting were read and signed.

New Member.—Dr. W. H. Mackenzie, of the Asylum, Larbert, was elected a member of the Association and of the Branch.

Histology and Pathology of the Brain.—Dr. BATTY TUKE delivered an address, illustrated by lantern and slides, on Recent Researches in the Histology and Pathology of the Brain Cortex, and referred to the rapid growth in recent years of knowledge of the structure of the brain, and to the work of Golgi in devising his method of preparation of brain tissue so as to trace the anatomical connections of nerve cells. Illustrations were shown of the different zones of cortical cells, and especially of the pyramidal cells and their processes, whose peculiar confirmation helped to extend the area of contact with other similar processes. Slides were also shown illustrative of the effects of fatigue on the brain cells, and some sections of bee's brains before and after work.

Vote of Thanks.—A vote of thanks to Dr. Batty Tuke was proposed by Dr. MACPHERSON, who referred to Dr. Tuke's own researches in this field, and it was seconded by Dr. MCVAIL and unanimously accorded.

Annual Meeting.—It was intimated that the summer meeting will probably be held in Stirling, and that the Edinburgh Branch has been invited by the Council to join in it.

Case of Dr. Allan, Lasswade.—A circular from the Edinburgh Branch in regard to this case was read, and the Hon. Sec. agreed to forward any subscriptions from members to assist in defraying Dr. Allan's costs.

Draft Bill to Amend the Law relating to Unqualified Persons.—This Bill was read, and its principle approved. Resolutions from the Lancashire and Cheshire Branch were communicated to the meeting.

Medical Charities.—The recommendations of the Committee on this subject were discussed and approved.

Medical Aid Societies.—The resolution of the Council of the Association on this subject, as it has arisen in connection with the South of Ireland Branch, was read.

Ambulance Teaching.—A letter was read from the Dundee Branch in regard to the gratuitous teaching of ambulance work.

Entertainment.—The directors of the asylum afterwards entertained the members of the Branch, and Dr. MCVAIL proposed a vote of thanks to them for their hospitality and kindness in welcoming the members of the Branch.

LANCASHIRE AND CHESHIRE BRANCH.

A SPECIAL general meeting of this Branch was held in the Memorial Hall, Albert Square, Manchester, on Thursday, April 4th, to consider certain alterations in, and additions to, the laws of the Branch, which were proposed by the Honorary Secretary (Dr. James Barr, of Liverpool). There were about 100 members present, and Dr. EDWIN RAYNER, President, occupied the chair.

Alteration of By laws.—Dr. BARR entered very fully into the objects and aims of the proposed changes, which, he believed, would effect a very salutary and necessary reform in the government of this large and important Branch.—Discussions followed on the various resolutions, in which the following gentlemen took part: Drs. and Messrs. COLIN CAMPBELL, BERRY, GLASCOTT, BRIERLEY, MARTIN, R. HARRIS, HOLMES, WATKINS, COLLEY MARCH, WOODCOCK, VACHER,

MACFIE CAMPBELL, TAYLOR, THORNBY, BAIN, and HELME. Eventually all Dr. Barr's resolutions were adopted entire, with the slight modification that in future members shall be allowed to vote for a fewer number of candidates than there are vacancies.

Medical Charities Committee.—The SECRETARY read a communication which he had received from the Medical Charities Committee of the British Medical Association anent the abuse of medical charities. On the motion of Dr. BRASSEY BRIERLEY, seconded by Dr. CAMPBELL, a Committee was appointed to consider this question consisting of the following gentlemen: Dr. Carter, Dr. Rentoul, and Dr. Stookes, from Liverpool; Dr. Brierley, Dr. Hulme, and Dr. A. Stewart, from Manchester; and one representative from each of the following towns: Ashton, Oldham, Stockport, Warrington, Birkenhead, Chester, Macclesfield, St. Helens, Bolton, Preston, Rochdale, Lancaster, Southport, and Wigan.

Anderson Appeal Fund.—Dr. BARR announced that he would be pleased to receive any further subscriptions on behalf of the Anderson Appeal Fund.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE second meeting of this District was held at the Ophthalmic Hospital, Maidstone, on Friday, March 15th, at 4 P.M., Dr. PLOMLEY in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Next Meeting.—It was decided that the next meeting be held at Gravesend in May, and that Mr. R. T. Bryden be asked to preside.

New Member.—Mr. Clement R. Lucas, of Rainham, was elected a member of the District.

Communications.—Dr. HOAR related an Unusual Case of Severe Attacks of Abdominal Pain, lasting many years. Abdominal section was at last resorted to, the operation being performed by Mr. Treves more than a year ago. Two fibrous bands were found in the left hypochondriac region, and divided. The patient made a good recovery and had had no attack since.—Dr. TIRARD read a paper on the Antitoxin Treatment of Diphtheria, as illustrated by his experience of twelve cases treated with Behring's antitoxin at the Evelina Hospital. He gave a detailed account of three cases, two requiring tracheotomy, while the third proved fatal from hæmorrhage. He laid stress upon the importance of checking the diagnosis by bacteriological examination, but advised that the treatment should be commenced as early as possible. After enumerating the various ill effects which had been attributed to antitoxin, he pointed out that in his series albuminuria, when it occurred, had mostly been found before treatment. Amongst the new effects noticed he mentioned the marked improvement in the pulse and the rapid convalescence. He said that, reviewing the cases, three months after treatment none of the ordinary sequelæ of diphtheria had been met with. In conclusion he exhibited the temperature charts of his cases, which showed that in only one instance was there a slight rise of temperature after the injection of antitoxin. While considering that extended observations were required to establish the value of this treatment, he thought the results could scarcely be attributed to mildness of epidemic, or other accidental cause.—The notes of two Cases Treated with Aronson's Antitoxin by Dr. Blomfield, of Sevenoaks, were read by the HONORARY SECRETARY, one case recovering, the other fatal, after tracheotomy, from extension to the lungs.—Mr. HUGH SMITH read the notes of a Necropsy on a case of Rupture of the Uterus During Labour in a Multipara. The labour appeared to be normal and was unassisted. From two and a half to three pints of blood were found in the abdominal cavity, which had escaped through a rent in the uterus, which was an extension upwards of a deep cervical tear. The muscular tissue of the uterus had undergone a fatty change. Mr. Smith also showed a Well Marked Case of Myxœdema in a Female, aged 26 years, who five years ago suffered from Enlarged Thyroid and Exophthalmos; but at the present time there was no evidence of the existence of the thyroid gland. He intended to treat her with thyroid extract. The various papers were of much interest, and were freely discussed.

Dinner.—Seven members afterwards dined at the Mitre Hotel.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above Districts was held on Thursday, March 28th, at the Sussex County Hospital, Brighton; Mr. T. JENNER VERRALL in the chair.

Demonstrations: The following clinical cases were demonstrated by members of the hospital staff:—Mr. VERRALL: (1) Talipes, treated by excision of wedge from tarsal arch; (2) Fractured Patella, treated by "wiring."—Dr. MACKEY: (1) Lupus Erythematosus: (2) Syphilis; (3) Pernicious Anæmia, treated by daily administration of 2 ounces of raw bone marrow.—Dr. RICHARDSON: (1) Peptonuria, associated with Boils; (2) Cardiac Disease in a child aged 6, with Pain down Left Arm and Leg: (3) Eczema in a Strumous subject.—Dr. DILL: (1) Atypical Graves's Disease; (2) Raynaud's Disease.

SOUTH INDIAN BRANCH.

A MEETING of this Branch was held at Madras on May 4th, 1894. Surgeon-Lieutenant-Colonel W. R. BROWNE, M.D., in the chair.

Communications.—After the reading of various letters, Surgeon-Major J. MAITLAND showed (1) a patient suffering from Paralysis of the Arm following an Injury. (2) Two patients who had been operated upon for Elephantiasis of the Scrotum. In both cases the penis was covered (at the time of the operation) with large skin grafts after Thiersch's method. The result was that healing was completed much more rapidly, and there was much less contraction than after the old method.—Brigade-Surgeon-Lieutenant-Colonel J. F. SARGENT read a report of a case of Snake Bite treated by the Injection of Liquor Strichniæ. The patient was a young woman who was bitten by a cobra. When seen the body was cold and clammy, and there was stertorous breathing, with occasional catching in or spasm of throat. Pulse 80, not very weak. Filthy fluid in mouth escaping through lips. The patient appeared to be unconscious. Liquor strychniæ was injected as recommended by Dr. Mueller, and the woman recovered. She was bitten between the shoulder blades through three cloths, one fairly thick and two flimsy muslin-like cloths. The cloths were torn to about 1 inch in extent, but there were no puncture-like holes in the cloths. The wounds looked like inflamed scratches or brush burns. Dr. Sargent thought this was most probably a case of limited injection of the snake poison, owing to the intervention of clothing. The symptoms were largely accompanied by those of great fright. The tears in the various cloths were most probably made by the woman scratching at them and pulling them against the teeth of the snake. The author did not think the collapse was profound enough, taking the length of time between the bite and when she was first seen, to justify the opinion that the woman's life was saved by the injection of the strychnine; but there could hardly be any doubt that the treatment hastened the recovery from the symptoms. There apparently were no tetanic spasms afterwards as a result of the injections, but she had "catching in the throat and fainting fits" for two or three days afterwards.—Dr. E. S. KRISHNASAWMI IYER also reported a case of Snake Bite. A man, aged 65, was bitten on the leg by a cobra. In this case also the strychnine injections were used successfully.—Surgeon-Captain D. SIMPSON, M.B., reported a case of Paralysis of Respiration under Chloroform. The patient was a man, aged 45, suffering from necrosis of the jaw for which an operation was to be performed. Chloroform was administered by a perforated cone made of tin and lined with lint, and the man took it quietly and was fully anæsthetised, 4 drachms of chloroform having been administered. A Junker's inhaler, with nose piece, was then substituted in order to leave free room for operating. About ½ drachm of chloroform had been inhaled when the respirations suddenly became shallow. Meanwhile, the heart beats were regular and visible in the epigastrium. The head was thrown back and depressed, the tongue pulled forward, and artificial respiration carried on. In about two minutes the patient inspired and soon recovered. After a short interval the administration of chloroform was resumed, and about 1 drachm had been given when a similar tendency showed itself. A few strokes of artificial respiration seemed to establish respiratory move-

ments, but with a certain shallowness and uncertainty that gave one the impression that they might at any moment cease altogether. To eliminate any possibility of there being spasm or obstruction about the glottis tracheotomy was performed. The patient respired once or twice fully and freely on insertion of the tube, and then abruptly ceased to breathe. Artificial respiration was again carried on and continued for three to four minutes, accompanied with sharp flicking of the face and chest, under the influence of which he again began to breathe. It was apparent that this was simply a repetition of the former occurrence, and was not likely due to any spasm or obstruction of the glottis. Two days after the tracheotomy operation he was again placed on the table. Chloroform was employed, followed by A.C.E. mixture. Two and a-half drachms of chloroform were inhaled by the mouth, followed by 3 drachms of A.C.E. mixture, administered through the tracheotomy tube. He had just become anæsthetised when the breathing became rapidly shallow and soon ceased. Restorative measures were adopted as before, but on this occasion it took much longer time—from ten to fifteen minutes, to bring the patient round. There was free access of air by the cannula, while artificial respiration was being carried on. The pulse was strong and 90 per minute, while the heart beats were visible in the epigastrium. With considerable difficulty the patient was got round. No further attempt was made at operation. Surgeon-Captain Simpson suggested the possible existence of some pathological condition in the neighbourhood of the respiratory centre, which, while it admitted of the rapid absorption of chloroform, prevented an equally rapid elimination, and thus caused it to act as a cumulative poison. Artificial respiration did not seem in this case to be really of use.—C. B. Rama Rao, L.M.S., reported a case of Hyperidrosis.—Surgeon-Major C. M. Thompson read notes of a case of Scurvy.

BURMAH BRANCH.

The thirty-first regular meeting of this Branch was held on March 5th, 1894, Surgeon-Lieutenant-Colonel H. Johnstone in the chair.

Fees to Medical Witnesses.—Some correspondence with the Registrar of the Recorder's Court of Rangoon was read relating to the expenses of medical witnesses and the reception by the courts of medical certificates. The Recorder considered that rules and a scale of fees should be framed and the representation of the Burmah Branch of the British Medical Association would be duly considered in connection with such a scale.

The thirty-second regular meeting was held on April 2nd, 1894, Surgeon-Lieutenant-Colonel O. Baker (Vice-President) in the chair.

Communications.—Dr. B. C. Dey showed a Chinaman on whom he had operated for an enormous growth on the right iliac region.—Surgeon-Lieutenant-Colonel O. Baker showed (1) A Spongy Osteoma originating in the connective tissue overlying the left orbital process of the frontal bone, which was removed from the forehead of a Madrasi boy, aged 14; (2) The amputated Lower Limb of a native of India in which there was an old ununited fracture of the tibia and fibula and in which a sarcomatous tumour had developed at the proximal ends of the fractured bones. The patient was the subject of molluscum fibrosum, a disease rarely seen in Burmah. Surgeon-Lieutenant-Colonel O. Baker next read notes of the following cases: (1) A case of Enlarged Lymphatic Glands treated by the subcutaneous injection of guaiacol and iodoform. (The patient was shown.) (2) Symptoms closely allied to the symptoms of Raynaud's Disease occurring in a patient suffering from bronchitis followed, nine days later, by death; (3) A case of Obstruction of the Bowels presumably due to the presence of common round worms.—Surgeon-Captain G. G. Giffard showed a few Sepoys of his regiment suffering from a Diminution of Sensibility or complete loss of sensation in the course of certain nerves and exalted sensibility in certain areas supplied by the same nerves following on febrile attacks. In the discussion which followed the members were inclined to believe that these were cases of commencing non-tubercular leprosy.

The thirty-third meeting was held on May 4th, 1894, Brigade-Surgeon-Lieutenant-Colonel D. Sinclair in the chair.

Communications.—Surgeon-Captain R. E. S. Davis exhibited a Human Skull with extensive fracture just in front and above the right ear, running straight across and ending just above the left ear, and a starred and depressed fracture over the anterior edge of the right parietal bone, and read notes made by Surgeon-Lieutenant-Colonel Baker and himself.—Dr. T. F. Pedley next showed a Chinaman who had fractured his Right Parietal Bone in a fall from a pony.

Fees to Medical Witnesses.—The Secretary (Dr. N. N. Parakh) mentioned that with reference to the application to the Recorder of Rangoon to rule as to fees to medical witnesses, he had not received any official intimation, but that in the case of Hill *v.* Hill, before he and Dr. Findlay gave evidence, the Court was asked for a ruling as to fees. His Honour said that according to the Calcutta High Court rules the subsistence allowance was one gold mohur for a single attendance. By the word "attendance" the Court meant examination, and therefore they would be entitled to a gold mohur each, as they came to Court to give evidence as to particular facts and not as experts, and hence he could not award them two gold mohurs each as prayed for.—After some discussion it was ruled from the Chair that the Honorary Secretary write and inquire of the Registrars of the High Courts of Calcutta and Bombay as to fees there granted to private practitioners as witnesses in civil and criminal cases.

SPECIAL CORRESPONDENCE.

PARIS.

Paris Matchmakers and "Fossy Jaw."—Ambulance and Hospital Training.—A New Development of Serumtherapy.—General News.

The lucifer matchmakers on strike, besides the question of salary, discuss that of the use of white phosphorus. Some of the Socialistic daily papers support them, and denounce what they, perhaps with reason, call "legal assassination." In 1856, in Tardieu's report, the Comité d'Hygiène Publique de France recommended the absolute prohibition of white phosphorus in the preparation of lucifer match paste. M. A. Rigaut, an expert, estimated the number of victims of "fossy jaw" to amount to one-fourth of the hands. At a monster meeting it was decided to go direct to the Elysée and beg the President to intervene if the question were not dealt with by Government. The *Journal Officiel* states that a special Commission has been appointed to study the question of replacing ordinary by amorphous phosphorus, and to examine the different types of lucifer matches made with amorphous phosphorus not requiring a special kind of paper to strike them on. The following are the members of the Commission: M. Berthelot, perpetual secretary of the Académie des Sciences; M. Schoering, director of the School of Application of the State Manufactories; M. Troost, member of the Institute; M. Sarrau, member of the Institute, director of the central laboratory of gunpowder and saltpetre; M. Vieille, engineer of the gunpowder and saltpetre stores; M. Sollier, engineer to the State manufactories, chef du bureau at the Ministère des Finances; and M. Schutzenberger, member of the Institute and Professor of Chemistry at the Collège de France.

The Hospital School of the Association des Dames Françaises will be opened in 1896. The site chosen is in one of the healthiest and least populated parts of Paris. Part of the school is built. Dr. Duchaussoy, the General Secretary of the Association, states that the object of this school is to improve the organisation of national defence. The members of the Association will receive a practical training in the hospital to fit them to perform their duties in time of war. Hitherto their training has been theoretical. The Auteuil hospital will, it is estimated, cost £18,000. It will be composed of a ward to accommodate twenty-four patients, where the ambulance pupils will receive their practical training; likewise an organisation capable of ensuring the sanitation and care of every kind required for a hospital of 120 beds in

times of epidemic and war. This number of patients will be received in the hospital. This transformation from 24 to 120 will be accomplished in forty-eight hours by utilising five special tents and reserve material. This is the essential feature differentiating this hospital from others. The five impromptu tents will be erected parallel with the parent building, and separated from it by a garden, where convalescent patients can enjoy the fresh air. One of the tents will be used for patients with contagious diseases who must be isolated from the others, and will be specially arranged for this purpose. When no longer needed the entire hospital can be taken to pieces, disinfected, and put aside until needed again.

M. Roger claims to have discovered a new fact in relation to serumtherapy. He renders mules immune, and thus obtains a serum which cures erysipelas and puerperal fever. On February 6th a patient at the Maternity was treated with this serum for puerperal fever. Her general condition was very grave. Eight grammes of serum were injected without any result; the next day an injection of 16 was followed by a slight improvement. On the third day, after an injection of 25 grammes, the improvement was rapid; eight days afterwards the patient left the hospital. M. Roger's serum is efficacious in all maladies owing their origin to the presence of streptococci.

The Municipal Council has voted £2,000 for the bacteriological laboratory to create a special service for the examination of diphtheritic membranes. All medical men can apply to have a microscopic examination and control cultivations.

News comes from Saigon that the European population suffer greatly in the cholera epidemic. The Saigon Health Committee has been convened by the Governor-Lieutenant of Saigon to take the necessary measures to arrest the epidemic.

CORRESPONDENCE.

THE CHARGES AGAINST THE HOLLOWAY SANATORIUM.

SIR,—An inquiry has been held into one only of the cases as to which charges were made against the medical officers of the Holloway Sanatorium, and as to the subject matter of this inquiry it would be improper to make any comment until the result of the inquiry is known, and the report of the Commission made public.

It appears probable from the report of the inquiry, that an effort will be made by the authorities of the sanatorium to procure a further inquiry into the other cases in which charges have been made; and as it is possible that this effort may be successful, it may not be proper to make any public reference to these charges either.

Although, however, we are precluded from any public discussion of these most serious allegations, there are certain matters connected with them as to which we are under no obligation, either legal, or moral, or customary, to keep silence.

The admitted facts of the case are shortly these: Thomas Weir, a man of 26 years, of great physical strength, of extremely violent impulsive tendencies, reported as suicidal, was admitted into the sanatorium on July 17th, 1894, and died therein on September 30th following. During his residence in the sanatorium he had been repeatedly treated by the dry pack, and for the last four days of his life was almost continuously so treated, being taken out only for necessary purposes. He died suddenly and unexpectedly, as cases of acute mania not uncommonly die, from exhaustion of very rapid onset. During the time that he was almost continuously in the dry pack he was not continuously watched by attendants, and was visited only once a day by the medical officer.

An inquest was held, the friends of the deceased being represented by counsel, and a verdict was found: "That Weir died from exhaustion, that not sufficient medical supervision was exercised, and that the mechanical restraint was excessive and too long continued."

Subsequently two commissioners, Mr. Frere and Dr. Needham, held a sworn inquiry, and reported that they entirely concurred in the finding of the jury, and they made certain general recommendations as to precautions to be observed in the use of mechanical restraint.

These two inquiries were not satisfactory to the friends of the patient, and after certain articles of a highly inflammatory nature had appeared in the public press, questions were asked in Parliament, and an inquiry was directed by the Home Secretary to be made into the treatment of Weir, and into the regulations in force in the sanatorium in respect to such cases.

At the onset of the consideration of this affair, it is important to bear in mind that the father of the patient was, and is, suffering from an accumulated load of disaster, so heavy as to command the heartfelt sympathy of all humane persons, and to account for, if it does not justify, the manner in which he has pursued the individuals concerned in the treatment of his son, and the strong language that he has used in regard to them. He had lost his wife by sudden death; he had lost a son by drowning; after, and partly in consequence of these calamities, the son, whose death forms the subject of these inquiries, had lost his reason; and he himself was afflicted with rapidly-increasing blindness. To a man so persecuted by unmerciful disaster very much may be forgiven, but a similar lenience of judgment will not be extended to the newspapers that made capital out of his misfortunes by publishing sensational articles containing an *ex parte* and garbled account of the facts, reinforced by purely imaginary statements of their own.

I desire to treat the inquiry of Mr. Gully and Dr. Savage (the third inquiry into the circumstances of Weir's death, the report of which is not yet issued) with all possible respect, but I submit that it displays no want of respect to the decision of the Commissioner and his assessor to compare the charges originally made in the newspapers with the charges that were alleged at the inquiry, and to show how absurdly disproportionate are the mild allegations made at the inquiry of want of sufficient care, to the hysterical ravings of torture and murder originally promulgated in the public press.

The *Star* begins with a quotation from Tucker, and, after doing me the honour to quote a passage from my book on *Lunacy Law*, goes on to say: "In spite of these explicit instructions, the Commissioners complain again and again of the imperfect manner in which the record of mechanical restraint is kept." It is scarcely necessary to say that no such complaint has ever been made by the Commissioners in Lunacy either of the Holloway Sanatorium or of any other institution for lunatics. The following are the mild terms in which *Truth* refers to the unfortunate death of Weir:

> If ever in this world a poor helpless wretch was done to death by inhuman barbarity and criminal negligence, that man was Thomas Weir. In all the blood-stained records of modern lunatic asylums there is not to be found a more sickening and horrifying story. It is a story of the slow torturing to death of a helpless maniac by methods the barbarity of which must be apparent to the most callous observer. The perpetration of such a crime, etc.

If this means anything at all it means a charge of at least manslaughter against the medical men who had charge of the patient. Now what were the charges made by Mr. Wallace, the counsel for Mr. Weir, senior, at the inquiry before Mr. Gully, the inquiry which was ordered practically in consequence of this article? These are his words at the opening of his address to the Commissioner:

> I do not think it is an unreasonable thing to say that their conduct (that of the officials of the sanatorium) is really the subject of the whole inquiry. They have come here to vindicate themselves. It may be that I put it too high, but I think, after the report of the Commissioners, that I am entitled to say that they have come here to vindicate to some extent the treatment which they adopted. It is quite plain, after the report of the Commissioners and after the candid evidence which Dr. Philipps gave this morning—it is quite plain that I am entitled to use the words "vindication" and "justification" of treatment which is open to remark, and which is reprehensible in some respects.

So that the parturient mountain of "doing to death a poor helpless wretch by inhuman barbarity" brings forth this *ridiculus mus* that the treatment of the patient was open to remark, and was in some respects reprehensible. Was there ever a more lame and impotent conclusion?

In what respect is it alleged by Mr. Wallace—I beg to point out that I am dealing with the terms of his allegations only, and in no respect touching on the extent to which he has proved them, which is a matter still *sub judice*—in what

respect is it alleged that the treatment was open to remark and reprehensible?

His first and main point is that the restraint in the dry pack was enforced for a reason which was not a statutory reason, and was therefore not only unjustifiable but illegal. "The patient was put into the dry pack," he says, "for neither surgical nor medical treatment, nor to prevent him injuring himself or others.....to save three or four attendants the trouble." No attempt was made to show that treatment by the dry pack was "inhuman barbarity," or that by it the patient was "slowly tortured to death." No expert was called to prove that the dry pack was an exceptional or unjustifiable appliance in the treatment of such a case as Weir's. Passages from standard authors were read by Mr. Wallace, referring to the dry pack as a recognised method of treatment. No attempt was made to discredit it generally; the whole gravamen of the charge was that it was used for a purpose other than that authorised by statute—a sufficiently grave charge it is true, but one which is absurdly disproportionate to the newspaper accusations upon which the inquiry was founded.

As to the accusation of negligence, it was admitted that the deceased had not been visited by the medical officer as frequently as the rules of the hospital and the gravity of the case required. This amount of negligence was alleged at the inquiry, and was proved, but no attempt was made to show that the negligence was criminal, as alleged in the newspaper.

The foregoing are all the charges that were made against the medical officers of the sanatorium at the inquiry, and I ask your readers to compare them with the language of the newspaper and to say whether charges so abominable as the latter ought ever to have been made if no attempt to prove them—no, nor even to repeat them—is made before the very tribunal which is constituted for their investigation.

As to the authority of this tribunal there is a word to be said which is not without importance, and which appears to have been overlooked. The Home Secretary directed the inquiry by virtue of the authority vested in him by the Lunacy Act, 1890, Section 205. It will scarcely be believed, but it is none the less a fact, that the section in question does not give the Secretary of State any power to direct any inquiry in such a case. The Act empowers the Secretary of State by an order in writing to require the person to whom the order is directed to visit and examine a lunatic or alleged lunatic, and to inspect any place in which a lunatic or alleged lunatic is detained, and to report upon such matters as in the order are directed to be inquired into. In the present case the lunatic was dead, and the section clearly contemplates the case of a living person only. In issuing the order for the inquiry the Secretary of State was acting altogether *ultra vires;* the Commissioner had, in fact, no jurisdiction, and, had there been any desire on the part of the authorities of the hospital or of the medical officers to burke the inquiry, they could have refused to take any part in it, and would have been legally justified in so refusing. The fact that they gave every facility for the inquiry, and even invited the presence of reporters, is sufficient evidence that they desired to keep nothing concealed.

There are other matters dealt with at the inquiry which are of great interest; but for the present I trust I have said enough to secure for those of our number who have been so cruelly and outrageously attacked the sympathy and the moral support of the members of the profession.—I am, etc.,

Catford, S.E., April 5th. CHARLES MERCIER.

THE FUNCTION OF THE SUPRARENAL BODIES.

SIR,—Dr. Rolleston, in his "lectures," alludes to my work in showing that the medullary portion of the suprarenal capsule produces a special secretion in the form of a colloid substance, but he makes no mention of the opinion which I therein expressed, that this secretion plays an important part in the blood, both by ministering to that fluid and by antagonising substances otherwise toxic. He gives the whole credit of this view of the usefulness of the secretion to Drs. Oliver and Schäfer, whose opinions were not made known until several months after my paper had been published in the British Medical Journal. To this I might add that Dr. Rolleston is surely unaware of the demonstration which has been made of the katabolism of red blood corpuscles within the suprarenal gland, while with regard to his remarks on mitosis in certain cells of the cortex and an unpublished opinion of Dr. Hills, it was pointed out in my first paper that formative changes were to be observed occurring in both nucleus and protoplasm of these cells.—I am, etc.,

Glasgow, April 8th. A. G. AULD.

THE APPROACHING REVISION OF THE *BRITISH PHARMACOPŒIA*.

SIR,—In view of the approaching revision of the *British Pharmacopœia*, it is to be hoped that due attention will be paid to the subject of the active principles of certain drugs. Since the issue of the last edition of that compilation, chemists have devoted much patience and energy to the problem of obtaining alkaloids possessed of definite chemical and physiological properties, and their efforts have in several directions been attended by a large measure of success. If we consider digitalis—to take one of several examples—the practitioner desirous of prescribing a definite alkaloid has had to choose between Merck's digitoxin, the French amorphous digitalin, and the crystallised digitalin discovered by Nativelle. According to the report of a Commission specially appointed for the purpose by the Paris Société de Thérapeutique, the German amorphous digitoxin manufactured in 1894 possessed a vastly greater potency than that of the 1889 product. In 1889 the lethal dose of the alkaloid was approximately the same as the French amorphous digitalin, namely, 2 mg. per kilogramme weight of animal, whereas the 1894 product kills in the proportion of 1.2 mg. for the same weight of animal. It is obvious that no practitioner is likely to prescribe an alkaloid the potency of which varies within such wide limits. This variability is always liable to present itself in amorphous alkaloids, and if any digitalis alkaloid is to be selected, the crystallised alkaloid discovered by Nativelle would appear to be the most suitable. This, however, is precisely the sort of question which the editors will be called upon to decide, the tendency of modern therapeutics being to prefer the exhibition of strictly-defined active principles, invariable alike in physical characters and physiological activity, to the use of preparations of crude drugs of uncertain strength and containing a variety of active principles possessed of distinct and, as in opium, possibly conflicting, properties.—I am, etc.,

April 5th. THERAPEUTIST.

NAVAL AND MILITARY MEDICAL SERVICES.

THE P.M.O. DEVONPORT.

The retirement of Surgeon-Colonel F. H. Welch may shortly be expected. He was under orders for service in India some time ago, but was exempted on notifying his intention to retire on completing three years in his present rank, which qualifies him for the full pension.

THE P.M.O. SOUTHERN DISTRICT.

Surgeon-Colonel E. C. Markey, C.B., will succeed to the Portsmouth Command on April 15th, *vice* Surgeon-Major-General J. Davis, to be retired on attaining 60 years of age. Surgeon-Colonel Markey has just returned from Madras, and being among the surgeon-colonels selected for promotion will obtain Surgeon-Major-General Davis's step.

THE P.M.O.'S OF INDIAN DISTRICTS.

The following is the distribution of the administrative districts in the new Indian Commands:

In the Punjab Command surgeon-colonels of the Army Medical Staff administer the Pindi and Sirhind Districts, with headquarters respectively at Rawal Pindi and Umbala.

The Indian Medical Service surgeon-colonels administer the Lahore and Punjab Frontier Force, with headquarters at Mian Mir and Abbootabad.

In the Bengal Command the Army Medical Staff officers take the following districts, Allahabad and Nerbudda, Meerut and Bundelkund, and Oudh and Rohilkund, having headquarters respectively at Allahabad, Meerut, and Lucknow.

The Indian Medical Service officers obtain the Assam and Presidency Districts, with headquarters at Shillong and Calcutta respectively.

In the Madras Command surgeon-colonels of the Army Medical Staff administer the Secunderabad and Belgaum, and Mandalay with Chin Hills Districts, with headquarters at Secunderabad and Mandalay.

The Indian Medical Service get the following districts: Bangalore and Southern Rangoon and Madras, with headquarters at Bangalore, Rangoon, and Madras.

In the Bombay Command the Army Medical Staff obtain the Poona,

Mhow, and Quetta Districts, with headquarters at each station; and the Indian Medical Service the following: Bombay and Aden, headquarters Bombay; Scinde, headquarters Karachi; Nagpur, headquarters Kampti.

The Peshawur Administrative District is to be held, it is ruled, alternately by a brigade-surgeon-lieutenant-colonel of the Army Medical Staff and Indian Medical Service.

As has already been stated in the BRITISH MEDICAL JOURNAL, the principal medical officerships in chief of the four commands will be divided equally between both medical services, the Army Medical Staff getting the Bengal and Bombay Army Corps, and the Indian Medical Service the Punjab and Madras. The nomination (Surgeon-Colonel Harvey) for the Punjab Army Corps has been noted; for the Madras, Surgeon-Colonel McVittie is mentioned.

Surgeon-Major-Generals Walsh and Warren fill the positions in Bengal and Bombay.

THE NAVAL MEDICAL SERVICE OF THE UNITED STATES.

We are accustomed to consider the status of the medical officers of the United States Army as so superior, both in military rank and title, to our own that it comes as a revelation and surprise to find the naval medical service of that country is as far behind our own as its military is ahead of us. Yet that such is the fact appears from a memorandum published recently in the *Cincinnati Lancet-Clinic*. We are told that the position of American naval medical officers contrasts very unfavourably with those of foreign navies, especially the British. The memorandum from which we quote states:

"There has long been an uncalled-for antipathy between the naval line officers and those of the medical staff, on account of which the medical staff has been subject to slights and indignities which were a disgrace to the navy." "For this reason it has been impossible to keep the medical staff corps anything like full, and at this very time there are a good number of vacancies."

That almost reads like a fortunately bygone, and we hope never recurring, chapter in the history of our own naval service. It goes on:

"At the same time the medical staff of the army is kept nearly at its maximum because of the fair treatment accorded by the line officers." "In the navy the question at issue seems to be more one of sociology than anything else. Line officers are taken into the service as boys and educated at the expense of the Government. No inconsiderable part of this education consists in the teaching of patriotism, the law of caste and accompanying dignity."

But the medical officer, whose education is wholly at his own expense, on obtaining a navy commission, "is at once awed by this condition of official caste, and made to feel that his right to recognition, according to his lawful rank, is only tolerated, and not granted as though to an equal. Such a course of conduct is unworthy of our nation's defenders." American institutions have changed many things, but seem powerless to eradicate certain caste tendencies in human nature, which are ready to assert themselves whenever and wherever the conditions become favourable. It appears from our contemporary there is a Bill at present before Congress which would intensify naval medical evils, and ought therefore to be defeated: "To allow the Bill to become a law means a practical set-back, and fling at the whole medical profession." It further demands "equal rights for medicine with diplomacy, law, arms, agriculture, and banking;" and we have little doubt such would be all once agreed and the profession command a sufficient number of votes. These, and not abstract right or righteousness, constitute the true motive power of the latter-day democratic machine. The conditions of service in the medical department of the United States Navy have much to do with its unpopularity. "Suitable men are obtained with great difficulty.....For all other appointments under the Government there is a constant stream of applicants.....Hundreds seek admission into all corps but one, and that is the medical.....The Medical Department of the Army has no such trouble, though it maintains a high efficiency that is recognised all over the world. The fault is not in naval life, *per se*, for all other corps are sought after eagerly..... The fault is not in the examination required, for this has been so carefully regulated that any well educated physician could pass it..... it is not intimately associated with the question of pay, in which the army and navy do not differ materially." And so, by a process of exclusion, the causes of unpopularity become narrowed down, and the cure for the evils set forth readily apparent. It is demanded that the naval medical officer shall have better rank and status from the beginning, quicker promotion, and earlier retirement. The social disabilities under which he labours would, of course, be mitigated by a better status; the army medical officer has positive and greater rank from the beginning; and, "in five years, attains to a grade the naval medical officer does not reach for fifteen;" the former "can retire after thirty years' service," while the latter "must wait forty years, or until he reaches the age of 62." We confess to be rather staggered between these inequalities in the American services, which contrast badly with our own, in which we rather give the null to the naval service, as far, at least, as the periodic increase in the increment of pay is concerned. In all conscience the United States naval medical officer wants a better start; at 23 or 24, being the average age, he "enters with the relative rank of ensign, a lower grade than the army medical officer. He is not even entitled to a room, but sleeps on a bunk in the steerage, and lives for three years the steerage life. He cannot mess with others of his profession on board, and feels in the very beginning of his career depressed and humiliated." This is positively worse than in the days when our own naval assistant surgeons had "no cabins." In connection with the enhanced early rank demanded and the quicker promotion, the question of titles is discussed. These, we must say, are at present very primitive, and have long been obsolete in our own navy; they, we are told, "excite disagreeable comments from officers in other navies;" and no wonder, for an officer may be well advanced into middle life bearing the unmeaning title of "assistant" or "passed assistant-surgeon." Even in the grade of "surgeon there are men who have been in the service twenty-three years and have nearly reached the age of 50;" and instances "where men with the relative rank of lieutenant have children at the Naval Academy." It would seem that promotion in the medical is regulated by the flow of promotion in the line, or, as we would say, the executive, and as stagnation reigns in it, so it is reflected on the medical department. Such a condition of affairs must seriously impair the efficiency of the United States Navy throughout, and we are surprised that proud and patriotic Americans would thus allow their navy to deteriorate. All heart, we are told, is clean out of the American naval medical service, and we cannot wonder at it; we are more than astonished that any medical men at all would enter it under present conditions. A sketch Bill is appended to the article, from which we have quoted, assimilating the service as regards rank, title, retirement, etc., pretty much to our own navy. Such matters in America are regulated by "law" and not by "royal warrant" a with us.

INDIAN MEDICAL SERVICE.

SURGEON-COLONEL J. CLEGHORN, M.D., Bengal Establishment, who entered the service as Assistant-Surgeon March 31st, 1865, is promoted to be Surgeon-Major-General from March 29th. He was with the Bhootan expedition in 1865-66, and has the North West Frontier medal with clasp.

Brigade-Surgeon-Lieutenant-Colonel G. MCB. DAVIS, M.B., Bengal Establishment, who was Principal Medical Officer with the 1st Brigade of the Waziristan Field Force, has been favourably mentioned for his services by the general officer in command of the force in his despatches describing his encounter with the enemy recently published in the *Gazette of India*.

Surgeon-General SAVILLE M. PELLY, C.B., late Bombay Establishment, died at Lee, Kent, on April 3rd, at the age of 76. He joined the Indian Medical Service as Assistant-Surgeon, June 2nd, 1841, and was present in July and August, 1843, with a field force under Major Blood in the southern parts of Sind, and served with the Sind Irregular Horse during Sir C. Napier's campaign in 1844-45 against the predatory tribes on the borders of Cutchee, and in the surprise and capture of Shahpoor on the night of January 15th, 1845, being mentioned in the despatches by Captain Jacob. He was present with the army of observation at Bhawalpoor under Sir C. Napier in 1846-47, and with the Sind Horse during the pacification of the frontier of Sind in 1847-48 under Major (afterwards General) John Jacob. He was with the 2nd Regiment Light Cavalry in Rajpootana during the Mutiny campaign in 1857-58 and was present as senior medical officer at the attack on Nimbhaira, the action of Feerun, and throughout the siege of Neemuch, under Captain Simpson, joining afterwards in pursuit of Tantia Topee with the column under Brigadier Parke. At the conclusion of the war he received the Indian medal with clasp for Central India. He was principal medical officer of the Indian Medical Department throughout the Abyssinian campaign in 1867-68, under Sir Robert (afterwards Lord) Napier. For his services during this expedition he was recommended for the K.C.S.I., but as it was found this knighthood could only be conferred for service rendered in India, he was rewarded by a Companionship of the Bath. Meanwhile he had risen in his profession to be Deputy-Inspector of Hospitals in the Bombay Presidency, and he retired with the honorary rank of Inspector-General in 1872.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The last post on Wednesday is the latest by which these announcements can be received.

A FIELD MEDICAL OFFICER, expecting orders for India, wishes to exchange with one of similar rank who has about two years of home service to run. Address, "Delta," care of Sir C. McGrigor and Co., 25, Charles Street, St. James, S.W.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ADVERTISEMENT BY CIRCULAR.

A CORRESPONDENT sends us a circular purporting to be issued by "Dr. Cooper, surgeon, Six Ways, Erdington." The second leaf of the circular is occupied by a "Scale of Charges," and by the "Surgery Hours." The establishment is not called a dispensary, and the fees are not as low as those accepted by many of those practitioners who resort to the issue of circulars to obtain practice. The issue of such circulars is most undignified, and cannot therefore be to the eventual advantage of a member of a profession which claims to rank with the other learned professions. Such circulars which resemble those commonly issued by tradesmen, must injure both the individual and the profession in the eyes of discriminating members of the public.

DISPENSARIES AND PRIVATE ENTERPRISE.

A CORRESPONDENT sends us a greenish-blue card, which bears the following announcement:

THE GENERAL DISPENSARY,
109, Upper Moss Lane, Manchester.
(Established for the benefit of the Middle and Working Classes during Illness,

A PHYSICIAN OR SURGEON ATTENDS DAILY.
Morning, 10 to 12; Afternoon, 3 to 4; Evening, 6.30 to 9.
Sunday Morning, 10.30.

Terms:—Advice and Medicine, 1s., or 2s. per week; Visits to Patient's Home, 1s. 6d., or from 3s. 6d. per week; Payable in Advance.
Vaccination from Calf Lymph every Tuesday.
Patients requiring to be visited are requested to give notice before 12 o'clock.

*** If this is a public institution worked by a committee it is to be condemned on grounds of public policy unless it recognises the provident

principle. The card contains no evidence of any such recognition. If it is a private enterprise we would suggest to our correspondent to send full particulars to the Chairman of the Committee of the Council of the British Medical Association, as the subject of anonymous dispensaries is one which this Committee has decided to investigate.

"NOTICE OF REMOVAL."

We regret to notice in a recent issue of the *Waterford Standard* what appears to be an advertisement under the head "Notice of Removal." The announcement states that a certain doctor may be consulted daily at an address mentioned. Such announcements, whether inserted as advertisements or through the complacency of the editor, do not enhance the dignity of the doctor or of the profession to which he belongs.

ATTENDANCE ON THE CLERGY.

Benefit of Clergy.—We apprehend that our correspondent, who admits that he has often read the rule relating to professional charges to the clergy, must have done so in a perfunctory manner, otherwise he should have experienced no difficulty in apportioning the relative fees in the cases of the two clergymen in question. We would refer him to the *Medico-Chirurgical Tariffs* (published by Mr. H. K. Lewis, price 2s.), page 9; and if after a careful perusal thereof he fails to comprehend the specific instructions given, let him again communicate with us on the subject.

THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS.

A. E.—The General Medical Council hold that a registered medical practitioner renders himself liable to the censure of the Council if he employ an unqualified assistant, "either in complete substitution for his own services or under circumstances in which due personal supervision and control are not or cannot be exercised by the said registered practitioner." The full text of the resolution will be found in the British Medical Journal of December 22nd, 1894, p. 1461.

MEDICAL COLLECTORS IN COLLIERY PRACTICES.

Memb. B. M. A.—It is to be regretted that our correspondent was induced to take such a practice on so slender a guarantee, but if the facts detailed are correct, he was certainly justified in sending his collector to those who had promised to contribute towards his salary. It is always difficult, however, to be quite sure of the action of an agent of this kind, especially where the latter has employed a sub agent, so that it is possible the aggrieved neighbouring practitioner may have cause for his complaint; at the same time nothing can excuse his alleged use of an unqualified man in the way described. If the facts are correctly reported the action alleged borders dangerously near on "covering," and is specially to be condemned here, as it tends to displace a qualified by an unqualified practitioner.

There can be little doubt that it is a bad practice to allow the collecting of the medical contributions of colliery *employés* to devolve on the doctor. This obviously ought to be done by a responsible official of the colliery, and then such complaints could not occur.

DOORPLATES.

A, who is M.D., and B, who is a surgeon, enter into partnership; would it be in bad taste to have "Drs." A. and B. on the doorplate?

Can a L.R.C.S.I., L.M., L.A.H. legally put "physician and surgeon" on his doorplate?

*** In answer to our correspondent's first question, we may note that such a title on the doorplate would, according to our view, be in bad taste, and might, strictly speaking, be deemed illegal.

To the second query, our reply is that the diplomas referred to would not entitle him to the designation of "physician and surgeon."

LIABILITY FOR FEES.

A Member writes: I am called to attend a patient and do so, finding him suffering from an ailment not urgent or likely to be so. Having prescribed, I intimate my intention to call the following morning and leave. An urgent case crops up, and detains me until the afternoon of next day, when I call, but the patient refuses to see me, saying that as I had not called in the morning he had had to call in other advice. I require, having explained that I had been unexpectedly delayed, and send in due course a bill for two visits, he not having sent me word to stay my second. My bill is returned by post unstamped, and the patient in strong language expresses his resolve not to pay.

*** "A Member" is, we think, entitled to charge for the first visit the usual fee and something in respect of the second visit (say half fee). A firm application should be made for payment, which might be followed by proceedings in the County Court in default.

NOBLESSE OBLIGE.

Fairplay calls our attention to an advertisement in a Dublin daily paper of the Meath Hospital with regard to students' classes, and points out that in this advertisement the private address of the honorary secretary of the Medical Board is given. It would no doubt be preferable to publish only the official address of the school.

A Munificent Gift.—Mr. Henry Harben, of Hampstead, who has taken the greatest interest in the North-West London Convalescent Homes Fund for working men, has decided to erect at his own expense a building at Littlehampton to cost £20,000. The work will be put in hand forthwith.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Mr. Arthur C. Latham, M.A., M.B., Ch.B., of Balliol College, has been appointed Radcliffe Travelling Fellow. In 1893 Mr. Latham obtained a University Scholarship at St. George's Hospital Medical School, open to students of Oxford or Cambridge.

UNIVERSITY OF EDINBURGH.

The following candidates have passed the Second Professional Examination for the Degrees of M.B. and C.M.:

D. N. Anderson, R. W. Anthony, H. S. Ballantyne, B.Sc. (with distinction), T. M. Callender, A. F. Cameron, M.A., W. Finlay, H. Fowler, D. D. Gold, N. Gunn, W. F. Harvey, M.A. (with distinction), R. K. Howden, C. H. Johnson, T. F. Johnstone, R. W. Knox, C. D. Lauder, R. E. Loney, A. L. Low, G. C. Low, M.A., J. E. Blackburn, J. J. L. Macfarlane, E. Matthew, M.A. (with distinction), N. Maudsley, J. P. Peterson, C. H. Phillips, E. E. Porritt, J. Richards, T. A. Ross, G. B. Serle, G. S. Small, H. T. J. Thacker, A. J. A. Theobalds, H. M. Traquair (with distinction), J. H. White, A. R. Wight, W. G. Wight, F. U. Wilcox, J. F. Wolfe, C. Porter, W. J. Patton, H. W. Smith, D. T. R. Jones, J. Lee, F. Anderson, E. Bramwell, H. O. Dougall, H. Douglas, J. Forbes, M.A., B.Sc., G. M. Kellar, A. D. McPherson, M.A., F. H. Merry, J. W. Simpson, J. R. H. Walker, A. T. White, A. E. Williams, G. Arkwright, S. Ducat, F. W. Freyer, J. M. de Frietas, J. D. C. Howden, W. Jagger, H. Jones, J. F. Lindsay, P. Manuk, M. S. Rau, B.Sc., J. A. Rees, J. F. Shirlaw, and T. A. Williams.

The following have passed in Anatomy, Physiology, and Materia Medica:

B. C. R. Aldren, T. R. W. Armour (with distinction), T. Bigsam, W. Burns, M.A., C. M. Cooper (with distinction), J. F. Falconer, J. S. Fraser (with distinction), W. Hamilton, P. Kinmont, I. S. MacInnes, F. W. More, R. Riddell, and J. R. Williamson.

The following have passed in Anatomy and Physiology (under the new ordinance):

E. P. Baumann, L. W. Davies, W. S. Eaton, G. Gatenby, A. Gibson, W. E. McKechnie, G. W. Miller, J. D. S. Milne, A. H. Pirie, C. M. Robertson, J. D. Slight, W. M. A. Smith, and W. R. Somerset;

and the following in the same subjects under the old regulations:

S. J. Grinsan, A. W. G. Clark, J. Graham, L. Kingsford, W. M. Milne, M.A., J. Muir, J. W. Struthers, E. H. Jones, and O. Rait.

The Vans Dunlop Scholarship in Natural Science has been awarded to Mr. James A. Murray.

UNIVERSITY OF GLASGOW.

Examinations.—The degree examinations in medicine and surgery at the University are just concluded. For the First Professional under the new ordinances 95 out of 148 candidates passed in one subject or another, while for the examination under the old regulations 4 passed out of 9. For the Second Professional under the new ordinances the candidates numbered 39, of whom 33 passed; under the old regulations 18 out of 37 passed. For the Third Examination candidates presented themselves only under the old regulations to the number of 73, of whom 49 passed. Of women candidates there was a total of 25: 16 for the First Professional, of whom 14 passed; 5 for the Second, of whom 3 passed; and 4 for the Third, of whom 2 passed.

Lectureships.—Two new lectureships have been instituted by the University Court: one on diseases of the ear, to which Dr. Barr has been appointed, and one on diseases of the throat and nose, to which Dr. Walker Downie has been elected.

Meeting of General Council.—The General Council of Glasgow University held the statutory meeting on April 3rd. There was little of interest or obvious importance in the meeting, except that the Council decided to represent to the University Court that it is now desirable that women who intend to graduate in Arts should be permitted to join the ordinary classes of the University. In the case of Moral Philosophy special permission was given for women to join the ordinary classes, and the professor has testified to the marked success of this experiment. There seems no sufficient reason why women students in Arts should not join the ordinary classes, and leave Queen Margaret College Buildings free for the Medical Department for Women.

The report of the Business Committee to the General Council contains some interesting statistics referring to examinations and to the University finances. At the Preliminary Examinations in Medicine, held in the four universities of Scotland in September and October, 1894, the entries and results were as follows: Edinburgh, 121 entries, 68 failures, 52 passes, 1 pass in two subjects only; Glasgow, 89 entries, 56 failures, 31 passes, 2 passes in one or two subjects only; Aberdeen, 32 entries, 22 failures, 10 passes; St. Andrews, 8 entries, 4 failures, 4 passes.

During the winter session 1893-94, summer 1894, the number of women students in Arts at the University was 109, and in Medicine 58.

UNIVERSITY OF ABERDEEN.

The following candidates have received degrees in Medicine and Surgery:

Degree of M.D.—R. H. Cook, M.B.; J. Fullis, M.B.; J. Duncan, M.A., M.B.; H. Fernandez, M.B.; J. R. Keith, M.A., M.B.; J. Rust, M.A., M.B.

Degrees of M.B. and C.M.—B. A. Anderson, J. F. Christie, M.A., *W. Cockburn, M.A., R. L. Collings, H. W. A. Cowan, J. Crain, J. M. P. Crombie, R. W. Cruickshank, T. D. Cumming, C. H. Dyer, A. Fenton, M.A., G. W. R. Fernando, J. Fletcher, H. R. Gardner, K. Gillies, M.A., W. G. Grant, *H. McI. W. Gray, D. V. Haig, P. Harper, M.A., L. J. Helmrich, G. Hunt, G. H. Johnston, V. v. Langenberg, W. Lethbridge, R. Lindsay, **A. H. Lister, B.A., M. MacBean, J. R. Macmahon, W. R. Matthews, J. Moncur, A. Mowat, W. Murray, M.A., J. W. Myers, E. M. Payne, W. M. Philip, P. Prebble, A. Robb,

M.A., A. Rose, J. E. Skinner, H. E. Smith, M.A., F. J. Troughton, W. S. O. Waring, *J. S. Warrack, M.A., A. Wood, M.A.

The following candidates have passed the Examinations for the Degrees of M.B. and C.M., but will not graduate until they have attained the necessary age: A. Falconer, C. Ritchie, G. B. Scott, A. Thomson.

The following gentlemen graduated with Honours:—Highest Honours: A. H. Lister, B.A. Honourable Distinction: W. Cockburn, M.A., H. M. W. Gray, J. S. Warrack, M.A, W. G. Grant, K. Gillies, M.A., A. Fenton, M.A., A. Robb, M.A.

Diploma in Public Health.—A. Alexander, M.A., M.B., C.M. (with Credit).

The following candidates have passed the first portion of the First Professional Examination (New Regulations): R. Carnegie, R. Cranna, C. Hunter, J. M'Kay, F. M'Lennan, R. W. Reid, H. W. M. Street, D. D. Whyte.

The following have completed the First Professional Examination (Old Regulations): J. M. Keith, I. Macquarrie, H. M. Nicholls, C. G. Peries, *M. G. Robertson, A. M. Watt. (New Regulations): H. Adams, H. Barron, *R. J. Cheves, D. Dewar, F. W. Ellis, **J. E. Esslemont, T. Fraser, W. L. Henderson, R. F. Hutchison, *J. Irwin, H. Johnstone, F. Kinnear, *H. J. M'Grigor, A. D. M'Queen, T. N. Mitchell, *D. R. Moir, G. J. Pirie, *C. E. Preston, T. F. Ritchie, H. P. Sleigh, **C. C. Slorach, J. Smart, W. E. Taylor, A. Urquhart, A. B. Walker.

The following have passed the first portion of the Second Professional Examination (New Regulations): D. H. Ainslie, W. Ainslie, R. Bruce, A. Chalmers, W. D. M. Donald, J. Duff, A. G. M. Fraser, H. Garden, W. S. Hall, T. C. Hynd, A. Ledingham, T. W. Lumsden, J. S. Milne, J. Pozzi, A. A. Robb, J. Roger, D. Sivewright.

The following have passed the Second Professional Examination (Old Regulations): J. W. S. Attygalle, P. H. Bannister, G. Brown, D. Buchan, W. F. Cornwall, W. Cromar, A. Cruickshank, D. H. Dantra, J. Easton, C. I. Ellis, W. A. I. Fortescue, R. D. Gordon, L. Gordon, S. Milne, J. Pozzi, A. A. Robb, J. Roger, D. Sivewright.

The following have passed the Second Professional Examination (Old Regulations): J. W. S. Attygalle, P. H. Bannister, G. Brown, D. Buchan, W. F. Cornwall, W. Cromar, A. Cruickshank, D. H. Dantra, J. Easton, C. I. Ellis, W. A. I. Fortescue, R. D. Gordon, L. Gordon, S. Milne, M.A. J. S. Greig, T. Harper, C. Haslewood, A. J. Hynd, J. Innes, C. A. B. Laing, D. Mackenzie, C. H. Mackie, J. A. Milne, J. G. Pirie, A. Pressilie, J. S. Purdy, H. Sinclair, G. Stephen, G. I. T. Stewart, G. F. Thomson, N. J. Townsend, R. S. Trotter, T. D. Webster, J. S. Wilson.

The first portion of the Third Professional Examination (New Regulations) has been passed by P. M'Kessack.

The Third Professional Examination (New Regulations) has been passed by *R. G. Henderson.

** With much credit.
* With credit.

University Gold Medals.—Fife Jamieson Memorial Gold Medal in Anatomy: T. W. Lumsden and J. Pozzi, M.A., equal. Keith Gold Medal for Systematic and Clinical Surgery: J. S. Milne, M.A. Shepherd Memorial Gold Medal for Systematic and Practical Surgery: W. A. I. Fortescue. Matthews Duncan Gold Medal in Obstetrics: A. H. Lister, B.A. Dr. James Anderson Gold Medal in Clinical Medicine: A. Robb, M.A.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the Second Examination of the Board in the subjects indicated.

Wednesday, April 3rd.

Anatomy and Physiology.—L. H. McGavin, J. E. Dupigny, and H. E. C. Fox, students of Guy's Hospital; M. H. G. Fell and R. H. Lloyd, of St. Bartholomew's Hospital; E. C. Lambert and W. B. Silas, of Westminster Hospital; J. C. Briscoe, G. A. Roberts, C. T. Lewis, and F. A. Hadley, of King's College, London; H. J. Singer, of St. Thomas's Hospital; F. Athill and H. A. T. Fairbank, of Charing Cross Hospital; H. S. Barwell, of St. George's Hospital; T. H. Dugon, of London Hospital; G. B. Forge, of London Hospital and Mr. Cooke's School of Anatomy and Physiology.

Anatomy only.—G. F. M. Clarke, of Charing Cross Hospital.

Nineteen gentlemen were referred in both subjects and 2 in Anatomy only.

Thursday, April 4th.

Anatomy and Physiology. J. A. Mawson, of Yorkshire College, Leeds; G. B. Thwaites, B. M. Young, and J. F. McClean, of St. Thomas's Hospital; P. O. Grubner, of St. Bartholomew's Hospital; W. E. Morgan, of Charing Cross Hospital; T. Marles-Thomas, J. L. Jones, and C. Dykes, of University College, London; H. N. Coltart, of St. George's Hospital; G. Louis Atkinson and T. H. Gardner, of King's College, London; A. T. Richardson-Jones, of Oxford University and King's College, London; H. S. Crapper, of Guy's Hospital; R. McKay, of Middlesex Hospital; J. M. Wilson, of Middlesex Hospital and Royal College of Surgeons, Edinburgh; H. J. Farhi, of Syrian Protestant College, Beyrout, and London Hospital; and W. J. Lubeck, of Medical College and University, Madras.

Anatomy only.—M. Clover, of University College, London.

Physiology only.—T. H. Body, of Guy's Hospital; and F. A. Johns, of London Hospital.

Fourteen gentlemen were referred in both subjects, 2 in Anatomy and 2 in Physiology.

Friday, April 5th.

Anatomy and Physiology.—S. W. R. Colyer, of Charing Cross Hospital; F. F. Bond, of Westminster Hospital; W. T. Milton, P. Turner, C. L. G. Chapman, R. Fell, S. B. C. C. A. Pennington and T. P. Berry, of Guy's Hospital; D. Samuel, R. H. Dixon, E. H. Barrett, and A. S. Gardiner, of St. Mary's Hospital; W. T. Rowe and R. Raines, of St. Bartholomew's Hospital; J. A. Barnes, J. E. Kilvert and T. Hoban, of St. Thomas's Hospital; M. Dixon and P. G. S. Williams, of University College, London; W. B. Bannerman and P. Norman, of London Hospital.

Anatomy only.—H. C. Harrison, of St. Bartholomew's Hospital; and E. U. Bartholomew, of Charing Cross Hospital.

Thirteen gentlemen were referred in both subjects, and 1 in Anatomy only.

Monday, April 8th.

Anatomy and Physiology.—R. C. Leaning, H. Dyer, F. C. Lewis, and F. S. Dawe, of St. Mary's Hospital; S. A. Millen and W. C. Long, of St. Bartholomew's Hospital; F. E. Walker, F. J. H. Martin, W. H. M. Telling, F. H. R. Heath, H. M. Berncastle, A. E. Clarke, and E. G. Goddard, of Guy's Hospital; S. O. Bingham, H. H. Scott, and E. A. Gates, of St. Thomas's Hospital; H. M. Hart-Smith, of Cambridge University and University College, London; C. L. Betteson, C. R. Pike, G. H. Herbert, and C. W. Chaplin, of London Hospital; A. Martin-Leake, of University College, London; E. P. Smith and L. Milburn, of Middlesex Hospital.

Twelve gentlemen were referred in both subjects.

Tuesday, April 9th.

Anatomy and Physiology.—S. A. Ruzzack, H. L. Eason, A. C. Ambrose, and W. Musselwhite, of Guy's Hospital; A. J. McN. Cuddon-Fletcher, of St. Bartholomew's Hospital; R. A. R. Lankester, of University College Hospital; G. Winn and I. W. W. Hunter, of London Hospital; T. Jones, A. E. Relph, and G. H. Lucas, of Middlesex Hospital; and A. F. Millar, of St. Thomas's Hospital.

Anatomy only.—A. E. Seller and J. M. Carvell, of London Hospital; C. W. Gibson, of Guy's Hospital; P. Phillips, of Charing Cross Hospital; and A. E. Street, of Charing Cross Hospital and Mr. Cooke's School of Anatomy and Physiology.

Physiology only.—F. H. Lawson, of Middlesex Hospital; N. Buendia, of University of Colombia; and C. E. Andrews, of London Hospital.

Thirteen gentlemen were referred in both subjects, 5 in Anatomy, and 5 in Physiology only.

ANDERSON'S COLLEGE MEDICAL SCHOOL.

APPOINTMENTS.—The changes in the staff of Anderson's College Medical School have recently been so numerous as almost to amount to reorganisation. Dr. Dunlop has retired from the chair of surgery, the chair of physics became vacant by the death of Mr. Alexander, the lectureship on diseases of the ear became vacant by the transference of Dr. Barr to the University, Dr. Downs resigned the lectureship on public health, and Dr. Dalziel resigned the chair of medical jurisprudence to fill that of surgery. The whole of the new appointments are as follows: Dr. Dalziel, surgery; Dr. R. M. Buchanan, medical jurisprudence; Dr. James Erskine, aural surgery; Dr. Pearson Munro, public health.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

Accommodation for Seamen on Board Ship.—The PRESIDENT OF THE BOARD OF TRADE stated, in reply to Mr. HAVELOCK WILSON, that such steps as the Board could take in the absence of fresh legislation had already been taken. When an opportunity for legislation occurred the question of increasing the minimum allowance of space for the crew would be considered. All British merchant vessels were required to have for each seaman or apprentice not less than 72 cubic feet. It appeared that in certain vessels carrying Lascar seamen only 36 cubic feet was provided, which was the amount required by the Indian Act. Owners, however, had been informed that they must comply with the provisions of the Imperial Act, and representations had been made to the Secretary of State for India.

Infirmary Visits by Guardians.—In reply to Mr. MACDONA, who asked a question with regard to St. Olave's Union, Southwark, the PRESIDENT OF THE LOCAL GOVERNMENT BOARD said that the Board had not thought it expedient to fix the hours during which the guardians might visit a workhouse or infirmary, but they had expressed a decided opinion that the case must be very exceptional to warrant a guardian in paying such a visit late at night. The Board had also stated that a visit late at night ought not to be paid to a sick ward unless it had been previously ascertained from the medical officer that it would not be detrimental to any of the sick occupants of the ward.

Factories and Workshops Acts.—Sir CHARLES DILKE asked the Secretary of State for the Home Department whether he would issue instructions to inspectors of factories and workshops that a place where manual labour was exercised for the purpose of gain in such processes as those of sorting rags, packing goods, or bottling liquors, was a workshop within the meaning of the Factory and Workshop Acts, 1878, and the Public Health Act, 1875; or whether he would, if necessary, introduce such an amendment to the Factories and Workshops Bill of this session as would provide that all such places should be treated as workshops within the meaning of those Acts.—Mr. ASQUITH said in reply that he had no power to issue the instructions suggested. To extend the term "workshop" so as to include a warehouse not connected with a factory or workshop, where no work carried on was mere packing or bottling, and not in any sense the making or adapting for sale of the article, would be a very great extension of the Factory Acts, and would bring within their operation the establishments of most wholesale grocers, chemists, and drapers. Many of the provisions of the Acts were not really appropriate to the work carried on in these places, and the duty of inspecting them would necessitate a very large increase in the present staff. He must not be understood as holding that warehouses of this kind might not properly be made the subject of statutory regulation, but he thought if they were to be dealt with, as in the case of shops, there should be special legislation on the subject.

The Pay of Army Medical Officers in India.—Mr. HANBURY asked the Secretary of State for India whether it was the fact that the pay of Surgeon-Major-Generals in India was reduced from April 1st last from 2,500 rupees to 2,000 rupees per month; and, if so, whether such reduction would be followed by diminished duties and responsibilities on the part of those officers. And whether it was proposed to reduce the pay of officers of corresponding rank in India at the same time and on a similar scale.—Mr. G. RUSSELL said that the number of the principal medical officers in India had been increased from three to five; the responsibilities of all except the Surgeon-Major-General at headquarters had thus

been reduced, and their pay was diminished accordingly. It was not proposed to reduce the pay of officers of corresponding rank in India.

Quarantine.—Sir F. Powell asked the Secretary to the Treasury whether it was the intention of the Government to introduce at an early date a Bill containing such provisions as were necessary to terminate quarantine.—Mr. Shaw Lefevre, who answered the question, said that a Bill was being prepared on the subject, and he hoped it would be introduced shortly after Easter.

OBITUARY.

WILLIAM JACKSON CLEAVER, M.B., C.M.Ed.

We regret to have to record the death of Dr. William Jackson Cleaver, of Sheffield, from pneumonia supervening upon influenza, at the early age of 47.

He was born in Liverpool, the third son of a well-known solicitor of that city, and studied medicine at Edinburgh, where he graduated in 1869. Subsequently he visited Paris, and amongst other clinics attended that of Desmarres. He afterwards served as House-Surgeon at the Royal Infirmary, Edinburgh, to the late Professor Syme. He became thoroughly imbued with the teaching of that distinguished surgeon and of the other well-known men of that day. He always spoke with pride of his connection with Edinburgh; among the friends made at this period were numbered Dr. Byrom Bramwell and Surgeon-Colonel Lawrie, of Hyderabad. Returning to his native city he became House-Surgeon to the Liverpool Royal Infirmary, holding the office for two years. In 1874 he went to Sheffield, and joined the late Mr. Marriott Hall, since whose death in 1878 he had been in sole possession of an excellent good-class practice.

Dr. Cleaver was of handsome presence and engaging manners, and it will be in connection with diseases of children that he will be chiefly remembered, for in 1876 he was mainly instrumental in founding the Sheffield Hospital for Children. This institution from the first has had a most successful career. Beginning with only an out-patient department, under Dr. Cleaver's fostering care it developed into a commodious well appointed hospital with thirty-five beds. He was, moreover, so careful in its origination that, in contrast to what sometimes happens, the appointments from the first were much sought after by medical men. His interest in it throughout has been unflagging, and in this hospital he has an enduring monument to his memory.

A few years since Dr. Cleaver was President of the Sheffield Medico-Chirurgical Society. His education at Edinburgh gave him a distinct bias towards methods of treatment and practice associated with that school. Thus he had a strong preference for chloroform over ether, and his enthusiastic advocacy for the former, if properly administered, was well calculated to make those favouring ether pause. He was Surgeon to the School for the Blind, to Wesley College, and was Surgeon-Captain in the Artillery Volunteers. The large attendance at his funeral testified to the regard in which he was held.

JAMES FOULIS DUNCAN, M.D., F.R.C.P.I., Dublin.

Dr. James Foulis Duncan died at Dublin on April 2nd, at the age of 83 years. He had long retired from the active practice of his profession, but he was for many years an active and prominent member, and was held in the highest esteem. For many years he was one of the physicians to the Adelaide Hospital, and he had also held the presidency of the King and Queen's College of Physicians. He devoted much of his time to the promotion of religion, and he was known everywhere as one of the most charitable of men.

We record with regret the death, at the early age of 43, of Mr. Harold J. Molyneux, M.R.C.S., L.R.C.P.Ed., of Upholland, Lancashire. Mr. Molyneux, who was born at Upholland, received his early education at Stonyhurst, and entered the Liverpool School of Medicine in 1868. He qualified in 1872, and subsequently succeeded to his father's practice in his native village. He was medical officer of health to the Billinge district, and held several Poor-law appointments. A little over a year before his death he began to suffer from hæmatemesis, and succumbed eventually to malignant disease of the stomach. Mr. Molyneux was held in high and deserved esteem, and his funeral was attended by a large number of patients and medical friends whose presence testified to the regard and affection in which he was held.

Dr. Moriz Gauster, Director of the Public Lunatic Asylum of Lower Austria, President of the Austrian Medical Union and of the Public Health Association, who died recently at the age of 78, was one of the leading alienists and hygienists in Austria. He was born in Vienna in 1828, took his degree in the University of that city in 1851, and was appointed Assistant Physician in the New Asylum in 1853. In 1872 he was transferred to the Lower Austrian Asylum, of which, after the death of Schläger, in 1885, he became Director. His writings include works on Moral Insanity, Psychical Degenerations, Mental Disease following Influenza, besides numerous pamphlets and papers on Medical Statistics and Sanitary Legislation. He was a member of the Commission appointed by the Austrian Government in 1866 to inquire into the organisation of sanitary reform. He was named a member of the Imperial Council in 1869.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Max Landsberg, a pupil of Von Graefe's and well known as an ophthalmologist, aged 54; Dr. Ronaldo Roseo, Professor of Forensic Medicine in the University of Rome; and Dr. W. S. W. Ruschenberger, a distinguished surgeon of the American navy, a former President of the Academy of Natural Science, and author of numerous valuable contributions to science, aged 88.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,611 births and 4,280 deaths were registered during the week ending Saturday, April 6th. The annual rate of mortality in these towns, which had declined from 35.0 to 23.4 per 1,000 in the four preceding weeks, further fell to 21.1 last week. The rates in the several towns ranged from 10.9 in Croydon, 13.1 in Huddersfield, and 15.2 in Plymouth, to 28.5 in Oldham, 31.9 in Preston and 33.0 in Burnley. In the thirty-two provincial towns the mean death-rate was 22.6 per 1,000, and was 3.6 above the rate recorded in London, which was 19.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.3 per 1,000; in London the rate was equal to 1.4 per 1,000, while it averaged 1.3 in the thirty-two provincial towns, and was highest in Cardiff, Salford, and Burnley. Measles caused a death-rate of 1.0 in Cardiff, 1.1 in Sheffield, and 3.1 in Bolton; and whooping-cough of 1.2 in Portsmouth, 1.4 in Preston, and 2.1 in Burnley. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 51 deaths from diphtheria in the thirty-three towns included 23 in London, 5 in Birmingham, 4 in Manchester, and 3 in West Ham. One fatal case of small-pox was registered in Derby, but not one in London or in any other of the thirty-three large towns. There were 53 small-pox patients in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, April 6th, against 57, 58, and 55 at the end of the three preceding weeks; 7 new cases were admitted during the week, against 12, 14, and 10 in the three preceeding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,615, 1,587, and 1,555 at the end of the three preceding weeks, had further declined to 1,519 on Saturday last, April 6th; 143 new cases were admitted during the week, against 133, 134, and 161 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, April 6th, 949 births and 713 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 42.8 to 25.4 per 1,000 in the five preceding weeks, further fell to 24.7 last week, but exceeded by 3.6 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.9 in Perth to 30.3 in Aberdeen. The zymotic death-rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Aberdeen and Leith. The 341 deaths registered in Glasgow included 13 from whooping-cough, 3 from measles, and 2 from small-pox. Seven fatal cases of measles were recorded in Edinburgh, and 7 in Aberdeen.

IMPROVEMENT IN THE PUBLIC HEALTH OF EDINBURGH.

The health of Edinburgh is gradually subsiding to its ordinary condition. Last week the death-rate went down so far as to be equivalent to an annual mortality of 19 per 1,000. Fifty-two deaths out of the total of 101 were due to diseases of the chest and 11 to zymotic causes. A few cases of genuine influenza still continue to occur. The deaths of Leith were equivalent to an annual mortality of 24.9 per 1,000.

THE DUTIES OF HOUSEHOLDERS TOWARDS THEIR DOMESTIC SERVANTS IN THE MATTER OF INFECTIOUS DISEASE.

AT the Sunderland Police Court a servant girl was prosecuted on March 21st for travelling on the North-Eastern Railway while suffering from scarlet fever, her employers being charged with assisting to commit the offence. The case against the girl was withdrawn, and her employers then pleaded that she went home of her own accord although they did their best to induce her to stay. The Bench, however, inflicted a fine of 5s. and costs upon both master and mistress.

The medical man who saw the girl in the first instance advised her removal to hospital and pointed out that the van could be obtained to take her there forthwith. The girl stated that her mistress told her she could not keep her in the house as she had a young family. A case of this kind serves to bring into prominence the fact that the law provides for the protection of the public and should impress upon householders the necessity of either isolating or securing the removal in special conveyances of any member of the household attacked by infectious disease.

CONVALESCENT HOMES AND INFECTIOUS DISEASES.

THE report of Dr. Jackson, medical officer of health for Hexham, draws attention to the want of hospital accommodation for infectious diseases, which seems to have led to the removal of a case of enteric fever to the convalescent home. From the account of the meeting of the District Council which appears in the *Hexham Herald*, it seems that this use of the convalescent home has produced a certain amount of friction into the details of which we need not enter. What is plain enough is that a workhouse infirmary is by no means a sufficient provision for infectious disease, and that a convalescent home, if it is to be of any use for its ostensible purpose, is the last place to which infectious diseases should be sent. To go to the expense of a sanitary machinery which notifies disease and yet has no means of isolating it is futile. Nothing could show more markedly the want of a hospital for infectious diseases than that such cases should have to be mixed either with paupers or convalescents.

THE DIAGNOSIS OF DIPHTHERIA.

IN his report for the past year, Dr. Thresh has brought before the Chelmsford rural sanitary authority the matter of the differential diagnosis of croup and diphtheria, and he therein lays stress on his view that the bacteriological test for determining whether or not a particular case is diphtherial is not to be relied upon as affording absolute security against error. He holds that in those instances in which the diphtheria bacillus is not forthcoming upon bacteriological experiment the disease may very likely not be diphtheria; but, on the other hand, he is of opinion that in mild cases, where it is of very great importance that correct diagnosis should be made, examination of the patients' throats may one day show the bacilli and on the next may result in their discovery. Experiments of his own have led him to find the bacillus in but few cases, though this may be due, he says, to the unreliability of the method adopted, or to the fact that but few of the notifications were of diphtheria, not, perhaps, so unlikely since the rate of case mortality was only 6 per cent. But if this difficulty presents itself in doubtful cases, whilst our state of knowledge is as at present, at least the danger can in a measure be obviated by repeated experiments with material from the same patients; and, indeed, in this way it may well be that we shall arrive the quicker at that perfect knowledge of the differential characters of one and another kind of diphtheritic disease to which it is so desirable to attain.

PAYMENT OF NOTIFICATION FEES.

D.P.H. asks if a district council has power to require medical men to furnish every six months a detailed statement of cases notified, with names and dates; and, if so, whether a fee is due for the additional labour of preparing the return.

*** This is one of the many details, not foreseen and provided for by the framers of the Notification Act, which leads to quite unnecessary friction between authorities and practitioners. The Act is silent as to any such duty on the part of the notifier, and if the authority refuse to pay the proper fees unless an account is rendered, there is an appeal to the county court. What view the judge would take is another matter, as there is no binding precedent. It seems reasonable to credit the authority with being competent to manage for themselves such a simple task as keeping a record of cases notified; they cannot pay any additional fee to the practitioner for making out the return for them.

PUBLIC SLAUGHTERHOUSES.

MR. HERBERT GARDNER, Minister of Agriculture, in replying to a deputation of the Church Sanitary Association and the Church Society for the Promotion of Kindness to Animals, last week, said that the action of the local authorities generally lagged behind the opinion of the central authority on sanitary matters. The most useful work the Societies could do was to educate public opinion.

THE Urban District Council of Barnoldswick, Yorkshire, has adopted the Infectious Disease Notification Act, 1889, and the Infectious Diseases Prevention Act, 1890.

MR. GEORGE ORELL, M.R.C.S., of Winsford, Surgeon-Lieutenant-Colonel 3rd Volunteer Battalion Cheshire Regiment, has, on the recommendation of the Duke of Westminster (Lord Lieutenant) been placed on the Commission of the Peace for the county of Chester.

MEDICAL NEWS.

LORD IVEAGH has contributed £1,000 to the Special Appeal Fund of St. Thomas's Hospital, now being raised for the purpose of opening the five wards at present closed.

THE Earl of Erroll will preside at the Festival Dinner of the East London Hospital for Children, to be held at the Hall of the Worshipful Company of Leathersellers on May 30th.

A PAPER on the Organisation and Working of Medical Aid to the Wounded in Modern War, will be read by Surgeon-Lieutenant-Colonel Evatt at a Conference which has been arranged by the Matrons' Council, to be held at the rooms of the Medical Society of London, on Thursday, April 18th, at 8.30 P.M.

THE will of the late Sir William Savory, Consulting Surgeon to St. Bartholomew's Hospital, and at one time President of the Royal College of Surgeons, has been proved, the gross personalty being £93,190 19s. 4d. The net or actual value was not stated. With the exception of a legacy of £5,000 to his brother, Dr. Charles Tozer Savory, and of a gift in memento to his grandson, the testator leaves the whole of his estate to his son and successor in the baronetcy.

DR. LANDEL OSWALD, an honours graduate of Glasgow University, senior assistant at Gartnavel Royal Lunatic Asylum, has been appointed to the medical superintendentship of Gartloch Asylum, the new asylum of the City of Glasgow District Lunacy Board. From the date of his graduation in 1888, Dr. Oswald has devoted himself to hospital and asylum work, and specially to the study of mental disease, and his appointment is a well-merited reward.

GLASGOW Hospital Sunday Fund is now an established institution. The first annual meeting was held a little time ago, under the presidency of the Hon. Lord Provost Bell, through whose efforts the fund has been successfully inaugurated. The total contributions last year were £3,640, but many churches had already contributed before the fund was established. If these contributions be added, the total is over £5,000. As all the churches and Sunday schools are expected to fall into line this year, a much larger sum is expected to be contributed on December 1st, which is the date fixed for the collections this year.

DR. J. FRANCIS SUTHERLAND was recently entertained at dinner by the Glasgow Caithness Benevolent Association. The occasion of the dinner was Dr. Sutherland's appointment as Visiting Commissioner in Lunacy in Scotland. Dr. Sutherland, in acknowledging the toast of his health, observed that while the population of Glasgow and the county of Lanark was only one-fourth of that of all Scotland, one-half of the derelicts of society, and 35 per cent. of those who had lost their reason, resided in the city of Glasgow or the county of Lanark. He expressed the opinion that further legislation with regard to inebriety could not be far off. The Committee, which had been sitting for four months, had examined 150 witnesses, and he believed that the report when presented would be found to be very thorough.

THE PREVENTION OF HYDROPHOBIA.—A meeting of the general committee of the Society for the Prevention of Hydrophobia and Reform of the Dog Laws was held on April 8th at 25, Cavendish Square, W.; Professor Victor Horsley, F.R.S., in the chair. In the Chairman's report reference was made to the communications which had passed between the Board of Agriculture and the Society's executive on the subject of the Dogs Bill, and also to the prevailing epidemic of rabies and hydrophobia in Yorkshire, Lancashire, and other Northern Counties, and in Ireland. It was pointed out that but for political considerations the policy advocated by the Society and endorsed by the highest medical authorities, as well as by many of the most important dog breeders and dog owners throughout the country, would doubtless be carried into effect by the Government of the day. The object aimed at by the Society was the total extinction of rabies and hydrophobia from the United Kingdom by a system of universal muzzling for at least twelve months, coupled with rigid and permanent quarantine. The attitude of the general public, except during the scare created by an epidemic of rabies, was one of apathy and indifference. It was useless, therefore, to expect the assistance which

many causes derive from a public movement or demonstration in their favour. The aims the Society had in view would therefore be best promoted by securing the increased adherence of members of the medical profession, and men of influence generally (especially of those recognised as leaders of opinion in canine matters), so that when the proper moment arrived the Society would have sufficient support behind it, to convince any Government that the subject was not a question of party politics but of public welfare. Since the last meeting of the Committee, liberal contributions to the funds of the Society had been received from the Duke of Northumberland (President of the Society), the Duke of Westminster, the Earl of Coventry, Sir Joseph Lister, Bart., Sir James Whitehead, Bart., and many others.

Presentation to Dr. Dalziel.—Dr. T. Kennedy Dalziel has recently resigned the post of Surgeon to the City of Glasgow Police, after holding the office for ten years. Dr. Dalziel turned the opportunities afforded by this connection to profitable account in instructing students of Glasgow in practical forensic medicine and casualty work, and his unfailing earnestness on their behalf has endeared him to a large number of students and created for him a high place in the esteem of his professional brethren. The Glasgow police force have marked their appreciation of his long service by presenting him, on April 5th, with a hall clock in solid oak and gold and enamelled face. It bears the following inscription: "Presented to Dr. T. Kennedy Dalziel by the members of the City of Glasgow Police on his retiral, after ten years' service, as Casualty Surgeon for the Central District and lecturer in ambulance instruction to the force, in appreciation of his high professional attainments and personal worth." Dr. Dalziel has just been appointed Professor of Surgery in Anderson's College.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; doubly qualified. Salary, £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance. Applications to Alex. Forrest, Secretary, by April 22nd.

BRADFORD INFIRMARY AND DISPENSARY.—Junior House-Surgeon; unmarried. Salary, £50 per annum, with board and residence. Applications, endorsed "Junior House-Surgeon," to William Maw, Secretary, by April 23rd.

BRITISH LYING-IN HOSPITAL, Endell Street, Long Acre, E.C.—Physician to the Out-patient Department. Applications to the Secretary by April 20th.

CARDIFF UNION.—Medical Officer for the Bonvilstone District. Salary, £45 per annum. Applications to Arthur J. Harris, Clerk, Queen's Chambers, Cardiff, by April 16th.

CHILDREN'S HOSPITAL, Dublin.—Assistant Surgeon. Applications to the Honorary Secretary by April 13th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by April 18th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Surgical Registrar and an Anæsthetist. Appointments for one year. Honorariums of £40 and £15 15s. respectively at the expiration of term. Applications to the Secretary by April 23rd.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Resident House-Physician also House-Surgeon. Appointments for six months. Salaries, £20, with board and residence in the hospital; unmarried, and possess a legal qualification to practise. Applications and testimonials to Adrian Hope, Secretary, before Tuesday, April 30th

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 annually, with furnished quarters, attendance, coals, gas, produce, milk, and washing. Appointment for two years in the first instance. Applications to Francis R. Howlett, Clerk to the Subcommittee of Visitors, 9, King Street, Maidstone, by May 1st.

LONDON HOSPITAL MEDICAL COLLEGE.—Assistant Demonstrator in Anatomy. Salary, £90 per annum. Applications to the Warden by April 25th.

MIDDLESEX HOSPITAL, W.—Assistant Surgeon; must be Fellow (or have passed the qualifying examination for the Fellowship) of the Royal College of Surgeons of England. Applications to F. Clare Melhado, Secretary Superintendent, by May 1st.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, 32, Soho Square, W.—Two Clinical Assistants for the Electrical Department. Applications to Dr. Haydon or the Secretary by April 15th

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Physician. Must be F. or M.R.C.P.Lond. Applications to T. Glenton-Kerr, Secretary, at the Office, 27, Clement's Lane, E.C., by April 16th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Resident Medical Officer and Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 per annum is attached to the senior post. Applications to the Secretary by April 26th.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Surgeon to the Throat and Ear Department. Applications to the Secretary by April 22nd.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Honorary Surgeon. Applications to the House Governor by April 20th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon; doubly qualified. Appointment for six months. Rooms, commons, and washing provided in lieu of salary. Applications to the House-Surgeon by April 18th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners in Anatomy and four Examiners in Physiology for the Fellowship; candidates for the former must be Fellows of the College. Four Examiners in Elementary Anatomy (First Examination). Two Examiners in Elementary Biology (First Examination). Four Examiners in Anatomy (Second Examination). Three Examiners in Physiology (Second Examination). Four Examiners in Midwifery (Third Examination). Two Examiners in Public Health. Applications to the Secretary by April 25th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months. Salary £100 per annum, with furnished apartments and board. Applications to the Secretary by April 24th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon; must be willing to engage for six months. Gratuity of £10 will be given at the end of this period if satisfactory. Board and lodging provided. Applications to T. A. Fisher Hall, Secretary, by April 24th.

ST. LUKE'S HOSPITAL, E.C.—Clinical Assistant: must be duly qualified to practise and registered. Appointment for six months, with board and residence. Applications and testimonials to Percy de Bathe, M.A., Secretary, by April 22nd.

SWANSEA GENERAL AND EYE HOSPITAL.—Clinical Assistant. Appointment for six months. Board, lodging, and washing provided. Applications to the Honorary Secretary of the Medical Staff by April 15th.

TANCRED'S CHARITIES.—One Studentship in Physic at Gonville and Caius College, Cambridge. The student will receive £50 a year and a share in the surplus rents and profits (the stipend not to exceed £100 a year) until admission to the degree of Bachelor of Medicine, and for three years afterwards, or for such shorter terms as may be determined by authority. Candidates must not be below the age of 16 or above the age of 22. Forms of petition and all information may be obtained from Mr. George Edgar Frere, 28, Lincoln's Inn Fields, W.C., Clerk to the Tancred's Charities, to whom petitions must be sent by April 20th.

UNIVERSITY OF GLASGOW.—Two Examiners for Degrees in Medicine to examine in Clinical Medicine and Clinical Surgery respectively. Appointment to last till December 31st, 1898, at the rate of £50 annually. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by May 1st.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer to the Provident Dispensary: must possess a recognised medical and surgical qualification; must be registered under the Medical Act. Salary, £80 per annum, with board, lodging, and washing. Applications and testimonials to the Honorary Secretary before April 30th.

MEDICAL APPOINTMENTS.

Alexander, Thos. Arthur, L.R.C.P., L.R.C.S.I., reappointed Medical Officer for the Saham Toney District of the Swaffham Union.

Blakiston, Arthur A., M.R.C.S.Eng., reappointed Medical Officer of Health to the Glastonbury Borough.

Boa, John F., M.B., C.M.Glasg., reappointed District Medical Officer of the Clun Union.

Buchanan, Geo. Seaton, M.D., B.S., B.Sc.Lond, appointed Medical Inspector of the Local Government Board.

Burghard, Frédéric F., M.S.Lond., F.R.C.S., appointed Surgeon to Out Patients at Paddington Green Children's Hospital.

Buxton, Thomas, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer for the Fazeley and Kingsbury District of the Tamworth Union.

Cooke, Francis H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Birch District of the Lexden and Winstree Union, *vice* H. Hart, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

Creagh, William, L.R.C.S.I., L.S.A., reappointed Medical Officer for the Clifton District of the Tamworth Union.

Davies, W. T., appointed Medical Officer for the Western District of the Llandilofawr Union.

Dickin, E. P., M.B., C.M.Edin., appointed Assistant House-Surgeon to the General Infirmary, Northampton.

Dickson, John D., M.D.Q.U.I., L.R.C.S.I., appointed Medical Officer of of Health for the Wycombe District.

Edmondson, C. R., M.B., C.M.Edin., appointed Senior House-Surgeon to the Royal Southern Hospital, Liverpool.

Fausset, Herbert John, M.D.Dub., reappointed Medical Officer for the Tamworth District of the Tamworth Union.

FLEMMING, C. E. S., M.R.C.S.Eng., appointed Medical Officer for the No. 8 District of the Bath Union.

GILBES, L., M.R.C.S., L.R.C.P.Lond., appointed Second Assistant Medical Officer to the St. Marylebone Infirmary, Notting Hill, *vice* U. R. I. Smythe, M.B.Lond., resigned.

HOLLIS, H., B.A., M.B., B.C.Cantab., appointed House-Surgeon to the General Infirmary, Northampton.

LOCK, G. H., M.R.C.S., L.R.C.P., appointed House-Surgeon to Paddington Green Children's Hospital.

MACDONALD, Thomas, M.B., C.M.Edin., appointed Medical Officer for the Parish of Kirlarlity, *vice* Dr. Corbett.

MCDONALD, T. F., M.B., appointed Medical Officer for the Workhouse and the Hellingly District of the Hailsham Union, *vice* J. P. Billing, L.R.C.P.I., L.F.P.S.Glasg., deceased.

MARSH, James, M.B., C.M.Edin., appointed Second House-Surgeon to the Royal Southern Hospital, Liverpool.

MILNER, James, L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer for the Bradenham District of the Swaffham Union.

PATERSON, Mr. J., appointed Medical Officer for the Berriew District of the Forden Union.

PERCIVAL, Thomas, M.R.C.S.Eng., reappointed Medical Officer of Health to the Pontefract Rural District Council.

POLAND, John, F.R.C.S.Eng., appointed Surgeon to the City Orthopædic Hospital, *vice* E. J. Chance, F.R.C.S.Eng., deceased.

PRICHARD, R. D., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Second Central District of the Neath Union.

PUCKLE, S. H., M.B., C.M.Edin., reappointed District Medical Officer of the Clun Union.

SANDERSON, J. A., L.R.C.P. & S.Edin., appointed Junior House-Surgeon to the Royal Southern Hospital, Liverpool.

SMYTHE, U. R. I., M.B.Lond., appointed House-Physician to the Workhouse Infirmary, Birmingham.

STEELE, Henry F., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the Oxborough District of the Swaffham Union.

THOMAS, Augustus Wm., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer for the Sporle and Igourgh Districts of the Swaffham Union.

THOMPSON, Dr., appointed Medical Officer to the Launceston Post Office.

WEST, Waldemar S., M.A., M.B., B.C.Cantab., appointed Obstetric House Physician to the Middlesex Hospital.

DIARY FOR NEXT WEEK.

TUESDAY.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

ROYAL METEOROLOGICAL SOCIETY, 12, Great George Street, Westminster, 7.30 P.M.

NORTH-WEST LONDON CLINICAL SOCIETY, 8.30 P.M.—Clinical meeting.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 P.M.

THURSDAY.

HARVEIAN SOCIETY, 8.30 P.M.—Clinical Cases. Dr. Alexander Morrison: On Syncopal Bradycardia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CAMERON.—On April 5th, at 9, Elms Road, Clapham Common, the wife of Albert Cameron, M.B., C.M.Edin., of a son.

CROOKSHANK.—On April 5th, at 7, Midan Babel Louk, Cairo, the wife of H. E. Crookshank Pacha, F.R.C.S., Director-General of Prisons, of a daughter.

ROLLESTON.—On April 7th, at 13, Upper Wimpole Street, the wife of H. D. Rolleston, M.D.Cantab., F.R.C.P., of a son.

MARRIAGES.

CAIGER—HERITAGE.—On March 9th, at St. Mary's, Woodstock, Cape Town, by the Rev. C. P. Atkinson, Herbert Caiger, M.B.Lond., F.R.C.S.Eng., of Jacobsdal, Orange Free State, South Africa, to Mary, eldest daughter of Joseph Heritage, of Bicester, Oxon.

STUART—PRIMROSE.—On September 18th, 1894, at Toowoomba, Queensland, Professor Anderson Stuart, University of Sydney, to Dorothy, second daughter of F. A. Primrose, Esq., and granddaughter of the Hon. Bouverie F. Primrose, C.B., Moray Place, Edinburgh, Scotland.

THOMSON—MACKINTOSH.—At St. Giles Cathedral, Edinburgh, on April 3rd, by the Very Rev. Cameron Lees, D.D., LL.D., Dean of the Chapel Royal and Order of the Thistle, and the Rev. Andrew Gray, D.D., Minister of the Parish of Dalkeith, James Stitt Thomson, F.R.C.P.E., etc., of Belmont, Dalkeith, and The Mount, Lincoln, to Louisa Ella Mary (Edgie), eldest daughter of the late Henry Florence Mackintosh, of Totteridge, Herts, and Rylstone, Yorks.

DEATHS.

ATKINSON.—On April 7th, at 216, Camberwell New Road, S.E., of cerebral meningitis, Walter Guy, infant son of W. A. Atkinson, M.B.

REEKS.—On April 5th, suddenly, at Southwick, Sussex, John Reeks, M.R.C.S., L.S.A., aged 38.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. F. S., 2.

CENTRAL LONDON OPHTHALMIC. *Operation Days.*—Daily, 2.

CHARING CROSS. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

CHELSEA HOSPITAL FOR WOMEN. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. F., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operation Day.*—F., 2.

GREAT NORTHERN CENTRAL. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

GUY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

HOSPITAL FOR WOMEN, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

KING'S COLLEGE. *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

LONDON. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9, Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

LONDON TEMPERANCE HOSPITAL. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

METROPOLITAN. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

MIDDLESEX. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

NATIONAL ORTHOPÆDIC. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

NORTH-WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operation Day.*—Th., 2.30.

ROYAL EYE HOSPITAL, Southwark. *Hours of Attendance.*—Daily, 2. *Operation Days.*—Daily.

ROYAL FREE. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

ST. BARTHOLOMEW'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

ST. GEORGE'S. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

ST. MARK'S. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

ST. MARY'S. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 3.

ST. PETER'S. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

ST. THOMAS'S. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

THROAT, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

UNIVERSITY COLLEGE. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—Tu., W. Th., 2.

WEST LONDON. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic; W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

WESTMINSTER. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday Post on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not to his private house.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

M.B. would like to know where he can get details as to working and cost of a butyrometer (milk tester), and directions for estimating fat, etc., and clinical indications for same.

F.R.C.S. would be glad of information relating to the laws regulating medical practice in foreign countries (European), more especially with regard to the restrictions placed on unqualified practice by chemists, quacks, etc.

Mind Wandering.

A Member and M.O.H., who finds that he derives little benefit from reading, owing to inability to fix his attention, in spite of every effort, asks for advice as to a remedy for this distressing condition.

Peptonised Food.

Antiseptic writes: Will you kindly inform me in an early issue who is the publisher, or where I can obtain, Sir W. Roberts's "Receipts for Peptonised Foods?

*** The "Receipts for Peptonised Foods' here mentioned will be found in *Digestion and Diet*, by Sir W. Roberts, published by Smith, Elder and Co., price 5s.

ANSWERS.

Dentist should consult his solicitor.

Member, who sent us the card of a dispensary, has omitted to enclose his name.

Antitoxin.—There does not seem to be sufficient internal evidence to prove that the doctor mentioned in the paragraph is responsible for its character.

A. C. Our correspondent could obtain much of the information he wishes for by writing to Messrs. W. and A. Reid at Madeira, who would send him the little *brochure* they have published on the island. There are at least two well-known English physicians practising in Madeira. Permission to practise would have to be obtained from the Portuguese Government.

E. J.—The fullest information regarding the prevalence of venereal disease in the armies of India (European and native) is to be obtained in the Reports of the Sanitary Commissioner with the Government of India, the whole series of which can be consulted in the reading room of the library of the India Office, access to which can be obtained by application to the librarian.

J. H. M., F. A. E.—These two correspondents send us, the one an advertisement of a Dr. Daniel Sutherland, the other a leaflet of a pamphlet on "Private Diseases, written by Dr. Daniel Sutherland, 243, Sauchiehall Street, Glasgow, for his own patients and for private circulation among all who take an interest in confidential complaints and the exposure of quackery. 1895. Price Sixpence." There is no person of the name of Daniel Sutherland upon the *Medical Register* for 1895. We find by reference to the minutes of the General Medical Council of May 20th, 1885, that one Daniel Sutherland was judged, after due inquiry, to have been guilty of infamous conduct in a professional respect, and that his name was directed to be erased from the *Register*. From a minute of the Council under date May 19th, 1885, it appears that the Daniel Sutherland referred to in the subsequent minute then resided at 243 Sauchiehall Street, Glasgow.

The Author of "Pharmacopœia Radcliffiana."

Dr. P. Murray Braidwood (Amersham, Bucks) writes: Dr. Philip Lee (Cork), in the British Medical Journal of April 6th, asks for information about "Dr. Radcliffe, author of *Pharmacopœia Radcliffiana*." From Watt's *Bibliotheca Britannica* I learn (vol. ii, s. 787): "Radcliffe, Dr. John, an eminent English physician; was born at Wakefield, in Yorkshire, 1650; died 1714. *Pharmacopœia Radcliffiana*, or Dr. Radcliffe's Prescriptions, faithfully gathered from his original receipts, with useful observations on each prescription (1716, 8vo). *Pars Altera*, or the second and last part of Dr. Radcliffe's Prescriptions for all diseases, internal and external, etc. (1716, 8vo). Some Memoirs of his Life, interspersed with Letters; also a copy of his Will (London, 1715, 4to). His Life, Letters, and last Will (London, 1716, 12mo; London, 1736, 4to). Russell, Richard, M.D., formerly surgeon at Lewes, in Sussex. Letter to Dr. Addington about refusing to consult with him (London, 1749, 8vo). *Dissertatio de Tabe Glandulari, et de Usu Aquæ Marinæ in Morbis Glandularum* (Oxford, 1750, 8vo). Of this work Dr. R. himself published a translation, under the title, *A Dissertation concerning the Use of Seawater in Diseases of the Glands, etc.*, to which is added an epistolary dissertation to R. Frewen, M.D. (Oxford, 1750, 8vo). An unauthorised translation of the same work had been published before this (second edition, 1769, 8vo.) Letter to Mr. Thomas Biggs (London, 1751, 8vo). *Œconomia Naturæ in Morbis Acutis et Chronicis Glandularum* (London, 1755, 8vo)."

Hospital Elections.

E. R.—The system of election to the medical and surgical staff of a hospital by the whole body of governors or subscribers undoubtedly leads to many anomalies and mistakes. Elections ought to be made either by the board of management acting on the advice of the medical staff, or by a special Committee of Selection on which the medical staff should be fully represented.

The Prophylaxis of Influenza.

Major T. B. P.—The incident related does not appear to afford any conclusive evidence on the point at issue, and certainly does not justify the opinion that influenza is not an infectious disease.

Embalming.

Dr. P. Murray Braidwood (Amersham, Bucks) writes in reply to a Member's question in the British Medical Journal, April 6th, as to books or pamphlets on embalming and as to sea sickness: (1) 1669: Louis Pemberton, *Traité des Embaumemens*, 12mo., published in Paris. 1695: Stephen Blancard, an eminent physician at Franeker, and one of the most voluminous compilers of his time, published his *Anatomia Reformata, et de Balsamatione Nova Methodus*, Lugd. Bat., 1695, 8vo. 1705: Thos. Greenhill, *The Art of Embalming, etc.*, published in London, 4to. 1705: Thos. Gardener, *The Art of Embalming*, with cuts, 4to.; Jas. Guillemeau, a very celebrated medical character of the sixteenth century, surgeon to Charles IX and Henry IV, who was a native of Orleans, and died at Paris, 1609, published *Traité de la Parfaite Méthode d'embaumer les Corps*. The *Index Catalogue of the Library of the Surgeon-General's Office U. S. Army*, vol. iv, pp. 184 and 185, contains a very exhaustive bibliography of the subject. (2) In Sir R. Quain's *Dictionary of Medicine*, p. 1410, there is a very good article on sea sickness, and the literature of this subject is very fully stated in the *Index Catalogue of the Library of the Surgeon-General's Office U.S. Army*, vol. xii, pp. 830, *et seq.*

Dr. Richard Neale (Boundary Road, South Hampstead, N.W.) asks whether "A Member" (page 795) has exhausted the information conveyed in the *Digest* upon the subjects he mentions—namely, Embalming, Section 182, 1; and Sea-sickness, Section 861, 5.

NOTES, LETTERS, Etc.

The Case of Mr. C. Bryan Townshend.

The following donations have been received in addition to those already announced, and are hereby acknowledged with grateful thanks:

	£	s.	d.
Dr. Henry Stear, Saffron Walden...	2	2	0
Dr. W. Donnet Stone, 19, Oxford Terrace, W. ...	2	2	0
Dr. Wm. Lovell Hunter, Pudsey, Yorks	1	1	0
Sympathiser	1	1	0
Mr. A. G. T. Hanks, Chelsea	1	1	0
Dr. Wm. Hy. White, 43, Weymouth Street ...	1	1	0
B. W.	0	10	0
Dr. David Ferrier	1	1	0
Dr. A. A. Phillips, 4, Kensington Court Gardens...	10	0	0
Dr. Wylde, Wimbledon Park	0	10	0
Dr. Wells, 18, Finchley Road	1	0	0
Dr. T. Barlow, 10, Wimpole Street	2	2	0
Dr. Cheeseman, Bucks	1	1	0
Sir James Paget	2	2	0
Dr. Champneys, 42, Upper Brook Street	2	2	0
Dr. F. Marcus Gunn, 54, Queen Anne Street ...	2	2	0
Dr. J. J. Lace, Frizington...	3	3	0
Sir Dyce Duckworth, M.D., LL.D....	1	1	0
Dr. William Carter, 78, Rodney Street, Liverpool	3	0	0
Mr. Bernard Reith, 29, Queen Anne Street ...	1	1	0
Mr. Thos. Bond, 7, The Sanctuary	1	1	0
Non Nobis Solum	1	1	0
Mr. A. Lawson, 84, Harley Street	1	1	0
Mr. Woodhouse Brain	2	2	0
P. T.	1	1	0

Further donations are earnestly invited by the Rev. H. Townshend 41, King Henry's Road, South Hampstead, N.W.

"Sequelæ!"

Under this title *Punch* has the following conversation, the savage humour of which those of us who have recently suffered from the extreme depression often left after influenza will know how to appreciate:—The General: "*You've* had it, I suppose?" The Judge: "I should think so. I'm as weak as a rat." The General: "That's nothing. *I'm* as weak as *two* rats." The Judge: "But *two* rats are stronger than *one* rat!" The General: "If you argue, I shall cry!".

A UNIVERSAL LANGUAGE FOR MEDICAL MEN.

WE have received several further communications on this subject, for which we regret we cannot find space. We can only summarise the chief points made by our correspondents. Dr. Douglas Stanley, of Birmingham, suggests that, as we are probably the worst linguists in Europe, we should first try to put ourselves on a level with other nations in respect of knowledge of languages before thinking about choosing the one which will prove of most use. French and German are absolute necessities; Italian will probably soon be; Spanish, we are assured, is hardly likely to become medically important; Latin has had its day. F.R.C.P.Lond. lays stress on the diversity of pronunciation which makes even scholars unintelligible to each other. With regard to the suggested adoption of the Italian mode of pronunciation, he says that would serve for practical purposes if perfect concordance could be established, and if we could decide from what part of the Italian peninsula our models are to be selected. "In theory," he says, "like many other theories, it is charming, but is it not illusive?" Dr. H. M. Duncan, besides strongly upholding the claims of Latin as the international language of science, pleads for its reinstatement as the language of the *British Pharmacopœia* and of prescriptions. "The greatest mistakes," he says, "my long experience has brought to my knowledge have occurred since our *Pharmacopœia* appeared in English costume. Familiarity may not only breed contempt, but it also engenders hurry and carelessness." Dr. Duncan adds that books dealing with certain subjects might with advantage be written in Latin.

"MORE HUMOURS OF HOMŒOPATHY."

WE have received two communications relative to the article on this subject which appeared in the BRITISH MEDICAL JOURNAL of March 30th. "Heretic," while admitting "the vagaries of our American cousins of the heretic body," deplores the fact that "it is actually possible for our orthodox brethren to believe that such curious ideas as to therapeutics are held by the English body representing homœopathy;" this possibility, he adds, making the existence of such publications as the one we quoted from "a constant irritation." That the "curious ideas as to therapeutics" referred to, or something very like them, are, as a matter of fact, held by some (at least of the English body representing homœopathy is, however, clearly shown by the other communication received from one of "Heretic's" brethren.

Dr. John H. Clarke writes: "Stramonium, opium, belladonna, hyoscyamus, cannabis indica, with many other drugs produce delirium when given to healthy persons, but in each case the delirium is different. In delirium tremens—to take an example—allopathists will, in all probability, give one, the other of these drugs as a 'sedative.' But the delirium of acute alcoholism also differs widely in different cases, and it is only when the symptoms of a particular case correspond with the symptoms produced in the healthy by the drug given that the 'sedative'—or, as we call it, 'homœopathic'—effect follows. Should any of your readers meet with a case in which that very ridiculous symptom 'visions of animals coming towards him from every corner' is present, I advise him to give no other drug but stramonium, in drop doses of the tincture (or less) every hour or so, and I can promise him the gratitude of the patient and a smile of different kind on his own face. *Ex uno disce omnes.*"

We must leave our heretical friends to settle this little discrepancy of opinion among themselves. It is clear that *Ex uno disce omnes* does not apply to the members of "the English body representing homœopathy" themselves.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) J. H. Ashworth, M.B., Halstead; Antiseptic; Dr. A. G. Auld, Glasgow; A. W. W.; Messrs. Arthur and Co., London; Asylum. (**B**) Dr. A. Buckell, Chichester; Mr. T. P. Battersby, Colchester; Mr. A. H. Boyle, Woodford Bridge; Mr. C. W. J. Brasher, Bristol; Mr. A. Berrell, South Woodford; Dr. P. M. Braidwood, Amersham; Mr. W. E. Bracey, Birmingham; Dr. J. Barr, Liverpool; J. W. Batterham, M.B., St. Leonards-on-Sea; Mr. D. Biddle, Kingston-on-Thames; Mr. L. A. Bidwell, London; Dr. G. B. Beale, Bournemouth. (**C**) Dr. C. C. Claremont, Portsmouth; Mr. E. F. N. Currey, London; Mr. J. Christie, Shanghai; Dr. C. M. Chadwick, Leeds; Correspondent. (**D**) Dr. A. D. Ducat, London; Dr. W. Donovan, Erdington; Mr. A. Downey, Hanley; Dr. L. Drage, Hatfield; Mr. E. De Sinner, London (**E**) Epidemiological Society of London, The Secretary of the, London; C. R. Edmondson, M.B., Liverpool; Dr. F. A. Elkins, Ryhope; Mr. F. Edwards, Sawston. (**F**) F.; Dr. R. Fullerton, Glasgow; Mr. W. Fearnley, London; Mr. A. Foster, Hornsley. (**G**) Mr. H. R. Greene, Woking. (**H**) Mr. F. R. Humphreys, London; Mr. H. Hairsine, Upper Tooting; H. R. W.; E. W. Haydon, M.B., Leicester; Dr. Vaughan Harley, London; H. Holles, M.B., Northampton; Dr. J. B. Hellier, Leeds; Dr. W. S. Hedley, Brighton. (**I**) Dr. F. Isdell, London; Ignoramus; Dr. C. R. Illingworth, Ventnor. (**J**) Joyiul; J. H. M.; Mr. H. M. Jordan, Newport. (**K**) Mr. R. T. Keet, Glasgow; Dr. Kunkler, Frankfort-on-Main. (**L**) Mr. W. Lake, Guildford; Mr. F. Lawrence, London; Mr. H. K. Lewis, London; Mr. J. R. Lunn, London; Lusby's Pinoza Tobacco Company, The Manager of, London; Dr. C. J. Lewis, Stirling; Dr. H. G. Lys, Bournemouth; Lumen. (**M**) Medical Practitioner; Matrons' Council, The Honorary Secretary of the London; Dr. A. Morrell, Cambridge; Major-General; M.B.; M.B. Dunelm; Dr. R. S. Marsden, Birkenhead; Mr. J. R. Marshall, Nottingham. (**P**) Mr. H. E. Powell, London; Mr. W. H. Pearce, London; Dr. S. R. Philipps, Virginia Water; F. M. Pope, M.B., Leicester; Mr. J. Poland, London; Mr. J. Pemberton, Dublin. (**R**) Mr. A. C. Roper, Exeter; A. H. Rideal, M.B., Manchester; R. J.; Mr. G. Q. Roberts, London; Mr. B. B. Rawlings, London; Dr. P. C. Remondino, San Diego, California; Mr. G. Rendle, London; Mr. A. B. Reck, Copenhagen; Dr. G. Rankin, Warwick; R. M.; Mr. R. H. F. Routh, Bridgwater; Mr. H. Ross, Phœnix, U.S.A. (**S**) Dr. J. H. Stowers, London; South Eastern Branch of the British Medical Association, The Secretary of the, Maidstone; Mr. H. J. Sequeira, London Mr. G. G. Sinclair, Esh; Surgeon-Lieutenant-Colonel Retired; Messrs. Simundt Slater and Co., London; Messrs. J. P. Segg and Co., London; Dr. M. Sturges, Anerley; Mr. A. Stanley, Birmingham; Mr. F. Scorer, Southwick; Mr. W. W. Stocker, Willesden; Messrs. Street Brothers, London. (**T**) W. E. Tressider, M.B., Nottingham; Rev. H. Townshend, London; Therapeutist; Mr. J. Tibbetts, Longton. (**U**) University of Glasgow, The Secretary of the, Glasgow; Ut Prosim. (**V**) Dr. W. T. Van Dyck, Beyrout. (**W**) Mr. J. T. Wilson, Hamilton; Dr. F. J. Waldo, London; Mr. W. L. Worcester, Thetford; Mr. J. P. Wightman, Leeds; Mr. J. W. Willson, London; Messrs. Woolgar and Roberts, London; F. E. Wynne, M.B., Nottingham; Mr. C. F. Williamson, Horley; W. C. R. (**X**) X. X. X.; etc.

BOOKS, ETC., RECEIVED.

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REMARKS
ON
CASES OF RENAL SURGERY.

By Sir WILLIAM STOKES, Ch.M.Univ.Dub., F.R.C.S.I.,
Surgeon-in-Ordinary to the Queen in Ireland; Examiner in Surgery, University of Oxford; Professor of Surgery, Royal College of Surgeons, Ireland.

As the surgery of the kidney occupies so prominent a place among the many developments of modern surgery, I feel confident the following cases will be deemed worthy of record:

Movable Kidney: Laparotomy: Recovery.

A. M., aged 42, by occupation a fisherman, of temperate habits, and residing at Greystones, co. Wicklow, was admitted into the Meath Hospital on October 7th, 1893. He complained of great pain in the abdomen, and stated he had been ill for upwards of five weeks. A large-sized tumour, somewhat ovoid or kidney-shaped, and freely movable, was found in the umbilical region. It was smooth on its surface, and hard; and could be pushed upwards, downwards, and backwards, but not from side to side. On pressing it backwards it could be made to disappear altogether. His suffering, which used to occur in violent paroxysms, was extreme. On one occasion, shortly after his admission into hospital, Mr. Alfred Power, the resident surgeon, was summoned to the medical wards, where he was placed when he first came to the hospital, under the care of Dr. J. W. Moore, on account of the extreme severity of his symptoms. He found him sitting up in bed with the bedclothes all tossed about him, and a look of intense agony on his face. His pupils were dilated, and large beads of perspiration were on the forehead and nose. His legs were drawn up, and his arms crossed, and pressed tightly against his abdomen. At times he screamed from the agony he endured, and then imploringly besought for anything that could give relief. These attacks of pain were spasmodic in character, and were referred chiefly to the right hypochondriac and umbilical areas, with short intervals of apparently complete relief. During the attacks of pain he would sometimes roll out of the bed and lie on the floor groaning, and at other times roam about the ward seeking by change of position to relieve the pain, often exclaiming that it would kill him. He got little or no sleep at night, notwithstanding the administration of powerful anodynes, which had little or no effect. The urine on examination was found to be normal. The bowels were, and had been for some time, very costive.

The treatment consisted at first in the exhibition of purgatives and anodynes. Turpentine enemas, calomel, hypodermic injections, bromides, Indian hemp, lupulin, chloral hydrate, belladonna, magnesia, ox gall, etc., were all tried, but at all events without any but a very transient beneficial effect.

The case was then transferred to the surgical wards and placed under my care, when it was seen by me for the first time. The history, symptoms, and emaciated condition of the patient made me first suspect that the case was one of a malignant tumour of the omentum or transverse colon, or both. Another view that was taken was that it was one of fæcal impaction; another that it was a wandering spleen or a movable or floating kidney. One thing at all events was clear to me, and that was that the case was one for an exploratory laparotomy, but as there was so much obscurity and difference of opinion about the case, before undertaking any operation I brought it down to the Biological Club, when the opinion I had formed that it probably was renal was much strengthened, more particularly by the views expressed on that occasion by Dr. McCann. Accordingly on November 13th I opened the abdomen by an incision about 4½ inches in length along the outer border of the right rectus muscle with its centre corresponding to the umbilicus. On opening the peritoneum to the same extent as the skin incision I passed my hand into the abdomen, and found that there was no tumour of the omentum, transverse colon, or stomach. This latter, however, appeared much distended. Both kidneys were in their normal positions, but the right kidney could be pushed slightly out of its place towards the middle line, though apparently not to any great extent. Under these circumstances, and having regard to the great limitation that there was in the power of moving or displacing the kidney, I did not think myself justified in proceeding any further in the direction of anchoring or suturing the kidney, and so, after a careful toilet of the peritoneum, I brought the edges of the wound together and sutured them with strong aseptic silk in the usual manner.

There is little to be said in reference to the convalescence of the patient. On the evening of the second day the temperature rose to 101°, but it fell to the normal standard on the third day, and remained in that satisfactory condition during the rest of the time he was in hospital.

And now comes the most remarkable, surprising, and, I confess, to me inexplicable part of the story of A. M.'s case, namely, that from the day of the operation he has never had the slightest return of any of those alarming and distressing symptoms for which he sought relief, and which a varied and long continued but ineffectual pharmaceutical battery was wholly powerless to cure or mitigate. In December A. M. returned home, since which time he has continued his avocation as a fisherman, free from all his former distressing symptoms, and in excellent health generally.

Movable Kidney: Nephrorrhaphy: Recovery.

For the notes of the following case I am indebted to Mr. William Taylor, Resident Surgeon to the Meath Hospital:

J. S., aged 21, by occupation a general servant, came under my care in the Meath Hospital in June, 1894, having for some time previously been under that of Dr. Lennon. The patient was a well-nourished, healthy-looking girl, who on her admission complained of a tumour, or, as she termed it, a "swelling" on the right side of her abdomen, which caused her great annoyance, being accompanied by extreme pain, which sometimes was of a lancinating character; and at other times were "dragging" pains across the stomach and right loin. The pain was not always present, nor did she notice any particular time during which it appeared; nor did alteration of position, once it came on, relieve it. Sickness of stomach was sometimes present during these paroxysms of pain. She was unable to sleep at night unless she lay on her right side and partly on her face, and the moment she happened to change her position she awoke with pain. She attributed the presence of this tumour to an attack of enteric fever which she had four years previously to her admission, and during which she had great pain in the situation of the right lumbar region; and then on being allowed up for the first time, she noticed the "swelling," as she termed it, which appeared suddenly.

She menstruated every third week since the first appearance of the catamenia, and at each menstrual period she suffered from extreme pain. For this she was treated successfully at the Rotunda, since which time the menstruation has been quite regular every fourth week, and painless.

Under the influence of an anæsthetic (ether) the tumour disappeared, but on turning over the patient on the left side it again appeared, was kidney-shaped and of the consistence of that organ, and on pushing it towards the lumbar region, with characteristic suddenness it disappeared.

Feeling confident I had to deal with either a floating or a movable kidney, I deemed it a suitable case for a nephrorrhaphy, and accordingly performed the operation on July 6th. The patient being anæsthetised by chloroform and a small but firm cushion being placed under the loins of the patient, she being placed in the left latero-prone position, an incision about 4 inches in length was made, with its centre corresponding to a point midway between the last rib and the crest of the ilium, in the lumbar region obliquely from above and within downwards and outwards, and the tissues divided in layers there until the perirenal fat was reached. This having been cut through, the finger was passed into the wound, but no kidney could be felt, and on withdrawing the finger the ascending colon appeared in the wound. On making firm pressure in front the kidney was pushed back and appeared in the wound. On removing the anterior pressure great difficulty was experienced in getting the kidney up to the edges of the wound, for whenever it was touched it slipped away and disappeared. On renewing the pressure in front, however, I succeeded eventually in getting

the kidney well up into the wound, and held it there with tenacula until I stripped a portion of the capsule and inserted a strong silk suture deeply into the substance of the organ. Arming an aneurysm needle with one of the free ends of the silk suture, I brought it round the last rib and, fastening the two free ends of the suture, securely fixed the kidney to the rib. The deep muscular tissues were then brought together by buried sutures and, a drainage tube being inserted, the edges of the wound were carefully sutured.

It is unnecessary to give the daily progress of this case. It progressed uninterruptedly towards recovery. The wound remained aseptic, the temperature never rose above 100°, and on the fifth day after the operation the sutures and drainage tube were removed and the wound, except at the point where the drainage tube had been inserted, firmly and completely healed.

On September 2nd the patient left the hospital for the convalescent home, and a few weeks subsequently she returned home. Since that she has been able to resume, and I believe efficiently perform, the very arduous duties of a general servant in a small household.

TUBERCULOUS PYONEPHROSIS: NEPHRECTOMY: RECOVERY.

For the notes of the following case I am indebted to my colleague Dr. Craig, under whose care it was originally, and who transferred it to me for surgical treatment, and also to Mr. William Taylor, the Resident Surgeon of the Meath Hospital:

M. C., aged 33, a house- and parlour-maid by occupation, until she married fifteen years ago, was admitted into the medical wards of the Meath Hospital on February 1st, 1894, and placed under Dr. Craig's care. After her marriage she went to live in Galway, when she led a laborious life, herding cattle in wet fields, and at home continually worried by domestic quarrels with her mother in-law. Since she was 17 or 18 years of age she has had occasional attacks of pain in the right side, which seemed to swell so that she unfastened her clothes to get relief, and with this there was much flatulence and sometimes vomiting. The pain was at times so severe that she wished she was dead. These symptoms would then suddenly disappear, and the patient for a time felt quite well. For some years past she says that at times she passed water very frequently during the day, and felt a scalding during and after passing it. Sometimes the pain would come on suddenly in the street or in chapel, and would make her feel faint and bring on vomiting. She next noticed the urine dark in colour, but generally observed a white sediment after the attacks of pain, and sometimes it was high coloured. She did not observe any bad odour from it until the present attack. On January 22nd she got seriously ill with pain in the right side, vomiting, shivering, and feverishness. For a few weeks before she had felt a "gathering" or throbbing on the right side, and for a couple of days before the attack she was drowsy, and felt the side swollen. In a few days after the attack came on she noticed the water was milky coloured and smelling badly, and it gave her a sharp pain on passing it, and was less than usual in amount. On the day after the attack she went to a situation but had to go to bed at once, and the pain remained and vomiting continued every day until Saturday, when she returned to lodgings. The pain and vomiting continued until Thursday, February 1st, when she came into hospital under Dr. Craig's care. The temperature that evening was 103°, the pulse 126, and the respirations 28.

A tumour bulging well forward occupied part of the right hypochondriac, right lumbar, and umbilical region. It was very tender to the touch, and fluctuation was evident. It was rounded on the surface, and elongated from above downwards. There was dulness all along its inner border, where a resonant note was elicited, due apparently to the ascending colon. It extended from the under surface of the loin to an inch and a-half below the level of the umbilicus, where its lower border was well defined and rounded. The inner border reached the linea alba, unless when pressure was made in the ilio-costal space, in which case the inner border extended for an inch to the left of the middle line, and this pressure made the tumour, which was otherwise not movable, bulge considerably more forward. The outer border was ill-defined. There was no swelling or tenderness on the left side, and no tenderness over the bladder. The patient was thin and anæmic, tongue coated, no appetite, menses stopped for two months, bowels fairly free. The urine was acid in reaction, and showed a whitish sediment half way up the vessel, was very fœtid, and scalds on being passed. With liq. potassæ the sediment became clear and ropy, and under the microscope abundance of pus cells were seen, but no bladder epithelium or casts. The urine was kept daily, and averaged from 36 to 40 ounces. The pus passed was abundant and continuous. Dr. Craig's diagnosis was that the case was one of pyonephrosis, and probably tuberculous in origin rather than calculous. The early irritability of the bladder and the apparent absence of hæmaturia, with a continuous presence of pus in the urine, seemed against a stone; on the other hand, the left kidney was apparently healthy, and secreting abundance of urine, and there was no evidence of tubercle elsewhere.

Dr. Craig then transferred the case to my wards and on consultation we both agreed that it was one suitable for nephrectomy, and on February 23rd I performed the operation. I opened the abdomen by a free incision over the tumour outside the border of the rectus abdominis. The peritoneum was extensively adherent over the tumour as was likewise the ascending colon which lay along the front of its inner border. The capsule and perinephritic tissue were greatly thickened and adherent all round. After freeing the whole mass the capsule was opened and while endeavouring to enucleate the kidney, which was extremely tense, the thinned cortical substance gave way and a large amount of thin, fœtid pus escaped with great force and completely filling up the wound. This caused a complete collapse of the tumour. The pedicle was then tranfixed, tied in two sections, and in addition a strong silk ligature firmly tied round the whole. No attempt to separate the vessels or the ureter was made owing to the great amount of thickening and adhesions that were present. The pedicle was then divided and the kidney removed. A mass of the thickened capsule was cut off, and after a most diligent flushing out of the abdomen with a warm boric solution a drainage tube was inserted, and deep and superficial sutures inserted.

Nothing could be more satisfactory than the subsequent daily progress of this case. From the day following the operation there was a steady decline in the temperature, and there was no appearance of pus in the urine. The wound healed immediately, except at the point where the drainage tube was inserted, and on this latter being removed, three days after the operation, the wound completely healed. The patient remained in hospital for about eight weeks after the operation, not suffering in any way, but in a very weak depressed state; the urine was ample in quantity and healthy in character. The patient then left for the convalescent home at Bray, and after a short sojourn there, returned to her home in the West of Ireland. I may mention that the kidney, or rather what remained of it, was examined by my colleague, Professor Scott, at the Royal College of Surgeons, who confirmed the diagnosis that had been made, that the disease was distinctly tuberculous in character.

The points of special interest connected with these cases are, I think, the occurrence in the first one of abnormal renal mobility in a male. In a series of statistical records of movable kidney mentioned by Lancereaux, A. W. Foot, Newman, and Keen, to be found in Mr. Frank's paper on this subject, I find that the number of cases in these four records is 702, and that of these only 87 occurred in males, a little over 10 per cent. Also the great obscurity surrounding the etiology of the condition in A. M.'s case is worthy of note, there having been no evidence of his having received any severe traumatism, or of his having suffered from any emaciating disease that might cause absorption of the perirenal fat. He may, having regard to his avocation, which was that of a boatman and fisherman, have been subject to severe strain consequent on lifting weights, etc., and if so, possibly the mechanical theory of Newman, based on the supposition that the displacement is produced by pressure on the kidney, the loin in front, and the crura of the diaphragm behind, consequent on contraction of the abdominal and lumbar muscles, has been too hastily rejected.

Another remarkable circumstance connected with the case was the apparent absence of abnormal renal mobility observed on opening the abdomen. I think, however, that it is highly probable that had the kidney been cut down upon in the lumbar region, the existence of abnormal mobility could have been more easily determined.

Then, again, the cessation of the formidable gastric disturbances which followed immediately after the laparotomy is a noteworthy feature in the case, and not very easy to explain satisfactorily unless that peritoneal adhesions may have formed which limited the movements of the organ. Lastly, that his recovery has been a permanent one, as he has ever since his return home been engaged in his usual arduous avocation of boatman and fisherman at Greystones.

The features of chief interest in the second case were the severity of the gastric symptoms, which were accentuated during menstruation and which completely incapacitated her from following her usual avocation, and the obscurity which surrounds the etiology of the condition in her case. There was no history of injury or strain, she never had been pregnant, nor has she had any long-continued emaciating disease. The patient was in fact a strong, healthy looking, well-nourished individual. There was no atrophy or absorption in this case of perirenal fat, as it was present in abundance. There must have been some other etiological factor in this case than absorption of it. It is hard to say whether the enteric fever she had four years previously had anything to say to the production of the renal mobility; but I am not aware that the latter condition has been noted as one of the possible sequelæ of that disease.

Another point worthy of mention is the great mobility of the kidney which I found, and which materially added to the difficulties of the operation. When I cut down upon and exposed the kidney all my efforts at fixing the organ and drawing it up to the surface of the wound were unavailing. Whenever I touched it it shot away out of sight and touch, and where it went I could not tell. Ultimately, however, I succeeded in hooking it up with tenacula, and then fixed it to the last rib in the way I have already mentioned.

As regards the *technique* of the operation there were one or two circumstances connected with the case I have just detailed which added materially to the difficulty of the procedure. One of these was the trouble I had in fixing the kidney before detaching any of its capsule and inserting sutures through its substance. This, I feel sure, could be obviated by having a larger and firmer cushion placed under the left lateral and interior region of the abdomen than the one I had. I think, too, that Edebohls's prone position is probably in many respects superior to the latero-prone position of Marion Sims. I think, also, that although nothing untoward occurred in reference to the suture during the convalescence of my patient, it would be better to insert a larger number of them. Dr. Edebohls is in the habit of inserting four or five. Formerly he used kangaroo tendon, but latterly silkworm gut. In the case I have detailed I employed carefully-prepared asepticised silk, and in any future cases I will certainly adhere to this material, as it does not cut through the tissues so readily as the silkworm gut. The kidney tissue being, as Dr. Edebohls correctly observes, "exasperatingly friable."

Various theories have been advanced to account for the gastric disturbances or crises that at times are present and in so aggravated a form "that," as Le Dentu has said, "life becomes nothing but an endless torture." These are: 1. Dragging of the kidney upon the renal vessels and tissues. 2. Pressure of the kidney on the middle part of the duodenum (Morris). 3. Traction of the kidney on the vertical portion of it (Kendal Franks). 4. Stretching and irritation of the solar plexus and its branches (Edebohls). This latter view of Edebohls's is based on the fact that the gastric disturbances cannot altogether depend on duodenal obstruction, as they are present when the left kidney is displaced—a condition, however, which is of great comparative rarity.

In the nephrectomy case the difficulties I experienced in removing the kidney, owing to the extensive adhesions that bound the organ firmly to all the surrounding tissues, were extreme. Along with this there was the unhappy incident of rupture of a thinned portion of the capsule, which was followed by what it is no exaggeration to say was a perfect torrent of purulent matter into the cavity of the peritoneum. This made me at the time despair of ever being able to bring the case to a successful issue—a gloomy anticipation which happily was not realised; for the accident did not, in truth, appear in any way to affect injuriously the subsequent progress of the case. It is hard to account for this, unless we accept the view which was suggested to me by Professor Ashton, of Philadelphia, to whom I communicated the main facts of the case when I met him last autumn at the meeting of the British Medical Association at Bristol, namely, that the purulent matter was probably in a sterilised condition. In connection with this point, I may mention that last April I witnessed a nephrectomy performed by Professor Durante, of Rome, the case being one singularly analogous to the one I have just detailed. Rupture of the capsule also occurred in Professor Durante's case, and a portion of the contents unavoidably got into the peritoneum. I do not know what what was the ultimate result of his case, but I heard that six days after the operation the patient was doing well. It is satisfactory, therefore, to know that this accident, which from *a priori* considerations one would suppose would probably be followed by calamitous results, is not necessarily attended by such. I regret much that a careful examination of the purulent fluid effused into the peritoneum was not made by a skilful bacteriologist, as the result—in verifying or disproving the view as to the alleged sterilisation of the former—would have been of equal interest and importance, as well to the scientist as to the practical surgeon.

THE LUMLEIAN LECTURES

ON THE

DIAGNOSIS, PROGNOSIS AND PROPHYLAXIS OF INSANITY.

Delivered before the Royal College of Physicians of London on March 28th, April 2nd and 4th, 1895,

By G. FIELDING BLANDFORD, M.D.Oxon., F.R.C.P.Lond.,

Lecturer on Psychological Medicine, St. George's Hospital.

Lecture III.—The Prophylaxis of Insanity.

Mr. President and Gentlemen,—I come now to the third portion of my subject—the prevention of insanity. On January 1st, 1894, there were registered as of unsound mind, according to the report of the Commissioners in Lunacy, 92,067 people in England and Wales alone. How many more there were unregistered no one can tell. That it is a large number is certain; that it will increase and is increasing I think there can be no doubt, for the public in general resents and resists the new and cumbrous lunacy law to the utmost of its power, and will continue to do so. The consequence is that patients are treated at home and are not registered, and the early treatment, which is admitted by all to be essential to recovery, is but rarely adopted. A controversy exists, and has existed for many years, as to whether insanity is increasing or not. We read in the Commissioners' report that the number of registered lunatics and idiots in 1894 exceeded that of 1893 by 2,245, but this, we are told, can be easily explained, and is no proof that insanity is increasing. My own belief is that we can deduce but little from such figures. If insanity does not increase, it is to be inferred that the recovery-rate and the death-rate must decrease to account for this large accumulation of cases. I have nowhere seen any statement that insanity is decreasing, or that nervous disease is diminishing in frequency or intensity, and *a priori* reasoning would lead us to think that the reverse is the case; that the environment in which we live is becoming more and more complex, and that there must be a corresponding complexity of brain centres and functions with more and more instability and liability to disorder and deterioration.

I know that this view has been called pessimistic and that there are some whose opinions I greatly value who deny that there is any increase of complexity and who point to brilliant men who live and are well in spite of hard brainwork. This does not, in my opinion, disprove my position but only shows

that the strong and the naturally selected escape the dangers which overwhelm the weak, who by natural inheritance and less fortunate environment succumb to nervous disorder. I shall come back to this part of my subject presently when I speak of the rearing and training of those who are threatened with nerve or mind trouble. I wish first to say something about the great cause of insanity—hereditary taint.

There is no need for me to argue before an audience like this upon the existence of such a cause of insanity or to raise any question as to the transmission of the disease by inheritance. Few medical men, even of those whose practice does not lie amongst the insane, can pass many years without its being brought under their notice. Young persons of both sexes break down, we know not why. The parents may assign this or that as a reason, but they are keeping back the true cause. The patients are too young to have acquired insanity. They have not been exposed to the changes and chances of life. They have not known the cares and anxieties of poverty and the condition of those who have to support a family on very small means; they have not failed in business or been disappointed in their ambition. They have not taken to drinking. Their insanity is idiopathic, constitutional, derived from their forefathers; for insanity is inherited, not only from insane parents, but may come from those who are afflicted with other nerve disorders, as epilepsy or dipsomania, and along with insanity we find in a family the disorders which I have named and all the series of neuroses with which you are familiar. But statistics of inherited insanity we do not possess. Statistics of cancer, statistics of phthisis—two other hereditary diseases—we are able to arrive at and to argue upon. The reason of this is that cancer and phthisis kill their victims, and the record appears in the Registrar-General's list of deaths. But insanity does not kill except in a few cases. People become insane, and may live for years in this condition, dying eventually of some other disease, which is tabulated as the cause of death. Two patients have lately died under my care; one, a lady, had been in the same asylum for fifty years. She died of an apoplectic seizure. The other, a gentleman, had been forty-one years in the asylum, and died of prostatic and bladder trouble. Not deriving any assistance from the Registrar General, we are driven to the information we get from the relatives of patients and our own knowledge and observation. The former, the facts imparted by friends, are absolutely untrustworthy. That insanity exists in a family is denied with the most unblushing boldness. I recollect the case of a gentleman who was about to be married. The relatives of his intended heard in some way or other that his family was not altogether free from this disease, and they put some plain questions, not to him, but to his relations. They were told in the most positive terms that nothing of the kind existed, though at the very time the gentleman was the committee of an insane aunt and other suspicious cases had occurred. The marriage took place. Within six weeks the patient was in a foreign asylum. He recovered, again to break down, and after a series of recurring attacks he died in an asylum in three or four years, a hopeless epileptic. Fortunately there was no issue of the union.

Mr. Francis Galton, who has, as you know, studied the question of heredity, tells us in his book on *Natural Inheritance* that when he issued his inquiries as to the "Records of Family Faculties," insanity was not asked about, as he did not think it wise to put too many disagreeable questions. No doubt he thought that the answers he was likely to receive on this point were not likely to add much to our knowledge. Without information, and accurate information, we can do little by dint of our own observation. There are but few of us who have the opportunity of observing many families through three or more generations. Here and there we come across certain insane persons in a family, and may be aware that in the preceding or following generation there have been others. But for the purposes of our investigation we want to know not merely these black spots and blights in the family tree, but the history of all the others the half-insane, the neurotic, the phthisical, the healthy. Is the family tending to decay and extinction or is it reviving, throwing off its unhealthy branches, and with recuperated vigour ascending again to its proper racial place? We want to know the conditions of the one or the other of these terminations. Doubtless the environment has a good deal to do with the result, but inheritance has as much or more, and this is a matter more under the control of the interested parties, if they will only suffer themselves to be controlled by our advice.

We may roughly divide insanity into that which is inherited and that which is acquired. But no one cause of acquired insanity at all equals heredity as a producer of mental disease. If we could stamp out all the insanity which owes its origin to inherited instability, we should have gone a long way towards the extirpation of insanity as a whole. For a great deal of the mental breakdown which is apparently acquired is due to hereditary weakness; a large amount may be acquired through alcoholic indulgence; but if we closely examine the cases where alcohol is the exciting cause, in how many we find hereditary predisposition. Sometimes the alcoholic craving is inherited, or it may come from ancestors who were not themselves inebriates but showed some other form of mental or neurotic disease.

Again, look at the insanity which is due to overwork or worry, to shock, disappointment, or religious excitement. Some such exciting cause may be found in many cases; but behind it we may perceive a predisposing cause—hereditary taint. How many a patient who is said to have suffered from worry has evolved his worry out of his own nervous, fidgetty constitution. The things which are worries to him would be nothing to a more stable mind. And the same with work. What is healthy occupation to one becomes a burden too heavy to be borne by another, who collapses under its weight. The same with losses and shocks and with religious strain. If we wish to save our race from gradual mental decay, and not only to preserve life from such ills as zymotic diseases, but to raise up a strong and vigorous breed of healthy men and women, it is absolutely necessary that more attention shall be paid than has been hitherto to the selection of the individuals who are about to marry and reproduce.

If men and women were racehorses, or shorthorns, or greyhounds, their breeding would be regulated, and all diseased or faulty stock would be carefully eliminated, and all in-breeding would be, as a matter of course, avoided. But being what we are, thinking only of ourselves and our own self-gratification, and nothing of the future race, we arrange our own unions, and nobody has the right, or the power, or the courage to prevent us, when we have attained to years of discretion, namely, the statutory age of 21. Many have thought, and more have hoped, that some day legislation may concern itself with this subject, and prevent the union of persons, one of whom has been insane, or is specially threatened with the disorder. Vain hope! Legislation will not even annul the bond which ties a man or a woman to a partner perhaps quite young, who is hopelessly insane, and may remain so for the space of a long life. We can only trust that by education, by continual ventilation of the subject and exposure of the evils arising from its neglect, public opinion may in process of time be directed towards it, and people will be forced to look upon the act of giving birth to an insane child as a cruel sin.

If we examine a family in which insanity exists, where, for example, one or other of the parents has shown symptoms of mental disorder, we shall probably find that not all the children become insane; indeed, the majority may escape altogether. This may be due partly to a better constitution inherited by some than by others from healthy forefathers, and partly by the environment of some being more conducive to mental health than that of others. But it is impossible to forecast with certainty what will be the fate of this or that child. Some may break down early at puberty or adolescence, while others may show no indication till they attain old age; nay, they may escape altogether, and yet in the next generation the inherited taint may show itself.

For the prevention of insanity we would, if we could, forbid the marrying of unsuitable persons, persons who by reason of inheritance, or being themselves neurotic or unhealthy or inebriate, are likely to have diseased children. If there is insanity in the family, we shall have to consider in how many members and in how many generations it has shown itself. If it has occurred in one of the parents, what

was the age of the parent at the time of its appearance? Did it appear when the parent was young, at a time when it must obviously have been inherited, or did it manifest itself later in life, with a cause and a history which showed it to have been acquired? What was the age of the parent when the child was born, and was it born before or after the disorder commenced in its parent? If the taint appears to be slight, and the individual is strong and healthy and free from all neurotic symptoms, we then have to look at the other side of the union, at the partner that he or she is about to take. If this one's family history is absolutely free from inherited disease, and the individual is sound in body, no great opposition can be offered if he or she is willing to undertake the risk, but that there is a risk ought to be clearly explained. On the other hand, if there is a taint of insanity on this side also, if the parties are cousins, or either is eccentric, nervous, weak-minded, ultra-religious or ultra-emotional, the union should be forbidden, not only on account of the offspring, but for the sake of the parties themselves. The effect of the knowledge of this family disorder may have a disastrous influence on their lives, and may cause the greatest misinterpretation of actions and trial of tempers.

Whatever difficulty we may experience in advising as to the marriage of those in whose families insanity exists, there will be much less when we are consulted about men or women who have already had an attack of the disorder. When the individual is a girl, we are at once confronted with the popular and prevalent idea that marriage is a cure and sovereign remedy for such disturbance, and advisers, even medical, say to the parents "get her married." They think this will cure any remnants of the past attack, and be a certain preventive of any in the future. Our advice on the subject is often taken and but rarely followed. The attack will be concealed from the knowledge of the other party if this is possible, or will be minimised and spoken of as nervous or hysterical, or it will be denied altogether. I hold a strong opinion that people who have been insane ought not to marry at all, that they ought not to inflict on their partner for life the anxiety, and even danger, of another attack. No one who has had one attack of insanity can be pronounced free from the risk of another. Insanity is a disease which confers no immunity on its victims like some we have to treat. On the contrary each attack, if there be more than one, adds to and does not take away the liability to succeeding ones, in this respect following the example of its congeners such as epilepsy or neuralgia: and besides the risk and danger to the partner in the marriage there is the question of offspring. In this there is far greater danger for the woman than the man, for the former has to face the periods of pregnancy, of parturition, and, it may be, lactation; and what numbers do we see who break down after childbirth who, had they remained single, might have led a happy and a useful life.

Patients and their friends, when recovery takes place from an attack of insanity, fondly imagine and flatter themselves that they will never have another. They rake up some little circumstance which they think was the cause, and argue that it will not occur again. And if they ask us our opinion on the subject, it is not easy for a physician to say to one just convalescent, and rejoicing in the return of reason and hopeful of the future—it is not easy to say to such a one, "You will surely break down again; you will be as bad as you have been lately, and you should shape your life with this idea ever before you." It would be thought very hard, injudicious, and unkind were we to say this; so we let our patient go and make him or her happy. Nevertheless, we ought to advise that no marriage should take place, and set before the friends the risks thereof.

People with this tainted inheritance do, however, marry without advice, very often in spite of it; and when married they break down, recover perhaps, and break down again. The wife may have puerperal mania at one or more of her confinements; the husband may show some symptoms of disease at an early period. Now, holding the opinion that I do as to the necessity of preventing inherited insanity, I must say that in my judgment people that have had attacks of this disorder ought to have no more children. What can be more lamentable than to see a woman break down in childbed, recover, break down again with the next child, and so on for six, seven, or eight children, the recovery between each being less and less until she is almost a chronic maniac. I have known this occur more than once, and doubtless some of you have had a similar experience. For the sake of the mother and the father, to say nothing of the children, there ought to be an end of their begetting when insanity follows the birth. I have a case in my mind where this succession of attacks occurred a number of times—six or seven at least. Both parents—father and mother—died in an asylum. There was insanity in both the father's and mother's family. The children are growing up. The eldest developed dipsomania at an early age. What the others will develop remains to be seen. I do not confine these observations to cases where the mother has become insane after marriage. The same applies to fathers who have had attacks of insanity. There is not, of course, the same personal risk to the father that there is to the mother, the risk of dying in an acute attack of puerperal insanity or of becoming, through such an attack, permanently insane, but there is the same risk for the children, the same chance of bringing into the world a progeny which shall hand on this heritage of insanity or all the other varieties of neurotic disease.

After hereditary transmission there is probably no cause of insanity which exercises so potent an influence as alcoholic drinking. A large proportion of the patients in our pauper asylums owe their malady to this. The proportion differs according to the locality, Cornwall, Devon, and Dorset furnishing the smallest number. As we go north and examine the numbers in the large towns, where wages are higher, habitations, and life unhealthy, the admissions from this cause are more numerous, especially when trade is good and wages high. So long as drinking remains as it is, it will be impossible to say that insanity is diminishing. The spread of temperance principles, the advance of education, the improved sanitation of dwellings and workshops, and the influence of wholesome recreation upon the mind as well as the body must, we hope, gradually check the drinking that prevails. There is far less drinking among the upper than the lower classes, yet the proportion of drinking women is high amongst the former, and of the alcoholic cases brought under our notice in private practice a large number are those of ladies.

From time to time we may be consulted about the bringing up of threatened children—children of parents in whose family insanity exists, or who have themselves been insane. If the insanity is on the mother's side the child should have a wet nurse, for good nourishment is essential. Its sleep should be carefully watched, and as much as possible procured. It should sleep by day as well as night till it attains the age of 5 or 6. Nervous children should be protected from all that can terrify, such as servants' tales of ghosts, robbers, bogies, or policemen. Parents often know little of what goes on in the nursery, and children may be even taught habits of self-abuse by nurses to keep them quiet. Parents' treatment may be equally injudicious. They may spoil at one time by indulgence, and frighten at another by intemperate noise and quarrels. They may dose them with religion till the children loathe it, or else become the veriest little hypocrites.

The egoistic nature of those who inherit the insane diathesis ought to be kept in view by whoever has to train them. A delicate child may require much watching and care. It is easy to foster this selfishness, and much caution should be observed. Such a child should be taught to consider its playmates and companions first, to share its toys and luxuries, to be kind and considerate to servants and animals. Cruelty to the latter is a frequent concomitant of weak mind. School, even at an early age, is a benefit to many such children, girls as well as boys, for by it they are taken away from the injudicious spoiling of home. They have to obey orders, to observe proper hours, and learn discipline and regularity, all which may possibly be novelties to them.

There are two sorts of children about whom we may be consulted—the dull and backward, and the preternaturally sharp and precocious. The first may not be an idiot, but backward and slowly developed. He requires special tuition, and it is useless to place him in a class of boys of the same age, and expect him to do the same lessons and compete on the same terms. Still worse is it to punish an unfortunate boy of this kind, and set him down as lazy or idle, or to cane him as obstinate. Incalculable harm may be done to a boy or girl

by such mistakes. The education must be fitted to the capacity, and the teacher should discover whether such a child has a special aptitude for some branch of knowledge or art.

Then there is the precocious boy, bright, intelligent, quick to learn, the pride of his teachers. If he goes to a private preparatory school he will be hailed as one to win scholarships and bring glory on the school, and he will be crammed and will have to contend at the age of 12 or 13 against a host of others. Now if 100 boys compete for ten scholarships, it is obvious that 90 must return disappointed and defeated, and have at this early age to undergo the mortification of failure. The evils of continual examinations have attracted the attention of others not in our profession. Mr. Auberon Herbert has drawn up a protest against the system, the spirit of prize-winning and place-getting in education, and the dominant position assigned to examinations. It protested against the evils resulting from the intellectual racing of boys and girls against each other, and warned parents that the physical ill-effects were often not disclosed at the moment. I cannot quote this at length, but it was printed in the *Nineteenth Century* in 1888, and was signed by some hundreds, among them 377 teachers, including university tutors and head masters of schools, and 130 ladies concerned with the education of girls, and cognisant of the evils produced in them by the sacrifice of education to examination; also it was signed by 62 members of our profession, including some well-known Fellows of this College. If the evil is great for boys, it is ten times greater for girls. Many boys are compelled to go in for examinations, but few girls are. Few have to earn a livelihood in a walk of life to be gained by competitive examination. Nothing nowadays is to be learned unless it will pay, unless it will tell in an examination, and can be estimated at a pecuniary value. And this is not confined to the upper and middle classes. "Every child," says one gentleman, "the weak or the strong, regular or irregular, who enters an English elementary school, is a grant-earning machine. To get the highest grant all must be brought up to the same level in the allotted time. Therefore children of naturally slow development must be more or less overtaxed, to the permanent injury of their brain power; and the bright, intelligent, healthy children have to 'mark time' while their less gifted fellows are crammed."

I have seen disastrous effects in boys and girls from the pressure of examinations. They fail to pass or fail to gain the prize for which they have competed. The end of all the wearisome cramming is failure. Conceive what this means to the young and developing brain and mind. Many break down in the preparation. One lad I certified who had been kept for hours daily practising the violin, not because he was to be a professional player, but because his father was musical and wished him to be a proficient. Another, a girl, broke down who had to practise an excessive number of hours on the piano for an examination at the Academy of Music.

It is quite in accord with this rage for examinations that the pass examinations have been divided and subdivided till their number is multiplied indefinitely, and the student has ever before him an examination in some subject or other, on which for the time he must concentrate his whole mind, to be completely thrown aside when passed, while another starts up to take its place. In our profession, for example, a student's career has for its aim not the acquiring of knowledge, but the passing of examinations.

I commenced by speaking of the rearing and education of the weakly and the prevention of insanity in those predisposed. It is no argument against the evils of overpressure to point to the strong—to those who by constitution or favouring circumstances rise without stress or difficulty above their fellows. The weak are not to be treated like the strong. A few years ago I saw a young man who achieved five first classes at Oxford. Weak by constitution with inherited taint, he died of general paralysis at the age of 37.

Children who are predisposed should not be subjected to narrow or fanatical views of religion. Self, self-introspection, the perpetual consideration of self, are among the characteristics of incipient insanity, and to encourage all this is manifestly the worst thing that can be done. Children suffer terribly in this respect from narrow-minded and bigoted parents, who, convinced that they are right, seek to force upon their offspring their peculiar ideas, and often bring about a hatred of everything religious, if they do no worse. Boys kept in the utmost strictness and ignorance of what vice means, when let loose at school or college revel in the new-found pleasure. Another effect is to make such children utter little hypocrites. I have seen long pious letters and pious poems written to her parents by a girl who, as I happened to know, was as wicked and depraved as any I have met.

Another thing to be guarded against is the habit of self-abuse. Parents who wish to conceal the insanity of their family are ready to assign this as the cause of the insanity of one of their children if it can be shown that it has ever been practised, and the consequences are frightfully exaggerated by all the quack advertisers, who prey upon the nervous. The neurotic, however, are the most likely to suffer from the habit, and it beyond question causes insanity in a certain number. The question arises, Should children be warned against it? On this medical men differ. My own belief is that they should, and this view is supported by the head master of one of our first public schools, who has advised that such warning should be given.

It would be a good thing if all boys and girls with hereditary predisposition were brought up to abstain totally from alcohol. There is always a risk of these neurotic individuals acquiring the habit of drinking, a habit very hard to give up, and with which our present legislation gives us but little power to deal. It will be no hardship to abstain if they have never taken wine, spirits, or beer, and they should be made to understand clearly why such abstinence is enjoined.

When boyhood is passed the young man has to choose a profession, and the young woman also may have to seek a livelihood in some walk of life. The former is beset almost everywhere by the terrors and evils of competitive examination. Formerly appointments could be obtained in the various branches of the Civil Service, now they can only be got by examination. A commission in the army could be purchased, and if the lad was unfit for foreign service it could be sold. For those who liked an outdoor life there was farming, by which a competence might be obtained. It is difficult now to choose a profession for a young man with a nervous inheritance even if he has plenty of brains. There is the Civil Service of India, probably the highest prize of all. It does not follow that he is fitted for such a life. He will have to face the dangers of a tropical climate, perhaps in an unhealthy locality. He will have great responsibility at a very early age, for he may have to administer a district containing thousands of people, many of whom are highly intellectual. Many succumb and have to abandon the service. The army, too, entails long residence in India. Formerly our troops were sent to many places and colonies where now there are none. The other professions all entail examinations, hard work, and perhaps long waiting and little success. The church is not well suited to a neurotic man. It is an emotional life. He may have difficulties of belief, doubts and scruples of conduct. It is not difficult to point out the occupations which are unsuited to such a man; it is more difficult to say what is the most suitable. That will be best which entails least worry and responsibility, which does not involve money losses or great and sudden disappointments. Moreover, it is very important that every man should have beyond his every-day work some amusement, pursuit, occupation, or hobby—call it what you will—which shall be a relief to him after his daily task. This latter may be monotonous and not enough to occupy his mind, or anxious and worrying. It is good for him to leave it behind and devote his energy to something else. How often do we find a man in business break down and hear that apart from his business he has no thought, no occupation, no amusement. He goes to business early and returns late, and the morning and evening newspaper are all that he reads from Monday morning to Saturday night.

Of occupations suited to neurotic women I can say but little, but that which so many wish to take up in the present day, namely, nursing, is most unsuitable. Nursing is for the strong—bodily and mentally. It involves great anxiety and responsibility, great fatigue and loss of sleep, and is the last calling which the predisposed should follow.

The next thing is that these young persons want to marry.

They may possibly consult us, having generally become engaged first. In many cases, where the predisposition is strong and the individual manifestly unhealthy and neurotic, we should certainly not advise marriage, especially if means are small. We should recommend a close investigation of the family history of the intended, and the avoidance of a connection between cousins. As I have said, marriage is more serious for a woman than for a man. Some with feeble health and frail physique we should advise never to marry; and all who have insanity in their families marry at their peril. They ought not to marry poor men, and have the burden of narrow means, the care of a family, and insufficient nourishment for all.

Can a man or a woman do anything to prevent insanity? This is a question sometimes put, more frequently, however, with reference to the prevention of a recurrence in those who have already suffered from an attack. In many the insanity occurs at so early an age, and is so manifestly due to heredity, that it is to be feared that no advice that we can give will enable the individual to escape. Nevertheless, the direction to be followed is not hard to point out. It is important that a man or woman should correct, as far as in them lies, the tendency to egoism, self-consciousness, and selfishness which so often ends in insanity. They should adjust themselves to their surroundings, should not live for themselves, but feel sympathy for others, and help and defend them. This may be difficult for a man to do who has never done it hitherto. It is less difficult to train a child in such direction. All children should be so guided, and especially those predisposed to neurotic disorder. One has seen such at school, eccentric boys who are peculiar in their dress and ways, but possibly clever in some things. They are rarely gregarious. They lead for the most part solitary lives, just as do the insane. It is one of the advantages of the enforced games of a public school that a check is thereby put to the solitary wanderings of such boys, and for a time, at any rate, they have to congregate with their fellows.

INTESTINAL OBSTRUCTION DUE TO MALIGNANT GROWTH TREATED BY ANASTOMOSIS BY MEANS OF MURPHY'S BUTTON.

By CHARLES A. MORTON, F.R.C.S.Eng.,
Surgeon to the Bristol General Hospital; Demonstrator of Anatomy, University College, Bristol.

History.—W. S., aged 27, was admitted into the Bristol General Hospital on October 15th, 1894, with the following history. For five months he had been subject, every few weeks, to attacks of pain in the right iliac fossa, lasting a few hours and accompanied by the presence of a round, firm swelling the size of a hen's egg, which appeared midway between the anterior superior spine and the umbilicus, and always disappeared as the pain ceased. A fortnight before admission general abdominal pain and vomiting set in. The bowels acted for the first week, but there had been complete obstruction (no flatus having been passed) during the last.

Condition on Admission.—He was very emaciated. The abdomen was considerably and uniformly distended, and every few minutes distended coils became visible, and a very hard swelling formed in the right iliac region which felt like a solid mass, but it subsided with the cessation of peristalsis, and was evidently an extreme condition of localised intestinal distension. No lumps could be felt through the abdominal wall, but a small nodule was detected lying outside the rectum.

First Operation.—No satisfactory action of the bowels could be obtained by enemata, and on October 17th I explored the abdomen by a median incision and found that the portion of intestine which became so greatly distended during peristalsis in the right iliac fossa was the distended cæcum and that the sigmoid flexure was empty. I then made an incision over the cæcum and discovered a constricting mass of new growth at the junction of the cæcum and ascending colon which tied the bowel to the deep wall of the iliac fossa and could not be removed. The cæcum was stitched to the abdominal wall and opened. He rapidly improved and gained flesh and was discharged on December 18th. For some time after the colotomy the discharge of liquid fæces caused much excoriation of the abdominal wall, but the skin became thickened, and this trouble ceased, though, owing to the liquid character of the fæces, there was a constant discharge which all kinds of mechanical contrivances failed to retain. However, when he left the hospital at the end of December he was well nourished and very comfortable and intended to return to work.

Second Onset of the Obstruction.—On January 20th he was readmitted with the history of a week's constant vomiting, very little fæcal matter had come from the artificial anus, and distension of the abdomen had again set in, with severe pain. He had lost much flesh, the abdomen was considerably distended, and with peristalsis distended coils became visible. Only mucus came from the artificial anus. In the cicatrix of the median incision three small nodules could be felt, and the nodule felt *per rectum* on his first admission was a little larger. On introducing the finger into the artificial anus it was found unobstructed by the growth in the cæcum though this had enlarged. The rectum was empty and greatly contracted.

The Second Operation; Intestinal Anastomosis.—It seemed probable that some new mass of growth was blocking the intestine on the proximal side of the artificial anus. As he had suffered so much inconvenience from the artificial anus, he decided to run the increased risk of an intestinal anastomosis. This I decided to make between the sigmoid flexure and the distended portion of small intestine lying near it, which could be reached by the same incision. There was no evidence to show how much of the colon might be obstructed by a mass of growth; but the lower end of the rectum could be felt to be free; hence I decided to anastomose as near to it as possible. Had I had any evidence that there was no growth in the colon beyond the cæcal mass, I should have preferred to have operated on the right side and joined the small intestine, as near the valve as I could get, to the ascending or transverse colon, so as to be certain of getting a full length of small intestine, supposing the growth was near the valve. I made Harrison Cripps's incision for inguinal colotomy. The sigmoid flexure was very contracted. The finger followed its course into the pelvis without discovering any new growth obstructing it, though several small nodules were felt in the parietal peritoneum. The contraction of the sigmoid flexure was so great that it was only drawn into the wound with considerable difficulty. Portions of the distended small intestine and the sigmoid flexure were isolated by means of Arbutnot Lane's clamps, and a 1-inch button was inserted. It worked perfectly, and so securely was the junction effected it seemed almost impossible it should leak, at any rate until the button began to destroy the compressed portion of bowel. Several Lembert's sutures were placed around the junction, as I was not sure whether Murphy used sutures. As the clamps were removed, the large bowel began very slowly to fill; it was too contracted to fill rapidly. The abdominal wound was united, and no drain employed. There was no shock attending the operation, which took a little longer than an hour, but could have been done in half the time had I not used the sutures; and I only put in as many because his condition was so good as to make it unnecessary to bring the operation to a speedy termination.

Progress after the Anastomosis.—There was no vomiting after the operation, and a copious liquid evacuation took place in less than twelve hours, and continued at short intervals for many days. The abdominal distension slowly subsided. The abdomen has, however, never become quite flat as it did after the colotomy, and lately there has been distinct distension again, with a few visible coils at intervals, but he takes his food well, and vomits only rarely. For some time he was fed on milk only, but now he takes meat and other solids, and generally is free from abdominal pain. Loud gurgling has been marked in the region of the anastomosis, and when one or two coils become distended for a few seconds this loud gurgling accompanies their subsidence. He has become very emaciated, but is strong enough to sit up for a short time daily. The growth in the cæcum has begun to invade the skin around the colotomy opening, and the right inguinal glands are much enlarged. The button has not been seen although carefully looked for.

April 4th. Since the above was written the patient has gained strength and has left the hospital. He is very emaciated and the malignant growth is rapidly increasing, but he has no abdominal pain and no sickness, and takes ordinary food. The button has probably dropped back into the disused portion of the intestine.

Remarks on the Use of the Button and the Treatment of Intestinal Obstruction.

Mr. Mitchell Banks, in the British Medical Journal of February 23rd, has referred to Murphy's paper in the New York *Medical Record*, and to the few recorded cases in which the button has been used in this country, and pointed out its advantages, so that it only remains for me to add my testimony in its favour as a mechanical appliance. The case which I now record shows that even during intestinal obstruction an anastomosis can be successfully performed by its aid. Murphy advises an end-to-end approximation wherever possible rather than a lateral. In this case I chose the latter, as it avoided the necessity of suturing the divided ends of both the large and small intestine, a proceeding which would have made the operation a lengthy one. It is interesting to note that my patient is even younger than Dr. Hamilton's, one of the cases recorded in the Journal of February 23rd, in which Murphy's button was used after excision of cancer of the colon, in which the patient was 33 years of age. I showed at the Pathological Society in 1893[1] a columnar epithelioma of the small intestine from a young woman only 23 years of age.

The importance of not masking the symptoms of intestinal obstruction with opium, or at any rate of not being misled by the effect of opium on the symptoms to which Mr. Mitchell Banks calls attention[2] is again and again overlooked, and patients die because, until they are practically moribund, they are not considered bad enough to be operated on. Then, when without pain or vomiting, prostration reaches its climax, the death is called a sudden one, and the practitioner asks, "Who could have expected it?" The symptoms were not urgent, because subdued by the morphine, although the abdominal distension may have been increasing all the time. Dr. Hamilton[3] quotes Murphy's statement that in cases of intestinal obstruction waiting for indications for operation generally means "criminal procrastination." It is a strong term, but it may perhaps call attention to the fact that an acute intestinal obstruction needs surgical interference at once, as surely as a strangulated hernia, whether the pulse seems good or not, and that waiting for indications of advancing prostration, or increase of symptoms is in most cases putting aside the one chance left to the patient—early operation.

NOTES OF A CASE OF ENTERECTOMY FOR GANGRENOUS INTESTINE IN WHICH THE BUTTON OF MURPHY, OF CHICAGO, WAS SUCCESSFULLY EMPLOYED.

By JAMES MURPHY, M.A., M.D.,
Surgeon to the Sunderland Infirmary.

Mrs. E. C., aged 27, married seven years, nullipara, was sent in to the Sunderland Infirmary by Dr. Spencer, of Hetton-le-Hole on October 31st, 1894, having had symptoms of acute intestinal obstruction for six days. She had obstinately refused operation.

Her previous history was to the effect that she was confined to bed three years previously for three weeks with pain in the left loin, and for seven weeks more she was unfit for her household work. Twelve months later she was again confined to bed for three weeks, owing to pain in the front and left side of the abdomen, and, after getting up, her legs swelled for some time. In neither attack had she any symptom of obstruction. Three weeks previous to her admission to the Sunderland Infirmary she had acute pain about the umbilicus, which lasted for a few minutes and was relieved by fomentation. On October 25th, at 9 P.M., severe pain set in in the umbilical region, vomiting occurred freely, she was much collapsed, and there was slight action of the bowels. The latter had acted naturally on the previous day. After this there was no further passage of fæces or flatus; there was constant vomiting of brown fluid, with an offensive but not fæcal odour. The collapse continued and the pain was severe, being acerbated by paroxysms every now and then. Her abdomen was distended, but not distressingly so; there was no rigidity of the abdominal muscles and no visible coils; the pulse was fairly good; the tongue was dry and brown; the temperature slightly subnormal. No tumour could be felt on palpation, and percussion gave a resonant note all over, including the flanks.

Shortly after admission an incision 2 inches long was made in the middle line of the abdomen midway between the umbilicus and pubes, and exit was given to some 30 ounces of blood-stained serum. On introducing two fingers, a loop of small intestine about 6 inches long was found strangulated by a tight band. It was impossible to bring the band to the surface, and it was gently torn through with the finger-nail. The strangulated loop was then brought outside the abdomen, when it was found to be gangrenous and perforated in three places, the largest perforation being at the point of strangulation. It was also found that about a tablespoonful of fluid fæces escaped through the perforation into the abdomen after the separation of the band. The fæces were immediately sponged out and the abdomen irrigated. Lane's clamps were introduced 2 inches above and below the gangrenous portion. An end-to-end anastomosis was then formed by means of Murphy's button, the bleeding points in the mesentery were secured, and its divided portions were brought together by means of a few sutures. The intestine thus united, the clamps having been removed, was returned into the abdomen, which was again thoroughly washed out, a glass drainage tube introduced, and the abdomen closed. The time occupied in excising the gangrenous portion of the intestine, inserting and fastening the button, sewing the mesentery, and securing bleeding points was four minutes and a-half. She was in such a collapsed condition that she could not be removed from the operating table for some time. Brandy was administered by enema and she passed a restless night.

Next day she was collapsed and suffered a good deal of pain. She passed flatus on the second day, the tube was removed on November 4th and all went well till November 9th, when she was seized with intense abdominal pain and collapse, and looked as if she were about to die. After a full dose of morphine she got relief; there was nothing to record till November 18th, that is, the nineteenth day after operation, when she passed the button, which she had felt in the rectum for several hours. The button was passed sideways with an adherent mass of fæces. All the holes of the button were blocked by fæces, and the two chromicised catgut ligatures were still *in situ*, but there was no portion of intestinal slough. She was allowed out of bed in a few days, and in a week's time she left the infirmary, the wound, which was less than 2 inches, had healed firmly.

The button used was the largest size for the small intestine. This is the only case in which I have so far used the button, but I was exceedingly pleased with the easy and rapid manner in which it can be used, and its efficiency is shown by the result. The great saving of time is the most important feature of this exceedingly ingenious instrument. Owing to the state of collapse this woman was in she could not have stood an enterectomy by any of the older methods, and therefore she owes her life, not to Murphy of Sunderland, but to his distinguished namesake of Chicago.

[1] *Trans. of Path. Soc.*, 1893.
[2] *Loc. cit.*
[3] *Loc. cit.*

CASE OF ENTERECTOMY IN WHICH MURPHY'S BUTTON WAS USED.

By DONALD D. DAY, B.S., F.R.C.S.,
Assistant Surgeon, Norfolk and Norwich Hospital.

Murphy's button is being widely recommended, and cases in which it has been used should be laid before the profession, whether wholly or partially successful. In the British Medical Journal of February 23rd two cases are

reported by Mr. Mitchell Banks and one by Dr. Hamilton, who both so fully describe the procedure that I need not recapitulate it, but will merely describe a case in which I used it:

G. E., aged 27, a healthy stoker, consulted me on July 7th, 1894; five weeks previously he had been seized with acute colic and sickness whilst at work, without diarrhœa or jaundice. He had always been rather constipated, and was in the habit of taking Epsom salts. Since the first attack he had had several similar ones. The day previous to my visit he had a very severe one, with vomiting and constipation and severe pain in the lower abdomen, aggravated by movement of the legs and by micturition. He was lying on his back with legs extended; the tongue was dry and brown, and there were sordes on the teeth and lips. His expression was anxious; respiration was entirely thoracic, the pulse was 120, and the temperature 101.5°; the skin was dry, the abdomen rigid, generally tympanitic, and excessively tender, more especially below the umbilicus, but not more on the right side than the left. By the rectum a painful swelling could be felt in Douglas's pouch. The bowels had acted slightly at 1 P.M. The urine was scanty and concentrated.

As he was evidently suffering from peritonitis, I sent him to the Norfolk and Norwich Hospital, and, in the absence of the surgeon of the week, he came under my care.

During the evening the abdomen was opened in the linea alba, and some thin sero-pus escaped; a small band connecting the intestine to the bladder was divided. The bowel 3 feet above the cæcum was found adherent deeply in Douglas's pouch. In breaking down the dense adhesions two or three distinct pockets of thick pus were evacuated, and the loop of bowel was drawn up to the wound. It was for 1 inch much thickened and contracted, apparently from dense organised lymph, and the surface was ragged from the broken down adhesions. This, perhaps, might have been left alone; but, with the possibility of its being a malignant stricture and the uncertainty as to the size of the lumen of the bowel, I decided to remove it. Accordingly, about 10 inches of bowel were cut away with a small portion of mesentery, and the ends were quickly and easily joined with a medium-sized Murphy button, the bowel being compressed meanwhile by an assistant's finger. The mesentery was united on each side with a continuous silk suture, which was carried up to the periphery of the bowel so as to support the line of union. The peritoneum was well flushed with hot water and the abdomen closed, a glass tube being inserted.

The after-progress of the case was good (the bowels acting on the fourth day) until August 7th, when some offensive pus escaped through the track of the tube, and on August 19th fæcal matter flowed freely. This continued at intervals, and evidently the button was causing partial obstruction. It was dislodged by a dose of castor oil, and passed *per rectum* on September 12th. On the next day a ligature escaped through the wound. No more fæcal matter passed, and the sinus contracted though it did not finally heal until January. There has been no obstruction since; the appetite is very good and the bowels act regularly.

The bowel removed was found to be contracted for about half an inch to the size of a No. 10 catheter by dense fibroid material, which could be stripped off the peritoneal coat. The mucous membrane was apparently quite healthy.

This case was communicated to Dr. Murphy privately, and has been entered as No. 65 in his last published list. The point of special interest is the long delay in passing the button—sixty-six days—which is, I believe, the longest on record. Dr. Murphy specifies that cases of existing peritonitis are unfavourable for satisfactory union of the bowel, which one would quite anticipate.

What was the cause of the partial failure in this case? Probably it was the peritonitis. It may have been from the button fitting a little too tightly to pass easily along the remainder of the ileum; it may have been from the supporting suture allowing of infection from within the bowel. Another time I shall certainly trust to the button without additional suture.

One more point of interest. What was the cause of the peritonitis? The vermiform appendix was free from reproach. It is possible that a small gland may have suppurated and caused local peritonitis, but no history suggestive of it could be obtained; the mucous membrane was intact, and no trace of primary gland abscess can be found in the specimen. Can peritonitis be idiopathic? We know of purulent deposits in other serous membranes—the pleura and pericardium—which are apparently idiopathic. We are not taught that the pelvic peritoneum may behave in a similar way, but I see no reason why it should be exempt from trouble which may befall other serous membranes.

SOME REMARKS ON THE TREATMENT OF FRACTURES.

By W. ARBUTHNOT LANE, M.S.,
Assistant-Surgeon to Guy's Hospital and the Hospital for Children, Great Ormond Street.

In considering the influence which a fracture may exert on the subsequent life-history of an individual, we must recognise one great difference between the results of fractures of the long bones of the upper and lower extremity.

In the case of the upper, the superjacent weight of the body is not transmitted through the joints as it is in the leg, therefore an alteration of the mechanics of a joint in the arm in consequence of fracture of one or more bones does not determine the development of such extensive changes as take place in the leg. Yet in the arm very considerable alterations may occasionally develop, and are more marked and depreciating to the value of the individual as a machine in proportion as changes have already taken place in the particular joint or joints from the prolonged pursuit of a laborious occupation.

We may conclude that in fractures of the long bones of the upper extremity it is not of such vital importance to reconstitute the damaged skeleton in its original form as it is in the case of the leg.

In fractures especially of the femur, tibia, or fibula, nothing plays a more important part in the prognosis as regards the presence or absence of subsequent pain and depreciation of the physical capacity than does "age."

In the comparatively young adult, deformity, with the consequent alteration in the physiology of the limb, brings about what may in the absence of a better term be called "adaptive" changes in the anatomy of the joints influenced. By this term I mean an alteration in the form and perhaps in the plane of the articular surfaces, with a variation in the extent of the synovial membrane and in the attachments of the ligaments, and these are usually unassociated with any pain or discomfort at any period subsequent to the receipt of the fracture. After a certain age, which varies within wide limits with the habits, occupation, surroundings, etc., of the individual, which may be roughly averaged as about 40 years, this being probably an excessive estimate for labouring people, a different series of changes takes place. These may for convenience sake be called "passive" changes, and are included under my description of mechanical or traumatic arthritis.[1] They consist in the removal of articular cartilage at the seat of abnormally great pressure, with subsequent eburnation and destruction of opposing bony surfaces, the alteration in the extent of the articular surfaces by the marginal deposit of cartilage and bone, and increase in the thickness and character of the synovial membrane with the secretion of an excessive amount of synovial fluid—in fact, just such changes as used to be regarded by the pathologist as indicative of the presence of a disease which he called by various names, that, perhaps, most commonly used being rheumatoid arthritis.

Clinically this means that in the slightest forms the patient experiences a feeling of insecurity and discomfort in the affected part, and in its marked forms a degree of pain that sooner or later absolutely incapacitates the sufferer from transmitting the weight of the body through the joint or joints of the leg for any useful purposes.

I propose to limit my remarks to fractures of the lower extremities. I would point out that as regards the mechanical treatment of fractures other than those that are transverse, and in which there is no displacement of fragments, or in

[1] Chronic Traumatic Arthritis, *Lancet*, January 30th, 1892.

which there is so little hæmorrhage and swelling that the broken surfaces can be brought by traction and manipulation into accurate apposition, we must be guided by two important principles:

1. The axes of the fragments must be made to correspond as nearly as possible. This is done by placing the patient at rest in the supine posture, and, by observing the foot of the sound limb, the degree of external rotation which is normal to it in that posture can be gauged accurately by the angle included between a vertical and the inner margin of the foot. The foot of the damaged limb is made to form an equal angle with the vertical, and by this means the axis of the lower fragment or fragments will be made to correspond as nearly as possible with that of the upper when the opposition exerted by the shortening of the ties in the length of the limb due to hæmorrhage and inflammatory exudation into them has been removed under the influence of traction. By ties in the length are meant all the soft parts about the bone, namely, muscles, fasciæ, subcutaneous tissue and skin.

2. Traction must be exerted upon the limb beyond the seat of fracture till the blood and inflammatory material referred to are absorbed sufficiently to allow of the fractured surfaces being brought down to corresponding levels and into apposition. It is obvious that the amount of traction with its duration must vary with the amount of hæmorrhage and subsequent inflammatory effusion, since in some cases they are so small in amount as to offer no obstacle to the reconstitution of the bone by moderate traction, aided by the support given by a plaster-of-paris casing, while in others they are so considerable and their absorption so long delayed that union in an unsatisfactory position may result. Though I had some idea that the influence they exerted upon the ties in the length of the bones was very considerable, I did not become alive to the immense resistance they could offer till in 1893 I cut down upon simple fractures of the tibia and fibula with a view of ensuring perfect accuracy of union by fastening the fragments together with steel screws.[2] In these cases I found that a very moderate amount of hæmorrhage and effusion, even after the skin and soft parts were freely incised in order to expose the fracture, was sufficient to resist any traction that we were able to exert upon the foot and lower fragments, so that it had to be supplemented by the use of elevators and lion forceps before it was possible to fix the broken surfaces accurately together. It is of the truth of this that I have found most difficulty in convincing others; indeed, it would seem that it is necessary for the surgeon to have performed such an operation before he can realise this fact. I do not think that I ever placed any reliance whatever upon the influence supposed to be exerted upon fragments by the prolonged contraction of muscles inserted into them, and which is so fully described both in detail and diagrammatically in surgical and anatomical works. Surgeons mistook this supposed factor in producing deformity, which in my opinion is practically non-existent, for the shortening up of the ties in the length of the limb by hæmorrhage and inflammatory effusion into them, and many lines of treatment and forms of apparatus were invented on this false assumption.

The mode in which traction is to be exerted must vary with the position of the fracture. If it is placed low down, and not far from the ankle, and there is much swelling, it is obvious that but little force can be brought to bear on it, since the pressure that must be exerted locally by the extension apparatus upon tense and inflamed parts soon becomes unbearable.

In the paper in the Clinical Society's *Transactions* already referred to, I confined myself to the consideration of the treatment of fractures of the tibia and fibula, and chiefly those that were oblique in direction, and I found from a careful examination of a considerable number of cases in which such fractures had been sustained during and after middle life, that the average financial depreciation of many varieties of labourers after such an injury was enormous, and this was especially marked in those who were obliged to depend largely on the security and perfect control of their legs in following their occupation. I refer to such as scaffolders, firemen, sailors, decorators, etc. It seems to me that the surgical treatment of fractures of the lower extremity especially is far behind that of any other department of surgery. It is the only section in which little or no progress has been made in recent years, except in the case of fracture of the patella, and as the best evidence of this I would call attention to the survival of the vertical footpiece at the present time, in spite of its readily demonstrable capacity for harm.[3] Yet the importance to the patient of a good or bad result can hardly be exaggerated. Instead of advancing it seems to me to have retrograded in a very marked manner, and chiefly in consequence of the use of rigid cases made of plaster-of-paris or other similar material, which are applied very soon after the patient's admission.

This method is both cheap and bad. It is cheap since it enables many patients to be sent home very soon after its application, and its cost is very small. It is bad since the presence of hæmorrhage and effusion renders it impossible to replace the fragments in accurate apposition in the majority of cases, and the apparatus perpetuates the bad position. Before this method was generally adopted fractures of the tibia and fibula were treated with splints, and there was more chance of obtaining a better result, since as it was the rule to leave the seat of fracture uncovered, when the hæmorrhage and swelling subsided the surgeon was able to recognise any very marked deformity, and was in a position to attempt to diminish it by manipulation, etc.

While I believe that a proportion of fractures of the tibia and fibula occurring in labourers during or after middle life may be treated satisfactorily by extension, regard being had to the symmetrical rotation of the fragments, I am even more convinced than I was that in oblique fractures of both bones occurring somewhat low down the wisest course is to expose the fractured ends, and, having established continuity of position, to retain them there with screws. A greater reliance on the part of the surgeon on the safety of his surgical procedures will, I feel sure, soon remove this reproach from surgery.

Passing on to the consideration of fractures of the shaft of the femur occurring during the same period of life, I am of opinion that the financial capacity of the individual is depreciated to an extent which is not far, if at all, below that which exists in fractures of the tibia and fibula, and this would appear to be due largely to the imperfect recognition of the two important principles to which I have called attention, namely, the symmetrical rotation of fragments and sufficient traction. Both must be applied in the treatment, either alone being insufficient to obtain a perfect result. The physical conditions in the case of the femur lend themselves much more readily to treatment by apparatus alone than do those existing in fractures of the tibia and fibula. Even in fractures of the femur difficulties may be experienced which may render it advisable to expose the fragments and to ensure accurate continuity.[4] I have not investigated systematically any long series of fractures of the femur sustained during or after middle life, but I have examined very many who were depreciated mechanically to such an extent that they could only get about with considerable pain or difficulty, and who were quite unable to follow any active employment. It is well to remember that once these conditions have resulted it is practically impossible to remedy them by operative interference. Action must be taken before the fragments have united, or not at all. If it is attempted subsequently, it is impossible to reconstitute the bone in its original form, since a considerable length must be removed to allow of accurate apposition. An improvement may be effected, but probably, after the risks and discomfort of an operation, the patient will find his joints almost as painful and as insecure as before.

Perhaps of all fractures of the lower extremity none would seem to lend themselves more readily and at less risk to operative interference than the conditions which result from excessive forcible abduction of the foot, and which are usually

[2] A Method of Treating Simple Oblique Fractures of the Tibia and Fibula more Efficient than those in Common Use, *Trans. Clin. Soc.*, Vol. xxvii.

[3] An Undescribed Method by which the Superjacent Weight of the Body is Transmitted in United or Ununited Fracture of the Neck of the Femur, and the Bearing of the Principle Involved on the Surgery of the Hip-Joint, *Trans. Med. Chir. Soc.* 1888. Cases Illustrating a New Operation for Dorsal Dislocation of the Head of the Femur, and some Points in the Surgery of the Hip-Joint, *Trans. Clin. Soc.*, 1893. Fallacy of Vertical Foot Piece, British Medical Journal, 1893.

[4] The chief difficulties are considerable swelling of the soft parts and inability to endure such traction as is requisite.

comprised under the term of Pott's fracture. The broken bone is of small calibre, it is readily exposed, and it is dense in structure, holding securely the wire or other means used to retain the broken surfaces in apposition should any be found necessary after their replacement by the elevator or forceps. The results obtained under the methods at present in use are, in my experience, often most unsatisfactory. If on the dead body one divides the fibula in the seat of fracture and displaces the lower fragment it is often possible by manipulating the foot to bring the fragments into tolerable apposition, and I should imagine that the recognised methods of treatment are based upon such a study as this; but in the living subject a considerable amount of hæmorrhage and effusion very often takes place, and this alters the mechanical conditions so thoroughly that it is probable that in many cases the forcing the foot into a position of adduction not only does not bring the fragments into apposition but by traction on the bruised and inflamed peronei and upon the skin, made tense by the effusion beneath and into its substance, the displacement is exaggerated rather than lessened.

One cannot but feel that the perpetuation of methods of treatment which have been in use up to the present time must depend on the fact that surgeons have not taken such trouble to inquire into the subsequent life-history of these patients as they have done in other departments of surgery.

It is very possible that I may be accused of exaggerating the evil results of the treatment of fractures in the present day and that many may not be inclined to agree with the mechanical principles upon which my statements are based. It is, however, quite open to anyone to prove the former by publishing an account of a series of fractures sustained at the same period of life which show better results, and the latter are obviously capable of absolute demonstration.

A NOTE ON THE TECHNIQUE OF REMOVAL OF THE VERMIFORM APPENDIX.

By ARTHUR E. BARKER, F.R.C.S.,
Professor of the Principles and Practice of Surgery at University College, and Surgeon to University College Hospital.

The last six or seven cases in which I have quite recently been called upon to remove a diseased vermiform appendix for various reasons have given me the opportunity of perfecting a method of dealing with the stump which I had put in practice some years ago in a modified form, and which appears likely to simplify the procedure considerably and save much time. It is possible that it has been adopted by others before this, but, if so, I am not aware of its having been published. I note, too, that in an interesting series of cases recently published by Mr. Treves he still adheres to the older practice of stitching the serous coat over the stump of the appendix after removal, and I think that, had he been aware of the advantages of the method I am about to propose for further trial, he would have adopted it, if only to reduce the duration of his operation.

This saving of time appears to me to be a matter of prime importance in this class of cases, as in all abdominal operations, and any surgeon who has done many of them will admit that where time is lost it is in the preparation for and carrying out of stitching, which, to be efficient, has to be neatly done, and often under great difficulties, at some depth in the abdomen in the cases alluded to.

Some years ago I noticed in removing the appendix that the greatly thickened and sclerosed mucous and submucous coats were comparatively loose within the other outer coats of the process close to the cæcum, and that after circular division of the latter could be drawn out of them to the extent of an inch or so in an unbroken tube. Noting this, I at once put in practice in a modified form the measure now to be briefly described.

In any case in which the appendix has been separated from its surroundings its mesentery is first transfixed and tied in one or two parts with fine silk. The little mesentery is then cut with scissors up to the base of the appendix, close to the cæcum. Then at about three-fourths of an inch from the latter the serous and muscular coats are divided by a circular sweep of a sharp knife, leaving the mucous tube intact. The latter is now gently drawn out, and the two outer coats are stripped back towards the cæcum with a director, and turned over like the sleeve of a coat. In this way the tube of mucous membrane can be reached at its point of exit from the cæcum, and is tied with a fine silk ligature, and so closed. Then it is cut across an eighth of an inch beyond the ligature, and immediately retracts. The outer tube of serous and muscular tissue is now turned down over the stump of the mucous coats, which has retracted towards the cæcum on being divided. This tube formed of the outer coats is then, instead of being stitched, simply surrrounded with a fine silk or gut ligature, and closed over the mucous stump. Of course the serous surfaces are not by this means brought together, but this is not necessary, and perhaps not even desirable, as no firmer barrier to the prolapse of the mucous membrane could be made than by bringing the raw, inner, non-serous suriaces of the tube into contact.

The simplicity and rapidity of this little manœuvre are great, and my colleague Professor Heath, who was looking on at one of my cases lately, was much struck by its superiority to the method of stitching the serous coat over the stump.

As all these six or seven cases in which I have proceeded as above have recovered, I cannot show any specimen to illustrate the state of the stump after operation; but Fig. 1,

Fig. 1



a, Tube of mucous membrane drawn out of stump; *b*, divided edge of two outer coats; *c*, swollen end of appendix. Natural size from a photograph.

from a photograph taken from an appendix recently removed in this way, shows to what extent the inner mucous tube can be drawn out and separated, and consequently how much of a tube of the outer coats there is when they are drawn forward again for the circular closing ligature. Fig. 2 is a dia-

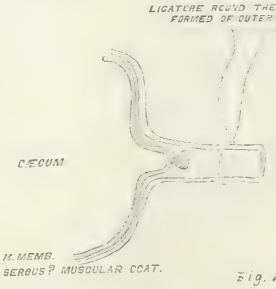


Fig. 2.

gram to illustrate the relation of parts while applying the latter.

CASE OF LONG-STANDING SEVERE ABDOMINAL COLIC CURED BY OPERATION.

By CHARLES E. HOAR, M.D.,
Physician to the West Kent General Hospital.

Mrs. W., aged 50, a lady of good position, and the mother of a large family ranging from 29 to 6 years of age, suffered for twenty-five years from occasional attacks of "pains in her side." These attacks had become more frequent and more severe of late, precluding her from taking part in her social duties. It was quite impossible to assign any immediate cause to each attack, though fatigue seemed to predispose. She was strictly dieted, but seemed better with a generous allowance of varied food. Tonics, aperients, and sedatives were prescribed alone and in various conjunction without influence on her "pains."

The attack commenced with pain in the left side, underneath the ribs; this increased in intensity for an hour or two, sometimes going through to the back, at other times "scraping down the spine," then sickness and distressing retching supervened for the space of three or four hours, and the patient was left after six or eight hours—sometimes even twelve hours—in a state of collapse, with small, quick, thready pulse, perspiring skin and much tenderness over the slightly distended left hypochondrium.

On physical examination nothing definite could be discovered; there was no dulness, no hard swelling, but some sense of resistance and tenderness over the region affected. Rest in bed with dorsal decubitus, hot external applications to the side, and the administration of $\frac{1}{150}$ grain atropine appeared to give some relief.

Morphine and opium were at first given, but their administration caused such distressing sickness on the following day that they could not be continued. There was no evidence of disease of the kidneys, ureter, bladder, uterus, or any other abdominal organ.

In the interval between the attacks the patient enjoyed good health, though she was weakened for a time, and unfit for much exertion. She suffered from frequent and profuse menstruation, which tended still more to undermine her strength.

After a more than usually severe attack on December 1st, 1893, aggravated by her travelling home from London too soon, and other less severe attacks about Christmas, 1893, I consulted Dr. J. Kingston Fowler, who saw Mrs. W. on January 18th, 1894. He then found an entire absence of any abnormal symptoms, so we decided to wait.

A severe attack on January 21st and another on February 3rd determined me, with Dr. Fowler's entire concurrence, to seek surgical aid. Mr. Frederick Treves came down on February 14th prepared to perform an operation for the further elucidation of the symptoms, with the hope of removing their cause and freeing the patient from the "pains" which she had dreaded more and more. I quote his own words:

"Memorandum of an operation performed upon Mrs. W. on February 14th, 1894, by Mr. Treves, assisted by Dr. Hoar and Dr. Ground.—The abdomen was flat and the wall flaccid. An examination made under an anæsthetic before the operation revealed nothing. The abdomen was opened by a median incision immediately below the umbilicus. The peritoneum on the anterior abdominal wall was thickened and opaque in places; it was otherwise normal. The uterus was large and retroflexed; it appeared to press upon the rectum. There were no adhesions of any kind in the pelvis. The cæcum and appendix were perfectly normal. There was no rent in any part of the mesentery, no internal hernia, and the fossa duodeno-jejunalis was quite free. In the left hypochondriac region immediately under the spot at which pain had always been complained of were found two rigid and cord-like bands. They occupied the position of the sustentaculum lienis, and as no other adhesions were found in the district there is no doubt that these bands were due to changes in the sustentaculum itself due to pressure and stretching. One band was the size of a No. 5 catheter, the other of a No. 7 catheter. They were a thumb's breadth apart, and were well placed to snare a loop of the small intestine. Both bands were divided, and all trace of resistance in the region removed. The pancreas was large, very hard, and nodular. It was impossible to say if it were the seat of any disease, but its large size arrested the attention immediately. There were no enlarged glands in the district, and no adhesions. The other viscera were inspected, and appeared to be in every respect perfectly sound. The kidneys were not movable, and there were no gall stones in the gall bladder. The abdominal wound was closed in the usual way. From the extreme thinness and laxity of the abdominal wall it is possible that a ventral hernia may follow."

Mrs. W. bore the operation well, and her convalescence proceeded satisfactorily in spite of a slight attack of pain on March 5th, lasting from 7 P.M. till 1.30 A.M., since which time she has had no return whatever. She was kept in bed for a month, and has worn an abdominal belt since. There is now no ventral hernia. She went to the seaside after Easter, and has quietly regained her health and strength.

[1] Read at the meeting of the West Kent District of the South-Eastern Branch at Maidstone March 15th, 1895.

A CASE OF NEPHRECTOMY: RECOVERY.

By JOHN McNICOLL, L.R.C.P. AND L.R.C.S.EDIN.,
Honorary Surgeon to the Cornelia Hospital, Poole, Dorset.

W. C., aged 26, a labourer, was admitted to this hospital on October 15th, 1894. He had ceased work at the end of March, 1894, describing his symptoms as "feeling cold and sleepy, with pain in the bladder and difficulty in making water, which was like milk." He was then for six months under treatment. He suffered from hæmaturia occasionally, and was losing flesh and getting weaker daily.

On admission he was greatly emaciated and sallow. The urine contained a large quantity of pus, which varied in amount from time to time in inverse ratio to the height of the temperature, the latter always running up as the quantity of pus diminished. Pain was referred to the left lumbar region and to the penis. There was an increased area of dulness over the left kidney, and an abnormal fulness of this region, with considerable tenderness. The amount of urine passed varied from 18 to 35 ounces a day, its reaction ranging from slightly acid to alkaline.

After keeping him under observation for a short time, and a consultation with my colleagues, I decided to cut down on the kidney to examine its condition, and if necessary to perform either nephrotomy or nephrectomy. On November 30th, 1894, under ether, an incision was made 4 inches long, and extending from the end of last rib slightly forwards and downwards to the crest of the ileum. There was no difficulty in getting down to the kidney speedily. A slight incision into the exposed kidney was followed by a flow of pus. Introducing my finger into this small opening I soon discovered that what had once been the kidney was now only a bag of pus. In order to reduce the size sufficiently to enable us to pull the kidney through the external incision, we drew off as much pus as we could, but even then we found we had to deal with a viscus much too large for the original opening. I therefore made another incision from the top of the first and at an obtuse angle to it for about 2 inches backwards and upwards between the eleventh and twelfth ribs, thus getting an inverted V-shaped opening with its apex opposite the end of the last rib, which moved sufficiently freely to allow considerable space for the exit of the kidney. I was now able to sweep my hand all round the kidney and draw it out. We had no difficulty with hæmorrhage; pus gave the main trouble, and great care was necessary in washing the cavity out and keeping it aseptic.

The pedicle was tied with stout silk, the kidney removed, and the pedicle allowed to fall back into the cavity, the ends of the silk being allowed to protrude from the lower angle of the wound to serve as a guide in case of hæmorrhage, the pedicle being so short and friable that it was impossible to stitch it to the edge of the incision. The cavity was well washed out with boracic lotion, and dusted with iodoform, a drainage tube 8 inches long introduced, and the wound sutured.

The case made excellent progress; the stitches were removed on the tenth day, and the drainage tube was

gradually shortened, until it was dispensed with on the twentieth day.

For a few days after the operation pus was found in diminishing quantities in the urine, until it finally disappeared. The amount of urine gradually increased in quantity, reaching to as much as 64 ounces a day. The temperature, which previous to the operation had been hectic, fell to normal within twenty four hours of the operation, and has never since reached more than 100·4°, and that only once, namely, on the third day. We found no stone nor sign of tuberculous disease. The man is now fat and well.

I have to thank my colleagues, Mr. McNiell and Mr. Stewart, for valuable assistance in this case.

A CASE OF HEPATIC COLIC CURED BY THE INGESTION OF OLIVE OIL.

By ALFRED S. GUBB, M.D.Paris, etc.

A great deal of scepticism has been felt and expressed in regard to the benefit alleged to have been derived from the ingestion of tolerably large quantities of olive oil in the treatment of hepatic colic. The fact that the oil during its passage through the intestines undergoes changes therein, and is voided in masses which bear a striking superficial resemblance to gall stones, has on various occasions been used as an argument against the oil having had any share in procuring the expulsion of genuine gall stones. A case which recently came under my observation seems, however, to show that benefit can be and is derived from this treatment whatever may be its *modus operandi*.

The patient was a gentleman, aged 46, who had a first attack of trouble in the region of the gall bladder, in June, 1890. It began with sharp pain associated with sickness, relieved only by repeated hypodermic injections of morphine. The pain recurred in paroxysms for a week, during which period he remained in bed. There was no jaundice but the motions were markedly light in colour. No search was made for a gall stone. A week later the symptoms recurred along with the vomiting, and this time he was systematically purged by means of mineral waters, turpentine stupes and poultices being applied freely to the painful region, and the diet carefully regulated. No relief to the pain resulting except by the aid of morphine, he was ordered hot baths every night for a quarter of an hour, and told to wear a piece of spongiopiline over the liver. The symptoms having partially subsided he was sent to the Engadine with directions to take plenty of exercise, and in six weeks he returned free from trouble. He remained free from pain until November, 1893, when the old symptoms returned, associated with intense jaundice. This condition persisted, at first with intervals of three weeks, until February, 1894. The intervals gradually became shorter until at last he was never free from pain for more than thirty or forty hours at a stretch. Needless to say that during this period the diet was carefully regulated, but without any effect either on the pain or the jaundice. On one occasion he tried the experiment of abstaining from food altogether for three days, but he felt worse after than before. The patient's condition was rapidly becoming one of some gravity, for he had lost nearly 3 stone in weight and was practically incapacitated from attending to business. The gall bladder was greatly distended and tender, and hard bodies could be felt on palpation. He was gradually becoming reconciled to the prospect of surgical interference as the only means of overcoming his trouble when I suggested to him to give the olive-oil treatment a trial, though I must confess I did so without any belief in its efficacy—a scepticism which I did not, moreover, hide from my patient. He gladly agreed to try it as a last resort before having recourse to a surgeon, and towards the end of February he began the treatment, taking 5 grains of calomel at night, followed by 8 fluid ounces of pure olive oil in the morning. He experienced no difficulty in swallowing the oil, which never provoked nausea, still less actual sickness. After the very first dose the pain ceased, and the motions became darker, evidently containing bile. In the course of two or three days they resumed their natural appearance. At the same time the urine, from a dark brown, became quite light in colour.

It is now a year since he began the treatment and eleven months since he discontinued it, and he has never had the slightest return of the symptoms in spite of the fact that he has long since abandoned all restrictions as to diet, though on my advice he has become an enthusiastic cyclist, and weather permitting takes daily exercise. No stone was ever detected in the fæces, though, for a time at any rate, the patient made diligent search, which was rendered very tedious by the presence in the motions of numerous concretions of cheesy consistency, evidently due to the partial saponification of the oil. Nothing can at present be felt in the region of the gall bladder, and the patient is in every respect in the best of health.

INJECTION OF OLIVE OIL FOR REMOVAL OF IMPACTED BILIARY CALCULI.

By EDWARD M. BROCKBANK, M.D.Vict., M.R.C.P.Lond.,
Resident Medical Officer, Manchester Royal Infirmary.

In the interesting series of papers on the surgery of the gall bladder and ducts which have appeared in recent numbers of the British Medical Journal, a good deal of attention has been paid to the treatment of those cases in which calculi are lodged in the hepatic, cystic, or common bile ducts, and cannot be removed at the time of operation. Such cases are very difficult to treat. The ducts are deeply situated, and the operator experiences considerable difficulty in localising the stone and in examining it with the finger. Various mechanical methods have been suggested, and are actually in use for removing such impacted stones. The chief of these are crushing with padded forceps or breaking up with a strong needle. There is a source of danger in both these methods, for rupture of the duct may easily result from either, and peritonitis is likely to supervene.

Another method suggested by myself in the *Manchester Medical Chronicle* for January, 1894, is well worth a good trial. It has the merit of being very simple, free from any source of danger, and very likely to remove the obstruction fairly rapidly. The method is that of injecting olive oil or oleic acid, warmed up to about the body heat, into the gall bladder and ducts through the fistulous opening. I was led to suggest this method from observations made in 1892 on the solvent action of olive oil and oleic acid on gall stones. Both substances are ready solvents of cholesterin and gall stones, as the following results will show:

A calculus placed in olive oil (temperature kept constantly at 98° F.) lost in four days 50 per cent. of its weight (1·6 g. to 0·8 g.). A similar calculus placed in oleic acid under the same conditions lost 63 per cent. of its weight in two days (1·21 g. to 0·44 g.).

An idea of this rapid solution of biliary calculi can easily be obtained by placing one in olive oil or oleic acid and keeping it about the body heat for twenty-four hours. I have only been able to try the treatment in one case referred to below. For obvious reasons the result was unsatisfactory, and it is with the idea of getting others to try the treatment that I give a short description of the apparatus itself and the method suggested for its use:

G. E., a labouring man, aged 54, admitted to the Manchester Royal Infirmary on March 1st, 1894, complained of having suffered for some months previously from intermittent colicky pains in the right hypochondriac region accompanied by jaundice. On admission he was markedly jaundiced, the urine contained much bile pigment, and the stools were clay coloured. He complained of pain in the region of the gall bladder, and on examination a pyriform tumour was found to extend from the ninth right costal cartilage towards the umbilicus. It moved down with inspiration. Dr. Dreschfeld, under whose care the case was, diagnosed an impacted gall stone, and Mr Jones, who was called in in consultation, being of the same opinion, it was decided to perform cholecystotomy. This was done about two weeks after admission, and the pyriform mass found to be the gall bladder distended with blackish-green thickened bile. No calculi were found, but Mr. Jones felt with his finger a vague swelling deep down about the junction of the common duct and the duodenum. No attempt was made to crush the (?) stone. After the operation bile flowed freely through the fistulous opening. Following upon the operation the jaundice disappeared and the urine lost its bile pigments, but the stools remained clay-coloured; the pain disappeared. As this condition of affairs persisted for two or three weeks I tried the effect of injections of olive oil, using the apparatus and method described below. The patient experienced no discomfort whatever, but was much interested with and helped in the proceedings. When the pressure was raised by elevating the funnel above 12 inches, the patient experienced a sense of fulness, and once or twice said he felt

something moving under a point upon which he placed his finger, and which was about the region of the duodenal end of the common bile duct. In the stools passed after such occasions I found small quantities of oily matter, which I thought might be part of the injected oil. I injected oil in this manner daily for two or three weeks, but without any satisfactory result. For two months after the operation the patient increased in weight, but was always troubled with looseness of his bowels, an evacuation of a clay-coloured stool taking place invariably after a meal. The stools were always fatty. In course of time a tumour could be felt to the right of the epigastrium, which gradually enlarged, and the patient became very cachectic. He finally died on October 19th, and on *post-mortem* examination the head of the pancreas was found to be enlarged by a cancerous mass which obstructed the orifice of the bile duct. No calculi were found.

The apparatus consists simply of a small glass funnel, 12 inches of drainage tubing to fit on to the end and conconnecting the funnel with a No. 10 or 12 Jacques catheter. This is the same apparatus as is used for washing out bladders, but it is better for the funnel to be small. The catheter is passed into the gall bladder for about 2 inches, and then cotton wool is loosely packed around it as it passes through the fistulous opening. The catheter must be held in also, and this the patient can easily manage. The funnel is then filled with the warm oil, which, after the air has escaped from the tubing, is allowed to run into the gall bladder. The funnel ought to be elevated to about 10 or 12 inches from the abdominal wall, so as to produce a little pressure. On pouring more oil into the funnel the gall bladder and ducts become distended with it and the oil begins to escape through the cotton wool in the fistulous opening, which acts as a safety valve. Pressure like this can be kept up for a quarter to half an hour without any discomfort to the patient. By this means the oil is forced down to the impacted stone, and can be made to play around it. When once the oil comes in contact with the stone it erodes it at a rapid pace, and will soon reduce it enough in bulk to enable the impaction to be overcome and to induce the final expulsion of the stone from the ducts.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

RUPTURE OF THE UMBILICAL CORD AT ITS PLACENTAL INSERTION DURING DELIVERY.

MRS. J., a multipara, consulted me on March 28th, being then eight months advanced in pregnancy, complaining that she was obliged to keep her bed by reason of the extreme discomfort she suffered from her distended abdomen, and for a "forcing sensation" she felt about the pudenda when she stood up, which she described as "unbearable."

On examination, the abdomen was seen to be abnormally large and somewhat œdematous; the os was sufficiently dilated to admit easily one finger, but as she had no labour pains I did not think it advisable to interfere, but ordered her to remain in bed.

On March 30th I found her in strong labour, the os fully dilated, the head presenting, the membranes protruding and very tense. On rupturing them, a considerable amount of liquor amnii escaped, and the head engaged in the "second position." Delivery took place naturally in about ten minutes, followed by a further rush of amniotic fluid. The child was somewhat cyanosed, but speedily recovered, but I was surprised to find that the funis attached to it was free at its maternal end, having been evidently torn from the placenta. There was very little hæmorrhage, and as the uterus contracted firmly on the placenta I awaited its natural expulsion, which took place about fifteen minutes afterwards. On examining this subsequently, a few ruptured vessels on its surface alone marked the spot where the cord had been attached. The funis measured in its entire length 10½ inches.

The history of the previous pregnancies of the patient shows that with the first three she miscarried; with the fourth she was delivered at term; with the fifth she aborted at six months and a-half; with the sixth, seventh, eighth, and ninth she was delivered at term; and with the tenth, eleventh, and twelfth she miscarried. Her present accouchement is the thirteenth pregnancy.

The amniotic fluid collected measured 8 pints, but I estimate that the total quantity was nearer 16 pints. I may add that since her twelfth pregnancy I have had her under treatment for glycosuria, which was very persistent, but yielded to diabetic treatment, which was continued until within two months of her present delivery.

Jewry Street, E.C. H. J. SEQUEIRA, M.R.C.S.Eng., etc.

TONIC SPASM FOLLOWING A MEDICINAL DOSE OF CITRATE OF CAFFEINE.

ON March 20th a lady of 64, on rising in the morning, complained of headache. By 10 A.M. she was compelled to lie down, and a member of the family, who had derived benefit from citrate of caffeine, administered a teaspoonful of a well known effervescing preparation of that drug. The pain still increasing, at 1 P.M., a second teaspoonful was given. The headache became more violent than before, complaint was made of jerking of the hands and forearms; soon the fingers began to be rigidly clenched, and shortly after the head was seen to be drawn to one side, with the jaws tightly fixed together. At this stage (2.45 P.M.) I was hurriedly summoned. I found the fingers of both hands as described, and the muscles of the face tightly drawn, but with some imperfect articulation by this time possible. Friction of the affected parts did some good, and a dose of 30 grains of chloral was ultimately followed by recovery of control over the muscles.

There had been no loss of consciousness throughout. The patient's sensation had been chiefly one of great faintness, with an inclination to be sick (though there had been no vomiting), and the feeling that she was to die from sudden exhaustion. For many years she had been subject to headaches, chiefly one sided, and she reminded me that two years ago I had prescribed antipyrin for the pain, the result being that, by using it when required, she had not since suffered in any degree till now, when no powders had been at hand.

Are we to trace the relationship of cause and effect between the citrate of caffeine and the symptoms above described? Certainly the dose (about 2 grains in all) was small, and of itself not likely to produce toxic effects; but, on the other hand, it was given to a person who was specially sensitised for the action of the drug. This patient's headaches had always been relieved by antipyrin, proving them to be of that type attended by tonic contraction of cerebral vessels. Instead of receiving a remedy designed to relieve that condition, she got a drug which is powerful in producing the same condition, as proved by its efficacy in headache due to paralytic dilatation of the cerebral vessels. These two opposite forms are very fully and clearly described by Dr. Long Fox in his work, *The Influence of the Sympathetic in Disease*, and caffeine is there named as having the direct effect just assigned to it. I have seen several cases in which headache was undoubtedly increased by using the medicine, so that I never prescribe it without warning the patient that the dose is not to be repeated if aggravation of the pain follows its first administration. In this case aggravation of the pain was distinct, no doubt due to increased narrowing of vessels already unduly contracted, and the increasing pain gradually led up to the other symptoms. Experiments with caffeine in the lower animals show that tetanic spasms, "not unlike those caused by strychnine" (Mitchell Bruce), are a common result. Such effects have not so far been reported in man, but so suggestive of strychnine poisoning were the appearances, that my first questions were with reference to the possibility of that agent having been used; I satisfied myself, however, it had not been used. The only case of caffeine poisoning which I can find reported is one related by Dr. Routh,[1] where a very large dose was swallowed. The absence of convulsions in that instance is remarked upon, muscular tremor having been the nearest approach to them.

In conclusion, I confess to a strong opinion, for the reasons given, that the caffeine was the cause of the tonic contractions described above, and I feel that a watchful eye should be directed to the drug, especially as it is now being largely

[1] *Lancet*, i, 1883.

advertised in non-medical journals as a remedy for all kinds of headache.

Jas. Ferguson, M.B., C.M.,
Visiting Physician to the County and City of Perth Royal Infirmary.

CEREBRAL MENINGITIS, FOLLOWING INFLUENZA.

The following case presented such unusual symptoms that I think it may be interesting, and I should be glad to learn if any similar case has been observed during the last epidemic by other practitioners.

I was called to see N. T., a young girl aged 14, on March 12th. Her friends informed me that she had been taken ill whilst at school with rigors, pain in the head, and general pains in the back and limbs. When seen by me she still complained of these pains. The temperature was 103.4°, the pulse 114, the tongue furred, the bowels constipated. She had no appetite, and had been vomiting during the day. After taking some medicine containing bicarbonate of potassium and liquor ammoniæ acetatis she began to improve, and next day her temperature was 101°, and the pains almost gone. She continued to improve during the succeeding days, her tongue became clean, and she said she felt hungry. The temperature, however, never came below 101°, in spite of the use of antipyretics. She continued in this condition until March 21st, when she began to show symptoms of some nervous disturbance; she became dull and apathetic, had a gloomy, melancholy expression, the pupils were widely dilated; she did not seem to comprehend what was said to her, and it was difficult to elicit any answer to questions put to her. At times she moaned and sighed; she ate her food in a ravenous manner, recognised her relatives, and conversed with them at intervals. She had no intolerance of light, and ophthalmoscopic examination failed to show any evidence of optic neuritis.

She remained in this condition until March 25th, when Dr. E. Roberts, of Pen-y-groes, was called in consultation; he agreed with me that there were evidently symptoms of some cerebral mischief, the nature of which however was doubtful. During the evening of this day she began to toss her arms and legs about, the movements being of a choreic nature. One symptom in particular appeared to me to be very interesting and curious, that was, that if a lighted candle were brought into the room she would immediately try to get hold of it, and she had to be held in bed whilst the candle was in sight.

Unfortunately, a sudden change set in about 2 A.M. on March 26th. She was seized with severe tonic spasms of most of the muscles of the body, most marked on the left side; both sterno-mastoid muscles stood out prominently, causing the head to appear retracted. She became comatose, and the spasms occurred more and more frequently, and death took place at 2 P.M., just twelve hours after the onset of the spasms. About three hours before death she discharged about an ounce of sanious pus from both nostrils.

Remarks.—The usual symptoms of meningitis in the early stages were conspicuous by their absence; the symptoms during the whole of her illness were very indefinite. There was no vomiting after March 12th; she complained of no pain, had no strabismus or paresis, and the temperature never went above 102° after March 12th. She had no signs of ear mischief to cause the meningitis, and I believe that the influenza was the sole cause of it; but in what way I am unable to express any opinion. I was unable to trace the source of the pus discharged through the nostrils as no *post-mortem* examination was allowed. I may say that several children in the same school were attacked with influenza at the same time as this patient.

Treatment consisted in giving plenty of fluid nourishment and stimulants. The following drugs were tried without producing much effect, namely, bicarbonate of potassium (which did much good at first), bromide of potassium, liquor ammoniæ acetatis, salicylate of sodium, quinine, antipyrin, aconite, cold sponging, and, during the last stage, counter-irritation to the spine and legs.

David Livingstone Davies,
M.R.C.S.Eng., L.R.C.P.Lond.,
Surgeon, Festiniog Quarries; late Assistant Medical Officer, Borough Asylum, Nottingham.
Preswylfa, Criccieth, North Wales.

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REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

BATH EYE INFIRMARY.

[Under the care of Mr. Beaumont.]

ALBUMINURIC RETINITIS: PREGNANCY: DEATH.

D.G., a dressmaker, aged 21, came to the Bath Eye Infirmary, on December 21st, 1892, complaining that for a week she had had a mist before her right eye, which interfered with her daily work. In addition she had also some slight pain in the left eye, and she had been subject to frontal headaches for several years. Her family history was good, except that her father died in middle life of heart disease, and some distant relatives of phthisis. On examination her vision was found to be R. $\frac{6}{12}$ L. $\frac{6}{6}$; refraction emmetropic. There was right optic neuritis, the inner margin of the disc being especially swollen, and there were small whitish plaques scattered about the fundus in the course of the vessels. In the left the condition was less marked, the plaques being merely patches that were rather paler than the rest of the fundus, and the disc margins were fairly well defined. In both retinæ the vessels were tortuous and the veins dilated. The urine was of a specific gravity 1020, and contained a large quantity of albumen, but no casts were found. The patient's weight was 8 st. 9 lbs, and she described her general health as being excellent, refusing to believe that there was anything seriously amiss with it. Perchloride of iron was prescribed, and she was advised (unavailingly) to undergo a course of pilocarpin injections.

She returned a month later (January, 1893), and announced that in the interval she had been married. The condition of the fundus was much the same in the right eye, whilst in the left the optic neuritis had in great measure subsided, and the plaques were not discoverable. L.V. = $\frac{6}{9}$. She was warned of the danger of pregnancy in her condition, and earnestly entreated to inform me early if such an accident should befall her, in order that I might communicate to her medical attendant the fact of the albumen; but she would not realise the risk she was running as she felt perfectly well, and complained of nothing but her sight. I saw her again in March, 1893, and then for the first time I found the ordinary stellate arrangement of the albuminuric patches in the region of the right yellow spot, but only in the right eye; in the left there were merely a few scattered specks sprinkled about the fundus in an irregular manner. V. RE = $\frac{6}{12}$, LE = $\frac{6}{9}$. Her weight was 8 st. 9½ lbs. On April 5th the appearances were much the same, but vision in the right had so far improved that she could see some letters of $\frac{6}{9}$, and there was merely a trace of albumen. Again no casts were discovered, but her weight had declined to 8 st. 7 lbs. Citrate of iron and cod-liver oil were prescribed. She was last seen on May 4th, when she expressed herself as feeling perfectly well, no headache, no sickness, no anasarca, menstruating regularly, and no sign of pregnancy. The trace of albumen, however, was still ominously present, and I again warned her that if she became pregnant serious consequences might be apprehended. The next I heard of her was that when six months pregnant on December 3rd, 1893, she was awakened in the night by pain in the abdomen; she rapidly became comatose, and died on the same day. The medical man who had been engaged to attend during her confinement had not been told of her previous history.

Remarks.—Pregnancy complicated with albuminuria is always serious, especially so when the albumen is due to pre-existing renal disease of sufficient intensity to cause retinitis. In this case the question arises, Might a life have been saved by the early induction of premature labour? Playfair[1] advises induction in cases in which the albumen is increasing and in which threatening symptoms are supervening. But that advice is in reference to albuminuria caused by pregnancy, whilst in this case the albumen preceded the

[1] *The Science and Practice of Midwifery*, fourth edition, vol. i, p. 506.

pregnancy. As there was not any exacerbation of the symptoms sufficiently pronounced to lead the patient to consult her medical attendant, it would seem probable that during the last six months of her life there was no great change in her general health; and had a consultation been resorted to during that time it is probable that the result would have been a decision not to induce labour unless special symptoms arose.

Under any circumstances, albuminuric retinitis followed by pregnancy must be desperate, for retinitis does not usually supervene until a late stage of renal disease is reached. But it is of great importance, in forming a prognosis in cases of albuminuric retinitis in pregnant women, to know whether the retinitis preceded the pregnancy, or whether it is a consequence of it. In the first case the prognosis is probably death either before or shortly after parturition, whilst in the albuminuric retinitis of pregnancy there is a fair hope of eventual recovery, both as regards life and sight.

REPORTS OF SOCIETIES.

HARVEIAN SOCIETY OF LONDON.

D'ARCY POWER, F.R.C.S., Vice-President, in the Chair.

Thursday, April 4th, 1895.

VARIETIES OF ABSCESS AND THEIR TREATMENT.

MR. HOWARD MARSH read a paper on the clinical study of some of the more important forms of abscess. When pus was known to be present in a part it should be evacuated without delay, for not only was it an excretion—something which was outside the pale of the economy and which could serve no useful purpose—but it did mischief in many ways: by producing tension in acute cases and in chronic cases, by burrowing, and by leading to the formations of pockets and tortuous passages lined with granulation tissue, which maintained suppuration, and which, moreover, was often tuberculous. Pus also produced erosion of adjacent structures and might make its way into (1) the large joints and (2) the large blood vessels. He showed nine specimens from the Museum of St. Bartholomew's Hospital, illustrating this formidable accident. These included instances in which the three carotids, the thoracic, and the abdominal aorta, the external iliac, and the femoral had been opened by the abscesses and he had known the gluteal and the internal pudic similarly involved. Indeed there was probably no large artery in the body which had not been opened in this manner. The occurrence was very likely to be fatal. Sometimes the abscess concerned was quite small. As to diagnosis, the author remarked that though fluctuation was usually depended upon as the evidence that matter had formed, it was a symptom that was available in only a minority of cases, namely, in large chronic abscesses. It postulated several conditions which in acute abscesses were often absent, namely, a sufficient quantity of pus to admit of to and fro displacement, and a firm background, pliant superjacent soft parts, superficial position, and absence of great tenderness. In numerous instances of acute abscess one or several of these conditions was absent. The indications, then, to be depended on were (*a*) elasticity, (*b*) pitting on pressure, (*c*) the tender spot, (*d*) the soft spot. Attention was then directed to particular abscesses. Acute abscesses of bursæ should be evacuated before the wall burst and pus was widely extravasated, in glands before the capsule burst and the surrounding connective tissue and skin were involved. A very formidable abscess was that beneath the gluteus maximus, which might follow disease of the lumbar spine, the hip-joint, or the sacro-iliac articulation. The great difficulty was that pus burrowed widely under the muscle, and that adequate drainage could not be secured. He had known four such cases fatal. Another abscess very likely to produce serious difficulty was the post-mammary. Here wide burrowing occurred, and sinuses obstinately refused to heal. He had met with two instances in which the breast had been removed, all other treatment, including free drainage, scraping, and prolonged rest having failed after long trial to secure sound healing. A third variety of abscess referred to was that which followed either tuberculous periostitis of a rib or the periostitis of a rib sometimes met with (as Sir James Paget had described) after typhoid fever. In these cases the abscess was often situated behind the ribs, and could be reached only through an intercostal space. He had lately met with two instances in which a large flattened abscess cavity was found between the costal cartilages and the pleura, in the immediate vicinity of the internal mammary artery. In such case the lining membrane of the abscess must be completely cleared away, drainage provided, and rest and perfect asepsis maintained, otherwise burrowing would continue, and, as he had several times seen, separation of the cartilage from the rib would probably occur. A fourth variety of abscess sometimes led to a condition the exact explanation of which was apt to escape recognition. When a deposit of tubercle occurred in the deeper strata of the subcutaneous tissue, wide undermining of the integument might occur, and one or more sinuses might form which obstinately refused to heal. A boy was lately in the hospital who had two sinuses of long duration in the occipital part of his scalp. The scalp was undermined over an area 4 inches in diameter. The pus contained tubercle bacilli. The undermined scalp was freely divided, so that the whole cavity was exposed. All the granulation tissue was scraped away, and the flaps were readjusted. The parts now healed. Similar examples had been met with in the leg (so that the affection closely simulated necrosis of the tibia), in the forearm, and in other parts. The diagnosis was easily made by finding that the sinuses present nowhere passed beyond the subcutaneous tissue; none passed through the deep fascia or traversed the periosteum; and by observing, also, that wide undermining in a horizontal plane had occurred. The treatment consisted of complete exposure of the whole cavity, thorough scraping, and careful readjustment, and the use of uniform pressure.

The CHAIRMAN inquired of Mr. Marsh whether he found that rest retarded or prevented the formation of abscesses in diseases of the spine and joints. He also asked whether Mr. Marsh would maintain that it was desirable to aim at union by first intention in every case where this seemed possible rather than drain an abscess as a routine proceeding. He inquired further as to what Mr. Marsh recommended to be done in cases where large masses of caseating material lay remote from a joint while the patient seemed otherwise to be cured of the disease from which he had suffered. His own practice was to evacuate them if he thought primary union could be secured, but otherwise to leave them alone for fear of sepsis.

MR. KEYTON HEALE related a case which he had had under his care at the Great Northern Central Hospital about two years ago. The patient was a boy, aged 14, who had a sinus of many months' duration leading down to the back of the femur and opening externally on the lower and outer aspect of the thigh. In operating to remove the necrosed bone which existed, both the popliteal artery and vein were so rotten from their proximity to the suppurating sinus that they unfortunately burst during the operation, and about 3 inches of each had to be excised at once. Collateral circulation had of course been established previously, and the boy made a good recovery.

MANCHESTER MEDICAL SOCIETY.

F. A. SOUTHAM, M.B., F.R.C.S., President, in the Chair.

Wednesday, April 3rd, 1895.

CASE ILLUSTRATING THE DIFFICULTY OF DIAGNOSING THE EXACT POSITION OF A PULMONARY CAVITY.

DR. THOMAS HARRIS brought forward a patient who, in all probability, was suffering from a pulmonary cavity, but in whom the physical signs were so slight and indefinite as to render it impossible to diagnose the position of the cavity. The patient was a woman, aged 21, who had enjoyed good health until fourteen months ago, when she was taken ill with symptoms of acute pneumonia. This illness confined her to bed for six months, and she had never been well since. Even during the first three days of her illness her expectoration was extremely foul and offensive. It was, however, very small in amount to commence with, but when she had been ill three days it gradually increased in amount, and during the next twelve months she had been bringing up about a pint of foul fetid matter every twenty-four hours. The patient had been under Dr. Harris's observation for

about two months, at the commencement of which period she was bringing up 12 ounces of fœtid purulent expectoration in the twenty-four hours, this quantity being more or less evenly distributed during that period, and, except when she first awoke in the morning, there was no part in the twenty-four hours when she brought up a greater quantity than at any other period. The temperature in the first four weeks during which she had been under observation had been irregular but had never exceeded 102°. During the last four weeks temperature had been practically normal, and the expectoration had diminished to 5 ounces in the twenty-four hours. The only abnormal physical signs were impaired resonance and weak respiration over the apex of the right lung. When she first was admitted to hospital two months ago, an occasional sonorous rhonchus and a few bubbles were audible over the same part, but latterly there had been no adventitious sounds anywhere to be detected. The expectoration had been repeatedly examined for tubercle bacilli with negative results. Guinea-pigs had also been inoculated with the expectoration but no tuberculosis had been developed in them. The case was regarded as probably one of a cavity of a non-tuberculous nature in the apex of the right lung, resulting from an attack of acute pneumonia. An exploring needle had been several times introduced with negative results. The case was interesting as illustrating the difficulty which existed in localising a cavity with sufficient precision to warrant surgical interference.

Nephrectomy.

Mr. E. Stanmore Bishop showed a woman, aged 21, from whom he had removed a hydronephrotic kidney, and presented the specimen, consisting of a greatly dilated capsule, with almost perfect absorption of all secreting tissue. The ureter had an abnormal origin, springing from the lower extremity of the kidney; so that when the latter rotated forwards and downwards, in which position it was found, the ureter became bent over its lower extremity, and was thus occluded. During the operation the kidney was incised, allowing the escape of 48 ounces of fluid, specific gravity 1002, which contained albumen, chlorides, with small amounts of blood and pus; no calculus existed. The patient made a rapid convalescence, though a measly rash appeared on the third day on the chest, legs, and arms, disappearing on the sixth day. No other symptoms of measles were present. The patient was now, five weeks afterwards, in perfect health.

Typhoid Fever.

Dr. Dreschfeld, after speaking of the difficulty of distinguishing, especially in the fæces, the typhoid bacillus from the bacterium coli commune, pointed out that occasionally the sputum (in some cases of pneumo-typhoid) and the urine might contain the typhoid bacillus, and these secretions therefore should be disinfected. In the fæces the bacillus was rarely found before the eighth or ninth day of fever, and from observations made by Dr. James Richmond in the pathological laboratory of the Owens College, it appeared that already a few days (from six to ten days) after the cessation of the fever the typhoid bacilli were no longer present in the fæces. From this it was evident that the alvine discharges from convalescent patients were no longer a source of further infection. Dr. Dreschfeld gave some instances of infection from the ingestion of oysters, and pointed out that by other articles of food typhoid fever might be communicated; then the typhoid bacillus grew very readily on most vegetables, and these, by being washed or watered with contaminated water, might contain the germs of fever; insects, also, by coming in contact with contaminated sewage or with typhoid dejecta, might carry the typhoid organism and deposit it on fruit. A certain family predisposition to typhoid was now recognised, and an instance was given of such a group, where seven members of one family were affected with typhoid within a few weeks. As to the treatment of typhoid, statistics showed that though the mortality from typhoid had very much decreased in England when considered per population, in 1871 the mortality per 1,000,000 was for England 371, for London 267, for Manchester 450; in 1892 it had fallen for England to 137, for London to 102, and for Manchester to 240. The case death-rate, or the relation of the mortality to the morbidity, as shown by the reports of some of the largest fever hospitals, such as the Metropolitan Asylums Board, the Monsall Fever Hospital, etc., still showed a mortality of 17 per cent. This compared unfavourably with the mortality observed in some of the large German and those American hospitals where the treatment by the cold bath was carried out systematically. As yet the good effects of the antiseptic treatment which was now largely adopted in England, and which had many advocates, was not apparent from the statistics. At the Monsall Hospital, where the treatment had been tried for some time, the mortality somewhat diminished, but was still then over 13 per cent.

Recent Cases of Renal Surgery.

Mr. G. A. Wright made some remarks upon recent cases of renal surgery.

Hunterian Society.—A meeting was held on April 10th, Mr. Charters J. Symonds, President, in the chair.—Dr. Arnold Chaplin showed a case of Transposition of the Viscera in a healthy little girl of 9.—Dr. Galloway showed three cases of skin disease: (1) Lichen Planus diffused over the body and limbs of a man aged 28; (2) the same disease localised about the knees and thighs of a woman; (3) a case of skin disease affecting almost, but not quite, exclusively the limbs of a child aged 2½, closely resembling lichen planus, but actually caused, Dr. Galloway thought, either by drugs or by a micrococcus. Dr. Fred. J. Smith, Dr. Cotman, and Dr. Chaplin spoke on the cases.—Mr. Openshaw showed (1) Webbed Fingers (total) in the left hand of a little child, with partial similar deformity in the other hand; (2) an enormous Nævus in the cheek of a boy of about 12, growing since infancy, and involving the palate as well; (3) Double Cephalhæmatoma in a child 4 weeks old; (4) and (5) two cases of Trephining for Cerebral Abscess, one on either side of the brain; (6) a case presenting almost identical symptoms to (4) and (5), leading Dr. Hughlings Jackson to diagnose cerebral abscess, but the patient gradually got well without any operation.—Dr. Cotman showed a case of Intermittent Pulse in a man of 73; the condition was apparently quite physiological.

Wigan Medical Society.—At a meeting on April 11th, Mr. William Mitchell Roocroft, President, in the chair, the President gave his address and read a paper entitled a Plea for Early and Thorough Excision of the Breast for Cancer. After going fully into the histology of breast cancer, he pointed out how necessary it was to have the breast, with all the diseased tissues and glands, removed, in order to prevent recurrence. A vote of thanks was accorded the President for his able and valuable address.—The following cases were exhibited:—Mr. Jones: (1) A Case of Double Optic Neuritis in a boy aged 11; (2) Inclusion Cyst of Eyeball.—Mr. Lowe: (1) A Case of Traumatic Atrophy of Upper Extremities and Scapular Muscles in a Male Adult; (2) Erb's Paralysis in a youth aged 18.—Mr. Hardman: (1) A Case of Scorbutus in a girl aged 7; (2) a specimen of Ileocolic Intussusception.—Dr. R. Prosser White: A case of Purpura.—Mr. Berry: A case of Double Osteotomy, performed six months ago.

Bradford Medico-Chirurgical Society.—At a meeting on April 2nd, 1895, A. Bronner, M.D., Vice-President, in the chair, Dr. Honeyburne read notes on two cases of Diphtheria which he had recently treated with antitoxin. (1) A child, aged 6, suffering from "croup." After the injection of Klein's antitoxin there was a gradual improvement, the membrane being easily coughed up. (2) A child, aged 3 years, with croupy symptoms. Marked improvement took place after the injection of antitoxin. There was a slight rise in the temperature after the injection, followed by a fall to normal. After the injection of antitoxin the children were well in two days.—Mr. Horrocks described a case of Traumatic Stricture of the Urethra, in which he had cut down on and excised the stricture, suturing the divided ends of the urethra, and draining the bladder from the perineum. The wound healed well, and the result was very satisfactory.—Dr. Wood described a case of Tumour in the Sella Turcica in a man admitted for

a fracture of the leg. The symptoms noted were a drooping of the right upper eyelid, dizziness, mental dulness, headache, diarrhœa, and vomiting. The right eye showed corneal opacities and anterior polar cataract. The vision was $\frac{6}{36}$. Later dysphagia came on (necessitating feeding by a tube), followed by left-sided hemiplegia and the formation of a bedsore. The day before patient died there was a free discharge of pus from the nose and mouth. There was no fever. *Post mortem* there was a trilobed enlargement of the pituitary body, which did not press on the second nerve, but had eaten its way into the nasal cavity. Microscopically the growth was an adenoma of the anterior lobe of the pituitary body.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 20th, Dr. J. S. TEW, President, in the chair, Mr. GRAY read a paper for Mr. STEWART and himself on three cases of Laryngeal Paralysis. They divided laryngeal paralyses into:—(1) Neuropathic paralyses: (*a*) From central lesions; (*b*) from lesions of the superior laryngeal nerve; (*c*) from lesions of the recurrent laryngeal nerve. (2) Myopathic paralyses. They illustrated this division by cases of paralysis of the superior and recurrent laryngeal nerves respectively, and also a case of bilateral abductor palsy, which they claimed for the myopathic variety. They also read a short communication on the Surgical Treatment of Graves's Disease, with some consideration on its pathology, and narrated two cases of Graves's disease, for which isthmoidectomy had been performed, with very rapid improvement in the symptoms. They discussed the alternative operation of removing half the gland with the isthmus, and claimed for isthmoidectomy equal efficacy and much less risk. With regard to the pathology of Graves's disease they held that the theory which best answered all the facts was that it was a primary disease of the thyroid gland, and that the symptoms were due to a hyperplasia with exaggerated functions of the gland.—Dr. MACKIE read a paper on Chronic Pharyngitis, and claimed that in the causation and maintenance of this condition the gouty and rheumatic diathesis was in the majority of cases the most prominent factor.—The PRESIDENT, Miss GRAY, and Messrs. CATTLE and TRESIDDER spoke, and Messrs. GRAY and MACKIE replied.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 28th, 1895, Mr. MAKEIG JONES, President, in the chair, Dr. KEELING showed two Dermoid Cysts removed a week before from a married woman, aged 27, who had borne two children. One of the cysts was laid open, showing fatty contents interspersed with hair. The patient was making a good recovery.—Mr. SNELL showed cases of Optic Atrophy following fracture of the skull, and other patients.—Dr. PORTER showed an example of Albuminuric Retinitis.—The PRESIDENT showed a woman, aged 46, with Double Optic Neuritis, who first came under his notice last year with a tumour of the left upper jaw, which rapidly subsided under biniodide of mercury. She was next seen about three months ago, when she had severe hemicrania, which soon got well under the old treatment. She came again last week with the pain on the opposite side of the head and spasm and pain of the right forearm. There was double optic neuritis, worse on the right side; old anterior synechia of both lenses. Some months after marriage—twenty-four years ago—she had inflammation of both eyes for several months. She had twelve children and three miscarriages. The first children died directly after birth, and some of the children now alive showed well-marked signs of congenital syphilis.—Mr. PYE-SMITH showed a case of Double Excision of the Hip in a girl aged 10. The anterior incision was made in both cases, the carious head and part of the neck being removed and the temporary gauze drainage being used. The patient could now stand and walk with a somewhat waddling gait, and could walk well with the aid of two sticks. There was free movement in the hip in all directions. The wound was sound and there was no pain. Mr. Pye Smith also showed a man on whom he had operated seven and a-half years ago for Spasmodic Torticollis by excising part of the spinal accessory nerve. He had been shown in 1888.[1] He had resumed work, and gradually regained more and more the use of his sterno-mastoid and trapezius muscles.—Dr. CLARKE (Chesterfield) read a communication on a somewhat unusual case of Ectopia Testis.—Dr. ARTHUR HALL and Dr. ADDISON exhibited and demonstrated numerous preparations lately added to the Museum of the Medical School. The PRESIDENT, Mr. ARTHUR JACKSON, Dr. DYSON, Mr. SNELL, Mr. RICHARD FAVELL, Dr. SINCLAIR WHITE, Mr. ATKIN, Dr. ARTHUR HALL, Dr. RHODES, and Dr. ADDISON took part in the discussions.

[1] BRITISH MEDICAL JOURNAL, 1888, vol. i, p. 472.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting on April 8th, Dr. S. R. LOVETT, President, in the chair, the discussion on Mr. H. C. Jones's paper on the Legal Definitions of Sewers and Drains, was resumed by Drs. DUDFIELD, KEMPSTER, GIBBON, Messrs. SHIRLEY MURPHY, H. C. JONES, and others, and might be summarised as follows: The question at issue in the numerous cases coming before the Courts was whether any given structure were a sewer or a drain, since on that it depended whether the local authority or the owner of the property were responsible for its maintenance and for the abatement of any nuisance arising therefrom—a difficulty which rarely presented itself except in connection with combined drainage. Sewers were not defined except as not being private drains; the statutory definitions of drains contained in the Metropolis Local Managements Acts and in the Public Health Act (1875) were as being connected "with one house only, or with buildings within the same curtilage and communicating with a cesspit or a sewer conveying the drainage from several houses occupied by different persons," the former Act adding "or the drainage of any block or group of houses by a combined operation under the order of a vestry or district board of works, etc." The omission of all reference to combined drainage in the Public Health Act in force throughout the whole of England and Wales outside the metropolis was to some extent supplied by Section 19 of the Public Health Amendment Act of 1890, which empowered local authorities to recover the cost of abatement of a nuisance arising from such as private improvement expenses; but this Act was adoptive only, and even where adopted it introduced a further complication by substituting different ownership for occupation by different persons. This section not having been incorporated into the Public Health London Act of 1891, the question of ownership did not arise in London; but, besides the ambiguity attaching to the expression "curtilage," on which judges had differed as to whether the intervals between the blocks of model dwellings could be considered as such or not, there was always the question as to whether the local authority had improved the arrangements in any particular case, perhaps, ten, twenty, or thirty years ago, expressly as a combined drainage, or in general terms, or implicitly by not objecting thereto within the specified time, for in either of the two latter cases it would be a sewer and its maintenance devolved on the authority. It was felt that the *onus probandi* should rest on the owner who sought to relieve himself of responsibility for the cost of abating the nuisances so likely to arise from this objectionable arrangement, and it was unanimously resolved that, pending legislation on this vexed question, the London County Council be urged to exercise the power inherited by them from the Metropolitan Board of Works of framing by-laws as to the drainage of houses throughout the metropolis.

MEDICAL STUDENTS IN ITALY.—There were 19,048 medical students registered in Italy in 1894-95. The number of universities is 21, and the number of students registered at the various universities varies from 3,697 at Naples to 87 at Milan. The percentage of medical students to the population is about 61 per 100,000 inhabitants. In France it is 57 per 100,000, and in Germany 63 per 100,000. In Italy, university education is chiefly supported by the State, the students paying only a yearly tax of 200 or 300 francs. According to the latest statistics, after subtracting the tax paid by the students, each student costs annually to the State a sum which varies from a minimum of 215 francs at the University of Naples to a maximum of 1,408 francs at the University of Sienna. It appears from the returns that the larger the number of students at a university, the smaller the annual expenses for their education.

REVIEWS.

Atlas of the Diseases of the Skin. In a series of Illustrations from Original Drawings, with Descriptive Letterpress. By H. Radcliffe Crocker, M.D., F.R.C.P. Edinburgh and London: Young J. Pentland. Fasciculus VII and Fasculus VIII. £1 1s. nett each.

In these two fasciculi of this excellent Atlas we have to note a good plate of the prurigo of Hebra, which will be more useful for the purposes of diagnosis than plates generally are to those who have not had an opportunity of seeing this rare form of disease. Most men of average experience must be familiar with the three forms of pustular eruption, caused by the various sources of external irritation, which Dr. Crocker groups under the name of impetigo contagiosa, and of which he gives very fair illustrations. A terse and excellent account accompanies a graphic plate of the fatal but fortunately rare disease known as pemphigus vegetans. A very good plate of psoriasis gyrata follows. Elephantiasis tropica is illustrated by a drawing from a limb which had been amputated in Barbadoes from one of the native negroes resident there. Although the drawing shows to what an extent the swelling may reach it is not altogether satisfactory as an example of this disease. An exaggerated case of chloasma uterinum and an average case of leucoderma and melanoderma fill up a plate under the heading of Pigment Anomalies.

Three illustrations of herpes in Fasciculus VIII will be useful to the inexperienced practitioner, a remark which applies also to three illustrations of psoriasis. A very excellent illustration is given of argyria, the striking discoloration which is produced in the skin by the internal use of nitrate of silver. A curious feature of the case from which it was drawn is that it was impossible to get a satisfactory account of the silver salt being taken. In the same plate there is a representation of chyrsarobin erythema. The Whitechapel Infirmary was able to supply, in March, 1890, a case of gangrene of the foot from cold, which is shown in Plate XL. Plate LIX illustrates the typical appearance of the eruption of xanthoma diabeticorum, and it is interesting to learn that in this case it was from the eruption that diabetes was suspected, its presence being subsequently verified by examination of the urine. In the plate of Rodent Ulcer and Epithelioma no fewer than eight illustrations are given of the clinical features of these destructive affections, and amongst them one of interest. On the front and left side of the scrotum and the contiguous under surface of the penis, an oozing well defined area of superficial ulceration was diagnosed as being of a similar nature to Paget's disease of the nipple, and was removed by operation. The importance of the case in connection with the etiology and pathology of this disease renders it a matter of congratulation that the appearances which it presented have been put permanently on record in an accessible form.

On the Administration of Anæsthetics Clinically Considered. By Joseph White, F.R.C.S.Edin., D.C.L., Vice-President of the British Medical Association. London. 1894.

Mr. Joseph White, within ten years of the introduction of chloroform as an anæsthetic, published his views upon the physiological action of that narcotic. Since then the singular fascination of the theme has held Mr. White, as so many others, and has induced him to keep accurate notes of his cases; to deduce conclusions from his observations, and from time to time to put forward his views about the matter. After forty years, "a wider and longer experience" has led to modification of some, to confirmation of other of his earliest views. Mr. White speaks from over 7,000 personally-recorded cases, of which the majority are of chloroform administration (4,000).

In the pamphlet before us, after a brief but interesting sketch of the introduction of chloroform, Mr. White proceeds to traverse Simpson's original pleas in its favour, which were (1) the smallness of the quantity required; (2) the rapidity, completeness, and persistence of the narcosis; (3) its agreeableness, less irritating nature, and the facility with which it could be used; and (4) its portableness, cheapness, and safeness. Such conclusions cannot at the present time be admitted without reservations. The supposed greater safety of chloroform when compared with ether has unhappily not been borne out by further experience.

Mr. White's own views upon the causation of chloroform deaths are interesting. He divides the inhalation period into four stages, according to the effects produced: (1) The stage of continued consciousness; (2) that of semiconsciousness; (3) that of sleep; (4) that of coma and threatened death. This division corresponds in the main with Snow's, except that his fifth stage is omitted by Mr. White. In the initial stage "most of the early cases of death from chloroform" occurred—many within a minute of the commencement of inhalation, and, as Mr. White points out, "fear" is a very important factor, and may determine a fatal issue when only a very small amount of the anæsthetic has been inhaled. Alarming syncope under such circumstances does not necessarily end fatally. Mr. White has never met with a fatality in the first stage, but has witnessed fear produce fainting. Deaths are common in Mr. White's second stage, and there is, as he points out, a great tendency to vomiting, with its attendant collapse. Much information is obtained by watching the pupils, which will help the anæsthetist to determine accurately the degree of narcotism present and to avoid many of the sources of danger. Mr. White was one of the earliest observers in this matter. In the initial stage the pupil is somewhat dilated, and in passing to the second it oscillates between dilatation and contraction, finally becoming decreased almost to a pin's point. The palpebral and ocular reflexes then disappear.

It is noteworthy, in connection with Mr. White's comparison of his third stage of narcotism with sleep, that his observations on the pupils in sleep show that the same changes occur as in narcotism by chloroform. In the fourth stage, however, pupillary dilatation occurred, and this with a fixed eyeball heralds danger. The procession of events, slow laboured breathing, passing on to irregularity, with circulatory failure, were shown to undergo modification according as the overdose given was presented in rapid or prolonged administration. Sibson, Percy, Glover, Snow, and Richardson all agreed that a dose in bulk rapidly given stopped the heart at once, whereas when the chloroform was slowly but continuously administered respiratory failure was the initial symptom.

Mr. White, from his own experiments, arrived at the result that the amount of chloroform in the blood of the carotids and femorals after an animal was killed by a sudden action of an overdose, contained little more than two-thirds of the amount present in animals safely anæsthetised by slow administration; thence he concludes "Death is not the result of the amount in the circulation, but of the sudden action of a lethal dose." The various "Commissions" on chloroform have received criticism at Mr. White's hands, and he appears to lean more to the conclusions arrived at by the Glasgow than to those formulated by the Hyderabad Commission. He recognises a danger through circulatory failure, and believes that an "equally important warning of approaching danger may be gathered from the rapid enfeeblement and flickering of the pulse" as that presented by an alteration in respiration. Indeed, he enjoins watching the breathing, the pupil, and the pulse.

In conclusion, Mr. White gives some wholly excellent "short hints" which all should read whose duty it is to give chloroform. In spite of much that has been said of late anent the dangers of the A.C.E. and other chloroform-ether mixtures, we find Mr. White, who has had 1,500 cases with no accident, speaking in unstinted praise of them. The A.C.E. is "certainly less depressing than chloroform, and apparently not more irritating to the pulmonary mucous membrane." "I have," he adds, "never seen any but the most favourable results from its use, and I cannot help feeling that it is decidedly more free from danger than chloroform by itself." It is a pity Mr. White does not mention the methods of administration which he adopts. These must have played an important part in arriving at so very successful an experience as has fallen to Mr. White's lot. Especially is this so in the case of the mixtures. Mr. White's pamphlet, in its calmness and judicial attitude, is one of the most

excellent with which we have met, and should be widely read and carefully studied.

Ectopic Pregnancy: Its Etiology, Classification, Embryology. Diagnosis, and Treatment. By J. Clarence Webster, B.A., M.D., F.R.C.P.Edin., Assistant to the Professor of Midwifery and Diseases of Women and Children in the University of Edinburgh. With 80 Illustrations of Naked-eye and Microscopic Appearances. Edinburgh and London: Young J. Pentland. 1895. (Demy 8vo, pp. 256. 12s. 6d.)

Dr. Webster has carried on a series of investigations in the Laboratory of the Edinburgh College of Physicians in order to throw some light on the entire subject of extrauterine gestation. Much good work has been done in matters of detail—the presence or absence of chorionic villi in tubal cysts for instance. Modern surgery can claim triumphs in the same field. A monograph, however, on the subject, as a whole, was wanting, and Dr. Webster has supplied that want.

The author has succeeded in tracing the decidual changes which go on in the maternal tissues at the point where the ovum becomes abnormally attached. This is the essential result of his researches. The true histology of the normal uterine decidua has but recently been made clear. Minot, of Boston, U.S.A., is specially known as an investigator of this process, which first concerns parenchyma and not epithelium. Dr. Webster begins by attacking many theories, at present widely accepted yet resting on insecure foundations. He denies that the uterus alone is the seat of normal conception, there being no reason why fertilisation may not take place in the tube. He controverts the opinion that the ovum can only develop in the tube when the tubal epithelium has been destroyed by inflammation. The lining epithelium of the mucosa, he holds, both in tubal and in normal uterine gestation, plays an entirely negative part as regards the development of the ovum. The alleged inflammatory destruction of the tubal mucosa is certainly frequent, but it is a result, not a cause, of the abnormal attachment of the ovum. The outer layer of the fœtal epiblast is an agent in the removal of epithelium. At the same time, as Dr. Webster shows, the rapid changes in the maternal subepithelial connective tissue which lead to the formation of the decidua vera also involve the disappearance of the tubal epithelium.

The primary effect of impregnation is not clear, but there is such an effect, and it is best known as "the genetic influence." The uterine mucosa changes throughout, and not only at some minute area where a spermatozoon or a fertilised ovum happens to lie. There must be some influence to effect such a change. Decidual development in the maternal tissue is the second step in gestation, the first visible result of the genetic influence. This influence involves in many mammals the formation of decidua along the entire tract developed from Müller's ducts. In women only the endometrium normally develops decidua. But the tubal mucosa in perfect health may undergo this change, owing, no doubt, to some developmental fault. When this occurs, and an ovum happens to be fertilised high in the tube, any obstruction to the passage of the fertilised ovum may result in its implantation on the tubal mucous membrane abnormally fitted to receive it.

Since this decidual reaction is limited to the tract of the Müllerian ducts, Dr. Webster finds it difficult to believe in the possibility of primary abdominal or ovarian pregnancy. There is, he thinks, no evidence that decidual changes can go on in the subserous connective tissue of the peritoneum or in the Graafian follicles. This corresponds with the researches of several observers who have shown that in most of the reported cases of so-called primary, non-tubal, ectopic pregnancy the sac was too much developed to allow its original site to be determined with accuracy.

Dr. Webster classifies ectopic—that is, tubal—pregnancy under three heads: ampullar, interstitial, and infundibular. The muscular tissue in the wall of the sac undergoes hypertrophy and hyperplasia, but in the later months the connective tissue increases more rapidly than the muscle. This accounts for the pain at the seat of disease being most severe during the earlier months. The increase of placenta after death or removal of the fœtus is due, Dr. Webster thinks, not to growth of its proper tissue, but to extravasations of maternal blood, which alter the continuity of the villi and their relations to one another.

We have shown that there is much material for reflection in Dr. Webster's important work. The later and better known changes in ectopic gestation are ably discussed. The plates, though not among the most perfect samples of contemporary microscopic art, show clearly enough the decidual changes on which the author's opinions are based.

The Money Lender Unmasked. By Thomas Farrow. Westminster: The Roxburghe Press. 1895. (Crown 8vo, pp. 252. 3s. 6d.)

This work sets forth again in a compendious form the iniquities of professional money lenders, with which the readers of *Truth*, the *Pall Mall Gazette*, and one or two other periodicals have already been made acquainted. Mr. Farrow, who contributed some of the articles which have appeared in the *Pall Mall Gazette*, seems to have made a special study of the money lender's trade in all its branches, and to have accumulated a mass of information on the subject which as epitomised in his book is highly instructive. The business of the money lender, judging from the number of advertisements—more or less expensive—which are constantly appearing, is a large one, and must on the whole be highly remunerative to the advertisers. In many instances the only result of answering an advertisement is that the impecunious would-be borrower is fleeced of sums which he can ill afford to lose, under the name of inquiry fees, and then obtains no loan. Mr. Farrow asserts, and apparently has good reason for so doing, that many of the people who advertise have no intention of lending money, in fact they have none to lend, but make a good income out of the inquiry fees which they exact for inquiries which they intend shall lead to no result. They, to put the matter plainly, make a business of obtaining money by false pretences. But it is difficult to obtain proof of this, and the business flourishes practically unchecked.

Where money is advanced, the borrower is generally ignorant of the terms to which he binds himself. Few men, if they really understood the effect of the transaction into which they enter, would accept the usurer's money on the terms he requires; other creditors, however pressing, would be more lenient than he proves to be. But the hard pressed debtor thinks that a temporary advance, on terms the effect of which he does not appreciate even if he sees them written down, will enable him to tide over his difficulties. He obtains a loan repayable by instalments, the greater part of which in fact are appropriated merely in keeping down the usurious interest of from 60 to anything more per cent., which he has become bound to pay; and after one or two renewals he probably finds that his debt is larger considerably than the sum originally advanced, although more than that sum has been repaid by instalments which he supposed were given in reduction of the loan. Bankruptcy is very apt to supervene; and the officials of the bankruptcy court state that in many cases which have come under their notice the debtors would have been able to continue their business, if it had not been for the exorbitant charges and interest which they had become liable to pay for money borrowed in order to enable them to tide over their original difficulties.

The evidence given recently before the Welsh Land Commission shows that in many instances the difficulties of the Welsh farmers are traceable not to any harshness or rapacity on the part of their landlords, but to the pressure of money lenders from whom they had borrowed money to work their farms. No possible farming profits can pay such interest as the usurer demands. The same explanation of part of the agricultural distress which exists in Ireland, and even more acutely in some parts of England, may no doubt be given. The tenant in times of difficulty has bound himself to pay interest which he cannot earn by his labour, and so has only accentuated his trouble, and put himself in the power of a merciless creditor, rather than trust to his landlord and his neighbours, who would probably be disposed to help him

if that were possible. The farming class are not alone in being thus oppressed. Professional men and struggling tradesmen are sufferers in the same way.

The evil is widespread and calls for a remedy. Mr. Farrow demands a Parliamentary Committee or Royal Commission to inquire into the whole subject of usury, and suggests certain alterations in the law, which he thinks would improve matters. He would prohibit usurers' bills of sales of household goods altogether, and would re-enact the usury laws, which made it penal to charge exorbitant interest. He would oblige all money lenders to take out a licence like pawnbrokers, and would prohibit their trading in any name but their own; and he would prohibit the charging of preliminary inquiry fees. Whether legislation on these lines would be effective, or whether any alternative proposals may be more desirable, is of course a matter on which opinions may differ; but enough has certainly been said to show that our social system in this matter of usury is diseased, and that a remedy should be found if possible. A Royal Commission would probably be the tribunal best qualified to examine the question, and to suggest what alterations in the law—if any—are practicable. Even if nothing were done, public attention would at any rate be directed to the matter, and many impecunious people might learn the advisability of bearing their present evils in preference to making them worse by obtaining temporary relief at the cost of certain and speedy aggravation of their disorder. Mr. Farrow's book is worth perusal even by those who may not agree in the remedies he proposes.

The Anatomy of the Nasal Cavity and its Accessory Sinuses: An Atlas for Practitioners and Students. By Dr. A. Onodi, Lecturer on Rhino-laryngology in the University of Buda-Pesth. Translated from the second edition by St. Clair Thomson, M.D.Lond., F.R.C.S.Eng., M.R.C.P. Lond. London: H. K. Lewis. 1895. (Cr. 8vo. Sixteen full-page plates, with explanations and descriptive letterpress. 6s.)

This work contains exactly what is wanted by those interested in the practice of clinical rhinology, and who do not find in standard works on anatomy or on diseases of the nose the appropriate information such as is conveyed in this compact atlas of frozen sections. It contains sixteen life-sized woodcuts of photographic views of the sections which are in the sagittal, coronal, and horizontal planes, and represent typical appearances of the most instructive relations of the parts. The relation of the nasal duct to the wall of the antrum of Highmore is exceptionally well brought out in Plate XIII. For those who desire to acquire with rapidity a "working" knowledge of the gross topographical anatomy of the nose and its accessory sinuses, unburdened by the academical minutiæ required in the anatomical theatre, we can recommend no better means than a methodical study of this collection of plates. Dr. St. Clair Thomson has translated and enlarged the descriptive letterpress, and readers will feel grateful to him for his trouble in altering the reference letters on the plates to the initials of the English instead of the German names of the parts, a point too often neglected by translators. The excellent "get-up" and moderate price of the work should command for it an extensive sale.

Maladies Congénitales du Cœur [Congenital Heart Disease.] Par A. Moussous, Professor agrégé à la Faculté de Médecine de Bordeaux. Paris: G. Masson. (Cr. 8vo, pp. 238, figs. 9. Fr. 2·50.)

This volume is an addition to the monographs already published in the *Encyclopédie des Aide-Mémoire*, and deals in an exhaustive, and at the same time concise, manner with the interesting but somewhat neglected subject of congenital morbus cordis.

In order to pave the way for the discussion of the cardiac lesions and the mechanism of their production, the development of the heart is described especially with regard to the formation of the auricular and ventricular septa, the division of the bulbus aortæ, and the formation of the valves.

The various morbid conditions met with in the heart and great vessels are enumerated and described. Fenestration of the lunulæ of the aortic and pulmonary valves, however, should not be described as a congenital malformation. The want of a few more illustrations in this part of the work is rather felt, and in this respect it compares badly with the late Dr. Peacock's book.

The lesions are classified under two heads: (1) those recalling one of the temporary stages of the development of the heart, such as a patent ventricular septum or the persistence of a single aortico-pulmonary trunk, or even those due to some irregularity in the process of development, such as transposition of the vessels; and (2) lesions of the same type as those of acquired heart disease, but associated with the persistence of one or other of the blood channels used during fœtal life, for example, pulmonary stenosis with a patent foramen ovale.

The classifications of Rokitansky and of M. Fallot are given. Under the heading of Pathogeny the theories of fœtal endocarditis and of arrest of development are discussed at considerable length. Stress is laid on the influence of heredity in the etiology of the disease.

The physical signs and symptoms are well described, and the diagnosis between the various forms of congenital heart disease is treated in a most philosophic manner. A few pages about the diagnosis from acquired heart disease, and a few words on the treatment, bring a work of great interest to a close.

Hand-Atlas der sensiblen und motorischen Gebiete der Hirn und Rückenmarksnerven. [Hand Atlas of the Sensory and Motor Areas of the Cerebral and Spinal Nerves.] Von Professor Dr. C. Hasse, Geh. Medizinalrath und Director der kgl. Anat. Inst. zu Breslau. Wiesbaden: J. F. Bergmann. 1895. (Royal 8vo, 36 Tafeln. M. 12.60.)

In this useful work Professor Hasse has given a series of diagrammatic plates, in which he demonstrates, by means of somewhat startling colours, the nerve supply successively of the skin, joints, serous membranes, and muscles. The work is undertaken purely from an anatomical point of view, and the skin fields are represented as sharply defined, although it has been clearly shown by Sherrington and others, from experimental and clinical observations, that they overlap considerably. The most useful plates are those of districts which receive their nerve supply from a number of nerve trunks, such as the pharynx, the auditory meatus, and the external pudenda. The plates showing the sensory supply of the joints will also be most helpful to the student. The least effective and least accurate plates are those of the brain in which the "motor" and "sensory" areas are mapped out. Following Munk's unconfirmed statements, the prefrontal lobes are credited with controlling the movements of the trunk. In any future edition we hope that Professor Hasse will add some plates showing the distribution, as regards sensation and muscular supply, of nerve roots as well as of peripheral nerves; he will thus greatly increase the value of the Atlas for clinical observers. For anatomists and students preparing for examination the book will be a most useful guide, and with some modifications in the direction we have indicated it would be of the utmost value to neurologists.

NOTES ON BOOKS.

System of Medical Book-keeping. By Dr. W. W. Hardwicke. No. 1 edition. (London: H. Silverlock. 1894.)—By this system there are combined in one well-bound volume of ordinary ledger size (13 by 10 by 2¾ inches), the Visiting List, Day Book, Ledger, and Cash Book, for which practitioners usually employ four separate books, together with a Midwifery Register, such as is ordinarily found in any good visiting list. The book is arranged to last six years, and full instructions for its use, together with a full list of abbreviations, that may be employed in order to economise time and space, are given. Amongst other advantages, it is contended that the number of entries is reduced to a minimum, and that no indexing of names being required, as everything is

arranged in alphabetical order, the duplication of entries and the continual reference to and turning over of numerous pages is avoided. Even, however, with this book in use a prescription book must also be kept, certainly by practitioners who dispense their own medicines; nor does the volume under review contain any space for the record of disease, analyses, etc. It is a simple register of work done and its monetary value, of accounts rendered, amounts received, and monthly expenditure, alphabetically and methodically arranged, and any practitioner adopting Dr. Hardwicke's system is likely to be saved a large amount of unnecessary trouble.

Drainage Work and Sanitary Fittings. By WILLIAM H. MAXWELL. (London: The St. Bride's Press, Limited. Cr. 8vo, 74 pages, with diagrams. 1s.)—This little book is prepared from articles which have appeared in the *Surveyor and Municipal and County Engineer*. It is rather a compendium of memoranda than a treatise on drainage work, and will no doubt prove useful to those engaged in studying the subject as a source of reference, though it can hardly claim to set forth the mysteries of drainage in a manner that will prove plain to the uninitiated. Materials used, joints and their varieties, intercepting traps, ventilation and laying of drains, and drain testing are discussed. Chapter vii, which deals with the discharge from sewers, is likely to prove particularly unedifying to the learner who expects to have things made plain by a process of gradual deduction. Chapter xi and xii contain a digest of model by-laws and an index to sections in the Public Health Acts dealing with sewerage and drainage.

Indigestion: An Introduction to the Study of Diseases of the Stomach. By GEORGE HERSCHELL, M.D., 2nd Edition. (London: Baillière, Tindall, and Cox. 1895. Cr 8vo, pp. 352. 5s.)—In recent years so much attention has been given to diseases of the stomach, and the advances made have been so considerable, that it is not surprising to find that several books have appeared on this important subject. The title *Indigestion* is, perhaps, a little misleading, as it implies that the book deals with a group of symptoms rather than with actual disease as revealed by symptoms. It does not profess to be a complete treatise on the subject, and can therefore hardly be compared with some of the excellent manuals which have been brought out abroad, and translated in some instances into English. The subject is dealt with in the following order: Normal digestion, indigestion and the processes underlying it, interrogation of the patient, physical examination, etiology, symptoms, and diagnosis of the chief stomach diseases, treatment, illustrative cases, and bibliography. Both the physical examination and the treatment are efficiently given, but it would have been well to mention the possibility of surgical treatment in certain instances. It may be open to doubt whether the lines drawn between hyperchlorhydria and hypersecretion are not too hard and fast. The book undoubtedly contains much useful and practical information.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SACCHARIN.

THIS artificially produced substitute for sugar has not hitherto been commercially available in a state of perfect purity, but has contained a certain proportion of an isomeric substance which does not possess the sweetening capacity of benzoic sulphinid. Messrs. Gilliard P. Monnet and Cartier, of Lyons, have, however, introduced a new make of saccharin which is stated to be quite pure and free from any admixture of the isomeric substance. It is supplied in two different forms, the one having 500 and the other 300 times the sweetening power of sugar. One of the best tests of the purity of this substance is the melting point, and Messrs. Gilliard's saccharin No. 1 has a melting point of 223·8° C., that of pure benzoic sulphinid being 224° C., while the melting point of commercial saccharin is generally eight or ten degrees lower. The No. 2 saccharin is evidently a mixture of No. 1 with sufficient alkaline salt to reduce the sweetening power; the percentage of benzoic sulphinid is, however, higher than that of most samples professed to be of the same strength in the proportion of 68 per cent. to 65 and 57 per cent. Both products have been carefully examined and found to compare advantageously with the other makes of saccharin.

BÈCHE DE MER SOUP.

THIS soup is prepared from bèche de mer or trepang, a marine echinoderm, which is a highly-esteemed article of food with the wealthy classes in China. It is even more glutinous than turtle soup, and as a food for invalids is said to possess remarkable nutritive and restorative power, besides being easily digested. The bèche de mer is taken on the reefs of North Queensland, and more than 200 tons of it are annually sent to China. At the Melbourne Exhibition bèche de mer soup, preserved by Mr. B. Skinner's process, attracted considerable notice, and the Commissioners ordered an examination of it to be made by Sir Anthony C. Brownless, the Senior Consulting Physician to the Melbourne Hospital, who reported very favourably upon it as a valuable addition to the light and nutritious food for invalids and aged persons. The agent for the sale of this soup is Mr. A. Chadwick, 7, Carlton Street, Regent Street.

QUEENSLAND TURTLE SOUP.

THE fine flavour of turtle soup is said to depend upon its being prepared from turtle as soon as they are taken from the sea, and the soup made under those conditions is very much superior to that made from turtle that have been for three weeks or a month in transit to this country and artificially fed in confinement. Guided by this experience, the preparation of soup and other turtle specialities has been undertaken by Mr. Skinner, of Brisbane, who preserves the article by a special process in half-pint and pint tins. The soup only requires to be made hot by immersing the tin after opening in boiling water, and is then ready for use in a few minutes. Its character fully bears out the statements made as to the advantages of being made from fresh turtle and the excellence of the method of preservation. It has been awarded prize medals at several exhibitions, and is said to be held in high esteem by caterers as being free from the objectionable taste peculiar to some kinds of preserved food. For the use of invalids it is especially convenient and serviceable. The agent is Mr. A. Chadwick, 7, Carlton Street, Regent Street.

A PILL BOX SHOOT.



MESSRS. REYNOLDS AND BRANSON, 13, Briggate, Leeds, have sent us a "pill box shoot," designed upon the same principle as the bandage shoot described in the BRITISH MEDICAL JOURNAL of January 12th, page 87.

The shoot consists of five cylinders of different sizes, to hold 3 dozen 1 ounce, 4 dozen ½ ounce, 4 dozen 2 drachm, 5 dozen 1 drachm, and 6 dozen ½ drachm pill boxes. The general construction of the apparatus will be seen from the illustration. The shoot hangs against the wall and takes up very little room. It will keep the boxes always ready and clean, and the apparatus will no doubt, as the makers claim, "save time, temper, and money." Its cost, empty, is 10s. 6d.

AT a Cookery and Food Exhibition, to be opened on May 7th at the Portman Rooms, Baker Street, by H.S.H. General Prince Edward of Saxe-Weimar, soldier cooks of the Grenadier, Coldstream, and Scots Guards will take part in the competition, and the Army School of Cookery will demonstrate the methods of cooking army rations. The Technical Education Committees of several counties, including London, Kent, and Wilts, will send pupils to compete for cookery scholarships, and a Ladies' Committee will offer a champion shield for the best school competing.

ON THE ART OF MAKING REFERENCES.

By JAMES BLAKE BAILEY, B.A.,
Librarian of the Royal College of Surgeons of England.

The advice given by the venerable President of Magdalen to Mr. Burgon, "always verify your references;" good and necessary though it is, does not in the present day go quite to the root of the matter. Before the references can be verified they must be quoted, and here is the pitfall into which so many authors stumble. The greatly increased number of journals makes exact references more necessary than ever. By pointing out some of the more common errors a little progress may perhaps be made towards getting uniformity in reference quoting.

The illustrations of bad references given in this paper are from medical and surgical books, and are not imaginary; all of them have been taken from recent publications. Only those persons who are constantly using medical literature can fully appreciate the time that is wasted through bad and incorrect references, and it must be added, as regards some books, through lack of references. It is no uncommon thing to come across such a statement as "Jones's experiments show, etc., etc." To the author who makes this statement it would mean but an infinitesimal amount of time and labour to say where an account of Jones's experiments could be found; but to anyone who wishes to read the original account it often means a great waste of time and display of temper.

One of the first rules for good references is that the title of the book or journal referred to should be given in its original language, and should not be translated. There is often no word in English to exactly represent the one translated, and so endless confusion is caused. The following is an example: "P. Cong. Wiesbaden, vol. 4, pp. 381, 403, Bergmann, 1886, Friedlander." The P. here stands for Proceedings. This is about as incorrect a reference as can well be imagined; it ought to read thus: "Friedländer, Verhandl. des Congr. für innere Med., 4ter Congr. 1885, p. 403; 5ter Congr., 1886, p. 381." Bergmann is the name of the publisher, and causes confusion by being thus introduced. Examples might be multiplied to any extent, such as "Report of the Jenner Children's Hospital," and "Congrès de la Soc. Allem. de Chir.," both of which titles ought to be in German. To be quite logical in this matter, the name of the author of the paper should be translated as well as the journal from which it is taken, so that Dr. Blanc would appear as Dr. White. The French are the greatest offenders in this matter of translating titles, but the fault is growing in a certain class of English books, those, namely, of authors who copy bibliographies without any verification whatever. Useful as bibliographies are, it is to be feared that they are often appended to a book or paper to give an idea of the wide reading of the author; whilst it is patent that the entries are copied wholesale from some Centralblatt or Yearbook, and that many of the books have never been seen by the author in question.

Reference should always be taken from the title pages of books and not from the lettering on the back. Sir Douglas Galton's recent book on *Healthy Hospitals* is lettered *Hospital Construction*. In binding the book the present lettering will disappear, and in time to come references to *Hospital Construction* will be meaningless and give much trouble; in fact, they will refer to a book which does not exist. It is good practice in cataloguing to note such peculiarities as these; a difficulty may often be thus easily cleared up.

A reference which gave me some trouble was *Archiv für Hygiene*, Band 34. I knew that nothing like that number of volumes had been issued, and was about to search through them all when I remembered that the work containing this reference was done in the College of Surgeons Library; then I saw the mistake. The College set is bound up two volumes in one, and this particular one is lettered 3-4. The reference had been taken from the back of the book, with the result that 34 had been read for 3-4. Whilst on this head it may be worth while to note another common cause of wrong references when two volumes are bound together. The paper noted is in the second volume, say xiv; the book is opened at the beginning, and the reference is quoted as being in vol. xiii. The moral here evidently is—bind two in one as little as possible.

Another hint to librarians and to those who bind up their journals, may perhaps be allowed here—namely, always to note on the back of a volume any error in the printed numbers on the title. As an example I may quote the *Archives Générales de Médecine;* in the seventh series of this journal seven consecutive vols. (xx to xxvi) are called vol. xx. A reference, therefore, to seventh series, vol. xx, may be very puzzling unless the error be notified on the back of the set. The plan I adopted in this case was to letter the vols. in their proper order, xxi to xxvi, and to add in the panel, under the number of vol., "on title page vol. xx." Anyone going to the set for vol. xx is by this means at once made aware of the mistake. In sets divided into series care should be taken to quote the series as well as the number of the vol. If there is a continuous numbering in addition to the series it is good practice to give both, thus xlvii (3rd series, 12). This simplifies matters if the set of books used has not both letterings on the backs.

A reference to an abstract of a paper should always state the place where it originally appeared. In an English book I find the following reference, "Wolfenden, *Cent. f. Laryng.*, vol. vi, p. 131." On turning this up a bare mention of Dr. Wolfenden's paper will be found; the real reference is *Practitioner*, vol. xxxix, p. 422. A case of this sort not only wastes time, but may hinder a person from consulting the paper he wishes to find. He asks at a library for the *Centralblatt für Laryngologie* and cannot get it, though the *Practitioner* may be available for his use if he only had the reference to it. Some references of this kind are nearly useless; for example, I have before me in a pretentious bibliography a reference to the Report of the Committee of the Clinical Society on Myxœdema, and the only intimation of where this report is to be found is "*Berl. klin. Woch.*, 42."

Reports of societies in weekly journals should never be referred to by the name of the society unless the volume and page of the journal containing the report be also given. This particularly refers to societies which do not issue any separate transactions or proceedings. I have a reference to "Midland Medical Society, February 8th, 1893, Suckling;" it should be "British Medical Journal, 1893, vol. i, p. 900." The "Midland Medical Society" does not exist as a book, neither does the "Manchester Pathological Society," yet I take from a French book "Soc. Pathol., Manchester, Novembre." The following reference is very inexact: "Clin. Soc., May, 1889," and there is no excuse for it, as the volume containing the report of the session 1888-89 had been issued some time before this reference appeared.

In speaking of the weekly journals I should like to draw attention to the bad habit of quoting only the date of issue; thus "British Medical Journal, January 19th, 1895." This necessitates looking through many pages after the volume has been bound, whereas "British Medical Journal, 1895, vol. i, p. 121," is definite, and saves much time and trouble. In passing I would remark that "vol. ii, 1895," is not the same thing as "1895, vol. ii." The former refers to the second volume of a set, published in 1895, the latter to the second volume for the year 1895. Some authors mix these up and so cause confusion. The above remark as to the weekly journals will partly apply to some others. For example, the parts of *Brain* are numbered consecutively on the wrappers only; inside the part there is no mention of this numbering, so that in binding, the numbers on the covers disappear altogether. A reference, therefore, to the number of the part is often troublesome to find; volume and page are the proper things to be recorded in such a case as this.

In Transactions and Journals which do not run with the year, or which make more than one volume in the year, the number of the volume should always be given, as the date alone is no indication of the volume required. Thus, "*Path. Trans.*, 1886," is a bad reference, as both vols. xxxvii and xxxviii contain papers read during that year. The number of the volume is always to be preferred to the date; when space will allow it is well to give both. A word of caution may not be out of place as to inventing a numbering. This sometimes occurs with Journals which go by the year but which have no volume numbering. In binding the first year the binder calls it vol. i, and subsequent ones are numbered in continuation. A reference to the volume from a set so lettered causes trouble to persons using one lettered with

the year only. Binders should never be allowed to put on the back of a book any numbering which does not exist on the title page.

In books where there are two paginations care should be taken to state definitely to which the reference belongs. The *Comptes Rendus des Séances et Mémoires de la Société de Biologie* is an example; the *Comptes Rendus* being paged separately from the *Mémoires*. The following is a good illustration of this, British Medical Journal, January 25th, 1892, p. 104, it ought to be, British Medical Journal, 1892, vol. i, Epitome, p. 104.

It is an unwise plan to use an editor's name as part of a title, except in rare cases where it is useful for distinguishing between two nearly identical titles. As time goes on and editorial changes are made this kind of reference becomes troublesome. To this rule, as to all others, there are some few exceptions, the most notable, perhaps, being *Virchow's Archiv*. I saw a reference not long ago to *Macmillan's Journal of Anatomy*; in this case the name of the publisher has been added. The curious part of this is that Messrs. Macmillan gave up publishing the *Journal of Anatomy* ten years ago.

The question of abbreviation of titles is by no means an unimportant one. Hence we need some approach to uniformity; the full title of a journal is unnecessary, and greatly adds to the bulk of a book when there are many references. I do not think we could do better than adopt as a standard of abbreviation those used by Dr. Billings in the Catalogue of the Surgeon-General's Library. This book is available in every medical library; the system of abbreviation was well thought out, and has thoroughly stood the test of use. Proper abbreviation is not always as simple as it seems. "*Jnl. Anat. Physiol.*" looks very well, and at first sight seems to denote clearly what is meant. From this reference, however, it is quite impossible to say whether it is to an English, French, or German periodical.

In some foreign books care has to be taken in differentiating between the name of an author and the town where he lives. The "*Berliner Klinik*" has lately taken to add the town to the author's name, and print them like a compound name. Thus a paper is said to be by Dr. Peyer-Zürich; this only appears on the wrapper; inside the author is described as Dr. Peyer. The above case is perhaps tolerably plain, but there are others where one may easily fall into the trap.

Much might be written as to the incorrect quotation of references, but this is a matter on which it is impossible to lay down rules; nearly all writers grumble at the incorrectness of their brother authors, but very few seem to take much pains to be more correct themselves.

THE QUEEN OF PORTUGAL'S DISPENSARY AT LISBON.

By JOHN D. GIMLETTE, M.R.C.S., L.R.C.P.Lond.,
Lisbon, Portugal.

Her Majesty Dona Amelia, Queen of Portugal, stands foremost amongst the reigning sovereigns of Europe as a promoter of philanthropy and as a practical worker in the field of medicine. The interest taken by her in the treatment of diphtheria by the antitoxin method has already been noticed in the British Medical Journal. Through the kindness of Dr. Mello Breyner, Physician to Her Majesty, it was my recent privilege to visit the charming little dispensary at Lisbon, known by the name of "Dispensario de Sua Majestade a Rainha," which privilege was subsequently graciously extended by the Queen herself.

This building, like the "Gibert" Dispensary at Havre—described in the British Medical Journal of January 12th—is devoted to the treatment of diseases of children. The dispensary is personally managed by the Queen, who is accustomed to visit it regularly and to assist in the dressing and treatment of surgical cases. On the occasion of my visit Her Majesty arrived in the early morning, attended by a maid of honour, and prepared to attend to the wants of the many starving sick Portuguese children assembled. Her gentle solicitude and ready sympathy to both children and mothers at once won the heart.

It is scarcely possible to exaggerate the wretched circumstances of the 2,000 children who have attended the dispensary since its inauguration on Christmas Day, 1893. The object of the institution—the only one of the kind in Portugal—is not only to satisfy the needs of children under 12 years of age in a medical sense, but to provide them with food, warm clothing, and baths.

The building, which has a very modest exterior, is at Alcantara, the chief centre of the manufactories of Lisbon, and is close to the Palace of Necessidades. It stands in a small garden, which serves as a playground for children in front and as a kitchen garden behind, while its windows command a magnificent view of the river Tagus. The entrance door opens from the garden into a waiting room, which is paved with tiles and provided with benches capable of seating about 50 persons. This communicates with the kitchen, which again opens into a light and airy dining room to accommodate 100 children, to whom free dinners of soup, meat, rice, etc., are given twice a day. Sterilised milk is also supplied. A small and richly-painted figure of the Virgin above the door of this room, as well as a finely-carved crucifix, serve as appropriate and natural ornaments for such an institution in this country.

The patients are received in a small, well-appointed consulting room on the first floor. A waiting room, provided with a balcony and with separate doors for entrance and exit, opens into the consulting room on one side and on the other into a well-lighted and ventilated casualty room, which is one of the largest rooms in the building. It is floored with concrete and the most perfect cleanliness is enforced. Two small operating tables of metal are fixed at either side, and facing one of them is a complete apparatus both for the sterilisation of surgical instruments and for the distillation and sterilisation of water. A tripod for the application of plaster-of-paris jackets to the spine, a screen, and the necessaries for antiseptic and simple dressings, douches, etc., complete the furnishings of the room. Surgical operations which do not require hospital treatment are performed here as well as dressings.

Adjoining is a small but well-equipped apothecary's department. The remaining apartments consist of a room fitted with baths and supplied with gymnastic apparatus, a small office, a pantry, and wardrobe. The sanitary arrangements, water supply, and ventilation are very good, and a carriage, provided by the Queen, is at hand to take such patients as require careful conveyance to their homes.

The honorary professional staff—Dr. Carvalho, who is the Medical Officer of Health for Lisbon, and Dr. Mello Breyner, a Court Physician—visit the dispensary on alternate days of the week.

Scrofula, chronic tuberculous disease of bone and joints, and ophthalmia form the bulk of the diseases treated. During the last year 500 successful vaccinations had been performed.

The nursing staff is under a trained sister of charity, who is assisted by eight others as well as by the ladies who bear the Queen company on her daily visits. It is little wonder that this small institution with its efficient staff of medical men and trained nurses, headed by a gracious and kindly Queen, has proved an unmistakable success, and the spirit of love and goodwill displayed in its management is by no means its least pleasant feature.

Medical Men in Political Life.—According to the *Journal of the American Medical Association* there is only one instance in the history of the United States of a political office of cabinet rank having been held by a member of the medical profession. Dr. Oliver Wolcott, of Connecticut, was appointed Secretary to the Treasury in succession to Mr. Alexander Hamilton, on February 3rd, 1795. The President at the time was General Washington. Dr. Wolcott retained his office under President Jefferson, and he continued to do so until May, 1800. Dr. Wolcott had served with great distinction in the War of the Revolution, and had risen to the rank of Brigadier-General.

Presentation.—Mr. Samuel Alexander has, on the occasion of leaving Bulwell to take up practice in London, been presented by his friends with a gold watch and chain and purse as a mark of their esteem. Mrs. Alexander was presented with a silver teapot.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

CASES TREATED BY DR. KLEIN'S ANTITOXIN.

General Hospital, Birmingham.

Drs. John Steed and W. A. Marris, House Physicians, send the following reports:

Case I.—C. S., male, aged 11, first seen December 17th, 1894, when the temperature was 101°, and there was a good deal of snuffling in the nostrils, but the throat was not involved. On December 22nd and 23rd snuffling continued, and membrane was distinctly formed in the nose. On December 24th a patch of thick white membrane, round in shape and the size of a shilling, was seen on the right tonsil. Antitoxin (3j) was injected at 3.30 P.M. The temperature rose from 102° to 104.2° the same evening, and the pulse increased from 112 to 120. On December 25th the nose was much clearer and the general condition was improved. On December 26th, further improvement was noted; the rest of the membrane was gone. On December 27th a small patch of membrane was seen on the left tonsil, and the patient was very drowsy. On the 28th there were four patches on the left tonsil; the lips were swollen, and there was swelling in antrum of the right upper jaw. Antitoxin (3j) was injected at 1.30 P.M. The temperature rose from 100° to 103 1°, and the pulse from 108 to 120. The same evening the general condition was better. On December 29th the general condition improved; the nose was clearer, the patches on the tonsil almost gone. On December 31st patient seemed suddenly to collapse at 1 A.M.; the temperature fell from 101.2° to 97°, and the pulse became very rapid and feeble. He never rallied, and died about midday. The heart had been weak all through; there was no albumen in the urine.

Case II.—H. O., male, aged 2 years 2 months, admitted February 21st, 1895. Father states the child "had a cold" on the 19th, and on the 20th seemed worse, with bad breathing, "sore throat, and bronchitis." On the 21st he was seen by a doctor, who sent him to the hospital for tracheotomy. On admission there was marked cyanosis, dyspnœa, and retraction of the epigastrium and ribs. Pulse fair. The tonsils were red and swollen, as well as the whole of the fauces, and on the left tonsil was a patch of membrane. He was taken straight from the surgery to the theatre, and tracheotomy performed without an anæsthetic. After the trachea was opened and respiration had recommenced there was still much cyanosis, and the pulse failed a good deal. Antitoxin (3ij) was injected as soon as the child reached the ward. He had a restless night, and coughed up a little mucus. On the 22nd there was no cyanosis or retraction. The tonsils and fauces were still red, and there was some membrane on the left tonsil, and a large gland beneath the angle of the left jaw. In the evening a cylindrical cast of the trachea, 1½ inch by 2 inches long, was coughed through the tube. Difficulty in breathing continued in spite of this. The breath sounds over the right chest were almost absent. The left lung showed numerous loud crepitations. On the 23rd the child died, at 9.30 A.M. There was occasional retraction and dyspnœa, and the pulse gradually failed. Cultivation from the fauces showed Loeffler's bacillus. On *post-mortem* examination much membrane was found in the trachea and bronchi, some pneumonia, and collapse of lung.

Case III.—M.A.H., aged 7, admitted December 4th, 1894. She had been ill about 24 hours, and the symptoms had progressed rapidly from the onset. Pulse 160, respiration 32, temperature 99.8°. There was considerable dyspnœa, but no marked sucking in of the supraclavicular structures or lower ribs; no membrane was seen in the throat, but the fauces and pharynx were much swollen and reddened, and the tonsils appeared ulcerated. There was no evidence of bronchitis or pneumonia. Pulse fairly good. The patient was treated with tr. ferri perchlor. in 10 m doses with glycerine and also with vin. ipecac., but no relief following tracheotomy was performed about two hours after admission. Very little relief followed and the child was very bad for some hours. On December 5th she was breathing easily but very restless. At 12.30 P.M. antitoxin (3j mxv) was injected. Membrane was present on the anterior pillars of the fauces on both sides, chiefly on the right. There was some reaction, which commenced after two hours and continued for two more hours, after which the temperature fell to normal slowly, the pulse to 120, and respiration to 16. The patient continued restless but the breathing was easy. There was a considerable increase of the faucial membrane on the 6th, and antitoxin (3j) was again injected followed in three hours by a rise of pulse rate to 130, respiration to 24, and temperature to 101.4°. The breathing, however, became more embarrassed and the patient died at 1 A.M. on the 7th. *Post mortem* the trachea and bronchi were found to be almost blocked by membrane. There were patches of commencing broncho-pneumonia. No bacteriological examination was made.

Case IV.—A. G., aged 2 years 10 months, admitted December 7th, 1894, with "sore throat." She had been unwell for six days. Two days before admission her mother had noticed white patches on the throat, and there had been some difficulty in breathing. On admission there was no dyspnœa, but respirations were rapid, 36 per minute, pulse 112, rather irregular, temperature 99.6°. The lungs and heart were healthy; the throat showed slight general congestion, both tonsils were covered with an extensive yellowish white membrane extending on the left side to the posterior pillar of the fauces; there was no membrane on soft palate or pharynx. Antitoxin (3j mxv) was injected at once, and in addition mist. spirit. vin. gallici was given. No reaction followed the injection, but the pulse became regular after a few hours. On December 8th the membrane appeared loose, and some had become separated from the left tonsil; pulse 70, respiration 30, temperature 99.4°. Culture from throat showed well marked diphtheria growth and bacilli with spores. On December 9th there were only a few isolated patches of membrane on the left tonsil. There was no change on the right. Occasional crepitations were heard at the bases of both lungs. On December 10th the membrane was nearly all gone from both tonsils, leaving the fauces much congested. The urine gave a very faint haze of albumen. On December 11th there was no membrane left, the child was sitting up and playing. On December 13th she was practically well. This was a very mild case, and the patient showed no bad symptom while under observation. The growth from the cultivation was very profuse.

Case V.—Aged 10 years, admitted March 25th, 1895. Had been ill for twelve days. The illness commenced with sore tongue and mouth, and several teeth had come out. The night before admission the breathing became noisy and difficulty. On admission there was a grey fœtid membrane round the teeth and over the soft palate and tonsils. The tongue was much furred. There were marked dyspnœa, with retraction in the neck and the lower ribs. Antitoxin (3j) was injected, and tracheotomy was performed. On the following day the patient was very comfortable. The tube was removed on the sixth day, and on the ninth day all membrane was gone. On the thirteenth day a rash appeared over the lower part of the abdomen and legs, consisting of pink spots, discrete at first, but becoming confluent and disappearing on pressure. This rash had quite gone by the following day. No growth of diphtheria bacilli could be obtained from cultivations. The case, which is still under observation, appears to have been one of stomatitis, later affecting the larynx.

Oxford City Hospital.

Mr. Alfred Winkfield sends the following further report:[1]

Case XI.—L. P., a girl, aged 8 years, had complained of sore throat for one day. On admission on February 12th there was slight glandular swelling on both sides of the neck; no discharge from the nostrils; temperature 98.2°, pulse 136. There were small patches of membrane on both tonsils. Antitoxin (6 c.cm.) was injected between the shoulders at 9.30 P.M. On February 13th she had slept well and complained of very little pain; her throat looked clearer; no albumen in the urine; the temperature, which had been 100.4° in the morning, sank during the day to

[1] See British Medical Journal, March 30th, p. 722, and April 13th, p. 833.

normal; liquid nourishment was taken freely. On February 15th there was no membrane about the tonsils, no glandular swelling, and the child was much brighter. On February 21st she had an urticarial rash about the back, arms, and legs, which became more marked on the following day, but had faded by the 24th; no rise of temperature, no albuminuria. On March 7th a fresh patch of membrane appeared upon the left tonsil; there was no swelling about the neck; temperature 98.2°. A small patch of membrane could be seen also upon the right tonsil on March 8th; she was drowsy and did not take nourishment so readily; temperature 99.6° at 8 A.M.; no albumen in the urine. The throat was quite clear on March 10th, from which time she steadily improved, and was able to go out of doors on March 30th. Dr. Ritchie reports a few bacilli diphtheriæ found in the growth made from membrane, and a number of staphylococci and some streptococci.

Case xii.—C. S., a boy, aged 8 years, was taken ill on February 12th with sore throat and sickness. On admission at 4 P.M. on February 13th his breathing was noisy and slightly laboured, with some tucking in of the intercostal spaces. He had an occasional cough of a croupy character. Temperature, 100.2°; pulse, 104; respirations, 32. There was greyish membrane right across the throat, including the uvula; and slight glandular swelling at both sides of the neck. Antitoxin (10 c.cm.) was injected between the shoulders at 4.10 P.M. On February 14th he had passed a restless night, sleeping very little; his cough was more croupy and frequent. Shortly after 8 A.M. his breathing became distressed and his face blue. Tracheotomy was performed at 8.30 A.M., and the breathing was immediately relieved. Several pieces of membrane were coughed through the Durham's tube. Antitoxin (7 c.cm.) was injected at 9 A.M. The boy had a comfortable day. Antitoxin (3 c.cm.) was injected at 6.30 P.M. On February 15th he had slept well during the night, and his breathing had been easy. Large pieces of membrane and a quantity of mucus were coughed through the tube. No albumen in the urine. Temperature varied between 98.8° and 101.8°. Antitoxin (5½ c.cm.) was injected at 7 P.M. On February 16th the throat was clear of membrane. Antitoxin (5 c.cm.) was injected at 8.40 A.M. It was frequently necessary to remove the tube and insert dilators, the membrane becoming loosened in such large pieces as to completely block the end of the tube. Antitoxin (5 c.cm.) was injected at 6 P.M. On February 17th there was still more membrane coughed up. The urine was slightly albuminous. Temperature, 100°. On February 18th the tube was left out, and the child was very comfortable; a trace of albumen in the urine. On February 19th his temperature was normal; the urine free of albumen, and the breathing easy. On February 24th the boy was steadily improving, the wound in his neck had healed. Urticaria appeared about the back, legs, and arms. The rash had faded on February 26th, and he was subsequently discharged quite well. Dr. Ritchie found B. diphtheriæ and many streptococci in the membrane.

Case xiii.—F. H., a boy aged 6 years, had been ill for three days. On admission on February 15th his glands were enlarged both sides at angle of jaw. Temperature 99°, pulse 128. There was a slight discharge from the nostrils. Membrane could be seen upon both tonsils and the uvula. Antitoxin (8 c.cm.) was injected between the shoulders at 7 P.M. On February 16th he had slept well during the night. The membrane had not spread. Temperature 99.4° at noon. No albuminuria. Nourishment taken freely. On February 17th the throat looked decidedly clearer; there was no discharge from the nostrils; the glandular swellings were subsiding. The throat was quite clear of membrane on February 19th. Temperature subnormal. No albumen in the urine. The child from this time rapidly recovered. Dr. Ritchie found diphtheria bacillus, streptococcus and staphylococcus in the membrane.

Case xiv.—G. H., a girl, aged 4¾ years, was taken ill on February 15th with sore throat, etc. On admission on February 16th there was slight discharge from the nostrils, and the glands were enlarged at both sides of her neck. Temperature 99.2°, pulse 124. Both tonsils were swollen and covered with membrane; there was also a patch on the uvula. Antitoxin (5 c.cm.) was injected between the shoulders at 6 P.M. On February 17th she had slept well during the night, and her throat was beginning to clear. Temperature normal. No albuminuria. On February 19th the membrane had cleared from her throat, and she was sleeping and taking food well. There was a small deposit of albumen in the urine. On February 20th the swellings in the neck had subsided. A trace of albumen was found in the urine. On February 21st the urine was normal, and the child rapidly recovered. Dr. Ritchie found diphtheria bacilli, streptococci, and staphylococcus pyogenes aureus in the membrane.

Case xv.—A. W., a boy, aged 16 months, had been suffering from bronchitis for six weeks. Three days previous to admission he had some difficulty in swallowing and breathing. On admission on February 23rd the temperature was 100.4°, the face pale, lips blue, and extremities cold. His breathing was distressed, with much tucking in of the intercostal spaces. There was a copious thin discharge from the nostrils, and his breath was very offensive. Both tonsils were much inflamed and swollen, and it was impossible to obtain a good view of the throat. The glands were enlarged, at angle of jaw, on both sides. Tracheotomy was performed at 9.15 P.M. and a Durham's tube inserted. His breathing became easier, and a little mucus and some small pieces of membrane were coughed up. Antitoxin (10 c.cm.) was injected at 9.40 P.M. On February 24th he had passed a very restless night, tossing about incessantly; after 2 A.M. the breathing was laboured, and he was unable to cough. There was some diarrhœa and albuminuria. His breathing was not relieved when the tube was removed, but became gradually worse until he died at 2.50 P.M.

CASES TREATED WITH ANTITOXIN OBTAINED FROM THE BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

Surgeon-Major E. O. Wight, A.M.S., sends the following report:

W. F., a girl, aged 5 years 7 months, on February 14th, had convulsions, and on the evening of the 15th complained of her throat. When first seen by me on Sunday 17th there was a thin grey membrane covering the uvula and anterior pillars of the fauces. On the 18th the membrane had become thicker and darker; there was great difficulty in breathing and great prostration; the bowels were confined; the pulse was dichrotic and the submaxillary glands were swollen. The urine (specific gravity 1032) contained about half albumen, reaction slightly acid. On the 19th antitoxin was procured, and 10 c.cm. were injected. The temperature fell at once from 100.4° to 99.6°, the pulse became quieter, respirations 30. The injections seemed to have a sedative effect, and the child slept after it. At 6 P.M. the temperature had risen to 101.4°, pulse 130, respirations 32. On the 20th the membrane appeared much thinner and transparent in places; the uvula was less swollen, so that the back of the pharynx could be seen. The breathing was much easier. Temperature 99.3°, pulse 116, respirations 20. Antitoxin (10 c.cm.) injected. In the evening the temperature had again risen to 101°, and the pulse was very weak, so I ordered ℥j doses of whisky. On the 21st the child looked much better, having slept well. The membrane was rapidly disappearing, and also the swelling of the fauces and submaxillary glands. On the 22nd only one small patch of membrane remained at the tip of the uvula, and the swelling had nearly all gone. The pulse was very soft and weak, but the child looked fresh and bright, took her food with relish, and asked to get up. The urine contained about one-third albumen. Temperature 99°. On the 23rd the temperature was normal. From this point recovery was uninterrupted. On March 1st the urine was free from albumen.

After injecting the serum other medicinal treatment was discontinued with the exception of ℥j doses of whisky, given on account of the weak pulse. Later on, during convalescence, chlorate of potash and bark was given. No rash appeared after the injection. Up to the present, March 19th, there is no sign of post-diphtheritic paralysis.

A piece of the false membrane was sent to the British Institute of Preventive Medicine, where the bacillus diphtheriæ was isolated and the diagnosis was confirmed.

CASES TREATED WITH ANTITOXIN FROM OTHER SOURCES.

Mr. W. Woodley Stocker, M.R.C.S.Eng., L.R.C.P.Lond. (Willesden Green), sends the following report:

On April 2nd I attended A. F., aged 5. He had been feeling ill three days. I found the tonsils much enlarged, somewhat pale, and no membrane visible. He was breathing 60 per minute, and seemed to have obstruction at the larynx. No membrane could be seen, although the epiglottis was visible. The cervical glands were swollen. Temperature 99°, pulse 120. I prescribed liq. ferri perchl. and sod. sulphat. The next day the patient was worse, and asphyxia was more marked; temperature 100°. I injected between the scapulæ 20 c.cm. of antitoxic serum obtained from Messrs. Burroughs, Wellcome, and Co. Albumen was found in large quantities in the urine. On the third day he breathed more freely; the temperature was 103°, but the patient said he felt better; the phlegm seemed very loose. I injected another 10 c.cm., making 30 c.cm. in all. On the fourth day the boy was much better, and was taking nourishment freely; temperature 101°, respirations 48, pulse 120. On April 7th I saw him at 10 A.M., when the temperature was 101.1°. The child said he felt much better. He had coughed up a quantity of thick whitish sputa resembling membrane; pulse 120, respirations 64. At 1 P.M. the boy suddenly died before I could be summoned, probably from syncope. The diagnosis was verified by Dr. Lake, of Harley Street, by bacteriological examination. The serum was used pretty early in the case—the second time I saw him, and a considerable dose was used. The effect it had seemed to be spent in loosening the membrane, but as the bronchial tubes were choked it does not seem to have been so useful in this case as when the trachea and larynx only are affected.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XLIV.—AXMINSTER, DEVONSHIRE.

Axminster used to be the home of the carpet weaving trade, but the carpets which bear that name are not now made here; the factory is appropriated to another use, and the bulk of the population within the union is agricultural.

The Workhouse,

standing on the outskirts of the town, is well placed on a hill, and commands a fine view over beautiful Devonshire country. It is built partly of the grey stone of the locality and partly rough-cast. It dates from 1836, and is licensed for 430 inmates, 117 being in the house when we visited. From these numbers it would appear that the house is amply large enough; 136 is the largest number that has sought its shelter of late years.

The Sick and Infirm

are lodged partly in the house and partly apart from it; there is one ward on the ground floor for the infirm old men who cannot go upstairs; on the first floor are two wards for the male patients, and above these wards is the dormitory for the able-bodied men. The female patients are in a two-storeyed wing built out from the main building, and reserved entirely for the sick. There are twelve beds in each large ward, and the small male ward has five beds, twenty-nine in all for the sick, without including the ground-floor ward for the infirm male patients. The staircases are such as ought not to be tolerated in a place for the sick and infirm; they are narrow and winding, some of them being of stone and some of wood.

We cannot praise the wards; they are crowded and destitute of comfort, the bedsteads narrow and low, the red quilts much too heavy; the windows are small and placed high in the wall, and, as ventilators are inconvenient, the whole window turns on a pivot, and has a bar to fix it open. The walls are colour washed; the seats for the old people are chiefly benches; there might have been one or two armchairs, but those who were very weary had to lie on their beds. The fireplaces (one to each ward) are open; the lighting is by oil lamps. The old men's ward on the ground floor is a dreary place; it has brick walls (colour washed) and small windows, and is quite without comforts.

The Patients

are all mixed without any attempt at classification; there were some imbeciles in the infirmary, and a boy with bad epilepsy. There is no children's ward, and we saw no wards that could be used for isolation. Among the able-bodied there is a ward where the imbeciles sleep, and this represents the only attempt at classification. There were three women in bed—a case of paralysis, one of old age, and the third rheumatic. One poor creature, who weighed 18 stone and was paralysed, was out of bed. There were about nine patients in this part. On the men's side there were eleven patients in all, of whom four were in bed; one an old man who wore his hat day and night, a harmless eccentricity in which the master indulged him, one with rheumatism, the epileptic boy, and a case of paralysis. These were in the two first floor wards, and there was the usual listless group seated on benches round the fire.

The Lying-in Ward

is on the second floor in the main building; it is a single room with four beds, and was occupied by two patients. The room is of fair size, but badly ventilated; not a single window was open when we went into it. The patients were in charge of an inmate. The midwife who attends the confinements lives in the town, the infirmary nurse being responsible for the ward. There is an open fireplace, and the room was warm but airless. There are no offices.

Sanitary Appliances

do not exist in this house, there are no closets inside, nor any conveniences for the sick other than the commodes in the wards. No water is laid on for the sick wards, and the slops, etc., have to be carried down to the yard, and hot water is carried from the house kitchen. There are no baths, sinks, or any such accessories to cleanliness. The appearance of the patients did not suggest the idea that soap and water abounded, and who is to blame? We saw one bath in the house near the imbecile ward, to which cold water is laid on.

The Nursery

is on the ground floor, a wretched stone-paved room, with small windows, benches, and a wooden cradle or so, no toys, pictures, or anything for the infants' amusement. The infants are in the care of a pauper, herself the mother of illegitimate children. The mothers are responsible for the feeding of their infants, and they take them at night to sleep with them.

Some Cases of Measles

were being nursed in the receiving wards at the front of the house; the children were in the care of their mother, an inmate. This practice can hardly be too strongly condemned; measles may be a mild disease, but it may on the other hand entail permanent delicacy, and this will depend very much upon the nursing, and it is therefore essential that efficient and responsible nurses should have the care of children with measles.

The Infirmary Nurse

has had experience in infirmary nursing, but she is not a midwife. She works single-handed with the usual pauper helps, and there is no night nurse. There are bells from the wards to her room, and if further assistance is wanted at night a messenger is sent for the doctor, who lives close to the workhouse.

The Diets,

the matron informed us, were varied for the sick as much as possible. The cooking is done by a pauper under her superintendence. She minces the meat for the old people or gives them puddings, and the doctor orders them extras. There is no night feeding, and the last meal seems to be served at 6 P.M.

RECOMMENDATIONS.

We were struck with the want of adaptability in the sick department; the space allotted to this purpose was crowded; there appeared to be no room for making the necessary offices, or for building the separation wards. Under these circumstances, it would seem to be the best policy to build a small infirmary, with a good supply of light and air, and all appliances necessary for the nursing of the sick. An immediate and pressing necessity is the construction of earth or water closets; the present state of things in the wards is not decent. The question of nursing must soon come to the front, and then we suggest that a trained nurse be engaged, who shall possess the midwife's certificate; but before that is done, we suggest that the present nurse have an assistant, who should take some of the night nursing.

WORKHOUSE GARDENS.

IN reading the reports on the country workhouses furnished by our Commissioner we have frequently noted incidental allusion to the large amount of ground cultivated by the guardians. As acres and acres of kitchen gardens seem to surround the workhouses the supply of fresh vegetables for the inmates is neither so difficult nor so expensive as in the towns. What becomes of all the green stuff that is grown by the paupers? Of its use as a valuable article of food we have no need to speak, but we may suggest to the medical officers whether they might not more frequently place fresh vegetables on the diet sheet of the infirmary and workhouse, knowing that an ample supply is at the door. We have had opportunity of seeing several dietaries, and we have been struck with the absence of fresh vegetables as an alternative to potatoes, especially in the case of the children. We trust that the hint may be taken, and that the medical officers will ask for a more liberal use of this useful and palatable article of food for the inmates.

WREXHAM.

We note with satisfaction that the inspector (Mr. Bircham) has been making valuable suggestions for the improvement of this infirmary. On referring to our Commissioner's report (August 4th, 1894) it will be seen that though the officials made the most of the materials and the building, still the efficient nursing of the sick was impossible. The nursing staff was too small, the wards did not admit of classification and were crowded, the airing courts were dreary, there was no accommodation for nursing the children, and the gravest defect of all there was no night nurse. The guardians, as evidenced by the style of the house, are liberal-minded in their policy, so we feel sure that they have but to have these matters placed before them to set to work to find a remedy.

PUBLIC HEALTH AND POOR RELIEF IN SCOTLAND.

THE forty-ninth annual report of the Board of Supervision for the Relief of the Poor and of Public Health in Scotland, 1893-94, has a certain pathetic interest as being the last report of the Board of Supervision, which under the provisions of the Local Government Act, 1894, "ceased and determined" on September 26th, 1894, and gave place to a new body under the style and designation of the Local Government Board for Scotland. The report closes, appropriately enough, with the incorporation of a valedictory letter from the Secretary for Scotland, in which he gives expression to his appreciation of the energy and public spirit with which the Board has discharged its functions, and indicates in general terms the necessity laid upon the Government of "placing the administrative department which has most to do with local affairs upon a basis more consistent with recent legislative precedents." The new department differs from the old in two essential particulars: it has been placed under the direct control of Parliament, and is officially represented there; and by the appointment of a medical member it has received an infusion of the medical and scientific spirit, the absence of which—indeed, it might almost be said the antagonism to which—was the principal defect of the old Board. In future reports it is anticipated that the subject of public health administration will be more adequately dealt with.

In respect of Poor-law administration the report repeats an oft-told tale. The decline in the number of persons in receipt of poor relief which began in 1869 continues, so that while in 1868 1 person in every 24 of the population was in receipt of relief, the proportion had fallen in May, 1894, to 1 in 44. On the other hand, the cost per head has increased markedly in the course of the last twenty years from £7 12s. in 1875 to £9 11s. in 1894. The number of registered lunatics continues to increase both absolutely and in ratio to the population. There was one registered lunatic in every 565 of the population in 1868; in 1894 the proportion had risen to one in 362. It is interesting to note that while the expenditure per head of the population in connection with the relief of the poor and lunacy has slightly risen—from 4s. 3¾d. in 1885 to 4s. 4¼d. in 1894, the rate, in consequence principally of the receipt of imperial subventions, has fallen from 3s. 10¾d. per head in 1885, to 3s. 7d. in 1894. It is gratifying to find that as many as 84 per cent. of orphaned children were boarded out, either with relatives or in private families.

In the department of Public Health the Board report that, owing to the prevalence of cholera on the Continent they found it necessary to maintain an attitude of vigilance. Part III of the Public Health Act was continued in force during the year, together with the various directions and regulations issued by the Board in the previous year. With a view to allaying the natural apprehension in the public mind on the occurrence of cases suspected to be cholera, and in order that if cholera were really present the precautions demanded by local authorities should secure a ready acquiescence, the Board made arrangements for the bacteriological examination of the intestinal contents in suspicious cases. The result of a general inquiry as to whether in seaboard districts proper hospital and other arrangements had been made in face of the emergency is stated to have been satisfactory, a statement which bears witness to the optimism of the Board.

In one case, during the year under report, the Board found themselves driven to resort to the limited disciplinary powers conferred upon them, by the archaic Public Health Act of 1867, for dealing with recalcitrant local authorities, and the authorities of the ancient and royal burgh of Lochmaben were required by an order of the High Court, at the instance of the Board, to provide a proper supply of water for that burgh.

The circumstance that application was made to the Board, mostly by rural local authorities, for the approval of plans for the erection of twenty isolation hospitals, may be taken as evidence of the activity of the new local authorities constituted under the Local Government Act.

Considerable space is devoted to details in connection with the operation of the Infectious Diseases Notification Act in Scotland. It appears that the Act has been adopted in 90 rural and 92 burghal districts, the population of which, added to those of the towns in which the system was already in operation under local Acts, amounts to 3,539,823 out of a total population of 4,025,647; 20 local authorities have added measles to the list of notifiable diseases, and 5 both measles and whooping-cough.

The report furnishes a statement of the cases notified under the Act and of the deaths from notifiable diseases, which is of considerable value as embracing a total of over 46,000 cases. From this we learn that the fatality-rate from small-pox during the year was 7·3 per cent., diphtheria 25·8, "membranous croup" 55·8, erysipelas 3·8, scarlet fever 3·9, typhus 10·2, enteric fever 11·3, "continued fever" 9·9, puerperal fever 45·0, measles 5·5, whooping-cough 26·0.

Further evidence of the activity of the new rural authorities is furnished by the circumstance that, of £217,540 of capital expenditure incurred by local authorities during the year, £111,611 arose in connection with works of water supply by county authorities, as compared with £29,405 in burghs; £23,346 for sewerage works, as compared with £10,432.

Altogether the report yields interesting indications of a general advance in sanitary administration over Scotland.

THE death occurred on April 14th of Mr. George H. Strutt, J.P., D.L. of Belper, who recently presented to the Derby Royal Infirmary the Susan Strutt Ward at a cost of £13,000.

H.R.H. Princess Christian visited Iver on April 17th, and opened an Art and Needlework Exhibition in aid of the Iver, Langley, and Denham Cottage Hospital.

OYSTERS AND TYPHOID FEVER.—Dr. Henry Clothier, the medical officer of health for Hornsey, reporting upon the health of the district for the past year, says: Typhoid fever has been more prevalent, 40 cases compared with 25 for 1893. Several of the cases had been imported, and a few more undoubtedly due to eating infected oysters.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 20th, 1895.

ON THE SPREAD OF CHOLERA BY MEANS OF OYSTERS AND SHELL-FISH.

Very shortly after we had commenced to issue our series of articles on the subject of the conveyance of certain water-borne diseases, especially typhoid fever, by means of the consumption of oysters and other molluscs it was announced that an inquiry had been decided on by the Medical Department of the Local Government Board into the conditions under which oysters and other shell-fish were cultivated and stored around our coasts. And it was stated that this action was about to be taken because of a report which Dr. Thorne Thorne had submitted to the President of the Local Government Board as to the circumstances under which cholera had occurred, and was distributed throughout certain portions of England, during 1893. The evidence which was before us, notably as to typhoid fever, and the evidence before the Local Government Board, notably as to cholera, had thus led at about the same date to inquiries which must of necessity cover much the same ground. Our evidence, largely published in the British Medical Journal, is now well known; and the issue of the report of the Medical Officer of the Local Government Board on "Cholera in England during 1893" now supplies us with the grounds on which the official inquiry has been instituted.

Dr. Thorne shows in his report that, taking Grimsby and Cleethorpes, at the mouth of the Humber, as the apex of a triangle, the sides of which pass through York and Leicester respectively, those lines include thirty-four of the fifty places attacked by cholera in England during the year in question. He next shows that no fewer than 235,721 excursionists visited those two seaside places in the period May to October, 1893, for two months of which cholera was prevalent in them; and it further appears that the consumption of oysters and mussels at these places is common amongst the excursionists, who also take some of the molluscs away with them. The report next points to the large oyster trade carried out at Cleethorpes and Grimsby as a centre, one firm alone distributing during the season as many as 400,000 oysters per week all over the country; and it also refers to the fact that in a number of the cholera attacks in England the antecedent history of the sick involved either the consumption or the reception at their homes of oysters or other shell-fish which had been procured at or derived from Cleethorpes and Grimsby.

The facts as to the cases are comprised both in a covering summary report and in further detailed reports by several members of the medical staff of the Board. From these we gather histories such as the following: (1) A fatal case regarded as cholera occurred at Lincoln. The patient went to Grimsby and Cleethorpes on July 29th and returned on August 5th. She went again to Cleethorpes on August 8th, and returned the same day, bringing oysters home with her. She was seized with her fatal illness on August 9th. (2) A woman was seized with illness on August 24th and died within a few hours. Clinically and bacteriologically the disease was shown to be cholera. She was one of a party who had spent the preceding day at Grimsby and Cleethorpes, and she alone of the party had eaten oysters on the Cleethorpes sands. (3) A patient at Bradford was seized with symptoms of cholera on September 3rd and died next day. In his house mussels were found which had been purchased from a Bradford dealer, amongst whose stock, which he stated had become "mixed up," was a consignment from Grimsby and Cleethorpes. (4) A woman at Mansfield was seized with cholera-like symptoms, which terminated fatally in ninety-six hours. A medical practitioner who had had experience of Asiatic cholera regarded the case as one of undoubted cholera, although the comma-shaped bacilli found in a portion of a stool were only deemed, bacteriologically, to be "suspicious" in type. This woman is stated to have been very fond of oysters, of which she obtained a quantity on September 4th.

We have purposely selected as samples cases in which the nature of the evidence bearing upon the communication of cholera by means of oysters varies in character and in force, and we have avoided cases occurring in localities where cholera already existed. But it can hardly be denied that multiplication of such cases in itself suffices to raise suspicion. The difficulty of identifying shell fish as necessarily coming from such beds as those at Cleethorpes was exceptional at the time in question; and we note in this connection such a case as that of a lad who died of typical cholera, and who was seen to have eaten a raw mussel; he lived next door to a cockle-shop. The cockles came from Lynn, but it was ascertained that the sale through Lynn was simply in order to hide their real origin from Cleethorpes, where cholera was known to be prevailing.

Suspicion having reached this point, the next question to be asked is whether the conditions under which the oyster and shell-fish trade of Grimsby and of Cleethorpes are carried out any way justify the allegation that has been made. For details as to this we turn to Dr. Reece's report on the cholera epidemic in those two places. As to the Cleethorpes oyster beds, reference is made to a map accompanying the report, from which it is seen that the outfalls of the Grimsby and Cleethorpes sewers are in such relation to the oyster beds that the incoming tide may wash back the sewage over the beds, and that the outgoing tide may lead to the deposit of sewage on them. As to Grimsby it appears that the oysters are kept in "floats" in the docks, and that in these floats they are even more exposed to contamination by reason of the Grimsby dock sewer outfall. The mussel trade, it is reported, is worked under practically identical conditions; the mussels adhere to the sewage pipes themselves, and they are stated to be even more exposed to sewage than the oysters. A cockle bed lies between the

Grimsby sewer outfall and the Cleethorpes outfall, where they are spoken of as being "exceptionally exposed" to sewage. But it is added that, unlike oysters which are eaten raw at "bars" where trippers congregate, cockles are not often eaten uncooked.

These and other points are discussed by Dr. Thorne, and we are bound to say that he does not exaggerate when, in view of them, he refers to the "significant indications afforded by some of the cholera histories" of 1893, and when he adds that shell-fish from the two places, whence cholera appeared to spread as from a centre, must remain under suspicion in connection with their local trade in shell-fish. Looking through the cholera histories in question we find that out of the total of sixty-four localities where cholera appeared in England during 1893, there was only one single attack in no less than forty-two places. This experience was well referred to by Sir Walter Foster in a recent speech as absolutely "unique in the history of cholera," and this the more because the attacks were clinically and bacteriologically true cholera; indeed, not far from 50 per cent. of them died. Dr. Thorne gives sanitary authorities and British sanitary administration some credit for this exceptional experience, and he also recalls the instant efforts made by medical inspectors of the Board to control the disease and to stay its diffusion. We would give full credit to both of these conditions. England, though retaining black spots which we deplore, has greatly advanced since the date of our former cholera experiences; and the organisation of the medical department of the Local Government Board had not only been matured and advanced to meet the emergency of 1893, but a staff was always kept ready for instant visit to each infected locality. But if oysters and shell-fish were, as it is evidently assumed, a means of conveying infection, that infection would tend to be more limited in its results than perhaps under any other circumstances. The disease was recognised in the one individual infected before it had had time to communicate itself through the ordinary channels, etc., such as water supply, sewers, contaminated soil, etc.; and its spread could be arrested with greater facility by a really vigilant authority than perhaps under any circumstances. This may form an element in explaining the large number of single attacks.

Reverting, in conclusion, to the general question, we would point out that no absolute conclusion is come to in the report, but that portion of it dealing with the question of shell-fish and the spread of cholera concludes with words which cannot be held to go beyond the inference which may properly be drawn from all the facts set out. They are as follows: "One thing is certain—oysters and shell-fish, both at the mouth of the Humber and at other points along the English coastline, are at times so grown and stored that they must of necessity be periodically bathed in sewage more or less dilute; oysters have more than once appeared to serve as the medium for communicating disease, such as enteric fever, to man; and so long as conditions exist, such as those with which the oyster trade of Cleethorpes and Grimsby is shown to be associated, conditions which may at any time involve risk of the fouling of such shell-fish with the excreta of persons suffering from diseases of the type of cholera and enteric fever, so long will it be impossible to assert that their use as an article of diet is not concerned in the production of diseases of the class in question."

POOR-LAW INFIRMARIES AND CLINICAL TEACHING.

II.

THE editorial article, published on January 26th, p. 211, on Poor-law Infirmaries and Clinical Medicine has elicited several interesting letters from correspondents, who have demonstrated that in some quarters at least attempts have already been made to give effect to the views put forward by us as to the public benefit to be derived from the utilisation of such institutions for clinical teaching. Dr. Cummins, for example, states that as long as nine years ago the wards of the Cork Union Hospital, with 1,200 beds, were thrown open to students, and that their aid is found to be invaluable at operations, the staff of the infirmary being limited to two visiting and two resident doctors. Dr. Felce reminds us that at the Paddington Infirmary several years ago both clinical and pathological lectures were given as part of a post-graduate course, and that in 1893 the guardians made overtures to a neighbouring medical school, the authorities of which were invited to make arrangements for giving instruction to senior students in the infirmary wards.

The present time may perhaps be considered a favourable occasion for reviving the question, inasmuch as the requirement by the General Medical Council of a fifth year to be devoted entirely to clinical study is already exercising the minds of the authorities in the various metropolitan schools, and it is not yet clear how such period can be most profitably spent. It is admitted that the regulation of the Council is wisely framed, and that it is one which the student, for his own profit, should carry out in the spirit as well as the letter. It is admitted also that many men, and those not altogether of the idler sort, find that at the end of four years the wards of their own hospitals have become stale, not to say unprofitable, and that they would welcome a change of clinical pabulum, for, however excellent the quality, monotony in diet breeds satiety.

Where, then, is this variety to be sought? It may be that we shall presently witness an amalgamation between some of the London schools standing on an equality as regards status and fees, whereby in their fifth year the students of one hospital will be free to attend the practice of any other hospital in the amalgamated group; and such a scheme would be welcomed by many of the profession, even if actually carried out only by two or three of the schools, as foreshadowing the day when a more complete union will take place between the competing institutions of the metropolis. Or again, where such amalgamation is at the present time impossible of attainment, some may think it expedient that the fifth-year student should be invited to seek "fresh woods and pastures new" in the wards of our Poor-law infirmaries; and it is upon the latter alternative that we propose to offer a few remarks.

In the first place it must be remembered that Boards of Guardians, like other mortals—not excepting the members of our own learned profession—have their prejudices. They are naturally suspicious of any movement which seems likely in its development to impair their authority over officers and inmates; they have a very imperfect sympathy with scientific medicine, under which phrase they think lies concealed a system of experimentation conducted

upon the patient, to whom the law places them *in loco parentis*. Some Boards have, as we know, already suffered much in their self-esteem from the presence at their meetings, and from the criticisms, of an injudicious matron, highly trained and too obviously contemptuous.

Where such an impression has been left in their minds, the guardians have an intelligible reluctance to the introduction of allied elements of disturbance, to which the advent of an independent visiting staff might give rise. For all these and many other reasons, apart from the question of expense, we think that the task of persuasion will not usually prove easy of accomplishment, though Dr. Felce, himself a guardian, has shown us how much may be done by a medical man in whom his colleagues on the Board have confidence. Moreover, the medical officer of the infirmary will sometimes have to be reckoned amongst adverse influences, and where he is popular with his Board it would be found almost impossible to introduce any reform to which he should offer strong opposition. Medical superintendents of infirmaries as a body would be more than human if some at least of them did not view with suspicion proposals which may possibly augment their burdens, already sufficiently onerous, and must, if carried out, in the long run diminish their powers and impair their professional supremacy in the wards. Nor must it be forgotten that before any large measure of reform is possible the sanction of the Local Government Board has to be obtained, and such sanction is not lightly conceded. Writing with some experience of Poor-law administration, we venture with confidence to say that no extensive modifications of existing methods will be generally accepted unless the Boards of Guardians throughout the country can be persuaded that the schemes suggested to them for clinical teaching will directly conduce to the benefit of the patients by giving them the advantage of greater individual attention, and by placing at their service the highest professional skill for purposes of treatment as well as of diagnosis. Hence we do not think that any plan by which the teacher goes into the wards merely to demonstrate selected cases, or to give instruction without prescribing, or at least being understood to have the opportunity for prescribing, will commend itself to the average guardian of the poor.

Assuming, however, that the guardians and the medical superintendent have been persuaded to accept the principle of throwing open their wards to students for the purpose of clinical instruction, we have next to consider who is to undertake the work, and on what terms; and here we are at once met with considerable difficulties. It may be urged that the medical superintendents themselves, many of whom possess high professional qualifications, should undertake the duties of clinical instructors, either gratuitously, or remunerated by fees of students. To this suggestion it is a sufficient reply that if a medical superintendent well and faithfully carries out the duties already imposed upon him, it is scarcely possible for him to find time for teaching by the bedside. Few of us realise the mass of administrative detail which crushes the professional activity of a medical officer in a London infirmary. In the words of the Local Government Order, not only must he "attend duly and punctually upon the paupers in the infirmary according to the necessities of their cases, and give the requisite directions as to their treatment, nursing, and diet, and the ventilation and condition of the wards in which they are placed," but he must "govern and control all the officers, assistants, and servants in the infirmary," and, in short, he must carry out single-handed, or with inadequate assistance, duties towards hundreds of patients which in an endowed or voluntary hospital of like size are considered to require for their due performance a large professional staff, ward clerks, dressers, house-governor or analogous official, and matron, with their numerous subordinates. To expect a medical officer, however zealous, to add to his task seems unreasonable, and we are confident that many Boards of Guardians would decline to allow their superintendents to undertake such additional responsibility. Moreover, it may be doubted whether students generally would attend the clinical teaching of infirmary superintendents, unless they should be compelled by regulation of the General Medical Council, as in the case of the Fever Hospitals. It is quite certain that they would decline to pay fees for such instruction. Nor will the medical schools pay the superintendents directly out of their funds, at least as long as they can arrange for clinical instruction in the wards of their own hospitals.

A second suggestion is that the students should be provided with "a teacher of the highest standing, such teacher to receive an adequate fee." But we may ask how many teachers there are in London recognised as of the highest standing who are not already on the staff of a hospital, and generally of a medical school, and what chance there is that such a teacher as a regular proceeding would be willing to travel down to an infirmary to give clinical instruction, and whence is the adequate fee to be obtained?

There is yet another suggestion, that a clinical teacher chosen from among the staff of some neighbouring hospital "should be authorised by the guardians to bring his class at stated times, and give his explanations assisted by the medical officer of the infirmary, and that some of the students should attend at the infirmary to give assistance, unpaid, in dressings." We have no knowledge of the reasons why the authorities of St. Mary's Hospital, when the suggestion was made to them, declined to ally themselves on these terms with the Paddington Infirmary; but it may easily be imagined that the senior staff, at least, felt that they already gave as much clinical teaching in the wards of the hospital as they were disposed to undertake, and that the time of the junior staff was so fully occupied in the out-patient department and in the work of teaching that they could not make themselves responsible for instruction which, like the assistance of the students above mentioned, would no doubt have been unpaid.

As long, in fact, as a medical school has enough beds in its own hospital for the instruction of its students, there is little inducement for the medical and surgical staff to avail themselves of neighbouring infirmaries for bedside teaching or to undertake the treatment of pauper patients. The seniors do not wish to leave their old haunts; the juniors usually have their hands full with out-patient work and teaching appointments; and, even if the clinical teaching at the neighbouring infirmary fell into the hands of the assistant staff, difficulties might possibly arise if it should appear that senior students deserted the hospital in any great numbers for the infirmary. As long as the opinion prevails that the existing opportunities for clinical study in the metropolis are sufficiently abundant — and, if other

centres of medical education are taken as a standard, there is no doubt that such is the fact—so long will there be little incentive for the hard-worked staffs of the medical schools to go further afield in pursuit of additional gratuitous work.

What, therefore, Miss Twining and those philanthropic persons who share her views have to do is to continue their efforts to open the eyes of the public, and of the guardians who represent the public, to the advantages which would result to the poor from managing the infirmaries upon the lines of the general hospitals, with an honorary visiting staff of consulting status, and an adequate number of resident house-physicians and house-surgeons owing obedience to the medical superintendent, who would still be entrusted with matters of administration, and who would supervise the work of his juniors. At the same time the matron must be placed in undivided control of the female part of the staff, responsible only to the guardians and to the Local Government Board, and not as now liable to be thwarted at every turn by her superior officer. The physicians and surgeons of the London schools are not likely to go cap in hand to the Boards of Guardians that they may be permitted to give instruction in the infirmaries so long at least as the public supports the voluntary hospitals on their present scale. It is the guardians who should stand in the position of suitors, anxious to obtain the benefits of the best medical and surgical knowledge for the inmates of the infirmaries, and not grudging the necessary expense. We believe that if approached in this spirit the medical teachers of the metropolis would not fail to respond, even at some personal sacrifice, to the appeal.

STRYCHNINE AS AN ANTIDOTE TO COBRA POISONING.

Notwithstanding that cases of snake poisoning are fortunately exceedingly rare in this country the question of finding an antidote for its rapidly fatal effects is one possessing a pressing interest for nearly all of us from the enormous number of our Indian subjects that annually fall victims to it. So rapidly does death follow on the venomous bite that it usually occurs from within twenty minutes to twenty hours. This variation depends not alone upon the kind of snake but upon the fulness or emptiness of his poison bags. For if little venom be introduced it may cause illness but fail to kill.

Fright and fear of death undoubtedly play a very important part in a man bitten by a snake. From this fact, as well as from the difficulties of studying the effects of snake bite on a sufficient number of men, experiments on animals are the only true means by which we can hope to obtain an antidote.

Numerous are the remedies proposed for snake poisoning. Alcohol was once strongly praised, and recommended to be given in very large quantities. The uselessness of alcohol was well demonstrated, even in this country, when a drunken keeper was some forty years ago bitten in the face by a cobra at the Zoological Gardens, and died within thirty minutes, as he was being admitted to University College Hospital.

Professor Halford, of Melbourne, proposed the subcutaneous or intravenous injection of ammonia. Experience in India appears to be to the effect that this method is of little, if any, use there.

Dr. Mueller[1] has no less strongly recommended strychnine in enormous doses; 16 minims of the liquor strychninæ, even he says as much as 20 to 25 minims, may be given to any person above 15 years old. In support of its value, Dr. Banesjee published eight successful cases in India, but it appears doubtful if the snakes were as venomous as he supposed them to be.

With the object of investigating whether or not strychnine was of value in cobra poisoning, Surgeon Lieutenant R. H. Elliot carried out a series of experiments on animals, the results of which he gave in a masterly paper before the South Indian Branch of the British Medical Association[2]. Drops of poison squeezed from the poison glands of a cobra were allowed to fall into watch glasses; they rapidly dried and became solid; each, when dry, weighed from 0.007 to 0.011 gramme. When required for use the solid venom was dissolved in saline solution, and injected by means of a syringe into the subcutaneous tissue of the abdomen. Various animals were used, such as frogs, lizards, ducks fowls, hares, guinea-pigs, goats, dogs, pigs, and monkeys, so that it may fairly be believed that similar results would have been obtained with man. Having settled the minimum fatal dose of cobra poison and the rapidly fatal dose for each class of animals, he next proceeded to ascertain the full physiological dose of liquor strychninæ (*B.P.*) solution when given hypodermically in each class of animals.

Antidotal experiments were then performed, and every method resorted to in order that strychnine might have the fullest opportunity of exhibiting its powers. In thirty experiments in which the antidote was given he had not a single case of recovery. In guinea-pigs, hares, fowls, and ducks the relative duration of life in the various animals was practically negligible. In frogs, goats, dogs, and pigs it was strongly against the antidote, while in monkeys there was no apparent difference. He was, therefore, led to the conclusion that in animals poisoned by cobra poison the subcutaneous injection of strychnine often hastens death very markedly, while it never could be said materially to retard it. Death may be hastened by strychnine in two ways: (1) By increasing the force and frequency of the circulation, and thus aiding the diffusion of the virus; (2) by the exhausting reaction which strychnine undoubtedly produces on the nervous centres. Mr. Elliot then proceeded to analyse those cases of snake bite in which strychnine had been used, to the number of 40, with 7 deaths. He lays special stress on the observation of Hospital Assistant Misra, that he found strychnine a failure in those cases in which speech was affected. This paralytic failure of speech is a well-known symptom of snake poisoning, and would point to those cases only being truly venomous in which it occurred, the others being most probably spurious.

He and all those who spoke at the discussion of the paper agreed that strychnine was calculated to be extremely dangerous, and only to add further agony to the unfortunate patient. If we are to obtain an antidote, it would appear

[1] Mueller, *On Snake Poison, its Action and its Antidote*. Sydney, 1893.

[2] Is Strychnine an Antidote to Cobra Poison? By Surgeon-Lieutenant R. H. Elliot. *Transactions* of the South Indian Branch of the British Medical Association. Madras. 1891.

probable that such must be sought for in the same manner as the diphtheria antidote—by means of preventive inoculation.

Dr. C. J. Arkle, teacher of bacteriology and Curator of the Museum, has been appointed assistant Physician to the Charing Cross Hospital.

HARVEIAN SOCIETY OF EDINBURGH.

The Harveian Festival, which is usually held in the month of April, has this year been postponed till a date in June, afterwards to be intimated, owing to the absence of the President (Dr. Yellowlees) from ill-health.

GRESHAM LECTURES.

Lectures will be delivered in Gresham College, Basinghall Street, E.C., on April 23rd, 24th, 25th, and 26th, by E. Symes Thompson, M.D., F.R.C.P., Gresham Professor of Medicine, on the Climate of Egypt and Sea Voyages. The lectures are illustrated by diagrams, are free to the public, and commence each evening at 6 o'clock. Lectures will also be delivered by the Gresham Professor of Physic, on October 8th, 9th, 10th, and 11th.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

It has been resolved to form a club of all old resident physicians and surgeons of the Edinburgh Royal Infirmary. The objects of the proposed club are "to promote good fellowship, interchange of confidence, and unity of aims between past and present residents, and, so far as possible, to further the interests of the Royal Infirmary and medical education in Edinburgh." An inaugural dinner is to be held on Friday, May 3rd, when a draft of the proposed rules will be submitted to the members for their approval.

UNDERGROUND BAKEHOUSES.

Two deputations recently laid their views on this subject before the Home Secretary. On behalf of the operatives, Mr. Burns gave some figures showing how largely cellars are employed as bakehouses in London. The deputation from the masters admitted the desirability of limiting the use of such places in the future, but thought that existing underground bakehouses should not be dealt with in a summary manner. Mr. Asquith promised to give the subject of regulating the construction of new bakehouses his consideration; he pointed out, however, that the existing law gave sanitary authorities certain powers for dealing with such places, and he intimated that these powers had not been fully utilised. The subject of hours of work was referred to by both deputations. Mr. Asquith commented upon the proposal to limit the working hours of adults to fifty-five per week, and remarked that it was desirable to ascertain in the first instance how far such a proposal could be justified on the ground of the exceptional character of the employment.

PUBLIC *v.* PRIVATE SLAUGHTERHOUSES.

Dr. Sykes has just presented to the Health Committee of the St. Pancras Vestry a report which has for its object to assist them in deciding whether or not the parish shall proceed to the erection of public slaughterhouses. Dr. Sykes has set the matter out in a very impartial manner, from the points of view alike of the trade, the public purse, and the public health, as well as from a humanitarian standpoint. He would seem to incline to public slaughterhouses at the principal railway depôts, on the ground of better equipment and remoteness from dwellings, greater facility for supervision and inspection of animals and carcasses, and absence of need for the driving of cattle through crowded streets. At the same time, the trade urges that the scheme would entail increased expense to butchers, and so increased price of meat; reversion of the trade to a few large firms of middlemen; and additional importation of dead meat outside the scope of effective supervision. The trade, indeed, seems altogether against any scheme of centralisation of slaughtering. But the points in favour of public and centrally controlled local abattoirs are numerous and telling, whether looked at from a humanitarian, a public health, or a monetary aspect; strict rules as to methods of slaughter; regard for cleanliness and for condition of animals and meat; and a minimum of inspectorial staff being enjoined as a consequence of publicly appointed abattoirs.

THE SICK POOR IN PROVINCIAL WORKHOUSES: AXMINSTER.

Our Commissioner's account of the Axminster workhouse shows a state of things to which the readers of these reports are by this time accustomed, but which is none the less deplorable: Wards crowded and destitute of comfort, windows small and insufficient as ventilators, no attempt at classification, no wards for isolation, no closets and no water laid on, the nursery a wretched stone-paved room, the infants in charge of a pauper, some cases of measles in the receiving wards nursed by their mother, herself of course an ignorant pauper. No kindness on the part of the officials can neutralise these evils. The nurse, though experienced, is untrained, and relies on pauper help. Fortunately the number of patients was small, about twenty, exclusive of the children with measles, but there would be more in the winter; and, in any case, if there were only one, the present state of the infirmary is a disgrace. The structure, it would seem, does not allow of much improvement, and the building of a small infirmary with suitable offices appears to be the best and probably the most economical course. In the meantime, the appointment of a junior nurse as assistant, and ultimately the employment of trained nurses, would go far to improve the comfort of the patients even under the present conditions. The infants should always be under a responsible attendant; pauper training manufactures paupers, and is therefore costly to the State, as well as bad in every way for the children.

THE MANCHESTER ROYAL INFIRMARY.

In a recent issue we mentioned the various schemes for enlargement of the Manchester Royal Infirmary, which are to be referred to a committee consisting of the Board of Management and of an equal number of other gentlemen nominated by the Lord Mayor, the President of the Chamber of Commerce, and the Chairman of the Infirmary Board. We notice with some surprise that this important committee has no representatives of the staff of the hospital, who are, moreover, not represented upon the Board of Management. If the committee take proper steps to ascertain in the form of evidence the views of the hospital staff, who are obviously the best possible judges of the requirements of the institution, this remarkable omission may prove to be no disadvantage, but any attempt to regulate the future of the hospital without the most careful consideration of such technical advice can only end in disaster. It cannot be too clearly pointed out, truism as it may appear, that the first consideration in the building of a hospital is the welfare of its inmates, and such extraneous details as architectural effect, or the exigencies of the city generally, must be subordinate to the main issue. The valuable letter from Dr. D. J. Leech, who is at the same time senior physician to the Royal Infirmary and a professor in the Owens College, puts the question very clearly, and at the same time points out that the difficulty which has come up for solution at the present moment in Manchester is typical of difficulties which must sooner or later be faced in London and other large towns also. Already, as is well known, a proposal has been made for a new hospital on the south side of the Thames in London, and the House of Lords Commission spoke favourably of the pro-

posal. In Glasgow circumstances early led to the solution of the question by the erection of a large new hospital, at the opposite end of the city from the Royal Infirmary, and under independent management. But it is open to question whether this would be the best plan to follow in all growing cities. The establishment of branch hospitals is an alternative plan which appears to deserve consideration and examination. The Seamen's Hospital at Greenwich has tried the experiment of a branch hospital with a small number of beds at the Victoria and Albert Docks; it is understood to work well, and the plan presents undoubtedly certain advantages among which economy in administration ought to be one. The decision of Manchester will be awaited with interest.

THE HEMP DRUGS COMMISSION.

The Resolution on the Hemp Drugs Commission has been published in India, and has been considered by the Governor-General in Council. In the opinion of the Governor-General, the best course Government can adopt is to control the consumption of hemp drugs, and especially their harmful use, and with this object in view to make them as expensive as possible without driving people to resort to more noxious intoxicants than hemp. The Commission, after reviewing the voluminous evidence, declined to recommend that consumption of the plant should be prohibited. Recognising, on the other hand, that its immoderate use produces deleterious effects, it suggests a policy of restriction and control, with which the Government has expressed its entire concurrence. Two members of the Commission dissent from their colleagues on the question of prohibition, and have recorded their reasons in lengthy appendices to the report.

THE FROST OF 1895.

At the last meeting of the Royal Meteorological Society Messrs. Bayard and Marriott read a paper on the frost of January and February, 1895. The frost, it was stated, was the most severe since 1814. The cold period extended over sixty-six days, but there was an interval from January 14th to 21st of mild weather. The coldest days were February 8th, 9th, and 10th. The mean temperature of the British Isles was 7° F. below the average in January and 11° to 14° F. in February. The lowest temperatures recorded were 17° F. at Braemar and 11° F. at Buxton. The effect of the cold on the public health was noticeable, especially in the increased mortality among children and old people. The increase in the number of deaths from diseases of the respiratory organs was first notable in the return for the week ending February 2nd, and a month later the weekly number of deaths from these causes was 1,448, or 945 above the average. As to the freezing of water pipes, it was stated that mains laid as deeply as 3 feet 6 inches from the ground surface to the top of the pipe had been frozen, but that the nature of the soil seemed to have more to do with the depth to which the frost penetrated than the intensity of the frost itself.

INFLUENZA AND THE WATER FAMINE.

The importance to the health of a great town of a full and continuous supply of pure water is admitted on all hands; and any writer who deplores the general inconvenience and danger to health that resulted from the late frost and consequent failure of the water supply in London and other cities may be sure of meeting with the sympathy and approval of his readers. The author of an article in last week's *Speaker*, however, goes further than this; and in effect, if not in so many words, seeks to bring home to the London water companies the charge of having, by their failure to cope with the exceptional conditions of the past winter, caused or at least promoted the recent recrudescence of epidemic influenza. In support of this allegation various citations are made from the invaluable Local Government Board reports of Dr. Parsons. Readers of those reports, however, will probably doubt whether even the selected passages go very far towards making out the *Speaker's* case; while the general tone of the reports, as of that of most authoritative utterances on the subject, no doubt tends to the view that at present little or nothing is known of the special relation that may exist between the spread of influenza and local sanitary conditions. Conjectures of the kind are not without their use if they have the effect of indicating fresh lines of inquiry which may lead directly or indirectly to important results. But before they can be fairly employed as special grounds for legislative or other action, their truth must be established by a far more searching investigation of the evidence than the *Speaker* has felt called upon to undertake. Nevertheless we shall all be heartily at one in trusting that means may be found for preventing a repetition of the undeniable discomforts and perils which the failure of the water supply has entailed upon us in the winter now happily at an end.

THE READING MEDICAL DISPENSARY.

We have received the annual report of this dispensary for 1894. Financially it seems to be a success, and the committee may be congratulated on the result of their labours. Some of the arrangements, however, are decidedly open to objection; for instance, a considerable number of free tickets are distributed by governors, and immediate attendance is given to non-members on paying an enhanced fee, neither of which practices can be commended. It appears that a wage limit of 30s. per week is adopted, though this is not stated in the printed rules; but even if this limit is enforced, the subscription of 2d. per week for membership—to include man and wife and all children up to the age of 12 years—is too low, and the acceptance of members over 50 years of age or of members suffering from incurable and chronic disease for an extra 1d. per week can scarcely be said to be a sound financial system. Such an institution could hardly be expected to pay except by having a fund produced by voluntary subscriptions to fall back upon, and is, as a matter of fact, partly provident and partly charitable. We are told in the report that the membership is estimated to be 16,900, "or more than one-fourth of the entire population of the borough." If this is so, the medical profession in Reading are hardly to be congratulated on such a state of things. The balance sheet shows that a sum of £2,130 12s. 5d. was divided amongst the medical officers during the year. Is it conceivable that no more than this would be paid annually to the profession by one-fourth of the borough of Reading if there were not such an institution?

DUNDEE AND ST. ANDREWS.

The recent decision of the House of Lords on the appeal in Metcalfe *v.* Cox determines nothing except that the incorporation of University College, Dundee, in the University of St. Andrews, which was ordered by the Scottish University Commissioners in March, 1890, was informal and therefore a nullity. By the Universities (Scotland) Act, 1889, large powers were given to these Commissioners, and Section 16 enabled them "without prejudice to" any other powers given by the earlier sections to affiliate the College to and make it form part of the University, "with the consent of the University Court and of the College." The earlier sections provided ample security that no ordinance should be finally settled by the Commissioners until an opportunity had been afforded to every individual member of the University body, and to all persons whose interests might be affected, to lay their views before the Commissioners and until those views had been considered. The Act further provided that no ordinance made by the Commissioners should be effectual until published in the *Edinburgh Gazette* for four successive weeks, laid before Parliament, and approved by the Queen in Council. The Commissioners had not observed these

regulations, but had simply made an order affiliating the College of Dundee to and making it form part of the University of St. Andrews. Certain individual members of the University Court and of the Senatus Academicus of St. Andrews objected, but the Scotch Court, by a majority of the judges, upheld the action of the Commissioners. This decision was unanimously reversed by five law lords, who in effect held that an order affiliating a college to a Scotch University is an ordinance, and can only be made subject to the same restrictions and conditions as any other ordinance which the Commissioners were empowered to make. As these had not been observed, the judgment of the Scotch Court was reversed and the order disallowed, without any opinion as to its merits or demerits being given. That would be a matter for the consideration of Parliament or the Privy Council if the question of approving any proposed order should come before them. In the meantime, the scheme of the Act for establishing *inter alia* "a fully equipped conjoint University School of Medicine" has fallen through. Whether a fresh scheme can be framed and obtain the requisite approval time only can show.

THE DANGER OF ALKALINE MIXTURES.

Every practitioner is aware that solutions of potash and soda salts are apt to increase rather than check dyspepsia if given too long or in too large doses. M. Mathieu finds that they may even set up cystitis. In cases of gastric ulcer and acid dyspepsia he has seen the complication occur when the patient has taken a mixture of one part of calcined magnesia and four of bicarbonate of soda. He has learnt that at Vichy the visitors who go through a course of the Source de l'Hôpital waters often have slight cystitis. M. Mathieu has observed a case of cystitis with hæmaturia in a patient who took large doses of bicarbonate of soda. He replaced it by a mixture, four parts magnesia and six prepared chalk. The hæmaturia recurred. This seems to show that the alkalinity of the former medicine, not the fact that it was a sodium salt, explained the symptoms of cystitis. Dr. Du Cazal has seen hæmaturia, but never cystitis, in rheumatic subjects taking large doses of bicarbonate of soda. Dr. Hayem notes that the degree of acidity in the urine must be ascertained, in cases of acid dyspepsia, before alkalies are given, as there is no direct relation between the proportion of acid in the gastric juice and in the urine. When the latter is feebly acid the patient may be much damaged by alkalies.

SMALL-POX IN SCOTLAND.

The thirtieth annual report on the Vaccination of Children born in Scotland during the year 1893 is published as an appendix to the fortieth annual report by the Registrar-General of the Births, Deaths, and Marriages in Scotland in 1894. There were 113 deaths from small-pox in eight chief towns of Scotland during 1894, a larger mortality than for any year since 1874, the last year of the great epidemic, when there were 1,245 deaths from small-pox. The 113 deaths constitute 0·4 per cent. of the total mortality, being 3·8 per 100,000 of population, and were in great part due to a local outbreak. There were 105 in Edinburgh and Leith together, 5 in Glasgow, and 1 each in Dundee, Aberdeen, and Greenock. During the two years 1890-91 there was no death from small-pox in Scotland; in 1892 there 11 deaths. In 1893 only the deaths in eight chief towns are given, namely, 40; it is stated that the deaths for Scotland cannot yet be given. A report issued in 1895 surely ought to contain the small-pox deaths for 1893 for the whole country. The Vaccination Act came into force in 1864. During the ten years previous to this, the deaths from small-pox in children under 5 years old constituted 75 per cent. of the small-pox mortality at all ages. During the next decade, this proportion was lowered to 28 per cent., in the next to 20 per cent., and during the last, namely 1885-94, to only 15 per cent. This striking change in the age incidence can only be due to vaccination, common sense admits no other cause. No other influences affecting the whole infantile population of the country can possibly be alleged in explanation of so striking a change. Conversely the percentage of deaths in adults has risen from only 13 per cent. in 1855-64—before the Vaccination Act—to 69 per cent. of the total small-pox mortality during the last ten years, 1885-94. This extraordinary change shows the imperative need for revaccination. A country which has only infantile vaccination loses more adults from small-pox than if there were no vaccination at all, as the Registrar-General for England has also shown. Turning now to the vaccination statistics, we must begin with a criticism of the language used in the report when it is stated that of the 127,155 children born in Scotland, 108,117, or 85 per cent., were successfully vaccinated. This is not what is meant, nor indeed is it true, strictly speaking. What is meant is that there were 127,155 births during the year (1893), and 108,117 successful vaccinations during the year. All ambiguities of language must be avoided in official reports. Of children 6 months old 94½ per cent. were successfully vaccinated, a highly gratifying result. The percentage of children unaccounted for as regards vaccination is only 2·3, agreeing with the average of the previous ten years.

SMALL-POX HOSPITAL PROBLEMS.

From the different parts of the provinces we hear of difficulties met with last year in the matter of isolation provision for small-pox, the one being Barnsley and the other Bilston. In the first case we are told by Dr. Sadler, the health officer, that the Local Government Board refused—and we think very wisely in the face of fast accumulating evidence—to sanction the raising of a loan in respect of hospital proposals which had for their purpose the treatment of small-pox and other infectious fevers on the same site. Dr. Sadler speaks of consequent action on the same lines, apparently depending on revaccination of fever patients in hospital whenever small-pox cases also happen to be under isolation. We fail to see where Dr. Sadler is going to obtain his justification for this procedure. Certainly it will be far from politic to subject to the operation of vaccination any patients in a high state of fever; and delay may involve danger. And there is the further point of submission to the practice, and again the question whether the operation would be successful under the circumstances. At Bilston there is an iron structure in use for small-pox cases in close proximity to "an old building in dilapidated condition," and the committee charged with the subject appears to be contemplating the further double use of the same site with the added precaution of "a fence around and between the two buildings.' This reminds us of the proposal of the residents in Borrowdale to erect a wall across the valley in order to keep the cuckoo with them all the year round. Now that the Central Health Department have given official utterance to their views on the matter of small-pox hospital provision, it will be well for sanitary bodies to act along the lines of the official pronouncement, and thus do their best for all concerned.

OLIVER WENDELL HOLMES AS A PROFESSOR OF ANATOMY.

In a recent number of *Scribner's Magazine* Professor Thomas Dwight, successor of Oliver Wendell Holmes in the chair of Anatomy at Harvard, has some interesting reminiscences of the "Professor," not at the breakfast table, but in the lecture room. In his teaching Holmes always aimed at clothing the dry bones of anatomy with something of human interest; in the words of Professor Dwight, he "gave his imagination full play in comparisons often charming and always quaint." Thus he compared the coiled tube of a sweat gland to a fairy's intestine, and he likened the mesentery to the shirt ruffles worn by our grandfathers, which from a short line of attachment expanded into yards of complicated folds. He compared the fibres connecting

the two halves of the brain to the band uniting the Siamese twins. He was elaborate in his preparations for the anatomical lecture, taking great pains, not only with the dissections, but insisting on neatness in all the arrangements—clean sheets, careful draping, effective arrangement of specimens and pictures. Sometimes he would consult books on anatomy before the lecture, and would say jokingly to Dr. Dwight, "You must never tell that you saw me." Why should he not have looked at books? We have known anatomical teachers who had to "get up" the convolutions of the brain before each winter session, and demonstrators who would go to the dissecting rooms in the early morning to read up the "parts" before the students came. Even examiners have, unless tradition lies, been wont to refresh their memory beforehand so as to be able to torture their victims to their own satisfaction. According to Dr. Dwight, Holmes, in lecturing, addressed himself to the lower rather than to the higher part of the class; "it was part of his humanity to do so." He even carried his humanity to the point of condescending to "tips;" even here, however, he was literary, and his "tips" were more classical than "Salasap," or the one anent a certain vexatious "Timothy." As might be supposed, Holmes as a teacher was very human and very lovable; his relations to his pupils were always most pleasant. In the words of Dr. Dwight, "his chief characteristic as Professor of Anatomy is expressed by calling him the student's friend." Summing up, Dr. Dwight says that Holmes's knowledge of anatomy was that of the scholar rather than the practitioner; he thinks that while Holmes would have been a great anatomist had he made that his life's work, he could never have been a great teacher of anatomy. After all teachers of anatomy are plentiful enough, while good writers are scarce, and we may comfort ourselves with the thought that Holmes was better employed in stirring the hearts of thousands than in explaining the structure of the organ to a few.

CHOLERA IN ITALY IN 1893.

IN the *Rivista d'Igiene e Sanità Pubblica* for April 1st Dr. Raseri has published a paper on the statistics of the cholera outbreak in Italy in 1893 as a supplement to Professor Pagliani's report, published in the beginning of 1894, on the epidemic of cholera in that year. It appears that in 1893 several provinces of the kingdom were attacked by cholera, but the epidemic did not assume grave intensity considering the large extent of territory invaded. The statistics published by Dr. Raseri relate only to the deaths caused by cholera according to the certificates presented by the medical attendants, as no certain and complete data are obtainable in regard to the number of persons attacked. The total number of deaths was 3,036, and they occurred in 257 communes appertaining to 28 provinces, having a population of 3,182,864. The mortality was, therefore, about 1 in every 1,000 persons living. The first 2 cases were reported in Entracque (province of Cuneo) at the end of March, and the greatest mortality from the disease in the provinces attacked took place in August and September. The provinces where the disease was most prevalent were Naples, Palermo, Aquila, Caserta, Campobasso, Leghorn, and Salerno. The epidemic prevailed more in the large cities than in the smaller ones and the rural districts. Thus in Palermo there were 518 deaths, in Naples 402, and in Leghorn 170. The total number of deaths among males was 1,538 and females 1,498. In some provinces the mortality amongst females was greater than that of the males. For example, in Leghorn 113 females died of the disease and only 57 males; and in Naples 434 females and 418 males. In respect to the deaths at different ages the mortality from cholera was lowest in the first year of life; it increased very much in the four following years. Between 5 and 20 years it was only a little higher than the first year; and it reached its maximum in persons beyond 70 years. It is remarkable that the provinces which suffered most in preceding epidemics had a relatively greater number of deaths in the younger ages, as if the adult population—decimated some years previously of individuals disposed to the disease—had in 1893 acquired a certain grade of immunity. Thus in the province of Palermo 40 out of 100 deaths occurred in persons under 15 years, and in that of Naples 22 out of 100; whilst in the other provinces only 15 in 100 had not reached 15 years of age. Of the total number of deaths (3 036) 633 were under 15 years, and 2,403 were over that limit. Notwithstanding that the disease was most prevalent in the large towns still agriculturists and day labourers were largely struck down. It appears, finally, that 2,538 persons died in private houses, 325 in lazzaretti, 117 in ordinary hospitals, 34 in lunatic asylums, 10 in other retreats, 9 in prisons, and 10 on board ships.

DR. HUBERT AIRY AND THE LOCAL GOVERNMENT BOARD.

THE vacancy in the medical inspectorate of the Local Government Board, which, as we announced in the BRITISH MEDICAL JOURNAL of April 6th, has been filled by the appointment of Dr. George Seaton Buchanan, has arisen by reason of the retirement of Dr. Hubert Airy from the post which he has held for upwards of twenty-two years in the medical department of the Board. Dr. Airy is a man of varied and excellent qualities, which he has used for the furtherance of sanitary science in this country; and he has worthily maintained the high reputation which has been gained by the department to which he has for so long been attached. Besides taking the degree of M.A., he graduated as M.D. of Cambridge in 1869, and was at one time Examiner in Sanitary Science to that University. He was appointed an inspector of the Local Government Board in November, 1872, and has devoted much patient study to the question of diphtheria prevalence in England. In the session of 1881-82 he presented an elaborate paper to the Epidemiological Society on the subject of windborne diphtheria, which appeared in the Society's *Transactions* for the same year; the *Transactions* of the Society of three years before having given publicity to a most carefully-reasoned paper on Infection Considered from a Darwinian Point of View. Among other contributions from Dr. Airy's pen were papers on a Distinct Form of Transient Hemiopsia, in 1874, and on Leaf Arrangement and Variation of Leaf Arrangement, during the years 1873-76, these two latter appearing in the *Proceedings* of the Royal Society and in the *Transactions* of the British Association respectively. Dr. Airy is a man for whom all who have come in contact with him had abundant respect, which, indeed, he commanded from all; and he has endeared himself to his colleagues in a manner which will make his absence from their midst a matter of deep regret. The esteem in which he has been held also by sanitarians throughout the country will be some sort of consolation to him, we are sure, in the circumstances of personal ill-health and domestic anxieties which have hastened his retirement from a post where his vast accumulation of knowledge was of such eminent usefulness. We can only add that Dr. Airy has our own, and we think we may say our readers', most sincere wishes for his improved health, and for many years of happy rest after his labours in the public service.

IT is stated by some of the German papers that Professor Behring has resigned his chair in the University of Halle.

H.R.H. the Duchess of Teck opened on April 17th a bazaar at the Drill Hall, Derby, in aid of the Derby Infirmary.

IT is announced that Paris is to have a new Morgue. The historical building will still remain, but a vaster construction will be devoted to the frozen museum of bodies that are now hidden away in drawers. Dr. Bertillon is of opinion that the possibility of identifying corpses ought to be extended over three months. The site of the new Morgue is not yet settled.

CHOLERA IN ENGLAND IN 1893.[1]

The long-looked for report of the Medical Officer of the Local Government Board on Cholera in England in 1893 has at length been issued, and shows to what good purpose the Medical Department was augmented in respect both of its permanent and temporary inspectorate in that year. The report from end to end is a record of unremitting toil in the interests of the health of the community. Dr. Thorne Thorne has divided his report into three main parts, namely, local manifestations of cholera in England, bacteriological study by Dr. Klein of the disease, and the diarrhœal outbreak at Greenwich.

In regard of the first, it is stated that there were 64 separate localities invaded in this country, including 15 London districts, with 287 attacks, of which 135 were fatal. There were 42, including 14 London districts in which only 1 case occurred; in only 1 London district did the reputed attacks exceed 3, and in only 5 places in the whole country did the attacks exceed 10 in number. Taking all the cases together, the percentage of mortality was as high as 47, and in places singly invaded no fewer than 35 of the 42 occurrences proved fatal. Up to July there were but 7 known cases in the country, all of them imported, and as regards none of them or of 11 other (out of 13) cases detected in port towns did the disease spread to any person save those arriving from abroad.

Dr. Barry has been charged with the duty of bringing together the facts and details of cholera as it affected the country generally, and he has done this in a praiseworthy report included in the volume, showing by the aid of charts, maps, and tables the course and extent of the prevalence. His report will prove a valuable addition to the literature of Asiatic cholera in our country. His maps show that 34 of the 50 distinct places invaded lie within an angle having its apex at the mouth of the Humber, one side passing northward through York and another southward through Leicester. It was, indeed, in the Humber towns of Grimsby and Hull that cholera first gained a footing, and official opinion evidently runs in the direction of the former town having been in a large degree responsible for much of what subsequently transpired in England.

The appearance of the disease in the towns was in such manner as to lead to either of two suppositions, the one inclining to recrudescence from slumbering infection from imported cases in 1892, and the second to fresh importation in the summer of 1893; and whichever be the fact, opinion further inclines to the belief that measures of prevention were called for at a date earlier than that at which they were adopted at Grimsby and its adjacently invaded suburban seaside town of Cleethorpes. That much wider mischief did not result from cholera in these Humber ports is matter of congratulation when it is stated that on one railway alone nearly a quarter of million of persons were booked thither in the period May to October. But it is significant that in the area from whence these excursionists were drawn as many as 248 of the total of 287 attacks occurred. There is the further point in connection with Grimsby and Cleethorpes to be considered, that they are the centre of a great shell-fish trade, and Dr. Thorne dwells on this aspect of the question to show that there is something to be said for the theory that would ascribe infection to consumption of oysters and the like from the sewage-washed beds of Cleethorpes. Not only are the oyster beds bathed at each tide with the sewage effluents of the two towns, but the oysters are also exposed to sewage contamination in the docks; and mussels are even more exposed to sewage than the oysters. Whilst some of the fish are not eaten in a raw state, many others are so eaten; and the removal of the liquid in the shell of the oyster being carefully guarded against, it becomes of enormous importance that such liquid should be of a harmless nature. The idea that the danger, if real, would have operated to wholesale dissemination of infection among oyster eaters does not receive much kindly consideration, since an oyster, to convey the infection of cholera, would of necessity require not only to contain some portion of sewage (other than enormously diluted sewage) but also to contain some cholera-polluted sewage, and to be partaken of by some person susceptible of cholera infection. And stress is laid on the gross conditions in which undoubtedly oysters and other molluscs are grown around our coasts, as tending to bring them into question as productive of disease. We may hope that the official inquiry now in process of being made into the matter will have definite results in one way or another. Apart from Grimsby, with its faulty drainage and its sewage-fed oyster beds, and Hull, with its sanitary state still in need of amendment, Dr. Thorne goes at some length into the local cholera outbreaks at Rotherham, with its excrementally-soaked subsoil; Middleton, Westminster, Ashbourne, with its filth-laden and infamous "Coach and Horses" yard outbreak; Great Yarmouth, Ilkeston, North Bierley, Tividale, and other places, detailed reports on all these being given in the appendix; whilst Dr. Barry goes into the remaining occurrences, which were not specially investigated by the staff of the department. The mass of evidence thus brought together ought to be of immense value to the Board in their subsequent dealings with the health bodies involved in localities where work of a remedial nature still requires to be accomplished. Dr. Thorne gives a fitting word of praise to his staff for their self-sacrificing and untiring energy during the time of cholera prevalence. They deserve, no less, the thanks of the nation.

We are told of the beginnings of cholera in the Humber ports being "clouded and obscured" by attacks regarded as diarrhœa, choleraic diarrhœa, and cholera nostras, time being lost before the true nature of the disease was diagnosed and admitted. How far the clouding of the true nature of the disease was left in doubt as matter of policy does not appear; but, however that may be, there was not much chance of cholera gaining ground afterwards and in other places, on account of the work taken up by the Local Government Board in the direction of helping sanitary authorities to differentiate between one and another class of choleraic disease by the aid of the laboratory. The bacteriological investigations which they undertook by the aid of Dr. Klein, proved of enormous benefit to health bodies, inasmuch as the results obtained by Dr. Klein on examination and experiment with the material submitted from the several places where suspicious cases arose, were in many instances wired to such bodies within a few hours of his receipt of the material, whilst with regard to other instances where obscurity demanded that culture experiment should be carried out in addition to microscopical examination, the information was available within twenty-four hours. So the Board undertook in the case of first occurrences at a place to ascertain for the local authority whether they had or had not true cholera to deal with. The result was that 53 reputed cases of cholera came in question, and Dr. Klein enters into detailed account of his procedures with the material contributed from these cases, whether dejecta, bowel, or bowel contents. Of the 53 cases, there were 15 in which microscopical examination sufficed to assure Dr. Klein of their typical character, nevertheless in these, as indeed in all cases, he proceeded to make culture experiment.

In other 15 instances cultures were needed to diagnose true cholera, whilst in the remaining 23 cases Dr. Klein was unable to demonstrate cholera, though in some of them the clinical features were those of the true disease. Thus, 56.6 per cent. of the cases were found to be true cholera, while 43.4 gave negative results. It was this doubt as to the differing experience of clinical and bacteriological study that led the Medical Department to institute their inquiry into the comparative bacteriology of "English" and Asiatic cholera; and we may well expect that when the inquiry shall have been concluded we shall have better understood methods of differentiation of the two classes of disease than at present obtain. Dr. Klein's report is certain to receive much attention in the laboratory, both at home and abroad, and especially will his conclusions be interesting to scientific workers. He holds that comma bacilli from different cases of true cholera exhibit biologically in the laboratory marked and stable differences *inter se*: that the comma bacilli obtained represent at least several varieties of cholera: and he indeed suspects that under the term "Koch's vibrio" there may be included

[1] *Cholera in England in 1893.* Sold by Messrs. Eyre and Spottiswoode, East Harding Street, London, E.C.; Messrs. John Menzies and Co., Edinburgh and Glasgow; and Messrs. Hodges, Figgis, and Co., Grafton Street, Dublin (c., 7539), pp. 282, price 6s. 10d.

more than one distinct species of microbe. The introduction of Dr. Klein's report, which is included in Dr. Thorne Thorne's personal report to his President, is a valuable contribution to the literature of progress in that laboratory research which has led to the present stage of knowledge in respect of the means whereby the expert may aid in the prevention of the spread of cholera by his ability to diagnose where doubt has arisen in clinical and other phases of the malady. The illustrations in the volume add considerably to its interest, both in the shape of maps and charts, and in regard to Dr. Klein's researches.

The outbreak of diarrhœal illness at the Greenwich Workhouse in October was investigated by Dr. Bulstrode, whose report and that of Dr. Klein on the bacteriological aspect of the case are given. From October 4th to the 24th, 240 inmates and 5 nurses were attacked, and 4 imported cases had occurred, 11 deaths taking place, all of them in the period October 8th to 12th. The main clinical features were abdominal pain, diarrhœa, vomiting, cramps, contracted features, feeble voice, intense thirst, and extreme collapse. The incidence of the disease was on ages over childhood, and especially on persons over 60 years of age. Bacteriological study negatived the idea of true cholera, but a distinct micro-organism, of the proteis vulgaris type, was found. It deserves mention that antecedently to the workhouse outbreak there was in certain parts of Greenwich a small amount of disease prevalent which was clinically the counterpart of that reported later in the workhouse; and strong suspicion of importation of the disease exists, and its infective quality, when once introduced, is amply borne out by the subsequent behaviour of the malady in the institution. Of the workhouse staff 16, and of the nursing staff 33, per cent. were attacked. How far water may have been the cause of the disease cannot be said, since, although there was nothing to connect the locally used well and the disease at the time of examination of the water, there may have been conditions of water at the time of chief operation of the epidemic which this later investigation did not discover.

SMALL-POX AND VACCINATION IN 1894.

XV.—Willenhall.

An excellent illustration of the value of vaccination as a prophylactic of small-pox and the dangers consequent on neglecting its uses is supplied by the history of the epidemic of variola last year in Willenhall, contributed by Dr. Hartill, the medical officer of health for that town, in an able annual report issued recently. There the whole history of the outbreak is followed out, and, to any unprejudiced mind, the efficacy of vaccination demonstrated.

Dr. Hartill, with his assistants, made the best use of his opportunity, noting the circumstances of the cases as they arose, the evidence of previous vaccination, the number of scars indicating its successful performance, the severity of the cases, the age and sex of the victims, and the results of the attacks.

The disease broke out in the middle of the town in a crowded court, where no fit lodging or accommodation was to be had; and at a time when, from the indifference or neglect of the local authorities, no provision for removal and isolation existed. This last difficulty was in the course of some seven weeks overcome, and a temporary hospital provided. Prior to the onset of the small-pox, sickness due to general causes was at a low rate; and during the ten previous weeks deaths from zymotic diseases were at the rate of 3.1 in a population of 17,684.

The epidemic of small-pox produced 842 cases; 588 were treated at home and 254 at hospital; 47 deaths occurred, 16 in children under 5, and 31 in individuals over 5.

"Of the 842 cases, 830 have been traced, and it is known that of the other 12 none died. Of the 830 traced, 80 had never been vaccinated, and 30 of those died, whilst 739 had been vaccinated and only 17 died. The death-rate among the unvaccinated was, therefore, 33.7 per cent. of all attacked, whilst that among the vaccinated was 2.3 per cent.; in other words, the death-rate was more than 14½ times greater in the former than in the latter."

Again, the severe cases among the unvaccinated were 95.5 per cent. of all attacked, and only 22.4 per cent. among those who had four primary vaccination scars. The death-rate among those having only one vaccination scar equalled 4.1 per cent.; among those with two it was 3.3, with three 2.4, and with four only 1 per cent. This proves the increasing protective power to be, at least to the extent noted, in direct proportion to the completeness in which the vaccination lymph is introduced into the system. Among the revaccinated no death at all took place.

In Dr. Hartill's opinion the full protective power is not conferred until fourteen or sixteen days after the operation. Referring to past experience, of 4,250 persons who had been once vaccinated, 2 contracted small-pox within fourteen days of the operation; whilst of 17 who had been revaccinated, 9 had not been revaccinated twelve days, 5 were revaccinated at periods varying from thirty years to several years previously, whilst 3 very mild cases were revaccinated a few weeks before. "It will thus be seen that in 9 out of the 17 cases the small-pox poison was in the blood before revaccination, and that 4,233 revaccinated or recently vaccinated persons out of a total of not less than 4,250 have escaped small-pox, although in hundreds of instances there was a chance of infection. No revaccinated person died from small-pox. The nurses and attendants at the isolation hospital were 14. Of these, 13 had been revaccinated before commencing duties, and all escaped small-pox. The other one had been unsuccessfully revaccinated shortly before entering upon her duties, and she took small-pox."

This array of facts as to the efficacy of vaccination can with difficulty be surpassed, and should suffice, in every candid mind, to disarm the opponents of vaccination, who have mainly to rely on awakening prejudices against the practice latent among the ignorant.

THE SANITARY ASPECT OF FLUELESS GAS AND PETROLEUM STOVES.

A correspondent sends us the following observations on this subject:

Pollution of the air by the products of combustion is, and always has been, considered the primary objection to all flueless stoves, but an examination into the actual facts shows that it is not so important as many have imagined. Taking as an example a room 15 × 15 × 12 ft. high which has to be retained at an equal temperature day and night, a consumption of 1 cubic foot of ordinary gas will raise the temperature of the contained air, that is, 2,700 cubic ft., 20° F., and thus, not allowing for the loss of heat by the walls, the air of the room may be entirely changed three times every hour, and a rise of 20° F. over that of the external air will be maintained by burning 3 cubic feet of gas an hour. The loss by windows, walls, and ceiling is considerable, and careful experiments show that in a room of this size a gas consumption of ½ cubic foot per hour is required for every 1° F. rise of temperature maintained. Allowing, therefore, for an increase of temperature of 20° with a complete change of air every twenty minutes, a total of 13 cubic feet of gas will be required per hour, or 4⅓ cubic foot every twenty minutes. The amount of carbonic acid formed will be 2¼ cubic feet, and the increase of this in the air of the room will be 1 part in 1,200. The recent researches of Dr. Haldane and Dr. Lorrain Smith[1] show that carbonic acid, not contaminated by exhalations from living beings, may be present in over thirty times this proportion, without any obvious injurious effect and without being in any way appreciable, and if these observations are to be accepted as applicable to long and not merely experimental periods, it would seem probable that the carbonic acid produced would appear to be of small importance. On this soint, however, we think more evidence is required.

The assertions that carbonic oxide is evolved from clear and unobstructed gas or oil flames has been repeatedly proved to be unfounded, but the necessary condition that the flames shall be entirely free and not cooled or interfered with by solid bodies, such as asbestos or pipeclay, limits all stoves of this class to the use of ordinary lighting burners, the radiant heat from which is comparatively small in quantity.

[1] See British Association Report, 1894.

Atmospheric gas burners are excluded because the radiant heat from them is practically *nil*.

Taking the oxygen consumed at double the quantity of coal gas, 8¾ cubic feet will be deficient in the atmosphere of the room=0.6 per cent. of the total oxygen. Dr. Haldane's experiments[2] again show that this deficiency is inappreciable. Sulphur compounds are confined to sulphuric and sulphurous acids; when present they are most offensive, and no doubt they are very objectionable, but they are often absent in the products of combustion of both gas and petroleum, and they never exist, except in minute traces; in cases of lung and throat diseases they may become important. Even in these cases the use of "condensing" gas stoves, which remove much of the sulphur compounds from the products of combustion, will do away with this objection. On the other hand, it should be stated that flueless stoves actually sterilise a large proportion of the air of the room, and so reduce the floating organic matter. Thus, as a total result, the condition of the air in a crowded room, would appear to be improved by the perfect combustion of gas or petroleum, if sufficient ventilation is provided for.

That flueless gas and petroleum stoves are, under certain circumstances, objectionable, there is no doubt, and the question remains what are the real objections to be guarded against; this point I think admits of a simple and complete reply.

1. They do not assist the necessary ventilation, a defect they share with hot water and steam pipes.

2. To prevent the risk of formation of carbon monoxide the flames have to be quite clear and unobstructed by solid substances, and thus it is impossible to obtain any large amount of radiant heat, an absolute necessity in rooms if persons are to be seated in comfort for any length of time. With these stoves the upper part of the room is always warmer than the floor, except at a very short distance from the stove; the feet are kept colder than the head, and the usual consequence is a headache. This objection has no force in a bedroom or sick room, where the occupant's body is at one level; and it would appear that in sick rooms where under exceptional circumstances warmth is needed and cannot be obtained by other means, the use of flueless stoves may be a distinct benefit. This may seem to many to be a rather unorthodox conclusion, but the experiment is worthy of a trial.

[2] See British Association Reports, 1894.

DEATHS UNDER ANÆSTHETICS.

The Dangers of Small Doses of Chloroform.

Mr. W. A. Parker, M.B. (The County Asylum, Lancaster), writes: In turning over again the British Medical Journal for February 9th I noticed an account of a death under chloroform, and further on a note of the Glasgow hospitals. Might I ask your readers why we almost never have a report of a death under chloroform from Scotland, where practically nothing else is used? Personally, I believe the reason is that the men are not afraid of chloroform, and use it fearlessly in unstinted doses, pushing the patient rapidly under, and so lessening the chances of the only real, practical danger, namely, syncope. To anyone noticing it, it is marvellous how men insist on the smallness of the amount of chloroform which has been used in a fatal case. Case after case is reported in which ʒss., or ʒij., or ʒiij. is stated as the amount used, and yet no fatal cases occur where, as in the more usual Scottish method, several drachms are poured on a towel and frequently renewed. In the report of a death in the Journal for February 9th, it is noted that "the corneal reflex was then just absent," which practically implies that the patient was not really under the anæsthetic, as the corneal reflex has always gone for some time before complete anæsthesia, probably from the local action of the drug. Accordingly we have here one of the usual cases of incomplete anæsthesia and syncopal death from insufficient not overdose. I do not claim any very great experience, but still my personal cases number several hundreds of chloroform administrations, and every difficulty I have seen has been syncopal or from vomiting, and has been due, I believe, in the early stages to insufficient chloroform, or want of continuity in the administration in the later stages. Personally using it freely, I have never had any trouble, though I have seen difficulties arise when I was supervising the administration by students.

Chloroform.

We are indebted to Dr. E. Hawkins, Resident Medical Officer at the Dudley Infirmary, for the following account of death under chloroform: The patient, a weakly and rickety child, aged 4 years, with flabby tissues, was brought first to the dispensary to be under the care of Dr. Higgs on February 25th, his mother then complaining of a swelling of his face. Dr. Higgs being absent, Dr. Hawkins, the resident medical officer, examined the throat, and found the tonsils very enlarged. The mother was advised to take the child to Dr. Higgs's surgery, with a view to tonsillotomy. Dr. Higgs first ordered the tonsils to be painted with the glycerine of tannic acid, but, as they still continued to enlarge and threatened respiration, he arranged to perform the operation on April 3rd, and, that being Mr. Messiter's receiving day, he also was present. The child was placed in an almost upright position on the porter's knee before an open window. Dr. Hawkins administered chloroform on a folded towel, using about two drachms in all. The towel was held so that plenty of air was available, and the child took it well. In about one and a-half to two minutes respiration seemed to suddenly fail, and the face became blue; the child was laid on the floor, and Mr. Messiter performed tracheotomy. Artificial respiration was employed successfully, and the child took six or eight natural inspirations and opened and closed his eyes, but the heart then stopped, and, although ether was injected hypodermically, the patient died, micturition and defæcation taking place. The chest had been previously examined and found healthy by Dr. Higgs. An examination of the chloroform by Dr. E. A. Warmington, F.C.S., R.I.C., showed absolutely no trace of any impurity, but that it answered in every way to the *B. P.* formula. The *post-mortem* examination by Mr. F. S. Goulder showed the following chief points: an erythematous rash on thighs, legs, and arms; enormously enlarged tonsils, measuring 1 inch in length, ¾ inch in breadth, and ½ inch in thickness; a mass of acutely inflamed and enlarged glands situated at the bifurcation of the trachea, and completely surrounding and pressing on the trachea and first portions of the right and left bronchi, the lumen of all being apparently slightly congested; in the lower part of the trachea there was a slight amount of catarrh and some mucus. In other respects the organs throughout the body were healthy, but congested. Death was due to heart failure subsequent to failure of respiration.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 24th day of April next, at 2 o'clock in the afternoon.

The following Committees will also meet:

Tuesday, April 23rd, 1895.—3.0 p.m. Premises and Library Committee.—4.0 p.m. Parliamentary Bills Committee.—5.0 p.m. Trust Funds Committee.—5.30 p.m. General Practitioners Committee. *Wednesday, April 24th, 1895.*—11.0 a.m. Journal and Finance Committee.

Francis Fowke, *General Secretary.*

April 4th, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Room of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on April 24th, July 10th, and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will be held at Bath, on Wednesday, April 24th, at half-past 7 o'clock. Nelson C. Dobson, F.R.C.S., President, in the chair. The following communications are expected: C. E. S. Flemming: A case of Acute Tuberculous Peritonitis. J. K. Spender, M.D.: The Central or Myelopathic Origin of Rheumatoid Paralysis. C. Gaine: On some forms of Cachexia arising from the Retention of Diseased Teeth and Stumps, which are not amenable to Conservative Treatment. Preston King, M.D.: Abuse of Hospital Charity. Carey Coombs, M.D.: Notes on the Clinical Examination of the Blood. W. M. Beaumont: Visual Errors in Railway Servants.—W. M. BEAUMONT, Bath, E. MARKHAM SKERRITT, Bristol, Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Cardiff on Tuesday, April 30th. Members wishing to read papers, or show cases, specimens, etc., are requested to send titles to Dr. Sheen, Cardiff, not later than April 16th.—A. SHEEN, D. A. DAVIES, Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place at Gravesend on Thursday, May 16th, Mr. R. J. Bryden in the chair. Members wishing to read papers, or exhibit patients or specimens, are requested to inform the Honorary Secretary, EDWARD GROUND, M.D., 1, Ashford Road, Maidstone, not later than April 21st.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held in the Radcliffe Infirmary, at 3.15 P.M. on Friday, April 26th. Members are requested to give notice to the Honorary Secretary, W. LEWIS MORGAN, 37, Broad Street, Oxford, as soon as possible, of any papers, etc., they wish to read.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held, by kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, May 2nd, at 8.30 P.M. (instead of April 18th). The chair will be taken by Dr. Daly, Vice-President of the District. Dr. Stephen Mackenzie will give a demonstration of cases of Skin Disease. Visitors will be cordially welcomed. —H. E. POWELL, Honorary Secretary, Glenarm House, Upper Clapton, N.E.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A MEETING of this District was held on April 4th, 1895, at the North West London Hospital, Dr. CLEVELAND presiding.

Treatment of Uterine Hæmorrhage in Non-Gravid Women.—Dr. HANDFIELD-JONES brought before the meeting various groups of cases to illustrate certain points in the treatment of uterine hæmorrhage occurring in non-gravid women. Group I: Instances of mucous polypi appearing at the external os, in which the small visible growth was only an index to a condition of fungoid or villous endometritis existing above, and in which removal of the polypus needed to be followed by the use of the curette. Group II: Cases of adherent placental remains after abortion, in which the superiority of removal by the finger to the use of the curette was demonstrated. Group III: Cases of intrauterine polypi showing the effects of the menstrual epoch in producing dilatation of the cervical canal and descent of the polypi, and pointing to the comparative ease with which removal may be effected at the close of menstruation. Group IV: Instances of menorrhagia depending (*a*) on irritative activity of the ovary, and (*b*) on paralytic activity of the same organ. Other groups showing the action of digitalis and demonstrating the rarer forms of uterine hæmorrhage were also brought forward.

Clinical Cases.—A number of interesting clinical cases were shown by Mr. DURHAM and other members of the hospital staff.

Votes of Thanks.—Votes of thanks were passed to Dr. Handfield-Jones, to the hospital authorities and staff, and to the President.

BATH AND BRISTOL BRANCH.

THE fifth ordinary meeting of the session was held in the Medical Library of University College, Bristol, on March 27th, NELSON C. DOBSON, F.R.C.S., President, in the chair. Thirty-five members and one visitor were present.

New Member.—Surgeon-Captain G. G. Adams, M.R.C.S., L.R.C.P., of Horfield, was elected a member.

Medical Charities.—A communication from the Council of the Association with reference to the abuse of medical charities was referred to the Council of the Branch to report to the Branch.

Specimens.—Dr. B. M. H. ROGERS exhibited a specimen of Bothriocephalus Latus, upon which Drs. FISHER and SHINGLETON SMITH made some observations.—Dr. J. MICHELL CLARKE showed a Tumour of the Posterior Mediastinum, invading the vena cava and the auricles, which was commented upon by Dr. FISHER.

Papers.—Dr. AUST-LAWRENCE brought forward a series of fifty cases of Abdominal Section. Mr. HARSANT, Mr. BARCLAY, Dr. FISHER, and the PRESIDENT joined in the discussion which ensued.—Mr. J. P. BUSH related a case of Resection of Intestine treated with Murphy's Button, which was discussed by Messrs. MORTON and BARCLAY, and Dr. SWAIN.—Dr. H. WALDO read a paper on the Paralysis of Osteo-arthritis, upon which Drs. SHINGLETON SMITH, PARKER, and COOMBS made observations.

GIBRALTAR BRANCH.

THE third ordinary meeting of this Branch was held in the Colonial Hospital on April 4th, and was largely attended by the members. The Vice-President, Staff-Surgeon MAY, R.N., in the unavoidable absence of the President, occupied the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Communications.—Surgeon-Major A. B. COTTELL read a History of a Recent Outbreak of Diphtheria occurring in Windmill Hill District; and Dr. TURNER followed with Remarks on the Character of the Cases treated in Hospital. Prolonged discussion followed, and important facts were brought to light relative to the source of the epidemic. The type of disease in all the cases was highly malignant, but in none of the cases was the respiratory tract invaded.—Surgeon-Major G. MACPHERSON read Clinical Notes on a case of Migraine.—Dr. WILLIAM TURNER read Notes on Urticarial Asthma.

The Forthcoming Annual Meeting of the Association.—It was resolved, on the suggestion of Surgeon-Major PERRY MARSH, that after the leave season has been definitely arranged, a list of those members who intend to be present at the forthcoming annual meeting of the Association in London should be forwarded to the President.

SPECIAL CORRESPONDENCE.

PARIS.

The Medical Staffs of the Hospitals and the Assistance Publique. Improvements in the Maternity Hospital.—Whooping Cough at the Children's Hospital.—Influenza at Quimper.—General News.

THE Paris hospital physicians and surgeons protest against the recent decision of the Assistance Publique. They object to the division of Paris into hospital districts, and to making it compulsory for patients to be treated in the hospital of their district. They regard it as a violation of the liberty of the subject. The rich, they argue, can choose their doctor; why should not the poor have the same liberty of action? Though all hospital surgeons and physicians pass the same competitive examinations, and all are equally competent, this does not prevent preference, and it is inhuman

to deny to the poor the privilege of indulging this preference. Moreover, it is sometimes legitimate. Independently of the question of specialists, there are many members of the profession who acquire a greater skill in treating certain diseases and performing certain operations. This is well known among the hospital patients, who flock to the wards of these physicians and surgeons from all parts of Paris. This, according to the new regulation, would be impossible, and both patient and physician would suffer, the one in experience and the other in treatment, perhaps, and certainly in personal satisfaction. The second objection concerns the proposed change in hospital out patient departments. The out-patient department which supplies the indoor patients is to be confided to young men fresh from their house-surgeonship or house-physicianship. Thus the advice of the *chef de service* in difficult cases will not be available as it was formerly. The objections to the present system are alleged to be that interesting cases are selected in preference to others. The medical profession assert that this is not an objection; the interesting cases are the most urgent; their proper place is in a hospital, and it is the duty of the Assistance Publique to find a shelter for the chronic uninteresting cases.

M. Peyron, at a meeting of the Municipal Council, stated that plans for the reconstruction of the Maternity are under examination; and that a new pavilion has already been built. Orders have been given to make the necessary alterations in the lying-in ward; others are required, and will be effected. Funds amounting to £1,400 are required; these will be supplied by the money in hand remaining over from loans prior to 1886. The hospital *chef de service* will be called upon to draw up death statistics in the lying-in wards.

At a recent meeting of the Municipal Council, M. Dubois called the attention of that body to the facts stated at the Hospital Medical Society by Dr. Comby. Sixteen children with whooping-cough were treated in a ward too small for their accommodation, five of whom died, a unheard-of mortality of 31.25 per cent. The Council urges the Commission to seek the means of thoroughly studying whooping-cough, its prophylaxis and treatment, and of providing the necessary hospital hospitality.

An epidemic of influenza has broken out at Quimper in the barracks; eight days' leave has been accorded to 100 men. The barracks have been evacuated and disinfected. The rest of the men will be encaped in tents outside the city.

In a French village called Aniche there dwells a Polish refugee, Mme. Rostowska, 112 years of age.

Mlle. Barbot has died at Cuissai, aged 100 years and 1 month.

NEW YORK.

The Antitoxin Treatment: its Results and its Dangers.

At the meeting of the New York Academy of Medicine on April 4th the treatment of diphtheria by antitoxin was more thoroughly discussed than it has yet been in this country. The bacteriological and statistical sides of the subject were presented by Dr. Hermann M. Biggs, the bacteriologist to the Board of Health, who described the methods he adopted to produce antitoxin in this city. The first serum used was obtained from a horse that was in poor condition and was killed; 4 litres of antitoxic serum were obtained from its blood. Before this quantity was used other horses had been inoculated and were producing serum, so that the city had now a plentiful supply. He reported two series of statistics: one of cases treated at the Willard Parker Hospital for Contagious Diseases, the other of cases treated in tenement houses, principally, by the Board of Health officials. The following table will show the statistics of the latter class:

Age.	Cases.	Deaths.	Mortality Per Cent.
5 and under	173	33	19.07
Over 5	82	7	8.53
Total	255	40	15.69

In 252 of these patients the larynx alone was affected; in 116, the pharynx and tonsil; in 57, the pharynx and nose; in 41, the larynx and pharynx; and in 17, the larynx, pharynx and nose were involved. There were 50 mild cases, 76 moderately severe cases, 96 severe cases, while the rest had dangerous complications. If the foregoing table was corrected by deducting fifteen moribund cases, it would read:

Age.	Cases.	Deaths.	Mortality Per Cent.
5 and under	161	21	13.04
Over 5	79	4	5.06
Total	240	25	10.40

If the results were tabulated by the day of the disease the figures would be:

Day.	Cases.	Deaths.	Mortality Per Cent.
1st	30	2	6.66
2nd	77	7	9.09
3rd	67	11	16.41
4th	31	7	22.60
5th and later	46	13	28.25

As evidence has shown that only moderate benefit could be obtained from the use of antitoxin on or after the fifth day of the disease, the results above obtained are striking. If from this table the moribund cases were omitted, the results would be:

Day.	Cases.	Deaths.	Mortality Per Cent.
1st	30	2	6.66
2nd	74	4	5.04
3rd	62	6	9.68
4th	27	3	11.11
5th and later	—	—	—

The hospital statistics were less favourable; 129 cases were treated, of which 83 were nasal or pharyngeal diphtheria, and 46 were pharyngeal alone. A series of cases treated with a low-grade serum was omitted. There were 31 deaths (24 per cent.), while in the corresponding three months in 1894 there were 146 cases treated and 47 deaths. In 16 intubated cases not treated with antitoxin there were 13 deaths (81 per cent.), while in 24 cases treated with the remedy there was a mortality of only 47.3 per cent. The antitoxin had a marked effect in limiting the spread of the false membrane; and while its use might be followed by cutaneous phenomena, and in one or two cases it had seemed to produce general arthritis, these sequelæ were rare.

The clinical side of the question was discussed by Dr. Joseph E. Winters, Professor of Children's Diseases at the University of the City of New York, who had carefully studied for three months the results obtained at the Willard Parker Hospital. He said that in not a single case had there been the least evidence that the pseudo-membrane was checked, its exfoliation hastened, or the throat free earlier in cases treated by antitoxin than in those treated by ordinary methods. In not a single septic case did the antitoxin make the least impression on the symptoms, or was the toxæmia lessened or relieved, or was there any indication in the character and frequency of the pulse or general condition of the patient to indicate that a remedy for the toxæmia had been administered. The speaker asked why antitoxin should be administered for the relief of laryngeal stenosis due to a diph-

theritic pseudo membrane, for while the latter was confined to the laryngeal mucous membrane there was no toxæmia.

In the statistics regarding intubation Dr. Biggs did not (said Dr. Winters) state that in December, 1894, 8 consecutive cases of intubation recovered without antitoxin. During the same month, at the Foundling Asylum, 12 cases of intubation in 14 cases of laryngeal diphtheria recovered without the use of antitoxin. This had not been equalled by the statistics of intubation cases treated with antitoxin.

Deaths in moribund cases should not be excluded in comparing this method of treatment with the results of former years, for moribund cases were not eliminated from the statistics of the latter. During the first three months of 1894 the death-rate from diphtheria without antitoxin was 32 per cent.; in 1895 it was 28 per cent. But during 1895 many patients were sent to the hospital to be treated with antitoxin who presented no clinical, only bacteriological, evidence of diphtheria; this was not the case in 1894, then only clinical cases were admitted.

The early treatment was insisted upon as a *sine quâ non*, yet the table of statistics of the Willard Parker Hospital showed that the first two cases that recovered received the antitoxin on the eighth and sixth day respectively of the disease, while in the next 7 cases the first injection was given on the fourth day, in 2 cases on the fifth day, and in 2 cases on the third day, and all died. It is not the date of injection that determines the result, but the individual character of the case and nature of the disease. In any case in which there was evidence that the disease was progressive in its course, the latter was not stayed or changed by the antitoxin treatment. The speaker said that Dr. Biggs stated that the first serum used at this hospital was so weak that little could be expected from it, yet it gave better results than the stronger serum. A careful study of the cases showed that there was no relation between the antitoxin treatment and the recoveries. He had seen many bad effects follow the antitoxin; the principal was an anæmia due to the effect of horse serum in dissolving the red blood corpuscles of man. He designated the condition of many of these children as an antitoxin septicæmia that had similar temperature curves to the cases of surgical septicæmia seen in preantiseptic days. It had been stated that the children at the hospital died of pneumonia after they had recovered from diphtheria, but the pneumonia was that of septicæmia. He had seen cases at the hospital die in convulsions with all the symptoms of acute inflammation of the kidneys, but in none of these cases could he get a necropsy.

He opposed the empirical method, whether based on bacteriology or anything else, and there was a factor of individual susceptibility as well as of mildness of disease that must always be considered, whatever treatment should be adopted.

CORRESPONDENCE.

THE MANCHESTER ROYAL INFIRMARY.

SIR,—An article headed "The Manchester Royal Infirmary" in the BRITISH MEDICAL JOURNAL of March 30th relates to a question of more than local interest. Will you allow me to explain one point therein which might lead to erroneous impressions and to supplement the information given?

The Manchester Infirmary is doubtless quite inadequate for the wants of the city. It contains 300 beds, but if the patients and staff had proper accommodation, at least 100 of these would have to be dispensed with. The claims on the institution, however, are so numerous that 100 more beds than now exist are required to meet them. Practically, then, hospital accommodation for 200 beds is required, and a question is being discussed in Manchester which will doubtless arise in other large towns, How shall additional beds be provided for the increasing population?

The Manchester Infirmary Board in the first place proposed to enlarge the present hospital by supplementary wings; but the idea of covering over with hospital buildings any material amount of the only large open air space in the centre of the town is strongly objected to by the trustees, and the next suggestion made—namely, to add an additional storey to the building—also found no favour.

As stated in your article, two plans now hold the field: One is to pull down the present hospital and build another, covering the same ground, but so arranged as to hold more patients; and the other is to build a supplementary hospital in the suburbs.

The first is open to several objections. It has been clearly shown that it is impossible to build a hospital on the pavilion principle upon the present site to hold more beds than the infirmary now does. It is therefore suggested that a corridor hospital shall be built, and it is asserted that such a structure would be quite as good as a pavilion hospital. This is surely an error. It will be desirable to ascertain on this point the views of those who are best acquainted with hospital sanitation, for it would be a serious matter to build a new infirmary in any way defective in a sanitary point of view.

If no more increased accommodation can be obtained on the present site it may still be desirable to rebuild, for the present hospital, though not insanitary, is antiquated. But then the financial question comes to the fore. A new infirmary will cost, if built in keeping with the present site, £150,000, and yet urgent wants will not be met if no more beds are provided, and it is not probable that a larger sum than this can be found for building purposes.

In favour of a supplementary hospital is the fact that 8 or 9 acres of land on the south side of the town—a mile and half from the present hospital, but connected with it by a tram route, and near the Owens College—are offered to the infirmary authorities for a nominal amount. This land was, a few years ago, presented to the Owens College for hospital purposes, the only proviso being that before any hospital is built on the ground it must be stipulated that facilities for teaching shall be given.

The statement in your article that the land was given for "hospital accommodation more or less closely under the direction of the College authorities" might lead to the erroneous impression that the Owens College would claim some part in the direction or government of a supplementary hospital built on it, but this is not so. Some arrangement would be made no doubt as to the meaning of "facilities for teaching," but, further than this, the College would have no part in the management or government of the hospital, which would simply be a branch of the present infirmary. If a supplementary hospital of, say, 200 beds were established on the site which the College offer, the present infirmary, reduced to 200 beds, would remain as it is until money could be found to rebuild it. Against the plan is the undoubted fact that the cost of two small hospitals is greater than one large one.

The question is, Which is the best scheme, here and elsewhere, for those whose interests are chiefly concerned—the poorer classes? Is it desirable that hospitals in the centre of large towns should be gradually increased in size to meet the growing wants of the population, or should such central hospitals, when they have reached a certain development, say 200 to 300 beds, be supplemented by one or more built in the suburbs?—I am, etc,

Manchester, April 8th. D. J. LEECH.

CLUBS AND THE PROVIDENT PRINCIPLE.

SIR,—I have been the Honorary Secretary of the Gloucester Dispensary from the year 1872 when it was reorganised on the provident principle, and I have also for the same period been a member of the Managing Committee of the Gloucester Infirmary. Consequently I have always had before me the questions raised by the leading article in the BRITISH MEDICAL JOURNAL of March 23rd.

I thoroughly believe that the two points to which you prominently refer are most important:

1. That admission to provident and other medical clubs should be based on a wage limit.

2. That a provident dispensary should be open to all the members of the profession who are willing to conform to its rules.

I. As to admission being based on a wage limit, the Gloucester Dispensary requires that its members must be either "working persons or servants," or the wives and children of such. The rules add that members must be unable to pay for medical attendance at the usual charges,

and the committee has power to erase the name of any member who may be by them considered as, through improved circumstances, no longer eligible to the benefit of the institution.

Though there is no definite by-law on the subject of wage limit, the committee do consider the question; and being largely composed of the working class, form a very reliable opinion of the income of an applicant. It is only recently that the question of wage limit has been considered in any detail by leading institutions. Now both your Association and some of the larger provident societies have suggested scales. See page 13 of my 1891 pamphlet, and pages 2 and 3 of the report of April, 1892.

In this town, however, it is not the Provident Dispensary but the Gloucester Infirmary, which is the great obstruction to gratuitous or partly gratuitous medical relief being limited to those unable to pay in the usual way. The Managing Committee of the Gloucester Infirmary provides in its out-patient department free and indiscriminate medical relief to all comers without the slightest practical check.

In 1891 I published a pamphlet advocating a reform in this department, a copy of which I send you. This pamphlet showed that 1 in 7 of the whole population of Gloucester received gratuitous medical relief from various sources in the course of twelve months. Soon after the circulation of this pamphlet among its members, the Managing Committee of the infirmary appointed an officer "to collect precise evidence as to the circumstances of persons presenting themselves for treatment as out-patients." The result of the inquiry (which was limited by the Committee to less than six months) is set out in my report of April, 1892 (copy sent herewith), and in June, 1892, I published certain suggestions founded thereon (copy of which I send). The inquiry clearly proved the following:

1. That the percentage of applicants found to be ineligible for free treatment was 40.65.

2. That 9 per cent. of those who sought relief in the out-patient department were able to pay a medical man in the usual way.

3. That persons able to pay something for medical relief obtained it gratuitously at the out-patient department of the infirmary at the rate of 2,500 per annum.

Having sent to each member of the Committee a copy of my pamphlet of suggestions, I, and those on the Committee who agreed with me, proposed that the services of the inquiry officer should be continued. This proposition was strenuously opposed by the senior physician, though supported by the senior surgeon, and the Committee withdrew the officer.

II. As to provident dispensaries being open to all members of the profession, the rules of the Gloucester Dispensary provide that there shall be such number of medical officers as shall be determined by special meeting. No number has ever been fixed, and on the reorganisation in 1872 all the practitioners in the town were invited to join. Three joined, and that number has been continued. For some years the question of there being no such limit has been discussed, and the last two appointments have been on the understanding, admitted in writing by the person appointed, that such an extension may at any time be put in operation.

I personally feel that in the interests of the profession and of the provident members the step is a right one. The interests of the profession can well be left in your hands and in those of the large medical associations; and the change will give the provident members a larger choice. But one thing, however, is perfectly clear, that is that the status of the profession must, to the injury of the public, be lowered if its members do not combine against encroachments, on the one hand of political and other clubs, which by means of their organisation obtain the services of individual members at prices not fair to persons of education, and on the other hand of strong charitable institutions who take no trouble to prevent the gratuitous relief given by their medical officers being used by persons perfectly able to pay in the usual way.

It seems to me that apathy on the part of the profession has brought matters to such a position that it should, before it is too late, carefully consider your suggestion of a decided co-operation with properly-organised and fairly remunerative provident associations and such occupation of the ground that "little clubs should cease to make a trade of catering for medical attendance," and it should at the same time put all available pressure on charitable institutions, to stop the present abuse of their trust, and they should be urged to apply their income and the time of their officers to the purposes for which the institution was founded, that is, the medical relief of the "sick who are poor and proper objects of charity."—I am, etc.,

Gloucester, April 8th. George Whitcombe.

Sir,—I would like, through the columns of the British Medical Journal, to call the attention of "A Member" to the following extract from the annual report of the Provident Dispensaries Association for the year 1882:

"At the adjourned annual meeting of this Association, held in April last, a recommendation of a joint subcommittee of the Medico-Ethical Association and the District Provident Society that the wage limit should be abolished, but that cases of alleged improper admissions should be referred to the District Provident Society for investigation, was adopted, and the Council are glad to report that this arrangement is working satisfactorily."

Up to that time, if I mistake not, there was a wage limit, but it was found unsatisfactory. Anyone who is acquainted with the working classes and who has thought carefully and in an unselfish spirit on this matter must see how difficult it would be to define a wage limit. Even with good wages, by continual sickness, short time, dependent relations, and other innumerable drawbacks, a man's charges may become so heavy that he would be a person suitable for membership in a provident dispensary.

So great was the difficulty in defining a wage limit that those medical gentlemen who endeavoured to set up a provident system independent of the Provident Society, and all of whom are undoubtedly in active sympathy with the views of "A Member," framed rules in which, I understand, there was no wage limit mentioned.

Again, your correspondent points out that the objectionable sentence in the report has been part of the annual report for several years. In answer to this, I can only suppose that after the abolition of the wage limit, recommended by the joint subcommittee mentioned above, the sentence was thoughtlessly put in the report, and that in succeeding years the secretary merely copied it, and without a thought of its significance. I was not on the staff then, and so I cannot hold myself responsible for any misstatement of previous years.

At my request, the Committee agreed to obliterate this part of the report, and to substitute the sentence mentioned below. But your correspondent thinks I have gained nothing by this concession, that any advantage was more imaginary than real—that the change was a distinction without a difference. If he really thinks so, words can have but little significance to him. The report formerly read: "There is no wage limit, so that application for membership is open to all." This certainly might mean, as your paper put it, that an alderman was as welcome and had as much right to join a provident dispensary as a navvy, and that no social distinction was recognised by the Committee. This sentence was expunged, and the following substituted: "There is no wage limit; members shall be artisans and others whose application for membership shall be considered suitable by the Committee." Would an alderman on reading this think himself eligible for membership? Previously those in all grades of society could say that they were apparently invited to join, but under the new report they would first ask themselves whether they were suitable. And yet your correspondent would suggest that there was no real difference in these two statements.

The local committee went as far as it legally could. It has no power to abolish the wage limit clause. This must be done by the central Council. The Committee, I claim, went farther than the Society's rules. These state that application for membership must be approved by the Committee. It is easy to understand that a family could be approved by the Committee and yet not be considered suitable. Suitability,

then, is the standard which is to guide the Committee in the selection of its members for the future.

With you, Sir, I believe that the only way to prevent the medical practitioner from being imposed upon, and at the same time to give the poorer classes the opportunity of obtaining medical advice is a well conducted provident dispensary system. There is only one such organisation here; it has its faults, so have our hospitals; it is undoubtedly abused, so are our hospitals. It may affect in a small way the incomes of the local practitioners; so do the hospitals, but to an incomparably greater degree. But of these, none are irremediable.

Recently a great deal of energy and spirit has been put forth to counteract the evils existing; but, unfortunately, it has been misdirected, and misspent, and no good, but harm has resulted. If reforms in the Association working here are to be effected, it will only be by calm, wise, and persistent counsels. If instead of battling where there is nothing to gain, measures are taken in the proper quarter, there is good reason to believe that every attention will be paid to all efforts made to put the District Provident Society on a basis, righteous both to our members and to the medical profession. —I am, etc.,

Salford, April 17th. ROBERT FORSYTH, M.B.

THE APPROACHING REVISION OF THE *BRITISH PHARMACOPŒIA*, FROM THE GENERAL PRACTITIONER'S STANDPOINT.

SIR,—Much that has recently been published in the BRITISH MEDICAL JOURNAL on this subject is of extreme interest to the general practitioner, and when it is considered how largely he must depend on the *Pharmacopœia* in the varied emergencies of his practice, perhaps some suggestions for making it more useful to him may be worthy of consideration.

Dr. Whitla points out the grave difficulty which confronts the prescriber in its dosage, and proposes a partial remedy by introducing uniformity of dose or of strength for the Galenical preparations. At the same time, he remarks that this has hitherto been found impracticable. Pending the solution of this problem, there is a plan which, while retaining for the pharmacologist a free hand in making the tinctures and other preparations of the most desirable strength, shall remove from the memory of the prescriber a most burdensome load, and enable him to use in all emergencies any drug or preparation thereof mentioned in the *Pharmacopœia*, even though he may at the moment fail to recall the exact dosage laid down.

This can be accomplished by adding to the present maximum and minimum doses a third or medium dose, which shall as nearly as possible represent the average working dose, and by establishing the convention that the prescriber who so wishes may, after naming the drug or its preparation, add, if he desires the maximum pharmacopœial dose, "dose max.;" if the minimum, "dose min.;" while, if he write "dose med.," the druggist will dispense the new intermediate dose. That such a resource would sometimes be of extreme value requires little argument.

The *Pharmacopœia* at present contains 900 items. Omitting those misturæ, aquæ, etc., which have in their own class a sufficiently uniform dose, and the practically duplicate preparations, as the liquor and tinctura ferri perchloridi, there remain upwards of 260 drugs or preparations for internal use, of which it is necessary to remember the dose. It is probable that few persons except examiners in materia medica and candidates within a month after examination are able to remember these 260 odd doses, and hence the prescriber must occasionally be prevented from using certain drugs, or the particular preparation of them which he believes to be indicated. Another possible advantage might be that an objection would be removed to the more frequent revision of the *Pharmacopœia*, and the addition to it of new preparations by this simplification of dosage, and for the same reason the way would be paved for the introduction of the metric system. It may be objected that mechanical dosage would be encouraged, but dosage is and must be largely mechanical, and the system proposed would be optional and of limited application.

A well-known writer on materia medica to whom this plan has been submitted, while approving of the object aimed at, considers it would be better to indicate the dose in fractions of the maximum dose. This might facilitate prescribing for children by the application of Gaubius's table, but the number of drugs (and especially those which are toxic) required in childhood is so small, that little advantage would accrue. An addition useful to many would be the recognition as such of the leading antiseptics with a definition of their requisite dilutions, and the inclusion of the convenient and portable "soloid" of perchloride of mercury would be a practical advance.—I am, etc.,

NEVILLE WOOD, M.R.C.P.Lond.,
Honorary Medical Officer to the Kensington Dispensary.
Queen's Gate, S.W., April 15th.

THE PRESENT POSITION OF THE OBSTETRICAL SOCIETY OF LONDON.

SIR,—This Society was instituted for the promotion of knowledge in all that relates to obstetrics and the diseases of women and children. The laws regulating its affairs were therefore drawn up for a scientific society.

At the present time the Council has launched upon a career of political agitation, acting as the deputy of the Midwives' Institute and the Society for the Promotion of Registration for Midwives. As a result the name of the Society, and such prestige as it possesses, is being used to foster legislation to which there are very grave objections, and which has not been submitted to the Fellows for their approval.

The President, who stated to the House of Commons Committee that "if he were a poor woman he should prefer to be attended by a really well-trained midwife than an overworked doctor"; and the chairman of the Midwives' Board, who has publicly stated "that from his own experience of the enthusiasm that women as a rule bring to bear upon their training, a candidate at the end of three months' training would be able to put to shame in a midwifery examination an ordinary medical student of three years' training," are fair examples of the school of thought represented by the large majority on the Council.

With such very poor ideas of the knowledge and capacity of the men for whose teaching and training they and their class are responsible, it cannot be a matter of astonishment that the rules of the Society have been strained to breaking point for the promotion of legislation intended to facilitate the removal of the practice of midwives from the hands of the medical profession, and in fact to place it on the Continental basis.

The question now arises, Is it the wish of the Fellows that the Society should be used as a means to further this end? The rules of the Society admit of no discussion on the subject except at the annual meeting held in February, and the Council brought forward nothing at this year's meeting of a contentious nature. At the annual meeting every Fellow is summoned by letter, a week's notice being given, and it is quite clear that the business brought forward by the President in his address should have been brought forward by the Council on that day. However, stealing a march on those who are opposed to his views on midwives registration, he takes the field when he is absolute master of the situation. At ordinary meetings of the Society and at meetings of the Council he is the sole authority, and although it is quite clear, from a perusal of the laws, that it was never contemplated that the President would introduce contentious business into his address and take up the position of a partisan in a matter of politics, yet he does both, and allowed Dr. Griffiths to propose a resolution of an important character at the ordinary meeting in March, in defiance of the spirit of the rules. At the next ordinary meeting, when, after the reading of the minutes, I attempted to call attention to this resolution the President prevented my doing so on the ground that my action was against the laws of the Society.

Now, I am informed officially that the only means of testing the feeling of the Society upon the important question of its approval of the introduction into the sphere of the Society's activity of political questions, and of the action of the President and the Council is by representations to be made to the Council by three Fellows that they desire the repeal or alteration of some laws, and it has been suggested to me that the best course to pursue is to send an appeal to the Council, signed by as many Fellows as possible, to sum-

mon a special meeting to consider the propriety of the repeal of Chapter xv of the laws which relates to the Board for the examination of midwives.

Sitting on the Council, as I do, I have objected absolutely to the course pursued, because the members of the Council were not elected this year by their constituents with any mandate to alter in any way the character and objects of the Society, which have always been scientific in character. Moreover, the laws of the Society do not admit of any practical check being placed on the action of the Council; it is elected upon general and scientific grounds, and not upon a political basis at all.

Under these circumstances I shall be glad to receive as many names of Fellows as possible, and as soon as possible, who desire the repeal of Chapter xv of the laws, to be considered by the Society.—I am, etc.,

Hatfield, April 8th. LOVELL DRAGE.

THE APPOSITION OF PERITONEUM TO PERITONEUM.

SIR,—Dr. Colpe has evidently misunderstood me completely on this subject. Perhaps I should not grumble, seeing that the paper by Mr. Greig Smith, to which I drew attention, had a similar fate. The week following its publication I asked six abdominal surgeons in large practice what it meant, and not one of them had been able to understand it. I seized upon a practical point in it which was, it seemed to me, worth insisting upon. We are still in need of treatment or operation that will cure or materially relieve unmanageable cases of uterine displacement in women who have to live an active life and whose uteri are subjected to much strain and pressure.

Alexander's operation is easy and, it is said, effective here in Liverpool. In most other places it is, I believe, difficult to perform and unsatisfactory in its results. I have no opinion of it, and I believe that hysteropexy is only a little better as now done. It was done about two years ago by one of my friends, who will doubtless report the case, after the method Mr. Smith described—not in the absurd fashion Dr. Colpe understands me to recommend. I believe this operation, with fibro-serous union, will have a future, and I do not anticipate the results which he feared would follow the extraordinary operation he describes.

I have done ventro-fixation in one case only—that of a little deformed woman. I found an incision of 1½ inch ample. I removed her ovaries and scratched the uterus at the spot where I attached it to the parietal peritoneum by two sutures passed through uterine wall, peritoneum, and recti. She has been cured of her unmanageable prolapse, and I have since dilated the cervix with my dilators (straight pattern), and curetted, much to the relief of the menorrhagia and dysmenorrhœa, which made her life unbearable. She can dance, skate, and earn her living again. Such an operation is sufficient in these cases, and enough to overcome the original pressure that sent the uterus down and kept it down. But in cases which may become pregnant, and in women who must work hard, I certainly think the best success will follow fibro-serous union.—I am, etc.,

GEORGE A. HAWKINS AMBLER, F.R.C.S.E.

Liverpool, April 10th.

SCHOOL BOARD AND OTHER CERTIFICATES.

SIR,—Allow me to say a few words on the subject of fees for certificates. In the forty years that I have been physician to "the Surrey" and "the Public" dispensaries I have written thousands of club, death, board school, and other certificates: certificates of fitness or unfitness for vaccination or for work; certificates for charity organisation societies, convalescent homes, hospitals for consumption, and the like, but I have never received one penny for any of them. I suppose no medical man would charge for a certificate of death or of fitness or unfitness for vaccination, which *does* take some time and trouble; why, then, should he charge for one for a board school, which *does not?* The divisional inspectors supply the printed forms, and filling them in is a simple matter of a minute or two. Besides, who is to pay the fee? The poor parents cannot, and if the School Board pays it the money must come, ultimately, from the ratepayers. If any certificates should be paid for, those for consumption hospitals, such as Ventnor, should be, as they take from twenty to thirty minutes to fill in, and we have to state temperature, pulse, stethoscopic signs and many other particulars; but who is to pay the fee? Neither the hospital nor the patient can afford to pay it, and we cannot expect the governor, who subscribes his guineas, will bear this additional expense. My opinion is that no fee should be paid for certificates given to poor people: they pay nothing for our advice and medicines, why should they pay for our certificates? We should be willing to give them our services cheerfully, and look for no other reward than the consciousness that we have been of some use to them in a time of trouble and sickness. Where the poor are concerned we should act upon the motto of Guy's Hospital. *Melius dare quam accipere.*

And now a word about death certificates. A poor penniless woman receives from me, without fee, a certificate of her husband's death, which involves some time and trouble on my part. She then takes it to the registrar, who gives her a short copy of it for the undertaker, but if she wants another short copy for a benefit society he charges her 1s. 1d., and if it is for the "Prudential"—why, I do not know—he charges 2s. 7d. If medical men make no charge for the long and troublesome original certificate, why should registrars charge these fees for their abbreviated copies? I have tried to save the poor these fees by giving them copies myself, but, strange to say, these copies are always refused as not being legal certificates.—I am, etc., D. HOOPER, B.A., M.B.,

Trinity Square, S.E., April 15th. Physician to the Surrey Dispensary.

FACTORY STATISTICS.

SIR,—In your leader of April 13th on Factory Statistics you are good enough to mention my name with those of Dr. Paddock Bate and Dr. M. Baines, and you say, "The two last being certifying surgeons of long standing." Lest it should appear that I am not one at all, may I venture to say that, although my service is probably of shorter duration than that of the other gentlemen, I have held a similar office for more than seventeen years?

It was, I presume, as representing the Association of Certifying Surgeons that I was asked to give evidence before the Statistical Committee, and to offer suggestions as regards sundry forms used by the Factory Department, having by the favour of my colleagues acted as President of that Association for the past two years, an Association which I may say includes a large number of the 1,800 certifying surgeons of the United Kingdom.

May I take this opportunity of thanking you cordially for your warm advocacy on behalf of the service generally, and especially at the time when their very existence was assailed—fortunately without success—by the Act introduced by Mr. Home Secretary Matthews in 1891 to which you refer? Although there are many suggestions and recommendations in the report of the Statistical Committee, and also in the reports of the Labour Commission, which have not been acted upon by Mr. Asquith in his Factory Act now before Parliament, it is satisfactory to feel that the efforts of a useful and hard-working service are now recognised by the State.—I am, etc.,

Leeds, April 15th. CHAS. J. WRIGHT.

DISCHARGE OF PATIENTS FROM THE METROPOLITAN ASYLUMS BOARD'S HOSPITALS.

SIR,—In your issue of the BRITISH MEDICAL JOURNAL of April 13th you published in your Parliamentary intelligence the reply of the President of the Local Government Board to questions put to him by the members for Islington on the above subject.

In this reply he has been made to state, on information supplied to him by the Clerk to the Metropolitan Asylums Board, that there appeared to be no justification for attributing the illness of the father and children to any infection caused by the premature discharge of William Holland from hospital; and that in the case of the two children who had died, that there was "strict evidence that the disease was diphtheria and not scarlet fever."

As I am to a large extent responsible for the information on which the members of Parliament based their questions, allow me to say that I hold copies of the death certificates of these children, one of which states that the cause of death was: (*a*) Scarlet fever, twelve days; (*b*) diphtheria, nine days;

and the other (*a*) Scarlet fever, (*b*) nephritis. These children both died in hospital, and of course their deaths were certified by the hospital physicians. This being so, I entirely fail to discover where the Clerk to the Metropolitan Asylums Board obtained his "strict evidence" that the children did not die from scarlet fever, which in each case was the primary certified cause of death, and which was, in the opinion of their private medical attendant, undoubtedly contracted by the too early discharge from hospital of another member of the family suffering from this disease.

After all, the question at issue is not "Did these children die from diphtheria?" but "Did they suffer from scarlet fever, presumably contracted by the premature discharge of William Holland from hospital?" I hold that the evidence of the death certificates of the Metropolitan Asylums Board's medical officers is conclusive on this point, and that the children did suffer, as I have alleged, from scarlet fever in the first instance, and that it is impossible for the Clerk, in the face of such certificates, to justify the statement for which he has made the President of the Local Government Board responsible.—I am, etc.,

ALFRED E. HARRIS,
Medical Officer of Health, St. Mary, Islington.

Vestry Hall, Upper Street, N., April 10th.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The last post on Wednesday is the latest by which these announcements can be received.

A FIELD MEDICAL OFFICER, expecting orders for India, wishes to exchange with one of similar rank who has about two years of home service to run. Address, "Delta," care of Sir C. McGrigor and Co., 25, Charles Street, St. James, S.W.

THE NAVY.

FLEET-SURGEON R. W. WILLIAMS has been placed on the retired list, at his own request, March 31st. He was appointed Surgeon, October 1st, 1872; Staff-Surgeon, October 1st, 1885; and Fleet-Surgeon, September 14th, 1893. While Surgeon of the *Philomel* he served with the Laroot Field Force during the operations against the Malays in 1875 (medal with clasp); was with the Niger expedition in 1877 as Surgeon of the *Bozer*, when several piratical villages were destroyed and severe punishment inflicted on the river pirates; and was Surgeon of the *Northumberland* during the Egyptian war of 1882, receiving the Egyptian medal and the Khedive's bronze star.

The following appointments have been made at the Admiralty: HORACE X. BROWNE, Staff-Surgeon, to the *President*, additional, April 8th; JOHN E. PENN, Staff-Surgeon, to the *Decadation*, April 8th; WILLIAM GRAHAM, Fleet-Surgeon, to the *Thunderer*, additional, for Pembroke Dockyard, undated; GEORGE F. WALES, Staff-Surgeon, to the *Wildfire*, for the *Sans Pareil*, April 18th; PERCY H. BOYDEN, M.B., Surgeon, to the *Thunderer*: JOHN L. BARRINGTON, Staff-Surgeon, to the *Inflexible*, April 20th; CHARLES W. SHARPLES, Staff-Surgeon, to the *Unicorn*, temporarily, April 30th.

Fleet-Surgeon WILLIAM GRAHAM has been placed on the retired list, at his own request, April 15th. Appointed Surgeon April 15th, 1861, he became Staff-Surgeon, December 21st, 1874, and Fleet-Surgeon, September 20th, 1892. He was wrecked in H.M.S. *Driver* in August, 1861, in the West Indies; was Senior Medical Officer of the *Octavia* in 1865 during an outbreak of small-pox, and was medical officer in charge of the Niger expedition in 1870. During the Egyptian war of 1882 he was Staff-Surgeon of the *Achilles*, and has the medal and the Khedive's bronze star.

ARMY MEDICAL STAFF.

SURGEON-MAJOR Sir JAMES R. A. CLARK, Bart., F.R.C.S.Edin., retires from the service with a gratuity, April 10th. Sir James was appointed Surgeon March 6th, 1880, and Surgeon-Major twelve years later.

Surgeon-Captain VERE E. HUNTER, who dates as Surgeon-Captain from February 3rd, 1883, is now promoted to be Surgeon-Major, March 25th. For a short time in 1891 Surgeon-Major Hunter was on half pay through ill-health.

Surgeon-Captain FREDERICK T. SKERRETT, F.R.C.S.I., who was placed on half pay on account of ill-health in November of last year, is restored to the establishment, *vice* A. Wright, seconded, March 18th.

Quartermaster DANIEL LACKET is placed on retired pay, April 6th. He was appointed Lieutenant of Orderlies, June 9th, 1877; Quartermaster A.M.S., July 1st, 1881; and granted the honorary rank of Captain, June 9th, 1877.

Surgeon-Captain J. F. BATESON, M.B., who has recently vacated his appointment with the Egyptian army, is restored to the establishment as Surgeon-Captain, *vice* J. H. Daly, placed on temporary half-pay, March 29th.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR A. O. WILEY, having resigned his Volunteer appointment, ceases to be an officer of the Army Medical Reserve, April 10th.

Surgeon-Captain WILLIAM CHALMERS-COWAN is promoted to be Surgeon-Major, April 10th.

Surgeon-Captain J. W. BEATTIE, M.B., 1st Durham Volunteer Artillery (Western Division Royal Artillery), to be Surgeon-Captain, April 17th.

INDIAN MEDICAL SERVICE.

SURGEON-COLONEL G. C. ROSS, Bengal Establishment, Administrative Medical Officer and Sanitary Commissioner, Central Provinces, is appointed Inspector-General of Civil Hospitals, Bengal.

The undermentioned probationers, being reported qualified, have been appointed Surgeon-Lieutenants in the Bengal Establishment from January 29th: C. J. MILNE, A. F. STEVENS, C. H. BENSLEY, F. H. WATLING, J. D. MCMILLAN, A. GWYTHER, E. J. MORGAN, A. E. J. WARD, W. CARR, and J. A. HAMILTON.

Brigade-Surgeon-Lieutenant-Colonels J. H. NEWMAN, M.D., and J. C. G. CARMICHAEL, M.D., Bengal Establishment, are promoted to be Surgeon-Colonels from March 29th.

Brigade-Surgeon-Lieutenant Colonel JAMES SMITH, Madras Establishment, has retired from the service from April 1st.

Surgeon-Major-General J. CLEGHORN, Bengal Establishment, is gazetted Surgeon-General and Sanitary Commissioner with the Government of India, in succession to Surgeon-Major-General Rice.

THE YEOMANRY AND RIFLE VOLUNTEERS.

SURGEON-CAPTAIN R. H. LUCAS, Suffolk Yeomanry (the Duke of York's Own Loyal Suffolk Hussars), has resigned his commission, April 17th; Mr. HENRY CHARRINGTON MARTIN, M.B., is appointed Surgeon-Lieutenant to the same corps from the same date.

Surgeon-Major J. S. HOLDEN, M.D., 2nd Volunteer Battalion the Suffolk Regiment, is promoted to be Surgeon-Lieutenant-Colonel, April 17th.

Surgeon-Captain S. JOHNSTON, M.D., 2nd Volunteer Battalion the Prince of Wales's Own West Yorkshire Regiment, is promoted to be Surgeon-Major, April 17th.

Mr. LLEWELYN FREDERICK COX, formerly Lieutenant, is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion the Royal Welsh Fusiliers, February 13th.

Surgeon-Captain F. J. LAWLESS, 4th Volunteer Battalion the East Surrey Regiment, is promoted to be Surgeon-Major, April 17th.

VOLUNTEER MEDICAL STAFF CORPS.

SURGEON-LIEUTENANT H. W. G. MACLEOD, M.B., of the London Companies, is promoted to be Surgeon-Captain, April 17th.

MILITIA MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL C. WHIPPLE, 3rd Battalion Devonshire Regiment, has resigned his commission, retaining his rank and uniform, April 10th.

THE VOLUNTEERS.

SURGEON-LIEUTENANT J. W. HAUGHTON, 1st Volunteer Battalion the Duke of Cornwall's Light Infantry, is now appointed Second Lieutenant in the same corps, April 10th.

Surgeon-Captain and Honorary Surgeon-Major R. C. M. POOLEY, of the same Battalion, has resigned his commission, with permission to retain his rank and uniform, April 10th.

Surgeon-Captain C. H. GWYNN, M.D., 2nd Volunteer Battalion the King's Shropshire Light Infantry, is promoted to be Surgeon-Major, April 10th.

Surgeon Lieutenant C. MACKENZIE, M.B., 1st Volunteer Battalion Seaforth Highlanders, has resigned his commission, April 10th.

HIRED TRANSPORTS *VERSUS* TROOPSHIPS.

THE reports on hired transports during the past trooping season point to the accommodation for officers and their families and the wives and children of non-commissioned officers and privates as satisfactory and somewhat superior to the old Indian troopships; but as regards the rank and file, the troopships gave more space for accommodation, and the hospital and sanitary arrangements were superior. The diet is also said not to have been as varied on the hired vessels as in the troopers. A larger cubic space for soldiers would be an advantage.

MEDICAL ARRANGEMENTS IN THE JAPANESE ARMY.

THE following incident is reported by the *Times* correspondent at Weihai-Wei: "Now came a touching proof of heroic devotion to duty. While the storm of lead was still hurtling thickly through the air, a company of Red Cross men, always well to the front, appeared on the field, stolidly marching out from the ravines two and two, with stretchers and 'first-aid' appliances for their comrades, right under the withering fire from the gunboat, with never a moment's hesitation. Unarmed but for a paltry dirk at the side, helpless in any case against such an attack, with foes heedless or ignorant of the sacred significance of the Red Cross badge, they did not flinch for a moment on their errand of mercy. It would have been easy to wait until the fire should cease; but they nobly went on and did their work as if on their parade ground at home. One by one the dead and wounded were sought out all over that wide field of blood and borne away, until within twenty minutes the place was completely cleared of every man, living or dead. Colonel Taylor, A.M.S., declared it the most splendid deed he ever saw, and the other foreign *attachés* who saw it were equally emphatic in their praise."

THE SANITATION OF ALDERSHOT.

A LETTER appears in the *Standard* of April 12th urging the necessity of members of Parliament calling on the Secretary of State for War to give publicity to the report furnished by Brigade-Surgeon-Lieutenant-Colonel Notter, Professor of Military Hygiene at Netley. Professor Notter, under instructions from the War Office, inspected at Aldershot, and inquired into the water supply and other matters in March last, and his report should now be in the hands of the War Office.

THE INDIAN MEDICAL SERVICE.

A memorial to the Secretary of State for India is in preparation, and will shortly be submitted, on the subject of reform and the larger utilisation of indigenous talent at a cheaper cost.

The hands of members of Parliament who have promised to bring the subject before the House will be strengthened by the memorial, with which a delegate will probably be sent home.

THE REGULATIONS FOR MEDICAL SERVICES.

There is likely to be some revision of the Army medical regulations. The new regulations were issued late last year.

THE PRINCIPAL MEDICAL OFFICERS OF ARMY CORPS (INDIA).

The facts connected with the pay and position of the surgeon-major-generals of army corps, on which Mr. Hanbury put a question in the House of Commons to the Secretary of State for India on April 9th, seem to be as follows:

Before the organisation of the corps, the military authorities made a great effort to arrange with the Government of India that medical officers of only surgeon-colonel's rank should be appointed principal medical officers of army corps so that they might not be senior to the deputy-adjutant-generals (chief staff officers). To this proposal the principal medical officers of both the Army Medical Staff and Indian Medical Service at Simla objected, and the Government gave way.

In respect of the pay of the principal medical officers army corps being reduced to Rs.2,000, it is reported that it was pointed out to the Government of India that surgeon-major-generals drawing nearly £1,400 a year in England were scarcely likely to accept the principal medical officerships of army corps to the decreased emoluments. There is a rumour that a scale of reductions of pay for the medical service was in years gone by submitted by the then principal medical officer in Simla of the Army Medical Staff, but of the accuracy of this it is impossible to speak. There is a distant possibility that the scale of pay of surgeon-major-generals of army corps may in the future be raised to Rs. 2,200.

SANITARY WORK IN THE ARMY.

Lord Stanley's remark, during the discussion on the Army Estimates, respecting the inaction of army medical officers in sanitary matters, has justly given rise to a feeling in the department (proved by correspondence we have received from several quarters) that an attempt has been made to minimise, if not to depreciate, the services of army surgeons towards sanitary reform. The emphatic contradiction to Lord Stanley's statement lies in the departmental Blue Books issued from year to year. If combatant officers desire to learn the activity of the medical department in sanitary matters (an activity which it is regrettable to say is not much encouraged by the authorities), they might profitably spend a short time in referring to these official papers. We repeat what has already been noted in these columns!—namely, that reform in army sanitary affairs is a very disheartening, ungratifying, and, apparently, hopeless topic.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ADVERTISEMENT BY CIRCULAR.

Under this heading we referred, in the British Medical Journal of April 13th, p. 844, to a circular purporting to be issued in the interest of "Dr. Cooper, Surgeon, Six Ways, Erdington." Another correspondent sends a copy of *The Yenton Quel* for April, 1886, and on page 10 we find an advertisement of Dr. Cooper in apparently the same terms as the circular. This advertisement is sandwiched between the advertisements of a corn chandler above and of two confectioners below. Its resemblance to a trade announcement, which we pointed out in our previous comments, is not diminished by this accidental association.

HOW DO THESE THINGS GET INTO THE PAPERS?

The county of Lincoln is happy in its local press; the narrowness of interest with which provincial journalism is sometimes charged cannot, at any rate, be urged against it. The *Lincoln Gazette* of April 6th devotes nearly half a column, and the *Lincolnshire Chronicle* of the preceding day an entire column, to a report of a fashionable wedding which had occurred so far afield as in Edinburgh a few days previously. Nor is it, as might be surmised, the nuptials of a royal personage or a music hall *artiste* that are commemorated at such unusual length. The hero of the ceremonies is a member of our own useful but unostentatious profession. His name is Dr. Stitt-Thomson, and his remarkable abilities are duly made known in the speeches delivered at a precedent entertainment, which is also carefully reported. We learn incidentally that Dr. Stitt-Thomson is about to quit Scotland, and transfer the obvious advantage of his practice and residence to Lincoln. "I wonder how these things get into the papers," said Mr. Vincent Crummles. And so do we.

LIABILITY FOR SANITARY REPAIRS.

In the Queen's Bench Division on Wednesday, April 10th, in the action by the Thompson and Norris Manufacturing Company (Limited) against Hawes and another Mr. Justice Lawrance gave judgment. He said this was an action in which the plaintiffs sued for £100, money which they alleged was paid at the request of the defendants. The plaintiffs were lessees of the defendants of certain premises, and notice was served, under 41 Vict., cap. 76, that the drainage was out of order. The premises were examined, and it was found that the drains required reconstruction. The money claimed was money which was laid out for the reconstruction of the drains and putting the place into a sanitary condition. The only question that arose was whether the plaintiffs had a right of action against the defendants, who were the lessors. His attention was called to the case of Gebhardt *v.* Saunders, and it seemed to him that that case was precisely in point. It was decided that the plaintiff was entitled to recover from the defendants under the same circumstances the costs and expenses incurred in abating the nuisance, and money paid by the plaintiff for the use and at the request of the defendant, though no notice under Section 4, Subsection 3, had been served upon the defendant as owner of the premises. The only point that was made in the present case on behalf of the defendants was that no notice had been served on the defendants. As he failed to see any distinction whatever between the two cases, his judgment was for the plaintiffs for the amount claimed. Mr. Marshall, Q.C., and Mr. A. J. Walter appeared for the plaintiffs; Mr. Channell, Q.C., and Mr. Fitzgerald for the defendants.

A GRATEFUL PARENT.

A correspondent has called our attention to the following very unusual advertisement which appeared in the *West Cumberland Times* of Saturday, March 16th:

NOTICE.—I beg to thank Dr. Briggs and his assistant, through the *West Cumberland Times*, for their attendance and skilful treatment towards my son, Jonathan Wilson, who suffered from diphtheria, as I think he owes his life to a great extent through the medical skill and constant attendance.

(Signed) DAVID WILSON, Carter, etc., Aspatria.

The advertiser no doubt meant to do the doctor a good turn, and we can only offer our sympathy to Dr. Briggs, to whom such an odd sort of public notice must have been extremely distasteful. We are disposed to think that he would be well advised to do without any connection with the appearance of the "notice." The world is very uncharitable.

UNQUALIFIED PRACTICE.

We have considered carefully the evidence in certain cases quoted by several correspondents of alleged unqualified medical practice by herbalists. We would recommend our correspondents to place the fullest obtainable particulars before the Clerk to the Society of Apothecaries, Blackfriars, London.

MEDDLING BETWEEN DOCTOR AND PATIENT.

M.B.—We quite concur in our correspondent's view that the interference between doctor and patient of any unqualified person is much to be regretted, and more particularly when such person is a clergyman, whose opinion necessarily carries weight with his parishioners in humble life. We think our correspondent was quite right in calling for an explanation from the curate in question. This may be the means of putting a stop to such cases in future. We should not recommend any further step being taken, although it might be open to our correspondent to take legal proceedings if the allegation of malpraxis can be proved. Of course such a step would only be resorted to on the advice of a solicitor.

CONSULTATIONS.

H. R. W. asks advice under the following circumstances: A. and B. were practitioners in the same town. A. frequently called B. in consultation. A. has now sold his practice to C. and left the district. B. and C. are on good terms. If any of the patients seen in consultation with A. should now send for B., should the latter refuse them the same as if A. were still practising?

**** In the absence of any direct rule bearing on the exceptional point submitted by our correspondent, we would simply reproduce the opinion of a skilled exponent of medico-ethical problems, which is to the following effect: "H. R. W. will act wisely and in the true ethical spirit by declining to accept attendance on any such patients until at least twelve months have elapsed, with the view of affording the purchaser of A.'s practice a fairly just opportunity of retaining his (A.'s) patients"—an opinion which we fully endorse.

MEDICAL HANDBILLS AND SHOP PAPER.

L.R.C.P.&S.Ed.—It is difficult to believe that any practitioner would be so regardless of all professional decorum, as systematically to arrange with shopkeepers to advertise him by wrapping up their wares in his handbills. It must not be forgotten that it is at least possible that, owing to the change of number of the house, the bills in question may have been sold off as waste paper, and may in that way have come into the hands of the proprietor of the shop.

As to the handbill itself, it is of the usual type, and although no name appears thereon, the founder of the "Gipsy Lane Surgery and Dispensary" cannot have much regard for the dignity and honour of his profession.

INDIA AND THE COLONIES.

JAMAICA.

The annual report of the Registrar General of Jamaica for the year ended March 31st, 1894, shows that education is still in a very backward state in that colony, 52 per cent. signing the marriage register by "mark" or "cross"; and, that although there is a steady increase of the population by some 10,000 annually, the largest share of this—60.6 per cent.—is attributable to illegitimacy. Under these circumstances the mortality of children under 1 year—31 per cent.—is not to be wondered at. The absence of anything like general registration of deaths under medical certificate detracts very much from the value of the mortality returns, a very large proportion of the deaths being entered under "undistinguished" fever.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

GENERAL COUNCIL.

THE statutory half-yearly meeting of the General Council of the University of Edinburgh was held on Tuesday, April 16th. The minutes of the meeting of October 26th, 1894, were read and approved.

Powers of the Chairman.—The report of the Committee on Ordinances showed that on the question of the powers of the Chairman of the General Council, the very strong objection of the last meeting of the Council to the words of the draft ordinance: "At meetings of the General Council the chairman of the meeting shall decide all points of order and questions as to the competency of motions or amendments" had been considered by the Commissioners. In the final ordinance the latter clause: "And questions as to the competency of motions or amendments," had been omitted. The Committee thought that the clause which remained was unnecessary, but they did not advise the Council to oppose it. They thought that the ordinance in its present form would be harmless.

Research Work.—The Committee regret that the final ordinance on "Regulations for the encouragement of special study and research, and for the appointment of Research Fellows" proceeds substantially on the same lines as those of the draft, and that effect is not given to the objection "that no distinction is made between training in research under direction, and the conduct of research independently of professional guidance, and as a higher part of University work."

Qualifications of Examiners.—The ordinance on "Regulations as to Examiners" repeals a section of a previous ordinance providing that "no person shall be appointed an examiner who is not a member of the General Council of one or other of the Scottish universities." The Committee approved of this ordinance. They thought that in the selection of examiners the University Court should be subject to no such restriction as is contained in the section repealed, but that it should be allowed the widest possible choice in the selection of examiners. The Committee objected to the section in the ordinance providing for the establishment of the General University Court, though they did not disapprove of its main proposition. The report of the Finance Committee dealt with the various new regulations as to fellowships, foundations, etc.

Status of Matriculated Students.—On the draft ordinance entitled "Regulations with regard to Matriculated Students" the Committee said: "It is proposed to enact that no person shall be deemed to be a matriculated student, or be entitled to any of the privileges of matriculated students, unless, in addition to paying the matriculation fee, he has also been enrolled in one class in the university and has paid the class fee. The Committee venture to suggest that this draft ordinance should be reconsidered by the Commissioners. The only ordinance at present dealing with matriculation is General No. 18, Section 1 of which provides that each student shall pay a matriculation fee of one guinea at the commencement of each winter session for the whole academical year, or half a guinea where a student comes only for the summer session. In the ordinance regulating medicine it is also provided that students entirely extramural shall pay the same fee as in lieu of matriculation and be entitled to library privileges. By long-established practice no one is reckoned a 'matriculated student' unless, in addition to paying the matriculation fee, he has taken out a university class. It is also required in the cases of candidates for degree or bursary (other than entrance), or certain scholarship examinations, or for graduation by thesis or otherwise, who may not have matriculated in that academical year, that they must pay the matriculation fee of one guinea. The Committee fear that the new draft ordinance as framed will create hardship to extramural students and to the candidates just mentioned, who, under a literal reading of the ordinance, may be compelled to pay for a class after their course is completed. It is recommended by the Committee that the Council should represent to the Commissioners these difficulties, and suggest that the ordinance should substantively enact the rules at present in force, and provide that all candidates for university distinction (other than the preliminary examination and entrance bursary examination) shall have paid the matriculation fee of one guinea."

The Lectures of the Professor's Assistants.—The report of the Finance Committee held *inter alia* "that the method frequently adopted of appointing a professor's assistant to lecture on a subject cognate to the chair was not calculated to achieve that independence of thought and action which was needed for the higher and specialised branches of knowledge."

The Lessened Number of Medical Students.—The number of students in the University of Edinburgh, as elsewhere, continued to diminish. Thus the number of medical graduates in 1891-92 was 1,951, in 1892-93 it was 1,738, and in 1893-94 it was 1,560. Since the Universities Act of 1889 the total number of matriculated students had fallen nearly 800, and of that diminution fully 500 (or over 25 per cent. of the students in that faculty) is in medicine. The University would therefore have to face in the present, and it is to be feared in succeeding years, a further reduction in the amount derived from class fees. The surplus of £4,500 in the past year was a very narrow margin to allow for diminished revenue on the one hand, and for necessary growth of expenditure on the other.

The Necessity for Increased Funds.—The Committee, in view of these circumstances, believed that the time had now come when the whole bodies constituting the University should consult together and concert measures for appealing to the public on a widely-based scheme, conceived on popular lines, for the purpose of raising not so much appropriated and fettered endowments, but free funds to be entrusted like the Parliamentary grant to the reformed administration of the University Court. The capital funds of the University amounted to £336,661. The revenue was £88,143 and the expenditure £78,068, showing a surplus of £10,075. The revenue of the General University Fund amounted to £48,960 and the expenditure to £42,456, showing a surplus of £6,494.

ST. ANDREWS UNIVERSITY, AND UNIVERSITY COLLEGE, DUNDEE.

JUDGMENT was given by the House of Lords in this appeal case on Monday, April 8th. The action was brought to obtain reduction of an order made by the Commissioners appointed under the Universities (Scotland) Act, 1889, and to have it declared null and void. The instrument in question, after reciting that, by Section 16 of the Act just referred to, the Commissioners were empowered to affiliate the University College, Dundee, to and make it form a part of the University of St. Andrews, with the consent of the University Court of the University of St. Andrews, and also of the said College, and also reciting that the said University Court and the University College of Dundee had consented to affiliation upon the conditions set forth in the schedule thereunto annexed, proceeded as follows: "Therefore the Commissioners under the said Act have affiliated, and do hereby affiliate, the said University College of Dundee to, and make it form part of, the said University of St. Andrews, subject to the said conditions and in terms of the said statute." The ground upon which the appellants impeached this instrument was that the procedure which the statute prescribed in the case of ordinances made by the Commissioners had not been followed. On the part of the respondents it was contended that the provisions relating to ordinances had no application to an order made under the 16th section of the Act affiliating University College, Dundee, to, and making it form part of, the University of St. Andrews. The question turned upon the construction of that section. The judgment of the Court of Session—Lord Young and Lord Rutherfurd-Clark dissenting—was in favour of the contention of the respondents.

The appeal was unanimously sustained, their lordships holding that it was not the intention of the Legislature that the union of the University and the College was to be carried out by an order of the Commissioners other than an ordinance within the meaning of the Act, subject to approval by Parliament and by the Queen in Council.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the First Examination of the Board in the subjects indicated at the quarterly meeting of the Examiners "under the Four Years' Regulations":

Part I. Chemistry and Physics.—H. Bendley, Owens College, Manchester; J. Cater, King's College, London; F. Cooper, Mason College, Birmingham; J. Evans, St. George's Hospital; J. P. E. Henerey, St. George's Hospital; A. W. C. Lindsay, St. Bartholomew's Hospital; H. MacMaster, Sydney University and Surgeons' Hall, Edinburgh; N. H. Oliver, Guy's Hospital; J. G. Owen, Charing Cross Hospital; F. J. Russell, London Hospital; F. A. Simpson, Cambridge University and St. Mary's Hospital; R. Sykes, Yorkshire College, Leeds; F. W. Whyte, Queen's College, Belfast; A. H. Willson, Oxford University.

Part II. Materia Medica and Pharmacy.—C. S. Agnew, Charing Cross Hospital; F. J. Ayre, St. Mary's Hospital; W. E. Carter, St. George's Hospital; H. Clarke, St. Bartholomew's Hospital; R. S. Collier, Yorkshire College, Leeds; E. C. Corfield, St. Bartholomew's Hospital; T. B. Dakin, London Hospital; T. J. Davies, Middlesex Hospital; J. L. Day, Middlesex Hospital; C. H. Dearden, Yorkshire College Leeds; D. E. Evans, London Hospital; W. J. Fanning, St. Thomas's Hospital; J. H. Fergusson, St. George's Hospital; H. Herbert, London Hospital; H. R. Marsh, Guy's Hospital; L. E. L. Parker, St. George's Hospital; C. H. G. Prance, St. Bartholomew's Hospital; E. A. Prebble, Guy's Hospital; H. E. Raper, University College, London; G. Q. Richardson, Trinity College, Dublin; L. T. A. Rogers, Middlesex Hospital; R. C. Rumbelow, Middlesex Hospital; C. H. Smart, Mason College, Birmingham; H. V. Smith, Guy's Hospital; D. B. Todd, Guy's Hospital; H. W. Trewby, Middlesex Hospital; H. P. Turnbull, St. George's Hospital; E. Tyson, St. Bartholomew's Hospital; N. Wakkie, private study; J. N. Walker, St. Thomas's Hospital; L. Wood, Mason College, Birmingham.

Part III. Elementary Anatomy and Elementary Physiology.—E. Williams, Firth College, Sheffield; V. A. S. Bell, Cambridge University; J. D. Bridger, Guy's Hospital; C. R. Y. Brown, St. Bartholomew's Hospital; P. L. Daniel, Charing Cross Hospital; W. H. Davis, University College, London; E. P. Du Heaume, St. Bartholomew's Hospital; J. T. Dunston, Guy's Hospital; O. R. Ennion, St. Mary's Hospital; J. W. Hughes, Cambridge University; F. E. Hutchinson, Guy's Hospital; O. S. Kellett, Cambridge University and London Hospital; A. Knowlton, Middlesex Hospital; H. MacMaster, Sydney University and Surgeons' Hall, Edinburgh; J. A. Mawson, Yorkshire College, Leeds; J. J. Pierce, St. Mary's Hospital; A. G. G. Plumley, Guy's Hospital; C. G. Pugh, Middlesex Hospital; F. L. Rae, Guy's Hospital; J. A. Rooth, St. George's Hospital; C. A. Scott, Charing Cross Hospital; E. R. T. Thomas, London Hospital; H. G. S. Webb, St. Mary's Hospital; G. L. J. Wilson, St. George's

Elementary Anatomy only.—P. M. S. Bennett, Middlesex Hospital; L. E. Lewis, University College, Cardiff.

Elementary Physiology only.—J. Evan, St. George's Hospital; S. Hey, Cambridge University; F. W. Whyte, Queen's College, Belfast.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, APRIL, 1895.—PRIMARY EXAMINATION, PART II.—The following candidates passed in:

Anatomy and Physiology.—F. Althill, Charing Cross Hospital; B. E. G. Bailey, St. Bartholomew's Hospital; F. W. Chesnaye, St. George's Hospital; W. A. Davidson, Birmingham and London; E. Dodds, Sheffield; R. S. Elvins, Birmingham; F. R. Eddison, St. Bartholomew's Hospital; M. Joyce, Royal Free Hospital; A. F. Millar, St. Thomas's Hospital; C. S. Morgan, St. Bartholomew's Hospital; C. S. Ormshy, St. George's Hospital; M. Pantin, Royal Free Hospital; V. S. Partridge, Charing Cross Hospital; A. W. S. Sheldon, St. Bartholomew's Hospital; K. Vittal Rao, Madras; J. M. Wood, Westminster Hospital.

Anatomy.—F. G. Aldrich, Charing Cross Hospital; W. E. Heal, Leeds;

C. E. Hibbard, Guy's Hospital; E. A. Le Maistre, London Hospital; R. C. Morris, Birmingham; W. P. R. Newth, St. Thomas's Hospital; L. E. Owen, University College Hospital; W. Taylor, Birmingham.

Physiology.—S. R. Bhagtani, Bombay; H. J. Brookes, St. Mary's Hospital; C. F. W. Dunn, Cambridge and Middlesex Hospital; C. F. Eddowes, St. George's Hospital; S. H. Greene, Charing Cross Hospital; A. Hay, St. Bartholomew's Hospital; A. R. Hoare, St. Thomas's Hospital; G. L. Meredith, London Hospital; H. Morris, St. Bartholomew's Hospital; A. Ross, Guy's Hospital; D. Steele, Edinburgh.

Chemistry.—H. K. C. De La Motte, Charing Cross Hospital; E. Dodds, Sheffield; H. Greenwood, London Hospital; C. J. H. Riches, Middlesex Hospital; E. Loxall, Birmingham.

Materia Medica and Pharmacy.—S. C. Hague, Manchester and Edinburgh; A. G. Lang, Guy's Hospital.

Materia Medica.—J. Freeman, Bristol.

Pharmacy.—O. Hall, Durham.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

VITAL STATISTICS OF LONDON SANITARY DISTRICTS DURING THE FIRST QUARTER OF 1895.

In the accompanying table will be found summarised the vital and mortal statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the first or winter quarter of the current year. The mortality figures in the table relate to the deaths of persons actually belonging to the various sanitary areas, and are the result of a complete system of distribution of deaths occurring in the institutions of London among the various sanitary areas in which the patients had previously resided.

The 38,573 births registered in London during the three months ending March last were equal to an annual rate of 32·5 per 1,000 of the population, estimated at 1,392,346 persons in the middle of this year; this rate almost corresponded with the mean rate in the first quarters of the preceding five years, 1890-94, which was 32·6 per 1,000. The birth-rates during the period under notice in the various sanitary areas showed, as usual, wide variations, owing principally to the differences in the sex and age distribution of the population. In Kensington, St. George Hanover Square, St. James Westminster, Hampstead, St. Martin-in-the-Fields, London City, and Lee the birth-rates were considerably below the average; while in St. Luke, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, St. George Southwark, and Bermondsey the birth-rates showed a marked excess.

The 28,001 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 25·6 per 1,000; this death-rate exceeded that recorded in the corresponding period of any of the ten preceding years, with the single exception of 1892, when the rate was as high as 27·8 per 1,000. During the March quarters of the ten preceding years 1885-94 the mean death-rate was only 23·0 per 1,000. The high death-rate in London last quarter was largely due to the influenza epidemic. The lowest death-rates in the various sanitary areas were 15·7 in Hampstead, 18·1 in Plumstead, 18·6 in Stoke Newington, 19·2 in Lee, and 21·1 in Lewisham and in Woolwich; the highest rates were 31·8 in Newington, 32·9 in Limehouse, 33·0 in St. George-in-the-East, 33·3 in St. Saviour Southwark, 33·5 in Holborn, 33·9 in St. Giles, 36·1 in St. Luke, and 36·9 in Strand. During the quarter under notice 1,677 deaths were referred to the principal zymotic diseases in London; of these, 511 resulted from whooping-cough, 420 from diphtheria, 300 from measles, 165 from diar-

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions, during the First Quarter of 1895.

Sanitary Areas.	Estimated Population middle of 1895.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Phthisis.	Deaths of Children under 1 year of age to 1,000 births.
LONDON	4,392,346	35,573	28,001	32·5	25·6	1·5	1,677	10	300	141	420	511	1	126	3	165	2,329	158
West Districts.																		
Paddington	122,756	790	749	25·8	24·5	1·0	31	—	12	4	8	3	—	1	—	3	54	162
Kensington	167,671	972	957	23·3	22·9	0·9	39	—	3	2	11	18	—	7	—	8	75	157
Hammersmith ...	108,429	799	628	29·6	23·3	1·3	34	—	1	2	9	14	—	4	—	4	39	176
Fulham	117,745	1,005	738	34·2	25·1	1·5	44	—	5	8	14	9	—	3	—	5	42	197
Chelsea	99,930	738	650	30·4	27·7	1·5	37	—	4	4	8	12	—	3	—	6	62	154
St. George Hanover Sq.	74,037	391	455	19·6	24·7	1·2	22	—	2	1	3	13	—	1	—	2	28	188
Westminster	54,003	349	388	25·8	28·8	0·7	10	—	—	—	5	5	—	—	—	—	30	183
St. James Westminster	23,141	138	161	23·9	28·4	0·9	5	—	—	—	1	4	—	—	—	—	9	210
North Districts.																		
Marylebone	137,392	1,154	1,034	33·7	30·2	1·3	43	9	2	5	4	15	—	6	1	1	92	142
Hampstead	77,592	376	303	19·3	15·7	0·8	15	—	4	2	2	2	—	3	—	2	19	139
St. Pancras	233,543	1,547	1,549	31·7	25·6	1·8	106	—	8	13	22	47	—	7	—	9	122	175
Islington	335,929	2,618	1,937	31·3	23·1	1·4	116	—	8	22	27	35	1	9	1	13	185	134
Stoke Newington ...	58,224	270	163	26·2	18·6	0·8	7	—	1	—	1	2	—	3	—	—	17	122
Hackney	215,823	1,582	1,184	29·4	22·0	1·3	70	—	14	5	17	20	—	6	—	8	107	127
Central Districts.																		
St. Giles	37,654	303	318	32·3	33·9	1·3	12	—	3	1	1	6	—	—	—	1	35	139
St. Martin-in-the-Fields	13,536	54	85	16·0	25·2	1·8	6	—	—	—	4	2	—	—	—	—	7	259
Strand	22,586	160	208	28·4	36·9	2·0	11	—	—	1	4	3	—	3	—	—	23	181
Holborn	32,188	222	268	28·5	33·5	2·1	17	—	11	1	1	1	—	—	—	3	29	216
Clerkenwell	65,035	541	433	36·5	27·9	1·9	30	—	—	2	6	18	—	2	—	1	38	176
St. Luke	40,763	372	367	52·4	35·1	1·8	18	—	1	2	3	11	—	1	—	—	30	141
London City	33,824	148	241	17·6	28·6	1·2	10	—	1	1	2	1	—	5	—	—	14	162
East Districts.																		
Shoreditch	122,932	1,173	897	38·3	29·3	2·1	65	—	18	2	7	33	—	4	—	1	88	175
Bethnal Green ...	130,061	1,222	826	37·7	25·5	1·4	46	—	16	3	14	8	—	2	—	3	74	151
Whitechapel	75,820	774	517	41·0	27·4	0·8	16	—	5	—	5	3	—	2	—	1	61	123
St. George-in-the-East	45,227	324	372	45·5	33·0	2·4	27	—	6	2	5	11	—	—	—	3	22	195
Limehouse	58,855	573	467	40·4	32·9	2·3	47	—	11	2	10	18	—	2	—	4	42	175
Mile End Old Town ...	108,443	1,127	698	41·7	25·8	1·7	48	—	7	4	22	10	—	—	—	3	55	138
Poplar	171,230	1,701	1,198	39·9	28·1	2·9	124	—	47	9	33	23	—	4	—	8	81	163
South Districts.																		
St. Saviour Southwark	28,570	235	210	35·5	31·7	0·6	4	—	—	1	2	—	—	—	—	1	22	204
St. George Southwark	60,168	611	500	40·7	33·3	1·1	16	—	—	2	5	8	—	1	—	—	56	191
Newington	119,388	1,120	946	37·6	31·8	1·7	52	1	5	3	11	19	—	3	—	10	90	194
St. Olave Southwark	13,065	111	96	34·1	29·5	1·2	4	—	—	—	—	1	—	2	—	1	10	198
Bermondsey	83,861	902	585	43·2	28·0	1·0	20	—	3	3	2	5	—	3	—	4	56	142
Rotherhithe	43,713	376	245	37·1	24·2	1·7	17	—	1	1	3	6	—	3	—	3	22	168
Lambeth	284,883	2,486	1,873	35·0	26·4	1·4	97	—	5	6	18	48	—	5	1	14	164	152
Battersea	165,139	1,377	922	33·4	22·4	2·2	90	—	22	4	23	28	—	6	—	7	71	188
Wandsworth	185,956	1,280	1,056	27·8	23·4	1·0	48	—	11	3	11	6	—	8	—	9	67	129
Camberwell	253,737	1,946	1,485	30·9	23·6	1·5	94	—	5	8	42	15	—	9	—	15	127	164
Greenwich	175,183	1,443	1,064	33·0	24·4	2·1	92	—	23	3	38	17	—	4	—	7	66	139
Lee	38,892	295	186	21·2	13·2	1·9	18	—	10	1	1	4	—	1	—	1	11	176
Lewisham	82,410	515	440	25·1	21·4	1·5	30	—	5	2	14	16	—	2	—	1	31	130
Woolwich	42,768	340	228	31·9	21·4	1·0	11	—	3	1	3	1	—	—	—	3	26	176
Plumstead	61,494	526	278	34·3	18·1	2·0	30	—	17	4	8	—	—	1	—	—	24	116

rhœa, 141 from scarlet fever, 130 from different forms of "fever" (including 126 from enteric fever, 1 from typhus, and 3 from ill-defined forms of continued fever), and 10 from small-pox. These 1,677 deaths were equal to an annual rate of 1.5 per 1,000, which was 0.9 below the mean rate in the corresponding periods of the ten preceding years, and was lower than the rate in any March quarter on record. The lowest zymotic death-rates during last quarter in the various sanitary areas were 0.6 in St. Saviour Southwark, 0.7 in Westminster, 0.8 in Hampstead, Stoke Newington, and Whitechapel, 0.9 in Kensington and St. James Westminster, and 1.0 in Paddington, Bermondsey, Wandsworth, and Woolwich; while the rates ranged upwards to 2.6 in Strand and Plumstead, 2.1 in Holborn, Shoreditch, and Greenwich, 2.2 in Battersea, 2.4 in St. George-in-the-East, 2.8 in Poplar, and 3.3 in Limehouse.

Ten deaths from small-pox of persons belonging to London were registered during the three months ending March last, of which 9 belonged to Marylebone and 1 to Newington sanitary areas. Measles showed the highest proportional fatality in Holborn, Shoreditch, St. George-in-the-East, Limehouse, Poplar, Battersea, Greenwich, and Plumstead; scarlet fever in Fulham, Islington, and Plumstead; diphtheria in St. Martin-in-the-Fields, Strand, Limehouse, Mile End Old Town, Poplar, Battersea, Camberwell, and Greenwich; whooping-cough in St. Pancras, Clerkenwell, St. Luke Shoreditch, St. George-in-the-East, Limehouse, and Lewisham; and "fever" in Strand, London City, and St. Olave Southwark sanitary areas.

During the three months ending March last, 2,339 deaths from phthisis were registered in London, equal to an annual rate of 2.1 per 1,000. Among the various sanitary areas the lowest phthisis death-rates were recorded in Hammersmith, Hampstead, Stoke Newington, Greenwich, Lee, and Lewisham; the highest rates in St. Giles, Strand, Holborn, Whitechapel, St. George Southwark, and St. Olave Southwark.

Infant mortality in London last quarter, measured by the proportion of deaths under one year of age to registered births, was equal to 158 per 1,000; this rate was, with one exception, higher than in any March quarter in the ten preceding years, during which the rate averaged 142 per 1,000. Among the various sanitary areas the rates of infant mortality were lowest in Islington, Stoke Newington, Hackney, Whitechapel, Camberwell, Lewisham, and Plumstead; while they showed the largest excess in Fulham, St. James Westminster, St. Martin-in-the-Fields, Holborn, St. George-in-the-East, St. Saviour Southwark, Newington, and St. Olave Southwark.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,105 births and 4,160 deaths were registered during the week ending Saturday, April 13th. The annual rate of mortality in these towns, which had declined from 35.0 to 21.1 per 1,000 in the five preceding weeks, further fell to 20.5 last week. The rates in the several towns ranged from 14.0 in Swansea, 14.1 in Croydon, and 16.1 in Portsmouth to 24.9 in Wolverhampton, 26.7 in Bolton, and 28.2 in Preston. In the thirty-two provincial towns the mean death-rate was 21.4 per 1,000, and was 2.1 above the rate recorded in London, which was 19.3 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.6 per 1,000, while it also averaged 1.6 in the thirty-two provincial towns, and was highest in Blackburn, Plymouth, and Manchester. Measles caused a death-rate of 1.1 in Manchester, 1.7 in Bolton, and 1.8 in Plymouth; and whooping-cough of 1.3 in Salford, 1.5 Manchester, and 1.7 in Plymouth. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 57 deaths from diphtheria in the thirty-three towns included 27 in London, 5 in West Ham, 5 in Cardiff, 5 in Birmingham, and 2 each in Manchester, Salford, and Leeds. One fatal case of small-pox was registered last week in Birmingham, but not one in London or in any other of the thirty-three large towns. There were 47 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, April 13th, against 58, 55, and 53, at the end of the three preceding weeks; 9 new cases were admitted during the week, against 14, 11, and 7 in the three preceeding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,587, 1,555, and 1,519 at the end of the three preceding weeks, had further declined to 1,463 on Saturday last, April 13th; 117 new cases were admitted during the week, against 164, 161, and 143 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, April 13th, 894 births and 714 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns had declined from 42.8 to 34.7 per 1,000 in the six preceding weeks, was again 24.7 last week, and exceeded by 4.2 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 20.6 in Perth to 31.1 in Aberdeen. The zymotic death-rate in these towns averaged 3.0 per 1,000, the highest rates being recorded in Aberdeen and Leith. The 334 deaths registered in Glasgow included 20 from whooping-cough, 5 from scarlet fever, and 3 from diphtheria. Ten fatal cases of measles were recorded in Edinburgh, 8 in Leith, and 6 in Aberdeen.

THE SANITARY CONDITION OF BETHNAL GREEN.

The results of the inquiry by the Medical Officer of the London Council into the sanitary condition of Bethnal Green do not reveal a very satisfactory state of affairs. The death-rates in the parish from all causes are higher than the corresponding rates relating to London generally. Although there is evidence of a good deal of work having been done and considerable improvements effected in the parish, there is still a large proportion of houses where defective conditions exist. Systematic house-to-house inspection is not carried out in the district; in fact, the sanitary staff is not adequate for it. The inspection of workshops has been commenced, but only a small proportion have been inspected. There is no shelter in Bethnal Green at present for the accommodation of persons during the disinfection of their rooms. No houses have been registered under the by-laws relating to premises occupied by members of more than one family; the by-laws, in fact, have only just been drawn up by the vestry and submitted to the Local Government Board. There is very great need for improvement in all the points referred to, since Bethnal Green is almost entirely inhabited by an industrial population, a large proportion of which belongs to the poorer classes.

THE COST OF SMALL-POX.

With reference to the outbreak of small-pox in Dublin, the total amount of expenditure incurred at the Kilmainham Hospital up to March 25th was £1,865 0s. 2d.

THE ANTITOXIN TREATMENT.

At the last meeting of the Hampstead Board of Guardians, Mr. J. S. Fletcher, L.C.C., presiding, the consideration was resumed of a letter from the Islington Board of Guardians, stating that they had passed a resolution requesting the Local Government Board to prohibit the use of antitoxin, and asking this Board to pass a similar resolution and forward it to the Local Government Board. Mr. J. C. Cooper moved: "That this Board, believing that the Metropolitan Asylums Board and other managers of medical institutions are competent and anxious to deal wisely with the treatment of the patients committed to their care, declines to interfere with the discharge of their duty." A discussion ensued, and the motion was carried by a large majority.

MEDICAL CERTIFICATION OF PAUPER LUNATICS.

A. W. W. writes, saying: A. is a Poor-law medical officer; B. is in private practice in attendance on a labourer, and finds it necessary to send his patient to an asylum. A magistrate is applied to, who sends to the relieving officer for the usual pauper forms to enable him to make the necessary order. The magistrate wishes B. to certify as to the insanity of the patient, but the relieving officer says A. ought to do this, as the case has become a pauper one. A. W. W. asks if there is any rule as to which should certify, or does it rest with the magistrate to decide?

*** It rests entirely with the magistrate, and for his own protection he usually selects the medical practitioner he has most confidence in.

THE DUTIES OF M.O.H. IN INFECTIOUS CASES.

Mr. Wm. C.'s second letter supplies additional particulars, tending to show that the M.O.H., after receiving an informal notification of scarlet fever which he knew to emanate from the practitioner in charge of the case, visited the house and insisted upon seeing another patient who was suffering from sore throat only, although told that she was being attended by the same practitioner and for sore throat only. If so, the M.O.H. acted unwisely and interfered unnecessarily, but his version of the facts is not before us, and in its absence we cannot pretend to pronounce any final opinion.

FEES FOR NOTIFICATION OF INFECTIOUS DISEASES.

H. S. writes to ask whether a district medical officer is compelled to report cases of infectious disease for a fee of 1s. per case, whether he is in attendance on paupers or others.

*** For all pauper cases a Poor-law medical officer can only claim 1s. per case for notifying; for other cases, if not patients of a medical institution, he can claim 2s. 6d. per case.

OBITUARY.

EDWIN J. MILES, M.D.St.And., M.R.C.S., L.S.A.

We regret to announce the death of Dr. Miles of Rome, which took place in that city on April 10th. He was 65 years of age. In 1852, as soon as he obtained his diplomas, he joined his father in his practice at Gillingham, Dorsetshire. After his father's death he continued practising in Gillingham until 1876 when, through ill-health brought on by overwork, he was obliged to give up the arduous duties of a large country practice and went to live in Brighton, where he took a great interest in local affairs. He was a member of the Hove School Board, a member of the committee of the Brighton Museum, and, chiefly through his exertions, a branch of the School of Science in connection with the South Kensington Museum was established at Hove. In 1883 he went to reside in Rome, where he devoted his energies chiefly to the work of the British and American Archæological Society of Rome. He was at first honorary librarian of that Society, and in 1888 he was elected honorary secretary, posts which he retained up to his death. At the time of his appointment as secretary the Archæological Society was much in debt, but, owing to his sound business capabilities, it was soon placed on a sound financial basis. He was accustomed to spend the summer months in Northern Italy, and a few years ago he published an interesting little book entitled *Byeways in the Southern Alps*. Dr. Miles was much respected not only by his colleagues in Rome, but also by all those who had the pleasure of knowing him.

We regret to have to record the death of Dr. Daniel Jamison at Belfast, at the early age of 28 years. He received his early education in Belfast, and was subsequently a successful student of Queen's College in that city. He was Senior Scholar in Biological Science, and took the degree of B.A. and of M.B., B.Ch. from the Royal University of Ireland. He was appointed Medical Officer to No. 9 Dispensary District in Belfast about two years ago. He devoted himself to the discharge of the onerous duties of this post, and during the recent outbreak of typhus fever he contracted the disease. The attack was of the most virulent character, which so quickly undermined a robust constitution that he succumbed to heart failure at the crisis. Dr. Jamison was held in high esteem by his medical brethren as well as by his patients, and among all classes his unassuming manner and kindly disposition gained for him many friends. The deepest sympathy is felt with his widowed mother and his sister and brother on this sad and early termination of a career of much promise.

The village of Clapham, Yorks, has sustained a loss in the death, at the early age of 34, of Mr. William Metcalfe, L.S.A. The deceased had been ailing for some two years from obscure abdominal symptoms, which terminated fatally on April 8th. A *post-mortem* examination showed the cause of death to have been stricture of the small intestine and melanotic sarcoma affecting the stomach and bowels. He was a student of St. George's Hospital, London.

The death is reported from Fiji of Mr. James Albert Offord, M.R.C.S., L.R.C.P. A little more than a year ago the deceased left England to take up a Government appointment at the Suva Hospital, Fiji. The cause of death was enteric fever.

We regret to have to announce the death of Mr. William Parker Shipton, which took place recently at his residence in Buxton, at the age of 77. Mr. Shipton, who took the diplomas of M.R.C.S., L.S.A. in 1847, was Consulting Surgeon to the Devonshire Hospital, and a Justice of the Peace for Derbyshire. The funeral was attended by a number of sorrowing friends.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Darwin G. Eaton, for many years Professor of Chemistry in the Long Island College Hospital, Brooklyn, aged 72; Dr. C. L. Hogeboom, also of Brooklyn, a sculptor of distinction as well as a skilful practitioner of medicine, aged 68; Dr. Wladimir Tomsa, Professor of Physiology in the Czech University of Prague, aged 64; and Dr. J. A. Ryder, Professor of Embryology in the University of Pennsylvania, aged 76.

HOSPITAL AND DISPENSARY MANAGEMENT.

LONDON HOSPITAL: PRELIMINARY TRAINING FOR PROBATIONER NURSES.

The London Hospital, in its arrangements for training nurses, includes a complete course of lectures, while the Nursing Home provides for the residence of a staff of over 200 nurses and probationers. It has, however, long been felt by the Hospital Committee that it would be very desirable to provide a short preliminary training for selected candidates desirous of becoming probationers before commencing duty of any kind in the hospital. A house a little distance from the hospital has been taken for this purpose, where pupil probationers will be received for a period of six weeks' instruction before they are admitted to the wards, teaching being there given in various domestic duties; they will also attend classes in sick-room cookery, in bandaging, and in the details of nursing in preparation for the actual attendance on the sick. Lectures on Elementary Anatomy and Physiology for probationer nurses have for many years been given in the hospital by members of the medical staff, and instruction will now commence in the training home. It is believed that such a preliminary period will prove of great value to the probationers, and afford means of testing capacity for fulfilling the duties required of them when admitted to the regular two years of hospital training, and render the service of the hospital still more thorough and efficient. The new home will be opened in June with twenty pupil probationers, vacancies for which have been largely sought for, and the number is rapidly being filled up with well-educated candidates.

MEDICAL NEWS.

The annual dinner of the volunteer medical officers wi take place this year at Limmer's Hotel, George Street, Hanover Square, on Wednesday, April 24th, at 7 P.M., under the presidency of Sir Guyer Hunter.

Dr. J. Kay Jamieson, who has for the last six months been Demonstrator of Anatomy under Dr. McDonald Brown in the Royal College of Surgeons of Edinburgh, has been appointed Senior Demonstrator of Anatomy to the Yorkshire College, Leeds.

Prince Albrecht, of Prussia, who was recommended by his doctors to give up for awhile the cares of the Regency of Brunswick and spend a few weeks at Ilfracombe, has greatly benefited by the bracing air of North Devon, and speaks highly of the comforts of life in this country. The Prince has been indefatigable in visiting the lovely places for which this coast is remarkable, such as Lynton, Lee, and Clovelly.

The Medico-Legal Society of New York will hold a Medico-Legal Congress at or near the city of New York during the last week in August or the first week in September. The Congress will be open to all students of medical jurisprudence. A large number of papers have already been promised, and the interest taken in the movement seems to indicate a successful meeting.

Surgeon-Major Sir James R. A. Clark, who has retired from the army, was born in 1852, and succeeded his father, the late Sir Andrew Clark, as second baronet in 1893. He entered the Army Medical Department in 1880 and became Surgeon-Major in 1892. From July, 1891, to July, 1894, he was second in command and instructor at the Depôt and Training School, Aldershot.

Dr. M. J. Sturges, on the occasion of his leaving Beckenham, where he has practised for nearly thirty years, was entertained at dinner by the medical men of the neighbourhood, the chair being taken by the rector, who is a F.R.C.S. Dr. Sturges was presented with an address on this occasion, and subsequently another address was presented to him by friends and patients, accompanied by a cheque and a gift of jewellery to Mrs. Sturges.

In his last quarterly report to the Sanitary Committee Dr. Willoughby shows that, in spite of the severe epidemic of influenza which has prevailed in Eastbourne as elsewhere during the quarter, the total death-rate has not exceeded 16.5 per 1,000 per annum. Excluding non-residents it was still lower. In other towns it has gone above 30 and 40 per 1,000 per annum. The influenza epidemic having now subsided, the death-rate of the town each week is again at the rate of 10 per 1,000 per annum only.

Medico-Psychological Association. — A well-attended meeting of the South-Western Division was held at the City Asylum, Bristol, on April 4th, Dr. Nicolson in the chair. On the motion of the Chairman, seconded by the Hon. Secretary, a vote of condolence with Mrs. Tuke and family was adopted. It was decided to hold the next meeting at Exeter on October 15th. Dr. Bristowe and Dr. Blachford read interesting and valuable papers. Dr. Law Wade's motion on the question of granting gratuities to the widows or orphans of asylum officials who may die after long service, or be injured fatally in the discharge of their duties, was unanimously agreed to, and the Honorary Secretary was instructed to forward copies of the resolution to the Council of the Association, also to the medical superintendents of public asylums and hospitals in the division. Owing to the lateness of the hour, Dr. MacDonald's paper on the nursing staff was postponed till the next meeting. There were several visitors present, and the members and visitors afterwards dined at the Grand Hotel.

Instruction of the Deaf and Dumb.—On April 5th a lecture was given at Golden Square on the most modern and scientific method of training the deaf and dumb, by Mr. Schöntheil, who was for ten years master of the Allgemeine Osterreichiche Taubstummen Institut in Vienna,

and afterwards for twenty-two years head master of the Deaf and Dumb Home in Walmer Road. The chief feature of the lecture was a short examination of pupils of various grades who had been under instruction for a period of three months up to six years. The articulation was not spasmodic, nor pitched in a key too high or too low, but was clear, distinct, and of a fluent and pleasant character; the lip reading was also done with certainty. A boy who had been under instruction for only three years, wrote down from Mr. Schöntheil's dictation a reading lesson selected by one of the audience from an ordinary reading book for normal children. The most advanced pupil, a boy of about 11 years of age, wrote from dictation a complicated number of sentences informing him of the purport of the meeting, and recited a piece of poetry of fifteen verses, speaking not monotonously, but with a certain degree of cadence, and in such a manner that the audience could follow him easily. He also wrote a little story in German, after having had a few lessons in that language. Mr. Schöntheil gives his pupils instruction in all the branches of education which are taught in ordinary schools, including Latin and Greek. His method seems to be an improvement on those pursued in our deaf and dumb schools.

MEDICAL VACANCIES.

The following vacancies are announced:

BELFAST UNION.—Medical Officer for the No. 10 Sub-district of the Belfast Dispensary District. Salary, £145 per annum, exclusive of registration and vaccination fees. Must reside within the district. Election on May 6th.

BIRMINGHAM CITY ASYLUM.—Resident Qualified Clinical Assistant. Board and apartments provided, but no salary. Applications to the Medical Superintendent.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; doubly qualified. Salary, £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance. Applications to Alex. Forrest, Secretary, by April 22nd.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—Resident Clinical Assistant. Appointment for three months. Board and lodging provided in the hospital. Applications to the Honorary Secretary of the Medical Committee, 34, Paradise Street, Birmingham, by April 20th.

BRADFORD INFIRMARY.—Dispensary Surgeon, unmarried, doubly qualified. Salary, £100 per annum, with board and residence. Applications endorsed "Dispensary Surgeon" to William Maw, Secretary, by April 23rd.

BRADFORD INFIRMARY AND DISPENSARY.—Junior House-Surgeon; unmarried. Salary, £50 per annum, with board and residence. Applications, endorsed "Junior House Surgeon," to William Maw, Secretary, by April 24rd.

BRISTOL ROYAL INFIRMARY.—House-Surgeon and House-Physician, doubly qualified. Salary in each case £100 per annum, with apartments, board, and washing. Applications to the Secretary by April 20th.

CAMBRIDGESHIRE, ETC., ASYLUM, near Cambridge.—Qualified Clinical Assistant. Appointment for six months from May 1st. Board and apartments provided, but no salary. Applications to the Medical Superintendent by April 20th.

CHARING CROSS HOSPITAL.—Curator and Pathologist. Salary £100 per annum. Applications to Arthur E. Reade, Secretary, by April 29th.

CHELSEA GUARDIANS OF THE POOR.—Temporary Assistant Medical Officer for the Workhouse and Infirmary. Not more than 30 years of age. Salary at the rate of £120 per annum, with furnished apartments, rations, washing, coals, and gas, and an allowance of £2 7s. 6d. in lieu of beer. Applications on forms supplied to Wm. Miller, Clerk to the Guardians, 250, King's Road, Chelsea, S.W., by April 22nd.

CONVALESCENT HOME AND SEA BATHING INFIRMARY, Southport.—Resident Medical Officer, doubly qualified. Salary to commence £150 per annum, with board, lodging, and washing. Applications to the Chairman.

DENBIGHSHIRE INFIRMARY AND GENERAL DISPENSARY, Denbigh.—Honorary Medical Officer, doubly qualified. Applications to the Chairman of the Committee of Management by May 14th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon, must possess a surgical qualification. Appointment for six months. No salary, but residence, board, and washing provided. Applications to Howard J. Collins, House Governor, by April 27th.

GROCERS' COMPANY.—Three Medical Research Scholarships, each of the value of £250. Appointments annually. Applications to the Clerk of the Company, Grocers' Hall, Princes Street, E.C., by the end of April.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Surgical Registrar and an Anæsthetist. Appointments for one year. Honorariums of £40 and £15 15s. respectively at the expiration of term. Applications to the Secretary by April 23rd.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Resident House-Physician also House-Surgeon. Appointments for six months. Salaries, £20, with board and residence in the hospital; unmarried, and possess a legal qualification to practise. Applications and testimonials to Adrian Hope, Secretary, before Tuesday, April 30th

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 annually, with furnished quarters, attendance, coals, gas, produce, milk, and washing. Appointment for two years in the first instance. Applications to Francis K. Howlett, Clerk to the Subcommittee of Visitors, 9, King Street, Maidstone, by May 1st.

LIVERPOOL STANLEY HOSPITAL.—Senior House-Surgeon, doubly qualified. Salary, £80 per annum, with board, etc. Applications to J. E. Bennett, Honorary Secretary, by April 24th.

LONDON HOSPITAL MEDICAL COLLEGE.—Assistant Demonstrator in Anatomy. Salary, £90 per annum. Applications to the Warden by April 25th.

MIDDLESEX HOSPITAL, W.—Assistant Surgeon; must be Fellow (or have passed the qualifying examination for the Fellowship) of the Royal College of Surgeons of England. Applications to F. Clare Melhado, Secretary Superintendent, by May 1st.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Albany Memorial, Queen Square, W.C.—Registrar. Honorarium of 50 guineas is attached to the post. Appointment tenable for two years, and for a longer period subject to re election. Applications to B. Burford Rawlings, Secretary and General Director, by May 3rd.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Medical woman as Pathologist, also Clinical Assistant for the Out-patient Department. Applications to the Secretary by April 24th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Resident Medical Officer and Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 per annum is attached to the senior post. Applications to the Secretary by April 26th.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Surgeon to the Throat and Ear Department. Applications to the Secretary by April 22nd.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examiners in Anatomy and four Examiners in Physiology for the Fellowship; candidates for the former must be Fellows of the College. Four Examiners in Elementary Anatomy (First Examination). Two Examiners in Elementary Biology (First Examination). Four Examiners in Anatomy (Second Examination). Three Examiners in Physiology (Second Examination). Four Examiners in Midwifery (Third Examination). Two Examiners in Public Health. Applications to the Secretary by April 25th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months. Salary £100 per annum, with furnished apartments and board. Applications to the Secretary by April 24th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon; must be willing to engage for six months. Gratuity of £10 will be given at the end of this period if satisfactory. Board and lodging provided. Applications to T. A. Fisher Hall, Secretary, by April 24th.

ST. LUKE'S HOSPITAL, E.C.—Clinical Assistant; must be duly qualified to practise and registered. Appointment for six months, with board and residence. Applications and testimonials to Percy de Bathe, M.A, Secretary, by April 22nd.

UNIVERSITY OF GLASGOW.—Two Examiners for Degrees in Medicine to examine in Clinical Medicine and Clinical Surgery respectively. Appointment to last till December 31st, 1898, at the rate of £50 annually. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by May 1st.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer to the Provident Dispensary; must possess a recognised medical and surgical qualification; must be registered under the Medical Act. Salary, £80 per annum, with board, lodging, and washing. Applications and testimonials to the Honorary Secretary before April 30th.

MEDICAL APPOINTMENTS.

BAMBER, H., M.B., C.M.Glasg., appointed Medical Officer for the Tynemouth District of the Tynemouth Union.

BARROW, George A., M.R.C.S.Eng., L.R.C.P.Lond., appointed Junior House-Surgeon to the Bolton Infirmary for a period of twelve months.

BROSTER, A. E., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Wirksworth District Council.

BROWN, O. P., M.R.C.S.Edin., L.S.A., reappointed Medical Officer of Health to the Knighton Rural District Council.

ELLIOT, John, M.R.C.S.Eng., reappointed Medical Officer of Health for Erith.

EVANS, W. Owen, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Hawarden District.

FINCH, H. J., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House-Surgeon to the Royal Surrey County Hospital, Guildford.

GARDNER, Frank Gowers, M.R.C.S., L.S.A., appointed Surgeon to the Warwick Cottage Hospital and Dispensary, *vice* R. F. T. Perkin, resigned.

GUY, William, F.R.C.S., L.R.C.P., L.D.S.Edin., appointed Dental Surgeon to the Royal Infirmary, Edinburgh.

HARPER, T. E., L.R.C.P., Assistant Medical Officer, Peckham House, S.E., appointed a Junior Assistant Medical Officer of Holloway Sanatorium Hospital for the Insane, Virginia Water.

Hartley, A. Conning, M.D.Edin., F.R.C.S., appointed Medical Officer for the Bedford and Kempston District of the Bedford Union.

Harvey, George, L.R.C.P.Edin., L.R.C.P.I., reappointed Medical Officer of Health to the Matlock Bath Urban District Council.

Littleton, Philip R., M.R.C.S.Eng., reappointed Medical Officer of Health to the Ashbourne Urban District Council.

McMurray, J., M.D., M.Ch., appointed Honorary Surgeon to the Bootle Borough Hospital.

Mardlow, Mr. W. H., appointed House-Surgeon to the Taunton and Somerset Hospital, *vice* J. Gordon Bain, M.B., C.M.Glasg., resigned.

Martine, William Robert, M.B., C.M.Edin., appointed Resident Surgeon to the Edinburgh Royal Infirmary.

Morris, J. A., L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Kilkenny Workhouse, *vice* R. J. Magee, L.R.C.S.Edin., L.A.H.Dub.

Moxon, Wm., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Matlock Urban District Council.

Nuthall, R. L. S., L.R.C.P.Lond., Assistant Medical Officer of Hanwell Asylum, appointed Assistant Medical Officer with charge of the male side of Holloway Sanatorium Hospital for the Insane, Virginia Water.

Parkinson, J. Porter, M.D., M.R.C.P.Lond., F.R.C.S.Eng., appointed Medical Registrar to the Westminster Hospital.

Roberts, Edward B., L.R.C.P. & S.Edin., appointed Medical Officer of Health for the Hawarden District Council and District Medical Officer for the Buckley District.

Squire, E. H., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Second District of the Lexden and Winstree Union.

Turner, Mr., appointed Medical Officer and Public Vaccinator for the No. 4 District of the Chipping Norton Union.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 p.m.—Dr. Samuel West: Case of Pleuritic Effusion (Serous) of Eighteen Months' Duration; Tappped Forty Times and Side then Incised; Ultimate Complete Recovery with Complete Expansion of Lung and little Flattening of Side. Dr. Archibald Garrod: Case of Scleroma Neonatorum ending in Recovery.

TUESDAY.

The Clinical Museum, 211, Great Portland Street.—Open at 2 p.m., Lecture at 4.

Royal Medical and Chirurgical Society, 8.30 p.m.—Dr. Felix Semon: On the probable Pathological Identity of the various forms of Acute Septic Inflammations of the Throat and Neck, hitherto described as Acute Œdema of the Larynx, Œdematous Laryngitis, Erysipelas of the Pharynx and Larynx, Phlegmon of the Pharynx and Larynx, and Angina Ludovici.

WEDNESDAY.

Hunterian Society, London Institution, 8.30 p.m.—Mr. F. R. Humphreys: On the desirability of forming an Organisation with the view of Correcting the Grievances arising from the Abuse of Hospitals, Dispensaries, and Clubs.

FRIDAY.

Epidemiological Society of London, 11, Chandos Street, W., 8 p.m.—Dr. Washbourn: On Immunity.

Clinical Society of London, 8.30 p.m.—Dr. Lucas Benham and Mr. Silcock: A case of Acute Intestinal Obstruction due to Volvulus of the Sigmoid; Abdominal Section; Recovery. Mr. Golding-Bird: Cases of Early Erosion in Inflammation of the Sacro-Iliac Joint. Mr. Mansell Moullin: Two cases in which Orchotomy was performed for Enlargement of the Prostate. Mr. Bowlby: A case of a Large Intra-thoracic Cystic Goitre causing Dyspnœa and treated by Operation. Mr. Abbuthnot Lane: A case of Extensive Degenerating Nævus of the Bladder.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

Dimmock.—On April 2nd, at Chattan House, Victoria Avenue, Harrogate, the wife of A. F. Dimmock, M.D., of a son.

Thompson.—April 14th, at Templepatrick House, Donaghadee, the wife of W. H. Thompson, M.D., F.R.C.S.Eng., Dunville Professor of Physiology, Queen's College, Belfast, of twin daughters.

MARRIAGE.

Olive—Price.—On April 16th, at Christ Church, Leeson Park, Dublin, by Rev. Canon Neligan, D.D., Eustace John Parke Olive, M.A., M.D. Cantab., F.R.C.S.Eng., of Leamington, to Annie Gordon, eldest daughter of Rev. Wm. Guard Price, Knock, Belfast.

DEATHS.

Forshaw.—On April 12th, at Smalley, Derby, Thurstan Forshaw, L.M. Dub., 1864, L.R.C.P.Edin. and L.S.A., 1871, aged 55.

Webb.—On April 10th, at Kingsbridge, Devon, Florence Phoebe, the devoted wife of William Henry Webb, M.D., aged 45.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Hours of Attendance.*—Daily, 2. *Operation Days.*—Tu. F. S., 2.

Central London Ophthalmic. *Operation Days.*—Daily, 2.

Charing Cross. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30 *Operation Days.*—W. Th. F., 3.

Chelsea Hospital for Women. *Hours of Attendance.*—Daily, 1.30. *Operation Days.*—M. F., 2.

East London Hospital for Children. *Operation Day.*—F., 2.

Great Northern Central. *Hours of Attendance.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Ear, Tu. F., 2.30; Diseases of the Skin, W., 2.30; Diseases of the Throat, Th., 2.30; Dental Cases, W., 2. *Operation Day.*—W., 2.

Guy's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1: Dental, daily, 9; Throat, F., 1. *Operation Days.*—(Ophthalmic), M. Th., 1.30; Tu. F., 1.30.

Hospital for Women, Soho. *Hours of Attendance.*—Daily, 10. *Operation Days.*—M. Th., 2.

King's College *Hours of Attendance.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Th., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operation Days.*—M. F. S., 2.

London. *Hours of Attendance.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operation Days.*—M. Tu. W. Th. S., 2.

London Temperance Hospital. *Hours of Attendance.*—Medical, M. Tu. F. 2; Surgical, M. Th., 2. *Operation Days.*—M. Th., 4.30.

Metropolitan. *Hours of Attendance.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operation Day.*—F., 9.

Middlesex. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F., 9, W., 2.30; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4, Th., 9.30; Dental, M. W. F., 9.30. *Operation Days.*—W., 1.30, S., 2; (Obstetrical), Th., 2.

National Orthopædic. *Hours of Attendance.*—M. Tu. Th. F., 2. *Operation Day.*—W., 10.

North-West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental. F., 9. *Operation Day.*—Th., 2.30.

Royal Eye Hospital, Southwark. *Hours of Attendance.*—Daily, 2. *Operation Days.*—Daily.

Royal Free. *Hours of Attendance.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operation Days.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Hours of Attendance.*—Daily, 9. *Operation Days.*—Daily, 10.

Royal Orthopædic. *Hours of Attendance.*—Daily, 1. *Operation Day.*—M., 2.

Royal Westminster Ophthalmic. *Hours of Attendance.*—Daily, 1. *Operation Days.*—Daily.

St. Bartholomew's. *Hours of Attendance.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Throat, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. *Operation Days.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.

St. George's. *Hours of Attendance.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9. *Operation Days.*—Th., 1; (Ophthalmic), F., 1.15.

St. Mark's. *Hours of Attendance.*—Fistula and Diseases of the Rectum, males, S., 3; females, W., 9.45. *Operation Days.*—M., 2., Tu. 2.30.

St. Mary's. *Hours of Attendance.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F. S., 9; Ear, M. Th., 3; Orthopædic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operation Days.*—Tu., 1.30; (Orthopædic), W., 11; (Ophthalmic), F., 9.

St. Peter's. *Hours of Attendance.*—M., 2 and 5, Tu., 2, W., 5, Th., 2, F. (Women and Children), 2, S., 4. *Operation Days.*—W. and F., 2.

St. Thomas's. *Hours of Attendance.*—Medical and Surgical, daily, exc. W. and S., 2; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, S., 1.30; Dental, Tu. F., 10. *Operation Days.*—W. S., 1.30; (Ophthalmic), M., 2.30, F., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Hours of Attendance.*—Daily, 1.30. *Operation Day.*—W., 2.30.

Throat, Golden Square. *Hours of Attendance.*—Daily, 1.30; Tu. and F., 6.30; *Operation Day.*—Th., 2.

University College. *Hours of Attendance.*—Medical and Surgical daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 3.45, S., 9.15; Throat, M. Th., 9; Dental, W., 9.30; *Operation Days.*—Tu., W. Th., 2.

West London. *Hours of Attendance.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopædic: W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10, F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operation Days.*—Tu. F., 2.30.

Westminster. *Hours of Attendance.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operation Days.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

JUVENIS asks for the titles of any works written for the purpose of exposing the errors of phrenology.

COMFORT wishes to know which is the most useful and economical bed-rest.

M.D.LOND. wished to know what part of Cape Colony or Orange Free State offers the best opening for a medical man, increasing town preferred, and one where chest cases are favoured greatly by the climate.

INSTITUTION FOR CASE OF CHRONIC RHEUMATISM.

G. H. D. asks to be recommended an institution where a male patient, a victim of long-continued rheumatism, with much stiffening of the joints, arthritic no doubt, could receive a course of massage or other treatment either free or at very little cost.

ASSISTANTS' HOLIDAYS.

LUMEN asks if an assistant who has been actively and constantly employed in a practice for the space of twelve months (eighteen months in his case) is legally entitled to a fortnight's holiday in the summer, when the work is very light, upon full pay?

*** We are not aware of any existing legal right; the matter is purely one of contract. It is, however, customary to give an assistant a holiday where the engagement is intended to continue.

DIPLOMA IN STATE MEDICINE.

M.D. asks any reader who has lately taken the diploma in State Medicine of the R.C.P. and R.C.S.I. to inform him what books are the best to read for hygiene, chemistry, meteorology and climatology, engineering, morbid anatomy, vital statistics, medical jurisprudence, and law. The writer has been qualified nineteen years, is in practice forty miles away from any medical school or teaching, will have to rely entirely upon reading, and has not time to read the largest works.

NOCTURNAL INCONTINENCE OF URINE.

L. E. J. asks for advice in the treatment of nocturnal incontinence of urine in a girl of 19. The following remedies have been adopted without permanent benefit: (*a*) Belladonna, pushed till physiological symptoms were well marked, (*b*) bromides, (*c*) strychnine, (*d*) rhus aromatica, (*e*) the passage of a sound into the urethra, (*f*) cauterisation of the urethra with solid nitrate of silver. This last remedy succeeded excellently for a month, but when tried a second time for a return of the incontinence it was of no benefit. The amount of fluid taken is not above the average.

INSTITUTION FOR EPILEPTIC PATIENT.

ASYLUM wishes to find a home for a patient who is epileptic and of weak intellect. She is unmarried, and over 30, and at present in her father's house. Up till two or three weeks ago there was a woman in the house who could take care of her; but now that she is away the epileptic is under no especial care, for her father is poor, and under the necessity of going out every day to work. She is thus left to the freedom of her own will, and at least once already has she burnt herself at the fire at the coming on of a fit. The people are too poor to pay anything more than a nominal charge for her keep; but she is quite capable of sewing and of doing many household duties if properly guided.

*** Unless the patient is mentally afflicted, and can be certified, there is no institution in the kingdom that would receive her.

PRIVATE DRIVES.

W. C. R. writes: I have been recently prohibited the use of a "private drive" when on the way to visit a patient. It is a popular idea that a medical man can use any "private drive" when on his way to visit sick people. Is this correct or not? In the present instance I have gained the privilege of the drive in question through another source; although permission was asked of the owner twelve months ago he did not grant it to me.

*** Owners may doubtless in many instances have given permission expressly or tacitly to medical practitioners to use private drives which may sometimes save considerable detours and be a great boon to those who enjoy the privilege. The fact however that anyone can suggest that there is a right to use such drives proves the importance of owners not allowing them to be used except where express permission has first been given.

ANSWERS.

J. N.—We would recommend our correspondent to communicate with Mr. Edward East, F.R.C.S., 16, Upper Berkeley Street, London, W., one of the Honorary Secretaries of the British Medical Benevolent Fund, who would probably be able and willing to advise him as to what may best be done to assist the children.

PERMANGANATES.

F.—The preparation referred to is not a solution of the potash salt, but of the soda or lime salt. The potash salt contains relatively a less amount of the antiseptic, but there is no other reason why the potash salt should not be as efficacious for antiseptic purposes.

MIND WANDERING.

W. H. B. S. writes: I think your correspondent "A Member and M.O.H." will do well to have his eyes tested carefully for astigmatism by a reliable ophthalmic surgeon. In my experience an error of refraction is by far the commonest cause of the condition of which your correspondent complains, especially an astigmatic error.

THE MORTALITY FROM PHTHISIS.

H. B. L.—There has been a continuous decline in the mortality from phthisis in recent decades. During the ten years 1861-70 the mean annual death-rate from this disease was 2,487 per million persons living: during 1871-80 it was 2,129; and during 1881-90 it was 1,733. During the first three years of the current decade 1891-2-3 the phthisis death-rate further declined to 1,512 per million living.

TRANSMISSION OF DEATH CERTIFICATES.

IGNORAMUS (Scotland.—Medical men are required by statute to "transmit" death certificates to the registrar. There is no statutory requirement upon medical men to pay postage on such certificates, and in the event of the registrar declining to pay or refund postages, it has been suggested that the requiremeuts of the law might be met by the transmission by post of certificates in the official envelopes provided for the purpose, or in envelopes endorsed "Medical Certificate of Death,' without prepaid postage, the envelope being closed.

ADMISSION OF WOMEN TO FORESTERS' AND ODDFELLOWS' LODGES.

A. E. B.—Very few lodges throughout the country, we believe, admit women as members, and there can be no doubt that medical men should oppose strenuously this alteration in the existing rules of such societies. Few of these lodges recognise any wage limit in the case of members, all being able to join the medical department, if they so desire, irrespective of what their average earnings may be. If, therefore, women were admitted, it is not at all likely that any wage limit would be tried; indeed, it would be much more difficult to do so in their case than in the case of men. With women members, too, trouble would be sure to arise with regard to attendance on their special ailments; as, for instance, in illnesses arising from confinements and miscarriages, so that the ultimate result would probably be to throw the whole of such attendances on the club doctor, while he would receive no more for female members than male members. He would very likely, also, be required to attend them in their confinements for an inadequate fee, so that on the whole it does not seem likely that any good would be likely to accrue to individual practitioners, or to the profession at large from such an innovation.

NOTES, LETTERS, Etc.

COTTAGE NURSES.

MISS LOUISA TWINING (Tunbridge Wells) writes: I am glad to see that a decided and competent opinion has been expressed, in the BRITISH MEDICAL JOURNAL of April 13th, on this subject. I have always held the opinion that all such women as have had less than one year's hospital training should be called "cottage helpers," not nurses, as this term is quite misleading, and any so called must be sent to all cases, whether trifling or serious. I have recently expressed the same opinion with regard to the "nurses" of the Church Army, who have six weeks' or three months' experience only—I will not call it training. If all are called "nurses" the two classes cannot be kept apart, and I am convinced much mischief must ensue. If all such persons were to be called "cottage" or "mission helpers" their position would be made clear and misunderstanding could not arise. Their usefulness in remote country places, where trained nurses cannot be had, but where help is urgently needed for the aged and infirm, cannot be denied, but to undertake duties which they cannot be competent to perform is only to do harm instead of good, and were their title different no misunderstanding would arise. Three years is now almost universally acknowledged to be the real and essential period for training. We are now

endeavouring to supply "trained attendants" for the aged, infants, and imbeciles in workhouses, but no one supposes them to be qualified for the care of the sick in infirmaries. Surely this is a similar case!

Massage Certificates.

Dr. Weir Mitchell (Philadelphia, Pa.) asks us to state that he does not give certificates of instruction in massage, and that he has not given instruction to nurses in massage.

The New Speaker.

Mr. William Toynbee, writing to a contemporary, says: "It is not perhaps generally known that Mr. Gully is the second instance of a provincial doctor's son being elected to the Chair. Rather more than a hundred years ago, Mr. Addington, whose father, a Reading practitioner, had prescribed for Mr. Pitt, was, through that Minister's influence, accorded a similar honour. His experience was scarcely more extensive than that of Mr. Gully, who also exerts his the advantage in point of years, Mr. Addington being well under forty at the time of his election. As everybody knows, his success in the Chair was as conspicuous as his subsequent failure on the Treasury Bench; where, under the nickname of 'the Doctor,' he became the laughing-stock not only of the Whigs, but of many of his own party—notably Mr. Canning. On his fall in 1804 the event was celebrated by the following French epigram, for which, however, Mr. Canning's pen was not improbably responsible.

'Sous ce marbre, passant, le sieur Addington git,
Ministre soi-disant, médecin malgré lui!'"

A Warning.

M.D. writes: A tall fair woman, stating she is a Russian and destitute, is calling round the neighbourhood of Harley Street, W., complaining that a medical man, of whom she has begged for some time, will not give her any more money. He has helped her on several occasions past on having a report from the Charity Organisation Society declined further assistance and has put the matter in the hands of his solicitor, Mr. Robert Todd, of 1, York Buildings, Adelphi, who would like to hear from anyone to whom she may apply. I write this to put the members of the profession on their guard.

The Mortality of Diphtheria.

Mr. Henry Taylor (Guildford) writes: The accounts published in the British Medical Journal some time ago of the normal death-rate of diphtheria, as deduced from the statistics of the Metropolitan Asylums Board, are so startling that I have been led to compare it with the mortality from this disease in the isolation hospital of the Guildford District for the same period. As your report shows us, the percentage of deaths in the hospitals of the Asylums Board during the past six years ranged from 59.35 to 29.35, while in our isolation hospital it ranged from 26.86 to 23.03. Then, taking the year 1893, which was marked by an extensive epidemic, I find the mortality in the parish cases for the whole union stood as low as 16.25 per cent. Again, referring to my own experience of diphtheria, which dates back more than thirty years, so far as my memory serves me, the mortality has been comparatively small both in the sporadic and epidemic forms of the disease. And since I adopted a line of treatment to be described presently the only fatalities I have met with were in cases of croup of the membranous kind and probably diphtheritic. In 1872 or 1873 the insufficiency of the remedies then in vogue led me to try the euchlorine solution, which I had found efficacious in cases of scarlatina anginosa, at that time a perfect scourge in this town. The results fully answered my expectations then and since. Instead of preparing this solution according to the formula given in some textbooks of medicine, by dropping hydrochloric acid on the chlorate of potash, and adding water to dissolve the gas evolved therefrom, I followed the method described in Watson's *Principles of Medicine*, which directs 2 drachms of chlorate of potash to be dissolved in 2 ounces of hydrochloric acid previously diluted with 2 ounces of distilled water. The solution becomes highly charged with the gas, and requires to be kept in stoppered bottles and away from the light. One drachm of this added to 6 or 8 ounces of water with some syrup to flavour it makes a mixture of which one or two tablespoonfuls, according to the patient's age, may be given every hour. I have thought it well to mention these details because the efficacy of the remedy depends on its being properly prepared and persistently given. When this is done its effects are soon seen in the more rapid separation and detachment of the diphtheritic membranes, as well as in some improvement in the general condition of the patient. I conceive its action to be both local and general. Being a very powerful antiseptic it disinfects the exudations and sloughs on all parts of the pharyngeal membrane with which it comes in contact, and in doing so it prevents the inspired air conveying the poison germs into the lungs. It probably acts on the system also as a diffusible antiseptic, and may contribute to the prevention of the secondary effects of the disease due to blood poisoning.

I may mention in support of this opinion that Mr. Schollick, who was for some years medical officer to our isolation hospital, informs me that he found his diphtheria cases so markedly benefited by the euchlorine treatment, that he tried it in cases of enteric fever, with the effect of controlling the diarrhœa and subsequent emaciation in nearly every case, both in his hospital and private practice. I should add that I have always used at the same time with the euchlorine mixture, carbolic or sulphurous acid spray with Siegle's apparatus, to ensure frequent and thorough disinfection of the throat.

It would be premature to draw comparisons between the results obtained from this remedy and those ascribed to the antitoxin treatment. The reports of the latter are drawn principally from hospitals where the cases are often of a most severe type, and are presented for treatment in an advanced stage of the disease; and looking at the results hitherto obtained from the serum treatment, whether in the Berlin or Paris hospitals, or at the Eastern Hospital, as recorded in the British Medical Journal of December 22nd, 1894, we have to judge of its success by contrasting it with the results of the old system of medication. Measured by these standards the antitoxin treatment is a veritable triumph; nevertheless, it appears to have the same limitations to its action as are observed with other remedies, that it is of doubtful utility in advanced stages of the disease, and where blood poisoning is established. We want more information, too, as to the power of the serum in lessening or arresting the after-effects of diphtheria, such as paralysis and renal failure. On both these points I can speak favourably of euchlorine so far as my experience goes.

I have said enough to show your readers that the euchlorine treatment of diphtheria merits a more extended trial than I have been able to give it so as to decide whether it can compete, when on equal terms, with the remedy now exciting such an unprecedented interest.

The Colonial Petition of Right.

The *Daily Chronicle* has the following: The medical journals have called attention during the past few weeks to the hard case of Dr. Lionel Smith, who was summarily dismissed in 1888 from the post of colonial surgeon at Albany, Western Australia, by the Government of the Colony. The British Medical Journal, which, with the *Lancet* and the *Practitioner*, has commented on the case in the strongest terms, points out that the effect of the recent decision of the Privy Council, to which the Government of the Colony appealed against Dr. Lionel Smith's claim for redress, has been "to bring about a declaration of the most uncompromising character by the highest tribunal, that as a general rule all the servants of the Crown hold their offices absolutely during the pleasure of the Crown, and that even the Colonial Office regulations give colonial Civil servants no remedy whatever against any dismissal, however iniquitous." The bearing of such a ruling on the whole question of the character and capacity of colonial Civil servants is obvious, and some explanation may well be given in Parliament, in view both of the public principle involved and the injustice that has been done in this particular case.

Antiseptics in the Larder.

In an article on "The Penalties of Ignorance," published in the *Nineteenth Century*, Lady Priestley draws attention to the want of knowledge which prevails regarding the teachings of biology in regard to the affairs of common life. Surgery accepted the teaching, and our hospitals were quickly reformed. But domestic larders, food stores, byres, and cattle sheds are too often infested with moulds and bacteria, microbes of decomposition and disease, by which food is spoiled and rendered dangerous, and domestic animals are infected with maladies which in turn are injurious to man.

The point to which Lady Priestley especially draws attention is the importance of maintaining asepsis in the larder, not by the application of chemical antiseptics, but by insuring that they shall be cool and dry, and that the air which enters them shall come from clean sources. Too often larders are constructed with but little regard to any of these points. The neighbourhood of dust heaps or dung hills, or ventilation at the street level with dust-laden air, is fatal to the keeping qualities of a cellar; dampness makes it a culture ground for germs of decomposition and decay; and, above all, warmth gives these evil influences the most fitting conditions in which to take effect. Many instances are given, culled from Local Government Board reports, showing how potent has been the influence of bad keeping cellars in the production of cases of ptomaine poisoning, and it is pointed out that by the provision of a proper domestic system of "cold storage," supplied with ice when necessary in hot weather, not only might much disease be prevented, but a great deal of waste would certainly be saved. The cook and the housekeeper, as well as the surgeon, must study the details of antisepsis.

Maternal Impression.

Pater writes: As a corollary to those cases previously mentioned I give you the following as a fact. About two years ago a woman brought her baby, about six weeks old, which had a supernumerary little finger in each hand, to me to have the superfluous ones removed. While she was waiting during my absence my wife, who was then for the first time two or three months advanced in that condition in which babies become objects of interest, entered into conversation about the little subject, but was horror-struck when the mother innocently showed her the malformed hands. During the ensuing seven months I was kept well informed on the subject of maternal impressions, as my wife was fully persuaded that the forthcoming baby would be provided with an unusual number of fingers and toes. Her fears, however, were not realised, though it was the first question asked by her, as the child was a healthy boy with only the usual number.

The Treatment of Influenza.

Dr. FitzGerald Isdell (Shaftesbury Avenue, W.C.) writes: It seems to me absurd to waste time hunting about for a specific treatment for influenza; there are a dozen things to take into account before prescribing for any individual patient, every one of which should lead us to modify our prescription. Yet I should like to draw attention to the excellent results to be obtained from carbolic acid. I was led to try it by a letter in the British Medical Journal from a medical man whose name I have forgotten; and I have been grateful for the hint ever since. If the case is in the early stage and there are no complications, and the patient is otherwise healthy, a prescription which I have found act like a charm is this: ℞ Acid. carbol. ½ to 1 gr., ammon. carb. 1 to 3 gr., liq. am. ac. 5ij to 3j, dec. cinch. 5ij to 5j, aq. chlorof. q. s. dosi. There is no advantage, and some risk, in using larger doses of carbolic acid. Another point to be carefully attended to in all stages is to keep the patient between blankets. After thirty-six or forty-eight hours I have generally put this class of patient on iron and quinine. At other stages and in the case of complications every case must be treated on its merits, but I have found the carbolic acid a very useful addition to cough mixture in bronchitis following influenza, especially of an irritable type; and I believe that iron and digitalis saved the life of a man suffering from pneumonia after influenza.

THE PROPHYLAXIS OF INFLUENZA.

DR. HERBERT SMITH RENSHAW (Manchester) writes: Dr. J. G. Sinclair Coghill's treatment of influenza by ammonia and quinine having been similar to my own, I can testify to the efficiency of those drugs. My method has been to give 3 grains of antifebrin in hot water as first aid; then one or two 3-grain pills of quinine early every morning, and ammonium carbonate every three hours, but in no case has alcohol been ordered, and I have not met with the craving for champagne so frequently observed by Dr. Coghill in his patients at Ventnor.

FRACTURE OF UPPER END OF FIBULA AND SYNOVITIS OF THE KNEE.

SADDLE AND BRIDLE writes: The following notes may be of interest to some of your readers. Mr. G. sent for me, "having broken his leg." On arrival the fibula was said to be broken just below the head, and the patient stated that there had been a protrusion of bone (not through the skin) at that spot before a bandage was applied. I diagnosed fracture of the neck of the fibula, and put it up in Cline's splints. The accident was caused by jumping from a wall 3 feet 6 inches in height during the frosty weather, the ground being hard. The patient did not fall, he dropped on his feet. The patient had had a most restless night, though I had put plenty of padding in the splints and not bound the limb too tightly. The knee joint looked a little swollen. For a few days the joint became more and more swollen, and I feared a fracture into the joint which I had not diagnosed. Not having a Macintyre's splint I still continued with Cline's, and put on the knee joint a dressing of ung. hydrarg. co. (Scott's dressing), treating the case for acute synovitis. This, I think, there is no doubt it was, for about the end of the third week the swelling and heat had abated a good deal, and at the end of the fifth week the splints were taken off. I treated the case with Scott's dressing and a bandage for a few more weeks, and now the patient has gone to work. There is no stiffness, and the joint is nearly as small as the other. The case is interesting on account of the trouble caused through such a simple proceeding as jumping on the feet from a height of 3 feet 6 inches, and also the acute inflammation of the joint which set in after the fracture was fixed.

HYPERPYREXIA AND COLD BATHS.

DR. GEO. B. BEALE (Bournemouth) writes: In 1891 I had a case of influenza in a child under 2 years old, in which the temperature was 110° at 11 P.M.; the child was enveloped in a wet sheet and wrapped round in two blankets. The temperature fell gradually, till next morning it had reached 103° at 9 A.M., and the child, which had been comatose the night before, had become sensible and was taking its milk again; there had been no pinched look or coldness, and the child recovered; I do not say *post hoc propter hoc*, but I think it is worth consideration whether this treatment or the cold bath is the safest.

CINNAMON IN URINARY FETIDITY.

DR. E. FITZ-PATRICK (Darlaston, Staffs) writes: In the BRITISH MEDICAL JOURNAL of April 6th, p. 753, I notice a memorandum with reference to the action of oil of cinnamon in fetidity of urine; the writer states that he has used it with success in conjunction with sodium hyposulphite. Now, I am inclined to think that the virtue he attributes to the oil of cinnamon is due to the sodium hyposulphite, which has a powerful action in preventing decomposition.

I should like to know if Dr. MacMunn has used the oil alone, and found it to give such good results when it was desirable to prevent the fetid condition of the urine; if so hewill have added another laurel to the therapeutic virtues of this drug.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Assistant; Mr. S. Alexander, London; N. Aldridge, M.B., Southampton; Dr. H. Appleton, London; C. F. M. Althorp, M.B., Bradford; Mr. S. T. Armstrong, New York; Antifat. (**B**) Mr. W. M. Beaumont, Bath; Dr. D. C. Black, Glasgow; Dr. H. S. Ballance, London; Mr. G. A. Barrow, Manchester; Dr. A. T. Brett, Woodford; Mr. J. Wright Baker, Buxton; Dr. A. G. Barrs, Leeds; Mr. R. Browne, Brighton; Mr. J. W. Bridges, London; Mr. R. Bradley, London; Mr. W. L'H. Blenkarne, Leicester. (**C**) Mr. H. Caiger, Jacobsdal, Orange Free State; Mr. W. G. Clarke, London; Mr. W. Campbell, Hastings; Mr. C. P. Childe, Southsea; Mr. W. Cook, Birmingham; Church Sanitary Association, The Secretary of the, London; Certifying Factory Surgeon; Mr. T. B. Carpenter, Stour Creek; Comfort; Dr. H. Crawford, Madras; J. G. Christie, M.B., Enfield; Mr. J. D. Costine, Liverpool; Dr. R. W. Carter, Weymouth. (**D**) Mr. D. L. Davies, Preswylfa; Dr. F. A. Dixey, Oxford; Mr. A. F. Downey, Hanley, Staffs; Dr. A. Davies, Newport; E. Dickin, M.B., Northampton; Mr. A. de Butts, Folkestone; Mr. R. S. Delaforce, London. (**E**) Enquirer; Mr. F. Edwards, Sawston; E. E. and F.; Mr. R. W. J. Evans, Wrexham; Mr. C. B. Elliott, Geraldton. (**F**) Mr. H. J. Finch, Guildford; Mr. J. W. Finlayson, Stockton-on-Tees; Mr. E. Fitz-Patrick, Darlaston; Mr. G. S. W. Flower, Yeovil; Mr. E. L. Freer, Birmingham; Mr. E. France, London; Messrs. Ferris and Co., London; Miss L. Frood, London; R. Forsyth, M.B., Salford. (**G**) Mr. S. G. Grew, Birmingham; Mr. F. G. Gardner, Upton-on-Severn; Mr. W. E. Green, Sandown, I.W.; Messrs. Gale and Sons, Leeds; G. H. D.; Dr. A. Gubb, London; Mr. J. C. Gouldney, Dudley; Mr. W. Guy, Edinburgh; H. G. Gardner, M.B., Cheltenham. (**H**) Dr. J. Hutchinson, London; Mr. G. A. Hawkins-Ambler, Liverpool; Mr. A. E. Harris, London; W. H. Hewlett, M.B., Wivenhoe; Dr. W. Hardman, Blackpool, Dr. E. Hawkins, Dudley; Dr. D. Hooper, London; Mr. H. Hewlett, London; Mr. J. J. Hanley, Liverpool; Mr. E. J. Howes, Bath; Mr. A. W. Hall, Warrington. (**I**) A. Innes, M.B., London. (**J**) J. N.; Mr. C. M. Jones, Merthyr Tydvil; Dr. T. Jones, Eastbourne; Mr. E. James, London; Dr. A. Jefferson, Rochdale. (**K**) Dr. T. N. Kelynack, Manchester. (**L**) L. E. G.; Mr. W. Bevan Lewis, Wakefield; Mr. A. H. Lucas, Liverpool. (**M**) M.D.; Mr. H. P. Mallam, Oxford; G. May, M.B., Reading; Mr. E. S. Machin, Birmingham; M.D. London; Mr. W. Maw, Bradford; Mr. S. W. Macilwaine, South Petherton; Dr. P. W. Macdonald, Dorchester; Dr. R. C. McCullagh, Belfast; Mr. W. C. McDonnell, Stoke Newington; Dr. J. McMurray, Bootle; W. R. Martine, M.B., Edinburgh; Member; M.R.C.S., L.S.A.Lond.; Member of the British Medical Association; Dr. W. Moor, New York; Dr. A. C. Munro, Paisley; Mr. B. F. Meadows, Hastings; M.D., Ventnor; Dr. P. H. Mules, Whaley Bridge. (**N**) Mr. J. T. Neech, Tyldesley. (**O**) Mr. E. A. Onyon, Eye; Observer; Messrs. Orridge and Co., London. (**P**) Dr. J. P. Parkinson, London; Dr. S. R. Philipps, Virginia Water; Mr. F. T. Paul, Liverpool; Mr. J. Porter, Bermuda; Mr. H. E. Powell, London; Dr. S. T. Pruen, Cheltenham. (**R**) Royal Microscopical Society, The Secretary of the, London; R. H. S.; Mr. R. P. Ryan, Ascot; Mr. T. F. Raven, Broadstairs; Mr. J. C. Russell, Southport; Mr. R. Redpath, Newcastle-on-Tyne; W. B. Russell, M.B., Colwyn Bay; R. N.; Dr. H. S. Renshaw, Manchester. (**S**) Society for the Prevention of Hydrophobia, The Secretary of the, London; Mr. J. B. Smith, London; Mr. R. Stoney, London; Dr. W. S. Scott, Manchester; Society of Apothecaries, The Secretary of the, London; Dr. E. Souchon, New Orleans; Mr. R. L. Swan, Dublin; Sheffield Medico-Chirurgical Society, The Secretary of the, Sheffield; Safety Letter Box Company, London; J. Steed, M.B., Birmingham; Dr. E. Markham Skerritt, Bristol; Dr. P. B. Smith, Aberdeen. (**T**) Mr. H. Tomlinson, Birmingham; A. Todd, M.B., Market Drayton; Dr. R. Thomson, Bournemouth; Mr. W. H. Thompson, Donaghadee; Miss L. Twining, Tunbridge Wells. (**W**) Mr. H. E. Waddy, Gloucester; Mr. H. Waite, Arnaley; Mr. J. D. Williams, Barmouth; Wigan Medical Society, The Secretary of the, Wigan; Mr. N. Wood, London; Mr. A. Winkfield, Oxford; Dr. Willoughby, London; W.H., B.S.; Dr. H. Woods, London; Dr. F. J. Waldo, London; A. S. Wilson, M.B., Hastings; etc.

BOOKS, ETC., RECEIVED.

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A Manual of the Modern Theory and Technique of Surgical Asepsis. By Dr. C. Beck. Philadelphia: W. B. Saunders. 1895. 1.25 dol.

*** In forwarding books the publishers are requested to state the selling prices.

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ABSTRACT OF A CLINICAL LECTURE
ON
ANEURYSM.

Delivered at the Manchester Royal Infirmary,

By WILLIAM THORBURN, B.S.Lond., F.R.C.S.,
Assistant-Surgeon Manchester Infirmary, etc.

Gentlemen,—Aneurysms are by no means common in this district, at least in those regions of the body which are amenable to surgical interference, being in fact so rare that among nearly 30,000 surgical in-patients treated in this hospital during the last ten years I find records of only 43 cases.

As 7 of these cases have come under my own care, and as they illustrate certain matters of interest in the pathology and treatment of the affection, I propose to relate briefly the clinical history of each, and to call your particular attention to a few points which I wish to emphasise:

Case I. *Aneurysm of Dorsalis Pedis Artery: Excision: Recovery.*[1]—A baker, aged 41, was admitted suffering from an aneurysm of the size of a small hen's egg, situated on the dorsalis pedis artery of the right side. He had also well-developed locomotor ataxia, and complete blindness from double optic neuritis. No history or indications of syphilis were obtainable. He had never been alcoholic, and he had no evidence of atheroma except a slight accentuation of the second cardiac sound over the aortic area. He gave a history of sudden onset of his disease some nine weeks before admission, his foot having become acutely painful as he was going down stairs, and inflammatory symptoms rapidly developing, to leave after their subsidence the pulsatile swelling for which he was admitted. On April 26th, 1890, the aneurysm was dissected out in its entirety, the vessel being ligatured above and below. The latter presented no degeneration, and the wound healed in a few days. At the present time (nearly five years after the operation) the man remains perfectly well, save for his nervous symptoms. This aneurysm was situated laterally to its artery, and immediately over the ankle joint.

Case II. *Aneurysm of Common Femoral Artery: Excision: Recovery.*—In October, 1893, a man, aged 50, came under my care, suffering from an aneurysm of the right common femoral artery of about the size of a goose egg. More than thirty years previously his right thigh had been amputated at the middle of the femur for "white swelling" of the knee-joint by James Syme. The symptoms of the present disease had commenced three months before admission. There were no indications of syphilis or alcoholism, but the accessible arteries were rigid and inelastic. As it appeared probable that the remarkable occurrence of an aneurysm in the femoral artery of an amputated limb might be due to injury by the artificial limb, a careful examination was made, but no explanation of pressure or injury to the groin was to be found. The patient himself suggested that about a fortnight before symptoms commenced he had injured his left hand, and, being driven to use his right hand for all work, had thrown an unusual amount of strain upon his right lower limb and groin. After ligature of the external iliac artery the tumour was entirely dissected out from above downwards, the femoral branches and continuation of the femoral artery being also tied. The wound was dressed and found to be healed on the thirteenth day. Some eight months later this man was admitted to the Dundee Infirmary, where he died in a few hours of hæmorrhage into the abdomen. My friend Dr. Raw, of Dundee, has sent me the aorta and iliac vessels, the former showing some atheroma and calcification, and the right external iliac being totally occluded from above downwards, the principal apparently the fatal hæmorrhage was from a point of ulceration at the junction of the right external and internal iliac arteries, but the specimen does not make this point perfectly clear.

Case III. *Radial Aneurysm: Excision: Recovery.*—A man having suffered from cellulitis of the hand and wrist, had numerous incisions made for its relief. He came to the infirmary with an aneurysm of the radial artery the size of a walnut, in the line of the cicatrices of these incisions. This aneurysm I dissected away, the wound healing readily.

Case IV. *Aneurysm of Femoral Artery: Suppuration: Evacuation: Recovery.*—A blacksmith, aged 27, was admitted to hospital in August, 1891. He presented no evidence of syphilis, alcoholism, or general arterial disease. His principal work was shoeing horses, which required him to rest the hoof against the lower and inner part of the left thigh, over the femoral artery, this region being subjected to much concussion and pressure. For several weeks before admission the patient had noticed a pulsating swelling over the region named, and for the last week this had greatly increased both in size and painfulness. For three weeks this man was treated in hospital by various methods, and I only saw him after this interval in the absence of one of my colleagues. His condition, which had rapidly become worse, then appeared desperate. An enormous swelling, with faint heaving pulsation, occupied the bulk of the thigh, being most prominent over the region of Hunter's canal. The entire limb was greatly swollen and œdematous, the skin dusky red in colour; pain was intense; temperature 103° F., pulse small and rapid, with dry furred tongue and general "typhoid" aspect. Operation was resorted to at once. A tourniquet being applied on the groin, an incision 8 inches long was made into the aneurysm, giving exit to large quantities of stinking pus and blood clot. The original sac of the aneurysm was lost in the inflamed and sloughing tissues, but the points of entrance and exit of the femoral artery were readily discovered. A rapid and rough dissection defined the vessel at either end, and ligatures were applied. The wound was thoroughly washed out and left open with a dressing of fomentations. A prolonged period of suppuration and sloughing ensued, but the wound healed in about two months, after which time we had also much trouble with cicatricial contraction. The man is, however, now well and active, has slight stiffness of the knee-joint, and has been at work again since the beginning of 1892.

Case V. *Popliteal Aneurysm: Ligature of Superficial Femoral Artery: Recovery.*—A man, aged 55, with a clear history of syphilis, not alcoholic, formerly in the army, but now a hairdresser, was admitted in November, 1893, for an aneurysm of the right popliteal artery of the size of an orange. Sphygmographic tracings showed a distinctly low arterial tension, and there were no signs of atheroma. The classical operation of ligature of the femoral artery in Scarpa's triangle was performed, and yielded an uneventful cure, the patient being well in January, 1895.

Case VI. *Aneurysm of Palmar Arch: Ligature of Ulnar Artery: Recovery.*—A blacksmith, aged 39, with no indications of syphilis, alcoholism, or general arterial disease, and with normal sphygmograms, was admitted in May, 1894, for a pulsatile swelling of lenticular outline situated deeply on the ulnar side of the left palm. Pulsation was not entirely abolished by compression of the ulnar artery, but was arrested by similar treatment of the brachial. The patient had been struck in the affected region four years previously by a heavy piece of iron, and had suffered much pain ever since that time, but had only noted pulsation for a few weeks. The ulnar artery was tied, and the wrist and the arm put up with strong flexion at the elbow-joint. A week later the healed wound was dressed and the limb released. All pulsation had ceased in the swelling, which was much smaller and firmer. Nine months later this man is well and at work.

Case VII *Aneurysm of Subclavian Artery (also of Carotid and Aorta): Ligature of Axillary Artery: Electrolysis: Improvement.*—A cabinet maker, aged 51, with no evidence of syphilis, alcoholism, or atheroma, and with a low tension sphygmogram, was admitted to hospital in March, 1891, suffering from a large aneurysm, which occupied the lower part of the left posterior triangle of the neck, extending forwards beneath the sterno-mastoid muscle, and having its lower border lost beneath the clavicle. He told us that two years previously he had received a severe blow immediately below the left clavicle from the shaft of a cart, being disabled thereby for several days, and that he first noticed the swelling eighteen months later. I attempted to tie the first part of the axillary artery, but found it of about the thickness of the little finger and becoming distinctly thinner towards its more distal part. I therefore divided the pectoralis minor, and tied the second part at about its junction with the third part, this vessel being here of normal calibre. The wound healed by first intention, and on the tenth day the tumour was quite hard and devoid of pulsation. On the seventeenth day after operation we noted some recurrence of pulsation at the anterior angle of the aneurysm, and at once resorted to electrolysis, using for three-quarters of an hour two needles with the current derived from ten Leclanché cells, and reversing the currents after the first twenty-five minutes. The swelling again ceased to pulsate. Four days later return of pulsation was again noted, and the electrolysis was repeated in the same way with a like result. Unfortunately the patient now concluded that the disease "would get well of itself," and insisted on leaving hospital, since which time I have been unable to trace him.

A point of very great interest in all of these cases is the importance of local injury when contrasted with general arterial disease as a cause of aneurysm. Thus in three of the seven cases—those affecting the hand and foot—there can be no question that injury was the sole cause, as is usually the case with aneurysms of such small arteries. Again, in Cases IV and VII the history of injury and the absence of evidence of degeneration were most striking. In Case II there was certainly atheroma, but the selection by the aneurysm of the atrophied femoral artery of an amputated limb would point to a local cause for so remarkable a condition. In only one case (V) was there an absence of indications of local injury, and here the patient had admittedly suffered from syphilis, whereas in our other cases the known causes of arterial degeneration were conspicuous by their absence. Further, the various operations which were performed did not reveal any extensive arterial mischief.

On these grounds, I am inclined to doubt the importance attached by many surgeons to atheroma as being the essential cause of aneurysm, and to believe that they are more commonly directly related to some trauma.

If this be so, we are justified in drawing the important conclusion that we may expect to find healthy arterial tissue at no great distance from the seat of the aneurysm itself, and we need have the less fear in applying a ligature close to the sac, as I did without difficulty or bad results in five of the cases. Further, as is strongly emphasised by Ballance and Edmunds, the surgery of the present day need not greatly fear suppuration, hæmorrhage, or gangrene after ligation.

If these premisses be granted, we may pass at once to the consideration of the question of ablation of the aneurysm as preferable to mere ligature. Out of the seven cases, I performed the operation of excision in three, and in a fourth (the case of suppuration) the result was identical. In all the operation was free from serious difficulty, and in all the results were excellent. To my mind this operation should in future be adopted whenever practicable, its advantage over

[1791]

[1] This case is fully recorded in the British Medical Journal for 1891, vol. ii

any less radical procedure being that the cure is final and complete, and that no recurrence is possible. Further, we remove by excision a mass of imperfectly nourished tissue and blood clot, which would otherwise remain as a possible source of future trouble in the form of inflammation, suppuration, or even mere pain.

In only a few cases is ablation not practicable, as in that of our large subclavian aneurysm, where even proximal ligature was not available; and I did not adopt this operation in the case of aneurysm of the palmar arch on account of the importance of not dividing the structures of the hand. But with exceptions such as these I should advise you to remove aneurysms bodily, regarding the operation as little, if any, more serious than ligation in continuity, and as yielding a more satisfactory result. The exceptions may be said to be (1) cases in which we cannot reach the proximal side of the sac; and (2) cases in which ablation would necessitate serious injury of important structures.

In conclusion, I would say a few words about our case of ligature of the axillary artery. As a distal operation for subclavian aneurysm this procedure appears to have been very rarely adopted. Holmes (*System of Surgery*) and Ballance and Edmunds (*Ligation in Continuity*) do not mention it; Pickering Pick (Heath's *Dictionary*) states that it "has been resorted to in a few cases with uniformly bad results," a view taken also by Erichsen, who collates four cases. In our case no other ligature operation was possible, and by tying the axillary as high as possible we avoided the continuance of circulation through most of its many branches. (The acromio-thoracic was cut and tied in the wound.) It unquestionably improved the condition of the aneurysm enormously, relieving entirely the intense pain of the patient and rendering far more hopeful the electrolytic treatment, which unfortunately we were not allowed to continue. In a similar case I should repeat the operation without hesitation.

THE INFECTIVITY OF CANCER: A RETROSPECT AND A FORECAST.[1]

By D'ARCY POWER, M.A., M.B.Oxon., F.R.C.S.Eng.,
Surgeon Victoria Hospital for Children.

The working hypothesis of the infective nature of cancer is that cancer depends upon the presence of a specific organism which is a protozoon rather than a protophyte, and that it requires a special soil, which we call predisposition, for its successful cultivation. This hypothesis is based partly upon evidence to be appreciated by the trained pathologist, and partly upon evidence of a popular character which appeals to the unscientific mind in much the same manner as do the tenets of religion and of politics.

The scientific evidence is mainly experimental, partly derived from the histological examination of cancerous and other tissues, and partly from the results of the inoculation or grafting of cancer upon men and animals. Much of the evidence based upon the interpretation of minute histological appearances is to my mind invalidated by the fact that the majority of observers have confined their attention to the examination of cancerous tissues, and have not taken the trouble to compare the results thus obtained with those seen in similar tissues only slightly removed from the normal.

This method of examination has been carried so far that in some cases the examination of a single tumour has been thought to afford sufficient evidence upon which to base an entire theory. Unusual appearances, due either to faulty methods of preparation or to changes in the cells themselves, have been said to be protozoa without any attempt to prove that they were so, whilst the bare statement of one observer has been accepted by another who has employed it to elaborate and father a theory of his own. There is, however, a single redeeming feature in this mass of crude hypothesis, for each observer has drawn to the best of his ability what he has seen, and we thus possess a large and often splendidly-executed series of plates to illustrate the minute appearances in the epithelial cells of cancer. Nothing is perhaps more remarkable than the manner in which each investigator has felt his inability to describe in words these appearances; in no branch of pathology has the skill of the lithographer, the photographer, and the engraver been called in with such signal success as in this inquiry into the cause of cancer. We shall owe the solution of the riddle in all probability to these pictures and to those which are yet to be published, for there is no likelihood of a speedy conclusion to our labours.

The appearances are for the most part as varied as the nationality of the observers. A few only can be traced, even in their broadest outlines, through the whole series, and many of those which appear to be common to all varieties of cancer are also met with in epithelial cells which have not been obtained from carcinomatous tissues. The appearances common to the largest number of observers are, as might have been expected, the simplest. They are tiny circular bodies, varying in size, but many times smaller than red blood corpuscles, found either singly or in groups, sometimes inside the cells and sometimes lying between them.

The explanation of these bodies has yet to be obtained. It may be that such bodies are the result of some cellular change of which we are ignorant; it may be that they are peculiar to the epithelial cell endowed with those characters which render it cancerous. We have as yet no evidence that they are protozoa, we have still less reason to say that they are a cause of cancer. We can only state for the present that they are fairly constant appearances in those epithelial cells connected with cancer either directly as a part of its growth or indirectly as a result of grafting cancer upon epithelial tissues. Attention should therefore be concentrated upon these bodies, and an endeavour should be made to trace out their life-history.

The second part of the experimental evidence adduced in favour of the infective nature of carcinoma is that derived from the grafting of cancer upon human beings and upon animals. The grafting of cancer upon human beings appears to me to be an indefensible and unscientific proceeding. If it be grafted upon persons who already have cancer, as has been done in Germany and in France, any seemingly successful result is open to the unanswerable objection that the body was already infected, and that the growth claimed to be produced artificially was merely a result of dissemination. It seems unreasonable to expect a successful graft upon healthy persons because, so far as we know, there must be a predisposition to the disease, and we have every reason to suppose, from the clinical experience gained in cancer hospitals and in the daily practice of surgeons, that cancer cannot be transmitted directly from person to person. Dr. Budd's cases in which five surgeons to the North Devon Infirmary at Barnstaple died of cancer within a short time I believe to be purely accidental, whilst if cancer of the uterus in a wife is productive of cancer of the penis in the husband, it should surely be more frequent in India than in Europe. The frequency of cancer in India is as yet unknown, but the various female doctors attached to the Zenana missions could afford us much help if they would obtain reliable statistics upon this important point.

There appears to be some evidence that cancer can be grafted upon animals. The disease is not common in wild animals, but it is not rare in highly-bred varieties and in those farthest removed from the original type, for it is met with in white rats, long silky-haired rabbits, spaniels, and Pomeranian dogs, sometimes in horses and in special breeds of cows. It occurs in these animals under the same clinical conditions as in man—that is to say, when they get old and when their epithelial cells become decadent, especially if they have been subjected to long-continued irritation. We have then in animals the same predisposing causes to cancer as in man, and as we can vary these causes at will and for several generations, we possess all the materials for an experimental investigation into the cause of cancer. If carcinoma be infective, therefore, we should be able to produce it by grafting cancer upon those animals which have been

[1] Read at a meeting of the Oxford and District Branch of the British Medical Association.

placed as nearly as possible under the conditions which are believed to be the most likely to allow of its growth. Many experiments have been made by thus grafting cancer upon animals, the source of the cancer being either human or animal, the animal carcinomata being derived from the same or other species. The experiments have failed with very few exceptions. Hanau's experiments at Zurich are well known. He grafted a squamous-celled epithelioma from one rat into the tunica vaginalis of another, and the second rat died within three months with cancer of the peritoneum. This experiment appears to have been more free from fallacy than many other successful cases which have been reported, but it has not proved itself capable of repetition until quite recently, when Dr. Morau claims to have grafted a cylindrical epithelioma from the axilla of a white mouse into other mice, who thereupon developed small hard tumours of a similar structure to that grafted. He concludes from his experiments that heredity plays a considerable part in the development of cylindrical epitheliomata by affording a suitable soil for their development. He also thinks that new growths vary in their virulence, and became less inoculable from one generation to another. Gestation seems to hasten their evolution. These conclusions are of great importance, but they need confirmation, and although cancers are tolerably common in animals, yet they are not of every-day occurrence. I should therefore esteem it a very great favour if any of you who come across such animals would send them to me at the laboratories of the Royal Colleges of Physicians and Surgeons in London. They will be immediately and painlessly destroyed, but I shall utilise the growth from which they are suffering.

These experiments of grafting upon animals cancer derived from human beings has not been attended by any satisfactory results. I believe that the nearest approach to a satisfactory positive result were certain appearances which I obtained after grafting human epithelioma and scirrhus into the irritated vaginæ of rabbits. In these experiments the small circular bodies found in carcinomata were observed within and between the rabbits' epithelial cells at the point where the carcinoma had been grafted. I have not yet satisfied myself, however, that these bodies cannot be explained in other ways than by assuming them to be parasites which have crept into the epithelium from an external source. All experiments tend to show that carcinoma cannot be grafted experimentally from men to animals, for the animal cells appear to have the power of destroying human cancerous tissues. It appears, therefore, that experiments in this direction should be made with diseased tissues derived from animals of the same species and not with pieces of carcinoma.

Evidence obtained from analogy is always weak. It is sufficient, therefore, to allude to the singular similarity existing between the appearances met with in cancer cells and those occurring in the blood of patients suffering from malaria. In both cancer and ague the appearances are identical in form and in attributes. It might be that the "ague parasite" and the "cancer parasite" are members of the same family, the one acting upon the blood corpuscles and the other upon epithelial cells. It might be, on the other hand, that both are the result of cell alteration. If the malaria parasite can be made to prove its existence as a cause of the disease—and I think that Marchiafava and others have gone far to prove it—there would be comparatively little difficulty in tracing its congener along the same lines of inquiry. The results derived from a study of the malarial parasite are therefore a matter of the greatest interest to those pathologists who are engaged in working out the causation of cancer.

Statistical evidence is nearly as misleading as that derived from analogy, but it appeals more to the unscientific than to the trained mind. It has been worked out for cancer in one direction by Mr. Haviland, who has come to the conclusion that cancer occurs most frequently in those who live in water-logged soils—a conclusion which is in complete accord with that held by those medical men in England and France who practise near rivers liable to flood. This conclusion would be of very great value if it could be corroborated by other than statistical evidence, for it would strengthen our hypothesis that cancer is infective, and it would at the same time suggest that the infective agent passed some part of its existence outside its host's body, and probably in the soil itself. General practitioners in alluvial districts liable to periodical floods might render great service by recording and publishing from time to time an accurate account of all the cases of cancer which they treat, noting the exact locality of each, its pathological variety, as well as the seat of its first manifestation, and when it occurs in women the influence, if any, of pregnancy either in regard to its commencement of any modifying effect which this condition may produce.

The popular belief in the infective nature of cancer is founded even upon weaker evidence than the scientific. There is a widespread belief that cancer is hereditary, yet out of 1,719 cases recorded by Lebert, Paget, Sibley, Siegrist and Snow, the disease only showed itself in the relatives of the affected person in 235 instances, or about 13 per cent. of the total number. Valuable information would probably be obtained upon this point by any general practitioner who would take the trouble to ascertain how often cancer had been hereditary in the patients who come under his own observation, and how often the blood relations of such persons had been affected with other and non-malignant forms of new growth. We might ascertain by these means whether a soil or a receptive condition was in reality necessary or usual in cancer. The older statistics are vague on this point of heredity. The diagnosis of cancer was often difficult, and was therefore overlooked, or other forms of tumour, themselves innocent, were incorrectly assumed to be malignant. Better education and an advance in all methods of clinical and pathological research have set aside these fallacies, and there is at present little difficulty in obtaining a correct diagnosis. Statistics of the hereditary nature of cancer, however, can only be amassed slowly, for they must rest on the personal observation of skilled observers and not upon the unsupported testimony of the patient to whom every cancer is a tumour and in whose mind "tumour" is synonymous with cancer.

Sir James Paget has raised another point of very great interest when he urges upon us the necessity of studying the characters of mixed disease. He says: "It has never been studied carefully what may be the result when one patient has one transmissible disease and another has another; what comes if one parent is a member of a cancerous family, and another a member of a tuberculous family? Do these two diseases in any respect disturb one another? Are they mutually exclusive, or do they mingle together? We know that acute tuberculosis and acute cancer never make rapid progress together; they seem, in so far as that, to be antagonistic. But what comes of it when they are mingled together by inheritance? Of that, I think, we certainly know nothing." Mr. Roger Williams has recently devoted attention to this point, but we still want to know more about it.

Much interest is periodically excited by the occurrence of cancer in several members of a family who, though living together, are not related by blood. Thus Bernard Peyrilhe, in his *Dissertatio de Cancro*, issued in 1774, relates the case of a man who had cancer of the jaw after nursing his wife with cancer of the breast; and Tulpius, who lived a century earlier (1594-1674) notes that a servant died of cancer after tending her mistress affected with the same disease. A large series of observations, culminating in those of Guelliot of Reims, have been collected gradually; they show that such cases do occasionally occur. It does not, however, seem more reasonable to adduce them in favour of the infectivity of cancer than it would be to say that insanity was infectious because the superintendent of an asylum became mad, and his wife and friends living with him in the house suffered from brain fag, or were eccentric.

The local epidemics of cancer are of greater interest than the concomitant cases above mentioned. They are usually at first sporadic—carry off certain individuals and then disappear. Animals, as well as human beings, are liable to them, and it appears as if visceral cancer were rather more frequent in such cases than the external forms. Arnaudet's observations in Normandy have recently been called in question by practitioners residing in the district, but the reports of other epidemics have been allowed to pass unchallenged. If they exist there are obviously two explana-

tions of them—the one that they are mere coincidences, as was thought to be the case in similar outbreaks of pulmonary phthisis before the discovery of the tubercle bacillus; the other that they are due to an infective organism finding by chance in a given locality several persons of proper receptive capacity coincidently with a satisfactory means of distribution. Time alone will show which is the correct explanation, but such cases should be borne in mind, and every detail noted as it occurs. The cases are sometimes met with in a single house, sometimes in a group of neighbouring houses, sometimes in a part of a town or village, whilst sometimes an entire district may be temporarily affected. The greatest pains should be taken to ascertain whether in such outbreaks there is a single factor or a group of factors common to the whole of the persons attacked, and the outbreak should be examined on exactly the same lines as have yielded such good results in cases of typhoid, diphtheria, and other epidemic diseases.

Chaotic as are our present ideas in regard to the origin of cancer, we have good reason to hope that they may shortly be reduced to order. Feeble as is the evidence upon which the working hypothesis of the infectivity of the disease is based, it is daily being strengthened by observations,—clinical, pathological, and statistical. There is no reason why the steady work done upon the origin of cancer should not be rewarded in the future with the same meed of success as in the past has attended that bestowed upon the larger animal parasites, for the study of bacteriology has given us new methods, and has enabled us to deal with much more minute objects than was formerly possible.

It appears in the light of our present knowledge that if an organism be the cause of cancer, it should be amœboid and spore-producing, spending a part of its life in damp earth and a part in epithelial cells. It should be extremely tenacious of life, and must have a long resting period though its spore-bearing time may be very short. Its effect upon epithelial cells would be rather to stimulate them and cause their amitotic division than to lead to their destruction, and this irritation of the cells might perhaps serve the secondary purpose of providing the complex proteid foods necessary for the growth of the organism.

I have brought this paper before you, gentlemen, in the hope that it may direct your attention to those points in connection with the cause of cancer, in which you are able to afford very material assistance at the expense of a very small amount of trouble.

I will therefore recapitulate the chief points in which you can render service by careful and accurate observation. The influence of heredity should be ascertained in every case of cancer, the inquiries being made in reference to the collateral as well as to the lineal descent. A vague statement that such and such a relative died of cancer is insufficient; the exact variety of cancer should be ascertained, the duration of the disease, and if possible the seat of the primary growth and of the secondary deposits; in women, too, it should be noted whether pregnancy has any bearing upon its commencement or upon its progress. The family diathesis on the parents' side is easily noted in a single word. The occurrence of such innocent tumours as wens, warts, and fibromata in other members of the family is also ascertained without difficulty, and when they occur, the ages at which they grew and the position which they occupied should also be recorded. It is still an open question whether gout, rheumatism, and other manifestations of an arthritic diathesis are in any way associated with cancer, and there are some who maintain that in a community where flesh is sparingly consumed the largest meat-eaters are the most likely to be affected with cancer. It would therefore be well to consider these points. Those who reside in districts where cancer is especially frequent should bear in mind the work done by Haviland, and should ascertain in each house where cancer has occurred whether the soil is water-logged either generally as a result of floods, or locally from damp and wet cellars. All local outbreaks of cancer should be examined as to their cause in the manner usually adopted to ascertain the source of any of the more common epidemic diseases, and an endeavour should be made to ascertain what factor in the life or surroundings is common to each of the persons affected. It might be well also for those who are interested in the subject to tabulate the domestic remedies recommended and used for the cure of cancer, as their number is undoubtedly very numerous. An infusion of the common dead nettle taken to the extent of half a pint a day, and also used as an enema, has been recently and strongly recommended to me as an infallible cure for encephaloid cancer of the rectum, and its good results have been pointed out in an individual case. It is interesting as a piece of folk-lore, but it is otherwise useless. Lastly, we require more information as to the frequency with which cancer occurs in those countries where women are secluded, and this can readily be obtained for us by those newly admitted members of our Association who are privileged to enter the zenanas and harems of the world.

A CASE OF MALIGNANT DISEASE OF THE THORACIC MEDIASTINAL GLANDS:

Dilatation of the Descending Aorta, Marked Cardiac Intermission and Bradycardia.

BY

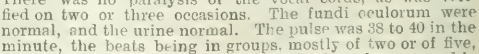
ARTHUR E. SANSOM, M.D., F.R.C.P. and FRED. TRESILIAN, M.D., M.S.

Mr. T., aged 45, stated that he used to have "bilious headaches" very badly when a boy. He had syphilis—a chancre followed by sore throat—twenty-two years ago. He had not had either acute rheumatism or influenza. About six years before he came under observation he began to have attacks of "dimness of sight, with forked-lightning flashes when he closed his eyes." These were usually followed by frontal headache, which did not last long. These attacks (undoubtedly migrainous in nature) became slightly altered, and the headaches were attended with numbness and weakness in either arm, preceded by a mistiness of vision and pain, which might occur in either temple, but most frequently in the right. These were sometimes attended with a difficulty of speech—a hesitation in getting hold of the right word. He lately went to a Hydropathic Institution, where he was told that he was suffering from "nervous exhaustion, with enlargement of the liver, which latter organ was 1½ inch larger than normal." He came away with his liver reduced to almost its normal size. He had also been treated recently for "suppressed gout."

About a month before he came under our treatment (in August, 1894) he became subject to rushes of blood to his head, which were quite sudden and of only momentary duration, with giddiness and a tendency to faint. He thinks he never lost consciousness, but on one occasion he dropped his gloves, his umbrella, and a parcel during an attack. He passed an enormous quantity of urine at night.

He had had a cough for about a month, which occurred sometimes in severe paroxysms, and with dyspnœa. He had also experienced, especially on waking, a loud buzzing noise in both ears, lasting for about an hour. His sight had been very weak of late. He had pains in his back and legs. He noticed that his heart lately occasionally stopped beating, and that his pulse was slow; and sometimes palpitation, with a quickened pulse, occurred. There were frequent attacks of giddiness.

He had a sallow complexion. The pupils were almost pinhole, and reflex was feeble to light. There was marked inspiratory stridor, which was more noticeable after talking. There was no paralysis of the vocal cords, as was verified on two or three occasions. The fundi oculorum were normal, and the urine normal. The pulse was 38 to 40 in the minute, the beats being in groups, mostly of two or of five, with a prolonged pause, well shown in the sphygmographic tracing annexed, furnished by Dr. Sansom. I had never met



with such a long pause. The action of the valves was apparently normal. There was occasional hæmoptysis, the

blood being mixed with saliva or mucus. There was sometimes a profuse quantity of saliva tinged with blood. The right lung was normal. There was dulness over the left lung, and the respiratory murmur was feeble. Dr. Sansom saw him the day after this, August 28th, and supplied the following notes:

"There is evidence of hypertrophy of the left ventricle. The heart's apex is felt and mapped out beneath the seventh rib and costal cartilage. There is a systolic murmur of slight intensity, audible at the aortic cartilage, and in the third and fourth left intercostal spaces close to the sternum. There is no evidence of dilatation of the right cavities. The irregularities of the heart's rhythm are very peculiar. After a group of three pulsations—on some occasions of two—there occurs a long pause. This pause, as timed carefully from the sphygmogram, lasts just five seconds. Its time duration is rather less than that occupied by the group of three pulsations. In linear measurement the former was 56 millimetres, the latter 32 millimetres. It is concluded that this extreme bradycardia must be due to an irritating lesion of the vagus, the problem being how the irritation was produced. The breath sounds are notably diminished over the upper lobe of the left lung. There is marked inspiratory stridor."

September 21st. He complained of shooting pains about his body, especially in the upper part of the left arm, also in the chest, thighs, and right arm, which pains were sharp and momentary.

October 21st. Pain in the chest continued; he had had some hæmoptysis. There was dulness on percussion over the great part of the left side of the chest to the line of the sternum, and also dulness behind. The heart's impulse was most distinct to the left of the nipple towards the axillary line. The breath sounds over the left side were feeble, especially over the upper part. There was pain, with difficulty in swallowing, referred to about the mid sternum. He had had only one slight rush of blood for a fortnight. The inspiratory stridor was not so distinct. The pulse was 44. The pupillary reflex was better. Knee-jerks were normal.

October 25th. The pulse was 46 and much more regular in rhythm; there were occasional groups of two or three beats. Dulness still existed over the left side, with the exception of an area of resonance over the site of the pulmonary valves. Here also there was a rough systolic *bruit*.

October 29th. Dysphagia was very troublesome for solids. Fearing that there was some intrathoracic tumour, possibly either a malignant growth or an aneurysm, another consultation was held with Dr. Sansom, who on October 30th gave his opinion in favour of an aneurysm of the aorta pressing upon the œsophagus and the root of the left lung. There were no signs of any outward determination of the sac towards the chest wall, and there was considerable displacement of the impulse of the heart towards the left, almost to the axillary line. He was ordered rest in bed, with light diet, and iodide of sodium gr. 25 thrice a day.

December 12th. The dysphagia had been very troublesome of late, but was now better for fluids. The cough was better, being only occasional and not severe. There was no dyspnœa when lying quiet in bed, but there was if he made any kind of exertion. The pain in the chest was better, and also the rushes of blood. Palpitation still occurred at night. The pulse was 48 to 50, and was variable. Sometimes it was regular for thirty-six or forty-eight hours, and at other times it relapsed into groups of three or four. Change of position altered both its rhythm and rate, and after an attack of palpitation it would beat regularly at 50 for a long time. The *bruit* over the chest was less distinct. The heart's beat was more tranquil, and the impulse had receded more towards the normal position. The dulness over the chest was still the same. The inspiratory stridor was not so distinct.

January 14th, 1895. A great change for the worse had taken place within the last few days. There was now considerable dyspnœa, mostly inspiratory. The pulse was 60, running up to 69. The urine was very scanty, and loaded with lithates; and there was marked hoarseness. He was very weak, and complained of pain at the epigastrium and at the posterior lobe of the left lung. The dulness extended across the sternum to the right. There was exaggerated respiration over the right lung, and forcible pulsation in the epigastrium (right ventricle?). There was a creaking sound over the ribs at the left lateral base, and over the precordium with each impulse of the heart.

January 15th. There was considerable dyspnœa. The pulse was 60, and quite regular. Cardiac displacement was marked to the right of the sternum, and percussion dulness also. He died quietly that night. There was no hæmorrhage at the end. With the exception of the pulsation at the epigastrium the day before he died, which was due to the heart being gradually displaced to the right by effusion into the left pleura, there had been no evidence of any pulsation or pulsating tumour over any part of the chest.

The necropsy was made the next evening. The body was emaciated. There was a large quantity—8 to 10 pints—of fluid, slightly tinged with blood, in the left pleural cavity. There was also a small quantity—about 10 ounces—in the right pleural cavity. With the fluid from the left side there were some old blood clots. The left lung was entirely collapsed, occupying the upper and posterior part of the cavity, and lying upon the spine. The upper part of the lung was hard and dense, the lower portion was in a condition of hypostatic congestion. The whole left lung was no larger than two closed fists. The right lung was hypertrophied, and in a partially emphysematous condition; it was deeply congested. In the posterior mediastinum was a large mass of new growth, quite fibrous and hard, which filled up the posterior mediastinum, and enclosed all structures in its vicinity. The root of the left lung was especially involved, the growth having completely occluded the left bronchus, and compressed the pulmonary artery and veins. There were trabeculous extensions of the growth into the adjacent part of the left lung. The pneumogastric nerves and the œsophagus—down to the diaphragm—and the trachea were surrounded by the growth. The descending aorta was also implicated, being somewhat constricted below, and dilated above the constriction. The growth was perfectly hard and fibrous, and no ulceration or breaking down had occurred that could be seen. It was firmly adherent to all its surroundings, to the spine and the diaphragm, and involved and compressed in its growth all structures at the back of the thorax. The heart was hypertrophied and slightly fatty, the hypertrophy being most marked in the right ventricle. The liver was very much enlarged from venous congestion. The spleen was the same. Nothing abnormal could be found anywhere else.

It is in the highest degree probable that the remarkable bradycardia and the grouped beats with the long pauses between were due to an irritant lesion of the vagi, for the necropsy showed that these nerves in a portion of their course were surrounded by the malignant growth.

CASE OF SEROUS EFFUSION INTO THE PLEURA OF EIGHTEEN MONTHS' DURATION,[1]

TREATED BY REPEATED PARACENTESIS, AND SUBSEQUENTLY BY FREE INCISION, PROBABLY TUBERCULOUS IN ORIGIN, AND ASSOCIATED WITH CHRONIC ASCITES; RECOVERY COMPLETE, WITH RE-EXPANSION OF THE LUNG AND LITTLE CONTRACTION OF THE SIDE.

By SAMUEL WEST, M.D., F.R.C.P.,
Assistant Physician to St. Bartholomew's Hospital; Senior Physician to the Royal Free Hospital, etc.

In June, 1893, I was asked to see Miss B. P., aged 31, whose abdomen and right side of the chest had been full of fluid for more than twelve months. The object was to obtain my opinion as to whether anything could be done to relieve her.

It appeared that until September, 1891, she had been in perfect health, and was active, energetic, and athletic. She then began to feel weary and to lose her usual energy. In October she became troubled with severe pains in the abdomen, which came on and off, both night and day. She had

[1] Read before the Medical Society of London.

a good deal of discomfort after meals and the abdomen increased in size. In November ascites was diagnosed, which, in December, was stated to be of a tuberculous nature. She was treated by rest, local inunctions, and tonics. She was now troubled with a good deal of obstinate diarrhœa, and she lost weight and strength rapidly. On January 2nd, 1892, she first felt pain in the right shoulder, and a few days afterwards a small pleuritic effusion on that side was diagnosed. From this time until March she was in bed, but made no improvement. The fluid in the abdomen and pleura had greatly increased, and at Easter the question of paracentesis was raised, but, after consultation with two other doctors near her home, it was decided against. As far as I can learn, the opinion was expressed that the case was one of widespread tuberculosis, and therefore unsuitable for any operative interference. The patient was allowed to get up daily and to drive out whenever the weather was favourable.

All this time she dragged on a miserable existence, the abdomen being of considerable size and the cause of great discomfort on account of the weight, while the breath was very short. She became wasted almost to a skeleton, and her family was informed that she could not recover.

From July to December she remained *in statu quo*, the question of paracentesis was raised more than once, but each time decided against.

During the next three months she improved, and was able to go out daily for a drive or short walk; but in the spring the fluid increased, and she was sent up to London to see me in June, 1893. I found her then greatly wasted, little more than skin and bone, and looking like a patient with advanced phthisis. The temperature was normal. The abdomen was full of fluid and greatly distended, though the walls were lax. The right pleura was also full of fluid and was dull to the clavicle, the heart being displaced as far as 1 inch outside the left nipple line.

The family history was bad. An aunt on the mother's side and an uncle on the father's side had both died of phthisis. She was one of five children; one sister died not long ago of acute phthisis, and one of her two brothers had been phthisical for some years.

The questions put to me were: "Ought she to be tapped? and what prospect was there of doing her any permanent good, the fluid having been permitted to remain so long without interference?"

In answer to the first question, it seemed clear to me that she ought to be tapped at once. In respect to the second question the answer was much more difficult; in the first place there was no doubt in my mind that the affections both of the abdomen and pleura were tuberculous in origin, but the prognosis was very different in the two cases. Tapping the abdomen was certain to give great relief, and it was quite possible that even after a single tapping the fluid would not return. This opinion was a great encouragement to the patient, for she attached more importance to the condition of the abdomen on account of the disfigurement it produced than she did to the state of the chest. In respect of the pleura the prognosis was doubtful, for all depended upon the extent to which the lungs might re-expand; and considering that they had been compressed by fluid for more than twelve months, it was most likely that they were bound down by adhesions, perhaps even permanently. Under any circumstances the paracentesis would have to be repeated; and recovery, if it took place at all, would be a question of time.

It was decided that she should remain in London and be under my care. Accordingly accommodation was found for her, and in the beginning of July I tapped the abdomen, removing about two gallons of clear serous fluid. She was of course kept entirely in bed and fed liberally. I can dismiss the abdomen now from further consideration, for the fluid never returned and the single tapping cured the ascites.

On July 13th I tapped the right pleura, not using the aspirator but an ordinary needle with a tube to the floor. Ninety ounces of clear serous fluid were removed easily. I was pleased and surprised to find that the lung appeared to come freely out, the heart's apex returning nearly to its normal place, resonance and breath sounds reappearing over the upper part of the right side as far down as the fifth rib.

That the lung should re-expand to this extent spontaneously without the use of any suction with an aspirator seemed to me very hopeful and encouraging. The fluid removed from the pleura was clear serum, specific gravity 1018, and almost solidified on boiling. The patient was greatly relieved and inspired with fresh hope.

The history of the case from this point for a long time consists in a record of repeated tappings of the pleura and of rapid recovery of flesh and strength. It was quite remarkable how rapid the improvement was with simple nursing after the removal of the fluid. The following is a record of the tappings of the pleura:

Date.	Operation.	Oz.	Remarks.
July 13th... ...	Paracentesis	90	With siphon.
,, 19th... ...	,,	110	—
August 3rd ...	,,	103	—
,, 14th ...	,,	100	—
September 5th...	,,	120	—
,, 14th...	,,	50	—
,, 28th...	,,	50	—
October 2nd ...	,,	60	With the aspirator.
,, 9th ...	,,	15	With the siphon; no more with the aspirator, but fluid was evidently left.
,, 16th ...	,,	60	With siphon.
,, 30th ...	,,	23	With aspirator; some air passed into the pleura.
November 16th .	,,	90	With siphon.
,, 27th .	,,	72	With aspirator.
December 8th ...	,,	40	,,
,, 15th ...	,,	30	Aspirator used henceforth.*
,, 22nd ...	,,	40	—
,, 27th ...	,,	20	—
January 4th, 1894	,,	30	—
,, 11th ...	,,	30	—
,, 19th ...	,,	22	Fluid a little blood-stained.
,, 26th ...	,,	25	Fluid difficult to find; cannula seemed to touch lung easily on all sides.
February 1st ...	,,	15	—
,, 13th ...	,,	8	—
,, 22nd ...	,,	9	—
March 2nd ...	,,	62	There had been a good deal of pain in the right side and shoulder during the last week, but the temperature was normal.
,, 8th ...	,,	28	—
,, 16th ...	,,	42	—
,, 22nd ...	,,	28	—
,, 29th ...	,,	27	—
April 5th... ...	,,	33	—
,, 13th... ...	,,	24	—
,, 19th... ...	,,	15	—
,, 28th... ...	,,	17	—
May 7th	,,	35	—
,, 15th	,,	35	—
,, 22nd	,,	33	—
,, 29th	,,	35	—
June 5th	,,	30	—

* The needle was inserted in the eighth space in the posterior axillary line. It always caused pain felt at the spot, but most in the epigastrium, due no doubt to the intercostal nerve being irritated by the needle. The ribs were now so close together that it was difficult to introduce the needle. The side had very greatly contracted, and the heart had long been in its normal place.

For the first three or four months she was kept rigidly in bed, but then was allowed to get up, though remaining in her room. Towards the spring she went into another room, and when the days were fine went out at first in a bath chair and later walking. As the summer came she was able to go some distance without fatigue or shortness of breath. She had become quite fat, and looked in excellent health, as indeed she felt.

There was no appreciable difference between the two sides, and the movements were almost equal. The breathing was natural over the whole side except at the base behind, where the sounds were deficient. The fluid seemed to be confined in a small pocket in the mid axilla. There had never been any rise of temperature, and the fluid remained serous throughout. I felt no doubt that in time recovery would be complete. However, the length of the case and the expense to which the parents were put in consequence rendered them impatient, and at last it came to this—that either she must go home as she was, or something else must be done to accelerate the cure.

There was of course but one other thing to do, and that was to open the side. This would in all probability convert what was a serous effusion into an empyema, and I naturally shrank from that, especially with the strong family history there was of phthisis, and the certainty that the disease in the patient was of tuberculous origin. Over and above this risk there was another to be reckoned with, namely, the danger of exciting a fresh outburst of tubercle in the lung or elsewhere. It seemed also to me too bad to expose the patient to all these risks, considering the good state of health in which she was. Moreover, there was a complete uncertainty whether the operation would have the desired effect of really expediting the cure, supposing that the patient escaped the risks referred to. At the same time it seemed probable that the pleural cavity was in great part obliterated, and that if the chest was opened and an empyema produced, it would only be a local empyema that would have to be dealt with. What I chiefly dreaded was a fresh outburst of tubercle. I pointed out that the operation would certainly necessitate a further stay in London of quite indefinite duration. However, after having all the *pros* and *cons* placed before them, the family decided that the operation should be done, and with great misgivings I consented.

A few days later, in the first week of June, 1894, the side was opened by my colleague Mr. Bowlby, by a free incision along the seventh rib in the posterior axillary line, a portion of the rib being removed. A pint or more of fluid escaped, and, to my surprise and disappointment, the lung was found not to be adherent anywhere, so that it collapsed entirely. The operation was perfectly simple, and the side was dressed with antiseptic dressings.

The next day the temperature began to rise, and in the course of a week became markedly hectic, rising to 102° or 103° every night. The fluid discharge from the side, which for a few days remained serous, gradually changed its character and became purulent. The opening was quite free, and there was no retention, so that some other cause for the rise of temperature had to be looked for, but none could be found, and I began to fear that what I had dreaded had come to pass—namely, that the operation had led to an acute outbreak of tuberculosis.

The patient rapidly lost flesh and strength, became wandering and almost delirious at night, and appeared to be going down hill as fast as she could, and that without any obvious reason—at any rate as far as the empyema was concerned—for the discharge was never large, remained sweet throughout, and there was no retention.

So this went on from day to day, until on my return from my holiday at the end of July I was shocked to see the condition to which the patient was reduced. She was wasted, as thin as a skeleton, and looked very ill and feeble. The temperature still remained high, though it rarely passed 102°. Now for the first time some pleuritic friction with fine crepitation was discovered at the left base, and this seemed to confirm the fear that the fever was due to the development of tuberculosis in the lung, so that I now began to feel almost in despair about my patient, and to regret bitterly that I had consented to allow the operation to be done, for it was sad to compare her condition now with that at the time she was placed upon the operating table.

She remained in a critical condition for some two or three weeks longer, and then began slowly to mend. The temperature fell and gradually the fever left her. She began to gain flesh and strength, and by September it became clear that after all she was going to get well. From beginning to end there had been no reason to complain of the side; that had gone on uninterruptedly well, the discharge had become less and less, the cavity smaller, the side was contracting slowly, and the lung expanding. Nothing now remains to report except a steady and continued improvement until the patient was sent home in time to spend Christmas with her family. On leaving London her weight, which at her worst had been no more than 6 stone, had risen to 9½ stone. She looked well and was strong, and the condition of her lungs was as follows: The right side was a little contracted but not much. The cavity in the pleura had entirely disappeared except for a long narrow track, in which the tube lay running apparently above the diaphragm in the direction of the ensiform cartilage; the greater part of this did not measure more than half an inch in width except just within the ribs, where a shallow cavity, about 1 inch in diameter, lay. Over the whole of the side the breath sounds were audible, and there was no definite impairment of percussion anywhere except at the base behind and in the axilla.

I have since had reports of her progress. The tube is now only about 2 inches long, and the cavity has almost closed. She feels perfectly well, and able to walk about when the weather permits, and looks as well and strong now as she did before her illness. The opposite lung is, as far as can be judged, quite healthy, and nothing to suggest phthisis has developed in either lung.

The case presents many features of interest. In the first place, it is astonishing that nowadays a patient should have been left so long with her chest and abdomen full of fluid and no attempt have been made to relieve her by tapping. I suppose this was due to the persistence of the old fallacy that fluid effusions in the pleura check the progress of tuberculous disease in the lung—a theory for which there is little foundation, and which will certainly lead to grave errors in practice if applied as a general principle. Even if this explains the leaving of the chest so long untapped, it does not explain why the fluid in the abdomen was not removed. A single tapping cured this at once, and there is no reason why the same success should not have been obtained long before. The chief points of interest centre, of course, in the pleura. They are the following:

(1) That after the pleura had been full of fluid for twelve months and more the lung should not be bound down, but should be capable of rapid re-expansion.

(2) The number of times the side was tapped and the probabilities that complete cure might in the end have been obtained in this way.

(3) The fact that after thirty-seven tappings the fluid remained clear and serous as at the first, and that, too, in spite of air having been admitted more than once into the pleura.

(4) The opening the side for a simple serous effusion.

(5) The ultimate complete recovery, with practically no deformity and perfect re-expansion of the compressed lung.

1. It is certainly remarkable that a lung which has been completely collapsed by an effusion of tuberculous origin for more than twelve months should have contracted no adhesions, and should be capable of immediate re-expansion on the removal of the fluid. The discovery of this on the first paracentesis made the prognosis at once much more favourable.

2. In respect of the number of times the pleura was tapped, I do not know of any instance in which paracentesis has been so frequently performed. Yet it is clear that there were only three courses open: (1) to leave the patient alone after the first two or three tappings had failed to cure; but in that case the patient would soon have been as bad as before; (2) to open the side, an operation rarely done for simple effusion, and not to be lightly decided on; and (3) to do as I did, to repeat the paracentesis as often as might be necessary. The result fully justified my decision to try to cure the case by repeated tappings, for the simple removal of the fluid caused the most striking and rapid amelioration of the patient's condition; she was not only relieved of all her distressing symptoms, but rapidly gained health and strength. The fluid steadily decreased in amount, and I believe if the patience of the family had not become exhausted paracentesis would have ultimately cured her. If she had lived in London, so that the expense of providing accommodation for her had not had to be considered, I should not have consented to any other measures, but in this case, as in so many others in practice, what had to be done was not the best absolutely, but the best possible under the circumstances.

3. The fact that after so many tappings the fluid remained clear and serous as at the beginning is another evidence of the safety with which these operations may be done if ordinary care be taken to use clean and carefully disinfected instruments. I always used my own instruments, which I strictly disinfected myself, both before and after using. One used to hear of the risk of converting by paracentesis a serous effusion into a purulent one, but that was due not to the operation, but to the dirty instruments used, and if such a

result followed paracentesis now, I should hold the operator, and not the operation, to blame.

4. The deliberate opening of the side for a simple serous effusion has, I believe, been rarely practised, and rightly, for do what we will it is practically impossible, I believe, to prevent the effusion becoming purulent. That certainly happened at any rate in this case, in spite of the strictest antiseptic precautions. In this case, with so strong a tuberculous history in the family and with the strong presumption that the disease was of tuberculous nature, it seemed especially desirable to do nothing which might lead to an empyema. So I resisted the pressure put upon me to open the side as long as I could, and it was only after putting the whole case before the family and insisting that they should share in the responsibility of the decision that I at last consented. My fears were fully confirmed, for although I did not confess it I felt many times tempted to despair of her recovery and to reproach myself for having yielded to the pressure put upon me. So far as the operation was concerned it was a complete success. The anxiety was caused, not by the condition of the pleura, but by the general condition of the patient, and this still remains a puzzle to me, for I cannot see any plausible explanation of the fever and rapid failure of health. There was not enough discharge to account for it, and there never was any retention of pus. Still there is the fact that she nearly died, and at times I felt almost without hope of getting her through. No signs of tubercle ever developed, and except for the effects of her pleurisy the patient seemed sound.

5. Not the least remarkable part of the case is the complete *restitutio ad integrum*. There is now but very little external deformity, the lung has expanded, healthy breathing is audible everywhere, and I believe that when the tube is at last out there will be little but the scar to show what has been the matter. Yet the lung was completely compressed for about eighteen months, and another eighteen months were spent in getting well.

THE OBSTETRICAL SOCIETY OF LONDON AND THE MIDWIVES QUESTION.

Being an Abstract of the Inaugural Address delivered before the Society on March 6th, 1895.

By F. H. CHAMPNEYS, M.D., F.R.C.P.,

President of the Society; Lecturer on Midwifery, and Physician and Accoucheur to St. Bartholomew's Hospital.

Dr. Champneys began by admitting that the Society's year opened with a disagreeable situation. He said: "The General Medical Council has threatened us with anathema for infringing the Medical Act and deceiving the public; it has even hinted at the word "infamous" being applied to us (in a strictly professional sense, of course), and all the consequences which follow the application (in a strictly professional sense) of that adjective. We have been guilty of examining midwives, of giving them certificates (or diplomas), of saying that we had done so, and of expressing our opinion that those who passed were "skilled midwives, competent to attend natural labour." This we have done for twenty three years without let or hindrance; and as some men have suddenly waked up and found themselves famous, we have suddenly waked up and found ourselves (nearly, but not quite, and in a strictly professional sense) "infamous."

Now this requires a little explanation. Those of you who read the medical journals have noticed that for some little time agitators have been going about the country endeavouring to stir up an opposition to midwives, and particularly (please observe) to "skilled" midwives—that is, women who have received some sort of regular training, and have been taught how not to infect their patients, and when to call in the doctor.

Their interest in the Obstetrical Society is touching, but it is to be observed that their real object is not to "mend" but to "end" our examinations. Among the phrases which have served these agitators may be noticed one that we are "creating a new order of medical practitioners."

This is as correct as the classical definition of the crab which was criticised by Cuvier; it is perfectly accurate, except that (1) we have not "created" any persons at all; (2) midwives are not "medical practitioners" (in the technical sense); and (3) if either doctors or midwives are "new," I fear that history tells us with no uncertain voice that midwives antedated doctors by an enormous length of time. It is hardly too much to say that midwives must have begun nine months after there were two women and one man on the earth."

Dr. Champneys then briefly sketches the history of midwives in England. The Church, Chamberlen, and Harvey all advocated the instruction and licensing of midwives. He notes that Her present Majesty is the first queen ever attended in her confinement by a man. He recapitulates the proposals and Bills projected since 1813 for the examination and registration of midwives. These efforts at legislation are doubtless well known to readers who take an interest in the question. The Report of the Select Committee of the House of Commons on Midwives' Registration (August 8th, 1893) is quoted at length. In this report the rights of the practitioner were especially considered; in fact, it concludes thus:

"Your Committee desire to refer to the apprehension expressed by certain witnesses belonging to the medical profession, lest their interests might be injuriously affected by an improvement in the status of the midwives. The great preponderance, however, of medical and other evidence, having regard to both the authority and number of the witnesses, was to a contrary effect. Your Committee, therefore, whilst giving due consideration to the expression of such fears, believe that the suggested injury is not likely to prove serious, and they are of opinion that medical men will not only be relieved of much irksome and ill-paid work, but also that improved knowledge on the part of midwives will induce them to avail themselves more frequently, and at an earlier stage than at present, of skilled medical assistance in time of emergency and danger. On this point your Committee had full and substantial evidence."

Dr. Champneys dwells on the charge of the Recorder to the grand jury at the Old Bailey on January 8th, 1894, where great regret was expressed that the registration of midwives was not compulsory. "Anyone at present," said the Recorder, "could call herself a midwife, however ignorant she might be of the very first principles of her duties." All great nations excepting the United States and the British Empire have regulations for the control of midwives.

He next dealt with the history of the Obstetrical Society in relation to this question. "On November 4th, 1870" (said Dr. Champneys) "the Council passed a resolution in favour of the institution of a voluntary examination for midwives.[1] This resulted from a committee under the presidency of Dr. Hall Davis. At the annual meeting of the Society, January 3rd, 1872, the scheme of such an examination, with by-laws, was presented to the Society and passed unanimously. It is essentially the same as at present, and the law referring to the granting of the certificates runs thus: 'V. That, on satisfying the Board of Examiners as to her qualifications, the midwife should receive a diploma certifying that she is a skilled midwife, competent to attend natural labours."[2]

At the annual meeting, January 6th, 1875, the President (Dr. Tilt) in his address said: 'Last year Lord Aberdare and Mr. Stansfeld were in office; they favourably entertained the views repeatedly brought forward by the Society, and they were prepared to bring in a Bill for the better education and registration of midwives, when a change of Ministry convinced your Council that the question must be left in abeyance.....Ours is the only civilised country that has left unregulated the midwifery of the humbler classes, and it is a disgrace to obstetric medicine that there should be no means of preventing an incompetent and drunken woman from assuming the name and the duties of a midwife."[3]

In 1873 the Council referred the matter of branch examinations and registration of midwives to a committee, who re-

[1] Council Minutes, p. 243.
[2] *Obst. Trans.*, vol. xiv, for 1872, p. 21.
[3] *Obst. Trans.*, vol. xvii, for 1875, p. 33.

ported as follows: 'The Obstetrical Society of London, having had repeatedly and urgently brought before its notice the sacrifice of human life and health occasioned by the practice of ignorant midwives, has already instituted an Examining Board for testing the knowledge of women desiring to follow the calling of a midwife, and has granted certificates to those who have satisfied its examiners.' It then proposed methods for branch examinations, and for the registration of midwives.[4]

On June 6th, 1877, the President (Dr. West) informed the Society that a deputation had waited upon the Lord President respecting the examination and registration of midwives.[5] At the annual general meeting, January 2nd, 1878, the President (Dr. West) again referred to the subject as follows: 'His Grace the Lord President of the Council expressed himself as favourable to the principles which the scheme embodies. It was afterwards laid before the General Medical Council, who approved its object. In order to correct various legal and technical imperfections, it was submitted to Mr. Roscoe, the legal adviser of the College of Physicians.'

The President then proceeded to deprecate the postponement of a settlement of this question till that of the admission of women to the profession was settled; and he pointed out that if women were admitted to, and even if men were excluded from, the medical profession, the poor, especially in the country districts, would be just as ill provided as at present.

He urged the duty of the Society, not as doctors but as citizens, 'to secure some guarantee that the poor shall not continue to be exposed to an ignorance and unskilfulness against which the Government of every other civilised country has protected them.'[6]

In 1879 the President (Dr. Playfair) informed the Society at the annual meeting that 'the principles of the scheme [for the examination and registration of midwives] not only met with the approval of the General Medical Council, but were embodied by his Grace the Duke of Richmond in the Medical Acts Amendment Bill, which, but for the troubles in the East, would, there is every reason to believe, have passed both Houses of the Legislature.'"

The certificate is then quoted, and reference made to a modification when in 1889 the Chairman of the Board for the Examination of Midwives (Dr. Watt Black) reported that the Society, with the advice of Mr. Roscoe, had added a declaration or sponsio, which each midwife would have to sign, in which she agrees to submit to the jurisdiction of the Council in all matters relating to her conduct as midwife, and to give up her diploma if the Council shall consider her conduct such as to render her unworthy to hold it. This she signs in a book and also on her certificate.[7]

Dr. Champneys declares that the Council were expressly advised by their solicitor that no technical meaning attached to the word "diploma," and that it had precisely the same meaning as "certificate." He further quotes the correspondence between the General Medical Council and the Obstetrical Society in January, 1893, when the Registrar of the Council pointed out that a certificate should be expressed in such a form as not to lead to the impression that it is a legal qualification to practise midwifery. The Society insisted that its diploma was merely an expression of opinion. This stage of the dispute ended in the well-known resolutions passed by the General Medical Council last December at the instigation of the Lancashire and Cheshire Branch of the British Medical Association. The Council objected to "documents issued by various societies or persons as diplomas of education and examination in midwifery, as they are 'colourable imitations' of diplomas conferring a legal right of admission to the *Medical Register*, and therefore were deceptive to the public and in contravention to the Medical Acts. The Council gave notice that the issue of such 'colourable imitations' by registered practitioners would be regarded as conduct infamous in a professional respect." The second resolution formally condemned the Obstetrical Society's diploma.

The section of the Medical Act thus "contravened in spirit" was then read, Dr. Champneys quoting from the Journal[8] on the discussion in the General Medical Council between Mr. Wheelhouse and Dr. MacAlister, who spoke strongly of the agitation against the education of midwives. He further quoted, "as evidence that the activity of the General Medical Council had not always been well advised or in accordance with the law of the land," the report of the remarkable action brought by the College of Physicians against the General Medical Council, where the verdict was for the plaintiff, Lord Justice Smith deciding that the College was a body legally qualified to grant diplomas in medicine and also (here was the contested point) in surgery.

Before proceeding to deal with the above evidence, Dr. Champneys displayed the Society's statistics. In January, 1895, 2,166 midwives were on the Society's register, and 4 had been struck off. The regulations and other matters of detail in respect of the examinations were also reviewed.

Dr. Champneys insists that the following propositions appear to be established: (1) Any person is at liberty by the law of the land to render aid to any other in time of sickness, if desired. (2) Any person is at liberty by the law of the land to receive such aid from any other. (3) Unskilled aid leads to lamentable consequences to poor mothers and children. (4) "Midwives are a necessity." Hence these necessary persons should be educated and examined. The question is not whether midwives shall exist, but whether they shall be as bad or as good as possible. The Society has considered it a duty to interest itself in the question as competent to act, in the absence of any State regulation, for which it has always begged. The interests of the poor are the only interests worthy of consideration. Doctors were made for the sick, and not the sick for doctors. He proceeds: "If a poor woman requires a doctor for her confinement, she can have one; if she prefers a midwife, she can have one—trained, certificated, and comparatively safe; or she can have one untrained, uncertificated, ignorant, septic, and fatal! Are there really any of her countrymen who would run the risk of leaving her only the latter alternative? As to her freedom of choice, no legislative body in the world would hand her over, tied hand and foot, to the mercy of any profession. She is free, and she can have, and will always be free to have, whom she chooses. In order to thus limit her choice it would be necessary to make it penal for her to employ any but a doctor, or to make it penal for anyone but a doctor to attend her. Does anyone imagine this for an instant to be possible? I challenge agitators to put this fairly forward in a Bill, and to speak with their enemies in the gate. I am sure that many who have joined in this attack have done it in ignorance. This is the age of caucuses and wire pullers. Men are too busy to read for themselves and think for themselves; they too easily answer leading questions in the affirmative, and sign petitions without understanding them."

Dr. Champneys observes that the profession claims to be "noble," and its nobility is due to that unselfishness which is one of its best traditions. Vaccination and the wholesale benefits of preventive medicine meant in the first instance loss of income to the whole profession, hence, he urges, the plea that trained midwives entail loss to doctors is ignoble and unprofessional. Registration of midwives is, he maintains, the best protection to the poor, as the malpraxis of registered midwives can be checked, and the Obstetrical Society's certificate ensures the desirable check. The doctor, again, has control over a midwife who has signed her name to the agreements on the certificate. The length of training, it is urged, is insufficient, but this objection shows that the objectors desire that midwives be trained, and that the same objectors should cease their opposition and assist the Society in getting State regulation. Even the dread of competition is not universal, as the Select Committee (quoted above) reported that midwives, it was found, did not injure doctors. The Society continues the examinations purely from public spirit, and never ceases to be relieved of its responsibilities by the transference of its work to a State-regulated machine.

The President of the Obstetrical Society expresses indignation at the offensive expression "infamous in a professional

[4] Council Minutes, p. 281.
[5] *Obst. Trans.*, vol. xix, for 1877, p. 136.
[6] *Obst. Trans.*, vol. xx, for 1878, p. 13.
[7] *Obst. Trans.*, vol. xxxi for 1889, p. 71.
[8] Vol. i, 1894, p. 1138.
[9] Vol. i, 1893, p. 880.

respect" made use of in the resolution of the General Medical Council. He concludes: "But I believe that neither Sir John Williams, Dr. Watt Black, nor I, who have acted first as Chairman of the Midwifery Board, and afterwards have been called to the presidential chair, and are therefore, perhaps, the most "infamous" among "infamous" men, feel the least ashamed of our work, conscious as we are of our own integrity, and of the great injustice which has been done to us all. As regards the form of our certificate, if the General Medical Council had told us that they thought it open to objections, we should have at once done what we are now doing—asked for its criticism with a view to their removal.

To have helped us to remove any cause of offence would have earned our gratitude.

I cannot but think that when it has mastered the subject, and had time to think, the General Medical Council will regret what it has done, not only towards men as honourable as any of its members—whose life and work are well known to it—but to a meritorious and public-spirited Society.

Meanwhile the agitators may rest assured that it has not seen the last of our examination, nor of us.

It is a significant fact that the number of candidates for our last examination has hardly ever been exceeded, not less than 114 women having presented themselves, and that in spite of our having held our certificate in abeyance.

If there is one thing certain in the world, it is the ultimate triumph of right. It may be opposed—it may be misunderstood—it may be reviled—it may have to suffer; but—

Magna est veritas, et prævalebit."

THE TREATMENT OF OZÆNA: A PRELIMINARY NOTE.

By G. HUNTER MACKENZIE, M.D.,

Surgeon for Disease of the Throat and Nose to the Eye, Ear, and Throat Infirmary, Edinburgh.

On May 28th, 1890, a young lady was sent to me by Mr. G. W. Watson, L.D.S., of Edinburgh, on account of a fœtid discharge from the nose. This had lately been so intense as to induce complaints from the governesses and pupils of the school which she attended, and ultimately the girl was requested to discontinue attendance. She had been taken to Mr. Watson under the impression that her teeth might be at the bottom of her trouble; but as these were found quite sound, and Mr. Watson readily recognised that ozæna was present, she was sent to me.

The patient was one of the worst examples of ozæna that I have seen. Large putrid crusts blocked both nares, and, when removed, reformed by the following day. The nose was broadened, and the alæ were thickened and reddened. The patient was put under treatment during the summer and part of the autumn of the same year, and I saw her occasionally during 1891. Treatment was entirely discontinued after 1890.

On October 27th, 1894, about four years after the discontinuance of all treatment, I received a note regarding the case from Mr. Watson, of which the following is an extract: "I saw your old patient Miss C. recently, and thought it would interest you to know that she is quite cured of the ozæna. She says she is quite well again, and has no discharge; nor was there any odour perceptible when I examined her. She looks a different person now that she is all right."

This case, from its nature, result, and the period that has elapsed since the discontinuance of all treatment (four to five years), affords an opportunity for making a few observations preliminary to a more exhaustive communication on the subject of this distressing disease. Believing that ozæna is a disease of the mucous membrane, and that the atrophy or shrinkage which is characteristic of it is simply due to pressure of the hardened pus (crusts) upon that membrane, a condition which is somewhat analogous to that met with in the skin in certain forms of eczema, I have endeavoured by *curettement* to supplant the diseased membrane by new tissue, and the success I have met with in several instances, of which the above is an example, has warranted me in publishing this preliminary note. After curetting I have found oily applications, such as a mixture of ichthyol and olive oil, soothing and beneficial. I may add that the patients upon whom this method of treatment has succeeded have been young, that is, from 10 to 25 or 30 years of age.

CASE OF INTRALARYNGEAL TUMOUR REMOVED BY THYROTOMY.[1]

By JAMES MACKENZIE BOOTH, M.D.,

Surgeon Aberdeen Royal Infirmary, Lecturer on Diseases of the Ear and Larynx in the University of Aberdeen.

I have thought the following case worthy of being communicated to the members of the Branch, not only on account of the infrequency of the affection in this part of Scotland, but also on account of its special features, and the operative treatment necessary for its relief.

The patient, Mrs. W., a married woman, aged 38 years, who, with the exception of a quinsy fifteen years previously, had always enjoyed robust health, first noticed a disagreeable sensation in her throat, causing her to make efforts to clear it, in July, 1892, at the time of her fifth confinement. A week later she began to suffer from hoarseness, which in three weeks resulted in complete loss of voice; for this an astringent pigment for the throat and a cough mixture were prescribed. During the latter part of 1892 and the beginning of 1893 the aphonia remained much the same, varying to a slight extent with the state of the weather, somewhat less marked when warm and dry, and worse during cold and wet.

In July, 1893, her medical attendant, Dr. Cheyne, advised her to apply to the ear and throat department of the Aberdeen General Dispensary. On laryngoscopic examination there, her symptoms were found to be due to the presence of a small tumour like a pea in the anterior commissure of the larynx, of the same colour as the laryngeal mucous membrane, which was redder than normal, and attached by a broad pedicle to the anterior fourth of the free border of the left vocal cord. Fig. 1 shows the condition observed in July,



Fig. 1.—July, 1893.

1893. Attempts to examine it with the probe and establish toleration of the laryngeal surface were repeatedly made without success, even with the aid of cocaine as pigment and spray. A pigment of zinc chloride of 30 grains to the ounce of glycerine was applied twice weekly to the larynx, and the patient enjoined to use steam inhalations of pine oil twice or thrice daily. Under this treatment the congestion diminished, and the subjective symptoms were benefited, the discomfort being less and the voice, though still hoarse, returning to some extent, but no apparent diminution was observed in the growth.

Towards the commencement of the cold weather, however, her symptoms got worse; she began to suffer from attacks of dyspnœa, and she was admitted to the Royal Infirmary on

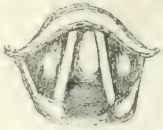


Fig. 2.—October, 1893.

[1] Read at the December (1894) meeting of the Aberdeen, Banff, and Kincardine Branch.

October 20th, 1893. The tumour was found to have distinctly increased in size, and presented the appearance seen in Fig. 2. Again attempts were made to diminish the irritability of the larynx by means of cocaine preparations and the use of the probe unavailingly. On this occasion, after a stay of a few days in hospital, it was determined that, as the patient was again pregnant, as endolaryngeal removal was impracticable, and as the dyspnœa, though often present, had not been such as to endanger life, she should be kept under observation and local medication persisted in. Pigments of chloride of zinc were applied at intervals of a few days during the winter, and the symptoms were again partially relieved. A marked change, however, was noted in the position of the growth, which for a time rendered the patient's condition much more comfortable. The tumour became more dependent and lay more below the rima glottidis than before, so that the attacks of dyspnœa were less frequent and troublesome.

In August, 1894, the patient was safely delivered of a daughter at full time, and made a good recovery. During the ensuing autumn the attacks of dyspnœa varied in frequency and severity, while the aphonia and sensation as of a foreign body remained constant. Towards the end of October the dyspnœa began to be constant, and the spasmodic attacks more readily induced, more frequent, more alarming, so much so that any extra exertion, or a particle of food, or drop of liquid swallowed the wrong way, caused a paroxysm threatening suffocation. As her condition grew steadily worse, she again applied for relief, and was admitted to the hospital on November 30th, 1894.

Her condition on admission was found to be much worse than when last seen. She had a markedly livid appearance and anxious expression, and her respiration was constantly stridulous. Sleep was exceedingly fitful and possible only when the patient lay on her left side. If she lay on her right side or on her back she was immediately attacked by a fit of breathlessness accompanied by a short barking cough.

On laryngoscopic examination the growth was seen to have increased much in size, so that it well nigh filled the whole subglottic area, leaving only a little space at the posterior commissure between it and the posterior wall of the larynx. It had also sunk somewhat, and appeared darker in colour than formerly. Fig. 3 is a sketch of its appearance on



Fig. 3.—December, 1894.

December 1st. Repeated attempts again failed to diminish the sensibility of the fauces and glottis. Seeing also that the larynx was of small capacity, the site of the tumour deep (that is, below the vocal cords), and its attachment chiefly in the anterior commissure, endolaryngeal treatment was plainly inadmissible. As the dyspnœa had became urgent, an extralaryngeal operation was determined on as the only means of giving relief.

On December 6th the patient having been anæsthetised as deeply as was deemed safe by Dr. Edmond, a skin incision an inch and a-half long was made in the median line of the neck over the thyroid cartilage. The cartilage having been sufficiently bared, a vertical incision was made through it extending from, but not dividing, the thyroid notch to the upper border of the cricoid cartilage. A sharp hook was applied to either side of the divided cartilage and gentle traction made, but there was still insufficient space to allow of the tumour being seized. A second incision was then made in the thyroid cartilage on the right side, that opposite to the attachment of the tumour, at right angles to the first, as in Fig. 4. A three-bladed dilator was introduced, and, on dilatation being made, the tumour was seen to be partially protruded at each expiration. It was then readily seized and removed by means of cutting forceps, whereupon the breathing was at once perceived to be easier. The cartilage fell into place so accurately and evinced so little disposition to gape, that no suture was applied to it. The skin incision



Fig. 4.—Dotted line shows incision in thyroid cartilage.

was then closed with continuous catgut suture, and covered with a Lister's double cyanide gauze dressing. From the date of the operation the dyspnœa was completely relieved, and the patient made an uninterrupted recovery.

When the dressing was removed on the fifth day, the wound was found to have healed by first intention, and on laryngoscopic examination no trace of the growth beyond some reddening of the mucous membrane in the anterior part of the larynx could be seen. An astringent spray containing sulphate of zinc was ordered to be used several times daily for the treatment of the remaining laryngeal congestion. On the seventh day after operation, she could by an effort produce her natural voice, which she said she had not heard for two and a-half years previously. She was discharged from hospital on December 26th, quite free from the dyspnœa and laryngeal discomfort, but still somewhat hoarse, and with an occasional cough. On February 5th, 1895, the patient came up to hospital for examination, when she had recovered her natural voice, and only a faint redness of the left vocal cord showed where the tumour had been.

Remarks.—In the record of the foregoing case, several points of interest may be noted. The occurrence of an attack of dyspnœa in certain positions of the head was latterly very striking. This happened if she lay on her back or on her right side, while if she were on her left side on her face or in the erect position, a comparative degree of comfort was attained. The situation and attachment of the growth readily supplied an explanation of these attacks, as in the dorsal and right lateral positions it would fall against and tend to block the rima glottidis, while in the prone, left lateral, and erect positions it would be drawn away from it. The symptom known as "expiratory dyspnœa" was not noticed, though in the later stage both inspiration and expiration were attended by stridor. The transverse cut in the thyroid cartilage and the use of the three-bladed dilator rendered the extraction much easier: and I believe that in all cases where thyrotomy is required for the removal of a growth with unilateral attachment, usually in a larynx of small size, a supplementary transverse cut is preferable to extension of the vertical incision, both for facilitating the operation, and the likelihood of restoration of the voice. Regarding the indications for extralaryngeal interference, it is rather difficult to lay down hard-and-fast rules, and, while it is generally conceded that danger to life is the sole indication for such interference, I question whether in some instances the discomfort and loss of voice do not themselves constitute a sufficient reason. The risk, though real, is slight, and I think that in previously healthy people, where the symptoms cause much distress, the question of extralaryngeal interference may still be entertained though life be not threatened by dyspnœa. In this case I am inclined to believe that an earlier operation might have been undertaken with advantage. The performance of a preliminary tracheotomy is in such cases unnecessary and generally unjustifiable as introducing extra risks of bronchitis, pneumonia, etc., which are not compensated for by increased safety or ease of operation, while, should necessity for it arise, tracheotomy can be carried out equally well when it does. Sections of the growth, kindly made by Dr. George Dean, show it to be a fibrous polypus, mainly composed of interlacing bundles of white fibres covered by several layers of epi-

thelium, a variety that does not usually tend to recur. The recovery of the normal voice is the exception rather than the rule after thyrotomy, from the risk of alteration of the relative position of the cords, and we may consider the patient fortunate in having recovered it after thirty months' disuse.

THE DEMONSTRATION OF MALARIAL ORGANISMS.

By C. DANIELS, M.B.Cantab.,
British Guiana Medical Service.

Having seen something of the difficulties of applying the detection of the plasmodium malariæ to practical diagnostic purposes, I should like to enter a plea for the examination of the blood for these bodies being made by staining them as more reliable than by examining the fresh blood, and more generally applicable. The difficulty is not with most men to find them, but to avoid mistaking for them the vacuolated corpuscles, common in a large class here, namely, the anæmics. To avoid this Jaksch advises smearing the under surface of the slide with a solution of methylene blue, but this does not seem to give much help, and the general similarity of the two can be easily seen by comparing Jaksch plates of vacuolated corpuscles with some of Dr. Manson's diagrams.

If the intracorpuscular bodies contain pigment there is, of course, no difficulty in distinguishing them, but unfortunately the commonest forms here contain either none or very finely divided pigment. Amœboid movements would of course be a diagnostic point, but many men after examining a slide for half an hour or more (as recommended by Dr. Manson) with a $\frac{1}{12}$th are very apt to make mistakes, particularly when dealing with bodies one-fourth to one-fifth the size of a red corpuscle, which is the commonest size here. As far as their occurrence in this Colony is concerned I have seen and demonstrated most of the forms in Dr. Manson's chart except B 10, 11, 12, C 12, D 11, 12, G 5, J 12, K 1, 2, 3, 4, 6, 11, 12, L 2, M 1, 9, 12, O 3, 6, P 6, 7, 11, Q 3, both in fresh blood and stained, and they are easier to find and more absolutely conclusive when seen stained.

Staining has the following advantages:

1. The bodies can be found with a $\frac{1}{4}$th objective and recognised with ease and certainty with a $\frac{1}{8}$th—no small advantage when the rapid deterioration of high objectives in moist tropical climates is considered.

2. Though extreme cleanliness is required, the absolute freedom from grease necessary to obtain the thin films required in fresh blood is not requisite. Cover glasses here become opaque in a very short time unless kept in some oil, from which it takes some time to absolutely free them.

3. The staining and examination can be done at one's own convenience. To examine fresh blood interferes with ordinary routine in a practice involving much travelling.

4. There are no other bodies in the blood, and no products or results of corpuscular degeneration with which they may be confused.

Hence we avoid what I believe to be common, mistaking anæmic patients with vacuolated corpuscles for cases of malaria. Such cases are liable to pyrexia, either transient or irregular and intermittent, which does not yield to quinine, and in fatal cases shows no evidence of recent malaria.

Without adopting this method I believe we shall be unable to get sufficiently extensive reliable statistics to distinguish properly the non-malarial tropical pyrexias from true malarial fever.

The method of staining which I find gives the best results is that of staining with eosine and methylene blue separately, but I fully admit that I have often failed to get well-stained specimens.

If as detailed accounts of the best methods of staining these bodies as have been given for the examination of the fresh blood were published they would be largely used, and furnish much more reliable means of diagnosis for the mass of practitioners in our tropical colonies than the examination of fresh blood does.

NOTES ON AN OUTBREAK WHICH POSSESSED CHARACTERISTICS OF BOTH SCARLET FEVER AND DIPHTHERIA.

By RICHARD RICHMOND, M.D.Edin.,
Medical Officer of Health Dunmow R.S.D.

After reading the communication by Dr. Robert Lee on "Some Cases Resembling Scarlatina," in the British Medical Journal of February 16th, it struck me that the cases he referred to had a curious likeness to some which occurred in my practice about a year ago. In reply to a letter from me he wrote saying that he thought them like those he had described. Given as shortly as possible the facts were as follows: On February 8th, 1894, whilst I was attending the wife of a labourer who had been recently confined, I was asked to see her child, aged 9, who had been, as she considered, bilious; in reality the child presented no other symptoms beyond some slight fever and redness about the fauces and tonsils. Forty-eight hours after examining this child I commenced to be ill myself, and soon developed a sharp attack of follicular tonsillitis. On February 13th I received a note from my friend, Mr. R. C. Lyle, who had seen my patients for me on the previous day, saying that the child was suffering from scarlet fever. It seemed very probable therefore that I had contracted my "throat" from this case, and in the light of future events this seemed almost certain.

A sister of the child next went down with scarlet fever, then the child of a neighbour, and then two cousins, all of whom had been visiting the house. Following these closely were what my *locum tenens*, Dr. W. R. McKinnell, considered to be diphtheria, two in the neighbour's house in which there was already scarlet fever, and one in the house in which the cousins were suffering. Two of these were adults, male and female, aged 50 and 65, and the third was a boy aged 10. The male adult was the last case. I saw him about the second or third day of his illness, and on each tonsil there was a patch of dirty white membrane, not much raised from the surface; he complained of great weakness. The first three cases of scarlet fever were of moderate severity, but had marked throat symptoms. The next two, however, assumed a most malignant type, and ended fatally. These two children (girl and boy) were aged 9 and 16 respectively.

I was unable at the time to discover anything to account for the origin of these cases, but shortly afterwards I had a neighbour's child brought to me whose urine contained a large quantity of albumen, and who showed signs of having recently desquamated. This child had been attending school in a neighbouring parish in which there had been a good many cases of slight character, and she had probably contracted infection there. But how came the disease to assume so malignant a type in being carried from one parish to another? The cottages were in a perfectly sanitary condition, and there was nothing to account for the diphtheria, so called. Concurrently with the last cases of this outbreak there occurred in a hamlet three miles away another case of scarlet fever which had no direct connection with them, nor was it possible to discover from whence the infection had come. This child infected another, and both presented a copious rash and sore throat—in fact, they seemed to be typical examples of scarlet fever. I have used the expression "direct connection" because there was an indirect relationship between these and the other cases, which was curious if nothing else.

For several weeks previous to the occurrence of the first case of the outbreak I had been attending a confinement case in which the discharges had become septic, and, in spite of stringent antiseptic measures, the mother of the children first attacked (whom I have mentioned as being confined on January 30th) became affected to a slighter extent in the same way. In a third instance the same thing occurred, and this woman lived in the hamlet three miles away, in which the last cases of the scarlet fever occurred; the mother of the child first attacked nursed the lying-in woman, and the child used to visit the house. No one of the three affected women was ever dangerously ill, the temperature never rising beyond

101° F., but in all there was the markedly putrescent odour common to such cases. Whether there was any true relation between these puerperal cases and the outbreak I have described, or whether it was only a very curious coincidence, I am unable to say; but the fact remains that there was a connection in each instance, and, furthermore, the outbreak as a whole had a most unusual character.

It is true that scarlet fever had occurred in a neighbouring parish, and probably the child in whose urine I discovered albumen had previously had an attack; but the virulent type which the disease assumed in the outbreak in question inclined me to dissociate the two, or at any rate to think that the character of the disease was intensified in an alarming way by the conditions present in the cottage. Then, again, how are we to explain the illness, which, judging by the tonsillar exudation, partook of the character of diphtheria, and which was undoubtedly contracted from the children who had scarlet fever? There is one more fact I have omitted to mention, namely, that the husband of the lying-in woman who first had the puerperal complication suffered from a severe attack of follicular tonsillitis during the time she was ill, and perhaps I ought also to say that no one of the three women had any symptoms pointing to a scarlatinal nature in their illness.

In conclusion, I should say that Dr. McKinnell regarded the cases as examples of scarlet fever and diphtheria, but he remarked that it was unusual to find the two diseases flourishing side by side as they did in this instance. I should also mention that the outbreak occurred in a most isolated spot, and the dwellers there had little communication with the more populous places around.

A CASE OF CASUAL COW-POX IN MAN.[1]

C. E. READING BUCKNILL, L.S.A.Lond.

On May 7th, 1894. G. S., a milkman, aged 24, employed at a dairy in Twickenham, applied for advice, complaining that for some few days past he had suffered from severe headache and prostration, with a general disinclination for work. His tongue was furred and there had been a slight deposit in his urine, but his appetite was good, and he slept well. He also showed what he thought was a boil upon the flexor surface of the left forearm, which first appeared three days previously. It was somewhat elevated and slightly vesicular, but beyond a most feebly-marked areola and some tenderness and enlargement of the axillary glands, there was not much to indicate the true nature of the disease. About an inch above the vesicle a papule of small size was to be seen, and another about an inch below. These had made their appearance on the two consecutive days after the first, but were too small to present any marked characteristics.

On being questioned as to the condition of the cows he milked, nothing definite could be elicited, and he was told to observe whether anything was to be seen on their teats or udders. The following morning he reported that there were scabs on the teats of one cow, and when, a few hours later, I examined the animal in company with the medical officer of health, to whose courtesy I am indebted in writing this report, it was discovered to be suffering from a disease which was evidently cow-pox. On the ninth day after exposure to infection, and the seventh day after the eruption of the first papule, the three pocks on the man's arm presented a most typical appearance, especially the first, which was the largest, and occupied the central position. There was well-marked induration and extensive areolæ of a bright rosy colour; the pocks were elevated, circular, and umbilicated, with a dull creamy-white ring at the circumference. This dull creamy-white colour, in place of the usual bluish-tinted, pearl-like, or silver-hued appearance of Jenner and other observers, may be accounted for partly by the presence of four excellent marks of primary vaccination, and partly by the fact of the epidermis being coarser in texture and less translucent upon the forearm exposed to all weathers than in the upper arms. The vesicles, on being punctured, were found, however, to contain clear fluid lymph, reinoculation with which on this day, by its failing to take, proved that the disease had reached its crisis, which fact was further verified by the commencing formation of three crusts within the next twenty-four hours.

It is interesting at this point to note in operation the well-known law that successive inoculations with vaccine lymph upon different days in the same subject produce mature vesicles on one and the same day. Dr. Cory states that primary vaccination with humanised lymph may be performed each day in the same case for a week, the seventh insertion running a rapid course of twenty-four hours, and producing a vesicle equal in maturity to those of the first and all the intermediate days.

The somewhat unusual seat of inoculation is readily explained by the chapped and fissured condition of the skin of the arms, due to the use of water in scouring the milk vessels, and the prevalence of east winds at the time. G. S. intelligently narrated to me how, when the cow was restless whilst being milked the first day or two, he had frequently to shift his stool in order to avoid being knocked over, and previous to resuming work would hitch up his shirt sleeves, his virus-laden fingers passing over the very site of the vesicles, and where chapping and fissures had been most pronounced.

The history of the cow is unfortunately most imperfect and unsatisfactory. It had only recently been purchased (on April 30th) with another from a local dealer in Teddington, and these were the only two kept at this particular dairy. All efforts to discover the district from whence the cow was imported proved unsuccessful, the dealer repudiating the possibility of the animal being affected in the least degree, either at the time of purchase or sale, and afterwards professing that he kept no record of the farmers from whom he bought his cattle or of the places they came from, but that he had dealings at various markets all over the country, and it was beyond his power to say where he bought any particular animal.

At the date of purchase there appears to have been no marked constitutional disturbance—the appetite was good, there was no horripilation, and the dairykeeper assured me the animal was in excellent condition. On being milked, however, the teats were found to be very tender, and the milker several times narrowly escaped being knocked over, especially when drying out, as the teats are then pulled rather than milked and the sores would naturally get somewhat roughly handled.

At first the cow, which was stallfed, gave 16 quarts of milk daily, whereas a few days later, after the decline of the disease, it commenced yielding 18 quarts regularly, indicating no doubt that there had previously been some slight degree of pyrexia. The apparently healthy condition of the cow during an attack of cow-pox, together with an appreciable diminution in the quantity of milk, are facts noted by Professor Crookshank in his valuable papers on the Wiltshire outbreak, contributed to the British Medical Journal in July, 1888. The button-like crusts—for I regret that the disease was brought to my notice too late to observe it in the vesicular stage—were confined to the teats alone, being situated chiefly upon the two anterior ones; they were very numerous, some of them showing distinct traces of umbilication. They were for the most part oblong in shape, as Fleming says is usually the case in this situation, those on the udder being almost always circular. This difference is no doubt due to the vesicles on the udder being undisturbed, whereas those met with on the teats become ruptured at an early period by the hands of the milker, and give rise by superinfection to multiple coalescing pustules spreading downwards towards the free end of the teat. The fact of the long diameter of the pustule being parallel to the long axis of the teat seems to substantially support this hypothesis. In the illustrations to Crookshank's papers, however, the crusts are more or less circular and of a dark brownish black colour. In the case under notice they were of a much lighter shade, and pale orange-brown or amber in colour. The cicatrices seen a month after the separation of the crusts were neither depressed, pitted, nor puckered, but smooth and shining, on a level with the surrounding skin, and of a pale flesh-coloured tint. Although milked twice a day by the same man, the second cow showed no

[1] Read before the West London Medico-Chirurgical Society, February 1st, 1895.

evidence of the disease beyond one small circular crust on one teat about the size of a split pea, which certainly would not have been recognised as cow-pox had it not exactly resembled in colour and configuration the pocks of the first animal. Taking into consideration the appearance of the crust and the circumstances of the case, it is very probable that both animals contracted the disease at the same time and from the same source.

From the descriptions of this disease, as given by various authors, bovine variola differs considerably in regard to its local phenomena, and the diagnosis is by no means easy. Bousquet, in his *Nouveau Traité de la Vaccine*, writes:

Not only do the general symptoms present no fixed type, but the local appearances themselves constantly vary, the disease always being the same; in the first place, the shape of the pustules is not always round, some are oval, others elongated; the for er are flat and depressed, the latter globular, conical, etc. As regar he colour, some are white, others of a transparent or slatey white, while others again are yellowish, copper coloured, etc. It all depends even upon the colour of the teats. The areola may be present or not, the shade of the skin preventing us sometimes from distinguishing it. In short, not only are there differences in the characters described of the development, shape, nature, and progress of the pustule, but there is nothing which absolutely indicates true cow-pox, and nothing which excludes it. According to Verheyer, there is only one infallible means diagnosing it, and that is by its anatomical structure.

Fleming also mentions this variable colour of the vaccinal pustules. In a series of articles in the *Veterinary Journal* he says:

If the skin is fine and white the variolæ have a silvery white, bluish white, or slatey hue; if it is thin but dark coloured they are leaden grey; if the hair is of a bright shade they have a colour varying from a bright red to a pale or blood red tint, but always wear a metallic lustre. On a thick, white, and wrinkled skin they have a dull opaline lustre.

To further convince myself of the correct diagnosis of this rare disease, I prevailed upon G. S., after repeated refusals, to consent to be revaccinated. Dr. Hime kindly sent me some reliable calf lymph for the purpose, and vaccination was attempted in four places, not one of which showed more than the slight topical irritation one might have expected.

As to the exceeding rarity of this disease, it is probable that many cases may crop up which are never brought to the notice of veterinary surgeons or medical men, and consequently escape being recorded. Bovine variola not being scheduled in the Contagious Diseases (Animals) Act, it is only natural that cowkeepers and dairymen, not wishing their trade to be seriously affected, should keep the knowledge of the disease existing among their cattle to themselves; and where a limited number of cows are kept and only one or two men employed to do the milking, the chances of confirmatory proof by casual inoculation are reduced to such an extent, especially when the primary disease is mild in character as in the case of the second cow, that no one may have the remotest idea of its existence.

A BREAD SUBSTITUTE FOR DIABETIC PATIENTS.

By R. T. WILLIAMSON, M.D.Lond., M.R.C.P.,

Medical Registrar to the Manchester Royal Infirmary; Assistant to the Professor of Medicine, Owens College.

WHILST making trials of a number of diabetic biscuits,[1] I had one prepared which I think will be useful, especially in hospital practice and for poor patients. These biscuits consist of a combination of aleuronat and cocoa-nut powder. Aleuronat is a flour (a yellowish powder) which contains 80 to 90 per cent. of vegetable albumen and only 7 per cent. of carbohydrates. It has been strongly recommended by Professor Ebstein for diabetic patients. The preparation of diabetic food from aleuronat presents considerable difficulties, however. In order to use it for diabetic bread it is necessary to add a considerable amount of ordinary starch-containing flour, and the value of such bread is greatly diminished thereby. I find, however, that, by a simple combination of aleuronat and desiccated cocoa-nut powder, cakes can be very easily prepared. Cocoa nut contains a large percentage of fatty matter (70 per cent.); a small quantity of sugar is also present, but this can be almost entirely removed by fermentation.

For the preparation of these cakes, 2 ounces of desiccated cocoa-nut powder are mixed with a little water containing a small quantity of German yeast. The mass is then formed into a kind of paste, and this is kept for half an hour or longer in a warm place. The small amount of sugar contained in the cocoa nut is almost entirely decomposed by the fermentation produced by the yeast, and the cocoa-nut paste becomes spongy. Two ounces of aleuronat, one egg beaten up, and a small quantity of water, in which a little saccharin has been dissolved, are now added to the cocoa nut, and the whole well mixed until a dough is formed. This is divided into cakes, which are baked in a moderate oven for twenty or thirty minutes.

Messrs. Callard and Co., of Regent Street, have kindly supplied me with a desiccated cocoa-nut powder, from which the small amount of sugar has been almost entirely removed. If this be employed then the addition of the yeast is not necessary; 2 ounces of aleuronat, 2 ounces of cocoa nut, 1 egg (beaten up), and a little water sweetened with saccharin are simply mixed together, divided into cakes, and baked. The cakes are most palatable when newly made. If they have been prepared more than twenty-four hours, the taste is greatly improved if they are slightly warmed before the fire. They are also improved by being buttered. The advantages of these cakes are: 1. A diabetic patient can have them easily prepared at his own home. 2. If so prepared, they are cheap in comparison with most diabetic foods (aleuronat can be obtained from R. Hundhausen, Hamm, Westphalia, Germany, in parcels containing 4½ kilos. for 7s., that is, about 9½d. per lb.; fine desiccated cocoa-nut powder is supplied by Messrs. Lyon and Sons, 4, Bath Passage, Birmingham, in tins containing 112 to 130 lbs. at 4½d. per lb). 3. They are much more palatable than most diabetic cakes; to many persons they are very palatable. 4. They contain a large quantity of vegetable albumen and fatty matter, and only a very small amount of carbohydrate. A solution of iodine gives no blue coloration with the cakes, and hence the starchy matter must be very small or practically absent. I think these cakes will be found useful as a bread substitute, especially for those diabetic patients whose diet ought to be rigid, that is, for cases of the milder forms of the disease. When given to diabetic patients in place of ordinary bread, of course a great diminution of the quantity of sugar excreted in the urine is observed.[2]

[1] Especially those recommended by Ebstein and Saundby: *Deutsche med. Woch.*, No. 19, 1892; *Med. Chron.*, September, 1892; *Birm. Med. Jour.*, No. 5, 1893.

[2] Messrs. Callard and Co., of Regent Street, London, and their Manchester agents, Messrs. Mottershead and Co., have undertaken to supply these cakes to anyone who may require them ready made.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

HICCOUGH FOR SEVEN MONTHS.

A CASE of hiccough of the above-mentioned duration, coming on in violent paroxysms, is now being treated in the hospital of S. Maria Nuova at Florence.

T. D., aged 44, a single woman, was admitted on January 27th, 1895. Her family history was good. She was backward, and could scarcely articulate till 5 years of age. Menstruation began at 17; it was nearly always regular but scanty; her general health was good. At 20 she had a fright from her bed catching fire, followed by fever for four or five days. About this time she was seized by a violent pain in the stomach which lasted three days, and left an uneasy sensation of tightness and distension aggravated by taking food. Later on, until the age of 37, she suffered from general weakness. There was no vomiting, acidity, or eructation, only occasionally a slight pyrosis. Seven years ago she was, as cook, exposed to great heat, and experienced severe pain in the left side of the abdomen, complicated with diarrhœa lasting sixteen months. She passed four or five mucous watery dejections daily; this was followed by excessive general weakness, on which an attack of malaria supervened.

At the beginning of August, 1894, apparently coincident with mental worry, she was seized with frequent eructations.

These lasted 15 to 20 days, after which followed attacks of hiccough, repeated five or six times a day, and gradually becoming convulsive. They were noisy and spontaneous, but could always be evoked by pressure at different points of the body, but not along the nervous trunks. The pupils reacted to light; the conjunctival and pharyngeal reflexes were absent; the patellar exaggerated. The temperature was normal, the pulse 90, the tongue clean, the stomach normal, and digestion good. The heart was normal, the pulse slightly irregular, the uterus of a natural size, mobile and tender; pressure on the left ovary immediately caused violent hiccough; pressure under the left mammary region and stomach, the sides of abdomen, and over both ovaries, as also over the last lumbar vertebræ, had the same result.

At first there was an absence of all convulsive movements during the night, but now they are severe. An equal pressure, such as lying on the stomach, produces immunity from pain and hiccough. The patient now complains of acute pain in the epigastrium. The explosions of hiccough, which sometimes last from five to twenty minutes or longer, terminate in a loud eructation of gas. The patient has not lost weight, or, if so, only in a very trifling degree since being in the hospital. A great variety of remedies were employed: morphine, belladonna, antispasmodics, external application, electricity, baths, and subcutaneous injections afforded temporary relief, but rendered subsequent attacks more violent.

The treatment now adopted is electrical sparks over the stomach and abdomen, but on the principle of cure by suggestion. This has resulted in a very great improvement, the attacks now rarely last more than ten minutes, and occur only a few times in the twenty-four hours.

Florence. W. Wilson, F.R.C.P.Lond.

A CASE OF SCURVY IN LONDON.

A. E., living in London, recently came under my care with scurvy. He complained of increasing debility and shortness of breath, with sore gums; the gums were spongy, of bluish-red colour, easily separated from the loosened teeth, and bleeding readily. On the left leg there was extensive ecchymosis on the lower two-thirds of the thigh and the front of leg, with some liquid in the synovial sac of knee-joint. There were scattered purpuric spots on the right leg. There was some induration of the muscles in popliteal spaces, especially on the left side. His diet for the past two months had consisted of bread, cheese, oatmeal, and water. Under suitable treatment he improved satisfactorily.

London, W.C. Alexander Innes, M.B.Aberd.

SURGICAL SCARLATINA FOLLOWING AN OPERATION FOR GONORRHŒAL BUBOES.

C. L., aged 22, a delicate-looking man, came under observation on January 10th, 1894, suffering from a swelling in the left groin and gonorrhœa of two months' standing. The left inguinal glands were acutely inflamed, those on the right side enlarged and tender. A thin ichorous pus exuded from the meatus on pressure. He had balanitic hypospadias with the hood-like prepuce in an œdematous condition. About half way along the dorsum of the penis in the course of dilated lymphatic vessel was a small inflammatory swelling the size of a pea. The inflamed glands were treated by poultices applied over glycerine and belladona, and in a few days, on the subsidence of acute symptoms, the patient returned to work.

He was not seen again until January 25th, when both groins presented a large fluctuating swelling, with surrounding inflammatory œdema. The urine showed traces of albumen, to be accounted for by the admixture of urethral pus.

On January 29th both buboes were opened under chloroform, and the small abscess along the dorsum of the penis, which had reached the size of a walnut, was incised. The wounds were drained and dressed with iodoform, cyanide gauze, wood wool, and a carbolic outside dressing, secured by a double spica. The patient passed a very restless night, and next morning the dressing was found displaced, exposing the wound on the left side.

He went on well until February 2nd (four days after the operation), when he was seized with fits of shivering, with vomiting and great thirst. The temperature was 103°, the pulse 130, the respirations 38 and thoracic. The wound on the left side was quite dry, and spreading from it was a vivid rosy-red rash, accompanied by burning and tingling sensations. The rash (which was taken for erysipelas) soon covered nearly the whole of the abdomen, but ended abruptly below the lower ribs. Hot applications were applied locally, and quinine, with tincture of perchloride of iron, administered internally.

The evening temperature remained at about 103°, with a slight morning fall until February 4th, when the skin of the chest, trunk, and upper limbs presented a diffuse scarlatiniform rash of raspberry hue, disappearing rapidly on pressure. The tongue was furred along the dorsum, red at the edges, with enlarged papillæ. The fauces were dry and reddened, otherwise the throat was normal, and no soreness was complained of. The cervical glands presented no enlargement. On the chest there was an abundant crop of sudamina. The rash, which preserved its bright colour until February 11th, had faded by February 15th, and was followed by an abundant cuticular desquamation.

The urine was examined daily, and on February 14th albumen half, with some epithelial casts, was found. The amount of albumen gradually diminished, and in a week could be detected only in traces. The wounds were dressed daily. From the left side, which had become quite dry at the onset of the rash, a copious discharge of sero-pus commenced on February 6th. By the end of March the wounds on both sides had healed.

Remarks.—A patient after operation presents, besides the ordinary channels for the inception of micro-organisms, a breach of surface continuity bounded by tissues of lowered vitality—a congenial nidus for the germination of organisms. In the case recorded the breach was bilateral, and the bounding tissues apparently similarly disposed as regards parasitic pabulum. But whilst the right side was antiseptically protected, that on the left, owing to the displacement of the dressing, remained exposed for some hours during the night following the operation. It seems probable that it was through this channel that the *materies morbi* gained admission, and the occurrence of the rash, starting from the wound area, supports the hypothesis of primary infection. In the series of cases of surgical scarlet fever, in Vol. 24 of *Guy's Hospital Reports*, the only instances of local rash occurred in those cases which were treated non-antiseptically. The absence of throat symptoms is a significant feature, and supports the views of a local origin of scarlatina advocated by Dr. Dowson in the *Medical Chronicle* of January, 1894. No source of infection could be traced. The patient had not previously suffered from the disease.

Bristol. Arthur W. Peake, M.R.C.S., L.R.C.P.

AN APPARENT SIMILARITY IN THE CONDITIONS NECESSARY FOR THE DEVELOPMENT OF ACUTE RHEUMATISM AND SCARLET FEVER.

As a note to Dr. Arthur Newsholme's Milroy Lectures on the natural history of rheumatic fever, the following may be of interest:

During five and a-half years' practice in Manilla, Philippine Islands, I never saw or heard of a case of acute rheumatism, nor, except in some few of the members of the European colony there, did I ever come across any case of cardiac lesion attributable to that disease. One of the most striking features of medical practice in those islands was the paucity of cases of cardiac lesion; though causes for anæmia *plus* dilatation of the left ventricle and consequent œdema of the lower extremities were relatively numerous, and their effects very frequently seen, yet the œdema *plus* mitral disease as met with here one practically never came across. Such valvular lesions as did present themselves occurred for the most part in persons having a history of syphilis, and as a rule benefited greatly by a course of iodide; these cases and a few of beri-beri supplied nearly the whole of the murmurs one had the opportunity of listening to.

Not only was rheumatic fever apparently unknown there, but scarlet fever also did not appear to exist; as the so-called "rheumatism" of the latter frequently resembles the sym-

ptoms of the former, so one's Philippine experience points to a further resemblance between these two diseases, the micro-organisms of which would seem to so far resemble one another as to be practically equally unable to exist under the climatic influences there obtaining.

This absence of these two diseases is rendered all the more striking by the fact that the other pathogenic organisms with whose effects we are familiar here flourish on the whole more luxuriantly in the Philippines. Tubercle (of the lungs and glands, but not of the bones and joints), small-pox and measles especially; while malaria, cholera, beri-beri, and leprosy more than supply the gap left by the absence of scarlet fever and acute rheumatism.

Rochdale. ARTHUR JEFFERSON, M.D. and B.S.Lond.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

WARRINGTON INFIRMARY.

TRAUMATIC TETANUS TREATED WITH ANTITOXIN.

(Under the care of Mr. JOHN H. GORNALL, Honorary Medical Officer.)

[For the notes of this case I am indebted to the Junior House-Surgeon, Dr. LANGDALE, and I take this opportunity of thanking him for his professional devotion to the patient.] THE patient, an errand boy, aged 13, was run over in the street on November 8th, 1894, and received a lacerated wound of the left calf. He was admitted on November 10th. The wound was about 6 inches long by 4 inches broad, and a flap of skin which had been torn up was gangrenous. The condition of the wound improved rapidly, and on November 16th it presented a clean granulating surface. There had been no rise of temperature since his admission. On November 20th, the twelfth day after the injury, he complained in the morning of stiffness of the jaws. In the afternoon the mouth could only be opened half an inch, and by evening there was slight retraction of the head, distinct risus sardonicus, with wrinkling of the forehead and partial closure of the eyes. There was no pain in the wound. Twenty-four grains of chloral with 24 grains of bromide of potassium were given during the day.

On November 21st these symptoms continued, and the sterno-mastoid and abdominal muscles became rigid, ankle clonus was obtained on both sides, and the knee-jerks were much exaggerated. At 5.30 P.M. 1.5 gramme of tetanus antitoxin in 15 c.cm. of sterilised water was injected subcutaneously in four places on the inside of the thigh.

On November 22nd the rigidity had increased. The muscles of the back and lower extremities were distinctly involved, as also were those of the upper extremities, though to a less extent. There were occasional slight exacerbations of the spasm of the muscles of the back, but no true paroxysms of spasm. The tongue had been slightly bitten in the night. At 5.30 P.M. 1 gramme of antitoxin in 10 c.cm. of water was injected subcutaneously in two places in the abdominal wall. Twelve grains each of bromide and chloral were given during the day.

On November 23rd the trismus was more marked; only the tip of the tongue could be protruded between the teeth. One gramme of antitoxin was injected at 5 P.M. Chloral and bromide, 12 grains of each, were given during the day.

On November 24th the general rigidity continued, but the tendency to occasional exacerbations of the spasm of the back muscles was rather more marked; 0.5 gramme of antitoxin was injected at 5.30 P.M.; chloral and bromide, 12 grains of each, were given during the day.

On November 25th the rigidity continued, and true paroxysms of spasm began to occur, causing the patient to scream with pain, and affecting occasionally the muscles of respiration, inducing a sense of suffocation. One gramme of antitoxin was injected at 5.30 P.M. Chloral and bromide, 48 grains of each, were given during the day.

On November 26th paroxysms were frequent and severe; 1 gramme of antitoxin was injected at 5.30 P.M. Chloral and bromide, 48 grains of each, were given during the day.

On November 27th, the general rigidity continuing, the paroxysms became more frequent but not more severe. Eight paroxysms, one of them severe, the others slight, were recorded during one hour. One gramme of antitoxin was injected at 6 P.M.

On November 28th his condition was unchanged; 0.5 gramme of antitoxin was injected at 6 P.M. On November 29th 0.5 gramme of antitoxin was injected, and on November 30th, 0.5 gramme of antitoxin was injected.

On December 1st the condition recorded on November 27th continued. No antitoxin was given.

On December 2nd his condition in the early morning was distinctly worse, the paroxysms were as frequent as ever and more severe, again affecting the respiratory muscles. At 4.30 in the morning 1 gramme of antitoxin was injected, chloral and bromide, 24 grains of each having been given during the night. His condition improved slightly during the day. Chloral and bromide, 12 grains of each, were again given in the evening.

On December 3rd his condition remained the same; 0.5 gramme of antitoxin was injected at 10.30 P.M.

On December 4th there was a slight improvement; 0.5 gramme of antitoxin was injected at 6 P.M. Chloral and bromide, 12 grains of each, were given in the early morning.

On December 5th the improvement continued, trismus was distinctly less marked, and the abdominal muscles were less rigid; 0.5 gramme of antitoxin was injected at 8.30 P.M. This was the last injection given.

From this date his improvement was continuous; there were still occasional paroxysms, and on the night of December 11th there was a rather severe one.

On December 15th there was still some rigidity of the dorsal and abdominal muscles and of the limbs, the risus sardonicus was still present, but the trismus was almost gone. On December 30th there was no trace of rigidity, but the knee-jerks were still exaggerated. The wound was not completely healed until January 30th.

In all 11 grammes of antitoxin were injected, and chloral and bromide were also freely given. The injection of the antitoxin generally increased the spasm for the moment, but seldom to any great extent. With the exception of the one occasion when the antitoxin was injected subcutaneously into the abdominal wall, no pain was complained of afterwards at the site of the injection. On subsequent occasions the injections were given subcutaneously on the inside of the thigh; they set up no irritation.

The antitoxin used was Tizzoni's and was supplied by Messrs. Allen and Hanburys.

The patient suffered from a slight attack of diarrhœa on November 29th and two following days, and at the same time, and for a few days after, complained of sore throat.

The daily amount of urine during the height of the disease ranged from 25 to 30 ounces; it was never found to contain albumen or sugar, and there was no retention. On one occasion it was passed involuntarily during a paroxysm. Perspiration was profuse throughout.

The temperature rose to 100° on the second day of the disease, and ranged from 99° to 101° until the end of the second week, when it became normal. The pulse ranged from 90 at the onset to 110, and occasionally 120 at the height of the disease. He took liquid nourishment well, and from November 27th to December 12th was taking stimulants. A prominence, apparently due to dislocation of the left ninth or tenth rib from its costal cartilage was noticed on December 5th; it disappeared in the course of a few days.

At the onset of symptoms of tetanus the wound was well washed with perchloride of mercury (1 in 1,000), and was subsequently dressed with iodoform ointment. The granulations became feeble and of a dusky colour, and the wound showed little tendency to heal until the dressing was changed to "red lotion" at the end of the third week, when it rapidly assumed a healthy appearance.

Cultivations from the wound, with a view to isolating the tetanus bacillus, were made by Dr. J. Guest Gornall, assistant medical officer of health, on December 4th and 12th, but without any success; the latter occasion was probably too

late on in the case, and on the former the raw surface had already been for some time treated antiseptically. An insufficient number of tubes, however, were inoculated to form a basis for a decided opinion.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Tuesday, April 23rd, 1895.

Probable Pathological Identity of the various forms of Acute Septic Inflammations of the Throat, hitherto described as Acute Œdema of the Larynx, Œdematous Laryngitis, Erysipelas of the Pharynx and Larynx, Phlegmon of the Pharynx and Larynx, and Angina Ludovici.

Dr. F. Semon read this paper. He began by stating the reasons which had induced him, in spite of the absence of bacteriological evidence of his own, to submit his ideas on the question of the nature of acute septic inflammations of the throat and neck to the judgment of the Society. He next showed the confusion at present existing in the nomenclature of these inflammations, and defined his own position by expressing his conviction "that the various forms of acute septic inflammation of the throat and neck, hitherto considered as so many essentially different diseases, are in reality pathologically identical: that they merely represent degrees varying in virulence of one and the same process; that the question of their primary localisation and subsequent development depends in all probability upon accidental breaches of the protecting surface through which the pathogenic micro-organism, which causes the subsequent events, finds an entrance; and that it is impossible to draw at any point a definite line of demarcation between the purely local and the more complicated, or between the œdematous and the purulent, forms." This thesis was then proved (from the clinical point of view) by the communication, in order of ascending severity, of 14 cases in point (2 of them with full notes of *post-mortem* examinations) which had come under the author's own observation. It was shown that from the slightest cases, the septic nature of which could well be doubted, to the most severe and rapidly fatal ones, complicated by pleurisy, pericarditis, pneumonia, peritonitis, septic infection of the central nervous system, such gradual and imperceptible transitions were met with; and that, again, the serous forms of inflammations so insensibly passed into the purulent forms that often the greatest difficulties occurred in correctly registering a case in accordance with the present terminology. The author then endeavoured to draw a consistent clinical sketch of the course of these inflammations, and to explain the differences in their primary localisation and their various extensions. Next he discussed the various objections which could be raised against his views, namely: (1) That no proof had been adduced that the milder cases given in his list were really of septic origin. (2) That the different primary localisations in these cases spoke against their identity. (3) That the variations in the fever curve also seemed to show that the individual cases were due to different pathological processes. (4) That the fact of the exudation sometimes being of a serous, sometimes of a purulent character, from the bacteriological point of view, militated against his view of the identity of the pathological process causing these different forms of septic inflammation. In answering these objections he particularly dealt with the importance of the tonsils as forming a natural portal for the invasion of the organism by pathogenic microbes, and from the bacteriological point of view he showed by quotations from Jordan's papers that his ideas, revolutionary as they might appear from the clinical aspect, in reality constituted a simple clinical application of general bacteriological principles to a certain group of septic inflammations. In conclusion, he urged the necessity of a sweeping revision of our present nomenclature concerning acute œdematous affections of the larynx.

The President complimented the author on the clearness with which he had treated a difficult subject. The author had to a certain extent returned to the old-fashioned view that the affections in question were closely allied. He himself had never departed from this standpoint, and believed that these diseases were transmutable, and could not be rigidly separated one from the other. He believed that catarrhal affections of the larynx, pharynx, etc., were contagious.

Dr. F. de Havilland Hall had first turned his attention to the view of the identity of these affections, which the older writers certainly entertained, after hearing Dr. Semon's remarks on the subject at the International Congress at Berlin in 1890. In his practice he had had seven cases, six of which he had recorded in the British Medical Journal of 1892, of erysipelatous inflammation around the larynx and pharynx, and from these data he quite agreed with the author's contentions. He drew attention to the fact that a fatal termination frequently occurred in cases where albuminuria was present; in the four recoveries of his seven cases albuminuria was present only in one.

Mr. C. B. Lockwood thought this subject was now ripe for discussion. The meaning that was attached to the term "identity of disease" might be that the diseases were the same if they were due to the same micro-organisms. He did not think this was satisfactory. Some additional common factor was requisite; this factor was identity of the tissues attacked. It was improbable that the micro-organisms were the same in these various affections. In some cases of angina Ludovici streptococci were present, but he did not think the fœtor commonly met with in this disease was due to the activity of micrococci. Fœtor was generally due to bacilli; he had examined cases of angina Ludovici in which bacilli were present, and in which there was formation of gas in the tissues. Identity of the disease might, however, be taken to mean that the symptoms were alike, but he did not consider that the phenomena of the affections thus grouped together were the same. Clinically cutaneous erysipelas and angina Ludovici were not far from being alike. There might be a resemblance between the diseases classed together by the author, but they were not pathologically identical.

Dr. Sharkey had, in a paper in *St. Thomas's Hospital Reports*, recorded three cases under the title Acute Primary Cellulitis of the Neck or Angina Ludovici, which from a clinical standpoint supported the author's views. These cases resembled each other so much, both in their symptoms and morbid anatomy, as to form a special group. In all suppuration was present in the neighbourhood of the larynx, and, though not originating in that organ, had given rise to œdema glottidis. Pneumonia, septicæmia, and similar symptoms occurred in all three. With regard to the term "identity of disease," it might mean that the symptoms were alike though the causes were different, or that the diseases were due to the same micro-organism. If the latter view was taken no definite decision could yet be come to, as the part played by the various micro-organisms in the etiology of suppuration was not clearly settled.

Mr. Butlin said the paper contained two main propositions—first, that all the affections classed together by the author were septic, to which he agreed; and, secondly, that they were all identical, with which he did not agree. Some diseases, such as erythema nodosum, epithelioma, or tubercle could from their appearances be unhesitatingly recognised wherever they occurred. The cases grouped together by the author were not sufficiently alike clinically, or from the standpoint of morbid anatomy, to warrant their being considered as identical, and bacteriologically there was as yet no positive proof as to the identity of these affections. The researches of Jordan on the bacteriology of suppuration, referred to in the author's paper, had, he confessed, much confused his own ideas on the subject.

Mr. Harrison Cripps was of opinion that angina Ludovici might be due to different causes, and quoted two cases in support of his view. (1) A case under Mr. Luther Holden, in St. Bartholomew's Hospital, in which acute septic gangrene spreading from the thumb, necessitated amputation of the arm. After this the patient seemed to rally, but on the third day a violent rigor ushered in rapid swelling of the neck. Death from suffocation due to œdema of the glottis was thus caused by the same factor as that which produced the

gangrene of the thumb. (2) A lady after being with her child who had erysipelas, developed angina Ludovici, and died suffocated. In these two cases the causes of the same condition were different.

On the motion of Dr. STEPHEN MACKENZIE, seconded by Mr. BUTLIN, the discussion was adjourned to the next meeting.

MEDICAL SOCIETY OF LONDON.

S. COUPLAND, M.D., F.R.C.P., Vice-President, in the Chair.

Monday, April 22nd, 1895.

CASE OF PLEURITIC EFFUSION.

DR. WEST related a case which is published at p. 913.

Dr. F. DE HAVILLAND HALL mentioned that two years ago he had shown a case in which tapping was resorted to thirteen times, with the evacuation in all of some 700 ounces of serum. That case appeared to be of syphilitic origin. Personally he had made a rule never to allow the chest to be opened in cases of simple effusion, and the successful issue in the author's case would not cause him to alter that view. If circumstances called for it, he would not hesitate to repeat the tapping even beyond the thirty-seven times recorded by the author in his case. He would continue to tap if the pleura refilled so long as the fluid remained serous; and, if it became purulent, the probability would be that it was the fault of the operator. He dissented from the view that empyema was likely to cause tuberculosis. Dr. Barrs, of Leeds, had published a series of cases of pleural effusion some years ago, comprising all the cases admitted to the Leeds Infirmary during five years. Of the cases of simple effusion—that is, cases in which at the time of admission there was no evidence of tubercle—one-half died of pulmonary tuberculosis, whereas in the cases of empyema the proportion of deaths from phthisis constituted but a small fraction of the total mortality. Dr. Barrs held that the conversion of serous effusion into an empyema would therefore not appear to favour the supervention of tuberculosis, and in this view he concurred.

Dr. ROUTH pointed out that in cases of abdominal tuberculosis opening the cavity often had for effect to determine a cure, and he did not see why the same should not apply in respect of pleural effusions.

The CHAIRMAN admitted that the case was probably unique, but suggested that a recurrent effusion raised the question whether it could strictly be classed as inflammatory, there being at any rate a possibility of its being dropsical, which was impressed upon him in a case of pleural effusion following a severe attack of typhoid fever in a girl. The effusion was at first thought to be inflammatory, but the patient developed signs of thrombosis of the jugular vein, and they had come to the conclusion that the effusion was due to an extension of the thrombosis. He did not mean that it was at all likely to have been so in the author's case, but it was remarkable that the effusion should have recurred so persistently.

Dr. WEST, in reply, did not consider that any risk attached to repeated tapping so long as strict asepsis was observed, and he urged that the advice contained in the textbooks to give up paracentesis after two or three trials, ought to be modified. There was no active inflammation when he first saw the patient, but it had probably commenced as an acute process. He did not intend to suggest that empyema was likely to cause tuberculosis, but that the change from serous effusion to empyema in a tuberculous subject might determine an outbreak of the disease. Most cases of abdominal tuberculosis recovered after simple tapping, so that there was rarely any necessity for opening the abdomen, many of them indeed recovered spontaneously.

SCLEREMA NEONATORUM.

Dr. ARCHIBALD GARROD reported the case of a male infant, first seen at the age of five weeks. At birth, induration was noticed upon the buttocks, and had extended until it covered the entire back and involved the dorsal aspects of the upper arms and thighs. The indurated area did not pit on pressure; the outline was sharply defined and map-like. There was pink mottling in places. The legs could not be fully extended either at the hips or thighs, and in the popliteal spaces there was a well-marked hide-bound condition. The infant was otherwise in good health, slept and took the breast well; there were no signs of visceral disease, and the rectal temperature was 98.2°. Within the next week some diminution of the induration was noticed, and improvement was steady from that period. As the hardness cleared up, no pitting was obtained on pressure, and instead of decreasing evenly in all directions, isolated islets of induration remained upon the arms and elsewhere. Within four months recovery was complete. The treatment employed was inunction of cod-liver oil, and for four weeks inunction of blue ointment. The nature of the case was discussed, and reasons were given for regarding it as an example of sclerema rather than of œdema neonatorum. It was shown by reference to certain recorded cases of sclerema that the case was one of a well-defined group, the members of which exhibited close resemblances in their clinical features, and all ended in recovery. It was suggested that possibly such cases might turn out to constitute a third category, distinct from both the typical fatal sclerema and also from œdema neonatorum. The changes found *post mortem* in cases of sclerema and the theories of its pathology were referred to. It was suggested that the conspicuous fall of temperature observed in fatal and generalised cases might be analogous to that observed in varnished animals. In conclusion, the question of treatment was referred to, with special reference to the use of mercury, which had been strongly advocated by Dr. Angel Money. In this instance, although the improvement was perhaps more rapid during the period when mercurial inunction was employed, it had already commenced before the blue ointment was prescribed, and continued without interruption after it was stopped.

Dr. KESER said it was rare to meet with cases of this kind followed by recovery. His mother had died from this affection, and when a child he himself had gone through a severe attack, recovering merely by being kept warm. The author's case was remarkable as occurring in an otherwise healthy child and in the fact that the temperature was normal. He had met with several instances of incomplete or abortive sclerema; the first being a child, born six weeks before term, whose temperature was subnormal, except on one occasion during an attack of bronchitis. When seven weeks of age the penis became hard, and the hardness spread in a day or two to the mons veneris and the lower part of the abdomen. The hardness disappeared in about a fortnight, but recurred only to disappear afresh, and the child ultimately succumbed to an attack of broncho-pneumonia. The second case was that of a weakly emaciated child, in whom, when four weeks of age, indurations appeared in the gluteal region. Recovery took place with the application of warmth. In the third case a patch developed on the left cheek, which felt like leather. Other patches subsequently appeared over and behind the left ear. All the patches disappeared in about a fortnight. He commented on the fact that the subject was so briefly dealt with in textbooks. In the late Dr. Fagge's work it only occupied six lines, and it was described as "Thirial's disease," though it had been described long before by Underwood and Denman.

Dr. COLCOTT FOX pointed out that the disease was rare—rarer, indeed, than it used to be. It was also apparently rarer in this country than on the Continent; at least he had seen very few cases of it in London. In typical cases it might be possible to distinguish sclerema from œdema neonatorum, but in most instances the signs were not so clear, and then a differential diagnosis might be difficult, and even impossible. In the first case he had seen there were simply bosses or lumps on the back, which he was first inclined to regard as gummata, but in the light of a subsequent case he came to the conclusion that it was a case either of sclerema or œdema neonatorum.

Dr. COLMAN remarked that most of the published cases were extremely indefinite, and cases of sclerema and œdema neonatorum were confused. There appeared to be two varieties of sclerema—one in which there was a deposit of fibrous tissue in the skin, these being probably the fatal cases; and another in which the fat, etc., in the subcutaneous tissues underwent changes which might possibly be recovered from. He pointed out that the skin of newborn infants differed considerably from that of the fully developed

child, and, moreover, the skin of the fœtus was distinctly hard. The confusion between the cases of sclerema and œdema, he suggested, explained why most of such cases had been ascribed to syphilis without any adequate evidence. The beneficial action of mercury could not be accepted as evidence in this direction for many other diseases improved under similar treatment—tuberculous ascites, for example. In two cases of œdema neonatorum, *post-mortem* examination within a fortnight of birth afforded distinct evidence of visceral syphilis.

Dr. Garrod, in reply, said he did not think that mercury did more than hasten recovery; and Dr. Money, who was the chief advocate of the mercurial treatment, had pointed out that its beneficial effects afforded no conclusive evidence of the syphilitic origin of the disease.

BRITISH GYNÆCOLOGICAL SOCIETY.

Clement Godson, M.D., President, in the Chair.

Thursday, April 11th, 1895.

Specimens.

Mr. W. D. Spanton showed (1) Very Large Broad Ligament Cyst with Cystic Ovary, removed by abdominal section, from a married woman aged 30. Recovery. (2) Renal Calculus of Phosphate of Calcium, weighing 980 grains, removed by nephrolithotomy, from a married woman aged 43. Recovery. (3) An Imperfectly Developed Ovary with Large Graafian Follicle forming Adhesions to the Uterus, removed by abdominal section, from a married woman aged 30. Complete relief.—Dr. Leith Napier showed an Obstetric Forceps with a New Lock, the invention of Dr. Bourke.

The Dangers of Morphine in Gynæcological Practice.

Dr. Leith Napier, in opening the adjourned discussion on Dr. Macnaughton-Jones's paper, called attention to some symptoms of morphine overlooked in the paper. In some cases a deadly sickness was produced, severe enough to counter-indicate the drug, even when pain was great. Various cutaneous rashes and general pruritus had been also observed. He held strongly that whilst morphine should be given for relief of pain, less potent drugs should replace it in insomnia and neuroses; for instance the bromides, lactophenin, chloralamid, piscidia erythrina, sulphonal, and paraldehyde. He deprecated the routine use of morphine after abdominal section, whilst recognising its necessity in some cases. He believed also that it tended to increase postanæsthesic sickness. In conclusion he suggested the following questions for discussion: (1) For what conditions of pelvic disease ought morphine to be administered? (2) Was it preferable to inject morphine alone, or with sulphate of atropine? (3) What were the best substitutes for morphine in the psychoses of women? (4) What was the best curative treatment for morphinomania in women?

Dr. C. A. Mercier said the absolute dependence on morphine, and not the mere indulgence in it, however frequent or prolonged, constituted morphinomania. It was a matter for serious consideration whether the tyranny of morphine administered by the syringe was not far more dominating than when it was taken by the mouth. A large proportion of the daily ration of morphine could be cut off without great distress; the crux was reached when the daily quantity was reduced to 1 or 2 grains. At this stage the syringe should be abandoned, and double or treble the quantity given by the mouth. It was then possible rapidly to diminish and at last altogether to abolish the dose, without occasioning any very severe distress to the patient. The conclusion that he ventured to put before the Society was that the syringe should be reserved for cases of great agony requiring immediate relief; that a long course of opium, when needed, should be given in other ways; and, lastly, that it was almost criminal to entrust a patient with a syringe for the self-administration of morphine.

Dr. J. F. Woods (Hoxton House Asylum) said his experience of morphine was due chiefly to cases that had come under his care for its abuse. He had met with six cases. He considered morphine one of the most satisfactory drugs that they possessed; but it should be given with extreme caution, and stopped immediately the effect required was produced. It should be administered by the medical man only.

Dr. Fitzgerald (Folkestone) said he would confine his remarks to the use of morphine in painful and hopeless malignant disease. Medical men were too cautious and even timid in the use or opium in hopeless cases. Surely it was the duty of the pitiful physician to alleviate pain and suffering where cure was impossible; and to ensure euthanasia, a painless death, was the absolute duty of the conscientious physician, but from timidity it was too often neglected.

Mr. W. D. Spanton (Hanley) hoped gynæcologists would not be held responsible for all the evils of morphine; for he was sure that among men the habit was relatively more common than was supposed. Under no circumstances, however, ought a patient to be allowed to use a syringe himself.

Dr. Morton said that in dysmenorrhœa and allied conditions morphine was only very rarely needed; there was here a large scope for the recent antipyretic and analgesic drugs. In cancer it was invaluable, but it should not be used too early, nor the doses increased too rapidly. Much could be done with one-third or one-half of a grain. He strongly protested against placing the syringe in the hands of a nurse. In peritonitis the sheet anchor to be relied on was not opium, but purgation.

Dr. T. Outterson Wood thought the profession had the matter to a large extent in their own hands; but in private practice there were at times great difficulties. As long as the patient was possessed of judgment and will power he was master of the situation, and could refuse advice. In asylum practice the chances of cure were greatest, but it was not there that the majority of cases were met with; it was rather among borderland neurotics; and when their condition became reduced to one of certifiable disease, recovery was rare.

The President and Dr. Travers also spoke.

Dr. Macnaughton Jones, in replying, emphasised the fact that the paper dealt only with the influence of temperament on the susceptibility to morphine intoxication. This question of temperament as exhibited in hysterical and neurotic women, especially in the better classes, was the text of his observations. The clandestine use of morphine through careless prescribing of it in large quantities and the manner in which prescriptions were given by patients to friends had not "died out." He quoted recently occurring instances within his own observation. Dr. Leith Napier and others by introducing the question of opium administration, morphine in cancer, and other affections, had "spun out the threads of their discourses rather than the staples of their arguments." He had distinctly indicated the types of patient and the nature of the affections—reflex, subjective, and functional—in which it was dangerous to give morphine subcutaneously. He had proved the contagiousness in some cases of the habit. Sterility was an acknowledged result of morphinism. He gave instances of this in which conception occurred after the habit was cured. Reviewing the treatment of the morphine craving, he touched on the various plans by "abrupt stoppage" (Lewinstein), more gradual lessening (Erlenmeyer), and the middle course of ceasing to give the morphine after a gradual decrease of the quantity had been carried over a period of eight to twelve days. The last plan, combined with the use of various hypnotics, had given him the best results. Treatment by alcohol, chloral, opium itself, the substitution of water, nitroglycerine, etc., all failed. But it was no part of his object to discuss treatment. His main proposition was that in women suffering from subjective pain and pain arising out of functional disorders of the uterus and ovaries, the risk of using morphine subcutaneously was great. This applied particularly to the climacteric. That risk was accentuated by entrusting its administration to nurses, friends, and, worse still, to the patient herself. A patient's importunity was no excuse for giving morphine. Only the minimum quantity and strength indicated should be prescribed. The risks of friends and relations using morphine subcutaneously should be pointed out to them. The routine employment of morphine after gynæcological operations was now almost universally condemned.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

R. D. Purefoy, M.D., President, in the Chair.

Friday, March 29th, 1895.

Specimens.

Dr. Smyly exhibited eight specimens of Uterine Myoma, removed by operation. Six of the patients recovered, and two died.—Dr. E. H. Tweedy exhibited an Ovarian Cystoma which he removed in the Rotunda Hospital. The patient made an uninterrupted recovery.—Dr. F. W. Kidd exhibited a Submucous Fibroid, removed from the uterus by enucleation. The tumour was the size of a hen's egg, and was fibroid in nature. The patient (a 6 para, aged 39) made a good recovery. Dr. Smyly said the instrument which he had found most useful for pedunculated and non-pedunculated myomata was Schultze's spoon forceps. If the pedicle were too wide to twist, it could be snicked with a pair of scissors and then twisted out. If the tumour was embedded in the wall of the uterus and projected into the uterine cavity, that instrument was still the best. The healthy tissue was not touched. The drawbacks to the spoon forceps were that the handles were uncomfortable, being like those of a scissors. In twisting the grip was liable to be lost for want of a catch, and it was not powerful enough. He had had a more powerful instrument made, with a rack by which it could be fixed when twisting, and the handles were made like a tailor's scissors.

The Treatment of Severe Hæmorrhage by the Infusion of Normal Saline Solution.

Dr. Glenn briefly described the five methods of using normal saline solution in severe hæmorrhage—namely, (1) Munchmeyer's injection into the connective tissues, (2) Ponfick's intraperitoneal infusion, (3) rectal injections, (4) intravenous infusion, (5) intra-arterial infusion either centripetal or centrifugal. Munchmeyer's method he considered too slow, but he recognised the value of the accompanying massage, especially when applied to the abdominal walls, as the large reserve of blood held by the abdominal veins was thus encouraged to flow towards the heart. Intraperitoneal infusion was employed in several laparotomies, three or four pints of normal saline solution being left in the peritoneal cavity with markedly good results; the patients recovered with exceedingly slight shock considering their loss of blood, the only special feature being an intense thirst, which persisted for twenty-four hours. Rectal injections could be employed at the will of the operator any time during an operation. These methods, though useful, had in no degree the value of the remaining two—intravenous and intra-arterial infusion—at least, so far as the immediate treatment of profuse hæmorrhage was concerned. Having glanced at transfusion of blood and its difficulties when employed in private practice, he said the apparatus used in his cases was one made by Collin of Paris, which was found admirable, being simple and easy to work and to keep aseptic. The rate of injection was given as three ounces per minute as a maximum on the authority of Panum. The temperature would depend on the apparatus used, as allowance must be made for cooling in passing through. The quantity depended on individual requirements; certainly we should go on until a slowing of the pulse with an increase of volume was noticeable. The injection of large quantities had been followed by more favourable results than obtained when smaller were employed. The advantages of arterial infusion in fat anæmic patients was pointed out, the stimulation of the medulla oblongata by the centripetal method being emphasised. The absolute importance of all bleeding points being secured was dwelt upon, and a note of warning was sounded against overhastily using it in *post-partum* hæmorrhage. Details of seven cases were then given, in four of which the infusion of normal saline solution was completely successful; in one it revived the patient, who lived five days afterwards; in two it failed.

Dr. Tweedy had infused, and agreed as to the enormous improvement that took place in the patient's pulse and appearance, but thought the improvement very transitory. He thought it had saved several lives by warding off impending syncope. He believed the saline infusion acted as a stimulant to the heart; it, however, flowed out of the vessel nearly as quick as it went in. There was free urination and perspiration. In one case fluid poured from a drainage tube in the abdomen ten minutes after infusion. He thought that it was very rarely that the patient died from absolute want of blood, but from shock.

Dr. A. Smith had seen several cases infused with saline solution, but only with temporary improvement. He had done it two or three times himself. In one case the ligature had slipped from an ovarian pedicle. The patient was very collapsed. He reapplied the ligature and put saline solution into the abdomen and found slight improvement, which died away very soon. He then put the patient in an exaggerated Trendelenburg's position and got great improvement. The patient recovered. He looked on the case as one of auto-infusion. He had another very similar case in which Trendelenburg's position seemed to do a great deal of good. He was not a strong advocate for transfusion. He thought the principal question was "When to transfuse?"

Dr. S. M. Thompson said he had seen transfusion used in 1868 for cholera. There was great temporary improvement, but the patients always died in the end.

Dr. Bate mentioned that, when in Berlin six months ago, he had seen a case of miscarriage brought in in a state of collapse. Two or three pints of saline infusion were put into the breast, which became enormously distended. He examined the breast two or three days afterwards, and found it had quite recovered its normal size. The patient derived great benefit from the injection and recovered.

Dr. Smyly had no hesitation in saying that there was a very great improvement on the old method. He had not seen any evil results follow from the salt and water method. He had seen patients recover who otherwise he did not think would have pulled through. In answer to Dr. Smith's question of When to transfuse? Formerly by the old method he would have said, When in doubt, don't operate. Now he would say, When in doubt, operate. Salt and water was the best stimulant that could be given. He had had one patient transfused simply for shock and not for loss of blood. He thought that the credit of reintroducing this method in Dublin was altogether due to Dr. Glenn.

Dr. Lane had seen Dr. Macan use an instrument very similar to Dr. Tweedy's, but which had a graduated glass jar, which was an improvement. If the effect of the saline infusion was only to stimulate a sluggish heart, the question whether alcohol or some other stimulant would not do as well would have to be considered.

The President said that the first successful case of transfusion occurred when he was at the Rotunda. It was done by Dr. R. MacDonnell, and one of the students furnished the necessary blood, 8 ounces, which was defibrinated. A much smaller quantity was used than now. It was when a secondary collapse had set in several hours after delivery that the transfusion was done.

Dr. Glenn, replying, said that as regards the quantity infused, he thought the present results in which pints instead of ounces were used, were more favourable. Other stimulants, as alcohol and ether, were always used in conjunction with infusion of saline solution.

Section of Pathology.

J. A. Scott, M.D., President, in the Chair.

Friday, April 5th, 1895.

Microscopical Section of a Rare Tumour.

Dr. Parsons read a paper on this subject.

Dr. M'Weeney thought the growth was justly called a cylindroma, but it did not belong to that class which occurred from hyaline degeneration of the blood vessels, because the hyaline strands were very closely placed together, and there were very few cells. He had himself only seen one case of cylindroma: it occurred in the hard palate, and was adherent to the bone; it was removed six times, recurring each time.

Dr. Parsons agreed with Dr. M'Weeney that the tumour must first have been very vascular. It was three years since the tumour was removed, and he had not seen the patient since.

Fibromyxoma of Tongue.

Dr. M'Weeney showed an encapsuled, translucent, yellowish tumour, about the size of the kernel of a hazel nut, removed by Mr. Chance, at the Mater Misericordiæ Hospital, from the tongue of a man, aged 23, who followed at intervals the occupation of a prize-fighter. No history of syphilis, either congenital or acquired. A swelling had been noticed for some time on the dorsum of the tongue to the left of the middle line and about an inch from the tip. The tumour came away at once, being quite free from adhesion to the surrounding structures. Histologically examined after fixation in Foà's reagent it proved to be a fibroma, with here and there so much structureless or faintly fibrillated ground substance as to justify the name "myxoma." In the middle were several lacunar spaces filled with red blood corpuscles and coagulated albuminous material; they were evidently dilated lymph spaces into which hæmorrhage had taken place. In the neighbourhood of other places where there had been small hæmorrhages, numerous cells laden with golden pigment, as well as extracellular pigment granules, were seen. Most of the nuclei in this growth were spindle shaped, some being very wavy in outline, but here and there were patches of epithelioid cells with vesicular nuclei. Mitoses were not seen. The rarity of fibromyxoma occurring in the tongue was mentioned.

Mr. Chance said the patient, a fine muscular young fellow, had noticed a lump coming on the side of his tongue four months previously. He went to a doctor, who opened it, but it did not get smaller; it was not inflammatory, and was very easily removed. There was no specific history.

Congenital Dentigerous Tumour of the Neck.

Dr. M'Weeney also showed this specimen, which was removed by Mr. Chance from the left side of the neck of a girl, aged 23. The tumour, which was small at the time of birth, had increased steadily until, at the time of operation, it had attained the dimensions of a good-sized orange. It was subcutaneous, with deep attachments, and sprang from the level of the hyoid bone, to which it was adherent by a sort of process. To the naked eye it seemed made up of a dense fibroid stroma, in which were embedded numbers of cysts, averaging the size of a pea, filled with mucoid material. The trabeculæ between these cysts were dense and thick, and contained many bars and nodules of cartilage, as well as several immature-looking teeth. Numerous patches of dark pigment were also seen on the cut surface. Histologically the cysts were lined with epithelium, columnar in some, cubical in others; the nucleus in the former case being close to the basal attachment of the cell, the protoplasm clear and hyaline. In one cyst cilia could be made out with difficulty on the epithelium. The cartilage was mostly of the hyaline variety, and though in places slight fibrillation of the ground substance was made out, there was no approach to reticular cartilage present. The bone was mostly in the shape of hollow cylinders enclosing a quantity of adipose tissue. It was always provided with a distinct periosteum. In the growth were also calcified corpora amylacea and other structures of doubtful nature. Congenital tumours of the neck were not uncommon, but were mostly either purely cystic or purely cartilaginous—cystic hygromata or cervical auricles. This was a rare example of a combination of both forms. Its origin from a branchial arch and the literature of the subject were discussed.

Mr. Chance said it was peculiar from a surgical point of view. It turned the angle of the jaw outwards, causing considerable deformity. Its removal was difficult. It was firmly attached to the surrounding structures, quite unlike an ordinary glandular tumour. But the main difficulty in removing it was that, from an æsthetic point of view, the incision had to be inconveniently placed under the jaw, and was of small size.

Orbital Tumour.

Mr. Arthur Benson and Dr. Graves communicated the notes of a case of orbital alveolar sarcoma in a man, aged 55. The growth seemed to start from the region of the lachrymal sac, and was about the size of a small hen's egg, hard and lobulated. It protruded forwards in the region of the left lachrymal sac, and over it the skin was tense, thin, and adherent on the apex. The eye was protruded forwards and outwards to a considerable extent. After removal, the eye returned almost to its normal position when the wound healed.

Dr. Graves, who examined the tumour microscopically, reported it to be a large round-celled alveolar sarcoma, with, in one place, near its anterior surface, a pigmented patch.

Dr. M'Weeney agreed with the diagnosis made by Dr. Graves. He had himself lately examined a similar tumour removed by Dr. Werner. In his case, however, the greater part of the tumour consisted of fibrous tissue, with here and there islets of sarcomatous cells, with an alveolar arrangement.

Dr. Parsons thought it was probably an example of alveolar sarcoma. But the diagnosis was very difficult. The alveolar structure was seldom present in sarcomata, but was always present in cancer. The only way to be absolutely sure would be to find where the tumour grew from.

Mr. Benson, replying, said that at first Dr. Graves was uncertain as to the diagnosis, and it was only after examining a series of sections that he came to the conclusion that it was an alveolar sarcoma.

Fatal Case of Sarcoma of the Ear.

Mr. Story described a fatal case of malignant disease of the middle ear, the first he had observed in eighteen years, during which period over 12,000 aural cases had come under his observation at St. Mark's Hospital. The patient was a young man about 30 years of age, from whose middle ear a polypus was removed in September, 1894. Fœtid otorrhœa was present and had existed some two months, with intense pain in the head. The polypus returned again and again after removal, necrosis of part of the temporal bone showed itself, and all the glands of that side of the neck became involved. Paralysis of the seventh nerve, with difficulty in deglutition and speech, supervened, and the patient finally died of weakness within six months after the removal of the first polypus.

Professor Scott showed microscopic sections of the tumour in the ear, and of a secondary growth in the neck, both of which he regarded as sarcomatous.

Remarks were made by Mr. Benson, Dr. McWeeney, and Mr. Story and Professor Scott replied.

LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

A. W. Mayo Robson, F.R.C.S., Senior Vice-President, in the Chair.

Friday, April 5th, 1895.

Impacted Gall Stone.

Dr. Chadwick reported a case in which a solitary attack of biliary colic (January, 1889) was followed by jaundice, which persisted till death six years later (December, 1894). The case when seen, in 1892, was regarded as one of malignant disease, there being hepatic enlargement, tenderness on pressure, and much ascites, without any obvious splenic enlargement. In 1894 the abdomen was retracted; there was no ascites; the spleen was enormously congested. Copious hæmatemesis occurred, followed by death in a few days. An impacted gall stone was found on *post-mortem* examination. The case was interesting on account of its long duration. Xanthelasma was present in 1892, but was not demonstrable in 1894. There was no indication of any malignant change anywhere.

The case was discussed by the Chairman, Dr. Eddison, Dr. Major, and Dr. Barrs.

Dr. Chadwick replied.

Abnormalities in the Brains of the Insane.

Dr. W. Lloyd Andriezen gave a demonstration of certain abnormalities of convolution and structure in the brains of the insane, illustrated with specimens of crania and of brains in epileptic idiocy and imbecility, including also imbecile brains in which the patients were not subject to epilepsy. Dividing the insanities into two great classes, at one entrance of hereditary vice of organisation presented, it was shown that the specimens came in this category. The insanities at the other end of the scale, such as mania, melancholia, and tonic cases, presented no striking anomalies of convolution.

In epileptic idiocy and imbecility the condition of cranial asymmetry was a striking feature. Specimens of brains were shown from epileptic idiots which showed conditions of microgyria with atrophy and sclerosis of the convolutions. In one case with wasting of the Rolandic convolutions there was wasting of the opposite hemisphere of the cerebellum. In another case the wasting was limited to the area supplied by the posterior cerebral artery, while in another case the lesion was disseminated. From microscopic investigations the conclusion arrived at was that a sclerotic overgrowth of the neuroglia fibre cells, with a corresponding slow irritation, destruction, and, finally, atrophy of the nerve cells and fibres in the same nerve were the underlying phenomena of epileptic idiocy. A portion of brain tissue removed by Mr. Victor Horsley for focal epilepsy showed the same changes.

CASES.

Dr. ADOLPH BRONNER (Bradford) showed a case of Caries of the Attic, in which Stacke's operation had been performed. There was a history of discharge from the ear off and on for eight years, with occasional attacks of severe pain. Perforation of Shrapnel's membrane was found, and treated for several months. The ossicles were then removed, and extensive disease of the bone found. The external ear was drawn forward, the cutaneous part of the external meatus cut through and pulled out, and the diseased bone removed by chisel and sharp spoon: the ear was replaced. After five weeks no rough bone could be felt. The wound behind the ear was kept open by lead wire. Dr. Bronner also showed a case in which Trichiasis of Upper Lids had been treated by transplantation of mucous membrane of the lip.—Dr. HELLIER showed a large Subperitoneal Myoma removed from Uterus. Mr. LITTLEWOOD showed: (1) Vermiform Appendix from a case of Recurrent Appendicitis; (2) Tumour of Lower Jaw weighing 30 ounces (12 years' growth.)

FOLKESTONE MEDICAL SOCIETY.—At a meeting held on April 17th, Mr. H. A. POWELL read a paper on Traumatic Tetanus, with notes of a case which followed penetration of the big toe by a rusty nail, and ended fatally on the twelfth day after the injury, and the fifth day after the onset of symptoms. Mr. Powell decided not to amputate the toe because there was no peripheral irritation about the wound when the case came to him, and the nervous system was already involved. He gave a synopsis of the etiology and treatment of a large number of cases, and concluded with a comprehensive review of the pathology of the disease, and of recent antitoxic experiments and treatment.

LIVERPOOL MEDICAL INSTITUTION.—At a meeting on April 18th, 1895, Mr. CHAUNCY PUZEY, President, in the chair, it was proposed by Mr. LOWNDES, seconded by Mr. BARK, and carried: "That a subcommittee be formed to report upon the recommendations of the Select Committee of the House of Commons on Death Certification."—Mr. CLEGG read notes of a case in which he had incised and drained a Cavity in the Lung, and referred to other cases which he had not operated upon. Mr. Clegg also showed two children, about 8 years of age, on whom he had operated for Cleft Palate some four years previously. In both instances the voice had been very materially improved.—Mr. BARK read a note on Rhinoliths, and related a case. He discussed the varieties and causes of rhinoliths, and said that the gouty diathesis was thought to be strongly predisposing, but in his opinion inflammation of the nasal mucous membrane was much more important, and particularly where drainage was difficult. Dr. PERMEWAN made remarks.—Mr. DAMER HARRISSON read a note on the Treatment of Delirium Tremens. He more particularly referred to those cases of violent mania which sometimes occurred in robust alcoholics, whether after an injury or otherwise. He advocated a return to the plan introduced by Graves of first depressing the patient by antimonial wine and then giving narcotics, but he preferred chloral to the opium which Graves employed. Drs. and Messrs. CAMPBELL, RAWDON, NICHOLSON, CARTER, J. WIGLESWORTH, and the PRESIDENT discussed Mr. Harrisson's paper.—Dr. IMLACH read a paper entitled "Modern Miracles of Healing." He brought forward five women, all of them examples of the Holywell cure. One had been in the Royal Infirmary upon two occasions, each time for a month, with the right leg swelled. She was told that there was plugging of the lymphatics, and the case was headed "Elephantiasis" on her bed ticket. The swelling began in the ankle, and rose above the knee. Rest, massage, bandaging, and other treatment having proved useless, her parents took her to Holywell last autumn. After bathing in the water the swelling began to disappear, and was gone in a few days, and had never returned. A photograph of the leg, as it was, was shown to the meeting. Another cure, which had been under the care of Dr. Oliver, of Newcastle, and had already been described in a medical journal, was carefully examined by several of the members. There were also three examples of chronic rheumatism. Previous to their visit to Holywell they had been for years martyrs to rheumatism, and all medical treatment failed to relieve them. They had all been cured by a visit to the well last autumn, and had passed through the severe winter without an ache or a pain. Dr. Imlach thought that to question miracle was mere foolishness, and to question the cure was impossible; what remained was to determine scientifically what was cured, and this was no easy matter. He referred to the cures at Lourdes, and expressed a hope that medical men would assist in investigating the actual worth of the Holywell recoveries. An interesting discussion followed, in which Drs. PUZEY, SUMNER, GLYNN, and HEAD took part.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At the seventh meeting of the session, held on April 10th, 1895, Mr. FLEMING showed a patient with an uncommon form of Skin Disease; also a specimen of Ulcerative Endocarditis.—Dr. AUST LAWRENCE read a paper on Backward Displacement of the Gravid Uterus, and illustrated the communication with diagrams.—Dr. J. E. SHAW and Mr. PAUL BUSH read a paper on a case of Tumour of the Brain, involving the upper portion of the superior frontal convolution, in which there was loss of motor power in the left arm and leg, especially in the movements of the shoulder and hip-joints; the patient died three weeks after removal of the growth, and at the *post-mortem* examination a portion of new growth was found bulging into the longitudinal fissure.—Mr. MUNRO SMITH showed lantern slides and specimens, prepared by Dr. Davies and Dr. Dowson, of Pneumococci found in the bladder in a case of Cystitis following Pneumonia.—Dr. DAVIES showed some interesting lantern slides of photographs of patients suffering from Small-pox; also microphotographs of the Bacillus of Typhoid, Tetanus, and Diphtheria.

REVIEWS.

ENLARGEMENT OF THE PROSTATE: ITS TREATMENT AND RADICAL CURE. By C. W. MANSELL MOULLIN. London: H. K. Lewis. 1894. (Demy 8vo, pp. 184. 6s.)

Two years ago Mr. MOULLIN published his Hunterian Lectures, which were upon the operative treatment of the enlarged prostate; and in the present volume he appears to have drawn upon the former publication for much of the material which is contained in the latter chapters of the book. The present volume consists of twelve chapters, the first six of which are devoted to a consideration of the structure, functions, pathology, symptomatology, and diagnosis of the diseases of the prostate and the chronic enlargements to which it is liable. These chapters will well repay reading, as they contain an excellent critical account of the subjects with which they deal. The latter half of the book contains an account of the treatment which the author advises in cases of enlargement of the prostate. Treatment becomes requisite when the enlargement begins to interfere with the functions of the bladder. The possible methods are the habitual employment of a catheter, removal of the obstruction by operation, and the formation of an artificial route of exit for the urine, or castration. The first method is to be adopted when the enlargement only causes moderate obstruction and the urine is sterile, the residual urine being very small in amount. When the enlargement interferes with the functions of the bladder, or the amount of residual

urine increases, the muscular tissue of the bladder wall losing its power, or when inflammatory conditions have been established, it is advised that prostatectomy should be performed as early as possible by the suprapubic method. This method in the hands of the author appears to have been followed by good results. In the worst cases, where everything has failed, castration is to be performed. The risk to life is slight, and it is followed by considerable diminution in size of the prostate and recovery of power over the bladder in most cases. There are some objections to adopting all the suggestions which are brought forward, owing to the limited number of cases which have been treated by the suprapubic method of prostatectomy or by castration. Much information may, however, be obtained by a perusal of this volume.

La Méthode de Thure Brandt, et son Application au Traitement des Maladies des Femmes. Par Madame P. Peltier, Ancien Externe des Hôpitaux, Docteur en Médecine de la Faculté de Paris. Paris: L. Bataille et Cie. 1895. (Demy 8vo, pp. 144.)

This work owes its origin to the interest which the subject has excited in the mind of the writer. Gynæcological massage, she says, is now in Paris the order of the day. On all sides one hears either enthusiastic accounts of miraculous cures, of a panacea which is to overturn all our present therapeutics, or else bitter and sometimes undeserved criticism. This state of opinion led Madame Peltier to make a pilgrimage to Stockholm, there to study the treatment at its birthplace, and learn all about it from the lips of the master himself. She has thus qualified herself to write an account of it. Her work begins, after the usual fashion of theses, with a sketch of the history of the subject. This is the best account of it that we have seen, and is the most valuable and the unique feature of the book. Then come details of the various movements, as Madame Peltier has been taught them by Thure Brandt. Lastly she gives a collection of cases quoted from different authors, in which women suffering from various forms of disease have improved in health while under massage treatment. It is assumed, on very insufficient ground as it seems to us, that they improved solely because they were treated with massage, and that the improvement could not fail to be permanent. In reviewing other works on gynæcological massage we have several times expressed our opinion about this treatment; we have only here to say that this book does not convince us that it is a necessity or a valuable help in therapeutics.

The Public Control of Hospitals. By Harry Roberts. London: William Reeves. 1895. (Cr. 8vo, pp. 24. 2d.)

This is one of the publications of the Humanitarian League, advocating with all the fervour of ignorance a project which, if it is to be discussed at all, deserves a much more careful and serious consideration. The author divides the question of the transference of our hospitals, both as regards support and control, to one or other of the publicly elected bodies, into three parts. 1. How most economically to provide adequate treatment for the sick. 2. How best to provide for the greatest benefit and comfort of such of the public as would derive advantage from hospital treatment. 3. How most advantageously, without in the least involving the second question, to provide for the technical training of new generations of surgeons and physicians.

We do not, however, get far before we find displayed the real motive of the publication, which in a short term, now become sufficiently expressive, is "antivivisection." The suggestion shortly is that the pursuit of science so absorbs the interest and hardens the heart of the experimenter that, in the search for results and new discoveries, all sense of responsibility is lost as regards the sufferings of the animal in the laboratory, or the well-being of the patient in the ward. The drift of the argument is shown by the heading of one of the paragraphs: "Patients, or 'clinical material'?" It is said: "We are getting familiar with proposals for vivisecting criminals, idiots, and such; and the distance between a criminal and a pauper is usually easily traversed by the wishful." Again, "it is fair to expect that men accustomed to subject animals to pain.....will be somewhat apt to use the sick pauper who chances to be suitable for the purpose to further the cause of science, even if such use is detrimental to the individual thus treated."

The author's proposals are fairly drastic. The hospitals should be taken over by the various county councils, a Board would appoint instructors and salaried medical officers "instead of the present unskilled resident staff who are there to learn, and the unpaid visiting staff in search of ambition and a job." This Board would supervise the financial arrangements of the hospitals, and "all complaints might safely be made to it." Are there no Boards now to which complaints might safely be made? "The hospitals should be thrown open to all who cared to use them, provided they were ill enough, regardless of class or character. The old 'charity' fetish would thus die, insolence would become impossible, and experimentation dangerous," and, finally, in full confidence in the easy-going disposition of the British ratepayer, it is said that the hospital rate would become "as natural a thing as the school rate or the library rate, and would in reality be a sort of insurance against illness." It never seems to occur to the author that we already have State hospitals, and that while he is advocating rate support as the remedy for all evils, and as ensuring the free investigation of all complaints and the cessation of all insolence, we and those who know what is actually going on have for years been working with the object of bringing these rate-supported institutions into line with the general hospitals of the country, and are even now publishing investigations which show how sadly behind they are in many places.

Physiologie. Travaux du Laboratoire de M. Charles Richet. Tome III. Paris: Félix Alcan. 1895. (Imp. 8vo; pp. 580. Fr. 12.)

This is the third volume of laboratory reports issed by M. Richet. In it he has the assistance of MM. Langlois, de Varigny, Hanriot, Féré, Heim, Triboulet, Bouveault, Héricourt, Carvallo, and Pachon. These reports are eminently of a practical character, many of the articles dealing with subjects of much interest at the present moment—such, for instance, as serotherapy, protective means possessed by the organism, tuberculosis, etc. The articles on serotherapy are by MM. Richet and Héricourt. Here the value of dog's serum is discussed and a number of cases recorded in which its use exercised a marked temporary if not always permanent benefit. This serum has no specific effect against tubercle, but acts rather as a tonic, for it also produces improvement in other conditions, such as in the cachexia of syphilis. The chemical study of tuberculous bouillon, by M. Bouveault, evidently touches upon a very important subject. Three articles are given to chloralose, the therapeutic action being considered by MM. Richet and Hanriot and also by M. Ch. Féré. There is an extremely interesting study, by MM. Carvallo and Pachon, upon the processes of digestion in a dog in which almost the whole stomach had been removed. The very suggestive and practical account by M. Richet of how the organism is protected against seen and unseen foes is worthy of attentive perusal, though even here at times a fault may be noted often too conspicuous in French authors, namely, a too exclusive reference to French investigators. Enough has been said to illustrate the very practical nature of the researches carried out in M. Richet's laboratory. These reports appeal not only to the experimentalist and physiologist, but also to the practitioner in the widest sense of the word.

A Manual of Diseases and Deformities of the Spine. By R. L. Swan, F.R.C.S.I. Dublin: Fannin and Co. 1894. (Demy 8vo, pp. 208. 23 lithographic illustrations. 7s. 6d.)

This book is chiefly a record of personal experience in the diagnosis and treatment of the more common diseases of the spine. It does not pretend to enter into physiological details, nor, indeed, is pathology touched upon with more than the lightest hand, as may be judged from the absence of all mention of the bacillus tuberculosis in connection with spinal caries. In the treatment of cases of spinal caries the author strongly deprecates the uses of poroplastic appliances, which he says are very liable to lose their shape

owing to the action of moisture; and instead he advises the use of plaster-of-paris jackets. In paraplegia which is due to spinal caries, it is stated that the peronei and anterior tibial muscles are invariably affected. It is suggested that the term "railway spine" should be dropped and "traumatic neurosis" adopted in its place, this latter including the condition seen after railway accidents, gunshot wounds, severe mutilations, and shocks after falls. The chapter upon spina bifida contains a good deal that is interesting, but the very short chapter on non-congenital tumours in the vertebral region is very unsatisfactory. The illustrations are effective enough as diagrams, and serve to show the author's meaning, but they are not very suggestive of scientific accuracy.

NOTES ON BOOKS.

Syllabus of Gynecology, based on the *American Textbook of Gynecology*. By J. W. LONG, M.D., Professor of Gynecology and Pædiatrics in the Medical College of Virginia, etc. (Philadelphia: W. B. Saunders. 1895. Long cr. 8vo, pp. 133. 1 dollar.)—This will be a very useful help to students who take as their authoritative guide the *American Textbook of Gynecology*. It is a *précis*, or rather syllabus, of that book, which will help to fix the knowledge it contains in an orderly and exact way in the reader's mind. At the foot of each page is stated the page in the parent work to which the student may refer for amplification of his knowledge. It is interleaved with blank pages and is bound in a form convenient for the pocket. The only criticisms we should have to make were we questioned by students upon matters contained in it would apply to the work whence the information is taken, and this is not under our notice at present. With the reservation that the *American Textbook of Gynecology*, whatever its merits may be, is not a work the statements of which are final and decisive on every point, we think this book a very good one. Granting the excellence of the original, the model is as perfect as it could be.

La Distomatose Pulmonaire par la Douve du Foie. Par HILARIO DE GOUVÊA. (Paris: L. Battaille et Cie. 1895. Demy 8vo, pp. 46.)—The author records the case of a French naval officer, serving on the American Atlantic coast, latterly in Brazil, who after a trifling fever began to experience pain at the base of the left lung, associated with localised moist *râles*, cough, and slight hæmoptysis. The cough was spasmodic, and returned with the utmost regularity three times every day in severe paroxysms, each paroxysm being followed by hæmoptysis. During the third week of the illness the patient coughed up a living distome measuring 2 cm. by ½ cm. The parasite was diagnosed distoma hepaticum, a diagnosis subsequently confirmed by Leuckart. This is the twenty-fourth recorded case of this form of distomiasis in man, and the first in which the parasite was lodged in the lungs. The author points out that it might be possible to arrive at a correct diagnosis by microscopic examination of sputum in any similar case, the eggs of the parasite being quite characteristic.

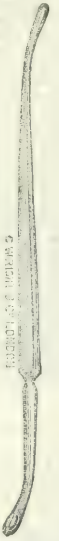
THE *Transactions of the American Dermatological Association, 1894*, contain the official report edited by Dr. C. W. Allen, of the proceedings of the eighteenth annual meeting held at Washington last May. It is copiously illustrated, and we may instance in particular a striking coloured drawing of a case of dermatitis hiemalis, recorded by Dr. Corlett, and a very realistic drawing of a most unusual case of symmetrical cutaneous atrophy of the extremities, placed on record by Dr. E. B. Bronson. Appended to the volume are statistical returns for the year 1893, showing the observed prevalence of certain forms of skin disease by various observers in different parts of the United States.

Manual for the Church Lads' Brigade Medical Staff Corps. Compiled from the *Manual of the Medical Staff Corps.* (London: Church Lads' Brigade. Cr. 16mo, pp. 74, two Illustrations. 4d.)—This little manual is divided into two parts. In the first part, in very plain language, there is a brief description of the structure of the body and the mode of dealing with ordinary accidents. In the second there is a concise though complete account of the authorised stretcher drill and modes of moving the sick and injured. It concludes with a few details of the duties of medical officers and "ambulancers" in camp, at inspection, etc., which will be found useful to many.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A USEFUL COMBINATION INSTRUMENT.

MR. A. MARMADUKE SHEILD, M.B., F.R.C.S., Assistant-Surgeon to St. George's Hospital, writes that boiling and disinfection is such an important part of every surgical operation, the fewer instruments that are used the better. As many new instruments err on the side of complication, it is hoped this one will present the example of simplicity combined with utility. A glance at the diagram will show that this little instrument may be used for the following purposes:



1. It is a separator, and as such may be employed to separate a vein from an artery, in the operation for varicocele or varicose veins, to "shell out" a sebaceous cyst, or to peel away vessels from an enlarged gland in the neck. Being provided with an "eye," it serves as an aneurysm needle, and may be used to "under-run" adhesions or vessels. A better instrument cannot be used for carrying a ligature through the pedicle of an ovarian cyst or a cancerous testis.

2. The probe end serves as a searcher for carious bone, foreign bodies, or gall stones, should an operation in the gall bladder be contemplated.

3. The probe terminates in a deeply grooved director, and thus the instrument may be used in external urethrotomy, for slitting up a fistula, or, especially, for dividing the stricture in hernia, the probe end of the director readily slipping into the abdomen past the constriction.

Indeed this simple instrument may be useful in almost any operation, and as it can be carried in an ordinary dressing case its especial advantage is obvious to country surgeons, and to those proceeding to the Colonies. It would be a valuable addition to the regulation case of army or ship surgeons.

Mr. Marmaduke Shield derived the primary idea of this instrument from the "separator" used by those who operate upon the cord and brain for peeling away the membranes. A "separator" is used by physiologists, and Mr. Treves has employed this in surgery. The instrument is made by Wright and Co., 108, Bond Street, London.

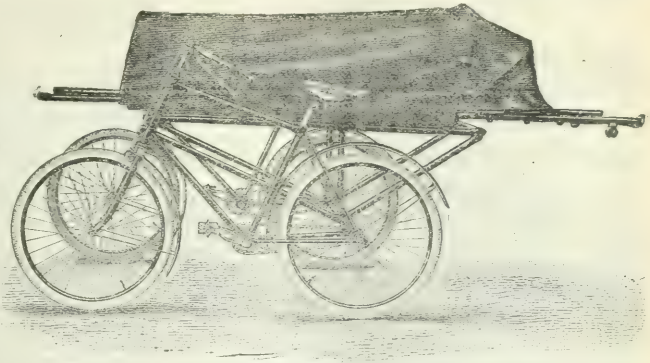
THE STANDARD MALT EXTRACT.

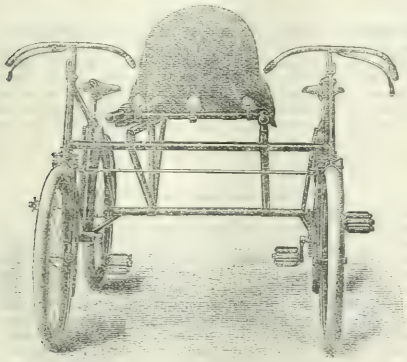
EXTRACT of malt is obtained by evaporating an infusion of malt. The evaporation of the infusion requires great care, and to succeed in retaining unchanged the dissolved albuminoids and diastase, the evaporation should be conducted at a temperature of 120° F. The value of an extract of malt is estimated by the amount of diastase present, and as good malted barley is tolerably uniform in diastase, a well-prepared extract should be but little, if at all, inferior in diastasic power to the malt from which it is made.

We have received from the Standard Malt Extract Company, Limited, 23, Billiter Street, E.C., a sample of malt extract, and also of malt extract with cod-liver oil. The standard malt extract has a pleasant flavour, possesses high diastasic power, and evidently is carefully prepared. The malt extract with cod-liver oil is an excellent preparation, the oil is very well blended with the extract, and the taste gives only a faint suspicion of its presence.

CYCLE AMBULANCES.

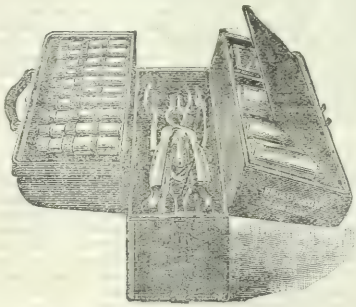
In many large mines and workshops where accidents are liable frequently to occur it is the custom to keep a horse and ambulance always ready in case of need. The expense of this is considerable, and it may often happen that some delay occurs in getting off. The substitution of a well-designed ambulance, carried on a cycle attachment, would often be a great saving of expense and some saving of time in that the cycle would always be instantly ready, and when roads were good, that is to say when of well-laid macadam, wood, or asphalt, the injured person would be conveyed more smoothly and with, if anything, less jolting than in a horse ambulance. We are indebted to Mr. William T. Smedley, one of the Honorary Secretaries of the Birmingham Hospital Saturday Fund, for the accompanying illustrations of a cycle ambulance which the Fund has recently presented to the city of Birmingham. The ambulance has been made by the Alldays and Onions Pneumatic Engineering Company (Great Western Works, Birmingham, and 15, Sherborne Lane, London, E.C.). Its general construction will be easily understood from an inspection of the accompanying drawings. It consists of a frame carrying a hooded detachable stretcher, supported between two bicycles, the whole forming a quadricycle, having a good balance on a wide base, so that the liability to overturning is small. The apparatus is made throughout of welded steel tube, and is fitted with pneumatic tyres. The advantages claimed for the cycle ambulance, in addition to the diminished cost of up-keep, are that it is much lighter, more compact, and more convenient to handle than the wooden ambulances; that, owing to its simplicity of construction, even a person who has never ridden a cycle before can manage it, and that on the whole it affords a speedy, light, and most comfortable mode of conveying injured persons to hospital. The stretcher being detachable the patient can be removed on it to his bed without disturbance.





AN IMPROVED COMPACT MIDWIFERY BAG.

Messrs. Arnold and Sons, of West Smithfield, E.C., have made a new form of midwifery bag to which they have given the name "Compactum," on the ground that it is the most portable bag yet made. The bag, which when closed has a neat appearance, measures $10 \times 8\frac{3}{4} \times 3\frac{1}{2}$ inches, but contains within this space in the central lower part or base a pair of Barnes's long forceps with metal folding handles, craniotomy forceps and perforator to fit into the same handles, a blunt hook and crotchet (jointed), frænum scissors, and female catheter. All the instruments are nickel-plated. The two sides of the bag, which, as shown in the drawing, open outwards, contain on the one side bottles of tabloids (Burroughs and Wellcome's) of a number of useful drugs (ergotine, antipyrin, chloral hydrate, Warburg's tincture, opium, ammonium carbonate, perchloride of mercury, chlorodyne, permanganate of potassium). On the other side a hypodermic case with silver-plated syringe, two needles, and a series of hypodermic tabloids, which appear to have been carefully selected for general convenience. There is also a stoppered bottle for chloroform, and tubes of lanocreoline and hazeline cream. The price of the bag fitted complete is £6 15s.



A SPLINT FOR FRACTURE OF THE PATELLA.

Dr. W. Edelsten Bracey (Birmingham) writes: It is with pleasure I have read Dr. W. M. Russell's letter in the British Medical Journal of March 30th with reference to the patella splint I wrote about in your columns on March 9th, for my object in writing about it was to draw forth criticism.

Now, Dr. Russell says that equal force is applied to both the upper and lower fragments of the patella when my splint is applied. In actual practice this is not the case, for the lower hoop of the knee apparatus comes in contact with the tuberosities of the tibia and the force exerted on the lower fragment is so trivial as only to hold it in place, and counteract the effect of gravity; on the other hand the force exerted on the upper fragment is the full force applied from the footpiece, and the effect of this force on the patella can be governed to a nicety not only by the thumbscrews on the footpiece, but by the adjustment of the intervening distance between the hoops.

By this method I obtained a very satisfactory result in a stout old woman suffering from the early stages of delirium tremens, and in whom there was excessive extravasation into the joint. I am sorry that my absolute ignorance of the salient points in Mr. Wheeler's invention, of which I was previously unaware, prevent my discussing any difference between the two splints. I shall be very pleased to send Dr. Russell an apparatus should he care to examine it himself.

The annual dinner of the Pharmaceutical Society will take place at the Whitehall Rooms, Hôtel Métropole, on May 21st, at 6.45 for 7 P.M.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XLV.—BRAINTREE, ESSEX.

The workhouse which serves the Braintree Union is a Y-shaped building, a plan much in favour at the beginning of the century. The foot of the letter is occupied by the tramps' quarters and the receiving wards, the stem by the kitchen and dining hall, and the two arms accommodate the male and female able-bodied inmates. The master readily acceded to our request to be shown the infirmary, and introduced the nurse, who had been trained at the great infirmary at St. George's-in-the-East.

The Sick and Infirm

are in three different places; there is the hospital proper, a separate building, containing about 30 beds, which at the date of its erection was amply sufficient for the number of sick that sought its shelter; it is a two-storeyed building, having six wards and two day rooms. In "the cottages," originally intended for the married couples, but never used for that purpose, we found the idiots and fit cases. Finally, in the old schoolrooms in the house we found infirm and sick male and female patients, and also in wards upstairs, close to the dormitory of the able-bodied women. This distribution is the result of the increase of the sick, infirm, and helpless, who have overflowed the quarters originally assigned to them.

The Master

said that he had been in the house over twenty-five years, a period during which he had observed the gradual decline in the number of the able-bodied inmates and of the children, and the steady increase of the sick and helpless, a change which is everywhere converting these houses into asylums, instead of workhouses. The question of improving the accommodation for the sick had occupied the attention of the Board for the last ten years, but hitherto without result; and at the last meeting of the Board, a report of which is before us, the matter was shelved until after the elections.

In the Meantime

the sick are located as above described. We found all the wards overcrowded; the small wards in the hospital, containing 5 or 6 beds, were only large enough for 3; they had one window, a small fireplace, and the door on to the landing. We can imagine the state of the atmosphere in these wards at night, when the window is shut (and, as two beds are quite close to it, it must be necessary to shut it in rough weather) for the small fireplace could do very little towards purifying the air. There was very little furniture in the wards other than the bedsteads; armchairs were few, but there was very little space to put them in. The bedsteads were of fair size, but rather low; the bedding a straw mattress, on which is laid a flock bed. The patients who were up in the hospital used the day rooms on the ground floor; these rooms were warm and bright, but the straight-backed benches offered very little rest for the old people.

The Patients,

many of whom were in bed, were such as are usually found in a workhouse infirmary. We were struck with the number of cancer cases: there were three, and the nurse said that the disease seemed to be prevalent in the locality. We saw several helpless cases among the patients in the hospital, or in the infirm wards in the house. Among those who were seriously ill we saw cases of phthisis, hernia, paralysis, and cancer; a little lad of about 8 years old was in the old women's ward; he had been sent over from the house, having "nettle rash." In the winter there are many more acute cases, such as pneumonia, pleurisy, rheumatism, bronchitis; there is a cottage hospital in Braintree, but a few operations have been done in the infirmary. In all there were about eighty patients under the care of the nurse, including the idiot and fit cases.

Classification.

From the above it will be seen that very little classification is possible; the imbeciles are classed apart, but when one of them requires nursing he is removed into the sick wards, where we saw some cases with severe fits, also some cases of dementia. The provision for the feeble minded was but a makeshift arrangement; the day rooms are dreary, and there was no attempt at occupation or amusement; indeed there was no one to initiate such amusement, for the single nurse being chiefly in her sick wards, an inmate was told off to look after the imbeciles. Their dormitories are upstairs, and small separation wards having one or two beds opened out of the day room; these were heated by hot pipes. We saw no separation wards in the hospital or the house, and there are no children's wards.

The Lock Patients

are very few; the medical officer informed us that he should put such patients in the infectious hospital; this is a self-contained building of four wards, with accommodation for 16 beds; it stands in the grounds, quite apart from the house. Any case of infectious disease is nursed here by trained nurses engaged from outside. We found it empty at the time of our visit; it was kept clean, and could be made fit for use in a short time; the necessary bedding is brought over from the house, and burnt after each case.

The Lying-in Ward

is in the hospital, close to the nurse's room. It is a small room holding three beds, and was tenantless at the time we went round. We noted with pleasure that it was kept in readiness for the next patient. The confinements average seven a year. The room lacks conveniences as a lying-in ward; it has one window, and a small fireplace.

The Nursing

of all these scattered patients is in the hands of one nurse, who is trained and holds the midwife's certificate; her assistants are inmates, one to each ward. A paid attendant comes from the town for night duty; she is not trained, but the nurse says that she calls her at once if more skilled attention is required. We could trace the trained nurse's handiwork all through the sick department, but the post is full of difficulty, owing to the scattered wards. There is a small surgery in the hospital, with locked cupboards for the poisons and medical stores.

The Sanitary Appliances.

The water is pumped up daily into tanks from a deep well; the master said that the supply was constant, even in the drought of 1893. There are no fixed baths in the hospital, nor is any water laid on upstairs, except for the closets. The hot water is heated in a copper in the hospital, from which it is baled out and carried, and the baths have to be emptied by baling, as there are no sinks or gullies for carrying off the waste. We only saw two sinks, one on the ground floor of the hospital, and one in the house, outside the able-bodied women's ward. The waterclosets are on each landing contiguous to the wards, and there was a fair flush in nearly all of them; one, however, outside an infirm ward in the house, was anything but sweet; it was rinsed by turning a tap on the landing—a very curious arrangement. Commodes were used in the wards at night.

Ventilation

is almost entirely by means of the windows; we saw perforations in some of the ceilings, but the master could not say that they were not choked. Most of the wards were sweet, but one of the old schoolrooms was very close; the windows in this ward open by letting the circular head fall inwards, the amount of opening being regulated by a cord, or the middle panes swing on a pivot. They were all closed when we entered the ward. Bearing in mind that the extra air spaces, such as lobbies and landings, are very small, the ventilation generally appears insufficient.

Diets.

The kitchen is without means of roasting, and the master

said that the meat was consequently nearly always boiled; it was occasionally baked, or made into meat puddings or broth. The sick dietary is in the hands of the medical officer. We saw on a patient's card "milk and beef-tea." The diets are all served from the house kitchen.

RECOMMENDATIONS.

It is a pleasure to be able to comment favourably on the nursing of a country infirmary, and in this particular Braintree is in advance of many places of which we have knowledge; but the nurse carries on her work under most difficult conditions, and structural improvements are most urgently needed. We would suggest to the guardians to build an infirmary for 100 or more beds, with the necessary appliances for sick nursing, and to make this building entirely distinct from the house, with due provision for nurses' quarters. We understand that plans for a new infirmary have been considered, together with an alternative scheme of adapting an existing part of the building to the infirmary department. We trust that the first scheme will be the one adopted, as being eventually the more economical as well as far more satisfactory. The old building does not lend itself to the requirements of the sick; it would need much alteration and adaptation and even then remain unsatisfactory, and inevitably cost more in the long run. Nothing can be done with the present infirmary quarters, and we therefore offer no suggestions on that head. More nurses are needed, but at present they cannot be housed. We should like to see Braintree Infirmary organised as the centre of the medical relief of the union, having its staff of nurses and midwives for nursing among the rural population.

MARRIED OFFICERS.

"A GUARDIAN," writing in the *Star*, discusses the advantage to all concerned if the present custom of engaging a man and his wife as master and matron could be broken down. He says, with much force, that though the master may be very able, it does not follow that his wife shares his ability, and *vice versâ*, but under any circumstances the Board must put up with these officers. The writer of the letter goes on to say that if the vacancies were filled up on the respective merits of the candidates, the plan would be of incalculable benefit to the inmates and the public and that a cultivation and trained nurses might be induced to offer themselves for the post of matron, where the influence of the gentlewoman could make itself beneficently felt. We most cordially agree with "A Guardian," feeling sure that many of the abuses which it has been our unpleasant duty to place before the public would disappear with the departure of the custom of man and wife as master and matron.

ISLINGTON WORKHOUSE AND INFIRMARY.

WE had the impression, evidently an erroneous one—that we must travel into the country to find overcrowding among the sick, with its attendant evils of insufficient nursing and meagre accommodation, but we learn from the daily papers that the above workhouse infirmary has 168 patients above its certified number; that there are 160 sick paupers in the workhouse; that the medical staff is inadequate, and the nursing staff too small. The guardians admit these facts, and have met the Local Government Board in deputation to discuss alternative schemes. Unfortunately there is serious disagreement on the point, into the merits of which we are not in a position to enter; but we would record our opinion that two public bodies entrusted with such grave functions as the relief of the poor should find a way to put an end to such a serious state of things as that above described.

BRADFORD WORKHOUSE INFIRMARY.

DR. FULLER and MR. Kennedy, the Government inspectors, have been looking up this important house; the lengthy report from which we quote condemns the existing building in all particulars. The arrangement of the wards is defective in all points, the sanitary appliances are not sanitary, the nursing staff is inadequate, too much dependence being placed on pauper help, especially in the imbecile department. No words can be more severe in condemnation of such nursing than the inspector's own report: "He found seven wet and dirty beds in this department, two beds made up in a damp unwholesome condition, and on another bed a macintosh soiled with fæcal matter; all these beds were made up as fit and ready for use." The inspectors recommend a large increase of the nursing staff, "a head nurse, with an adequate staff of nurses who should take day and night duty in rotation, and that the time had come when a detached nurses' home should be erected." The report goes on to say: "There was much to be done to bring this important infirmary up to the standard now expected in all well-equipped institutions." We trust that the guardians will at once set themselves to the task before them; they are better circumstanced in that they are the representatives of a wealthy manufacturing town, which has hitherto tried to bring its institutions up to date.

INCREASE IN NURSING STAFFS.

WE are glad to see that the Nottingham Board has increased its nursing staff by six additional nurses. The guardians of Abbeydore Workhouse are puzzled how to deal with their sick; the number is small, but the medical officer lives at some distance, and the matron is untrained. They have met the difficulty by appointing an assistant to the matron, at a salary of £18 per annum.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

THE DISCUSSION ON DIPHTHERIA ANTITOXIN AT THE GERMAN MEDICAL CONGRESS.

THE prolonged discussion which took place at the meeting of the German Medical Congress this month at Munich on the therapeutic use of diphtheria antitoxin was most optimistic. Professor Kassowitz, the Æolus of the "cool breeze" which blew at Vienna earlier in the year, did not keep the tryst given him by Professor v. Widerhofer. Hardly a word of criticism was heard, and some striking statistics were brought forward. The fact appears to be that those who have seen most of the treatment are those who regard it with most favour.

The discussion was opened by Professor Heubner, of Berlin, who in the first place discussed[1] the general statistics of the disease, and arrived at the conclusion that at the time the serum treatment was commenced the type of the disease was of about average severity. He said that the general result of all the published cases with which he was acquainted was that 3,000 cases of diphtheria had been treated with the antitoxic serum, with a general mortality of 20 per cent. The number of cases treated with the serum in the Berlin Charité Hospital was 207, with a mortality of 13 per cent.; the uncomplicated cases numbered 181, and the mortality among these was 10 per cent. The treatment appeared to check the spread of the membrane into the air passages, and he considered that in 9 cases, among the 181, tracheotomy would have become necessary but for the serum. The treatment had also an effect on the course of the temperature; the recrudescences of fever during the disease so often observed under ordinary treatment were seldom seen under the serum treatment.

Professor A. Baginsky said that in the Kaiser und Kaiserin Friedrich Hospital in Berlin the mortality from diphtheria in the years 1890 to 1894 before the use of antitoxin was 41.1 per cent. The number of cases treated since the introduction of the antitoxin serum and down to March 15th was 525, and the mortality was 15 per cent. The comparative mortality at various ages is shown in the following table:

Age.	Percentage of Mortality. Before.	After.
Under 2 years	63.00	23.00
2 to 4 ,, ...	52.00	17.00
4 to 6 ,, ...	37.00	17.00
6 to 8 ,, ...	27.00	11.00
8 to 10 ,, ...	19.00	5.00
10 to 12 ,, ...	19.00	4.10
12 to 14 ,, ...	13.00	13.00

The number of cases in which laryngeal obstruction demanded tracheotomy was diminished under the serum treatment, and the relative proportion of cases of laryngeal obstruction which were treated successfully by intubation was increased. He had not met with kidney disorder more often than formerly. The earlier the remedy could be used the better the results, and he thought that it was rational to combine with it the use of local antiseptic applications.

Professor v. Widerhofer said that in the period October, 1894, to the end of February, 1895, he had had 300 cases with 71 deaths, a mortality of 23.7 per cent. This compared with a mortality in the five preceding years during the same months of 50.6, 45, 40.8, 49, and 56 per cent. respectively.

Professor v. Ranke reported that from September 24th, 1894, to March 24th, 1895, 130 cases of diphtheria in children had come under his treatment in Munich, and 124 had received injections of the serum with 26 deaths (22.4 per cent.). In this number were included 22 cases complicated with scarlet fever or measles. Comparing the mortality in the six months of the serum treatment with the mortality of the previous eight years there was a fall from 42 per cent. to 18.6 per cent. He had seen no unfavourable action on heart, kidneys, or other internal organs, exanthem only 5 times, and joint affections once.

Dr. Seitz, of Munich, had seen among 140 cases treated with the serum an exanthem 28 times. Pain in the joints

[1] *Münch. med. Woch.*, April 4th and 9th, 1895.

had been noticed in 8 cases, accompanied by swelling in 3. Both these complications, therefore, occurred more frequently than when the serum was not used. He considered that there was no evidence of an injurious action on the kidneys.

Professor Stintzing reported 59 cases with a mortality of 20.3 per cent. A complete analysis of these and other smaller collections of statistics reported to the meeting cannot as yet be made.

ROYAL COMMISSION ON OPIUM.

The Memorandum of Sir William Roberts, M.D., F.R.S., on the Medical Aspects of the Opium Habit in India.

Appended to the report of the Royal Commission on Opium is a memorandum by Sir William Roberts, M.D., F.R.S., on the general features and the medical aspects of the opium habit in India.

It is pointed out that the use of opium is only one manifestation of the practice, common to all human communities except the most primitive, of consuming articles of a stimulating or restorative character, such as alcohol, tobacco, opium, tea, coffee, coca, Indian hemp, betel, and others, which do not possess in their essence nutritive properties, and are not classed as true articles of food.

Among these substances opium takes a position intermediate between alcohol and tobacco; but, in regard to their effects, it is to be noted that "opium and tobacco are..... alike in not producing in their users any special organic tissue changes, even when carried beyond the verge of moderation; whereas alcohol, if used in habitual excess, produces special organic changes by which its operation can be tracked, both during life and after death."

The opium habit is disseminated all over India, and, being by its nature cryptous and undemonstrative, may be practised for years without exciting suspicion. For this reason the estimates given of the ratio of opium eaters to population must be taken with great reserve. Certainly their number is likely to be under rather than overestimated. Still, "taking India all through, it is evident that only a minority of the inhabitants, generally a small minority, even of the adult males, are opium eaters."

It seems that the natives of India have generally a higher tolerance for opium than Europeans, and this enhanced tolerance appears to be congenital, for it is as marked in infants as in adults. In the course of his evidence on this point, Dr. Crombie said: "Most of our ayahs, who are entrusted with the care of European children, are up country women who are accustomed to deal with their own children in this way (that is, giving them opium); and when they find a feverish, fretful English child, they give it the same dose of opium they would give to their own child, and the English child dies.....We have all had experience of that kind."

Judging by the practice of opium eaters, the average tolerance of natives of India appears to range from 4 to 12 grains of opium per day. But many take far larger doses than these, and consume 20 to 40 grains a day, and not a few 50 to 80 grains a day, without any appreciable detriment to their health. Outside this general experience, however, some cases showing extraordinary tolerance were quoted. Dr. Kailas Chunder Bose stated that he had seen a religious mendicant take about 2 000 grains of crude opium, and that the man was a perfect model of health and vigour. Another native physician at Calcutta related that he was acquainted with a singer who, after singing for three or four hours, would take 300 grains of opium, and then go on singing again, keeping time and tune accurately. Sir William Roberts draws special attention to the dual action that opium has upon the human constitution. It operates as a therapeutic agent, as an anodyne and hypnotic; but it also operates as a euphoric agent, producing an enhanced sense of well-being, after the manner of alcohol and tobacco.

These two actions are not only not identical, but they are not always concurrent—that is to say, that persons may be sensitive to the pain-annulling effects of opium, and not be sensitive to its pleasure-producing influence. "The therapeutic effects of opium are much alike—tolerance apart—in all persons and in all climates, but it would seem as if only a select portion of the population were susceptible to its euphoric effects." Tobacco offers an apt illustration of this point. Many people never smoke, or if they do never become "smokers" in the proper sense of the term simply because try as they will they experience no enjoyment in the practice. The opium habit is mainly a habit of middle life and advancing years. Among young adults it is comparatively rare, and is only followed by persons suffering from some chronic ailment or by idle and dissipated young men. It is commonly begun between 35 and 45, when the premonitions of age begin to be felt, for it is to be noted that this epoch in life comes on much earlier among the natives of India than with Europeans.

We reserve for a future article the consideration of some of the effects of opium, its use as a household medicine, and as a remedy and prophylactic against malaria, its administration to infants, its use on ceremonial occasions, and the habit of smoking opium, which appears quite distinct from that of opium eating.

THE PREVENTION OF TYPHOID FEVER IN THE ARMY.

In a report just issued, General Zurlinden, the French Minister of War, reviews the progress made in the army since 1886, in point of prophylactic measures. The most striking results are still, as they were in M. de Freycinet's reports from 1889 to 1892, those relating to typhoid fever. In 1886 the number of cases of this disease was 7,771, being over 14 per 1,000; in 1894 it was 3 060, being under 6 per 1,000, a reduction obtained by an almost progressive decrease in each year. This result is shown by a detailed examination of the circumstances of those stations where the reduction has occurred to have invariably followed on the purification of the drinking water supplies. The report instances 29 of the garrisons most subject in earlier years to typhoid fever, in each of which the introduction of an uncontaminated water supply had been followed by the disappearance of the disease except in isolated cases, the majority of which were shown to have been contracted outside the barracks. In those cases where a new water supply had been provided and the water was drunk unfiltered, epidemics followed from time to time on the contamination of the source, and disappeared on the application of Pasteur filters. Thus at Avesnes, 105 cases in 1891 became, after installation of these filters, only one case per year for the remaining three years; at Auxerre, 129 cases in 1892 were similarly reduced to one each in 1893 and 1894; at Melun, 122 cases in 1889 fell to 7.4 for the following five years, in spite of the heavily polluted water which continues to be supplied.

At Melun in the present year the filters got frozen, and the cavalry men, who had got hold of unfiltered water instead of drinking the regulation tea, were attacked with 28 cases, while the infantry in the same barracks who had not drunk this water were unattacked. At Cherbourg with a previous annual average of 114.5, the installation of Pasteur filters in 1890 reduced the number of cases to 21, 8, 11, 3, and 3 in the following years. At Diran, with a previous annual average of 278 cases, the installation of Pasteur filters in 1890 reduced the number of cases to 1, 2, 3, and 1. At Lorient, a hot bed of typhoid for the civil population up to the present time, a previous annual average of 175 cases fell on the installation of Pasteur filters to 58 in 1890, and in the following years to 2, 2, and 1; rising to 11 in 1894 on the use of an unfiltered supply for a short period. At the same garrison in 1893 the civil population were affected by a severe epidemic of cholera; at the barracks there was only one case, contracted while on leave. There is no object in the further quotation of figures, which only confirm conclusions already sufficiently established. The report discloses a state of affairs which might well be an example to our own military authorities. The sacrifice of 90 men out of a company of 600 in the Lucknow cholera epidemic to the infection preserved and imparted by the barrack room filter contrasts with the hundreds of lives which the Pasteur filter is annually saving for the French army; and it is much more a matter for regret than for surprise that the recent annual medical report of our War Office shows the number of typhoid cases at 9.14 per 1,000, over 60 per cent. higher than the present rate in the French army.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 27th, 1895.

TUBERCULOUS MEAT AND MILK.

We publish in another column a full analysis of the report of the Royal Commission on Tuberculosis, which was presented to Parliament on Tuesday evening. It is a valuable document, inasmuch as it contains some new facts, and restates others with precision, and with an authority which it is to be hoped will have weight with stock owners and meat salesmen, with the public, and, finally, with the Legislature.

The Commission was appointed in July, 1890, and wisely devoted itself in the first place to ascertaining the nature and extent of the evidence already in existence in English and foreign literature, and the character of the remedial administrative powers already available or recommended as the result of previous official inquiries. A certain number of witnesses were examined, and the net result of these preliminary inquiries was to prove that to certain crucial pathological questions there were as yet no sufficient answers. The Commissioners, in consequence, determined to enlist the services of experts to make the necessary experimental investigations, and were fortunate in obtaining the assistance of highly competent pathologists.

The two main lines of inquiry were to determine (1) the circumstances under which the meat and milk of tuberculous bovines were liable to convey tuberculosis to those who consumed these articles of food, and (2) how far ordinary processes of cooking could be trusted to render innocuous meat and milk proved under the first head to be dangerous.

The first division of inquiry was undertaken by Dr. Sidney Martin. His researches consisted mainly of feeding experiments, and by the wise liberality of the Commissioners he was enabled to carry out the inquiry under the most favourable conditions, by which accidental communication of the disease from one to another of the test animals—one of the chief sources of fallacy in many previous inquiries on this subject—was entirely eliminated.

It is now universally acknowledged that the flesh of animals suffering from the disease in a severe form, with fever and emaciation, ought to be absolutely condemned as unfit for human food, and ought not to be given to carnivorous animals, but destroyed, though in America it is allowed to be converted into manure. Differences of opinion arise when we have to deal with animals who have not yet suffered in condition, and in whom the disease is limited to certain viscera. Dr. Martin's investigations show that there is danger even in these minor cases, but that it is a danger which may be obviated. He adduces strong evidence that the flesh itself is not infectious, but that it may be rendered so by the process of cutting up and preparing the joints for sale. A knife used for cutting into tuberculous viscera or lymphatic glands will become covered with infective matter, and this may then be smeared on to the joints.

That this is a very real danger is shown by Dr. Woodhead's experiments on the effects of cooking. He found that if tuberculous matter were smeared on a piece of meat which was then tightly rolled up, as is done with the "rolls of meat" sold by the butchers, the infective matter was not destroyed by roasting, baking, or boiling, though boiling was more effective than baking, and baking than roasting. There is this further element of danger that, as pointed out in the report, tuberculous matter from a diseased carcass may be conveyed by the butcher's hands and knives to the meat from perfectly healthy animals cut up subsequently in the same place and with the same tools.

We should have been glad to have had from the Commissioners a stronger expression of opinion as to the measures to be taken to guard against this danger. Dr. Martin concludes that meat from carcasses containing only localised tuberculosis might be sold if every particle of tubercle were skilfully removed and if strict precautions were taken to guard the saleable portions from contamination by the infective matter. To permit this with safety it would be necessary, as he points out, that the operations of slaughtering and dressing should be done under skilled supervision so as to ensure the removal and destruction of every part of a carcass which contained any tubercle, not less than the complete destruction of the whole carcass in cases of advanced or generalised tuberculosis. The Commissioners unfortunately have not felt justified in making any recommendation on this, but in its place express the rather faint-hearted opinion that "the difficulties of such supervision are so great that many years must elapse before any measure of an effectual kind can be carried into practice." We are glad to find that Professor Brown, whose long experience as the head of the Veterinary Department gives him special authority on such a question, takes a less pessimistic view. He admits that there would be difficulties, but urges that it must not be assumed that the scheme of slaughtering tuberculous animals in special places and with suitable precautions is impracticable. It may be added that both in Germany and in France the disposal of animals recognised during life to be suffering from tuberculosis is subject to regulations of the nature indicated.

With regard to milk, Dr. Martin found that it was infective only when the udder was itself the seat of tuberculous disease. In this conclusion he is supported by other investigators, among others by Professor Nocard, of the Veterinary School at Alfort, who in the volume on Tuberculosis[1] which he has just published, states as his conclusion from experiments of his own and an examination of published records "that the milk of a tuberculous cow is not virulent except when the udder is the seat of tuberculous lesions."

Unfortunately the diagnosis of the nature of lesions of the udder has not yet attained certainty. Mistakes—as will be

[1] *Les Tuberculoses Animales.* (Encyclop. Scient. des Aide-Mém. Paris: G. Masson and Gauthiers-Villars et Fils. 1895.)

seen from Professor McFadyean's observations quoted in our abstract of the report—may be made in both directions. The Commissioners express a qualified hope that the use of tuberculin may eventually give valuable aid, and M. Nocard, in the work already quoted, is much more sanguine, and even writes with some enthusiasm of "the marvellously exact and precise diagnostic indications furnished by tuberculin." He believes that the well-considered use of tuberculin in a herd will pick out the diseased animals, even those as yet in the earliest stages of the disease.

The practical outcome of the Commission's inquiry on this head is the advice to the public to boil milk from every source which can be under the slightest suspicion. Under existing circumstances this is tantamount, practically, to a recommendation to boil all milk obtained through ordinary trade channels.

THE INDIAN HEMP DRUGS COMMISSION.

The report of the Opium Commission—a summary of which we were enabled to present in the British Medical Journal of April 13th—has effectually dispelled the cloud of delusion and prejudice with which the opium question, in its relation both to India and China, has been for so many years invested by well-meaning but strangely-misinformed philanthropists. Opium must no longer be branded as a curse to man, destroying his body and ruining his soul, but thankfully accepted as a means of rendering less rugged and irksome the weary path of millions of men in their toilsome journey from birth to death. Accordingly the Commission has not seen its way to recommend any modification of the existing regulations and usages relating to the cultivation of the poppy, the manufacture of opium, or its distribution by commerce.

One of the arguments used by those who do not believe in making people virtuous by legislation or depriving them of articles which they may consider good or pleasant is that man universally uses some neurotic, and that if we deprive him of that which is comparatively innocuous we drive him to the consumption of some other nervine stimulant or sedative which is more harmful, physically and morally—to hemp and alcohol in the case of India, to alcohol in the case of China.

Hemp has been represented as a specially noxious substitute or alternative for opium in India. The use of haschish has been credited with terrible effects—violence, debauchery, insanity, and crime. The gaols and madhouses of India have been said to be largely filled with its victims, and rape and murder alleged to be frequently and directly due to excess in the smoking of ganja and drinking of bhang. The report of the Hemp Drugs Commission, which has recently been published in India, has clearly demonstrated that this view of the effects of the consumption of hemp is grossly exaggerated, that the evils commonly attributed to its use do not exist, and that the baneful effects caused by its abuse are very rare. It has been shown that in some parts of India the use of hemp in moderation is exceedingly common, as many as 1 in 200 of the inhabitants of Bengal consuming it much as we in this country consume tobacco, tea, or coffee, or the inhabitants of France and Italy consume their cider or light wine, as a mild stimulant and harmless luxury. Not more than 1 in 4,000 inhabitants exceeds the bounds of strict moderation. "Moderate consumers," it is stated, "are not offensive as a rule, and, indeed, are not distinguishable from total abstainers," while as regards the few who use hemp drugs in excess "there are no such marked ill effects—physical, mental, or moral—attendant on their use as there were popularly believed to be before the present inquiry was made." "To a million people in India," it is added, "ganja affords a harmless pleasure, and in some cases even a beneficial stimulant." It is adapted to the constitution, occupations, and habits of Indian peoples, and the curious statement is made that the introduction into India of more severe industries, such as those connected with mills and mines, has compelled the workers to resort to the "fiercer stimulant of alcohol." The moderate use of hemp has, in fact, become a part of the domestic, social, and even religious life of the people, and it is accordingly considered by the Government of the country unnecessary and inadvisable to attempt to prohibit it, even if that were possible, which is very doubtful.

As in the case of opium, occasional and exceptional harm from excess does not justify deprivation of what, in the vast majority of cases, is an innocuous luxury. At the same time, considering that there is a tendency to abuse and excessive consumption of all such agents, the Government of India consider it right to place some restriction upon the sale of hemp drugs in the shape of "taxation to the highest point compatible with the prevention of illicit production in British India, and of smuggling from the native States.' The Government is also prepared to entrust municipal bodies with local option as regards the number of ganja shops, and to sanction the framing of rules prohibiting the grant of sale licences to females, or the supply of the drugs to such sections of the community as are liable to abuse them.

DIGESTIVE PROTEOLYSIS.

Under the above title Professor Chittenden, of Yale University, has republished in book form the Cartwright Lectures he delivered in New York last year. There is, perhaps, no one so well qualified to speak or write on this subject as Professor Chittenden, for it is to him that physiologists owe so much of the patient research in connection with the digestion of proteids which has been carried out during the last ten years. Professor Chittenden, however, does not confine his remarks to his own work, but presents the whole subject in a connected way, and all those interested in the subject wishful of obtaining the latest information concerning the properties of albumoses and peptones should turn to this little book. They will not only find the matters treated in a lucid manner, but the numerous references will enable them to look up the various original memoirs of physiological researchers should they wish to pursue the matter still further.

The subject of proteolytic digestion has been principally worked out in its details by means of artificial digestion experiments, and artificial gastric juice has been that chiefly employed. This acts more slowly than artificial pancreatic juice, and so the various steps in cleavage can be caught and separated more readily. Although the pancreatic ferment trypsin acts in an alkaline medium the various hydration products formed from proteid, and which

culminate in peptone, are essentially the same as in gastric digestion.

Bunge went too far when he asserted that the main function of gastric juice lies in its antiseptic function. It is undoubtedly antiseptic, and very strongly so; but it is also a digestant. Compared to the pancreatic juice, however, its digestive power is small, and Professor Chittenden probably hits the right nail on the head when he states that gastric digestion is rather preparatory to the more important digestion processes that occur in the small intestine than an end in itself.

The subject of tryptic digestion opens up a side issue, namely, the mode of formation of urea, and it is to this subject—which is, by the way, admirably treated in the Cartwright Lectures—that we propose to devote the remainder of this article. It can hardly be doubted that the source of urea in the body is at least twofold. The greater part comes from the metabolism of proteid tissues, in great part from the muscular, the most abundant of the tissues, through the intermediate creatine. But a smaller fraction of urea comes from the proteid food almost directly, especially when excess of proteid is taken in. Leucine formed thus in the alimentary canal is taken to the liver and directly converted into urea; the evidence respecting the fate of tyrosine is less conclusive.

The peculiar action of trypsin as a proteolytic enzyme is shown in the production of a series of crystalline nitrogenous substances, whenever the ferment is allowed to act for any length of time on the variety of peptone which is termed by Kühne hemipeptone. Of these substances leucine (amido-caproic, or more probably amido-isobutyl-acetic acid) and tyrosine (oxyphenyl-amido-propionic acid) are the best known. Aspartic acid is another, and a small quantity of ammonia, according to recent careful researches, forms a fourth member of these comparatively simple substances. The latest addition to this group is lysatine, concerning which we propose to say a few words immediately. If decomposition such as this took place to any great extent in the intestinal canal, it would be exceedingly unphysiological and wasteful, but we can readily see how such a line of cleavage might result in inestimable gain to the economy in cases where excess of proteid food has been ingested. Under such circumstances a portion of the surplus is quickly removed from the system with a minimum amount of effort on the part of the living tissues. Drechsel estimates that about one-ninth of the urea daily excreted may come from the direct decomposition of lysatine, the latter obviously having its origin in trypsin-proteolysis.

Some physiologists have been so impressed by the wasteful nature of these processes that they have refused to believe that leucine and its congeners are formed in appreciable quantity in natural digestion. They are formed, it is true, in the flasks of an artificial digestion, but how far is digestion in a flask comparable to digestion in an intestine? All admit, of course, the limitation of inferences from flask digestion; but the recent work of Sheridan Lea and of Chittenden, though emphasising this limitation, lends no support to the idea that the appearance of amido-acids is characteristic of flask digestion; they are found in quite appreciable quantities in the intestines of recently killed animals. It is, moreover, quite possible that these substances may play a specific part in the normal processes of metabolism. The more one studies the processes of nutrition, the more one is impressed with the view that there is a purpose in everything, and that the formation of even such bodies as leucine and tyrosine may be connected with hidden processes, the key to which has not yet been found. We see an analogous fact in the action of inorganic salts, some of which at least neither undergo changes in themselves nor induce changes in other substances, and yet we know that their presence is indispensable for keeping up the normal rhythm of the nutritional processes of the body.

And now, in conclusion, a word about lysatine, which may be an unfamiliar term to some of our readers. The discovery of lysine and lysatine by Drechsel marks an epoch in chemical physiology. Ever since chemists turned their attention to physiological problems, the artificial production of urea from proteid has been one of the main objects of their work. There have been various false alarms that the problem had been solved, but the honour of the discovery rests with the physiologist just named. He first obtained these two new bases from casein. Casein was boiled with hydrochloric acid, stannous chloride being added to prevent oxidation. Without going into the details of their separation, it may be stated that phosphotungstic acid is the reagent which is employed to separate lysine and lysatine from the other amido-acids and from one another. Since then lysine and lysatine have been found in the cleavage products of other proteids decomposed in the same way, and also as already indicated among the products of pancreatic digestion.

Lysine has the composition $C_6H_{14}N_2O_2$, being a diamido-caproic acid. The constitution of lysatine (sometimes called lysatinine) is less definitely settled, but apparently it has the composition of a creatine, its formula being $C_7H_{13}N_3O_2$; the special point of interest regarding it is that by simple hydrolytic decomposition, for instance boiling with baryta water, all chance of oxidation being excluded, it breaks down, forming urea just as creatine does.

Yellow fever in its severest form has again broken out at Santos, the daily mortality being six.

A conversazione in celebration of the Abernethian Society centenary will be held at St. Bartholomew's Hospital on Wednesday, May 1st, from 8 till 12 o'clock.

The annual dinner of the Army Medical Department will be held at the Whitehall Rooms, Hôtel Métropole, on Monday, June 17th, at 7.30 P.M.

Mdlle. M. Derschied has been appointed Assistant Physician to the Hôpital des Enfants Assistés by the Conseil des Hospices of Brussels. She is the first female practitioner appointed a member of the regular staff of the Brussels hospitals.

On April 9th the first anniversary of the death of Dr. Arthur Hill Hassall, a memorial service was held at All Saints' Church, San Remo. After the service many of the congregation visited Dr. Hassall's grave.

BENEFACTION FOR THE LONDON HOSPITALS.

We understand that the sum of £45,000 in Consols, which, as we have stated, is to be transferred into the names of the official trustees of charitable funds that the interest may be

paid annually to the Hospital Sunday Fund, is part of a larger sum of £200,000, a considerable portion of which has been applied to charitable purposes.

LONDON POST-GRADUATE COURSE.

The summer term of the London Post-Graduate Course will commence on Monday, May 6th, and will terminate on Monday, July 1st. The fees are £1 1s. for courses of eight lectures, and £2 2s. for those of sixteen. The courses to be given include the following subjects: Diseases of Children; Diseases of the Nervous System; of the Eye; of the Skin; of the Mind; of the Throat; General Medicine and Surgery; and on Bacteriology. The teaching is chiefly by means of demonstrations, and is thoroughly practical, and prospectuses can be obtained from the secretary, Dr. Fletcher Little, 32, Harley Street, W.

IS A PRIVATE HOSPITAL A "NUISANCE"?

The Vice-Chancellor of Ireland has just given judgment in a case which will have interest for many outside Dublin. A lady leased a house in Fitzwilliam Square, and devoted it to the purposes of a private hospital for non-infectious cases. Lord Pembroke, as the owner, applied for an injunction on the ground that her act was a breach of the clause in the lease, which provided that no "offensive or noisy trade, business or profession whatever," should be carried on in the premises, and the question was whether a hospital came within the meaning of the term "offensive." It was further contended that the adjoining property would be depreciated in value. The Vice-Chancellor held that the case had been proved, that there was a breach of the covenant in the lease, and he accordingly granted an injunction. Against this decision an appeal is to be taken.

THE DEPARTMENTAL PRISON COMMITTEE ON INEBRIATES.

The Report of the Departmental Committee on Prisons, just issued, strongly recommends therapeutic instead of penal treatment for habitually drunken criminals. The Committee recognises that habitual drunkards are not criminals in the ordinary sense, and should stand by themselves in a special category, the physical craving for drink being a disease which requires medical treatment not provided by the present prison system. The Committee suggests that persons committed for drunkenness and associated offences should be collected in separate prisons or wards, and dealt with as patients rather than criminals, special medical treatment being applied to them. The Committee endorses the recommendation of the English Committee on Inebriates—that magistrates be invested with full power to commit habitually drunken offenders for lengthened periods.

"VERIFY YOUR REFERENCES."

In the article on "The Art of Making References," which appeared in the British Medical Journal of April 20th, Mr. J. B. Bailey, the accomplished Librarian of the Royal College of Surgeons, called attention to a point of more than merely academic interest. No one who has not had some experience of bibliographical research can have any notion of the amount of positive error which has become enshrined in medical literature as the result of unverified references. References are "conveyed" by one author from another, and the original source is sometimes concealed apparently out of a wish to make a display of cheap erudition. It is even said that the name of an author who does not happen to be a *persona grata* to the writer has been deliberately suppressed. Sooner or later, too, comes in another disturbing influence in the shape of the printer's devil, who changes 9's into 6's and 8's into 3's, or mixes up christian names, surnames, and perhaps names of places in most admired disorder, to the discomfiture of the seeker after bibliographic truth. The otiose practice common to nearly all *Centralblatts*, *Yearbooks*, etc., and by no means rare among writers of books, of taking abstracts of papers from any second-hand source that lies nearest, leads to much confusion. The travels of Japhet in search of a father were nothing compared to the peregrinations of an interesting abstract through the medical press of the world. In the course of these wanderings names are evil entreated by foreign printers till they become almost unrecognisable even to their owners, and facts get distorted so as to be utterly misleading. What Lord Randolph Churchill called "double-barrelled" names are often a stumbling block to compilers of statistics. Another trap to the unwary is the Italian fashion of putting the christian name sometimes before, and sometimes after, the surname. Many an imposing list of references appended to an article in a cyclopædia or a dictionary proves when tested to be little better than a fortuitous concourse of bibliographical atoms. There is, as Mr. Bailey has well shown, a certain art in making references, but it may be summed up in two leading principles: first, perfect honesty in citing references only after thorough verification; and, secondly, a genuine desire to help other workers in the same line by indicating all sources of information in the plainest and frankest manner.

THE ILLNESS OF PROFESSOR HUXLEY.

We regret to learn that Professor Huxley is lying seriously ill at his house at Eastbourne. His illness, we are informed, began about eight weeks ago with an attack of influenza of the respiratory type, attended with troublesome bronchial cough. About a month ago, when he was thought to be convalescing, he was suddenly seized with serious symptoms of cardiac failure; he rallied well from this attack, and appeared to be progressing satisfactorily, when troublesome gastric symptoms set in, which again threw him back. These yielded to careful treatment, but only to be succeeded by symptoms pointing to the development of a suppurating cavity in the lungs, probably bronchiectatic, attended by a continuous sub-febrile temperature, with occasional exacerbations. Notwithstanding this succession of complications the Professor's strength, we understand, is fairly well maintained, and he has borne this trying and protracted illness with remarkable gentleness, cheerfulness, and patience. During the last three or four weeks he has been seen several times by Dr. Burney Yeo, in consultation with Mr. Farnell, of Eastbourne, and the Professor's son, Mr. Henry Huxley.

SUFFERERS WHO LONG TO DIE.

The old subject of euthanasia has been raised again in the pages of a contemporary, wherein it discussed at some length, and with quotations alleged to be from the conversation of "eminent" physicians who are said to have spoken in favour of poisoning any unfortunate patient who may desire release from his sufferings. One medical man, anonymous we need not say, speaks (according to the interviewer) quite complacently of his share in a little murder of this kind, though he begs the reporter not to say too much about it; and another relates a conspiracy of the sort with a wealthy and harassed parent, and admits that he was not indisposed to assist in the deed, but held his hand in fear the parent might peach when his gratitude or his temper wore out. Well do we remember an evening at a private medical society when a medical friend produced a full-time fœtus, sufficiently hideous, no doubt, which he had—well, not attempted to bring to life. When the monster had the temerity to show signs of respiration, our friend was so aghast that he dropped it into the washhand basin. The naive innocence of his story disarmed his auditors. We do not intend seriously to discuss this old problem over again, which would lead us far, far into ethics, far into religion, but we may remind our readers of the old saying that "Hard cases make bad law," and the number of such cases is exceedingly few. People may debate the matter in

the abstract, but physicians in the largest practice will find it difficult to adduce an instance in which the precise psychological moment presented itself to a sane patient and sane friends. Of the insane we are not speaking. To suggest that physicians, in the secrecy of the bedchamber, are to hold themselves ready to practise Thuggee on their patients, either on the patient's own suggestion or to please distraught or designing bystanders, would be absurd if it were not so horrible. One thorough-going euthanasiast we have met who had some sense of the decent and fitting. His proposition was that after a due inquiry before a justice, the victim should be executed by the bishop of the diocese. Episcopal journals, please copy.

A PUBLIC SCANDAL.

Such was the epithet justly applied last week by a London stipendiary magistrate to the 275th appearance at a police court of the sexagenarian inebriate, Jane Cakebread. The unfortunate woman was humanely sentenced to three months' imprisonment, as for that space of time she will be compulsorily sober. For a long period of years Jane Cakebread has rarely been more than forty-eight hours out of a police or prison cell. It is a hopeful sign that magistrates and the general press openly confess that, in such deplorable and practically irresponsible cases, imprisonment does no good except for the moment. As in the similar case of another well-known police-court narcomaniac, Tottie Fay, who is now in Broadmoor as a criminal lunatic, the only existing permanent refuge for inebriates is an asylum for the insane; but the latter diseased and involuntary offender had to undergo a long tale of commitments to prison before she qualified, by homicidal insanity, for an asylum for insane criminals. It is expected that the forthcoming report of the Scottish Departmental Committee on Vagrants and Habitual Drunkards will propose some tangible and thoroughgoing process for dealing effectually with confirmed inebriates; and it is also anticipated that the Home Secretary's long-promised Bill will institute a new curative departure with police-court inebriate "repeaters." There should be no opposition by liquor traffickers to the curative detention of habitual drunkards, who bring discredit on the trade; and all other sections of the community are generally now with the medical profession on this matter. The prospect of early legislation is, therefore, fair.

A WARNING TO STAMP COLLECTORS.

At the present day a man of any position in the medical world can scarcely be considered to have fully justified his existence till he has discovered a new disease, or, at least, some previously unsuspected source of danger to health. Dr. Unna, of Hamburg, may therefore be looked upon as doubly fortunate, for besides enriching nosology with more than one new disease, he has now made a considerable section of the human race still further his debtors by showing them that their favourite "hobby" has the added spice of danger required to make it completely delightful. Stamp collecting might at first sight appear to be a perfectly harmless mania, but here too, as in every other human pleasure or pursuit, it turns out that *latet anguis in herba*. There is a disgusting disease of the hair known as *piedra* (stone), and hitherto considered to be peculiar to Columbia in South America, where it is comparatively common among the fair sex. Men also suffer, though to a less extent, and chiefly in their beards. Black gritty particles form on the hair shafts; they are so hard that they rattle like pebbles (hence the name) when the comb is used. An unpleasant feature of the affection is a peculiar acid smell. The concretions have been found to consist of the closely-packed spores of a special fungus. The disease is supposed to be connected with a mucilaginous substance which is greatly in favour with the native beauties of Columbia for anointing their dark tresses. Dr. Unna has satisfied himself that this interesting complaint can be conveyed to Europe by a somewhat unexpected channel. He has recently had under his care a professional brother whose beard was unquestionably affected with *piedra*. The patient had never been near Columbia, and the question was how could he have got the disease? It turned out, however, that he often received letters from Columbia, and he was in the habit of detaching the stamps by soaking them in water. Dr. Unna conjectures that he may have inoculated himself with the fungus which causes the disease while fiddling with his beard with fingers still wet with the water in which he had soaked the stamps. The theory appears to involve the hypothesis that the "mucilaginous substance" which is suspected of breeding the disease is used in Columbia for gumming stamps; but, at any rate, the case should be a warning to stamp collectors as suggesting the possibility of the importation of the germs of various inoculable diseases from their native haunts.

THE SICK POOR IN PROVINCIAL WORKHOUSES: BRAINTREE.

Braintree workhouse has a trained nurse for the sick, infirm, and imbecile patients, and our Commissioner notes the satisfactory evidence of her presence throughout the sick department. But the conditions under which she has to work are very difficult. There is a "hospital" containing nearly thirty beds in five or six small wards; there are more sick and infirm in two different parts of the main buildings, and imbeciles in the "cottages" originally built for married couples; no hot water is laid on, and there is a general lack of nursing conveniences. The master, during his twenty five years' service under the Board, has seen the gradual decrease of the numbers of able bodied and children in the house, and the continually-growing numbers of the sick, which facts hold good throughout the country, but Braintree is not one of the few unions which have adapted their buildings and their administration to the changed conditions. It seems that the old Board had determined to leave the necessary alterations to their successors—a pusillanimous decision, inasmuch as it is ten years since the necessity for building was recognised; but we hope the new Board will prove worthy of the trust reposed in them, and, when the plans for the new infirmary come up for consideration, will consult the medical officer and other experts before sanctioning any scheme. From the report of our Commissioner we should think that the patching of the old buildings was much to be deprecated; a new, self-contained hospital, with quarters for a staff of nurses, will prove the truest economy in the long run.

THE METROPOLITAN HOSPITAL SATURDAY FUND.

The Metropolitan Hospital Saturday Fund, which last year attained its majority, is an organisation watched with interest by all those who desire to see the working classes brought into closer contact with the administration of our medical charities, and educated in habits of self-help and thrift. Those who would keep themselves acquainted with the progress of the movement cannot do better than peruse the annual address of the Chairman. Mr. R. B. D. Acland is indeed an ideal spokesman for such a movement—alert, energetic, in full sympathy with the struggles and difficulties of the artisan class, and withal not afraid to speak out where plain speech is requisite. In his address recently published by order of the Board, he points out that the past year has been one of quiet uneventful work, and as he hopes "of steady development in the right direction." A new departure has been made in the formation of ambulance classes, and the issue of boxes containing the requisites for first aid to the wounded. Mr. Acland, in contrasting the basis of distribution employed by the Saturday and Sunday Funds, expresses his decided preference for a system which is based upon the number of patients rather than upon the accounts of the proprietary and charitable revenues of the hospitals. "I think," he

says, "that the work done is a very good basis on which to work, for a system which looks rather to the secured revenue than to the claims which are made upon that revenue must result in making an inadequate award to a hospital which is in want of funds to carry on a large amount of work which has come down to it from the days when it was better off." Reference is made to the suggestion that London should be divided into districts, and that the workshops in those districts should be brought into direct communication with the neighbouring hospitals. To this Mr. Acland objects that whilst the workshops are, generally speaking, spread all over London and its suburbs, all the hospitals with a very few exceptions lie within an area of about two miles square. Moreover, under this scheme, "What," he asks, "is to become of the special hospitals? Are they to have districts assigned to them, or are they to be left out in the cold? And who is to define the areas to be allotted to each hospital, or to eliminate competition on the part of the hospitals for good collecting areas?" The Chairman therefore regards such a plan "as quite impracticable in a place the size of London." Of even greater general interest than the above criticism is the conclusion at which Mr. Acland has arrived, "after prolonged thought," that the system of street collections for charitable purposes is one which is doomed, and that it would be "a wise and statesmanlike thing" for the Hospital Saturday Fund to abandon this particular form of solicitation, "which is becoming discredited in the eyes of nearly all who have the interests of our great metropolitan charities at heart." Furthermore, if the Hospital Saturday Fund makes up its mind to abandon its street collection, Mr. Acland urges that no stone must be left unturned to purge the streets of London from the nuisance which such collections cause. These are words of no uncertain sound, and they will do much to confirm the minds of many in their opposition to this particular form of begging. Considerations of space forbid us further to review this very thoughtful address, the whole of which deserves careful study at the hands of those interested in the social problems of the day.

PATHOLOGICAL DEPARTMENT, UNIVERSITY COLLEGE, LIVERPOOL.

OWING to the liberality of Mr. George Holt, the founder of the chair, the department of pathology and bacteriology at University College, Liverpool, has been provided with temporary accommodation in Ashton Hall, a house adjoining the College, which has been purchased and most efficiently equipped for the purpose. The apparatus and fittings for teaching and private research are very complete. The new institution is now ready for occupation, and will be finally opened at the beginning of the summer session. It consists of three floors, comprising separate laboratories for the study of morbid anatomy and histology, bacteriology, experimental and chemical pathology and research. In addition there are photographic rooms, balance room, library, students' rooms, workshop, stable accommodation, and lodge for attendants.

THE PLAGUE AT MACAO.

A CENTRAL News telegram from Hong Kong, dated April 19th, states that great uneasiness prevails there at the progress of the plague at Macao. The disease has been raging in the Portuguese settlement for nearly a fortnight, and many deaths have resulted from it. Nevertheless communication from Hong Kong and Macao has been quite unrestricted. When on April 10th the outbreak was officially admitted by the Portuguese authorities, a loud demand arose in Hong Kong for the enforcement of rigid quarantine against the infected settlement, but the Governor refused to take any action in that direction, and that refusal has been maintained by his Excellency in the face of the practically unanimous entreaty of the people of the colony of Hong Kong. As a protest against what they term the Governor's ill-advised action, all unofficial members of the Sanitary Board have resigned. They declare that their position as members of the Board is untenable, where nothing is done to protect the colony from a danger which they regard as real and imminent. Their action is fully endorsed by public opinion. The following telegram has been received at the Colonial Office from the Governor of Hong Kong dated April 23rd, "Bubonic plague believed epidemic at Macao and Hoihow. Immigration stopped."

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

WE are glad to be able to announce that the Prince of Wales has promised to lay the foundation stone of the new buildings at Epsom College some time in June. The exact date has not yet been fixed. As will be seen from the preliminary list of stewards published in our advertising columns, the success of the festival at Queen's Hall, Langham Place, on May 15th, under the presidency of Mr. Arthur J. Balfour, M.P., appears to be assured. About 300 gentlemen have already sent in their names, and among them is to be found that of the Prime Minister who, though he will be prevented by the state of his health from attending the festival, has become a steward of the festival, to show his approval of the objects and management of Epsom College, with which as a very near neighbour he is well acquainted.

THE ALDERSHOT SEWAGE FARM.

WE seem to be as far off as ever from finality in the matter of the sewage farm. The *Aldershot News*, of April 20th, says that an unexpected difficulty has arisen in the negotiations between the Council and the Government on the joint drainage scheme. On the ground that they object to the treatment of the Camp sewage on its present site, the War Office authorities refuse to consider the Council's proposals. The present position, the *Aldershot News* states, threatens another deadlock. The objection of the War Office is considered unreasonable. It is further noted that the Council has offered to give an undertaking to carry on the farm in a manner which shall be entirely free from nuisance, and of its ability to fulfil the undertaking there seems to be no no doubt. The Council's own sewage farm offers a model of drainage which is allowed to be one of the best in the country. Representatives of the Government have seen this farm, adds the paper from which we quote, and so far as we know they have not demurred to the declaration that it is conducted not only without complaint from persons living in the neighbourhood, but also to the entire satisfaction of the sanitary authorities. The sewage farm close to the Marlborough lines having been pronounced dangerous to health, it is a matter of public importance that this pestilential spot be dealt with at once. The oncoming summer must largely increase the perils that attend its continuance. On February 22nd the Secretary of State for War, in reply to a query from Mr. Hanbury, stated in Parliament that "arrangements are under consideration which would enable the sewage farm to be closed."

THE ISLINGTON INFIRMARY.

A CONSIDERABLE difference of opinion has arisen between the Local Government Board and the Islington guardians; the following is a brief statement of the case: Numerous representations having been made by the Local Government Board inspectors as to the inadequacy of the present accommodation for the Islington sick poor, a former Board of Guardians obtained official sanction to erect an infirmary in Bowes Park, some eight miles away from the parish, and the site was purchased and paid for. The new Board of Guardians are, however, unanimously of opinion that the distance of the site from the parish is a serious objection, and desire to enlarge the present infirmary, arguing that it is cruel to send the patients eight miles on rough macadam-

ised roads, and that the proposed addition would be much cheaper. The present infirmary has accommodation for 493 beds, but over 600 patients are there at the present time; there are besides a considerable number of sick in the workhouse wards. It appears there have been as many as 800 patients in both workhouse and infirmary, with but two medical men to attend to them. The nursing is quite inadequate; the inspector found one nurse in charge of 88 patients, and another nurse in charge of 89 patients. The other arrangements are on a par. A deputation of the guardians had recently an interview with Sir Walter Foster to represent their views, but Sir Walter Foster told them, in unmistakable language, that no plan to enlarge the present infirmary would have the consent of the Local Government Board; he was convinced that it was false sentiment to lay stress upon the distance from the parish, and that it was more cruel not to give the poor ample accommodation than to send them out to Bowes Park, pointing out that with the improved methods of transit eight miles at the present time was really a very short distance. He animadverted strongly on the policy of patching up, and pointed out that such a policy in the long run would put the ratepayers to a large expense. When one of the members of the deputation stated that they represented the opinion of 320,000 people, and "that surely the voices of 320,000 people should not be disregarded." Sir Walter Foster replied that the voice of 320,000 people was to be respected, but that it was nevertheless the voice of the people not cognisant of the facts of the case, and not specially qualified to judge of these matters in a technical way, and it depended how the matter was represented to the people. We believe that Sir Walter Foster's attitude will receive the cordial support of public opinion. With properly devised ambulances the grievously sick may be moved long distances without injury; and as for the patients' friends, the transit from Islington to Bowes Park is simple, easy, and rapid. The opinion of a body allowing such grave defects in administrative and nursing arrangements as those detailed is not entitled to weigh against the skilled judgment of the inspectors of the Local Government Board, and it may be taken as certain that the real underlying motive for the opposition is a mistaken idea of economy—an economy only to be attained at the cost of efficiency.

WATERBORNE DISEASE.

The eighth and closing meeting of the tenth session of the Microscopical Society of Glasgow was held on April 16th; Mr. Robert Thomson, Vice-President, in the chair. A paper was read by Dr. Thomas Macalpine (Paisley) On Investigations into the Connection of the Paisley Water Supply with the Epidemic of Enteric Fever in the Autumn of 1893. A history of the epidemic was read from the reports of the medical officer. Clear evidence pointed to the water supply as the source of contagion; the water was chemically analysed by Dr. Clarke, who reported that it contained a little organic matter, but was otherwise pure and fit for domestic use. As has happened before, such an analysis was found a poor thing to rely on as giving any indication of the actual nature of the organic matter, much less the delicate quantities which show that a sample of water is free from infective organisms. No analysis of water can be considered complete without being submitted to microscopical examination. For the detection of bacteria or germs believed to cause disease in the animal body recourse must be had to the microscope. Dr. Macalpine proceeded to give an account of his investigations as to the pollution of the water. He made a careful survey of the Rosebank reservoir, and found it contaminated at several places from the sewage of farms. The water contained much albuminoidal matter, and from a sample taken at a boggy bank he made the unpleasing discovery of typhoid bacilli in enormous numbers. Steps have been taken to improve the condition of this reservoir. The lecturer referred to the purification of water by filtration and to the great advantage in this respect of a distant source of supply, which, if due precautions are taken to prevent pollution by the way, allows perfect oxidation to take place, which is the chief factor in rendering innocuous any deleterious organic matter.

CURIOSITIES OF LEGISLATION.

In Italy and in Germany the Legislatures pass skeleton Acts involving essential principles, all details of procedure, schedules, etc., being relegated to Royal Decrees, which can be kept up to date without the cost of time and money involved in passing amending Acts. We have indeed our Orders in Council, but it is only in the case of the Education Act and the New Codes that we have availed ourselves of the power to anything like the same extent. Yet in a country like ours new industries and processes are constantly arising which the existing legislation fails to meet. Cycle factories, for example, could scarcely have been brought under offensive and noxious trades, or under the Alkalies Act, but the discharge at frequent intervals during the day of large volumes of sulphuretted hydrogen in the production of water gas carried on at three of the largest cycle works in Coventry is a very palpable nuisance which, however, the chief inspector under the Alkalies Acts declares himself unable to control. Again since nothing less than a fresh Act of Parliament can add a single item to an enumeration of things prohibited or allowed, and we have of late years become familiar with that feeblest of compromises—permissive or adoptive legislation—we are brought face to face with such absurdities as that of a provision dealer, who, having been convicted under Section 28 of the Public Health Amendment Act of selling eggs unfit for human food in his own town, where the Act has been adopted, sells them with impunity in other towns in the same county, eggs not being among the articles of food enumerated in Section 116 of the Public Health Act. Once more, even in those districts where the latest and most advanced Acts, as the Public Health (London) and Infectious Diseases Prevention Acts are in force, a dairyman, whose milk has been proved to have been the means of spreading dangerous infectious disease, and who has been prohibited from selling it in the district, may send it to any other district far or near.

THE CLIMATE OF CANADA.

In the *Montreal Medical Journal* for March Professor W. H. Hingston, President of the Montreal Branch of the British Medical Association, discusses the climate of Canada and its effect on the inhabitants of the Dominion. The two chief features in the physical geography of Canada are the profusion of lakes which "moderate the temperature both of summer and winter" and the comparatively low elevation of the land above the sea level. The atmosphere almost always exhibits a sensible electrical state, and, according to Dr. Hingston, this has much to do with the well-known energy of Canadians. Even the warmest weather in Canada is grateful to the senses, while, on the other hand, the cold is exhilarating and does not affect the human constitution as in countries rendered cold by their great altitude. The death-rate is low, and Canada has no disease that she can call her own. Consumption exists even in that favoured clime, but the Canadian climate, from its dryness and equability, is favourable "at certain seasons and under certain circumstances to an arrest of the disease." The conditions of the lung in cases of phthisis which are especially benefited by the Canadian climate are those of imperfect expansion and consolidation. Under the influence of the climate the European loses something of his ruddy colour, and his skin becomes dryer and harsher. The effects of the dryness of the air are seen in the dryness of the hair and nails; the hair becomes darker and straighter, partaking more of the aboriginal type; the teeth are said to decay at an earlier age, but this Professor Hingston appears somewhat doubtful about; the

fat which gives roundness to the general outline is less abundant, and the muscles of the face or their tendinous prolongations are more prominent. In respect of mental characteristics, while the Canadians do not display the devouring activity of the inhabitants of the States, they are, according to Dr. Hingston, more active than the effete peoples of Europe, occupying in this respect an intermediate position between the Old World and the New. During the two centuries of its existence Canada has given no sign of physical decay. On the contrary, the descendants of the British and German colonists have more than held their own in point of physique, while the children of New France, who have been longest in possession of the soil, are greatly superior in strength and powers of endurance to those of their mother country. Dr. Hingston seems to look upon this solely as the effect of climate. It should not be forgotten, however, that Napoleon's wars almost drained France of her adult manhood, and left only striplings and men of broken constitution to carry on the race, which has never quite recovered itself. It is hardly fair, therefore, to compare the French as they are now with their Canadian cousins, and to attribute all the difference to climate.

THE RED CROSS SOCIETY IN THE EAST.

THE *Japan Mail* gives some account of the work of the Red Cross Society during the present war in the East. The Society's staff is now distributed as follows:

Locality.	Physicians.	Pharmaceutists.	Clerks.	Nurses.
Hiroshima	9	2	—	—
Pingyang	5	2	2	20
Wiju	5	2	1	49
Talienwan	5	2	2	40

The figures for Wiju in the above table include the party now proceeding thither under Mr. Yoshiyasu. It must also be noted that, with the exception of those at Hiroshima, the nurses are all men. The Society has long since completed its preparations, and is now in a position to send out a large staff of surgeons and nurses, but at present the regular medical staff of the Army being sufficient for the purpose, there is little necessity for the co-operation of the Red Cross. Nevertheless, what the medical staff of the Society has thus far done for the poor, wounded, and sick of the Japanese and Chinese armies reflects great credit upon its organisation and resources.

FEVER CASES IN GENERAL HOSPITALS.

AT the annual meeting of the Leicester Infirmary a question was raised which is of considerable interest to the voluntary hospitals all over the country. It appears from the report in the *Leicester Daily Post* that during the past year 121 cases of typhoid fever had been received at the infirmary out of a total of 228 cases notified in the town during the same period, and some of the governors not unnaturally complained that the sanitary authorities and the guardians, instead of providing proper accommodation for their fever cases, took advantage of an independent hospital without coming forward to pay the cost of it. Of the 14 cases in the hospital at the time of the meeting, 6 had been sent in by the Poor-law authorities. With the growing tendency to shift on to the sanitary authorities all responsibility in regard to notifiable diseases, it becomes a serious question where they are to be treated, and it is obviously unjust that in those places in which voluntary hospitals exist they should be expected to receive these patients and accept a responsibility which really belongs to the entire community. Practically it is only in cases of enteric fever that this question arises, the ordinary infectious diseases, such as scarlet fever and smallpox, being refused by all general hospitals. Typhoid cases, however, are commonly accepted by general hospitals, and are probably more fitly treated there than in places devoted to the treatment of other infectious fevers. It is no secret that for many months past the Metropolitan Asylums Board has sent a large proportion of its cases of enteric fever to the general hospitals of London. But the Board recognises its responsibility, and pays for the cases that it sends; and so should the guardians and other sanitary authorities.

CURIOSITIES OF THE DISSECTING ROOM.

MR. J. M. BARRIE, in one of his works, states that bargains by which persons sell their bodies during their lifetime to anatomists for dissection after death are not uncommon. We do not know whether this statement is founded on facts within the knowledge of the distinguished author of *Auld Licht Idylls*, or whether it is a flight of his agile fancy. One sometimes does hear (mostly in works of fiction) such a device referred to as a means of "raising the wind" when every other resource has failed, but we have never heard of an instance occurring in real life, nor do we see how it would be worth the while of an anatomist to make an investment of so speculative a nature, unless it were to secure possession of some rare freak of Nature. Even as regards such scientific prizes, not every anatomist is so keen in pursuit as John Hunter was in the case of the Irish giant. There used to be a legend among the students of one of the leading schools of London some twenty years ago that the dissecting-room porter had brought the dead body of his wife in a sack to the lecturer on anatomy, and dedicated it to the furtherance of science—for a consideration. That, however, as Mr. Rudyard Kipling would say, "is another story." A tale has recently come to hand from America of a "noted Resurrectionist" of Indianapolis having left his body by will to the Indiana Medical College. He directs that after his body has been dissected by the students, and lectured on by the professors, the skeleton is to be placed in an upright position in the dissecting room of the College, with the right hand on the handle of a new spade, and the left foot resting on the blade; the latter is to be highly polished, and the words "J. G. the Resurrectionist" are to be painted on it in large black letters. This, according to the testator's directions, is to be the only monument erected to his memory, and the authorities of the College have, it is stated, promised to carry out the testator's wishes to the letter. Many persons have left their bodies for dissection; Jeremy Bentham was, in accordance with the terms of his own last will and testament, dissected, and his skeleton was dressed in the habit of the philosopher as he had lived, and is now, we believe, in a cupboard in University College Museum, where it may be seen by the curious. A celebrated professor of anatomy in one of the Scandinavian universities directed that his remains should first be disposed of for the instruction of students in the dissecting room, and that the bony framework should serve permanently for the same purpose, the skeleton being hung up in the anatomical lecture room and used for demonstration. This plan had at least the merit of being practically useful, and there is something that appeals to the imagination in the thought of the professor, who, being dead, yet teaches the elements of the subject to which he gave his life.

WILLS AND BEQUESTS.—The late Miss Elizabeth Frances Heaven, of Manchester, who died on March 19th, has by her will bequeathed £1,000 each to the Children's Hospital, Pendlebury; the Royal Infirmary, Manchester; the Southern Hospital, Clifford Street, Manchester; the Ardwick and Ancoats Hospital and Dispensary, the Hospital for Incurables, the Salford Royal Hospital, and the Convalescent Home, West Hill, Southport; and £500 each to the Eye Hospital, Oxford Road, Manchester; and the Sick Poor and Private Nursing Institution at Manchester and Salford.

THE REPORT OF THE ROYAL COMMISSION ON TUBERCULOSIS.

Constitution of the Commission.

The report of the Royal Commission, appointed in July 1890, to inquire into the Effect of Food derived from Tuberculous Animals on Human Health, has been presented to Parliament after a period which has seemed to some people, unacquainted with the character of experimental inquiries of this nature, an unreasonable delay. We are enabled to give a summary of the report, which it is hoped may be published and placed on sale by the Government printers in the course of a few days. The appendix containing the evidence and the reports of the experts, to whom special experimental inquiries were entrusted, will probably be ready also in the course of the present week. It will form a bulky volume, and will be found to contain much valuable evidence on many practical questions in connection with tuberculosis, its recognition and causation.

The Commission as originally appointed consisted of Lord Basing (Chairman), Sir George Buchanan, Professor G. T. Brown, C.B., Dr. Frank Payne, and Professor Burdon Sanderson, with Mr. Leopold Hudson, F.R.C.S., as Secretary. After the death of Lord Basing, a new Commission was issued with Sir George Buchanan as Chairman, but the other members of the Commission were the same. The report is signed by all of them, but Professor Brown adds a "further report" dealing with certain administrative questions which the Commission as a whole considered to be outside their instructions.

Mode of Inquiry.

The Commissions were directed to "inquire and report what is the effect, if any, of food derived from tuberculous animals on human health; and, if prejudicial, what are the circumstances and conditions with regard to the tuberculosis in the animal which produce that effect upon man." The Commissioners in the first place gathered information as to knowledge already in existence, and to this end considered memoranda (1) by the Secretary, Mr. Leopold Hudson, on the published literature bearing on the subject, stating the nature of the investigations which had up to that time been carried out, and the results arrived at; (2) by the then Principal Medical Officer to the Local Government Board (Sir George Buchanan) as to the state of the law in respect of animals, meat, and milk unfit for the food of man; and (3) by Professor Brown on (*a*) the considerations which led to the appointment of the Departmental Committee on tuberculosis and pleuro-pneumonia; on (*b*) that part of the report of this Committee which related to tuberculosis, and advocated the slaughter of obviously diseased animals and payment of compensation; and (*c*) the provisions contained in an order drafted in accordance with this recommendation, but not passed. The Commissioners then, in the last quarter of 1890, took evidence, the witnesses being persons conversant with the pathology of tuberculosis, and with the diseases of children, or representatives of the butchers or cattle dealers who stated the grievances of these traders. A circular letter of inquiry was also addressed to medical officers of health and others with the view of ascertaining further what information was possessed by the medical profession as to manifestations of tuberculous disease owning an origin in food among the human community. Not much information was obtained by this last method, and the opinion of the witnesses examined was not sufficiently uniform, though the information supplied by them was of much value, especially in indicating the directions in which further knowledge was wanted.

Experimental Inquiries.

The Commissioners resolved, therefore, to arrange that certain experimental inquiries should be made under its direction into points as to which there appeared to be no published evidence available. These inquiries were three in number:

1. By Professor John McFadyean, of the Royal Veterinary College, London, into the means of recognising tuberculosis in animals during life.
2. By Dr. Sidney Martin into the influence upon the lower animals of food of tuberculous origin.
3. By Dr. Sims Woodhead as to the effects of cooking processes upon food from tuberculous animals.

The Identity of Tuberculosis.

It will be convenient to give here a statement made by the Commissioners later in the report, since it clears away a certain element of confusion. Dealing with the appearances produced by tuberculosis in man and animal they state "explicitly that we regard the disease as being the same disease in man and in the food animals, no matter though there are differences in the one and the other in their manifestations of the disease; and that we consider the bacilli of tubercle to form an integral part of the disease in each, and, whatever be its origin, to be transmissible from man to animals, and from animals to animals. Of such transmissions there exists a quantity of evidence, altogether conclusive, derived from experiment. It is with the transmission of the disease to man by the ingestion of animal food that the present Commission is concerned.

"The effects upon human health here spoken of as 'tuberculous disease' are known to be different in some respects from the manifestations of tubercle in lower animals; and these differ again in one and another lower animal. There are also abundant differences in the manifestations of tubercle in the human body; differences no less than those exhibited by tuberculous phthisis, tabes mesenterica, tuberculous meningitis, and scrofula. We recognise in these different manifestations a varying amount of tuberculous matter or activity of tubercle bacilli; the influence of the lymphatic system, the invasion of different organs, and so forth, together with a variety in the avenue by which tuberculous matter has been received into the human body, whether by the alimentary or by the respiratory system, or by other ways.

"Again, as we find no distinction in nature between the various manifestations of tubercle in the human subject, so also we find no distinction in nature between the tuberculous diseases of man that have had their origin in tuberculous food and the tuberculous diseases of man that have been otherwise acquired. We know, indeed, of some of the tuberculous diseases above mentioned, especially those of the intestinal tract, being almost peculiar to children; and probably the proportion of tuberculous persons contracting their disease through food is larger among children than among their seniors. We were not surprised to find that there is, at present, little information of this sort to be had; it is hardly to be expected until search has been made for a relation between tuberculous disease in man and tuberculous food taken by man. But in the future we look to health officers and hospital physicians for observations of importance on these points; though we are fully sensible of the difficulties that must attend any attempt to learn the origin of complaints of which the course is so slow as that of most tuberculous diseases."

Effects of Feeding on Meat and Milk from Tuberculous Animals.

Experiments in this direction were made by Dr. Sidney Martin and also by Dr. Sims Woodhead:

1. "Meat" (using the term in the sense in which it is commonly used by butchers) from tuberculous animals, but free from obvious masses of tubercle, and milk from tuberculous cows, was fed uncooked to pigs, guinea-pigs, and rabbits, along with their usual food. Of the pigs, 5 out of 14 (36 per cent.); of the guinea-pigs, 24 out of 145 (16 per cent); of the rabbits, 2 out of 13 (15 per cent) became tuberculous. A number of control animals were kept under the same conditions (the pigs were from the same litter) but were not given tuberculous material in the food. Of these control animals (5 pigs, 203 guinea-pigs, and 8 rabbits) none became tuberculous.

2. Experiments were made also by feeding animals with tuberculous matter, that is to say, not merely meat derived from tuberculous animals, but obvious tuberculous matter

recognised as such. In Dr. Martin's experiments the material was taken in some cases from a bovine animal, but in other cases it was derived from a human source, and each animal received only a single dose. One pig, 8 guinea-pigs, and 10 calves received each such a dose; the pig, 6 guinea-pigs, and 8 calves became tuberculous. In some experiments by Dr. Sims Woodhead it was found that tuberculous disease followed feeding on (uncooked) tuberculous matter, in all of the pigs (7), in all the cats (5), and in 50 guinea-pigs out of 76.

The increased incidence of the disease on the animals under the second set of conditions (2) indicate, it is pointed out, the element in the material used for feeding, which is the source of danger.

Circumstances determining Danger to Man from Meat from Tuberculous Animals.

Since, then, a person who takes tuberculous matter into the body as food incurs risk of tuberculous disease, and since it is known that this matter may be found in certain parts of animals affected with the disease, it became desirable to ascertain precisely what parts of an animal affected with tuberculosis, were liable to contain this tuberculous matter. This matter is not present, or present to an equal degree, in all the organs. It "is found principally in the organs of the animals; as a rule, most abundantly in the lungs, lymphatic glands, serous membranes, but often in the liver, spleen, kidneys, intestines, and other structures. These organs are usually removed by the butcher in 'dressing' the carcass, though some of them may, intentionally or not, be left. To a practised eye it is hardly possible that tuberculous matter in these organs can escape detection, and the importance of its presence there will soon be apparent. For in the tissues which go to form the butcher's 'joint' the material of tubercle is not often found, even where the organs exhibit very advanced or generalised tuberculosis; indeed, in muscle and muscle juice, it is very seldom that tubercle bacilli are to be met with; perhaps they are somewhat more often to be discovered in bone, or in some small lymphatic gland embedded in intermuscular fat. Yet there is always a difficulty in making sure of the absence of tuberculous matter from any part of a carcass that shows evidence of tubercle elsewhere."

On this point Dr. Sidney Martin made a series of investigations, by microscopical examination of the "meat," by feeding with the "meat," and by inoculation with the "meat." The meat was derived from 21 cows known to be tuberculous; 8 had "mild tuberculosis," 8 "moderate tuberculosis," and 5 "generalised tuberculosis." Microscopical evidence of tuberculosis was obtained only in 2 cows, both belonging to the group with "moderate tuberculosis." Of the 8 cows with "mild tuberculosis," the meat of 1 gave positive results in one animal from inoculation; none by feeding. Of the 8 cows with "moderate tuberculosis," the meat of 3 gave positive results in 4 animals from inoculation, none by feeding. Of 5 cows with "generalised tuberculosis," 4 gave positive results, either by inoculation or by feeding, 1 only out of the 4 appearing to answer to both tests.

These experiments bring us to one of the most important practical points in the report. It should be stated that the meat of the 2 cows in which the existence of tubercle was demonstrated microscopically did not produce tuberculosis in the animals to which it was fed, though inoculation of the meat from 1 animal did. This failure to produce tuberculosis by feeding with the flesh of the 2 animals and by inoculation with the flesh of 1 of them might be attributed to the small amount of tubercle found in the meat of these 2 cows—the only 2, be it remembered, in which it was found at all—but this explanation would not serve to account for the fact that in the whole series the positive results were in direct relation to the severity of the disease. Dr. Martin, according to the report, argued that "he was dealing with a quantity of tuberculous matter supplied to him—not, he reasoned, from the muscular tissues that he had proposed to investigate, but somehow from the general carcass of the cow, and abundant in the matters he was inoculating, just as it happened to be abundant in the general carcass; and insufficient in amount until he came to the maximum amount in the general carcass, to react to the test of feeding, though—with smaller amounts in the carcass—he had sometimes got an answer to the more delicate test of inoculation."

The experiments dealt with meat as it would be sold by the butcher—meat that had been "trimmed" by removal of the stuff which, mainly for the sake of tidiness, the butcher cuts away, and which includes *inter alia* bits of gland and serous membrane. The probability that the meat might become contaminated from the actual tuberculous lesions present in other parts of the carcass, and conveyed from thence to the proper meat substance by the hands, knives, and cloths of the butcher during the processes of flaying and dressing, had to be considered. It is pointed out that this is a danger which would increase along with increased abundance of the material of tubercle in the carcass, and that much that was inexplicable in the results of feeding and inoculation would become explicable on this hypothesis.

"The greater the amount of tubercle there is in the cow the more likely is the sticky caseous matter to get smeared over the carcass ..... If we imagine that the meat gets contaminated accidentally in this way, it is easy to explain the irregularity of the results." Dr. Martin argues: "(1) How, for example, in cases of mild tuberculosis of the cow the danger of contamination is not great, and therefore the meat does not get smeared to any extent during removal, so that no positive results were obtained by feeding, and only one positive result by inoculation, and this a case of local tuberculosis, showing a small dose. (2) How in cases of moderate tuberculosis, where chiefly the lungs and lymphatic glands in the thorax are affected, and so may be removed entire without incision of a tuberculous lesion, the meat, as in cases of mild tuberculosis, would not become much contaminated, and thus did not produce tuberculosis by feeding, and how in these cases the knife is more likely accidentally to incise a tuberculous lesion than in cases of mild tuberculosis, and that therefore the number of cases of positive inoculation is greater ..... With generalised tuberculosis of the cow this danger would increase, since so many parts of the body are affected with the disease, so that in such cases we meet for the first time with positive results from feeding but not uniformly positive..... Taking all the results together—the method of removal of the meat, the results of inoculation and of feeding—one is driven to the conclusion that when meat is infective, it commonly acquires its properties by being accidentally contaminated with tuberculous material during its removal from the carcass. This conclusion, it is evident, is one of great practical importance, bearing directly on the question of the condemnation of the meat of tuberculous cattle for human consumption. And it is evident also that the infective properties of meat might vary with different series of experiments. The result depends on the care taken in guarding against contamination more than on anything else. The conclusion arrived at in part explains the extremely divergent results obtained by previous observers."

Conclusions as to Danger of the use of Meat from Tuberculous Cattle.

Upon this the Commissioners observe that the extrinsic danger by contamination so affected to harmless meat "might just as well be encountered by meat from another animal (whether pig, sheep, or calf, ox, or cow) that was perfectly free from tubercle, but only had happened to be next the animal brought to the same slaughterer." The Commissioners are prepared to believe that "if sufficient discrimination and care were exercised in taking meat from tuberculous cattle, a great deal of meat from them might without danger be consumed by the community. The practice of public abattoirs on the Continent appears to be founded on the same belief."

Dr. Martin makes certain suggestions with regard to this matter, which the Commissioners say are "based on well-ascertained pathological facts." To reduce to a minimum the danger to human consumers of meat, he advocates that "slaughtering and dressing should be done under skilled supervision, with the object of securing the removal and destruction of every part of a carcass that contained any tubercle whatever, and also the destruction of the whole carcass in cases where the animal was found to have advanced or generalised tuberculosis." He "sees no objection to the

sale of meat substance from carcasses which have shown only localised tuberculosis, and from which every particle of tubercle has been skilfully removed; provided always, that in every subsequent process of preparing the meat for sale, due care be taken to guard the saleable portions from contamination by tuberculous matter." With regard to the 21 cows with the meat from which he experimented, he expresses the opinion that if the precautions indicated had been in force the meat of 9 would have been condemned, while the meat of the other 12 might have been sold. The Commissioners point out that "little evidence about the more serious degrees of tuberculosis in the animal would be discoverable in carcasses from which the organs had been removed; and that this is habitually the case with so-called 'dead meat,' whether English or foreign. Still there are indications in such a carcass, to the eye of an experienced inspector, of the more dangerous forms of tuberculosis having existed in the animal." They have "no doubt that the supervision which he [Dr. Martin] recommends would tend in an important measure to the security of the public. But we are well aware that the difficulties of such supervision are so great that many years must elapse before any measure of an effectual kind can be carried into practice."

Circumstances Determining Danger to Man from the Milk of Tuberculous Cows.

On this important subject the Commissioners arrive at the following conclusion: "According to our experience," they write, "the condition required for ensuring to the milk of tuberculous cows the ability to produce tuberculosis in the consumers of their milk is tuberculous disease of the cow affecting the udder. It should be noted that this affection of the udder is not peculiar to tuberculosis in an advanced stage, but may be found also in mild cases."

Dr. Martin's experiments on this point were briefly as follows:

(*a*) Eight tuberculous cows with healthy udders; no tubercle bacilli found in the milk of any of them; 41 test animals fed and 28 inoculated with the milk remained free from the disease.

(*b*) Two tuberculous cows with udder disease found *post mortem* not to be tuberculous; no tubercle bacilli in the milk; 3 test animals fed and 14 inoculated with the milk remained free from tuberculosis.

(*c*) Five tuberculous cows with udder disease found *post mortem* to be of tuberculous nature; tubercle bacilli found in the milk of 3; 15 test animals fed with the milk and 13 inoculated with the milk of these 3 cows all acquired tuberculous disease. Of the other 2 cows, the milk from 1 produced tuberculosis in 4 out of 10 test animals fed on it, and when inoculated into 6 other animals produced tuberculosis in all. The milk of the fifth cow did not produce tuberculosis in 2 animals to which it was given as food, but did produce tuberculosis in 2 other animals into which it was inoculated.

(*d*) In two cows with udder disease in which the veterinary diagnosis of tuberculosis was made, but which were found *post mortem* not to have tuberculous disease; no tubercle bacilli were found in the milk, and no resulting tuberculosis was observed in 17 animals inoculated with the milk.

Both Dr. Martin and Dr. Woodhead comment on the extremely virulent nature of the milk derived from cows with tuberculous udders. Further, butter, skimmed milk, and buttermilk obtained from the milk of a cow having tuberculous udder (by the usual processes, but with complete precautions against accidental contamination of articles used in the manufacture) all contained tuberculous matter actively injurious to test animals. Dr. Woodhead draws attention to the rapidity with which this udder disease may spread, and with which, in consequence, milk can obtain its harmful quality. "The very absence," he adds, "of any definite sign in the earlier stage is one of the greatest dangers of this condition." Both Dr. Martin and Dr. Woodhead insist that no tuberculous animal of any kind should be allowed to remain in a dairy.

Conclusions as to the Prevention of the Dissemination of Tuberculosis through Milk.

"The withdrawal from dairies of every cow that had any disease whatever of her udder," the Commissioners conclude, "would form some approach to security against the serious danger incurred by man from the use of tuberculous milk, but it would not be an adequate security. The presence in a dairy of a tuberculous cow ..... is a decided source of danger to the public, especially having regard to what we have learnt respecting the rapid development of tuberculosis in the udder and the degree of danger to milk consumers incurred by the invasion of the udder in tuberculous cows."

Recommendations as to Milk.

The recommendation of the Royal Commission as to the prevention of the danger pointed out above is contained in the following paragraph:

"It follows from the observations here recorded that it is of supreme importance to the consumers of milk that the existence of any tuberculous disease of the udder should be ascertained without delay. Now there is no difficulty whatever about recognising the presence of some abnormal condition in a cow's udder, and the presence of such condition—whatever it be—demands that the judgment of a responsible expert should forthwith be obtained about its nature; unless, indeed, the owner prefers to slaughter the cow without delay. If the expert finds tubercle bacilli in the milk, the cow has dangerous tuberculosis of the udder. If he does not find them, he may apply the further test of inoculating some susceptible animals with the milk, and thereby learn the nature of the udder disease. By this test he will very rarely be misled. Obviously the cow must be in seclusion, and every particle of her milk must be treated as highly dangerous during any delay that can be permitted for diagnostic purposes, and until the disease has been proved not to be tuberculosis."

Influence of Cooking (A) upon Tuberculous Meat.

The experiments upon this head were made by Dr. Woodhead. He concluded that ordinary cooking sufficed to destroy the harmful quality of tuberculous matter so far as the required heat penetrated into the substance of the meat. To subject every particle to the boiling temperature for a single instant was sufficient, but experiments made to ascertain the temperature to which joints are actually raised during cooking proved that the boiling point was not reached, and that under certain circumstances there might be a very real danger of tuberculous matter escaping altogether any diminution, or at least any adequate destruction, of its virulence. The experiments were made with rolls of meat, as no joints known to contain tuberculous material were available. Tuberculous matter was either injected into the substance of the meat or smeared on to slices, which were then rolled tightly up. His results are thus reported in his own words:

In the boiling and roasting experiments, as ordinarily carried out in the kitchen, the temperature, however high it may be near the surface, seldom reaches 60° C. in the centre of a joint, except in the case of joints under 6 lbs. in weight. Ordinary cooking is quite sufficient to destroy any smeared material that remains on the outer surface of the meat, *but it cannot be relied upon in the slightest degree to render innocuous the same smeared material when in the centre of a roll.*

The italics are Dr. Woodhead's. In another place he says:

Ordinary cooking, such as boiling, and more especially roasting, though quite sufficient to sterilise the surface and even the substance for a short distance from the surface of a joint, cannot be relied upon to sterilise tuberculous material included in the centre of rolls of meat, especially when these are more than 3 lbs. or 4 lbs. weight. The least reliable method of cooking for this purpose is roasting before the fire, next comes roasting in an oven, and then boiling.

The Commissioners do not doubt the accuracy of these conclusions, and leave them to teach their own lesson, merely pointing out their importance in connection with the use of raw meat-juice as food for delicate infants.

Influence of Cooking (B) upon Tuberculous Milk.

The central idea of Dr. Woodhead's report on the effect of cooking on tuberculous milk is the advocacy of the boiling of all cow's milk which can by any chance contain tuberculous matter. "The most deadly tuberculous material," he writes, "can be rendered absolutely innocuous, so far as any spreading infective disease is concerned, by the action of a temperature at which water boils. We have evidence," he adds, "that a lower temperature than this is sufficient to bring about the same results when allowed to act for a longer time, but for the present it is sufficient to state that boiling, for an instant even, renders the tubercle bacillus absolutely innocuous." Dr. Woodhead states that "sterilisation" of milk in a water bath may be effectual in destroying its infectious qualities if the temperature is brought to 80° to 92° C. (176° to 198° F.), but the Commissioners do not appear to be altogether convinced of the practical value of this method, and prefer to recommend as at once more easy of application and more reliable "the simple expedient of putting every suspected milk over the fire, and taking it off when it boils."

"Scrofulous Neck."

In the course of his experiments on the degrees of heat needed to destroy the tuberculous matter of milk Dr. Woodhead noted the effects upon the virulence of tuberculous material of temperatures insufficient for its actual destruction. By the operation of certain low temperatures he obtained a diminution in the virulence of the tuberculous material in the milk, which then became "so tardy in its operation on test animals as to simulate the slower forms of consumption seen in the human subject, or when used to feed pigs—animals having some specialities of throat structure like that of man—gave rise to chronic enlargements of the throat glands resembling the scrofulous glands so common in children. These observations are of much interest to us, not least because they suggest the possibility of widely prevalent forms of human tuberculosis owning an origin in milk."

Prevalence of Tuberculous Disease among Food Animals.

In discussing this part of their subject the Commissioners quote the statistics of Copenhagen, Berlin, and Edinburgh, so far as they are available, but have not been able to add much new matter. They state, however, that "The actual amount of tuberculous disease among certain classes of food animals is so large as to afford to man frequent occasions for contracting tuberculous disease through his food. As to the proportion of tuberculosis acquired by man through his food or through other means, we can form no definite opinion, but we think it probable that an appreciable part of the tuberculosis that affects man is obtained through his food. The recognition of tuberculous disease during the life of an animal is not wholly unattended with difficulty. Happily, however, it can, in most cases, be detected with certainty in the udders of milch cows. Provided every part that is the seat of tuberculous matter be avoided and destroyed, and provided care be taken to save from contamination by such matter the actual meat substance of a tuberculous animal, a great deal of meat from animals affected by tuberculosis may be eaten without risk to the consumer."

Final Conclusions.

The following are the final conclusions of the Commissioners: "Ordinary processes of cooking applied to meat which has got contaminated on its surface are probably sufficient to destroy the harmful quality. They would not avail to render wholesome any piece of meat that contained tuberculous matter in its deeper parts. In regard to milk we are aware of the preference by English people for drinking cows' milk raw, a practice attended by danger, on account of possible contamination by pathogenic organisms. The boiling of milk even for a moment, would probably be sufficient to remove the very dangerous quality of tuberculous milk."

Diagnosis of Tuberculosis in Cattle.

The report does not speak in very definite terms under this head. Professor McFadyean reported to the Commissioners that his experiments and investigations had brought him to the conclusion that extensive tuberculous disease might exist in animals which appeared after all the tests he could apply to be in perfect health. The injection of tuberculin as a test had frequently led him to erroneous conclusions—wrong indications about the presence or absence of tuberculosis in 24 out of 75 animals. Professor McFadyean, however, in spite of this, feels justified in summing up his report as follows: "I have no hesitation in saying that, taking full account of its imperfections, tuberculin is the most valuable means of diagnosis in tuberculosis that we possess." The Commissioners add that they "understand that, since the time of Professor McFadyean's experiments, the method of using tuberculin as a test has been much improved, and that it is now regarded as affording more trustworthy indications for diagnosis."

Professor Brown's Note.

In a "Further Report" appended to the report signed by all the Commissioners Professor Brown expresses his concurrence, but adds certain observations on the inquiries carried out by the Veterinary Department, and discusses briefly the grievances of farmers and meat salesmen. As to the latter, he observes that their chief grief is the seizure and destruction of the carcasses of animals which immediately before slaughter appeared to be in perfect health and good condition; they advocate strict inspection before slaughter and compensation. Such a system Professor Brown considers open to "very obvious abuses," but adds that "With the present improved means of diagnosis one benefit would doubtless be gained. Tuberculous animals might be removed to slaughter-houses reserved for the purpose, in which the proper means might be provided for destroying or sterilising meat as might be necessary, without any risk of contaminating the carcasses of healthy animals. There would be difficulties to be overcome in carrying the proposed method into effect, but it need not be assumed that the scheme is impracticable." The question of compensation was outside the terms of reference to the Commission, but Professor Brown makes the remark that "the hardship of which meat traders complain would be materially lessened under a properly regulated system of meat inspection by persons competent to judge as to the extent and character of tuberculous deposits, and to devise and carry into effect the necessary means for preventing the accidental contamination of meat in the way which has been described" by Dr. Martin.

THE MECCA PILGRIMAGE.

We are informed that, as the immediate result of the great meeting of Mohammedans convened at Hyderabad and addressed by Mr. Ernest Hart, the Nizam's Government has ordered a Mohammedan doctor, Dr. Mirza Karim Khan, M.B.Edin., to proceed to Mecca with the next batch of pilgrims from Hyderabad, and report fully on the sanitation of the caravan. He will probably visit England on his return in order to confer with Mr. Hart. Meantime suggestions have been sent as to the particular heads on which report should be made.

The Condition of the Quarantine Station at Kamaran.

The early and extensive outbreak of cholera at Kamaran, whence it has already spread to Mecca, is a matter of great importance, not only to the pilgrims who are this year visiting Mecca, but to all those countries which, from their national habits and the insanitary conditions of their towns, are open to attack by that disease. Egypt, Turkey, and the Mediterranean coasts doubtless stand in the first line of danger, but no one who recognises the rapidity and extent of modern travel can fail to see that if cholera once obtains a footing in those parts the safety of all the world would be imperilled.

From all parts pilgrims are now converging upon Mecca, and it is well recognised that cholera breaking out among them while they are crowded in the Holy City, it is likely to be distributed rapidly in every direction on their departure.

The Mohammedans of our Indian Empire have been recently stirred by Mr. Ernest Hart's addresses to them to energetic action, but the issue of the whole matter lies with the Turkish authorities.

The condition of affairs at Kamaran is, then, a matter of the extremest importance, for while that lazaretto exists solely for the purpose of checking the progress of cholera up the Red Sea, we find it now operating as an independent centre of infection.

At the Sanitary Conference held last year in Paris, it was strongly urged, both by Dr. Thorne Thorne and Dr. Cunningham, that so far from Kamaran stopping the spread of cholera, pilgrims were actually infected during their compulsory detention in the lazaretto, and when the vote was ultimately taken as to whether a sanitary station should be established at Kamaran, Dr. Thorne Thorne declined to vote in the affirmative if it was to result in the establishment of a quarantine station such as the lazaretto of Kamaran had hitherto been.

The question is, How far has it been improved? At this conference strong evidence was given as to the abominable condition of this wretched place. The miserable *arisches*, with their crumbling walls and fallen-in roofs, in which the pilgrims were lodged; the great crowding even in these wretched lodgings; the bad quality of the water, which was very apt to produce intestinal disturbance; the insufficient quantity of such water as was supplied; the want of firewood, so that even the food could not be properly cooked, not to mention boiling the drinking water; the insufficient number and the filthy state of the latrines; the dirty condition of the hospital; the want of light, of beds, of bed-linen; the rascality and extortion of the place—all were described, and it was impossible not to see that to force pilgrims to dwell even for a day in such a spot was to expose them to great risks.

Dr. Thorne Thorne quoted cases of ships which had on board neither cholera nor any suspected cases till after leaving Kamaran, and stated that it was proved in these cases that it was in the dirty *arisches* of Kamaran that the pilgrims contracted cholera.

As a result of these discussions the convention contained clauses specifying precisely what should be done at Kamaran. These were radical, and both Europe and India would welcome some assurance that progress is being made in their realisation. We fear, however, that such assurance will not be forthcoming.

In any case we are quite certain that whatever reforms may have been commenced, they have not yet been carried to such a point as to prevent Kamaran being, as Dr. Thorne Thorne described it to the Conference, a danger to the Hedjaz, to the pilgrims, and consequently to Europe. It must be remembered that, whatever may happen in regard to the promised reforms, it still is compulsory that every pilgrim coming from the South shall land at this pest house, however healthy he may be, and however free from disease his ship may have been on the voyage, or the town of departure before the voyage commenced. It is obvious enough that for healthy men to land, to be bathed, and have their linen, etc., "disinfected" in a place where cholera is present and beyond control is a considerable risk, since they are liable to be detained forty-eight hours for the purpose, and during that time must eat and drink.

The news that cholera has been established for a month in Kamaran, has already caused 60 deaths, and has spread to Mecca, the very place it was intended to protect, is sufficient proof that the sanitary arrangements there are not yet such as were demanded by the Convention and as are required to make the island a useful sanitary station.

An observation station in which cholera, instead of being stamped out as it arises, is able to take root and spread, is not only an absurdity, but is a danger to all who are compelled to pass through it.

DEATHS UNDER ANÆSTHETICS.

Chloroform.

We are indebted to Miss Mary D. Sturge, M.B., House-Surgeon to the New Hospital for Women, for the following report of death under chloroform, which occurred recently at that hospital.

E. D., aged 10 years, was sent from one of Dr. Barnardo's cottage homes by his medical inspector, in order that the ulcerating tuberculous glands in her neck might be removed. The patient was pale, but showing no signs of tubercle elsewhere. On March 18th the first operation was performed, time 2½ hours; a large number of tuberculous glands were removed with considerable difficulty. Chloroform (13 drachms) was administered on lint, and taken remarkably well. The patient completely recovered from the effects of the operation, and was up and running about. The scar had healed, and on April 13th the second operation was carried out for the removal of the remainder of the glands, this time in the posterior triangle. The child walked cheerfully into the theatre, and again took the anæsthetic well. Chloroform (15 drachms) was administered on lint in 2½ hours, and during this time there was no suggestion of difficulty as regards the pulse or respiration. As the operation ended the pulse was good. The bandages were being applied carefully and without raising the head unduly. It was necessary to turn the head from its position on the left side into the straight position. This was done when the bandages were half on. The anæsthetic had been discontinued for about two minutes, when suddenly the patient became blue, and seemed inclined to vomit; at the same moment the pulse at the wrist ceased. She went on breathing for a few moments, and moaned slightly. The tongue was drawn forward and the bandages removed, after which the colour of the face improved, but the pulse was never felt again, although some minutes later the heart could be heard beating faintly. There were also a few gasping respirations, which were apparently spontaneous, and not caused by the artificial respiration which was employed. The larynx was free from obstruction. Inversion, brandy *per rectum*, precordial injections of ether, hypodermic injections of strychnine, hot flannels, the battery, etc., were all employed in quick succession, but without avail. Artificial respiration (Sylvester's method) was continued for some time after death.

On *post-mortem* examination, seventy-two hours after death, the heart was found to be full of blood, the right ventricle was dilated, the wall being very thin. There was no sign of tuberculous or other mischief in the lungs, excepting some recent strands of lymph uniting the parietal and visceral layers of the pleuræ. All the blood in the body was fluid. The arteries in the region of the operation were intact. There was marked rigor mortis.

We are indebted to Mr. A. C. Greenwood, Assistant Medical Officer at the Fulham Infirmary for the following report of death under chloroform at that infirmary on April 16th:

C. W. K., aged 10 years, was admitted to the Fulham Infirmary on January 30th suffering from adenoids at the back of the pharynx. The patient was rather anæmic, but in other respects his general constitution was good. On Tuesday, April 16th, chloroform (Duncan and Flockhart's) was administered on a piece of lint. The patient took the anæsthetic well, and was soon under. The pupils were moderately contracted, and about a drachm of chloroform had been given. Dr. Steer was about to operate, when the patient suddenly ceased to breathe. Artificial respiration was at once performed. Injections of ether were given and hot flannels applied. Artificial respiration was carried out for half an hour, but the patient never breathed again.

A *post-mortem* examination was made on the following day. There was a large mass of adenoid growths at the back of the pharynx and round the glottis; the epiglottis was thick and presented an œdematous appearance. There were signs of an old pleurisy (left side), and a small patch of consolidated lung at the left base. All other organs were perfectly healthy.

THE CHITRAL RELIEF EXPEDITION.

[From a special correspondent.]

No. 2 British Field Hospital was mobilised at Rawal Pindi, and started at 5.30 A.M. on March 27th with the second brigade, which is under the command of Major-General Waterfield. On arrival at Nowshera the field hospital was detrained; mules loaded, and marched away in less than half an hour.

The hospital has reached Hoti Mardan, and starts with the second brigade at once. Surgeon-Lieutenant-Colonel Donovan is in medical charge, with Surgeon-Major Battersby and Surgeon-Captains Birt and Dowse.

Surgeon-Major Battersby has been appointed sanitary officer to the brigade and staff-surgeon to the General Commanding, in addition to his other duties.

LITERARY NOTES.

M. Carl Ricker, of St. Petersburg, the principal medical publisher in Russia, died recently.

The first number of a new medical journal, the *Revue Critique d'Andrologie et de Gynécologie*, has just appeared in Paris. The editor is Dr. Hamonic.

The adoption of French as the official language of the Moscow Congress appears to be favourably entertained by the Russian organisers. In an article in the *Vratch* on the unification of languages at international medical congresses,

M. Kartschaguine recently delivered himself to the following effect:

We medical men of all countries should aspire with all our might to the most intimate union, to the most perfect agreement on all scientific and social questions, that we may be able to prevent and combat evil in the widest sense of the word.

The programme is wide enough in all conscience, and noble enough to satisfy the most enthusiastic. The picture of the medical profession throughout the world united in a holy brotherhood and fighting against evil generally is beautiful and inspiring, but whether even the unification of language would bring about a perfect agreement on all scientific questions, not to speak of social problems, may be doubted. It is possible, indeed, that differences at present hidden by difference of language might be brought into unedifying prominence by the use of a common tongue.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 10th and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held, by kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, May 2nd, at 8.30 P.M. (instead of April 18th). The chair will be taken by Dr. Daly, Vice-President of the District. Dr. Stephen Mackenzie will give a demonstration of cases of Skin Disease. Visitors will be cordially welcomed. —H. E. POWELL, Honorary Secretary, Glenarm House, Upper Clapton, N.E.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting will be held at the Greyhound Hotel, Croydon, on Thursday, May 9th, at 4 P.M.; H. E. Vincent, M.D., of Croydon, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. Agenda:—(1) Minutes of Upper Norwood meeting; (2) to decide when and where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. The following papers, etc., have been promised:—Mr. A. Maude: Cases Illustrating Points in Alcoholic Neuritis. Mr. Golding Bird: The Curability of Hernia. Dr. William Duncan: On Chronic Inflammation of the Uterus. Exhibition of Antiseptic Dressings and Appliances from John Milne's Antiseptic Dressing Factory, Ladywell, London, S.E. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends.—HENRY J. PRANGLEY, Honorary Secretary, Tudor House, Anerley, S.E.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place at Gravesend on Thursday, May 16th, Mr. R. J. Bryden in the chair.—EDWARD GROUND, M.D., 1, Ashford Road, Maidstone, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting will be held at Cardiff on Tuesday, April 30th.—A. SHEEN, D. A. DAVIES, Honorary Secretaries.

MIDLAND BRANCH.—The annual meeting will be held at Derby on Thursday, June 13th. Members desirous of reading papers or exhibiting cases are requested to communicate with the Honorary Secretary before May 27th. Gentlemen who wish to be elected to the Association through the Branch Council must send in their application by the same date.—W. A. CARLINE, M.D., Honorary Secretary, Lincoln.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—An ordinary biennial meeting will be held on Wednesday, May 1st, at the Portsmouth Medical Library, 5, Pembroke Road, Portsmouth. The chair will be taken at 4 P.M., and during the preceding half hour patients and specimens will be exhibited, and the Honorary Secretary will be in attendance to receive subscriptions. Members are invited to present patients, specimens, and communications, and are requested to signify their intention of doing so the Honorary Secretary, C. C. CLAREMONT, 57, Elm Grove, Southsea.

NORTH OF IRELAND BRANCH.

THE spring meeting of this Branch was held at Belfast on April 18th, Dr. DEMPSEY (President) in the chair. Thirty-eight members were present.

Change of Hour of Meeting.—Dr. E. C. THOMPSON (Omagh) moved, and Dr. ROBERT GRAY (Armagh) seconded, a resolution that the hour of meeting be henceforward 12 noon. After some discussion this was passed.

Death of Dr. D. Jamison.—On the motion of Dr. LINDSAY, seconded by Dr. M'CAW, the Secretary was instructed to forward a letter of sympathy to the relatives of the late Dr. Jamison.

Abuse of Medical Charities.—The recommendations from the Committee on the Abuse of Medical Charities were considered, and it was moved by Dr. CALWELL, seconded by Dr. M'CAW, and passed:

That this meeting, having heard the statements regarding indiscriminate medical relief afforded in various charities throughout the kingdom, approves of the general principles enunciated with the view of minimising the evil.

Appointment of Auditor.—Professor Byers was appointed auditor for the year.

New Member.—Dr. Abernethy, of Ballygawley, co. Tyrone, was elected a member of the Branch.

Communications.—Dr. LINDSAY introduced a discussion on Acute Croupous Pneumonia, directing special attention to the following points: (1) The micro-organisms of the disease; (2) the etiological influence of season—weather and sanitation; (3) the difficulties which sometimes arise in distinguishing pneumonia from (*a*) pleurisy, (*b*) meningitis, (*c*) the specific fevers; (4) the occasional latency of the physical signs; (5) the peculiar features of apical pneumonia; (6) the chief element in prognosis; (7) the influence of expectorants, quinine, digitalis, alcohol, the ice bag, cold sponging, the cold bath, and venesection. He gave an analysis of 28 consecutive cases. The PRESIDENT, Professor WHITLA, Dr. CALWELL, Dr. THOMPSON (Omagh), Dr. BINGHAM, and Dr. ST. CLAIR BOYD took part in the discussion.—Professor BYERS read a paper on Recent Views as to the Management of Labour. This was discussed by the PRESIDENT and Drs. SMILEY, FRASER, and KEVIN, and Dr. BYERS replied.

Case.—Dr. HOWARD SINCLAIR showed a case of Spastic Spinal Paralysis in a child of 5 years. Dr. MACCORMAC made remarks on the case.

Specimens.—Dr. LINDSAY showed microscopic preparations and drawings of the Micro-organisms occurring in Pneumonia.—Professor BYERS showed specimens from a case of Double Ovariotomy and Hysterectomy (cystic disease of both ovaries and papilloma of the broad ligament).—Dr. DARLING (Lurgan) showed a very large Ovarian Fibroid Tumour.—Dr. JOHN CAMPBELL showed a Cancerous Uterus removed by vaginal hysterectomy.

ABSTRACT OF PROCEEDINGS OF COUNCIL.

AT a numerously attended meeting of the Council, held in the Council Room at the offices of the Association, 429, Strand, W.C., on Wednesday, April 24th, 1895, Dr. WARD COUSINS, President of the Council, in the Chair, it was

Resolved: That the financial statement for the year ending December 31st 1894, as certified by the auditors, be approved and published in the BRITISH MEDICAL JOURNAL in accordance with By-Law 26.

The remainder of the Proceedings of the Council will appear in a future number of the BRITISH MEDICAL JOURNAL.

BRITISH MEDICAL ASSOCIATION.

FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31st, 1894.

Balance Sheet.

Liabilities.

Dr.	£ s. d.	£ s. d.
To Subscriptions paid in advance	649 8 11	
,, Advertisements ditto	629 17 0	
,, Library	40 3 2	
,, Contributions	599 18 9	
,, Reporting	43 18 8	
,, Engraving	109 7 4	
,, Printing Journal	294 9 8	
,, Paper for Journal	685 15 11	
,, Miscellaneous Printing	68 12 5	
,, Electricity Supply	38 4 3	
,, Stationery	52 2 1	
,, Coal and Coke	5 19 0	
,, Repairs	63 7 11	
,, Legal Charges...	31 0 6	
,, Wood Fund	25 0 0	
,, Rates, Taxes, and Gas	138 10 9	
,, Plant and Type	35 0 8	
,, Sundries...	176 4 8	
,, Premises Committee—Architect's Fees	95 7 0	
,, Reference Committee	73 10 0	
,, Committee on Investigation of Feeble-Minded Children	100 0 0	
,, Therapeutic Committee	26 0 0	
,, Parliamentary Bills Committee	34 17 3	
Total Liabilities...		4,015 15 11
	£ s. d.	
,, Depreciation—as at 31st Dec., 1893; Leases, £3,740; Alterations, £1,586 6s. 9d.; Furniture, £1,442 9s. 11d.; Redemption Fund of Premium on India Stock, £31 0s. 8d.; and ditto Local Loan Stock, £14 6s. 6d.	5,824 3 10	
,, Ditto added for 1894	700 4 11	
		6,524 8 9
,, Surplus Account, namely:—		
Balance on January 1st, 1894	55,906 15 5	
Profit for 1894 brought from Revenue Account	4,528 3 2	
,, Balance, being total of excess of assets over liabilities ...		60,434 18 7
		£70,975 3 3

Cr.	£ s. d.	£ s. d.
By Subscriptions—Amount due	1,522 11 7	
,, Advertisements—Amount due	3,121 19 10	
,, Sundry Sales—Amount due	128 0 5	
,, Lease, 429, Strand	4,500 0 0	
,, ,, Agar Street Premises...	3,200 0 0	
,, Alterations of Premises	4,278 17 2	
,, Furniture, and Fixtures at cost	2,896 15 5	
,, Library	1,530 7 2	
,, Plant and Type	1,529 17 5	
,, Interest due on Investments	487 3 4	
,, Investments (English Railway Debenture, Corporation, Bank Stock, and Freehold Property) at cost...		41,789 18 6
,, Cash, namely:—		
London and Westminster Bank on current account	5,490 1 5	
Ditto, on deposit	1,000 0 0	
		6,490 1 5
		£70,975 3 3

Revenue or Profit and Loss Account for Year ending December 31st, 1894.

	£ s. d.	£ s. d.
Editorial Expenses (Salaries, Contributions, Engraving, Reporting, Workhouse, Filter and Massage Reports.)	5,918 14 3	
Expenses of Journal (Printing, Postage, and Paper)	16,213 13 10	
Office Expenses (Rent, Taxes, Office Postage, etc.)	2,604 8 0	
Office Salaries and Wages	2,576 11 0	
Association Expenses (Scientific Grants, Scholarships, Expenses of Committees, etc.)	3,081 7 3	
Plant written off towards Depreciation	450 0 0	
Provision towards redemption of expenditure on Alteration of Premises, Lease of Premises, and Premia on India and Local Loan Stock	700 4 11	
	31,544 19 3	
Subscription Losses from death, resignations, etc.	495 2 10	
	32,043 2 1	
Profit for Year carried to Balance Sheet	4,528 3 2	
	£36,571 5 3	
Subscriptions		16,517 16 3
do. former years		142 8 5
Advertisements (less discounts and allowances)		15,963 5 5
Sundry Sales of Journal ,, ...		1,674 14 8
Collective Investigation Record Sales		4 16 2
Sundries—Reading and Binding Covers...		94 3 0
Reprints		70 4 2
Interest on Investments		1,332 12 4
Unexpended Grants to Committees returned		44 18 6
Scientific Grants unused and returned		75 2 1
Sale of Waste, etc.		21 7 9
Discount on Printing, Paper, etc.		639 16 6
		£36,571 5 3

Middlemore Fund.

£666 13s. 4d. invested in 3 per cent. North British Railway Debenture Stock, in the name of the British Medical Association. Converted from 4 per cent. into 3 per cent. Stock 1892.

1894.	£ s. d.
Jan. 1. To Balance brought down	69 12 4
Dec. 31. ,, Interest one year on £666 13s. 4d.	19 7 4
	£88 19 8

1894.	£ s. d.
Aug. 24. By Award Dr. Collins	50 0 0
Dec. 12. By Stanley, Engrossing Certificate	1 17 6
Dec. 31. By Balance carried down	37 2 2
	£88 19 8

Stewart Fund.

£579 invested in 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

1894.	£ s. d.
Jan. 1. To Balance brought down	49 15 3
Dec. 31. ,, Interest one year on £579	22 8 7
	72 3 10

1894.	£ s. d.
Dec. 31. By Balance carried down	72 3 10
	£72 3 10

We have examined the foregoing Accounts, with the Books and Vouchers of the Association, and find the same to be correct.

March 23rd, 1895.

PRICE, WATERHOUSE, & CO.,
44, Gresham Street, E.C.

SPECIAL CORRESPONDENCE.

PARIS.

Sanatoria for Phthisical Patients.—A Society of Sanitary Architects and Engineers.—A Disease Peculiar to Mother-of-Pearl Workers.—Tuberculosis in Small Communes.—Sanitary Rules for the Madagascar Expedition.—The President of the Republic and the Hospitals.—Lithographers and Influenza.—General News.

Dr. Netter has formulated the following rules with respect to sanatoria for consumptives, which have been approved of by the French Comité Consultatif d'Hygiène. Such sanatoria should be built against a hill or rock, thus sheltered from the predominant winds; they should be thoroughly isolated by a large park and cultivated grounds. The inmates should leave the grounds as little as possible; they must be accustomed to use spittoons containing a certain quantity of water; all spittoons, portable and fixed, must be disinfected every day. In every sanatorium there must be a good disinfecting stove under the charge of a competent person. The linen used by the patients and in the establishment must not be sent to the wash before it is sterilised. Each room must be sterilised—walls and floor, linoleum floor and painted walls—before a fresh occupant uses it. Excreta must be disinfected and not emptied into a water course.

M. d'Esmenard, editor of the *Génie Sanitaire*, has formed a society of Ingénieurs et Architectes Sanitaires de France. The object of the Society is to found and make recognised the professions of sanitary engineer and sanitary architect, which at present do not exist in France, either in name or in fact; to group together the engineers and architects and make a speciality of applied sanitation; to provide every means of facilitating study and mutual intercourse by organising lectures, congresses, and prizes. All documents bearing on sanitation abroad will be read at the Society.

M. Dombrowsky, in the *Journal d'Hygiène et de Médecine Légale et Pratique*, calls attention to the illnesses peculiar to mother-of-pearl workers, which more often affect the lower jaw than the other bones of the human body. There are many of these cases in Professor Albert's wards at Vienna, and in a smaller proportion all over the world wherever mother-of-pearl is prepared. The skin and mucous membranes also present slight solutions of continuity, which are very painful. Good workshop sanitation, M. Dombrowsky declares, would greatly, if not entirely, remedy the evil.

Dr. Bec states in the *Revue d'Hygiène* that tuberculosis has broken out in certain small communes as an epidemic. The origin of the outbreak is traced to the appearance in these communes of tuberculous subjects, and the contagion is attributed to the fact that in small country places sanitation is unknown and uncleanliness is rampant. Epidemics in them are, therefore, even in proportion to those of towns, much more deadly.

Colonel Gillon has put into the hands of every soldier under his command the following directions for the Madagascar expedition: "Never go out without wearing your helmet, not even when the sky is cloudy. When halting, never lie down on the ground; be content with sitting on your pack. Never go out fasting. Never drink anything but boiled water, tea, and coffee. Never leave off your stomach flannel. Never on any account drink alcohol or eat fruit, even if they resemble ours."

The President of the Republic, during his stay at Havre, has not omitted to visit the hospitals, asylums, and *crèches*. At all these establishments he distributed words of consolation, silver and gold medals, dolls, and donations varying from £8 to £20. The parents of the hospital patients have also received help in memory of the President's visit.

A manufacturer sends a note to the Paris Academy of Medicine, stating that in his business there are two departments, one where cardboard is prepared, the other where lithographers work. During an epidemic of influenza, of fifty workers in the cardboard department thirty-five were attacked with influenza. Fifteen lithographers working in a separate building altogether escaped, but three other hands working in a room in connection with the cardboard department were attacked. There are seven other similar factories in the neighbourhood; in all of them the cardboard workers suffered severely and the lithographers escaped. It is supposed that the free use of turpentine by lithographers (1 litre a day to each machine) explains the immunity which they enjoy.

The death of Dr. Chaffier, a Paris practitioner, has taken place under peculiarly painful circumstances. In the morning, with the help of three of his colleagues, he had successfully operated on a patient. In the afternoon he returned to the bedside of his patient. He had scarcely been seated a minute when he fell unconscious on the floor from an attack of apoplexy which proved fatal.

The Association Générale des Médecins de France held its thirty-sixth general meeting on April 21st.

ST. PETERSBURG.

Phthisis Mortality in the Russian Army.—The Use of Diphtheria Antitoxin in Russia.—Cremation in Finland.

The mortality from phthisis is considerable throughout Russia, both in the army and among the general population. Dr. Georgiefski has made a detailed study of the distribution and death-rate from this disease in the lower ranks of the army, and publishes his main conclusions in the form of a preliminary note in a recent number of the *Vratch*. The special prevalence and fatality of phthisis among regiments stationed in large towns might have been anticipated, but it is remarkable that these reach their maxima in the capital. It would seem that there is something specially favourable to the spread of tubercle among troops in capital cities, for it may be remembered that a precisely similar phenomenon was observed in England, France, and Germany; the Guards regiments of London, Paris, and Berlin all showing a higher mortality from phthisis than those stationed elsewhere. This at least was the case twenty years ago.[1] In St. Petersburg, the deaths were highest among men of the Gendarme Division, but the foot and horse Guards also suffered severely. The effect of occupation is clearly shown by the fact that among the men employed in the military printing office of the Headquarters Staff the invaliding rate from phthisis was four times greater than among the rank and file attached to the staff. The Engineers showed the lowest rates of invaliding. In the Hospital Service the rates were below the average, showing that there is little risk of infection in a well-ordered hospital. The highest rate of invaliding fell to men in their third year of service. Natives of the north-west provinces seemed to be particularly predisposed to consumption.

The antitoxin treatment of diphtheria has been very generally employed in St. Petersburg and other Russian towns since it was first introduced. Large sums have been spent in obtaining supplies from abroad, and in arranging for the home production of the serum on a large scale in the more important towns. At present but little has been published as to the results obtained by the treatment in diminishing the mortality of diphtheria. Some weeks ago Dr. Rauchfus reported that he had treated 30 cases by the new method and an equal number by the older methods, and that the death-rates in the two groups of cases were respectively 36.6 and 52 per cent, showing a distinct diminution in favour of the serum treatment. Dr. Teziakof has treated 20 cases in a village in the government of Kherson. Six of the cases died; the death-rate was therefore 30 per cent. A severe epidemic of diphtheria had prevailed in the village, and the death-rate before the serum treatment was begun had been 48.9 per cent.; the diminution in mortality was therefore considerable. In 8 cases in which the treatment was begun on the first or second day of the disease there was not a single death; in the remaining 12 cases treatment did not begin till the third day or later, and it was among these that the 6 deaths occurred.

In Finland the practice of cremation is said to be gaining in popularity. At the last meeting of the Finnish Cremation Society the president dwelt on the necessity of appealing to the Government to make cremation compulsory.

[1] Parkes's *Hygiene*, eighth edition, p. 583.

CORRESPONDENCE.

TAPPING THE PERICARDIAL SAC.

Sir,—Dr. Samuel West, in commenting on the case of paracentesis pericardii recorded by Dr. Gordon Sharp in the British Medical Journal of March 23rd, 1895, remarked "that the improvement which followed the removal of only a few minims of fluid could not be referred to any relief given to the pressure on the heart. It must fall into the curious category of cases in which a single dry puncture has been followed by improvement without any obvious cause."

I venture, however, to suggest a very simple explanation of the relief which followed the operation. Whenever rapid and considerable pericardial effusion occurs, the cardiac action becomes irregular and fluttering, and the patient suffers intense distress and dyspnœa caused by obstructed venous circulation and intrathoracic pressure. Now, these alarming symptoms are often relieved by "a single dry puncture," or by a small valvular opening into the pericardial sac; for although a very little fluid may appear externally, still the exudation escapes through the puncture into the cellular tissue of the mediastinum, and this fortunate occurrence is accelerated by the cardiac movements.

I quite concur in the opinion that the aspirator is not a suitable instrument for the operation, as the pent-up effusion is retained under high pressure, and can always readily escape from a small puncture. Dr. West recommended in his letter a sharp, hollow needle, but the use of this appears to me to be attended with as much risk as the ordinary trocar and cannula. I use a fine instrument, which consists of two tubes; the outer carries a pen-shaped lance, and the inner tube is a hollow piston, round at the point, with a lateral opening. By the sliding action of the piston the point can be easily exposed or protected, and the trocar alternately opened or shut. A description of the instrument appeared in the Journal of November 8th, 1884.—I am, etc.,

J. Ward Cousins,
Senior Surgeon to the Royal Portsmouth Hospital.

April 24th.

THE PROPHYLAXIS OF INFLUENZA.

Sir,—If quinine is a prophylactic against influenza, as Dr. Coghill maintains in the British Medical Journal of April 6th, no doubt it is of great value to the profession and public to know it. I think, however, that medical men will hardly be convinced by his train of reasoning, and I can deduce from my own practice facts which in my opinion throw considerable doubt on the soundness of his conclusions. In the winter of 1892 we had a very severe epidemic of influenza at Portsmouth. It began some weeks before in other parts of the country, and people here as elsewhere were exercised in their minds how to escape it. I was consulted by a lady on this very question—the prophylactic power of quinine. I replied that I was doubtful of its prophylactic efficacy, but that it was worth a trial, and that as a good general tonic it was a sound drug to take when an epidemic of the sort was abroad. The family consisted of a mother, son, two daughters, and a boy staying in the house. I prescribed a mixture containing quinine gr. 1½ three times a day. They all took it steadily for three weeks, at the end of which time all of them, except the mother, had influenza of a very pronounced type.

Here is a direct argument against the prophylactic efficacy of quinine, and worth, I think, a great deal of the negative evidence on which Dr. Coghill bases his conclusions. Let me illustrate further on Dr. Coghill's lines. I am medical attendant to an institution here which numbers fifty-one persons. We have during the last two months had a very extensive outbreak of influenza in Portsmouth, and many houses have been attacked in the same street in which the institution stands. Not one of these fifty-one persons has had any quinine, and not one of them has had influenza. If they had taken quinine it would have been natural enough to ascribe their immunity to the drug, and equally erroneous. I believe that the true prophylaxis of influenza consists, as in other highly infectious diseases, not in any specific drug, but in early and effectual isolation of the infected person, and my own experience fully bears out this conclusion. Of course, from the nature of the disease and the rapidity of its spread we are manifestly at a disadvantage in this respect as compared with most other infectious diseases.—I am, etc.,

Charles P. Childe, L.R.C.P.Lond., F.R.C.S.

Southsea, April 10th.

THE MANCHESTER ROYAL INFIRMARY.

Sir,—There are many questions concerning this important subject which are scarcely suitable for discussion in your columns, and which I shall refrain from alluding to. The kernel of the nut, however, is that which Dr. Leech lays before your readers in the British Medical Journal of April 20th; and, as he truly says, it is a question of more than local interest. It is simply this, Is the present prevailing fashion of building hospitals on the pavilion principle, with connecting corridor, so superior to the block principle that it ought under all circumstances, notwithstanding its relative costliness, to be carried out? This is a question which, I apprehend, can only properly be discussed in a technical journal such as our own. The various arguments *pro* and *con* can only be raised and truly appreciated by technical readers.

For a generation past, and longer, we have been persistently told by sanitary experts, by architects, and the members of the staffs of infirmaries that in no other way can a hospital be built "on sanitary principles" or "according to the latest scientific teaching of the day." The consequence has been that, wherever during that time a charitable or a Poor-law infirmary of any size has been erected in any part of the world, no one has dared to suggest any principle of building but the pavilion. I believe, indeed, that for many years the Local Government Board has refused to pass any plan other than this.

It is well known how this became accepted and stereotyped by the publication of the work of the late Sir J. Y. Simpson on *Hospitalism*. Sir James noted how vastly superior were the results of surgical operations and of childbirth in country cottages to those obtainable in palatial hospitals, and he propounded the doctrine that the walls and fittings of infirmaries became infected with poisonous material from successive patients, by which newcomers were infected and their doom sealed. His genius and shrewd advocacy of his position carried conviction everywhere.

"Sweetness and light" became the watchwords of all sanitary reformers, and the pavilion principle stood alone, the only scientific method of building an infirmary. There was much truth in this, but we have learned many things since that time. Close on the heels of "hospitalism" came "antisepticism," and close on the heels of the latter came "mechanical ventilation and warming." We have been shown how to deal with septicity at its origin, so as to prevent it altogether. We have learned also how to bring fresh air (warmed if necessary) to the lungs of every patient as he lies in bed, and that without endangering him with an attack of pneumonia. Sir Joseph Lister showed how in the antiquated wards of the Royal Infirmary at Glasgow, with its "germ-sodden" walls and floors, and beds packed together, he could achieve results until then unheard of.

Now, with the experience of the last twenty years behind us, and the daily experience of our present practice, is it not time that the "pavilion principle" should be reconsidered? Yet Dr. Leech relies on precedent, and commits himself to the following: "It is asserted that a corridor hospital.....would be quite as good as a pavilion hospital. This is surely an error. It will be desirable to ascertain on this point the views of those who are best acquainted with hospital sanitation, for it would be a serious matter to build a new infirmary in any way defective in a sanitary point of view." Who are those best acquainted with hospital sanitation? Not the staffs of the hospitals throughout the kingdom? I would ask Dr. Leech to learn the lesson his eyes may read, instead of blindly following the books. Is St. Thomas's or is Pendlebury superior in results to Guy's or the London or the Manchester? The staff of his own infirmary have (11 to 3)—to its credit be it said—consistently throughout the protracted discussion advocated rebuilding on the present site; and when it became early evident that no material encroachment on the open space would be tolerated accepted the position. They had within their own gates convincing proof that a block hos-

pital may be as good, sanitarily, as any other, and as space would not be given to split the blocks into pavilions, they decided to abide by the block system, and build upwards as high as their necessities demanded. It would have been a happy time to-day for the infirmary and those attached to it had the Board of Management listened to and followed the advice of those who understood the nature of the questions involved.

My contention, then, is that as good results can be and are obtained in hospitals built on the block as on the pavilion system, and that, except where cost is no object, the latter system should therefore be abolished. This is more especially the case in towns in which the cost of land is so great. But, further, I desire to question the reason for the division of blocks by a central corridor. Why should a parallellogram, say, 50 feet long by 42 wide, be divided down the middle by a passage or corridor, with its wall on either side, in order that a room or ward may be produced with a row of six beds on either side, windows on one side, and a blank wall on the other? Wherein is the superiority of such an arrangement over that of, say, a square of 42 feet with a division of 5 feet high down the middle, and six beds against either outer wall and either side of the dividing wall, with the light from the windows on either wall passing across the low partition to the other side? Examples of such an arrangement may be seen in many of the old infirmaries. If the due proportion of length to width and height be maintained it lends itself to effective artistic effect—greatly superior to the long tubular-looking pavilions so highly favoured in the latter part of the nineteenth century.

I do not wish to go into detail in this communication, but having regard to the vast importance of the question, which must soon be settled for us in Manchester, and also to the unthinking way we have so long blindly followed our leaders, I hope that this question, which has been opened for discussion in your pages by Dr. Leech, may be taken up and receive adequate consideration.—I am, etc.,

Manchester, April 23rd. JAMES HARDIE.

ON THE LATELY PREVALENT FORM OF SORE THROAT.

SIR,—During the last fortnight or three weeks a form of sore throat has been prevalent, of which the following symptoms are noticeable. The patient will come complaining of a sore throat—a feeling "as if the throat had been scratched." He will say perhaps that the throat first became sore some days previously, that it got better and apparently well, but that it is now troubling him again. On examination there will be found at the back of the pharynx, upon the pillars of the fauces, upon the uvula, circumscribed patches of a dusky red colour, showing here and there upon their surface two, three, or more small sago-grain follicles. When one of these patches occurs upon one side only of the uvula the uvula will be deflected to the opposite side. There will be no tonsillitis, no ulceration of the fauces. The morning temperature will be variable, sometimes normal, sometimes 102° or 103°; but in those cases where the evening temperature has been obtained it has invariably been increased to 103° or 104°. I should be inclined to designate the character of the affection as herpetic.—I am, etc.,

Curzon Street, W., April 13th. RALPH BROWNE.

SCHOOL BOARD AND OTHER CERTIFICATES.

SIR,—Dr. Hooper's remarkable comments are both unreasonable and unpractical. The granting of certificates of various kinds to all and sundry is not an essential part of medical treatment, of which, in all conscience, we do enough gratuitously. I never heard of lawyers filling up forms or witnessing affidavits for nothing; small matters, indeed, but which, at the same time, require neither professional capacity nor expenditure of their time. As I oblige the School Board by paying rates to carry out their fads, the least they can do is to oblige me by paying small fees for supplying them with professional information for the purpose of carrying out the duties imposed upon them.

What costs nothing is by many people valued at the same rate, and for this reason, perhaps, commercially-constituted bodies, like insurance companies, decline to look at gratuitously given medical certificates, and insist on the business-like and properly paid for document issued by the registrar. —I am, etc.,

Brentford, April 22nd. FREDERIC N. WILLIAMS, District Medical Officer for Brentford.

MEDICAL FEES UNDER THE NEW FACTORY BILL.

SIR,—Doubtless many of your readers are certifying surgeons under the Factory Acts; I should like to draw their attention to the second schedule of the Government Factory Bill now before Parliament. This Bill, in many respects a most excellent one, is avowedly designed to obviate the evils of sweating, yet it proposes to sweat the doctors, as will be seen from the scale of fees in the schedule referred to.

As you are aware, the workers in certain unhealthy trades (leadworks, etc.) are required, by "Special Rules," to undergo a periodical medical inspection, and the fees (which at present are left to private arrangement) proposed in the scale referred to vary from 2s. 6d. for ten inspections, or less, to 5s. for one hundred; and 7s. 6d. for any greater number.

Now under my own supervision I have a white lead works where about sixty hands are inspected weekly. The examination, together with the time taken in entering the required particulars in the register, absorbs about an hour and a-half one day in each week. At present I have a private contract with the firm, and am paid thirty guineas a year for this duty. On the new scale I should only be entitled to charge 4s. 6d. for each visit.

But worse than this, I have also in my district another large factory, employing about 900 hands, and it is proposed to require a monthly medical inspection of the whole of these people: the fee under the new scale for this duty would be the miserable sum of 7s. 6d., for as many hands as the manager chose to present at one visit.

Surely there must be some mistake, and the matter only requires ventilating to be put right. I should suggest that the 2s. 6d. fee for ten or less be retained, and an extra 2s. 6d. be allowed for each successive ten or less number.—I am, etc.,

April 19th. A CERTIFYING FACTORY SURGEON.

THE ART OF MAKING REFERENCES.

SIR,—I shall feel obliged if you will allow me to correct an error in my paper on the above subject in the BRITISH MEDICAL JOURNAL of April 20th. I ought not to have stated that the Manchester Pathological Society does not exist as a book. The Society has published one volume of *Transactions*; this, however, does not affect the reference to which I have taken objection, as it was printed before the volume in question was published, so that when the reference was made the Society in question did not exist as a book.—I am, etc.,

Royal College of Surgeons of England, April 19th. JAS. B. BAILEY.

LATERAL CURVATURE OF THE SPINE.

SIR,—It augurs well for the better appreciation of orthopædic principles in the treatment of deformities by the rising generation of practitioners when, as published in the BRITISH MEDICAL JOURNAL of March 16th, we have a surgical teacher of the position of Mr. Christopher Heath devoting an entire clinical lecture to that hitherto sadly neglected subject "Lateral Curvature of the Spine." Time was when orthopædics were dismissed in one single lecture at the tail end of the surgical course, and the standard textbooks crammed the whole subject into about eight or ten pages.

I cordially agree with Mr. Heath that many cases of lateral curvature are first brought under serious observation by the dressmaker, and owing probably to the inefficient way in which the subject was treated in his student days the doctor has as often as not informed the anxious parent that her daughter would "grow out of it." Those who have studied lateral curvature know that the converse usually holds good, namely, that she tends to "grow into it," and by the time that she comes under treatment the deformity is more or less permanent. Or as likely as not some elaborate system of screws and ratchets has been applied, with the result that the spine is worse than ever. Fortunately, these "relics of the Inquisition" are now fast becoming obsolete except in the instrument-maker's window.

I will not traverse the whole of Mr. Heath's lecture, but will content myself with accentuating one or two of the axioms laid down:

1. The necessity for noting any inequality of the lower limbs, and correcting the deficiency.

2. As to clothing. As Mr. Heath mentions, most girls' dresses do not admit of full inspirations, and, if unbuttoned, the patient being erect and taking a full inspiration, will find a large gap between the button and button-hole. Moral: tighten up the back seams, and ease those in front. I would add that the corsets I have for years advocated (with elastic sides and no lacing), while most comfortable to the wearer, allow of free thoracic movement.

3. As to correction of positions, these are so important and so numerous that it is impossible for children and their parents to understand them from the necessarily hurried directions given at a consultation. The same may be said of the exercises, which should be gradual, systematic, and (at the outset at all events) performed in the recumbent position. This is the main secret of success, but to attempt to inculcate them by a few directions is as futile as to attempt to teach a tiro to play the violin by telling him to buy a fiddle and a book of music.

4. In all absolutely developed osseous curves some form of support is required, at all events at the outset, but patients should be impressed with the fact that all these supports are in themselves more harmful than curative, and should only be worn when getting about. Of all supports, contrary to the opinion of many surgeons, and after an experience possibly as large as that of anyone in this country, I am most strongly in favour of Sayre's divided plaster jacket (with vest turned back over the jacket and sewn, and above all laced with elastic), in preference to poroplastic. When a plaster jacket is properly adjusted the objections urged against it are practically overcome; it is not dirty, it is not an ounce heavier than poroplastic, it is not expensive (unless another be required to meet the improvement gained it will last a couple of years), and withal it fits accurately, and so gives that basis of support which the other does not.

In conclusion, I can only express again my pleasure at the departure our leading hospital teachers are taking in drawing more attention than formerly to true orthopædic measures.—I am, etc.,

Birmingham, April 10th. E. Luke Freer.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The last post on Wednesday is the latest by which these announcements can be received.

Surgeon-Captain, going abroad in about six months, wishes for an exchange—two years or more if possible. C. P., care of Messrs. Holt and Co.

THE NAVY.

Fleet Surgeon George Curtis has been placed on the retired list at his only request with the rank of Deputy Inspector-General of Hospitals and Fleets. He was appointed Surgeon October 8th, 1861; Staff-Surgeon October 20th, 1875; and Fleet-Surgeon September 1st, 1882.

Surgeon Alexander F. Harper has been appointed to the *President*, additional, April 18th; and Fleet-Surgeon William E. Bennett to Sheerness Dockyard May 1st.

ARMY MEDICAL STAFF.

Brigade Surgeon-Lieutenant-Colonel George Andrew, M.B., retires on retired pay, April 24th. He was appointed Assistant Surgeon March 31st, 1865; Surgeon March 1st, 1873; Surgeon-Major March 31st, 1877; attained the rank of Lieutenant-Colonel March 31st, 1885; and was made Brigade-Surgeon-Lieutenant-Colonel February 14th, 1891. He was in the Hazara campaign in 1868 with the 6th Regiment, including the operations in the Black Mountain (medal with clasp), and in the Afghan war in 1878-80, when he took part with the expeditions into the Lughman Valley and against the Khugianis (medal).

The undermentioned Surgeon-Majors, having completed twenty years' full-pay service, are promoted to be Surgeon Lieutenant Colonels March 31st: Henry Charlesworth, John C. Dorman, M.B.; George H. Le Mottée, M.B.; William L. Chester, M.B.; Edward A. Mapleton, M.B. Of these, Surgeon-Lieutenant-Colonel Charlesworth was in the Afghan war of 1878-80 (medal); Surgeon-Lieutenant-Colonel Dorman was in the Afghan war of 1878-79 (medal), and in the Egyptian war of 1882 (medal and Khedive's bronze star); and Surgeon-Lieutenant-Colonel Chester was in the Boer war in 1881, and with the Nile Expedition in 1884-85 (medal and Khedive's star).

Surgeon-Colonel C. A. Maunsell has been appointed an administrative Medical Officer in the Bombay command in succession to Surgeon-Colonel Gore.

INDIAN MEDICAL SERVICE.

Surgeon-Lieutenant-Colonel F. A. Smyth, Bengal Establishment, is promoted to be Brigade Surgeon-Lieutenant-Colonel from January 12th. He was appointed Assistant Surgeon, October 1st, 1869, and Surgeon-Lieutenant-Colonel twenty years later. He was with the Burmese expedition in 1886-87, and has the Indian Frontier medal with two clasps.

The promotion of the undermentioned Surgeon-Lieutenants to be Surgeon-Captains has received the approval of the Queen: Bengal—B. G. Seton; Madras—R. H. Elliot, R. K. Mitter, W. E. A. Armstrong; Bombay—W. C. Sprague, M.D.

Surgeon-Lieutenant-Colonel Thomas Robinson, M.B., Bengal Establishment, has retired from the service, which he entered as Assistant Surgeon, October 1st, 1869. He served in the Afghan war in 1879, and was with the Zaimusht expedition and at the assault of Zawa (medal). He was also with the Mahsood Wuzeeree expedition in 1881.

Brigade-Surgeon-Lieutenant-Colonel A. Cameron, M.D., Bengal Establishment, is permitted to retire from the service from April 1st. His first commission dates from April 1st, 1868.

It is notified by the Government of India that until further orders no military medical officer will be allowed to proceed on leave unless on medical certificate, leave gazetted on or before March 15th not being included under this rule.

Brigade-Surgeon-Lieutenant-Colonel J. P. H. Boileau, M.D., has, we regret to learn, arrived home from India invalided.

MILITIA MEDICAL STAFF CORPS.

Mr. Harold Edward Mortis is appointed Surgeon-Lieutenant April 24th.

THE VOLUNTEERS.

Surgeon-Lieutenant-Colonel W. T. Colby, M.D., 2nd Volunteer Battalion the Princess of Wales's Own Yorkshire Regiment, Honorary Assistant-Surgeon W. H. Cocker, 5th Lancashire Volunteer Artillery, and Surgeon-Captain F. M. Beckett have been awarded the Volunteer Officers' Decoration.

Surgeon-Lieutenants H. C. Harper and C. F. Wright, 2nd Volunteer Battalion the Suffolk Regiment, are appointed Second Lieutenants in the same corps, April 24th.

Messrs. Thomas Brushfield, M.B., and Frederick Robert Hird, are appointed Surgeon-Lieutenants to the 2nd Volunteer Battalion the East Surrey Regiment.

Surgeon-Lieutenant C. W. J. Chepmell, M.D., 1st Volunteer Battalion the Royal Sussex Regiment, is promoted to be Surgeon-Captain April 24th.

Surgeon-Lieutenant Colonel J. E. Brodie, M.D., from the 3rd Volunteer Battalion the Highland Light Infantry, is appointed Surgeon-Lieutenant-Colonel to the 1st Dumbartonshire Rifles; and he is also appointed Brigade-Surgeon-Lieutenant-Colonel to the Clyde Brigade Volunteer Infantry, April 24th.

PROMOTION BY SELECTION.

Promotion by selection in the administrative ranks of the Medical Staff is now fairly inaugurated. The system is not only wise but necessary; but needs constant and close scrutiny to prevent injustice to individuals, which undoubtedly may and does happen under the most careful and conscientious Board of preferment. One of the results will be the retirement of a certain number in the rank of surgeon-colonel after three years' service, rather than run the risk of supersession. We hear that some officers are already denied promotion solely on the ground that, under retirement at 60, they would not have three years to serve in the rank of surgeon-major-general. If this is the case, it is the retrospective application of a new rule, which must operate with extreme harshness on the individuals directly affected. These men are clearly entitled to compensation, which has always heretofore been given on the sudden application of new age clauses of enforced retirement. Age has not been a bar hitherto to promotion in the highest grade of the Medical Staff; and we hardly think it can be justly enforced now without an amendment of the Royal Warrant, and the compensation of individuals directly concerned.

CONFIDENTIAL SANITARY REPORTS.

A service contemporary very pertinently asks: Why should a sanitary report be confidential? Yet the Secretary of State for War declined to produce one on the London barracks on that ground. Can it be, our contemporary asks, because the "publication would fix responsibility on those who desired to evade it?" In nine cases out of ten an adverse sanitary report means the expenditure of money; and it is on that very ground, we fear, that the sanitary reports of the medical department are so often "held over" or when publicly challenged declared to be confidential. We have seen it insinuated that medical officers are afraid to make unfavourable sanitary reports; we do not believe it. The vast majority of medical officers will honestly and fearlessly do their duty; and provided a report, however adverse, is drawn up with judgment and skill we are constrained to believe it would be honourably received. Of course we are aware there are such things as intemperate reports, but sanitary defects can surely be fully and forcibly stated in perfectly proper terms. Unless in special cases we therefore think all sanitary reports should be considered public property.

LEAVE TO MEDICAL OFFICERS.

In commenting on the announcement that leave to commissariat and medical officers had been cancelled owing to the Chitral expedition, the *Broad Arrow* of April 20th makes the following pertinent remarks:

"If it really is necessary that all the officers of these two departments

should be in India when a single division is mobilised, what do the Indian military authorities expect to happen when they are called upon to mobilise one, or perhaps two, army corps? Someone," says our military contemporary, "really ought to be called on for an explanation."

We agree, but would like to know who the "someone" should be. A question in the House would probably be attended with benefit.

UNIFICATION *VERSUS* REGIMENTALISM.

IT is a new experience to find Brigade-Surgeon-Lieutenant-Colonel Climo, Retired Army Medical Staff, attributing the exceptional mortality from enteric fever among the troops in India to the abolition of the regimental system. Brigade-Surgeon-Lieutenant-Colonel Climo's views, in the *United Service Magazine* of the current month, of the deterioration of regimental sanitation becoming persistent since 1873 will come as a surprise on a large number of medical officers. The writer of the article, "The Scourge of India," says that "the unification system is destined to failure." There is, at all events, very little likelihood of the reintroduction of the regimental system in its original form, although a modification is possible.

THE UNDERMANNING OF THE MEDICAL SERVICES.

IT is gratifying to find that the *Civil and Military Gazette*, published at Lahore, confirms, in an article on March 30th, all that the BRITISH MEDICAL JOURNAL (which it quotes) has stated on the undermanning of the Medical Staff abroad. The following extract from the article, which is too long for transcription, describes the position: "The medical services are seriously undermanned and ludicrously inadequate to meet the strain of a great war, or in fact of any war worthy of the name."

A correspondent in India, commenting on the above, says that "it is no exaggeration, and that medical officers just returned from a six months' campaign are not only unable to get one day's leave, but have to do single-handed the work of two, three, or more men during the coming hot weather. Is it a wonder," he justly asks, "that there is discontent?"

THE MEDICAL ARRANGEMENTS FOR THE MADAGASCAR EXPEDITION.

THE French are busy with their medical arrangements for the Madagascar Expedition. Eighteen medical officers and four apothecaries belonging to the Navy have been detailed for service with six marine battalions. The transport *Shamrock*, which formerly belonged to the Indo-China postal fleet, will probably be selected as a hospital ship. There is to be a base hospital in Madagascar, with a médecin principal de 2e classe in charge and twenty-five infirmiers (hospital attendants). Forty-five military medical officers and four apothecaries are named for duty with the expeditionary force, including seven médecins majors de 1re classe. In addition to this, various French societies for affording aid to the wounded are preparing for the campaign. The Committee of the Société Française have voted 25,000 francs as a first instalment, the Association des Dames Francaises 12,000 francs, and the Union des Femmes de France 10,000 francs. Various provincial committees have also opened credits for purchase of materials, so that the requirements of the sick and wounded will be well attended to.

THE PRINCIPAL MEDICAL OFFICER IN INDIA.

OBSERVER advocates the claims of Surgeon-Major-General Walsh to this post; but is somewhat belated, as it has been filled by the selection of Surgeon-Major-General Gore. We will not canvass the claims or merits of these officers, because the appointment has been by selection, and the junior has been preferred, no doubt on grounds that commended themselves to the authorities.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PRACTICE BY POST.

AN inquest was held recently at Stapleton, one of the suburbs of Bristol, by the coroner, Dr. E. M. Grace, with regard to the death of John E. Hinton, a coachsmith, 30 years of age, who died of syncope while in an advanced stage of consumption. According to the evidence he had not been attended by a local medical man, but had been taking a "balsam" procured by a friend for him, the charge for which was said to be 22s. for a large and 11s. 6d. for a smaller bottle. It was stated that during the illness the following letter had been received from Dr. Congreve, Combe Lodge, Peckham, London, S.E.: it was addressed to a relative of the deceased: "I have received your letter in reference to your brother, Mr. Hinton, and regret to hear he is in the last stage of consumption. Certainly the case seems far gone, and he should continue the balsam regularly as he is doing now, and take the mixture for diarrhœa, prescription enclosed. I don't think I have sent him any medicine direct. The balsam will not interfere with the medicine the local doctor may order, taken at different times." The Coroner remarked that a Dr. Congreve's name was upon the *Medical Register*, and he thought it would be his duty to send the letter to the General Medical Council, as it was contrary to medical etiquette to act in this way. Mr. John Ambrose, M.B., C.M., who had made a *post-mortem* examination, said a medical man in attendance might have prolonged life, but would have had no chance of saving it. The lungs were very seriously affected. The jury found that death was due to syncope, and expressed the opinion that the letter read should be forwarded to the General Medical Council.

DENTISTS AND ANÆSTHETISTS.

DUBIOUS.—We do not find the name of the person referred to in the *Dentists' Register*. We think it might be deemed to be unprofessional conduct on the part of a medical practitioner to administer anæsthetics to a patient during extraction of teeth by an unqualified person carrying on the business of a dentist. So far as we understand no precedent governing the case has yet been established by the General Medical Council, and the question might with advantage be submitted to the President of the General Medical Council, 299, Oxford Street, W.

LIVERPOOL VICTORIA LEGAL FRIENDLY AND MEDICAL AID SOCIETY.

A CORRESPONDENT sends us a cutting from the *Chippenham Spice Box*, which contains an advertisement of the above Society associated with the name of a local practitioner. There can be no question that it is unprofessional for a practitioner to allow himself to be thus advertised in the puff of a medical aid society. If an unqualified assistant is employed in the way described it would appear to be directly contrary to the injunction of the General Medical Council, that no unqualified assistant is to be employed at all except under the immediate supervision of the principal. The employment of unqualified assistants by medical men who accept appointments to medical aid socties and such like institutions cannot but be regarded with suspicion, for it is obvious that only in this way can it be possible to get any profit out of such poorly paid posts. It might be well to submit a complete statement of the facts, with the available evidence, to the President of the General Medical Council, 299, Oxford Street, W.

BRANCH SURGERIES AND UNQUALIFIED ASSISTANTS.

M.R.C.S., L.S.A. writes: I have a branch practice about two miles from my own house. I visit there every day myself, and my assistant comes over to my house and assists me both in my surgery and in my visiting. I have a telephonic communication also between my house and the branch. Will you kindly inform me whether I can keep an unqualified man in such a place? He sleeps at the branch, attends any case that may turn up, but telephones for me in all urgent cases.

**** The arrangement described, though better than exists in some practices, is not without its serious risks. At any time a case attended by the assistant may unexpectedly prove to be urgent, and the consequences may be anything but agreeable. A branch surgery should always be in the charge of a fully qualified practitioner.

CHANGE OF ADDRESS.

DR. M. asks: Is it illegal to advertise notice of removal? Would it be considered infamous conduct to do so?

**** Although it would not be illegal or be held to constitute infamous conduct to advertise notice of removal, it would contravene the ethics of the profession. The most unexceptionable mode, when impracticable to notify personally the change of residence, is to transmit an autograph note, or a *facsimile* thereof on notepaper, to the *bond-fide* patients of the newly-located practitioner, or to enclose an ordinary address card with "Change of Address" inserted at the top, the old address, in the lower right corner, being defaced by a black line, and the new one engraved in the left-hand corner, or *vice versâ*.

THE LEGAL POSITION OF MIDWIVES.

R. B. writes: In connection with the work of the Board of Guardians of this town, of which I am a member, a question has cropped up concerning the work of a midwife—Whether it is "illegal" for her to use the forceps? I should be glad to have your opinion. Does a midwife stand in the same position as a quack doctor, coming under the criminal law only when his patient dies?

**** There is no difference in law between a registered medical practitioner and a person taking on himself to practise as regards liability for negligence. An unqualified person is, however, much more likely to be convicted of negligence than one who is legally qualified. A midwife has no recognised legal status in this country. Subject to the approval of the Local Government Board, a Board of Guardians may make what regulations it chooses with regard to the conduct of midwives or of any other persons it employs, and disregard of such regulations might be an element in determining whether the person accused had been guilty of negligence. Such cases seldom come into court except when the patient dies, as mere negligence is rarely punishable criminally under other circumstances.

A GRATEFUL PARENT.

DR. W. P. BRIGGS (Aspatria, Carlisle), writes: In the issue of the BRITISH MEDICAL JOURNAL of April 20th you published a copy of an "advertisement" which had been inserted in the *West Cumberland Times* of March 15th by a patient of mine, who therein expressed his thanks for my attendance and treatment of his son—a club patient—who had suffered from diphtheria. I confess I was more than annoyed when this was pointed out to me, and subsequently remonstrated strongly with the man for having acted in such a way. I very gladly avail myself of your suggestion to disclaim through the BRITISH MEDICAL JOURNAL any hand in the matter, either directly or indirectly. Had the individual not been well known here as a little erratic, I should certainly have felt it incumbent on me to have expressed my annoyance through the local paper, but after due consideration deemed silence the best course, more especially as I have been resident here close upon twenty years. I am not a little surprised that anyone should have thought it worth while to trouble you with such a stupid and petty matter, and am of opinion that your correspondent belongs to the category of the uncharitable ones of the world.

MR. PASSMORE EDWARDS, on April 20th, formally declared open a new wing of West Ham Hospital, the cost of the erection of which he himself is defraying.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

CONGREGATIONS.—The congregations during the present term at which medical and surgical degrees will be conferred are fixed for May 9th, 16th, and 30th, June 6th and 13th.

SURGICAL EXAMINATIONS.—Professor W. Watson Cheyne, F.R.S., has been appointed an additional examiner in surgery for the present term. There are nearly eighty candidates for the surgery and obstetric division of the Third M.B. Examination.

UNIVERSITY OF EDINBURGH.

THE following candidates have passed the Medical Preliminary Examination: T. H. W. Alexander, J. F. Allan, J. Anderson, J. D. Anderson, W. B. Barnes, J. H. M. Bell, L. Bruce, A. Brydon, G. B. Butt, E. Cameron, W. J. Collis, J. Cook, C. W. Crooke, J. E. Dallas, A. R. Douglas, J. Duncan, J. W. I. Dunn, W. F. Easton, W. H. Elder, E. Ewart, D. C. B. Fitzwilliams, G. Grey, M.A., P. S. Haldane, A. A. Hall, R. Hamilton, G. H. Hanna, H. Harris, D. P. Hope-Johnstone, W. Hutchison, D. S. M. Izatt, F. F. C. Jagger, E. M. G. Jayne, J. C. Kennedy, W. Landsborough, L. Lawrie, K. G. Leach, R. Liddell, W. B. M'Conaghy, A. M'Ewan, W. M'Farlane, A. F. Mackay, J. G. Mackenna, J. A. Mackenzie, T. A. Mackenzie, D. M'K. Macleod, E. Macmillan, D. M. Macrae, Elizabeth Macrory, G. P. Maitland, H. Mason, Janet A. S. Mouat, R. Murray, N. Navarra, H. C. Nixon, G. J. Ovens, G. A. Pillans, P. C. Ritchie, D. J. Roberts, L. Saunders, M. S. Scott, W. Sloss, R. Sproul, C. P. Strong, T. G. Stewart, W. L. Trafford, G. R. Turner, N. N. Wade, D. L. Wall, J. Wallace, and G. Wilson.

And the following candidates have passed in the subjects named: F. E. Belcombe, English and Mathematics; W. Brown, Latin and Mathematics; Harriet J. C. Maclaren, Latin and Mathematics; K. D. Melville, Euclid and Algebra and Latin; C. B. Paul, Mathematics; and A. W. Wilson, Latin and French.

UNIVERSITY OF DUBLIN.

THE first summer commencements in Trinity Term were held in the Theatre of Trinity College, Dublin, on Friday, April 19th, when the following degrees in the Faculty of Physic were conferred by the University Caput in the presence of the Senate:

Baccalaureus in Medicinâ, in Chirurgiâ, et in Arte Obstetricâ.—T. H. M. Clarke.

Doctores in Medicinâ.—B. I. D'Olier, J. Elliott, W. B. Stokes, G. A. Winter, B. R. Chatterton (*in absentiâ*).

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

THE following gentlemen passed the First Examination of the Board in the subjects indicated under the Five Years' regulations:

Part I. *Chemistry and Physics.*—J. A. Archer, Mason College, Birmingham; A. Ashmore, Yorkshire College, Leeds; R. M. Barron, Guy's Hospital; W. N. Blatchford, University College, Bristol; J. C. O. Bradford, Cambridge University; J. Brownrigg, University College, Liverpool; P. C. Burgess, Middlesex Hospital; A. F. Carlyon, Middlesex Hospital; H. B. Carr, Guy's Hospital; J. F. Charlton, Charing Cross Hospital; L. Cook, Westminster Hospital; G. E. Cope, Westminster Hospital; F. J. P. Daly, London Hospital; L. C. Driscoll, Charing Cross Hospital; W. P. Dyer, St. Bartholomew's Hospital; C. A. H. Gee, University College, Bristol; R. J. Harris, St. Thomas's Hospital; A. H. Hayes, St. Bartholomew's Hospital; R. E. Hodgson, St. Mary's Hospital; J. E. Humphreys, Charing Cross Hospital; W. Johnson, Guy's Hospital; E. B. Kirkconnel, Owens College, Manchester; W. A. Lamborn, Middlesex Hospital; J. H. Longbottom, Yorkshire College, Leeds; H. J. May, London Hospital; J. W. Nunn, St. Bartholomew's Hospital; W. G. Palmer, Cambridge University and Guy's Hospital; A. Perks, Guy's Hospital; G. W. W. Pritchett, University College, London; D. W. Purkis, St. Bartholomew's Hospital; C. R. Rickard, Middlesex Hospital; J. H. Sanders, London Hospital; C. B. Sells, Guy's Hospital; L. S. Shoosmith, St. Mary's Hospital; W. G. Speers, St. Mary's Hospital; S. Stevens, St. Bartholomew's Hospital; H. B. M. Stratford, Oxford University; H. S. Thomas, St. Bartholomew's Hospital; H. Thwaites, London Hospital; G. P. Tongue, St. Paul's School, West Indies; P. H. Ward, Guy's Hospital; C. H. Wood, University College, London; T. J. Wright, Guy's Hospital.

Part II. *Practical Pharmacy.*—W. F. Allen, London Hospital; C. A. D. Bryan, Guy's Hospital; P. B. Deas, St. Mary's Hospital; F. K. Ettinger, University College, London; W. V. C. Francis, Westminster Hospital; J. R. Griffith, London Hospital; W. Holmes, St. Mary's Hospital; J. C. S. Oxley, St. Thomas's Hospital; A. K. G. Pocock, University College, London; J. Sherren, London Hospital; E. W. Williams, St. Mary's Hospital.

Part III. *Elementary Biology.*—W. Aston, Mason College, Birmingham; G. J. S. Atkinson, St. Paul's School, West Kensington; H. V. Bagshawe, Guy's Hospital; D. G. R. S. Baker, University College, London; W. L. Baker, St. Mary's Hospital; E. H. Barlow, Guy's Hospital; E. J. R. Bartlett, King's College, London; B. S. Bartlett, University College, London; J. Beard, Firth College, Sheffield; J. C. Bell, University College, London; W. C. Bemrose, Firth College, Sheffield; A. J. V. Betts, Westminster Hospital; R. Bigg, St. Bartholomew's Hospital; G. Black, St. Thomas's Hospital; P. R. Blake, London Hospital; C. O. Bodman, University College, Bristol; B. J. Boursot, St. Bartholomew's Hospital; T. W. S. Brown, Guy's Hospital; T. W. Brown, St. Bartholomew's Hospital; H. B. Butler, St. Bartholomew's Hospital; R. M. Carter, St. George's Hospital; G. E. Catheart, St. Bartholomew's Hospital; A. E. Causton, Guy's Hospital; E. M. Clarke, University College, Cardiff; R. S. Cocke, King's College, London; M. W. Compton, St. Thomas's Hospital; S. L. Compton, University College, Bristol; L. Cook, Westminster Hospital; R. T. Cooke, St. Bartholomew's Hospital; W. E. Cooper, University College, London; S. D. Corbett, St. George's Hospital; C. V. Cornish, St. Bartholomew's Hospital; P. A. Cornish, Middlesex Hospital; H. E. Crawley, Oxford University; R. H. Crompton, University College, Liverpool; D. Davies, St. Bartholomew's Hospital; H. B. Dismore, Guy's Hospital; S. Dodd, Westminster Hospital; W. C. Douglass, St. Bartholomew's Hospital; C. D. A. Dowman, St. Bartholomew's Hospital; J. S. Dudding, London Hospital; L. S. Dudgeon, St. Thomas's Hospital; W. A. Durance, Westminster Hospital; E. A. Edington, University College, London; C. J. E. Edmonds, St. Thomas's Hospital; C. Edwards, Guy's Hospital; D. R. Edwards, University College, Cardiff; C. M. Ekins, University College, London; S. J. D. Esser, London Hospital; A. J. Evans, University College, London; S. J. Evans, Guy's Hospital; F. E. Everington, St. Bartholomew's Hospital; R. A. Facey, St. Mary's Hospital; C. H. Farquharson, St. Mary's Hospital; B. Fawsett, St. Thomas's Hospital; T. G. Fenton, St. Thomas's Hospital; C. Y. Flewitt, Mason College, Birmingham; H. E. Flint, St. Bartholomew's Hospital; C. D. E. Forbes, St. George's Hospital; B. T. Forrest, St. Thomas's Hospital; J. B. Francis, Westminster Hospital; R. J. Fyffe, Firth College, Sheffield; E. W. Goble, Guy's Hospital; R. Gould, London Hospital; W. E. Graham, St. Bartholomew's Hospital; H. S. Greaves, St. Bartholomew's Hospital; S. M. Green, University College, Liverpool; P. B. Grenfell, St. Bartholomew's Hospital; J. G. Gubbins, St. Thomas's Hospital; T. B. Haig, St. Bartholomew's Hospital; J. R. Halliday, London Hospital; W. G. Hamilton, St. Bartholomew's Hospital; G. H. L. Hammerton, Firth College, Sheffield; J. D. Hartley, St. Bartholomew's Hospital; J. F. Harvey, Mason College, Birmingham; A. E. U. Hawke, University College, Liverpool; E. M. W. Hearn, London Hospital; E. Hearn, Firth College, Sheffield; H. Hemstead, University College, Bristol; G. A. Herklots, University College, London; C. E. Hicks, Guy's Hospital; T. Higson, Owens College, Manchester; A. R. Hobbs, St. Mary's Hospital; H. Holliks, Mason College, Birmingham; T. Holmes, St. Mary's Hospital; W. B. Hope, Guy's Hospital; C. B. Horsbrugh, University College, Bristol; E. H. Hubert, St. George's Hospital; H. R. Humby, St. Bartholomew's Hospital; J. D. D. Humby, St. Bartholomew's Hospital; J. W. Hunt, St. Mary's Hospital; F. W. James, University College, London; J. McK. Jefferiss, King's College, London; B. S. Jones, St. Thomas's Hospital; T. T. Kelly, Guy's Hospital; S. J. Kerfoot, London Hospital; R. Lamb, University College, Liverpool; G. J. A. Leclérzio, St. Bartholomew's Hospital; C. Lee, Firth College, Sheffield, and Guy's Hospital; W. H. Leonard, St. Bartholomew's Hospital; I. C. Lewis, St. Bartholomew's Hospital; W. H. Looseley, Guy's Hospital; J. McClintock, King's College, London; A. R. McLachlan, Guy's Hospital; H. A. Mason, Firth College, Sheffield; W. B. Mayne, University College, London; J. Miller, Owens College, Manchester; E. F. Mitchell, Guy's Hospital; W. Muir, Guy's Hospital; S. Neave, St. Bartholomew's Hospital; J. C. Oates, Mason College, Birmingham; J. O Hea, St. Bartholomew's Hospital; J. M. A. Olivey, St. Thomas's Hospital; E. A. Parsons, Mason College, Birmingham; J. Perks, St. Bartholomew's Hospital; H. G. Pinches, St. Thomas's Hospital; H. G. Pinker, St. Bartholomew's Hospital; S. Pomeroy-Trood, St. Bartholomew's Hospital; E. E. M. Price, Mason College, Birmingham; S. E. Price, Mason College, Birmingham; J. L. Pritchard, University College, Liverpool; H. M. Prins, University College, London; A. B. Pugh, St. Bartholomew's Hospital; W. H. Randolph, St. Bartholomew's Hospital; J. J. Rodil, Guy's Hospital; F. C. Rogers, St. Mary's Hospital; F. Rowland, Mason College, Birmingham; E. A. Sanders, King's College, London; E. J. Scorah, Firth College, Sheffield; E. F. Scott, Guy's Hospital; A. Shepherd, University College, Liverpool; C. Shorland, Guy's Hospital; G. S. Simpson, Guy's Hospital; A. A. Smith, Guy's Hospital; L. S. Smith, Mason College, Birmingham; S. Smith, University College, London; T. S. Smith, St. Mary's Hospital; T. W. Smith, Charing Cross Hospital; A. E. Softly, St. Thomas's Hospital; W. C. Speirs, St. Mary's Hospital; H. Z. Stephens, St. Thomas's Hospital; W. Sykes, Owens College, Manchester; Y. Takaki, St. Thomas's Hospital; A. W. Talbot, Guy's Hospital; A. M. Thomas, Guy's Hospital and Durham University; W. M. Thomas, Guy's Hospital; C. C. B. Thompson, St. Bartholomew's Hospital; H. B. Thompson, Mason College, Birmingham; R. L. Thornley, St. Bartholomew's Hospital; A. F. Tredgold, London Hospital. F. W. Twort, St. Thomas's Hospital; J. C. Velenski, London Hospital; T. H. Vickers, St. Mary's Hospital; R. H. Vincent, St. Bartholomew's Hospital; T. Walker, University College, Liverpool; W. Ward, Mason College, Birmingham; R. Walker, St. Bartholomew's Hospital; J. Waters, Middlesex Hospital; J. A. West, St. Bartholomew's Hospital; O. E. Ward, Mason College, Birmingham; H. E. Weston, St. George's Hospital; E. Wethered, St. Bartholomew's Hospital; C. C. C. K. White, St. Bartholomew's Hospital; E. S. Wilkinson, St. Bartholomew's Hospital; E. W. Williams, St. Mary's Hospital; H. C. Wilson, St. Mary's Hospital; R. Winterbotham, University College, London; R. E. H. Woodforde, St. Bartholomew's Hospital; H. G. Wood-Hill, St. Bartholomew's Hospital; T. J. Wright, Guy's Hospital.

Part IV. *Elementary Anatomy.*—H. T. D. Ackland, St. Thomas's Hospital; H. St. A. Agate, St. Mary's Hospital; P. F. Alderson, Middlesex Hospital; W. F. Allen, London Hospital; F. E. Anley, Charing Cross Hospital; J. Atkins, Guy's Hospital; J. Aubrey, University College, Bristol; R. C. Austin, St. Mary's Hospital; H. V. Bagshawe, Guy's Hospital; A. R. Baker, St. Bartholomew's Hospital; W. L. Baker, St. Mary's Hospital; E. H. Barlow, Guy's Hospital; A. S. Barnes, Mason College, Birmingham; E. J. R. Bartlett, King's College, London; W. Bastian, University College, London; C. T. Baxter, Middlesex Hospital; H. R. Beale, St. Thomas's Hospital; J. Beard, Firth College, Sheffield; N. C. Beaumont, St. Bartholomew's Hospital; J. C. Bell, University College, London; C. H. Bennett, St. Mary's Hospital; W. F. C. Bennett, Firth College,

Sheffield; A. J. V. Betts, Westminster Hospital; A. Bevan, St. Thomas's Hospital; G. Black, St. Thomas's Hospital; F. J. G. Blake, Yorkshire College, Leeds; P. R. Blake, London Hospital; C. O. Bodman, University College, Bristol; F. C. Borrow, St. Bartholomew's Hospital; J. B. C. Bourdas, St. Thomas's Hospital; C. Brockwell, Guy's Hospital; F. W. Brook, Guy's Hospital; A. Brown, King's College, London; T. W. S. Browne, Guy's Hospital; C. A. D. Bryan, Guy's Hospital; E. H. Bullen, St. Mary's Hospital; P. C. Burgess, Middlesex Hospital; H. Burrows, St. Bartholomew's Hospital; H. Calvert, St. Thomas's Hospital; R. M. Carter, St. George's Hospital; A. E. Causton, Guy's Hospital; D. P. Chapman, Charing Cross Hospital; T. Chetwood, London Hospital; E. M. Clarke, University College, Cardiff; H. H. R. Clarke, St. Thomas's Hospital; F. Coleman, Charing Cross Hospital; A. Coleridge, University College, Bristol; J. M. Collyns, St. Bartholomew's Hospital; S. L. Compton, University College, Bristol; L. Cook, Westminster Hospital; R. T. Cooke, St. Bartholomew's Hospital; W. E. Cooper, University College, London; G. E. Cope, Westminster Hospital; D'A. Corbett, St. George's Hospital; C. V. Cornish, St. Bartholomew's Hospital; P. A. Cornish, Middlesex Hospital; J. F. Cunningham, St. Thomas's Hospital; J. B. S. D'Aguilar, University College, Bristol; W. S. Daukes, St. Bartholomew's Hospital; J. B. Davey, Middlesex Hospital; A. M. Davis, Mason College, Birmingham; A. G. C. Davies, Guy's Hospital; D. Davies, St. Bartholomew's Hospital; E. H. Davies, University College, Cardiff; P. B. Deas, St. Mary's Hospital; H. R. H. Denny, Guy's Hospital; A. Densham, Guy's Hospital; W. Dick, University College, London; H. B. Dismore, Guy's Hospital; S. Dodd, Westminster Hospital; M. S. Doubble, Charing Cross Hospital; H. G. Drake-Brockman, St. George's Hospital; J. S. Dudding, London Hospital; L. S. Dudgeon, St. Thomas's Hospital; W. R. Dunstan, London Hospital; E. A. Edington, University College, London; J. E. Edmonds, St. Thomas's Hospital; D. R. Edwards, University College, Cardiff; F. F. Elwes, Middlesex Hospital; A. J. Evans, University College, London; S. J. Evans, Guy's Hospital; C. H. Farquharson, St. Mary's Hospital; B. Fawssett, St. Thomas's Hospital; T. G. Fenton, St. Thomas's Hospital; C. Y. Flewitt, Mason College, Birmingham; H. B. Foster, Guy's Hospital; E. S. G. Fowler, Yorkshire College, Leeds; A. Freear, St. Mary's Hospital; C. S. Frost, St. Bartholomew's Hospital; J. R. Frost, University College, Bristol; R. J. Fyffe, Firth College, Sheffield; J. Gaff, St. Thomas's Hospital; T. Bradley, St. Bartholomew's Hospital; C. A. H. Gee, University College, Bristol; E. W. Goble, Guy's Hospital; G. E. Goode, London Hospital; H. Goodman, St. Bartholomew's Hospital; W. R. P. Goodwin, St. Mary's Hospital; W. E. Graham, St. Bartholomew's Hospital; H. S. Greaves, St. Bartholomew's Hospital; P. B. Grenfell, St. Bartholomew's Hospital; W. E. Gribbell, St. Mary's Hospital; G. Gubbins, St. Thomas's Hospital; T. B. Haig, St. Bartholomew's Hospital; H. S. Harris, St. Thomas's Hospital; J. D. Hartley, St. Bartholomew's Hospital; J. F. Harvey, Mason College, Birmingham; C. S. Hawes, St. Bartholomew's Hospital; H. Hawker, University College, London; W. C. Haydon, St. Mary's Hospital; E. M. W. Hearn, London Hospital; P. M. Heath, University College, London; H. A. Higgens, Guy's Hospital; T. Higson, Owens College, Manchester; H. W. Hodgson, London Hospital; E. Hodgson, St. Mary's Hospital; H. H. Hollick, Mason College, Birmingham; C. B. Horsbrugh, University College, Bristol; H. G. Horton, Middlesex Hospital; E. H. Hubert, St. George's Hospital; F. F. Hughes, University College, Bristol; J. W. Hunt, St. Mary's Hospital; P. C. P. Ingram, University College, Cardiff; W. S. Inman, Firth College, Sheffield; C. W. W. James, University College, Bristol; S. James, University College, London; D. Jeaffreson, St. Bartholomew's Hospital; F. B. Jefferiss, King's College, London; J. M. Jefferiss, King's College, London; A. W. Jones, St. Thomas's Hospital; B. S. Jones, St. Thomas's Hospital; R. Lamb, University College, Liverpool; W. A. Lamb, Middlesex Hospital; C. Lees, Charing Cross Hospital; C. E. H. Leggatt, St. Mary's Hospital; W. H. Leonard, St. Bartholomew's Hospital; J. C. Lewis, St. Bartholomew's Hospital; W. E. V. Lewis, Mason College, Birmingham; E. L. Lilley, Charing Cross Hospital; W. H. Mosely, Guy's Hospital; G. H. Low, St. Bartholomew's Hospital; A. R. McEnnery, University College, Bristol; W. H. McMullen, King's College, London; H. A. Mason, Firth College, Sheffield; W. B. Mayne, University College, London; C. R. W. H. Meredith, Middlesex Hospital; E. Meredith, London Hospital; J. Miller, Owens College, Manchester; E. P. Mitchell, Guy's Hospital; J. D. Morgan, St. Mary's Hospital; A. S. Morley, St. George's Hospital; H. E. Morris, Guy's Hospital; B. W. Moss, Guy's Hospital; B. Muir, Guy's Hospital; D. J. Munro, Guy's Hospital; C. W. Muter, King's College, London; S. Neave, St. Bartholomew's Hospital; J. S. New, University College, London; P. T. Nicholls, Middlesex Hospital; C. A. R. Nitch, St. Thomas's Hospital; H. R. Nutt, St. Mary's Hospital; C. Oates, Mason College, Birmingham; J. O'Hea, St. Bartholomew's Hospital; J. M. A. Olivey, St. Thomas's Hospital; H. J. Orford, Mason College, Birmingham; A. G. Osborn, Guy's Hospital; E. A. Parsons, Mason College, Birmingham; W. H. Passmore, Charing Cross Hospital; J. F. Paul, St. George's Hospital; W. F. Peach, St. Mary's Hospital; W. E. Peck, University College, London; T. J. Peirce, St. George's Hospital; T. Perrin, St. Thomas's Hospital; H. G. Pinches, St. Thomas's Hospital; H. D. Pollard, London Hospital; J. M. Pooley, St. Mary's Hospital; H. C. Price, University College, London; E. E. M. Price, Mason College, Birmingham; S. E. Price, Mason College, Birmingham; C. H. Pring, University College, Bristol; H. M. Prins, University College, London; A. B. Pugh, St. Bartholomew's Hospital; W. H. Randolph, St. Bartholomew's Hospital; A. C. Rasford, Guy's Hospital; H. M. Reeve, Guy's Hospital; A. D. Reid, King's College, London; J. J. Rodil, Guy's Hospital; F. C. Rogers, St. Mary's Hospital; F. Rowland, Mason College, Birmingham; E. Russell-Risien, St. Bartholomew's Hospital; T. F. Rutter, Guy's Hospital; E. A. Sanders, King's College, London; J. H. Sanders, London Hospital; E. J. Scorah, Firth College, Sheffield; E. F. Scott, Guy's Hospital; H. M. Scott, Charing Cross Hospital; S. R. Scott, St. Bartholomew's Hospital; W. B. Secretan, Guy's Hospital; J. S. Serase, St. Bartholomew's Hospital; W. Sheldon, Guy's Hospital; F. A. Segreda, Guy's Hospital; L. Sells, St. Thomas's Hospital; M. Sheehan, Queen's College, Cork; A. J. Sheldon, University College, London; J. Sherren, London Hospital; G. S. Simpson, Guy's Hospital; J. E. Simpson, University College, London; A. A. Smith, Guy's Hospital; P. N. Smith, St. Mary's Hospital; S. Smith, University College, London; T. S. Smith, St. Mary's Hospital; A. E. Soffly, St. Thomas's Hospital; F. H. Sparkes, Guy's Hospital; G. B. A. Speers, St. Mary's Hospital; F. H. Sprague, St. Mary's Hospital; C. A. Sprawson, King's College, London; T. F. Staines, King's College, London; E. H. B. Stanley, University College, London; H. Z. Stephens, St. Thomas's Hospital; S. Stevens, St. Bartholomew's Hospital; W. A. G. Stevens, Guy's Hospital; W. G. Stewart, Guy's Hospital; P. G. Stock, University College, Bristol; F. S. Stokes, Firth College, Sheffield; H. M. B. Stratford, Oxford University; R. H. J. Swan, Guy's Hospital; Y. Takaki, St. Thomas's Hospital; A. W. Talbot, Guy's Hospital; H. C. Tayler, St. Mary's Hospital; H. S. Thomas, St. Bartholomew's Hospital; W. M. Thomas, Guy's Hospital; J. B. Thompson, University College, London; E. D. Townroe, St. George's Hospital; A. F. Tredgold, London Hospital; D. B. Truman, King's College, London; W. A. Trumper, St. Mary's Hospital; F. D. Turner, Guy's Hospital; F. W. Twort, St. Thomas's Hospital; A. L. Vaughan, St. Bartholomew's Hospital; P. L. Vawdrey, St. Bartholomew's Hospital; J. C. Velenski, London Hospital; H. Vickers, St. Mary's Hospital; A. B. Vine, Middlesex Hospital; C. Visger, University College, London; A. A. B. von Rosen, St. Mary's Hospital; L. A. Walker, St. Bartholomew's Hospital; O. E. Ward, Mason College, Birmingham; J. Waters, Middlesex Hospital; W. J. Waters, St. Thomas's Hospital; R. N. Watson, Westminster Hospital; A. J. W. Wells, St. Bartholomew's Hospital; H. V. Wells, St. Mary's Hospital; A. F. Weston, St. George's Hospital; B. Wethered, St. Bartholomew's Hospital; C. C. C. White, St. Thomas's Hospital; P. W. White, University College, Bristol; A. E. F. Wilkes, Mason College, Birmingham; E. W. Williams, St. Mary's Hospital; S. R. Williams, University College, London; H. Winterbotham, University College, London; H. G. Woodcock, St. Mary's Hospital; H. G. Wood-Hill, St. Bartholomew's Hospital; T. J. Wright, Guy's Hospital.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

THE quarterly Examinations for the Triple Qualification in Edinburgh took place in April with the following results:

First Examination.—Four Years' Course—Of 15 candidates, the following 9 passed: H. Nuttall, J. S. Gubbins, R. Murphy, C. B. Retallack, C. Simpson, J. A. Holmes, W. Scott, M. L. Neylon, and W. G. N. Keith. Two candidates entered for divisions and 1 passed. Five Years' Course—Of 23 candidates, the following 12 passed: Henrietta Fraser Traill, Jessie Jane Graham, Katharine Constance Sampson, J. A. Petavel, A. C. Balfour, Isabella Anne Watson, with distinction; C. C. Murison, R. J. Love, R. H. R. McKean, S. Pritchard, with distinction; Mary Birrell Davies, and M. Sullivan. Twenty-one candidates entered for divisions and 15 passed.

Second Examination. Four Years' Course—Of 27 candidates, the following 16 passed: A. J. Pollard, W. L. Brown, J. Craig, T. Thompson, J. Sheehan, F. V. Elkington, F. Compton, Johanna M. Watson, Pearse, with distinction; W. B. Grannum, W. Cook, T. Murphy, A. B. S. C. Morrogh, K. V. Rao, J. N. Williams, W. L. Cockcroft, and C. O. Wynne. Eight candidates entered for divisions and 6 passed. Five Years' Course—Of 19 candidates, the following 12 passed: J. Hope, D. S. Taylor, M. H. Babington, with distinction; R. J. Isaac, M. Rusk, D. Graham, W. L. Cribbes, G. J. Meikle, Edith Mary Paton, Gertrude Mary Hutton, R. J. Pearson, and Rosina Jane Gillam.

Third Examination.—Five Years' Course—Of 13 candidates, the following 11 passed: W. H. Cox, A. J. Laurie, R. W. Meikle, J. Cranke, Ethel Louie Starmer, Mildred Jane Wallace, Mary Bowman Wilson, Euphemia Cumming, Elizabeth Morton Johnston, J. R. Morris, and Edith Willett Stanley. Two candidates entered for divisions, and 1 passed.

Final Examination.—Of 84 candidates, the following 44 passed, and were admitted L.R.C.P.E., L.R.C.S.E., and L.F.P. and S.G.; S. H. L. Archer, T. McC. Adair, J. V. Abrines, A. V. C. Holt, Louisa Charlotte Nash, E. Pearson, W. D. McMurtry, A. Whitfield, Charlotte Rhoda Hodgins, A. J. Williams, A. Bance, J. B. Winter, J. Minns, W. Bell, R. J. Fullerton, Beatrice Garvie, M. P. MacGillicuddy, J. A. Clements, D. Lawson, F. N. Clarke, H. G. Kelly, A. J. Young, W. Curtis, E. S. Hamer, W. R. Fisher, T. D. Rhodes, H. C. Venis, W. F. Macfarlane, E. F. Eyre, J. Easton, E. Pearson, J. L. Pinchin, J. R. N. Witherspoon, D. Thomson, E. C. Leach, W. J. Bebb, C. de Vos, Rose Govindu Rajulu, L. V. Jacques, P. J. Sheedy, H. Highet, W. H. Ferrier, A. C. Oldham, and T. H. Hosford. Nine candidates entered for divisions, and 7 passed.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, IRELAND.

THE following is the result of the Spring Examination held in April, 1895:

FIRST PROFESSIONAL EXAMINATION.

Honours Division.—J. Foley.

Pass Division.—A. *Completed the Examination.*—G. R. Barton, W. Bennett, W. S. D. Bird, H. M. Clarke, J. W. Clarke-Bayliss, C. H. Cormac, C. W. Crowe, D. Harrington, C. G. Jones, A. O'D. Kelly, N. Kirby, A. C. Lewis, L. H. Mayston, J. M'Donald, J. H. O'Connor, J. F. O'Flanagan, P. S. O'Reilly, R. W. Richards, M. J. Russell, W. Scott, A. Stephenson, G. Tickell.

B. *Passed in Anatomy.*—W. F. Cormack, R. Hughes, F. J Moore, J. G. Young

C. *Passed in Chemistry and Physics.*—R. Hughes.
D. *Passed in Pharmacy.*—W. F. Cormack, R. Hughes, J. L. Jones, J. G. Young.
E. *Passed in Biology.*—W. F. Cormack, J. B. Cusack, J. J. M'Inerney.

SECOND PROFESSIONAL EXAMINATION.

Honours Division.—A. *Four Years' Scheme.*—None.
B. *Five Years' Scheme.*—F. J. Palmer.
Pass Division.—A. Completed the examination.
1. *Four Years' Scheme.*—P. Coffey, J. G. Cookman, R. Crean, P. D. Glynn, E. J. Lynch, T. C. Mackenzie, W. C. M'Cann, W. H. Odlum, B. R. Phillipson, J. E. G. Pigott, A. W. Sampry.
2. *Five Years' Scheme.*—B. B. Burke, F. Hall, F. J. C. Heffernan, G. A. Kearney, S. G. Longworth, E. M. O'Farrell, J. F. O'Farrell, W. M. Power, James Sinclair.
3. *Passed in Anatomy and Histology.*—F. A. Benson, R. V. Brews (and in Physiology) S. Jacob, G. Keunedy, E. E. Roberts.
4. *Passed in Physiology.*—J. M. H. Conway, J. A. Martin (and in Anatomy) D. Power (and in Histology), W. Taylor (and in Anatomy and Histology).
5. *Passed in Materia Medica.*—Miss Cummin, D. J. O'Meara, J. F. Loughary, D. Massey (and in Anatomy).
6. *Passed in Anatomy.*—J. W. Rodgers.

Third Professional Examination.—The following have passed this examination:—J. W. Benson, W. H. Croly, J. R. Hewetson, J. D. Murdoch, M. M'Grath, T. G. M'Grath, J. F. O'Keeffe, A. L'E. Orme, J. E. P. Shera, J. F. Smyth, M. G. Sterling.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, APRIL, 1895.—The following candidates passed in:
Surgery.—W. Allen, Birmingham; W. H. Daw, London Hospital; F. W. Gale, St. Bartholomew's Hospital; J. Hepple, Leeds; T. H. Hunt, Leeds; T. H. P. Peers, Charing Cross Hospital; G. R. Smith, Manchester.
Medicine, Forensic Medicine, and Midwifery.—C. N. Barton, St. George's Hospital; W. H. Daw, London Hospital; R. Hedden, Guy's Hospital; T. H. Hunt, Leeds; A. S. Lawrence, Middlesex Hospital, J. M. Troup, King's College.
Medicine and Forensic Medicine.—G. P. Y. Hulbert, Birmingham and Charing Cross Hospital; J. H. P. Vivian, St. Thomas's Hospital.
Medicine and Midwifery.—J. Hepple, Leeds; E. P. Hewitt, St. Mary's Hospital.
Medicine.—H. G. Jones, St. Mary's Hospital; W. McCall, Charing Cross Hospital.
Forensic Medicine.—J. W. F. Graham, St. Bartholomew's Hospital; A. H. Trevor, Guy's Hospital.

To Messrs. Daw, Hunt, Trevor, Troup, and Vivian was granted the diploma of the Society entitling them to practise medicine, surgery, and midwifery.

OBITUARY.

JAMES JOHNSTON, M.B., M.R.C.P.Lond.

We regret to have to announce the death of Dr. James Johnston, of Easy Row, Birmingham, which took place in that city on April 11th. He was the son of a prominent citizen of Birmingham, and by origin of the Border family of Johnstons of Annandale. He was 71 years of age. He practised for some years as a general practitioner, and had a wide and lucrative practice. In the year 1868 he gave up general practice and practised as a physician only. Shortly afterwards he was elected on the honorary staffs of the Queen's and the Children's Hospitals, appointments which he held with honour and dignity for some years. His professional position and the esteem in which he was held by his brethren are shown by the fact that he was advanced to every position of honour in his profession in the locality. He filled the presidential chairs of the Birmingham and Midland Branch of the British Medical Association, the Midland Medical Society, the Medical Institute, the Medical Benevolent Society, and the Graduates Club. A busy man throughout all his life, he nevertheless found time for careful reading and study of professional literature, and kept himself well abreast with scientific advances. He was greatly devoted to archæological pursuits, and for many years he was a member of the local archæological societies, and took a keen interest in their work, and almost up to the time of his death, certainly until a few months ago, he was engaged in an elaborate work which he was preparing for the press on the events of the period of St. Augustine's mission to Britain, and the relations borne by the saint to the already existing British church and its prelates.

Dr. Johnston also did a good deal of public work. When he lived in Sutton Coldfield, a few miles out of Birmingham, he acted as Warden (chief magistrate) for three years in succession, and laboured earnestly to bring about an improved condition of municipal affairs, and he lived to see his views ultimately adopted. A man of warm heart and generous disposition, an eminently social man, Dr. Johnston gathered about a large circle of friends, by whom his loss will be severely felt, and he will be regretted by his professional brethren as one of those high minded and honourable practitioners who ever consider the well-being of their patients, and the honour and dignity of their calling before personal advantage.

JOHN BIRD, M.R.C.S.Eng., L.S.A.

The death is reported of Mr. John Bird, a blind surgeon, in his 84th year. The deceased, who was the youngest son of Mr. John Bird, of Sturminster Newton, Devon, pursued his medical studies at St. Bartholomew's Hospital, and was admitted a Member of the Royal College of Surgeons, England, and a Licentiate of the Society of Apothecaries in 1834. He was the author of *Observations on the Neglected Condition of the Blind in England*, the publication of which he followed by a *Lecture on the Capabilities, Rights, and Treatment of the Blind.* In 1856 he published an *Essay on the Life, Characters, and Writings of the Blind James Wilson, as well as on the Present State of the Blind.*

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,407 births and 4,127 deaths were registered during the week ending Saturday, April 20th. The annual rate of mortality in these towns, which had declined from 33.0 to 20.5 per 1,000 in the six preceding weeks, further fell to 20.3 last week. The rates in the several towns ranged from 16.1 in Bradford and in Derby, 16.4 in Cardiff, and 16.8 in Nottingham to 27.8 in Huddersfield, 29.7 in Manchester, and 34.5 in Bolton. In the thirty-two provincial towns the mean death-rate was 21.4 per 1,000, and was 2.8 above the rate recorded in London, which was 18.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.7 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, and was highest in Manchester, Salford, and Bolton. Measles caused a death-rate of 1.2 in Plymouth, 1.5 in Manchester, and 3.5 in Bolton; and whooping-cough of 1.2 in Wolverhampton and in Blackburn, 1.3 in Salford, and 1.6 in Burnley. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 57 deaths from diphtheria in the thirty-three towns included 30 in London, 5 in West Ham, 5 in Manchester, and 2 each in Croydon, Cardiff, Huddersfield, Sheffield, and Gateshead. One fatal case of small-pox was registered in Liverpool, but not one in London or in any other of the thirty-three large towns. There were 35 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, April 20th, against 55, 53, and 47 at the end of the three preceding weeks; 4 new cases were admitted during the week, against 11, 7, and 9 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,555, 1,519, and 1,463 at the end of the three preceding weeks, had risen again to 1,514 on Saturday last, April 20th; 162 new cases were admitted during the week, against 161, 143, and 117 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, April 20th, 1,052 births and 626 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 24.7 per 1,000 in each of the two preceding weeks, declined to 21.7 last week, but was 1.4 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.2 in Dundee to 26.0 in Aberdeen. The zymotic death rate in these towns averaged 2.7 per 1,000, the highest rates being recorded in Paisley and Leith. The 298 deaths registered in Glasgow included 7 from small-pox, 11 from whooping-cough, 3 from diphtheria, and 3 from scarlet fever. One fatal case of small-pox and 7 of measles were recorded in Edinburgh, and 10 of measles in Leith.

INCREASE OF SALARY OF DISTRICT MEDICAL OFFICER.

W. H. D., who is a district medical officer, writes to ask whether it would be any use to apply to the Local Government Board in reference to an increase of salary for himself on the ground that he is paid at a lower rate than the medical officers of two other districts in the same union, the guardians having decided that they see no reason for increasing the salary.

*** We believe that the Local Government Board would not take any action in this case. It is usual for the guardians to fix or to increase the salary of any Poor-law officer, and for the Local Government Board to sanction the salary so fixed. If the guardians could be induced to give any increase the higher Board would no doubt sanction it.

THE DUTIES OF M.O.H. IN INFECTIOUS CASES.

East Sussex.—Taking the circumstances as stated, we see no justification for the charges referred to, and the responsibility for delay would seem to rest elsewhere. Still it would have been much better to lose no time in acquainting Dr. A. with the facts, notwithstanding his omission to notify.

MEDICAL NEWS.

FOR the first time in Italian history a "Red Cross" hospital, with *personnel* and all requirements, has left Naples for Africa, to be ready for every eventuality. The whole expense will be paid by the Society of the Red Cross.

THE Duchess of Teck will, on Tuesday, July 9th, open the new buildings of the London Homœopathic Hospital, in Great Ormond Street, Bloomsbury, which contains 100 beds and has cost £45,000.

THE Marquis Camden will open a bazaar at the Athenæum, Camden Town, in aid of the North-West London Hospital, Kentish Town Road, on May 13th. Baron de Hirsch has forwarded an additional donation of £500 to the hospital.

LONGEVITY IN THE CAPITAL OF JAPAN.—Statistics recently published by the Japanese Home Department show that in Tokyo there were, at the end of 1894, 2 women over 105 years of age, 3 women over 100, 9 men and 11 women over 95, and 83 men and 109 women over 90.

THE late Mr. George Henry Strutt, of Belper, had instructed his executors to transfer to the district council the sum of £11,700 for their absolute use in improving the water supply. The deceased gentleman had previously lent the money free of interest to the authority. The local Waterworks Company is therefore transferred to the ratepayers without any cost.

NATIONAL HEALTH SOCIETY.—The annual distribution of medals and certificates of this Society will take place, by kind permission of the Duke of Westminster, at Grosvenor House, on May 11th. Her Royal Highness Princess Christian has consented to be present on this occasion, and several eminent speakers will address the meeting.

MEDICAL EDUCATION FOR WOMEN IN RUSSIA.—The applications for admission to the new School of Medicine for Women, which is to be opened in St. Petersburg at the beginning of the academic year 1895 96, are already so numerous that the Russian Education Department has decided that female medical students shall be admitted to the medical faculties of all the universities of the empire.

MEDICAL PRACTITIONERS IN SWITZERLAND.—Official statistics give the total number of medical practitioners in the 25 cantons of Switzerland in 1894 as 1,692, being an average of 1 practitioner to every 1,761 inhabitants. In the cantons of Geneva, however, the proportion was 1 in 887, and in that of Basel City 1 in 934, while in the canton of Freiburg it was 1 in 3,581, in Uri 1 in 3,450, in Wallis 1 in 3,437, and in Appenzell, Inner Rhodes, 1 in 3 224.

WILLS AND BEQUESTS.—The late Mayor of Kendal, Alderman W. Bindloss, has by his will bequeathed, among other sums, £1 000 each to the following: The Royal Albert Asylum, Lancaster; the Middlesex Hospital, St. George's Hospital, and King's College, Hospital.—Mrs. Emma Mackenzie, of Bournemouth, who died on February 11th, has left £1,000 to the Jubilee Hospital at Bournemouth.—By his will, proved on March 25th, the late Mr. Thomas Walton Thompson, of Ampthill Square, has bequeathed £100 each to the University College Hospital, Gower Street, and to the Hospital for Incurables, Putney.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—We are asked to state that the examination for the certificate in Psychological Medicine, granted by the Medico-Psychological Association of Great Britain and Ireland, will be held in London, Edinburgh, and Dublin in June; the exact date will be notified in due course. The examination for the Gaskell Prize, which is open to all who possess the certificate of the Association, will be held in London in June. Full particulars may be obtained from the Registrar of the Association, Dr. Spence, Burntwood Asylum, near Lichfield.

FEMALE MEDICAL OFFICERS OF GIRLS' SCHOOLS IN PARIS.—Mme. Chopin-Tourangin, who was recently appointed medical officer of the Lycée Fénelon in succession to the late Dr. Dujardin-Beaumetz, is not the only female member of the medical profession occupying a similar post in Paris. Mdlle. Benoit has medical charge of the Lycée Molière, Mme. Schutz-Bertillon of the Lycée Racine, Mme. Edwards Pilliet of the Lycée Lamartine. All these ladies are French by birth with the exception of Mme. Schutz-Bertillon, who is French by marriage. According to the *Petit Journal*, most of the French ladies who have taken up medicine as a career are doing well in their profession. Among them are Mesdames Brès, Gaches-Sarraute, Guénot, Landais, Perrée, Pierie, Pilet, and Sollier-Dubois.

THE TUBERCULOSIS CONGRESS IN PORTUGAL.—The National Congress of Tuberculosis was held at Coimbra from March 24th to 29th, under the presidency of Dr. Da Costa Simoes, Rector of the University. The members of the Congress numbered 372. At the opening ceremony all the civil, ecclesiastical, and academic authorities were present, and there was a brilliant assemblage of ladies. An inaugural discourse setting forth the objects of the Congress was delivered by Professor Augusto Rocha, editor of the *Coimbra Medica*, to whose initiative the meeting was due, and who took the chief part in its organisation. A congratulatory telegram was despatched to Professor Robert Koch, who sent a gracious reply. Numerous papers were read, the meetings were throughout well attended, and the gathering was altogether, from the social as well as from the scientific point of view, a brilliant success. The next meeting of the Congress was fixed for 1898.

MEDICAL VACANCIES.

The following vacancies are announced:

BELFAST UNION.—Medical Officer for the No. 10 Sub-district of the Belfast Dispensary District. Salary, £145 per annum, exclusive of registration and vaccination fees. Must reside within the district. Election on May 6th.

CAMBRIDGE, ETC., ASYLUM, near Cambridge.—Clinical Assistant; must be qualified. Appointment for six months. Board and apartments provided, but no salary. Applications to the Medical Superintendent.

CHARING CROSS HOSPITAL.—Curator and Pathologist. Salary £100 per annum. Applications to Arthur E. Reade, Secretary, by April 29th.

DENBIGHSHIRE INFIRMARY AND GENERAL DISPENSARY, Denbigh.—Honorary Medical Officer, doubly qualified. Applications to the Chairman of the Committee of Management by May 14th.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, 17, Bartlett's Buildings, Holborn Circus.—Honorary Physician and Resident Medical Officer. Salary for the latter £100 per annum, with apartments and attendance. Applications to the Honorary Secretary by May 4th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—Resident House-Physician also House-Surgeon. Appointments for six months. Salaries, £20, with board and residence in the hospital; unmarried, and possess a legal qualification to practise. Applications and testimonials to Adrian Hope, Secretary, before Tuesday, April 30th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 annually, with furnished quarters, attendance, coals, gas, produce, milk, and washing. Appointment for two years in the first instance. Applications to Francis R. Howlett, Clerk to the Subcommittee of Visitors, 9, King Street, Maidstone, by May 1st.

MIDDLESEX HOSPITAL, W.—Assistant Surgeon; must be Fellow (or have passed the qualifying examination for the Fellowship) of the Royal College of Surgeons of England. Applications to F. Clare Meihado, Secretary Superintendent, by May 1st.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Albany Memorial, Queen Square, W.C.—Registrar. Honorarium of 50 guineas is attached to the post. Appointment tenable for two years, and for a longer period subject to re-election. Applications to B. Burford Rawlings, Secretary and General Director, by May 3rd.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho Square, W.—Resident Medical Officer; doubly qualified. Appointment for six months, with board, residence, and an honorarium of £10 10s. Applications to F. Handley, Secretary, by April 27th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Physician to the Out-patients; must be Fellows or Members of the Royal College of Physicians of London. Applications to the Secretary by May 14th.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Lecturer on Physiology. Applications to the Dean by May 25th.

UNIVERSITY OF GLASGOW.—Two Examiners for Degrees in Medicine to examine in Clinical Medicine and Clinical Surgery respectively. Appointment to last till December 31st, 1898, at the rate of £50 annually. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by May 1st.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fifth Assistant Medical Officer. Salary, £100 per annum, rising £10 a year to £150, with board, etc. Applications to the Secretary by May 15th.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer to the Provident Dispensary; must possess a recognised medical and surgical qualification; must be registered under the Medical Act. Salary, £80 per annum, with board, lodging, and washing. Applications and testimonials to the Honorary Secretary before April 30th.

MEDICAL APPOINTMENTS.

ALLEN, Dr., reappointed Medical Officer of Health to the Whaley Bridge Urban District Council.

ATKINSON, Dr., appointed Medical Officer for the Northern District of the Lancaster Union.

BUCHAN, A. Hill, M.A., M.B., C.M., appointed House-Physician to the Leith Hospital.

BUCHANAN, Peter, M.B., C.M.Glasg., reappointed Medical Officer of Health to the Coleford Urban District Council.

BROWN, David, B.Sc., M.D.Lond., appointed one of the Physicians to the Taunton and Somerset Hospital.

CAMERON, A. W., M.B., C.M., appointed House-Surgeon to the Leith Hospital.

FINDLAY, Dr., reappointed Medical Officer of Health to the Campden District Council.

FLOYER, Dr., appointed Medical Officer for the Thorpe District of the Chertsey Union.

HANNAH, Nathan, L.R.C.P.Edin., L.F.P.S.Glasg., reappointed Medical Officer of Health for the Abram Urban District Council.

HARSTON, L. de C. E., L.R.C.P.Edin., M.R.C.S., appointed Medical Officer for the Pirbright District of the Guildford Union.

HELME, G. Edgar, M.B., C.M., appointed House-Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

HUGHES, P. T., M.B., C.M., appointed House-Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

JOHNSTONE, Dr., appointed Medical Officer for the Clayton District of the Prestwich Union.

LAING, G. Campbell, M.B., C.M., appointed Medical Officer to Visit Outdoor Cases of the Leith Hospital.

LEA-ARNOLD, W. W., M.D., B.S.Lond., F.R.C.S.Eng., appointed Assistant Lecturer on Obstetrics and Gynecology to the Owens College, Manchester.

MCCOULL, Stanley, M.B., B.S.Durh., appointed Medical Officer for the Eastern Division of the Bywell District of the Hexham Union.

MILLER, Charles Booth, L.R.C.P., M.R.C.S., L.S.A., L.M., appointed Medical Officer and Public Vaccinator for the Bonvilston District of the Cardiff Union.

MILNER, Cyril W., M.R.C.S.Eng., L.R.C.P.Lond., appointed Junior House-Surgeon to the Nottingham Dispensary.

MILROY, J. Cunningham, M.D.Edin., appointed Junior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, *vice* Richard S. Hardman, M.R.C.S., L.R.C.P., resigned.

ORME, W. Bryce, M.R.C.S., L.R.C.P Lond., reappointed Assistant Medical Officer at the Infirmary of the Parish of St. Pancras.

PERCIVAL, Dr., reappointed Medical Officer of Health to the Knottingley Urban Council.

ROBINSON, Henry, L.R.C.P., L.R.C.S.Edin., appointed Deputy Medical Officer for the Hasland District of the Chesterfield Union.

SHARPIN, Walter Archdale, M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Royal United Hospital, Bath.

SKINNER, Ernest William, M.D.Edin., appointed Coroner for the Rye District.

SUNDERLAND, Oliver, L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer of Health to the Bexley Urban District Council.

TAYLOR, H. S., M.R.C.S., L.R.C.P., appointed Junior House-Surgeon to the Clayton Hospital, Wakefield, *vice* Mr. C. Hutley, resigned.

DIARY FOR NEXT WEEK.

TUESDAY.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 P.M.—Specimens will be shown by Dr. C. Hubert Roberts: On the Common Form of "White Leg" after Confinement.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Gowers.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Card specimens at 8 P.M. Papers: Dr. P. H. Mules: A New Operation for Ptosis. Mr. E. Treacher Collins: On Bloodstaining of the Cornea. Mr. W. H. Jessop: A case of Severe Hemorrhage from an Ulcer of the Palbebral Conjunctiva; and other papers.

HARVEIAN SOCIETY OF LONDON, 8.30 P.M.—Mr. Bernard Pitts: Some Remarks on the Surgery of the Rectum.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, 8 P.M.—Case: Dr. Seymour Taylor: Abdominal Aneurysm of Aorta. 8.30 P.M.—Papers: Dr. Wm. Hunter: Antipyretics, their Use and Abuse. Dr. Cagney: Peripheral Neuritis, its Diagnosis and Treatment.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

HAWES.—On April 15th, at 5, St. Stephen's Crescent, W., the wife of Francis Brunel Hawes, L.R.C.P., L.R.C.S.I., of Dolores, Pisagua, Chili, of a daughter.

HORSLEY.—On April 19th, the wife of Victor Horsley, F.R.S., of a daughter.

LAWSON.—On April 15th, at 46, Leytonstone Road, Stratford, London, E., the wife of Henry A. Wellesley Lawson, L.R.C.P.&S.Edin., etc., of a son.

MARRIAGES.

BEEDHAM—BROOK.—On April 18th, at St. Paul's Church, Dorking, by the Rev. H. B. Beedham, M.A., of Woodville, Cambridge, assisted by the Rev. H. C. Sturdy, M.A., Vicar, Henry William Beedham, M.A., M.B., B.C.Cantab., to Katharine Anne, third daughter of the Rev. James Brook, M.A., of Helme Edge, Huddersfield.

BERKELEY—FORDHAM.—On April 3rd, at St. George's, Hanover Square, by the Rev. H. W. Hodgson, M.A., late Rector of Ashwell, assisted by the Rev. David Anderson, M.A., Rector of the Parish, and the Rev. Euston J. Nurse, M.A., of St. John's, Ladywood, Birmingham, George Harold Arthur Comyns Berkeley, B.A., M.B., and B.C.Cantab., elder son of George Augustus Berkeley, Esq., of 72, Belgrave Road, S.W., to Ethel Rose, younger daughter of the late Edward King Fordham, Esq., J.P., D.L., of The Bury, Ashwell, Herts. No cards. Indian and Colonial papers please copy.

BULL—WHITE.—On April 20th, at St. George's, Edgbaston, by the Rev. F. H. Ward, M.A., Vicar of St. John's, Sparkhill, Birmingham, Edwin George Bull, M.B., C.M.Edin., M.R.C.S.Eng., of Sparkhill, to Elizabeth Grace, daughter of William White, Lyndhurst, Chad Road, Edgbaston.

CLARKSON—WRIGHT.—On April 18th, at 14, Belhaven Terrace, Glasgow, by the Rev. Thomas Adamson, B.D., Robert Durward Clarkson, M.B., C.M., B.Sc., Falkirk, eldest son of Robert Clarkson, Esq., Toravon, Stirlingshire, to Emily Burlton, second daughter of William Wright, 14, Belhaven Terrace.

COOKE—GOODALL.—On April 18th, at St. Mark's, Regent's Park, by the Rev. Henry Frewer, uncle of the bride, assisted by the Rev. W. J. Sparrow-Simpson, Vicar, Cecil Whitehall Cooke, M.D Lond., M.R.C.S., L.R.C.P., of 10, Cranleigh Villas, Willesden Green, son of the late Alfred Robert Cooke, of St. George's Terrace, Regent's Park, to Louie, fourth daughter of Edward Angels Goodall, R.W.S., of Fitzroy Road, Regent's Park.

DONNELLY—FALLON.—On April 23rd, at the Church of the Assumption, Booterstown, by the Rev. T. A. Finlay, S.J., F.R.U.I., assisted by the Rev. J. F. Colohan, C.C., Thomas Donnelly, M.D., M.A.O., F.R.C.S.I., son of the late James Donnelly, to Daisy, daughter of Patrick Fallon (Melbourne), and grand-daughter of the late Alderman Fallon, of this city (Dublin).

GIDLEY—LUCAS.—On April 18th, at St. John's the Evangelist, Clifton, by the Rev. A. C. Anstey, assisted by the Rev. G. Forrester, of Cullompton, Gustavus G. Gidley, M.R.C.S.Eng., L.R.C.P.Lond., of St. Andrew's Villa, Cullompton, to Constance Mary, widow of the late Rev. W. F. Lucas.

HARCOURT—WRAY.—On Saturday, April 20th, at All Saints Church, Highgate, London, Charles Harold Harcourt, M.R.C.S.Eng., L.R.C.P.Lond., of Shirland, Alfreton, eldest son of Charles J. Harcourt, J.P., of Birchfield, Birmingham, to Florence Katherine, second daughter of the late William Wray, F.R.A.S., Highgate, London.

KANTHACK—HENSTOCK.—On April 17th, at Fairfield, Liverpool, Alfred A. Kanthack, M.D., second son of E. Kanthack, British Consul, Pará, Brazil, to Lucie, second daughter of the late John Henstock, of Edgemount, Edge Lane, Liverpool.

MCCANN—BOWYER GRAHAM.—On Tuesday, April 16th, at Marylebone Parish Church, F. J. McCann, M.B., C.M., M.R.C.P., 47, Welbeck Street, Cavendish Square, to Lady Charlotte Ellen Gwendolen Bowyer-Graham, of Penne House, Leigh, Somerset, and Hawksley Hall, Devonshire.

MOYNIHAN—JESSOP.—On April 17th, at the Parish Church, Leeds, by the Rev. Canon Stratten, Vicar of St. Paul's, Leeds, assisted by the Rev. E. Spencer Gough, Rector of Barmingham, the Rev. Arthur Needham Claye, Vicar of Brigg, and the Rev. A. R. Light, Curate of St. Michael's, Headingley, Berkeley George Andrew Moynihan, M.S., Lond., F.R.C.S., of 5, Woodhouse Square, and 33, Park Square, Leeds, only son of the late Captain Moynihan, V.C., 8th (King's) Regiment, to Isabella Wellesley, second daughter of Thomas Richard Jessop, F.R.C.S., of Roundhay Mount and 32, Park Square, Leeds.

SORTAIN—NICHOLLS.—On April 17th, at the Parish Church, by the Rev. Prebendary Hannah, Vicar of Brighton, and the Rev. E. H. Nash, Edwin Lyddon Sortain, M.B., B.C., B.A.Camb., of 59, Old Steyne, Brighton, son of the late James Cornish Sortain, M.D., of Ceylon, to Susan Marguerite, elder daughter of William Howard Nicholls, M.R.C.S., of Waterloo Place, Brighton.

DEATHS.

MENZIES.—On April 18th, at Cambrian Villa, Worksop, of cerebral meningitis, Margaret Katharine, beloved and only child of James Menzies, surgeon, aged 1 year and 10 months.

PROBERT.—On April 21st, at Pencaebach House, Merthyr Tydfil, James Probert, J.P., M.R.C.S.Eng., L.S.A., aged 83 years.

STEPHENSON.—On April 14th, at 3, Rubislaw Terrace, Janie Tydd Heuston, wife of William Stephenson, M.D., Professor of Midwifery, University of Aberdeen.

VINRACE.—On April 9th, at Bromford House, Six Ways, Birmingham, Selina Emelin, the beloved wife of John Vinrace, M.D. Interred at the Cemetery, Barnes, S.W., April 17th.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

MEMBER will be glad of information regarding Van Bardun's Calcocalculi Solvent. It is supposed to be recommended by Sir B. Brodie.

G. P. asks for information as to the nature of the climate and town of Pernambuco, and its suitability for one with a delicate chest?

A GRADUATE would be grateful for any information as to medical appointments and prospects in the Colonies, particularly New Zealand. Is the Diploma of Public Health of any practical value in obtaining such appointments?

M.D. asks for information as to any hospital that would receive as a probationer a lady, aged 22 years, who is strong and healthy, and desirous of becoming a nurse? The usual age of entrance is 23 to 25 years of age.

M.R.C.S. will be much obliged for any hints for treatment of chronic acne vulgaris. All the members of the family suffer from it. Sulphur, resorcin, and arsenic have been tried, but with indifferent success, and that only temporary.

DR. WILLIAM STEPHEN (Dunvegan, Skye, N.B.) asks if there is any institution which will supply an artificial leg for a poor man there. He had his leg removed twenty-nine years ago, very close to the knee-joint, and has a very rough pine one of his own make, but it is very ineffective, as the bone is hardly covered, and he is in consequence often prevented from earning anything at fishing, etc.

OPHTHALMOLOGICAL TREATISES.

W. S. S. asks what is the best exhaustive work on diseases of the eye suitable for the practitioner?

*** There are many excellent works. Of the smaller ones Swanzy's *Diseases of the Eye* is very good; of the larger ones the English translation of Fuch's *Textbook of Ophthalmology*, and Berry's *Diseases of the Eye* are probably the best.

DISINFECTING.

DR. JOHN T. WILSON, County Medical Officer (Public Health Office, Hamilton, County of Lanark) writes: At page 447 of the BRITISH MEDICAL JOURNAL of February 23rd there is a notice of a new disinfecting stove invented by MM. Vaillard et Besson of the Val de-Grâce Hospital, Paris, and as I am anxious to obtain some information with regard to the construction and price of this apparatus, I write to inquire whether you can assist me in procuring the necessary information.

*** This a modification of the late M. Charles Herscher's stove for current steam under pressure, without arrangements for control of steam and drying of objects such as Herscher thought necessary, and with the addition of a jacket. The stove and boiler are in one, and constantly communicate with each other, the steam beginning to escape through a safety valve when it has reached a pressure not exceeding 7½ lbs. per square inch. A second safety valve opens when the pressure reaches 10 lbs. To dry objects after disinfection the cover is removed, and the objects left exposed to the air after the steam has escaped from inside the stove, the jacket continuing to be kept hot by steam. The principal advantage intended to be obtained by this stove is simplicity and capacity to be worked by an unskilled person. It appears, however, that the absence of any means of control over the steam pressure, and the great rapidity with which it is stated by the inventors that steam is formed, might, with a man unaccustomed to firing boilers of the kind, lead to too rapid a rise of pressure and undesirable consequences. It is therefore doubtful whether the simplicity is not attained by the omission of safeguards which would be better preserved. The time stated to be occupied in a disinfection is about an hour. The stove in the form which we believe had been made is vertical, 2 ft. 6 in. diameter and 2 ft. 8 in. high.

ANSWERS.

MEMBER writes: If "L. E. J." will try 5-minim doses of the liquid extrac of ergot every four hours he will find very good results.

M. D.—Holmgren's wools can be obtained from P. Dürffel, 46, Unter den Linden, Berlin; or Curry and Paxton, 195, Great Portland Street London, W.

DORSET could take the patient under his care, but not for profit. If he is the next of kin, he should apply for a writ *de lunatico inquirendo*, which will give him power to deal with the estate.

JOYFUL.—The "prawn" question stands on a different footing from that of oysters, etc., taken from sewage-polluted waters. The prawn is never eaten raw—always thoroughly cooked; and the boiling, etc., makes it safe. The oyster, on the other hand, is mostly eaten raw. The prawn is known to be a foul feeder, but there appears to be no satisfactory evidence of fresh well-cooked prawn doing any harm.

H. P. M.—The practice, which seems to be growing in certain periodicals intended for domestic circulation, of giving prescriptions for common ailments, is one to be deprecated, as such prescriptions and advice are often ill-considered, and from the nature of the case can never be properly adapted to the circumstances of any given case. The particular instance, however, quoted by our correspondent does not appear to be a specially strong one, for reasons mentioned in the note received by him from the editor of the periodical in question.

TEACHING OF MASSAGE.

E. O'C.—In the present unsatisfactory state of the subject the occupation of a masseuse is not one which we could advise any young lady to follow, and we must decline the responsibility of recommending any particular teaching institution.

TEETH GRINDING.

DR. C. R. ILLINGWORTH (Ventnor) writes: I would advise "A Member" to use the following prescription: ℞ Chloral 3ss; sol. hyd. bichl. 3ss; pot. iodid. gr.v; ext. glyc. liq. 5j; aq. ad 3ij. 5j at bedtime. This is a sedative and derivative of great value.

RULES FOR PROVIDENT DISPENSARIES.

H. G. L.—We should recommend our correspondent to put himself in communication with the Secretary of the Metropolitan Provident Medical Association, 5, Lamb's Conduit Street. We believe that the dispensaries organised and managed by that association really deserve the name of "Provident," a name now somewhat discredited by having been used, or usurped, by various institutions founded for private profit.

THE PATENTING OF SURGICAL APPLIANCES.

C. B.—It is not illegal, but certainly it is generally considered unprofessional, to protect any surgical appliance by a patent. The attempt has been made occasionally and has always proved futile and damaging to the professional status of the patentee. Such well-known appliances as Barnes's bags, Wells's forceps, or Thompson's lithotrites are of no commercial value to their inventors, and may be made by any instrument maker or be modified by any surgeon, and this will, we trust, be always the rule.

NOCTURNAL INCONTINENCE OF URINE.

DR. C. M. JESSOP (Redhill) writes: I would suggest to "L. E. J." that, if neither constipation nor threadworm is a cause, the patient should be frequently aroused in the night to empty the bladder; or counter-irritation either to spine over the centre for the sphincter of the bladder, or above the symphysis pubis, or 20 minims of dilute nitro-muriatic acid, with 10 or 15 minims of Donovan's solution in plenty of fluid after the last meal; to the above might be added three or four drops of tincture of cantharides if that mixture produces no effect. I have found small doses of cantharides useful in such cases. If none of the above suggestions answer, Dr. Neale's *Digest* will, doubtless, be found to supply a remedy.

BED RESTS.

MESSRS. ARNOLD AND SONS (West Smithfield, E.C.) write: In reply to "Comfort's" question as to the best form of bed rest, we beg to inform you that we are the manufacturers of one, called the Core Bed Rest, full particulars of which can be had by your correspondent writing to us.

DR. ALEXANDER DUKE, F.R.C.P.I. (Cheltenham) writes, in reply to "Comfort:" If he will take (as I have done) an ordinary light bedroom chair, and place it at the head of the bed with the front edge of the seat and top rail of the chair to rest on the bed, he will find (when a pillow is laid lengthwise against it) that a comfortable bed rest is formed. Perhaps others have thought of the same plan, but I can strongly recommend its adoption when no bed rest is available.

DR. PERCY SHARP (Brant Broughton, Newark-on-Trent), writes: I have a most comfortable and cheap one, which, as it would be very difficult to describe, I should be pleased to send for "Comfort's" inspection if he will furnish his name and address, and defray cost of postage. It was knitted for me by a patient, with strong cotton; and is very easy to apply, and very portable.

NOTES, LETTERS, Etc.

MEMBER has omitted to enclose his card.

THERE is a clause in the New Zealand Local Option Bill providing that every man convicted of being a habitual drunkard shall be photographed at his own expense, and every publican in the district in which he lives supplied with a copy.

MEDICAL BOOK-KEEPING.

EPSILON writes: I entirely agree with you, however, that no system is complete which does not provide space for the record of disease and, also (I may add), of treatment. He asks to be recommended a publi-

cation which meets with approval in these respects; and adds, I feel sure that many busy practitioners who now find it highly inconvenient to make separate notes of cases would, like myself, be very pleased to know of it.

The Case of Mr. C. Bryan Townshend.

The following donations have been received in addition to those already announced, and are hereby thankfully acknowledged:

	£	s.	d.
Dr. Wm. Vawdrey Lush	2	2	0
Dr. C. R. Walker	1	1	0
Mr. Henry T. Butlin, London	2	0	0
Sir B. W. Richardson, London	1	1	0
Mr. Meredith Townsend, London...	0	10	0
Mr. Herbert W. Page, London	3	3	0
Dr. Andrew Wynter, Beckenham	0	10	6
Dr. Walter Edmunds, Tambeth	2	2	0
Dr. Felix Semon, London	2	2	0
Dr. F. B. Lawson, Brighton	0	5	0
Dr. Sharkey, London	2	2	0
Dr. T. Carter, J.P., Yorks	1	0	0
"Æsculapius" Masonic Lodge, 2410, per Dr. Thos. Dutton	2	2	0
Dr. Pearson, London	1	1	0
Dr. Whipham, London	0	10	0
W. M. K.	0	5	0
Mr. Geo. Lawson, London...	5	0	0
Galen	1	0	0
F.R.C.S.	0	10	0
Dr. Travers, Phillimore Gardens	1	1	0
Dr. C. Y. Biss	0	10	6
Dr. Jas. G. Macaskie, Belford	0	6	0
Semper Fidelis	0	10	6
Mr. T. Carter, J.B., Richmond	1	0	0
Dr. J. W. Wickham, Winchester	0	5	0
Dr. T. Rutherford Adams, Croydon	1	2	0
Dr. A. E. Wells, Cuckfield...	2	2	0
Dr. Thos. Corbett, Droitwich	0	10	6
Dr. T. P. Burroughs, Weston-super-Mare	5	5	0
Dr. E. Hotham De Lavenuti, Bethnal Green ...	2	0	0
Dr. W. H. Brown, Leeds, per Mr. Morris	2	2	0

Further donations are earnestly requested, and will be acknowledged by the Rev. H. Townshend, 41, King Henry's Road, South Hampstead, N.W.

The Langley Defence Fund.

The Honorary Secretaries of this Fund (Mr. W. Rumboll, 2, Surrey Square, S.E., and Dr. Lauriston Shaw, 10, St. Thomas's Street, S.E.) write as follows: Will you kindly allow us, through the columns of the British Medical Journal, to inform intending subscribers to the Langley Defence Fund that the subscription list is shortly to be closed. Since the first notice was published the following additional sums have been received:

	£	s.	d.		£	s.	d.
Dr. Clapton	2	2	0	Mr. Parrott	1	1	0
Dr. Routh	2	2	0	Dr. Reid	1	1	0
Mr. Jollye	2	2	0	Mr. F. W. Smith	1	1	0
Dr. Gallie	1	1	0	Smaller sums	2	0	6
Dr. Wharton Hood ...	1	1	0				

As the amount hitherto subscribed falls far short of the sum that Mr. Langley has had to pay his solicitors it is hoped that more may still be received. It will be remembered that the action for damages arising out of a midwifery case was dismissed with costs so soon as the evidence of Dr. Cullingworth and Dr. Herman had been heard, but that the plaintiff's pecuniary position was such that the entire cost fell upon the defendant.

It is the more to be desired that Mr. Langley's fellow practitioners should show their active sympathy with him in the unjustifiable action he was called upon to defend, as it appears that the accusation brought against him was in the first place prompted by the comments upon his treatment made by a professional brother. Either of us will be pleased to receive subscriptions.

Deaths under Chloroform.

Dr. A. J. Collis (Farningham, Kent) writes to the British Medical Journal of April 20th, in the account of the death under chloroform at the Dudley Infirmary, it is stated that "the child was placed in an almost upright position." Is this not a very unusual position for the administration of chloroform? It is, I believe, generally taught that the recumbent position is the only one in which chloroform should be administered.

Eucalyptus Inunction in Scarlet Fever.

Mr. J. Brendon Curgenven (Teddington) writes: In your otherwise correct report of Dr. Priestley's paper read at a meeting of the Epidemiological Society on the value of eucalyptus oil as a disinfectant in scarlet fever, there are two or three statements to which I take exception. It states that "his praises were extravagant;" but my praises are in a great degree confirmed by Dr. Priestley's statistics.

In my last paper I said, "by this method of antiseptic treatment carried out in the homes of the patients the symptoms of the disease are mitigated, complications and sequelæ prevented, and deaths rarely occur." Dr. Priestley, in his statistics, shows that the symptoms were mitigated; for, although 14 per cent. of the eucalyptus cases suffered from suppurative complications as against 7.45 per cent. of the others the deaths were fewer, and they were discharged from the hospital sooner, saving to the ratepayers an average of 14s. a case, or £84 on the 120 cases. Moreover, of the most important of the sequelæ—albuminuria—he had only 2 cases in 120 treated by eucalyptus, as against 14 with 3 of uræmic convulsions, in the 161 other cases. On this point I have said: "Neither I nor my son observed any albuminuria in the cases we treated, and several medical men from whom I have received reports speak of observing only a slight amount in a few cases." There is no extravagance in this statement. I said, also, that "deaths rarely occur," and Dr. Priestley's deaths were 1.6 per cent. as against 4.3—2 deaths in 120 cases to 7 in 161. These 2 deaths were probably from the suppurative complications. We get comparatively none of these in private practice, and I maintain, as I stated in my last paper, that they are due to the segregation of cases in the hospital ward; for there they are exposed to "the special bacillus of suppuration—the streptococcus pyogenes—the most dangerous of pyogenic microbes, and the cause of all the suppurative complications of scarlet fever." It may be considered extravagant when I said that after treatment by inunction cases of scarlet fever "rejoined the others" again after the tenth day, regardless of the desquamation, and with perfect safety." But Dr. Priestley sent home from the hospital "144 cases of scarlatina in every stage of desquamation..... and no further spread of the disease occurred." Then, where is the extravagance?

In your report it is stated that "the experience of others, he admitted was still less encouraging, but they had rarely, if ever, carried out the treatment as directed by the originator." Dr. Priestley quoted from the written opinions on the subject of Dr. Knox Bond, Dr. Sweeting, and Dr Armstrong, neither of whom had treated a single case by eucalyptus inunction. Then, what experience had they? He mentioned Mr. S. Peake, quoting from his reply to Dr. Sweeting in the *Medical Magazine*, giving several cases, and confirming all my statements from an experience of four years' use of eucalyptus inunction. Again, your report says that "the impression that followed was for the most part unfavourable." Four speakers gave their opinions of the treatment without having as much as seen a single case treated by eucalyptus, while one (Dr. Little), the medical officer of health for Wimbledon, who has used the Oleosaban eucalyptus oil for more than twelve months in the hospital there, said he found it undoubtedly successful; he had no suppurative complications, albuminuria only slight in a few cases, and no deaths. The wards of his hospital are small, and are not yet infected by the streptococcus pyogenes. I repeat what I have said before: "If we would never think of placing cases of wounds in a ward with others suffering from erysipelas or hospital gangrene, neither should we place cases of scarlet fever, diphtheria, or even catarrhal sore throat in a ward with others suffering from ulcerated scarlatinal throat, suppurating adenitis, or from scarlatinal rhinorrhœa or otorrhœa." Let the suppurating cases be isolated from the others, for it is just as essential as the isolation of cases of any infectious disease.

On the Rapid Recovery from Influenza following Smart Purgation.

Dr. William Fearnley (Elgin Avenue, W.) writes: During the first few days of the visitation of influenza in 1891, I treated my cases with mild laxatives, quinine, salicylate of soda, etc., with very unsatisfactory results. In a house in Ladbroke Grove Road I had seven patients in bed under this treatment, when late at night on the first Thursday of January, 1892, I received an urgent request to see the cook, who was unusually ill with severe pain in the head and limbs. A powerful derivative seemed to be indicated, and I gave her 10 grains of the pil. coloc. et hyosc., and to my great astonishment found her on the next forenoon. She rose, and I saw no more of her as a patient. That same day (Friday) I was called, also late at night, to see Mr. H. S., Tottenham Court Road, who was frightening his wife and friends by his attempts to get out of bed, and other evidences of delirium. His pain in the head and limbs he described as "awful." I gave him 12½ grains of the above pill, and found him well next forenoon. He rose in the afternoon, was about the house all Sunday, and worked all day in his shop on Monday, and at night played the piano at a ball. I have treated all my cases since with large doses of the above pill. My rule is, the greater the prostration and the more urgent the symptoms, the larger the dose of the aperient. In no case whatever have I had any complaint of the "physic being too strong," as is frequently the case after giving aperients. I have not had a single case of pneumonia or bronchitis following influenza, and have seen none of its serious consequences.

Boneshave.

A writer in "Notes and Queries" (8th, S. vi. 398) states that "boneshave" was the name applied in Exmoor to sciatica, and gives the following curious charm to cure it:

> "Boneshave right,
> Boneshave straight;
> As the water runs by the stave,
> Good for boneshave.
> In the name, etc."

Irish Superstitions.

Lady Gregory, of Coole Parke, co. Galway, writing to a weekly contemporary on Irish superstitions, says that "in the West the belief in fairies, always of a malevolent sort, is still very deeply rooted. A dispensary doctor, whose district lay some miles from here on the Clare coast, told me that he had one day met the funeral of a young man he had some time before attended for lung disease. He was surprised, as he had been given to understand the patient no longer required medical visits. He stopped one of the mourners and asked for an explanation, and why he had not been called again. She was unwilling to speak, but at last inspired mysteriously,

knew of it, but he could not recognise it by any description till my husband said on chance, 'A place the fairies come to.' 'Oh, the place where the fairies do be; I know that well enough,' he said, and pointed out the way. A few years ago, within a month of the death of a member of the Galtway Hunt, a fox twice ran to earth within sight of his house. The country people all declared that it was his spirit which had taken that form, and for the rest of the season refused to allow the earths in the neighbourhood to be stopped."

THE MEDICAL ELECTRICAL INSTITUTE, LIMITED.

THE statutory meeting of the creditors and shareholders of the Medical Electrical Institute was held on April 23rd before the Official Receiver. In the course of the proceedings the chairman said that upon the commencement of business by the new company advertisements were inserted in various newspapers upon a considerable scale, in the hope that the public demand for the medical and electrical appliances sold by the company would greatly increase, it appearing that the former prosperity of the company was in a large measure due to the system of extensive advertising. In that hope, however, the board were disappointed, as the advertisements did not apparently produce sufficient business to pay expenses. To that fact and to want of funds to carry on the advertising for such a length of time as might possibly have rehabilitated the business, the failure of the company was attributed. The accounts which had been filed showed unsecured debts £1,363, other liabilities £85, loans on debentures £9,440, and preferential claims £186. The assets disclosed were stock in trade, machinery, etc., £5,000, and goodwill of lease £1,000, the whole being covered by the debenture bonds. The deficiency was £5,630, and it was clear that there would be no dividend available for the unsecured creditors. No resolution was passed with regard to the appointment of a liquidator and committee of inspection, and the chairman intimated that the matter would remain in his hands, to be wound up in the usual manner. In reply to a creditor, it was stated that no fees had been paid to the directors, and that a sum of £250 was due in respect thereof.

WOMEN DOCTORS IN AMERICA.

ACCORDING to statistical reports, there are in America fully 2,000 women practising medicine in one or other of its forms, and inclusive of 130 homœopathists. The majority were ordinary practitioners, but among the remainder were 70 hospital physicians or surgeons, 93 professors in the schools, 610 specialists for diseases of women, 70 alienists, 65 orthopædists, 40 oculists and aurists, and, finally, 30 electro-therapeutists. In Canada there is but one medical school exclusively devoted to the training of medical ladies, but in the United States in 1893 there were 10, one of them being a homœopathic establishment.

YET ANOTHER GOLD CURE.

THE latest of a multitude of "gold cures" hails from Central America. It is promulgated as a "cure" for drunkenness, opium, morphine, tobacco, and various diseases, under the proprietary and management of a "doctor" and his wife. The spelling of the prospectus is somewhat eccentric, and the duration and cost of the "cures" is, to say the least, remarkable. The time required for cure, to be in institute, and the price for "cures" is stated by us as follows: Rules, 1 to 4 weeks, 1 to 4 days, and £2 to £8. Rupture, 6 to 8 weeks, 1 day, and £7 to £10. Drunkenness, 4 to 6 weeks, 3 to 7 days, £20 to £30. Opium, 4 to 6 weeks, £10 to £30. Morphine, 4 to 10 weeks, 3 days to 8 weeks, and £15 to £50. Tobacco, 7 to 14 days, office hours, and £2 to £4. It is added that there is no charge for medicine, only for board. The confiding "Doctor——" in a circular letter to the medical profession in this country invoking their co-operation, says he has given up a paying practice of £1,300 a year to "ingage" in this more "profetable" work.

THE BINIODIDE OF MERCURY SOLUTION.

DR. PERCY NEWELL (Crowborough, Sussex) writes: In the BRITISH MEDICAL JOURNAL of April 6th, at page 795, Dr. C. R. Illingworth gives the formula of his biniodide of mercury solution, and says it is a 1 in 1,000 solution. I am unable to see how he makes this out, and two chemists, to whom I have shown the formula, fail to do so also. The solution is 1 in 960. The difference is trifling, and would not perhaps matter with such drugs as potass. bic. or sod. bicarb., but with such a drug as the biniodide of mercury, accuracy in strength of solution is most important. I think the profession are indebted to Dr. Illingworth for all he has written on the biniodide—certainly, personally, I can say I am. In my own practice I never now use the perchloride, the former is far and away the best antiseptic, and has none of the risks of the latter.

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REMARKS
ON
THE NATURE AND TREATMENT OF PERNICIOUS ANÆMIA.

BY RALPH STOCKMAN, M.D., F.R.C.P.E.,
Lecturer on Materia Medica and Therapeutics in the School of Medicine, Edinburgh; Assistant Physician to the Royal Infirmary.

IN this paper I shall endeavour to show that pernicious anæmia is not a disease in itself, but is a high degree of anæmia usually following on numerous remote or predisposing causes, all of them well recognised as tending to produce the anæmic state; that in certain individuals the anæmia induced by these causes tends to bring on degenerative changes in the blood vessels, which lead in turn to the occurrence of numerous capillary hæmorrhages all over the body; and that it is the persistent and long-continued duration of these small internal bleedings, assisted often by larger external ones, which confers on certain cases of anæmia the fatal, or "pernicious," or "progressive" character of the illness.

The most obvious symptoms which a typical case of pernicious anæmia presents result largely from long-continued deficient supply of oxygen to the tissues, due to an excessive diminution of red corpuscles and of hæmoglobin. It is hardly necessary to enumerate them at length, but stated broadly they are as follows: The patient, usually stoutish though sometimes emaciated, presents an extremely pallid appearance with a yellowish tinge of the skin; there is excessive languor, debility, and apathy, with dyspnœa and palpitation on the slightest exertion, and some degree of subcutaneous œdema, these last symptoms resulting from cardiac feebleness. Gastric dyspepsia, diarrhœa, and irregular febrile attacks are also prominent features. The urine is abundant, sometimes pale, at other times high-coloured, occasionally contains a little albumen, and usually a greatly reduced amount of urea, although sometimes this constituent is either normal or slightly in excess. The amount of urea is probably of comparatively little significance, as it depends on the amount of food which the patient is able to take and digest, hence the recorded variations. In the majority of cases, though by no means in all, retinal hæmorrhages are present. The red blood corpuscles are greatly diminished in number and altered in size and shape (poikilocytosis), the hæmoglobin being usually proportionately diminished in amount. As previously stated, it is to this blood condition that the clinical symptoms are for the most part immediately referable. The patient usually dies after a more or less prolonged illness, and on *post-mortem* examination nothing may be found beyond extreme general anæmia, marked fatty degeneration of the heart and other viscera, and numerous minute hæmorrhages or larger ecchymoses scattered all over the body. The red bone-marrow may or may not be hypertrophied, and deposits of iron-containing pigment are usually found in the liver, spleen, and kidneys. Other gross lesions have been described, to which I shall return later on.

Before developing my own views it is necessary to examine the current opinions regarding this condition, which may be most conveniently done under three headings, although it is rather difficult to separate sharply the second and third. These are:

1. Is pernicious anæmia a distinct disease?
2. What cases are to be regarded as pernicious anæmia?
3. The immediate cause of the condition.

I.—IS PERNICIOUS ANÆMIA A DISTINCT DISEASE?

There has been a large amount of discussion as to whether the clinical condition constitutes a disease in itself, "a morbid entity," or whether it is simply an extreme degree of bloodlessness secondary to numerous other conditions. Undoubtedly in reading over the published reports of cases, especially those of more recent date, one gets the impression that the condition is generally regarded as a distinct disease; but, on consulting the papers and memoirs of those who have devoted most attention to the subject, it is at once apparent that there has existed, and still exists, very great divergence of opinion on this most important point. To go a long way back, the earliest and one of the fullest and most excellent accounts of pernicious anæmia which I have come across is by Dr. J. S. Combe,[1] of Edinburgh, whose introductory remarks are perhaps worth quoting at length. He says:

"It appears to me entitled to still further attention and to a more minute detail, as exhibiting a well-marked instance of a very peculiar disease which has excited little attention among medical men, and which has been altogether overlooked by any English author with whose writings I am acquainted.....and while some may be disposed to regard the peculiar characteristics from which it derives its denomination of anæmia as constituting a morbid state *sui generis*, others may consider the defect of the red circulating mass as an accidental and occasional circumstance denoting some peculiar change in the assimilative powers, the primary stages of which we have been unable to detect. Doubtful myself which of these opinions may be the most correct, I shall do little more than state correctly the phenomena of the case and minutely describe the appearances presented on dissection. One remark only I may at present offer: that if any train of symptoms may be allowed to constitute anæmia a generic disease, the following may be considered an example of it in its most idiopathic form."

Up to the most recent times very little advance has ever been made on this. Combe quotes[2] a still earlier case, reported in 1684, entitled *Exsanque fere Corpus*, to which the following commentary is made by the reporters: "Quomodo sanguis, qui neque ante mortem neque post mortem effluxit, perierit, difficile erit pronunciare"—a commentary which has been repeated very frequently since.

Addison[3] applied the term "idiopathic anæmia" to cases "occurring without any discoverable cause whatever: cases in which there had been no previous loss of blood, no exhausting diarrhœa, no chlorosis, no purpura, no renal, splenic, miasmatic, glandular, strumous, or malignant disease." Evidently he regarded it as a distinct disease, different from so-called secondary anæmias presenting similar clinical features. *Post mortem* he found only anæmia and fatty degeneration of the heart and other organs.

Biermer[4] regards it as a condition of extreme anæmia secondary to many causes, such as diarrhœa, poor food, pregnancy, and hæmorrhage. Immermann[5] considers it a disease *sui generis* owing to its rarity, the extreme anæmia, absence of emaciation, and the non-effect of treatment. Quincke[6] says: "It is not a disease in itself, but pernicious anæmia, like anæmia generally, is the product of very different processes, and represents the highest possible degree of the anæmic condition." It is therefore, he thinks, difficult to distinguish from "simple anæmia," and many cases are on the border line, substantially the same opinions being held, so far as I can gather, by Dr. Bristowe[7] and by Dr. Sidney Coupland.[8]

Dr. Andrew[9] holds also that it is not a disease in itself, but is due to many causes which, however, we cannot always discover. Müller[10] expresses practically the same views, while Eichhorst[11] thinks that some cases are "primary," "idiopathic" or "essential" (the disease beginning in the blood), and others secondary to pregnancy, loss of blood, and various exhausting conditions.

Lépine[12] regards the condition as following on causes generally recognised as predisposing to anæmia, but thinks there is superadded an individual debility in blood-forming power, and consequently that to a certain extent it is a specific disease.

Dr. William Hunter[13] states definitely his opinion that "Pernicious anæmia is to be regarded as a special disease, both clinically and pathologically." His reasons for this opinion and various other points raised I shall discuss later.

II.—WHAT CASES ARE TO BE REGARDED AS "PERNICIOUS ANÆMIA?"

Here also great differences of opinion exist. Dr. Pye-Smith[14] holds that cases of extreme anæmia after pregnancy, diarrhœa, hæmorrhages, etc., are not true cases of the "idiopathic anæmia of Addison," where no cause is discoverable,

and Dr. Hale White[15] limits the disease in much the same way by saying: "For the case to be an example of the disease described by Addison, it is essential that there should not be present any of the usual causes or concomitants of the anæmic state." Our knowledge of the pathology, etiology, and clinical symptoms has, however, grown greatly since Addison's time, and this being so, it seems very undesirable to cramp ourselves by a definition formed many years ago from early and incomplete observations. Addison, exact and striking as his clinical picture of the condition is, had only seen comparatively few cases; he had no knowledge of the blood changes nor of many other important points, and in fact he himself throws doubt on the propriety of the term "idiopathic." Strictly speaking, no disease can properly be described as idiopathic; there must be some cause, although we may fail to recognise it, and hence the application of such a term simply denotes that we do not know the true cause. As a matter of fact, since Addison's time, fatal or "pernicious" anæmia has been definitely shown to follow on various causes, although it is freely admitted that the origin of certain cases is still mysterious. Thus out of 135 cases collected by Eichhorst, only seventeen are put down as "idiopathic" or "essential" (that is, where no cause is discoverable), the remainder being attributable to pregnancy, exhausting discharges, prolonged poor feeding, etc. But even if no sufficient cause can be made out from the history or *post-mortem* examination, this may result from our present insufficient knowledge or faulty observation, and we can scarcely conclude that the disease is in such cases idiopathic.

It is difficult to define exactly what constitutes "pernicious anæmia," seeing that the name has been given to a congeries of symptoms none of which are pathognomonic, but during the last twenty-five years many cases have been carefully reported as cases of pernicious anæmia by clinicians who have devoted special attention to the subject, and whose opinion may be regarded as perfectly final and conclusive, that in all respects their patients presented the typical clinical symptoms of the condition. In some of them no cause could be stated, but in the great majority very striking pathological changes were found either during life or after death, and there can be no reasonable doubt that the anæmia resulted directly or indirectly from these changes. Widely different as the causes may have been, it is a striking fact that they produce an identical clinical picture in all cases. Cases following on atrophy of the mucous membrane of the stomach have been very fully detailed by Fenwick,[16] Brabazon,[17] Nothnagel,[18] Henry and Osler,[19] and others. Curiously, the majority of such patients are described as being stout, and in appearance well nourished. Stengel[20] reports an instance in which the patient, after suffering for fifteen years from gastric dyspepsia, ultimately developed all the symptoms of pernicious anæmia, and on *post-mortem* examination cirrhosis of the stomach, with almost complete destruction of the gastric glands, was found. Prolonged diarrhœa, with or without intestinal ulceration, has also been noted very frequently as a forerunner (Wilks,[21] Quincke,[22] Fraenkel,[23] Stricker,[24] and many others).

Many cases undoubtedly follow on severe or prolonged hæmorrhage. Thus Habershon[25] had a case after repeated epistaxis; so had Quincke. Schepelern[26] describes several cases as brought on by long-continued metrorrhagia, and Finny[27] had a similar experience; Greenhow,[28] after menorrhagia, and I myself have seen a case from hæmophilic bleeding. The cases described as following on pregnancy (Gussenow[29]) and lactation are now extremely numerous, while typhoid fever (Rosenstein[30] and others) has also frequently been assigned as a cause.

Among other predisposing and anæmia-producing conditions may also be mentioned syphilis (Müller[31] and Laache[32]), yellow fever (Bramwell[33]), and mental shock (Mackenzie[34] and Cortin[35]). Chlorosis is sometimes the starting point, nine cases being recorded by Müller[36] and one each by Marshall Hall[37] and Coupland[38]. Habitual poor feeding, especially if accompanied by hæmorrhage from any source, seems also to induce fatal anæmia, and Lépine states that immediately after the siege of Paris, cases brought on by starvation and diarrhœa were much more common than they have been there subsequently. It is well known that bile salts circulating in the blood break down the red corpuscles, and, from the frequency with which jaundice has been reported (Habershon, Quincke, Bristowe, Mackenzie) as preceding or accompanying pernicious anæmia, I am inclined to think that it also may be reckoned among the predisposing causes. The monographs on "Progressive Pernicious Anæmia" by Müller, who reports 62 cases, many of them from his own observation, and by Eichhorst, who has collated 135, and reports 7 observed by himself, give a large amount of corroborative evidence.

Sarcomata and carcinomata also occasionally give rise to all the clinical symptoms of pernicious anæmia, although this must happen rarely. It seems, however, to be now very generally admitted, and Dr. William Hunter, after examining the evidence *pro* and *con.*, says, "Apart from these more doubtful cases, however, a sufficient number of cases have been recorded by competent observers to prove conclusively that all the characteristic features of pernicious anæmia may be presented by patients the subjects of malignant disease." I myself have never seen such a case although I have examined many patients suffering from malignant disease with profound anæmia, and in whom the corpuscles and hæmoglobin were reduced to one-half, or even to one-quarter of the normal, but the *tout ensemble* was never, in my experience, that of typical pernicious anæmia. Nothnagel,[39] however, states that he has seen two cases of cancer of the stomach develop into pernicious anæmia while under his care, and Eisenlohr[40] had a similar experience. Retinal hæmorrhages and altered bone marrow seem to be not uncommon in malignant cases. As regards sarcomata, Mosler and Gast[41] relate a case in which the bones were found to be like ivory, the marrow quite gone, and sarcomata in nearly all the bones of the body; they attribute the extreme anæmia to non-formation of blood corpuscles in consequence of destruction of the bone marrow. Grawitz[42] also records three cases in which there were numerous sarcomata involving the marrow. Such patients are generally stout, and have plenty of subcutaneous fat in spite of the malignant disease.

Lastly, the clinical symptoms may be produced in every detail by certain intestinal worms, of which the best known are Bothriocephalus latus and Ankylostoma duodenale. Schauman[43] records 72 cases of tapeworm anæmia, 37 of which were observed by himself, and one has only to read his minute and careful clinical reports to be convinced that in every respect, even to the exacerbations and remissions, they resemble the classical non-parasitic form of the condition. It seems still to be a vexed question whether the worm induces anæmia by disturbance of digestion, or by the formation of a blood-destroying ptomaine which is absorbed from the intestine.

In ankylostoma anæmia the parasite directly sucks blood from the vessels of the intestinal mucous membrane, and thus it is due to direct loss of blood (Sahli,[44] Leichtenstern,[45] Beaven Rake[46]). Hirsch[47] and others have doubted if it be due to loss of blood, and prefer to call in the intervention of a ptomaine because the number of worms found is in some cases small. Lutz,[48] however, states that a very small number suffice to keep up the anæmia once it is established, and Neumann[49] that in dogs, when the malady has become chronic, only a few parasites are found, as they do not infest an unhealthy mucous membrane.

It seems certain, therefore, that pernicious anæmia is preceded in a large majority of cases by exhausting conditions, and that it results directly or indirectly from these conditions. It is easy to understand how blood loss, atrophy or cancer of the stomach, poor food, or the drain of pregnancy and lactation may bring on anæmia; a prolonged attack of typhoid fever or severe nervous shock may also do so in consequence of digestive disturbances, and impaired nutrition and vitality. The onset is very gradual always, and there is at first nothing to distinguish it from ordinary simple anæmia; nor is it in any way different, as the majority of such cases recover, but in a few degenerative changes in the small vessels occur leading to hæmorrhages and the more profound so called "pernicious" or "progressive" anæmia.

We must conclude, therefore, that "pernicious anæmia" is not a disease *sui generis*, but simply a collection of symptoms characteristic of the highest degree of anæmia.

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[*To be continued.*]

THE REMOTE EFFECTS OF SPINAL INJURIES IN MINERS.[1]

BY P. RHYS GRIFFITHS, M.B., B.S.LOND.,
Senior Assistant Surgeon, the Infirmary, Cardiff.

MINERS, from the nature of their occupation, are peculiarly liable to injuries of the spine and spinal cord. These generally result from falls of coal, stone, or rubbish, causing in the majority of cases what the miners describe as a doubling up of the body.

I wish to limit myself as far as possible to a consideration of the remote effects of spinal injuries, and only of those which are not dependent upon gross lesions such as fracture or dislocation of the spine, rupture of the cord, hæmorrhage upon or into the substance of the cord.

The great obstacle to the clear understanding of the surgery of the spine has been the loose and careless manner in which terms have been bandied about, and the retention of old-fashioned descriptive terms. It is difficult to steer clear of all the objectionable features of the older classifications, but I have ventured with some considerable diffidence to do so by dealing with my subject under the following heads:

1. The effects of spinal sprain.
2. The effects of injury to bone of a nature not sufficiently grave to constitute a gross lesion.
3. The effects of molecular disturbance of spinal cord in conjunction with sprain of spine.
4. The effects of molecular disturbance of the nervous system with or without those of sprain of spine.

I.—SPINAL SPRAIN.

From the first class, spinal sprain, I wish to exclude the spinal cord entirely. When one considers the anatomical relations of the cord, it becomes evident at once how admirably, safely and securely it is protected from external violence. Where nervous conditions have resulted after sprains these may readily be assigned to conditions quite independent of the cord. If we regard the spine for surgical purposes in the same light as we do any other joint, it will be clear that the condition of spinal sprain must obviously differ very greatly in extent and severity. In the mildest form the skin is stretched and the muscles damaged; in the more severe form, in addition to stretching and tearing of muscles, the ligaments of the spine are involved; they may be stretched, and are probably often torn.

In the worst forms, in addition to the foregoing lesions, we meet with rupture of nerves and hæmorrhage, often of a severe character, extradural or intradural, and often into the substance of the cord. But, as I have already stated, this is excluded from consideration.

[1] Read before the South Wales and Monmouthshire Branch of the British Medical Association, February, 1895.

Amongst the miners who have come under observation many have suffered from the effects of the first and second forms, and, as we should naturally expect, the symptoms have varied very considerably both in extent and severity. The most prominent have been weakness, stiffness and rigidity of spine, varying degrees of immobility of spine, muscular rigidity, unilateral or bilateral, and local tenderness. All these, you will observe, are conditions which prevail wherever joints are sprained.

The effects of spinal sprain last for variable periods. Erichsen states that recovery from spinal sprain after railway accidents takes place generally in six months. In young miners, very few of whom have come under observation, the symptoms pass away in a few days or weeks, but in the older men they may persist for many months with such severity as totally to unfit them for work.

II.—INJURY TO BONE, NOT CONSTITUTING A GRAVE LESION.

I have placed here those cases which have presented signs and symptoms of caries of the spine. I have notes of three cases. In the large majority of cases of caries of the spine, we are able to elicit a history, clear or obscure, of traumatism, and patients will generally ascribe their diseased conditions to it. I do not support the proposition of direct causation by traumatism, although in the cases that I shall submit to you we were unable to obtain clear evidence of a tuberculous taint or diathesis. Perhaps the correct way of regarding these cases is to suppose that some vasomotor changes were set up in the bone as the result of the accidents, and that tubercle bacilli availed themselves of these changes to form for themselves a resting place and breeding ground. In two of the cases the disease confined itself apparently to the spine alone; in the third case, it appeared more than probable that the lung mischief was secondary to the spinal.

Briefly, the notes of the cases are these:—

CASE I.—J. J., aged 16. A large stone fell upon the lower part of his back. He walked home from the pit, a distance of half a mile, and then went to bed. He was in bed for a week, then got up and moved about the house. No symptoms prior to the accident. Two months afterwards he noticed a lump over the middle of his back, and he was put up in a plaster jacket, which he had worn up to the time of his examination. There was a well marked posterior curvature of the dorsal spine.

CASE II.—C. R., aged 37, seen in October, 1888. A block of stone with *débris* fell upon his shoulders in December, 1887, squeezing him down to the ground and almost burying him. He was carried home, complaining of great pain in his back, more particularly in the lower dorsal region. A fortnight after the accident he was able with much difficulty to get about with the aid of crutches. He was obliged to use crutches for two or three months, and then he was gradually able to walk out a little, still complaining of pain in the back. He was not able to tell how soon after the accident he first noticed the lump in his back. There was a decided lateral and anterior posterior curvature of the spine, the most prominent point being at the lowest dorsal spine, and here he evinced great tenderness to pressure.

CASE III.—J. S. After a similar accident this patient developed spinal caries. At the time of examination there was also distinct evidence of lung mischief, which we were of opinion followed in point of time the appearance of spinal mischief, and was probably secondary to it. Unfortunately, in the notes there is no special mention of the true relations of accident and disease, but it was clearly our opinion, as the following note states that the spinal mischief was directly dependent upon the accident: "The spinal mischief was no doubt set in motion by the accident."

III.—MOLECULAR DISTURBANCE OF CORD.

I have adopted the term "molecular disturbance" in the third class to indicate a condition in which, to quote Erichsen's words "the intimate structure of the spinal cord is more or less deranged, by which its functions are greatly disturbed, and in which various symptoms indicative of loss or modification of innervation is immediately induced." I am quite aware that upon the pathology of this condition there will probably be a considerable difference of opinion, but I shall not enter upon a defence of my position, because this would be quite foreign to the object of my paper.

A history of modification of innervation I have been able to elicit in many of the cases which have come under observation. Generally it has assumed the form of temporary paralysis or paresis, temporary sensory disturbance in the form of numbness and tingling, or temporary interference with the process of urination. As far as I have been able to ascertain, motor disturbances are more frequent in their occurrence than temporary loss of control over the bladder.

Is this a common experience after spinal injuries? If it is then the following important question should not be difficult

to answer: Do organic lesions of the cord result from this molecular disturbance?

It is important in this connection that we shou'd exclude pre-existing disease, for it has been stated on good authority that organic disease never starts from a traumatism such as is here implied, and that where it is stated to have done so the probability is that there was pre existing disease.

I shall submit notes of a case where pre existing disease was seriously aggravated, and I hope to prove that organic disease may originate in miners after injuries such as I have described.

Case iv. *Aggravation of Pre existing Symptoms.*—J. F., aged 55, was examined October, 1888. He attributes his condition to an accident during the previous year. He states that in November, 1887, whilst walking down an incline in a colliery he slipped and fell backwards straining his back and striking it against the ground. He was carried home, and remained in bed for three weeks, during which time his legs were very weak, and he could not retain his urine, having to get up seven or eight times in the night. After this he got up and moved about the house. Twenty years before this he fractured his right leg. For ten years previous to the fall he was not quite steady in his walk. He was obliged to steady himself with a stick, and his gait somewhat resembled his present one, except that since the accident it had become more unsteady. He is fairly well nourished, but gives the impression of a man in failing health. There is a general shaking of the body when he stands; the walk is very unsteady and jerky. When he stands with his eyes closed his condition is typically ataxic. The tongue is unsteady, constantly tremulous. The patellar reflexes are exaggerated. Wrist reflexes are marked. There is no ankle clonus. The head twitches. Very sensitive to pressure on the spine.

Case v. *Organic Disease following Injury.*—T. T., aged 29, single. He met with an accident in April, 1886. He was completely buried under a very heavy fall, which altogether he estimates must have been about 8 tons. He was carried home on a man's back and put to bed at once. He passed urine that day after the accident without instruments. The bowels, he says, acted all right. He was in bed for a week; could not move his legs. He got up and walked about the house for a few days, and then went out 'hobbling" about on sticks. He began to work three weeks after the accident. Occasionally after working hard he had pains in the lower part of his back. He left the Mon. Valley for the Rhondda in July, 1887, and pain in the lower part of the back was still felt after working hard. From this time forward he continued to suffer from pain in the back, and, as far as could be made out, it was after his return again to Monmouthshire in August, 1893, that he began to notice weakness and trembling in his legs, and, as he stated, in "his system generally." There was no history of specific disease. When seen in April, 1894, he crawled about the room. There was evident weakness of both legs; the reflexes were exaggerated; tactile sensation was defective up to the umbilicus; he said he had complete control over his bladder; occasionally he had to run off quickly to relieve his bowels. There was an acne rash on the shoulders, and some discoloured spots on shoulder, arms, and thorax. There were no scars on the penis nor in the throat; he had right external squint; the upper extremities were apparently normal; he said he could use them as well as ever.

This case appears to me to be clearly one of organic disease resulting from molecular disturbance of cord. I have notes of two other cases in which it seemed fairly certain that organic disease originated in this way; and, moreover, as sidelights upon this interesting question, I have brought with me sections of the spinal cord from a case of disseminated sclerosis under the care of Dr. Bastian when I was his house-physician which are interesting because the patient's condition was attributed to the class of injury which we are considering. I have no doubt we can most of us adduce evidence from cases in practice other than mining of some causative relationship between accident and disease such as is assumed under the present class.

If, then, organic disease does originate in this way, the next question is, how often? The kind of evidence we want I have indicated, and it is of very great importance that extreme accuracy should be observed on account of the important bearing these cases must of necessity have upon medico-legal investigations.

IV.—Molecular Disturbance of the Whole Nervous System.

The most diverse and often extraordinary symptoms are included under the term "railway spine." It is the general belief amongst those members of the profession not familiar with mining accidents, and put forth as a conclusion by Dr. Byrom Bramwell, based, as he states, on a large body of evidence collected, but not from any under his personal observation, that miners very rarely manifest the train of nervous symptoms which frequently occur after railway accidents and injuries. Upon this point I desire to join issue with him, and to state that I have frequently observed in miners these nervous symptoms. The most common symptoms have been general debility, prostration, and exhaustion of a very marked character, marked emaciation, extreme nervousness, often a morbid condition of excitability (in one case there was a clear history of a condition of unstable mental equilibrium of an extreme nature, bordering upon the maniacal), extreme hypersensitiveness of skin, not confined to the spinal regions, defective memory, weakness of sight, feeling of weakness in one or both legs, and exhaustion after walking short distances, pain and weakness in the back, loss of weight, loss of appetite, vomiting. There was no evidence in these cases of organic mischief of the brain or cord.

Mr. Thorburn divides these cases into two classes, (*a*) neurasthenic, and (*b*) traumatic hysteria; the former characterised by a general defect in nutrition and nerve power, the latter by well defined and localised symptoms dependent upon localised molecular disturbance, probably of some portion of the cortex.

The very great difficulty in cases where compensation is claimed or where a fund is involved is to differentiate between real suffering and the feigned symptoms of unscrupulous individuals—between voluntary and involuntary excitement of the imagination.

With these few preliminary remarks may I be permitted to invite discussion upon the following questions:

1. How long do the symptoms of simple spinal sprain in miners last?
2. Do miners frequently suffer from molecular disturbance of the spinal cord?
3. Does organic disease of the spinal cord originate from molecular disturbance, and, if it does, how often?
4. Do miners often manifest the nervous symptoms which are so frequently met with after railway accidents and injuries?
5. What influence, if any, has the establishment of the South Wales and Monmouthshire Permanent Miners' Fund had upon the genesis of neuroses?

I have purposely avoided the introduction of such terms as concussion of the spine and concussion of the spinal cord, because I consider them singularly unhappy and inappropriate as applied to mining injuries, and because they have caused endless confusion and misunderstanding in the past.

[The result of the discussion went to show:

1. That symptoms of spinal sprain vary in duration mainly according to age—the younger the individual the more quickly he recovered. Old men might suffer for long periods. The difficulty was to exclude neurasthenia.
2. That molecular disturbance of the cord after accidents necessitating the use of a catheter was very rare—less rare, perhaps, were temporary and sensory disturbances.
3. That organic disease following upon molecular disturbance was very rare.
4. That neurasthenic disturbances were common after spinal accidents.
5. That the South Wales and Monmouthshire Permanent Miners' Fund had a good deal to do with the genesis of nervous symptoms after accidents.]

TUBERCULOUS DISEASE OF THE PORTIO VAGINALIS.

By JOHN D. WILLIAMS, M.D.Edin., B.Sc.,
Freeland-Barbour Fellow Univ. Edin. 1888-90,
Cardiff.

Recent observation has shown that tuberculous disease of the female pelvic organs is not so rare as was formerly believed to be the case. The *post-mortem* investigations of Pollok,[1] Kiwisch,[2] Courty,[3] Schramm,[4] Cornil,[5] Zweigbaum,[6] and Whitridge Williams[7] has thrown considerable light on its frequency, and according to these authorities the disease was met with in from 1 to 8½ per cent. of the cases examined. In 100 necropsies examined by myself, tuberculosis of the female pelvic organs was encountered in 3 cases, one of which, a case of primary tubercle of the Fallopian tubes and uterus has already been published.[8] The percentage of genital tuberculosis as determined in the operating theatre by different operators, varies: Edebohls gives a percentage of 4, Martin a percentage of 3, whilst Whitridge Williams,[7] who carefully examined the operative material of the Johns

Hopkins Hospital, found tuberculosis present in 8 per cent. of all appendages removed for inflammatory diseases.

In the present communication I propose to describe very briefly two cases of undoubted tuberculous disease of the vaginal portion of the cervix uteri supplied respectively from private practice and the *post-mortem* theatre.

CASE I.—J. C., aged 63, married, and the mother of several children, was admitted to hospital suffering from pulmonary phthisis, from the effects of which she died three weeks later. Prior to this illness, which according to her statement was only of a few months' duration, she had always enjoyed excellent health. There was no history of consumption in her family. *Necropsy.*—Both lungs were in a state of advanced phthisis. There were enlarged calcareous glands in the mesocolon and enlarged glands in the mesentery. The pelvic organs were matted together with chronic fibrous bands. The uterus was enlarged, retroflexed, and measured 10 cm. in length, 7 cm. in breadth, and 3 cm. in thickness. There were two small subserous fibroid tumours in the posterior wall (see figure), and one of a larger size in the left border. The utero-

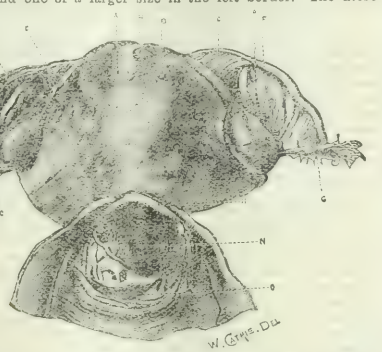


Fig. 1.—Posterior view of the uterus and appendages. A. The enlarged uterus. B B. Subserous uterine fibroids. C C. Right and left utero-ovarian ligament. D D. Right and left ovaries. E. Left Fallopian tube opened to show the longitudinal folds of mucous membrane, and the continuity with the ovarian fimbria. F. Right Fallopian tube. G G. Right and left ovarian fimbria, "pen-shaped," reaching to the outer end of the ovary. H. Pedunculated cyst from the tubules of Kobelt. M. Posterior lip of the cervix. N. Anterior lip, hypertrophied, firmly adherent to the vaginal wall, and covered with tuberculous ulcerations. O. Vagina, one-third natural size; removed *post mortem*.

vesical pouch and the posterior bladder wall were inflamed and covered with flakes of recent lymph. Having removed the pelvic organs, the anterior lip of the cervix was found to be extremely hypertrophied and firmly fixed to the anterior vaginal wall, so as completely to occlude the anterior fornix. Its dimensions were 4 cm. by 3 cm. Its inner surface was ulcerated. The ulcers were of a varying size, almost circular in shape, with a crenate, sharply cut and slightly raised margins, and a depressed base studded with greyish semi-transparent granulations. The disease had extended to the adjoining vaginal mucous membrane, which was the seat of two small similarly characterised ulcers (see figure. The surrounding tissue was marked with minute greyish spots. These were tubercle follicles. The Fallopian tubes and ovaries were bound together by firm bands of fibrous tissue (perisalpingo-ovaritis), and the ostium abdominale of the right tube was blocked up with inflammatory material. The ovaries were cystic. The bladder wall was hypertrophied, and towards its base and posterior aspects showed submucous hæmorrhages in its substance. On section the mucous membrane of the tubes, the uterus, and the upper two-thirds of the cervix appeared normal. Microscopic examination of the ulcerated areas revealed the presence of typical giant cell tubercle follicles in the bases of the ulcers as well as in the tissues immediately surrounding. In the former position the follicles showed a disposition to coalesce, forming nodules, which were in various stages of cascation. The mucous membrane was intact, except at the seat of ulceration. Numerous tubercle bacilli were readily seen in and around the follicles, and a few between the fibres of the dense fibrous tissue underlying the ulcers. The cervical glands in the lower third of the cervix were atrophied, and represented by solid columns of irregularly shaped and atrophied epithelial cells. The ovaries, tubes, uterus, upper two-thirds of the cervix, and the hypertrophied bladder wall were carefully examined for tubercle follicles and bacilli, but with a negative result. The disease, so far as it pertained to the generative organs, was strictly limited to the lower third of the cervix, the anterior lip, and the upper part of the anterior vaginal wall.

CASE II.—A. M., aged 36, married, 2-para, consulted me in July, 1893, complaining of severe backache and profuse leucorrhœal discharge of several months' standing. She was married at the age of 26. Her last baby had been born six years. Subsequently the above symptoms manifested themselves, and became aggravated towards the early part of the year 1893. Menstruation, which set in at the age of 13, recurred every twenty-one days, was painful and scanty. For one year before marriage it was in abeyance. Her two pregnancies went on to full term, and terminated in natural labours. Her previous health was delicate, but there was no trace of tuberculous disease in her family history. When I first saw her she had a slight cough, unaccompanied by expectoration; the percussion note over both apices was dull, and respiration was prolonged. A cardiac presystolic murmur was audible in the mitral area. On bimanual examination the uterus was found to be smaller than normal and abnormally anteflexed; the right ovary was tender, and the right broad ligament the seat of cellulitic thickening. The cervix was lacerated in two places towards the right, and gave a peculiar irregular indurated impression to the examining finger quite different from the usual smooth and yielding feel. On exposing it to view it was seen to be intensely injected, reddened, and the seat of an ulcer, the base of which was yellowish grey in colour, and its margins indurated and sharply cut. The slightest touch caused bleeding. On wiping away the discharges with cotton wool a caseous cast of the ulcer was detached, leaving behind a bleeding nodular surface. The cervix was freely swabbed with tincture of iodine, the vagina douched, and the patient was told to come again in a week. During the interval it occurred to me that the ulcer might be of a tuberculous nature, so when she next called I removed from the cervix a small piece of the ulcerated tissue, and collected a specimen of the vaginal discharge for microscopical examination, which at once decided the diagnosis. Tubercle follicles and bacilli were seen in the removed bit of cervical tissue, and the latter were abundantly evident in the vaginal discharge. Having thus cleared up the diagnosis, I decided, before proceeding with the appropriate treatment, to allow the patient time in order to try to allay the ovarian tenderness and cellulitis, for which purpose I ordered the hot vaginal douche to be used twice daily. At the end of three weeks, when the tenderness had gone, I proceeded to dilate the cervix, curetted and applied strong carbolic acid to the denuded surface. Syrup of hypophosphites, cream of malt, and cod-liver oil (Oppenheimer)—in no other form could the oil be tolerated by her stomach—and a change of air were prescribed. At present she is much improved in health; the pain (except a slight recurring menstrual pain) as well as the discharge have entirely disappeared.

In these two cases we have illustrated the limitation of tuberculous disease to the vaginal portion of the cervix uteri and the adjoining vaginal mucous membrane, with non-involvement of the rest of the generative tract. In both the disease was of the ulcerative variety, with the eruption of tubercle follicles in the immediate surrounding tissues; and it may, I think, be very properly regarded (certainly in Case I, and probably in Case II) as occurring secondarily to a tuberculous lesion in the lungs. Like these, the majority of the recorded cases of cervical tuberculosis are cases in which the disease is secondary to a tuberculous mischief existing elsewhere, and associated with a similar lesion of the neighbouring vaginal mucous membrane, the uterus and Fallopian tubes remaining unaffected. Tuberculosis of the uterus, which also involves the cervix, is, according to Whitridge Williams,[7] rarely met with, and, as far as he could ascertain from a careful survey of the literature, has only been noted in 7 cases. To this list I would add Haidenthaller's[8] case, reported in 1890. The former authority also writes: "A most interesting feature of this affection is that it is almost always limited to the body of the uterus, rarely extending beyond the os internum to involve the cervix." Cornil[3] states that cervical tuberculosis may constitute the sole manifestation of the disease in the entire body, as in a case reported by him in which a tuberculous ulcer of the cervix was mistaken for carcinoma, and the uterus extirpated. Zweigbaum[10] has noted 29 cases of tubercle of the cervix, 3 of which were cases of primary disease.

Thus it seems as if tubercle of the cervix, whether primary or secondary, tends, in obedience to some unascertained law, to limit itself to that structure, thereby constituting in the first instance the only tuberculous lesion in the whole of the generative tract. These observations must have a most important influence upon the theory of causation. Inasmuch as the cervical disease, whether primary or secondary, is in some instances the only representative of tuberculosis in the whole of the reproductive system, one is warranted in believing that the etiological factors must embrace something besides the usual and well-worn theory of infection from tuberculous discharges springing from diseased areas existing higher up in the passages or the peritoneal cavity. In some cases, of course, such an explanation is quite sufficient to account for the extension of the disease to the cervix, but in others, as in instances in which the disease is present only in the cervix, it is quite inadequate, and therefore one must fall back upon infection through the blood, or direct infection from without for the *vera causa*. Direct infection may be conveyed by the use of bacilli-laden instruments, by the examining finger of the practitioner or nurse, and by coitus. There may very probably exist an inherited predisposition to genital tuberculosis, and this must be borne in mind. Infection by coitus is stated by Cornil[3] and others to occur but rarely. They base their statements on the rarity of tuber-

culosis of the vagina and cervix as compared with the uterus and tubes, for they say they should be more often the seat of the disease if infection follows the introduction of bacilli into the vagina. To recognise the fallacy of such an argument it is only necessary to consider the great rarity of tuberculosis of the mouth and pharynx, in which infection from without is the rule. It is probable that the disease cannot be produced unless the presence of bacilli in the vagina be associated with an injury to or a devitalisation of the cervical tissues as well as an inherited local predisposition to tuberculosis. The introduction of tuberculous material by Oncarani[11] into the vagina of rabbits, even if previously irritated by rubbing with tincture of iodine, never produced genital tuberculosis, but the animals usually died of general tuberculosis. Whitridge Williams,[7] who conducted similar experiments, could not detect a trace of tuberculosis anywhere in the body when the animals were killed from four to six weeks later. Zweigbaum[10] believes that chronic gonorrhœa predisposes the patient to tuberculous infection.

The period at which cervical tuberculosis most prevails is the period of maximum sexual activity—20 to 40 years of age. Genital tuberculosis may occur as early as ten weeks and as late as 83 years.[7] The ages of the patients described in this communication are 63 and 36 years respectively, and they had borne children. As to its frequency some idea may be gathered from the fact that out of 119 cases of genital tuberculosis collected from the literature by Späth[17] 6 were cases of cervical disease. Zweigbaum has collected 29 cases. At one time its occurrence was denied by Rokitansky,[12] Lebert,[13] West,[14] and others, although the condition had been accurately described by Kiwisch[2] previously in 1854. The disease has, however, been thoroughly demonstrated and is now fully recognised, but unfortunately in some of our modern text-books it is only referred to in order to be dismissed with a few words either as a museum curiosity or a rarity of no importance to the clinician.

Great importance is to be attached to the correct diagnosis of cervical tuberculosis, inasmuch as the ulcerated variety may readily be mistaken for cancerous disease, and this error of diagnosis has actually been committed. Cornil and Zweifel[16] record cases in which, hæmorrhage and suppuration being the symptoms, a diagnosis of carcinoma was made, and in one instance the uterus was removed *per vaginam* for a tuberculous ulcer of the cervix mistaken for carcinoma. By aid of the microscope Zweifel rectified his diagnosis before operating. The possibility of mistaking the two conditions must be always borne in mind by operators.

There are no signs or symptoms which can be considered pathognomonic save the detection of tubercle follicles and bacilli by the microscope. The honour of bringing this method of investigation into prominence belongs to Babes,[17] who in 1883 demonstrated the presence of tubercle bacilli in vaginal discharges. As regards prognosis, all the authors consulted agree that it is grave, for the risk of general infection is always great. The treatment adopted has been various; some have successfully used iodine and iodoform, the ulcers healing up by granulations; others have trusted to curetting followed by the application of the thermo-cautery; whilst others have excised the ulcer and sutured the incised edges. Some, when reasonably sure that the disease was limited to the cervix, have amputated.[18] The disease has a tendency to recur, and Zweigbaum's case, which was cured within three weeks of the application of the thermo-cautery, but died five months later of general tuberculosis of the lungs and intestines, is an example.

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TUBERCULOSIS OF THE TONSIL.

BY J. PURVES STEWART, M.A., M.B., C.M.EDIN.,
Practice of Physic Laboratory, University of Edinburgh.

THE presence of tubercle in the tonsil has hitherto been regarded to be of such rare occurrence that the following case seems worthy of being placed on record.

With the clinical history of the case I am not familiar, as the case was a private one under the care of Sir Thomas Grainger Stewart, who sent the specimens to me for microscopic investigation. I understand, however, that the case seemed to be merely one of ordinary chronic enlargement of the tonsils, with pharyngeal adenoids, associated with post-scarlatinal otorrhœa and enlargement of cervical lymphatic glands, in a child aged about 10. The scarlet fever occurred about two and a-half years ago, prior to which the child was absolutely healthy in every respect. There was no history of tubercle in the family.

The tonsils, on naked-eye examination, in no way differed in their appearance from ordinary chronically enlarged tonsils. The tonsillar crypts were unusually well marked, and here and there admitted the point of an ordinary probe.

On microscopic examination, however, the following appearances were found: The lymphoid tissue of the tonsil, covered on its surface by stratified squamous epithelium, was seen to be much subdivided by the dipping down of folds of epithelium, forming crypts, in which lay masses of amorphous *débris* containing numerous micro-organisms (see figures). Scattered through the substance of the lym-

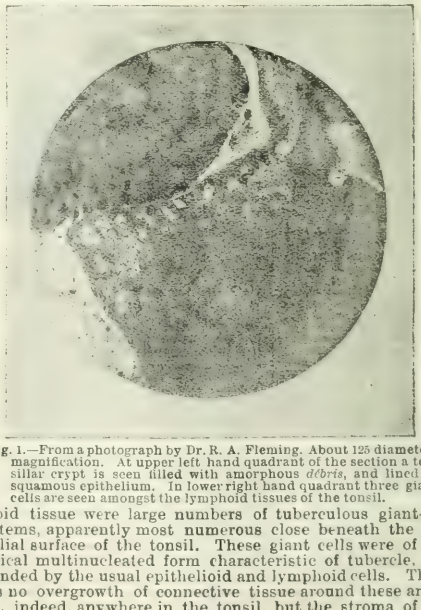


Fig. 1.—From a photograph by Dr. R. A. Fleming. About 125 diameters magnification. At upper left hand quadrant of the section a tonsillar crypt is seen filled with amorphous *débris*, and lined by squamous epithelium. In lower right hand quadrant three giant cells are seen amongst the lymphoid tissues of the tonsil.

phoid tissue were large numbers of tuberculous giant-cell systems, apparently most numerous close beneath the epithelial surface of the tonsil. These giant cells were of the typical multinucleated form characteristic of tubercle, surrounded by the usual epithelioid and lymphoid cells. There was no overgrowth of connective tissue around these areas, nor, indeed, anywhere in the tonsil, but the stroma of the gland seemed here and there to have undergone hyaline

degeneration. Staining by Ziehl-Niellsen and Gram's methods failed to demonstrate any tubercle bacilli in the sections.

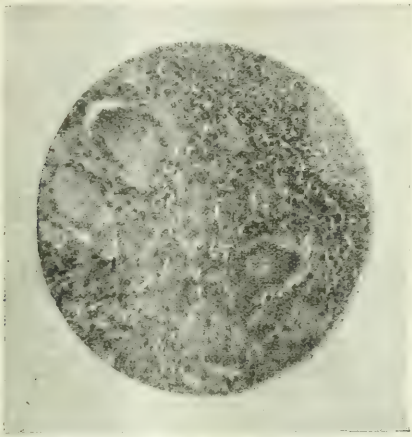


Fig. 2.—From a photograph by Dr. R. A. Fleming. About 750 diameters magnification. Part of the same section as photograph No. 1, showing giant cells.

The pharyngeal adenoids on section were found free from tubercle, and consisted simply of lymphoid tissue, covered by a layer of the columnar epithelium of the naso-pharynx. Some enlarged cervical lymphatic glands were subsequently removed from the same patient, and these on section showed typical tuberculosis in various stages of advance, from simple enlargement to caseation.

This case seems to show that the tonsil is more important as a channel of tuberculous infection than has hitherto been supposed; and when we regard the frequency with which it is attacked, and attacked successfully, by pyogenic organisms, it is not to be wondered at that the tubercle bacillus sometimes enters it and flourishes in its lymphoid tissue, a tissue which is *par excellence* a seat of tuberculous deposit.

THE TRANSMISSION OF DIPHTHERIA BY NON-SUFFERERS.

By HERBERT PECK, L.R.C.P.Edin., D.P.H.Cantab.,
Medical Officer of Health to the Ormskirk Rural District Council.

The following series of cases is of interest, as showing the possibility of the conveyance of the diphtheria poison by persons who do not themselves suffer from the disease:

House A.—*Case 1.*—R. H., aged 45, began to be ill on October 4th, 1894. The case was typical, and was followed by double "drop-wrist." No other person in this house suffered from sore throat.

House B.—This is half a mile distant from A. There was no communication between the houses tilll December 26th, when the occupier began to work for R. H. *Case 2.*—E. J., aged 7½ years, had a sore throat on or about January 2nd, 1895. The case was a typical one, followed by paralysis of both legs. The patient died from cardiac syncope. *Case 3.*—E. J., aged 4 years, began to be ill on February 6th. This was a typical case, and resulted in death from asphyxia. *Case 4.*—J. J., aged 12 years, had a sore throat on February 16th. The case was typical, and was followed by dimness of sight and strabismus. Bacteriological examination of cultures from the throat showed the presence of large numbers of diphtheria bacilli.

House C.—This farm house stands on a peatmoss, and is 1½ mile distant from houses A. and B. *Case 5.*—R. J., aged 18, brother of the last three patients, worked here from January 15th. His mother stated that he was at home for a few minutes on the days his sisters were buried, but at no other time. He himself admitted having been home on each Sunday to change his shirt, which he did in the room occupied by the patients. He stated that he did not suffer from sore throat at any time, but bacteriological examination showed typical diphtheria bacilli in large numbers to be present in the throat. There is no history of his ever having had diphtheria. *Case 6.*—J. C., aged 18, began to be ill on February 26th. He worked on the same farm as the last youth, and slept with him. He went home to House D. on February 27th, being then "full of cooth," and suffering from sore throat, and unable to work. Typical diphtheria bacilli were present in great abundance on March 15th.

House D.—This is 1½ mile distance from House C., two miles from B., and 2½ miles from A. *Case 7.*—J. C., aged 13, slept with the last patient, his brother. He came home from chapel on March 3rd, complaining of sore throat. On March 8th he was seen for the first time by his medical attendant, and was then dying. No bacteriological examination was made. *Case 8.*—E. C., aged 3 years, sister of the last two patients, began to be ill on March 12th. The case was a typical one, and an abundance of typical diphtheria bacilli was found on bacteriological examination.

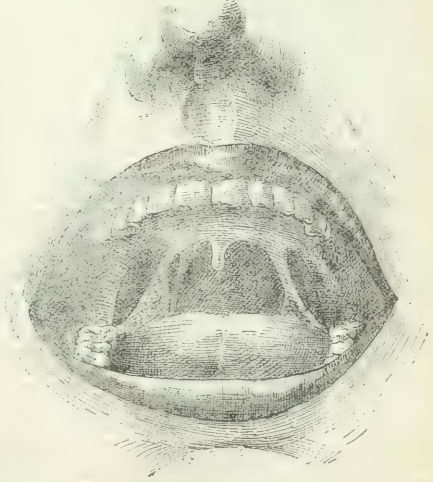
Remarks.—House B. was probably infected by the father of the family, who himself did not suffer from the disease. His son, Case 5, did not suffer from the disease, though he was proved to have its germs in his throat, but he was the means by which it was carried to House C., whence it was taken to D.

AN UNUSUAL CONDITION OF THE PILLARS OF THE FAUCES, PROBABLY CONGENITAL.

By ROBERT FULLERTON, M.D.,
Surgeon to the Outdoor Department for Diseases of Throat and Nose Glasgow Royal Infirmary; Lecturer on Diseases of Throat and Nose in St. Mungo's College; etc.

The following case presents certain features which may be deemed sufficiently interesting to warrant publication:

The patient, a married woman, 29 years of age, consulted Dr. Monro at the Medical Dispensary of the Glasgow Royal



Infirmary in March last year, on account of a catarrh of the

chest and throat, evidently the result of a cold. Upon the abnormal condition of the throat being discovered, she was sent to me for examination, and subsequently the case was placed at my disposal.

A simple cough mixture had been given to her on the medical side, and when I saw her a few days after the first examination she expressed herself as feeling practically well. Upon examination only a slight catarrh of the larynx was found to be present. The view of the fauces, however, was so unusual as to induce me to take full notes of the case. These notes, together with a tolerably accurate drawing of the parts, I now submit.

Mrs. W., aged 29, has been married for ten years, her husband being a labourer. She has had four children, three of whom are alive and healthy; the fourth died of whooping-cough when 18 months old. She had a miscarriage five years ago. Her father, she states, is still alive, and 85 years of age. Her mother died at the age of 39, from bronchitis. The family consisted of three sisters, all of whom are alive.

The patient is a healthy-looking, well developed woman, of medium height, with thick dark brown hair and bright intelligent eyes. The teeth are less decayed than usual in women of her age, and the sound ones remarkably white and well-formed. There are two short perpendicular scars through the mucous membrane of the upper lip, but scarcely involving the skin, one being situated near the middle line, whilst the other is removed a short distance to the right side. She ascribes the presence of these scars to "hacking" when suffering from scarlet fever, and states that they formerly used to open afresh in cold weather. A scar about the size of a three-penny-piece, said to be the result of a boil, is found on the calf of the right leg. With these exceptions, I have been unable to find any other cutaneous scars, nor are others admitted to be present by the patient. There are no indurated nor enlarged lymphatic glands to be felt, and the general aspect and examination yield nothing which points definitely to syphilis. When a child she had measles and scarlet fever, and at the age of 12 was very ill with what she calls "brain fever." This illness appeared to follow a blow on the head from falling against an iron bedstead, and she was said to have remained more or less unconscious for three or four weeks. She is not subject to fits. She has no recollection of ever having had a sore throat, and has always been very healthy.

On examining the fauces, an opening is seen in each of the anterior pillars. On the left side the soft palate is found not to divide in the usual way into an anterior and a posterior pillar, but passes down as a single band in the position of the anterior. Towards its lower attachment it becomes somewhat expanded and slightly directed backwards. Separating this band from the buccal wall is an elongated opening, which begins above on a level with the base of the uvula, and extends downwards almost to the gums. The posterior pillar on this side appears, therefore, to be absent.

On the right side of the fauces we have a similar condition of parts, but here the band representing the anterior pillar is somewhat broader, and the opening external to it rather larger, than that of the opposite. Moreover, there is in addition a narrow strip of mucous membrane which arises above from about the usual point of attachment of the posterior pillar with the soft palate, and passes downwards to its insertion below. On the soft palate being raised and the parts rendered tense, separation takes place at the point of junction with the soft palate as in the normal state. The edges of these bands are soft, smooth, and even, and no cicatricial tissue can be made out either on their free edges or surfaces, the mucous membrane over which appears to be entire. The external boundaries of the above-mentioned oral openings formed by the buccal walls and part of the soft palate are smooth, and show no remains of a former attachment. Both tonsils are absent.

On examining the pharynx the mucous membrane is found to have been destroyed over a very large area. Inferiorly this destructive process is met with a short distance above the œsophageal opening; spreading as it passes upwards, it involves to a certain extent the edges of the epiglottis, pushes laterally over the usual site of the tonsils, extends up into the naso-pharynx and over the upper surface of the soft palate, where it is gradually lost. Generally speaking this process appears to have been of a superficial character, for with the exception of one or two somewhat dense-looking fibrous streaks on the posterior wall of the oro-pharynx, the look presented is that of a destruction of the mucous membrane proper, leaving bare the fibrous layer. There is no distortion of parts, there is no destruction of the cartilage of the epiglottis, and even on the upper surface of the soft palate the process appears to have been confined to the superficial covering, scattered patches of which still remain. In the oro-pharynx it extends forwards till about the level of the opening in the anterior pillars, but does not go beyond; and here the line of demarcation is so ill defined that it has almost the appearance of gradually blending with the normal mucous membrane. The anterior surface of the soft palate and uvula appears quite normal. The larynx, tongue, and nasal cavities do not seem to have suffered in any way. The voice is clear and free from any nasal quality. There is no trouble during deglutition, and previous to examination the patient was unaware of anything unusual being present in the throat.

The questions which one is here inclined to ask are: At what period of the patient's life did this destructive process take place? What was its nature? Has it any bearing on the anomalous condition of the pillars?

In answer to the first question, inasmuch as the patient positively denies any knowledge of having had a sore throat, nothing definite can be stated. As to its nature, when the patient was shown at the Glasgow Medico-Chirurgical Society on February 8th, one member thought the whole condition due to syphilis, but a consideration of the history and features of the case tend to disprove this theory. No more definite facts than have been given could be elicited in connection with the "brain fever." That being so, we are constrained to regard the scarlet fever from which she suffered at an early age as being the most probable cause of the ulceration in the pharynx. As to the third question, the general opinion of those who examined the patient, both at the meeting and elsewhere, was that the openings in the pillars did not look as if caused by ulceration. I think I am also right in stating that none of them had seen a similar condition of parts, and those gentlemen who had an opportunity of making a prolonged examination in a good light agreed with me in looking upon it as congenital. I must say that after repeated examination, and with every desire to arrive at a correct conclusion, I can only view the condition in this light, and consider it of a character similar to certain cases reported by Schmiegelow,[1] Claiborne.[2] O. Chiari,[3] Schapringer,[4] and others. It appears to resemble especially Schapringer's case, in which there were cicatrisation of the pharynx and absence of one tonsil.

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HYSTERICAL OR FUNCTIONAL DISEASE.

By W. B. RANSOM, M.A., M.D., M.R.C.P.,
Physician to the General Hospital, Nottingham.

THE interesting remarks which my account of a case of functional deaf-mutism led Sir William Dalby to send to the BRITISH MEDICAL JOURNAL of March 16th emphasise the necessity of precising our ideas as to what we mean by the terms "hysterical" and "functional," and the desirability of establishing a uniform nomenclature for diseases of this group. Are the two terms synonymous, or should they be applied to cases in different categories?

Sir William Dalby narrates the case of a girl who was thought to be deaf by her friends, but whom he judged (by the modulations of her voice, among other signs) really to have perception of sounds, though the usual responses were apparently without motive or effort suppressed. Taking this view of the case, we cannot call it one of functional, or even hysterical, deafness. The patient may have been, in popular phraseology, hysterical, but the loss of function was that of reaction to auditory stimuli, not loss of reception. This is a distinction which should be drawn between this case, and those who, like the professional subjects of popular "mes-

merisers," train themselves by will power to suppress the usual reactions to painful impressions or nauseating tastes. It is quite compatible with this view that an extremely violent stimulus, such as the unexpected firing of a gun, might break down the block between the sensory and the motor side of the cortical centres, and re-establish the normal flow of incoming and outgoing currents.[1]

But in the same way, if the function of hearing were itself actually suspended (as Sir Wm. Dalby believes it to have been in his second case), an especially intense auditory stimulus might have overcome the inhibition, just as in light sleep a loud sound rouses when a weaker is unnoticed, and as in certain stages of ether narcosis nerves respond to a strong but not to a weak stimulus. The gun test then cannot alone prove the absence of functional deafness.

I find some difficulty in following Sir William Dalby when he admits the existence of "hysterical" paralysis, but rejects that of "hysterical" loss of sensation—at least of the special senses; and I also do not see how he can separate in this respect the so-called special senses from the senses of touch and pain. He says "if a young woman has hysterical paralysis of a limb she firmly believes she cannot move it," but goes on to add that "she cannot be under the impression that she does not hear," the actual function of hearing being involuntary. But this limits the use of the term "hysterical" to disturbances of belief and volition, and therefore leaves out a large class of cases to which the term is commonly applied. Now, as a matter of fact, we often do meet with loss of power and loss of sensation in the same limb, or in the same group of organs, in a case which presents the ordinary symptoms of hysteria, and motor power and sensation may go and come together.

There is no reason for assigning the one loss to the region of pure psychoses, and the other to the lower level of the neuroses. If the one is hysterical, so is the other. If one loss be termed functional, so should the other.

And the sensory loss in these cases may include also the special senses, as in the common contraction of the fields of vision; while both motor and sensory disturbances may be of such a character as could not be anticipated by any patient who was not a trained neurologist, in whom, therefore, the mental process of belief (which always has an anticipatory element) could not be involved.

I infer from these considerations that the motor loss no less than the sensory may depend upon the suspension of the functions of certain nervous mechanisms on a lower level than those concerned with the more purely psychical processes. Even when arising from or cured by a pure emotion, the actual paralysis or anæsthesia probably depends on loss of function of nerve structures connected with motor or sensory processes.

Whether it is advisable to term these phenomena "hysterical" is another question. On the whole, I venture to think it would be better to restrict this word to its popular use; namely, to describe the general state of a person who is emotional and capricious, and to invariably use the word "functional" in relation to the special depression or exaltation of nerve irritability.

Though the particular nerve structures involved are most frequently the cortical centres, kinæsthetic or sensory, yet it seems probable that the bulbar and spinal mechanisms, or even the peripheral nerve apparatus, may suffer suspension of their functions or functional separation from the brain in cases presenting the symptom-complex of so-called hysterical disease. Such cases as the celebrated one of Charcot where functional paraplegia ended in lateral sclerosis, as that of Zeher in which atrophy of optic nerve fibres was found, indicate that the disorder, even before becoming organic, involves nervous structures of the lower levels. The cases, to which Dr. Buzzard has recently drawn attention, of recurrent temporary paralysis, usually considered hysterical, but which end in disseminated sclerosis, are particularly instructive in this respect. These patients are usually emotional and of the mental "hysterical" type, and skilled observers have confidently diagnosed purely functional disease; but repeated suspension of function ends in organic disease involving, not merely the cortex cerebri, but the bulbo-spinal mechanism as well.

The term "hysterical" appears particularly unsuitable when applied to such a case as that recently brought by Dr. Hector Mackenzie before the Medical Society, and reported in the JOURNAL of March 16th. In this instance a widespread suspension of nervous function followed the introduction of the diphtheritic toxin into the system, and especially prolonged loss of hearing, was associated with some evidence of inflammatory trouble and possibly trauma in the middle ear. Granted that the girl had a neuropathic or hysterical diathesis, yet the actual loss of function, both of motor power and of hearing, seems to me probably due not to mental auto-suggestion, but to weakening by disease of the motor and auditory nerve mechanisms. The "hysterical" tendency merely caused a comparatively slight occasional cause to produce a great effect.

By the general adoption of the word "functional," and the recognition of the possible transition from functional to organic change, some unprofitable discussion, which amounts largely to a play upon words, may be avoided.

[1] I may state that in the case of my deaf-mute the father gave me to understand that the cannon was fired without the lad seeing or knowing of it; but as I was not present I cannot vouch for the accuracy of the experiment.

HYSTERICAL (OR FUNCTIONAL) DEAFNESS.

By W. T. VAN DYCK, M.D.,
Beyrout, Syria.

ATTENTION has recently been called in the BRITISH MEDICAL JOURNAL to the subject of functional deafness, and in view especially of Sir William Dalby's remarks in the JOURNAL of March 16th, I think the following brief account of a case in point may be of interest.

On the evening of March 21st I was summoned on board a gentleman's steam yacht to see a lad, aged about 19, a "steward's assistant," concerning whom I ascertained the following facts: For two or three days it had been noticed that the lad's hearing was very dull, and that he was unusually silent. It appeared that this condition had come on rapidly, but not with anything like instantaneous suddenness. Moreover, the degree of deafness and speechlessness had been variable, but had on the whole increased until, towards the close of the day in question, it was found impossible to make the boy utter a sound or give evidence of hearing anything. My own examination of the case corroborated the statements made by officers and crew, so that I had to communicate with my patient in writing. He complained of having felt somewhat giddy for the last two or three days, stated that he heard nothing of what was said to him or about him, that his ears felt stopped up, and that he simply could not speak. Examination showed the meatus and tympanic membrane to be perfectly healthy on both sides. No evidence was found of paralysis, incoordination, cutaneous anæsthesia, or abnormality of reflexes. The facial expression was somewhat dull and heavy, and was thought by several of the men to be more so than usual, but the intellect was quite clear, albeit of no high order. No ophthalmoscopic examination was made at the time, but the pupils reacted fairly though somewhat sluggishly to light, and vision seemed good and was stated in writing to be so. Syphilis was denied, but an old attack of gonorrhœa was admitted. A noteworthy point, it seems to me, was that the patient made hardly any attempt to communicate with anyone by signs or gestures; only when some of my written words proved illegible he would point to them and shake his head.

These points having been ascertained, I asked one of the officers to make some loud, sharp noise behind the patient's back unexpectedly. A loud shout, a sharp whistle (with the lips), and banging against a door panel with an iron pestle passed absolutely unheeded. Asked on the slate whether he heard anything, he simply wrote "No, sir." I now asked, in an ordinary tone, to have the bo'sun's whistle blown behind the boy's back suddenly, and, presumably, if he really was deaf, without his knowledge; for he sat in an apathetic attitude, and did not seem to watch my proceedings with any interest. This done, I again asked whether he heard anything, and he wrote, "I hear something like a whistle." Questioned as to any previous attack of the kind, he stated that

thirteen or fourteen months earlier he had suddenly lost speech and hearing, and that a doctor put something in his ears, and "blod" (*sic*) for about ten minutes, when he as suddenly and completely recovered.

Wishing to observe the patient's gait more closely than I had done at first, I asked him (in writing) to walk away from me, and when he was a little more than half way across the messroom, I called loudly, "Now come back!" expecting that one of his mates would turn him back; but to my surprise he turned of his own accord; and another order, loudly and clearly uttered, was promptly obeyed. I now remarked in a loudish tone, "You hear me now?" He nodded. "Tell me your name." He shook his head. "Say One, two, three." He opened his mouth and made two or three feeble and utterly soundless efforts, then shook his head again. "Say Ah!" After an apparent effort, he got out a whispered and only just audible "Ah." "Say Eee." Again a whispered but correct sound. "Say your name." [Brown.] A sort of whispered stutter, getting as far as B-r—, was the only response.

Being doubtful of the true diagnosis, I asked the captain to have the boy sent up next day to my office for more searching examination; and in the meantime ordered him some iodide of potassium (which I found in a medicine chest on board), on the vague possibility that some form of incipient cerebral syphilis might be at the bottom of the symptoms. I admit that this was unscientific procedure, but under the circumstances it seemed better than doing absolutely nothing. Before leaving the ship, and while conversing with the captain in the saloon, I was informed that the patient had asked audibly for a cup of tea.

The next day, at 2 P.M., the lad came to my office (accompanied by a sailor), hearing and speaking as well as ever in his life. Nothing abnormal (except slight exaggeration of the right knee-jerk) was to be found anywhere, not even by ophthalmoscopic examination. The statements of the evening before as to a previous attack were repeated *vivâ voce*. That attack, he said, occurred at his home in Southampton, but I carelessly neglected to ascertain the name of the physician who cured him by "blowing into his ears." The diagnosis of functional deaf-mutism was made, and the patient dismissed with a prescription for sodium bromide and ammoniated tincture of valerian, to be taken for a week, together with the application of a blister to the nape of the neck; and with some plain speaking as to the abuse of tobacco and coffee, to both of which he was addicted, and as to the dangers of sexual excess. The latter he denied, though one of his comrades was convinced that he had abused himself in this respect, and one of the officers told me he was sure the boy masturbated habitually; he certainly looked as if he did.

This case agrees closely with that reported by Dr. Ransom in the BRITISH MEDICAL JOURNAL of March 2nd, in several particulars, notably in the absence of features or circumstances suggestive of conscious fraud, and in the fact that the deafness was not absolute, and that both aphasia and aphonia were for a time complete. The chief point of difference lies in the more speedy but gradual recovery of my case.

I do not know whether Sir William Dalby would admit this case as one of true functional deafness, but in the absence of evidence of organic disease or deception, voluntary or involuntary, I do not know what else to call it.

I regret that the departure of the patient for Southampton the day after my second examination makes it impossible for me to follow up the case and report the subsequent history.

SULPHIDE OF CALCIUM AS A PROPHYLACTIC OF INFLUENZA.

By W. E. GREEN, M.R.C.S.,
Surgeon to the Isle of Wight Railway.

DR. J. SINCLAIR COGHILL has contributed a valuable paper on the prophylaxis of influenza by means of a large daily dose of quinine, which is undoubtedly one of the most valuable methods of treatment, but knowing that it is not everyone who can take quinine I resolved, when the first epidemic visited us, to try a daily dose of 1 grain of sulphide of calcium. All my household took it with the exception of two servants, who for some reason or other did not, the result being that all escaped but those two exceptions.

The next year, when the epidemic again broke out, I asked the authorities of the Isle of Wight Railway to supply all their *employés* with the pills, and all who took them regularly escaped. The manager of the Central Railway also asked me to supply his men with them, and he afterwards informed me that as far as he could ascertain none of the men who had taken the pills regularly had had influenza.

During the next outbreak the pills were again given with like results, but on the Isle of Wight Railway they were not given out to each workman as formerly, consequently but few took them, and the result was that a large number of influenza cases occurred amongst those who had not used the remedy.

During this epidemic I also had an attack from having neglected to take the medicine until a day or two after the symptoms appeared.

I can certainly speak from much experience of the efficacy of this remedy, having ordered it to numerous patients with the most satisfactory results.

It takes about three days before the system becomes sufficiently saturated with the drug to prevent infection, therefore it is rarely of use to those who have already been exposed to it, though even then it appears to modify the attack. When a case appears, I believe the 5-grain dose of quinine to be more rapid in its action than the sulphide of calcium, and therefore safer to give, but should afterwards carry on the effect with the sulphide of calcium, which I feel sure is equally efficacious and much easier for many to take, as it never appears to disagree in any way, although continued regularly for many weeks.

I had a case of influenza a few days ago in a patient who had been taking 12 grains of quinine regularly every day for some weeks, and I have also seen it occur in others who have been taking daily doses of simple sulphur, with the idea of preventing influenza. I believe its *modus operandi* to be that it renders the blood unfit to receive and support the influenza bacillus.

CASTRATION FOR ENLARGED PROSTATE.

By A. G. FAULDS, M.B.Glasg.,
Assistant to the Professor of Surgery, St. Mungo's College, Glasgow.

I HAVE read with great interest the articles on castration as a treatment for enlarged prostate in recent numbers of the BRITISH MEDICAL JOURNAL.

My object is to draw the attention of surgeons to a certain contingency, always grave and often (in my experience) fatal, which should be taken into account before deciding on what is surgically a simple operation. I am indeed surprised at the published statements of Dr. J. W. White, of Philadelphia, and of Dr. E. Hurry Fenwick. The first-named cites thirty cases, all successful; the latter gentleman nine cases, of which number seven are reported as successful, that is, where benefit resulted without mishap. Would it not be educative and equally important to give the details of non-successful cases? With this object I give the following black list:

CASE I.—J. N., aged 66, had endured a catheter life of three years. When examined the residual urine drawn off was nearly 12 ounces, mixed with pus and blood. The prostate was very large, so that its upper limit could scarcely be reached through the rectum. With the assistance of two resident medical officers of the Glasgow Royal Infirmary I operated on December 24th, 1894. Healing, etc., were most satisfactory, but though about a week after dysuria was mitigated on January 19th hemiplegia occurred, with death on the day following.

CASE II.—J. M., aged 71, was castrated by me on January 3rd. Six days later he presented the signs of acute mania, and on January 13th died.

CASE III.—I was asked by a medical friend on January 12th to see a case of enlarged prostate. The patient had been abroad, and for six years had suffered dysuria, with the passage of pus and blood. I ascertained these to be the consequences of enlarged prostate, and operated. A week after

operation the patient became somewhat childish, mania appeared, and death occurred on the twelfth day after castration.

Case iv.—About this time my attention was called to a case in one of the large Glasgow hospitals. It had been decided to perform orchectomy for enlarged prostate with consequent distress. The operator was a surgeon of large experience, for whose skill I have the highest admiration. A few days after castration the patient exhibited acute mania and died.

Case v.—A. M., pensioner, had suffered all the distress attending an enlarged prostate for four years, for which he had undergone much unsuccessful treatment at various hospitals. I proposed castration, explaining the dangers such an operation would incur. I castrated, and though I have noted no psychical phenomena as in former cases, thirty days have passed without appreciable mitigation of the urinary trouble.

Case vi.—My friend and teacher Mr. H. E. Clark, of the Glasgow Royal Infirmary, having taken into account the foregoing cases, determined to try a single orchectomy on the next case that presented, to the end that he might get such partial atrophy as would alleviate symptoms at a minimum risk. The patient died, however, in a few days in a state of mental aberration.

Moreover, I am permitted to refer to a private case of Mr. Clark in which perineal section had been performed to ensure rest and drainage for the bladder. The removal of one testicle was followed by distinct mental weakness and death.

Now in all these cases the patients had been brought to the best possible state of health; some had been relieved, so far, of bladder and kidney disturbance by perineal section, all with the object of minimising the immediate and remote effects of the operation.

I know that in operations other than castration the maniacal condition may supervene, as, for instance, in a debilitated patient with disordered kidneys after undergoing oöphorectomy. I acknowledge what was known years ago that in some animals castration was followed by prostatic atrophy, but the subjects of such experiments were young and sex not matured. I have good reason for saying that the result—that is, dwindling of the prostate, in part or general—does not invariably follow castration. I have castrated young men for tuberculous disease of the testicle. One case I can recall in which the second testicle was removed one year after the first. This case resulted neither in prostatic atrophy nor in psychical change. Nay, but a few days since a *post-mortem* examination was held in the Glasgow Royal Infirmary on the body of a man who had been castrated five years ago; the prostate was that of unchecked virility.

Now, I consider that in the present state of our knowledge we are not justified in removing the testicles at the risk of precipitating mania or dotage. To my mind, the *post-mortem* appearances of some of the prostates have been more of a cirrhosis than a true glandular enlargement, and this would explain how the muscular fibres could not contract during micturition, and therefore failed to assist the detrusor at the end of micturition. Thus residual urine accumulated. Until the physiologists can more accurately explain the relation between prostate and testicle, show, in fact, wherein their functions become common or most nearly approximate, and until they can show the relationship between the functional group and the higher and lower nervous centres, we are not, in my opinion, justified in operating thus.

ON THE FREQUENCY OF MOVABLE KIDNEY.

By STUART TIDEY, M.D.Lond., M.R.C.P.Lond.,
Florence.

I have read with much interest the successive records of the operative treatment for movable kidney. That the condition is frequently overlooked I infer from the fact that several of my cases had sought advice repeatedly for the associated symptoms and had been treated for intestinal or nervous disorders. I can call to mind 7 cases of movable kidney, of which 1 only had been previously recognised. Of the 7 cases, 1 was a male, the remainder female patients. The male patient was 33 years of age. He was a keen otter hunter, and had been subject to frequent and prolonged immersion in water, and had also done a good deal of rough pony riding. The symptoms were mental depression and languor, flatulence, and tendency to diarrhœa. The urine contained a small quantity of albumen, varying from ⅛ to ¹⁄₁₆. The left kidney descended considerably below its normal position, and slid away in the characteristic manner when the lower end was compressed between the fingers of the two hands. The question naturally arose whether this was a case of incipient Bright's disease or of mechanically-produced albuminuria. An eminent London authority on renal (and many other) diseases decided in favour of the second alternative, and advised the continuance of the pad and belt which the patient was wearing. The symptoms generally improved; albumen was frequently absent from the urine, and the patient was mentally relieved by the knowledge that the indefinite symptoms were due to a mechanical condition and not to some mysterious disease. It is now three years and a-half since I first saw him, and I gather from his letters that the mental and bodily conditions are both more satisfactory now than then.

My first female case was an ayah travelling in Europe. She was seized with renal colic, and the attack was followed by a copious discharge of gravel. She had had one or two similar attacks previously, and the kidney was very movable. I attributed the accumulation of gravel and consequent colic to dislocation of the kidney. A pad was applied, but I have no further record of the patient. I met with another case in a young lady travelling with a trusted maid as companion. The maid had been instructed to pay as little attention as possible to the young lady's complaints. The latter called on me one day complaining of pain in the right iliac region. She had a history of recent gastric catarrh. I examined the abdomen thinking there might be some chronic perityphlitis, but instead of this I found a movable right kidney. I explained the state of things, and here again the knowledge of a mechanical cause for the train of symptoms was a source of great relief to the patient.

Recently I have met with two cases of movable kidney, both in young women and both associated with localised pain, neuralgia, and derangement of bowels. One patient has a strong family history of malignant disease, and was much relieved when I explained the cause of her symptoms. The second had vague ideas of incipient something, and was glad to know that even if the symptoms were progressive there was a fairly certain means of permanent cure.

The following considerations seem to me worthy of attention: 1. That though the individual symptoms, namely, localised pain, mental depression, neuralgia, and intestinal irregularity are indefinite, yet, when associated, they form a fairly characteristic clinical picture. 2. That the pain is often not in the kidney itself, but in the structures irritated by its abnormal mobility, of which the genito-crural nerve appears to be an important one, and may possibly be the afferent tract where reflex neuralgia is a prominent symptom. 3. All my female cases (possibly excepting the ayah) were nulliparous women, and I have been unable to trace any causal relationship with tight lacing. On the other hand, four of the cases occurred in patients who had indulged in violent exercise, such as running down the Righi to Viznau, donkey-riding, pony-riding, and pedestrianism generally. 4. What treatment short of operative interference is likely to lead to permanent relief or cure? The prospect of wearing a pad indefinitely is not satisfactory: to forbid exercise is paving the way to troubles innumerable, and to treat symptoms is to beg the question of treatment altogether. Recently, I have prescribed exercises with a view to strengthening the lumbar and abdominal muscles, together with a liberal diet and appropriate treatment of the digestive organs.

Presentation.—Dr. Tomory has been presented with a purse of sovereigns as a mark of the great respect and esteem in which he is held as a medical officer in Halkirk and the surrounding districts.

A laboratory for the preparation of antitoxin is being fitted up in the Willard Parker Hospital by the New York City Board of Health at a cost of 5,000 dollars (£1,000).

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CEREBRAL MENINGITIS FOLLOWING INFLUENZA.

I READ with interest the communication in the BRITISH MEDICAL JOURNAL of April 20th, p. 867, from Mr. D. L. Davies on the above subject, having recently attended a case which presented a striking resemblance to his. A week or two ago I was called to a lad of 19, who for some days previously had been confined to bed with slight pyrexia. When I saw him there was, in addition to this, arthritic pain in several of the joints. Shortly after the temperature rose, and spasmodic convulsions of a distinctly choreic nature supervened. At intervals the patient was conscious and answered questions intelligently. The pupils were somewhat dilated, and responded feebly to light or in a sluggish manner. There was no vomiting, and the whole body, some three or four days before death, was absolutely bathed in perspiration (inhibition of sympathetic?). The choreic jactitations were almost uninterrupted for three days before death, the lips became dry and parched, and the teeth covered with sordes. There was a family history of struma.

That the condition described was due to some cerebral disturbance there could be no doubt. My opinion that the case was not one of ordinary meningitis was supported by two friends who saw it with me. At the beginning all the features of influenza were present. The seat of the disease seemed to be the medulla. Whether the disease was of a scrofulous nature, or of an embolic, or purely inflammatory can only be conjectured.

Glasgow. D. CAMPBELL BLACK.

HAVING seen a somewhat similar case, I have been interested in reading that reported under the above heading by Mr. Davies, in the BRITISH MEDICAL JOURNAL of April 20th.

My patient, a healthy country girl, about 20 years of age, had been ill for some days when I was asked to see her on January 2nd. The history I elicited was that some four or five days previously she had been suddenly attacked with rigors and general *malaise*, pains in the back and limbs. Sporadic cases of influenza, with gastro enteric symptoms, were prevalent at the time, but as the rural population about here rarely call in medical aid until death is staring them in the face, this girl would probably have been left to Nature only that her friends became alarmed at the delirium and insomnia.

When I saw her she was sitting up in bed talking, at times rationally and then lapsing into muttering delirium. Her pulse was small; temperature 102°, and she had not slept for two nights. The most remarkable and alarming symptoms was the wide dilatation of both pupils which were insensible to light, and the fact that both eyes were directed downwards and fixed.

On the following day she was somewhat more rational, and examination with the ophthalmoscope showed both discs normal and no photophobia, but she could not be got to look up, said she could not raise her eyes, and if asked to look at the top of the bed, raised her head, keeping the eyes fixed.

In the course of four or five days, improvement gradually took place, sleep returned, and clonic spasms of all the limbs, which had been frequent, subsided, but the pupils remained dilated until the temperature fell to normal. On first seeing this case I considered it to be tuberculous meningitis, and for some days expected coma to supervene; but the history of the case and the state of the retina, together with the fact that she has recovered, point, I think, to influenza. I regret I did not take any notes of the case, but we see so many abnormal symptoms in influenza, that I classed this among others I had seen where head symptoms predominated.

The treatment I adopted had as little to do with her recovery as most of the specifics recommended for this disease of which we know nothing. I had her well fed, gave her sulphonal to procure some sleep, and some quinine and iron when she was recovering. That the poison of influenza may closely simulate cerebro-spinal meningitis arising from other causes I see no reason to doubt. There is another curious fact which struck me about the influenza epidemic this year. Nearly all the cases which came under my notice had gastro-enteric symptoms, and no pulmonary complications. In only one house was more than one individual affected and in that case a whole family were struck down after the arrival from England of one of the members who had come from a town where it was rife. They all had the ordinary form with pulmonary symptoms, but it did not spread beyond their own house.

Cootehill. T. H. MOORHEAD, M.D.

MR. DAVID L. DAVIES, of Criccieth, recorded in the BRITISH MEDICAL JOURNAL of April 20th, p. 867, a case of cerebral meningitis following influenza, in which about an ounce of sanious pus was discharged from both nostrils about three hours before death; no *post-mortem* examination was obtained. This brings to mind a case seen by me in consultation with Dr. Vaughan Barber, of Finsbury Park, in December last.

A man, aged 30 years, with a tuberculous family history, was dying of meningitis. He was comatose when I saw him, with irregular respiration, retracted abdomen, and inability to swallow. The eyes were fixed, the pupils insensible to light and very unequal in size, the left pupil being much dilated. He died shortly after. Several hours before death thick pus, brownish-green in colour, began to flow in a continuous stream from the right nostril, and did not cease until he died, the patient lying at the time with his head and shoulders raised, and the head turned to the right side. A day or two earlier there had been slight transient redness and tenderness of the skin in the left malar region.

We succeeded in obtaining a *post-mortem* examination. There were evidences of meningitis at the base of the brain; the membranes being very congested, the arachnoid thickened and milky, buff-coloured lymph lying about the fissures, and turbid liquid in the lateral ventricles. Most of the cavities communicating with the nasal passages were carefully explored (the frontal sinuses being, however, overlooked), without the discovery of any clear cause for the purulent discharge. It was thought that there was a drop of puriform matter in the left antrum of Highmore, and there were carious tooth stumps beneath it, but neither here nor in the sphenoidal cells, ethmoid cells, or orbits was any unmistakable lesion observed.

It would be interesting to know the source of the pus, which thus appears shortly before dissolution in some cases of cerebral meningitis, and its relation to the disease of the membranes.

Finsbury Square, E.C. R. HINGSTON FOX, M.D.

CARBUNCLE TREATED BY HYPODERMIC INJECTIONS OF BINIODIDE OF MERCURY.

S. B., aged 44, a delicate, ill-nourished woman, on March 17th presented over the spine, between the shoulder blades, a pustule surrounded by an inflammatory areola, altogether about the size of a shilling, in which could be discerned a ring of small yellow suppurating openings. I made a deep crucial incision, and ordered poultices.

On March 19th the induration extended, on March 20th the part was much inflamed, and covered with numerous fine suppurating openings. The patient complained of weakness, and loss of sleep owing to the pain.

On March 22nd the disease had spread very much. A piece of lint was ordered to be soaked in a 1 in 4 0'0 solution of biniodide of mercury, and kept constantly applied.

On March 23rd the part presented hundreds of pin-point suppurating openings. The patient felt much exhausted. The tongue was covered with a thick white fur. I injected hypodermically by three insertions on the outer border of the induration one-sixtieth of a grain of biniodide of mercury to each injection, which caused a good deal of pain, but five minutes after the injections she said she was almost free from pain.

On March 24th the induration in the situation of the injections had much diminished. A thick, yellow, stringy discharge was coming from the pustule, which was about the

size of a crown piece. The pain was much lessened. Four injections of one-sixtieth of a grain of the biniodide, amounting to one-fifteenth of a grain in all, were made at equal distances round the outer border of the induration.

On March 25th the centre of the pustule had sloughed and broken down; the circumference was much undermined; the patient described herself as feeling a "lump" better. I gave two injections of the biniodide, and sprayed the wound with the same.

On March 26th I sent her to see Mr. Treves at the London Hospital, who confirmed my diagnosis, but there being no vacancy he recommended her to come back to me. On the following day all the inflammation round the pustule had subsided; there was no pain. A large slough occupied the centre of the diseased area. Warm boracic acid dressings were ordered to be applied twice daily.

On March 29th a large piece of slough had come away, leaving a circular cavity about half an inch in depth with ragged undermined edges and a diameter of two inches and a-half, the base of which is covered with granulations.

By April 2nd the slough had all come away, and by April 5th a small raw surface only remained, which was rapidly skinning over. The patient had increased in weight, and felt well. The patient tells me she had been in the habit of washing the garments of a cat's meat purveyor, which may possibly afford a clue to the etiology.

The biniodide of mercury is a much more powerful antiseptic than the perchloride, and is less irritating. I have no doubt that if I had commenced the injections from the outset the disease would have been cut short before attaining any magnitude. In future my treatment would be a crucial incision to relieve tension, and injections from the outset. Her diet throughout was stimulating, and she took 5-minim doses of the strong perchloride of iron, with glycerine, three times a day after meals.

Bethnal Green Road. RALPH STONEY, L.R.C.S., L.R.C.P.I.

A CASE OF ACUTE BRONCHOCELE FOLLOWING INFLUENZA.

On March 20th, 1895, I was called in to see a lady, who gave a clear history of an attack of influenza, which was then prevalent, followed by a painful swelling in the neck. On examination I found an enlargement of the thyroid gland, chiefly confined to the right lobe, which was exceeding hard and tender. The swelling dipped deeply behind the sterno-mastoid and extended across the isthmus, binding down the trachea, whence it shaded off into the softer left lobe, which was not painful. The skin and superficial fascia were not reddened and moved freely over the gland, which appeared to be held as in a light bag by its own fascia. There was no enlargement of the lymphatic glands of the neck or axilla, nor of the salivary glands or tonsils. The tongue was thickly coated. The temperature raised, and there was some slight difficulty of breathing and swallowing with cough, but no loss of voice at any time.

The swelling and hardness of the gland slowly increased from day to day, but no softened area suggested the formation of pus. The temperature on one occasion registered 104.2° F. in the right axilla in proximity to the swollen lobe, while it was 2° lower in the left. There was no cellulitis.

On March 24th, owing to the high wind, the smoke was driven down the chimney, setting up a severe catarrh of the trachea. The dyspnœa now became very alarming. There was orthopnœa and inability to cough effectually. There was some stridor, great anxiety, and sweating.

A consultation having been arranged with Dr. Cockhill—now of Stafford—it was decided to try the effect of an emetic of vinum ipecacuanhæ before having recourse to tracheotomy, which would have been practicable only above the isthmus with a long tube passed through the constricted trachea.

Happily, free emesis gave great relief; it cleared the throat of much mucus, and also unloaded the stomach and relaxed spasm. The breathing became easier. During that night and next day much accumulated muco-purulent material was expectorated; the gland gradually softened and diminished in size; the fever subsided, and in about a week the patient was almost well, except for the consequent prostration.

No enlargement of the thyroid was noticed before the present illness. Now it is somewhat fuller in the left side than normal, but quite soft.

The treatment was, externally, glycerin. belladonnæ with linseed poultices; terebene in steam kettle. Salicylate of sodium and iodide of potassium were used internally early in the case without effect, and afterwards an expectorant mixture.

This case appears worth recording on account of its extreme rarity. I am not aware that a case of acute thyroiditis as a sequela of influenza has been reported in the BRITISH MEDICAL JOURNAL.

WILLIAM BARKER RUSSELL, B.A., M.B.Cantab.

Colwyn Bay, North Wales.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

HOSPITAL FOR WOMEN AND CHILDREN, LEEDS.

A CASE OF ENLARGED GALL BLADDER, WITH LINGUIFORM APPENDIX OF THE LIVER; CHOLECYSTOTOMY; RECOVERY.

(By JOHN BENJAMIN HELLIER, M.D.Lond., M.R.C.S.Eng., Surgeon to the Hospital, and Lecturer on Diseases of Women and Children, Yorkshire College.)

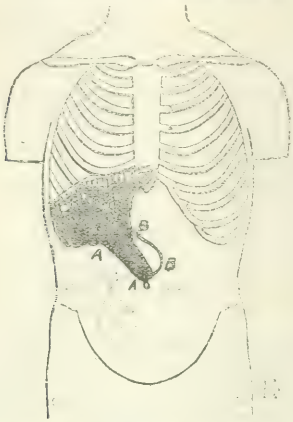
On October 25th, 1894, a married woman, aged 32, was admitted into the Hospital for Women and Children, Leeds, under my care, complaining of a tumour in the abdomen, which she had noticed for two years. The tumour in question was very easily felt through the rather thin abdominal walls. It lay a little to the right of and above the navel, and was characterised by great mobility and a very solid feeling. Its size seemed to be about that of a large kidney, but it was not kidney shaped. Its lower end, which the fingers could grasp through the parietes, felt like the end of a kidney or spleen. The upper part of the tumour was much less definable. The tumour was smooth, and only tender when firmly squeezed. It was so mobile that it could be placed either at the right or left of the navel. When the patient lay on the left side the tumour fell over on that side, reaching nearly 3 inches beyond the navel. In this position it was most easily palpated. It seemed to be quite free from uterine or other pelvic attachment, and to have some attachment near the liver, and it moved with respiration, but its exact relation to the liver could not be made out. On percussion the tumour gave a fairly clear note all over, and this was due, as it subsequently appeared, to resonance transmitted through the rather thin solid layer from the subjacent intestine.

The clinical history showed that six years before she had had an attack of jaundice and colic, that she had noticed the present swelling for two years, and that her symptoms had consisted of more or less pain at the epigastrium and between the shoulders, some tendency to vomit, constipation alternating with diarrhœa, and a good deal of throbbing pain and uneasiness in the lungs, which had made her life very uncomfortable, although she often was free from pain for several consecutive days. She said she had lost flesh for some months before admission. No other organs appeared to be diseased, and there were no other points of special note in her past history.

The diagnosis puzzled all who saw the case. It seemed not to be a floating kidney, and the obvious solidity of the tumour showed that it could not be simply an enlarged gall bladder. The condition present might well, it seemed, be due to a solid tumour in the omentum, or even in the bowel wall.

On December 1st ether was administered, and an exploratory incision was made above the umbilicus in the median line. The condition found was very interesting. The swelling consisted of two parts: (1) a cystic portion, which was the enlarged and distended gall bladder, a gall stone being

impacted in the cystic duct and clearly perceptible from the outside; (2) a tongue-like process of liver substance projecting from the lower edge of the liver, adherent to the gall bladder, and overlapping it. The accompanying sketch was



A A, Appendix; B B, gall bladder overlapped by above.

made from memory after the completion of the operation. The process of liver substance seemed to spring from the apex of the quadrate lobe. After aspirating the bladder and withdrawing 3 ounces of slightly turbid limpid fluid, I opened the bladder and explored it with the finger. Seven gall stones were removed from the bladder and one from the duct. This last one had to be broken up to extract it. The operation was completed in the usual way by stitching the edge of the aperture in the bladder to the parietal peritoneum, and then closing the wound, leaving only space for a rubber drainage tube to pass into the gall bladder.

An excellent recovery was made. Bile came through the tube in small quantities at first. The wound healed well, the fistula into the gall bladder closed in about a month, and the patient was discharged cured on January 5th, 1895. At that time no tumour could be felt.

REMARKS.—The following quotation from Charcot's *Treatise on Medicine*, vol. iii, p. 136, sums up most of what is known on this condition of liver. It must be remembered, he says, that we may take for a dilated gall bladder a special malformation of the lower border of the right lobe of the liver, which frequently accompanies cholelithiasis. Already figured by Cruveilhier, and observed in one case by Trousseau, this malformation has been recently studied by Riedel. He calls it "linguiform appendix of the liver." In six cases of biliary lithiasis in which this condition was observed the gall bladder was enlarged in four and not in the other two. F. Glenard has observed the same condition, and maintains that the hypertrophied portion comes usually from the apex of the quadrate lobe, and Charcot has observed the same thing. This hypertrophic protrusion of the middle portion of the hepatic border is resistant, smooth, and slightly painful on pressure. It depends directly upon cholelithiasis, for if the bladder be once emptied and the calculus expelled the enlargement rapidly disappears. Some account of this condition will be found in Osler's Lectures on the Diagnosis of Abdominal Tumours in the *New York Medical Journal*, March, 1894. We may also refer to Professor Riedel's monograph, *Erfahrungen über die Gallensteinkrankheit mit und ohne Icterus* (Hirschwald, Berlin, 1892), p. 58, etc., for a discussion of this subject.

THE Goldsmiths' Company has granted £500, the Vintners' Company £52 10s., and the Dyers' Company £25 to the special fund for opening the closed wards of St. Thomas's Hospital.

ALEXANDRA CHILDREN'S HOSPITAL, BRIGHTON.

CASE OF SWALLOWING A HALFPENNY, WITHOUT SYMPTOMS: DEATH TWO MONTHS AFTERWARDS FROM OPENING INTO THE INNOMINATE ARTERY.

(Under the care of Dr. E. CHAFFEY.)

[For the report of this case were are indebted to Dr. CROFTON ATKINS, House-Surgeon.]

C. F., aged 3, a "nurse child," but healthy, was brought to the hospital on February 25th last. The woman in charge of him said that when she asked him that morning where his halfpenny was he said he had eaten it, but she had not noticed anything wrong. There were no symptoms such as cough or choking, but the child was admitted, fed with porridge, etc, and afterwards had castor oil and was freely purged and watched for three days without any fresh evidence being obtained.

On April 11th the child was next brought with ulcerative stomatitis, not severe, but a few ulcers on the tongue were rather deep. There was no line on the gums; the temperature was 101°. He was again admitted and given a chlorate of potassium mixture and borax locally. The only fresh symptom then was some objection to taking solid food, which caused some reflex cough, hawking, etc. The ulcers were nearly healed and he seemed doing well, when on the morning of April 18th he suddenly brought up about 2 ounces of bright blood in two clots.

Soon afterwards, when Dr. Atkins, the house-surgeon, saw him, he was much collapsed and somewhat blanched, more than proportionate to the hæmorrhage visible. However, he rallied under treatment, and was able to swallow the liquid allowed in small quantities. About 8 P.M. that night he again brought up blood, about 4 ounces, and died in a few minutes.

Dr. Atkins reported the case to the coroner, and made a *post-mortem* examination. The stomach was distended with blood clot (about three-quarters of a pint), but otherwise normal; there was also much blood in the upper intestine. A catheter introduced into the œsophagus from below, passed into a cavity about the size of a walnut just below the level of the right sterno-clavicular joint, as seen after dissecting off the trachea and removing the lungs; in this cavity, which was entirely on the right side of the œsophagus, was a blackened halfpenny.

When the firmly contracted heart was opened a probe passed along the aorta and into the innominate artery, protruded at about the bifurcation of the vessel into the same cavity. This was very fœtid, but no suppuration was evident, only broken-down blood clot.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., Vice-President, in the Chair.

Friday, April 26th, 1895.

ACUTE INTESTINAL OBSTRUCTION DUE TO VOLVULUS OF THE SIGMOID FLEXURE.

DR. F. L. BENHAM read for himself and Mr. SILCOCK a paper on this case. The patient was a lady, aged 56, who had been afflicted with chronic mania and partial dementia for more than twenty years. The illness commenced with constipation, not relieved by the usual aperients. Sickness followed, and became frequent and violent; the vomit contained some "coffee-grounds" material, but was not stercoraceous. She was first seen two days after the symptoms appeared, when the abdomen was greatly distended, vomiting occurring after every attempt to swallow. No obstruction could be felt *per rectum*, and no relief could be obtained by copious enemata, etc. On the following day the abdomen was opened under chloroform, and the whole of the colon was found enormously distended, the seat of obstruction being, as was anticipated, in the sigmoid flexure, where the intestine was twisted half-turn on itself, forming a volvulus. This was reduced. There was no peritonitis. The wound was closed and dressed antiseptically. There was immediate and great relief. A large quantity of fæces came away naturally. Slight pyrexia

ensued for ten days, but there was little other constitutional disturbance except a dry brown tongue, which Dr. Benham ascribed to the iodoform with which the wound was dressed. The last stitches were removed ten days after the operation, and the wound had completely healed a few days after. In a month from the date of the operation the patient was up and about, looking as well as usual. Only nine similar successful cases have been as yet reported, and of these only one had occurred in this country. Besides these complete successes a few had also been recorded in which volvulus had been either temporarily or partially relieved by abdominal section.

Mr. Gould said that when the subject was raised some years ago by Dr. Herringham and Mr. Bruce Clarke, he had related one such case, and since then he had had another in the person of a man, aged 40, of weak intellect, who had at one time been in an asylum. He had been losing flesh for twelve months. He opened the abdomen as for inguinal colotomy, and finding a distended sigmoid, he made another opening in the middle line and incised the sigmoid flexure, giving exit to much gas and fæcal matter. As the volvulus was recurrent he stitched the gut to the abdominal wall and the next day he tried to close the fistula, as the bowels had acted, but a slight escape of fæces remained.

After some remarks from Mr. Golding-Bird,

Dr. Glover remarked that in both the cases referred to the patients were of unsound mind, and he recalled another case of his own in which the patient had also been in an asylum.

The Chairman recalled a similar case which had come under his notice two years before, the patient being a lady who was exceedingly ill at the time of the operation. He made an artificial anus, but she died two years later of influenza. He thought it was an excellent plan for relieving the distension to incise the gut.

Mr. Arbuthnot Lane recalled that Dr. Hale White and himself had had a similar case, but the patient died a few days later from perforation of a stercoraceous ulcer. He urged that the treatment usually adopted in these cases was utterly wrong, the only scientific proceeding being to resect the whole sigmoid flexure and join together the divided ends.

Dr. Benham made a brief reply.

Early Erasion in Inflammation of the Sacro-iliac Joint.

Mr. Golding-Bird detailed cases in which, in an early stage of tuberculous disease, he had operated upon the sacro-iliac joint, and the method he advocated was an elaboration of one he had employed in a single case fifteen years ago. Its object was, by removal of the iliac surface of the joint, to permit of its thorough exploration and cleansing. The special points upon which he had laid stress were: The importance of early recognition of sacro-iliac inflammation (and he insisted upon the value of pain elicited by pressure over the root of the posterior inferior iliac spine); early operation, as in any other tuberculous joints; and not to wait for local objective signs, and especially not to wait until disorganisation had proceeded to the formation of sinuses. Sinuses were useless as routes to follow in operating; but deliberate removal of the ilium from the posterior inferior iliac spine, upwards and forwards over the whole area of the joint was insisted upon. The after-treatment was very simple, and appeared from his cases to be short, an adult patient being able to walk about and bear his weight on the joint by the eighth week.

Mr. Croft said that surgeons formerly relegated this joint to treatment by rest alone for lengthened periods. Now, happily, early surgical interference notably expedited cure. As to the diagnosis, which was often difficult, he thought pain was usually elicited by pressing the alæ of the ilia towards one another. He had not been able always to elicit pain by pressure on the posterior inferior iliac spines. The abandonment of splints after operation was also a great advance.

Orchotomy for Enlargement of the Prostate.

Mr. C. Mansell Moullin related two cases. (1) A man, aged 74, under the care of Dr. Birch, of Lower Clapton. The prostate was of enormous size, the urine ammoniacal, and the bladder so contracted from persistent cystitis that it could only hold two ounces of fluid. There was intense strangury; a portable urinal had to be worn constantly, and the patient had to rise fourteen or fifteen times every night, the longest spell of sleep being three-quarters of an hour, in spite of the frequent use of morphine suppositories. Ten days after the operation the patient had dispensed with morphine, and could sleep sometimes for an hour and a-half. The prostate, as felt *per rectum*, was decidedly smaller. The stream of urine was larger. The reaction was neutral, and small masses of phosphates were beginning to come away. One month later the urine was acid; masses of phosphates were still coming away, and more could be felt. The strangury had almost gone, and there was only a faint cloud of mucus. The bladder could hold four ounces of urine, and was much less sensitive when a catheter was passed, and the general condition of the patient had improved immensely; instead of going rapidly down hill he was gaining ground. (2) An enormously stout man, under the care of Dr. Houchin, of Stepney. The prostate was exceedingly large, the bladder capacious, and the urine at the time acid, with only a little albumen; but there had been repeated attacks of cystitis and hæmaturia; the patient had to use a catheter every hour, day and night, and no urine had been passed spontaneously for upwards of fifteen months. The patient bore the operation well, and everything progressed favourably for a week; then he was seized with extreme dyspnœa, from which he rallied for a time, but the attack returned again and again with hæmaturia and profuse diarrhœa, and death ensued on the eleventh day. On the two days before death blood-stained urine was passed spontaneously by the penis on several occasions. At the necropsy the heart was soft and fatty, the kidneys (one especially) cirrhotic, and all the abdominal and thoracic organs loaded with fat. The bladder contained a calculus, which had been concealed behind the prostate, and some blood-stained urine. Its walls were deeply congested and ulcerated in places. The prostate, which was uniformly enlarged, was very soft and flabby, and the forefinger could be passed easily down the prostatic urethra. An outgrowth from the prostate that projected upwards into the bladder showed unmistakable signs in its consistence and shape, and in being covered over with wrinkled mucous membrane, of its having undergone a recent diminution in size. It was pointed out that, although one of these cases proved fatal, and in the other the success, though quite as great as could be expected from what was known beforehand of the condition of the bladder, was not nearly so great as that of Mr. Mansell Moullin's former case, of which an account was given at the recent meeting of the British Medical Association, they both bore testimony to the fact that enlargement of the prostate, no matter how great it was, disappeared within a very short time after orchotomy had been performed. And it was urged that sufficient evidence had been brought forward to justify the assurance being given to those who were suffering from the effects of this disease that if the operation were performed, the enlargement would disappear, and unless it had been already hopelessly ruined by cystitis and catheterisation the bladder would recover its power. Mr. Mansell Moullin advocated the use of the word "orchotomy" in preference both to castration and to "orchectomy," which had been suggested in America as being the natural derivative from the Greek, ὄρχοτομειν, to castrate.

The Chairman had many years ago attended a gentleman, aged 68, with enlarged prostate and its many concomitant ills. He had tuberculous disease of the right testicle, which was removed, with the result that the corresponding half of the prostate immediately diminished greatly in size. Three years afterwards he returned with tuberculous disease of the left testis, which was removed; and this operation was at once followed by diminution of the remaining half of the prostate. After the second operation, he could retain his water for hours, and enjoy a good night's sleep. He was still hale and strong.

Mr. Golding-Bird urged that every case of the kind should be recorded. He asked if the removal of one testicle was followed by a diminution of only the corresponding half of the prostate? Even such shrinkage might permit urine to pass naturally in some cases. He did not think the term

"orchotomy" preferable to "orchectomy," which was framed on the pattern of "nephrectomy."

Mr. Pearce Gould described the case of a young man with tuberculous disease of the right testicle which was removed in 1893. This year he returned with similar disease of the left testicle, which was also removed. No shrinkage of the prostate could be discovered after the first operation, he being a young man without any enlargement of that organ, but there had been considerable diminution of the prostate since the second operation.

Mr. Mansell Moullin remarked on the difference between the removal of the testicle with a normal prostate and its removal in the case of an abnormal prostate. Mr. Gould's case would draw increased attention to the former class of cases. In an old gentleman whom he was attending with one atrophied testicle and enlarged prostate, that enlargement was markedly irregular.

Intrathoracic Cystic Goitre.

Mr. Anthony Bowlby narrated this case. The patient, a woman aged 34, had noticed a small swelling in the episternal notch for about two years, and had suffered for the same time from slight shortness of breath. On admission, the patient was suffering from very severe dyspnœa with recession of the chest walls and cyanosis. Her respirations were rapid and her temperature 103°. An examination of the neck showed very little external swelling to account for such serious symptoms. There was some fulness in the episternal notch, and the thyroid gland felt enlarged a little. When the patient coughed, however, the swelling increased in a most extraordinary manner, and a large rounded mass was suddenly extruded from the chest into the neck and as suddenly disappeared. The way in which the tumour was projected reminded one very much of a sudden protrusion of a large hernia during coughing. The tumour altered very slightly on deglutition. An examination of the chest revealed a large area of dulness behind the sternum and cartilages of the first three ribs and continuous with the area of cardiac dulness. There were loud mucous *râles* in the trachea and bronchi. The diagnosis was intrathoracic goitre, and an incision in the middle line showed that the growth was cystic and attached to the left lobe of the thyroid. The trachea was next opened on account of the cessation of respiration, and the cyst was incised. It contained more than a pint of clear fluid, and when emptied was found to have compressed the trachea backwards and thrust itself between the apices of the lungs. Its walls were very thin and reflected over the large vessels, so that on looking into the cyst the aorta, the innominate, and the carotid vessels were easily distinguished, as was also the base of the heart, on which the cyst rested. The thyroid gland was otherwise not enlarged or diseased, but had been displaced a little by the tumour. The patient made a rapid recovery and the wound healed in three weeks. When last seen, after an interval of several months, there was no recollection of the fluid in the cyst.

Mr. Golding Bird remarked on the fact that many patients with enlarged thyroid complained of dyspnœa, without obvious reason for that symptom, which might usually be functional; but in Mr. Bowlby's case there was quite sufficient cause anatomically for the dyspnœa.

Mr. Bowlby, in his reply, said that the large vessels arising from the aorta did not appear to dilate when blood was forced into them from the heart, but curved in a marvellous way.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

E. Malins, M.D., in the Chair.

Friday, March 29th, 1895.

Specimens.

Dr. Codd showed three specimens: (1) Apparent Myxœdema, with hæmorrhage into centrum ovale and aneurysm of internal carotid close to bifurcation into anterior and middle cerebral. The symptoms (failing memory, difficulty in performing simple actions, and in speech, sensation of cold in the extremities, and swelling of the face) were of six months' duration. The face was of myxœdema type, with thick swollen eyelids and lips; hands not affected; no cerebral signs noted. On the fifth day after admission had twitchings in left arm and face; became unconscious and soon died. It was suggested that this aneurysm, pressing upon the pituitary body, interfered with its function, and so produced the symptoms referred to. (2) Cirrhosis of Liver of conglomerate form in a boy, aged 13, admitted under Dr. Malet. Six days before admission he began to have cough and anorexia, and on admission it was noted in addition that he was hoarse but had no stridor. The abdomen was very large, and contained much fluid; liver and spleen enlarged; consolidation at right base; 2½ pints of fluid withdrawn from abdomen immediately. On the third day after admission he developed laryngeal stridor with obstruction, for which Mr. Cholmeley performed tracheotomy with only partial relief, and he died next morning. *Post mortem* the larynx was œdematous, and no membrane was present. There was hepatisation of the lower lobe of the right lung; spleen weighed 18 ozs.; liver weighed 3 lbs., and presented a number of very deep sulci lying between many well-marked knobs or projections. The surfaces of these latter were quite smooth, and the whole organ had a fanciful resemblance to a conglomerate stone, or an ovarian multiple cyst. The right and left lobes were united by a very narrow isthmus. On section, lobular cirrhosis was found, with proliferation of bile ducts, great engorgement of hepatic capillaries, and advanced fatty degeneration. There was no history of alcohol, but as his mother was a disreputable character, it is likely that he might have been brought up on spirits. (3) Another example of cirrhotic change in a young person, being kidneys removed on the previous evening from a girl, aged 14, showing advanced cirrhosis, weighing 1½ oz. each. The girl was stated never to have been ill until a week before admission, when she came as an out-patient complaining of anæmic symptoms. The day before admission she developed uræmic dyspnœa, and on admission she had scanty urine with 5 per cent. urea, and died the following day.—Mr. J. W. Taylor showed a specimen of Myoma weighing 2 lbs. 6 ozs., which he had removed the same day by *morcellement*. The tumour reached for some distance above the umbilicus, but was contained within the dilated vagina. The patient was virginal and the growth had begun to ulcerate.—Dr. Short showed a specimen of Hæmorrhage under the Mucous Membrane of the Bladder.

Bilharzia Hæmatobia.

Dr. Douglas Stanley read notes of a case of bilharzia in a man, aged 26, who had lived for two years at Port Elizabeth. A year after his arrival he was attacked with a skin eruption, which he compared to nettle stings. Shortly after, he began to pass blood in the urine. He had always been careful about his food and drink, but was fond of bathing. This he did in the sea, the nearest fresh water being a half-mile off—a small river. The water supply to Port Elizabeth was always considered good. Dr. Stanley gave a short account of the life, history, and anatomy of the bilharzia, and one with microscopic specimens.

Carcinoma of Larynx.

Dr. Foxwell showed a larynx infiltrated with a carcinomatous growth which had originated in the left ventricular band. The submaxillary glands formed a mass the size of an adult fist. There were no secondary growths. He was admitted for urgent dyspnœa, for which tracheotomy was done, but death occurred six hours later.

Acute Purulent Peritonitis.

Mr. John W. Taylor read notes of a case of operation for acute and general purulent peritonitis due to perforation of the appendix or cæcum with fæcal extravasation. The abdomen was thoroughly washed out and drained in two situations—the cæcal region, from the right flank and the pelvis from the middle line. The patient made a good recovery.

Paper.

Professor Allen read a note on Some Effects of Borax as an Adulteration in Milk.

Cases.

Mr. Morrison showed a patient on whom he had successfully operated for the Radical Cure of an Umbilical Hernia.—

Mr. Eales showed a man, aged 42, with Œdema of the Conjunctiva of the Right Eye, only of two years' duration, which had not been amenable to any treatment.

Harveian Society of London.—At a meeting on April 18th, Dr. W. Hill, Vice-President, in the chair, Dr. Alexander Morison read a paper on Syncopal Bradycardia. He described (1) endocardial bradycardia, in which the chief factor was increased endocardial pressure, and illustrated the condition by cases. (2) Myocardial bradycardia, due to fatty degeneration or fibrosis of the heart muscle, or to changes assumed to exist in the intrinsic neural mechanism of the heart. Cases illustrating this in its presyncopal and syncopal phases were given, and sphygmograms shown. (3) Exocardial bradycardia due to (*a*) transient reflex nerve irritation especially of the pneumogastric; (*b*) poisons such as digitalis, opium, and chloroform; a well-marked digitalis *pulsus trigeminus* in a case of double mitral disease was illustrated by sphygmograms; (*c*) constitutional and extracardial conditions as rheumatism, syphilis, and meningitis. (4) Compound bradycardia, in which various factors played a part difficult to apportion. (5) Cases of doubtful cause. Dr. Morison proceeded to show that bradycardia could not be referred exclusively to anatomical changes in the heart, and he attributed an important part to the cardiac nervous system, the power of which to modify the heart's action rhythmically and arhythmically was illustrated by sphygmograms. He laid stress upon the fact that persistent bradycardia was little influenced by cardiac accelerants such as belladonna, trinitrin, and alcohol, and such movements as ordinarily quicken the heart. Dr. Morison concluded with remarks upon the diagnosis, prognosis, and treatment of these cases. In the discussion which followed, the Chairman, Mr. Peyton Beale, Dr. Cagney, and Dr. Basil Morison took part; and Dr. Morison replied.

North-West London Clinical Society.—At a meeting on April 17th, Mr. F. Durham in the chair, Mr. Jackson Clarke showed a case of severe Congenital Talipes which had been under treatment for three months. The plantar fascia and the long and short calcaneo-cuboid ligament had been divided subcutaneously; the tendons of the tibialis and of the long flexor of the toes divided with the internal lateral ligament; the anterior ligament of the ankle, the inferior calcaneo-scaphoid, and the tendo Achillis had also been cut, and the deformity was now corrected. Dr. Harry Campbell suggested that talipes was sometimes due to germinal defect. Dr. Cagney related instances of congenital defect of the smaller skeletal muscles, and adduced these in support of Dr. Campbell's view. Mr. Battle pointed out the value of manipulation followed by support in plaster-of-paris as an accessory to operation in cases of talipes. Mr. Clarke, in reply, stated that he had dissected upwards of fifty cases of congenital talipes, and was well satisfied as to the efficacy of mechanical conditions *in utero* in producing them.—Dr. Cagney showed a case of Nephritis in a child of 2 years, with œdema and suppression of urine. Dr. Leatham observed that such cases were rare, and scarlatina was seldom the antecedent. Dr. Harry Campbell agreed in the diagnosis, though such cases were necessarily obscure, especially in the absence of albuminuria.—Mr. W. H. Battle read notes and showed specimens of three cases in which he had operated for Lateral Sinus Thrombosis Secondary to Disease of the Middle Ear. The operation in one case had been successful because it had been undertaken early. The subject was discussed by Dr. William Hill and Mr. Jackson Clarke.—The Chairman showed a case of Lumbar Spina Bifida in a boy of 4, with Sphincter Paralysis. Mr. Battle believed that the nerve elements of the cord were involved, and did not advocate excision. Mr. Clarke thought that paralysis of the sphincters proved involvement of the third and fourth sacral nerves. Improvement might be gained by injecting Morton's fluid into the tissues around and outside the sac.—Dr. Harry Campbell showed a girl, aged 10, with a greatly-enlarged Heart and Precordial Bulging. There was marked dyspnœa, but no ascites, a fact attributed to the action of the liver as a diverticulum for the blood.

Midland Medical Society.—At a meeting on April 24th, Mr. T. F. Chavasse (President) in the chair, Dr. Thomas Nelson showed a patient with a Nævus about the size of an orange between the thumb and forefinger, with a small division extending through between the metacarpal bones of the index and second fingers. It had been slowly growing for twelve years.—Mr. F. Marsh showed (1) a girl, aged 19, whom he had Trephined on March 2nd, 1894, for Epilepsy, which had developed after a fall on the forehead ten years before. There was a depressed scar about an inch above the left eyebrow. On removing a disc of bone a small perforation was found in the bone through which the dura mater had protruded and become adherent to the scalp tissues. This was severed and the bone was reimplanted. Primary union took place and there had been no recurrence of the fits although thirteen months had elapsed since the operation. (2) A boy, aged 13, whom he had Trephined on October 5th, 1894, for Headache and Vertigo on slight exertion. About nine years ago the boy fell and struck his forehead against a kerbstone and had suffered much from headache since. The pain commenced at the site of a slightly depressed scar two inches above the right eyebrow, and radiated over the head. A disc of bone was elevated at this spot but no depression of the internal table was found. The dura mater was, however, adherent. The adhesions were separated and the bone was reimplanted. A rapid recovery was made and there had been no recurrence of the symptoms.—Mr. E. Luke Freer showed a new Spinal Apparatus.—Mr. C. Martin showed a cheap and efficient Apparatus for the Sterilisation of Instruments.—Mr. John W. Taylor read a paper on Intraperitoneal Hæmorrhage the result of tubal pregnancy. He dealt first with diffuse hæmorrhage from rupture of the tube, its features, recognition, and treatment, and secondly with localised intraperitoneal hæmatocele, its causation, consequences, and varieties. Some critical remarks on the general subject of intraperitoneal hæmatocele concluded the paper.

Nottingham Medico-Chirurgical Society.—At a meeting on April 17th, Dr. J. S. Tew, President, in the chair, Dr. W. B. Ransom read a paper on Pernicious Anæmia, basing his remarks on a series of 12 cases, 6 of which ended fatally, and microscopical examination of the tissues was made. He found in some an increased deposit of iron in the livers and kidneys, but in others there was no increase of iron in the livers. In some the primary change appeared to be in the blood-forming organs, so that it was an open question whether increased hæmolysis would account for the symptoms or explain the pathology in all cases. Dr. Cattle related a case of pernicious anæmia which had ended fatally, and in this, in the liver, an increase of iron was found. Drs. Tew, Hunter, and Watson spoke.—Mr. Belcher showed the body of a child which had lived for four days, whose Abdominal Viscera were Misplaced, being extruded from the abdominal cavity through a small aperture at the umbilicus.

Kidderminster Medical Society.—At a meeting on April 5th, Mr. D. Corbet, President, in the chair, Mr. J. L. Stretton gave a further report of the case of Removal of Testes for Enlarged Prostate, which was read at the last meeting. When discharged from the infirmary on February 20th he was able to walk about; his urine was clear and was passed naturally. A few days later he again became delirious and much exhausted, and, although he recovered temporarily, he gradually lapsed into the same condition, and ultimately died on March 16th. On *post-mortem* examination the following day the body was much emaciated; the bladder was distended with urine, its coats much thickened, and its internal surface very irregular, large muscular bands traversing it in all directions. The prostate was about the size of a bantam's egg and exhibited no signs of tubercle. The operation materially reduced the size of his prostate and restored the power of micturition. Had it been undertaken at an earlier date, before his constitution was so much impaired, it would probably have prolonged his life. Mr Stretton also reported a case of operation for Strangulated Umbilical Hernia in a woman aged 70. She passed flatus on the second day after the operation, the bowels acted on the fourth, and the stitches were removed on the sixth; her general condi-

tion had improved, and she appeared to be going on quite well. Two or three days later she passed blood in her urine and became restless. She could not tolerate the catheter, and her symptoms became so grave that a further operation was out of the question. On *post-mortem* examination, twenty-four hours after death, there was complete closure of the aperture at the site of operation and no signs of peritonitis. The bladder was thickened and contained two phosphatic concretions; there were two cavities in the right kidney containing pus, and a small ovarian cyst on the left side. Mr. Stretton also reported a successful case of operation for Sarcoma (round celled) of the Front of the Chest in a man aged 22. There were two tumours. Both were removed by one incision, leaving a large surface, which could not be covered by skin. Skin grafts were planted from time to time, and the whole had healed in three months. Recovery was uninterrupted.—Dr. EVANS showed a case of Extreme Enlargement of the Thigh Bone following Fracture.—Mr. P. E. DAVIES showed a female child, aged 11 years, suffering from Congenital Syphilis with well-marked Ulceration of the Soft Palate, which he considered a rare condition.—The PRESIDENT read a paper on Scarlet Fever.

ERRATUM.—Our reporter writes to say that at the meeting of the Medical Society of London, reported in the BRITISH MEDICAL JOURNAL of April 27th, in the second line of the report of Dr. Keser's observations the word "mother," should have been "brother."

REVIEWS.

RISE AND DEVELOPMENT OF ORGANIC CHEMISTRY. By CARL SCHORLEMMER, LL.D., F.R.S., late Professor of Organic Chemistry in the Owens College, Manchester. Edited by ARTHUR SMITHELLS, B.Sc., Professor of Chemistry in the Yorkshire College, Leeds. London and New York: Macmillan and Co. 1894. (Cr. 8vo, pp. 308. 5s.)

THIS book is a revised edition of the work which the late Professor SCHORLEMMER published in 1879, and which is now out of print. The editing of this issue has been placed in the hands of Professor SMITHELLS, and he has supplemented his share in the publication by adding a short biographical notice of the late author. From this and from the appended list of papers by Professor Schorlemmer, we get an impression of his busy life and his devotion to the cause of chemistry as a science. The earlier period of his life was given up to manifold researches in organic chemistry, chiefly in relation to the constitution of the hydrocarbons. Since about the time when the first edition of this work appeared he published few papers dealing with original investigations. From that time he gave his attention more exclusively to literary work.

The present volume is the result of his investigations into the history of organic chemistry, and the editor further promises the publication of a history of chemistry, which was intended to have dealt with the whole subject, though at the time of the author's death he had not been able to overtake the period later than the end of last century. When this fragment is in our possession we may regard the present volume as a partial continuation of the larger work; for, as Schorlemmer remarks, the history of organic chemistry is confined almost entirely to the present century. This will, in some measure, lessen the regret which all his readers must feel, that Schorlemmer was unable to complete a work for which his learning and his scientific interests so remarkably fitted him. His keen historic sense enabled him to do justice to everyone who has really contributed to the progress of the science. An instance of this appears in his appreciation of the work of the oldest investigators whose efforts after science are usually dismissed as unfounded speculations. He recommends, for example, the study of Posidonius on the tides as a corrective to the erroneous views of certain modern physicists. Notwithstanding this, it is clear that real progress in organic chemistry was very slow until the subject began to be taken up as a legitimate part of natural science, and without too much regard to its technical or medicinal purposes. Chief amongst the early chemists to whom advance in this respect was due is to be mentioned Scheele. By his investigations various substances, such as organic acids, were isolated from fruits and other bodies in which they occur. Still, even in the days of Lavoisier, there was no clear separation of organic from inorganic chemistry.

For a time this problem was solved by the doctrine of vital force which prevailed in physiology. It was taught, in accordance with this principle, that in the phenomena of life we have the manifestation of forces which cannot be regarded as mechanical. From this it was easy to arrive at a distinction between the two departments of chemistry by pointing out that bodies associated with and derived from the process of life could not be produced artificially. It was with these substances that organic chemistry had to deal. The value of such a distinction is clearly a very limited one, and it was further found that experimental results were being obtained which directly contradicted it. In 1828 Wöhler made the important discovery that cyanate of ammonia could readily be converted into urea. This, with similar discoveries which soon followed, proved fatal to the distinction. "To-day," says Schorlemmer, "we know that the same chemical laws hold in animate or inanimate Nature. As soon as the constitution of a compound radical in the organic world has been cleared up we are able to produce it artificially in the laboratory."

When the identity of the two departments came to be understood, organic chemistry was defined as the chemistry of the carbon compounds, or, more precisely, of the hydrocarbons and their derivatives. The reason for regarding separately this branch of chemistry is the number and importance of the bodies included in the group. Still, the complexity of the subject is much decreased by the fact that hydrocarbons and their derivatives arrange themselves in series, each member of which conforms to some type in its constitution.

The author, after fully describing how this conception of the subject was gradually reached, devotes the remainder of the volume to questions of analysis and synthesis, as these methods are applied to organic bodies still in the hands of the researchers. Here he gives an account of the method of constructing the various kinds of formulæ in use, and in particular of the meaning of isomerism. Finally, he shows how the constitution of paraffins, sugars, alcohols, and aromatic bodies has been elucidated by the method of synthesis.

In the last chapter the author briefly refers to the problems still before the organic chemist, and in considering these he carries still further the argument for the identity of organic and inorganic chemistry.

In 1838 Liebig wrote to Wöhler: "We shall yet make sugar, quinine, and uric acid. These bodies do not belong any more to this organism, and if to-day morphine and quinine have still to be obtained by the help of organic forces the time is at hand when this will be accomplished." Not only these, but also albuminous bodies are to be, in the near future, produced in the chemical factory. Our food supply will then come to us direct from the elements. In spite of the extremely rapid advances which organic chemistry makes, one suspects that, in realising this prospect, society will have time to adjust itself gradually to the changes which such a state of things would imply. We are also told here that it lies, after all, with the organic chemist to settle the problems with which we concern ourselves in medicine and its subsidiary biological sciences. We may, it is said, by a study of the substances produced by the organism arrive at a definite idea of the intimate processes of life. Yet it actually seems to be as difficult as it was in the days of Berzelius and the vitalistic chemists to explain by chemistry even the simplest changes which physiology sets itself to explain. For example, we might ask, what light does our knowledge of the chemistry of carbonic acid throw on the complicated series of changes which the presence of it in the atmosphere brings about in the organism? We might ask the same question about morphine. It seems to be going beyond the premisses when the author states that "the enigma of life can only be solved by the synthesis of an albuminous compound, and, perhaps, if even chemists should succeed in obtaining albuminous bodies artificially it will be in the state of living protoplasm." There is even in this statement indication that the day is distant enough when such products will be obtained, and equally far off is

the time when medicine will need to change its empirical methods of observation of symptoms and the therapeutic effects of chemical agents.

We would, in conclusion, most heartily commend this volume to members of the medical profession. A more living and suggestive account of one of the scientific aspects of some of our daily problems could scarcely be imagined.

Rapport et Mémoires sur l'Éducation des Enfants Normaux et Anormaux. [Report and Memoirs on the Education of Normal and Abnormal Children.] Par E. Séguin. Préface par Bourneville, Médecin de la Section des Enfants de Bicêtre. Paris: *Progrès Médical*. 1895. (Demy 8vo, pp. 416, figs. 5. Fr. 5.)

This is a translation into French of Séguin's book on the education of normal and abormal children, and forms the third volume of the *Bibliothèque d'Education Spéciale*. From the preface we find that M. Bourneville's motive in publishing the book was to bring before the directors and teachers of the primary normal schools and the superior normal school the methods of teaching set forth in this volume in the hope that the success which has attended the use of this system in the education of idiots and deaf mutes might induce the teachers of normal schools to adopt it when teaching ordinary children.

The preface contains the certificate of Esquirol and Guersant as to the great success which has attended Séguin's teaching of a child who was almost dumb and nearly an idiot, and testifying that the system could be extended. In 1842 the general council of the hospitals of Paris decided that the education which Séguin had been giving to the idiot children of the hospitals for incurables was so successful that it should be extended to the numerous idiots at the Bicêtre, and that a trial should be made of it for one year. The preface also includes the text of a political proclamation, signed, among others, by Séguin, and gives an account of his death in 1880 at New York, and the speeches made at his funeral by Drs. Brockett, Wilbur, Brown, and Marion Sims.

The book contains a report on the section of teaching at the International Exhibition of Vienna, and is divided into four parts. The first treats of the education of the child during his first years in the cradle and nursery, in the Salles d'Asile, or school where the children of the poor, from 3 to 6 or 7 years of age, are taught easily common knowledge; in the Jardins d'Enfants, where the rich children are taught on the kindergarten system; and then in the infants' physiological school. Finally, the author shows that the education of the special senses should go on side by side with that of the muscular system, and demonstrates the important part which toys and lessons on objects play in the infants' physiological education. In the second part, an account is given of the instruction which is imparted to deaf mutes on the Continent in England, and America. The history of the Abbé de l'Epée, who in 1770, at the age of 60 years, opened his school for the deaf and dumb, is also related. In the third part the schools for idiots in Germany, Belgium, Holland, France, England, and America are described, and the methods employed for instructing these children are fully explained.

The last part deals with popular education; the way in which it is carried on in the ordinary schools of various countries and the way in which the author would have it given. In his opinion all education should proceed on physiological lines, and special stress is laid on the education of the senses. The book closes with two memoirs, one on the psycho-physiological education of an idiot hand, the other on the psycho-physiological education of an idiot eye, both illustrating the system of education which the author was the first to put into practice and publish to the world. The book is one which all teachers and those who are interested in education would find useful and profitable to read.

Directions for Laboratory Work in Bacteriology. By Frederick G. Novy, Sc.D., M.D. Ann Arbor, Michigan: George Wahr. 1894. (Demy 8vo, pp. 210.)

In his directions for laboratory work in bacteriology Dr. Novy has given a good working handbook for the student of bacteriology. It is acknowledged that no attempt has been made to give a systematic account of bacteriology; the subject has been treated simply from the point of view of the demonstrator who wishes to give the salient points of his subject, and to place them before his pupils in a succinct and intelligible form in a comparatively short course, the course in this case covering a period of twelve weeks of daily afternoon work. No claim is made for originality, and the material has been culled from the best sources available.

On going carefully through this textbook it is evident that the author has done his work very conscientiously and accurately. Commencing with the most elementary details as regards structure of bacteria and the preparation of media, we have, in a series of progressive lessons, a detailed though not in all cases very full account of the more important micro-organisms, and the various methods of separating, cultivating, and examining them. Those are taken first which are comparatively easily studied, whilst in the latter part of the book such questions as anaërobic cultivation and the examination of micro-organisms in the animal tissues are considered. Recognising the fact that the notes he has given are merely notes for the guidance as well for the teacher as for the student, the printed matter is interleaved with blank pages on which may be filled in drawings of apparatus that are from time to time used, or of the micro-organisms in their various phases of examination and development. These blank pages may also be used for notes of various kinds. Altogether the book is well arranged, and should serve most admirably the purpose for which it is intended.

Introduction to Physiological Psychology. By Dr. Theodor Ziehen. Translated by C. C. Van Liew, Ph.D., and Otto W. Beyer, Ph.D. Second Edition. London: Swan Sonnenschein and Co. 1895. (Cr. 8vo, pp. 320. Twenty-one illustrations.)

Psychology at one time sought to investigate psychical phenomena in a purely speculative manner. At the present time there is, thanks to the labours of physiologists, a considerable amount of accurate knowledge of the functions of the nervous system, and so there has grown up a new science which is called in the present volume physiological psychology. Though the book is a comparatively small one, it embraces all the essentials of the science, and the translators are to be congratulated on giving such a clear presentation of Dr. Theodor Ziehen's writings to English readers, and of having grappled so successfully with the difficult task of finding accurate equivalents for the somewhat difficult terminology of the original. It is interesting to observe that physiological considerations have led the author to conclusions very similar to those first formulated by Kant, the founder of critical philosophy. Kant's day was previous to experimental psychology, and indeed he seems to have doubted whether psychical phenomena could ever be subjected to quantitative or mathematical treatment. Herbart was the first to show that they could, and Weber and Fechner greatly developed this aspect of the science, which is being so effectively prosecuted nowadays by Münsterberg and Ziehen. The work of anatomists and histologists in unravelling the structure of the nervous system, the work of physiologists and pathologists in localising function in the nervous centres, the work of alienists in the study of mental disease have all contributed to render such a science as physiological psychology possible, and the results obtained by all these various workers are embodied in the present volume.

The author frankly admits that there is still a branch of psychology which is purely speculative, and that there are psychical phenomena the relationship of which to cerebral processes is unknown. He looks forward, however, to a time when with increase of knowledge these also may be found to possess a physiological basis; but as they cannot at present be treated by the methods of exact science, they form no part of physiological psychology, and so their consideration is practically omitted.

The subject throughout is treated from an evolutionary standpoint; the simple animals and the simplest actions are taken first. The simplest action of all, reflex action, does not necessarily mean the possession of a differentiated nervous system, for the movements of an amœba are essen-

tially reflex in character; the fitness of the response in a reflex action does not mean the existence of conscious psychical action, any more than the fitness of the colour of a bird's plumage involves individual choice. Both are the result of natural selection, those animals who do not make fit responses to stimulation being gradually exterminated.

The next step in development is the automatic act; the automatic act or reaction may be instanced by a brainless frog avoiding an obstruction. Here the simple reflex is modified by intercurrent stimuli; here also all warrantable foundation for the assumption of concomitant psychical processes is wanting. Some of these automatic acts are developed from reflex acts phylogenetically; but others—like those of a skilled pianist playing a well-practised piece while his thoughts are elsewhere—are the product of voluntary acts: that is, they have developed autogenetically during the life of a single individual.

Then finally comes the voluntary act of which reflex and automatic acts present merely the physiological, not the psychological, antecedents; for it is only in the so-called voluntary acts that the psychical process or consciousness is involved. The bulk of the book is concerned with these actions, and we have alluded to them as so-called voluntary acts, because in the further development of the argument any separate faculty of will is denied, or is at least shown to have no substratum of physiological evidence.

The author doubts also the existence of what Wundt calls apperception. This auxiliary function evades numerous difficulties, but the main object of the book is to show that it is superfluous, and that all psychological phenomena can be explained without it.

We have said enough to show the general tendencies of Dr. Ziehen's book, and we hope enough also to stimulate readers and thinkers to get it for themselves. Its views will not commend themselves to all schools of philosophy, but even to those who dispute the theories, the numerous facts detailed cannot fail to be of interest.

This is the second edition; the chief addition to the first edition is a new chapter on the emotional tone of the ideas.

ANGLO-URDU MEDICAL HANDBOOK OR HINDUSTANI GUIDE. By Rev. GEORGE SMALL, M.A. Calcutta: Thacker, Spink and Co., and London: W. Thacker and Co. 1895. (Cr. 8vo, pp. 228. 6s.)

THIS manual has been compiled with the assistance of Surgeon-General C. R. Francis, who contributes a somewhat discursive introduction, and Mrs. Fraser Nash, L.R.C.P. and S.Eng., formerly a medical missionary at Hyderabad, Scinde. It is intended for the use of medical practitioners (male and female) in Northern India. Hindustani words are given in Roman characters, according to a system of transliteration explained and illustrated. The work commences with a vocabulary of medical terms, anatomical and nosological. Many of the terms are Persian and Arabic words, seldom if ever used in common discourse, and technical names not known in India are rendered by awkward periphrases; whereas the English or Latin word, more or less orientalised, is that by which the thing is known by natives educated in our schools; and indigenous practitioners being ignorant of the thing, still less the general public, are not likely to attach any definite meaning to the periphrasis. This fault of over-refinement and attempting to find or coin native representatives of European notions and things runs through the whole book. A list of native medicines, arranged according to presumed therapeutical action, is next given and cannot fail to be useful: but the attempt to translate the more common so-called homœopathic remedies into vernacular equivalents is wasted energy. The terms by which surgical appliances, dispensary furnishings, articles of food, servants, furniture, and apparel are commonly known are carefully and correctly compiled. Then follows an elaborate general vocabulary arranged alphabetically, and a series of phrases and conversation on medical subjects. Finally there is a set of diagnostic tables in which the more common nouns, adjectives, and verbs used with reference to the various regions and organs of the body and their disorders are specified.

This handbook will be found decidedly useful by persons proceeding to practise medicine in Northern India; but we would advise reserve in its use until the terms and forms of expression vernacularly employed become familiar. A great many of the words and phrases indicated would be perfectly unintelligible to the *employés* and patients of most hospitals in India.

NOTES ON BOOKS.

Formulaire des Médicaments Nouveaux et des Médications Nouvelles. [Formulary of New Remedies and of New Methods of Treatment.] Par H. BOCQUILLON-LIMOUSIN. Sixth Edition. (Paris: J. B. Baillière et Fils. 1895. 18mo, pp. 340. 3 frs.)—The new edition of this little book, which has earned a considerable reputation in France, contains a preface by Dr. Huchard, in which he states that the new drugs dealt with in it number no fewer than 455. As he truly says, in picturesque language, not without, perhaps, a certain "derangement of epitaphs:" "On the moving soil of this science we have need less to press forward than to make our footing sure; and to give him information as to all the new remedies—many are called and few are chosen—is at least to put the physician on his guard against that kind of therapeutic hysteria which threatens to attack us, and against which we do not seem to have learnt how to fight." As a handy work of reference on all these new remedies M. Bocquillon-Limousin's small book will be found most useful, and it appears to be trustworthy. The author has taken an impartial attitude, and states briefly the synonyms, the composition, the alleged uses, and the mode of prescribing in regard to each of the drugs he mentions. Within its proper field the book is well done, and the author does not trespass beyond his own ground.

Advertiser's A.B.C. and Advertisement Press Directory.—We have received a copy of T. B. Browne's *Advertiser's A.B.C. and Advertisement Press Directory* for 1895. (London: T. B. Browne, Limited, 163, Queen Victoria Street, E.C.)—This edition has been compiled on the same lines as the previous year's issue. The information afforded, however, is greatly amplified, and the book, which now contains over 1,100 pages, is more bulky than ever. The indices, which are of a very exhaustive character, and a "Provincial Newspaper Gazetteer and Geography of the Press, with Maps," are amongst the leading features. From the statistics given it is seen that there are 4,161 newspapers, magazines, reviews, and periodicals published in this country, which is the highest number yet recorded. The volume is carefully printed, well bound, and published at 10s. 6d.

Illustrated Lectures on Ambulance Work. By R. LAWTON ROBERTS, M.D. (London: H. K. Lewis. 1894. Cr. 8vo, pp. 230, 59 illustrations. 2s. 6d.)—This useful little book has now reached its fifth edition, and its rapid sale shows that it is valued by those for whom it is intended. No one who takes the trouble to study the contents should fail, with the exercise of common sense and ordinary ingenuity, to render efficient first aid in any accident that he or she may be called upon to deal with.

Laboratory Guide for the Bacteriologist. By LANGDON FROTHINGHAM, M.D.V., Assistant in Bacteriology and Veterinary Science, Sheffield Scientific School, Yale University. (Philadelphia: W. B. Saunders. 1895. Roy 8vo, pp. 61. 0.75 dollar.)—This small book, which is intended essentially as a practical laboratory guide or for students of elementary bacteriology, will probably be of more use in the clinical side room, where rapid reference to methods of staining is necessary, than in the general bacteriological laboratory, for although we have here in very convenient form the principal methods of staining bacteria and their different parts, such as are constantly used in clinical work, the account of the laboratory methods is compressed into a space of about four pages, and is scarcely full enough for the elementary student. The author devotes a short preliminary section to bacteriological *technique*, in which the necessary apparatus and the various methods are generally described. The second part is

devoted to staining methods, in which are given the more important general and special methods, and we note that here Weigert's fibrin or bacteria staining in sections is given accurately; Moller's method of staining is also given and also the various methods of single and double staining both on cover glasses and in tissues. The last part of the book is devoted to the methods of preparation of gelatine, agar-agar, and blood serum, and to one or two methods of embedding tissues for cutting sections. The author has left blank pages on which to record fuller notes. In such a work these blanks could prove very useful.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW TABLOIDS.

MESSRS. BURROUGHS, WELLCOME AND CO., Snow Hill Buildings, London, E.C., have sent specimens of the latest additions to their already long list of compressed drugs. Among those we specially note the dried sulphate of iron tabloids as a most desirable form for the administration of this drug. They readily break up and are perfectly soluble in water. Pills of dried sulphate of iron are apt to crack and become extremely hard. Ferri sulphas exsiccata as obtained from wholesale houses is a very variable compound. Some samples which we have examined, owing to over heating, contain basic sulphate of iron. Our analysis of the dried sulphate contained in these tabloids shows that it is fully up to the standard of the *British Pharmacopœia*.

Residuum rubrum tabloids are said to consist of the hæmatin extracted from bullock's blood, and to contain a large percentage of an organic combination with iron. They quickly disintegrate in water, forming a red turbid mixture.

Zymine, an extract of the pancreas, is compressed into tabloids and coated with keratine, which renders them insoluble in acid solutions but soluble in alkaline ones, so that these tabloids do not dissolve until they reach the alkaline secretions of the duodenum.

Permanganate of zinc tabloids are readily soluble in water, and are intended for the preparation of astringent and antiseptic injections, gargles, etc. They are very convenient for this purpose on account of their portability.

Thymus gland tabloids are made to represent in each tabloid 5 grains of the fresh material.

FERRATIN.

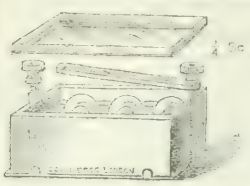
A SAMPLE of this iron preparation has been sent to us by the manufacturers, Messrs. Boehringer and Soehne. Ferratin was originally separated by Professor Schmiedeberg from the liver of pigs, but is now manufactured from egg albumen and iron. It contains 7 per cent. of metallic iron, and it is claimed that the metal exists exactly in the same kind of organic combination in which it is found in the liver. It is said to be more easily absorbed and utilised by the organism than ordinary pharmaceutical preparations, and, being non-astringent and non-irritating, has proved of value in cases of chlorosis and other anæmic conditions. It is also recommended as an adjunct to a milk or other dietary which is deficient in iron. It is in the form of a brown tasteless powder, put up in small bottles containing 25 grammes; the dose is one-half gramme (7½ grains) three or four times daily, and the price of each bottle is three shillings. Ferratin is protected by patents in Germany and in our own and other countries.

CORROSIVE SUBLIMATE PELLETS.

THESE pellets are prepared in order to facilitate the making of a disinfectant solution according to the recommendation of the Local Government Board. Each pellet weighs about 13 grains, and is stained a dark violet. It contains corrosive sublimate in sufficient quantity when the pellet is dissolved in a pint of water to give an antiseptic liquid of a violet colour containing 1 part of corrosive sublimate in 1,000 parts of water. The pellets are prepared by the Sanitas Company, Limited, Bethnal Green, E., and are sold at the price of 1s. for twenty-five pellets.

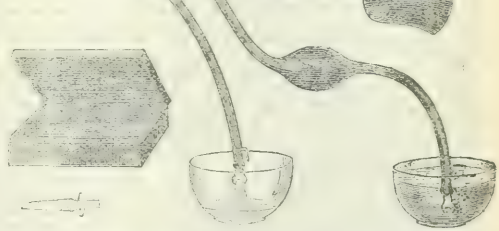
A NEW LIGATURE CASE.

THE ligature case here illustrated has been designed by Dr. S. King Alcock, of Burslem, to secure advantages, especially in private use, not hitherto combined in any one pattern. The chief advantages claimed for it are compactness, with large storage capacity and perfect water tightness during transport without the use of a loose accessory cover, while yet admitting of the free withdrawal of ligatures. It consists of a glazed earthenware trough, with three reels of the same material placed in the short axis, and a loose plate glass cover whose under surface is bordered by a narrow ribbon of india-rubber. When the stored reels are in position and the trough filled with carbolic or other antiseptic lotion, this cover is clamped down by means of screws acting on a slotted flat rod which constitutes the upper side of a nickelled metal frame. The free ends of the ligatures are brought out, previous to the clamping of the cover, between its rubber lining and the edge of the trough, and they can then be withdrawn until the reels are exhausted. The screws may be slightly relaxed when the thicker sizes are to be used, otherwise this is quite unnecessary. The design has been improved on in detail and excellently carried out by Messrs. Down Bros., 5 and 7, St. Thomas's Street, London, S.E.



THE "ZULA" SYRINGE AND IRRIGATOR.

THE "Zula" is constructed with a vaginal plug which closes the mouth of the vagina, so that the used liquid is compelled to pass out through the overflow tube, so that the same liquid can never be injected twice, and the syringe may be used while reclining on the couch without danger of wetting it. The douche pipe is constructed with a flexible joint, which makes it easy to introduce. The vulcanite plug seems to us more efficient than most of the plugs we have seen devised for this purpose.



BEDSTEADS.

WE have received from Messrs. Geo. Gale and Sons, of Upper Mill Hill, Leeds, the latest edition of their illustrated catalogue of designs for bedsteads and other specialities for hospital and institution purposes. Amongst these attention may be directed to the Lawson Tait spring bedsteads, the strength and durability of which are vouched for by numerous testimonials, and by a statement on the part of the makers that, though they have since 1883 given a guarantee for fourteen years with every bed sold, they have not had a single claim, and have never yet had to replace any part of the

spring work. The catalogue introduces to our notice a new patent "clipoid" attachment, which has been brought out for the purpose of easily converting (without removal of the bedsteads) old lath or worn out woven-wire spring bedsteads to the "Lawson Tait" principle. A ball-bearing castor with indiarubber tyres is also shown, and is stated to be "suitable for very easy and noiseless running." In concluding this short notice, we may add that Messrs. Gale's catalogue should certainly be consulted by those whose difficult duty it is to discriminate between the competing claims of rival manufacturers of bedsteads and spring mattresses.

THE SCIENTIFIC EXHIBITS AT THE ROYAL SOCIETY SOIREE.

THE scientific exhibits at the Royal Society *soirée*, held on Wednesday evening, May 1st, at Burlington House, were of a varied character and marked interest. The centre of attraction was naturally the newly-discovered element of argon, and in a darkened room Professor Ramsay showed the spectra of argon, extracted from air, and also of a mixture of argon and helion extracted from cleveite, a Norwegian mineral.

Among the exhibits of medico-scientific interest was a new and improved form of rocking microtome, shown by the Cambridge Scientific Instrument Company. In this microtome the sections are cut flat, and not radial as in the old form of rocking microtome, and with a very good razor they can be cut as fine as up to $\frac{1}{1000}$ mm. in thickness.

The Marine Biological Association had a most interesting exhibit of various medusæ in the free and fixed living condition, and also a number of transparent organisms preserved in dilute solutions of formic aldehyde, in which substance their transparency and the delicate details of their forms are beautifully preserved for museum specimens. Methylene blue is much used in microscopic preparations for staining, but the stain is fleeting, and valuable preparations may become useless by loss of the blue colour. A method (due to Dr. Bethe, of Berlin) of fixing methylene blue preparations with ammonium molybdate was shown. In this the blue colour is not only fixed, but the object can be mounted in balsam, or embedded in paraffin in the usual way. The same association showed a very interesting exhibit of flat fishes which had been reared in a tank with a flat slate bottom and glass front. Those portions of the under side of the fish which were not in contact with the slate, and to which light could gain access, had become pigmented, while the rest of the fish to which light got no access remained perfectly white.

Mr. Francis Galton showed a large number of plates illustrating magnified finger prints. As is well known, the method of obtaining finger prints of criminals is much used both here and abroad in their identification, and it was truly remarkable to see among so large a number of prints how very varied and complex is the arrangement of the lines of the skin on the finger tips.

Sir Benjamin Richardson showed a very useful and ingeniously constructed electrician's table and cabinet for use in hospital wards. It can easily be pushed from bed to bed about the ward, and it supplies, by touching various buttons, an interrupted or a continuous current, a light with a reflector for illuminating the throat, an electric cautery, and a Hughes electric balance to serve as an acoumeter.

One of the most popular exhibits, and one which demonstrated in a practical manner the part played by flies in the conveyance of contagium, was exhibited by Mr. W. T. Burgess. Flies had been placed for a moment in contact with a cultivation of bacillus prodigiosus, and then allowed to escape into a large room. After a varying number of hours they were recaptured and made to walk for a few seconds over slices of sterilised potatoes, which were then incubated for a few days. The experiments showed in the most unmistakable manner that the fly tracks on the potatoes are marked by vigorous growths of the chromogenic organism, even after several hours had been spent by the flies in constant activity since their original contact with the specific organism. These experiments demonstrate the constant dangers to which people are exposed by flies, particularly in such countries as India, where food is frequently exposed in the streets to the attacks of flies, which have possibly flown from some sink of infection with the microbes or spores of cholera or dysentery or malaria in their feet.

Mr. Stanley Kent showed what he considered to be a new and unnamed bacterium found in colonies in the mouth of the cat, the characteristic of which is to divide longitudinally instead of transversely.

A new gas of great illuminating power was exhibited by Professor V. B. Lewes. It is formed from calcic carbide, which is decomposed by water with the evolution of acetylene. Acetylene, burnt in suitable burners, has an illuminating power of 240 candles per 5 cubic feet of gas.

THE ROYAL ACADEMY.

THE Royal Academy has unusual interest for members of the medical profession this year, and contains a number of excellent portraits of well known medical men. In the first room the vigorous portrait of Dr. L. S. Jameson, C.B., by Professor Hubert Herkomer, R.A. (51), at once arrests attention. The life-like character of the portraiture, the strong painting of the flesh tints, and the light in the eyes, proclaim this work to be in the best style of the distinguished portrait painter. The physiological and anatomical possibility of Sir Frederic Leighton's picture of Flaming June (195) will be questioned by everybody. A beautiful woman, draped in transparent flame-coloured garments, is represented sleeping on a marble bench, with her elbow cushioned on her knee, and her head resting on her elbow. If the attitude were possible to any but an acrobat, would sleep—and such peaceful, reposeful sleep—be possible as is here portrayed? The harmonies of reds and pink flesh tints are represented with the delightful and poetic skill for which the President of the Academy is so well known. The portrait of Professor Max Müller (343), by Watts, is an interesting and thoughtful rendering of a fine head, though perhaps not one of the happiest portraits of this great master. The alliance of art and medicine is not new, and we welcome it once more in the person of Miss Bristowe, daughter of Dr. Bristowe, of St. Thomas's, who sends a portrait of her sister (468). The treatment, that of a girl clad entirely in white, is one full of technical difficulties which Miss Bristowe has got over with considerable success. The portrait of the late Sir Andrew Clarke (511), by Rudolf Lehmann, renders the great and much regretted physician to the life better than the portrait of him which appeared on the walls of the Academy last year. The pose of the head, the energetic *verve* of the face are excellently given, and the rich black and gold robes give brilliancy and tone to an interesting picture.

In the same room is a portrait of the picturesque figure and head of the late Professor Blackie, by James Archer. Clad in a sea-green dressing gown, he stands with folded arms and long flowing white hair in a corner probably of a library, with books, his constant companions, on the chair close by. We must mention another medical portrait, that of Mr. Spencer Watson, by George S. Watson (805). The attitude is one of meditation, and the purple and black robes give dignity to the figure. The painting is excellent, the tone subdued and harmonious, and the character of the mind given with careful fidelity. This is in our opinion one of the best portraits in the Academy.

THE annual report of the City of London Lunatic Asylum states that the Committee had during the year devoted considerable attention to the question as to the desirability of abolishing beer from the dietary scale; and it had been resolved that on an after August 1st last beer be abolished from the scale for both patients; and that no beer be supplied to the asylum, except under the order of the medical superintendent as a medical extra. Milk and lemonade were now given, with which the recipients appeared equally well satisfied.

SUCCESSFUL VACCINATION.—Mr. Philip E. Hill, public vaccinator for the No. 1 District of the Crickhowell Union, has been awarded for the ninth time in succession the Government grant for efficient vaccination in his district.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

DEATHS FOLLOWING THE INJECTION OF ANTITOXIN.

A young lady of Brooklyn, who was treated for diphtheria with antitoxin, died lately, and Dr. John M. Clayland, the coroner's physician, who made a *post-mortem* examination, reported as follows: "Puncture on the left side of the abdomen, not penetrating the cavity; brain congested, lungs normal, blood fluid, left heart empty, right heart containing a small amount of fluid blood, liver and kidneys congested, especially the latter. No œdema. Larynx normal. The fauces contained diphtheritic false membrane. Cause of death, convulsion, due to the injection of diphtheria antitoxin." On the other hand, Dr. Wilson, the Chief Bacteriologist to the Brooklyn Board of Health has presented an official report in which he says: "Speculative theories may be advanced as to the cause of death in this case, the true cause not having yet been determined; but my experiments, conforming as nearly as possible to the actual condition, demonstrate that it was not inherent in the antitoxin." Dr. Wm. H. Park, of the Bacteriological Department of the New York Board of Health, has also reported to the following effect: "My experience led me to express the opinion that the unfortunate results which followed its administration in this specified case cannot be attributed in any way to the antitoxin which was employed." It is to be hoped that the fullest possible details of this case will be published.

A case of death following a preventive injection of antitoxin was reported by Dr. Axel Johanessen to the Medical Society of Christiania on January 9th. A boy, aged 2 years, suffering from spastic spinal paralysis, received an injection of a quarter of a bottle of Behring's serum (600 units) on December 9th. On the four following days he had sharp diarrhœa, but there was no rise of temperature and no albuminuria. On the 14th there were traces of albumen and indican; the temperature was 103° F., and there was infiltration and redness at the site of puncture (under the right clavicle). From the 15th to the 18th the child's condition remained much the same; an incision at the site of puncture gave issue to no pus. Death took place on the 19th. On *post-mortem* examination no trace of suppuration was found in the infiltrated area about the seat of puncture. The liver was pale, the spleen large and firm, the kidneys rather pale, the intestine dilated, the peritoneum injected, its mucous membrane stained with greyish-black spots, and Peyer's patches were injected and infiltrated. On bacteriological examination streptococci were found. Three other children received preventive injections of the same serum at the same time without ill effect.

In the Hungarian journal *Gyógyászat*, Dr. Alföldi, of Pancsova, relates the case of a girl, aged 3 years, who received a preventive injection of 2 c.cm. of Behring's serum (100 units) on January 16th. This was followed by depression and loss of appetite. On January 18th the temperature rose to over 104° F.; the child complained of pains in loins, and there was considerable albuminuria. On the 19th petechiæ appeared over the whole body, and on the 20th the child died.

QUARANTINE FOR SMALL-POX AT LEEDS IN 1893.

In 1893 Leeds passed through an epidemic of small-pox of considerable proportions, including, as it did, 586 cases of the disease. Having in view the seriousness of the outburst, the town council had regard to the desirability of isolating all persons who had come in contact with infection, and for this purpose established "shelter cottages" at the sanatorium, wherein 1,458 individuals were kept under observation for periods of time varying from two hours to a fortnight. Of these 1,458 persons 83 developed small-pox during their period of isolation, and were at once removed to hospital; other 7 cases arose among persons so isolated after their return home after observation of less than ten days, some of them after much less than that time. Thus, of the total number 6 per cent. were attacked; 8.9 of the 937 remaining more than ten days; and 1.3 per cent. of the 521 leaving their quarters under that period. But of the gross total only 0.5 per cent. were attacked in their own homes after quarantine, and it is held that no one contracted his infection in the shelter cottages. It should be added that of the 521 persons sent home within ten days, many had had very slight contact with infected houses, some only going to the sanatorium for the purpose of having their clothes disinfected.

With respect to the previous condition of those persons exposed to small-pox infection, there is unfortunately in Dr. Spottiswoode Cameron's report no differentiation of persons primarily and twice vaccinated, nor is there any account of the number of persons revaccinated on removal into quarantine, but only the statement that nearly all persons requiring it were revaccinated, this precaution modifying the severity of any subsequent attack during the incubation period of vaccination. In this way some otherwise interesting data, such as were obtainable in the Leicester experience, was wanting. But what we do discover is that the 1,458 persons were divided as follows:

93, no record as to vaccination, 3 attacks, 3.3 per cent.				
7, doubtful as to vaccination,	2	,,	29.0	,,
57, no signs of vaccination,	5	,,	9.3	,,
65, not vaccinated,	16	,,	25.0	,,
36, vaccinated, number of marks not known,				
257, vaccinated: 1 good or 2 poor marks,				
387, vaccinated: 2 good or 3 poor marks,				
616, vaccinated: 3 marks and upwards,				
40, had had small-pox previously; no attacks.				

129 persons, 23 attacks, 18.0 per cent.

1,196 persons, 67 attacks, 5 per cent.

We see from the above that previous small-pox rendered the individuals proof against further attack; that among the 1,199 persons known to be vaccinated in some fashion only 5 per cent. sickened; whilst of the 65 persons totally unvaccinated 25 per cent. sickened.

In addition to the absence of data as to the revaccination of the quarantine persons, there are the further needs of information as to the extent and dates of vaccination in vaccinated individuals escaping and suffering attack; and as to the results of the attacks chronicled. But of the whole epidemic we learn that the mortality rates were as follows:

Well vaccinated	257 cases	0 deaths	0.0 per cent.
Imperfectly vaccinated ...	241 ,,	13 ,,	5.3 ,,
Said to be vaccinated, but showing no signs... ...	42 ,,	4 ,,	9.5 ,,
Unvaccinated	46 ,,	13 ,,	28.2 ,,
Total	586 ,,	30 ,,	5.1 ,,

DEATHS UNDER ANÆSTHETICS.

Chloroform.

We are indebted to Dr. W. E. Bond for the following account of death under chloroform at the Stockport Infirmary: The patient, a boy, aged 15, was admitted on December 15th, 1894, suffering from acute periostitis of the right tibia, left fibula, left metatarsus, and right humerus. Chloroform was administered for the purpose of incision and drainage, and was taken well. On April 19th, 1895, many of the sequestra being loose, chloroform was administered in order that they might be removed. An elastic tourniquet was applied above the right knee, and a large sequestrum was removed from the right tibia. This having been done, and as the operation had lasted more than an hour, it was decided not to do more that day. The tourniquet was therefore removed, and the anæsthetic discontinued. About four or five minutes after the chloroform had been stopped the pulse stopped suddenly and without warning, and almost at the same time the respirations ceased. The patient's head was promptly lowered and the legs raised, and artificial respiration begun. Ether was injected under the skin, and the battery applied to the phrenic nerves. All efforts, however, were without effect, except that the patient took a few sighing respirations at intervals of four or five minutes. The remedies mentioned were continued for forty minutes, but the patient could not be revived. Up to the time of the pulse stopping the patient had appeared to take the chloroform well, there having been no sign of danger throughout except a tendency to dilatation of the pupil and an occasional pallor of the face. About 1 ounce of chloroform was administered on folded lint.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XLVI.—WARWICK.

The workhouse, standing on the outskirts of the town, is a red brick building dating from the year 1838; the infirmary buildings opposite, separated from the house by the public road, were erected a few years later. The situation is open on all sides, the Board having many acres under cultivation. It gave us great pleasure to be met by two lady guardians (the Mayoress of Leamington and Mrs. Burgess) and by Mr. Bailey, the Chairman of the House Committee; the latter had a store of useful statistical information which he kindly placed at our disposal.

The Infirmary

being our special concern, we asked permission to visit first that part of the buildings. Its plan is a compact parallelogram, the administration block being in the middle, with the male and female wards on either side, the part used for the women being rather the larger of the two; it is a three-storeyed building, and has accommodation for 96 patients, the average number of beds occupied being 80. The space is cramped, the landings being small, and the staircases, which are principally of stone, confined.

The Ground Floor.

On the ground floor on the men's side there was a small day room, and opening out of it a ward for 8 beds, one of which was occupied, the remainder of the patients being in the day room, or seated round the fire in the ward. On the next floor was a large ward for 12 beds, 3 of which were occupied, the rest of the patients being up. Above, again, were 2 smaller wards, with 6 and 5 beds respectively. The arrangement of the wards is throughout the same. There are windows on both sides, and the beds are between the windows; a large deal table in the middle, with benches and armchairs for those who are up; little tables between some of the beds, and one or two commodes for night use. We were sorry to see the chamber utensil under each bed; this betokens some want of sanitary care.

The Wall Surfaces.

The wall surfaces are of brick, painted with silicate in two colours. The windows are rather small, and set high up in the wall, so that the patients cannot see out of them as they lie in bed. The ventilation is chiefly by the windows, the amount of opening being regulated by means of a rack; there are, besides, ventilators in the cornice. The wards are warmed by open fires and lighted by gas. A few of the bedsteads were of modern pattern and supplied with a pull; the majority were of the old style: almost all of fair width. The bedding was flock, hair, or "oat fly"; in no case were mattresses in use. Over the laths was a very thick fibre mat, but the matron considers that this is not cleanly; as they wear out she is not having them replaced. Water mattresses and cushions are supplied for such cases as require them. The quilts are red check, of the old-fashioned heavy cotton make; they might with advantage follow the fibre mats. We were struck with the lack of cupboards, and wondered how and where the necessary appliances for ward work would be kept.

Isolation Wards.

On the intermediate landings on each floor are isolation wards, small rooms which have been used for itch or lock cases, or for any very offensive case. We were glad to see that the "dirty cases" were not herded together in some back ward, but were treated among the other patients; the nurse told us that she found that plan answer best. The medical officer (Mr. Roger Bullock) informed us that he very seldom had any lock patients under his care. The infectious patients are removed to the sanitary hospital.

The Women's Side.

The arrangement of the wards is similar on the women's side, except that the day room is now used by the nurses for their meals, and that extra wards are provided for the women by the use of an addition built on to this wing for a children's hospital, now occupied in great part by adult female patients. In this addition we found larger windows and smooth wall surfaces, sure indications of a more modern construction. One ground-floor ward was used as a children's ward, and in a room at the top were some girls isolated for ophthalmia. The temperature of the children's ward seemed to us decidedly too low; the fireplace appeared too small to warm the room effectually. In this same block on the ground floor was a comfortable ward of 4 beds, kept, so the chairman told us, for the more respectable women.

The Infectious Hospital.

The infectious hospital, no longer used as such, is supplementary to the infirmary. It is a detached building, connected with the infirmary by a glazed corridor; there are two wards divided by a kitchen, each holding 10 beds. These wards are lofty, and have large windows facing each other, smooth walls, and ventilators in the ceilings. They were occupied by female patients. There are open fires, and, besides these, two hot water pipes, the supply being heated in a small boiler behind the ward fires. Even so the temperature of the middle of the ward was only a little over 50° (there was a hard frost outside). The glazed corridor is a favourite place in the summer; it is supplied with seats, and makes a good recreation place; the patients call it "paradise."

The Patients.

There were about twenty patients in all in bed, the majority of these being women. There were no cases of acute illness at the time of our visit; the nurse said that she was not taking any temperatures just then. We learned from the doctor that as a rule the severe cases were treated at the Leamington Hospital, whither all cases requiring operative treatment were removed; the guardians subscribe to the hospital. This leaves the cases of chronic ailment and infirmity to be treated in the workhouse infirmary; such as we saw would come under that category: ulcerated legs, paralysis, phthisis, asthma, heart disease, rheumatism, bladder trouble, hernia, and senility. The advanced age of the patients was a marked feature; the chairman told us that the average age of all the old people in the house and infirmary was 75 years, and, though so large a proportion were sitting up, some were very helpless.

There is no classification of the patients. The nurse informed us that she endeavoured to place the more serious cases on the first floor, which is near her room. We saw imbeciles, feeble-minded, and epileptics in the wards as well as at work all over the house; there is no certified department as the lunatics are at once removed to the county asylum. A boy of about 8 or 9 was confined to the children's ward as he was idiotic.

Lying-in Ward.

The lying-in ward is in the house on the first floor in the middle block. It consists of one room holding four beds. It has no special appliance, such as a water supply, sink, and bath for its use. Above this room is another where the pregnant women sleep, awaiting their time. The number of confinements is small, averaging ten or twelve in the year, but should there be an increase in the number there would still be no separate labour ward available. The infirmary nurse is the midwife. There is a bell from the lying-in ward to the matron's quarters.

System of Nursing.

We found two nurses engaged in the infirmary, both of whom had been trained, the head nurse at Sheffield and Liverpool infirmaries; the assistant nurse at the Fulham Infirmary. In each ward there is a wardsman or woman, and these latter were kept to these duties as far as possible. The building is an awkward one from the nursing point of view; the wards are mostly small, and scattered up and down.

There is no night nurse, and only in the event of a serious case does anyone, even a pauper, sit up. There are bells from the wards to the nurses' quarters. In conversation with the nurse the fact was elicited that the atmosphere of the wards in the early morning is anything but sweet; and it must be so, as the helpless patients cannot be properly cleansed nor the vessels promptly emptied. The chairman said that this matter of night nursing had been a vexed question on the Board, and that the feeling at present was that the employment of a trained nurse at night would not insure prompt attention to the helpless, and that the inmates were more likely to prefer one of themselves as an attendant. These arguments are not new, nor are they convincing; the able-bodied pauper as a nurse is at best an unreliable and irresponsible servant, without capacity or dexterity, not to mention experience and tenderness. It is easy to guess the sort of sleepy response which the appeal for assistance to a companion of the ward receives in nine cases out of ten. Two competent nurses, not necessarily fully trained, would not be too many to ensure proper attention to the helpless.

Intercommunication and Fire Precautions.

The guardians have thoughtfully devised doors of communication on each floor between the divisions, so that the nurses at night or in bad weather can pass from the one to the other without going out-of-doors. These same doors are also intended for use in case of fire, and are supplied with a key in a glazed case, with its attendant mallet; the fire appliances all over the building were well in evidence, and appeared to be in order.

Sanitary Appliances.

There is a porcelain bath on the ground floor on the male and female sides, with a supply of hot and cold water, and adjacent a watercloset of modern construction, quite clean and sweet. With regard to this latter, a contrivance of the nature of arms or a pull from the ceiling is required to give the infirm the necessary leverage in rising. The difficulty suggested is not an imaginary one. There is a third fixed bath on the top floor of the children's hospital. On each landing we saw hot and cold taps discharging over a small triangular trough, and also a watercloset. The water is heated in the infirmary scullery, where also there is a copper giving a supplementary supply. We learned from the nurse that the supply of hot water was constant and adequate. There are no slop sinks, and we only saw the one sink for washing up in the scullery. The drainage was overhauled five years ago, when the new fittings were supplied.

Laundry and Nursery.

The infirmary laundry adjoins the infirmary, and the nurse has the control of it. The supply of linen is distinct from that for the house, and the nurse said that all soiled linen was sent at once into the laundry. The nursery is in the house, opening out of the day room for the able-bodied women. The floor, like that of all the rooms in the house, is of brick, but there was a good piece of matting in front of the fire. The three infants in the nursery all looked in good case; they were in charge of pauper women. We did not like the aspect of the room, which was sunless and dreary, and there was the usual absence of toys and cheerfulness.

Diet.

The dietary has just been revised. It is designed to make the food more varied by having meat pies or puddings, jam or marmalade, alternating with butter, tea or cocoa for the sick; and an attempt is made to check the waste of bread in the children's department. The bread is baked on the premises. All the diets are cooked in the house kitchen, and sent over to the infirmary in large covered wooden boxes; the cooking is done by the inmates.

Recommendations.

It struck us that this infirmary was a difficult one to work and supervise. Certainly more nurses are needed; if two were added for the night they might lighten the work of the day staff in the mornings, when the whole staff could work together at making the beds and the patients' toilet. This would render increased accommodation necessary in the nurses' quarters, when a recreation room might be added with advantage. There is a lack of day rooms for the patients: in any alterations of structure these would be a valuable addition. The children's ward requires a larger fireplace, and would be better placed on the first floor. More cupboards and a small surgery would add to the efficiency of the nursing and the comfort of the nurses. The lying-in ward wants remodelling: it should be placed in the infirmary department or adjacent to it; a labour ward is a necessity, and a bathroom and all sanitary appliances should be added. We would further suggest that some alteration be made in the nursery department; that a boarded room be selected for the purpose, with a sunny aspect and separate offices; a responsible officer with leisure to attend to the infants to be placed in charge of them. We would also suggest the addition of slop sinks and other sinks about the infirmary, to facilitate the emptying of slops and the washing-up of crockery for service.

MEDICAL HYDERABAD.

[From a Correspondent.]

Chloroform Administration.—Hospital and School Nurse Training.

In the Nizam's domain of Hyderabad in the Deccan medical treatment and medical education have reached a high standard of excellence. Here was held the famous Chloroform Commission, which was due to the liberality and scientific interest of the Nizam and the energy and enthusiasm of Dr. Lawrie, the Presidency surgeon.

The hospital, which stands in the centre of the picturesque native city of Hyderabad, is small and ill-constructed; but still it answers its purpose very well, and perhaps in some ways suits the peculiar habits and customs of the people better than larger and more systemised institutions. A number of small apartments open on to a courtyard. In these women can live in "purdah" or seclusion and according to their caste rules, or patients can be visited and waited upon by their relatives, which privilege induces them to go into hospital and be properly treated. There are also a number of small wards. Most of the cases treated are surgical. The operating theatre is open on all sides to the air, excepting that on which the students sit on rising tiers of seats. Chloroform is administered in a scientific and methodical manner, which may be copied with advantage in the London hospitals. The patient is laid on the table and stripped to the waist, Dr. Lawrie considering it to be more important to watch the respirations than the pulse. Each case is minutely recorded at the time, and all particulars as to the name and age of the patient and the nature of the case are entered in a book. The chloroformist calls out aloud to the clinical clerk standing at the head of the table with the record book in his hand minute by minute, indeed, second by second, the particulars as to the amount of chloroform administered, the respiration and pulse, etc. These are at once entered, and thus a most accurate and detailed report is kept of every case of administration of chloroform in the hospital. These records are subsequently printed. An extract from the published records of April, 1894, will illustrate the admirable way chloroform is given at the Afzulgung Hospital.

These valuable records are afterwards classified month by month. From the records of April, 1894, we gather that in 176 cases the average time taken to produce full anæsthesia was 3 minutes and 40 seconds, and the average amount of chloroform taken to produce full anæsthesia 3.26 drachms, given at the rate of 0.89 minim per second. In patients below 4 years of age full anæsthesia was produced in 1 minute and 17 seconds; and in patients over 15 years of age in 3 minutes and 56 seconds. The largest amount of chloroform given was 8.5 drachms for an operation lasting 44 minutes.

The test of full anæsthesia is insensitiveness of the cornea, and the duty of the chloroformist is constantly to watch the respiratory movements, and to see that respiration is normal. Should the breath be held or there be any stertor, the inhalation is stopped till respiration is again normal, and if respiration stops artificial respiration is commenced at once. As a result of these scientific precautions deaths from chloroform are unknown. Each senior student is taught in turn how to give chloroform, and holds the post of chloroformist for a month. Dr. Lawrie's large experience and careful and minute observations, extending over several years and including many thousands of cases, confirm him strongly in the opinion

Chloroform Record.

Date	April 5th, 1894.
Name, age, and sex	Boobakar, 18 years, male.
Operation	Sinus laid open.
Chloroformist	Ahmed Sharieff.
Sign of complete anæsthesia	Cornea insensitive.
Amount of chloroform required to produce full anæsthesia	Four and a-half drachms.
Time occupied to produce full anæsthesia...	Five minutes thirteen seconds.
Rate per second	Minim 0.86 per second.
Total amount of chloroform employed	Four and a-half drachms.
Duration of operation	Ten minutes thirty seconds
Pulse and respiration immediately before the inhalation	Pulse 76, respiration 24.
Special features in the case	None.
Food last taken	8 P.M., April 4th, 1894.
After-effects	None.

Administration commenced in one drachm doses at :

H.	M.	S.	
10	37	30	Violent resistance.
10	38	7	Quiet breathing.
10	38	30	Chloroform added to the cap, two breaths of air. Respiration 24, pulse 140 a minute, both regular.
10	39	30	Chloroform added to the cap, three breaths of air. Respiration 24, pulse 120 a minute, both regular.

Half drachm doses.

10	40	30	Chloroform added to the cap, two breaths of air.
10	41	15	Chloroform added to the cap, one breath of air. Noisy expiration.
10	41	50	Snoring.
10	42	0	Chloroform added to the cap, one breath of air.
10	42	43	Over, cornea insensitive, cap removed. Respiration 24, pulse 76 a minute, both regular.
10	47	10	Consciousness returning.
10	48	0	Operation and dressing finished, patient removed to bed.

Abstract of pulse and respiration :

		Pulse.		Respiration.	
10	37	0 ... 76	regular	... 24	regular.
10	38	30 ... 140	do.	... 24	do.
10	39	30 ... 120	do.	... 24	do.
10	42	43 ... 76	do.	... 24	do. Anæsthesia complete.

The pulse was first accelerated and then became normal.

that the heart never becomes dangerously affected until after the breathing has stopped, and that, if chloroform is properly given, it has no injurious or dangerous effect upon the heart; in fact, all his experience confirms the view of Syme that we should be guided as to the effect of chloroform, not by the circulation, but entirely by the respiration.

He holds that in death from chloroform the first appreciable effect is narcosis of the vasomotor centre which causes the fall of the blood pressure which sets in when the action of the drug commences. The respiratory centre is paralysed, and death is due to this cause, the heart failure being secondary, and due to the arrest of its nutrition consequent on the cessation of respiration. In chloroform poisoning the breathing is interfered with from the beginning, and the heart is weakened before the respiration actually stops. It is therefore obvious that the weaker the heart the more marked will be the effect of the gradual narcosis of the respiratory centre which is produced by chloroform, and the more rapid will be the cardiac failure when the respiration stops. The experiments of the Hyderabad Commission and those of Gaskell and Shore have proved that chloroform has no direct action upon the heart, though the connection between the heart and the respiratory centre is probably much more intimate than has been hitherto supposed. It is certain that in chloroform administration the pulse can only give second-hand information of something having gone wrong which might have been prevented by proper attention to the breathing. Clinically, it is moreover dangerous to take the pulse as a guide to the effect of chloroform, as it distracts a certain amount of attention from the all-important respiration. Pulse failure means heart failure observed late, when close observation of the respiration would have already given the indication that chloroform narcosis was being carried too far. These views Dr. Lawrie holds very strongly, being convinced of their truth, and of the great importance in surgery of having a thoroughly safe and reliable method of administering chloroform.

The students of this interesting little medical school are Mohammedans, Hindus, Parsees, Eurasians, and English. Five women are at present studying with the men, and are given the same opportunities of administering chloroform and performing operations as they. The latter seemed a special feature of this school, as Dr. Lawrie, heart and soul a surgeon and a teacher, is anxious to turn out thoroughly well trained men and women surgeons from his school. He speaks very highly of the capacity of the native students and surgeons to perform the best work, and he shows no trace of that jealousy and suspicion of the native races which spoil some of the best work and teaching in India.

With a hospital imperfectly constructed, and a school deficient in so many of the things which exist in the splendidly organised medical schools of Calcutta and Madras, Dr. Lawrie has by his enthusiasm and tact overcome all obstacles and has succeeded in creating a native medical school which gives no mean results in what was till recently the most retrograde of the native States of India. He is ably seconded by Dr. Patrick Hehir, who, though suffering from scientific isolation, is one of the very few medical men in India who is carrying out original investigations in the bacteriology of cholera and malaria.

The nursing arrangements are under the direction of Miss Lawrie, who, having received a thorough training as a nurse and sister in the London Hospital and the Children's Hospital, Chelsea, has successfully introduced the English nursing system, and has established a school where native nurses are trained both for hospital and private nursing.

The hospital, the medical and nursing school are supported by the Nizam's Government.

PARLIAMENTARY BILLS COMMITTEE.

A meeting of the Parliamentary Bills Committee was held at the offices of the Association, 429, Strand, W.C., on Tuesday, April 23rd, 1895.

Present:

Mr. Ernest Hart in the Chair.
Dr. Ward Cousins, President of Council.
Mr. Butlin, Treasurer.

Dr. R. W. Batten (Gloucester).
Dr. A. G. Bateman (London).
Dr. J. Spottiswoode Cameron (Leeds).
Dr. W. F. Cleveland (London).
Dr. R. Esler (London).
Mr. E. H. Galton (London).
Dr. Bruce Goff (Bothwell).
Dr. Ogilvie Grant (Inverness).
Dr. A. J. Harrison (Clifton).
Mr. J. H. Hemming (Kimbolton).
Professor V. Horsley (London).
Mr. Evan Jones (Aberdare).
Mr. T. C. Langdon (Winchester).
Dr. W. J. Mickle (London).
Dr. C. H. Milburn (Hull).
Mr. Jones Morris (Portmadoc).
Dr. James Murphy (Sunderland).
Mr. C. H. Watts Parkinson (Wimborne Minster).
Dr. H. H. Phillips-Conn (Reading).
Dr. R. Somerville (Galashiels).
Dr. G. E. Shuttleworth (Richmond Hill).
Dr. John Strachan (Dollar).
Dr. J. Taylor (Chester).
Dr. A. R. Urquhart (Perth).
Mr. Frederick Wallace (London).
Dr. S. Woodcock (Manchester).

The minutes of the last meeting were read and confirmed.

Letters of apology for non-attendance were received from Dr. S. H. Agar, Dr. Gordon, Dr. C. Harrison, Mr. T. Jenner Verrall, Mr. D. Spanton, Dr. Street, and Mr. Winterbotham.

The Chairman said the first item on the agenda was the amendment of the Medical Acts. Following the instructions of the Committee, the proposed Bill was sent out to all the Branches, asking them for their opinion upon it. Some of the Branches had replied approving of the Bill, some had not replied, while certain of them had offered suggestions and additions. As most of the suggestions were matters requiring the further consideration of the

solicitor as to whether they were possible, the General Secretary of the Association had put the whole of them before the solicitors, who had replied that they thought the suggestions of the Branches should be dealt with separately and fully, and they would prefer, if it could be arranged, that the matter should stand over for the present.

Dr. WOODCOCK said that many gentlemen had come a long distance that day to consider that Bill. There were two or three resolutions from the Lancashire and Cheshire Branch which he thought might be taken generally to indicate that the draft Bill was not adequate to the requirements of the profession or safeguard the interest of the public. A strong feeling was present in the Lancashire and Cheshire Branch that a very much more comprehensive Bill should be submitted to Parliament. They should deal with such questions as the constitution and powers of the General Medical Council, and they ought to put in something with regard to the powers possessed by medical corporations. The draft Bill appeared to overlook everything but one small matter, that of the assumption of medical titles. By the present Bill a man might practise as long as he did not assume a medical title. The question of medical advertising also wanted dealing with. They should aim at giving the General Medical Council similar power as that possessed by the Incorporated Law Society. At the present time the General Medical Council was a very incompetent body.

Mr. VICTOR HORSLEY said the Metropolitan Counties Branch forwarded to the Parliamentary Bills Committee a draft Bill on the subject of the amendment of the Medical Acts, which included many of the points Dr. Woodcock had alluded to, but the Committee decided that the only matter that should be dealt with practically was the limitation of unqualified practice. There were two important questions which did not enter the proposed Bill. The first was the question of unqualified practice when it was carried on by a company. He had been much interested in the question of companies taking up a work which the unqualified person could not do under the Medical Acts. It had been hoped that the difficulty would have been considered by the Committee on Trade sitting at the Board of Trade, but he thought it was very unlikely that they would get any consideration for the amendment of the Companies Act so as to prevent a company trading and carrying on medical and surgical practice. The Committee had before them a clause which had been drafted and an opinion thereon by Mr. Costelloe, which he believed covered the ground. The draft Bill was not adequate on the great point of unqualified persons without assuming a title. The Medical Defence Union had great difficulty in prosecuting in these cases, as most of these persons did not assume any medical title at all. It was imperative that the Bill should be altered to include a passage of that kind. However, it was impossible in a Committee of that size to discuss the important points like that with efficiency and without legal advice, and at the same time it was impossible to go through all the amendments submitted by the Branches except in a small and representative body.

After some further discussion it was proposed by Mr. VICTOR HORSLEY, seconded by Dr. BATTEN, and resolved:

That the draft Bill, together with the amendments and suggestions forwarded by the Branches, be handed to a Subcommittee, with power to take such legal advice as may be necessary to redraft the Bill where thought desirable.

The following Subcommittee was appointed to consider the draft Bill to amend the Medical Acts: The Chairman, Dr. Batten (Gloucester Branch), Dr. Spottiswoode Cameron (Yorkshire Branch), Dr. Galton (South-Eastern Branch), Mr. Victor Horsley (Metropolitan Counties Branch), Mr. Evan Jones (North Wales Branch), Dr. Somerville (Border Counties Branch), and Dr. Woodcock (Lancashire and Cheshire Branch).

After some discussion it was proposed by Dr. MILBURN, seconded by Mr. TAYLOR, and resolved:

That the Subcommittee also report on the advisability and practicability of including in the draft Bill the subjects of—(i) The constitution and powers of the General Medical Council; (ii) The penal powers of the medical corporations and universities in respect of the conduct of their medical graduates and diplomates; (iii) certificates and registration of deaths.

The CHAIRMAN read a letter from the British Dental Association, suggesting that certain clauses should be introduced into the proposed Bill to amend the Medical Acts so as to include dentistry.

It was proposed by Dr. SPOTTISWOODE CAMERON, seconded by Mr. JONES MORRIS, and resolved:

That the request of the British Dental Association be referred to the Subcommittee appointed to consider the Bill.

ARMY MEDICAL CASES.

The CHAIRMAN stated that three army medical officers, who considered themselves to have been badly treated by the Army authorities, had submitted to him as Chairman of the Committee, full statements of each of their cases, in which, however, he had not thought it advisable thus far to take steps. He thought the best way would be submit them to a small Committee, who would then report as to whether anything could be done in the matter.

It was proposed by Dr. MURPHY, seconded by Mr. HEMMING, and resolved:

That the cases be referred to a Subcommittee, consisting of the Chairman, Surgeon-General Cornish, and Mr. C. N. Macnamara, for consideration as to whether any action could be taken.

POOR-LAW OFFICERS SUPERANNUATION BILL.

The CHAIRMAN said the question had arisen whether the Poor-law Officers Superannuation Bill introduced into the House of Commons included Poor-law medical officers. He had taken the opinion of the solicitors on the matter, and they had replied that the Bill did include Poor-law medical officers. He should suggest that the Branches should be informed that the Committee supported the Bill, and requesting them to use their influence with the members of Parliament in the various districts to get the Bill through.

It was proposed by Mr. JONES MORRIS, seconded by Mr. PARKINSON, and resolved:

That the Parliamentary Bills Committee strongly supports the Bill, and requests the members of the Branches to interview their members of Parliament with the view of getting them to use their influence in getting the Bill through Parliament.

CANTONMENTS ACTS AMENDMENT BILL.

The CHAIRMAN said that while in India it came under his notice that the Government had introduced a Cantonment Act Amendment Bill containing a clause which was highly dangerous and derogatory to army medical officers. Not only were they ordered not to do certain things but if they did not carry out the orders they were not dealt with by their own department, but were liable to be taken before a magistrate, and they were to be punishable by the civil jurisdiction. He was able just in time to make a very strong protest in India at the request of the Indian men, who as officials of the Government could do nothing. He saw Sir Anthony McDonnell on the subject and the publication of the telegrams of the *Times* correspondent had been of great public service. Telegrams were sent to this country to the India Office of a very stringent nature. He wrote home to England, and Dr. Ward Cousins had called a meeting of the Parliamentary Bills Committee to make arrangements for the deputation to Mr. Fowler, but before the meeting could be held, Mr. Fowler withdrew the whole of the objectionable clause. That result gave very great satisfaction in India, and tended a great deal to the credit of the British Medical Association.

The CHAIRMAN called attention to a Bill which had been prepared by him after consultation with suitable authorities to regulate establishments purporting to carry out massage and other medical purposes but subject to great abuses.

It was resolved:

That the Bill be circulated to the Committee for consideration at the next meeting.

THE MECCAN PILGRIMAGE AND THE DIFFUSION OF CHOLERA.

The CHAIRMAN said in reference to the resolution of the Committee requesting him to interview the Sultan of Turkey on this subject that he came to the conclusion from what he heard that there would be little advantage in having an audience with His Majesty at the moment, and that a prior representation as to the prevention of cholera should be

made to the Sultan by the Mohammedans themselves. While in India he endeavoured to awaken the Mohammedans of India, and as the Committee may have seen with quite unexpected success. At the great meeting which was held at Hyderabad strong resolutions were passed, and the Calcutta Mohammedans—a highly informed and influential body—did the same. Since his return he had heard that, as the result of these meetings, the Nizam's Government had appointed a Mohammedan doctor, who was also a graduate of Edinburgh and London, to accompany the pilgrims and report on the details and experience of the caravans.

DETAILING OF THE ARMY IN INDIA.

The CHAIRMAN stated that he had received from the Secretary of State for War a letter, published in the BRITISH MEDICAL JOURNAL of February 23rd, which practically gave them what they had asked for by deputation. Hitherto an army medical officer was sent to India without being told where he would have to serve; that information was given to every other officer, but refused to the army medical officer, the Director-General being of opinion that, having only a restricted number of officers, it was more convenient to him that they should proceed to India, and on arrival there be detailed to wherever wanted. Now they would be informed beforehand to what part they had to go and could provide themselves accordingly. This information would be gladly welcomed by the officers of the Army Medical Staff.

FACTORY AND WORKSHOPS ACT.

Certain suggested amendments to the new Factory and Workshops Act were submitted by from the Certifying Factory Surgeons Association and Dr. SPOTTISWOODE CAMERON mentioned some further alterations and additions. Dr. Cameron was requested to confer with the Chairman, and suitable representations and suggestions to be forwarded to the Home Secretary who was in charge of the Bill.

ROYAL COLLEGE OF PHYSICIANS.

AN ordinary comitia of the College was held on Thursday, April 25th, Sir J. R. REYNOLDS, Bart., President, in the chair.

The following gentlemen were admitted Members: J. H. Bryant, M.D.Lond.; L. L. Jenner, M.B.Oxon.; T. N. Kelynack, M.D.Vict.; and W. B. Warrington, M.D.Lond.

The licence was granted to 130 gentlemen, of whom all but three came before the Conjoint Board.

A letter was received from the Royal College of Surgeons reporting the proceedings of the Council of that body.

A letter from the British Institute of Preventive Medicine was, after some discussion, referred to the Council.

The following Members were elected Fellows: R. M. Simon, M.D.Camb.; F. H. Haynes, M.D.Lond.; W. R. Dakin, M.D.Lond.; Dawson Williams, M.D.Lond.; F. J. Wethered, M.D.Lond.; F. J. Smith, M.D.Oxon.; J. Calvert, M.D.Lond.; F. G. Penrose, M.D.Lond.; F. W. Andrewes, M.B.Oxon.; W. H. Hamer, M.D.Camb.; and P. Manson, M.D.Aberd.

The quarterly report of the Finance Committee was received and adopted.

Two reports from the Committee of Management—one relating to the examination for the diploma in Public Health, the other to the third and fourth examinations under the new regulations—were received and adopted.

A report from the Laboratories Committee was received and adopted.

The quarterly report of the examiner for the licence was received and adopted.

Thanks were voted to the donors of books during the past quarter.

CORK SOCIETIES MEDICAL OFFICERS' INDEMNITY FUND.

THE following additional subscriptions are acknowledged by Dr. Denis Dempsey Donovan, King Street, Cork, Treasurer to this fund:

	£	s.	d.
Surgeon-Major Thornhill, Indian Medical Service	1	1	0
Nec Opprimere Nec Opprimi	1	1	0
Dr. Dundas Grant, Upper Wimpole Street, London	2	2	0
Dr. Justin F. Donovan, Spanish Town, Jamaica ...	1	1	0

THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION IN LONDON.

THE arrangements for the annual meeting of the British Medical Association, which will commence on July 30th, are now in an advanced condition, and we shall hope in an early number to publish full details. Meanwhile, we may state that the Reception Room will be in King's College in the Strand, and that the majority of the Sections will meet either in King's College or in the Conjoint Examination Hall of the Royal College of Physicians and Surgeons on the Embankment, which have been placed at the disposal of the Association for the occasion. The general meetings will be held in Exeter Hall, with the exception of that on the evening of July 30th, at which Sir Russell Reynolds will deliver his presidential address. This meeting will be held at the Imperial Institute and will be immediately followed by a *conversazione*.

A large number of foreign guests have already accepted the invitation to attend the meeting, and among those are Professor Lancereaux, Paris; Dr. Collignon, Brussels; Professor Baümler, Freiburg; Professor Nothnagel, Vienna; Professor Jürgensen, Tübingen; Dr. Brachet, Aix-les-Bains; Professor Laache, Christiania; Professor A. Ewald, Berlin; Professor Trier, Copenhagen; Professor C. Gerhardt, Berlin; Dr. R. Heber Fitz, Boston; Professor Semmola, Naples; Dr. Da Costa, Philadelphia; Dr. de Cérenville, Lausanne; Dr. Galezowski, Paris; Professor Hirschberg, Berlin; Professor Fuchs, Vienna; Professor Gayet, Lyons; Professor E. Meyer, Paris; Professor Berger, Paris; Professor Lucas Championnière, Paris; Professor Gussenbauer, Vienna; Dr. Kummer, Geneva; Professor Terrier, Paris; Professor Helferich, Griefswald; Professor W. W. Keen, Philadelphia; Dr. N. Senn, Chicago; Professor Ceccherelli, Parma; Dr. Weir, New York; Dr. J. Comby, Paris; Professor Baginsky, Berlin; Professor Tillmanns, Leipzig; Professor von Ranke, Munich; Dr. Northrup, New York; Dr. Pozzi, Paris; Dr. Cantacuzene, Bucharest; Professor Lazarewitch, St. Petersburg; Dr. Lusk, New York; Professor Pistor, Berlin; Professor Schulz, Griefswald; Professor Stokvis, Amsterdam; Professor M. Mosso, Turin; Dr. F. Ottolenghi, Turin; Professor H. A. Hare, Philadelphia; Professor Kobert, Dorpat; Professor Benedikt, Vienna; Dr. C. H. Hughes, St. Louis; Dr. Luc, Paris; Professor Guye, Amsterdam; Professor Fraenkel, Berlin; Dr. Moritz Schmidt, Frankfort; Dr. B. Delavan, New York; Professor Zunz, Berlin; Professor Dupuy, Paris; Professor H. Munk, Berlin; Professor Gley, Paris; Professor Tillaux, Paris; Professor Rindfleisch, Würzburg; Professor Malassez, Paris; Professor Lange, Copenhagen; and Professor Marchiafava, Rome. We are asked to state that any communications from members willing to extend private hospitality to foreign guests should be addressed to the Secretary of the Foreign Reception Committee (Mr. G. H. Makins, F.R.C.S., 47, Charles Street, Berkeley Square, London, W.) at as early a date as possible.

THE SMALLWOOD HOSPITAL AT REDDITCH.—On May 25th Lady Windsor will open the Smallwood Hospital at Redditch. Hitherto Redditch has possessed no public hospital of its own, and the new building, which is designed to supply the want and administer to the necessities of a population of some 20,000 persons—drawn from Redditch and immediate neighbourhood—is the direct outcome of one of the many charitable requests of the late Mr. Edwin Smallwood, backed up as they have been by the unbounded generosity of his brother, Mr. William Smallwood. The former gentleman, who died some three or four years ago, bequeathed a sum of £5,000 for the purposes of a cottage hospital in Redditch, and this, being supplemented by the gift of £15,000 by Mr. William Smallwood, the matter was placed in the hands of competent persons, and the building is to be opened on May 25th.

PRESENTATION.—Dr. G. N. Coombes, who is leaving Wrexham to take up the appointment as surgeon to H.H. the Rajah of Cochin, was recently entertained at dinner by his friends, and presented with a smoker's cabinet with a suitable inscription as a mark of respect.

THE Leopold Caroline German Academy of Scientists has this year awarded the Cothenius Gold Medal to Dr. A. Laveran for his researches on malaria.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 4TH, 1895.

THE LOCAL GOVERNMENT (SCOTLAND) BILL.

PUBLIC health law in Scotland is rapidly becoming, as in England, a thing of shreds and tatters. Starting with a general statute which has been long outgrown, not a year passes without a process of tinkering and patching, and local authorities sigh in vain for the time and the man to give them a revised and homogeneous sanitary code—a new Public Health Act.

The Local Government Bill, introduced by the Secretary for Scotland, confers certain very valuable powers upon local authorities, and it is only to be regretted that, secure from any material opposition, they were not incorporated with other sanitary clauses in the Local Government Bill of 1894. The Bill deals principally with questions of local government in counties. It gives power to borrow for services for which these powers do not at present exist; it introduces a new and inexpensive procedure for the acquisition of land by county councils for public purposes, including the purposes of Public Health Acts; and it concedes very useful general powers with respect to ferries, bridges, footpaths, and other cognate matters.

The Bill contains only four public health clauses, but these are of far-reaching importance. The first deals with the question of rating in counties. At present, all the county rates, except the public health rate, are imposed upon the gross valuation. The public health rate, like the poor rate, is levied upon a valuation much reduced by reason of a complicated system of "deductions" differentiating between different classes of property, and a "classification," which still further reduces the nominal rate. This system of rating was fixed at a time when the parochial board, the Poor-law authority, was also the local authority under the Public Health Act. Now that the county authorities have taken over the administration of public health affairs, it is proper that the county system of rating should rule.

Under the second public health clause, much-needed provision is made for regulating the erection of new buildings in rural districts. The county council is empowered to make by-laws for this purpose. The section is based upon Sections 157, 158, and 159 of the Public Health (England) Act of 1875, but is varied in important particulars. There is, for instance, a very drastic and advanced definition clause, whereby any "alteration of the structure of any house" brings it within the category of a "new house." The wording of the subsections dealing with the purposes for which by-laws may be made follows the lead of the English Act in failing to distinguish in these instances between new and existing houses. Under these subsections, as they stand, no power is given to make by-laws for preventing the erection of houses upon sites made up with unwholesome or offensive refuse, for ventilation under the floor, for a damp-proof course, or for a layer of asphalte or concrete under houses. A consideration of the provisions of this clause with respect to the deposit of plans, sections, etc., renews the regret that power was not given in the principal Act of 1889 for the appointment of a county engineer as well as of a county medical officer. A gap has undoubtedly been left in the armour of the county authorities. Casual engineers have to be employed for works of water supply and drainage. The execution of the provisions of the Factory Acts with respect to means of escape in case of fire is in commission between the county medical officer and the sanitary inspector. And who, now, is to deal with "plans and sections"? It would appear to be highly expedient to introduce, even at this eleventh hour, a provision giving power to appoint a county engineer.

The effect of Section 11 is practically to extend to Scotland the powers of Section 4 of the Infectious Disease (Prevention) Act of 1890, which provides for the stopping of infected milk supplies, but in one material point it goes beyond that section. It provides that if the medical officer of health reports to the local authority "that infectious disease is caused by, *or is likely to arise from*, the consumption of the milk," the local authority shall have power to stop the supply. The words in italics in this connection are new, and are surely sufficiently large.

Section 10 brings the law of Scotland into harmony with that of England in respect of making it obligatory upon registrars to supply returns of births and deaths to local authorities.

Unless on the question of rating, which touches the farming and railway interests on a tender point, it is not anticipated that the Bill will meet with any opposition or evoke any perilous amount of discussion.

THE UNITED STATES PUBLIC HEALTH DEPARTMENT.

FOR some years past it has been a prominent aim of the American Medical Association to secure for the United States a Central Government Department of Public Health, and preliminary steps have from time to time been taken to memorialise Congress to create such department, together with a State-paid medical secretary. Once again the Association bring the matter forward in the form of a memorandum to the Senate and the House of Representatives, prepared by the chairman, Dr. C. G. Comegys, and appended to this document is a draft Bill to give effect to the object referred to. It is admitted that much excellent work is performed through the agency of different medical departments connected with the army, the navy, and different scientific bodies: but it is contended that Government can, in a wider way, promote the public welfare by creating a Department of Public Health, the head of which should be a physician, a member of the Cabinet, and on a position of equality with the heads of the Government Departments. Under Section 2

of the proposed Bill the work of the department is set out. It may be regarded as covering all that is done by the Medical Department of the Local Government Board in this country, by the Registrar-General's Department, and by the Factory Department of the Home Office; and it is intended to be provided with the machinery for compiling information for the purposes of the various States and other bodies on a multitude of social and health subjects, including the questions of food supplies, intemperance, prostitution, elementary education, etc.

It is not to be wondered at that the American Medical Association and the leading members of other learned bodies in the States should regard this question as one of prominent importance. However the matter may be explained—and we do not doubt that there are certain political explanations—the fact remains that the great nation across the Atlantic is distinctly behind the times in not having a central Public Health Department. Almost every year such departments in older and much smaller countries are being either created or reorganised on such a footing as to make them of real service for the purposes of the public and the State. These departments are also placing themselves more and more in evidence every year by means of annual reports on their proceedings. In the United States the place of such reports has hitherto been largely taken by the annual volumes of the various State Boards of Health, but these vary very much in character, and many of them are coming to be mainly concerned with matters of local interest. It would, however, be otherwise were the vast amount of information available through the State Boards and other bodies sifted and formulated in a form for general use. The States would, under such circumstances, have material at their hand such as few other nations possess.

With regard to the organisation of the Board, we believe the Association are right in demanding that its head and its executive officers should be medical men. Indeed, we have heard only one valid reason against a change in the same direction in this country. It is said that if a new department in public health were created it would be the youngest department in the State and it would have to rank as such. But the Local Government Board, which has public health functions in addition to a multitude of other duties, is gradually becoming a Ministry of the Interior, and it is assumed that when its position as such in the State is fully recognised it will probably absorb one or two functions still performed by other departments, and its chief will be raised to the position of a Secretary of State. This is the ambition of the secondary State departments in this country, and there are those on the permanent staff of the Local Government Board who would resent the severance from the Board of its public health functions, for such severance would diminish its importance and cut adrift a staff which, to say the least, has brought them some credit in the eyes of the public. In the States no such considerations as these arise, and it is to be hoped that the new department when created will be mainly in the hands of those who best know what is wanted for the control and the improvement of the health of the public.

DR. E. BEHRING has been appointed Professor and Director of the Hygienic Institute in the University of Marburg in succession to Professor Carl Fraenkel.

THE NEW FACTORY BILL.

THE reception at its second reading of the new Factory Bill must have been encouraging to its author, Mr. Asquith; but he will scarcely realise his desire to have it dealt with as a non-contentious measure. It enfolds within its meshes so many and various industries, so unlike in processes pursued, in structural requirements, in the social condition of their workers, and in their commercial relations, that general rules for the regulation and guidance of all would seem almost unattainable. Happily factory legislation of preceding years has lessened the difficulty of further extension, whilst there is a general conviction of the necessity of Government control of the freedom of manufacturers to conduct their business every one after his own fashion, whence it happens that further restrictions in favour of the health and safety of the employed are viewed almost as a matter of course, if only fairly tangible reasons for their adoption can be shown. Such reasons are yearly multiplied by experience in the operation of existing laws, and by the development of fresh industries and processes of manufacture.

Yet it must be admitted that the times are not propitious for laying additional strain upon manufacturers, who are just now embarrassed by adverse tariffs, the springing up of additional rivals in all parts of the world, the increasing costs of production, the ever-growing demands of workmen for advanced wages, and, lastly, enforced charges for sanitary objects in towns and factories. It is fortunate that the House of Commons recognised its unfitness to discuss a Bill abounding in references to technical details to be rightly apprehended only by those specially versed in them, and that it wisely agreed to refer the measure to the Standing Committee on Trade, comprising members more or less capable of forming correct conclusions.

So far as the discussion in the House went, few points of particular interest to the profession were brought out. One prominent question debated was the propriety of advancing the age of children to be employed half-time from eleven to twelve. On humanitarian grounds this course is undoubtedly justified, but, nevertheless, it is one that will, at least for a time, cause difficulties to manufacturers, particularly to those engaged in the textile trades, and likewise will not infrequently deprive parents of a source of income, to the detriment of their means of providing for the healthy nutrition of their families. However, it is clear that the Home Secretary has made up his mind that this project shall be carried, if not in the present Parliament at least in the early future; and he must feel encouraged by the amount of support the proposal met with in the course of the debate.

The permission to females to work overtime seemed to be of doubtful propriety to most members who entered into the discussion upon the Bill, and assuredly it is one of those exceptional provisions which mar the uniformity of the Factory Acts, and can be tolerated only because in certain trades the permission seems inevitable, as, for instance, in the dressmaking trade, where fluctuations of fashions and hurried demands for goods are opposed to regularly fixed hours for work. The proposal to inflict a penalty on tailors and others who make garments in shops or houses where contagious diseases exist is one that will receive the sanction and support of all sanitarians and medical men. They will

likewise approve of the clauses intended to protect the employed against unduly high and low temperatures in their shops, and to secure sufficient cubic capacity and working space. Here is an instance where general rules are most difficult to draw up and to enforce, and where the technical requirements of particular trades must be most carefully taken into account.

The extension of the factory laws to laundries promises to be a serious matter of contention. Mr. Asquith, however, appears to consider that he has, by his lady inspectors, collected sufficient evidence to justify it. But the project is surrounded with difficulties, and there is fear that sentiment may be allowed too much weight in arriving at a conclusion, for where boiling water, steam, and great heat are the essential accessories of the occupation, where, too, the hands employed are of low social position, and the business itself one of poor remuneration, it is most difficult to rid it altogether of conditions unfavourable to the health and personal convenience of the workers. Common observation does not seem to prove an excessive proportion of disease or mortality among laundresses; and to collect reliable statistics upon these matters would be a work of the greatest difficulty, seeing that it is an occupation any woman deems herself capable of following; and that in consequence it is one wherein a perpetual change of hands goes on. But this much may be attempted—to secure complete ventilation, to provide against overwork, and work carried on after reasonable hours.

Moreover, it has been justly urged that by too rigid restriction women may be driven from the occupation and replaced by men, and consequently be deprived of a means of livelihood that, on the whole, they appear best suited for.

Another debatable subject is the adoption of rules rendering underground bakehouses illegal. It certainly is desirable that such structures should cease to exist, but here again the attainment of the object is surrounded with difficulties, particularly so in cities and dense populations; and it seems more practicable to enforce better constructional arrangements, especially for the purpose of ventilation, and therewith increased cleanliness and decency of workpeople and places. To accomplish these ends some better and more constant provision for inspection is pre-eminently needed. Heretofore inspection has been bandied from one sanitary authority to another and has never gained complete attention from any. Local authorities and local indifference or neglect with regard to sanitary laws and regulations would appear inseparable. Other clauses of the Home Secretary's Bill were touched upon, but there was a general expression of concurrence in its main provisions. It has now to pass the ordeal of the Grand Committee and of the many Chambers of Commerce, which from their position as locally interested institutions and best informed respecting the circumstances of the trades pursued in and around their locality are also best qualified to judge of the wisdom of legislation proposed. The conclusions presently arrived at we have to watch and by and by critically examine so far as they raise sanitary problems and are of importance to the medical profession.

The German Public Health Association will hold its twentieth annual meeting this year at Stuttgart on September 11th and three following days.

Medicine and Physiology have alike to deplore the death of Professor Carl Ludwig, of Leipzig, which took place on April 24th, after a short illness. The distinguished physiologist was in his 78th year.

We regret to learn that Professor Huxley's condition has not been satisfactory during the past week, and Dr. Burney Yeo has again visited him in consultation with Mr. Farnell. Gastric disturbance has been predominant, but some improvement in this respect has been manifest in the last day or two.

We regret to learn that Sir John Simon, K.C.B., the famous medical adviser of the Government for a long series of years is about to resign his seat as a member of the General Medical Council, as he finds that the duties of that office overtax his strength. Sir John Simon, who was nominated by the Crown in June, 1876, has been a valued member of the Council, to which he has devoted much time and energy. His long experience and practical wisdom rendered his counsels of the highest importance in the conduct of business of the Council, especially in all questions affecting public health.

THE HACK TUKE MEMORIAL.

An influential committee is being formed to raise a fund to perpetuate the memory of the late Dr. Hack Tuke by a prize, medal, or other means, for the encouragement of the study of psychological medicine.

THE FRENCH HOSPITAL.

The annual dinner in aid of the funds of the French Hospital and Dispensary was held on Saturday, April 27th, at the Hôtel Métropole, under the presidency of the French Ambassador. Subscriptions amounting to £2,400 were announced to have been contributed.

THE NEW "PHARMACOPÆIA."

With a view of ascertaining the relative frequency of the employment of certain drugs and preparations at present included in the *British Pharmacopœia*, the Therapeutic Committee of the British Medical Association have drawn up, and are circulating, a list of drugs of doubtful value, and ask members of the Association kindly to fill up the form and return it to the Honorary Secretary, Dr. Tirard, 74, Harley Street, as early as possible.

EDINBURGH MEDICAL SCHOOLS.

The University and Extra-mural Classes resumed for the summer session on Wednesday last. The clinical parts of the Final Examination for the Degrees of M.B. and C.M. also began this week, Clinical Surgery on Thursday, and Clinical Medicine on Friday. The written examinations on the systematic subjects of the Final take place on Monday and Tuesday, June 17th and 18th. The *viva voce* examinations begin on Wednesday, June 19th.

THE GENERAL MEDICAL COUNCIL.

Some very important questions cannot fail to come before the General Medical Council at its next session, which commences on Tuesday, May 28th. The first place will doubtless be given to the reports on education and on the visitation of examinations. The method to be followed in the revision of the *British Pharmacopœia* will also come up for consideration. A vast amount of information has already, we understand, been received from various representative bodies, and cannot fail to be of the greatest assistance to the Pharmacopœia Committee in its arduous undertaking. We have no doubt that the Committee, which will probably be increased in number, will be able fully to discharge the important duties which devolve upon it, under the guidance of its experienced chairman, Sir Richard Quain, who has served on this Committee for thirty years.

It appears that nearly a hundred thousand copies of the last edition have been sold. We understand that the Council is likely to be able to purchase the present Council House in Oxford Street. The situation is central, and, with the freehold in its own hands, it will be possible for the Council to make many necessary alterations, and in particular to enlarge the Council Chamber or to build a new one. Among the other business which will come before the Council are several penal cases. The labours of the Council in this direction have been attended with much success, and have conferred great benefits on the profession. The Council has clearly shown that it will not stay its hand until an end has been put to the practice of employing unqualified persons to take charge of branch surgeries which are beyond the direct personal control of the principal.

ALLEGED ASIATIC CHOLERA AT CARLISLE.

A FATAL attack of a disease which clinically had many resemblances to cholera took place last week at Carlisle, and the case seemed the more suspicious as the man sickened after his return from Gateshead, which is practically on the Tyne port. We understand that bacteriological examination of certain materials has been made under the direction of the medical officer of the Local Government Board, but that the materials in question reached London in a condition which made any positive conclusion impossible. Bacteriologically, therefore, the case must be regarded as negative, but this, under the circumstances, does not solve the question of the diagnosis.

CHOLERA AND THE MECCA PILGRIMAGE.

THE Turkish authorities having reported an outbreak of cholera at Mecca, fifteen days' quarantine at El Tor is imposed upon passengers and ships from the Hedjaz littoral. Eighteen deaths from cholera have occurred at Mecca since the outbreak began. The Cairo correspondent of the *Daily News*, telegraphing on April 26th, states that the outbreak of cholera at Mecca at this early date is causing anxiety there. The same correspondent telegraphing on May 1st, says that the latest reports state that the cholera is increasing and that the mortality is also much heavier. The authorities have issued a circular warning intending pilgrims, especially among the poor classes, who must of necessity undergo the strictest quarantine prior to their return, and thus be put to unusual expense. Up to April 30th, 75 deaths had occurred at Djeddah, on the Red Sea coast, from cholera since the first appearance of the disease among the pilgrims.

THE "TIMES" AND THE OPIUM REPORT.

WE cannot conceive anything much more silly and undignified than the pother which is being made in the House of Commons about the early publication of the substance of the report of the Opium Commission in the columns of the *Times*. We can call to mind the report of numerous committees and Royal Commissions the substance of the text of which has similarly been published more or less in advance of its official circulation. All the leading papers in turn have achieved such feats of journalistic enterprise in search of early information. We do not particularise them, because there is no necessity to make ill blood over familiar historic incidents. But what does it all mean? Mainly that all such documents are intended for the public information; that they are drawn up, revised, and printed long before final publication; that copies of them are in the hands or pass under the eyes of some well-informed journalists long before the final distribution; and—a crucial matter—that there is no real or valid interest, public or private, in secrecy. There is, of course, usually an understanding—of which the breach is rare indeed, if not unexampled—that there should not be any newspaper publication before a given day; this in order to preserve official etiquette, and to give everybody (that is a select few leading papers) an equal start all round; just as press private view cards have often the intimation that it is requested that no article shall be published before a given date. But this Opium report was in this matter exceptional, it had been to India; the summary of its conclusions had been published in sections and in considerable detail by ourselves, and had been made known in the House of Commons and all over the world. It was a mere question of more or less textual reproduction. It stands on the same footing as the Leprosy Report, of which the text was in hand and the article thereon prepared for many months, and a full abstract was issued—here and in India—long before its actual official publication. So, again, with the Indian Hemp Report, not yet issued officially, but of which the substantial text and a critical discussion appeared in our columns last week. So with the Tuberculosis Report, the etiquette was observed by not utilising its text until "a copy was laid on the table" of the House of Commons, but of course no one supposes that such a full text and searching commentary as that which we published last week or as the *Times* issued in its leader could be prepared otherwise than from much earlier knowledge. In fine, speaking for ourselves, we can hardly remember any report of a Parliamentary Committee or Commission for the last twenty years in which our readers were likely to be interested, of which the text has not been in our hands for analysis and comment before its final issue. Only in some instances the special condition of a fixed date for the issue of our notice has been fixed, and this of course has been scrupulously observed. But this is only the convention of the "starter's flag." In the case of these Indian reports of which the text has been made public property there, that condition is useless, senseless, and the pother made is, as we have said, for the most part, apparently, the result of foolish jealousies, hiding themselves under the cloak of a nice regard for the dignity of Parliament.

SICKNESS AMONG THE GUARDS IN LONDON.

ON the occasion of the recent inspection of the Grenadier Guards held by His Royal Highness the Duke of Cambridge in Hyde Park, it was the subject of considerable comment that the three battalions could not muster in anything like full strength in consequence of illness among the men. It was reported that in the 1st Battalion 170 officers and men were absent through sickness; in the 2nd Battalion, 240; and in the 3rd, 179. We have made such inquiries as were possible short of returns and are informed that although the numbers sick in the Guards lately have been large the great bulk of the cases have been non-important. Just at the particular time of the parade a sort of epidemic sore throat with febrile disturbance suddenly spread over wide districts in London and many sick were treated in the Guards for this complaint. There have lately been rumours of defective sanitation in the London barracks on which confidential reports have been submitted to the authorities.

AN ANTIVACCINATIONIST IN DUBLIN.

DUBLIN has been favoured by the presence of Lieutenant-General Phelps, who has gone over there to enlighten the people as to the terrible results of vaccination. He has been interviewed by a reporter, and he has given some amusing answers to the questions with which he was plied. He assures the public that vaccination has slain thousands of children, at the late Commission all the official witnesses broke down—Sir George Buchanan was to tell them all about vaccine, but he became ill, was obliged to take his pension and retire. After the evidence closed he recovered his health and was able to act as chairman of the Commission on Tuberculosis. "And the General laughed a vindictive little laugh." The soldiers have deteriorated owing to the disease introduced by vaccination. "In olden times the men lived in insanitary surroundings, ate inferior food,

and drank diluted sewage. These men gathered around Wellington, and worked like iron soldiers in the Peninsula." This is an important observation, and the sooner we get back to the old style of "sanitation" the better will it be for the physique of the people. General Phelps is apparently an important person among the antivaccinators; but the general accuracy of his conclusions may be gauged by the declaration which we have just quoted. The ignorant faddists who roam about the country propagating their ill-digested theories are a peril to the public well-being.

SURGEON-CAPTAIN WHITCHURCH.

The Political Officer of Chitral, Surgeon-Major Robertson, of the Indian Medical Service, speaks in warm terms of praise of the gallant conduct of Surgeon-Captain H. F. Whitchurch, also of the Indian Medical Service, and, like Surgeon-Major Robertson, of the Bengal Department, on the occasion of the first attack by the Chitralis on the garrison of Chitral Fort. A reconnaisance was made, and a small British force was attacked by a much superior body of the enemy. The retreat to the fort was made under a galling fire, and during this movement the commandant of the force, Captain Baird, was severely wounded. Surgeon-Captain Whitchurch went to his assistance, and eventually succeeded in carrying him into the fort, but to achieve this had to halt on many occasions and drive off the Chitralis at the point of the bayonet. This was done under a heavy fire at close quarters, and at great risk of falling into the hands of the enemy. Captain Baird succumbed to his wounds on the following day. Surgeon-Captain Whitchurch was a student of St. Bartholomew's Hospital, qualified in 1887, and entered the service in March, 1888, when he took the fourth place in the examination.

THE TEACHING OF HIGHER PHYSIOLOGY.

Dr. A. D. Waller, F.R.S., announces that he will give seven experimental lectures on various physiological subjects at his laboratory, Weston Lodge, 16, Grove End Road, St. John's Wood, on Saturdays at 11 A.M., commencing on Saturday, May 11th. This delivery of experimental lectures as a *Privatdocent* in his own laboratory will be supplementary to his regular course of lectures at St. Mary's. Looking to the often-expressed need of teaching of this character in the course of discussions on the higher teach-in London, we think this new departure likely to be useful, and we hope successful. They are addressed solely to advanced students, as far as possible by demonstration rather than by lecture, and although a fee is charged the enterprise is in no sense a commercial one. The laboratory has been extended for the purpose at an expense, we believe, of about £500.

NOTIFICATION FEES.

His Honour Judge Gates has given at the Keighley County Court a decision, the injustice of which, we venture to think, he would have been the first to recognise had the repeated and emphatic official utterances of the Local Government Board on the point in dispute been placed before him. It was the old question of the liability of the sanitary authority to pay a fee for notification of a case already notified by another practitioner. A case of enteric fever was attended, and duly notified, by Mr. Jackson, of Denholm. Subsequently, Mr. Beckett, of Cullingworth, was called in to take charge of the patient, and he also, in pursuance of the plain requirement of the Notification Act, sent in the usual notification. The Bingley Outer District Council refused to pay any fee to Mr. Beckett on the ground that the case had previously been notified, and Judge Gates has not only upheld their singular view, but refused to grant an appeal.. There are some points that are doubtful in the Notification Act, but this is not one of them. The Local Government Board have made their views with regard to it clear on more than one occasion. A medical man called in to attend a notifiable case must notify. There is no saving clause modifying this compulsion in the event of a prior notification having been made, nor is it to be regarded as coming necessarily within his knowledge that the same diagnosis has been made and notified. He could be prosecuted if he did not notify, although with little risk of more than a nominal conviction. It is equally clear that the district council must pay the usual fee for such notification, their duty being to pay for each legal notification, and not merely for the case. We trust, in the interest of the proper working of the Act, that the ill-advised action of the Bingley Outer District Council will receive the attention of the Local Government Board.

TUBERCULOSIS IN MEAT.

Sir Henry E. Roscoe, Honorary Treasurer to the British Institute of Preventive Medicine, writes as follows to the *Times*: "The admirable leader on the above subject in your impression of this day (April 25th) points to one of the most serious risks to which man is subject—namely, that due to the consumption of meat obtained from animals suffering from tuberculosis. I write to ask you to insert the statement that the British Institute of Preventive Medicine is now in a position to offer to those requiring it the preparation known as tuberculin, the simple inoculation of which affords a ready and sure means of detecting tuberculosis in animals. The Institute furnishes this material, which is prepared with every possible care, and is a perfectly safe diagnostic, at cost price—namely, 1s. for three doses; and it may be obtained either at the offices of the Institute, 101, Great Russell Street, W.C., or from Messrs. Allen and Hanburys, Plough Court, E.C., the agents to the Institute."

THE SICK POOR IN PROVINCIAL WORKHOUSES: WARWICK.

The workhouse infirmary at Warwick is decidedly above the average. The principle of trained nursing is conceded and the sanitary appliances are modern and adequate. Our Commissioner's report shows in every line that the Warwick Board has been actuated by a humane and enlightened spirit. Yet something remains to be done. Two nurses are insufficient for an average of 80 patients, even though the great majority are able to leave their beds and there was no serious case under treatment. There is no night nurse at all, the comfortable theory that the patients can help each other and "prefer to do so" being advocated by many of the Board. This fallacy dies hard; but those who, from hospital experience, know that the infirm and helpless ought not to be left for eight hours untended are not likely to be convinced that such help as one more or less capable, more or less unwilling, pauper can render another is adequate nursing. The nursery appears to require remodelling, and we hope that the infants may be placed under an attendant chosen for that purpose. The present lying-in ward is in the house, separated from the infirmary by the width of the public road and a large garden; as one of the only two nurses is also the midwife, it must be difficult for the lying-in woman and the infirmary patients to receive adequate attention; one or the other must be more or less sacrificed and the nurse overworked into the bargain. The day rooms are insufficient and the space generally is cramped, especially in winter, even with the addition of the infectious hospital, now used as overflow wards. We commend these remarks to the consideration of the new Board.

SCHOOL BOARD CERTIFICATES.

Ordinarily a medical practitioner is under no obligation to give a certificate of the illness of any patient whom he may attend, though in some few cases, as, for instance, by the Infectious Diseases Notification Acts. Parliament has imposed the duty of furnishing certificates, and has generally provided for the payment of a corresponding fee. Many public or *quasi*-public bodies, as, for instance, friendly

societies and school authorities, make a practice of requiring medical certificates from persons who claim any benefit or exemption from them on the plea of illness. The practice is probably a convenient one, and the necessity for procuring a certificate may be a protection against malingering, but medical practitioners are under no obligation to give certificates in such cases; and where they give them they do so merely for the convenience of their patients. Under the Education Acts, the absence of a child from school is excused where it has been caused by sickness or any other unavoidable cause. The parent or other person responsible for the child's attendance must, of course, prove the excuse, if summoned on account of the child's absence from school. But he may prove the fact by any evidence which is satisfactory to the magistrates, and not necessarily by the production of a medical certificate, which, in strictness, is not admissible as evidence in a court of justice at all. If the statement of the person in charge of the child that that child is too ill to attend school is not accepted as satisfactory evidence of the fact, the personal testimony of a medical practitioner might have to be obtained. This, of course, would cost money, and he would decline to attend the court until paid an adequate fee. Where his certificate will be accepted as evidence, it is often cheaper and more convenient to obtain it, instead of requiring his presence as a witness. But a medical practitioner may, if he chooses, refuse to give any certificate, and a court may refuse to accept it as evidence if given where there is a doubt as to the genuineness of an excuse for non-attendance. A certificate would not legally be satisfactory evidence on which to decide the question, for experience shows that certificates, by whomever given, are much less reliable than oral evidence. Where there is no reason to doubt the parent's statement, to require a certificate is a formality which may easily be made oppressive. Now that attention has been called to the want of authority for the practice it will probably not be persisted in.

VOLUNTEER MEDICAL STAFF.

THE dinner of the Volunteer Medical Staff took place on April 25th at Limmer's Hotel, Deputy-Surgeon-General Don, of the Home District Recruiting Staff, in the chair. During the evening the usual loyal toasts were given; also those of "The Volunteer Medical Association," "The Volunteer Ambulance School of Instruction," and "The Chairman." In an interesting speech the Chairman bore witness to the enthusiasm and zeal which he had noticed to prevail amongst volunteer medical officers; they had many difficulties to contend with. The brigade organisation was a distinct advance in the efficiency of the force, and when each possessed a bearer company it would be another marked improvement. Between the toasts some excellent glees were rendered.

FATAL ACCIDENTS INQUIRY (SCOTLAND) BILL.

THE Bill, which, under the above title, was introduced into the House of Commons at the end of last week by the Lord Advocate, proposes not merely a departure from established practice in Scotland, but something akin to a revolution. At present the Scottish legal system provides for an inquiry, conducted in private, by the Public Prosecutor (the Procurator-Fiscal) in all cases of sudden death and fatal accident. The Bill proposes to establish in the case of fatal accidents arising in connection with industrial occupations a system of public inquest, in a certain degree analogous to that conducted in England by the coroner and his jury in all cases of sudden or violent death. Upon the occurrence of any such fatal accident the Fiscal is to be required forthwith to proceed to collect evidence thereanent, and the sheriff is to direct that a public inquiry shall be held as soon as reasonably possible into the cause of death and the circumstances of the accident. The inquiry is to be conducted by the sheriff and a jury of seven. The jury, after hearing the evidence and the summing-up of the sheriff, are to return a verdict in writing setting forth the cause of death. The jury may return a verdict by a majority at any time not less than an hour after it has retired. Provision is made in the Bill for the intimation to all persons interested of the date and place of the inquiry. The Fiscal is to adduce such medical or skilled evidence as he may deem expedient, and the sheriff is empowered to grant warrant to take possession of articles, or to inspect premises, when material to the inquiry. It is to be competent for the relatives of the deceased to take part in the inquiry of themselves or by agents. The Bill has not been very warmly received in legal circles, which is not unnatural, considering that, in respect of the publicity of the inquiry and the introduction of a jury, it proceeds in the teeth of the accepted principles of criminal procedure in Scotland. There is, however, undoubtedly a strong and growing feeling amongst the industrial classes and those engaged in dangerous trades in favour of a public inquiry in such cases, and the Bill will probably pass into law without any material alteration. It was remarked by a legal member, in the course of the discussion which attended the introduction of the measure, that a jury was the worst possible tribunal for such cases, but the ex-Lord Advocate supported the contention of the Government that the demand for a jury could not be resisted. A more pertinent objection is that the sheriff who conducts the inquiry is also the judge of first instance before whom actions for damages, arising out of fatal accidents, are liable to be taken. It would have brought the inquiry more into line with the English system had it been entrusted to the Public Prosecutor (the Procurator Fiscal) who is in a degree the analogue of the coroner, instead of to the sheriff. The procedure would have been simplified, and the sheriff's judicial position would have been better conserved. The objection, however, is not an insuperable one.

THE INTELLIGENCE DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

IN attempting to limit epidemics and to prevent their introduction into new areas to be forewarned is to be forearmed. The disquieting news of the appearance of cholera among the pilgrims to Mecca this year at the quarantine station of Kamaran in the Red Sea will call renewed attention to the means in force in this country, and especially at the ports, for preventing the introduction of the infection. Among these not the least important is the Intelligence Department of the Local Government Board, which was reorganised in 1893 under the direction of the Parliamentary Secretary, Sir Walter Foster, M.D., with the advice and assistance of Dr. Thorne Thorne, C.B., the Principal Medical Officer to the Board. The Intelligence Department as now constituted is to a large extent a resuscitation and development of the office formerly held by the late Mr. Netten Radcliffe. The establishment of this sub-department had for its primary object the systematic observation and record of the behaviour of epidemic disease abroad for the information of the Government. In the event of this country being threatened with invasion by exotic epidemic disease the sub-department was charged with the further duty of setting on foot and carrying out a special service for the purpose of preventing the introduction and spread of the malady. On its resuscitation in 1893 the sub-department was placed under the charge of Dr. F. W. Barry, one of the Board's Senior Medical Inspectors. In this sub-department since the commencement of 1893 a careful record has been kept of the occurrence and progress of cholera epidemics in all countries lying westward of India. Dr. Barry has made careful note of the march of cholera in each European country, as well as in England and Wales, and for this purpose has made use of maps upon which the advance of the epidemic is marked by means of coloured flags, very much as we are accustomed to see the advance of a military

expedition noted in clubs and the windows of mapsellers during the course of one of our little wars. In fact the whole aim and methods of this sub-department may be compared to those of the intelligence department of an army in the field—the department to which every prudent general gives his closest attention, since upon it he must rely for knowledge as to the line of advance of the enemy. As the general in the field endeavours to learn accurately every movement of the foe, so, in the face of an invasion of an epidemic disease, those who are responsible for the defences of the country require to know exactly the line of its approach. The Intelligence Department of the Local Government Board, besides the sources of information which it has in current newspapers and medical periodicals, English and foreign, has also official sources of knowledge. Sir Walter Foster has been able to arrange for the transmission to the Department of all despatches which may have concern with epidemic disease in foreign countries from British representatives abroad received by other departments of the Government. Arrangements were also made, and are now in force, whereby the official periodical sanitary and medico-statistical reports issued by foreign Governments are sent direct to the Medical Department for examination and record. In these ways was obtained the material embodied by Dr. Barry in the reports on the Western diffusion of cholera in 1892, and on cholera in England in 1893, published in the Medical Officer's Supplements to the Board's Annual Reports for 1892-93. As regards the other purpose of the Intelligence Department—namely, the defence of this country against threatened cholera—Dr. Barry was placed in charge of the cholera survey instituted in 1893 and continued until the end of 1894, with respect to which detailed reports are now, we understand, in course of preparation.

HOMŒOPATHIC ENTHUSIASM OF HUMANITY.

A LETTER signed "Arthur De Noi (? Noé) Walker," which appeared in the *Sunday Times* of April 28th has revealed to us the existence of a philanthropist who, we fear, has not received the meed of recognition due to him. We think it our duty, as far as in us lies, to remedy this injustice. Our contemporary, as we gather, had stated that thousands of doctors can hardly make a living owing to the growing practice among chemists of prescribing for customers. Dr. Walker, however, prefers to attribute the "lack of patients complained of" to "the steady advance of the homœopathic treatment of disease generally, but especially the homœopathic treatment of many ordinary ailments, including measles, by mothers and nurses." For forty years this "mute inglorious Milton" of philanthropy has, he tells us, encouraged this, but at the same time, somewhat inconsistently as it might seem to the non-homœopathic understanding, he has diligently striven "to make 'openings' for homœopathic physicians and chemists in India, France, Italy, and in the whole of the West of England." Why only the West of England has been thus favoured we are not informed. Whenever an epidemic prevails, he has "a couple of pages printed, giving plain directions for homœopathic prevention and treatment," but he omits to state what he does with them. We should have been glad also to be enlightened as to what "homœopathic prevention" may be. On Hahnemannian principles, it should be a general administration to the inhabitants of a threatened district of the poison which causes the particular disease that is to be prevented. Dr. Walker tells us that he has "firmly established homœopathy in many convents, mostly du Sacré Cœur and of Nôtre Dame," with the result that the nuns now seldom call in a doctor, and their chemists' bills are two-thirds less than they used to be. Under these circumstances the value of the "openings for homœopathic physicians and chemists," which Dr. Walker boasts of having made, would appear to be somewhat doubtful from a strictly business point of view. Another cause for the "bitter cry" of the ordinary practitioner is, we are asked to believe, "the decreasing belief of any kind in the allopathic mode of treating diseases." As far as we know no such sectaries as "allopaths" exist outside the peculiar vocabulary of homœopaths; but taking "allopathy" as a controversial synonym for rational medicine, it would be interesting to know on what evidence Dr. Walker bases his assertion that belief in it is decreasing. We are rather inclined to the opinion of Carlyle that mankind are "mostly fools," but, to parody Charles II's remark to his brother, we have no fear that they will dethrone scientific medicine to put homœopathy in its place. Dr. Walker complains that the witnesses to (homœopathic) truth are persecuted by the "authodox." As this mysterious word occurs twice within quotation marks we are not quite sure whether it is a freak of fancy on the part of the printer or a peculiarly virulent breed of "allopath." The said "authodox," he concludes, abuse and misrepresent homœopathy, "but they take good care never to try it." No doubt they have excellent reasons for not doing so. Homœopathy, as a matter of fact, has been fairly tried and has been found wanting; it has therefore been relegated by the deliberate judgment of the scientific world to its proper place, in the limbo of exploded errors and dead superstitions.

WINTER CLIMATES: EGYPTIAN HEALTH CENTRES.

DR. SYMES THOMPSON, the Gresham Professor of Medicine, after discussing the marine climate and sea voyages in his Gresham lecture on April 23rd, dealt on Thursday, April 25th, with the climate of Egypt. A desert climate, he said, was one in which not only very little rain fell, but the nature of the soil was such that what did fall was not retained. There was no stagnant water. That was the true condition of the desert climate, but it was not the condition of the Nile climate altogether. The alluvial soil that bordered the river was saturated by the inundation, and during this period the Delta was damp, the dampness lasting in Cairo until mid-November. Therefore invalids, if they arrived early in the season, should not remain in Cairo, but go straight up the Nile, or if they did not take that course they should stay at Mena House Hotel, near the pyramids, which, although only six miles from Cairo, enjoyed a desert climate. Assouan was undoubtedly the best place on the Nile for a desert climate, since the desert hemmed in the river closely on both sides, whereas at Luxor the belt of alluvial soil brought humidity. The lecturer here described the results of observations taken by himself last January at Assouan relative to the amount of moisture in the atmosphere. Invalids should guard against the sudden fall of temperature after sunset. Halwan would, perhaps, be a great bathing place one day, on account of its sulphur springs and its desert air, when greater conveniences were offered to visitors. Assouan, with the island of Elephantiné, were, however, the most perfect health centres in Egypt. During the lecture views of Egypt were thrown on the screen which served to show the deep interest which invalids might find in Egypt were they so disposed. They also served to illustrate the lecture, and as Dr. Symes Thompson knew personally the scenes depicted he was able to give them greater interest.

THE DEATH OF DUPUYTREN.

THE following details as to the death of the great French surgeon Dupuytren may be interesting. Though not new they have recently been again brought before the world by certain documents in the possession of M. Nadar, the photographer, which have been published. At the height of his fame Dupuytren used to see a crowd of private patients every morning, and treated them, sad to say, rather roughly in every respect. One day, when worn out and irritable through overwork, he was struck by the remarkable appearance and demeanour of the last patient for the morning. This patient was an old priest, pleasing in features and very gentle in manner. His malady, he said, was abscess, and he wanted it cured. Dupuytren found that there was sup-

puration of the submaxillary gland, but behind it was a carotid aneurysm. He at once said, "Well, Monsieur l'Abbé, you will die of that." The priest behaved in a stoical manner, and said good-bye. Dupuytren then proposed an operation, which he said would probably prove useless, and would be long and painful. The priest begged the surgeon to operate, as that would please his parishioners. There was great hæmorrhage, and part of the lower jaw had to be sawn through. The priest did not so much as wince. Ever afterwards Dupuytren was gentler to his patients. The priest received after very kind attentions from his surgeon, on whom he called two years running, bringing gifts of poultry and fruit. At the end of that time Dupuytren was mortally ill. His character grew more and more reserved and gloomy as the fatal hour approached. Early in February, 1835, he ordered his adopted son to write to the priest saying, "This time it is the doctor that wants you. Come quickly; perhaps you will be too late." The priest came at once from his parish near Nemours, and spent several hours in private with Dupuytren, who deeply admired this simple man, who knew so well how to bear pain and how to face death. Whether the discussion was theological or philosophical has never been revealed. Next day Dupuytren sent for the Archbishop of Paris, but the great surgeon was dead before that dignitary arrived at his bedside.

SUSCEPTIBILITY AND IMMUNITY.

In a report of some Additional Investigations concerning Infectious Swine Diseases, published by the United States Department of Agriculture, Bureau of Animal Industry, Bulletin No. 6, Theobald Smith, Ph.B., M.D., and Veranus A. Moore, B.S., M.D., record a number of most interesting observations on the group of bacteria found in different outbreaks of hog cholera. In a series of eight outbreaks, extending over a period of four and a-half years, and occurring principally in Nebraska, District of Columbia, New Jersey, Virginia, and Maryland, they have described seven species which vary comparatively little morphologically, but which are endowed with very different degrees of pathogenicity, two of them especially being little more than saprophytes, though this pathogenesis sometimes varies considerably even in the same individual. They also vary in as far as some of them set up suppurative changes in the lymphatic glands, whilst others, especially the most virulent, bring about direct necrotic and hæmorrhagic lesions. Most of these organisms are motile, and have distinct cilia often in groups or clusters, but one form is non-motile. Notes are also given of cases in which one of these hog-cholera bacilli was associated with the swine-plague bacillus. As a result of a series of experiments on immunity, these authors came to the conclusion that "immunity defined as a resistance to the invasion and multiplication of pathogenic bacteria within the body is, when compared with susceptibility, a condition of degree rather than of kind." In the case of hog cholera, the only protective influence obtained was by the use of living attenuated cultures as far as the rabbit was concerned, but slight protection could be obtained in the guinea-pig by the use of sterilised bouillon cultures and also of blood serum of immunised animals. In swine plague, however, all three methods of producing immunity gave some success in the case of the rabbits. "The blood serum of animals protected against hog cholera and swine plague is almost as efficacious in producing immunity soon after treatment as the bacterial products obtained from cultures.....The greater the immunity, short of complete protection, the more prolonged and chronic the disease induced subsequently by inoculation. Pathogenic bacteria may remain in the organs of inoculated animals some time after apparently full recovery." This is an interesting fact, and is borne out by recent observations on typhoid fever and diphtheria. These authors point out that the results of Solander and Metchnikoff on the immunisation of small animals were obtained with swine plague and not with hog cholera, so that the more recent results really bear out the conclusions obtained in the earlier series of experiments. A number of other most interesting points are raised, and every fact observed is carefully recorded for the reason that at some time or other it may throw light on difficult questions raised during the actual examination of various epidemics. The authors consider that the importance of the conditions of life of swine in different countries may lead to different powers of resistance to the action of different organisms, so that in one country an organism may have the power of setting up hog cholera, whilst in another the micro-organism or the animals themselves may be so altered or modified that the relations between the two are entirely altered. In this way the authors would explain some of the different results obtained by various observers in different countries; and they hold most strongly that all observations on similar organisms should be collated and studied in view of such possibility. There is undoubtedly much to be said for such a position. In any case this is a most important contribution to the study of immunity, a question Dr. Theobald Smith was one of the first to raise in its present form.

LEPROSY IN INDIA.

A recent *Gazette of India* contains an official pronouncement on the leprosy question. The report of the Leprosy Commissioners is discussed, and their conclusions are generally endorsed. It is stated that there is no ground for regarding the disease as a general danger, as statistics do not support the notion that the prevalence of the malady is increasing. The Government of India accepts the view of the Commissioners that the risk of contagion is small, and therefore discountenances the compulsory segregation of lepers, except those who are vagrants. The means to be adopted with a view to securing a diminution of the prevalence of leprosy are indicated as consisting of improvement of sanitary conditions and attention to questions of diet.

THE SIMULATION OF DEATH BY FAKIRS.

Herr Kuhn not long ago presented a communication on this subject to the Anthropological Society of Munich. He had the opportunity of personally observing two cases, as to the genuineness of which he had no doubt whatever. One of the fakirs referred to had been buried alive for six weeks, the other for ten days. The condition which the fakir has the power of producing artificially is in all respects identical with the cataleptic trance. The fakirs, who are all hysterical subjects of a very pronounced type, put themselves through a regular course of training before the performance, weakening themselves by semi-starvation, taking internally various vegetable substances known only to them, keeping their bodies motionless in the same position for several hours at a time, etc. The details of this preparation are given in the *Hathayoga Pradipikâ Strâtmârâmas*, which has been translated by Walter. When the fakir has by these means got himself into the proper condition, he has only to lie down in one of the positions enjoined by the sacred books, and fix his eyes on the end of his nose, to fall into a state of trance. The fakirs are also believed to be use haschisch for the purpose of lessening the force of respiration; that hypnotic agent associated with other vegetable substances and used in a special manner is believed by them to supply the want both of air and nourishment. At the beginning of the trance the fakir has hallucinations, hearing heavenly voices, seeing visions, etc. Gradually, however, consciousness becomes annulled, the body becomes rigid, and, as the fakirs themselves say, "the spirit rejoins the soul of the world." In short, the condition is one of auto-hypnosis in hysterical subjects specially prepared for the experiment.

The King of Italy has conferred the Grand Cross of the Italian Order of SS. Maurice and Lazarus on Professor Rudolf Virchow.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 10th and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SHROPSHIRE AND MID-WALES BRANCH.—The next meeting of this Branch will be held at the Salop Infirmary on Friday, May 10th, at 3 P.M., the President, Mr. Justin McCarthy, in the chair.—H. WILLOUGHBY GARDNER, M.D., Honorary Secretary, Swan Hill, Shrewsbury.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—An ordinary general meeting of the Branch will be held in Milne's Library, 229, Union Street, Aberdeen, on Wednesday, May 15th, at 8 P.M.—C. THISELTON URQUHART, J. SCOTT RIDDELL, Honorary Joint Secretaries, Aberdeen.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at the Hospital, Gravesend, on Thursday, May 16th, at 4 P.M.; Mr. R. J. Bryden in the chair. Communications: Dr. W. Hale White: On the Increase during Epidemics of Influenza of Empyema as a Complication of Pneumonia. Mr. R. J. Bryden: A Case of Traumatic Encephalitis. The dinner will take place at the Old Falcon Hotel at 6.30 P.M.; charge, 6s. 6d., exclusive of wine. To facilitate the arrangements, gentlemen who intend to dine are particularly requested to signify their intention to the Chairman, Mr. R. J. Bryden, 21, Harmer Street, Milton-next-Gravesend, not later than Tuesday, May 14th. All members of the south-Eastern Branch are entitled to attend this meeting and to introduce professional friends.—E. GROUND, M.D., Honorary Secretary of the District, Ashford Road, Maidstone.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting will be held at the Greyhound Hotel, Croydon, on Thursday, May 9th, at 4 P.M.; H. E. Vincent, M.D., of Croydon, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. Agenda:—(1) Minutes of Upper Norwood meeting; (2) to decide when and where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. The following papers, etc., have been promised:—Mr. A. Maude: Cases Illustrating Points in Alcoholic Neuritis. Mr. Golding-Bird: The Curability of Hernia. Dr. William Duncan: On Chronic Inflammation of the Uterus. Exhibition of Antiseptic Dressings and Appliances from John Milne's Antiseptic Dressing Factory, Ladywell, London, S.E. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends.—HENRY J. PRAGLEY, Honorary Secretary, Tudor House, Anerley, S.E.

MIDLAND BRANCH.—The annual meeting will be held at Derby on Thursday, June 13th. Members desirous of reading papers or exhibiting cases are requested to communicate with the Honorary Secretary before May 27th. Gentlemen who wish to be elected to the Association through the Branch Council must send in their application by the same date.—W. A. CARLINE, M.D., Honorary Secretary, Lincoln.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at Bath on April 24th, NELSON C. DOBSON, F.R.C.S., President, in the chair. There were thirty members and four visitors present.

Communications.—Mr. C. E. S. FLEMMING read notes of a Case of Acute Tuberculous Peritonitis.—Dr. SPENDER read a paper on the Central or Myelopathic Origin of Rheumatoid Paralysis. In the discussion which followed, the PRESIDENT, Dr. WALDO, Dr. MICHELL CLARKE, and Dr. SHINGLETON SMITH, took part.—Dr. PRESTON KING brought forward the subject of the Abuse of Hospital Charity, which was discussed by Dr. GOODRIDGE, Dr. G. J. WILSON (of Oxford), Mr. WILLETT, Dr. BOWKER, Mr. HARSANT, Dr. MICHELL CLARKE, and Mr. GREEN.—Dr. CAREY COOMBS read notes on the Clinical Examination of the Blood, upon which Dr. MICHELL CLARKE and Dr. SHINGLETON SMITH made remarks.

OXFORD AND DISTRICT BRANCH.

A GENERAL meeting of this Branch was held at the Radcliffe Infirmary, Oxford, on April 26th; Dr. HUTCHESON, President, in the chair. Twenty-five members and two visitors were present.

Confirmation of Minutes.—The minutes were read and confirmed.

The Abuse of Medical Charities.—The HONORARY SECRETARY read a communication from the Central Council respecting the abuse of medical charities.

The Cork Branch.—The SECRETARY also read a communication from the Central Council regarding the action of the Cork Branch. It was carried:

That this Branch supports by monetary subscriptions the Cork Branch in their fight against clubs.

Communications.—Mr. WINKFIELD gave an account of the results of the Treatment of Diphtheria by Antitoxin in the Oxford Hospital for Fevers.—Mr. SYMONDS showed three successful cases of Nephrolithotomy, and a case of Compound Depressed Fracture of Skull, in which he had trephined and ligatured the longitudinal sinus.—Mr. MORGAN showed a case of great Malformation of Hands and Feet, in which the history showed that it was hereditary on the father's side.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

AN ordinary general meeting of this Branch was held at Aberdeen on April 17th, Dr. J. C. OGILVIE WILL in the chair.

Communications.—Dr. THISELTON URQUHART read notes of a Fatal Case of Burning.

The Branch and the Local Press.—Thereafter, by order of the Council, a special general meeting of the Branch was held to consider the paragraph which appeared in the *Daily Free Press* of March 22nd, concerning the last ordinary meeting of the Branch. The paragraph read as follows:

Aberdeen, British Medical Association.—A meeting of the local Branch was held in Milne's Library on Wednesday evening, when there was a considerable attendance of members. As it had been agreed at the preceding meeting, on the motion of Professor Ogston, to give a donation of twenty guineas to the Marischal College Extension Fund, Dr. Garden proposed that a like sum be given to the extension fund of the Royal Infirmary. He proposed this on the grounds that the infirmary was in need of funds, and that as the Branch had spare funds there could be no more worthy object on which to bestow a share than the infirmary. Objections were raised by Dr. McKenzie Davidson, supported by Professors Ogston and Stephenson. On a division there voted:—For Dr. Garden's motion: Drs. Edmond, Rose, Forbes, and Garden (4), and against it: Professors Ogston and Stephenson, and Drs. McKenzie Davidson, Riddell, Dalgarno, Clark, Glennie, McKerrow, Levack, Urquhart, and Mr. de Lessert (11). Dr. Usher, Cowie, and Salmond did not vote. Dr. Garden's motion was therefore negatived.

Dr. OGILVIE WILL was called to the chair.

A letter was read from Professor Stephenson expressing strong disapproval of the insertion of the paragraph as a breach of professional etiquette.

Dr. ANGUS FRASER moved the previous question on the ground that it was incompetent for the Society to take up such a matter.

Dr. ROSE seconded.

Dr. MCKENZIE DAVIDSON proposed:

That the Aberdeen, Banff, and Kincardine Branch of the British Medical Association views with extreme disfavour the publication at the instance of unofficial persons of the proceedings which took place at its last meeting, and regards such conduct as a distinct breach of honourable professional etiquette.

Mr. De Lessert seconded.

On a vote being taken Dr. Davidson's amendment was carried.

Drs. Angus Fraser, Garden, and Rose intimated their dissent for reasons to be given in.

PROCEEDINGS OF THE COUNCIL.

At a meeting of the Council, held at the offices of the Association, 429, Strand, London, W.C., on April 24th, 1895:

Present:

Dr. J. Ward Cousins, President of the Council, in the chair.

Dr. E. Long Fox, President.

Sir J. Russell Reynolds, Bart., F.R.S., President-elect.

Mr. Henry T. Butlin, Treasurer.

Dr. James Barr, Liverpool.
Dr. G. B. Barron, Southport.
Dr. R. W. Batten, Gloucester.
Dr. Michael Beverley, Norwich.
Mr. Langley Browne, West Bromwich.
Dr. J. Spottiswoode Cameron, Leeds.
Dr. John Campbell, Belfast.
Mr. Andrew Clark, London.
Dr. H. Radcliffe Crocker, London.
Dr. George W. Crowe, Worcester.
Dr. Alex. Dempsey, Belfast.
Dr. E. H. Dickinson, Liverpool.
Dr. J. H. Langdon Down, London.
Brig.-Surg.-Lt.-Col. Drake-Brockman, London.
Mr. George Eastes, M.B., London.
Dr. W. A. Elliston, Ipswich.
Dr. D. W. Finlay, Aberdeen.
Sir B. Walter Foster, M.D., M.P., Birmingham.
Mr. R. S. Fowler, Bath.
Dr. Bruce Goff, Bothwell.
Dr. Ogilvie Grant, Inverness.
Dr. H. Handford, Nottingham.
Mr. John D. Harries, Shrewsbury.
Mr. J. Hughes Hemming, Kimbolton.
Mr. T. Vincent Jackson, Wolverhampton.
Mr. T. R. Jessop, Leeds.
Mr. Evan Jones, Aberdare.
Mr. Jordan Lloyd, Birmingham.
Mr. H. J. Manning, Salisbury.
Dr. J. W. Miller, Dundee.
Mr. W. Jones Morris, Portmadoc.
Mr. R. H. B. Nicholson, Hull.
Mr. C. H. Watts Parkinson, Wimborne Minster.
Dr. Charles Parsons, Dover.
Dr. J. W. Playton, London.
Dr. F. M. Pope, Leicester.
Dr. Wm. Russell, Edinburgh.
Dr. A. W. Sandford, Cork.
Dr. Robert Saundby, Birmingham.
Dr. Alfred Sheen, Cardiff.
Dr. E. Markham Skerritt, Clifton, Bristol.
Mr. Noble Smith, London.
Dr. R. Somerville, Galashiels.
M. Henry Stear, Saffron Walden.
Dr. J. Strachan, Dollar.
Mr. James Taylor, Chester.
Dr. Theophilus W. Trend, Southampton.
Dr. A. R. Urquhart, Perth.
Dr. W. F. Wade, Birmingham.
Mr. Frederick Wallace, London.
Mr. Joseph White, London.
Dr. A. D. Williams, Hampton Hill.
Mr. Alfred Winkfield, Oxford.

The minutes of the last meeting having been considered, and, after amendment, were signed as correct.

Letters of apology were received from Mr. Winterbotham, Dr. Philipson, Mr. Williamson, Dr. Gordon, Sir William Moore, Dr. Glascott, Mr. Verrall, and Dr. Bridgwater.

The following representatives were present, and were welcomed on their first attendance to the Council by the President of Council: Dr. Plaxton (Jamaica Branch), and Dr. A. D. Williams (British Guiana Branch).

Read letter from Mr. W. Withers Moore, in reply to the resolution of sympathy passed at the last meeting of the Council:

38, Westbourne Gardens, London, W., February 2nd, 1895.

Sir,—Thank you for your expression of sympathy and for the copy of the resolution passed by the Council on the 16th instant. It is a great satisfaction to his family that your Council, of whose connection with which my father was always so proud, by the passing of that resolution showed that they appreciated his services and honoured his memory.—I am, yours faithfully,

W. W. Moore.

J. Ward Cousins, Esq., etc., etc.
President of Council, British Medical Association.

The President of Council reported that, in consequence of the illness of the solicitor, he had been unable to obtain counsel's opinion upon the various points referred to counsel.

The principle of allowing qualified practitioners other than members of the Association to join in the proceedings of the annual meeting was then considered.

Resolved: That none but members be permitted to take part in the proceedings of the annual meeting or to attend the general meetings, or meetings of Sections with the exception of invited foreign guests.

Read letter from Dr. Holmes of the Association of Certifying Surgeons asking for a representative to be added to the Parliamentary Bills Committee.

Resolved: That Dr. Hugh Hughes, of Latchford House, Ashton-under-Lyne, be added to the Parliamentary Bills Committee.

Read letter from Dr. Lionel Smith.

Resolved: That action having been taken by the Parliamentary Bills Committee in the first instance, the letter be referred to that Committee for consideration.

Read letter from Dr. Warner asking for the promised grant of £100 for the expense of publishing report on the investigation into the educational capacity of 100,000 school children.

The Treasurer, who presented the complete report of the 100,000 school children, moved: That the £100 grant be given in accordance with the resolution of Council.

Read resolution passed by the Londonderry and North-West of Ireland Branch on February 23rd, 1895, of which the following is a copy:

Resolved: That the principles which suggest early promptitude in detecting, arresting, and dealing with mental imperfections in infantile life are not sufficiently recognised by State measures.

And that in consequence the members of the North-West Branch of the British Medical Association in Ireland consider it the family doctor's duties were strengthened for voluntary co-operation by an applied system of jurisprudence framed, confirmed, and recommended by State Medicine, it would tend to establish more fully, in domestic life, the fundamental needs that exist in carrying out rules for the normal formation of character in the defective, in the initial stages of existence.

The General Secretary reported that by the instruction of the President of Council he had forwarded a copy of resolution to the Committee on the mental and physical condition of school children, and the following reply was recived from that committee:—

In reference to your letter of February 27th containing a resolution from the Londonderry Branch as to the means of dealing with the mental imperfections of child-life by State Medicine, I am requested to say it has been very carefully considered by the Committee. The report, which is now completed, fully explains means of early detection of deviation from good development and health in school children, and makes important recommendations, showing that many defective conditions found to be common should be dealt with by the State and in public education. It also clearly describes the means that have been found practicable for dealing with the mental imperfections of childhood, and affords an established basis for co-operation in ameliorating conditions of defect in early life. On these grounds the Committee urge the importance of early publication of the report.

Resolved: That a copy of the reply be sent to Dr. Walter Bernard of the Londonderry and North-West of Ireland Branch.

The President of Council reported on the continued minutes 3138 and 3139 respecting a communication which had been made to him by Mr. Victor Horsley on behalf of the Pharmaceutical Society, and reported that he had communicated with Lord Davey, the Chairman of the Committee sitting on the Companies Acts, and also Clerk to the Society of Apothecaries. The President of the Council further reported that in consequence of these letters a clause had been introduced into the Medical Acts Amendment Bill, which is now before the Parliamentary Bills Committee, for the purpose of legislating on the subject to prevent limited companies being formed for the sale of poisonous medicines and drugs.

Resolved: That the By-laws of the Malaya Branch be approved, and the recognition of the Branch confirmed.

Resolved: That the Council have much pleasure in recognising a Branch of the British Medical Association for Singapore, to be called the Malaya Branch, and desire to offer their earnest congratulations to the members of that Branch upon the successful formation of so important an addition to the Association, and trust that the union will prove of mutual advantage.

Resolved: That the President of Council, the Treasurer,

and General Secretary be authorised to affix the seal of the Association to the transfers of the Bristol Corporation Stock of £3,600.

Resolved: That the 264 candidates whose names appear on the circular convening the meeting, together with a candidate postponed from a previous meeting, be, and they are hereby, elected members of the British Medical Association.

Resolved: That this Council having considered the letter from the British Institute of Public Health of April 2nd, the Council do not propose to make any alteration in the arrangements for the annual meeting.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain a request for the resumption of the announcements of exchange of station in connection with the Army Medical Department, which was agreed to; the approval of the balance sheet, which was ordered to be placed before the Council; the accounts for the quarter amounting to £7,151 19s. 9d.; the report of the auditors; and a recommendation that a grant be made to the Therapeutic Committee towards its expenses.

The financial statement for the year ending December 31st, 1894, was then considered.

Resolved: That the financial statement for the year ending December 31st, 1894, as certified by the auditors, be received and approved, and published in the Journal in accordance with By-law 26 (see JOURNAL, April 27th, page 951).

The minutes of the Premises and Library Committee were then considered.

Resolved: That the minutes of the Premises and Library Committee of April 23rd be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain the report of the Honorary Librarian; estimates for the repainting and cleaning premises of 429, Strand, and repolishing fixtures; also communications respecting various sites.

The minutes of the Parliamentary Bills Committee were then considered.

Resolved: That the minutes of the Parliamentary Bills Committee of April 23rd be received and approved, and the recommendations contained therein carried into effect.

The proceedings of the Parliamentary Bills Committee are printed in full (see page 990).

The minutes of the Trust Funds Committee were then considered.

Resolved: That the minutes of the Trust Funds Committee of April 23rd be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Trust Funds Committee contain a recommendation that the Stewart Prize be awarded, and that the grant be fixed at £50; also the appointment of the adjudicators of the prize.

The minutes of the General Practitioners Committee were then considered.

Resolved: That the minutes of the General Practitioners Committee of February 28th last and April 23rd be received and approved, and the recommendations contained therein carried into effect.

The minutes of the General Practitioners Committee contain the further consideration of the whole of the questions now before the Committee, together with statement of facts relating to the constitution of the Incorporated Law Society, its functions, powers in prosecutions, and finance, together with a summary of report upon the resemblance between the British Medical Association and Incorporated Law Society.

Resolved: That, in accordance with the recommendations, the Treasurer and Mr. Hemming be added to the Committee.

Resolved: That the President of the Association, the President of Council, and the Treasurer be appointed a Subcommittee to draft the Annual Report of the Council.

The General Secretary read letter reporting the foreign guests who had accepted the invitation to attend the annual meeting in July next (see p. 992).

ON the occasion of Prince Bismarck's birthday (April 1st) the German Emperor conferred the title of "Medical Privy Councillor" on the aged statesman's physician, Professor Schweninger, of Berlin.

WILLS AND BEQUESTS.—The late Mr. Crosby Lockwood has by his will bequeathed £50 each to the Hospital Sunday Fund, the Islington Dispensary, the Stoke Newington Dispensary, the Holloway and North Islington Dispensary, and the Hospital for Sick Children, Great Ormond Street.

SPECIAL CORRESPONDENCE.

PARIS.

Post-mortem Examinations in Paris Hospitals.—Disease of Lungs among Porcelain Workers.—Obesity among Linen Workers.—Sanitation on French Merchant Vessels.—Fees for Medical Attendance under the Poor Law.—Medical Men and Legal Necropsies.—Night Shelters in Paris.—The French Medical Association.

THE administration of the Assistance Publique has by a circular made known that, in accordance with a decree passed by the Ancien Conseil Général des Hospices on December 3rd, 1834, *post-mortem* examinations in hospitals cannot be made by the students unless under the personal supervision of the *chefs de service*. The medical press, with reason, criticises this effervescence on the part of the excellent but somewhat fussy Assistance Publique. During the last twenty years hospital *chefs* of every category, surgeons, physicians, accoucheurs, and gynæcologists have endeavoured to combat and remove sources of infection. In many services students who have made a *post-mortem* examination, or have even been present at one, are obliged to keep away from the wards during a fixed period. All contact between *post-mortem* room and the operating theatre is strictly avoided. The circular of the administration of Assistance Publique is considered as a manifestation of a fervent wish to do something, resulting in a useless expenditure of paper and printing.

M. Lemaistre, of Limoges, states that workers in the porcelain factories suffer from pulmonary tuberculosis and fibroid disease of the lung. He divided the workers into three categories: the first up to 20 years of age; the second up to 38; the third from 38 upwards. During the adolescent period tuberculosis is manifested; in old age fibroid disease; in the middle period these maladies are not observed. M. Lemaistre recommends perfect sanitation; also that a certain sum should be deducted from the wages of each workman, in order to provide him with a pension as soon as signs of these maladies appear.

Dr. Briquet d'Armentières states that the hands in the linen factories called *pareurs*, whose business it is to gum the thread used for weaving the linen, are very liable to obesity. Among 250, 90 were obese; among the other workers, only 50 to 250. This fact is startling, inasmuch as the *pareurs* undergo considerable fatigue in moving heavy rolls of goods and working in an overheated atmosphere, which obliges them to be scantily clothed. Suffering from thirst, these hands drink considerably, but the recent researches of Debove and Robin cast doubt on the theory that drinking favours obesity, and at Brides obesity is treated by diaphoresis, which is the constant condition of the *pareurs*. The greater proportion of these hands are attacked with hypertrophy of the heart, and those who drink too much alcohol suffer from arterial sclerosis. It is rare that a *pareur* can work after 55 or 60 years of age. Chronic nephritis and asystolism are the most frequent causes of death. Phthisis is observed between the ages of 45 and 50, its evolution generally extending over two or three years. The obese are attacked in the same proportion as the thin. The proportion is from 4 to 5 per cent. Acute pulmonary disease is rare among the *pareurs*.

Dr. J. Mallet, in a thesis recently presented for the doctor's degree on Sanitation on Board Merchant Vessels and the Position of the Medical Officer, states that sanitary rules are deliberately broken—the crew drink water drawn from a reservoir nicknamed the "charnel house." This reservoir is so constructed that it cannot be completely emptied and cleansed. Dr. J. Mallet has been three times to Brazil and back on the cargo boats of the Compagnie des Chargeurs Réunis. On two of these occasions he was the medical officer of the ship. He declares that under a varnish of cleanliness lies hidden the most repulsive filth. Dr. Mallet further shows the ridiculous position of the medical officer on board these ships. Being simply a paid servant of the Company he is obliged to give in to all that the captain exacts. In order to preserve his post he must sign imaginary certificates of disinfection. If, like Dr. Mallet, he refuses, others are found to do the dirty work.

The medical men of the Hérault department have held a congress to discuss the question of fees in connection with the new law concerning gratuitous medical treatment. The general council drew up the following tariff: 10d. for consultations at the doctor's house by day, and 4s. 8d. by night; for visits at the patient's house an extra fee of 7½d. for every kilometre; in summer the fee for a night consultation is 2s. 6d. The drugs are to be supplied according to the tariff adopted by different companies.

Four medical men practising in one of the departments situated in the centre of France were personally summoned by a police commissary at 4 A.M. in bitter winter weather to accompany him a distance of 8 kilometres to certify a death and make the *post-mortem* examination. The deceased had been killed the previous evening by a drunken man. The medical men held no appointment as experts, and therefore refused. The Procureur de la République thereupon proceeded against them; the Chambre de Police Correctionnelle condemned them each to pay a fine of £1, but on carrying the case to the Cour d'Appel they were acquitted on all the counts. The Procureur Général intends carrying the affair to the Cour de Cassation.

The annual meeting de l'Œuvre de l'Hospitalité de Nuit took place a few days ago under the presidency of the Duc de Broglie. The report showed that the principal expense during the year 1894 was the reconstruction of the Maison de Lamaze, which cost £13,400. The building contains 300 beds; in the old building there were 188. The Œuvre in 1894 gave shelter to 98,688 men, and to 3,870 women and children, making a total of 102,558 homeless persons who slept under its roof 243,235 nights. This makes a sum total of 1,081,323 persons who have passed 2,880,761 nights in the refuge. In 1894, owing to the alterations made in the building, there were 3,874 fewer lodgers received than during the preceding years. The Œuvre is £5,400 in debt.

At the meeting of the Association of French medical men, the treasurer made the following statement: The available funds of the society amount to £71 715; £100 is paid to the Provincial Sections and 300 pensions are granted. The Minister of the Interior has awarded a gold medal to M. Geannel, the organiser of the Association of Gironde, and to M. Brun, the treasurer and benefactor of the Association.

RUSSIA.

Address of Professor Pavlov: The Interdependence of Physiology and Medicine: The Innervation of the Stomach: The Physiology of Diet: The Psychic Element in Gastric Secretion: Pancreatic Secretion: Appetite and Digestion.

AT the meeting in memory of S. P. Botkin, Professor J. P. Pavlov read a paper, in the course of which he said that medicine has somewhat outstripped physiology. But these two sciences should go hand in hand and help each other. It was desirable that physiology should acquaint itself with clinical medicine, but it is necessary at the same time that physicians should be better acquainted with physiology, which should play the part of counsellor to medicine. These points he said were beautifully illustrated by the facts of digestion; with his assistants he had worked eight years in his laboratory upon this question, and had obtained results which he thought threw a new light on the act of digestion. In one of his investigations the œsophagus of a dog was incised and its communication with the stomach closed, that with the mouth being left patent; a fistula was made in the stomach, through which the dog was fed and through which the gastric fluid could be obtained. In another dog the stomach was artificially divided into two stomachs, a greater and a less. In each a fistula was made, and it was at the same time so arranged that the food could only fall into one, the greater stomach; the lesser serving as a control. Finally, in a third dog the duct of the pancreas was brought outside. All three dogs were alive, in health, and cheerful.

When the first dog eats, not a scrap of food falls into its stomach; all of it rolls out through a fistula in the œsophagus. But, nevertheless, through the fistula in the stomach flows an abundance of gastric fluid. Of mechanical irritation there could here be no question, so that the experiment proved the transmission of a nervous impulse from the chewing mouth to the stomach. That this nerve was the vagus was confirmed by the circumstance that the secretion of juice always came on if the end of this nerve were artificially irritated. By this nerve, too, the work of the pancreatic gland was governed.

Medicine taking account, in prescribing a diet, of the tastes and habits of the patient, proceeded perfectly justly although it arrived at this not by the road of science but by that of practice. In passing from meat to bread and milk, or the reverse, the juice of the pancreatic gland and the gastric juice altered in their composition. The organism adapts itself to the new *régime* but slowly, after weeks or even months. That the change did not take place at once showed the importance of habits, and that they cannot be treated arbitrarily. This was confirmed in the second dog by a series of experiments. Physiology, watching the secretion and composition of the juices with different food, now explained why in the case of catarrh of the stomach in some cases a diet of meat was prescribed, and bread was not given at all; in others starchy food, and in a third class fats. Fat retarded the activity of the stomach, and was therefore recommended in cases of morbid excess of energy of the stomach. In all these cases a complete harmony was disclosed between the rules of medicine and the facts of physiology.

To explain the activity of the stomach in the process of digestion by mechanical irritation was impossible. A dog might be caused to swallow sealing-wax, pebbles, etc., the interior wall of the stomach might be tickled with a glass rod, but not a drop of juice would appear. But if the first dog were merely shown meat the gastric juice began to gush forth through the fistula. If, on the other hand, it were teased with meat, and it understood that it would not get it, the secretion of juice instantly ceased. When the second dog (with a double stomach) ate, a quantity of gastric juice flowed out of the second stomach through the fistula. This showed that in the process of digestion it was neither mechanical nor chemical irritation that acted, but the pleasure of eating, the desire to eat—that is, a purely psychical element. It might be affirmed that the psychical element was the first and true irritant of the organs secreting the digestive fluids.

In what way and by what is the activity of the pancreatic gland excited? To this question an answer was given by the third dog. If an acid solution were introduced into its stomach, an abundant stream of pancreatic juice began. The same phenomenon was obtained by the introduction of fat into the stomach. This explained why fat was necessary to nutrition. When these substances were introduced into the stomach of the dog during sleep without his knowledge, the same effect was obtained. On the other hand, in confirmation of the psychical influence, when meat was carefully introduced into the stomach without the knowledge of the dog there was either no secretion or an insignificant quantity.

Professor Pavlov thus explained from the point of view of physiology why the clinician strives above everything to excite the appetite of his patient; why hurried eating is harmful; why the Petersburgher, when he forgets about eating in the midst of fierce and feverish activity, loses physically his appetite, and why the same Petersburgher, on furlough or at the waters, when from idleness he only thinks about the pleasure of eating, acquires without any effort an excellent appetite.

The lecturer finished his discourse by recalling the memory of S. P. Botkin, whose conversations, as his teacher, had a most fruitful character for him.

BIRMINGHAM.

The New Small-pox Hospital.

THE recent long-continued epidemic of small-pox has shown that the present provision for the treatment and isolation of such cases is quite inadequate to meet the needs of the city. The Health Committee of the City Council have therefore very wisely erected a new and permanent small-pox hospital, which will accommodate, if necessary, a little over 100 patients. The building, which has been erected from the designs of Mr. W. H. Ward at a cost of about £41,000, is now complete.

On April 24th the members of the City Council and Board of Guardians and a number of other gentlemen, at the in-

vitation of Alderman Cook, the Chairman of the Health Committee, inspected the buildings.

The hospital, which is built on a site which includes some 24 acres, is situated about 3½ miles from the centre of the city on land adjoining the Yardley Road. It is built in well separated blocks on the pavilion system. The official and administrative block is divided into three sections. The central one contains the medical officers' and matron's quarters; the left the steward's room and stores, the mess room and kitchen; and the right the servants' accommodation and recreation room, the matron's stores, and official laundry.

The pavilions for the patients are 4 in number; each consists of 2 wards, 72 feet by 30 feet, with accommodation for 24 patients, and with an air space to each patient of 2,000 cubic feet. The bath rooms and lavatories are at the end of the wards, and the wards are connected by an entrance hall, with a duty room overlooking each ward, pantry, and store rooms. At the back of the site is the laundry and disinfecting yard, with an incinerator. Near the entrance lodge is the receiving ward for examination of patients on admission, and down a by-road is an isolation pavilion having a number of small wards, each with a separate access to the open air. In these latter cases can be kept and nursed in which the diagnosis is at all doubtful.

The hospital appears to be extremely well arranged, and is in every detail quite complete. It stands in a high healthy district, and is yet conveniently near the centre of the city. The authorities are to be congratulated on its possession, for they are now placed in a position of readiness for any serious epidemic of the disease which may occur.

CORRESPONDENCE.

THE OBSTETRICAL SOCIETY OF LONDON AND THE MIDWIVES QUESTION.

Sir,—I am not, in writing on the above subject, anxious to be heard upon more than one point raised in Dr. Champneys's inaugural address published in the British Medical Journal of April 27th. Inasmuch, however, as that point is the common basis of excuse for the fraud and quackery which under our present law is able to compete with honest practice, it is a matter of no little moment, and Dr. Champneys's dicta upon the same ought not, I venture to say, to have been pronounced without an important qualification which I shall indicate directly.

Dr. Champneys is represented as having stated that the following propositions "appear to be established": (1) "Any person is at liberty by the law of the land to render aid to any other in time of sickness if desired"; and (2) "Any person is at liberty by the law of the land to receive such aid from any other." In making these statements Dr. Champneys has omitted the important words "but not for gain," such words to follow those at the end of the paragraph (1)—namely, "if desired." The preamble to the Medical Act of 1858 as well as the discussion on the Medical Act of 1886, leaves no doubt that the intention of the law is to provide that the public shall be attended and assisted in sickness by persons who are properly educated, and therefore alone qualified to render such aid successfully, and alone justified in accepting remuneration for the same. This in no way affects the question of persons rendering aid in emergency so far as in them lies, than it does in the oft-repeated case of a medical man foregoing for charity's sake the said remuneration. The distinction of vital importance is that the law does not recognise unqualified practice, as might be supposed from Dr. Champneys's propositions to be the case, though, indeed, at the present time the wording of the Medical Act needs strengthening to counteract the perverted ingenuity of the numerous charlatans who prey upon the public. In conclusion, I am sure that Dr. Champneys would be the first to recognise the distinction thus drawn, and to agree to the qualification of his general statement.—I am, etc.,

Cavendish Square, W., April 29th. Victor Horsley.

Sir,—Dr. Champneys is entitled to argue in favour of the Obstetrical Society, its examinations and diplomas, but he goes much further. With his arguments "pro" we shall not deal, leaving them to the judicial consideration of the General Medical Council. His reasoning *re* the "contra" side of the question requires, however, some notice.

1. He would minimise the importance of the word "infamous" used by the General Medical Council with reference to the actions of the Obstetrical Society. He should remember that the application of the same phrase has sufficed to remove the names of Allabone and many other "specialists" from the *Register*.

2. He asserts that the opponents of bogus diplomas have a "touching" interest in the Obstetrical Society. In this he is quite mistaken. We are willing to acknowledge the "Obstetrical" as a scientific society, but we are wholly opposed to its pretensions to form a twentieth qualifying body—already there are eighteen too many. He is correct, however, in saying we want to end its "examinations" and "qualifications" (?).

3. He suggests we are "agitators." Amongst thinking people agitators are those who suggest, rightly or wrongly, the alteration of the laws. We, on the contrary, desire to see the existing laws maintained. We entirely agree with some of Dr. Champneys's "propositions." That "midwives are a necessity"—we agree, but we do not agree that it is possible to "create" a "midwife" in whose hands the lives of the "mothers of England" and their offspring can be safely placed after a three months' course of "education." On the contrary, we assert that the scientific knowledge of "midwifery" must be based on a knowledge of anatomy, physiology, and pathology, and taught *pari passu* with medicine and surgery, and that a knowledge of all three branches of medicine is essential in a safe practitioner.

The remainder of Dr. Champneys's paragraph in this connection is rather "mixed" in its reasoning. We gather, however, that he challenges us to meet him. We are quite willing to do so, and we are in a position to prove that the "trained midwife" of the Obstetrical Society does infinitely more harm than the ignorant person whom she attempts to replace.—We are, etc.,

Wm. Hugh Hughes,
Chairman,
Colin Campbell,
Hon. Sec.,
Lancashire and Cheshire Branch Committee.

Manchester, April 29th.

Sir,—In the British Medical Journal of April 27th you give an abstract of Dr Champneys's address. I think few of us will quarrel with him for calling us "agitators." He remarks that all great nations, except England, have regulations governing midwives. I am glad of this for here England leads the way: a way which is gradually being followed by other countries. He quotes Mr. Roscoe, solicitor the the College of Physicians, as stating that there is "no technical meaning attached to the word diploma," and that it had precisely the same meaning as "certificate." In this he and his solicitor are wrong. If reference be made to Section 27 of the Medical Act, 1884, the following will be found: In this Act the word diploma means any diploma, degree, fellowship, membership, licence, authority to practise, letters testimonial, certificate, or other status or document granted by any university, corporation, college, or other body, or by any departments of, or persons acting under the authority of the government of any country or place within Her Majesty's dominions. The expression "medical diploma" means a diploma granted in respect of medicine, surgery and midwifery, *or any of them*, or any branch of medicine or surgery. Does this enactment show that there is no technical meaning attached to the word "diploma"? I think the "diploma" granted by the Obstetrical Society is a "document," "certificate," "testimonial," or "licensed authority to practise" midwifery. At least the holders of the "diploma" of the Obstetrical Society hold themselves out as persons duly licensed to practise midwifery, and to take entire and undivided control of the mother and infant. We have also produced evidence to prove that such "diploma" holders prescribe and dispense medicines to their patients,

vaccinate, and give certificates of the cause of death and of stillbirth. Again, many of the working and shopkeeping classes believe that the holders are qualified to practise midwifery, just as medical practitioners are. I am informed that some midwives put after their name the letters L.O.S. (Licentiate Obstetrical Society). There is much resemblance between these letters and those of L.A.S. (Licentiate Apothecaries' Society). Consequently we cannot wonder at many believing the L.O.S. is actually qualified. Last February the Leicester guardians appointed a midwife at a salary of £65 a year, to attend all outdoor Poor-law confinement cases. She was appointed, although the district medical officers offered to attend these confinements for £1 each. The midwife presented her "diploma" while the medical men competing had their "diplomas." Will anyone dare to argue that there was "no technical meaning attached" to the diploma?

Dr. Champneys seems to think that we "agitators" are attacking this illegal granting of midwifery licences only. In this he is altogether wrong. We sent up to the General Medical Council diplomas granted, not only by the Obstetrical Society, but by missionary societies, medical herbalists, massage institutions, and by the General Council of Safe Medicine, Limited. He fails to see that we are proceeding on the broad question. Has any society or body of persons, except the bodies mentioned in the Medical Acts, the right to grant any document, instrument, or licence which professes to entitle the holder to practise medicine, or surgery, or midwifery, or dentistry? This is the entire question. If any body has such right, then the Medical Acts are a farce; for, so far, one of these bodies has been dealt with, namely, the General Council of Safe Medicine, Limited. This body was actually registered as a joint stock company, examined and granted a licence to persons to practise. But as a result of the case of Steel *v.* Ormsby, Steel was fined £10 for holding himself out as recognised by law to be a practitioner. And the Council of Safe Medicine itself has, on February last, agreed to a perpetual injunction never again to grant "a degree, diploma, licence, testimonial, or qualification in medicine, surgery, or midwifery."

Now the Obstetrical Society has no powers whatsoever to grant any licence; it has no incorporated rights; it is not even a joint stock or jobbing company, although in 1893 a few of its Council obtained the large sum of £333 7s. 6d. by the sale of licences, a pecuniary transaction of questionable medical ethics. All bogus bodies, I think, must be dealt with as has the General Council of Safe Medicine, Limited. If not, then we shall have a springing up of societies examining and granting certificates to medical herbalists, bonesetters, chemists, and unqualified assistants.

I would again take this opportunity of stating that we "agitators" have no wish to make any personal attack upon the Fellows of the Obstetrical Society. This is shown by our action in bringing so many different bogus diploma-granting societies before the General Medical Council.

The question, I take it, for the solution of our General Medical Council, and, if need be, for our Courts of Justice, to decide is, Must the examining and granting of licences to practise either medicine, or surgery, or midwifery remain in the hands of the Universities and Colleges mentioned in the Medical Acts, or are other agencies to examine and grant these licences as well? My earnest hope is that all practitioners will hold that medical societies should not take it upon themselves to grant licences to practise.—I am, etc.,

ROBERT R. RENTOUL.

Liverpool, April 28th.

THE GENERAL MEDICAL COUNCIL AND THE MIDWIVES QUESTION.

SIR,—The guardians of the Parish of St. Mary Abbotts, Kensington, would be glad if you could find room in the BRITISH MEDICAL JOURNAL for the enclosed copy of a letter which they have addressed to the General Medical Council on their action with respect to the examination and certification of trained midwives.—I am, etc.,

JNO. H. RUTHERGLEN.
Clerk.

Guardians Offices, Marloes Road
Kensington, W., April 30th

[COPY.]

Guardians' Offices, Marloes Road,
Kensington, W., April 30th, 1895.

SIR,—The guardians of this parish, who for some years past have trained in the special lying-in wards attached to their infirmary a large number of trained nurses to pass the examination of the London Obstetrical Society, have heard with much regret of the resolution passed by the General Medical Council on December 3rd, 1894, with respect to the issue of midwifery diplomas or certificates in general, and of the certificates of the Obstetrical Society of London in particular.

The guardians are the more surprised at this action, as they have always understood that the General Medical Council have regarded the absence of public provision for the education and supervision of midwives as being productive of a large amount of suffering and disease among the poorer classes, and that the Council had been recommended by a Select Committee of the House of Commons to frame rules for the conduct of examinations for the admission of women to act as trained and certificated midwives.

It was to a great extent to meet these expressions of opinion that the guardians of this parish undertook, in conjunction with the Workhouse Infirmary Nursing Association, the yearly training of a number of previously qualified nurses in their midwifery wards, but they have every reason to fear that if the resolution of the Council stands, and the London Obstetrical Society therefore ceases to issue in its present form its diploma or certificate of competency, the good work which they have been doing for so many years will cease, as women will be unwilling to enter for a course of training for which they will be unable to obtain a certificate of efficiency, qualifying them to act as midwives.

Having regard therefore to the value and importance which is attached to special training in midwifery, and to the examinations conducted by the London Obstetrical Society and other bodies, the Guardians have directed me to ask that the General Medical Council will reconsider and withdraw their resolution of December last, so that the training and sending out of competent midwives may be continued unimpeded.—I am, Sir, your obedient servant,

JNO. H. RUTHERGLEN, Clerk.

The Registrar, General Medical Council,
299, Oxford Street, W.

IS CANCER HEREDITARY?

SIR,—In Mr. D'Arcy Power's excellent paper on the Infectivity of Cancer, in the BRITISH MEDICAL JOURNAL of April 27th, speaking of the supposed inheritance of the disease (p. 911), he says: "Valuable information would probably be obtained upon this point by any general practitioner who would take the trouble to ascertain how often cancer had been hereditary in the patients who come under his own observation, and how often the blood relations of such persons had been affected with other and non-malignant forms of new growth."

Some very valuable information was afforded by general practitioners on the first of these questions nearly ten years ago, in reply to the inquiries of the Collective Investigation Committee on cancer of the breast. It is embodied and commented on in the report which I drew up for the Committee, published in the JOURNAL for 1887, vol. i, p. 436. I am afraid, like most reports, this report was but little read, for it has seldom been referred to.

Before I sifted the "returns" I had been very sceptical of the inheritance of cancer, but their analysis did much to convert me to the belief in the influence of inheritance.

It was not so much the proportion of cases of cancer of the breast in which there was a history of cancer in the family, as the family histories of the cases in which two or more members of the same family had suffered from cancer. Twenty-four such histories were furnished me, 19 of 2 cancerous members of the patient's family, 3 of 3 members, 2 of 4 members. *The relationship was almost invariably on one side. There were scarcely any cases in which the relations were divided between the father's and the mother's family.*

In 3 cases the mother and the sister of the patient were cancerous, in 3 the mother and the mother's sister, in 1 the sister and the mother's brother, in 1 the mother's brother and the mother's sister, in 1 the mother's brother and the mother's sister's daughter, in 2 the mother and the mother's mother, in 1 the father and the father's brother, in 1 the father and the father's sister, in 2 the father and the father's sister's daughter, in 1 two of the father's sisters, in 1 the mother and two of the mother's cousins, in 1 the brother, the sister, and the father's sister, and in 1 the brother, two of the father's sisters, and the father's sister's child. In one instance, in addition to the father's sister and the father's sister's daughter, the mother suffered from cancer; and in yet another the father's mother's sister and the father's mother's sister's daughter were cancerous, as well as the mother of the patient.

I believe such evidence as this has never been furnished

before or since, and almost the whole of it came from general practitioners, most of whom were personally acquainted with the facts.—I am, etc.,

Harley Street, April 29th. Henry T. Butlin.

Sir,—In his able essay on the pathogenesis of cancer, Mr. D'Arcy Power asks for further information about the family history of cancer patients. During the time I was surgical registrar to the Middlesex Hospital I recorded the family histories of over 700 cancer and tumour patients. Some of the chief results thus obtained may be briefly stated as follows:

Of 142 cases of uterine cancer there was history of heredity in 28 (19.7 per cent.).

Of 136 cases of mammary cancer there was history of heredity in 33 (24.2 per cent.).

Of 92 other female cancer cases there was history of heredity in 22 (23.9 per cent.).

Thus of these 370 female cancer patients there was history of heredity in 83 (22.4 per cent.).

In 345 of the above cancer cases there was family history of non-malignant tumours in 13 (3.7 per cent.).

With the foregoing it is interesting to compare the following analysis of the family histories of 101 women, the subjects of non-malignant neoplasms.

Of 38 cases of fibro-adenoma of the breast, there was family history of non-malignant tumours in 5 (13.1 per cent.), 2 being mammary fibro-adenoma.

Of 36 cases of lipoma, there was family history of non-malignant tumours in 6 (16.6 per cent.), 3 being lipoma.

Of 6 cases of sebaceous cysts, there was family history of similar cysts in 2 instances.

Of 21 cases of ovarian cysts, there was family history of non-malignant tumour in 5 cases, 2 being ovarian cysts.

Thus of these 101 cases of non-malignant tumours in women, there was family history of non-malignant tumours in 18 (17.8 per cent).

In these same 101 women there was family history of cancer in 16 (15.8 per cent.).

Of 209 men suffering from cancer, there was history of cancer heredity in only 23 (11 per cent.).

I attribute this difference to the fact that the men knew so much less than the women of the details of their family history.

I would refer those desiring further information on this subject to the *Middlesex Hospital Surgical Reports* for the years 1882 to 1889.—I am, etc.,

Preston, April 27th. W. Roger Williams.

CLUBS AND THE PROVIDENT PRINCIPLE.

Sir,—The ever-recurring topic of medical aid, etc.—or, to face it boldly and give it its proper commercial signification, the question of cutting prices—has occupied much space of late, and apparently is as far off as ever from being brought to a conclusion. One reason of its continuance undoubtedly is that results have been carefully noted, while the causes have been as persistently disregarded. After enrolling his name on the *Medical Register* a young man naturally feels that he has a certain right to exist. In his search after a pittance, which he hopefully believes may some day develop into a competence, he turns his attention to an improving neighbourhood, preferably adjoining an industrial district. He takes the course, say, "for the usual reasons," and, in the full knowledge that the population is a floating one, innocently trusts that in his effort to gain an existence he may not in any way interfere with vested interests. Time hangs heavily upon his hands, he has consequently large opportunities of observing with some surprise what an amount of work, judging by the constant hurrying in and out of professional carriages and pairs, his more flourishing brothers in practice are doing among his small working population: his eyes are opened by the perusal of the local periodicals, where week by week appear laudatory paragraphs telling of the good work done by such-and-such provident dispensaries (there are generally two or more in every district), and in the advertisement columns they appear again in large cap.'s, followed by "funds urgently needed." Then there is the maternity club, which invokes charitable aid in the parish magazine under the heading of "Our Parochial Charities," and receives an occasional laudatory puff from the pulpit itself. Then, again, there is the cottage hospital; this is properly subsidised or supported by voluntary contributions, so can well afford to do as it does, namely, open its doors to receive in-patients at a few shillings a week, and two or three times a week to out-patients, dispensing advice and medicine to all comers. Under such circumstances is there anything discreditable in the young practitioner welcoming into his district a medical aid club?

To effect a remedy the following suggestions are tentatively offered: (1) The universal and total suppression of mendicity among the profession. (2) The adoption of the Friendly Society vote as the basis of all provident clubs and all industrial appointments of whatsoever kind. There is no instance of a medical man having quarrelled with his Friendly Society appointments at this rate, which has been thoroughly well proved self-supporting. (3) The addition to our existing ethical motto, which is commercially useless in consequence of the tendency that the second little word has to drop out in daily wear of the more serviceable one of "Live and let live."

In conclusion, be it observed, though none know better than ourselves what a useless task is the endeavour to manufacture types, we have this grain of certain comfort, that in the struggle for existence the fittest will survive whether the residuum be extinguished in plethora or starvation.—I am, etc., Frank Taylor, M.A., M.B.Cantab.

Sydenham, S.E., April 30th.

MEDICAL FEES UNDER THE NEW FACTORY ACT.

Sir,—I feel grateful to your correspondent, "A Certifying Factory Surgeon," for the service he has rendered in drawing attention to the scale of fees in the schedule of the proposed new Factory and Workshops Bill. I think, however, he has erred in suggesting a scale less than the small one at present allowed, which I believe he does in the last paragraph of his letter. I feel satisfied that our interests as certifying surgeons are sure to receive watchful attention from your Parliamentary Bills Committee and from our own Association.—I am, etc.,

April 29th. Another Certifying Surgeon.

AN OUTBREAK WHICH POSSESSED CHARACTERISTICS OF BOTH SCARLET FEVER AND DIPHTHERIA.

Sir,—With reference to the communication by Dr. Richmond in the British Medical Journal of April 27th on this subject, those who have had much to do with scarlet fever must be aware of the fact that, during the occurrence of true scarlet fever, those who have previously had scarlet fever are liable to a follicular tonsillitis, sometimes of a dirty, sloughy-looking character, without any scarlet fever eruption. Further, that these throats are capable of infecting those who have not had scarlet fever with true scarlet fever. I recorded such a class of cases in my work on *Health at School*, published in 1887.—I am, etc.,

Rugby, April 30th. Clement Dukes, M.D.Lond.

THE TREATMENT OF OZÆNA.

Sir,—I am glad to learn from Dr. Hunter Mackenzie's note in the British Medical Journal of April 27th that he has been successful in treating ozæna by *curettement*. I have practised this method of treating ozæna for the last two or three years, and last year I published in the *Northumberland and Durham Medical Journal* the results of three cases which I had permanently cured by *curettement*. I have continued to practise this treatment for ozæna in obstinate cases, and am so far convinced of its utility.—I am, etc.,

G. Metcalfe, M.B., B.S.,

May 1st. Surgeon to Newcastle Throat and Ear Hospital

Puerperal Fever at Darwen.—During last year there were three deaths from puerperal fever at Darwen. This has not been the case since 1886, when four deaths from the disease were registered. The medical officer says that "the very infectious nature of the complaint calls for a strict supervision over the people who go about from one case to another in the character of midwives."

MEDICO-LEGAL AND MEDICO-ETHICAL.

NEW RESIDENTS.

G.A. writes: A. and B. are two practitioners in the same town. C., a new resident, sent a message for A. to come as soon as possible. A. has started on his rounds, and the messenger takes the message to one of A.'s patients, where the messenger is told A. will soon be. A., on receiving this, goes to C., and is told that the case becoming urgent C. could not wait, so sent for B., who is the nearest medical man, and that B. is going on with the case. On receiving no communication from B., A. writes to inform B. of the facts, but B. refuses to give up the case.

Now, as A. lived twice the distant from C. as B. did, and that C. had taken the trouble to leave two messages at different houses requesting A.'s attendance, and that B. was only called in because the case became urgent, I consider as B. was told of this that he should have given up the case.

A. has made no communication with C. about it, and I should say that C. has not been previously attended by any medical man in the place.

Surely 15, Sec. v, *Medical Etiquette*, does not apply here, as C. had clearly shown that she wished A. to attend her, as she sent twice the distance, and followed A. up in his rounds.

*** The rule referred to (15, Sec. v) by our correspondent has no bearing on the point in question, which is provided for by the following: "It sometimes also, but more rarely, happens in like and other cases, that a certain practitioner is sent for, but, being from home at the time, another is called in, and requested, moreover, to continue his attendance—neither practitioner having previously attended the family. In such case the medical man first summoned will have no prescriptive right to the patient, who should, however, on accepting the professional services of the attending practitioner, at once, either by note or trusty messenger, courteously apprise the absent one that his advice will not be required, otherwise, on returning home and making a professional call at the patient's address, he will be justified in claiming his customary fee."—*Code*, Chap. ii, Sect. 5, Rule 16, second paragraph.

THE TITLE OF "DR."

H. C.—In reply to our correspondent's inquiry, the statute which deals with the question of assuming the style and title of "Dr." by men who are not qualified to do so is the Medical Act, 1858, 21 and 22 Vict., cap. 90, sect. 40.

BONESETTERS AND LIBEL.

An action for libel might lie against the bonesetter, as in the case of Makeig Jones *v.* Cranuidge, heard at Leeds Assizes last December. In that case the Medical Defence Union successfully prosecuted and recovered damages and costs. Unless, however, the applicant is a member of such a society, we should advise him to bear his troubles patiently, as the anxiety of initiating and carrying on such a prosecution would be great. If it could be proved that a medical man was in the habit of sending his patients to the bonesetter in certain cases, such a practice would probably be held to amount to "covering," and render him, if reported to the General Medical Council, liable to have his name erased from the *Medical Register*.

SANITARY POSITION OF LEASEHOLDERS.

(Before Mr. JUSTICE WILLS without a Jury.)

In the case of Clayton *v.* Smith, the plaintiff held the lease of a house in King's Road, Chelsea. The house was formerly drained into a cesspool, but the local authorities served notice requiring it to be drained into the sewers. The plaintiff sent the notice to the landlord (defendant), but, as he disregarded it, the local authorities did the work, they having power to recover the cost from the owner or occupier. The plaintiff paid the amount, and now sought for a declaration that he was entitled to deduct it from the rent. In his lease the tenant covenanted to pay his rent "free from all rates, duties, charges, and assessments." His lordship held payment for the drainage within the definition of a "duty," and, therefore, entered judgment for the defendant, with costs.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The last post on Wednesday is the latest by which these announcements can be received.

A SURGEON-CAPTAIN, with about three years' home service to offer, will go to South Africa, Jamaica, or Barbadoes for officer with about two years to complete abroad. Apply A. B., c.o. Holt and Co., 17, Whitehall Place, London.

THE NAVY.

THE following appointments have been made at the Admiralty: ROBERT F. YEO, Staff-Surgeon, to the *Nile*, April 25th; EVERARD H. SAUNDERS, Fleet-Surgeon, to the *Edinburgh*, April 26th; JAMES PORTER, Staff-Surgeon, to the *Britannia*, April 26th; HORATIO S. R. SPARROW, Staff-Surgeon, to the *Calypso*, April 26th; JOSEPH CHAMBERS, Surgeon, to the *Minotaur*, April 26th; ROBERT F. BOWIE, Surgeon, to the *Britannia*, April 26th; ALEXANDER MACLEAN, Surgeon, to the *Pembroke*, additional, April 25th; JOHN D. MENZIES, Surgeon, to the *Halcyon*; A. V. JOHNSTON, Staff-Surgeon, to Chatham Hospital, April 29th; GEORGE S. SMITH, Staff-Surgeon, to the *Blenheim*, April 29th.

ARMY MEDICAL STAFF.

SURGEON-MAJOR-GENERAL JAMES DAVIS is placed on retired pay, April 15th. He was appointed Assistant-Surgeon, March 10th, 1858; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; Brigade-Surgeon, October 29th, 1883; Surgeon-Colonel, December 19th, 1888; and Surgeon-Major-General, January 11th, 1894. He served in the New Zealand wars in 1861 and 1865, and was present at the repulse of the attack on the camp at Nukumaru, and at the affair at Kakaramea (medal).

Surgeon-Colonel F. H. WELCH, F.R.C.S., also retires on retired pay, May 1st. His commissions are thus dated: Assistant-Surgeon, April 1st, 1861; Surgeon, March 1st, 1873; Surgeon-Major, March 10th, 1876; Brigade-Surgeon, February 24th, 1887; and Surgeon-Colonel, April 5th, 1892. He was with the Hazara Expedition in 1888, was mentioned in despatches, and received the Frontier medal, with clasp.

Surgeon-Colonel T. MAUNSELL has been appointed Principal Medical Officer to the Chitral Relief Force.

Surgeon-Colonel W. D. WILSON, M.B., is appointed Principal Medical Officer Secunderabad and Belgaum District.

Brigade-Surgeon-Lieutenant-Colonel W. F. BURNEIT is appointed Officiating Principal Medical Officer Mandalay District and Chin Hills Command.

Surgeon-Colonel C. A. MAUNSELL, having been appointed to be Administrative Medical Officer in Bombay Command, in succession to Surgeon-Colonel Gore, appointed Principal Medical Officer H.M.'s Forces in India, is posted to Mhow District. Brigade-Surgeon-Lieutenant-Colonel M. M. GALLWEY, on being relieved by Surgeon-Colonel Maunsell, will return to Bombay.

INDIAN MEDICAL SERVICE.

SURGEON-COLONEL S. B. HUNT, Madras Establishment, is appointed Principal Medical Officer Bangalore and Southern Districts.

Surgeon-Colonel D. F. BATEMAN, Madras Establishment, is appointed Principal Medical Officer Madras District.

Surgeon-Colonel F. H. BLENKINSOP, Madras Establishment, is appointed Principal Medical Officer Rangoon District.

An examination for not fewer than twelve appointments to Her Majesty's Indian Medical Service will be held in London in August, 1895. It is notified for information that, at this and future examinations, no candidate will be considered eligible unless, in addition to obtaining at least one-third of the marks obtainable in each compulsory subject, he shall obtain one-half the aggregate marks for all the compulsory subjects. Copies of the regulations for the examination, with information regarding the pay and retiring allowances, etc., of Indian medical officers, may be obtained on application to the Under-Secretary of State for India, India Office, London, S.W. The exact date of the examination and number of appointments to be competed for will be announced hereafter.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN H. R. BRAMWELL, M.B., Tynemouth Volunteer Artillery, Western Division Royal Artillery, to be Surgeon-Captain, May 1st.

THE VOLUNTEERS.

SURGEON CAPTAIN E. G. YOUNGER, M.D., 3rd Volunteer Battalion the Royal Fusiliers, has resigned his commission, May 1st.

Surgeon-Captain G. F. E. GLAND, 2nd Volunteer Battalion the Lincolnshire Regiment, is promoted to be Surgeon-Major, May 1st.

Mr. ERNEST R. W. SPRATLEY is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion the Cheshire Regiment, May 1st.

Mr. PERCY T. LUNN is appointed Surgeon-Lieutenant to the 2nd Volunteer Battalion the Gloucestershire Regiment, May 1st.

Surgeon-Lieutenant Colonel W. R. DUGUID, 6th Volunteer Battalion the Gordon Highlanders, has resigned his commission, retaining his rank and uniform, May 1st.

VOLUNTEER MEDICAL STAFF CORPS.

SURGEON-LIEUTENANT J. B. MANN, the Manchester Companies, is promoted to be Surgeon-Captain, May 1st.

THE VOLUNTEER STAFF IN THE LIVERPOOL DISTRICT.

THE annual dinner of the Volunteer Staff of Liverpool and district was held at the Exchange Station Hotel on April 24th, Brigade-Surgeon-Lieutenant-Colonel Wills, V.D., in the chair. Fifty-two guests were present amongst whom were the following: Colonel Slacke, R.E., Captain Crofton, R.N., Brigade-Surgeon Nicholson, A.M.D., Fleet-Surgeon White, C.B., Lieutenant-Colonel Hart, R.E., Major Thompson, R.E., the President of the Medical Institution.

THE PUNJAB ARMY CORPS.

DURING the absence at home on sick leave of Surgeon-Colonel Harvey, the Principal Medical Officership of the Punjab Army Corps will be temporarily held by Surgeon-Colonel Spencer, I.M.S., who will be granted the local rank of Surgeon-Major-General, and draw the pay, the former officer not having taken up the appointment. Surgeon-Colonel Spencer has only just returned from Waziristan.

THE REPORT OF THE SANITARY COMMISSIONER OF INDIA FOR 1893.

The report of the Sanitary Commissioner with the Government of India for 1893, during which is shown a strength of 70,091 European troops, the admissions to hospital from each of the three Presidency armies have been less, while the numbers constantly sick have been greater, than in the preceding year; in fact, the constantly-sick rate has been greater than in any of the decades since 1870. Venereal diseases and fevers have given 33 and 30 per cent. respectively of total sicknesses, against 27 and 33.3 in the preceding year. The mortality from enteric fever was as follows: Bengal, 4.6 per cent.; Madras, 35 per cent.; and Bombay 26 per cent. of the total deaths. The admissions in the entire European army from enteric fever were 20 per 1,000, and deaths 5.29. The chief causes of

invaliding were syphilis, debility, and malarial fever. The strength of officers 6,382, the death-rate being 10·67 per mille for the British service, and 8·82 for the Indian service. Enteric fever caused 11 deaths in the former, while only 1 death occurred among officers of the Indian service. There were 26 deaths altogether in India among officers of the British service, and 22 among officers of the Indian service—3 killed in action.

MARCHING OF TROOPS.

WHILE pronouncing the marching of our troops, as a rule, to be not very good, and decidedly inferior to those of the French, German, and Russian, the *Broad Arrow* alludes to a series of experiments being carried out, under the orders of the German Emperor, by Professor Heutz and Staff-Surgeon Schunberg under the following conditions. Each march was 15 miles 82 yards, and the loads (*a*) 44 lbs., (*b*) 88 lbs., (*c*) 132 lbs. Five students of the Friedrich Wilhelm Institute undertook to make the marches. With (*a*), in moderate temperature, no distress or ill effects ensued; in very hot weather there was slight inconvenience, such as very profuse perspiration, but the evil consequences soon disappeared at the close of the march, and the next day no ill-effects remained. With (*b*), in favourable weather, the load could be carried without distress, but in hot weather an amount of fatigue was felt from which the men had not recovered on the next day. With (*c*) the ill-effects were decided, and practice did not produce much improvement. Subsequent experiments with Landwehr and Reserve men out of training, as well as some on active service, produced similar results.

PHYSIQUE OF SICK BEARERS.

A CORRESPONDENT writes that, when bearer companies and field hospitals were mobilised at Aldershot last year, adverse medical reports were sent in regarding the inferior physique of the men; but these reports were declared by the higher military authorities to be based on erroneous medical opinions. Will some member of Parliament move for the reports? Perhaps they will be declared "confidential."

*** The lowering of the standard of height for men of the Medical Staff Corps was a mistake, and led to inferior recruits finding their way into the corps. We believe, however, that lately a better class of men have been coming forward for the corps, and more careful selection is being made. Recruiting medical officers to a certain extent have the remedy in their own hands; they have to certify that they consider a recruit "suitable" for a corps before he is posted to it; and men of inferior physique, deficient education, or indifferent antecedents are obviously unfit for the important physical and moral duties of the corps, whether in hospital or the field.

UNIFICATION *VERSUS* REGIMENTALISM.

BRIGADE-SURGEON-LIEUTENANT-COLONEL W. HILL CLIMO, M.D., Army Medical Staff (retired) (Colchester), writes: In your service notes in the BRITISH MEDICAL JOURNAL of April 27th, you criticise my article entitled "The Scourge of India: Its Causes," which appears in the current month's number of the *United Service Magazine*. The epigrammatic heading of your note, combined with its briefness, may possibly cause my views to be misunderstood by officers of the Army Medical Staff with whom I am not acquainted. I therefore crave permission to make a personal explanation avoiding all controversial points.

Shortly after I joined the Army Medical Department in 1861, I arrived at the conclusion that the abolition of regimental hospitals was necessary to secure efficiency, and to develop a higher professional standard, but that it would be disastrous both to the army and to the department to deprive corps of the services of medical officers altogether, and that one medical officer should be always attached to each regimental unit to look after its sanitation, and to keep in touch with its internal economy. In season and out of season I urged these views, being convinced of their paramount importance.

In 1881, just prior to the assembling of Lord Camperdown's Committee, I published in the *Allahabad Pioneer* an article on army medical organisation in which these views were given in detail, and in which I foreshadowed the recommendations of that Committee. You were pleased at the time to review that article very favourably. Subsequent events, both as regards the tendency of military affairs and the evolution of the army medical department, have convinced me of the soundness of my original views, to which after a lifelong study I still adhere.

I have no personal ends to serve; my sole object is to help, however humbly, in placing on a sounder basis the relations of the army medical department to the army, because I believe by doing so the gain to the army will be great, and the highest interests of the department will be secured. I have paid somewhat dearly for these opinions; I am, therefore, desirous that to their cost there should not be added the risk of their being misunderstood.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

EXAMINATIONS IN TRINITY TERM.—Notices of intention to attend the final examination for the degree of B.M. must be given by May 25th, for M.S. by June 5th, and for the first examination for B.M. by June 14th. The examinations will commence on June 13th, June 19th, and June 25th respectively.

UNIVERSITY OF CAMBRIDGE.

DATES OF EXAMINATIONS.—An amended notice of the dates of the examinations for Medical and Surgical degrees will be issued. The Second Examination, Part II (Human Anatomy and Physiology), will commence on Thursday, June 6th.

MEDICAL DEGREES.—At the Congregation held on April 25th the following degrees were conferred:

M.D.—R. B. Ferguson, M.A., Caius.

M.B. and B.C.—J. Nachbar, M.A., Clare; H. Marshall, B.A., Caius; J. J. Taylor, B.A., Emmanuel; C. S. Bond, B.A., non collegiate.

POST-GRADUATE STUDY.—The resolutions establishing the new scheme for the admission of graduates of other universities to courses of advanced study and research were passed *nem. con.* by the Senate on April 25th. The necessary statutes and ordinances for carrying the scheme into effect will now be framed by the syndicate appointed for the purpose.

MEDICAL EXAMINATIONS, EASTER TERM, 1895. Notice has been given of the following dates in reference to the First and Second Examinations for the M.B. and B.C. degrees:

	Names to be Sent in.	Certificates Received.	Examination Begins.
First M.B.: Chemistry, etc.	May 10th	June 1st	June 7th
Biology	,, 24th	,, 4th	,, 10th
Second M.B.: Pharmacy	,, 20th	,, 7th	,, 13th
Anatomy and Physiology	,, 24th	,, 1st	,, 7th

THIRD M.B. EXAMINATION.

Part I (Surgery and Midwifery).—N. G. Bennett, B.A., Joh.; Biss, B.A., King's; Evans, B.A., Trin.; G. H. Field, B.A., Cla.; Fletcher, B.A., Gonv. and Cai.; Giles, B.A., Pet.; Guinness, B.A., Gonv. and Cai.; Hadow, M.A., Gonv. and Cai.; R. J. E. Hanson, Trin.; Hobday, B.A., Christ's; L. T. R. Hutchinson, B.A., Trin.; Key, B.A., Emm.; Lance, B.A., King's; Lawrence, B.A., King's; McCarthy, B.A., Conv. and Cai.; H. J. May, B.A., Gonv. and Cai.; Maw, B.A., King's; P. K. Nix, B.A., Pemb.; Ormerod, B.A., Trin.; Parker, B.A., Gonv. and Cai.; Pentreath, B.A., Queens'; E. Ransome, B.A., Cai.; Ransome, B.A., Gonv. and Cai.; J. A. K. Rowlatt, B.A., Trin.; A. Rotherham, B.A., Trin.; Sing, B.A., Christ's; Sladen, M.A., Gonv. and Cai.; K. S. Storrs, B.A., Emm.; Sturrock, B.A., Gonv. and Cai.; Sworder, B.A., King's; C. A. H. Thomson, B.A., Christ's; Verdon, B.A., Jes., Watson, B.A., Trin.; Woodhouse, B.A., King's.

UNIVERSITY OF LONDON.

THE following examiners have been appointed for 1895-6: *Medicine*: Dr. Cavafy and Dr. Frank Payne. *Surgery*: Mr. William Anderson and Mr. Henry Morris. *Obstetric Medicine*: Dr. Herman and Dr. Horrocks. *Materia Medica and Pharmaceutic Chemistry*: Dr. Sidney Phillips and Dr. Hale White. *Forensic Medicine*: Dr. Luff and Professor Dixon Mann. *Comparative Anatomy*: Mr. F. E. Beddard and Professor Ray Lankester. *Anatomy*: Professor D. J. Cunningham and Mr. Clement Lucas. *Physiology*: Professor W. D. Halliburton and Professor W. Stirling. *Chemistry*: Professor Wyndham Dunstan and Professor Herbert M'Leod. *State Medicine*: Dr. Edward Seaton and Dr. Whitelegge. *Medical Jurisprudence*: Dr. T. Cleye Shaw and Professor Sully, LL.D.

UNIVERSITY COLLEGE, DUNDEE.

AT the last meeting of the Education Board of University College, Dundee, a letter was read from the Edinburgh University Committee stating that that University had resolved to recognise University College, Dundee as a medical school, the courses of instruction in which qualify for graduation in medicine, pending the re-establishment of the union with the University of St. Andrews. The recognition extends to women students. The Dundee Royal Infirmary has also been recognised as a hospital fulfilling the conditions of Ord. 16, Sec. vii (5 and 10).

UNIVERSITY OF DURHAM.

THE following degrees were conferred at a convocation held on April 27th:

Doctor of Medicine (Practitioners).—W. P. Ashe, E. Ferrand, S. Harris, B. Jones, H. A. Latimer, W. Moxon, J. Taylor, E. S. Smith, T. F. Young.

Doctor of Medicine.—G. H. V. Appleby, F. W. Fullerton, R. Green, W. W. Hodgins, W. H. Maidlow, F. H. Marson, B. B. Thorne-Thorne.

Doctor of Hygiene.—W. H. Turnbull.

Master in Surgery.—W. Martin.

Bachelor of Medicine.—C. A. Brough, J. A. H. White, J. R. Prior, E. Turner, S. H. Hanley, H. D. Senior, N. Bennett, R. M. Le H. Cooper, W. T. A. Charlton, P. Davidson, E. Fielden, F. C. Ford, E. R. Fothergill, E. E. Frazer, J. R. Fuller, R. W. Gilmour, G. Gocher, C. Hanks, E. R. Kendall, W. R. Kingdon, G. E. Middlemist, M. S. Paterson, W. H. Peake, T. Sanderson, E. P. Satchell, G. W. Scott.

Bachelor in Surgery.—N. Bennett, W. T. A. Charlton, R. M. Le H. Cooper, P. Davidson, E. Fielden, E. R. Fothergill, E. E. Frazer, J. R. Fuller, R. W. Gilmour, G. Gocher, C. Hanks, M. S. Paterson, W. H. Peake, J. R. Prior, T. Sanderson, E. P. Satchell, G. W. Scott, E. Turner, J. A. H. White.

Bachelor of Hygiene.—G. J. Awburn, G. H. V. Appleby, E. Turner, E. C. Willcox.

Bachelor of Surgery.—R. Beattie.

Diploma in Public Health.—W. H. Symons.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE following gentlemen, having conformed to the By-laws and Regulations, and passed the required Examinations, were, at the meeting of the College on April 25th, admitted Licentiates:

Adams, P. E., St. Bartholomew's
Bacon, R. A. E., St. George's
Barritt, J. T., Manchester
Basden, H. S., Cambridge and London
Baxter, S. E., St. Thomas's
Bennett, A. G., St. Mary's
Birley, H. K., Manchester
Blackburn, E. W., Oxford and St. Bartholomew's
Blackett, E. J., St. George's
Blount, G. B. C., St. Thomas's
*Brown, F. W., London
Burnett, F. M., St. Bartholomew's
Burridge, H. A., King's College
Burton, L. L., London
Butler, T. H., Oxford and St. Bartholomew's
Caldicott, C. H., Birmingham
Clark, W. G., Cambridge and St. Bartholomew's
Clemesha, W. W., Manchester
Conford, G. J., Oxford and St. Thomas's
Cooper, R. M. le H., St. Mary's
Croneen, S., Guy's
Crouch, H. C., St. Thomas's
Dalál, K. D., Bombay
Devereux, N., Birmingham and Middlesex
Dickin, E. P., Edinburgh, Middlesex, and St. Mary's
Dixon, W. E., St. Thomas's
Dobbin, E. J., Middlesex
Dodd, F. L., Middlesex
Dodgson, R. W., St. Mary's
Down, E., London
Dunn, W. E. N., St. Bartholomew's
Edge, B. E., Manchester
Fison, E. T., Cambridge and St. George's
Fuller, A. L., St. Thomas's
Gardner, W., St. Mary's
Gibbons, A. P., London
Gillies, S., St. Bartholomew's
Goddard, G. H., University College
Griffiths, J. C., Birmingham
Groves, E. W. H., St. Bartholomew's
Hallwright, M. L. G., Birmingham and University College
Harrison, H. M., St. Thomas's
Head, F. E., King's College
Heaton, A. B., Cambridge, Leeds, and St. Thomas's
Higginson, G., Cambridge and London
Hopton, R., Leeds
Horton, W. H., St. Bartholomew's
Isacke, M. W. S., St. Bartholomew's
James, C. K., Middlesex
James, F. C., St. Thomas's
Jones, J. E., St. Bartholomew's
King, T. P., Cambridge and Guy's
Lane, J. G. O. H., Guy's and St. Thomas's
Laslett, M. H., St. Thomas's
Lawson, R., St. Thomas's
Legg, T. P., St. Bartholomew's
Lister, W. T., Cambridge and University College
Lockett, G. V., Edinburgh
McArthur, A. N., Melbourne, King's College, and Charing Cross
Madge, H. A., Charing Cross
Marks, H. W. J., Cambridge and St. George's
Marriott, A., Sheffield and University College
Meacher, J. H., St. Bartholomew's
Mills, H. W., Edinburgh and St. Thomas's
Moffat, H. A., Guy's
Montgomery-Smith, E. C., London
Moore, P. L., Cambridge and St. Thomas's
Mott, C. H., London
Mumford, W. G., Guy's
Norbury, W., Cambridge and St. Bartholomew's
Ogden, O. W., Durham
*Owen, A. D., Bristol
Owles, O. W., St. Bartholomew's
Pakes, W. C., Guy's
Palin, E. W., Oxford and St. Thomas's
Pardoe, J. G., Aberdeen and Charing Cross
Peake, W. H., Newcastle and Guy's
Pearson, M. G., St. Bartholomew's
Pern, E. C., St. Thomas's
Pery, E. L., St. Thomas's
Phillips, D., Middlesex
Pinchard, M. B., Middlesex
Pitt, W. C., Guy's
Playfair, E., King's College
Price, G. B., University College
Reynolds, F. E., London
Richards, J., University College
Rigg, S. E., St. Bartholomew's
Sedgewick, H. R., Cambridge, London, and St. Thomas's
Smith, F. L., Birmingham
Smith, L. A., London
Smith, P. M., St. Mary's
Sowry, G. H., St. Bartholomew's
Stanley, H., Cambridge and St. Bartholomew's
Statham, C. J. B., Bombay and Guy's
Stevenson, J. S., St. Bartholomew's
Stewart, C. B., Cambridge and Liverpool
Stokes, J. W., University College
Swainson, E. A. C., Cambridge and Middlesex
Thomas, W. P., London
Thompson, H. E., St. Bartholomew's
Townend, R. H., London
Toye, E. J., St. Bartholomew's
Tresidder, P. E., Guy's
Tribe, F. C. E., King's College
Tucker, E. F. G., London
van Someren, E. H., Guy's
Vivian, J. H. P., St. Thomas's
Walker, H. R., King's College
Walls, E. G., Birmingham
Wanhill, C. F., University College
Waring, A. H., University College
Warrington, R., Manchester
Waters, F. W., St. Thomas's
Webster, T. L., Manchester and St. Bartholomew's
Whitley, H. W., Charing Cross
Wilkins, J. C. V., Guy's
Wilks, M., University College
Williams, D. P., Liverpool
Williams, K. T., Birmingham
Williams, L. A., Middlesex
Willis, W. M., Bristol
Winter, J. B., Guy's
Wiseman, D. W., Charing Cross
Woodward, A., St. Bartholomew's
Worthington, G. V., Cambridge and St. Bartholomew's
Wyborn, W. E., Charing Cross
Young, A., Sheffield and University College
Young, C. W., Charing Cross

* Candidates who have not presented themselves under the Regulations of the Examining Board.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

AT the April sittings of the examiners, held in Glasgow, the following candidates passed the respective examinations, those marked with an asterisk (*) passing with distinction:

First Examination.—Five Years' Course.—J. Moffat, A. J. Wilson, W. Carey, W. M'Farlane, E. M'Kenzie, W. Denness, *T. W. R. Atkins, O. F. MacCarthy, B. Bird, J. Roche, H. Fowler, W. Hutton, H. G. Ogilvie, J. Dick, and Jeanette Elizabeth Hackett.

First Examination.—Four Years' Course.—L. T. Lavan, *H. O. Jones, C. F. Spinkes, G. L. Jones, J. C. Warwick, R. H. Munro, S. H. Smith, J. J. Donagher, R. C. M. Hoare, J. J. Porter, A. B. Hood, J. W. Duncan, R. Cooper, B. J. Nolan, M. Sheehy, A. S. Omand, and H. H. Jones.

Second Examination.—Five Years' Course—R. N. Woodley, W. Mason, B. S. Sanders, and A. F. Seacom.

Second Examination.—Four Years' Course—W. H. Brooks, J. E. Harburn, J. Dunlop, *C. W. Davidson, E. J. Cummins, W. Scott, J. Sanderson, C. Delacherois, J. Roche, J. W. M'Brearty, and R. Fox.

Final Examination (and admitted Licentiate of the three co-operating Colleges).—F. T. Rhodes, Lilian May Blake, W. Austin, C. A. Bois, P. J. Murphy, W. Gordon, J. T. Hancock, J. Livingston, D. L. Lindsay, A. Smith, F. J. Whitehead, A. B. Steward, D. Fletcher, J. Atkinson, T. Boulton, J. W. A. Cooper, J. A. E. A. Lavery, Jeanie G. R. Duggan, A. T. Hill, H. C. Lambart, M.A., J. C. Neale, and B. H. Woodyatt.

OBITUARY.

GEORGE HENTY, M.D.ST.AND., M.R.C.S.

WE regret to have to record the death of Dr. George Henty, which took place from pneumonia after a short illness. He died at his residence in Camden Road. Many who remember his energetic manner, active form, and who were acquainted with the untiring energy which he threw into any scheme for the advancement of the profession to which he was proud to belong will be surprised to hear that he had attained the age of 77. He was for many years the Honorary Secretary of the North London District of the Metropolitan Counties Branch. He was elected on November 30th, 1883, and retained office until November 30th, 1892. He discharged the duties of the post with much zeal and success, and after his retirement from this position and his election as Vice-President of the Branch his regular attendance at the meetings of the Council of the Branch bore witness to the interest which he continued to take in the prosperity of the British Medical Association in the metropolis.

He was born at Chatham, and received his early education at Rochester Grammar School. He served a term of apprenticeship in London, but after qualifying he settled in practice at West Malling, in Kent. Later he removed to Newington, where he held the office of medical officer of health for some time. After practising here for some sixteen years he finally removed, in 1865, to Camden Town, where he continued to practise up to within a very short time of his death.

SURGEON-GENERAL SAVILLE MARRIOTT PELLY, C.B., F.R.C.S.

THE death of Surgeon-General Pelly, which occurred at Woodstock House, Lee, Kent, removes one of the most distinguished among the senior members of the Indian Medical Service. He was the last surviving son of the late Judge John Hinde Pelly, of the Indian Civil Service, and a brother of the late Major-General Sir Lewis Pelly, K.C.B., K.C.S.I., M.P. He was one of seven sons, six of whom reached manhood and entered one or other of Her Majesty's Services, and of these three attained to the rank of general officers. Born in India, he was sent to England for education, and made his home at Upton, in Essex with his cousin Sir Henry Pelly, the President of the Hudson Bay Company, after whom Fort Pelly, the Pelly river, and Lake Pelly take their names. He was placed at Winchester, where, owing to his marvellous faculty for getting out of scrapes, he received the nickname of "Proof Pelly." It was here, too, as a bold swimmer he first displayed his courage and self-reliance by plunging into the deep lock opposite the old Saw Mills, and rescuing a fellow schoolboy from drowning. He is said to have saved the lives of no fewer than five persons from drowning, one being a brother when in India.

On leaving Winchester, he began his medical education as dressing pupil under his uncle, Mr. Richard Smith, at that time senior surgeon to the Bristol Royal Infirmary. He next entered as a medical student of Guy's Hospital, at the time when Bright and Addison were physicians, and Astley Cooper was still alive. Dr. J. G. Swayne, whose name is intimately associated with the Bristol Medical School, was a fellow student with him both at Bristol and at Guy's. He was a student when Sir Astley Cooper died in 1841, and was one of those who lined the way to the hospital chapel, in the vault of which the body of that distinguished surgeon is deposited. After finishing his professional studies he entered the Indian Medical Service, and was soon ordered to the front. He was present in July and August, 1843, with a field force under Major Blood in the southern parts of Sind, and served with

the Sind Irregular Horse during Sir C. Napier's campaign in 1844-45 against the predatory tribes on the borders of Cutchee, and in the surprise and capture of Shahpoor on the night of January 15th, 1845, being mentioned in the despatches by Captain Jacob. He was present with the army of observation at Bhawalpoor under Sir C. Napier in 1846-47, and with the Sind Horse during the pacification of the frontier of Sind in 1847-48 under Major (afterwards General) John Jacob. He served with the 2nd Regiment of Light Cavalry in Rajpootana during the mutiny campaign in 1857-58, and was present as senior medical officer at the attack on Nimbhaira, the action of Jeerun, and throughout the siege of Neemuch, under Captain Simpson, joining afterwards in the pursuit of Tantia Topee with the column under Brigadier Parke. At the conclusion of the war, he received the Indian medal and clasp for Central India.

For many years he was resident in Sind. He became inspector of prisons in the Bombay Presidency, and at his suggestion the Government introduced gardening as prison labour, whereby a great saving was effected; for not only was the health of the prisoners greatly benefited by this open air exercise, but all the vegetables required by the inmates were thus obtained without purchase. When the Abyssinian expedition was determined upon, Pelly was selected for the post of principal medical officer of the Indian Medical Department, and he served throughout the campaign in 1867-68, under Sir Robert (afterwards Lord) Napier. For his services during this campaign he was recommended for the K.C.S.I., but as it was found that this knighthood could only be conferred for services rendered in India, he was rewarded by a Companionship of the Bath. After the war the British Medical Journal contained the following paragraph: "The arrangements in Abyssinia of the two services were conducted separately by their respective medical departments; and, we believe, well conducted. Deputy Inspector-General Pelly, of the Indian Service, had a difficult task, and fulfilled it, by all accounts, most successfully." He retired as Inspector-General in 1870.

After his retirement he lived for many years in Dublin, but came to London a few years ago, to be near his brother, Sir Lewis Pelly, who was at that time representing Hackney. At the quincentenary festival of Winchester College held two years ago, Surgeon-General Pelly was among the oldest of old Wykehamists present. He was a man of most genial and warm-hearted disposition, making friends wherever he went, being universally respected for his uprightness and gallantry. Buoyant in spirit, firm in will, brave and courteous, punctilious in matters of honour, yet kind, gentle, and forgiving, he possessed all the qualities most to be admired in a soldier and a surgeon. He retained to the last a very remarkable intellectual vigour, and great activity of body. Having a strong taste for engineering, he amused himself chiefly during his retirement in his workshop, turning out all kinds of articles useful and ornamental. He designed, among other things, an electric clock, forging every part with his own hand. He also invented, when in Dublin, an electric stethoscope, after the manner of the telephone, by which every member of a class could listen at the same time to the same heart.

When he attempted to make another instrument of the kind he somehow thought he had failed, for he could not hear his own heart sounds clearly, and blamed the instrument for the defect. Subsequent events seemed to show that the defect was in the sound of his heart, which does not appear to have occurred to him. He continued in perfect health till five weeks before his death, when he was first seized with angina, apparently as the result of a febrile attack, probably influenza. Dr. Green, of Lee, who attended him, discovered a mitral *bruit*, and gave him relief by medicine and rest. Attacks of cardiac asthma associated with great pain, however, became frequent, and a week before his death Dr. Pye-Smith saw him in consultation. He died suddenly, as had been thought probable, on April 3rd, whilst sitting in his chair, aged 76. He leaves a widow and two sons, the Rev. Stanley Pelly and Captain Saville H. Pelly, and two daughters.

Mr. Thurston Forshaw, L.R.C.P.Edin., L.M., of Smalley, has died at the age of 55. He was formerly medical officer and public vaccinator to the Smalley District of the Belper Union, had been in practice in the village for 24 years, where he was universally respected. He was the son of the late Rev. Thurstan Forshaw, vicar of New Chapel, Staffordshire, and studied at the Sheffield School of Medicine, Edinburgh and Dublin. He obtained the diploma of L.M.Dublin in in 1864, and of L.R.C.P.Edinburgh and L.S.A.London in 1871. The funeral took place in Smalley Churchyard, in the presence of a large number of friends and relations.

Professor Victor Parisot, of Nancy, who recently died in the 84th year of his age, was born at Nancy in 1811. He began the study of medicine in his native city, and afterwards proceeded to Paris, where he took his degree in 1836. Returning to Nancy he was appointed demonstrator of anatomy in 1837, assistant professor of external pathology in 1845, and professor of clinical medicine in 1849. When the French Faculty of Strassburg was transferred to Nancy, Parisot was appointed to the new Chair of Clinical Medicine, which he continued to occupy till his retirement in 1886. He wrote little, but was an excellent teacher, and a physician with a high sense of duty. He was a man of wide culture and philosophic mind.

The death is announced of Deputy Surgeon-General Samuel Stacy Skipton, M.D., in his 66th year, at his residence in Liscard, Cheshire. He entered the service as Assistant Surgeon in 1854, and served in the Crimea with the 49th Regiment, receiving the medal with clasp and the Turkish medal. During the Indian Mutiny he was attached to the 14th Light Dragoons in the Central India Field Force. He was mentioned in the despatches at the capture of the fort of Loharee, and received the medal with clasp. He obtained the rank of Surgeon in 1866, of Surgeon-Major in 1873, and of Brigade-Surgeon in 1884, retiring in 1885 with the rank of Deputy Surgeon-General.

The death is reported to have occurred suddenly, on April 19th, of Mr. Thomas Marchant Tomkin, of Witham. The deceased, who was 76 years of age, qualified as M.R.C.S.Eng. and L.S.A., in 1840. He was the proprietor of a private lunatic asylum at Witham, in which town he had a large practice.

We regret to announce the death of Professor Thiersch, the eminent surgeon of Leipzig, which took place on April 28th, at the age of 73. He was appointed Professor of Surgery in the University of Erlangen in 1854, and in 1867 he was called to the corresponding chair at Leipzig.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Alfred Courbon, Professor in the Medical School of Toulouse; Dr. Procuro José de Gouveia, for many years Physician to the S. José Hospital, Lisbon; Dr. José Godoy y Rico, Professor of Operative Surgery in the University of Granada; Dr. Mariano Lucientes, a member of the Sanitary Council of Spain; Dr. Emile Martin, Honorary President of the Belgian Medical Federation; Dr. Benjamin F. Westbrook, for many years physician to St. Mary's Hospital, Brooklyn, and author of numerous contributions to medical literature, aged 44; Dr. Alexander S. Sally, of Orangeburg, South Carolina, one of the foremost practitioners in the South, aged 77; and Dr. Joseph Bertenson, Honorary Physician to the Russian Imperial Family, and founder of the first hospital constructed on the barrack system in Russia, aged 59.

INDIA AND THE COLONIES.

INDIA.

Women Medical Students.—Her Highness the Nawab Shums e-Jehan, Begum of Murshedabad, and widow of the late Nawab Nazim, has given the splendid donation of Rs. 25,000 towards building the proposed hostel for the Indian female medical students at the Campbell Hospital. The Begum associates her gift with the wish that the hostel should be called the Lady Elliott Hostel, and also with the name of her son. A better title could not have been chosen. Furthermore, Her Highness is making an endowment of Rs. 50,000 for the benefit of Indian students at Kerbela in memory of her beloved son Prince Syed Iskandar Ali Mirza, the Sultan Sahib of Murshedabad, who died last year. The Begum is herself taking his remains to Kerbela to deposit them there this summer.

SMALL-POX.—Far from abating, small-pox increases in Calcutta by leaps and bounds, no locality appearing to be free from it, and no class except the vaccinated. The week's returns of mortality from the disease are 233, or an increase of 10 a day upon the deaths of last week.

INDIAN HOSPITAL ASSISTANTS.—The "Native Doctor," from whom the "Hospital Assistant" of the present day has had educational evolution, was at first little better than a compounder and dresser, who by observation, instruction, and practice acquired some knowledge of disease and its treatment, and was entrusted under close supervision with the care of the sick. Nowadays the hospital assistant has to undergo a three years' course of instruction in a medical school, to pass a tolerably severe examination, to obtain a diploma, and to prove himself qualified for medical, surgical, sanitary, and medico-legal work in positions where he is subject to very slight and distant control. Yet, notwithstanding the more scientific and complete education and training which he receives, and the higher responsibilities with which he is entrusted, his status, pay, privileges, and perquisites remain pretty much what they were when his prototype, the native dispenser, was little better than an apothecary. He receives the pay of a common clerk or copyist, and as compared with subordinates in other departments, for example, railway, telegraph, and public works departments, his position and prospects are markedly inferior. We have received a copy of a memorial to Government drawn up for hospital assistants serving in the Bombay Presidency, in which, on considerations such as we have indicated, petition is made for more liberal pay and allowances, improved rank, title and status, increased pension, and better encouragements in the shape of promotion, honorary distinction, etc., for long and good service. The prayer of this most useful and deserving class of medical subordinates has our hearty sympathy and support, and we entertain a strong opinion that the time has come for raising the condition of life and service of a section of the public medical establishment of India which has advanced in intelligence and efficiency far above the original level, and which is likely in the future, if properly encouraged, to fulfil more numerous and important offices in the army and in civil life than at present.

THE PASTEUR INSTITUTE OF INDIA.—According to the *Indian Medical Gazette* the report of the Bengal Central Committee shows a sum of Rs.22,592 13 6 in hand, which, with the promised subscriptions, amount to over a quarter of a lakh of rupees. Surgeon-Colonel Ross and Surgeon-Captain Maynard have taken up the duties of Secretary and Assistant Secretary respectively from Surgeon-Colonel Harvey and Surgeon-Captain Evans.

NATIVE CUSTOMS AND BRITISH INACCURACIES.—It is curious how thoroughly ignorant even residents in India, supposed to be conversant with the facts of the most ordinary medical matters, may be, and how fond they are of parading their ignorance. A civil surgeon, signing himself "W. J. B." in the *Englishman*, says, on the strength of the alleged assertion of two native gentlemen at a meeting at the house of the Lieutenant-Governor, that the natives of India have from time immemorial boiled all their drinking water, and that they were capable of nothing so much as the purity of its source. If any civil medical officer in India were to dare to make such an assertion publicly, and over his own name, there would probably be an end of his Civil service, and of his ever being accepted as a natural authority on any subject. The facts are, first, that no gentleman ever made any such statement at the meeting in question, or could possibly make it. The actual statement made was that during sickness natives of India often boiled their drinking water, and that doctors recommended boiled water for superstitious reasons, but certainly no one has ever suggested that the natives of India are in the habit of boiling drinking water for the ordinary purposes of life. If they could be induced to do so, this would be the most beneficent reform which could be introduced into that great country. "W. J. B." further states we are constantly dinning the boiling of drinking water into the ears of our patients, and carrying it out effectually in our gaols. This is precisely contrary to the fact. In certain gaols in Bengal the drinking water is habitually boiled. To these Mr. Hart referred as affording strong evidence of the enormous value to life of that proceeding in India, and he produced facts to show that where this was done the mortality from malarial fevers was reduced from 45 per mille to 0.5 per mille "W. J. B." therefore, although living all his life in India, as he declares, is in fact absolutely ignorant of the conditions which surround him, and more than this, dangerously misrepresents them. He adds that boiling the drinking water has on more than one occasion saved a regiment or camp from cholera. That was precisely what Mr. Hart pointed out when he urged that wherever cholera broke out, whether endemic or sporadic, the boiling of water should be universally enforced. It is quite clear that "W. J. B." has yet to learn what he describes as the A B C of sanitation, and it is a lesson which he among others will do well to learn.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SANITARY CONFERENCE IN MANCHESTER.

A THREE days' conference on sanitary progress and reform was opened in Manchester on April 24th. It was resolved that a smoke abatement league should be formed, the nucleus of the league to consist of organisations at present existing in Manchester, Rochdale, Middleton, Oldham, and Bolton. The Bishop of Manchester said that if the working people knew what an amount of avoidable sickness they became the victims of through neglect, a louder cry would be raised for the sweeping away of the very worst of these evils. Sir H. Roscoe, M.P., afterwards took the chair at the conference session, and, in introducing the question of smoke abatement, said that whilst they paid attention almost entirely to the smoke from factory chimneys and from manufacturing operations, they had to deal with a larger question, namely, that of the smoke from ordinary household fires. Mr. A. E. Fletcher, chief inspector of alkali works, delivered an address, in which he urged that the compulsory powers as to vapours from chemical manufactories should be applied also to coal smoke. Dr. Cohen, of the Yorkshire College, spoke in favour of having Government, instead of local smoke inspectors. Sir Robert Rawlinson, who, it was hoped, would deliver an inaugural address to the conference, was prevented by the state of his health from being present. The conference was occupied on Thursday, April 25th, with questions of public recreation in crowded towns. Papers by the Earl of Meath and Cardinal Vaughan were read in the absence of their authors. Lord Meath's paper dwelt on the need of small playgrounds in charge of women for girls and small children, and in charge of gymnastic instructors for boys and youths. Cardinal Vaughan advocated municipal provision for winter recreation in poor localities. He suggested that somewhere within reach of the poorest quarters of one of the great cities the civil authorities should build, or provide space for, a large winter garden or winter recreation hall, capable of accommodating from 500 to 1,000 people, and that in this area music and entertainments should be organised on certain evenings in the week. The conference also discussed papers by Dr. G. H. Bailey, of Owens College, on the air in schools, and by Dr. E. Jones on the lighting of schools. Dr. Jones urged the adoption of the electric light in schools.

Concurrently with the proceedings a conference of district councils for the registration of plumbers in the northern and midland counties was held. Mr. John Holden presiding. The Chairman, in an address, said the Plumbers' Company in the Bill now being again put forward, proposed to assist out of their surplus funds in establishing schools for the education of plumbers, but the public were equally in want of education. At the concluding meeting of the conference on the following day, Sir B. W. Richardson, F.R.S., delivered an address on "Sanitation, a Review of the Past, and an Ideal for the Future." The first ideal was that of a national main drainage. The only true way of draining a town was to separate the sewage matter of the houses from storm water. In order to take the sewage to the land away from communities they had nothing to do but construct along the sides of railways a series of iron or brick tubes. Another ideal was the systematic management of the sick of all classes, but especially the contagious. The ideal was that in all communities hotel-hospitals, comfortably and even elegantly furnished, should be erected, with everything that was necessary for the sick, so that if a person fell ill from acute disease he should be able to find a room where he could be looked after either by his own medical attendant and friends or by the medical officers of the place. This might be done with less expense than was now devoted to the management of sickness in private dwellings. The towns themselves should be ventilated, and to secure good ventilation it was necessary to make a proper course for the winds through the streets, and to secure that vegetation which sprang from vegetation. He suggested the bringing of air into the streets from heights, pressing it when necessary, and letting it pass through the close streets and alleys. He also advocated the planting of flowers and small trees on the roofs of houses. A further sanitary ideal had relation to education, especially sanitary principles should enter into children's learning. A committee was appointed to consider the question of sanitary instruction in the curriculum of elementary schools.

SANITARY ADMINISTRATION IN CARNARVONSHIRE.

WE have before us the report of the health officer in charge of the Carnarvonshire combined sanitary districts in respect of 1894, and have been struck by the amount of work recorded as accomplished in the several areas during the twelve months. Dr. P. Fraser again writes the report in the circumstances of the absence through ill-health of Dr. Hugh Rees, the health officer. But the point that strikes us most is that, apparently, so much is left to the "sanitary inspector" of the various districts, especially in the matter of action under the Notification Act, which is in force in fifteen of the nineteen separate areas, as regards over 125,000 persons. According to Dr. Fraser's own showing, this would seem to be the inevitable result of having under his charge areas, as so many persons 1,000 square miles, and comprising localities of more or less inaccessible character. It is know, are of a hilly nature and more or less inaccessible character. It is most difficult to gather from the several reports presented by Dr. Fraser what has been the work carried out by himself, and what the work of the sanitary inspectors; how far, for instance, their action has been preliminary to, or has superseded, his in matters which are ordinarily regarded as within the special province of the medical officer of health. It seems to us, to say the least, to be questionable policy for it is desirable to leave in the hands of the nuisance inspector the visiting of each and every notified case of a contagious disease with the view in each instance of making "hygienic," though we have Dr. Fraser's reports that to show much good has followed the operation of compulsory notification under the methods here adopted. It may well be that the geographical peculiarities of North Wales lend themselves only to the practice of health officers' duties, and circumstances of present combination for health officers' duties, and certainly there is nothing in these reports to show that the area in question has suffered in the hands either of Dr. Rees or Dr. Fraser; indeed, good work seems to have been carried out, or is in progress. But the question that presents itself is, Has the maximum of what is practicable been achieved under "combination?"

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1895.

THE vital and mortal statistics of the thirty-three large English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During which three months ending March last 88,348 births were registered in these thirty-three towns, equal to an annual rate of 31.5 per 1,000 of their aggregate population, estimated at rather more than ten and a-half millions of persons in the middle of this year. In the corresponding periods of 1893 and 1894 the birth-rate in these towns was 33.2 and 32.0 per 1,000 respectively. In London the birth-rate last quarter was 32.5 per 1,000, while it averaged 34.1 in the thirty-two provincial towns, among which it ranged from 22.2 in Huddersfield, 24.8 in Halifax, 25.7 in Croydon, and 26.4 in Brighton to 37.9 in Sheffield, 38.4 in Sunderland, 39.6 in Liverpool, and 40.0 in Wolverhampton.

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the First Quarter of 1895.

Towns.	Estimated Population middle of 1895.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	10,591,520	88,848	66,503	33.5	25.2	1.6	4,268	29	972	785	739	1,145	426	531	161	1.8
32 Provincial Towns	6,[illegible]1,144	72,775	48,[illegible]	31.1	24.6	1.7	2,879	19	624	244	374	634	291	365	162	2.6
London	4,392,346	35,573	22,155	32.5	26.0	1.5	1,389	10	348	141	425	511	135	166	159	0.8
West Ham	249,473	2,344	1,251	37.7	20.6	1.5	95	—	7	5	34	22	16	11	154	3.6
Croydon	114,923	755	554	25.7	20.4	1.6	47	—	16	2	7	14	7	1	148	—
Brighton	119,604	747	532	26.4	23.8	1.5	46	—	15	—	6	19	3	3	183	2.1
Portsmouth	174,754	1,591	1,024	34.2	23.5	1.3	85	—	58	3	8	10	5	5	150	1.0
Plymouth	89,096	721	583	32.5	26.2	1.7	38	—	25	—	1	11	—	1	155	0.2
Bristol	228,139	1,789	1,302	31.5	24.5	1.0	56	—	4	1	11	18	8	14	139	1.1
Cardiff	155,637	1,389	870	35.8	22.4	1.0	40	—	1	1	12	12	3	11	189	0.8
Swansea	97,008	881	537	35.2	22.2	1.0	24	—	1	3	3	10	4	3	188	1.3
Wolverhampton	85,780	856	603	40.0	28.2	2.3	49	—	—	16	20	8	3	2	161	3.2
Birmingham	498,751	4,183	2,913	33.9	23.5	1.6	192	7	—	9	48	71	20	37	157	5.0
Norwich	107,127	913	546	34.2	20.4	1.3	54	—	2	2	3	18	3	4	145	1.3
Leicester	193,699	1,559	883	32.3	18.3	0.7	55	—	—	2	10	13	6	4	152	4.2
Nottingham	226,658	1,878	1,499	33.2	24.9	1.1	81	—	—	18	3	16	9	15	158	2.3
Derby	100,272	795	469	31.8	18.8	1.2	31	4	7	3	2	1	4	10	125	0.4
Birkenhead	107,469	913	619	34.1	23.1	1.5	39	—	3	3	10	10	10	3	189	0.8
Liverpool	503,967	4,981	4,255	39.6	34.1	2.1	269	8	73	35	29	60	38	46	173	3.7
Bolton	119,337	1,072	799	36.0	26.2	2.7	79	—	41	6	5	7	15	5	145	0.3
Manchester	524,865	4,792	3,596	36.6	27.5	2.5	328	—	98	46	27	79	29	52	167	1.1
Salford	230,384	1,941	1,374	36.4	25.1	2.4	326	—	14	23	13	28	18	25	183	2.2
Oldham	141,079	1,007	909	28.6	25.8	1.5	51	—	3	2	10	21	3	12	187	0.5
Burnley	99,591	846	606	34.1	24.3	1.7	43	—	2	8	7	12	6	8	174	2.7
Blackburn	127,615	1,061	695	33.3	21.9	1.6	50	—	—	—	6	24	8	12	154	5.0
Preston	112,638	1,036	753	36.9	27.9	2.0	56	—	24	—	2	17	2	11	160	6.0
Huddersfield	99,482	581	558	22.2	22.5	0.7	18	—	1	6	2	9	—	—	203	5.2
Halifax	93,513	579	587	24.8	25.1	1.1	26	—	7	—	2	11	5	1	185	3.9
Bradford	228,384	1,510	1,321	28.8	25.1	1.0	54	—	17	7	4	9	6	11	161	1.6
Leeds	395,546	3,255	2,431	33.0	24.7	1.5	150	—	80	7	24	26	6	13	163	6.5
Sheffield	342,768	3,241	1,927	37.9	22.5	2.2	187	—	116	9	21	11	11	19	154	3.8
Hull	216,722	1,977	1,122	36.6	20.8	1.1	60	—	16	8	8	12	7	9	149	6.9
Sunderland	137,705	1,319	785	38.4	22.9	1.6	58	—	6	3	5	23	12	7	138	1.5
Gateshead	95,871	882	524	36.9	21.9	2.6	61	—	26	1	6	16	5	7	162	1.0
Newcastle-on-Tyne	207,021	1,670	1,213	32.4	23.5	2.2	112	—	53	3	7	22	18	8	169	1.5

During the quarter under notice 66,503 deaths were registered in the thirty-three large English towns, corresponding to an annual rate of 25.2 per 1,000, against 25.8, 22.0, and 21.0 in the first quarters of the three preceding years 1892-3-4. In London the rate of mortality was equal to 26.0 per 1,000, while it averaged 24.6 in the thirty-two provincial towns, among which it ranged from 18.3 in Leicester, 18.8 in Derby, 20.4 in Croydon and in Norwich, 20.6 in West Ham, and 20.8 in Hull to 27.5 in Manchester, 27.9 in Preston, 28.2 in Wolverhampton, 28.8 in Brighton, and 34.1 in Liverpool. The 66,503 deaths registered in the thirty-three towns in last quarter included 4,268 which were referred to the principal zymotic diseases, equal to an annual rate of 1.6 per 1,000; in London the zymotic death-rate was equal to 1.5 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, and ranged from 0.7 in Leicester and in Huddersfield, and 1.0 in Bristol, Cardiff, Swansea, and Bradford to 2.3 in Wolverhampton, 2.4 in Salford, 2.5 in Manchester, 2.6 in Gateshead, and 2.7 in Bolton. The 4,268 deaths referred to the principal zymotic diseases in the thirty-three large towns included 1,145 which resulted from whooping-cough, 972 from measles, 780 from diphtheria, 531 from diarrhœa, 426 from "fever" (principally enteric), 385 from scarlet fever, and 29 from small-pox. The fatal cases of whooping-cough, which had declined from 2,064 to 586 in the five preceding quarters, rose again to 1,145 during the three months under notice; in London the whooping-cough death-rate was 0.47 per 1,000, while it averaged 0.41 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Brighton, Norwich, Manchester, Oldham, Blackburn, Preston, Sunderland, and Gateshead. The deaths referred to measles, which had declined from 2,724 to 1,493 in the three preceding quarters, further fell to 972 during the three months ending March last; in London the death-rate from this disease was equal to 0.27 per 1,000, while it averaged 0.43 in the thirty-two provincial towns, and was highest in Plymouth, Bolton, Preston, Leeds, Sheffield, Gateshead, and Newcastle-upon-Tyne. The fatal cases of diphtheria, which had increased from 904 to 1,058 in the three preceding quarters, declined to 780 during the three months under notice; in London the diphtheria death-rate was equal to 0.39 per 1,000, while it averaged 0.24 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in West Ham, Cardiff, Wolverhampton, Birmingham, and Birkenhead. The 531 deaths from diarrhœa were equal to an annual rate of 0.20 per 1,000, which differed but slightly from that recorded in the corresponding periods of recent years; in London the death-rate from this disease was 0.15 per 1,000, while it averaged 0.20 in the thirty-two provincial towns, and was highest in Derby, Manchester, Salford, Blackburn, and Preston. The deaths referred to different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever), which had been 382, 432, and 664 in the three preceding quarters, declined to 426 during the three months ending March last; in London the "fever" death-rate did not exceed 0.12 per 1,000, while it averaged 0.19 in the thirty-two provincial towns, and was highest in Birkenhead, Liverpool, Bolton, Salford, Sunderland, and Newcastle-upon-Tyne. The fatal cases of scarlet fever which had declined from 598 to 402 in the four preceding quarters, further fell to 385 during the three months under notice; in London the scarlet fever death-rate was equal to 0.13 per 1,000, while it averaged 0.16 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Wolverhampton, Nottingham, Manchester, Salford, and Burnley. The deaths from small-pox in the thirty-three towns, which had declined from 166 to 56 in the four preceding quarters, further fell to 29 during the three months ending March last, of which 10 were registered in London, 8 in Liverpool, 7 in Birmingham, and 4 in Derby.

Infant mortality in the thirty-three towns, measured by the proportion of deaths under 1 year of age to registered births, was equal to 161 per 1,000 last quarter, against 145 and 134 in the corresponding periods of the two preceding years. In London the rate of infant mortality was 159 per 1,000, while it averaged 162 in the thirty-two provincial towns, among which it ranged from 125 in Derby, 138 in Sunderland, 139 in Bristol and in Birkenhead, and 145 in Norwich and in Bolton to 185 in Halifax, 188 in Salford, 190 in Preston, 197 in Oldham, and 203 in Huddersfield.

The causes of 1,216, or 1.8 per cent., of the 66,503 deaths in the thirty-three towns during the first quarter of this year were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0.8 per cent., while it averaged 2.6 per cent. in the thirty-two provincial towns. The causes of all the deaths during the quarter in Croydon were duly certified; in the other towns the lowest proportions of uncertified deaths were registered in Plymouth, Wolverhampton, Derby, Bolton, and Oldham, and the highest in Birmingham, Leicester, Blackburn, Preston, Huddersfield, and Hull.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,734 births and 3,829 deaths were registered during the week ending Saturday, April 27th. The annual rate of mortality in these towns, which had declined from 35.0 to 20.3 per 1,000 in the seven preceding weeks, further fell to 18.9 last week. The rates in the several towns ranged from 10.4 in Croydon, 11.3 in Swansea, and 12.7 in Cardiff to 28.7 in Norwich, 29.2 in Preston, and 29.3 in Bolton. In the thirty-two provincial towns the mean death-rate was 19.5 per 1,000, and exceeded by 1.6 the rate recorded in London, which was 17.9 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the death-rate was equal to 1.5 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, and was highest in Manchester, Plymouth, and Bolton. Measles caused a death-rate of 1.4 in Sheffield, 1.5 in Manchester, 4.1 in Plymouth, and 4.4 in Bolton; and whooping-cough of 1.6 in Blackburn, 1.9 in Preston, and 2.1 in Burnley. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 50 deaths from

diphtheria in the thirty-three towns included 27 in London, 5 in Manchester, and 4 in West Ham. No fatal case of small-pox was registered, either in London or in any of the thirty-two large provincial towns. There were 37 cases of small-pox under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, April 27th, against 53, 47, and 35 at the end of the three preceding weeks; 12 new cases were admitted during the week, against 7, 9, and 4 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,463, 1,463, and 1,514 at the end of the three preceding weeks, had declined again to 1,469 on Saturday last, April 27th; 132 new cases were admitted during the week, against 143, 117, and 162 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, April 27th, 958 births and 594 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 24.7 and 21.7 per 1,000 in the two preceding weeks, further declined to 20.6 last week, but exceeded by 1.7 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the death-rates ranged from 15.1 in Greenock to 25 6 in Leith. The zymotic death-rate in these towns averaged 2 5 per 1,000, the highest rates being recorded in Leith and Paisley. The 238 deaths registered in Glasgow included 17 from whooping-cough, 6 from measles, 3 from diphtheria, and 1 from small-pox. Eight fatal cases of measles were recorded in Edinburgh, and 4 in Leith.

A CONSUMPTION HOSPITAL FOR SCOTLAND.

THE first consumption hospital for Scotland is now being completed at Bridge of Weir, in the immediate neighbourhood of Mr. Quarrier's children's homes. It is meant for females, and Mr. Quarrier has made an appeal for one for males, to cost £5,000 if with 25 rooms, and £7,000 if with 35 rooms. To these homes a sum of £1,000 has lately been given, as well as other smaller amounts.

LOCAL GOVERNMENT BOARD INQUIRY AT CARMARTHEN.

WE have received a copy of the *South Wales Daily News* of April 18th, in which there is a long report of an inquiry held at Carmarthen Workhouse by a Local Government Board inspector. We are unable to see from the evidence reported that the charges brought against the district medical officer were established, and we do not hesitate to say that the sensational heading of the report in the above-named paper, namely, "Pauper Patient Scandal" and "Grave Charges against a Doctor" is unjustifiable at this stage of the question, when no fault whatever has yet been proved.

THE DUTIES OF A MEDICAL OFFICER OF HEALTH.

ALLUSION was made in the BRITISH MEDICAL JOURNAL recently to the fact that the notion of instituting "surprise visits" with a view to detecting malingering among sewermen and other *employés* had presented itself to the minds of members of the vestry of St. George the Martyr, Southwark. The medical officer of health who was asked to put this scheme in operation pointed out at the vestry meeting on March 26th the difficulties attending the carrying into execution of such a plan, and the matter was referred to a committee for consideration. On April 9th the report of this committee was presented to the vestry, and the medical officer of health stated that he was prepared to examine vestry *employés* when requested to do so, in the event of the medical practitioner attending them, and when there was no such attendant he would gladly make the necessary visit. The committee, however, appears to have taken the view that the medical officer of health should not consult the practitioner in attendance, and that the vestry should be responsible for any irregularity in regard to the examinations. Several speakers showed their appreciation of the unreasonable nature of this view, and after a lengthy discussion the matter was again referred back to the committee. There can be no doubt that Dr. Waldo was fully justified in the course he took. It would clearly be contrary to medical etiquette for a medical man to visit a patient upon whom another practitioner was in attendance, except after due intimation of the reasons for such a step. All such visits should, if it can be so arranged, be made in consultation with the regular medical attendant of the patient. The rule of the Royal College of Physicians is: "No Fellow, Member, or Licentiate of the College shall officiously, or under colour of a benevolent purpose, offer medical aid to, or prescribe for, any patient whom he knows to be under another legally qualified medical practitioner."

ENTERIC FEVER AT WIDNES.

IN a report just issued from the Medical Department at Whitehall, by Dr. Bruce Low, on the sanitary state of the borough of Widnes in reference to the prevalence of enteric fever therein, we have an instance of the persistence of fever in relation with filth nuisances. The vital statistics of the borough show an average of 14 deaths per annum from "fever" during the last fourteen years, with an average of double that number for the period 1892-94. In the like period, 1881-94, diarrhœa caused 362 deaths, yielding an average of 26 yearly. The notified cases of enteric fever for the five years 1890-94 were 585, or 117 per annum, and increased in number each autumn, with earlier development in the exceedingly dry summer of 1893. The attack incidence by means followed density of population in the several wards, and varied from 1.8 and 2.4, to 5.5 per 1,000 persons living. In the circumstance of no health officer being in office, age and sex of the patients are not forthcoming. Dr. Low has come to regard the recent fever in Widnes as in some measure imported from the adjacent town of Runcorn, where the disease has been for some time very prevalent, the intercommunication between the two places being of a close character. Neither milk supply, water supply, nor sewage, are regarded as accounting for spread of the disease, but the methods of excrement removal and disposal hitherto in force in the borough have left much to be desired and have indeed been such as to lead Dr. Low to say that "the air round the dwellings in Widnes is habitually fouled by emanations from collections of human and other filth stored close to the houses under very unfavourable conditions, and the tainted atmosphere that is there breathed by the inhabitants cannot fail to have an injurious effect upon them. The circumstances, therefore, under which a large number of persons habitually live in Widnes, are such as to greatly favour the diffusion of enteric fever." The hospital accommodation did not suffice for the isolation of anything like all the cases, and while in the last five years there were some 40 per cent. of notified attacks removed to hospital, there were but 27 per cent. so treated in 1894. And we are told of careless persons casting undisinfected discharges from home-treated fever cases into middens. The chief wants of Widnes seem to be the conversion of midden privies into waterclosets, the adoption of the water-carriage system for excrement disposal, and the improvement of the back passages of houses now so foul with excrementitious filth.

BARNSTAPLE UNION.

AT the last meeting of the Board of Guardians a difficulty appears to have cropped up, in consequence of there being no one ready to take the vacant Ilfracombe District. This is not to be wondered at considering the inadequate remuneration offered for the work. We feel satisfied that there would be no difficulty whatever in getting the appointment properly filled and the duties of the office efficiently performed if a reasonably remunerative salary were offered, and until this is done unnecessary expense is likely to be incurred by a temporary appointment having to be made.

VACCINATION AND SMALL-POX.

THE report of the Consul-General at Havre on the trade of the district during last year contains an instructive paragraph devoted to the epidemic of small-pox during the months of February, March, and April of the year. In Havre itself there were 815 attacks, of which 75 proved fatal, a mortality-rate of only 9.3 per cent. of cases. Those attacked were "in nearly every case persons who had never been vaccinated, or who had not been so for many years." Two effective instances of the utility of vaccination are quoted, namely: On board an English ship sailing for New York all the seamen were vaccinated, in accordance with the law of the United States, with the exception of the officers. On arrival at New York two persons were found to be suffering from small-pox, these being the captain and first officer. The second case was that of a foreign vessel, also bound for New York, all on board vaccinated except two men shipped at the last moment. These two latter, and they only, were found, on arrival at New York, to be suffering from small-pox.

COST OF SMALL-POX.

THE Board of the North Dublin Union have decided to pay the amount claimed by the South Dublin guardians for expenses incurred in accommodating small-pox patients from the North Dublin Union. The sum claimed was £683 2s. 7d.

DIPHTHERIA AND SCHOOL CLOSURE.

THE intimate relationship existing between the prevalence of diphtheria and schools is admirably illustrated in a recent report to the Local Government Board by Dr. Deane Sweeting on diphtheria at Long Benton, in the Tynemouth rural district. It appears that from March to December of last year there were 77 notified cases of the disease in ten localities of the parish, mainly in July, and August to November, 67 cases, or 88 per cent. of the whole, occurring between the ages of 3 to 13 years, with 14 out of the 22 deaths at those ages. Of the 67 cases in children of school-going ages no fewer than 53 were in actual attendance at school at the time of their illness, and 47 of them were attending one school. Data such as these, together with facts as to escape of non-schoolgoers and the attack first of the school attendants, strengthened the growing suspicion of school influence on the spread of the diphtheria. If the periods of scholastic duties and of school closure be examined, it is seen how great was the apparent influence of the closures on the prevalence of the disease. Thus:

(*a*) School open.	(*b*) School closed.
1. April 2nd to August 2nd (122 days) 26 cases.	1. August 2nd to September 3rd (32 days) 1 case.
2. September 3rd to November 11th (69 days) 41 cases.	2. November 11th to December 10th (29 days) 7 cases.

Dr. Sweeting found that the sanitary condition of the localities had no effect on the disease prevalence, and that at the schools affected there were no conditions of premises such as to account for the incidence on the scholars. He regards the spread of the disease, whatever its origin, as due to inter-relations between sick and healthy, and especially through the instrumentality of school attendance.

THE NEED FOR PUBLIC SLAUGHTERHOUSES.

AT a meeting of the Church Sanitary Association, held at the Church House, Westminster, on Tuesday, April 23rd, under the presidency of Dr. Norman Kerr, a paper contributed by Mr. Francis W. Clark, medical officer of health, Lowestoft, on The Need for Public Slaughterhouses, was read by the Rev. Canon Reith. The writer of the paper said there were numerous Acts designed to prevent the adulteration of food, but the motive of these had been for the most part the purely commercial one of depreciated value and not the hygienic one of wholesomeness. The cocoa and vinegar sold by the grocer were sampled, and penalties inflicted if they were not pure; but when it came to our meat supplies, people were content to purchase anything, provided only that "it looked all right." Few sanitary authorities had seen the wisdom of providing for the due and proper slaughtering and the adequate inspection of all animals for human food, and a lesson might well be learnt from our Continental neighbours, who were far ahead of us in this respect. The slaughtering of animals for food was an operation which must necessarily be attended by a certain amount of nuisance and danger to the health of those in the immediate vicinity, unless it was carried out with the most ample sani-

tary conveniences and appliances, and therefore the English system of private slaughterhouses must be fraught with danger to the public health. The stabling of cattle, sheep, and pigs in the actual slaughterhouse itself were among the least of the defects of these private slaughterhouses, while overcrowding, deficiency of light and of ventilation were to be found in almost all of them. The greatest danger, however, of the English system of slaughtering arose from the failure to detect and destroy all diseased and unwholesome carcasses, and as a consequence much flesh was constantly offered for sale, especially in the poorer quarters, which was unfit for human food. It was unquestionable that tubercle could be conveyed to man by the ingestion of the flesh of tuberculous cattle, and it was an admitted fact that an appreciable proportion of English cattle were tuberculous. One of the most important factors in the prevalence of consumption throughout England was the unrestricted use of milk from tuberculous cows, and the eating of imperfectly cooked tuberculous beef. The public must be taught that they cannot estimate the quality of meat by a mere casual inspection, and he hoped that the Church Sanitary Association, and the clergy generally, would try to rouse public opinion to a truer recognition of the value of sound and wholesome food. After some remarks from the Chairman, Canon Reith, the Rev. M. C. Morris, and the Rev. E. G. C. Parr, the proceedings closed.

PUBLIC VACCINATION AND CALF LYMPH.

Dr. A. D. Ducat (Public Vaccinator, Islington), writes: "Public Vaccinator," before he proceeds to use calf lymph at his station, had better pause and reflect on the following story of how the public vaccinators of Islington have been treated for using calf lymph.

All went merrily with the public vaccinators of "merrie" Islington, and they regularly obtained the Government grant for efficient vaccination during the reign of that very worthy vaccination inspector, Dr. Stevens, who used to visit the stations twice a year at least, and gave many wise hints as to the performance of our duties. When Dr. Stevens retired it occurred to two of our number that it would be a good thing to get the guardians to sanction the use of calf lymph at the vaccination stations. The guardians not only readily agreed to this, but stated they would furnish all the public vaccinators with a supply of fresh calf lymph, and instructions were issued that calf lymph was to be used in cases where parents preferred it. The vaccination officers were empowered to mark all vaccination papers with notices in red ink to the same effect, and very conspicuously they did it too. The calf lymph was supplied from Dr. Renner's establishment and answered well. As I told the inspector who last visited my station, it would be simply impossible for him to tell which of the arms submitted to him for inspection had been vaccinated with calf lymph and which from human lymph. Thus calf lymph was introduced, and everybody seemed pleased.

The inspector who first visited us after Dr. Stevens retired was Dr. Airy. He looked at the arms we showed him, examined our registers, saw that calf lymph was freely used, and made no comment. So all went merrily for another year, when Dr. Airy once more inspected us, and then, for the first time, there was uttered a mild objection to the use of calf lymph. For my part I told him that I had never asked to use calf lymph, but that the guardians who appointed me, and who could terminate my appointment without interference by the Local Government Board, had, on the instigation of two of the public vaccinators, furnished me with calf lymph, and instructed me to use it, that the calf lymph had answered well, that many parents preferred it, and that if he had any complaint to make he should make it to the guardians and not to me who was powerless in the matter.

A couple of months or more after this visit there came a notice to all of us that if we used calf lymph at our stations, notwithstanding the efficiency of our vaccination, the Government grant would be withheld in future. In consequence of this notice we all (including the two gentlemen who, by agitating for calf lymph, had introduced this source of discord into our previously happy family) waited on Dr. Thorne Thorne to remonstrate with this decision, and as the result of this interview we were promised the grant if we—what think you?—abolished the use of calf lymph altogether? Not at all. We were told we would get the grant if we only vaccinated 20 per cent. of the infant babies with calf lymph and persuaded the parents of all the other babies to allow us to vaccinate their offspring with human lymph, notwithstanding any preference they might have for that from the calf. Now, what has been the result of this decision? The two gentlemen who first of all induced the guardians to grant the use of calf lymph are the only two public vaccinators who have got the grant in Islington, their powers of persuasion over parents against the use of calf lymph being as triumphant as their powers of persuasion over guardians to grant the use of it. But though I have not complied with Dr. Thorne Thorne's rule—the law of 20 per cent.—a law which embodies no principle whatever that I can see—I know I am in very good company. Dr. Sweeting—our newest inspector—tried his skill when on a visit to my station at this game of persuasion, and, as he only succeeded in weaning the affection of one fond mother away from calf lymph—in other words, only reached 50 per cent.—I am consoled by thinking that if he were a public vaccinator in Islington he would not be able to obtain the grant himself.

Sir, the encouragement to use calf lymph we in Islington have got from the Local Government Board and their chief medical adviser is that three of us—those of us, in fact, who comply with the wishes of the guardians and the wishes of the parents of the children brought to us—have been mulcted of the grant we always previously obtained. In my own case it will not amount to so much, but in the case of my two colleagues they must already have lost over £100 each; in other words, they have been fined to that extent for simply doing their duty.

PAYMENT OF NOTIFICATION FEES.

Dr. Jas. T. Neech, D.S.Sc Vict., M.O.H. for Atherton writes: In reply to the query of "D.P.H." on the above subject in the British Medical Journal, page 848, I would like to state that it is customary in Atherton as well as the neighbouring districts for medical men to furnish a statement of cases notified to the sanitary authority. Such a statement should be sent in at the end of every quarter, simply giving the number of cases notified during each month with the totals for the quarter, and upon special forms which the authority ought to supply to every resident practitioner. I have heard of an auditor taking exception to these accounts when they were not presented upon a proper form. The reason why a Council would require a statement at least every six months is because it (the Council) would be liable to be surcharged by the Government auditor for any account or part of an account paid by them which is more than six months overdue. Therefore it is doubtful whether a county court judge would enforce the payment of an account, especially of notification fees, which is more than six months overdue.

*** No doubt the practice varies in different districts. The plan which Dr. Neech describes seems to be a convenient and simple one, the forms being supplied by the authority, and needing only the insertion of monthly and quarterly numbers of reported cases. A half-yearly list of cases, with names and dates of each, is quite another matter.

DUTIES OF MEDICAL OFFICERS OF HEALTH TOWARDS OTHER PRACTITIONERS.

Enquirer asks: 1. Should a medical officer of health report to the District Council at their meeting the names and addresses of cases notified to him?

2. Should he ever speak of such cases as are notified to him by other practitioners to his own private patients or other persons?

1. Certainly not as a matter of routine, but it may be necessary to report such details in particular cases.

2. Not without sufficient reason, but there are various reasons which may be sufficient. For example, it might be necessary to warn parents not to let their children visit an infected house.

ELIGIBILITY OF DISTRICT MEDICAL OFFICER.

Enquirer asks whether he, living in Parish B., is disqualified for holding the parish appointment in C., his position being the most central for the residents in C.

*** We do not suppose that our correspondent is disqualified for the appointment in question, but as he does not say whether the two parishes are in the same medical district or not, we are unable to say whether he is eligible to hold a permanent appointment in reference to Parish C.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

The quarterly meeting of this Society was held at 429, Strand, on April 24th. There were present: Dr. de Havilland Hall (Chairman), Dr. G. E. Herman (Treasurer), Dr. J. B. Ball, Dr. Walter Smith, Dr. G. W. Crowe, Dr. M. Greenwood, Mr. Frederick Wallace, Mr. F. S. Edwards, Dr. F. R. Mutch, Mr. W. J. Stephens, Dr. D. de Vere Hunt, Dr. F. J. Allan, Mr. R. S. Charsley, and Dr. A. S. Gubb.

The accounts presented showed that the business of the Society was steadily growing, and that a considerable number of the members had availed themselves of the recent alteration in the rules, under which a discount is allowed on premiums paid annually or half-yearly in advance, the result being that the amount of contributions received in the first three months of this year is larger than in any previous quarter since the foundation of the Society.

On the other hand the epidemic of influenza caused a considerable increase in the number of sickness claims and the value of the Society to its members has never been more clearly shown than in the last ten weeks. Claims for sickness pay were received from all parts of the United Kingdom, and many letters testify to the welcome nature of the aid which the Society renders in such cases.

The increase in the number of sickness claims has thrown a great amount of extra work upon Dr. James B. Ball, who examines every case before it is paid, and the Committee passed a hearty vote of thanks to him for the time and attention he had so freely given.

Prospectuses and all information relating to the Society may be obtained on application to Mr. F. Addiscott, Secretary Medical Assurance Society, 33, Chancery Lane, London, W.C.

The festival dinner in aid of the funds of the West Ham Hospital was held at the Holborn Restaurant on April 25th, under the presidency of Mr. E. Rider Cook, M.P. Subscriptions and donations amounting to £713 were announced during the evening.

LITERARY NOTES.

IN the yearly volume issued this spring by the Palæontographical Society there appears the commencement of a monograph on the carbonicola, anthracomya, and naiadites of the carboniferous strata of Great Britain, written by one of our professional brethren, Dr. Wheelton Hind, of Stoke-on-Trent. The monograph is preceded by an introduction and a historical summary, from which we learn that in the author's opinion a careful examination of the beds containing these genera tends to strengthen the belief that they were laid down as fluviatile or estuarial deposits. This point is of importance, as tending to support the fresh water origin of many of the upper and middle coal measures, a question which has been greatly debated for many years. The monograph itself, and the beautiful illustrations accompanying it, are of too highly technical a character for us to criticise in a medical journal. We must, however, congratulate Dr. Hind on the zeal and energy he displays in working up this complete subject amid the engrossing cares of a large practice, and upon the success which has attended his labours. The publication of this monograph will place Dr. Hind in a high position as an authority on the palæontology of the coal measures.

The valiant effort of the ladies to batter down the gates of the citadel of medicine have been crowned with victory, and the question of their fitness for the profession has now settled itself by the *solvitur ambulando* argument. Still, the views of a man like Oliver Wendell Holmes on the matter may be interesting even at the present day. We give them on the authority of Professor Dwight, of Harvard. When the question of admitting women to the medical school of Harvard was first taken into serious consideration, Holmes was inclined to look favourably on the proposal, but he does not seem to have shown much enthusiasm in the cause. In a lecture which he delivered at the opening of the new medical school at Harvard in 1883, he dwelt on woman as a nurse, adding "I have always felt that this was rather the vocation of women than general medical, and especially surgical, practice." This was the signal for loud applause from the conservative side. When he could resume he went on: "Yet I myself followed the course of lectures given by the young Madame Lachapelle in Paris, and if here and there an intrepid woman insists on taking by storm the fortress of medical education, I would have the gate flung open to her, as if it were that of the citadel of Orleans and she were Joan of Arc returning from the field of victory."

The first fasciculus of Professor Durante's treatise on surgery, entitled "Trattato di Patologia e Terapia Chirurgica Generale e Speciale," will be published immediately. This treatise is looked forward to with much interest in Italy for two reasons: first, because it is the work of the first surgeon in Italy, who has been a teacher of the art for over a quarter of a century in Rome; and secondly because it is the first complete modern work on surgery written by an Italian. It will be published in three volumes fully illustrated; the first volume will deal with inflammation, surgical fever, violent lesions and their complications and tumours; the second, diseases of the tissues; and the third, regional and organic affections. It will be published in monthly parts of about 200 pages, and will be complete in ten parts.

In the *Glasgow Medical Journal* for April Dr. Dugald Mitchell discusses "The Therapeutics of Sydenham." That great physician sought above all to impress on his contemporaries the fact that more could be left to Nature than they were in the habit of leaving her. Sydenham insisted that the end would be oftener attained "if Nature were not diverted by ignorant men from the straight way that of herself she holdeth." He was wont to say, "The sick man dies of his physician," thus anticipating an epigram of Lord Byron's. The practical part of Sydenham's mind is well shown in the following passage:

> I have ever held that any accession whatever to the art of healing, even though it went no farther than the cutting of corns or the curing of toothache, was of far higher value than all the knowledge of fine points and all the pomp of subtle speculations—matters which are as useful to physicians in driving away diseases as music is to masons in laying bricks.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.

Bill for the Registration of Midwives.—Lord BALFOUR OF BURLEIGH introduced a Bill for the registration of midwives, which was read a first time.

HOUSE OF COMMONS.

Surgeon-Major-General Giraud.—Sir ALBERT ROLLIT asked the Secretary of State for War whether, and for what specified period, the services of Surgeon-Major-General C. H. Giraud, Principal Medical Officer at Netley, had been extended beyond the age laid down by regulation for retirement; and whether and when the period for extension was notified to the officer concerned.—The SECRETARY OF STATE FOR WAR said the services of Surgeon-Major-General Giraud had not been extended beyond the maximum age laid down by regulation for retirement. The age laid down by the Royal Warrant for retirement of a surgeon-major-general was 62, when the interests of the public service would be materially advanced by his retention to that age; and it had been deemed advisable to retain Dr. Giraud's services at Netley till he reached that age. He had been verbally informed of this at the time it was so decided.

Bovine Tuberculosis.—Mr. SHAW LEFEVRE, in reply to Mr. RAMSAY, said the report of the Royal Commission on Bovine Tuberculosis had been made, and a copy of it laid on the table of the House.

Influenza.—Sir WALTER FOSTER, in answer to Mr. AIRD, said that the Local Government Board had instituted more than one inquiry into the causes of influenza, and the results of those inquiries were contained in reports which had been laid before Parliament. In dealing with the matter this Board had availed themselves of outside medical advice. The subject continued to receive the attention of the Board, and at the present time they were employing outside aid in the investigation of the bacteriological and pathological relations of an ordinary influenza cold and influenza proper.

Medical Fees under the Factory Acts.—It will be necessary for the Committee of Ways and Means to authorise the payment of expenses incurred in any special inquiries and examinations by certifying surgeons under the provisions of any Act of the present session to amend and extend the law relating to factories and workshops. Mr. Asquith will, on an early day, make the necessary resolutions in Committee of Supply.

MEDICAL NEWS.

THE festival banquet of the Royal Eye Hospital, Southwark, will take place on June 18th under the presidency of Mr. R. K. Causton, M.P.

MISS S. BLAND, a sister at the London Hospital, has been appointed matron of the Poplar Hospital for Accidents, in succession to Miss G. Vacher, who has been elected matron of the Kimberley Hospital, South Africa.

THE festival dinner of the Royal Westminster Ophthalmic Hospital was held on April 29th, at the Hôtel Métropole, Field-Marshal Sir Donald Stewart in the chair. Donations to the amount of £778 were announced during the evening.

THE forty-second festival dinner of the City of London Hospital for Diseases of the Chest took place on April 30th, at the Hôtel Métropole. In the course of the evening the Secretary announced donations and subscriptions amounting to £1,687.

THE will dated March 9th, 1891, has been proved of Dr. Daniel Hack Tuke, of 63, Welbeck Street, and Lyndon Lodge, Hanwell, who died on March 5th last, aged 68. The gross value of the personal estate has been affirmed at £29,459 17s. 8d.

SIR WALTER FOSTER, Parliamentary Secretary to the Local Government Board, will receive a deputation to state the views of the Sanitary Inspectors' Association with regard to examinations for certificates of competency as sanitary inspectors this (Friday) afternoon.

THE Saddlers' Company have forwarded 100 guineas to St. Thomas's Hospital, and 50 guineas to each of the following: Royal London Ophthalmic Hospital, Royal Eye Hospital, City of London Chest Hospital, All Saints' Convalescent Hospital, Eastbourne, Royal Maternity Charity, and Surgical Aid Society.

PLAGUE AT HONG KONG.—The *Times* correspondent telegraphs from Hong Kong that four cases of plague have occurred there, one of which has proved fatal. The following telegram from the Governor of Hong Kong, dated April 29th, was received at the Colonial Office: "Three sporadic cases of plague Hong Kong."

Dr. James Allen, of Pietermaritzburg, Natal, has been unanimously elected President of the South African Medical Congress, the annual meeting of which will be held this year at Durban, in July. Dr. Allen is Medical Officer to the Pietermaritzburg Corporation, and holds a high position in the profession of South Africa.

Notification of Infectious Disease in Constantinople.—An irade has recently been issued by the Imperial Ottoman Government making the notification of the following diseases compulsory on medical practitioners in Constantinople: Cholera, small pox, chicken pox, measles, scarlet fever, dysentery, diphtheria, typhoid fever, typhus, whooping-cough, and phthisis. Failure to notify is punishable by fine.

The Duke of Cambridge presided at the jubilee festival held on April 26th in the Whitehall Rooms of the Hotel Métropole in aid of the funds of the German Hospital, Dalston. Donations to the amount of £6 300 were announced, including £200 (yearly) from the German Emperor, £50 from the Emperor of Austria, £1 000 from Baron von Schröder.

Dr. Danford Thomas held an inquest last week on the bodies of two children, Harry Brown and Ethel Grace Terry. The death in each case was attributed to natural causes. The mother of the child Terry complained that a doctor sent for refused to visit the child. The coroner informed her that medical men were not bound to visit a patient.

The will of the late Dr. Francis Bisset Hawkins, of Lewell Lodge, West Knighton, Dorsetshire, and Foxcote, Bournemouth, who died on December 7th, was proved on March 18th by Edward Wilmot Williams, the executor, the value of the personal estate amounting to £133 403. The testator gives £300 2½ per Cent. Consols to the Dorset County Hospital; £300 of the like consols to King's College Hospital, to be applied in instituting or assisting a lying in or maternity hospital in connection with the said hospital, and £200 of the like consols to the Society for the Relief of Widows and Orphans of Medical Men in London.

"The Ape Man."—Sir William Turner, F.R.S., comments critically on M. Dubois's account of the pithecanthropoid remains in Java, from which M. Dubois has deduced the existence of the connecting link between the ape and the man, which he has named the "erect ape man," in recognition of its difference from man and from the ape. It will be remembered that the remains consist of a skull, a left femur, and a third molar tooth, which were found at different times and at a distance from each other. Sir William Turner considers that it is not certain that the three bones belong to the same creature. A comparison of the skull with several specimens of the skulls of aboriginals left him unconvinced that it might not have belonged to a human being. The features of the femur could all be made out in a large collection of human thigh bones, and the tooth had quite as much resemblance to the tooth of a human being as to the tooth of an ape. He considered that the remains were of a low human type.

MEDICAL VACANCIES.

The following vacancies are announced:

BELFAST UNION.—Medical Officer for the No. 10 Sub-district of the Belfast Dispensary District. Salary, £145 per annum, exclusive of registration and vaccination fees. Must reside within the district. Election on May 6th.

BOROUGH OF STOCKTON-ON-TEES.—Medical Officer of Health and Medical Superintendent for the Fever Hospital. Salary, £300 per annum. Applications and testimonials to Mat. B. Dodds, Town Clerk, by May 14th.

CAMBRIDGE, Etc., ASYLUM, near Cambridge.—Clinical Assistant; must be qualified. Appointment for six months. Board and apartments provided, but no salary. Applications to the Medical Superintendent.

DARLINGTON HOSPITAL AND DISPENSARY, Darlington.—House-Surgeon; doubly qualified, registered, and unmarried. Salary, £100 per annum, with board and lodging. Applications and testimonials to the Secretaries, 80, Bondgate, Darlington, by May 16th.

DENBIGHSHIRE INFIRMARY AND GENERAL DISPENSARY, Denbigh.—Honorary Medical Officer, doubly qualified. Applications to the Chairman of the Committee of Management by May 14th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Dental Surgeons. Candidates must be Licentiates of Dental Surgery of one of the licensing bodies recognised by the General Medical Council. Applications and testimonials to J. Francis Pink, Secretary, by June 10th.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, 32, Soho Square, W.—Resident Medical Officer; doubly qualified. Appointment for six months. Board, residence, and washing, and an honorarium of £10 10s. Applications and testimonials to F. Handley, Secretary, by May 10th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Physician to the Out-patients; must be Fellows or Members of the Royal College of Physicians of London. Applications to the Secretary by May 14th.

PARISH OF ST. MATTHEW, Bethnal Green.—Male Junior Assistant Medical Officer for the Workhouse, Waterloo Road, E.; doubly qualified. Appointment for six months, subject to the approval of the Local Government Board and subject to a renewal at the discretion of the Board. Honorarium of £20, with rations, furnished apartments, and washing. Applications to D. Thomas, Clerk, Guardians' Offices, Bishops Road, E., by May 10th.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Lecturer on Physiology. Applications to the Dean by May 25th.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho, W.—Honorary Surgeon. Applications and testimonials to J. J. Johnson, Secretary, by May 20th.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fifth Assistant Medical Officer. Salary, £100 per annum, rising £10 a year to £150, with board, etc. Applications to the Secretary by May 15th.

WORCESTER GENERAL INFIRMARY, Worcester.—Assistant House-Surgeon and Dispenser; fully qualified; unmarried. Salary £70 per annum, with board, residence, and washing. Office tenable for not more than two years. Applications and testimonials to William Stallard, Secretary, Worcester Chambers, Pierpoint Street, Worcester, by May 18th.

MEDICAL APPOINTMENTS.

Davern, Dr., appointed Medical Officer for the Holborn Union School at Mitcham.

Gemmell, John E., M.B., C.M.Edin., appointed Honorary Hospital Medical Officer to the Ladies' Charity and Lying-in Hospital, Liverpool.

Grimsdale, T. B., M.B., M.R.C.S., appointed Honorary Hospital Medical Officer to the Ladies' Charity and Lying in Hospital, Liverpool.

Hines, G. J., L.R.C.S.I., L.M., appointed Medical Officer for the No. 4 District of the Hollingbourn Union.

Hynes, Alfred Mortimer, M.R.C.S., L.R.C.P., appointed Surgeon to the Chisenhale Street Bridewell, Liverpool.

Jacobson, G. O., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Pembridge District of the Kington Union.

MacGregor, Dr. J. J., appointed Assistant Surgeon to the Colchester Hospital.

Mackenzie, Thomas, M.A., M.D.Edin., appointed Physician to Noble's Isle of Man General Hospital and Dispensary.

Marshall, Dr. G. H., appointed Assistant Medical Officer to the St. Marylebone Infirmary.

Moss, Dr. R. A., appointed Medical Officer for the Milton District of the Sculcoates Union.

Moxey, Vincent, appointed Honorary Medical Officer Holloway and North Islington Dispensary.

Nicholson, B. H., M.B., C.M.Edin., appointed Assistant Surgeon to the Colchester Hospital.

O'Donnell, Dr. J., appointed Medical Officer to the Dublin Metropolitan Police Medical Aid Association.

Payne, Henry, M.D., M.R.C.S., L.S.A., appointed Honorary Medical Officer to the Ashton-under-Lyne District Infirmary.

Richards, Dr. J. B. O., appointed Medical Officer for the Milton Abbott District of the Tavistock Union.

Solly, Dr., appointed Surgeon to the Exeter Dispensary, *vice* A. C. Roper, F.R.C.S., L.R.C.P.Edin., resigned.

Willoughby, Alfred H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of the Sunbury District of the Staines Union.

Young, T. B., M.D.Brux., M.R.C.S.Eng., appointed Medical Officer of Health to the Halesowen Rural District Council.

DIARY FOR NEXT WEEK.

MONDAY.

London Post-Graduate Course, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. R. Marcus Gunn: Clinical Examination of the Eye. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. W. R. H. Stewart: Examination of the Ear.

Odontological Society of Great Britain, 40, Leicester Square, W.C., 8 P.M.—Mr. F. J. Bennett on Dental Caries (with illustrative specimens). Mr. Stoner Bennett will exhibit and describe Odontomes. A casual communication will be brought forward by Mr. Oswald Fergus.

TUESDAY.

London Post-Graduate Course, Bethlem Royal Hospital, 2 P.M.—Dr. Percy Smith: Hysterical and Delirious Mania.

The Clinical Museum, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

Pathological Society of London, 8.30 P.M.—Dr. Ord and Mr. Shattock: Microscopic Structure of Urinary Calculi in Man. Dr. John Bradford: The Results of following the Experi-

mental Removal of Portions of the Kidney. Mr. Clutton: Bones from a Case of Osteitis Deformans. Card specimens will be shown by Dr. W. W. Ord, Dr. Newton Pitt, and Mr. T. H. Openshaw.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Psoriasis. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Choroidal Affections, with Illustrative Cases.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 P.M.—Cases, specimens, etc., will be shown by Mr. H. T. Butlin, Dr. James Donelan, Mr. Charles A. Parker, Dr. L. H. Pegler, Mr. W. R. H. Stewart, Mr. Charters Symonds, Dr. Herbert Tilley, Mr. A. A. Bowlby, and Dr. Dundas Grant.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Gowers.

THURSDAY.

LONDON POST-GRADUATE COURSE, Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Beevor: Locomotor Ataxy. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. Edmund Owen: Cases from the Surgical Wards. Central London Asylum, Cleveland Street, 5.30 P.M.—Mr. John Hopkins: Cases in the Wards.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Dr. H. Michie: Pregnancy Complicated by Suppuration within the Pelvis, with cases. Specimens will be shown by Mr. O'Callaghan, Mr. Bowreman Jessett, and Dr. John Shaw.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture, The Microscope and Methods of Cultivation; Practical work, Examination of Cultivations.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. R. W. Parker: A case of an Infant in whom Some of the Abdominal Muscles were Absent. Mr. Arbuthnot Lane: A case of Extensive Degenerating Neevus of the Bladder. Mr. L. A. Dunn: Two cases of Gastric Ulcer treated by Laparotomy. Mr. Silcock: Two cases of Perforating Gastric Ulcer—in one excision of edges, suture, death; in the other formation of reparative adhesions, laparotomy, drainage, recovery. Dr. F. Lucas Benham: Thickened and Contracted Mesentery, Simulating Tumour, in a Case of Cirrhosis of the Liver. Dr. Sidney Phillips: A case of Splenic Abscess, Secondary Suppuration in the Liver, and Death from Pyæmia.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital 11 A.M.—Dr. Hyslop: Acute Mania.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGES.

ECCLES—SALT.—On April 30th, at Curbar Church, Derbyshire, by the Rev. E. Warbreck, B.A., Vicar of Stapenhill, uncle of the bride, assisted by the Rev. J. Stockdale, M.A., Vicar of Baslow and Rural Dean, Herbert Annesley Eccles, M.D.Lond., son of W. S. Eccles, Esq., of Norwood, to Mary Sophia, eldest daughter of the Rev. T. F. Salt, vicar of the parish.

HEBBLETHWAITE—VAVASOUR.—April 25th, at St. Peter's, Tunbridge Wells, by the Rev. R. M. Hebblethwaite, brother of the bridegroom, assisted by the Rev. W. A. Hornby-Steer, S. Montague Hebblethwaite, Harewood, Yorkshire, youngest son of T. Whiteley Hebblethwaite, Boston Spa, Yorkshire, to Maud Florence Georgina, elder daughter of the late Captain Mervin Vavasour, R.E., and stepdaughter of Mrs. Vavasour, Tunbridge Wells.

JENKINS—SHEPARD.—On April 24th, at St. George's Church, Tredegar, Mon., by the Rev. T. Theophilus, Vicar, assisted by the Rev. T. Walter Davies, B.A., and the Rev. Hugh Phillips, George Harrison Jenkins, L.R.C.P.E., L.R.C.S.E., L.F.P.S.G., and L.M., of Usk, Mon., to Nina Sophia St. Clair Shepard, younger daughter of the late Dr. Shepard, of Usk.

LORD—WILLIAMS.—On April 23rd, at St. James's, Manchester, by the Rev. W. J. Sims, M.A., Robert Ellis Lord, M.D., B.Sc.(Lond.), of Colwyn Bay, to Elizabeth Margaret, daughter of William Williams, Esq., of Brecon.

MITCHELL—BLACKWELL.—On Tuesday, April 23rd, at St. James's, Paddington, by the Rev. R. Mitchell, late Vicar of Wield, and Rev. W. J. Sowerby, Vicar of Eltham, Ernest J. D. Mitchell, B.A., M.B., B.C., of The Grange, Eltham, and Kate Beatrice, widow of Edmund Alfred Blackwell, and daughter of the late C. F. Clements, of 3, Porchester Square, Hyde Park.

TELFORD-SMITH—STERRY.—On April 27th, at St. Stephen's Church, South Kensington, by the Rev. A. W. Gross, Rector of Milton, Northampton (cousin of the bridegroom), Telford Telford-Smith, M.A., M.D., B.Ch., Medical Superintendent, Royal Albert Asylum, Lancaster, to Ada, only daughter of W. Jex Sterry, Esq., of Norwood.

DEATH.

WATSON.—April 19th, at Chippenham, Wilts, thrown from his horse, George J. A. Watson, M.A., M.B., C.M. Aberdeen University, eldest son of George Watson, Middlemuir, Strichen, Aberdeenshire, aged 27.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

W. R. C. would be very glad if some of the many readers of the BRITISH MEDICAL JOURNAL would kindly give him an easy test to detect margarine in butter.

EXAMINATION FOR F.R.C.S.EDIN.

S. P. D. asks to be referred to books that should be read for the subject "Genito-Urinary Surgery," required for the examination of F.R.C.S.Edin.

*** Our Edinburgh correspondent writes in reply to this question, that the articles on genito-urinary surgery in any of the standard works, for example, those in Holmes's *System*, or Erichsen, perhaps with the addition of the chapters in Treves's *Manual of Operative Surgery*, will be sufficient for this examination.

ANSWERS.

BED RESTS.

MR. GREME B. FRASER (Weston super-Mare) writes: In answer to "Comfort" in the BRITISH MEDICAL JOURNAL of April 20th, I am of opinion that the "Core Bed Rest," as made by Messrs. Arnold and Sons, is the most useful and economical.

TREATMENT OF ACNE VULGARIS.

DR. J. S. MCCUTCHAN writes: If "M.R.C.S." tries cod-liver oil three times daily after each principal meal, and at the dinner meal a glass of Guiness's stout, also rich milk and butter at the breakfast meal, I think he will have good results.

ARTIFICIAL LIMBS.

MR. RICHARD C. TRESIDDER (Secretary to the Surgical Aid Society, Salisbury Square, Fleet Street, E.C.) writes with reference to Dr. William Stephen's query in the BRITISH MEDICAL JOURNAL of April 27th: Permit me to point out that this Society is established for the very purpose of assisting such cases.

SURGICAL OPERATIONS.

M.D.—In Sir John Erichsen's *Science and Art of Surgery*, the tenth edition of which has just been published (Longmans and Co.), all the operations in surgery are very fully described and illustrated.

PRACTICE IN NEW ZEALAND.

MR. WILLIAM ODELL, F.R.C.S. (Torquay) writes: In answer to the inquiry of "A Graduate," I may say that, in a letter received on April 25th from a friend practising in Nelson, New Zealand, he says: "The colony is more than supplied with medical men, and the colleges in New Zealand are turning out a large number of men, to whom the appointments are given in preference to men from the old country."

NOCTURNAL INCONTINENCE OF URINE.

DR. FITZ-JAMES MOLONY (Porlock, Somerset) writes: In reply to "L. E. J.," a very frequent cause of nocturnal incontinence of urine is the habit of taking food shortly before bedtime. This may be the case with his lady patient. The result of a late meal is that digestion and urinary secretion are in active progress when the patient falls asleep. She tosses about in her sleep, and finally turns on her back. The urine presses on the sphincter vesicæ. The nerve influence, which ought to sustain the action of the sphincter, is diverted to the digestive process, and, as a consequence, the urine flows away. I have found the following treatment successful: No food of any kind to be taken after 6 P.M.; bed at 10, having previously emptied the bladder; set an alarm clock for 1 A.M., and relieve

bladder; wake again three or four hours later for the same purpose. Let a towel be tied round the waist, having a large hard knot over the spine. This will prevent her sleeping on her back. A blister to the spine might answer the same purpose, but no preparation of cantharides should be used. Drugs are of little use except as palliatives, or to treat any obvious cause, such as amenorrhœa, ascarides, etc. "L. E. J." says cauterisation of the urethra succeeded at first, but failed when tried a second time. It may be that the first application owed its success to the irritation which induced the patient to relieve her bladder at intervals. The non-success of the second cauterisation was probably due to the tissues having been rendered insensitive by the first application.

DR. W. MACFIE CAMPBELL (Liverpool) writes: In answer to "L. E. J.," I should suggest his using the following prescription: ℞ Tr. lycopod. clav. (Christy's); tr. cardamomi co. ac. 5iiss; syrupi ℥ss; aq. ad ℥vi; Sig. ℥ss every four hours. I cut the above out of the BRITISH MEDICAL JOURNAL of October 11th, 1890, and it has been my stand-by ever since. In reduced doses it has been equally useful in children.

NOTES, LETTERS, Etc.

A WARNING.

MR. R. C. CHICKEN, F.R.C.S. (Nottingham) writes: I have just received from an old friend at Guy's a letter which he has received from some scoundrel at Guildford. It purports to be from myself, and is signed with my name. It contains the usual false statements of distress and adverse circumstances and plea for pecuniary help. May I ask you to give me the aid of the BRITISH MEDICAL JOURNAL in exposing this disagreeable attempt at fraud? Doubtless others of my friends have been written to, and this may prevent them being victimised.

THE BINIODIDE OF MERCURY SOLUTION.

DR. ROBERT COOK (Leiston) writes: With regard to Dr. C. R. Illingworth's prescription, as corrected by Dr. Percy Newell in the BRITISH MEDICAL JOURNAL of the April 27th, page 984, may I point out that they both seem to have omitted taking into account the difference in atomic weight between the perchloride and the periodide? Forty grains of perchloride converted into periodide would weigh as nearly as can be 67 grains; this dissolved in 80 ounces of water would make the solution of periodide 1 in 522 nearly, not 1 in 1,000?

DR. C. R. ILLINGWORTH (Ventnor) writes: There is a difference between 1 in 960 and 1 in 1,000, as Dr. Percy Newell very rightly observes, in any compound. It is so trifling as to be unworthy of comment, even with such a powerful drug as the biniodide.

DANGEROUS LAMPS.

IT seems a pity that it should be necessary to set the whole legislative machine in operation before any action can be taken to suppress so dangerous a custom as the use of badly constructed paraffin lamps with fragile reservoirs. Considering the large powers now entrusted to the Home Secretary in regard to trades which are dangerous to the workers, one could wish to see a certain modicum of such powers extended to the regulation of trades which are dangerous, and often fatal, to the consumer.

Week after week the same tale is repeated—a lamp is broken, there is a sudden blaze, and someone is burned to death. Sometimes the house also is set on fire, and in the conflagration further lives are sacrificed, as in a case quite recently reported, in which five people were killed by a fire caused by the upsetting of a lamp. And yet these catastrophes could be prevented in the simplest way. Sometimes a badly constructed lamp explodes; in the great majority of cases, however, the breaking of a fragile glass reservoir and the ignition of the oil so scattered is the cause of the catastrophe. But a properly constructed lamp does not explode, and a properly constructed reservoir does not break, and a law prohibiting the sale of lamps that are obviously and demonstrably dangerous would save many lives every year.

If juries will follow the example set at an inquest held at Islington on April 16th in a case of this character; if in giving their verdicts they will add riders recommending legislation on the subject, and if coroners will forward them to the proper quarter, perhaps it will some time or other be borne in upon some Minister that a simple Act to protect people from so horrible a death would be a creditable and a popular measure.

PECULIAR SUSCEPTIBILITY TO THE EFFECTS OF ANTIPYRIN.

DR. W. M. RUSSELL (Senior Surgeon Union Steamship Company, Southampton) writes: The following case which occurred a few days ago in my practice may be of interest to some of your readers.

Mrs. —— requested me last week to give her something to relieve the excessive vomiting of sea-sickness. I ordered her a preparation which I found of considerable service in similar cases, namely, an effervescing preparation of antipyrin containing 3 grains of the drug, with directions to have it repeated every two hours till relieved. When I administered the first dose to my patient, she asked me what it was I had given her. On my telling her, she exclaimed, "Oh, what a fool I was not to have told you I cannot stand antipyrin; I took it once before, and it gave me blood-poisoning, and I became covered all over with ulcers."

As she seemed very frightened about the result, I suggested a mild emetic; she immediately took a glass of water and vomited it up; this she repeated several times, and then took a warm bath. About four hours later on, she sent for me and complained that her gums were feeling very tender, and also that she felt a considerable amount of irritation in her hands and arms. As I did not perceive much amiss with her at the time, I put it down to the effects of a rather vivid imagination; however, next morning the gums were swollen and spongy, and the upper extremities and trunk covered with a peculiar eruption resembling a large wealed urticaria, accompanied with a large amount of irritation. All of these symptoms subsided during the course of the day, leaving no bad effects. I may mention that my patient was a healthy subject in the prime of life.

MEDICAL BOOK-KEEPING.

DR. O. WUNDERLICH (Bruce Grove, Tottenham) writes: The fact that new systems of medical book-keeping are constantly cropping up shows that the general practitioner is, as a rule, not satisfied with those that have been in use hitherto. Attempts have been made, with more or less success, to devise a system in which there shall be only one entry for every item booked. This object has already been attained in commerce by means of the American system of filing original entries, and I venture to submit to the notice of your readers how this system can be adapted to the requirements of medical men.

I enclose a diagram which will show at a glance how the system is worked. This diagram is very much like a hospital out-patient case paper, with a column for the history of the case, and a column for the prescription. To these I have added a small column ruled for cash. There is also a heading for the name, Christian name, age, and address of the patient, with space for notes as to his occupation, family, and personal history.

For every patient one of these case papers is required, and they are filed alphabetically in ordinary box files. On seeing a patient the paper is taken out of the file, or if it is a new patient a fresh paper is filled in. The item of the attendance, that is, visit, advice, setting fracture, etc., as the case may be, is entered in the first column with the clinical details of the case. In the second column comes the prescription. The amount charged is entered in the third column. If payment is made at the time it is entered paid. After dispensing the sheet is again filed. In practice I find it convenient to file in a separate box the papers of patients who are on the sick list. When the case is done with the paper is filed in reserve boxes.



At the end of the half-year it is only necessary to cast up the cash column, and the amount is at once entered on the bill. When the bill is paid the payment is entered at once on the case paper. The amounts paid can be transferred to the cash book, once, twice, or four times a year, each paper being stamped to show that the amount has been brought forward. It will be noticed that one is always dealing with original entries, and in county court cases the production of such a case paper would be conclusive evidence of the debt.

I have now been making use only of these papers for a twelvemonth, and I am well pleased with the way they work. On the one hand, there is a little extra work in filing the papers. This takes a few minutes every day. As against that one must place the enormous loss of time which is usually incurred in posting up and indexing ledger accounts. I have none of that, and at the end of the half-year the whole of my bills are made out in an hour or two. Besides this, I have a complete clinical record of all my cases, without any appreciable addition to my work, as the details are entered almost automatically at the time the item and charge are booked. There is no possibility of forgetting symptoms, and the objections against the case book, namely, the trouble of writing out cases and indexing them at the end of a hard day's work, no longer exist.

Space may be left in the case papers for binding, and if the cash column is kept along the outer margin the sordid part of one's work can be removed by the binder, leaving only the records of the case and its treatment. In these records the family histories and the treatment of diseases running in families stand out with quite unexpected vividness.

A CASE OF ASPHYXIA NEONATORUM.

MR. N. TARACHAND, M.R.C.S. Eng., L.R.C.P. Lond. (Mansfield Woodhouse, Notts) writes: M. W., aged 23, primipara, was confined on October 29th, 1894. The labour, rather tedious, continued for twenty-two hours with sharp grinding pains. The vertex presented in the right occipito-anterior position. The vaginal orifice and circumference of the fœtal head being out of proportion to each other, part of the vertex with the parietes presented externally, and the fœtal head made no further progress for more than thirty minutes; even the sharpest pains did not produce the desired effect. The patient was gradually getting exhausted. Every successive pain rigidly distended the perineum, and put the patient in great distress. A straight incision with the knife, about 3 inches long, extending from the posterior extremity of the vagina to the perineum, widened the passage, and the next pain brought about immediate expulsion of the child without any further interference.

The child, when born, was to all appearance dead. The face was pale, with flaccid limbs, without any appreciable cardiac action. The cord was at once ligatured, and the child separated from the mother. There appeared complete cessation of respiration.

The alternate immersion of the child, first into very hot and then into very cold water, about half a dozen times proved of no avail. Insufflation of the lungs was next resorted to by means of a catheter guided into the glottis, and air gently blown into the lungs, with simultaneous compression of the thorax with a view to expel the air. It was tried for about three-quarters of an hour, but the attempt seemed fruitless. Sylvester's and Schultze's methods of artificial respiration were then alternately adopted, and given a fair trial for more than an hour. The child made one or two feeble and gasping efforts at respiration. Brandy was applied over the tongue, chest, and region of the heart, and the child began to whine. The stethoscope revealed a very feeble cardiac beat. The catheter was again introduced into the glottis, and the lungs insufflated for another half hour. The child was once more immersed in hot and cold water alternately, and it started screaming at the second immersion. It was wrapped up in a blanket, and a few more attempts at artificial respiration thoroughly established respiration. On auscultation the heart was heard to beat regularly and distinctly.

My principal object in mentioning this case is to show that though

life may be apparently extinct in a newborn child, yet restoration may be brought about even after three hours by persistent efforts at resuscitation by means of several methods at our disposal. Both mother and child are progressing favourably.

THE FIRST MIDWIFE.

ADAM writes: One cannot help noticing, in the BRITISH MEDICAL JOURNAL'S abstract of Dr. Champneys's address on "the disagreeable situation" of the Obstetrical Society of London, one sentence: "It is hardly too much to say that midwives must have begun nine months after there were two women and one man on the earth." Now surely it may be urged, Where does Dr. Champneys evolve the two women and one man? Why not take the case of the original one woman and one man; and then, when the nine months came and went, it would be a man midwife who was present?

RECOGNITION OF TUBERCLE BACILLI IN PUTRID MEDIA.

DR. FRANCIS TROUP (Edinburgh) writes: In the BRITISH MEDICAL JOURNAL of April 27th, 1895, on page 88 of the EPITOME, under the heading "Recognition of Tubercle Bacilli in Putrid Media," the statement is made (on the authority of Perrando) that in sixty days bacilli could no longer be recognised as such.

I have some ounces of sputa, originally very rich in bacilli, kept now for nine years; the bacilli stain easily, so well, in fact, that I keep the sample as a test for the trustworthiness of the staining agent (always Neilsen's) when I need to prepare a fresh supply. The bacilli clump together into faggots, or even assume the S-shape of cultivations, but the separate bacilli seem in nowise altered from what they were nine years ago. The transparent glass bottle in which they have been kept has been exposed freely to light all the time, and the atrocious smell of their contents is sufficient warrant of their putridity.

IRISH SUPERSTITIONS.

DR. R. E. BURGES (Chester) writes: Referring to your note on "Irish Superstitions" on p. 963 of the BRITISH MEDICAL JOURNAL of April 27th, I may say that I know a place within a couple of miles of where the woman was burnt to death in Tipperary a short time ago where there is a Roman Catholic churchyard in which a very pious priest was buried. The people round the neighbourhood there think that if they eat some of the clay off this priest's grave it will cure them of any sickness or disease they may have.

A QUACK AND HIS VICTIM.

THE following epitaph on a fair patient of St. John Long's is from the *National Omnibus* for January 13th, 1832:—

Hic jacet in terris
Pulchra puella
Voluit esse melior
Dum fuit *vella*

"Quæ causa mortis
Infelix virgo?"
"Aqua fortis
Urens a tergo!"

"Quantum quantitate?"
"Nescio, sane,
Attamen vixero
Si non any!"

"Quis administravit?"
"Sanctus Johannes!"
"Quibus recommendatus?"
"Plurimis zanies."

"Quis fuit ille
Johannes præfatus?"
"O'Driscol Billy
Olim nuncupatus!"

"Medicus?" "Nequaquam
Sed Victor signorum
In Tipperaria
Inops honorum.

Nunc dives auri
Sedet sublimis
In curru, celebratus
Prosa atque rhymis!"

"Quæ tantæ famæ
Fuit origo?"
"Venter solutus
Marchionis de Sligo!"

"Num particeps alter
Dementiæ vestræ?"
"Imo, sane, fuit
Dominus Ingestriæ."

"Ah virgo infelix!
Tui quam miseresco!
Sine sheetis aut blankets
Dormientis al fresco!

Ah virgo infelix
Hic intus jace
In longum a Longo
Requiescas in pace!"

SPUNGE.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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REMARKS
ON
THE PHYSICAL REQUIREMENTS OF THE PUBLIC SERVICES.

By KENNETH MACLEOD, M.D., LL.D.,
Brigade-Surgeon-Lieutenant-Colonel, Indian Medical Service (Retired).

The examination of candidates for employment in Government and other services has, in recent years, become an important item in medical practice. The duty of examining arises in various ways. The medical officers of Government constitute boards and committees for this special purpose, convened under authority and acting under written and traditionary rules and regulations. The Civil Service Commissioners appoint special medical examiners to ascertain the physical fitness of candidates for the various civil duties for the performance of which they are entrusted with the selection of competent agents. Sometimes this function is delegated to medical practitioners, who are provided with forms indicating the points regarding which inquiry is to be made and opinions recorded. Medical men are also retained by corporations, societies, companies, and other employers of labour at home and abroad, to ascertain the fitness of candidates for the special work to be required of them under known conditions of locality, climate, and occupation. These conditions constitute the ground of selection, and both employers and examiners are guided by knowledge and experience regarding these in framing standards of competence. The subsequent service history of *employés* supplies an important indication of the propriety of these standards. In the Services, medical officers have had opportunities of observing and being personally subjected to the conditions affecting efficiency; and their duties as regards the treatment of the sick and invaliding enable them to bring to bear upon the question of selection the advantage of the knowledge and experience thus gained. Other special examiners may or may not be in possession of similar qualifications, but they gain valuable aid in training their judgment from the exercise of their functions and from the knowledge which comes to them of the result of their selection.

All medical men are, however, liable to have the duty of examining youths purposing to enter the public services or the employment of agencies requiring evidence of physical fitness entrusted to them. Recruiting officers often submit recruits, in the absence of military doctors, to civil practitioners; and parents and guardians frequently consult their medical advisers regarding the probability of youths being passed by medical boards and examiners.

Family doctors and medical officers of public schools are more likely to be consulted on this subject; but in doubtful cases the opinion of experts is often sought, and the duty of advising as to physical fitness is thus one which any medical man may be called upon to perform. Indeed it cannot be too strongly urged that every youth intended to be educated for any service or employment for which evidence of physical fitness is required should, before entering on the course of study or training necessary for qualifying for such, be subjected to a very careful medical examination. The regulations of the Navy and Civil Service Commission explicitly recommend this course. Loss of time and money, disappointment, perplexity, and damaged life prospects too frequently result from the rejection on medical grounds of a candidate otherwise well qualified, or who has actually passed the necessary literary and technical examinations.

In view of this preliminary physical examination, the necessity of which is becoming yearly more apparent, a knowledge of the physical requirements of the public services, and of the best and easiest methods of ascertaining whether a boy is likely to pass the ordeal of medical boards or special examiners, has become indispensably necessary for the medical practitioner. Having obtained both at home and abroad a large and varied experience in examining candidates for military and civil service, and being in a position to watch the effects of climate and employment on those selected, I propose in this paper to offer such information and suggestions resulting therefrom as may perhaps guide and assist civil practitioners in exercising the very important duty of advising parents and guardians as to the probability of their sons being found physically qualified by official examiners.

The Objects to be held in View.

The points to which an examination of this kind tends are threefold—competency, efficiency, and pensionary liability. In deciding on these issues some knowledge of the nature of the occupation, and of the circumstances and risks, climatic and otherwise, under which it is to be pursued is essential. The proceeding resembles an examination for life insurance, and turns on similar considerations; but viability is the dominant question in the one case, efficiency in the other. A man's life prospects may not be impaired by blindness, deafness, or the loss of a limb, but his competence for work is in most cases ruined by either infirmity. The formula laid down in the regulations for the Indian Civil Service defines the matter tersely and clearly; they require that a candidate "has no disease, constitutional affection, or bodily infirmity unfitting or likely to unfit him for the Civil Service of India." Similarly the Army Regulations require candidates "to be in good mental and bodily health, and free from any physical defect likely to interfere with the efficient performance of military duty." Naval cadets "must be in good health and free from any physical defect of body, impediment of speech, defect of sight or hearing, and also from any predisposition to constitutional or hereditary disease or weakness of any kind, and in all respects well developed and active in proportion to age."

The question in relation to life insurance is: Is the applicant likely to live for so many years? The questions with reference to the public services are: Is the individual fit to perform the work for which he tenders himself? Is he likely to retain health and strength during a certain number of years? And, is there any undue risk of loss of service by sickness or premature pensioning from failure of health and capacity? But though the issues differ somewhat, the data and methods by which they are tried are the same. In life insurance the decision turns on facts relating to (1) family history, (2) personal history, (3) present condition, and (4) previous and probable future occupation, habits, and environment. These are precisely the points which have to be considered in examining candidates; but as a matter of practice greater weight is attached to the result of personal examination and the nature and circumstances of employment, and less to family and personal history than in insurance cases. In some instances candidates have to fill up forms and declarations in which these points are included; but the testimony sought is less elaborate and searching than that demanded by life offices. In all cases of doubt inquiry should be made and is made regarding these matters even if formal documentary evidence is not asked for. The physical requirements of the public services may therefore be considered under the heads of heredity, previous illness, physique, and soundness, and on each of these subjects I shall offer a few practical remarks, taking the rules issued by the Army, Navy, and Civil Service Commission as a basis.

Heredity.

Constitution is mainly a matter of inheritance, especially in the adolescent, and a transmitted proclivity to disabling disease is unquestionably a strong ground of caution and increased care in examining. A small chest with insufficient expansion, subclavicular flattening, and increased vocal resonance over either apex has a very different significance when there is a tuberculous family history than similar con-

ditions in a puny overworked, and perhaps underfed, lad of healthy parentage. An irritable heart in a subject belonging to a rheumatic or gouty family is a more serious matter than when these predispositions are absent. A "nervous" manner acquires a peculiar interpretation when there is a family history of insanity.

Illustrations might be multiplied, but, while it would be unwise to lay too great stress on inherited proclivities and the probabilities of reappearance of parental infirmities, the question of inheritance of physical traits and tendencies can never be overlooked, and may turn the balance one way or other in a particular case, say, of glandular cicatrices or puffy joints. The regulations of the Navy require a candidate to be "free from any predisposition to constitutional or hereditary disease," and the rules of the Civil Service Commission indicate "a weak constitution arising from imperfect development or weakness of the physical powers of the body, hereditary or otherwise," as a probable cause of rejection. Many of the special diseases and infirmities included by the rules of the Army, Navy, and Civil Service among disqualifying conditions are of the constitutional and inherited class. The importance, therefore, of paying strict attention to the family history of candidates is obvious.

Previous Illness.

This may be—(1) a manifestation of constitutional vice; (2) of a kind which is liable to recurrence, and therefore likely to give rise to inefficiency; (3) a cause of permanent and disabling organic disease or functional derangement; or, (4) on account of its nature, severity, or long duration, the source of irretrievably damaged general health. From these points of view the necessity of gaining information regarding the medical history of the individual is clear. The forms and declarations required by some services are framed to procure evidence of this sort, and the Army and Navy instructions for the examination of candidates require the examiner to take notice of indications of previous injury and disease. These indications should lead to careful questioning, and the bearing of the result of such observations and inquiries on the question of selection ought to be well weighed. Signs of blistering over heart or lungs, or of leeching or cupping over the liver, would obviously render examination of these organs doubly searching; and similar marks on the loins would render an examination of the urine imperative. The exanthemata constitute an ordeal by which constitutional soundness is tried, and survival, unscathed, of the incidents and diseases of infancy, childhood, and puberty is justly accounted evidence of good life. Some ailments, such as hæmoptysis, dropsy, or jaundice are of peculiarly sinister significance, and if confessed or discovered should lead to very special inquiry and caution.

Generally, the subject of previous illness and its probable influence on efficiency must in all cases command an important share of the examiner's attention, and bring into exercise his knowledge and experience with special reference to the objects of his examination.

Physique.

This is a question of quantity and quality—bulk and power. It has been found impossible to lay down very precise rules, or fix very rigid standards on the subject. Attempts have been made by means of anthropometry to define the typical man, and lay down a system of "physical equivalents" for different ages. But human beings present such great variations in adaptation to such varied conditions of existence—which variations become in time stereotyped into racial, national, and family distinctions—that a large latitude must be allowed in applying figures representing size, bulk, and weight to the determination of physical aptitude. To take an illustration from India, where racial characters are more sharply defined than in Britain, it would be absurd to apply the same standard to the Goorkha, the Jat, the Sikh, and the Pathan; and even in this country, where races originally distinct have become so complexly blended, more or less typical representatives may still be found of, say, the Scandinavian and the Celt, whose physical equivalents, each admirable in their way, are profoundly different. It is necessary, therefore, in endeavouring to arrive at a just estimate of physique, especially of the prospective physique of young subjects, to bear questions of race, nationality, and parentage in mind. For example, the youngest members of large families and the offspring of aged parents are apt to be less robust than children begotten in the prime of parental vigour. Still greater difficulty has been found in trying to frame standards of alacrity, power, and endurance, qualities which are not necessarily proportionate to size and bulk. It was at one time thought feasible to appraise physical and physiological excellence by a system of marks, but the evidence collected by Lord Sandhurst's Committee clearly established the impracticability of this. The examiner must, therefore, be guided in forming an opinion of a candidate's physique not by rigid anthropometrical standards, but by every consideration which reveals the strength, soundness, and capacity of the stock to which he belongs, and the extent to which the life-history of the individual has caused maintenance thereof or departure therefrom. In the Army it has only been found possible to lay down minimal standards of the three cardinal physical equivalents of height, chest girth, and weight for the age at which recruits are usually enlisted, namely, 18 to 25. The minima are—height, 5 ft. 4 in.; chest girth, 33 ins.; and weight, 115 lbs. These standards apply to commissioned officers of all arms, who are expected to have attained it when they are commissioned. When examined some time before obtaining commissions, as at entry to Sandhurst or Woolwich, they must present such a degree of development for age as to offer reasonable prospect of the standard being attained or exceeded by the time they are commissioned. The physical requirements for soldiers vary according to the arm for which they are recruited. While a height of 5 ft. 3 in. and chest girth of 33 in. is sufficient for admission into the Army Service Corps, Ordnance Store Corps, and Medical Staff Corps, a minimum height of 5 ft. 11 ins. and chest girth of 36 ins. are required for the Household Cavalry. These are the extremes. Intermediate standards are laid down for other branches, and the chest girth rises with the height. The data are laid down in orders, which vary from time to time as the supply of recruits is plentiful or the reverse. These measurements are made by the recruiting staff rather than by the medical examiner, but the latter should, in all cases, make and record them.

In measuring the chest the upper margin of the tape should lie just below the inferior angles of the scapula behind, and the lower margin just above nipple in front. It should not be drawn so tight as to compress or indent the surface. The girth should be read and noted at the extremes of ordinary respiration or at the moment of emptying and filling of the chest with the tidal air. The lesser figure, which represents a resting chest, which is always empty, is taken as the chest measurement for recruits; and the difference between the two represents the play or expansion of the chest in breathing. It is usual to signify the result of measurement fractionally thus—$\frac{34}{36}$. Sufficient emptying can be obtained by causing the recruit to count from 1 to 10 slowly. Forced respiration, or the admission and expulsion of the so-called complemental air, gives wider extremes, and a mean between them represents the average chest, thus $\frac{34}{36}$—34. Fractions below $\frac{1}{2}$ are disregarded. The height is taken with the feet uncovered, heels together touching the floor, and heels, calves, buttock, scapulæ, and occiput touching the backboard. The headpiece should touch, but not compress, the scalp. The weight recorded should be that of the unclothed body.

The bulk and hardness of the muscles, symmetry and shape of trunk and limbs, texture and colour of skin, expression of face and eyes, state of hair and teeth, and tone of circulation will aid in forming a just estimate of physique. For some employments, such as that of postman, the Civil Service Commissioners insist on a robust constitution, even if signs of previous or present disease are absent.

The following statement, condensed from a table quoted from Charles Roberts, F.R.C.S., in Sir William Aitken's work on *The Growth of the Recruit and Young Soldier*, may be useful in indicating the physical equivalents of different ages. It also shows the amplitude of variations from the mean and how these physical equivalents depend on the conditions of birth, and the upbringing of the subject.

Height, Weight, and Chest Girth in relation to Age.
Non-labouring Classes:

Age.	Height (in inches).			Weight (in pounds*).			Empty Chest Girth.		
	Max.	Aver.	Min.	Max.	Aver.	Min.	Max.	Aver.	Min.
17	76·5	67.8	56.5	189	141	87	40.5	33 98	27.5
18	77.5	68 3	55.5	203	146	101	41.5	34.14	29.5
19	77 5	68.7	60.5	203	148	103	41.5	34.77	29.5
20	76.5	69.1	63.5	189	152	115	41.5	35.25	29 5
21	74.5	69 2	62.5	203	152	115	42.5	35.42	30.5
22	75 5	68 9	62.5	189	155	115	40.5	35 30	30.5
23	74.5	68.5	64.5	178	152	115	40.5	35 50	30.5
24	73.5	68 9	64.5	203	149	115	41.5	36.10	31.5
25–30	74.5	69.1	63.5	203	155	115	42.5	35 96	30.5

Labouring Classes:

Age.	Height (in inches).			Weight (in pounds*).			Empty Chest Girth.		
	Max.	Aver.	Min.	Max.	Aver.	Min.	Max	Aver.	Min.
17	71.5	64.5	56.5	157	116	73	33 5	29 38	24.5
18	71.5	65 5	55.5	178	123	73	34.5	30.07	25.5
19	71.5	66.1	61.5	178	128	101	35.5	30.58	26 5
20	71.5	66 3	62 5	157	131	101	34.5	30 86	26.5
21–22	71 5	66 6	62 5	171	135	108	35.5	31.61	29.5
23–30	72.5	66.7	61.5	189	139	101	36.5	32.38	29.5

* Subtract 7 to 10 pounds for clothes.

SOUNDNESS.

Organic integrity and functional rectitude are the end and aim of the personal examination which constitutes the principal duty of the examiner. To catalogue all the conditions of disease or disorder which may reasonably be held to disqualify for service—naval, military, or civil—were to detail a complete nosology. Grave changes of structure and disturbances of action present no difficulty and require no notice. It is those slight, or temporary, or remediable ailments—more especially functional disturbances—which stand on or near the uncertain boundary separating health from disease, which give trouble and hesitation as to whether they incapacitate or are likely to incapacitate. Holding this general principle in view, a few practical remarks on the points specified by the published regulations of the services may be usefully arranged under the anatomical and physiological systems of the body.

CUTANEOUS SYSTEM.

The general aspect of the skin, its smoothness, colour, and firmness, is a good indication of constitution and health. Scars or marks caused by suppurated glands, injuries, ulcers, eruptions, or remedial applications should be carefully noted, and the suspicions which they may suggest followed up by inquiry. As regards eruption the Army regulations pronounce "inveterate skin disease and chronic ulcer," the Navy "skin disease unless trivial or temporary," and the Civil Service "chronic eruptions on skin or scalp," to be disqualifications. These definitions permit considerable latitude for the exercise of discretion. Traces of corporal punishment should be looked for in recruits, and noted if found. Tumours or glandular swellings should, if present, be specially examined and considered. A small simple tumour, if successfully removed, would probably not disqualify. Glandular swellings, unless caused by a temporary local irritation in a person otherwise of sound constitution, are always looked upon with suspicion, and would probably lead to rejection or conditional acceptance. Marks of vaccination should be carefully examined, and their character noted as good, bad, or indifferent. In the Army and Navy revaccination is resorted to unless the marks are thoroughly satisfactory and recent.

NERVOUS SYSTEM.

A thorough examination of the scalp and skull, with a view to the detection of scars and signs of fracture, should be made. Fits of any sort are a disqualification as also paralysis of motion or sensation or any defect or disorder of intellect. Spinal disease or deformity also disqualifies. A question may arise as to the probability of a slight degree of stoop or lateral curvature being held to disqualify for sedentary employment such as that of clerk, typewriter, or the like. The point would probably be considered in relation to age, general health, and constitution. For the Army or Navy any but the very slightest degrees of such conditions, due to bad habit and remediable by gymnastics and drill, would ensure rejection, and for such services as the customs, police, etc., the same rule would probably apply.

RESPIRATORY SYSTEM.

Disease of the bones and cartilages of the nose and polypus are specified as disqualification. Perhaps a single mucous polypus, successfully removed, if rhinoscopy, scraping, or burning gave reasonable assurance of nonrecurrence, would not bar acceptance. Any decided organic disease of pleuræ, lungs, or air tubes, tuberculous or otherwise, would necessarily be prohibitive, but it is with regard to suspicious cases of delicate lung, indicated by defective girth and anteroposterior depth, insufficient expansion, local or general, subclavian flattening, increased vocal resonance, and perhaps prolonged expiration, that difficulties arise. The family and personal history should be made the subject of strict investigation in such cases, the general physique and condition looked to, the fauces, tonsils, and pharynx inspected, and inquiries made as to hæmoptysis, cough, and the effects of exercises and sports. Recurrent attacks of chest disease of any sort, even without any sign or trace of organic change, would probably be held to disqualify; and any actual present disease, even a slight bronchial catarrh, would probably cause hesitation and postponement of acceptance. Asthma, dyspnœa, aphonia, and chronic cough are specially mentioned in the naval regulations as causes of rejection. In short, sound lungs and normal respiration are required by all the public services, and would probably be expected in candidates for *quasi*-public or private services as well.

CIRCULATORY SYSTEM.

The regulations of the public services indicate functional disorders as well as organic diseases of the heart and blood vessels as disqualifications. Any organic lesion of pericardium, heart, or valves, even if neutralised by compensatory adjustments, would bar acceptance.

Lame and damaged hearts may be and often are consistent in civil life with useful employment and longevity; but under the physical and climatic exigencies of service such hearts are apt to give way, and the compensatory arrangements to fail. So called functional murmurs, or even excitability or irregularity of the heart's action, may cause rejection. The argument that the subject is out of health, or has been working or smoking hard, or suffers from indigestion, and that the disorder is temporary and due to such transient causes is met by the consideration that service conditions may prove even more potent and disastrous causes of disabling circulatory disturbance. Pure nervousness may, however, seriously disturb the working of a heart, and patience and repeated examination after rest and reassurance may be necessary. But it should be borne in mind that a heart and circulation which are sufficient for the demands of civil life in temperate latitudes are often unequal to the strain of military and naval service in tropical climates, and that undue palpitation or irregularity may of themselves justify rejection. Varicocele and varicose veins are disqualifications unless they are slight and remediable by operation. If the varicocele is small and unilateral, or the varicosity of superficial veins limited, candidates may be accepted conditionally on subsequently presenting evidence of complete cure.

DIGESTIVE SYSTEM.

The teeth must be carefully overhauled. They evidence soundness of the constitution or the reverse, assist in the determination of age, and their efficiency as organs of mastication is often put to severe test on service. The Army regulations require that "the teeth are in good order, loss or decay of many being considered a disqualification." The Navy regulations specify "many unsound teeth and unhealthy gums as a cause of rejection." The loss or decay of ten teeth disqualifies for the Navy, but the general condition of the whole set is also scrutinised. It cannot be too strongly

impressed that a periodical inspection of the teeth of young persons should be made by a professional dentist, and faults remedied as they arise. Artificial substitutes are not accepted in the Army or Navy, even when the loss, if excessive, has occurred through injury and the gums are sound. "Disease of throat, palate, or tonsils" is specified in the Civil Service and Navy rules as disqualifying. Probably severe, permanent, or constitutional disease is meant. Enlarged tonsils and adenoid vegetations should be dealt with by operation in the young, as they are so apt to give trouble in after-life, and if excessive would probably lead to rejection. The Naval and Civil Service regulations indicate "any disease of the stomach and bowels" as disqualifying. Slight and temporary disorder would probably not come under that definition. Fistula, prolapsus, or ulcer of rectum, or piles, would also disqualify, as also enlargement of liver, spleen, or mesenteric glands. For some employments a baggy, distended abdomen would disqualify without actual disease.

RUPTURE.

Rupture of any kind disqualifies absolutely for the Army or Navy, or even a tendency thereto, as indicated by unduly wide rings or perceptible impulse. The Civil Service rules state that "for clerkships and some other sedentary occupations a properly supported rupture may not be a disqualification." Question may arise regarding a rupture that has been apparently cured by operation. The degree of closure of ring and absence of impulse, the length of time that has elapsed since operation, and the tests or strain to which the part has been subjected would determine the completeness and permanence of the cure or otherwise.

URINARY SYSTEM.

"Disease of the kidneys or bladder and incontinence of urine" are mentioned as disqualifications in the Navy regulations, and fistula in perineo in the Army. Sound kidneys are required by the Civil Service rules. In any suspicious case the urine is examined. In private examinations this ought invariably to be done.

GENITAL SYSTEM.

The naval rules specify "any defect of genital organs" as a cause of rejection, and the Army regulations, "undescended testes and venereal disease." Stricture of the urethra, however slight, would certainly bar acceptance. A previous attack of gonorrhœa, if perfectly recovered from, would not disqualify; but very clear evidence of proper treatment and complete cure of syphilis, and absence of any active manifestation for at least a year, would probably be required.

MUSCLES, BONES, AND JOINTS.

The Army and Navy regulations, of course, insist upon the absence of deformity, malformation, or asymmetry of trunk or limbs—congenital, constitutional, traumatic, or otherwise; on the limbs being well formed and fully developed, the joint movements being free and perfect, and the hands and feet, fingers and toes being healthy, and in all respects efficient. An elaborate drill is laid down by the army regulations for examining recruits. The private practitioner will, however, be able to satisfy himself as to the soundness of the locomotor system without slavishly adhering to this drill. The examination should, however, be thorough, and the inspection conducted after all clothing has been removed. The state of hands and fingers, feet and toes should receive special attention. Any degree of talipes or pronounced flat foot, or any angularity or other distortion of toes, even bunions—any condition, in short, likely to interfere with marching—is held to be a disqualification for naval and military service. The condition of "hammer toe," unless completely cured by operation, would disqualify. I would here urge strongly the necessity of giving young people boots of easy fit and rational shape. The requirements of the Civil Service are not so rigid, but "the existence of any serious congenital or acquired defect or malformation (especially in head, hands, or feet), paralysis, weakness, considerable lameness, impaired motion or contraction of the upper or lower extremities from whatever cause, distortion of the spine and of the bones of the chest or pelvis from injury or constitutional defect," are specified as disqualifying conditions.

VISION.

The absence of present or progressive disease of the eye and ocular apparatus is essentially necessary, but some degree of refractive error, corrigible by glasses, is allowed for some occupations, and even slight impairment of vision of one eye caused by previous injury or disease, if there is no probability of aggravation or recurrence, is in some cases permitted. The Navy demands perfect sight for sailors and engineers—officers and men; chaplains, medical officers, and clerks are allowed some degree of refractive error, the kind and amount being left to the discretion of the medical board. Recruits for the Army are examined by means of dots corresponding, at 15 feet, to a target measuring 3 feet in diameter seen at a distance of 600 yards. Officers of the Army are tested according to the standard noted below. The Civil Service Commissioners permit a moderate degree of ordinary short sight "except for the Customs outdoor service." Loss of one eye by injury, the other being sound and likely to remain so, is made the subject of special consideration.

The public services of India have had standards of vision carefully prepared by Sir Joseph Fayrer, assisted by experts, and sanctioned by the Secretary of State for India. These standards are shown in the following statement, together with those for the Army, Navy, and Civil Services.

ROYAL NAVY.

Perfect form and colour sight and normal accommodation required. Refractive defects, squint, or defective action of the external muscles of the eyeball disqualify. [A moderate error of refraction is allowed for chaplains, medical officers, and clerks.]

INDIAN PILOT SERVICE.

Same as the Royal Navy.

INDIAN MARINE SERVICE.

(Including Engineers and Firemen.)

Refractive error up to 1 D + or − allowed. Colour blindness or paralysis of external muscles of eyeball disqualify.

ARMY.

Must read D = 36 (Snellen, 1892) at 6 metres or 20 feet, with each eye separately without glasses; and D = 0.8 with one or both eyes without glasses at any distance. Must read $\frac{6}{9}$ and $\frac{6}{6}$ with glasses. Squint, inability to distinguish the primary colours, or any morbid condition, subject to the risk of aggravation or recurrence, in either eye, disqualify.

INDIAN MEDICAL SERVICE.

Myopia up to − 5 D allowed if vision = $\frac{6}{9}$ and $\frac{6}{6}$. Myopia with posterior staphyloma, if corrected by − 2.5 D to same standard, permitted; also myopic astigmatism if corrected by combined lenses not exceeding 5 D and V = $\frac{6}{9}$ and $\frac{6}{6}$. Hypermetropia and hypermetropic astigmatism up to 5 D if V = $\frac{6}{9}$ and $\frac{6}{6}$. Same rules as regards colour blindness and paralysis of muscles. Nebula of one eye up to $\frac{6}{12}$ allowed if the other is emmetropic.

INDIAN CIVIL SERVICE

(Including Ecclesiastical, Education, Salt, and Opium.)

Must see $\frac{6}{9}$ with one eye and $\frac{6}{12}$ with the other, with or without glasses, if no morbid change in retina. Myopia with posterior staphyloma does not disqualify if ametropia in either eye does not exceed 2.5 D, and no active disease of choroid or retina be present. Nebula in one eye up to $\frac{6}{12}$ does not disqualify if the sight of the other equals $\frac{6}{9}$ with or without glasses. Paralysis of external muscles disqualifies. Amblyopia from cured strabismus and unequal ametropia, corrected by glasses up to $\frac{6}{9}$ and $\frac{6}{6}$, does not disqualify if movement of both good.

INDIAN PUBLIC WORKS,

(Telegraph, Forest, Railways, Factories, Police and Artificers.)

Myopia up to − 2.5 D allowed, provided vision equals $\frac{6}{9}$ and $\frac{6}{6}$, and accommodation with glasses is normal; same rule for myopic astigmatism, combined glasses not to exceed 2.5 D, accommodation with glasses good, and no progressive disease of choroid or retina. Hypermetropia (total) up to + 4D allowed if sight with atropine equals $\frac{6}{9}$ and $\frac{6}{6}$; same

rule as regards hypermetropic astigmatism. Nebula up to $\frac{1}{2}$ allowed if other eye is emmetropic. Colour blindness and paralysis of external muscles of eyeball disqualify.

Examination of Vision.

The examination of vision is conducted by means of Snellen's types, which are constructed on the principle of a visual angle of 5′ for the whole letter and 1′ for the strokes or lines forming the letter. The distance in metres at which each letter should be read is affixed to it, and the numerator of the fractions above given indicates 6 metres, or 20 English feet, the distance—a convenient one—at which the examinee is placed from the sheet on which the types are printed. The denominator indicates the particular type which can be read at that distance; $\frac{6}{6}$ indicates that type No. 6 can be read at 6 metres, and $\frac{6}{36}$ that type No. 36, which ought to be visible at 36 metres, is the smallest that can be seen at 6 metres. The fraction therefore indicates the amount of acuteness of form vision possessed by the eye; $\frac{6}{9}$ would indicate $\frac{2}{3}$, or 50 per cent. of normal vision. The examiner should possess some + and − lenses. The perception of colour is generally tested by means of Holmgren's wools, and the candidate should be made to match as well as name the colours. The correct perception of red and green is the most important point. The practitioner should have no difficulty in ascertaining and certifying normal vision; but in cases in which any abnormality of form or colour vision, refractive or otherwise, exists a thorough examination by an expert should be made, and his report, the exact refractive error of either eye and the glasses prescribed, should always be taken to the examining board by the candidate. Each eye ought of course to be separately examined by covering the other. Strong accommodation sometimes conceals a moderate degree of hypermetropia, and when accommodation is weakened by study or sickness defective vision, hitherto unsuspected, is revealed. This circumstance may lead to disappointment, and a special examination for possible hypermetropia by means of atropine or the use of a convex lens should always be made. The convex lens in such cases improves or at any rate does not impair vision.

Hearing.

"Impaired hearing, or discharge from one or both ears, or any disease of the external ear," is the formula used in the naval regulations. The Civil Service rules are almost identical, and the Army requires good hearing. The soundness of this sense is easily ascertained by ordinary conversation. If any doubt arises the hearing of each ear must be tested separately by means of a watch or tuning fork. The use of a second still watch may be advantageous in some cases.

Speech.

The importance of strong voice and ready accurate articulation in persons who have to give words of command quickly or under circumstances of emergency is obvious. The Army and Navy regulations, therefore, indicate "impediment of speech" as a cause of rejection. The Civil Service regulations are less absolute. "Stammering is in some respects a question of degree and of the duties of the proposed situation, but any considerable impediment in speech renders a candidate generally liable to rejection." A teacher or lecturer must necessarily possess a sound and ready faculty of speech.

Discretion.

Questions of physical fitness for various occupations under varying circumstances cannot all be anticipated or defined by rigid standards. A certain measure of discretion must therefore remain with examining boards and examiners regarding those minor infirmities which may or may not be held to disqualify, and the process of balancing is often a very delicate one. No doubt even as regards these, unwritten rules arise through practice and experience, and some degree of uniformity and continuity results, but a certain elasticity of judgment is inevitable in doubtful cases. Employers likewise reserve for themselves an option to accept or reject, and do not consider themselves necessarily bound by the advice received from medical boards and examiners. Parents and their advisers must be prepared for disappointment under circumstances of doubt.

Conflicting Interests.

Official examiners act in the interests of their employers, and naturally incline to give them the benefit of well-founded doubts, while private medical advisers are prone to adopt the view most favourable to their clients; hence arises every now and then unpleasant criticism and antagonism. Official examiners, as far as my experience goes, are always ready and pleased to receive aid in the form of statements and certificates from family doctors and experts, and to give them due consideration and weight. Such statements should be representations of facts and not, as is too often the case, mere expressions of opinion or anticipations of a judgment which it is the business and duty of the examiners to form. The responsibility of advising selection or rejection rests with them, and they are generally in the best position to give due attention to the requirements of the service which they represent. In respect to these they indeed occupy the position of experts.

Differences of opinion between official examiners and private advisers arise not so much or often as regards questions of fact as with respect to the interpretation of, say, a cardiac murmur and the bearing of an admitted abnormality—defect or disease—on the question of future efficiency. When sound subjects can be obtained, it is unreasonable to expect employers to accept the unsound or doubtfully sound, and this consideration becomes of peculiar importance when the employer is the State and the servant a soldier or sailor.

Military and naval authorities will not willingly accept weedy, edentulous, or purblind officers or men when they can get robust youths with good instruments of mastication and sight. The best way of avoiding unpleasant conflict in these matters is to take measures that every fact relating to the physique and health of the candidate, whether favourable or unfavourable, shall be frankly and fully placed before the examiners, who are influenced by a generous desire to treat lads fairly and kindly as well as by a conscientious regard to the interests of the service on whose behalf they act. The worst thing that can happen in cases of rejection is the imputation to official examiners of incompetence or partiality—an attitude which is at once unjustified by the fact and inconsistent with that spirit of benevolent altruism which constitutes the ruling motive of the medical profession.

REMARKS
ON
THE NATURE AND TREATMENT OF PERNICIOUS ANÆMIA.

By RALPH STOCKMAN, M.D., F.R.C.P.E.,

Lecturer on Materia Medica and Therapeutics in the School of Medicine, Edinburgh; Assistant Physician to the Royal Infirmary.

(Continued from page 967.)

III.—The Immediate Cause of the Condition.

Such causes as those mentioned in the first portion of this paper have generally been regarded as remote or predisposing, while the immediate cause has been set down by all writers hitherto, either to deficient blood formation or to excessive blood destruction.

Dr. Bradbury[1] thinks the destruction of red corpuscles so excessive that the blood-forming organs cannot regenerate them in sufficient amount. Pepper[2] has proposed the name "anæmatosis" for the condition to indicate his opinion that it is due to nonformation of blood, while Quincke is undecided which it may be. Pye-Smith holds it to result from a too rapid and extensive destruction of the red discs; and Mott,[3] that it consists essentially in an excess of the normal blood-destroying function of the liver and spleen.

In passing I may protest against the assumption by Dr. Mott and others that the liver and spleen have ordinarily (or even in disease so far as we definitely know) any blood-destroying function. Red blood corpuscles probably disintegrate, just as any other tissue disintegrates, when they become old and effete, and there seems no special reason why they should be actively destroyed by any

other organ in the body. The liver (and also the spleen) is the ordinary storehouse for the reserve physiological iron of the body, and hence iron from the food or from the effete corpuscles is taken up into the liver cells. The same thing is seen when an iron salt is injected directly into the blood, no less than 50 per cent. of it being retained by the liver (Jacobi[4]), and it is also seen when arseniuretted hydrogen, toluylendiamine, or other drugs which weaken and lead to the disintegration of red corpuscles are administered to animals. Possibly the leucocytes do actively destroy damaged or old red corpuscles, but there is no special reason for believing that the liver cells do. Minkowski and Naunyn,[5] after poisoning with arseniuretted hydrogen, observed in the liver, spleen, and bone marrow large numbers of leucocytes carrying partially broken-down red blood corpuscles, whereas in the blood of other parts such leucocytes were rare. The explanation is that a slowing of the blood-stream is necessary to enable the leucocytes to deal with effete or weakened red corpuscles, and hence although the breaking down occurs chiefly in the portal system, and especially in the liver capillaries, where the circulation is very slow, it occurs through the agency of leucocytes and not of the liver or spleen cells. The products of disintegration are simply stored in the liver, or excreted by it as bile pigment, bile acids, urea, etc. In health the iron from the effete corpuscles may be taken up directly from the blood or indirectly from leucocytes by the liver cells, but exact knowledge on these points is lacking.

In connection with the question of pernicious anæmia and excessive blood destruction, the clinical and experimental researches of Dr. William Hunter require special consideration, as they stand out pre-eminently for originality and completeness. Hunter, while regarding pernicious anæmia as a distinct disease due to excessive blood destruction, holds that the most constant pathological feature is a large excess of iron in the liver, and that this distinguishes it *post mortem* from all other varieties of anæmia. He has advanced the theory that a cadaveric body formed by a special micro-organism in the alimentary canal becomes absorbed, and in the portal vessels, and there only, disintegrates the red blood corpuscles. When these break up their iron is stored in the liver, while their pigment is excreted in the urine and in the bile, both of which secretions assume, therefore, a darker colour. By administering to animals toluylendiamine, pyrogallic acid, and other substances which lead to breaking down of the red corpuscles he was able to produce a condition of anæmia with excess of iron in the liver, and this he regards as strongly corroborating his theory. Dr. Hunter also lays great stress on the varying size of the spleen, the differences in which he attributes to more or less activity of this organ in blood destruction previous to death. Eichhorst, Quincke, and Schauman all state that the spleen is seldom enlarged; and any differences are probably attributable to the degree of fever present during life rather than to special activity in destroying red blood corpuscles.

Having examined the opinions held by others and, to a certain extent, criticised them, I now come to my own views on the nature of pernicious anæmia.

The evidence seems to me convincing that pernicious anæmia follows usually on well-recognised debilitating causes. The cause is sometimes, however, obscure, and is not detected, but we are rapidly reducing this unknown territory, and if it be remembered that only a few years ago all cases of tapeworm-anæmia were regarded as "idiopathic" we may hope in the near future to elucidate the hitherto unrecognised causes. Further, I do not think that a hypothetical destruction of red blood corpuscles by the liver cells or by a ptomaine or ferment can be considered the cause of the condition. I hold rather that anæmia from any cause induces in some persons degenerative changes in the whole vascular system; that these permit the occurrence of numerous minute internal bleedings, more rarely of external ones also, and that a persistent continuance of these leads ultimately to excessive anæmia and death. My reasons for these opinions are as follows:

The earliest observers, Combe, Addison, and Wilks, were all struck by the extremely fatty condition of the heart muscle as found after death. Their observations have been confirmed by Ponfick[6] and by all observers without exception. Ponfick extended them by showing that in anæmia following on very numerous conditions (chronic stomach disease, cancer, pregnancy, typhoid, bleeding, etc.) the heart was fattily degenerated, the vessels being also affected. Perl[7] has shown that by bleeding dogs so as to keep them anæmic, fatty degeneration of the heart muscle can be induced.

In pernicious anæmia degenerative changes occur in the capillaries and small vessels also, although there is some dispute as to their exact nature. Biermer and others have described the change as fatty degeneration, while Müller and Eichhorst think it is a peculiar kind of degeneration of the walls whereby the red corpuscles readily pass through. The former says that it is not visible to the microscope, and suggests that it is simply a nutritive disturbance. Manz[8] and Eichhorst have figured small capillary aneurysms on the retinal vessels, but they are not always present.

The exact nature of the change need not specially concern us, since all observers are agreed that numerous capillary hæmorrhages take place in consequence, and that bleedings from the nose, bowel, and other mucous surfaces also result. It seems to me that sufficient stress has not hitherto been laid on the important part which these numerous although small hæmorrhages play in producing "progressive pernicious anæmia." Continued small losses of blood lead to much more profound anæmia than a single large bleeding, and the patients gradually accustom themselves to get along with less and less hæmoglobin, so that they only apply for medical advice when very severely anæmic. It is no uncommon thing to find a case of chronic anæmia present itself for the first time with 20 per cent. hæmoglobin and 1,000,000 red corpuscles per cubic millimetre, whereas in a case where I examined the blood two days after an acute hæmorrhage had nearly caused death, I found 60 per cent. hæmoglobin and 3,000,000 red corpuscles. Laker[9] records a case where a healthy man died next day from hæmorrhage following a stab, his hæmoglobin being then 70 per cent. of the normal. Chronic loss of blood is therefore much better borne than acute loss, and goes on to a much higher degree without causing death.

In pernicious anæmia the internal hæmorrhages are of the size of a pin-head to a linseed, or may be small or very large ecchymoses, and they are found in every organ of the body. I have several times examined them; but perhaps it will be most satisfactory to quote what a few writers of the widest experience in pernicious anæmia say about them. Biermer, who first described them in the retina, lays such special stress on their presence in other parts of the body that he includes their occurrence in his definition of "progressive pernicious anæmia." One patient he describes as dying in consequence of the enormous number of such capillary bleedings in the brain. Numerous other authors have described more or less severe nervous symptoms following on such bleedings into the brain and cord, namely, paralysis or paresis, sensory disturbances, twitchings of groups of muscles, epileptiform attacks, and loss of sight, smell, or hearing. Eichhorst says: "The bleedings are almost always of a capillary or petechial character. There is scarcely an organ which is not affected by them; on the skin, mucous membranes, in the brain, on the organs of the thorax and abdomen they are frequent and almost regular appearances." Müller gives a very full description of them, more especially in the brain and its membranes. He describes that a false membrane about the thickness of the retina is generally found on the under surface of the dura mater, and that this is yellow in colour, and is formed from the enormous number of capillary hæmorrhages which have taken place there. "Hundreds of capillary hæmorrhages may be distributed throughout the brain substance, and give to the wax-pale brain a red punctated appearance, so that one may justifiably use the comparison of Biermer and speak of purpura hæmorrhagica of the brain." They resemble small cut vessels, but the blood cannot be removed by slight pressure with the flat of the knife, and they are thereby distinguished from the infrequent red vascular points. Müller says that they may easily pass unobserved, as happened in all his earliest cases.

Pye-Smith says: "This hæmorrhage is as constant, or

almost as constant, a *post-mortem* occurrence as fatty degeneration. It is sometimes extensively distributed, as much as in purpura or malignant fevers, in variola or pyæmia, but it is rarely large."

These bleedings being so small disappear very rapidly and completely, this being assisted by the well-known tendency of the blood to resist coagulation in extreme anæmia (Eichhorst). They usually produce no special symptoms (unless they occur in the central nervous system or organs of special sense, and even in those very rarely), but if they do cause paresis or other symptom, this passes off in a very few days, and no trace of bleeding may be found *post mortem* owing to rapid absorption of the small extravasations. In some cases which I have examined after death the hæmorrhages have been so few that I have doubted very seriously whether they could ever have been very numerous, but taking into account their rapid absorption and the probability that with extreme anæmia the number must diminish just before death, I believe that in such cases they had previously been much more numerous.

Further, bleeding from the nasal mucous membrane is fairly common, and hæmatemesis, melæna, and hæmoptysis not infrequent. After death no local lesion may be found to account for these hæmorrhages.

The importance of these hæmorrhages must be considerable, because the effect of even a small loss of blood in an anæmic person is very striking. For example, in a woman, aged 41, whom I was treating for severe anæmia, supposed to be pernicious, and in whom menstruation had been absent for some months, the red corpuscles equalled 3,000,000 and the hæmoglobin 36 per cent. She began to menstruate and continued for six days, losing, according to her own account, very little blood. At the end of her period, although the corpuscles still numbered nearly 3,000 000, the hæmoglobin had fallen to 30 per cent.—a loss which she very slowly and with great difficulty made good.

These bleedings are, to judge from the exacerbations and partial remissions of symptoms, more numerous at one time than at another, and according to the amount of blood loss the case progresses rapidly or slowly.

The hypertrophy of the bone marrow, which has been so often described as a characteristic anatomical feature of pernicious anæmia, is not infrequently present also in cancer and other conditions, and is now generally, if not universally, regarded as an attempt on the part of the great red-corpuscle-forming organ of the body to cope with its excess of work and make up the blood loss. The same hypertrophy can be induced by bleeding dogs to anæmia, and is seen after chronic bleeding in man (Neumann).[10] In some cases, however, the red marrow is not increased in amount, and this may depend on its not having had time to hypertrophy before death overtakes the patient. I believe that in many cases the red marrow gets exhausted from overwork, and there is no doubt that as age advances the blood is regenerated with much greater difficulty and slowness, this probably accounting to a large extent for most cases of pernicious anæmia occurring in middle life or later. I have been led to this conclusion partly from observations on anæmic people at different ages, but also from observation of two typical "bleeders." The one was a girl, aged 20, with a family history of hæmophilia, and subject to epistaxis, menorrhagia, and hæmatemesis. In two years I attended her during five attacks of anæmia, when she presented all the characteristic symptoms of extreme chlorosis, and each time she recovered readily under treatment with rest and iron. The other was a man, aged 45 when I first saw him, and at this time he presented all the most typical features of pernicious anæmia. He told me he had often been bloodless previously after bleeding, but had always responded to treatment with iron. This time iron and every other method of treatment failed; during a year he made practically no progress towards recovery, and died suddenly after hæmorrhages from the nose and bowel. As the first patient reaches middle life she will probably also have more difficulty in regenerating the lost blood, and will lapse into a condition of "pernicious anæmia."

I now come to an important part of the argument, namely, the endeavour to prove that these bleedings account satisfactorily for the characteristic symptoms of "pernicious anæmia" as usually distinguished from chlorosis and so-called "simple anæmias." These symptoms are: (1) The extreme anæmia, along with a usually fat and well nourished appearance. (2) The yellow colour of the skin, blood serum, and fat. (3) The excess of iron in the liver and other organs. (4) The richness of the red blood corpuscles in hæmoglobin. (5) The excess of urobilin, and probably of other pigments in the urine. (6) The fever.

1. *The Extreme Anæmia.*—As has been previously pointed out, much more profound anæmia is brought on by chronic small bleedings than by one or more large losses. In the latter case the patient is very apt to die, whereas in the former the body has time to accustom itself to the altered conditions, and does so to an extraordinary degree. The large amount of fat is due to its not being oxidised owing to poverty of hæmoglobin, for it is well known that cattle can be fattened more rapidly if kept anæmic by bleeding. But further, if the diet be good and there is no organic lesion of the digestive organs, the blood plasma will not be deteriorated, and will afford sufficient nourishment to all the tissues. The great debility is doubtless due to fatty degeneration of the heart and (though to a much less degree) of the other muscles, which results from lack of oxygen rather than from lack of nutriment. It is really a want of hæmoglobin and consequent non-oxidation which induces the stoutness. Some cases are, however, thin and emaciated.

2. *The Yellow Colour of the Skin, Blood Serum and Fat.*—The more or less yellow colour of the skin and fat is due to altered hæmoglobin dissolved in the blood serum. So far as my own observations go the blood is generally more yellow than normal, and this is not due to the fewness of red corpuscles depriving it of its purplish hue, because the œdematous and serous exudations have also in some cases an unusually deep tint. Schauman, on examining the serum from a blister, found it of a deep yellow colour, but giving no characteristic spectrum, and Broadbent,[11] in one case, observed that the blood serum stained his hands of a colour which in its intensity and difficulty of removal reminded him of a nitric acid stain.

The pigment of effused blood is very apt to undergo this yellow change, the most familiar example being an ordinary bruise. In rabbits in which I had made subcutaneous hæmorrhages by cutting veins, after waiting until the clot had been apparently all absorbed, I found the connective tissue in the neighbourhood stained of a fine yellow colour. This yellow pigment gave an intense iron reaction, showing that it still contained part at least of the iron of the hæmoglobin. My friend, Dr. Berry Hart, also informs me that after a large hæmatoma of the broad ligament patients always become yellowish in a few days, the coloration not being due to jaundice. There can be no reasonable doubt that here, and in pernicious anæmia, the yellow pigment is derived from altered hæmoglobin, and that it circulates in the blood stream. Probably other derivatives of hæmoglobin also occur but with less frequency, as Gusserow records that in two of his cases the blood serum was brownish like thin coffee. The yellow tint varies a good deal in intensity, and its presence in any case justifies us in assuming that internal hæmorrhages are occurring, the depth of it giving us some sort of gauge of their extent.

3. *The Excess of Iron in the Liver and other Organs.*—Hunter, Mott, and others have laid great stress on the presence of excess of iron in the liver, and this has been advanced as a proof that the liver cells actually break down red corpuscles and absorb their iron. But iron, although usually too abundant in the liver in most cases of pernicious anæmia, is also found in great excess in other organs. Thus Grohe[12] describes it as present in the liver, spleen, kidney, pancreas, and surface of brain; Quincke in the liver, pancreas, and kidney; Mott in the liver, spleen, pancreas, and kidney. It is also found not only in the liver cells, but in the hepatic capillaries and connective tissue, as well as in the bone marrow.

Whatever opinion may be held regarding the liver and spleen as possible blood-destroying organs, it is hardly imaginable that the surface of the brain or the kidneys have any special function of the kind. The true explanation seems rather to be that the hæmoglobin of the numerous minute hæmorrhages becomes altered, and thus liberates in

the circulation a large amount of iron-containing pigment. This is deposited in the liver and other organs; if the bleedings be numerous the pigment is taken up by many organs, if few chiefly (but in my experience never exclusively) by the liver, which is a principal storehouse for iron in the body. Sometimes when the internal bleedings have been very numerous (or perhaps always) the red blood corpuscles are partly absorbed by the lymphatic vessels, and are found both in them and in the glands (Weigert[13]).

That the hæmorrhages are the real origin of the excess of iron in the liver is borne out, I think, by the following proofs. After an internal hæmorrhage there is found a large excess of iron in the liver, spleen, and other organs, which is derived from the effused blood. This is readily enough shown by experiments on animals, of which one may be quoted. A rabbit during ten days had four subcutaneous bleedings made, two about the size of a pigeon's egg, the others smaller. It was killed three weeks after the last, when the liver and spleen were found to contain a large excess of iron, and stained deeply with ammonium sulphide and other reagents. Microscopically, after staining for iron, stained granules, just as in pernicious anæmia, were seen abundantly in the liver and spleen cells. But after blood effusions in man the same thing has been observed. Thus Tillmanns,[14] in a case of fracture of the pelvis with extravasation of blood where death occurred two months afterwards, found an excessive amount of iron in the liver, spleen, and lymph glands.

Purpura hæmorrhagica also furnishes us with an analogous condition. In one case Hindenlang[15] found large quantities of iron in the liver, pancreas, and lymph glands, the dried liver containing no less than 1.246 g. Fe per 100 parts. In a case of purpura which I myself examined the liver contained 0.37 g. Fe per 100 parts dried and the spleen 0.29 g. Fe per 100 parts dried, amounts much beyond the normal, which is about 0.08 for the liver and 0.15 for the spleen. In malaria also, where the corpuscles are broken up by the specific organisms, a very large amount of iron-containing pigment is found in the liver, and in fact all over the body nearly. The evidence seems to me conclusive that in "pernicious anæmia" also the large excess of iron found in the liver and elsewhere is derived from the hæmoglobin of the internal hæmorrhages.

4. *Richness in Hæmoglobin of the Red Blood Corpuscles.*—Laache first pointed out that in pernicious anæmia the individual corpuscles have a normal amount of hæmoglobin, and that the hæmoglobin is diminished in the same ratio as the number of the red discs. This holds good for most cases, but not for all, as I shall presently show. Since the time of Duncan[16] it has been known, on the other hand, that in chlorosis the hæmoglobin is diminished out of all proportion to the fall in red corpuscles, which is sometimes extremely slight or even *nil*. The explanation of the maintenance of the hæmoglobin value in pernicious anæmia is simple enough, namely, that the blood serum, liver, bone marrow, and other organs contain excess of iron, and hence there is plenty to draw on for the formation of new red corpuscles. In a case of purpura—in which disease, as I have previously pointed out, there is also in the viscera an excess of iron derived from the effused blood—Laache has carefully recorded the blood condition, and I find that in his case the hæmoglobin was in equal proportion to the number of corpuscles, and remained so during the regeneration of the blood. Here also, just as in pernicious anæmia, there was plenty of iron available in the liver and other organs for the manufacture of new red corpuscles.

5. *The Excess of Urobilin and other Pigments in the Urine.*—The urine is usually light in colour, sometimes however it is dark, and Hunter and Mott have shown that this is due to excess of urobilin. Urobilin (hydrobilirubin) is a derivative of hæmoglobin, and these authors regard its excess in the urine as a proof of the active destruction of red blood corpuscles in the liver or portal system. It is present in all normal urines, and in some cases it has been observed to form only after exposure to the air, being derived therefore from some pre-existing yellow pigment. Neubauer and Vogel[17] state that it is present in excess in fevers, in many other conditions, and in scurvy, while Hecht[18] found it in the urine of patients with blood extravasations. As it is present in excess during scurvy and blood extravasation there is no doubt that it can be formed from internal hæmorrhages, and this I take to be its origin in pernicious anæmia.

The increase of the biliary pigments can be accounted for in the same way. The excess of indican in the urine of some cases, as described by Senator[19] and by Müller, has a different origin. This pigment is a derivative of indol, and excess of it is found in the urine when an abnormal amount of putrefactive change is going on the intestinal canal. Its occurrence is, therefore, simply an outcome of the maldigestion so common in extreme anæmia. The increase of iron in the urine found by Dr. Emerson Reynolds and by Damaskin is probably due to one of these yellow iron-containing pigments derived from hæmoglobin being excreted through the kidneys.

6. *Fever.*—The fever has been ascribed by several authors to irritation of the heat centres in the nervous system by the small hæmorrhages. Into this, however, I have made no special inquiry and am unable to give an opinion. I may point out that feverish attacks are extremely common in chlorosis also, although they are seldom so severe as in pernicious anæmia, and hence the high temperature may depend in some way on the blood conditions. It has been shown that animals rendered anæmic by bleeding are subject to feverish attacks, but the explanation of this has never been definitely given.

Having shown, therefore, that the ordinary phenomena of "pernicious anæmia," as distinguished from other anæmias, are explainable on the theory that it is due to excessive loss of blood by internal capillary bleedings, sometimes aided by external hæmorrhage, I wish to point out, and this I think further confirms my views of its causation, that certain cases do not present some of what we have been asked to regard as the distinctive pathological changes. I refer especially to the presence of large amounts of iron in the liver and to the corpuscular richness in hæmoglobin.

To begin with the liver. In the liver in health is largely stored the iron needed for physiological purposes, which is present in various organic combinations resembling hæmoglobin in constitution, but more simple in structure (Zaleski[20]). It has been shown by Schmiedeberg,[21] that after external hæmorrhage this iron may wholly disappear, having been used to form new corpuscles, and I have confirmed this in dogs and in rabbits. The animals were bled from a vein repeatedly until there was a very distinct fall (20 to 50 per cent.) in the corpuscles and hæmoglobin. The livers when treated with ammonium sulphide gave no iron reaction, and on incineration a mere trace. They gave up no iron compounds to Bunge's fluid (10 parts of 25 per cent. hydrochloric acid, and 90 parts of strong alcohol).

In some cases of pernicious anæmia, brought on and maintained by external hæmorrhages chiefly, little or no iron is to be found in the liver. Even if internal bleedings are pretty numerous in such cases, the iron resulting from them is so soon used up in making new red corpuscles that the liver may contain little or none after death. I have met with one case of this kind in a woman, aged 51, who presented the clinical features of pernicious anæmia, including the yellow colour and stoutness. The anæmia was due to a bleeding uterine polyp; the hæmoglobin amounted to only 10 per cent., and the red corpuscles to 1,000,000 per c.mm., with marked poikilocytosis and numerous nucleated red corpuscles. *Post mortem* the liver and spleen contained the merest traces of iron (probably fully accounted for by the blood in them), and the bone marrow was in a typical condition of hypertrophy.

Quincke[22] describes a man, aged 45, as a case of pernicious anæmia due to severe and repeated epistaxis, lasting for eighteen months. After death no iron was found in the liver.

But the most striking evidence is to be found in cases of pernicious anæmia due to the ankylostoma duodenale, which are caused by external blood loss, the parasites sucking blood from the vessels in the intestinal wall of their host. That is to say, the anæmia is due chiefly to external blood loss, although internal capillary hæmorrhages also occur from changes in the walls of the vessels consequent on anæmia. Dr. Beaven Rake estimated the iron in the liver in five cases

one gave a trace of iron, two others gave 0.0123 g. and 0.0228 g. per 100 parts of dried liver respectively; the other two gave 0.26 g. and 0.20 g., these two last being slightly over the normal, the others being very much under. He concludes that the internal anæmia must be due to blood loss, and not to blood destruction. If it were the latter, iron would be found in the liver in great excess (say 0.6 g. or more in 100 parts).

But external blood loss of this kind affects the relation between the number of red corpuscles and their individual richness in hæmoglobin, because the iron of the hæmoglobin is lost to the body, and is not stored in it as occurs when the bleeding is internal. Hence in my case previously cited, where the pernicious anæmia was due to uterine bleeding, the hæmoglobin was reduced to one-tenth and the corpuscles only to one-fifth of the normal. Lappert[23] states also that in anæmia from ankylostoma the hæmoglobin is more diminished than the red discs, and this he regards as very remarkable, because, "as it is a secondary anæmia, the contrary would be expected." Leichtenstern[21] confirms this, as he found the corpuscles usually reduced to 25 or 30 per cent. of the normal, while the hæmoglobin was reduced in one such case to 16 per cent. In these cases, however, the simultaneous occurrence of both external and internal bleedings in varying proportions and amounts must complicate such relationships very considerably.

It is evident, however, that in some cases of undoubted "pernicious anæmia" there may be little or no iron in the liver, and the corpuscles may be individually very poor in hæmoglobin. These features, like all other individual features of this condition, are therefore not pathognomonic.

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(*To be continued.*)

ON THE TREATMENT OF ACUTE PNEUMONIA BY ICE CRADLING.[1]

By P. BLAIKIE SMITH, M.D.,

Physician and Lecturer on Clinical Medicine, Aberdeen Royal Infirmary.

The subject of ice cradling first attracted my attention about two years ago,[2] when Dr. W. Soltau Fenwick reported most encouraging results following the adoption of certain antipyretic proceedings in cases of acute sthenic pneumonia. Out of 108 cases treated by sponging or ice cradling, the mortality amounted to 10 per cent., while the death-rate in 552 cases treated in the ordinary way reached 23 per cent.

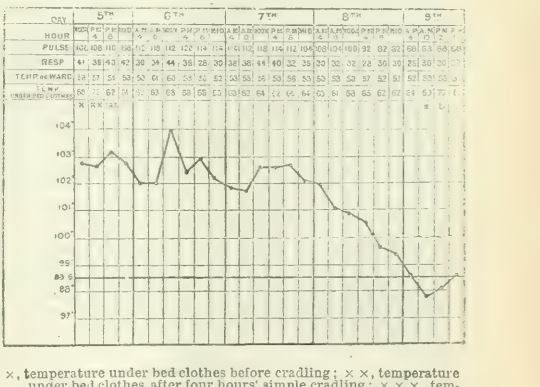
During the past two months I have had under my care in the Aberdeen Royal Infirmary, five cases of acute pneumonia, and all of these have been treated, almost exclusively, on the lines recommended by Dr. Fenwick. All the patients recovered.

The mode of carrying out the treatment which I adopted was practically identical with that described by Dr. Fenwick. The patient, clothed in a cotton nightdress, is placed in bed with a sheet covering the mattress. Over the body and legs are arranged two large cradles, extending from the shoulders to the feet. To the arches of the cradles are attached six or eight small pails filled with ice; a thermometer is suspended from the centre of the upper cradle, and both the cradles are covered, first with a blanket, second with a waterproof, and lastly with the ordinary coverlet. The ice pails are recharged as the ice melts (usually about every two or three hours). The temperature of the air under the cradles, as well as that of the patient, is ascertained at regular intervals, and the treatment is maintained until the temperature becomes normal.

All the cases treated on the above plan were examples of acute sthenic pneumonia occurring in men whose ages ranged from 30 to 40; the whole of them were complicated with pleurisy, and in one instance the pneumonia was double.

With the view of avoiding wearisome repetition I shall relate only two of these cases. In every instance I kept a record of three temperatures as the disease progressed: the temperature of the ward, the temperature of the air under the ice-cradles, and the patient's body temperature every four hours. I also determined the temperature of the air under the blankets before the cradles were placed in position, and after they were withdrawn at the termination of the case, that is, the temperature of the bed when prepared in the ordinary way, and, finally, I ascertained the temperature under the cradles before the ice pails were suspended, and I observed what effect was produced on this temperature after ice cooling had been fairly established.

The first case is that of a man aged 30, who was admitted into the infirmary on the fifth day of his illness. He was suffering from inflammation of the whole of the left lung complicated with pleurisy. His pulse was 106, his respirations 41, and his temperature almost reached 103° F. In this case, before antipyretic treatment was commenced the temperature of the air under the blankets was 88° F. After four hours' simple cradling it fell to 72° F., after four hours' ice cradling it went ten degrees lower, and thereafter during the maintenance of the treatment it oscillated between 60° and 70° F. until the eighth day, when crisis occurred, and the treatment was discontinued. Soon after the removal of the cradles the bed temperature rose to 81 F. With reference to the effect of the treatment on the body heat, I cannot say that any marked depression was observed. The temperature gradually, and in a somewhat fluctuating manner, declined, the fall becoming more rapid as the crisis approached. The pulse and respiration rates, and their ratio to each other, seemed practically unaffected by the treatment.



×, temperature under bed clothes before cradling; × ×, temperature under bed clothes after four hours' simple cradling; × × ×, temperature under bed clothes after four hours' ice cradling; *a*, ice pails removed; *b*, cradles removed; *c*, temperature under bed clothes.

The second case is also that of a man who was admitted on the fourth day of pneumonia of the apex of the right lung complicated with pleurisy. At the commencement of this case the bed temperature was unfortunately not ascertained, but after the cradles had been in operation for two hours (without ice) the bed temperature stood at 80° F., the body temperature being 105.4°. The pails were then filled with ice, and in two hours more the bed temperature had fallen to 73° F., but there was no material alteration in the body temperature. For the next few days—until the eighth day, when

[1] Read before the Aberdeen, Banff, and Kincardine Branch of the British Medical Association.

[2] *Lancet* of January 31st and February 7th, 1891.

crisis took place—ice cradling was maintained, with the result that the bed temperature fluctuated between 74° and 65° F.; and at the end of that time, the cradling having been discontinued, the thermometer under the blankets registered 87° F.

In this case the effect of the treatment on the body heat was not at all evident. On the afternoons of three successive days the thermometer rose to over 105° F., elevating the cradle temperature along with it; but it finally fell rapidly on the eighth day of the disease to the normal figure. With regard to the pulse and respiration rate, the influence of the ice seemed more apparent, for with temperatures of 105° F. the pulse was only 100, and the respirations ranged between 30 and 35 a minute.

On looking over the records of these cases—I refer to the whole of them—I confess I am unable to discover any marked signs of improvement following the complete establishment of the treatment. There was no sudden fall of temperature such as one meets with after the cold bath or after the administration of an antipyretic drug. But though there was no decided reduction in the temperature, the pyrexia (even in one case where both lungs were extensively involved) did not attain a great height, and I am therefore inclined to consider that the treatment exercised a restraining influence on the body heat. The pulse and respirations also seemed to be under restraint, for the heart's action was in no case unduly rapid or weak, and the breathing was never a source of anxiety.

The patients as a rule expressed themselves as feeling comfortable under the treatment. One or two of them, however, complained of cold feet, and in these cases short stockings were permitted to be worn. In one patient inordinate perspiration was a marked feature, but the discomfort arising from this symptom at once disappeared with the establishment of the ice cradling. In the earlier cases some inconvenience was experienced from the accumulation of moisture on the outside of the pails dropping on the patients' body and bed, but this was easily remedied by clothing the pails in flannel.

With regard to the means by which the antipyretic results were brought about, it seems to me that a study of the chart shows in a very decided manner that a twofold influence was at work—the influence of the air under the cradles, and the influence of the ice pails. The temperature under the blankets was materially reduced after simple cradling had been established, and the thermometer became still further lowered on the introduction of the ice pails. It is doubtful which of the factors was the more powerful. I incline to the belief that the lowering of the temperature produced by the cradles was greater than that following the melting of the ice, but possibly this opinion may be modified by future experience, for I intend in my next case of pneumonia to make more careful observations on this point, using pails of different capacities and varying their number.

On the whole, though I am fully alive to the fallacies that attend conclusions based on a small number of cases, I am disposed, from what I have seen of the proceeding, to recommend ice cradling as a mild form of antipyretic treatment, suitable for sthenic cases of acute pneumonia, easy of application, not violent in its effects, comfortable and not fatiguing to the patient, and capable of being carried out in any disease where a restraining influence on pyrexia and its attendant symptoms is desired.

SUPPRESSION OF URINE IN DIPHTHERIA.

By LEONARD WILDE, M.D., M.R.C.P., D.P.H.,
Physician to the Croydon Borough Hospital.

SUPPRESSION of urine occurring in the course of diphtheria has been described by Oertel and mentioned by Roberts. Hilton Fagge believed it to be due to unrecognised scarlet fever. As, however, it has recently been attributed to the effects of antitoxin, the following 3 cases, which were admitted into the Croydon Borough Hospital for Infectious Diseases during the past twelve months, and in which this exceptional complication occurred without any antecedent injection of antitoxin, may be of interest.

Cases I and II were admitted before antitoxin was in general use in this country, and Case III, although clinically indistinguishable from true diphtheria, was not bacterioscopically confirmed, and the patient therefore was not injected.

For the notes of the cases I am indebted to Mr. A. Kidd, resident medical officer.

CASE I. *Pharyngeal and Nasal Diphtheria: Suppression of Urine during the Second Week of Illness.*—A girl, A. H., aged 4, was admitted on June 20th, 1894. There was a history of two days' antecedent sore throat. The tonsils were ragged and inflamed, and covered with a grey pultaceous exudation. There was a fœtid nasal discharge, and considerable swelling of the upper cervical glands. The temperature was 101.6°, the pulse 126 and regular; the respirations were 26, and air was entering both lungs freely. The urine was normal. On June 22nd the child was very pale, and extension of membrane had occurred over the soft palate and uvula. Several large pieces came away from the throat and nose. The temperature continued about 101°. On June 24th paralysis of the soft palate was observed, and the knee-jerks and plantar reflexes were absent. Vomiting and diarrhœa, accompanied by a diminution of urine and the presence of albumen were noted. During the following three days intractable diarrhœa and vomiting continued, the urine progressively decreased, and the child was very anæmic, apathetic, and weak. On June 28th the temperature dropped to 96.4°, and total suppression of urine supervened, which continued until death occurred on June 29th, thirty-six hours after the onset of anuria.

CASE II. *Pharyngeal and Nasal Diphtheria: Suppression of Urine on the Sixth Day of the Disease.*—N. B., a girl aged 3, was admitted on September 27th, 1894, with a history of indefinite illness for the previous three days. On admission, the child was pale and appeared to have considerable difficulty in breathing, though air was freely entering both lungs. The tonsils were enlarged and covered with thick yellow exudation. There was profuse fœtid nasal discharge and foul breath. The glands at the angle of the jaw were enlarged. The temperature was 100.2° F. and the pulse 132. The urine was normal in quantity but contained a trace of albumen. The knee-jerks were absent. On the following day some shreds of membrane were coughed up; the condition of the throat remained the same and paralysis of the soft palate appeared. On September 29th recurrent vomiting and diminution in the quantity of urine were noted. On September 30th, no urine having been passed since the previous day, a catheter was introduced and 3 ounces of urine containing one-eighth albumen withdrawn. The bowels were constipated but acted freely after enemata. Vomiting continued. The temperature was 99.6°. The child was very languid and anæmic. Death occurred on October 1st, there having been complete anuria for thirty-six hours prior to death.

CASE III. *Pharyngeal and Nasal Diphtheria: Suppression of Urine on the Fourteenth Day of Illness.*—J. P., a girl, aged 4, was admitted on April 3rd, 1895. She had been feverish, and complained of headache since March 30th. Sore throat and swelling of the neck were noticed on April 2nd. On admission the tonsils were swollen, and covered with grey membrane, and the upper cervical glands were much enlarged. The temperature was 103° F., the pulse was 132, the respirations 24. The chest was clear and the urine normal. On April 5th there was some extension of membrane on the right side, the tongue was dirty, and slight epistaxis occurred. The knee-jerk was absent on the left side. The face was of good colour, the temperature 101° F. On April 6th an offensive nasal discharge appeared, and both tonsils and the soft palate were covered with false membrane. The urine showed a trace of albumen on April 8th. She looked pale, and vomiting and diarrhœa commenced; shreds of membrane came away from the nose. During the following four days there was some improvement in the condition of the throat and less fœtor. The quantity of albumen increased to one-fifth, and the vomiting was intermittent. The child was anæmic and languid. On April 12th and 13th the improvement in the throat and nose continued, but the vomiting and diarrhœa were almost continuous. The heart's action was occasionally irregular, and the child was somewhat drowsy. The temperature was normal. The urine had decreased in quantity, and contained only a trace of albumen. On April 14th total sup-

pression of urine had existed since the previous night. Copious watery vomiting and diarrhœa continued. The pulse was 98, and of low tension. The child became semiconscious and died in convulsions after a period of thirty-one hours of complete anuria.

Post mortem, the tonsils and pharynx were ragged, injected, and exhibited a few scattered patches of pellicular *débris*. The trachea, bronchi, and lungs were healthy. The heart substance was paler than normal, and the right auricle and ventricle were filled with a buff-coloured *ante-mortem* clot adherent to the cardiac walls, and extending into the pulmonary artery. Great hyperæmia of the walls of the intestines was observed, and the mucous membrane of the stomach and intestines showed a uniform injection. The macroscopic appearances of the kidneys and other organs were healthy.

Remarks.—Few deductions can of course be made from such a small series of cases, but it will be observed that certain features were present in all three. The type of the disease was very severe, and there was evidence of a general systemic infection against which the most active treatment was of no avail. The nasal cavity was implicated in each case, and pallor, languor, and debility, with the physical signs of peripheral paralysis, were prominent. In two of the cases the supervention of anuria occurred in the afebrile period of the illness, and it was accompanied by profuse diarrhœa and vomiting. It was of gradual onset, and the urine obtained before total suppression contained a considerable quantity of albumen without casts. The heart was not particularly affected.

The marked selective incidence of the diphtheria virus on peripheral nerve tissue, and the fact that a local diminution of the renal blood pressure leading to suppression may be produced by paralysis due to nervous injury, suggest that the cause of the anuria in these cases may possibly be the result of nerve degeneration. Moreover, the frequent association of an intractable and copious vomiting and diarrhœa might indicate a profound interference with the functions of the abdominal sympathetic system, leading to the blood-flooding of the splanchnic area and the consequent lowering of the renal blood pressure to the point at which urinary filtration can no longer occur.

THE TRUSTWORTHINESS OF THE PRESENT-DAY PREPARATIONS OF THE DIGESTIVE FERMENTS.[1]

By EDMUND MOODY SMITH, M.D.Edin., D.P.H.Cantab.,
York.

My recent study in this direction was suggested by the following considerations:

1. No such research is recorded, that I know of, for ten years past, with the exception of the constant tests to which many manufacturers put their products before sending them into the market.

2. Some of the older preparations which successfully "passed" the tests of such observers as Dowdeswell, Tuson, and Sir William Roberts still exist and maintain their reputation. But many other preparations were proved to be so feeble, that not only did they cease to exist apparently, but their uselessness cast disrepute upon all pepsin and allied digestive preparations alike, upon the good as well as upon the bad and indifferent.

3. There are now an immense number of new preparations of various forms, and by many different makers, advertised and in other ways constantly brought under our notice. The question again arises, Are all these numerous, and in some cases very pretentious, preparations trustworthy and well prepared? Are they equal to requisite and recognised standards? It is most satisfactory to find that the observations of ten and fifteen years ago have been followed by most marked improvements in the quality, purity, and power of these invaluable digestive aids, not one of the greatly advertised preparations failing to realise the *British Pharmacopœia's* requirements.

I have made a large number of experimental observations, most of them being of short but sufficient character, and with the simplest possible apparatus. It is obvious that however elaborate the experimental apparatus devised, we cannot by any means exactly and completely imitate the natural, steadily and continuously maintained processes of normal digestion, the factor of epithelial activity alone being quite beyond our imitation. Again, it is most probable, if not a proven fact, that the glands keep up a constant outpouring of their secretion during the digestive processes with which they are concerned. This is another factor very difficult to take into consideration in exact experiments. Clinical observation supports the wisdom of Fairchild's recommendation that prepared pepsins are best taken in small doses, repeated several times between each meal, instead of being taken in one full dose just before, with, or soon after a meal; and in actual practice this method often answers better than the one full dose method, which to many practitioners must have not infrequently proved perplexingly disappointing.

In my very humble research I was obliged to limit myself to the well advertised preparations, it being far too great a task to test those of every manufacturer, however excellent they may be; and in dealing with the pepsins my experiments were almost wholly carried out according to the *British Pharmacopœia* test, the *United States Pharmacopœia* test being far too long and elaborate for use by a general practitioner, liable as he is to numerous interruptions at most inconvenient times. I venture to claim that to the clinical workman, however, the results are none the less serviceable, and, as they have already proved so to my own immediate circle of medical friends, this abstract is contributed in the hope that they may be found equally so to a still larger circle of colleagues.

In testing the pepsins I have not attempted to go far towards verifying the extraordinary powers to which some of them lay claim, although, with nearly all, such capacities were realised far exceeding the standard demands. Indeed, these great powers are only to be realised by experiments, each of several hours' duration.

In every case repeated experiments were performed before the trustworthiness of the subject of experiment was admitted, and with the pepsins finely-minced cooked mutton and beef were digested as well as egg albumen. Mere solution of the albumen was not relied upon as the sole test, but, where digestion was progressing but slowly I made use of one of the most trustworthy of the tests for peptones, which is carried out as follows: Having neutralised the hydrochloric acid with liquor potassæ, a drop or two of Fehling's solution—test for glucose—is added: if peptones be present in any quantity, however little, a delicate rose-pink coloration is produced, which is of deeper tint according to the amount of peptone present.

The amount of peptone can be accurately calculated by this test, but after a little experience of its use, one also becomes familiar with the various degrees of tint obtained, and can form some approximate idea of the relative activity of the pepsin under experiment. Preparations of pepsin vary—largely according to their mode of preparation, I think,—in the length of time required to effect solution of an equal quantity of boiled egg albumen. For the latter, however finely divided it may be, swells up considerably in the acidulated water (diluted hydrochloric acid), and therefore the peptic solution of it is obscured for a time, until, indeed, some considerable portion has been dissolved. It is obviously unfair, then, altogether to condemn a pepsin as useless if, within the given limited time of the *British Pharmacopœia* test, it fails to effect complete solution of the stipulated amount of albumen. (This was the way by which some pepsins were altogether condemned in the course of some past researches of this character.) Hence the importance of employing the peptone tests in every experiment which appears at all doubtful in its progress or result. More than once I found progressive peptic digestion to be going on, but so deceptively slow that it was almost impossible to recognise it from the mere appearance of the albumen undissolved.

The same necessity for not trusting entirely to negative tests nor to mere appearances was equally marked in my experiments with regard to the digestion of starch by the

[1] An abstract of "Commended" Thesis for degree of M.D.Edin.

various pancreatin preparations. The use of iodine as the sole indicator test as to the conversion of the starch into sugar is very fallacious. The iodine test for starch is so exceedingly delicate, that so long as any appreciable amount of starch remains unaffected by the amylopsin ferment, we may obtain the characteristic blue reaction, so that if any number of starch granules remain unaffected by boiling (not an uncommon occurrence, especially with such resistant starches as maize) we get the amylo-iodide blue persistently reiterated. It is much more just, as a general rule, to use the tests for glucose as a positive test, in contrast with the negative iodine test. In using the glucose tests of course one has to be careful to eliminate the fallacy involved if the pancreatic preparation be saccharated, as some are.

The preparation of dried pepsin has been the subject of much experiment and debate. The *British Pharmacopœia* method of drying the viscid pulp scraped from off the mucous membrane has led to the sale of products containing a very variable amount of pepsin, and soon becoming putrescent and useless, due to decomposing epithelium and mucus; hence, apparently, the inertness and objectionable character of many of the dry pepsins of some years ago. The present processes of preparation by the well-known firms result in remarkably pure and active dry pepsins, which, I find, maintain their purity and power after long keeping, and with no more than ordinary care. Contrary to the opinions of others, I do not think that a pepsin keeps any the better for being saccharated; freedom from mucus and epithelial matter is the essential point. I have examined several of the best dry pepsins and pancreatins (non-saccharated)—Bullock's, Armour's, Parke Davis and Co.'s, Fairchild's, and others—under high powers of the microscope, and have always found them entirely freely from starch, sugar, and epithelial cells; and after months they remained quite odourless, palatable, and as active as ever.

The following greatly advertised dry pepsins I have submitted to repeated tests, and have found them everyone to be thoroughly pure and reliable, in every case far surpassing the requirements of the *Pharmacopœias*. It is obviously unfair to make any comparisons in this abstract; indeed, such are quite unnecessary and uncalled for. Some of the makers claim quite astonishing powers for their preparations (for example, Armour's, Fairchild's, Parke Davis and Co.'s, Wyeth's), but these I have not attempted fully to prove: that they have manifested great capacities my observations, however, do confirm, and these qualities are sufficiently satisfactory for the prescriber. Bullock's and Boudault's are other first class dry pepsins. Speaking generally, all the soluble, the granular and lamellar pepsins, are the most active; of these it is but just, both to the makers and to the profession, to call attention to the exceedingly elegant and powerful preparations, Wyeth's "granular pepsin," and Parke Davis and Co.'s "pepsin aseptic." Pepsalia (Stern and Co.) has also very serviceable peptic capacities.

Of the fluid preparations of pepsin, the glyceroles and acid glycerines appear to keep best, and to be the most active, but several of the alcoholic and other solutions answer admirably to the tests. The following glyceroles and liquors have all been faithfully tested, and are all highly commendable preparations in every respect, most of them responding to the *British Pharmacopœia* test completely, and in much less than the prescribed time. It seems impossible to expect greater elegance, purity, palatableness, and power than these preparations possess; indeed, greater such are not called for: Armour's glycerole of pepsin, Bleasdale's peptic essence, Benger's liquor pepticus (a glycerole), Bullock's acid glycerine of pepsin, Fairchild's glycerinum pepticum (Burroughs, Wellcome, and Co.), Hockin's liquor podophyllin et pepsin, Lorimer's acid glycerine of pepsin, Oppenheimer's liquor euonymin et pepsin co., Parke Davis and Co.'s glycerole of pepsin, Parke Davis and Co.'s pepsin cordial, Savory and Moore's pepsin elixir (an acid glycerine), Savory and Moore's succus pepticus (a glycerole), Schacht's liquor euonymin et pepsin co., Schacht's pepsina liquida.

Papain, or vegetable pepsin, is "an artificial digestive," about which there is surprisingly little literature, considering its peculiar virtues and capacities. For a long time before this investigation commenced I had had good reasons for forming the highest clinical estimate of papain, the preparation used happening to be Seymour, Hamilton, and Co.'s liquor papain et iridin co. Similar preparations have since come under my notice by Howard, Lloyd, and Co. and other makers, and, on the whole, these sustain the reputation of papain, both clinically and experimentally. I have also tested Finkler's dry preparations of papain (agent, B. Kühn). Apart from the peculiar advantages of papain as a digestive aid—its conveniently slow pancreatising action upon milk, its indifference to acids and alkalies, its capacity for action in concentrated solutions (pepsin always requires much more dilution—an obvious disadvantage in some cases of dyspepsia)—all the above-mentioned preparations of it have peptic powers quite equal to many of the best pepsins; not superior though, as has been claimed, for, experimentally, papain proves very much slower in bringing about complete digestion. Nevertheless, the papain preparations deserve more attention from the profession than they appear to have received.

For ingluvin I cannot say much; it has been very beneficial in some cases of obstinate vomiting, but, in the experiments, its peptic action, for such it certainly has, was quite disappointingly tardy.

There are a few compound digestive ferment preparations—containing pepsin, pancreatin, and either diastase or ptyalin, with, in some, either hydrochloric or lactic acid, or both—about which there is very considerable interest, theoretical, clinical, and experimental. I have already contributed to *Medical Reprints* of December 15th, 1894, a short paper about the value of lactopeptine, in which I also discuss the theoretical and experimental interests connected with these obviously desirable preparations—desirable because for so many cases of dyspepsia we need not only a pepsin, but the salivary and pancreatic factors also. Previous experimenters, I find, have cast much doubt upon the utility and actual capacity of lactopeptine and maltopepsyn, although they admitted them to be happily designed. The doubtful point has been the compatibility of ptyalin (or diastase) and pancreatin with hydrochloric or lactic acid. Perhaps these productions might be better without the acid, but that they have considerable digestive capacities, constituted as they are, is beyond all question. Similarly designed and equally useful are, also, Parke Davis and Co.'s lactated pepsin, Allen and Hanburys' byno-pepsin, Fairchild's peptonic tabloids, and Wyeth's elixir of the digestive ferments. The latter, I desire to say, without prejudice to any other excellent preparation, is one of the purest and most powerful and useful digestive aids I have met with, and deserves to be more widely known to the profession. It is a glycerine solution of all the chief digestive ferments, without hydrochloric and lactic acids, and is exceedingly elegant and palatable. I think it only just to the profession to bring this fluid "compound" more before their notice. It is also the most rapidly active of these "compound digestives;" the powdered ones are much slower, and hence, partly, no doubt, the hasty condemnations of past experimenters.

The following dry pancreatins and liquid pancreatic extracts I have tested with albumen, fibrin, casein, and starches, and I can thoroughly commend them as trustworthy and of great practical value: Armour's, Benger's, Allen and Hanburys', Fairchild's, Savory and Moore's, Parke Davis and Co.'s.

The following "peptonised foods" were found to be *bonâ fide*, rich in true peptones, pure, and palatable: Mosquera's beef meal, Carnrick's beef-peptonoids, Benger's foods, Kemmerich's beef-peptone, Kühn's (or Finkler's) papoid-pepton (made by means of their papain), Savory and Moore's peptonised milk preparations and beef peptone.

In conclusion I ought to say that my investigation has been carried out entirely upon my own initiative, that I have no interest, pecuniary or otherwise, beyond that of the cause of medical science for extolling either this or that preparation, and that I sincerely apologise if I have overlooked any specially valuable product.

Bequests to Hospitals.—The late Mr. Frederick William Arkwright, of 22, Rider Street, St. James's, who died on February 4th, has bequeathed £200 to the building fund of the Derby Infirmary, £200 to the Warwick Dispensary and Cottage Hospital, and £200 to the Warneford and Warwick Hospital.

MALIGNANT DISEASE OF THE PANCREAS.

By GUTHRIE RANKIN, M.D.Glasg., F.R.C.P.Edin., Physician to Warwick School.

From recorded observations of pancreatic lesions it would seem that primary disease is the exception rather than the rule, and that when the pancreas is attacked by morbid change of a malignant nature its implication is usually secondary to pre-existing disease in the stomach, duodenum, liver, or gall bladder. The following cases are therefore doubly interesting, because in both the disease was primary; in both it gave rise to a train of symptoms which *post-mortem* examination fully explained; and in both these symptoms failed to comply, in some essentials, with the classical descriptions to be met with in our best known textbooks.

Case I.—C. L., aged 50, a painter, of small stature, ill-nourished, and dejected in appearance; declared he had never been ill in his life till towards the end of 1891, when he first came to me complaining of paroxysmal abdominal pain and of obstinate constipation. There was no evidence of organic disease anywhere, with the exception of some increase in the area of percussion dulness of the liver; but this was not accompanied by tenderness on pressure. There was a very decided blue line along the margin of his gums, and all the circumstances of his case seemed to point to his occupation as the most likely cause of his discomfort. His habits of life had been regular, but he was accustomed to a liberal daily allowance of beer. Nothing remarkable was revealed in his family history; both parents lived to well over 70, but the actual cause of death was unknown. Careful dietary and ordinary treatment soon relieved his colic, and after about three weeks' care he was able to resume his work. Four months later he again came under my observation with a similar succession of symptoms *plus* slight jaundice. The liver enlargement continued, and there was now tenderness along the whole of its lower edge. The pain was more intense, but again, after about three weeks of suitable treatment, it disappeared; the jaundice likewise vanished; the liver shrank almost to normal size; and the man returned to his trade. He remained well for two months, but was then obliged to give up work. The pain was acute and paroxysmal, he had lost all appetite, had become much emaciated, and exceedingly feeble. At first his condition improved under treatment, but at the end of a fortnight weakness increased to such an extent that he was again compelled to take to bed. His liver was large and tender, but the surface was uniform and smooth. He had a rapid, soft, and shabby pulse, but there was no cardiac lesion. The lungs were not the seat of active disease, though there was evidence of previous inflammatory trouble. The other organs were healthy. The urine was copious, full of bile, and contained an intermittent haze of albumen, but no sugar. Shortly after taking to his bed he developed a most distressing cough, which, though less or more constant, periodically increased to paroxysms, which brought about extreme exhaustion. The expectoration was scanty, and muco-purulent in character. Occasionally he suffered from drenching perspirations. The blue line on his gums was much less distinct than eight months previously, and there was no return of the jaundice. At intervals he was attacked by the most violent pain, which, beginning at the pit of his stomach, rapidly radiated over the abdomen, and was only relieved by the most copious doses of morphine. So severe were those paroxysms of pain, that the man's cries could be heard the length of the street in which he lived, and if much time elapsed before the administration of morphine he was brought to the verge of frenzy, no less painful to witness than dangerous to endure. In the course of his illness these acute seizures recurred five or six times only, but on each succeeding occasion the resulting exhaustion became more extreme, ending twice in syncope which threatened to prove fatal. There was no vomiting, not even nausea, to contend with, but diarrhœa was an increasing trouble during the last fortnight of his life. The evacuations were numerous—four to eight in twenty-four hours—but not persistently colourless, for the most part watery, but sometimes pultaceous and sticky, scanty in amount, and offensive; they never contained blood or mucus, and did not look fatty. Tenderness continued over the liver, and deep pressure in the epigastrium revealed no impressions of special discomfort, while he often complained of a deep burning pain which he referred to his stomach. No nodule or lump was perceptible to the touch even at the end of the deepest expiration when the abdominal walls were well relaxed. He emaciated rapidly, was persistently despondent, and manifested the most remarkable prostration. He eventually died, in November, 1892, from asthenia. The usual remedies for the relief of symptoms were resorted to, but morphine was the only drug from which he derived comfort.

At the *post-mortem* examination on the day following the patient's death, it was found that the heart was thin in its walls, friable in its tissue, but without valvular defect. On both sides there was some congestion, evidently hypostatic, of the lower lobes of the lungs, and there were old pleuritic adhesions to the left parietal wall. The pyloric end of the stomach presented some thickening and infiltration, but the passage into the duodenum was patent. The liver was enlarged and full of dark blood; it completely overlapped the pancreas. The gall bladder contained some bile but no calculi. The pancreas was the seat of extensive disease; the head was enlarged, nodular, hard, leathery to the knife, and of a grey colour on section. Scattered here and there throughout the body of the gland were numerous deposits of varying size bearing exactly the same characteristics. There were firm adhesions to all the neighbouring structures, from which the pancreas could with difficulty be separated. The other organs were without pathological change.

Case II.—R. H., aged 67, a farmer, of spare habit, but healthy in appearance, and of a ruddy complexion, had suffered for years from subacute attacks of typhlitis. Early in 1893 he was, for the first time, the victim of an attack of colic. This seizure, which was followed during the rest of his life by many others of a similar character, seemed pathognomonic of gall stone. It was ushered in by sudden acute pain over the upper part of the abdomen, accompanied by vomiting, and followed by jaundice. From the date of the first attack of this colic he never again experienced trouble in the region of the cæcal valve. His health otherwise remained tolerably good, and for about nine months immediately preceding the commencement of his last illness he was particularly well and able to look after the usual business of his farm, with occasional days off because of slight attacks of pain. In October of 1894 he had an unusually bad seizure of colic, and when the jaundice cleared off it was remarked that his appetite did not return as on previous occasions, and that there remained a certain amount of tenderness deep in the epigastrium. He suffered from imperfect digestion, and complained of such feebleness that he felt unable for more than the most moderate amount of exertion. He emaciated rapidly, and towards the beginning of December a sharp attack of pain compelled him to keep his bed on account of the debility which ensued. This seizure was not of long duration, but he believed it to be more severe than any preceding one, and, though it was followed by a marked increase of bile in the urine, there was no consecutive jaundice. The temperature had never risen till now, when for some days it reached 101°, and was accompanied by flushings, sweatings, flatulent distension, and violent throbbings of the blood vessels, more especially of the abdominal aorta. There was also rapid and excited action of the heart, together with some irregularity of the pulse. The tenderness in the epigastric region became so intense that he could not bear to be touched, and for the first time the defined lower limit of a hard substance could, on favourable opportunities, be felt in the middle line below the ensiform cartilage. The lump was pulsatile, and on auscultation a loud systolic murmur could be heard, but the pulsation was not expansile, and gave the impression of a solid mass, through which the beats of the aorta were conveyed to the surface. When the feverishness, which was attributed by the patient to his having been chilled through getting out of bed in the middle of a cold night, had abated, the tenderness became less and admitted of a more thorough examination of the abdomen. A distinct hard mass could then be felt in the middle line, extending towards the right side, where it became lost behind the edge of the liver. The liver itself was increased in size, but was tender only over the region of the gall bladder. The lungs were healthy. The heart's action, generally quiet and regular, but occasionally intermittent and very rapid in action, and there was a systolic *bruit* whose greatest intensity was situated in the pulmonary area. The urine at no time contained either albumen or sugar, but it was frequently thick from the presence of urates and deeply stained from an excess of bile. The bowels were uniformly constipated, and the motions, though usually normal in appearance, were twice or three times colourless and offensive, but never fatty. There was no jaundice during the later stages of the illness. Once only, towards the end of life, was there a tendency to diarrhœa, but this was evidently due to fæcal accumulation, and was speedily relieved by emptying the rectum. He had several slight attacks of sickness, but he was able to take a fair amount of liquid nourishment, which he both retained and absorbed perfectly.

In spite of these favourable conditions, his weakness increased daily until he could hardly lift his arm from the bed, his voice sank to a whisper, his emaciation became more and more pronounced, and his countenance assumed a pinched and cachectic look. He suffered no actual pain between the times of the paroxysms, but still disliked much handling of the upper part of his abdomen. In the middle of January, 1895, unexpectedly one morning, just after his nurse had finished putting him straight for the day, he complained of a feeling of cold and faintness, and, before he could be called, he died.

His family history was unimportant; there was a record of several sudden deaths from "heart disease," but no case of malignancy was known in the connection. His own habits had always been careful and regular, and his whole life had been quiet and uneventful. The treatment of his case was carried out on general principles, and was successful in relieving his urgent symptoms as they presented themselves.

At the *post-mortem* examination the abdomen only could be examined, when it was found that the whole pancreas was enlarged and infiltrated with a hard nodular growth, the head of the gland being conspicuously the seat of morbid change. The liver was somewhat increased in size, but contained no pathological deposit, and the gall bladder was half empty, with a few small calculi lying loose within its cavity. There was evidence of recent localised peritonitis in the neighbourhood of the liver and duodenum, but there was no fluid in the cavity of the abdomen. The aorta was not dilated nor aneurysmal. The stomach was larger than normal, and its walls were unusually thin; the pyloric end was thick and indurated, but there was no obstruction to the onward passage of the stomach contents. There were some secondary hard deposits in the upper part of the duodenum a few inches below the pylorus, together with constriction of the calibre of the gut at this situation, and the pancreas was glued to the adjacent bowel. The appendix was dilated and full of thick, sticky, dark-coloured fluid, and the neighbourhood of the cæcum showed evidences of previous inflammatory disturbance. The other organs were healthy.

The symptoms presented by both these cases—many of them most interesting—were, in the light of *post-mortem* experience, fully explained, but during life they gave rise to many doubts and difficulties in diagnosis. The leading positive symptoms in both cases were great emaciation, excessive weakness, paroxysmal pain, and in the later stages of the illness deep-seated epigastric tenderness, while in Case II there was the further evidence of a lump in the epigastrium; on the negative side there was an absence of fatty stools, glycosuria, prominent digestive disturbances, persistent jaundice, or malignancy in the family history.

So much stress has been laid on the presence of fat in the alvine evacuations as characteristic of pancreatic disease

that these two cases are instructive as tending to prove that, even in advanced conditions of structural disease of the organ, that symptom may be entirely wanting. The absence of colour from the motions has also been insisted on by some writers as indicative, in the absence of readily recognisable hepatic disease, of some interference with the pancreatic secretion. Claude Bernard taught that the coloration of the fæces was indirectly due to the action of the pancreatic juice, and Dr. Walker, of Peterborough, likewise came to the conclusion that a deficiency of pancreatic fluid would, as readily as a deficiency of bile, cause clay-coloured evacuations. If this were entirely true it is difficult to understand why in both these cases—and particularly in Case II, where the whole substance of the gland had undergone extensive change—the motions were not always colourless. Further, it would seem doubtful whether reliance can be placed on the theory of the formation by the pancreas of a glycolytic ferment, because sugar was invariably absent from the urine during the whole course of both illnesses. The absence of notable digestive disturbance and of persistent jaundice is specially striking in such pronounced types of pancreatic disease. The probable explanation is that, the fats being chiefly administered in the form of milk, that is, practically as an emulsion, were capable of direct absorption; and that the common bile duct escaped such pressure as would cause its complete occlusion.

In Case I the original history pointed to lead poisoning as the likely etiological factor, but *post-mortem* evidence suggests the suspicion that the attacks of colic, from the beginning, may have been due to pressure or inflammatory disturbance of the solar plexus. At any rate, there can be little doubt that in the later stages this was the explanation of the terrible paroxysms of acute pain which the unfortunate man endured. The enlargement of the liver might be explained by temporary vascular changes caused by the progress of the morbid growth. Another instructive symptom in this case was the distressing and fitful cough, which was probably due to irritation of the vagus nerve where it terminates in the solar plexus, while the drenching perspirations might also be the result of sympathetic nerve disturbance conveyed through the splanchnics. Intermittent pressure on the common bile duct would account for the jaundice, the emaciation and exhaustion might be looked upon as direct results of the dyscrasia, and the repeated syncopal attacks were either likewise due to this cause, or to interference with the cardiac nerve supply through the vagus or sympathetic nerves.

In Case II the early seizures were so apparently characteristic of the passage of gall stones that little doubt was entertained as to their nature; but again, *post-mortem* evidence makes one hesitate to ascribe them to this cause alone, even though a few calculi were found in the gall bladder; for might not the paroxysms be equally explained by the same cause which produced them in Case I? Gall stones were never actually found in the evacuations, and though their presence in the bladder made it likely that the patient suffered during life from the passage of one or more into the duodenum, it is equally possible that to some extent the painful seizures were due to changes going on in the pancreas, and producing pressure effects on the neighbouring nerve plexus; and in this connection it is to be observed that the later attacks of colic were not followed by jaundice. The abdominal distension, copious sweatings, flushings, and unusual rapidity of cardiac action would all be produced by disturbance of nerve equilibrium emanating from the site of pathological lesion. The hard lump felt in the epigastric region towards the end of the illness proved to be the lower edge of the pancreas, through which were transmitted the pulsations of the abdominal aorta, the pressure of the hard and enlarged gland against the large vessel being the cause of the loud systolic murmur; lump and murmur together, however, were strongly suspicious of aneurysm. The rapid emaciation and pronounced prostration must again be referred to the direct effect of the malignant growth on the vitality of the blood, because it was specially remarkable in this case that, throughout the whole course of the illness, nourishment in ample quantity was not only swallowed and retained, but perfectly assimilated.

The leading characteristic of both cases was the rapidity of the emaciation when it had once commenced, together with the degree and early manifestation of prostration, greater than that met with in any other form of malignant disease, and it suggests that the pancreas ought to be suspected when in a patient over 40—particularly in a male patient in whom the disease is said to occur most commonly—indefinite epigastric discomfort is accompanied by rapid emaciation and overwhelming weakness. If to these symptoms are added nerve disturbances which can be referred to the vagus or sympathetic, the probability of the pancreas being the *jons et origo mali* is strengthened; and if further corroborative testimony is afforded by a hard mass in the epigastrium, by glycosuria, by persistent jaundice without liver symptoms, by stools which are greasy in appearance, or clay-coloured without an obstructed bile duct to be found in explanation, then the diagnosis may be looked upon as practically certain, while the prognosis unfortunately is absolutely hopeless.

PULSUS PARADOXUS IN ACUTE LARYNGITIS.

By EDWARD M. BROCKBANK, M.D.Vict., M.R.C.P.,
Resident Medical Officer, Royal Infirmary, Manchester.

In the BRITISH MEDICAL JOURNAL for June, 1893, I recorded some observations on the occurrence of pulsus paradoxus in cases of acute laryngitis. At the time of writing the paper, although I had seen several cases in children in which this physical sign was present, I had not been able to secure a pulse tracing showing it.

In February, 1894, however, a case of acute laryngitis came to the Royal Infirmary, Manchester, with the irregular pulse well marked, and from it I managed to take some good tracings. The following are a few brief notes of the case:

L. H., aged 6, was brought, on February 24th, 1894, to the accident room, suffering from severe dyspnœa, which the mother said had come on rather suddenly about thirty-six hours previously. The boy looked very ill, tossing about from time to time as he lay on his back on his mother's knee, throwing up his arms and gasping for breath. His face was dusky and cyanosed; the breathing was very laboured, especially during inspiration, and the extrinsic respiratory muscles were in action. The lower ribs were markedly drawn in with each inspiration. The respirations were about 45 per minute. The cardiac impulse could be seen through the chest wall and the heart was felt to be beating in a very heavy and laboured way. The pulse at the wrist was about 90 per minute, and was easily felt to be very irregular in the volume of the individual beats. It was almost imperceptible during inspiration. No membrane could be seen on the fauces. As the child was very ill, and from the mother's account getting rapidly worse, it was decided to perform tracheotomy.

The case was sent up to the theatre at once, and a small quantity of chloroform administered. Just before the trachea was opened I took two pulse tracings, one of which (Fig. 1) is reproduced here. In this the irregularity of the pulse wave is plainly seen, the smaller beats occurring synchronously with inspiration, and the larger ones with expiration.

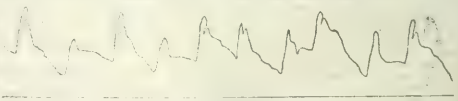
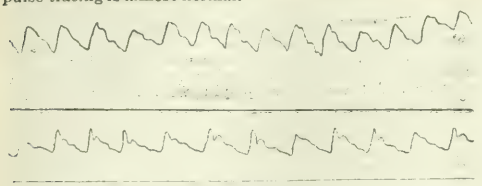


Fig. 1.

The trachea was opened within twenty minutes of the patient's arrival at the hospital, and immediate relief to the urgent symptoms was obtained. The dyspnœa and cyanosis passed off rapidly, and the pulse became more regular, less laboured, and quicker. Figs. 2 and 3 are copies of tracings taken from the pulse one minute and two minutes respectively after the trachea was opened. In the former it will be seen that the character of the pulse is much altered from that in Fig. 1, being much more regular in the height of the upstroke. There still, however, occur in it some feebler beats, indicating that the heart had not recovered itself completely,

but these are very much less marked in Fig. 3. This latter pulse tracing is almost normal.



Figs. 2 and 3.

The patient died about forty-eight hours after operation, and *post mortem* very extensive membranous inflammation was found, extending from the larynx to the bronchi. The fauces were unaffected.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

HÆMORRHAGE INTO PONS SIMULATING OPIUM POISONING.

The patient, who was supposed to be asleep, was found to be unconscious, and I was then sent for. On examination I found the pupils were equal and minutely contracted and insensible to light; the breathing was slow and laboured; the pulse was 68, full and laboured. It was impossible to rouse the patient. The pupils dilated one hour before death. I was told that she had taken some pills for the relief of pain, as she had been suffering from gall stones.

On making a *post-mortem* examination I found a large clot in the pons Varolii. The case is interesting as showing the impossibility of diagnosing some cases of hæmorrhage into the pons Varolii from opium poisoning. I found, on subsequent inquiry, that the pills she had taken did not contain any opium.

Hendon. F. W. Edridge-Green, M.D., F.R.C.S.

COMA AND CONVULSIONS ASSOCIATED WITH INFLUENZA.

The following case is perhaps worth recording beside Dr. McCaw's interesting one reported in the British Medical Journal of April 6th, p. 752.

I was called to A. H., aged 2 years. He was, till the occurrence of the present illness, a particularly robust child of healthy young parents. The mother told me he had been suffering for a few days from feverish cold, cough, etc. As a matter of fact, the majority of the children in the locality were suffering from the recent mild epidemic of influenza, and so no doubt was this one. The child when first seen was quite unconscious, with a good deal of muscular rigidity. The face was rather flushed; the temperature in the groin was 101°. Two hours previously, at 6 P.M., the child was noticed to be "scalding hot," and while under observation was seized with violent convulsions, beginning probably on one side but soon becoming general. During the two hours before I saw him there had been no return of consciousness; spasmodic muscular contractions had been incessant, and violent convulsions occurred several times; some urine had been passed. I put him in a tepid bath for a few minutes without apparent effect, and then went for the necessary remedies. On my return I was told that almost immediately after coming out of the bath convulsions recurred very violently; this time both rectum and bladder were emptied. It was by this time just 2½ hours since the attack commenced; all the muscles of trunk and limbs were perfectly flaccid, but some of the facial muscles were twitching slightly. The eyes were staring widely open, the pupils much dilated, and the corneæ perfectly insensitive even to a rough touch. The face was a dull white colour, and the surface of the body felt cold; the pulse could not be accurately counted because of marked intermission; it was between 150 and 200; in fact, the child was to all appearances moribund. I gave 10 grains of bromide of potassium by the rectum, and then put the patient under chloroform. In about a minute, or perhaps two, from the commencement of inhalation the eyelids suddenly dropped over the eyes; the breathing, which had been very shallow, became deep and slightly stertorous, the face became at the same instant flushed; deep coma was evidently replaced by sleep. The child slept for several hours before waking, disturbed by the cough; he had a fairly good night, and next morning was quite well except for his cough and a slightly dazed mental condition. In a few days he was in his usual health.

South Petherton, Somerset. Sydney W. MacIlwaine.

THE EFFECT OF UNILATERAL CASTRATION ON THE PROSTATE.

Dr. J. William White, in the British Medical Journal of March 2nd, requests surgeons to report cases of unilateral castration in which an examination of the prostate is made. On March 7th I removed from a young man of 17 an imperfectly-developed right testicle, which was lying just over the pubes and was surrounded by a "congenital hydrocele." Probably it had been retained within the inguinal canal in childhood, and had thus failed to develop. It was in constant danger of pressure against the pubes, the hydrocele only filling when he moved about and disappearing again during recumbency.

I removed the testicle and hydrocele sac together. Seven weeks after the operation, and when he came to show himself at the hospital on April 25th, I examined the prostate and found most decided atrophy of the corresponding side. There was, indeed, nothing on the right side at all corresponding to the lobe on the left, which is very well developed. It is difficult to say whether this is due to the imperfect development or removal of the testicle. When we remember the rapidity with which atrophy has occurred in enlarged prostate after bilateral castration, it is quite possible that the small size of the right side in this case is due to atrophy following the operation, and I am inclined to think that this was the case, as, although the right testicle was much smaller than the left, yet it contained a fair amount of gland tissue which appeared normal in structure.

Charles A. Morton, F.R.C.S.,
Surgeon to the Bristol General Hospital.

ACETONÆMIA COMPLICATING ENTERIC FEVER WITH CONCURRENT PERITONEAL EFFUSION IN A CHILD.

J. R., aged 11 years, came under my care in November, 1889, suffering from constipation and swelling of the abdomen. Up to three weeks before he was running about. He gradually failed, complaining of headache and vomiting, and was then put to bed, and dieted on beef-tea, milk, and grapes. He was very pale and drowsy, with a puckered forehead and dark rings round his eyes; the pupils were normal. The knees were drawn up as he lay on his left side. The abdomen was very prominent, especially below the umbilicus, where a distinct comma-shaped protrusion was seen moving downwards from right to left obliquely across the abdomen. This was dull on percussion, and had a decidedly boggy feeling. The small intestines were dilated, the cæcum and ascending colon packed with fæces, and there was some ascites. The tongue was dry, and coated with a thick brown crust anteriorly, elsewhere the surface had a white fur. On the skin there were numerous rose-coloured spots, which did not disappear even after a lapse of six days. The temperature was 103° F., the respirations 48; expiration was prolonged, especially in the right lung, with small crepitant *râles*. There was herpes on the right upper lip. The heart sounds were good; the pulse 108, serous in character. He slept almost continuously for forty-eight hours. The bowels acted unconsciously three times during the first twenty-four hours; the motions smelt acid, with black hard lumps about the size of the terminal phalanx of the little finger floating in an orange-coloured liquid mixed with greenish masses of gelatinous consistency. The urine was loaded with indol, acid, dark amber, specific gravity 1022, no albumen. On the

day after an enema he passed three large motions, deep yellow ochre in colour, smelling strongly and irritatingly of acetic acid, with a fermented scum on the surface of each motion. I then tested the urine with nitro-prusside of soda, and was rewarded with a typical reaction of acetone in large quantity.

For four days this condition of body continued, the temperature reaching as high as 104.6°, the acetone being present in the urine all the time. The drowsiness continued more or less marked for two days after the acetone had disappeared, and during this period he had eighteen motions, the result of enemata, without which there was no tendency towards defæcation. As the colon was cleared out the comma-shaped protrusion disappeared, also the peritoneal fluid, but the tenderness over the site of the tumour remained for a long time. The case gradually resolved itself into a typical instance of enteric fever, and the child ultimately recovered.

I am led to publish this case owing to the appearance of Dr. L. Henry's paper read before the Victorian Branch of the British Medical Association, advocating the use of fruit pulps, etc., in typhoid fever. I may state that the relatives of the child stated positively that every grape was deprived of its skin before being given to the child. Acetonuria is present sometimes in enteric fever, but never before or since have I come across a case where the patient was so obviously intoxicated with the poison.

Market Drayton. ARMSTRONG TODD, M.B.

OXYGEN IN CATARRHAL PNEUMONIA OF CHILDREN.

THE following case, I think, well illustrates the usefulness of oxygen in severe cases of catarrhal pneumonia in children:

I was called to see a child, aged 13 months, on February 23rd, 1895. He had been suffering from a cough and feverishness for four or five days, and now had the usual signs of acute catarrhal pneumonia. The temperature was 103°. He went on favourably for three days, but then developed worse symptoms; had cyanotic turns with very rapid breathing; and on the evening of March 1st he appeared, so the mother said, to faint and became livid. The temperature rose rapidly, and by 9 P.M. was 105°. He seemed to be getting rapidly worse, and was very cyanotic. I sent for oxygen, as it seemed the only chance of tiding him over the crisis. It could not be obtained before morning; meanwhile the child passed a very restless night, with a temperature slightly over 105° and great difficulty in breathing; the pulse could not be counted, and the urine was very scanty.

By the morning of March 2nd the child was rapidly sinking, being quite collapsed and cyanotic. Unless the oxygen worked wonders I could see no chance of recovery. It arrived at 10 A.M., and was at once applied in a gentle stream to the mouth and nostrils. The pulse soon showed signs of increased force and steadiness. Before two hours' application the child was breathing steadily instead of the rapid and intermittent respirations; the pulse was steadier (I made it 140); the temperature was still between 104° and 105°, and he lay quite still without opening the half-closed eyes.

The oxygen was now applied at intervals when any collapse seemed imminent. Before long the child could look up, the pulse was very irregular, sometimes 130, sometimes quite beyond counting. He now took a spoonful of milk and brandy. Before 2 P.M. he had taken almost half a cup of warm milk with a teaspoonful of brandy. When the oxygen was removed for any length of time he seemed to fall back into the collapse. It was now administered every hour and whenever the pulse wavered, and was continued for about ten minutes at a time. At 3 P.M. he took a small quantity of beef soup, and a little more milk and brandy later on. The treatment was kept up all night, and at hourly intervals all next day. The child began to look about and would swallow the food given. The pulse now kept about 130, and the temperature fell to 103°, the cyanosis had quite gone, and there seemed good hopes of recovery.

The oxygen was continued at hourly intervals, and when weak for a day longer, then only when the pulse was weak or signs of cyanosis came on. The father was able to give me excellent help, and could judge the signs and apply the oxygen when required. I was also indebted to Drs. Rutherford and Auburn for help.

On March 6th, unfortunately, when everything else seemed to be so well, tonsillar inflammation set in, and he refused all food. The temperature, which had fallen to 102°, again rose to 103.5°. He did not, however, relapse much; inhalations of steam and turpentine were used, and by next day he took food well. The oxygen was now discontinued altogether, and the chest was clearing up, and on March 7th, when I called, the child was playing with a toy, and seemed rapidly improving.

I have not the least doubt that in this case the oxygen was the means of saving life by supplying the blood with its necessary food, which it could not extract from the atmosphere. It seems to me to deserve much more extended use, and I have submitted those notes with the hope of encouraging its use in such cases.

Morpeth. J. P. PHILIP, M.D.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE LONDON HOSPITAL.

ENEMATA IN A CASE OF INTUSSUSCEPTION CAUSING RUPTURE OF AN ULCER IN THE TRANSVERSE COLON.

(Under the care of Mr. HURRY FENWICK, F.R.C.S.)

[Reported by HAROLD L. BARNARD, M.R.C.S. and L.R.C.P., House-Surgeon.]

ON March 15th, 1895, H. B., aged 6 months, was admitted to the London Hospital with a diagnosis of intussusception. The mother stated that the illness commenced with vomiting two days before, and that the child had been sick ever since at short intervals. There had been blood in the motions, and a little wind had passed, but she had noticed no slime. The pain had been paroxysmal at the onset, as the child had had attacks of screaming with quiet intervals.

On admission the child, a male, looked collapsed, and his pulse was rapid and feeble; but the nose and ears were not very cold, and the temperature was 101°. He did not vomit after admission, and neither blood nor slime passed. On palpation a sausage-like tumour could be felt in the left lumbar region. When the finger was introduced into the rectum a nipple-like body could be felt high up, the examining finger being smeared with blood and slime by the contact.

Treatment.—Mr. Fenwick determined to distend the colon with warm water. The child was accordingly placed under chloroform, inverted, and turned somewhat on the right side. A small soft rectal tube, with funnel attached, was used, the drop employed to distend the colon being never more than three feet. Three pints of fluid in all were injected, a pint at a time, the colon being thrice distended and allowed to relieve itself. During the first distension the intussusception moved round from the left to the right lumbar region, and after the third it could no longer be felt there. As the child recovered from the anæsthetic only a portion of the last enema was returned and the distension of the belly was greater than before. Within a quarter of an hour the intussusception was again touched in the right iliac fossa. The child's condition was now very serious; his breathing had become irregular and shallow, and his nose and ears were cold. Brandy was given, but he died after a convulsion an hour later.

Post-mortem Examination.—On opening the abdomen, a considerable quantity of grumous fluid was found in the peritoneal cavity. The intussusception, not fully reduced, was an ileo cæcal one, and, on opening it, the intussusceptum was found purple, intensely congested, and 3 inches in length. In the ileum, Peyer's patches were exceedingly prominent, as if in an early stage of typhoid; one or two showed loss of substance and congestion, but none had actually ulcerated; the reverse peritoneal surface showed no tubercles, nor were the mesenteric glands affected; the lungs and bronchial glands were both clear of disease. In the

transverse colon two ulcers were found; the one had caused loss of substance as far down as the peritoneal coat, and its floor was formed by a thin white cicatrix the size of a pea, and the mucous membrane was puckered around it; the other had apparently been very similar, but its base was now perforated and replaced by a clean-cut hole.

Remarks by Mr. Fenwick.—I had hoped inquiry might bring out a clear history of "consumptive bowels" or chronic diarrhœa, and thus enable me to formulate some such rule as this—"in cases of intussusception with a history of 'consumptive bowels,' enemata inflation should be avoided and laparotomy at once resorted to"; but the mother denied that any illness at all preceded this last.

STATION HOSPITAL, GUBBULPORE, CENTRAL PROVINCES, INDIA.

CASE OF SNAKE BITE (KRAIT) TREATED WITH STRYCHNINE.

(Reported by Surgeon-Captain M. W. H. Russell, A.M.S.)

In connection with your article in the British Medical Journal of April 20th, on Strychnine as an Antidote to Cobra Poisoning, the following case, in which the drug was used in a patient bitten by a "krait" (Bungarus cæruleus), may be of interest.

Private C. W., aged 33 years, of the Scottish Rifles, on the night of July 7th-8th, 1892, the weather being very hot, removed his mattress from the cot in the barrack room, and put it on the ground in the *brandah*, where he went to sleep. About 3.45 A.M. he awoke, and felt a sharp sting behind the left ear. He put his hand up, and seized a snake which had fastened on him. He tore it away, and flung it violently against the wall. Two men near him struck a light, and saw the snake, which they described as being black and about as long as a man's arm, but, owing to the darkness, it got away before they had a chance of killing it. They pressed W. to go to hospital, but he said "it was nothing," and went to sleep again.

At 6.15 A.M., as he was feeling very ill, he came to the hospital, a distance of about 150 yards, walking up with the assistance of two men. Immediately on arriving at hospital the punctured wound, which was very evident, was cut open, and permanganate of potash was rubbed in by the medical subordinate on duty.

I saw the man at 6.30 A.M. He staggered a little in his walk, co-ordination of the leg muscles being partially lost. He complained of feeling giddy, of oppression, and difficulty in breathing, and of slight general numbness, more marked in the arms and legs. He was greatly depressed, and asked, "Am I going now?" At the same time he was very disinclined to talk, as it seemed to cause additional distress to his breathing.

The bite was in the lobe of the left ear: it was unmistakable when first seen, but when I arrived it had been defaced by the cutting necessary to rub in the permanganate of potash. There was very little swelling, and no ecchymosis in its neighbourhood. Just below and behind the lobe of the left ear was another wound of the same description, but less marked.

Looking to the time which had elapsed since inoculation, and the evident symptoms of systemic infection, and also to the second wound, it was felt that removal of the ear would be futile.

The wounds were freely burnt with caustic; permanganate of potash and subsequently ammonia were rubbed in. He was put to bed, but, owing to the oppression of his breathing, could not lie down. Ammonia and brandy were given internally, and the legs were vigorously shampooed.

Three minims of liq. strychninæ were injected at 7 A.M., another 5 minims at 7.30 A.M., and a further 5 minims at 8 A.M.

After the third injection he had distinct convulsive movements of the face and limb muscles, and paroxysms of spasm causing loud crowing breathing were developed. These seemed to distress him greatly, and no more strychnine was given. He had taken 13 minims by injection at 8.30 A.M. He could no longer take anything by the mouth, as swallowing at once produced spasm, and at this time he also ceased speaking for the same reason, though his mind was still unclouded.

Gradually torpor supervened, and his face began to show signs of lividity. At 11 A.M. he had a severe convulsive seizure, followed by a period of total cessation of breathing, and was only brought round by artificial respiration. He was by this time quite unconscious, breathing slow and stertorous, face livid, in fact in a commencing state of coma.

By dint of uninterrupted artificial respiration, hand friction, mustard plasters, galvanism, and the frequent injection of diffusible stimulants, he was kept alive until 2.10 P.M., when he died, ten hours after the infliction of the bite.

Meanwhile the snake, which was known to have taken refuge in a crevice of the masonry of the verandah, was smoked out and killed. It proved to be a "krait" (Bungarus cæruleus) 26 inches long, of a dark steel-blue colour, with the characteristic markings and poison apparatus.

In two other cases of fatal snake bites from "kraits" which came under my notice in India, the victims lived respectively eleven and sixteen hours. They were both natives.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

William Pavy, M.D., F.R.S., President, in the Chair.

Tuesday, May 7th, 1895.

THE MICROSCOPIC STRUCTURE OF CALCULI OF OXALATE OF LIME.

Dr. W. M. Ord and Mr. S. G. Shattock began this communication by noting first the chief macroscopic forms of such calculi—the smooth, tuberculated, spiny, and crystalline. The chief forms in which oxalate of lime is met with in the urine were then referred to; octahedron, flattened octahedron, "macle," in which the bases of the two pyramids of an octahedron are rotated so that the angles of one project across the sides of the base of the other; the spherular form, including dumb bells; and the tabular form. The key to the interpretation of these varieties was supplied by the experiments of Mr. George Rainey, made more than thirty years ago, which showed that crystalline substances if deposited in colloidal or viscous media underwent modifications in form which in the most pronounced degree took the figure of perfect spheres. Dr. Ord subsequently studied the question in oxalate of lime, etc., causing the salts to deposit in the substance of gelatine by allowing of double decomposition to occur from solutions on either side of a diaphragm of the colloid; the solutions met in the jelly, and, on cutting sections of this, all forms were traceable, from typical crystals to perfect spheres. Some such spheres were compound in structure. The colloid that exercised most influence was albumen. Sugar appeared to have none on oxalate of lime, though it had on uric acid. The authors next proceeded by means of a lantern demonstration to exhibit the microscopic structure of the different forms of calculi. The specimens were prepared by grinding the calculus half through, cementing it by means of melted Canada balsam to a slide, and then grinding it from the opposite aspect. The thin transparent section was then covered, after placing balsam solution on it to render it transparent. The summary as to the construction of the nucleus of such calculi was as follows: It might be (1) large transparent crystals of oxalate of lime; (2) similar crystals rendered more or less opaque by secondary cleavage; (3) minute crystals, not of octahedral form; (4) rosettes or striated conoidal or fan-shaped elements like those which more outwardly construct by their regular juxtaposition the body of the calculus; (5) spherules in process of coalescence. Such forms may occur in various combinations. In rare cases large octahedra were met with in the urine as "gravel," and by a chance aggregation of such, the nucleus usually arose. Very soon, however, the deposit took a different form and constructed the "body" of the stone; this change might be explained by the presence of such a nucleus leading to the admixture of colloid with the urine by reason of the inflammation in the urinary passages which it excited; and this would be mucus or exudation from the vessels of the inflamed mucosa. The secondary cleavage of the large elements of the crystalline nucleus probably indicated the action of colloid in a slight degree. In regard

to No. 3, the small crystals were really tablets, and could be produced in gelatine, as could also rosettes of such. The presence of proper spherules is rare. Next, as to the body of the calculus. In all cases the body arises in cones of crystalline substance sharply pointed at their inner ends, and diverging from the outer surface of the nucleus. In transverse section these cones have a very irregular outline, deeply sinuous or jagged, so as to be sutured to one another; they are doubly striated, that is, in the longitudinal and transverse directions, or radially and concentrically as to the centre of the entire calculus. Both striæ may be represented in the spheres artificially produced, but the authors could offer no real explanation of them. Often there occurred in the body of the calculus zones of a different kind. These were formed by a non-crystalline molecular basis, in which lay concentrically arranged lines of distinct granules; the latter the authors held to be urate, the former oxalate of lime; there is, in fact, no sharp line of distinction between this form of oxalate and the striated. One of the most interesting of the results was the likeness that subsisted between the calculi as a whole and the microscopic spheres and crystalline aggregations which may be artificially produced; there were parallel forms in both. In regard to the coloration of oxalate calculi, certain of the sections displayed brilliant crystals of hæmatoidin. That the diffuse coloration was due to urinary pigment they thought disproved by the similar coloration of intestinal calculi of oxalate of lime in herbivora. The authors thought it most probably due to hæmoglobin. Some of the calculi gave abundant evidence of iron on analysis, probably indicating blood, though as normal urine contained small quantities of iron in as yet an unknown state of combination, this did not exhaust the question. Ebstein had figured a small portion of the body of a calculus of oxalate of lime, but beyond that the minute structure by means of sections had not been investigated. Vandyke Carter's method had been simply to pick minute pieces out from different parts of calculi and examine them.

The President remarked upon the importance of the question raised with regard to the immediate cause in the formation of a calculus. A patient might pass gravel for years without suffering from calculus; and then a calculus would form, say, in one of the kidneys, and nowhere else. There was a predisposition to calculus production, but the reason why the actual formation was limited to one kidney must be attributed to some local condition; this must determine the aggregation of the elements.

Results following the Experimental Removal of Portions of the Kidney.

Dr. T. R. Bradford read a communication in which he stated that the object of these experiments was to investigate the changes in the urine and in the general nutrition occurring when an animal had but a fraction of one kidney available for the discharge of the renal functions. The experiments were carried out on dogs, the ingesta and excreta being determined before and after the operation. The nitrogen was determined by Kjeldhal's method. A wedge-shaped portion was excised from the middle zone of one kidney, and the cut surfaces approximated by sutures; after an interval of some weeks the entire opposite kidney was excised. The results may be summarised as follows; Removal of a portion of one kidney is followed by a variable amount of general atrophy of that kidney and by hypertrophy of the opposite kidney, provided the operation be performed in adult animals. Removal of a portion of one kidney only is followed by a slight increase in the amount of urine excreted; this increase is sometimes only temporary, and there are no other ill effects. If, after having excised a portion of one kidney, the entire kidney of the opposite side be removed, the following results are seen: If only some two-thirds of the total kidney weight has been removed altogether at the two operations, the animal remains in fair health and does not emaciate. The quantity of urine excreted, however, is greatly increased—that is, doubled or even trebled in amount. There is no increased excretion of urea. On the other hand, if as much as three-quarters of the total kidney weight has been removed, then there is a still greater increase in the amount of urine excreted, and in addition there is a considerable increase in the daily urea excretion; the animal emaciates rapidly, and dies within a few weeks of the second operation. Excision of a wedge from each kidney is followed by the excretion of a large amount of urine, but there is no increased excretion of urea, and the animal remains in good health. Hence, when the renal tissue is reduced to but one-fourth of its original weight, there is not only no diminution in the amount of urine and urea excreted, but, on the contrary, a great increase, the increase in urea being dependent upon rapid emaciation, which is not checked by a liberal diet.

Dr. W. P. Herringham inquired whether Dr. Bradford had observed any increase of blood pressure in his experiments since he stated that there was hydruria, and the hydruria of Bright's disease was explained on this ground.

Mr. Stanley Boyd asked how hæmorrhage had been arrested from the kidney in making the experiments.

Professor Sherrington was interested to know, first, whether any alteration in the nature of the nitrogenous substances excreted in the urine had been noticed—whether, that is, some body other than urea was present; and secondly, whether any new kind of substance was present in the tissues after death.

Dr. J. W. Washbourn inquired whether the author had tested the toxic properties of the blood in the animals from which parts of the kidneys had been excised.

Dr. J. R. Bradford, in replying to these various questions, stated that he did not detect any cardiac hypertrophy after six months, but it was very difficult to be sure on this point, as in the dog the blood pressure was normally high. Dogs, moribund after experiment, showed an abnormal percentage of urea in the blood—as after total removal of the kidneys. In the latter case, however, there was no pressure; in the former the pressure was not reduced. He considered it doubtful whether in renal cirrhosis in man the urea excreted was always diminished, though this was usually assumed to be so. Hæmorrhage was stopped by tying the branches of the renal artery, and oozing by the pressure of cotton wool; the kidney was not stitched together until all hæmorrhage had ceased. In answer to Professor Sherrington, he stated that no nitrogenous substance other than urea was present in the urine; in the muscles, however, there was present a substance that was not urea. The possible presence of toxin in the blood he had not tested.

Osteitis Deformans showing Lengthening of Bones.

Mr. H. H. Clutton exhibited the bones of the right upper limb of a woman for many years affected with osteitis deformans. During life the humerus was curved, and measured more than the left, even along its arc. The preparation showed a curious S like curvature of the radius, due to its elongation, as the ulna was perfectly straight and unaffected.

Card Specimens.

Card specimens were shown by Dr. W. W. Ord, Dr. Newton Pitt, and Mr. T. H. Openshaw.

OBSTETRICAL SOCIETY OF LONDON.

F. H. Champneys, M.A., M.D., President, in the Chair.

Wednesday, May 1st, 1895.

Specimen.

Dr. Amand Routh showed a Fœtus the subject of Anencephalic Diprosopia.

On the Common Form of "White Leg" after Confinement.

Dr. C. Hubert Roberts read this paper. He gave details of sixteen cases of so-called "white leg" most commonly met with after confinement, and a short history of the literature of the subject up to the present date. He pointed out the differences observed in the cases quoted from those described in most textbooks of the present day, and attempted to show briefly that the white leg described in such books was not the common variety met with after delivery. He described shortly the form he believed to be the common one, and described its symptoms, duration, complications, and treatment. He believed that the term "white leg" included

several different forms of disease which differed in many particulars. He proposed the following classification of white leg (so-called): 1. Cases which are due to pressure. 2. Cases associated with general disease. 3. Cases of a true septic nature. 4. Cases of thrombosis apart from sepsis. 5. Cases of thrombosis and sepsis combined. The author referred in detail to his own (sixteen) cases which followed confinement, and came to the following conclusions: (*a*) That the form which he calls thrombotic is the common variety after delivery, and not the brawny white leg, which is rare. (*b*) In such thrombotic legs there are not necessarily signs pointing to sepsis, and that such thrombosis is rather a blood change associated with or due to severe loss of blood at the time of delivery. (*c*) The thrombosis in most cases starts primarily in the uterine and pelvic veins. (*d*) That such thrombotic legs are not brawny and white, but dusky in colour and œdematous, invariably painful, with definite "tender spots," and that the femoral or saphenous veins are constantly felt thrombosed. (*e*) Both legs may be affected, but always one after the other. (*f*) The onset of the disease is about the tenth to twentieth day. (*g*) Pyrexia is the rule for a variable period, but does not necessarily indicate sepsis. (*h*) Such cases run a definite course of about six to eight weeks. (*i*) Complications are uncommon, but pulmonary embolism is the greatest danger. (*j*) The prognosis to life is good. (*k*) The prognosis to the leg itself is not good; the majority, perhaps, get well, but many remain permanently damaged. Some details of the treatment were given.

Dr. PETER HORROCKS did not think there was any evidence that there was such a distinction as the author made, namely, that some cases of thrombosis occurred apart from sepsis, and that others were cases of thrombosis and sepsis combined. If the increased coagulability of the blood caused by excess of hæmorrhage were the cause, one would have expected the thrombosis to have occurred at the time of the labour, when the bleeding took place, and when the coagulability was at its highest point. Again, one would have expected it to occur on both sides and perhaps in other parts of the body, whereas it was well known to affect one side only as a rule. To say that there was no evidence of sepsis, in that there was no perimetritis or parametritis, was limiting the word "sepsis" to a very narrow meaning. In the most fatal form of puerperal fever there was as a rule no clinical evidence of either para- or perimetritis, and yet it was undoubtedly a septic disease. He believed that both of these classes (Nos. 4 and 5) were septic in origin; and he was not convinced that the microbe was different in the two sets, although it might be. He believed that they were septic on the following grounds: 1. It was a well-known fact that the left side of the cervix was more frequently torn than the right, and that this would lead to septic infection on the torn side; 2, that there was a more or less definite period of two or three weeks before the onset of the disease, which might be due to incubation; 3, that there was always more or less pyrexia, which could not be explained away on the hypothesis of mere clotting. Possibly ere long the microbe might be detected, and the differences might prove to be due to the relative amounts of vein or of lymphatics involved.

Dr. HERMAN suggested that the classification was really of "swelled leg," for some of the conditions included in it were not "white leg," and had never had this name applied to them. He agreed with the author in thinking that the disease commonly called "white leg" was not septic; if septicæmia was present as well, it was a complication. He knew of no evidence that white leg had anything to do with septicæmia; but, as we had no intimation as to the comparative frequency of white leg before and after the introduction of antiseptics, or as to the bacteriology of white leg, it was not possible to be certain. Dr. Horrocks had spoken of it as due to "some form of sepsis." If sepsis was a disease with an indefinite number of undefined forms, he did not know what disease might not be put down to "some form of sepsis." He did not see in the table of cases any statement of how long the disease had been present before the patient's admission into the hospital. Possibly in some of them the non-pitting stage had been passed through before the patient's admission. He did not think that œdema from thrombosis was the same thing as the phlegmasia alba dolens, the classical description of which was that given by White, of Warrington, afterwards of Manchester. Dr. Herman was accustomed to teach that the solidity of the œdema in that disease was due to plugging of the lymphatics. He was aware that no anatomical evidence of this existed; but he thought there were good clinical reasons for that opinion. In lymphangitis extending up a limb from a poisoned wound, the strip of inflamed lymphatics had the same brawny feeling as the whole limb had in phlegmasia dolens. In elephantiasis the lymphatics were known to be plugged, and the result was solid œdema like that of phlegmasia dolens, but persistent, and therefore leading to further changes in the limb. He had not understood Dr. Roberts to say that hæmorrhage caused phlegmasia dolens—a statement which Dr. Horrocks had criticised—but that it favoured phlegmasia dolens, which was different, and, he thought, undeniable.

Dr. AMAND ROUTH said that it was possible that, had the author seen the cases reported earlier, he would have found them more typical of "white leg." He had seen two cases where the initial symptoms were very severe, but very transient; one quite recently in a lady who had nearly lost her life from *post-partum* hæmorrhage. On the third day she suddenly had acute pain in the left calf, and when seen three hours after, had a temperature of 101·6° F., and the calf was swollen, with a circumference of 2 inches more than the right leg. The calf was quite white, extremely tense, glistening, and did not pit, and it had, in short, all the recognised signs of true phlegmasia dolens. Next morning the calf was less swollen, less white, and pitted, but the pyrexia remained, and on the tenth day Dr. Stormont Murray, who was in attendance on the case, stated that the right leg became similarly affected. When the swelling and pain began in the calf, as in this case, and the femoral vein could be demonstrated to be free from tenderness and induration, it was obvious that any thrombosis which might exist in the popliteal vein had not occurred by extension of thrombosis. There could be no doubt that hæmorrhage was one of the elements in the causation of these cases, but why thrombosis should occur after the lapse of some days and not at once, was difficult to explain. It was not easy to explain the presence of pyrexia, with perhaps an initial rigor, unless there was some sort of "sepsis" as another element in the cause of the lymphangitis, or at all events the blocking of the lymphatics, which so often was the first sign in these cases, but which he believed often cleared up very early in its progress.

Dr. MACNAUGHTON JONES believed that the symptoms of phlegmasia dolens depended on the relative primary and secondary involvement of the veins or lymphatics, and the degree of cellulitis present. He thought that pressure did account for the disease in certain cases. He denied that sepsis alone was a cause, and attached no importance to the fact that the injury of the cervix was more commonly on the left side, but thought the reasons for the left leg being the one more commonly affected were anatomical ones. "Painful spots" were not peculiar to any form of phlegmasia. High temperature was not to be taken as evidence of sepsis, as it occurred in various other *post-partum* conditions.

Dr. GRIFFITH said that Dr. Roberts's paper emphasised the distinction between true phlegmasia dolens and simple thrombosis. That hæmorrhage complicating labour was a very important factor in the causation of white leg was not a matter of doubt, but the objection which Dr. Horrocks mentioned to this as the essential cause, namely, the considerable interval which elapsed between it and the appearance of the characteristic symptoms, applied with equal force to the theory of septic infection which he advocated. Thrombosis in both forms of the disease, as a rule, started from the uterine veins and extended gradually to the common iliac; and it did not seem a matter of surprise that acute symptoms should arise when this great channel was blocked, nor necessary to suppose a further cause for them.

Dr. ROBINSON drew attention to the researches of Widal into the microbic origin of certain cases of phlegmasia dolens. This observer had found the clots in the thrombosed veins infiltrated with chains of cocci—probably streptococcus pyogenes. The walls of the veins had also been invaded by these organisms. Other observers considered that the bacillus coli communis played an important part in the causation of this morbid condition.

The PRESIDENT thought the proposed classification was open to criticism: for instance, "cases due to pressure" (Class 1) might also be cases of "thrombosis apart from sepsis" (Class 4). Again, "cases associated with general disease" (Class 2) might also be "cases of thrombosis and sepsis combined." It would make it clearer if an instance of each type were given. A curious fact in the group of cases here recorded had not been referred to. It would be seen that 3 out of the 4 cases of double white leg (Cases v, viii, and x) began in the right leg. This was probably a coincidence, and would not appear in a large number, but was curious.

Dr. GILES noticed that in only one case, No. xiv, was there undoubted sepsis; and it was the only one in which delivery was not at term. He thought this evidence that the ordinary "white leg" was not due to septicæmia. He thought the reason alluded to by previous speakers for the greater frequency of affection of the left leg was not valid, inasmuch as injuries to the cervix would involve the connective tissue of the pelvis rather than structures so far off as the veins of the leg. In nearly all Dr. Roberts's cases the pelvis was unaffected.

Dr. ROBERTS, in reply, said he could not regard all cases of thrombosis as septic, as for one reason pyrexia did not necessarily indicate sepsis, and again the onset of septicæmia was much earlier than it was in the kind of cases he had described. He thought that thrombi might be present in the veins of the broad ligaments, and yet there might be no physical signs in the pelvis. Probably extension of the clot either across the vena cava or the broad ligaments explained the affection of the other leg at a later date. In answer to Dr. Amand Routh, 5 of the 16 cases in the paper had been seen from outset to finish. He was sorry he could not specify the presentation in each of his cases, as this was not mentioned in the records from which they were taken. The other questions and criticisms had been answered by various speakers during the discussion.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

D. ARGYLL ROBERTSON, M.D., F.R.S.E., President, in the Chair.

Thursday, May 2nd, 1895.

A NEW OPERATION FOR PTOSIS.

DR. MULES read a paper on this subject. The operation was first described by the author at the last International Congress of Ophthalmology at Edinburgh in August, 1894. He now gave the results of his further experience of its effect. The principle of the operation was to substitute the frontalis muscle for the levator palpebræ by extending the former muscle to the margin of the lid by a permanent wire suture. Two needles with eyes near their points were passed deeply through the frontalis tendon over the eyebrow, and their points brought out at the margin of the lid behind the lashes, taking up a substantial part of the tarsal cartilage on their way. A piece of silver wire was threaded through each needle, which was then withdrawn, leaving the loop of wire passing from the brow to the edge of the lid and back to the brow again. This was then tightened until the lid was sufficiently raised, the edge of the lid being slightly grooved by an incision to allow the wire to sink into the substance of the lid. One end of the wire was then passed under the skin and made to emerge by the side of the other end of the wire. The two ends of the wire were then twisted on each other until the lid was raised permanently; the ends were cut off, and the wire allowed to sink below the level of the skin. The skin at this point and at the lid margin healed over the wire, which remained permanently fixed in the substance of the lid. From further experience it was found that the wire remained in position without causing irritation; the lids could be closed, and remained closed during sleep. All kinds of wire had been tried, but it had been found that silver wire was the most satisfactory. It was necessary to note at the time of the operation the situation of the twisted end of the wire in case it became necessary to remove the suture afterwards.

The PRESIDENT was struck by the correctness of the principle of the operation, which was to establish a better connection between the frontalis muscle and the lid. He feared, however, that the wire might give rise to irritation if left in the lid for a very long time; it was likely also to cut its way through the tarsal cartilage or the tissues of the brow, and thus lose part of its effect. A good operation for ptosis was much needed; Snellen's operation was complicated; Eversbusch's operation was good in slight cases, but not in serious ones; Panas's operation was serious and disfiguring; the thread operations were not sufficient or permanent.

Dr. BRAILEY thought it would be simpler to introduce the needles from below; he was quite satisfied with the thread operation.

Mr. DONALD GUNN asked whether both needles could not be passed through one hole over the brow, so as to avoid the angle in the course of the wire.

Mr. SPENCER WATSON, Mr. LAWFORD, Mr. CARTWRIGHT, and Mr. ERNEST CLARKE also took part in the discussion.

BLOOD STAINING OF THE CORNEA.

Mr. TREACHER COLLINS read this paper. He found that this staining of the cornea, which was of a greenish or reddish brown colour, was due to the presence of a number of highly refracting granules scattered throughout its substance. These granules were not located with any definite relation to the spaces between the laminæ of fibrous tissue: they agreed in their spectroscopical appearances and chemical reactions with hæmatoidin. He found that in some of the cases associated with granules of hæmatoidin was a substance which gave iron reaction with ammonium sulphide, and which was probably hæmosiderin. In eyes in which this discoloration occurred, the tension was generally increased, the exit of fluid through the angle of the anterior chamber being obstructed by the accumulation of blood clots. He was of opinion that hæmoglobin first diffused into the cornea from the anterior chamber through Descemet's membrane, and that the hæmatoidin, which is insoluble in the fluids of the cornea, was then precipitated there. The whole of the cornea was at first affected, and when this was the case the condition could not be distinguished from that in which blood clots completely filled the anterior chamber. The absorption of the hæmatoidin granules commenced at the periphery equally in all directions, so that by degrees a narrow ring of clear cornea was formed surrounding the stained area. The appearances then presented were strikingly similar to those of a lens dislocated into the anterior chamber. The absorption of the granules becomes slower and slower the further they are removed from the sclero-corneal margin. He had seen one case in which the discoloration had completely disappeared in the course of about two years.

Mr. JESSOP had had a case recently in which, as the result of an injury, the anterior chamber was half full of blood; there was also blood in the substance of the cornea, which disappeared after three days.

In reply, Mr. COLLINS thought that this case was quite different in character; it was a temporary transudation of blood or blood colouring matter into the corneal substance.

SUDDEN SEVERE HÆMORRHAGE FROM THE CONJUNCTIVAL SURFACE OF THE LID.

Mr. W. H. JESSOP read notes of this case. A woman, aged 27, was brought to St. Bartholomew's Hospital in a state of collapse from repeated attacks of bleeding from the left eye. When seen the pulse was 130, small, irregular, and difficult to count; the extremities were cold and the right pupil dilated. On everting the lid there was found a small jagged-edged ulcer, about 1½ mm. in diameter in the middle of the palpebral conjunctiva, from which bright arterial blood was flowing. The ulcer was burned by the actual cautery, and treated with cold compresses. With one slight exception it gave no further trouble. Fourteen years before the patient had had erysipelas of the eye and nose on the left side, since which time the lid had been slightly swollen. There was no history of severe hæmorrhage or of hæmophilia, and there had been no accident. The patient had been married twelve months, and had been pregnant seven months. The case was probably of nævoid origin, but it differed from the cases previously described in there being no marked sign of vascular tumour.

There had been only three cases described, but none of them were quite like this one.

Mr. Sydney Stephenson had lately had under his care a girl, aged 11, suffering from trachoma, for which the operation of "expression" had been performed. From that time spontaneous bleeding from the conjunctiva took place, and continued for more than five months. Although the patient had been repeatedly examined as soon as the hæmorrhage was observed, he had never been able to identify the point from which it came; the conjunctiva was uniformly red and turgid. The child was watched, but the hæmorrhage recurred again and again under conditions which seemed to place malingering out of the question. There were no signs of anæmia, purpura, or scurvy, and hæmophilia seemed to be excluded by the fact that the extraction of a premolar tooth was not followed by excessive bleeding; at the same time there was a history of swollen knee-joints occurring three times, and lasting some days.

Card Specimens.

The following were the card specimens:—Mr. Donaldson: Microscopic Specimens of Alveolar Sarcoma of the Cornea.—Mr. Marcus Gunn: Symmetrical Spontaneous Dislocation of both Lenses.—Mr. Morton: (1) Tumour of the Right Malar Region, probably Sebaceous; (2) Persistent Hyaloid Artery.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

T. S. Clouston, M.D., President, in the Chair.

Wednesday, May 1st, 1895.

Cases.

Mr. A. G. Millar showed a man on whom Amputation through the Elbow-Joint had been performed for malignant disease in the hand and forearm. There was a short anterior flap, and a longer posterior flap; in both cases the subcutaneous tissue was carefully dissected off along with the skin. The anterior flap was at once retracted, and the posterior was sufficient to give a comfortable termination to the limb over the rounded articular surface of the humerus.—Dr. Lundie and Mr. Miles showed several cases illustrative of Skin Grafting from the Lower Animals. One was an extensive burn, extending from the umbilicus to the clavicles. The skin used was that of a fox terrier puppy, and the result was very successful.—Dr. W. Allan Jamieson showed (1) a case of Impetigo of the Trunk in a girl, which was being treated by boracic baths; (2) a rare form of Erythema on the arms of a young man; (3) a case of Exfoliative Dermatitis in a man (skin thick, red, and dry); (4) a case of Scorbutus in a man who, since his wife's death, had lived almost entirely on tinned meats, soups, bacon, hardly ever taking fresh meat. The patient had spongy gums, and complained of rheumatic pains and great weakness.

Cerebral Abscess.

Dr. R. F. C. Leith showed the temporal bone from a girl of 14, who had exhibited signs of tuberculous meningitis. In reality there was a cerebral abscess at the junction of the occipital and parietal lobes, which measured about 2 inches each way. There was encephalitis all around this, and the abscess had extended close to the internal capsule. The middle ear was carious; the membrana tympani was ossified; there was optic neuritis of that side, but it was stated that there never had been any discharge from the meatus, although *post mortem* there were evidences of this.

Treatment of Jaundice from Malignant Obstruction.

Dr. William Russell read a paper on the palliative treatment of jaundice from malignant obstruction. The text was an elderly woman whose organs were shown at a former meeting of the Society. The diagnosis made by Dr. Russell, and confirmed by Mr. Cotterill, before operation was malignant disease of the head of the pancreas, without implication of any of the surrounding organs. There was very marked jaundice, and medicinal agents had been tried in vain. Mr. Cotterill united the gall bladder to the duodenum by Murphy's button. The patient unfortunately died some hours after.

Dr. Joseph Bell, Dr. George Gibson, and Mr. Hodson made remarks; and Dr. Russell replied.

Caseating Pulmonary Phthisis.

Dr. R. F. C. Leith read a paper on a case of Caseating Pulmonary Phthisis, with remarks on the diagnostic and prognostic value of the tubercle bacillus. The important points of the case specifically discussed were—its four years' standing, the absence for the most part of physical signs of lung change, and the condition of the expectoration. This latter was mainly mucoid, and yet was frequently so loaded with the tubercle bacillus as to resemble a culture, a condition which Dr. Leith thought quite unusual. He believed that, save in cases of laryngeal tuberculosis, it was not common to find sputum of a mucoid character and yet loaded with the bacillus. Dr. Leith gave many references to the literature of various points connected with his case, which was shown.

Dr. R. W. Philip was unable to agree with Dr. Leith's dictum as to the rarity of mucoid expectoration loaded with bacilli save in cases of laryngeal tuberculosis. He, in common with many others, had often seen cases of purely pulmonary disease where the sputum showed these characters.

Dr. James Ritchie also spoke, and Dr. Leith replied.

Laryngological Society of London.—At a meeting on April 10th, 1895, Dr. Felix Semon, President, in the chair, Mr. Cresswell Baber showed a patient who had a Papilloma removed from the floor of the Left Nostril two years ago, which two months after reappeared. When seen in March, 1895, there was on the left side a firm mammillated growth attached by a broad base to the floor and septum. No enlarged glands, no syphilis. Microscopical examination showed no malignant elements.—Dr. J. B. Ball showed a case of Lupus of the Nose and Face. On admission the voice was husky, with well-marked laryngeal stridor, no pain, no dysphagia. There was a lupoid patch on the side of the neck. The soft palate and pillars of the fauces were studded with granules. The epiglottis was partly eaten away. The arytenoids were swollen, the ventricular bands thickened and nodular. Both nostrils were blocked with crusts. The nose and neck had been scraped, and no great improvement had taken place. Dr. Ball also showed a patient suffering from a Nasal Deformity the result of a blow received eleven years previously, which severed the under part of the nose from the face. The nose was now broad and flat, with a transverse groove across the middle. The anterior septal cartilage was destroyed.—Mr. Knyvett Gordon showed microscopical sections (1) of the Middle Turbinated Body with Polypus; and (2) of Masses curetted from the Maxillary Antrum.—Dr. Dundas Grant showed five cases of Empyema of the Antrum successfully treated by means of Krause's trochar. He also showed a case of Tuberculous Laryngitis which had been exhibited at a previous meeting of the Society. Tubercle bacilli were detected in the sputum, but no pulmonary lesion was found. The empyema cases were discussed by Mr. C. Symonds, Dr. Ball, and Dr. E. Law.—Dr. de Havilland Hall showed a unique case of Mycosis Fungoides occurring in the Larynx of a man aged 52, who had been subject to the disease for two years and a-half, and had numerous tumours all over the body.—Dr. Wm. Hill showed (1) a case of Disease of the Accessory Sinuses with Nasal Polypi; (2) a man, aged 44, suffering from Epithelioma of the Pharynx.—Dr. J. Hunt showed microscopical sections of Multiple Papillomata of the Larynx.—Dr. Percy Kidd showed a case of Laryngeal Stenosis which had been first shown in January, 1895. At that time nothing of a tuberculous nature could be detected; now, however, tubercle was found in the sputum, and there was infiltration of both apices.—Dr. Scanes Spicer showed a case of Bilateral Antral Empyema. The patient had shown remarkable improvement in health since the operation fourteen days previously.—The President showed a case of Fibro-papilloma of the Larynx which had caused an indentation of the opposite vocal cord. After removal of a large benign growth the opposite vocal cord seemed to be deeply eroded from pressure.—Mr. Charters Symonds showed a patient with Suppuration of the Frontal Sinus. Both antra were drained and the anterior end of the middle turbinate removed. In January, 1895, a swelling in the forehead was incised, and the frontal sinus opened freely; a small silver cannula had been inserted, and the wound daily irrigated.

British Laryngological, Rhinological, and Otological Association.—At a meeting on April 19th, Dr. W. McNeill Whistler, President, in the chair, Mr. Lennox Browne exhibited (1) some culture tubes and microscopic preparations of Mucus taken from a case of Atrophic Rhinitis accompanied by Ozæna. The specimens confirmed the description of Loewenberg of his specific micro organism of the disease, and especially in the points of distinction between it and the pneumococcus of infectious pneumonia. The main proof of the specificity of this microbe, namely, its power to reproduce the disease when inoculated, was wanting. (2) A series of coloured drawings made from the throats of patients suffering from various forms of Diphtheria and Pseudo-diphtheria during life, side by side with photomicrographs of the organisms in each case.—Mr. R. Lake read a paper on Facial Paralysis in Recent Otitis Media and the Treatment of Acute Otitis when the Hearing Power was threatened. The stage at which the complication occurred was variable, especially in children, sometimes preceding pain or discharge. In young infants it was not rare to find acute otitis without involvement of the membrane, associated with retraction of the head from pyogenic irritation of the meninges in the posterior fossa, clearly owing to incomplete development of the temporal bone in early life. When facial palsy was present in such cases it was doubtless due to incompleteness of the bony canal for the facial nerve, for the liability to palsy diminished as age advanced; even when the aqueduct was complete its walls were so thin and porous as readily to allow pus to pass through and cause paralysis. Bell's palsy in adults was possibly accompanied in many cases by undiagnosed otitis media (Wilde) when simply attributed to cold. The treatment recommended was early paracentesis with frequent antiseptic irrigations and fomentations, leeches being freely applied in addition in the case of adults. When the hearing power was threatened, and to obviate permanent facial paralysis, should the above measures fail, Schwartze's operation was advocated in order to thoroughly wash out the antrum, attic, and tympanum. The same course was recommended for children. Cases were cited illustrating the success following the treatment of facial paralysis by galvanic interruptions of moderate intensity. The statistics were drawn from *St. Thomas's Hospital Reports*.—Mr. Mayo Collier showed (1) case of Probable Sarcoma of the Soft Palate, in which he proposed to try the submucous injection of serum derived from the cultivation of the erysipelas bacillus. (2) A case of Early Laryngeal Phthisis in a youth of 19. (3) A man, aged 63, suffering from Dysphagia of two months' standing. There was some thickening at the upper opening of the œsophagus and small growths on the ary-epiglottidean folds and hyoid fossa. It was impossible to pass a bougie. There was probably commencing carcinoma of the œsophagus. —Dr. Dundas Grant showed a case of Paresis of Arytenoideus with Dysphonia in a schoolmistress, aged 30. All the usual methods of treatment, including faradism, had been employed, but without permanent benefit.—Dr. Ed. Law showed a case of Double Antral Disease in a man, aged 42, in which symptoms had persisted over a period of five years. Previous to his applying at the London Throat Hospital pus had been evacuated from either antrum by perforating the alveolar processes after extracting sound teeth. The case appeared to be one in which discharge was kept up to some extent by the irrigations employed, and the opinion of the Fellows was asked as to the advisability of allowing the alveolar openings to close; this course was advocated in the discussion which followed.

Epidemiological Society.—At a meeting on April 9th, Mr. Shirley F. Murphy, President, in the chair, Dr. J. W. Washbourn read a paper on Immunity. In all specific diseases the bacteria acted on the organism by means of toxins to which they gave rise, and which would alone in sterilised cultures set up all the phenomena of the disease. In diphtheria and tetanus types of toxic diseases the bacteria did not spread beyond the seats of inoculation, the toxins only being diffused. These toxins were intensely virulent, whereas in septic diseases, as pneumonia, the toxins were feeble and the bacteria pervaded the entire organism. Others, as some forms of septicæmia, partook of the characters of either class or of both, according to circumstances. Immunity was natural or acquired, and, in respect of the bacteria or of the toxins, though immunity to the toxins always included the other, the converse did not hold good. Natural immunity was seen in fowls, pigs, and white rats towards anthrax, mice to diphtheria, and fowls to tetanus toxins, as these last were to morphine. But fowls would succumb to anthrax if depressed by cold or hunger. Artificial immunity could be obtained by inoculation with minute doses of a virulent or large doses of an attenuated culture, or by non-fatal doses of a pure toxin. In the last, time was required to establish the immunity, and it did not last so long as when cultures were used. A possible fallacy was to be found in the fact that bacteria might remain in the tissues after apparent recovery, ready to be called into fresh activity by a subsequent injection of toxin. There were other ways of obtaining immunity, foremost among which was that conferred by injection of the serum of an immunised animal; though most transient of all, it had a therapeutic value, arresting the disease even after it was fully developed when vaccinations were of no avail. Its prophylactic power was, however, of very short duration. Such was the anti-toxin treatment of diphtheria and of tetanus. One of the factors in the production of immunity was phagocytosis. Among the vertebrata the phagocytes belonged to certain forms of leucocytes, and the cells of the endothelium might be seen devouring the bacilli of tubercle or anthrax, though successful cultures showed that the latter were capable of resisting digestion for a time. The serum of the blood had itself considerable bactericidal power, although sometimes the bacteria in serum cultures instead of becoming extinct began to recover, and even to exceed their original number. This property of the blood serum was easily destroyed by heat, it was most marked in inflammatory exudations, and was probably a secretion of certain leucocytes. But serum was not only naturally germicidal, it could be made antitoxic also, by habituating the animal to repeated inoculation with the toxin, and the longer these inoculations were continued the more powerfully antitoxic did its serum become. The antitoxin was also bactericidal, was not easily destroyed, and could be precipitated without alteration, though most conveniently kept in its natural solution. The factors of phagocytosis and of bactericidal substances were common to natural and acquired immunity, to which in the latter that of antitoxins was added. But there were other factors at work, for example, the low temperature of the frog's blood protected it against tubercle, and fowls were unaffected by tetanine as they were by morphine. The serum of the white rat destroyed anthrax bacilli even out of the body, but their immunity to the pneumococcus could not be thus explained. All such cases Metchnikoff would refer to phagocytosis, but this might occur extensively and yet be followed by death. In the rabbit anthrax bacilli had been seen to escape from within the phagocytes and to multiply outside. Exudation serum was powerfully bactericidal, though the majority of the leucocytes were not phagocytes. In artificial immunity, as that to diphtheria or tetanus, the antitoxin probably neutralised the paralysing action of the toxin on the phagocytes, restoring their activity, for the serum of immunised animals was not in itself bactericidal, and the spores of tetanus if washed from all traces of toxin and inoculated into a susceptible animal without laceration of the tissues were speedily devoured by the phagocytes.

Nottingham Medico-Chirurgical Society.—At a meeting on May 1st, Dr. Tew, President, in the chair, Dr. Bell Taylor showed a man, upon whom he had previously operated for Cataract. Also an Apparatus for the Combined Administration of Gas and Ether.—Dr. Fennell read some observations on Fifty-nine Cases of Infantile Convulsions. He remarked on three points, which did not tally with the opinions laid down by authorities, namely, that two of the above cases appeared undoubtedly to be caused by round worms; that in four the pupils were extremely contracted; and that only two presented any symptoms of rickets. Remarks were made by the President, and Messrs. Ransom, Hunter, and Watson.—Dr. Laws read a paper on Toxic Affections of Vision. The clinical features of a case of toxic amblyopia were first described, with the methods of testing for the central scotoma, and it was re-

marked how the course of the disease followed the course of development of the visual functions, the more specialised being the earlier attacked. A short historical sketch of the researches that had been made on the subject since the publication of Mackenzie's work in 1830 was given, and the pathology of the affection was discussed with special reference to the question whether the lesion in the optic nerves was of the nature of an interstitial inflammation or primary degeneration of nerve fibres with secondary overgrowth of connective tissue. Adopting the latter view, the author pointed out the analogies of the process with the system diseases of the spinal cord, and particularly with tabes; in both an afferent tract of fibres, marked out by its function and development from those among which it lay, was affected by degeneration; in both a certain tissue liability was indicated by the existence of a hereditary form of disease. The cause in the one case was a chemical poison circulating in the blood, while in the other there was no inherent improbability in the view that it might be a toxæmia. After some remarks on the differential diagnosis of toxic amblyopia, the author concluded by urging the importance in cases of pallor of the discs and suspected chronic disease of the nervous system of adding to our methods of diagnosis the very simple test for a central colour scotoma.—The President, and Messrs. Kingdon, Ransom, and Macmillan made remarks.

Liverpool Medical Institution.—At a meeting on May 2nd, Mr. Chauncy Puzey, President, in the chair, Dr. Alexander related a case in which he had successfully performed Enterostomy, and had removed nearly 300 fruit stones from the ileum close to the cæcum.—Mr. Arthur Wilson read notes of two cases of Compound Depressed Fracture of the Skull.—Mr. Damer Harrisson related a case in which he had successfully Trephined for Subdural Hæmorrhage.—Mr. Bickerton showed a man on whom he had performed Mules's Operation for Evisceration of the Eyeball. He also showed another patient from whose Eye he had removed a piece of glass $\frac{3}{4}$ inch long.—Mr. George Walker showed several patients illustrative of the Operative Treatment of Posterior Adhesions of the Iris to the Capsule of the Lens.—Dr. Glynn read a paper on the Painful Digestion common in the Hysterical, and its Diagnosis from Gastric Ulcer. He pointed out that pain, especially after food, perhaps relieved by vomiting and occasionally hæmatemesis, was met with in merely functional disorder as well as in ulcer of the stomach. He considered that the various pains and hyperæsthesiæ from which the chlorotic suffered were due to hysteria. The most convenient indication of hysteria to be sought for in the preliminary investigation of a suspected case was tremor of the eyelids. The few chlorotic girls who betrayed no symptoms of hysteria did not, as a rule, suffer from neuralgias and painful digestion. He discussed the various forms of nervous dyspepsia and its symptoms and the character of the pain, and compared them with those of gastric ulcer. He considered it likely that the pain which often attended gastric ulcer was due to the fact that this lesion often co-existed with hysteria and hysterical neuralgias, more especially when the patient was exhausted and anxious. In his opinion the nervous dyspepsia which he had described was a hyperæsthesia of the stomach, and best treated by general measures rather than by drugging. Dr. A. C. E. Harris agreed with Dr. Glynn in distinguishing anæmia from chlorosis. It was in the latter class that painful digestion was met with, but only in about a third of the cases, and among those who had to do hard manual labour. He considered that the gastric pain was due to hyperacidity and was benefited by alkalies; in fact, the success of Blaud's pills and capsules, at first, was probably due to the potash they contained. Dr. Henry Head accepted Dr. Glynn's classification of painful digestion, and pointed out that it included all those cases where food caused pain, and for the most part associated with tenderness in the superficial structures of the thorax, abdomen, and back, over the areas of the sixth, seventh, eighth, and ninth dorsal segments. But disturbance in any other organs supplied from these segments would cause the ingestion of food to be painful; thus rapid implication of one base of the lung (as in tuberculous phthisis), or rise of pressure in the left auricle (as in mitral stenosis), would cause pain and tenderness in one or more of these areas, increased by the ingestion of food. Excluding these reflex gastralgias there was a great group with gastric ulcer at one pole and "anorexia nervosa" at the other, with the gastralgia of chloro-anæmia as an intermediate link. Drs. Young and Gill also took part in the discussion.

REVIEWS.

A History of Epidemics in Britain. By Charles Creighton, M.A., M.D. Vol. II. From the Extinction of Plague to the present time. Cambridge: University Press. 1894. (Royal 8vo, pp. 896. 20s.)

[First Notice.]

We must congratulate Dr. Creighton on the completion of his important and laborious history of epidemics. The second volume, which lies before us, deals with a period in which authentic historical material is more abundant than in that covered by his first volume; and this material has been collected and sifted with much industry and acumen. Moreover, we may venture to say, Dr. Creighton's method is more historical, and shows less "subjectivity" than in the former volume, and is, with some notable exceptions, candid and impartial.

The first volume ended with the last great outbreak of Oriental plague; the present commences with the rapid or sudden disappearance of that disease. We quite agree with Dr. Creighton that no explanation of this disappearance could be more totally inadequate than that which attributes the cessation of plague in London to the great fire of 1666. The fire did not stop the epidemic even in that very year, when it went on unchecked except in those parishes which were actually burnt up; and was so severe even in November, 1666, as to lead to the appointment of a day of public humiliation for the continuing pestilence. Nor could any drying up of the soil by fire explain the extinction of the infection in the eastern and western suburbs or south of the Thames, districts where the malady had raged so severely in previous epidemics. Other English towns which became equally free from plague suffered from no fires, and the western cities had been exempt some time before. The true explanation must be one which would account for the disappearance of plague at or about the same time from nearly the whole of Western Europe, and its gradual withdrawal towards the East, whence it came. Perhaps nothing more definite can be said than that a gradual improvement in sanitary matters made the position of this filth-fostered disease more and more untenable, and that it was tending to extinction, except when new epidemics were produced by fresh importations from the more virulent and persistent foci of disease in the East, even as far away as Turkey and the Levant. So that it would be unreasonable to doubt that stricter quarantine regulations, by checking these occasional invasions, had something to do with its decline, though this was mainly due to social improvement.

With the cessation of the plague, a new epoch appears to commence, but really there were no new diseases; only the old enemies, which had been momentarily obscured, came again into prominence, so that the general aspect of disease in the years following the Great Plague of 1665 was much the same as in the years preceding it. The most conspicuous epidemic feature was the occurrence of the so-called "new fevers," which had, however, been often noticed earlier in the seventeenth century, as recorded by Dr. Creighton in his first volume. The usual, and we think the true, explanation of these fevers is that they were malarious fevers (not necessarily intermittents), which assumed an epidemic and diffusive character, spreading far from their original seat. Dr. Creighton does not seem fundamentally opposed to this view, which has been adopted for numerous epidemics of this period and later, on the Continent by Hirsch and others; but he uses what appears to us the somewhat misleading terms "agues" and "hot agues." It is quite true, as he says, that this word "ague" was used in the seventeenth century in its original sense of acute fever, not necessarily intermittent; but the limitation of the word in later times to intermittents makes the epithet confusing. In modern phraseology they would be more properly described as remittents—a type of

fever which we now think of as something exotic. The question is historically interesting, because some important personages, as Prince Henry, the eldest son of James I, and later Oliver Cromwell, died of fevers thus named; and their cases have been pretty fully recorded, furnishing curious problems for the delicate task of historical diagnosis.

Dr. Creighton gives interesting details from the writings of Sir Robert Talbor, the populariser of Peruvian bark, Drage, and others, which show what elaborate though futile attempts were made to reduce these diseases to the classical types of tertians, quartans, and so forth. We think a clearer view of this tangled subject might have been given had more reference been made to the contemporaneous epidemics on the Continent. The general result would then be to confirm Hirsch's generalisation that when malarious fevers occur in places where they are not usually endemic, it is as a part of a very widely-spread epidemic, which may even assume a quite pandemic character. If looked at as an isolated fact in the epidemiology of a single country, these epidemics appear even more paradoxical than they really were. A parallel instance is presented by the epidemics of influenza.

It is curious indeed how these malarious epidemics were mixed up or intercalated with outbreaks of influenza, so that, as Dr. Creighton implies, the distinction is sometimes puzzling. Of the successive epidemics of influenza a good account is given, with due recognition of the epidemics in other countries; and we have a longish chapter of what is admitted to be tentative and speculative pathology, aiming at an explanation of the origin and diffusion of the disease. Dr. Creighton goes back to Boyle's theory of "effluvia from the bowels of the earth," and Arbuthnot's "alterations in the air" (the latter, by-the-by, coming very near to the bacterial theory in speaking of "invisible insects"), and suggests somewhat diffidently a connection with earthquakes and volcanic eruptions, but does not, as it seems to us, throw much light on the subject. The exposition would have been made much more valuable by some recognition of facts on the other side, such for instance as those contained in Dr. Franklin Parsons's report to the Local Government Board on the influenza epidemic of 1889-90, pointing to the assumption of a specific germ and its diffusion by personal intercourse; but all evidence on this side is entirely ignored, and we need hardly say that the very conception of anything like a pathogenic microbe has no existence for Dr. Creighton.

On the history of the continued fevers, Dr. Creighton has amassed from various sources a large amount of most valuable material, showing their connection with social and economical conditions; typhus being especially fostered by overcrowding and dirt, relapsing fever by famine. But when he states in his dogmatic way that "typhus, it need hardly be said, is an indigenous or autochthonous infection," he decides far too summarily a complex problem. The varying distribution of typhus throughout Europe at different times, and its comparatively recent appearance in countries such as Egypt, where it was formerly unknown, supply formidable arguments in favour of its being due, like other infections, to a specific cause.

It is disappointing to find that Dr. Creighton has not been able to trace the historical continuity of enteric fever, which can hardly have occurred for the first time in 1804 or 1806, the earliest dates he admits. But the almost inevitable confusion with typhus, which lasted till our own times, makes it exceedingly difficult to disentangle from historical records epidemics of the two diseases. There is, however, reason to suspect that enteric was mixed up with the "new fevers" of the seventeenth century referred to above.

DIE SERUMTHERAPIE DER DIPHTHERIE. [The Serum Treatment of Diphtheria.] Nach den Beobachtungen im Kaiser- und Kaiserin-Friedrich Kinderkrankenhaus in Berlin. Von Dr. ADOLF BAGINSKY, a. o. Professor der Kinderheilkunde an der Universität, Berlin. Berlin: 1895. Hirschwald. (Gr. 8vo, pp. 336.)

THIS is the most voluminous and in many respects the most important contribution which has yet been made on the question of the therapeutic value of the diphtherial antitoxic serum. Professor BAGINSKY has had the opportunity of testing the remedy in a long series of cases which came under his care as director of the Emperor and Empress Frederick's Children's Hospital in Berlin, and this volume contains particulars as to all the cases thus treated from March 15th, 1894, to March 15th, 1895. The general results were reported to the Munich Congress in April, and have been given in the BRITISH MEDICAL JOURNAL, April 27th, p. 935, but the volume now issued contains many additional clinical observations of great interest and value.

The work divides itself into two nearly equal parts, the one consisting of a discussion of the pathology of diphtheria, the results of earlier methods of treatment, those of the serum method, and the mode of applying it; the second containing in tabular form particulars of all the 525 cases treated with the serum.

Professor Baginsky gives his reasons for believing that Loeffler's bacillus is the cause of the disease recognised clinically as diphtheria, and that the dangerous character of the disease is due to this bacillus. The similar local pharyngeal affection associated with the presence of micrococci is a distinct and much less dangerous disease, which he urges should be known by a different name. He repeats his suggestion, not perhaps a very happy one, that the term to be used for this purpose should be "diphtheroid." The most severe type of cases are those in which Loeffler's bacillus is associated with large numbers of micrococci; many such cases develop a septic character. His conclusion is that the antitoxic serum is an undoubtedly powerful remedy, the best yet introduced for pure diphtheria; and that in the cases of mixed diphtherial and septic infection it exercises a beneficial influence on the course of the disease, though its good effect is less conspicuous than in pure diphtheria, and a larger dose is necessary.

Among the 525 cases treated with serum there were 83 deaths (15·8 per cent.). In 11 cases the patients were moribund when admitted, so ill that they died within the first twenty-four hours. From these cases no deductions as to the action of the serum could properly be drawn; in the remainder death was due to complications commonly met with in cases of diphtheria treated without the serum. Of these the most frequent were descending croup and pneumonia (26 cases), heart failure (8 cases).

Professor Baginsky does not accept the view that the frequency of the occurrence of albuminuria is increased by the serum treatment. Among the 993 cases of diphtheria treated in 1891-94 (without serum) albuminuria was found in about the same proportion as among the 525 cases treated with the serum, but distinct evidence of nephritis in the shape of morphological elements in the urine much less often.

	Cases.	Albuminuria.		Nephritis (Clinical).		Nephritis (*P.M.*).	
		Cases.	Per Cent.	Cases.	Per Cent.	Cases.	Per Cent.
Without serum	993	417	42.00	256	25.78	162	16 31
With serum ...	525	215	40.95	66	12.57	83	15.80

The first series of 993 cases yield 430 necropsies, and *post-mortem* evidence of nephritis was found in 162. The second series yielded 83 necropsies, and the kidneys showed some evidence of lesion in all, varying from cloudy swelling to severe nephritis. So far as these statistics go—and the only discoverable defect in them is that a somewhat severer standard was applied to the *post-mortem* appearances after the serum treatment, since cloudy swelling has been reckoned in as nephritis—they certainly support Professor Baginsky's opinion that the injection of serum does not increase the frequency of nephritis.

Professor Baginsky discusses at length the influence of the serum treatment on the complications and sequelæ of diphtheria. With regard to the heart, minor degrees of cardiac disturbance were met with more often, the severer less often with the serum treatment. Cardiac collapse and death occurred in 10·9 per cent. of the 993 treated without the serum, and in 5.69 per cent. of those treated with it. With regard to the frequency of diphtherial paralysis there is little difference to be noted, but such as there was is in favour of

the serum treatment, the percentages being 6.8 without and 5.14 with the serum.

We have in this review by no means exhausted the interest of Professor Baginsky's book, but enough has been said to commend it to the careful study of all those who take a special interest in the question of the treatment of diphtheria by antitoxic serum.

A Handbook of Hygiene. By Surgeon-Major A. M. Davies. London: Charles Griffin and Co. 1895. (16mo, pp. 590, 62 illustrations. 12s. 6d. nett.)

This is a well-written digest. The conscientious manner in which quotations from the writings of others are acknowledged in this book constitutes one of its most distinctive features, and may well serve as an excellent example of what should be the rule rather than the exception. The author claims little originality for his work, but evidently has spared no labour in comparing and weighing different statements so as "to digest their information into as small a compass as seemed advisable without sacrificing clearness." The general arrangement of the book follows the usual lines of works on hygiene. The author has evidently some considerable knowledge of public health laboratory work, and his statements of analytical calculations are clear and to the point. We notice he advocates and details a permanganate of potassium process at 140° F. in his chapter on water analysis; whether this is of any practical value in the present day is doubtful, and it might well have been omitted.

The best chapters appear to be those dealing with water, soil, food, and the causation and prevention of disease, the latter, in particular, being full of information and quite up to date. The chapter on vital statistics, placed in an appendix, is imperfect: while there is nothing upon the subject of sanitary legislation. Notwithstanding the fact that this book is otherwise full of facts and much practical information, we are disposed to regard these defects as seriously detracting from the value of the work either as a book of reference or as a handbook for those preparing for any modern examination in public health.

The illustrations are indifferent, and not in keeping with the really excellent binding and general style of the book; certainly those of bacteria and of bacterial cultures might well have been improved.

Die Behandlung der Krankheiten der Eustachischen Röhre. [The Treatment of the Diseases of the Eustachian Tubes.] Von Professor Dr. K. Bürkner, in Göttingen. Jena: Gustav Fischer. 1894. (Royal 8vo, pp. 23. M.0.80.)

This review of the methods of treating the diseases mentioned in the title is valuable in so far as it gives the writer's personal opinion as to their efficiency rather than as an exposition of facts new to the experienced otologist. The author gives a general preference to the catheter over Politzer's method, only employing Politzerisation in acute bilateral cases if it acts with certainty and ease. He attaches great value to the practice of gargling, not merely for the introduction of remedies (preferably solutions of acetate of alumina), but as a species of gymnastics for the tubal muscles. He speaks favourably of the injection of unirritating fluids through the catheter. He uses celluloid bougies when the catheter alone fails to produce the desired effect, and gives rules for their employment. Internal massage of the tube, as practised by Urbantschitsch, is recommended in obstinate cases, and Politzer's "external massage" is advised, particularly in cases of massing of exudation in the tube, especially if there is an objection to the catheter. No good is promised from electrolysis, or from the excision of the membrana tympani and ossicles. The greatest importance is attached to the treatment of the nose and nasopharynx. As a caustic he extols trichloracetic acid, applied in the form of fused crystals on a flat indented probe.

Leçons Cliniques de Chirurgie Orthopédique [Clinical Lectures on Surgical Orthopædics]. Par Dr. Phocas. Paris: J. B. Baillière. 1895. (1 vol. 8vo, pp. 524. Fr. 8.)

Orthopædic surgery no doubt involves a reference to a variety of subjects, but there are two branches of surgery which we must express some surprise at seeing included in a work on the subject—skin grafting and intrauterine amputation. For the introduction of the former there may be some excuse, as it is of some considerable service to the surgeon by enabling him to replace large masses of lost skin, but it is hard to trace the connection between this branch of surgery and the latter. If such amputations are to be included on the ground that they produce deformity, why not find a place for other injuries as well?

If we turn from this portion of the subject to what may be more legitimately regarded as orthopædic we shall find some excellent descriptions. The work opens with a good account of torticollis, and gives a full description of the part played by hæmatoma in its production during the early period of life; at the same time care is taken to point out that hæmatoma may occur without producing torticollis. The account of its relationship to other deformities of the head and neck is interesting and more fully brought out than we remember to have seen it elsewhere. Its occurrence in connection with unilateral face atrophy and extreme degrees of hypermetropia is very well shown.

It is difficult to understand what the writer means by comparing the acute forms of torticollis with movable kidney, as he does in the following words: "Acute muscular torticollis offers a great analogy with an affection which has often been studied. I mean *movable kidney*." (The italics are his.) The only analogy is pain. The pain of a movable kidney, when it is painful, depends on urinary distension, that of an acute torticollis on strain or rheumatism, as he himself admits.

The account of scoliosis is full, but contains nothing new except the number of varieties into which it is divided. If we pass on to genu valgum, we find too much importance placed on what might be described as matters of minor importance. Surely it is well known and understood that genu valgum, at any rate when it occurs in the years just preceding adult life, depends almost exclusively on undergrowth of the external condyle of the femur, or some might be inclined to say overgrowth of the internal condyle; but it is scarcely correct to ascribe it to a curvature in the lower third of the femur. This may occur, but it is only secondary.

We are surprised to find, when talking of club foot, that the writer ignores wrenching the foot, and, indeed, seems to object to it altogether. This plan of treatment, when properly and judiciously applied, has removed any excuse for tarsectomy, which Dr. Phocas quite admits is rarely called for, and has likewise enhanced the rapidity of the cure.

Under the head of paralytic club foot there is a curious process of treatment referred to—namely, the transplantation of a healthy muscle to the affected part. As the deformity is due in the first instance to paralysis, it is difficult to see how the new muscle is to find a suitable nerve supply, and thus benefit the paralysed limb by its contractions.

Notwithstanding these faults the book is readable and well printed, and will repay perusal.

La Pratique des Opérations Nouvelles en Chirurgie [The Practice of Newly-introduced Operations in Surgery]. Par A. Guillemain, Prosecteur à la Faculté de Médecine de Paris. Avec 37 figures. Paris: J. B. Baillière et Fils, 1895 (Cr. 8vo, pp. 346. Fr. 5.)

In the compilation of a manual of this nature, much judgment is needed, for many new operations and contrivances have not stood the test of time and widespread usage. The aim of the author should be to teach what the surgeon wants to know, so as to save him time and trouble in looking over the records of contemporary surgery and in purchasing bulky special works. The compiler must not encourage the mania for new operations and new instruments, not rare amongst enthusiasts. The danger of a new proceeding or the absence of sufficient after-histories should be indicated. It is sufficient for us to say that M. Guillemain has prepared his manual in accordance with the principles above enunciated. A handbook of this kind must be written in terse, yet clear language. We need hardly dwell on this desirable quality, nor are we surprised to find it in a French work. We have only to read the paragraphs on Murphy's button in order to

feel satisfied that the author understands his subject. The passages on suprapubic lithotomy are also of high excellence. In short, the *Pratique des Opérations Nouvelles* is worthy of imitation on this side of the Channel.

NOTES ON BOOKS.

Beiträge zur Pathologie und Therapie der Gallensteinkrankheit. [Contributions to the Pathology and Treatment of Cholelithiasis.] Von Dr. J. Kraus. Sen., in Karlsbad. 2te Auflage. (Berlin: A. Hirschwald. 1895. Imp. 8vo, pp. 88. M. 2)—Two or three years ago we had occasion to review the first edition of this excellent monograph by Dr. Kraus, so that few words need now be added. The value of the contribution can be readily appreciated when it is known that it is based on over 2,000 cases, and that the author thoroughly understands how to handle this enormous experience. The morphology, etiology, symptoms, and course, diagnosis, prognosis, and treatment of the disease are all very satisfactorily discussed. The treatment is described under that of the prodromal period, that of the actual attack and the management of the case in the interim. During the attack the author relies on morphine and chloroform, especially the former, from which he has seen no ill-effects. Antipyrin is only of service at the commencement of the attack. It would have been interesting to have had from the author a more express statement as to the value of the much vaunted olive-oil treatment. A few words are very properly added in this edition upon operative treatment. While fully endorsing the value of this treatment in suitable cases, the author remarks that it deals more with the products than the cause of the disease, and that therefore preventive treatment is still necessary. This monograph can be cordially recommended to those interested in the subject.

Notes on the Newer Remedies, their Therapeutic Applications and Modes of Administration. By David Cerna, M.D., Ph.D. Second Edition. (Philadelphia: W. B. Saunders. London: F. J. Rebman. 1895. Cr. 8vo, pp. 254. 1.25 dol.)—This volume is, as its name implies, a collection of short notes on the properties, actions, and uses of what are called the newer remedies. Little attempt is made to criticise or discuss their actions or relative values as compared with other or older drugs, the substances being simply taken in alphabetical order and a short account given of each in turn. It seems hardly necessary at the present time to furnish us with "notes" on such well-tried substances as sulphonal, paraldehyde, and antipyrin, or other remedies which have been adopted into most *Pharmacopœias*, and are now treated of at length in all the modern standard textbooks on therapeutics. Dr. Cerna's work is scarcely calculated to be useful as a therapeutical guide, but it forms a useful, cheap, and accurate reference book to the numerous and heterogeneous substances which are at present under trial as remedies. Regarding most of them our knowledge is rather deficient, but such as it is, it has been carefully collected by the author, and is presented in as accurate and practical a manner as possible.

The Physician's Vade Mecum, being a Handbook of Medical and Surgical Reference, with other Useful Information and Tables. By Sebastian J. Wimmer, M.A., M.D., with additions by Frank S. Parsons, M.D. (Philadelphia: The Medical Publishing Company. 1894. 16mo, pp. 434. 1.50 dol.)—This is a pocket companion containing a considerable amount of miscellaneous information put into as small a bulk as possible. The greater part of the volume is taken up with short descriptions of the symptoms and treatment of the commoner diseases and accidents which are met with in general practice. There are also numerous tables, comprising Latin phrases and abbreviations, doses, solubilities, weights and measures, thermometric scales, incompatibles, etc.; medical and surgical landmarks, feigned diseases, and examination of the urine are also considered. The more common German and French medical phrases in use between physician and patient are also given, and may be found of value by those who have only a limited acquaintance with these languages, although greater accuracy in spelling and grammar would be desirable. The authors make no claim to originality, and the book may prove a convenience to young practitioners or students.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THOMSON'S MODIFICATION OF HOLMGREN'S WOOL TEST FOR COLOUR BLINDNESS.

The most competent authorities are agreed that Holmgren's wools supply the best initial test for colour blindness, assuming always that the examiner is himself possessed of good colour sense. It is always scientifically interesting, and it may often be of importance both to the examiner and to the examined to keep an exact note of the wools selected by a candidate, since reference can then be easily made to another tribunal should the first examination be called in question. But as ordinarily applied, Holmgren's test has this imperfection, that there is no readier means of making such a record than by snipping off a portion of each chosen skein, and thus eventually mutilating the testing material.

The modification introduced by Dr. William Thomson, of Philadelphia, was designed to meet this want, and since its adoption in the Pennsylvania Railroad System in 1880, his "colour stick" has been largely used, especially on other American lines, as a means of controlling the results of examinations for colour sense conducted by lay officials.

In Professor Thomson's original apparatus two score skeins of wool numbered from one to forty depended from one surface of a wooden rod. A second similarly shaped piece of wood, lightly jointed to the former at one end and temporarily clamped at the other, supplied a complete cover for these numbers during the progress of the examination. The removal of this covering bar at the close of the test permitted easy reference to the numbers of the chosen skeins. The test skeins consisted of the usual light green, rose, and red, and these were matched by the odd numbers from 1 to 20, from 21 to 30, and from 31 to 40 respectively. The even numbers represented "confusion colours" throughout the series. Professor Thomson has now introduced a further modification and simplified the test.

"The new set consists of a large green and a large rose test skein, and 40 small skeins each marked with a bangle having a concealed number, extending from 1 to 40, placed in a double box so arranged as to keep the two series apart, and to permit each to be exposed upon a table in a confused mass. The stick is dispensed with, as giving too fixed an arrangement to the skeins and not enough confusion, although the skeins could be readily removed from their hooks and changed in position for this purpose."

The skeins 1 to 20 are used with the green test skein. The candidate is told to select ten skeins to match it. One with normal colour sense will choose the ten greens which correspond to the odd numbers. The even numbers are represented by shades of brown, red, and grey, and the selection of any of these indicates colour defect. The numbers having been recorded skeins 1 to 20 are removed altogether. "The large rose skein is then used, and the examination repeated in like manner with skeins numbered from 21 to 40." These comprise ten roses (odd numbers) and ten confusion colours—blues, greens, and greys—(even numbers). Persons selecting blues are red-blind: those selecting greens and greys are green-blind.

The third or red test skein of the "colour stick" and its confusion colours are omitted from the new scheme of testing.

It is claimed that the colour skeins have been most carefully selected, and a standard set will be kept so that any skeins which have become faded or lost can be renewed. Messrs. Queen and Co., 1,010, Chesnut Street, Philadelphia, U.S.A., are the recognised makers. Price 5 dollars.

LIQUOR ADVOCAAT.

We have received from Messrs. Simundt, Slater and Co., 2, Guildhall Chambers, Basinghall Street, E.C., specimens of Messrs. Kruijmel and de Wit's "Advocaat." This preparation is, in fact, what is generally known as an "egg flip," of which the qualities are pretty widely known and appreciated. It is very popular in Holland, where it is used as a sort of domestic liquor.

"THE GERMICIDE" AND "THE AIR PURIFIER."

The Germicide Company are introducing under the above names two forms of apparatus which are likely to be of somewhat different sanitary value.

"The Germicide" is an arrangement by which a small quantity of chloride of zinc is automatically supplied to the trap of a wash basin or to the bowl and trap of a watercloset. For a kitchen sink such an arrangement will probably be useful by preventing or lessening decomposition of substances remaining in the trap. A properly-arranged watercloset, however, ought to be sufficiently self-cleansing to do without such aids if used frequently. It is quite possible, however, for even a good closet in which the water in the trap is not often changed to become "fusty," and this tendency can be very much diminished by the use of some form of deodorant or disinfectant.

As regards "the Air Purifier," which appears to be a thymol atomiser, we do not care to say much. The proper way to deal with foul air is not to purify it, but to replace it by means of ventilation.

WHOLE MEAL FLOUR.

We have analysed a sample of the "whole meal flour" manufactured by Mr. H. R. Varadell, of Farnham. It is claimed that this flour contains "every part of the wheat saving the larger particles of the husk." We find that the sample consists of genuine wheaten flour obtained by milling wheat with some of the outer coats or "bran," such of the substances existing in the latter as may be considered to have nutritive value being thus preserved in the flour. Flours of this kind are now extensively produced, the demand being considerable.

A PNEUMATIC SHIELD FOR USE AFTER VACCINATION.

We have received from Cole's Pneumatic Shield Company, of 79, Lower Gardiner Street, Dublin, a sample of a contrivance intended as a shield or protection for "vaccination sores, wounds, boils, bedsores, etc." It consists of a hollow circular india-rubber cushion, enclosing a space of about an inch and a-half diameter, with four white silk ribbons attached. The contrivance is certainly "light," and ought to be "comfortable," and it is free from one of the chief objections to vaccination shields, namely, that of causing pressure and often œdema of the arm. But it seems hardly large enough for this purpose, inasmuch as it would hardly cover four vaccination vesicles placed, as they should be, half an inch from each other. If improved in this respect the shield would be one of the best we have seen.

Professor L. von Dittel, the distinguished surgeon of Vienna, will complete his 80th year on May 15th. His numerous friends and pupils are preparing to celebrate the occasion with due pomp and circumstance.

A Congress of Gynæcology, Obstetrics, and Diseases of Children will be held at Bordeaux on August 12th and four following days. The subjects on the programme are: (1) Uterine Displacements; (2) The Treatment of Puerperal Septicæmia; (3) Malformation of the Lower Limb, more especially Luxation of the Hip and Club Foot.

Cremation in France.—A general meeting of the French Society for the Propagation of Cremation was held in Paris on April 27th, under the presidency of Dr. Bourneville. The President gave an account of the progress of cremation in Paris. From 1889 to the end of 1894 the total number of cremations was 868. From January 1st to March 31st of the present year 59 cremations were carried out at Père-Lachaise, making a total of 927. The average duration of the process in the case of adults was fifty-nine minutes. Cremation is making steady, though somewhat slow, progress.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

Oxford City Hospital.

Mr. Alfred Winkfield sends us the following further reports of cases of diphtheria treated by antitoxin:[1]

Case xvi.—E. M. G., a girl, aged 2 years, had been ill for two days. On admission on February 22nd, her temperature was 102.4°. Pulse 148 (feeble). There was glandular swelling on the right side of the neck, and a copious thin discharge from the nostrils. Membrane covered both tonsils, and a patch could be seen upon the right side of the soft palate. No deposit of albumen in the urine. Antitoxin (10 c.cm.), obtained from Messrs. Burroughs and Wellcome, was injected at 10.40 p.m. On February 23rd she had passed a restless night; her breathing was laboured and the pulse feeble. The throat showed no improvement. Antitoxin (4 c.cm.), Burroughs and Wellcome, was injected at 4 p.m. The temperature dropped during the day from 101.4° to 99.6°. Fluid nourishment with brandy was taken in fair quantities. On February 24th the condition of the throat was unaltered. Klein's antitoxin (4 c.cm.) was injected at 1 p.m. There was much less membrane about the throat on February 25th. There was no discharge from the nostrils, and the swelling about the neck had disappeared; but she became gradually weaker, and died at 8.35 p.m. There were no symptoms of laryngeal obstruction in this case; the child seemed to die of asthenia.

Case xvii.—R. A., a boy, aged 12 years, was taken ill on February 17th. On admission on February 19th there was slight enlargement of the glands at the angles of the jaw. Both tonsils were inflamed and swollen, and there was a large patch of membrane over the right tonsil and a small spot upon the left. Temperature 100°. On February 20th the membrane had spread to the uvula and soft palate. Ruffer's antitoxin (15 c.cm.) was injected at 4.45 p.m. Profuse general perspirations began at 7 p.m. On February 21st the boy had passed a comfortable night, and the membrane was beginning to peel off the tonsils. Ruffer's antitoxin (10 c.cm.) was injected at 4.15 p.m. The throat was quite clear on February 23rd. The temperature normal and no albumen in the urine. On March 2nd urticaria appeared about the trunk and limbs, fading after twenty-four hours. From this date the boy steadily improved until the time of his discharge.

Case xviii.—W. D., a boy aged 11 years 8 months, had complained of sore throat for three days. On admission on March 4th his temperature was 99.2°, pulse 100. There was some swelling about the left side of the neck; a large patch of membrane was upon the left tonsil and a small spot on the right tonsil. No albumen in the urine. Antitoxin (5½ c.cm.), obtained from Burroughs and Wellcome, was injected at 10.40 p.m. On March 5th the throat looked much clearer and the child seemed better, and on March 7th the throat was quite clear of membrane. He rapidly became convalescent.

Case xix.—P. A., a boy aged 5 years, was taken ill on March 1st. On admission on March 2nd there was thick yellowish membrane right across the throat, including the uvula. He had a hacking cough and some discharge from the nostrils. There were glandular swellings at both sides of his neck. Temperature 101.4°, pulse 125. The urine contained a considerable amount of albumen. Klein's antitoxin (8½ c.cm.), was injected at 6.45 p.m. On March 3rd he had passed a restless night and the throat looked no better. Antitoxin (10 c.cm.), obtained from Burroughs and Wellcome was injected at 5.30 p.m. There was more albumen in the urine. On March 4th antitoxin (10 c.cm.), obtained from Burroughs and Wellcome, was injected at 11.20 a.m., as the throat showed no improvement; temperature at noon 102.2°. On March 6th fluids returned through his nostrils when drinking, and he vomited. His throat looked somewhat clearer. On March 9th antitoxin (10 c.cm.), obtained from Allen and Hanburys, was injected at noon, there being still much membrane about the throat. On March 15th the throat was clearer, but the boy's general condition was most unsatisfactory; temperature 101.2°; the urine was loaded with albumen. Hot wet packs were applied. He became gradually weaker, and died on March 17th.

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[1] See British Medical Journal, March 30th, p. 722; April 13th, p. 833 and April 20th, p. 877.

Case xx.—T. B., a boy aged 4 years, had complained of sore throat for one day. On admission on March 18th, his breath was very offensive; there was a copious thin discharge from the nostrils, and the glands were enlarged at the angles of the jaw. Temperature 100·6°, pulse 120. Membrane covered both tonsils. No albumen in the urine. Antitoxin (10 c.cm.), obtained from Burroughs and Wellcome, was injected at 7.30 P.M. On March 19th he had passed a restless night, and the membrane had extended to the uvula. Antitoxin (10 c.cm.), obtained from Burroughs and Wellcome, was injected at 5.30 P.M. On March 20th antitoxin (10 c.cm.), obtained from Burroughs and Wellcome, was again injected. On March 21st the boy seemed better and his throat was clearing. There was no discharge from the nostrils on March 23rd, no albumen in the urine, and no membrane about the throat. His temperature was subnormal. From this time he gradually progressed until convalescent.

Case xxi.—T. W. S., a man aged 24 years, had been suffering from sore throat for two days. On admission on March 22nd, his temperature was 99.6°, pulse 80. There was a large patch of membrane upon the right tonsil and glandular swellings on both sides of the neck; no albumen in the urine. On March 23rd he had passed a restless night. Antitoxin (15 c.cm.), obtained from Burroughs and Wellcome, was injected at 11.20 A.M. General perspirations began shortly after 2 P.M. Nourishment was taken freely; temperature 100.4° at 8 P.M. Membrane could be seen upon both tonsils, uvula, and soft palate on March 24th, and he swallowed with considerable difficulty. Antitoxin (15 c.cm.), obtained from Burroughs and Wellcome, was injected at noon. On March 25th the throat was clearer; temperature subnormal. On March 27th there was no membrane about the throat: the glandular swellings had subsided and the patient seemed better. There was an urticarial rash about the seat of injections on March 30th, which became general after twenty-four hours. On April 3rd the rash had disappeared; temperature subnormal; no albumen in the urine. On April 13th he was able to leave his bed.

Case xxii.—A. H., a girl aged 8½ years, had complained of sore throat for two days. On admission on April 6th her voice was husky, her tonsils red and swollen, with patches of membrane upon both, and her breath was very offensive. There were slight glandular swellings about the neck. Temperature 99.8°, pulse 100. Antitoxin (10 c.cm.), obtained from Burroughs and Wellcome, was injected at 11.20 P.M. On April 7th she had passed a restless night. Membrane had spread to both sides of her uvula, which was much swollen. Antitoxin (10 c.cm.), obtained from Burroughs and Wellcome, was injected at noon. She took fluid nourishment in fair quantities, but swallowed with difficulty. No albuminuria. Temperature at 8 P.M., 101.6°. On April 8th antitoxin (6 c.cm.), obtained from Burroughs and Wellcome, was injected at 4.30 P.M. Temperature fell from 100.4° at noon to 98.2° at 8 P.M. On April 9th the child had slept well during the night, and seemed better. A large piece of membrane, which had enveloped the uvula, was detached during the day; there was also less membrane about the tonsils. On April 12th the throat was quite clear. Urticaria appeared about the back and arms on April 15th, becoming general the following day. The rash lasted for five days. The child is now convalescent.

Summary.

During the four years previous to the use of antitoxin the mortality among 61 cases was 36 per cent.; since the introduction of treatment by antitoxin the mortality among 30 cases was 16⅔ per cent. In most of the cases there was a marked drop in temperature after the injection, followed in several cases by profuse perspiration, lasting in 2 cases for forty-eight hours. Albuminuria, severe and persistent, occurred in 1 case from the commencement of the illness; in other cases the kidney troubles in the shape of albuminuria was transient, and did not seem to be at all due to the injections. Slight paralytic symptoms appeared in only 1 case during the time of their stay in hospital. Exanthematous rashes, generally of an urticarial character, appeared in 40 per cent. of the cases injected from five to eleven days afterwards, and lasted from twenty-four hours to five days in the various cases. The serum treatment was commenced in no case upon the first day of the disease, in 8 cases on the second day, in 7 cases on the third day, in 4 cases on the fourth day, in 2 cases on the fifth day, and in 1 case on the eighth day of the disease. In no case did the disease extend to the larynx after the injection treatment had been adopted. Amongst the tracheotomy cases, previous to antitoxin, there were 7 cases 6 deaths, giving a recovery average of 14¾ per cent.; since the use of antitoxin there were 3 cases of tracheotomy, 1 recovery, giving an average of 33⅓ per cent. of recoveries. In 8 cases, antitoxin was injected once; in 7, twice; in 4, three times; in 1, four times; in 1, six times.

Devon and Exeter Hospital.

Mr. H. Andrew, House-Surgeon, sends the following further report:[1]

H. S., aged 11, was taken ill on March 7th, and was brought to the hospital at 11 P.M. on the 10th. On admission, the lips were slightly swollen; the tongue was coated with white fur; the fauces were much swollen and infected; there were large patches of healthy whitish membrane on both tonsils, extending to the uvula and the edges of the soft palate; there was also a patch on the posterior wall of the pharynx. There was much thick purulent secretion with a very offensive odour. The patient was drowsy and listless; temperature 101.4°, pulse 108, respirations 20; the urine contained a trace of albumen. The membrane was examined by the Clinical Research Association, and was found to contain considerable numbers of diphtheria bacilli, with numerous cocci, mostly streptococci. An injection of a syringeful (mlxx) of antitoxin (Klein's) was given shortly after admission; but he objected to it, so it was thought fit to try the effect of this dose, which was *nil*. Breathing during the night was noisy and laboured. On the 11th, at 6 A.M., the temperature was 102.6°, the pulse 120, the respirations 24. A second injection of mlxx was given at 11 A.M.: temperature 100.6°; this was followed by improved respiration in about one hour, but at 6 P.M. the temperature was 102.6°. On the 12th, at 6 A.M., the temperature was 100.2°, pulse 104, respirations 20; at 6 P.M. the temperature was normal, pulse 108, respirations 18; after this the temperature was normal or subnormal, the pulse about 90, respirations 26. On the 16th the membrane had almost gone: on the 18th the membrane was quite gone. From the first the boy was given tr. ferri perchlor. and an iodine gargle, as his condition was so low and breath had such an offensive odour. This boy lived about a hundred yards from the two other cases reported from here, when no diphtheria bacilli were found in the one examined.

Mr. W. F. Lace (Sutton-at-Hone, Kent) sends the following report:

A. J., aged 9 years, complained of a "cold" on the evening of January 31st. Stayed indoors on February 1st, and towards the evening complained of a sore throat. He remained in bed on February 2nd. When first seen on the afternoon of February 3rd the boy had marked membrane on both tonsils, which were enlarged, and on the velum; temperature 101.4° F.; the glands were considerably swollen. On February 4th, 4 P.M., the temperature was 100.2°, the pulse 104; there was albumen in the urine. I injected 5 c.cm. antitoxin (Klein's); the iron and chlorate of potash mixture which had previously been taken was now stopped; the throat was worse. At 9 P.M., temperature 99.2°, pulse 80; the patient was passing urine. There was no local ill effect where the injection had been made. At February 5th, at noon, the temperature was 99.5°, the pulse 96. The membrane appeared to be curling up at the margin on the soft palate. There was some bleeding from throat. At 8 P.M. there was more obstruction about the fauces; temperature 98.2°, pulse 104. The boy was unable to swallow fluids; the glandular enlargement was more marked. After a very restless night the boy died at 6.30 A.M. on 6th. The case was verified by the British Institute of Preventive Medicine. I regretted that I did not give a second injection on February 5th. There was a small epidemic of diphtheria in the village, where the boy attended the national school during February. This boy's throat was very markedly worse in appearance than others which I saw and had verified during the same epidemic. It was the only case in which I injected antitoxin.

[1] See British Medical Journal, March 23rd, p. 665.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 11TH, 1895.

THE METROPOLITAN ASYLUMS BOARD.

THE Chairman of the Metropolitan Asylums Board has thought it well to preface his report by a statement of the nature and scope of the various duties entrusted to the managers, and from this it appears that for the treatment of fever and diphtheria cases they have an aggregate of 3,340 beds, to administer to which a staff of about 1,700 officials, nurses, and servants is required. In the course of about two years' time the accommodation available is expected to amount to upwards of 5,000 beds. In addition to these there are 1,500 beds, and the necessary staff, for the isolation of small-pox patients; and there is the ambulance system, with its stations, wharves, and steamers.

The expense of keeping up these establishments appears to have been close on £300,000 during the year. This is the price, excluding office expenses, which London pays for the public treatment of such sufferers from notifiable infectious diseases as choose to be removed to the Asylums Board hospitals.

Attention is drawn in the report to the lessened prevalence of notifiable infectious diseases during 1894 as compared with 1893, the cases of scarlet fever having diminished by one-half.

It would be quite wrong however to attribute the lessened prevalence of these diseases to the influence of the hospitals, and although the time is hardly ripe for the full determination of so serious a matter, we may perhaps throw out the suggestion that the utility of public fever hospitals does not depend so largely on the isolation of the patients as many have supposed.

Influenced, perhaps unconsciously, by the experience gained as to the immense advantage to the community of early removal and isolation of every case of small-pox, the tendency is to attribute to isolation and to the consequent lessening of the number of foci of infection all the benefits derived by the metropolis from the operations of the Asylums Board.

It is probable, however, that this is far from being a true conception of the position. The extreme subtleness of the infection of scarlet fever is well known, yet although in 1893 considerably more than half the 36,901 cases reported were left in their homes, the numbers reported in 1894 dropped to 18,440. The disease evidently did not die down in consequence of any suppression of the chances of infection, but from the growth of a protected population, and it is not at all impossible that it may in the end turn out that the true function of the public hospitals is to supply a place in which the course of an infectious disease may be run and immunity be gained with the greatest safety to the sufferer, rather than one in which patients may be isolated from their fellows during the infective period, for the protection of the public even more than for their own benefit. At any rate, we cannot be entirely content with a system which allows the hospitals to be filled with mild cases while virulent ones are left outside. Although the stamping out of scarlet fever by universal isolation is a dream of some, a lessening of the virulence of type is probably much more within the reach of practical medicine. But for this purpose a careful selection of the cases removed is necessary.

In regard to diphtheria, it seems from the returns that, while the general mortality from the disease in proportion to population has considerably increased during recent years—having risen from 0.33 per mille in 1890 to 0.61 per mille in 1894—the case mortality in the hospitals has diminished, having fallen from 33.55 per cent. in 1890 to 29.29 per cent. in 1894. When assorted according to age also, the mortality shows an improvement over the average of previous years; but still the case death-rate during the earlier ages remains distressingly high.

Under 1 year old it was 58.4 per cent., against 61.8 per cent. between 1888 and 1894. Between 1 and 2 it was 57.6, against 63.1 per cent.; between 2 and 3, 46.7 per cent., against 55.1 per cent.; and so on each year, showing that the case mortality is slowly lessening. We need not say how anxiously we await the long-delayed publication of the results of the use of antitoxin.

In conclusion, we cannot but express our regret that the statements published by the Statistical Committee should be put forward in such a form as to be incapable of comparison with the results of other hospitals until they are reduced to percentages. If it is considered worth while to publish so elaborate a report, it certainly should be so drawn up as to be readily comparable.

THE PHYSIOLOGICAL WORK OF LUDWIG.

THE whole scientific world has heard with the deepest regret of the death of Professor Ludwig. He had been in failing health for some time, and his death occurred on April 25th last, he having reached the advanced age of 79. He was born at Witzenhausen in 1816, took his Doctor's degree in 1839, and shortly afterwards became attached to the University of Marburg in the position of a *Privatdocent*. In 1849 he left Marburg for Zürich, where he received the appointment of Extraordinary Professor; and seven years later he went to Vienna, where he was a Professor at the Academy of Army Surgeons, an institution which has since been abolished. It is, however, with Leipzig that his name is chiefly associated, and there the greater part of his life's work was carried out. As Professor of Physiology at the Leipzig University and Director of the important Physiological Institute there, he added not only to his own renown, but, as one of the greatest ornaments of that University, he attracted to Leipzig students and workers from all parts of the scientific world. He occu-

pied this position at the time of his death, although latterly the active work has largely devolved upon his able lieutenants. Ludwig held his professorship at Leipzig for thirty years.

Such is a brief outline of the academical career of this eminent physiologist. His name will always hold an honoured position in the history of medicine: first, as an able exponent of the science he loved so well, and secondly as the author of many of the physiological conceptions which now hold sway. His personal influence was extremely great; he was beloved of all his pupils; he had the gift of inspiring devotion and enthusiasm for work in those with whom he came into contact, and this personal influence extended, not only to his German colleagues and students, but wherever he went, as on his occasional visits to this country his kindly words and encouragement, especially to the younger generation of researchers, will be always gratefully remembered.

He was the author of a well-known textbook; his original papers were numerous, and many of these are classical; but the number of researches that he inspired are more numerous still. His laboratory was always a focus of painstaking and important original work, and among his old pupils are many who, like Professors Kühne and Heidenhain, now hold professorships in physiology at important universities. His influence was also felt in pathology and medicine, for several of his former pupils became pathologists. The late Professor Cohnheim was one of these. Among English physiologists and pathologists are also to be reckoned a goodly number who studied and worked under him at Leipzig. Ludwig's *Arbeiten* and the scientific journals of Germany bear witness to the enormous industry and far-reaching importance of the Leipzig School of Physiology.

In this way all branches of physiology, and even all departments of medical science, have been indirectly influenced. We cannot, however, conclude this brief tribute to Professor Ludwig's memory without recalling to the minds of our readers some of the more important of the numerous memoirs with which his name is more directly associated. Those on the formation of lymph and on the secretion of urine stand out very prominently, and in both cases he attributes the physiological causes of these phenomena mainly to mechanical principles. When Ludwig began his work the old vitalistic theories of life were only just dying, and, like Helmholtz, he opposed all such transcendental doctrines, and regarded physiology in the main as the application of the laws of inorganic nature, chemistry, and physics to the domain of life. At the present day, though there is no danger of the old mysticism being revived, there is a distinct tendency to doubt whether physics and chemistry as we at present know them will account for all vital phenomena. This is seen, for instance, in connection with one of the subjects in which Ludwig himself did so much good work; we allude to the formation of lymph. Professor Heidenhain has recently introduced the idea of secretion as part of the normal process of lymph production, and one of the most interesting phases of modern physiology is to watch the influence this idea has had on subsequent work. Although many have accepted Heidenhain's dictum, there are several careful workers who still hold to the older theory of Ludwig that lymph formation is a mechanical process of filtration due to differences between the pressure of blood in the capillaries and of the fluid in the tissue spaces.

The work which Ludwig did in connection with the urine, and which formed the subject of his first published paper, is too well known to need further mention; his name, with that of Bowman, will always stand in the front of those who have elucidated the complicated processes occurring in the different parts of the kidney.

Ludwig's mechanical bent and his love of accuracy was very markedly shown by the various instruments of precision with which his name is associated. Many of these had for their object the graphic recording of results. The adaptation of the mercurial manometer to the measurement and recording of blood pressure is an instance of this. Ludwig's kymograph is still the basis of modern kymographs, and is indeed largely employed even now without any substantial modification. Ludwig's *Stromuhr* is another of the best-known of the many instruments he invented.

We need only mention researches on the circulation carried out by the use of such apparatus, on respiration, and the way it influences the circulation, on the nervous control of circulation and respiration, on centres in the medulla oblongata, and on conducting paths in the spinal cord in order to show the width of the sympathies and far-reaching abilities of the master whose loss we so deeply deplore.

THE COMMANDER-IN-CHIEF AND "THAT BRAVE CIVILIAN."

The Duke of Cambridge was not altogether happily inspired in the speech which he made in response to the toast of "The Army" at the Royal Academy dinner. Louis XIV., historians tell us, claimed the victories of his generals as his own, but the Duke of Cambridge goes far beyond the Grand Monarque in the sublime assurance with which he claims credit for the efficiency and success of a force with which he has had no more to do than he had with the victorious advance of the Japanese Army. The British public will stand a good deal from a Royal Duke, and the plain speaking which this unlucky piece of after-dinner oratory has caused shows that the provocation must have been excessive. Certainly if accurate self-knowledge be the aim of the philosopher, His Royal Highness should be grateful to the newspapers which have so assiduously held up to him the mirror of candid criticism during the past week.

We should have been glad to have left this unpleasant duty entirely to the lay press, but as the Duke of Cambridge himself went out of his way to offer what we can only characterise as a wanton affront to the medical officers of the army, we feel bound to take notice of this further indiscretion.

Whilst paying a well-merited tribute to the heroic defenders and relievers of Fort Chitral, H.R.H. made use of the expression "that brave civilian, Dr. Robertson," as distinguished from certain other equally brave officials. We have read his speech attentively, and we cannot but feel convinced that the phraseology employed was used

advisedly; if so it is all the more regrettable, as, no matter what may be the Duke's personal views as to the proper position of medical officers in the military machine, he, as Commander-in-Chief, should and must have known that the Political Agent at Chitral was a surgeon-major on full pay in the Indian Medical Service, and as such was possessed of a military title, and as much a military man as any other member of the garrison. We feel sure that when this speech is read in India it will arouse feelings of great bitterness in the ranks of the Indian Medical Service. It has been made at a most inopportune time. The military medical services of the Crown are notoriously dissatisfied, and this fresh and apparently wanton blow at the status of officers of the Indian Medical Service from so high a personage as the Commander-in-Chief will, we fear, cause fresh discontent. Only last week we alluded to the fact that certain changes are to be made in the system of the entrance examination for the Army and Indian Medical Services, with a view to ensuring the best class of candidates for commissions. Surely these publicly expressed views of the Duke of Cambridge will not tend to encourage the ambition of good class candidates presenting themselves for either the Indian or Army Medical Service.

We venture to think this speech of His Royal Highness will have far-reaching effect, and probably in a direction with which he is least in sympathy. If the officers of the medical service of the Indian army are civilians, let it be authoritatively ruled so; let them no longer wear their distinctive uniform, and no longer be subject to military laws, rules, regulations, and rates of pay. If the responsible military advisers of the Crown honestly and truly consider that medical aid for the army should be furnished by a civilian staff, let them say so openly, so that the individual officers themselves and the profession may know the exact status of the medical officer. The medical, like the engineering, is primarily a civilian profession, but the one as much as the other has its military side. The surgeon-major, endowed with political powers, no more loses his army title and rank than the engineer major, detailed to look after irrigation works, loses his. We hope that this matter may not be allowed to rest as it is. It establishes a very serious condition of affairs. If the dictum of the Commander-in-Chief is allowed to pass unchallenged, and by inference is to be interpreted as receiving the approval of the India Office, as defining the true status of the army surgeon in the official community, public opinion will know how to appreciate the position.

The Medical Society of London will hold a *conversazione* in their rooms, 11, Chandos Street, Cavendish Square, on Monday, May 20th, at 8.30 P.M., Mr. Pearce Gould will deliver an oration on The Recent Evolution of Surgery, and at 9.15 P.M. the President of the Society will hold a reception.

We understand that Dr. H. C. Bastian, F.R.S., has resigned the Professorship of Medicine in University College, London, while retaining the office of Physician to the hospital and Professor of Clinical Medicine. He will be succeeded as Professor of Medicine by Dr. Frederick Roberts and a vacancy will thus be created in the Chair of Materia Medica and Therapeutics

The fourth Robert Boyle Lecture of the Oxford University Junior Scientific Club will be delivered on Monday next at 8.30 P.M. in the Lecture Theatre of the University Museum by Professor A. Crum Brown, F.R.S., who has chosen for his subject "The Relation between the Movements of the Eyes and the Movements of the Head."

The Twenty-seventh Festival of the Royal Medical Benevolent College, Epsom, which is to take place under the chairmanship of the Right Hon. A. J. Balfour, M.P., on Wednesday next, May 15th, will be held at the Imperial Institute, and not, as previously announced, at the Queen's Hall, Langham Place.

We are glad to be able to state that the somewhat pessimistic rumours prevalent concerning the cause of Sir Frederic Leighton's absence from his place as President of the Royal Academy at the recent dinner are happily much in excess of the facts. The heart affection from which Sir Frederic Leighton is suffering is one which necessitates abstinence from the excitement of public speaking and from all avoidable business, such excitement having proved to bring on distressing attacks. There is, however, good reason to hope that complete repose from all such functions and rest in a favourable climate will largely improve the President's health and general condition.

We are enabled to state positively on the authority of the Medical Department of the Local Government Board, as well as from authentic information which we have received from reliable resources, that the present epidemic of cholera which has arisen on the Meccan pilgrimage, which already constitutes a serious danger both to Eastern and European countries, did not arise at Kamaran as an introduction from the pilgrim ships from Bombay. On the contrary, the ships in question arrived at the quarantine station of Kamaran with their passengers in good health and quite free from cholera. The unhappy pilgrims became infected seven days after their arrival, and during detention in the Turkish quarantine station. This makes the promised action of the Mohammedans of Hyderabad and Calcutta, and their representations as well as those of the European Government to the Turkish authorities inculpated, all the more seriously urgent.

THE ILLNESS OF PROFESSOR HUXLEY.

We are glad to be able to report that Professor Huxley's condition has improved greatly during the past week; his temperature has descended to normal: he is sleeping well and taking food well. His medical advisers have not thought it necessary to meet in consultation during the past ten days, but they will do so on Saturday.

THE ABERNETHIAN SOCIETY.

Could Abernethy have revisited his old hospital on the opening day of this summer session, his honest perplexity concerning the future of medical students would hardly have been abated, for the Society that perpetuates his name was celebrating its centenary, and the school buildings at St. Bartholomew's Hospital, in which the *conversazione* was held, sufficiently attest the extent to which medical education is being carried on; the energy of the various departments was evident in the exhibits—apparatus, photographs, specimens innumerable. Abernethy himself was called to mind by the interesting series of relics kindly lent by Mr. Willett, Dr. Davis, and others. But his best memorial is the Society itself, the oldest of all such institutions existing, and still in its prime. The members and guests, numbering more than 1,300, were received in the Great Hall of the hospital by the Presidents, Dr. W. H. Maidlow and Mr. E. W. Cross. Dr. Norman Moore delivered an admirable lecture on "The History of the Abernethian

Society," full of recondite information, and enlivened by a wealth of anecdote; demonstrations were given by Dr. Kanthack and Dr. Lewis Jones. In the Library the Hospital Musical Society and the Dramatic Club gave entertainments to crowded audiences; the Band of the Grenadier Guards, under Lieutenant Dan Godfrey, was in attendance. All the arrangements were excellently carried out by the Committee, including Mr. Willett, Dr. T. W. Shore, and the energetic secretaries, Mr. F. A. Smith and Mr. Ashby Barron. Shortly before midnight the guests separated, well pleased with the hospitality of the historic Abernethian Society, whose second century of useful activity was thus ushered in.

THE RUSH TO RUM.

In his annual financial statement, last week, the Chancellor of the Exchequer disclosed a curious fact about the consumption of rum. A few years ago Sir William Harcourt's predecessor called attention to what he designated a remarkable "rush to rum," which he attributed to the then prevailing epidemic of influenza. Last year, for the first three quarters ending on December 31st, 1894, there was no increase on the revenue from foreign spirits, notwithstanding an increased tax of sixpence; but in February last the receipts from rum rose to £100,000. The Chancellor of the Exchequer pointed out that this was the period of the severe frost. So that the protracted cold weather, probably aided in part by the recrudescence of influenza, seems to have induced the striking run upon rum. Other interesting particulars were given by Sir William Harcourt. Brandy seems to be falling into disfavour, the revenue therefrom having fallen £127 000 short of the estimate, and £91,000 below the yield of 1893-4, while in fifteen years the quantity has diminished 1,000,000 gallons, or 21 per cent., though the population has increased 13 per cent. The consumption has been constantly on the decrease, the receipts during the year having been less by £66,000 than in the year preceding, and the quantity imported nearly 3½ million gallons less than in 1875. It is to be hoped that the steadily increasing extension of sound teaching on the physiology and pathology of alcohol, especially as relative to extreme cold, will so enlighten the coming generation as to render such "rushes to rum" less marked in the future.

THE HOLBORN INFIRMARY NURSING STAFF.

We have received a report of a discussion on this question which gives evidence of a serious difference of opinion on the necessity of increasing the nursing staff. The infirmary matron, to judge from her report, seems hardly sufficiently alive to the necessities of the sick committed to her care. In the first place, in tabulating a return of the training and experience of the nurses, she is content to use the phrase "experience" instead of placing on record for the guidance of the Board the place of training and the time spent there by the nurse: as the return reads, only two nurses on the staff have had hospital training. Again, in describing the style and amount of work done by the night nurses, she speaks of a nurse having a ward of 60, 70, or more beds, of which a small proportion are empty, and the remainder occupied by chronic or helpless cases and a few acute cases. Such a statement made by an official responsible for the efficient nursing of the sick discloses a most unfortunate attitude. Holborn Union Infirmary makes up 625 beds, and its nursing staff averages 23 patients to each nurse by day, and 52 at night. The Medical Superintendent, in our opinion, concedes the whole question when he says in his letter "the total of 42 nurses is in my opinion sufficient for the *present requirements of the cases in the infirmary: and I would further ask the Board, while confirming these numbers, to give me general powers to engage temporary nurses at any time when they may be required.*" (The italics are ours.) The majority on the Board, we are sorry to see, were adverse to the increase of the nursing staff, and they carried their point. To show their capacity for forming an opinion, we quote from the report: "That in the opinion of the Committee, no alteration is necessary in the present system of nursing arrangements at the infirmary, inasmuch as no complaint has been made either by the public or the patients as to the inadequacy or the quality of the nursing staff." The public waits to complain until an inquest forces it to lift up its voice; the patients may complain, but their voice is too weak to reach the official ear. We see names on the minority report whose special knowledge of nursing, and of the difficulties caused by structure, should have influenced their colleagues, backed up as they were by the medical inspector, Dr. Downes.

THE SANITARY STATE OF ALDERSHOT.

In view of the strong comments that have appeared in the medical and military press for some time past on insanitary conditions at Aldershot, it is impossible to accept as satisfactory the reply made by the Secretary of State for War to Mr. Hanbury on May 6th in the House of Commons. It now becomes a duty by further questioning in Parliament to ascertain whether sanitary reports rendered by army medical officers are or are not in the nature of confidential documents. As copious extracts from such reports appear every year in the departmental Blue Books, it may safely be assumed that sanitary reports are not confidential. That some sinister object lies behind the refusal to make public Brigade-Surgeon Notter's report is apparent; but the uncertainty of such an important point cannot be allowed to continue. We have in the case of the report on the Windsor Barracks an instance of a previous attempt to evade attaching responsibility for grave defects to the right quarters.

BRITISH MEDICAL BENEVOLENT FUND.

At the monthly meeting of the Committee of Management held on April 30th, the Committee was compelled to separate after considering about a third of the applications, owing to the fact that there was no balance at the bank to meet the grants. This sad state of affairs must appeal at once to the benevolence of the profession. Seventeen applicants, all well recommended, urgently wanting help, and that immediately, have to wait for a month at least, and probably more, as there are sure to be many fresh cases coming in between the present time and the next meeting at the end of May. In common with other charities this fund has suffered from diminished subscriptions, but the list of applicants does not diminish, rather increases in fact, and the applications show a greater severity of want. The Committee would appeal to the kind charity of the more fortunate in the profession for some extra help at the present time to give them the power to aid the new cases adequately, and continue the small pittances allowed by their rules to accepted candidates. When it is realised that an income of £30 from all sources is generally held sufficient to raise a candidate beyond the Society's help, it must be seen that the amount of privation and poverty amongst those in receipt of the grants will badly stand the shock of a refusal to renew, or even a postponement of the grant for a month. It is with this feeling that this account of the situation is made public. The Committee earnestly trust that some substantial assistance may be forthcoming, so that the claims of the needy and deserving applicants may be met in some measure at least. Subscriptions and donations may be sent to the Treasurer, 84 Brook Street, to any officers of the fund, and especially to Dr. Samuel West, 15, Wimpole Street, the Honorary Financial Secretary.

THE ROYAL SOCIETY.

Among the names of the fifteen gentlemen selected by the Council for election as Fellows of the Royal Society are those of Dr. William Macewen, the distinguished Professor of Surgery in the University of Glasgow; Dr. Sidney Martin.

Assistant Physician to University College Hospital, and well known for his researches into the pathology of diphtheria; and Mr. W. H. Power, Assistant Medical Officer to the Local Government Board. Three biologists have also been chosen: Dr. A. G. Bourne, Professor of Biology in the Presidency College, Madras: Dr. J. R. Green, Professor of Botany to the Pharmaceutical Society of Great Britain; and Dr. S. J. Hickson, Professor of Zoology and Comparative Anatomy in Owens College, Manchester.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

The inaugural dinner of the Edinburgh Royal Infirmary Residents' Club was held in the Royal Hotel on May 3rd. Dr. Alexander James presided, and Drs. Claude B. Ker and Gallie were croupiers. The President was supported on the right by Sir Thomas Grainger Stewart, the oldest resident present. Some seventy old residents attended, and in some cases came from a great distance. Thus, there were gentlemen from Stamford, from Scarborough, from Shropshire, and from Inverness. After the loyal and patriotic toasts the President proposed the toast of "The Club;" Professor Sir Thomas Grainger Stewart gave "The President;" and Dr. Douglas the toast of "The Oldest Resident Present." A very enjoyable evening of songs, etc., followed. The hero of this part of the programme was undoubtedly Dr. Gallie, whose Irish songs were inimitable. Previous to the dinner a business meeting was held, when a president, secretary, treasurer, and committee of six were elected and rules agreed to. Already about 160 members have joined the club, which, judging from the excellent start, bids fair to be quite a success.

MEDICAL PRACTITIONERS AND PROBATE RECEIPTS.

In bringing in his Budget last week, Sir William Harcourt referred to the falling off in probate receipts, and complained that last year was extraordinarily and, from his official point of view, inconveniently healthy. He said it was the worst year known for doctors, undertakers, and Chancellors of the Exchequer, the mortality having been 75,000 less than in the preceding year. We are not in a position to speak for the funereal fraternity with which Sir William Harcourt bracketed us; but while acknowledging the prettiness of his wit, we would venture to point out that stagnation in the undertaking trade does not necessarily imply a corresponding dulness in the medical business. If it be admitted, for the sake of the Chancellor of the Exchequer's little joke, that a high mortality is a sign of a good time for doctors, we rather demur to the inference that a low death rate means a bad time for them. A diminished mortality does not necessarily indicate a diminution in sickness, and it is at least arguable that a low death-rate is a proof of the success of medical treatment; indeed, it may not unfairly be claimed to be to some extent an index of medical prosperity. If Sir William Harcourt believes that the professional activity of the doctors has a favourable influence on the amount of the probate receipts, we respectfully suggest to him that whenever he and the undertakers have "a good year," he should make a reduction in the income tax demanded of medical practitioners proportionate to the increase in the probate receipts which he considers to be directly due to their exertions.

SCHOOLS AND DISEASE SUPPRESSION.

Schools have now so long been regarded as disseminators of infection that it is refreshing to think of them as possible agents in the prevention of disease. Their potency for ill or harm is, however, regulated to some extent by the relationship existing between the health and school board authorities of any given place. An instance of the kind of feeling which may serve the useful purpose of securing that schools shall no longer be veritable disease distributors is afforded by the town of Leicester, where Dr. Priestley and the Leicester School Board have drawn up "Rules for Infectious Diseases," which are now enforced in the borough. Under these rules the periods of enforced absence of children themselves ill or living in infected houses are set out in clear and definite statements, the certificate of the medical officer of health himself being, in respect of all the major diseases, a necessary preliminary to return of children to school. In addition to these rules, there are also suggestions for the help of teachers in their attempts to diagnose cases of commencing illness of the several classes of disease which it is desirable to exclude from school; and if only there be complete and close attention to these rules and the necessary close relationship between the school teachers and the borough health department, great good should accrue from this conjoint effort to stay the spread of infectious disease.

ANTITOXIN IN AMERICA.

The State Board of Health of the Commonwealth of Massachusetts have issued a striking circular, calling attention to the recent researches of Behring and Roux with reference to the value of serumtherapy in the treatment of diphtheria, in the course of which they state that having in view the "interests of health and life among the citizens of the Commonwealth," they are prepared to supply antitoxin to such communities of the State as find it difficult or impracticable to supply themselves from reliable sources. The conditions attached to its gratuitous distribution and acceptance are that a pledge must be given that a full statement of the observed facts of each case will be returned to the Board on its termination, and that wherever possible a bacteriological examination and diagnosis will be made. The circular proceeds to emphasise the importance of such precautions, and points out the necessity of its only being exhibited under medical supervision. The issue of this circular, with its attendant operations, is a proceeding which cannot be too highly spoken of, and the evident care with which the operations are being conducted furnish an example which our own sanitary authorities might do worse than consider.

DIARRHŒA AND EARTH TEMPERATURES.

The close relationship between rise of diarrhœal mortality and rise of earth temperature is strikingly shown by Dr. Priestley in his report for the past year for the borough of Leicester. Dr. Priestley studied very carefully the death-roll from diarrhœa in those weeks wherein the temperature at four feet below the surface reached or exceeded 56° F. with the view of ascertaining whether the height of the thermometer had any causal relationship with the disease. By a comparison of data at one and another portion of the year he has found fresh *primâ facie* evidence that a very close relationship of the sort in question does exist. Thus, allowing a period of fourteen days to elapse between the date of attack and death, seven days for average duration of fatal cases, and seven days for notification from the registrar of deaths, Dr. Priestley shows that, the 4-foot thermometer having reached and passed 56° F. on July 2nd, the deaths began to rise considerably a fortnight later, and continued high so long as the thermometer registered above that temperature, but that immediately the thermometer dropped below the figure so, too, the deaths from diarrhœa fell and continued to fall until the disease ceased to appear in the death records. The data included only 153 deaths in all, but the coincidence, if only such, of high temperature and high death-roll and low temperature and falling death numbers is of a character so striking as to attract attention; and Dr. Priestley has set himself the task of obtaining, by a set of questions put in each fatal case, facts which he hopes will in a term of years enable some fresh light to be thrown on the etiology of the disease. Meanwhile he has for 1894, as regards Leicester, obtained

facts which go to augment the growing evidence as to increase of diarrhœa and ground temperatures being in the position of effect following cause.

THE REFORM OF THE UNIVERSITY OF LONDON.

The Bill introduced into the House of Lords by Lord Playfair on May 9th is an extremely brief measure, simply providing for the appointment of a Statutory Commission, in accordance with the recommendations of the Royal Commission on the Gresham University scheme, and giving power to the Statutory Commission to modify the Gresham scheme in detail. The Royal Commission recommended that the Statutory Commission should determine the conditions under which any institution should be admitted to be a school in the University, either as a whole or in respect of certain departments, what teachers should be recognised as teachers in the University, to make the necessary arrangements for the first election of the Senate and Academic Council and to communicate with the bodies entitled to nominate to seats upon the Senate, to frame the statutes of the University and to make provision for preserving the rights and protecting the interests of existing members or officers of the existing University, and generally to take the necessary means for effecting the transition of the University from its present to its new form and functions, and fix the date on which the new constitution should come into operation. Lord Playfair's Bill, which is introduced on behalf of the Government, appears to contemplate placing in the hands of the Statutory Commission rather larger powers as to varying the scheme drawn up by the Royal Commission. At the meeting of Convocation of the University of London, to be held on Tuesday, May 14th, a resolution will be brought forward by Mr. H. M. Bompas, M.A., Q.C., and Mr. H. L. Hart, LL.D., to rescind three resolutions passed by Convocation in January last, on the ground that "if a local teaching university for London be desirable, it ought to be constituted apart from the existing University of London." These three resolutions affirmed the opinion that there should be one University of London, not two, and that the existing University might be enlarged and reconstructed so as to render it a teaching university for London; that the proposals of the Royal Commission were generally approved of, but that the Statutory Commission should confer with representatives of the Senate and Convocation as to the modification of certain details of the scheme; and that a Special Committee of Convocation should present to the Commission a memorandum of points in which modification is desirable. This resolution of Mr. Bompas will, therefore, reopen the whole question of University reform, and will doubtless cause a full attendance.

THE FOOD AND COOKERY EXHIBITION.

In view of the fact that the study of dietetics is deservedly attracting more and more attention from medical men, the Food and Cookery Exhibition, which has been held during the present week in London, becomes an event of some importance to the profession. The exhibition, which was of a highly practical character, was held in the Portman Rooms, and was largely attended. In one room the art of cooking was demonstrated by cooks from the army, and new methods of cooking by gas and by electricity were also shown. Messrs. Sugg showed some admirable gas-cooking ranges, and the Davis Gas Stove Company exhibited a variety of cooking stoves and heating appliances, many of which were small, dainty, and inexpensive, and thus extremely well fitted for the sick room, where it is often necessary to keep food warm during the night or to heat it at short notice. Messrs. Campton and Co., electrical engineers, had a very interesting exhibit of electrical cooking and heating apparatus: a mutton chop grilling to perfection in a spotless frying-pan, which carried its own miniature fire, which made no smoke and gave off no deleterious products of combustion, looked very appetising. It is claimed that the electrical kettle will boil a quart of water for about a halfpenny. The electrical heater for keeping dishes warm is certainly a very useful invention, and the electrical foot-warmer and other possible applications of the same principle have medical uses not yet thought of. The "sensible tea and coffee-pot," invented by Mr. R. Chidley, excited a good deal of attention. Various difficulties in tea making are here overcome. The front of the pot is higher than the back to prevent spilling, and by means of a strainer running diagonally across and behind the spout, the hot water must necessarily pass through the leaves, thereby saving, it is claimed, 10 to 15 per cent. of tea, while giving a perfect infusion. A number of very elegant dishes—jellies, custards, blancmanges—were shown as the products of rizine. In Professor Attfield's analysis of rizine it is shown that it is a nutritious food; and as the preparation of the various invalid dishes to be made from rizine is extremely easy, it becomes a valuable article of diet in the sick room. Uruguay dried ox-beef is a preparation worthy of attention. Uruguay is said to contain millions of four-year-old oxen, which fetch the low price of from thirty to fifty shillings each. The preparation is made by drying thin slices of salted beef in the sun. In cooking it is necessary to simmer till the meat swells to its original size. The price is but fourpence a pound; and when the diminished quantity of water is taken into consideration, and the absence of bones and fat, the price, compared with English beef, is actually not more than three halfpence a pound. Where the greatest economy and the highest nutrition are both aimed at, Uruguay beef may supply the want. In Cerebos salt it is claimed by the makers that the phosphates of bran are combined with common salt, so that a nutritious condiment is produced which has, moreover, the advantage of never caking. Messrs. Armour, of Chicago, have a large exhibit of their well-known and well-made preparations, among which we may mention "vigoral," a pick-me-up prepared from their extract of beef. A teaspoonful is added to a cup of boiling water, and is drunk hot.

THE HAND OF DEATH.

The hand of death has been busy in the medical profession since the beginning of this year, but it is long since we have had to record in a single week the death of two such representative men as Sir George Buchanan and Mr. Arthur Durham. A special tribute is due to the civic courage which led the late Principal Medical Officer to the Local Government Board quietly to postpone an urgent operation in order that he might undertake and complete the duties of the Chairman of the Royal Commission on Tuberculosis, and thus maintain the continuity of the labours of that important Commission. A life devoted to the service of the public and of the State was thus worthily ended by an act of abnegation. The unexpected death of Mr. Arthur Durham also will cause universal regret. He was a man who by his upright character and genial manner, which was the outward evidence of a genuine kindness of heart, had endeared himself to many generations of students at the great school the historic traditions of which he handed down undimmed. He had undertaken to deliver the Address in Surgery at the annual meeting of the British Medical Association this year, and his loss will be keenly felt. The obituary notices of these two distinguished men, which are published at another page, will be read with sympathetic interest.

A COURT-MARTIAL IN NEW SOUTH WALES.

A telegram from Sydney announces that a court martial has sentenced Surgeon Francis J. Lea, R.N., to be dismissed the service for insubordination for refusing to go below under arrest, when ordered to do so by the captain of the vessel in which he was serving. It is stated that Surgeon

Lea had placed the captain on the sick list, as he did not consider him mentally responsible for his actions. The court martial refused to entertain the plea put in by the defendant that the captain was insane, but the telegram adds that the sentence has caused great surprise throughout the colony. This feeling will be shared in this country, as we believe that Surgeon Lea was highly esteemed by his official superiors as a man of good judgment and an excellent officer. The story told in the telegram is startling, and has already given occasion for certain writers in the press to indulge in some cheap wit; but an opinion on the merits of the case must be reserved until the full reports reach this country.

NATIONAL HEALTH SOCIETY.

The annual general meeting of the National Health Society was held on May 8th at the offices of the Society, under the presidency of Mr. Ernest Hart. The report of the past year was read by the Secretary, showing a large increase in the work of the Society and the growing influence and popularity acquired by its teachers, etc., throughout the country, proving thereby the thoroughness of the training given under its auspices to ladies employed in county council teaching, etc. The number of counties visited during the past year exceeds that of former years, while over 1,000 candidates have presented themselves for examination in the country districts. Votes of thanks were passed to the honorary officials of the Society, and the members of the general and subcommittees were re-elected. The Chairman then addressed the meeting on his recent work in India in connection with the scheme for the establishment of a branch society in that country. He said that the scheme had met with great success, and that a most capable and enthusiastic secretary had been secured in Mrs. Wheeler, who was now doing much good work for the branch society in India.

KALA AZAR.

The *Englishman* of Calcutta in a recent issue calls attention to the increasing prevalence in Assam of the disease known there as kala azar. After pointing out that the original idea of the nature of kala azar—that it is a manifestation of malaria—had been abandoned in favour of that which looks on it as a form of beri-beri, and subsequently of its being a severe type of ankylostomiasis, our contemporary informs us that it is now regarded as something quite different from any of these and as altogether peculiar to the district. Our contemporary traces its progress through the country, describing it as decimating the population in many parts, and leaving "behind it a perfect trail of desolation." On the basis of Dr. McNaught's statistics, we are informed that whereas in 1891 the total mortality from all causes amounted to 9,114, it had risen in 1893 to 14,430—an increase apparently accounted for by the 5,167 deaths from kala azar. The returns for 1894 have not been published, but it is anticipated that when they come out they will show a still further increase. In many tea gardens, notwithstanding the great efforts made to maintain good sanitary conditions, kala azar carries off the coolies in large numbers; and at least five deaths have occurred at Nowgong from this cause in the European community. This very fatal disease does not appear to be amenable to treatment, but surely claims its victims in from three to eighteen months. The course of kala azar is described as follows: "A severe attack of continued fever, with a very high temperature, lasts usually for a fortnight or more, subsiding to recur at frequent intervals. Both spleen and liver undergo enlargement; diarrhœa and dysentry are frequent complications, and dropsy is occasionally met with, œdema of the face and extremities being more frequent. Anæmia is usually absent at the commencement of the attack, but becomes more or less pronounced as the case progresses. Extreme emaciation often accompanies the termination of the case, but the appetite, as a rule, remains good for many weeks during the progress of the disease, notwithstanding that the patient is unable to digest his food: and it is curious that, although the thermometer may register 3 or 4 degrees above normal, the patient thinks he has no fever. It is still more curious that the usual anti-malarial remedies seem to have absolutely no effect." An influential meeting of the medical men of the affected districts, summoned by the Sanitary Commissioner, resolved that it was "absolutely imperative that an expert should be appointed to inquire into the pathology and cause of the disease." We trust that something will be done soon to throw light on this important subject, and regret that at the recent Medical Congress held in Calcutta little or no notice was taken of so serious a state of matters, and a disease with which the profession is so intimately concerned.

THE SANITATION OF HEALTH RESORTS.

With a reputation to keep up as a health resort, Lowestoft may well consider with some amount of seriousness the report of its health officer for the year 1894 so far as regards water supply and drainage. Dr. Clark tells his council with commendable plainness of speech of their responsibility in relation to these two matters. We learn from his statements that there are still 3,000 houses in the borough which are served by privies, and that 1,000 houses are dependent on wells for their supply of drinking water. Dr. Clark rightly holds that these are conditions which need remedy—that is, total abolition; and, looking to the leaky and otherwise imperfect state of the existing privies and the evil results of the system in the midst of a populous town—especially where, as in Lowestoft, the public draw water for domestic purposes from a filth-sodden soil—the town council will be well advised if they spare no pains in their endeavours at once to secure the conversion of the existing privies into waterclosets wherever nuisance prevails, and further to secure the closure of the local wells in those cases where contamination of the water is ascertained. We are told that in 1894, in 24 out of 26 wells the water of which was submitted to analysis the well was closed, "not one" of the 26 wells yielding a "potable water." Then, with this experience, why should not 260—or, if time allow, double that number of analyses—be made this year, and the authorities be fully assured that the council are determined to secure total abolition of wells and substitution of the public water service in their place? We feel confident that Dr. Clark will have less to say of recurring enteric fever, and Lowestoft will certainly have still more to commend it as a "health resort" when these improvements have been brought about.

MIDWIVES REGISTRATION BILL.

The following is the text of this measure introduced into the House of Lords on April 30th, by Lord Balfour of Burleigh:—

ARRANGEMENT OF CLAUSES.

Clause.
1. Short title.
2. Definitions.
3. Registration.
4. Privileges of registration.
5. Provision for existing midwives.
6. Constitution and duties of Midwives Board.
7. Rules respecting the examination of midwives.
8. Fees and expenses.
9. Power to Midwives Board to establish a General Register of Midwives.
10. Publication of register.
11. Supplemental provision as to register.
12. Medical officer of health to supervise midwives in his district.
13. Notice of death of midwives.
14. Penalty for obtaining registration by false representation.
15. Penalty for wilful falsification of register.
16. Prosecution of offences.
17. Appeal.
18. Extent of Act.

A

BILL

INTITULED

An Act for the compulsory Registration of Midwives.

BE it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

Short Title.

1. This Act may for all purposes be cited as the Midwives Act, 1895.

Definitions.

2. In this Act—

The term "midwife" means a woman who undertakes to attend cases of natural labour without the direct supervision of a medical practitioner.

"Midwives register" means a register of midwives kept in pursuance of this Act.

"Midwives Board" means the Board constituted under this Act for the purpose of carrying out the provisions of the Act, subject to the approval of the General Medical Council.

Registration.

3. (1) From and after the first day of January, one thousand eight hundred and ninety-six, no woman shall be entitled to take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition, or description implying that she is registered under this Act, or is specially qualified to act as a midwife, unless she be registered under this Act.

(2) Any person who, after the first day of January one thousand eight hundred and ninety-six, not being registered under this Act, shall take or use the name of midwife, or any such other name, title, addition, or description as aforesaid, shall be liable on summary conviction to a fine not exceeding five pounds, provided that nothing in this section shall apply to legally qualified medical practitioners.

(3.) No woman shall be placed on the midwives' register until she shall have complied with the rules and regulations for admission to registration to be laid down in pursuance of the terms of this Act by the Midwives Board, acting under the supervision of the General Medical Council.

Privileges of Registration.

4. A woman registered under this Act shall be entitled to act as a midwife in England and Wales. From and after the first day of January one thousand eight hundred and ninety-six no woman shall be entitled to recover any fee or charge in any court for attendance or service rendered as a midwife unless such woman be registered under this Act, and the certificate of registration under this Act shall be a certificate entitling a woman to act as a midwife in cases of natural labour only, in accordance with the prescribed regulations made in pursuance of the terms of this Act. A certificate under this Act shall not confer upon any woman any right or title to be registered under the Medical Act, 1858, or the Acts amending the same, in respect of such certificate, or to assume any name, title, or designation implying that she is by law recognised as a licentiate or practitioner in medicine or surgery, or that she is qualified to grant a certificate of death or of stillbirth.

Provision for Existing Midwives.

5. Any woman who at the passing of this Act is in *bonâ fide* practice as a midwife, or has obtained a certificate in midwifery from some hospital or workhouse infirmary, or from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be approved by the General Medical Council, and claims to be registered before the expiration of two years from the passing of this Act, and produces the prescribed evidence of her title to be so registered (such title to be determined by the General Medical Council), shall be entered on the Midwives Register at such reduced fee as the Midwives Board shall prescribe.

Constitution and Duties of Midwives Board.

6. Within six months from the passing of this Act a Midwives Board shall be formed, which shall consist of twelve registered medical practitioners, three to be appointed by the Royal College of Physicians of London, three by the Royal College of Surgeons of England, three by the Society of Apothecaries, and three by the Incorporated Midwives Institute. One-fourth of the members of the Board shall annually retire, but shall be eligible for re-election after the lapse of one year. The duties of the Midwives Board shall be as follows:—

(*a*) To make rules for conducting and superintending the examinations.

(*b*) To conduct the examinations and appoint, if necessary, assistant examiners.

(*c*) To decide upon the places where and the times when examinations shall be held.

(*d*) To frame for approval by the General Medical Council rules regulating the admission to the register of women already in *bonâ fide* practice as midwives at the passing of this Act.

(*e*) To prepare annually a general register of midwives.

(*f*) To frame for approval by the General Medical Council rules for regulating the practice of midwives.

(*g*) To decide upon the removal from the register of the name of any midwife for cause shown, and upon the restoration to the register of the name of any such midwife so removed.

(*h*) To fill up any casual vacancies in the Midwives Board that may occur.

(*i*) And generally to do any such duty as may be necessary for the due and proper carrying out of the provisions of the Act.

Rules respecting the Examination of Midwives.

7. For the purpose of the examination of women desiring to act as midwives the Midwives Board shall, as soon as may be after the passing of this Act, frame, subject to the approval of the General Medical Council, rules regulating the conditions of admission to examinations, the course of study to be pursued previous to examination, the method, the periods, and the subjects of such examination, and the general standard to be attained by women passing the examination.

The General Medical Council shall submit the rules approved by them to the Privy Council for confirmation, and the rules when so confirmed shall be forthwith officially published under the superintendence of Her Majesty's stationery Office. In the event of the General Medical Council failing to perform the duties entrusted to it under this Act, the Privy Council shall invite some other suitable body to undertake these duties, or shall itself forthwith proceed to do so.

Fees and Expenses.

8. There shall be payable by every woman presenting herself for examination a fee of two guineas. Should a candidate fail to pass, then for her second or any subsequent examination the fee shall be half a guinea. In respect of registration, the fee shall be five shillings. All fees paid by midwives or by candidates for examination shall be paid to the Midwives Board. Such Board shall devote such fees firstly to the payments connected with the examination and registration, secondly to the general expenses of the Board.

Power to Midwives Board to establish a General Register of Midwives.

9. The Midwives Board shall provide by their regulations for the keeping, and the publication from time to time, of a General Register of Midwives.

Publication of Register.

10. The Midwives Board shall every year cause a new edition of the Register kept by them under this Act to be printed and published, and a copy of such register for the time being shall be evidence in all courts that the women therein specified are registered according to the provisons of this Act; and the absence of the name of any woman from such copy shall be evidence, until the contrary be made to appear, that such woman is not registered according to the provisions of this Act. Provided always, that in the case of any woman whose name does not appear in such copy, a certified copy under the hand of the registrar of the entry of the name of such woman on the register shall be evidence that such woman is registered under the provisions of this Act.

Supplemental Provision as to Register.

11. The Midwives Board shall appoint the registrar, who may also act as secretary to the Board. He shall be charged with the custody of the register.

Medical Officer of Health to Supervise Midwives in his District.

12. Each medical officer of health throughout England and Wales shall be supplied with a copy of the register from year to year, and he shall keep this register accessible at all reasonable times for public inspection. Such medical officer of health or other registered medical practitioner as the local authority may appoint shall be the local supervising authority over midwives in his district. It shall be his duty to report to the Midwives Board any case of malpraxis, negligence, or misconduct on the part of a midwife in his district which has come to his knowledge. For his services he shall receive such fees as the Midwives Board shall determine. No midwife shall commence practice in any district until she has first produced her certificates to the medical officer of health for the district in which she purposes to practise.

Notice of Death of Midwives.

13. The registrar of deaths for the district shall at once report to the Midwives Board the death of any midwife in his district, so that her name may be immediately erased by the registrar from the register.

Penalty for obtaining Registration by False Representation.

14. Any woman who wilfully procures or attempts to procure herself to be placed on the register of midwives by making or producing, or causing to be made or produced, any false or fraudulent declaration, certificate, or representation, either in writing or otherwise, and any person assisting her therein, shall be deemed guilty of a misdemeanor, and shall on conviction thereof be liable to a fine not exceeding ten pounds, or to be imprisoned with or without hard labour, for any term not exceeding three months.

Penalty for Wilful Falsification of Register.

15. Any registrar who wilfully makes, or causes to be made, any falsification in any matter relating to the register of midwives shall be deemed guilty of a misdemeanor, and shall be liable to a fine not exceeding twenty pounds, or to be imprisoned with or without hard labour for any term not exceeding six months.

Prosecution of Offences.

16. Any offences under this act punishable on summary conviction may be prosecuted, and any fine under this Act recoverable on summary conviction may be recovered, in manner provided by the Summary Jurisdiction Acts.

A prosecution for an offence under this Act shall not be instituted by a private person except with the consent of the Attorney-General, but may be instituted by a county council or the council of a municipal borough. The expenses of any prosecution shall be defrayed out of the county fund of the district where the prosecution takes place.

Appeal.

17. Where any woman deems herself aggrieved by any order, conviction, judgment, or determination of, or by any matter or thing done under this Act by any court of summary jurisdiction, such woman may appeal therefrom to the court of quarter sessions.

Extent of Act.

18. This Act shall not extend to Scotland or Ireland.

THE Belgian Government has appointed a Commission to inquire into the prevalence of alcoholism in Belgium, and to study the best means of checking the evil.

BACTERIOLOGICAL INVESTIGATION IN INDIA.

THE following letter was addressed by Mr. Ernest Hart before he left India to Sir A. MacDonnell, K.C.S.I., Secretary of the Home Department of the Government of India. It has since been published in most of the leading Indian papers and is attracting a great deal of attention and leading to much discussion, as might be expected from the importance of the subject. We reserve comments on the matter, which is one vital to the public health and sanitation of India, until the discussion in India is further advanced.

Since I had the advantage of an interview with you in Calcutta, in connection with the deputation appointed by the first Indian Medical Congress to bring to the notice of the Government of India certain resolutions adopted by the Congress, I have visited various parts of the Indian Empire, and have taken the opportunity of investigating the provision made for the carrying out of bacteriological investigation and teaching, and of the extent to which some further provision is necessary.

In relation to the resolution urging the Government to provide such places of investigation and teaching in the chief centres of the different presidencies, you will, perhaps, permit me to mention some of the facts observed in Burmah, in the Madras Presidency, in the North-West Provinces, and elsewhere. In Burmah which is the first place visited by me after leaving Calcutta, I found, both at Rangoon and at Mandalay, conditions which urgently called for skilled and continuous bacteriological study, in the largest and most elementary interests of public health. This is true in respect both to the troops and prisoners under the immediate charge of Government and of the general population.

At Mandalay there have of late years been more than one severe outbreak of cholera in the gaol, and there is a great deal of typhoid fever among all classes of the population, both official and unofficial. The main water supply is from the moat or ditch surrounding the old palace. Everyone is agreed that this main source of the water supply as well as other accessory sources are unfit for drinking, and evidently liable to specific contamination. At Rangoon and at Bhamo similar conditions prevailed in a less exaggerated degree. But at neither place, nor indeed, in the whole of Burmah, could I hear that there was any single person equipped with the apparatus or necessary knowledge, or having the duty of even making an elementary examination of the water supply, such as could alone determine what were the sources of contamination, what were the nature of the organisms present in the water, and whether its impurities were animal or vegetable. This incredible scientific destitution over so vast an area needs no comment from me, and points its own moral. Under these circumstances, it is not humanly possible to trace satisfactorily the origin of any epidemic, general or local. Means of course can be, and have been adopted, by hurried removal of prisoners or troops, evacuation of barracks, the boiling of water in order to limit the extent of the outbreaks, and to tide over the period during which the microbe preservesits virulence. But the return to the old quarters means a recurrent liability to infection from an undetected source of danger. In both places plans of more or less ill-digested character, and without the necessary highly-skilled advice, have been partially carried out, or are in contemplation, and much expense has been incurred in the preparation of such plans, of the efficiency of which grave doubts are, however, entertained.

In Madras a not very dissimilar state of things exists. The water supply of the city is admittedly inadequate in quantity and quality. But here, again, there are no certain data derived from bacteriological examinations, whether of the general supply and the sources from which it is taken or of local supplies. Although Madras has the advantage of being the headquarters of an important medical staff and of being a medical centre, of which many of the arrangements show a high degree of efficiency, yet there is no provision either for bacteriological examinations of food and water or for the more recondite but highly necessary bacteriological studies and examinations which are now a daily necessity for the intelligent and fruitful study and treatment of disease.

In the North-West Provinces I have found a bacteriological laboratory at Agra, under the direction of Professor Hankin. It is a simple but effective building, rented at the moderate rental of Rs. 100 a month; perhaps somewhat inadequately provided with scientific apparatus, the working expenses (apart from salaries) amounting to a total of not more than Rs. 3,000 per annum, including the expenses of the whole of the toxicological work of the provinces. I here found that Professor Hankin's bacteriological work is performed in virtue of his office as Chemical Examiner and Toxicologist. Fortunately the chemical and toxicological work in these provinces does not appear to be so heavy as in other presidencies with which I have become acquainted, where it fully occupies the whole time of the holder of the office. But even here it is increasing rapidly from year to year, and if the rate of increase continues, it is doubtful whether time can be found for bacteriological work. Meantime, however, the results achieved at Agra have been such as to demonstrate the high value of investigations of this nature to the public health, and I may refer to it as affording an example and testimony of the need for increasing and multiplying the facilities here afforded. Among the different lines of work that I saw in progress in Agra, I was particularly struck with the far-reaching importance of the numerous investigations which were being carried on concerning the causation of cholera arising out of the local contamination of wells at various religious fairs at Allahabad and other places. Investigations such as these not only furnish valuable and definite information as to the places and manner of origin of epidemic outbreaks at great popular gatherings, but in explaining the natural history of the growth and intensity of the cholera virus, have a far wider application throughout the empire and furnish knowledge of permanent utility to sanitarians throughout the world. The report furnished to the Medical Congress at Calcutta of the investigation and discovery at this laboratory of the precise causation of the typhoid epidemics in Agra and Lucknow, and of cholera epidemics in Cawnpore, affords such clear and striking examples of the invaluable application of skilled bacteriological research to the every-day occurrences of Indian sickness and mortality that I need not dwell upon them in detail. The lessons which they have taught as to circuitous methods of causation of the poisoning of food and water supplies and of the definite precautions necessary to stop these avenues of disease are obviously applicable not only to the particular cases investigated, but to all cantonments, barracks, and gaols, and hardly less so to villages and towns. The observations of Professor Hankin on the remarkable power of self-purification possessed by the rivers of the North-West Provinces, owing to the influence of strong sunlight, have furnished valuable information and given fresh confidence to those concerned with municipal water supplies. The studies concerning the methods of disinfecting wells are likely, in my opinion, to be not less fruitful of good results.

I may be permitted to observe that it may not always be possible to find for such posts men possessing the original power and genius for investigation which Professor Hankin has shown himself to possess. Nevertheless by application to the proper authorities in England, and by careful selection, it would undoubtedly be possible to obtain for the direction of bacteriological laboratories in India men of like qualifications and enthusiasm, and of high aptitude, seeing that there is now an increasing number of able bacteriologists in Great Britain, trained in the laboratories of Oxford, Cambridge, and Edinburgh, and of the Colleges of Physicians and Surgeons in London, for whom the virgin soil of Indian bacteriological research would offer special opportunities.

To the above statements I would beg permission to add one or two remarks. To make these bacteriological stations fulfil their full measure of utility, they should obviously be centres for teaching, as well as for practical and scientific investigation and research. To them should come in suitable batches (proportionate to the size and resources of the station) military and civil medical officers. These would necessarily for the most part be men of junior standing, but they should have recurrent opportunities of strengthening and extending their knowledge, and of bringing their methods and results under review. Special leave should at all times be granted for the pur-

pose, the time being counted as actual service on full pay. In any state of things that could with satisfaction be contemplated, it ought not to be possible to point to any town or cantonment unprovided with men capable of making on the spot the bacteriological observations necessary to determine the origin, methods of diffusion, and means of prevention of any local outbreaks of cholera, typhoid, or other epizootics. This result might be obtained by the methods I have ventured to suggest, with great certainty, and in the end with great economy of life and money. Nothing is more costly to the public service than the frequency of endemic and epidemic preventable disease, with their frequent expensive accompaniments of evacuation of barracks, displacement of stores, etc., towards the prevention of which bacteriological investigation and research can alone supply the necessary means.

It may not be out of place to remark that the combination of the offices and duties of Chemical and Toxicological Examiner with those of District Bacteriologist does not commend itself as being one which is likely to be generally efficient or often possible. The two kinds of duties require very different kinds of knowledge, which would seldom be found combined in the same person, and if exacted, would dangerously limit the sphere of choice, and frequently end in neither kind of work being efficiently performed. For the limited number of higher posts of superintendent, teacher, and investigator, of which I am now speaking, special aptitudes and continuous application are necessary.

There can be no doubt that bacteriological work of the highest kind (although everywhere practicable) is conducted in India under special difficulties of climate and temperature, and in some cases it might be necessary to change the locality of the laboratory at different seasons of the year. The question will necessarily arise whether the persons to be appointed as superintendents of such laboratories should be selected from the Army Medical Services or from civil life. The disadvantages attending the adoption of the former alternative are so numerous as in my opinion completely to preclude its adoption. In the first place the specialisation of studies is now so great, and the field of work and course of training in each so highly developed, that the training and experience required to fit a man for medical practice in the army would render it impossible that he should simultaneously become sufficiently skilled and experienced in bacteriological work to fill the post in question. Moreover, the questions of seniority and juniority of rank, promotion by gradation, and the whole theory of official life in the British and Indian Services are entirely adverse to the conditions of scientific research and the mobility of arrangement essential for the efficiency of the laboratories. Officers of all ranks and positions might be expected to avail themselves of the facilities of such a laboratory, and official disparities of rank would in this relation be very inconvenient. The position and duties of the superintendent should be essentially professorial and unfettered by hierarchical considerations. Moreover, as I have before intimated, it would very rarely be possible to find a man of the highest technical qualifications and preliminary achievement in biological work in the ranks of the services, and seeing that it is an essential condition that the biological superintendent should be wholly devoted to his work, and not liable to be ordered or diverted to other occupations, there would be no advantage in his being on the strength of the Army or Indian Medical Service.

In selecting the bacteriological superintendent and investigator from civil life, the choice would not be fettered by any other considerations than those of his proved achievement and personal suitability. I do not anticipate that for the present any large number of such appointments need be made. One in each presidency would be sufficient. In reference to the question of cost, the necessity for the erection of buildings would rarely arise. The example of Agra shows that a roomy bungalow can be well adapted to the purpose at a very moderate rental. Dr. Simpson, of Calcutta, who is carrying on such excellent bacteriological work, and Professor Hankin at Agra, both inform me that native assistants can be successfully employed at little cost, while the working expenses of such a laboratory are relatively insignificant when once they have been provided with an adequate outfit. The salary of a superintendent, equivalent to £1,000 annually, would be but a nominal incident in the expenditure of each presidency.

The advantage derivable from such an institution in each presidency is, on the other hand, incalculable, and the present need for them so obvious and so urgent that they need no further argument to press them upon your attention. Apart from the direct and immediate benefit resulting from the work done in the laboratory itself, they would send out annually an army of officers trained there, in succession, for all primary and elementary bacteriological work, whose capacities would be immediately available, as they are now urgently required in every hospital, cantonment, and district appointment throughout the Indian empire. It must always be remembered that the village and the household, the hospital ward, the individual tank, the local well, are the units of sanitation, and that the first cases of parasitic diseases are the fountain and origin of spreading infection. Great works, costly buildings, large arrangements are constantly rendered inefficient, useless, and even dangerous by reason of small defects, and of the inability of those on the spot to recognise, trace, and remedy the elementary sources of danger.

I have referred above mainly to certain aspects of that science and art of preventive medicine, the importance of which is most popularly recognised and widely known. There are others, however, covering the whole range of malarial fevers, pernicious anæmia, beri-beri, anchylostomiasis, filaria, leprosy, etc., which are of high importance, and which cause great loss of life, but as to which comparatively little progress has been made in India owing to the deficiencies for which I am now venturing to suggest a remedy.

I am encouraged to do so first by the unanimity with which the Indian Medical Congress at Calcutta welcomed and supported the observations which I there made on this matter, and further by the sympathetic reception which you gave to the resolution on that subject, which I had the honour, as a member of the deputation from the Congress, of laying before you; and further, by the well known solicitude of the Government of India for the health and welfare of the troops and for the general body of the population under their charge. Of this solicitude ample evidence has been given, as you reminded me, by the large expenditure which has been made on costly Imperial works of sanitation, and by the ready adoption of those recommendations and proposals of medical and sanitary experts which have resulted in the reduction within the last few decades of the mortality of the troops from 69 to 15 per mille, thus practically adding to the strength of the army another army corps of like dimensions.

The proposals which I have made, in further development of the observations which I had the honour of addressing to you on behalf of the deputation in Calcutta, are unambitious and of no costly character, but there is reason to believe that their adoption would be beneficent and attended with far-reaching results.

As showing the growing and widespread sense of the necessity of such work in each presidency, as is being done in Agra, I may mention that during the few days that I spent there I found that applications had come for cholera vaccine matter for 6,000 coolies from Assam, which was being supplied; application for the investigation of the products of incinerators in Bombay had recently arrived; requests for the examination of substances connected with cholera outbreaks in Madras and typhoid outbreaks in Lucknow, sewage disposal in Naini Tal, and water filtration in Jubbulpore, were under consideration.

PRISON REFORM.

Report of the Departmental Committee.

The Departmental Committee on Prisons appointed by the Home Secretary last year in their report issued recently refer to the origin of their inquiry in the following terms: "In magazines and in the newspapers a sweeping indictment had been laid against the whole of the prison administration. In brief, not only were the principles of prison treatment as prescribed by the Prisons Acts criticised, but the prison authority itself, and the constitution of that authority were

held to be responsible for many grave evils which were alleged to exist."

It is satisfactory to see by the report that these serious charges have not been established to the satisfaction of the Committee. They report, on the contrary, that "the long and able administration of Sir E. Du Cane has achieved a large measure of success: that the central prison authorities have loyally and substantially carried out the various recommendations made from time to time, and that they have achieved in point of organisation, discipline, order, and economy a striking administrative success." They also refer to the "satisfactory sanitary conditions of prisons as proving good administration," and testify that the Commissioners have managed the prisons in their charge loyally in accordance with the Acts of 1865 and 1877, on which all their rules and regulations have been based.

Need for further Reformatory Treatment.

The general tenour of the report is to the effect that while the penal part of the prison treatment has been strictly and yet humanely carried out, the reformatory side of the question has been somewhat overlooked. How far this may be correct it is unnecessary to inquire. Suffice it to say for the present that the prison authorities have been guided by "hard-and-fast" regulations laid down in the Prison Acts, and that they have given every help and encouragement to their chaplains and schoolmasters, as well as to various aid societies, all of which agencies have hitherto been relied on in connection with the reformation of prisoners. The Committee suggest that these agencies should now be supplemented by outside help.

Decrease in Crime.

It is satisfactory to note that they find there is "a real and substantial decrease in crime." They also refute various reckless statements that have been made on such subjects as the failure of the prison system as a deterrent agency, imprisonment as a cause of insanity, and the severity of prison discipline and punishment, pointing out in reference to the latter that the great majority of prisoners serve their time without any punishment at all.

Insanity in Prisons.

A memorandum of Dr. Bridge's on insanity in prisons is interesting as showing how figures may mislead. Insanity, as might be expected, is higher among criminals than the general population, but it is still higher among paupers, as the reports of the Lunacy Commissioners clearly show, and it is matter of common knowledge that the greater number of lunatics are drawn from the lower ranks of society, from which also the prison population is mainly derived.

Recommendations as to Medical Administration.

The Committee recommends "that the medical staff at Holloway Prison should be strengthened, and further that an additional member of the Prisons Board should be appointed, who should be a medical man, which new office should take the place of the present medical inspectorship."

Both these changes are required. The medical officers of Holloway Prison cannot properly discharge the duties required of them at this large remand prison, and the present arrangement, by which one medical inspector for all the prisons of England and Wales acts as adviser to the Board, places on him responsibilities for the entire medical working of the prison system, which, coupled with his long experience and valuable services, fairly entitle him to a seat at the Board. Under the new system, however, so much administrative work will be required of the Medical Commissioner, that the abolition of the post of medical inspector seems to be a retrograde step.

The Classification of Prisoners.

Many of the recommendations of the Committee as to the treatment of inebriates and weak-minded prisoners, as to increased cell accommodation and increased amount of exercise, as to the establishment of a penal reformatory for prisoners between the ages of 16 and 23, and as to the abolition of unproductive labour, will be welcomed by medical officers generally: but fresh Acts of Parliament will be necessary to legalise some of them, and it can hardly be expected that they will all work smoothly at once. The rules, for instance, whereby prisoners between 16 and 23 can either be dealt with in the new penal reformatory or in prison, or can be transferred from one to the other, while contumacious inmates of reformatories can also be transferred to the penal reformatory, will probably be found very complicated in practice, and young offenders are likely to make their ages over or under 23, so as to suit their fancy for prison on the one hand or penal reformatory on the other.

The Habitual Criminal.

The Committee have dealt at considerable length with the habitual criminal. Admitting that "habitual criminals can only be effectually put down in one way, and that is by cutting off the supply," they nevertheless hold that "there are but few prisoners, other than those who are in a hopeless state through physical or mental deficiencies, who are irreclaimable." A closer acquaintance with the habitual criminal in the flesh would probably modify this view, and show that there are unfortunately people who make crime their profession, and that the "incorrigible rogue" of the courts has a real and flourishing existence. There can be no doubt, however, that the treatment suggested for these social pests is the right one, and that long cumulative sentences, for which the adoption of the Bertillon system of identification is preparing the way, are the best remedies for those who live by crime.

Remedies.

The report says "the main fault of our prison system is that it treats prisoners too much as irreclaimable criminals instead of as reclaimable men and women." This is evidently the keynote of the report. Hitherto the Prison Acts have made punishment the primary object of a sentence. The law breaker has had to perform at the beginning of his imprisonment hard labour of a monotonous and generally unproductive character. Gradually, by means of the Progressive Stage System, he worked his way to various privileges, which were for the most part of a reformatory tendency. The recommendations of the Committee will practically abolish this system, and subordinate the penal to the reformatory side of prison treatment. In many ways this will be an improvement, but whether the new plan will tend to improve the criminal off the face of the earth, or, on the other hand, to swell the prison population, will greatly depend on the judicious experimental adoption of the various remedies proposed.

The elaborate classification of criminals which the Committee suggest is clearly based on the idea of reclamation alone. If there is to be a special prison, or at least a separate part of a prison, for each of the classes—juveniles, habitual criminals, young prisoners under 23, first offenders, inebriates, and weak-minded prisoners—it is evident that a vast amount of reorganisation and much expense will have to be incurred by prison authorities. When they come in touch with the difficulties of the question, and try to reconcile them with existing bases of the present classification, which include various other factors besides reformatory objects, they will find their task an arduous one. The presence of a representative of the Prisons Board on the Committee of Inquiry might have had an effect in modifying the recommendation of so complicated a scheme, and it is a matter of surprise that no such representative should have been appointed. The acknowledged difficulties of a good system of classification of prisoners were formerly met by the "separate system," which this Committee hold, "as a general principle, to be the right policy;" but, by their recommendation, this system will in future be relaxed in favour of associated labour.

VACCINATION AND SMALL-POX AT WALSALL IN 1893-4.

XVI.

Dr. Scott Wilson, in his annual report for 1893 for the Borough of Walsall, has given the complete figures respecting the small-pox epidemic of 1893-94, and his data are worthy of reproduction. Briefly set out, they are as summarised in the following tabular statement (wherein we could have wished to see the facts as to revaccination finding place):

Walsall Small-Pox Outbreak—1893-94.

Age Periods.	All Classes.			Vaccinated.			Unvaccinated.		
	Cases.	Deaths.	Mortality per cent. of Cases.	Cases.	Deaths.	Mortality per cent. of Cases.	Cases.	Deaths.	Mortality per cent. of Cases.
Under 1 year	35	16	45.70	3	—	0.00	32	16	50.00
1 and under 5 years	91	27	30.60	24	2	8.30	66	24	36.36
5 ,, 15 ,, ...	196	8	4.10	127	—	0.00	66	6	9.09
15 ,, 25 ,, ...	365	12	3.30	325	2	0.62	37	10	27.02
25 and upwards	288	20	7.75	208	5	2.42	38	14	36.90
Totals	945*	83	8.80	687	9	1.31	239	70	29.30

* Of these, 19 cases were doubtful as to vaccination; 4 deaths took place among them, or 21 per cent.

The table is a telling indictment against antivaccination, and needs but few comments at our hands. Its chief points are to the effect that though the deaths at all ages for all classes of cases were at the rate of 8 8 per cent., there was wide difference in the rates for vaccinated and unvaccinated patients, a difference so great that when we represent the rate among the vaccinated as unity, that among the unvaccinated becomes no less than 22. Then if we split up the age periods, we find that whereas the deaths in both these classes at ages under 15 years were equal to 14.9 per cent., those among the vaccinated patients were only at the rate of 1.3, while those in the other class were as high as 28 0 per cent. of attacks. In other words, the latter rate was 23 times the former. And, again, whereas the vaccinated cases under the age of 5 years were but 4 per cent. of the total of that class, there were 41 per cent. of the other class under that age; and therefore at ages over 5 years the 96 per cent. of the vaccinated sufferers is to be compared with only 59 per cent. of the unvaccinated. And as regards deaths at ages under 5 years in one and the other section, the vaccinated patients died at the rate of 22 per cent. of the deaths in their class (2 out of 9 deaths); whilst the deaths were 55 per cent. of deaths in unvaccinated patients. The last point to which we direct attention is as follows:

Had the unvaccinated died at the rate only of the vaccinated, instead of 70 there would have been only 3 deaths.

Had the vaccinated died at the same rate as the unvaccinated, instead of 3 deaths there would have been 192 deaths.

"A DEPOT FOR CHOLERA:" KAMARAN.

THE condition of Kamaran continues to give rise to anxiety. "*Un entrepôt cholérique*" (a depôt for cholera) was the term applied to it by a French physician writing in the *Revue d'Hygiène* last year, and the phrase still expresses well the condition of things there. It is clear that, whatever may have been done to rectify the evils which were described to the Paris Conference as then existing, no effectual steps have been taken to render the place a sanitary station in the proper sense of the term, or even to make it safe as a place of call for the pilgrims on their way to Mecca.

It was definitely stated at the Paris Conference that, so far from the pilgrim ships importing cholera from India to the Hedjaz, they arrived at Kamaran free from disease, and that only after the proceedings at that place did cholera break out. This was not a mere general statement; the names of the ships and the dates of their arrival and departure were given. In an address to the Mohammedans of Calcutta Mr. Ernest Hart testified to the same thing. He said: "The first step the pilgrims have to take is to disembark and to pass to stations for the purpose of quarantine on the island of Kamaran. This step is taken, in theory, for further protection.....In point of fact, owing to the neglect of the local authorities, the great quarantine station is so shamefully neglected, so ill-provided, and so exposed to risks from the badness of the water supply that during those two days they frequently become infected with cholera. This is well known, and I can give you an authentic example of a recent date. I arrived in the P. and O. Company's steamer *Pekin*, commanded by Captain Langbourne. He made me a written statement that on the occasion he had to take to Djeddah, as commander of a transport, a number of pilgrims, many poor and many sick. He arrived at Kamaran without any sickness, and all were landed there for two days' quarantine. After re-embarking sickness broke out, and 11 deaths had already occurred from cholera when he landed them at Djeddah. This was due to the fact that they had been infected at Kamaran."

Naturally, then, Europe is anxious to know how far the promises made to the Conference have been fulfilled. Something, it is said, is being done. The Turkish authorities have practically admitted the contaminated state of the place by ordering the earth around the *arisches* to be dug away to the depth of a foot and replaced by clean soil, and other things are promised and may be in progress, but they are not yet done, and Kamaran is a pest house still, a great source of danger to the pilgrims to the Holy Places, to Egypt, and to Europe.

In regard to the recent outbreak we hear from the Medical Department of the Local Government Board, which keeps constant watch on such matters, that the *Mohammadi*, on which the first death occurred, arrived at Kamaran on March 16th, and that the first suspicious death took place in Kamaran amongst Mohammedan pilgrims on March 23rd. In other words, just as in the cases already mentioned, they caught it at Kamaran. This "sanitary station" (!), then, is certainly not yet reformed; it is a danger rather than a protection, and remains, as it was last year described in Paris, *un entrepôt cholérique*.

In the case of the other two ships spoken of as having brought pilgrims suffering from cholera to Kamaran, it turns out that cholera did not occur among the pilgrims brought by the *Jubeda* until some days after this ship arrived at Kamaran on March 24th. There was no disease on board then, and the first case of cholera did not occur until March 30th, whereupon a further term of quarantine was imposed. The other ship, the *Naseri*, had only a single case, and was eventually, after ten days' quarantine, allowed to proceed.

UNIVERSITIES IN ITALY.—According to a statistical statement recently issued by the Italian Ministry of Public Instruction there were 46 establishments of higher education in Italy in 1891-92. This number included 17 State universities, 4 free universities, and 3 university bodies connected with lyceums, besides upper normal schools, etc. The teaching staff of the State universities was composed of 862 professors, the University of Naples heading the list with 82, that of Rome coming next with 81; then came Turin with 73, Padua with 65, Bologna and Palermo each with 62, Genoa with 61, Pisa with 60, Pavia with 54, Catania with 47, Messina with 43, Parma with 41, Modena with 30, Cagliari with 32, Siena with 27, Sassari with 22, and Macerata with 11. There were besides 631 free lecturers. Naples again coming first with 176, and Sassari and Macerata last with one apiece. The four free universities showed a total of 79 professors. The total number of students on the books of the State universities was 16,940, of whom 7,229 were students of medicine. Naples has the largest number of students (4,580), Sassari the least (124). The number of degrees conferred by the State universities was 3,410, and by the free universities 101. Degrees and diplomas were also granted by the upper normal schools, etc., and the total output of persons qualified for the liberal professions in 1891-92 was 4,165.

BEQUESTS TO HOSPITALS.—The late Mr. William Stones, of Ashgrove, Sheffield, has bequeathed £250 each to the Sheffield General Infirmary and Sheffield Public Hospital and Dispensary; £200 to the Chesterfield and North Derbyshire Hospital; and £100 to the Jessop Hospital for Women, Sheffield.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

NOTICE is hereby given that the Library of the British Medical Association will be closed from May 24th till June 4th next for the purpose of cleaning and painting.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 10th and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—An ordinary general meeting of the Branch will be held in Milne's Library, 229, Union Street, Aberdeen, on Wednesday, May 15th, at 8 P.M.—C. THISELTON URQUHART, J. SCOTT RIDDELL, Honorary Joint Secretaries, Aberdeen.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at the Hospital, Gravesend, on Thursday, May 16th, at 4 P.M.; Mr. R. J. Bryden in the chair. Communications: Dr. W. Hale White: On the Increase during Epidemics of Influenza of Empyema as a Complication of Pneumonia. Mr. R. J. Bryden: A Case of Traumatic Encephalitis. The dinner will take place at the Old Falcon Hotel at 6.30 P.M.; charge, 6s. 6d., exclusive of wine. To facilitate the arrangements, gentlemen who intend to dine are particularly requested to signify their intention to the Chairman, Mr. R. J. Bryden, 21, Harmer Street, Milton-next-Gravesend, not later than Tuesday, May 14th. All members of the South-Eastern Branch are entitled to attend this meeting and to introduce professional friends.—E. GROUND, M.D., Honorary Secretary of the District, Ashford Road, Maidstone.

MIDLAND BRANCH.—The annual meeting will be held at Derby on Thursday, June 13th. Members desirous of reading papers or exhibiting cases are requested to communicate with the Honorary Secretary before May 27th. Gentlemen who wish to be elected to the Association through the Branch Council must send in their application by the same date.—W. A. CARLINE, M.D., Honorary Secretary, Lincoln.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Royal Infirmary, Newcastle-upon-Tyne, on Thursday, May 30th, at 4.45 P.M. Dr. Gowans will read notes on recent cases of Abdominal and Brain Surgery. Mr. Williamson will show preparations from a Melanotic Sarcoma of the Ciliary Body. The Secretary will be glad to receive notice of other communications. The dinner after the meeting will take place at 6.30 P.M., at the Douglas Hotel; 8s. 6d. each, exclusive of wine.—G. E. WILLIAMSON, F.R.C.S., Honorary Secretary, 8, Eldon Square, Newcastle-upon-Tyne.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT. An ordinary meeting will be held at the Portsmouth Medical Library, 5, Pembroke Road, on Tuesday, May 14th, at 9 P.M. Dr. Claremont will read notes of a case of Œsophagismus.—C. C. CLAREMONT, Honorary Secretary, 57, Elm Grove, Southsea.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Liverpool on Wednesday, June 19th. Gentlemen wishing to read papers, give demonstrations, or make any communication to the meeting, are requested to communicate as soon as possible with Dr. JAMES BARR, Honorary Secretary, 72, Rodney Street, Liverpool.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE fifteenth annual meeting of the Isle of Wight District of the Southern Branch was held at Ventnor on April 25th, 1895, Mr. CHAS. MEERES, President, in the chair.

Audit of Accounts.—The accounts of the district were audited and passed.

Anderson Appeal Fund.—A donation of one guinea to the Anderson Appeal Fund was made.

Poor Law Medical Officers Superannuation Bill.—A letter was read from the Representative to the Parliamentary Bills Committee, and it was resolved that the Secretary should be asked to represent to the member of Parliament for the island that the District will feel gratified if he is able to give attention to the Poor-Law Officers Superannuation Bill in the House of Commons.

Election of Officers.—The following were elected office-bearers for the ensuing year:—*President-Elect:* Dr. Robertson, Ventnor. *Vice-President:* Mr. Chas. Meeres, Sandown. *Secretary and Treasurer;* Dr. E. M. Shirtliff, Ryde. *Representative to the Branch Council:* Dr. Coghill.

President's Address.—The new President (Dr. SINCLAIR COGHILL) delivered an address on Immunity. He defined immunity in its medical signification as that condition of the organism which endowed an individual with the power of resisting certain specific infections. Immunity might be classed as (1) natural, and (2) acquired. Natural immunity might be (*a*) general, (*b*) limited, or relative; (2) acquired immunity again might be classed as (*a*) natural, or (*b*) artificial. Many theories had been advanced to explain the several conditions of immunity. Natural immunity had been supposed to result from greater vigour and vitality of constitution, but this was only partially so, as one saw the most robust succumb to infection which much less vigorous individuals successfully resisted. The immunity of these latter must be derived from some specific element in their organism, similar to that which remained after an infectious disease had run its course. This natural immunity, which increased with the age of the individual, had been sought to be explained by a slowly continuous minute infection from infancy, too feeble to develop the objective phenomena of the disease, but yet sufficient to produce in aggregate the protective influence of a full attack. The bacillus of diphtheria, the comma bacillus of cholera, the tubercle bacillus, and the pneumococcus had all been found on the mucous membrane of the mouth, fauces, and nostrils of individuals who had not developed in the slightest degree the specific morbid processes associated with these organisms. In this connection it might be asked, What part do the phagocytes play in the protective process? Do they attack the enemies at the gates as well as in the citadel? In acquired immunisation it had been suggested that in every individual there was a certain limited amount of material, the appropriate pabulum of the infecting microbes, which when used up their death and the resolution of the morbid processes ensued, but this would not explain all the phenomena. It seemed probable that acquired immunity resulted from the decomposition or transformation of the toxin into a corresponding antitoxin, which remained and protected. These antitoxins must be of a chemical nature, of somewhat stable composition, perhaps also capable of maintaining a permanent character. They must have their principal seat in the blood dissolved in the serum. That the antitoxins were not only protective but also curative of their corresponding toxins was probably one of the most valuable discoveries in pathology and therapeutics of recent times. It was strange to note the long intervals between the dawn of the idea and its several developments. The starting point was inoculation for smallpox, next Jenner's discovery, then the long pause until 1857, when Faye and Boeck, of Christiania, carried out their disastrous experiments in what they termed syphilisation, and next Pasteur's rabies antitoxin, followed by Koch's tuberculin, which was certainly of the nature of an antitoxin; and of the therapeutic efficacy of which, when judiciously employed, he (the President) was still convinced, and then more recently the antitoxins of tetanus and diphtheria.

Specimens.—Dr. J. W. WILLIAMSON exhibited Bronchial Blood Casts from a case of Pulmonary Consumption.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

A MEETING of this Branch was held at Cardiff Infirmary on April 30th, there being upwards of forty members present. This, the first meeting held late in the afternoon, and unaccompanied by the usual dinner, was most successful.

New Members.—Messrs. C. Davies (Pontlottyn), T. French (Cwmbach), and C. C. McCall, M.B. (Cardiff), were elected members of the Association and Branch; Messrs. J. H. Rees, M.D. (Penarth), C. H. D. Morland, M.B., and C. A. Griffiths (Cardiff), were elected members of the Branch.

Donations to the South of Ireland Branch Fund.—The sum of £5 was voted towards the fund opened by the South of Ireland Branch for assisting the medical men in Cork in their dealings with medical aid societies.

The late Mr. James Probert.—A resolution of deep regret at the death of Mr. James Probert, of Merthyr, one of the earliest members of the Branch, was passed unanimously.

Cases.—Dr. P. R. GRIFFITH (Cardiff) showed a case of Sporadic Cretinism in a girl, aged 19, under thyroid feeding, and read notes of the case.—Mr. J. L. THOMAS (Cardiff) showed a female patient suffering from Acromegaly, with Wernicke's symptoms, and read notes of the case.—Dr. SHEEN (Cardiff) showed: (1) A girl, aged 11, in whom Furneaux Jordan's Amputation at the Hip-joint had been performed three years previously for Acute Necrosis of Femur; (2) Cases illustrating Phelps's operation for severe Talipes Equino-Varus: (*a*) single, in which cure was complete and satisfactory; (*b*) double, still under treatment; (3) a case operated on fifteen years ago for Flexed Knee in an adult male, and treated with a metal splint, with rack and pinion movement of the joint (Ernst), in which the patient had been able to dispense with crutch and splint. Photographs of a similar case recently treated in the same way with a like result, the patient, however, not being yet able to dispense with the splint. (4) Case of Excision of Knee in a woman for tuberculous disease, operated on at the age of 29, in 1891, in which a drainage tube had remained embedded for two years. Firm union.

Papers.—The following papers were read: Dr. P. R. GRIFFITHS: Recent Abdominal Section for Intestinal Obstruction.—Mr. G. H. HOPKINS (Swansea): Inguinal Colotomy by a Simplified Method.—Dr. A. WILL. SHEEN (Cardiff): On the Ambulant Treatment of Fractures, etc., of the Lower Extremity; ten patients shown by kind permission of Drs. Sheen, Wallace, and Hardyman, surgeons to the Cardiff Infirmary.

Abuse of Medical Charities.—Dr. SHEEN read communication from the General Secretary, forwarding copy of recommendations on the abuse of medical charities. Three subcommittees were appointed to inquire into this matter in Cardiff, Swansea, and Newport.

SPECIAL CORRESPONDENCE.

PARIS.

Medical Societies in Paris.—The Association des Médecins de la Seine.—Summum Jus Summa Injuria.—Typhoid Fever and Polluted Water.

SOME astonishment is felt in the medical world that the meeting of April 16th at the Academy of Medicine was broken up because there were no communications (papers) to be read. The medical papers echo this astonishment and comment on the cause. The *Journal de Médecine* says one such incident would with reason pass unnoticed, but this "psychological scientific penury" has existed for some time in other medical bodies less distinguished, it is true, than the one now a victim to the malady. There are in Paris, without reckoning the district medical societies, a considerable number in danger of dying from inanition. According to Dr. Bovet de Pougues, the cause of this state of things is simply that there are too many societies. The remedy proposed by him is "one great unique society," entitled, "Société des Sciences Médicales et Naturelles de Paris."

The Association des Médecins de la Seine, founded in 1833 by Orfila, for the benefit of the unfortunate members of the medical profession, recently held its 64th general meeting under the presidency of M. Brouardel. The yearly receipts amount nearly to £4,000. Six members, 53 widows of members, and 22 other persons have been assisted during the year. Three life pensions of £48 have been granted to sick and infirm members. Nearly £2,000 has been distributed in the above manner; £144 has been capitalised.

The *Médecine Moderne* publishes the following facts: The widow of a medical man summoned a patient of her late husband to pay his fees which had been owing for two years. The books showed very clearly that the money was due, and the debtor was about to be condemned to pay, when the judge asked him if he would invoke the "law of prescription," explaining that it meant questioning the right of the creditor to sue; the debt having existed two years when one year is the legal limit. The defendant acted on this hint, and the poor widow was non-suited.

At a recent meeting of the Comité Consultatif d'Hygiène Publique de France it was stated that typhoid fever has recently broke out at Besançon. The first case appeared on March 29th. On April 12th there were 21, in 18 of which the patients were soldiers. The significant fact in this epidemic is that the fever broke out in and was limited to that part of the town where water of the Darcier spring is used for potable and other purposes.

ROME.

Foundling Hospitals in Italy.—Immunisation against Anthrax.—Clinical Thermometers.—Honours to Medical Men.

A CONGRESS relative to the care of abandoned infants will be held this year in Milan. Italy at the present time lags much behind several of the European nations in respect to the laws relating to the guardianship of abandoned infants, and in consequence of the uncertainty and insufficiency of these laws the various provincial authorities throughout the kingdom vary immensely, not only in the provision of hospitals, but also in the regulations made for the reception and treatment of the foundlings. The absence of a general law leads not infrequently to a good deal of friction between the different provincial authorities, and the expenditure for the reception and maintenance of the exposed varies from almost nothing in some provinces to what is considered a very excessive amount in others. In the latter provinces this great expenditure is due largely to infants being admitted to the hospitals without any inquiries being made as to maternity, and therefore without the least chance of any reimbursement to the provinces. A notable exception, however, to this condition of matters is Rovigno, which has been for some eight years the means of causing a great saving in expenditure, chiefly through establishing a rule that the inquiries of maternity should be undertaken by the hospital authorities before the foundlings were admitted, instead of leaving them to the latter when they were old enough and desirous of doing so. As there appears to be considerable doubt whether the hospital authorities have the legal powers to enforce this regulation, it is one of the chief questions which will be discussed at the coming Congress. The arguments in favour of its adoption are: That it establishes the residence and pecuniary condition of the mother as to her being able to pay for the support of her child; that the mortality of those brought up by their mothers is much less than those in the hospitals; and that it lessens the chance of the diffusion of syphilis. There are also, it is stated, considerable moral advantages in its favour, as many mothers who have been seduced or led astray return to a moral life, and, not rarely, marry the father of the child. The main objection urged against its adoption is the probable increase of infanticide, but the experience of Rovigno and Milan disproves that.

At the Zootechnical Exhibition recently held in Turin, Professor Perroncito exhibited a young bull, seven months old, which he has immunised against anthrax. Anthrax is very prevalent in many parts of Italy, and the owners of cattle lose several million francs yearly through the disease. The Government publish a weekly bulletin of the epizootic contagious diseases in the kingdom, in which anthrax figures largely in comparison with the other contagious diseases. The professor is desirous that complete immunisation should be carried out not only for bulls, but also for cows, goats, and sheep intended for reproduction, in order to prevent the injuries produced by anthrax, and to overcome the practical difficulties which present themselves in the ready actualisation of anthrax vaccination. If there are, he said, breeds and species of animals perfectly immune, and others very susceptible to the virus in the same genus and species, with vaccination and saturation of the virus of the producers, one can obtain, if not immediately, in no distant time, descendants naturally resistant to the disease.

The Minister of the Interior has issued a circular to the

prefects of the kingdom notifying that nearly all the clinical thermometers at present sold in Italy are inexact, notwithstanding certificates to the contrary. He requests the prefects to make this fact known to medical men and others who require these instruments, and that only those thermometers which have the royal coat of arms incised in them, at the central metrical laboratory in Rome, are certain to be exact.

Professor C. Golgi, whose work in connection with malarial fevers in Italy is well known, has been made Commendatore of the Ordine dei SS. Maurizio e Lazzaro, and Professor Maragliano has been nominated Grand Officer of the Crown of Italy.

CORRESPONDENCE.

THE OBSTETRICAL SOCIETY AND THE MIDWIVES QUESTION.

SIR,—I am sure that there is a large section of the profession who cordially thank Dr. Champneys for having helped to raise the question of the registration of midwives from the level of mere professional polemics to that standpoint from which alone it will be judged by Parliament, namely, the public good.

It is no concern of Parliament whether the licence of the Obstetrical Society is a diploma or not; it will not consider the possible loss of a few confinement fees by medical men a matter of any weight. What it will consider is the patent fact that a vast number of women in our large towns, either from necessity or choice, are attended by women without any other qualification in most cases than that they have had more or fewer children of their own, or are burdened with a drunken husband. It will have evidence from coroners' courts and police magistrates that times without number deadly results have attended the proceedings of self-called midwives. The proverbial three courses are open to Parliament: It may leave things as they are; it may attempt to put a stop to the practice of midwifery by any but fully qualified practitioners; or it may require of all persons before professing to practise as midwives that they shall give reasonable evidence of their competency.

Can any unprejudiced person doubt which course Parliament will take? Even in the profession there are no avowed supporters of the first course, and there are certainly none out of it. As to the second, there is no hope that either a paternal or a maternal Government will adopt it. We must awake, then, to the fact that sooner or later Parliament will take the third course, and declare that England shall no longer be the only civilised country that leaves those of its women who prefer or are compelled to employ them, to the mercy of midwives, "untrained, uncertificated, possibly septic and fatal." I say "prefer," because there are now increasing numbers of women above the lower ranks who show that preference for the services of women in their hour of peril and pain which must meet with the sympathy of every man in the profession. And will the public who yearly subscribe large sums to give our Eastern subjects the help of qualified medical women, deny to our poor at home any test of the competency of their midwives, or fail to stigmatise our opposition to the project as interested and selfish?

Coming to the narrower view of the question, and judging as to the manner in which it will affect the pecuniary and general interest of the profession, I believe that there is no general apprehension with regard to it, but rather that there are, on the contrary, a majority of practitioners who would welcome the advent in their neighbourhood of competent qualified midwives, and would even gladly hand over to them the great part of their "guinea midwifery," the poorest paid and most irksome part of their work.

Therefore, Sir, it appears to me time that the many supporters in the profession of this excellent measure should do a little "agitation" on their own account, and give reason for the faith that is in them, not so much by occupying your valuable space, as by influencing to its support those members of either House to whom they can appeal.—I am, etc.,

Felixstowe, May 7th. C. G. HAVELL.

SIR,—The oftener I read the address of Dr. Champneys, as reported in the BRITISH MEDICAL JOURNAL of April 27th, the more I think he is poking fun at us. His references are so ludicrously inaccurate that they bear this idea out. I have already referred to some of them. There is another very gross misstatement of fact by Dr. Champneys which I must refer to. He speaks of the late action between the General Medical Council and the Royal College of Physicians of London, and refers to this trial as a case which shows that the General Medical Council was quite wrong—just as he contends the General Medical Council is wrong in its present action *re* the granting of licences in midwifery by the Obstetrical Society. I contend, however, that the General Medical Council was quite right, and the proof of this is that even now the diploma granted by the Royal College of Physicians of London cannot be registered in the *Medical Register* as a full qualification in medicine, surgery, and midwifery. If it were, why does the College of Physicians still combine with the College of Surgeons to carry out their conjoint examination? No doubt the trial proved that the College of Physicians had power to examine and grant a diploma in surgery as well as in medicine, but it is not a full qualification for registration. The case will be found reported fully in the 63 *L.T.R.*, N.S., 496, Q.B.D.

There is, however, an almost more important reason why the Council "fought" this case, and the reason is that it shows that the penal powers of the College against those who practise physic without being qualified are as full of life and vitality to-day as they were in 1518, if only the College would use them. On September 23rd, 1518, Henry VIII granted a charter to the College, and the following penal clause occurs: "We have also granted to the same President and College or Commonalty and their successors that no one in the said city, or for seven miles in circuit of the same, shall exercise the said Faculty (of Medicine), unless he be admitted thereto by the said President and Commonalty, or their successors, for the time being, by letters of the same President and Commonalty, sealed with the common seal, under pain of one hundred shillings *for every month* during which, not having been admitted, he has exercised the same faculty; half thereof to be paid to us and our heirs, and half to the said President and College."

This charter was confirmed in 1522 by the 14 and 15 Henry VIII. cap. 5, and it also extended the penal jurisdiction of the College to all England. It was also confirmed by the 32 Henry VIII, cap. 40, 1540, and by the 1st Mary, Sess. 2. cap. 9, 1553. It is a most important point when a charter has been confirmed by a public Act of Parliament. I quote this to show that as the powers of the College to grant a diploma in surgery as well as in medicine hold good in 1894, although granted in 1518, it follows that its penal powers also hold good. Hence Dr. Champneys is quite wrong in pooh-poohing the General Medical Council for having fought this case.

Bearing upon the above, I would also point out that if Dr. Champneys wishes his readers to think that anyone can practise medicine without being qualified, he is again wrong. The above reference shows this; a reference to the charters of the other colleges proves this. A reference to the Apothecaries Act, 1815, England, Section 20, shows that if any person practise medicine and supply medicines without having the certificate of the Apothecaries' Society, London, he can be fined £20 for every such offence. It also provides that if any person act as an assistant to an apothecary, without the certificate of the Society, he may be fined £5 for each offence. Again, if he will refer to Section 26 of the Apothecaries Act, Ireland, 1791, he will find that if any person act as an apothecary in Ireland, without having the certificate of the Hall, he can be fined £20 for every offence. Again, if he will look up the Pharmacy Acts of England and Ireland he will find that if any person not qualified in medicine or pharmacy sell a scheduled poison, he may be fined £5. I need not refer him to Section 40 of the Medical Act, 1858, where a fine of £20 can be imposed upon those who falsely pretend that they are recognised by law as practitioners in medicine, surgery, and midwifery. In fact, the powers at present at our hand—if only practitioners would shake off their selfish carelessness—are great, and I am sorry that Dr. Champneys, by his state-

ments, affords encouragement to quacks and impostors.—I am, etc.

Liverpool, May 5th. ROBERT R. RENTOUL.

SIR,—I have for some years taken part in the management of the General Lying-in Hospital, Lambeth. I have therefore watched with interest the controversy upon the above subject, which may result, it would seem, in our being no longer able to avail ourselves of the examinations of the Obstetrical Society for our pupil midwives, even if these women may not have to give place entirely to the person who figures in the early records of the hospital under the title of "the man midwife."

Mr. Victor Horsley stated in the BRITISH MEDICAL JOURNAL of May 4th that the intention of the law is that only properly-qualified persons shall render aid in sickness and be paid therefor. This may be so, but the law does not express that intention. All that the law says is that only those persons whose names are on the *Register* shall assume certain specified designations and perform certain specified functions. However good a man's qualification may be, unless he is on the *Register* he is excluded from these privileges, but from nothing else.

If Mr. Horsley should in his next attack of influenza, having exhausted the resources of the registered faculty, send for a "wise woman," she would, after the approved and registered manner, order him to go to bed, and to stay there until he felt himself better or until he was fetched by the undertaker, and she would also compel him to pay for her time and labour just as if she had been "properly educated."—I am, etc.,

HENRY OWEN, B.C.L.Oxon.,
General Lying-in Hospital, Lambeth, May 7th. Hon. Sec.

SIR,—It will interest many of your readers to know the use to which diplomated midwives are being put. We had an object lesson here a short time ago. The Board of Guardians were dissatisfied with the old method of getting their midwifery done by an untrained midwife, so they asked the district medical officers to the Board to tender for the work; the latter offered to do all the Board's midwifery at £1 per case all round, without any extra fees for operations, etc. The employment of one of these diplomated midwives was being pressed upon the Board at the same time, and it agreed, as she would be cheaper, to employ her. Now, Sir, I hold that this pitting of duly-qualified medical men against an unqualified though diplomated midwife constitutes gross sweating of the medical profession; it also prevents the Board's midwifery being done in the best possible manner. I am therefore very glad to read to-day that the Local Government Board have refused to sanction the appointment.—I am, etc.,

Leicester, May 6th. REGINALD PRATT, M.D.

MIDWIVES AND STILLBIRTHS.

SIR,—We desire to draw special attention to the enclosed excerpts from Manchester papers bearing on the question of the unauthorised practice of medical art by "midwives."

The "diplomas" sold to these persons—condemned four times by the General Medical Council—lead the public (and indeed some coroners) to believe that the holders are "competent" in some sort of way; and that their evidence is of equal value to that of an "expert (specialist) witness."

The question before the two coroners has hitherto been regarded as difficult to determine, and very important. If persons, however, of three months' "education" can settle such questions, it will help Dr. Champneys in his arguments in favour of their "registration."

We are forwarding to the President of the General Medical Council copies of reports.—Yours, etc.,

WM. HUGH HUGHES,
Chairman,
COLIN CAMPBELL,
Hon. Sec.,
Lancashire and Cheshire Branch Committee.

Manchester, May 6th.

*** In the first case, according to the evidence as reported at the *Cheatham and Crumpsall Guardian*, the midwife gave a certificate that the child was stillborn, whereas she was not present at the birth, and knew only, as she admitted, that the child was dead when she arrived. The certificate was given on a printed form, which the midwife said she had printed for her. The medical evidence was to the effect that the child was fully developed, and weighed 8 lbs. There were no external marks of violence, the lungs showed that no air had passed through them though the child might have given a gasp. If a skilled person had been present the child might have lived. The foreman of the jury expressed the opinion that the midwife ought to be censured for interfering. The deputy coroner (Mr. Smelt) agreed, and observed that the midwife seemed to have used the certificate as a lever to get money. If she had thought she was not going to get paid she would not have given any certificate at all; but, knowing the child was dead when she got there, she held it out as an inducement to prevent these people any trouble. He requested the police officer present to bring the certificate to the notice of his inspector, who should lay it before the superintendent with the view of ascertaining whether the police could not deal with the matter. The practice ought to be put a stop to. The case ought to be reported to the chief constable.

The second case is a corollary of the first. According to the report in the *Manchester Courier*, an inquest was held by Mr. S. Price, the county coroner, at Moss Side, as to the death of an infant male child, recently born, whose body was found in an ashpit. The remains were taken to the mortuary of the Moss Side District Council. They were examined by a midwife living in the neighbourhood, who came to the opinion that the infant had not breathed after it was born. The jury returned a verdict that the child had been stillborn. So far as appears from the report before us no medical evidence was called.

CASTRATION FOR ENLARGED PROSTATE.

SIR,—The profession owes a deep debt of gratitude to Dr. Faulds for having called attention so plainly in the BRITISH MEDICAL JOURNAL to the disastrous consequences that may follow castration for enlargement of the prostate. I cannot help thinking, however, that his experience in this matter is exceptional, and that he must have met with some strange succession of coincidences. With regard to the results of others I cannot speak. It is not unlikely that there have been instances of premature publication of rushing into print within a few days of the operation before the final result could be known. But I am convinced from the very large amount of correspondence I have had upon this subject from all parts of the kingdom that there are not many unsuccessful cases suppressed. My own experience is entirely at variance with that of Dr. Faulds. I have operated upon six cases myself, and I have records of seven others in which I have been consulted or which have been communicated to me privately by friends (exclusive of two of those mentioned by Dr. Faulds, of which I had heard from Professor Clark, of Glasgow). One of my own, as mentioned in my paper at the last meeting of the Clinical Society, proved fatal on the eleventh day from heart failure. Another, the first case that was operated upon in this country, died at the age of 82 during the recent very severe weather, nine months after the operation. The rest, including all of those of which a record has been sent me, are doing well, and are not suffering in any way from mental troubles.

The statement so often made that the pulse suddenly drops when the cord is tied or the vas deferens divided is, I believe, a myth. I have often asked independent observers to watch while the operation was being performed, and have never yet found it corroborated. But for all that, there can be little doubt that castration is attended by a more severe degree of shock than other operations of a similar gravity and duration, and that in old men suffering from enlarged prostate, in whom mental equilibrium is often very unstable, the disturbance due to the anæsthetic and the operation may be sufficient to precipitate and perhaps cause an upset. That this is the probable explanation, and not the sudden loss of any specific influence exerted by the testes upon the mental powers, is shown by the fact that a similar occurrence has never, I believe, been recorded in younger men, and that in two of the cases mentioned by Dr. Faulds, only one testis was removed. This does not make the results of the opera-

tion less grave, but it may help to suggest a way by which they can be avoided in future.

The measure of success, so far as the recovery of voluntary micturition is concerned, to be attained by this operation depends partly upon the condition of the bladder, partly upon that of the prostate. If the former has been ruined by long-continued septic cystitis and catheterism, it cannot of course be restored. If the latter is in the comparatively early stage of vascular engorgement and adenomatous overgrowth, recovery is rapid (there are several cases on record, too many to be ignored, in which voluntary micturition has returned within a few days, and some even within a few hours, of the operation). If, on the other hand, the stage of fibroid condensation has set in, and the prostate is hard and dense, as described by Dr. Faulds, it may be some months before there is definite improvement. Atrophy of such a structure must be very slow.—I am, etc.,

Wimpole Street, W., May 4th. C. MANSELL MOULLIN.

SIR,—Dr. A. G. Faulds, after recording in the BRITISH MEDICAL JOURNAL of May 4th, p. 974, 5 deaths in 6 cases of castration for enlarged prostate, has thrown this result into bold relief by contrasting with it 39 successful cases quoted by other operators.

Referring to a series of 9 successful cases which I published in the BRITISH MEDICAL JOURNAL of March 16th, p. 578, he points out that I have not yet fulfilled my promise made in that article of reporting "the final condition later on" of the two which were in progress when the article was written. I have just seen both these patients. One was *en route* for active work on the Continent; he considers himself absolutely cured. The other pronounces himself to be decidedly relieved. I, however, reminded him that I had warned him that the maximum amount of benefit from the operation in his case would not be experienced until after six months. I shall hope to mention the final result of this latter case in my next series.

Up to this date neither my patients nor I have been disappointed with the results of orchotomy; but then the greatest care was taken to select only those who were likely to be benefited by it, many being rejected on account of deficient renal power. Moreover, extravagant hopes of a rapid and complete cure were not held out to the patients, and only that measure of relief which was authorised by the degree of atony of the bladder or the grade of cystitis, was promised.—I am, etc.,

Savile Row, W., May 6th. E. HURRY FENWICK.

THE REVISION OF THE *PHARMACOPŒIA.*

SIR,—Having dispensed my own medicines for thirty-seven years, you may possibly spare me space to say I always use the tinctura ferri sesquichloridi and spiritus ammoniæ aromaticus (*P.L.*) in preference to the tinctura ferri perchloridi and spiritus ammoniæ aromaticus (*P.B.*). Both are important preparations, and those of the *Pharmacopœia Londinensis* are free from the objectionable nitrous fumes of the one and the rebellious oil of lemon and oil of nutmeg of the other. Again, the tinctura cinnamomi co. (*P.L.*) is much superior to the sickly tinctura cinnamomi (*P.B.*). The same might be said of other changes which in practice are not improvements.—I am, etc.

May 4th. MEMBER B. M. A.

COVENTRY PROVIDENT DISPENSARY.

SIR,—We are glad to be able to inform you that at the annual meeting of the above institution held on Tuesday last, the resolution passed in May, 1893, to which you have several times taken exception, namely, "That the institution being now self-supporting, the pecuniary position of an applicant shall be no bar to admission," was rescinded. The proposition that it be rescinded was made by the Chairman of the Committee, seconded by the Vice-Chairman, and carried by the meeting unanimously. This was the result of the strong representations which we, the staff of the institution, had made to the members, at a meeting specially called for the purpose, of the position in which the resolution placed us. The result of this is that the institution reverts to the lines on which it has been conducted for over sixty years, namely, that it is an institution for the working classes, and that the names of all applicants for admission are submitted to the monthly meeting of the Committee, who exercise their discretion in refusing or accepting them. We trust that this will convince you that we are as anxious as you are that our institution should be conducted on principles which are recognised by authorities in our profession.—We are, etc.,

D. MCVEAGH. W. J. PICKUP, M.D.
MARK FENTON. T. A. HIRD, M.B.
CHARLES DAVIDSON, M.D.

Coventry, May 1st.

THE ORGANISATION OF THE MEDICAL PROFESSION.

SIR,—When reading my paper on The Necessity for a Central Medical Organisation, before the Hunterian Society on Wednesday, April 24th, the time at my disposal did not allow of more than a very brief sketch of the organisation I proposed. It was, I think, generally agreed that an organisation was necessary, and that there is no organisation at present which meets the necessities of the profession. As there was a slight misunderstanding about the scheme I suggested, will you allow me to give it a little more in detail?

I suggested a co-operative association which embodied the following ideas: It consisted, in the first place, of a union of medical societies, whose members supplied the funds—either as shares or as subscriptions guaranteed for a number of years, preferably the former—which are essential, in my opinion, to the success of any undertaking of this nature, or with this object. The local organisation of the profession would be carried out by boards in each district, and from these boards delegates would be sent to form the board of directors of the association. This board would, therefore, be composed of medical men in direct touch with every part of the kingdom. Through it local as well as general unity of action might very well be arrived at. The medical societies of the United Kingdom include, on the average of the three kingdoms, about 50 per cent. of the medical profession, and might, therefore, be utilised for the purpose suggested.

Such a co-operative association with money at its command would be capable of successfully meeting the many lay, as well as the so called charitable, competitors we have to contend with. It should cope with the prescribing chemist, with medical aid associations, with the abuses of hospitals and public dispensaries, and with provident dispensaries and their "sweating" system. I will only refer to the method by which it might deal with lay medical aid societies, as this point was specially animadverted upon in the discussion which followed the paper. By the transference from the lay companies to the medical co-operative association of the business of the former, the medical officers now attached by bond or by necessity to them would be freed from lay restraint and from "sweating." This could, I have every reason to believe, be accomplished by the process of underselling them, or by buying them out, or by both methods combined, and without much difficulty. I cannot see that this would bring the association into conflict with the tenets of medical etiquette. Obviously it need not affect the medical officers, and, as I calculate, will not affect their earnings. One important result of such action would be that insurance societies would be very chary of embarking capital in a business when they knew that they would be systematically undersold to an extent which would cause them to fail to earn a dividend.

Such an association as I have suggested would have far more power over its members than any body supported by voluntary contributions. It would unite the existing protection, insurance, etc., medical societies, and could afford its members exceptional facilities in supplying them with drugs, instruments, etc., at manufacturing or greatly reduced rates, 35 per cent. being commonly added to the cost of production.

In conclusion, I shall be happy to hear from any medical men who agree with me as to the necessity for a central medical organisation, and if together we can produce a workable scheme, and can start it, the amount of time expended on such an object will be well repaid in feeling we have benefited our profession.—I am, etc.,

Fellows Road, N.W., April 29th. F. R. HUMPHREYS.

OBITUARY.

Sir GEORGE BUCHANAN, M.D., F.R.S.,

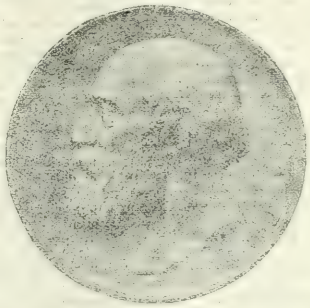
Late Principal Medical Officer to the Local Government Board.

It is with sincere regret and under a deep sense of loss that we record the death, which took place on the morning of May 5th, of Sir George Buchanan, M.D., F.R.S., LL.D., late Principal Medical Officer to the Local Government Board. The death, though sudden, was perhaps not quite so great a shock to his personal friends as it would have been had Sir George been in his usual physical health. As a matter of fact, he was known to a few intimate friends to have been for some time in a condition which gave rise to some anxiety, and which a short time ago led him to see the necessity for an operation if his life was to be prolonged.

When Lord Basing died, and the chairmanship of the Royal Commission on Tuberculosis thus became vacant, Sir George, despite the pressing nature of his personal ill-health, felt it none the less incumbent upon him to accept the place so vacated; and the recent report of the Commission testifies to the continued ability which he displayed under very trying conditions. The report issued, Sir George placed himself in the hands of his trusted advisers, Dr. Ringer and Mr. Bilton Pollard. An operation took place on April 27th, with completion at a later stage last week, the results being in every way eminently satisfactory and convalescence fully established. A sudden change, however, set in on the morning of Sunday, May 5th, and Sir George died within a few minutes from failure of the heart's action.

The death of Sir George Buchanan has removed from our midst one who from the commencement of his long career has devoted himself to secure the advancement of those branches of preventive medicine which have for their object the welfare of the people. In thus acting Sir George followed those natural instincts of his generous character which ever led him to sink self in his desire to benefit others.

Sir George was born in London in 1831. He was the son of the late Dr. G. Adam Buchanan, of Myddelton Square, and received his preliminary education at University College School. Subsequently he attended University College, London, taking the degree of B.A., 1851, and graduating as M.B., 1854, and M.D., 1855. He gained a medal in biology and comparative anatomy, and medals and scholarships in medicine and surgery, and was elected a Fellow of the College in 1864. He was at one and another time Resident Medical Officer in the London Fever Hospital, Physician to the hospital (from 1861 to 1868), and Consulting Physician thereto, as also Physician to the Hospital for Sick Children in Great Ormond Street. Whilst practising as a physician he was elected a Fellow of the Royal College of Physicians in 1866, and in 1867 he delivered the Lettsomian lectures on Lung Diseases of Children. Sir George largely identified himself with, and had much to do with directing, the work of University College for many years, and in addition to his Fellowship was elected to the Council in 1864. He became a Fellow of the University of London in 1882, and was a member of the Senate until his death. He took an active interest in the work of the University, and his efforts contributed to secure the establishment of Convocation by the charter of 1858. Sir George was further instrumental in obtaining the admission of women to degrees at the University of London, and in affording them opportunity of university education. His membership of the Society of Apothecaries led to constant recourse to his advice by the Society's officers, and to his election to the Court of Assistants. Among other offices Sir George held the Censorship of the Royal College of Physicians from 1892 to 1894; he was one of the original members of the Clinical Society; he held an important place in the Society of Medical Officers of Health; he was President of the Epidemiological Society in 1881-82, during which session he read as his inaugural address a paper on Aids to Epidemiological Knowledge, and received the honorary degree of LL.D. from the University of Edinburgh in 1893. Some twelve years previously he had been elected to the Fellowship of the Royal Society. He was one of the Vice-Presidents of the Section of Preventive Medicine at the International Congress of Hygiene, held in London in 1891.



Obverse of the Buchanan Royal Society Medal.

His first public post was as Health Officer of the district of St. Giles, where his original researches as a pioneer of sanitation as a science soon attracted attention, his special points of study being the relation to public health of overcrowding on area and in houses, and the collection of statistics in reference to public health questions, such as had never before been collated. He was active in devising means for the prevention of small-pox, and in organising measures for the repression of cholera in 1866. His work early led the State to demand his services in the Medical Department of the Privy Council, and from 1861-69 he was more and more busied with important matters of high public interest, including an elaborate inquiry into the working of the Vaccination Laws in 1861 and later years, the result being the amending Act of 1867. His inquiries into epidemic typhus in the time of the cotton famine of 1862 involved actual residence in the invaded areas. His classic investigation of the effect on the public health of works of sewerage and water supply led up to his well-known and comprehensive inquiry into the relation of subsoil water to the prevalence of phthisis. This inquiry showed "beyond any possibility of question that dampness of soil is an important cause of phthisis to populations living on the soil."

Two years after his permanent appointment as an Inspector of the Privy Council Medical Department, Sir George removed with the Department to the newly constituted Local Government Board in 1871, and there as Assistant Medical Officer, and after 1880 as Principal Medical Officer, and until his retirement in the early months of 1892, he continued to display a remarkable facility for the central administration of the Department charged with the function of caring for the public health of the whole country. His admirable introductory reports dealing with the highest branches of sanitary science, in the seventeen volumes of Reports of the Medical Officer, which were issued from his Department during his term of office, were valuable and suggestive contributions to the general bulk of knowledge. Whether we have regard to his work in reference to vaccination as a branch of preventive medicine; to hospital accommodation in relation to disease repression; to his studies of the etiology, pathology, and bacteriology of infectious diseases, alike of human and animal origin; to his care for the sanitary advance of the country; or to his well-directed labours for the safeguarding of our shores from exotic disease; indeed, from whatever view-point we regard his unceasing endeavours to maintain England's proud position as the leader of the nations in matters sanitary, we are bound to think of him as foremost amongst sanitary workers.

On his retirement in 1892, Dr. Buchanan received the honour of knighthood. From his medical brethren throughout the country he later received a gratifying memorial, which he devoted to the founding of a gold medal to be granted triennially by the Royal Society for distinguished services in sanitary science. We have already referred to

his chairmanship of the Tuberculosis Commission, the last public duty which he undertook.

Sir George was twice married: first to Mary, daughter of the late Mr. George Murphy; and secondly to Alice, daughter of the late Dr. Edward Seaton, who survives him. He leaves two sons and four daughters; his eldest son (Dr. George Seaton Buchanan) having received quite recently a post for which he is eminently qualified in his father's old department, now under the distinguished leadership of Dr. Thorne Thorne, C.B., F.R.S.

Sir George Buchanan leaves behind him a record as unique as he was himself unique, alike in his unselfish regard for the good of others—oftentimes to his personal disadvantage—his charm of manner, his generosity of temperament, and his ability to win the confidence, respect, and affection of all with whom he came in contact.

One who Knew Buchanan well sends us the following:

"It is not easy for those who knew Buchanan intimately to write of him within so short a time of his death. The affection which his friends have felt for him now deprives them of the ability to discuss in any proper manner the qualities which endeared him to them. But if I were asked which of these qualities might be most readily referred to in the pages of a journal read by medical men, I should say that his high sense of duty and his entire self-forgetfulness are those by which he will be always remembered. Endowed with splendid abilities, he devoted them to the service of his fellows without stint, and in no single action of his life did he seek for the rewards which outside the public service come to those who could labour so successfully as he. To know that his life was of use to others was the chief—indeed, the only—recompense he coveted. But, though often wearied in later years, his work itself seemed an absolute necessity to him. Quite recently, in discussing the public service, I commented on the fact that little or no distinction appeared to be made between those who laboured to the full and those who gave but half service; but, I added, I supposed the world was somewhat the better for the work of those who laboured to their utmost. 'Immeasurably better,' he said, without a moment's hesitation, and added at once, 'and the worker, too, has the best of it.' Buchanan was undoubtedly right, and the sorrow of his friends is now a testimony that the worker is not forgotten."

A Life-Long Friend writes:

"It would probably be impossible at this time of day to disentangle Buchanan's share in the work of sanitary reform from that of those associated with him in the earlier part of his career. Unquestionably, however, he was, from the purely scientific point of view, one of the leading spirits in the great movement for the better safeguarding of the public health which has been one of the most notable facts during the last thirty years, and no single man has had a more powerful influence both in placing and in keeping England in the forefront of sanitary progress. Although his name is not associated with any momentous discovery, he rendered services of transcendent value to medicine and pathology, as well as to hygiene, by the indefatigable industry with which he collected, and the keen criticism with which he sifted, facts, and the scientific insight with which he interpreted their exact meaning; in this way he was able to solve many important problems, and to throw light on many obscure points. His reports on the connection between enteric fever and a polluted water supply, and on that between phthisis and subsoil water not only once for all placed the truth as to these points on an unassailable basis for scientific men, but by the clearness of the exposition and the rigorous exactitude of the demonstration, carried conviction to the public mind. Buchanan's habit of mind was one of the most scrupulous accuracy, and he was extremely cautious in drawing conclusions; but when once he had satisfied himself that a particular view was correct, he was earnest in maintaining it against all opposition from whatever quarter. During all the time he was at the head of the Medical Department of the Local Government Board Buchanan was especially active in promoting scientific research, and he was not always at the pains to conceal his impatience with politicians who failed to realise the importance of such work. It must be admitted that he never cared to go out of his way to conciliate the statesmen who were successively his official chiefs; he never hesitated to tell them what they should do, and the frankness with which he expressed his views occasionally caused a little friction between him and the superior powers. Of all the official chiefs under whom he served the one with whom he was most heartily in accord was Mr. Arthur Balfour, whose philosophic breadth of mind made him more interested in scientific research and more appreciative of its practical importance than the average politician. Buchanan had to a very remarkable degree the quality of applying his whole mind to the matter in hand, regardless of his surroundings. He wrote with great facility, and would sit down with a number of people talking around him and draw up a report in which all the points of a complicated question were set forth with admirable lucidity. His reports, apart from their scientific value, have very considerable literary merit.

ARTHUR E. DURHAM, F.R.C.S.Eng.,

Consulting Surgeon to Guy's Hospital.

All ranks of the profession in London were deeply pained on Tuesday by the sad news that Mr. Arthur Edward Durham had died that morning, after a very rapid illness, of acute pneumonia. His health had at times for some years been a cause of anxiety to his friends, and he had made occasional trips to Madeira, to the South of France, and to the warmer English health resorts, especially in the early spring, with the object of shaking off bronchitic symptoms. On Sunday evening last, soon after dinner, he was seized with chills, faintness, and symptoms of increasing dyspnœa. On Monday his condition was alarming, and signs of acute pneumonia were present. His colleagues and friends, Dr. Pye-Smith and Mr. Tom Bird, attended him, and later on Drs. Wilks and Pavy, Mr. John Croft, and Sir W. Broadbent saw him, and gave him every care and attention; but notwithstanding their efficient help, the symptoms increased with rapidity, and death ensued shortly after midnight on Tuesday morning, less than thirty hours from the onset of the malady.

Arthur E. Durham was born at Northampton in 1834, where his father died less than three years ago. He entered at Guy's in 1855 with the late Walter Moxon, the two being at once strong competitors, and eventually joining the staff together. Mr. Durham passed the first M.B. examination in 1857, taking honours on the occasion and at the previous matriculation in 1854. He passed the M.R.C.S. examination in 1858, and that for F.R.C.S. in 1860, and became Demonstrator of Anatomy at Guy's in 1859, and Lecturer on Experimental Philosophy and the Use of the Microscope at the famed Borough School in that same year. In 1862 he was elected to the post of Assistant Surgeon to the Hospital when a vacancy occurred upon the promotion of Mr. Alfred Poland to the post of Surgeon; he was full Surgeon from 1873 to 1894, when his appointment lapsed through age. For the past year he was Consulting Surgeon to the hospital. He lectured on Anatomy for years, and afterwards on Surgery, and was editor of many of the annual volumes of the *Guy's Hospital Reports*.

Some years since, in order to encourage the practical study of anatomy, he founded the prizes for dissection at Guy's for first and second year's men, which are awarded annually, and called by his name, and for which there is always much competition. He was Consulting Surgeon to the Royal Hospital for Children and Women, Waterloo Road, to the Stockwell Orphanage, and the St. Albans Dispensary.

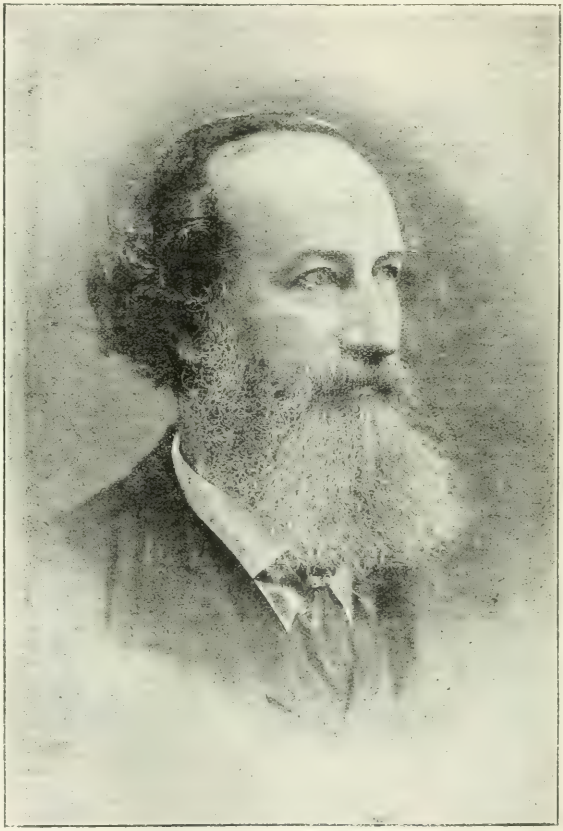
As a practitioner he was painstaking, quick in diagnosis, and prompt in treatment, whilst his sympathetic and kindly manner endeared him to his patients of all ranks of society. As an operator he was bold, yet neat to a degree, and careful, neglecting nothing that tended to the patient's interests. He early adopted the antiseptic methods of treatment in dealing with operation and other wounds, and, having the true instinct of an artist, he was most particular with regard to the adjustment of all the dressings. His cases consequently "did well," and his average of success was high.

He was a facile writer and fluent speaker, and in the early

years of his professional life he was frequently heard at meetings of the medical societies. He was for the past eleven years a member of the Council of the Royal College of Surgeons, and had been a Vice-President of the College. He was President of the Medical Society in 1885, and for the past four or five years its Treasurer; he had also been Vice-President of the Royal Medical and Chirurgical Society. He was President of the Metropolitan Counties Branch of the British Medical Association in 1886, and was selected to deliver the Address in Surgery at the approaching meeting of the Association in London this summer; and those who knew best his intellectual capacity were anticipating a rich treat from the subject he had chosen — namely, Preventive Surgery, or The Surgery of the Future.

He was the author of many papers read before Societies and published in their *Transactions*, of numerous articles in the *Guy's Hospital Reports*, and of articles on Injuries of the Neck, Diseases of the Nose, and Diseases of the Larynx, and the Laryngoscope, in Holmes's *System of Surgery*, and on Intestinal Obstruction, Glanders, and other subjects in Sir R. Quain's *Dictionary of Medicine*. In the *Guy's Hospital Reports* his chief articles were those on Sleeping and Dreaming, the Physiology of Sleep, Mobility and Displacement of the Kidneys, Hermaphroditism, Popliteal Aneurysm, Mollities Ossium and Osteoporosis, and Cases of Operations on the Larynx. He was the originator of the tracheotomy tube that bears his name, and of many other surgical instruments and devices.

He was President of the Students' Club at Guy's Hospital, and President of the Students' Cricket Club, and in all its matches his interest was keen. His great popularity at the hospital was signally shown on the occasion of the delivery of his last clinical lecture in March, 1894, before his resignation of the surgeoncy. The students crowded the theatre, listened with complete attention to the lecture, and at its close "rose like one man as if to receive the parting benediction" before their final applause.



The funeral service will take place at St. George's, Hanover Square, on Friday, May 10th, at 1 o'clock; the funeral at the Crematorium, Woking, train leaving Necropolis Station, L. and S.W.R., Westminster Bridge Road, at 2.30.

We are indebted to Dr. SAMUEL WILKS, F.R.S., for many years the colleague of Mr. Durham, for the following appreciation:

"The shock caused by the death of one of my dearest friends prevents me from calmly inditing any lengthy letter on his professional career. The most prominent features of his character are those which present themselves before me—namely, his ardent temperament, his strong sympathetic nature, and his kindness of heart; these were sufficient to make him a universal favourite; they created a response in others of a like kind, who ever spoke in the most enthusiastic manner of their love for Durham.

"When he entered the hospital as a student he was at once marked out as a noticeable personage from the enthusiasm and energy which he displayed in all his work. At this early period he showed his aptitude for scientific studies, for it is now thirty-five years ago since he made his memorable experiments indicative of the state of the circulation in the brain during waking and sleeping. He demonstrated to the eye the conditions which are now universally taught as true—namely, the increased or lessened circulation in the brain in connection with its active or dormant state. He also demonstrated some doubtful points associated with movable kidney, and was one of the first in this country to use the laryngoscope and to practise delicate surgery within the larynx itself. Since this early period Durham has published numerous papers more purely of a surgical nature. He was a remarkably good operator, not so much by evincing skill with the knife as by his delicate manipulation in cases requiring the removal of foreign bodies, the use of the cautery, and such like procedures.

"Good surgeon, however, as he was, he was most remarkable from his personal character; the enthusiasm he displayed in his work and the devotion he paid to every case which came before him was extraordinary. There was no shirking his duty; he did his best for everybody, giving no thought to money considerations; his only object was to relieve his patient. All this was done in the purest spirit, without a thought of reward, for he never bargained with a patient, but did his best for all alike; from those with scanty income he never received his recompense—thus the amount of work for which he was never remunerated must have been immense. It made no difference to him whether the patient was a poor clergyman or a needy actress from whom he never received a fee. All this was done out of the kindest and purest motives, so that it seemed as if doing good to others was the prime motive of his life. Never has an unkind act of Durham's reached the ear, seeing such a thing was impossible.

"I have always thought of Durham when reading Wendell Holmes's description of the surgeon in *Elsie Venner*. He says, 'I have heard it said that the art of healing makes men hard-hearted and indifferent to human suffering. While I am writing this paragraph, I catch a glimpse, as he rides by, of the manly features of a surgeon of skill and standing—so friendly, so modest, so tender-hearted in all his ways, that if he had not approved himself at once adroit and firm, one would have said that he was too kindly a nature to be the minister of pain, even if it were saving pain. You may be sure that some men, even amongst those who have chosen the task of pruning their fellow-creatures, grow more and more thoughtful and truly compassionate in the midst of their cruel experience. They become less nervous, but more sympathetic. They have a truer sensibility of others' pain the more they study pain and disease by the light of science.'

"It may well be supposed how beloved Durham was by his pupils, and how popular he was at the hospital. He not only interested himself in the students' medical career, but associated himself with their clubs and recreations. No language was felt too strong to express the affection which they had for their teacher. Unfortunately his health was delicate, and at times he suffered much from depression; but when he last year took his Norway holiday to the high latitudes, and was braced by the northern air, his enthusiasm knew no bounds, and he became the most popular man on board. He had also been much affected by the loss of his son, who promised much in following his father's footsteps. He was the eldest of a most talented family. His loss will create a void in the circle of his friends which will never be again filled."

Mr. Clement Lucas writes to us of Mr. Durham:

"When appointed Assistant-Surgeon many thought his excitable and impulsive disposition would militate against his attaining any great success in operative surgery; but he quickly mastered his emotional tendency in the face of danger, and became one of the most skilful of operators, especially priding himself on the rapid performance of lateral lithotomy and Cock's operation. He revived about twenty years ago the use of friar's balsam for the healing of wounds, and especially for cases of compound fracture. Very excellent results often followed this treatment when the wound was small, and had not been much exposed to infection. He never adopted with completeness antiseptic methods, or seriously studied the precautions adopted in modern practice; but he used the dressings, and gained success. He performed the first nephrectomy at Guy's Hospital in 1872 for painful movable kidney. The patient, however, died; and the organs were all found healthy. This led to the governors of the hospital objecting to the operation being performed again in 1879, when I wished to excise a tuberculous kidney. The superintendent was present throughout the operation to report the case to the governors. It fortunately proved successful, and Durham was the first to offer his congratulations on the result. His kindness of heart, generosity, and genial disposition will be known to all."

THE LATE SIR GEORGE BUCHANAN.

The funeral of the late Sir George Buchanan, F.R.S., took place at Brookwood Cemetery, Woking, on May 9th. A short but impressive memorial service was held previously at the church of St. Martin-in-the-Fields, Trafalgar Square. A large number of Sir George's late colleagues and friends took the opportunity of attending to pay their last respects to the memory of one whom they all admired and loved. In addition to the members of Sir George's family, there were present in the church Dr. Thorne Thorne, C.B., F.R.S.; Mr. W. H. Power, F.R.S.; Mr. T. W. Thompson, Dr. Theodore Thomson, Dr. Sweeting, Dr. Bulstrode, Dr. Cory, Dr. A. H. Downes, Mr. S. B. Provis, C.B.; Mr. Adrian, Mr. Rotton, Q.C.; Mr. P. G. Smith, Mr. A. B. Farr, Mr. Shirley Murphy, the President of the Royal College of Surgeons, Sir Joseph Lister, F.R.S., and Professor Burdon Sanderson, F.R.S.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The last post on Wednesday is the latest by which these announcements can be received.

A Surgeon-Captain would like to exchange home from Malta—for 2 or 3 years.—Apply X.Y.Z., care of Holt and Co., 17, Whitehall Place.

THE NAVY.

The following appointments have been made at the Admiralty: James T. W. S. Kellard, Staff Surgeon to the *Malabar*, May 4th; Joseph C. Wood, Surgeon to the *Hood*, May 4th.

News has reached Plymouth from Malta of the death of Surgeon Alfred W. Sturdee, of H.M. battleship *Hood*. The deceased officer joined the service as a surgeon in November, 1891, and was appointed to the *Hood* in June, 1893. He had recently been spending a few days' leave at Gozo, and on April 29th was found drowned at Maisalforno, a small inlet in the island. No details of the sad occurrence have yet come to hand.

ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel James Davis Gunning died on the voyage home from India on board the Indian troopship *Malabar*, which arrived at Portsmouth on May 4th. He was appointed Assistant-Surgeon, October 1st, 1867; Surgeon, March 1st, 1873; Surgeon-Major, October 1st, 1879; attained the rank of Lieutenant-Colonel, October 1st, 1887; and became Brigade-Surgeon, December 6th, 1893. He was in the 51st year of his age.

The following officers have gone out to India in succession to "tour expired" officers: Surgeon-Lieutenants W. D. Erskine, H. A. Hinge, H. A. Bray, H. S. Thurston, J. G. McNaught, C. T. Samman, J. H. Farmer: Surgeon-Captains J. J. C. Donnet, C. S. Sparkes, R. L. R. Macleod, J. B. Wilson, W. J. Trotter, M. J. Sexton, J. M. Nicolls; Surgeon-Majors R. F. O'Brien, P. J. Dempsey, O. Todd; Surgeon-Lieutenant-Colonels J. King and W. E. Saunders.

Quartermaster William Morrison is placed on retired pay, May 5th. He was appointed Lieutenant of Orderlies, December 17th, 1879; made Quartermaster Army Medical Staff, July 1st, 1881; and granted the honorary rank of Captain, December 17th, 1889.

INDIAN MEDICAL SERVICE.

Brigade-Surgeon-Lieutenant-Colonel W. R. Hooper, late Bengal Establishment, is granted the temporary rank of Surgeon-Colonel while President of the Medical Board, India Office, April 24th.

A message has been sent by the Indian Government to Surgeon-Major Robertson, who by the way is generally styled "Mr." in the telegrams, thanking him warmly for the excellent services rendered by him during the siege of Chitral, and approving his policy in reference to the Mehtarship.

Brigade-Surgeon-Lieutenant-Colonels G. Hutcheson and G. McB. Davis, of the Bengal Establishment, have been directed to officiate as Principal Medical Officers of the Lahore District and the Punjab Frontier Force respectively.

THE VOLUNTEERS.

The undermentioned Surgeon Lieutenants have resigned their commissions, May 4th: J. I. Boswell, M.B., 1st Kent Artillery (Eastern Division Royal Artillery); W. J. Fairlie, M.B., 1st Cumberland Artillery; T. R. Bailey, M.D., 3rd Volunteer Battalion the South Staffordshire Regiment.

Messrs. John W. W. Penney, M.B., and David J. Penney, M.B., are appointed Surgeon-Lieutenants to the 1st Argyll and Bute Artillery, May 4th.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains in their respective corps, May 4th: D. F. Todd, 1st Durham Artillery (Western Division Royal Artillery); W. Sinclair, M.B., 1st Aberdeenshire Engineers. Fortress and Railway Forces, Royal Engineers; W. P. Whitcombe, 1st Volunteer Battalion the Royal Warwickshire Regiment; W. E. R. Wood, M.D., 1st Volunteer Battalion the Cheshire Regiment.

Mr. Edward H. Hackett is appointed Surgeon-Lieutenant to the 1st Volunteer Battalion the Duke of Wellington's West Riding Regiment, May 4th.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps cited, May 5th; John W. Jessop, 1st Volunteer Battalion the Lincolnshire Regiment; Charles W. Howatson, M.B., 4th (Perthshire) Volunteer Battalion the Royal Highlanders; William R. Duguid, Jun., M.B., 6th Volunteer Battalion the Gordon Highlanders.

Mr. Colin Mackenzie, formerly Surgeon-Lieutenant, is now appointed Lieutenant in the 1st (Ross Highland) Volunteer Battalion the Seaforth Highlanders, April 10th.

Surgeon-Captain R. S. Turner, 6th Volunteer Battalion the Gordon Highlanders, is promoted to be Surgeon-Major, May 5th.

WAR OFFICE ADMINISTRATION AND THE ARMY MEDICAL STAFF.

The second of the series of special articles which have been appearing recently in the *Times* (April 29th) on War Office Administration deals with the military medical department, and we are constrained to entirely impugn the correctness and fairness of the remarks on the organisation of the Army Medical Staff.

To permit of a complete refutation of the arguments advanced by the writer in the *Times* it is necessary to take seriatim the points on which he pronounces his opinion:

1. In referring to the combatant titles recently conferred the *Times* writer says they are "socially and officially misleading." Can anyone

explain in what conceivable way these titles can be so considered? They were granted after a full consideration by the Secretary of State for War of the recommendations made by Lord Camperdown's Committee after the Egyptian war, and the writer seems to have quite overlooked the leading article in the *Times* of September, 1890, supporting the claims of army medical officers to substantive rank and titles. The writer in the *Times* might profitably devote his attention to a minute written by Lord Dalhousie Governor-General of India on the rank question, which appears in Lord Herbert's Committee report of 1858. Emphasis is given by the Herbert Commissioners to this minute, on which they express the following opinion: "it seems impossible to deny the justice of Lord Dalhousie's observations. In the military service rank is everything; there exists no authority without it." We go a step further, and state that only combatant titles convey such rank to the officer, non-commissioned officer, and soldier. Discipline cannot be attained without such recognition of rank.

2. The *Times* writer alludes to the "drilling of hospital attendants as if they were infantry soldiers," having apparently lost sight of the fact these "hospital attendants" are men of "the Medical Staff Corps," a recognised body of disciplined soldiers as essential to the army as the Royal Engineers or Army Service Corps. We fail to see how efficiency can be acquired without adequate drilling. The training of the corps is not confined to drilling only, but includes a host of other important details, such as sick nursing, minor surgery, and the general routine of hospital work.

3. The writer ironically refers to the plea of medical officers "to sit on courts martial" being "probably soon admitted," being evidently ignorant of the fact that all commissioned officers are now eligible, but are required to sit on courts martial, the president being the only person on the court who must be a combatant officer. Further, for years past army medical officers have been called on to sit as members of such courts when their services were required.

4. The writer says "Surgeon-major-generals require medical officers attached in a staff capacity to act as the medium of communication between themselves and other departments." No such arrangement exists, but it would be to the benefit of the medical service if every principal medical officer had a secretary (a medical officer), who would carry on the confidential correspondence of his office in place of the sergeant-clerk now appointed, who is practically the secretary. As to the remarks on professional pride being in danger if young officers address their military medical attendant as "doctor," they can only be pronounced feeble and full of such blind prejudice as to require no refutation.

The final observations of the writer may be quoted as showing the unfair and prejudiced spirit in which army medical affairs generally are discussed by military writers:

"In striving to be what he is not the army doctor will inevitably fail in the exercise of his rightful, honourable, and indispensable functions. To fighting rather than to saving life his ambitions will tend."

These observations are made in the very issue of the *Times* which contains an account of the excellent services rendered by two medical officers, namely, Surgeon-Major Robertson and Surgeon-Captain Whitchurch, the latter of whom has undoubtedly earned the Victoria Cross for his conduct in the double capacity of soldier and doctor. It should also not be forgotten that the only V.C.s won in Burmah and the Chin Hills were gained by army surgeons in the gallant performance of professional duties.

ADMINISTRATIVE CHANGES, A.M.S.

SURGEON-COLONEL T. F. O'DWYER, now principal medical officer, Dover, is under orders for Halifax, in relief of Surgeon-Colonel S. Archer, who is due to retire by age on July 9th. The officer in Surgeon-Colonel's rank who is now first for foreign service is Surgeon-Colonel H. Skey Muir, at Chester.

It is reported that the Devonport principal medical officership, vacant by Surgeon-Colonel Welch's retirement, will remain open till Surgeon-Colonel W. Taylor's return from special employment in China.

THE HEALTH OF THE CHITRAL EXPEDITIONARY FORCE.

THE health of the troops under General Low is reported to be remarkably good. Out of a force of 5,506 British troops there were 80 sick, and of 9,420 native corps there were 82 sick; that is, 162 sick in a force roughly calculated at 15,000. The British infantry regiments are up to a full war strength—that is, about 800 rank and file.

In the *Pioneer Mail* of April 18th ample testimony is borne by correspondents to the complete arrangements for field hospitals, which seem to have been mobilised in every detail so that each section with its complement of officers and servants, etc., would be available in case of need with detachments.

POSTINGS IN INDIA.

THE more important postings of medical officers senior in rank is as follows: Brigade-Surgeon H. F. Brown to be P.M.O. Peshawur District, *vice* Davis, to be P.M.O. Punjab Frontier Force, in relief of Surgeon-Colonel Spencer, Acting P.M.O. Punjab Army Corps, gazetted temporarily in place of Surgeon-Colonel Harvey, home on sick leave.

Brigade-Surgeon-Lieutenant-Colonel R. de la C. Corbett, A.M.S., to be officiating P.M.O. Oudh and Rohilkund District, *vice* Surgeon-Colonel W. T. Martin, invalided to England.

Brigade-Surgeon C. F. Pollock, in medical charge Station Hospital, Rawul Pindi, to officiate as P.M.O., *vice* Surgeon Colonel T. Maunsell, appointed P.M.O. Chitral Relief Force, *vice* Martin, sick.

Brigade-Surgeon-Lieutenant-Colonel Riddick, in medical charge Station Hospital, Agra, to charge of European Base Hospital (Chitral Expedition), at Cherat and Peshawur.

Surgeon-Lieutenant-Colonel W. A. May, in medical charge Hospital, Calcutta, to be officiating P.M.O. Presidency District, *vice* Raye, appointed officiating Inspector-General Civil Hospitals, Punjab.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

APPOINTMENT.—Mr. W. G. P. Ellis, M.A., has been appointed an additional Demonstrator in Botany.

ZOOLOGICAL LABORATORIES.—The University's tables at Naples and Plymouth will be vacant after the end of May. Applications to occupy these for the purpose of biological research are to be sent to Professor Newton by May 23rd.

HONORARY DEGREE.—The degree of Doctor of Science *honoris causâ*, is to be conferred on Mr. Francis Galton, F.R.S., in recognition of his services to science and to the University.

ADDENBROOKE'S HOSPITAL.—The Court of Governors, on May 7th, resolved to appoint a committee to confer with the Vice Chancellor on the possibility of forming a closer and more regular connection between the hospital and the teachers in the department of medicine in the University.

THIRD EXAMINATION FOR M.B., EASTER TERM, 1895.—Part II (Medicine): A. P. Beddard, Trin.; Burrell, Gonv. and Cai.; W. G. Clark, Down; J. W. Cornwall, Trin.; L. G. Davies, Non Coll.; H. J. Davis, Trin.; Dobie, Gonv. and Cai.; Eichholz, Emm.; Garrad, Cla.; Langmore, Joh.; S. H. Long, Gonv. and Cai; McCardie, Gonv. and Cai.; Murphy, Gonv. and Cai.; Ormerod, Trin.; W. G. Richards, Christ's; Sedgwick, Cla.; Smallwood, Gonv. and Cai.; C. B. Stewart, Christ's; Tatham, Gonv. and Cai.; Trethewy, Gonv. and Cai.; J. McD. Troup, Pemb.; H. F. B. Williams, Gonv. and Cai.; G. V. Worthington, Pemb.; Wrangham, Emm.

UNIVERSITY OF LONDON.

MEETING OF CONVOCATION.—At the meeting of Convocation, to be held on Tuesday, May 14th, three names will be chosen for submission to the Crown. The Crown will choose one out of these, according to custom the first on the list for appointment to the Senate. The candidates are Mr. Cozens-Hardy, Q.C.; Mr. J. W. Greig, LL.B.; and Dr. T. B. Napier, LL.D. The contest will lie between Mr. Cozens-Hardy and Dr. Napier. The report of the Annual Committee will be presented, but the most important business will be a resolution standing in the names of Mr. H. M. Bompas, Q.C., and Dr. H. L. Hart, which invites Convocation to rescind its resolution of January 22nd, 1895, and to express the opinion that "if a local teaching university for London be desirable, it ought to be constituted apart from the University of London."

The Committee of Graduates favourable to the Scheme of the Gresham University Commission request members to attend the meeting and negative the motion which Mr. Bompas will propose.

UNIVERSITY OF DURHAM.

FIRST EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.—The following candidates have satisfied the Examiners:

Elementary Anatomy and Physiology, Chemistry with Chemical Physics, and Botany with Medical Botany.—J. R. McKinlay, Westminster Hospital; B. C. Stevens, St. Thomas's Hospital.

Anatomy and Physiology.—T. H. Gibbs, College of Medicine, Newcastle-upon-Tyne.

Chemistry with Chemical Physics, and Botany with Medical Botany.—V. Burrow, St. Mary's Hospital; F. W. Crossman, St. Bartholomew's Hospital; H. R. Ellis, St. Bartholomew's Hospital; T. H. Hulme, London Hospital; S. Southam, Owens College, Manchester.

Botany with Medical Botany.—C. H. Dickens, M.R.C.S., L.R.C.P., St. Thomas's Hospital.

FIRST EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE. (New Regulations)—The following candidates have satisfied the Examiners:

Elementary Anatomy and Biology, Chemistry, and Physics.—Honours—Second Class: R. L. Routledge, College of Medicine, Newcastle-upon-Tyne; C. W. Von Bergen, College of Medicine, Newcastle-upon-Tyne. Pass List: A. S. Arthur, College of Medicine, Newcastle-upon-Tyne; T. P. Camp, College of Medicine, Newcastle-upon-Tyne; H. E. Davison, College of Medicine, Newcastle-upon-Tyne; T. S. Elliott, Cooke's School of Anatomy; H. Eggleston, College of Medicine, Newcastle-upon-Tyne; J. A. Hartigan, College of Medicine, Newcastle-upon-Tyne; J. McConnell, College of Medicine, Newcastle-upon-Tyne; E. S. Wilkinson, St. Bartholomew's Hospital.

Elementary Anatomy and Biology.—W. C. Brown, College of Medicine, Newcastle-upon-Tyne; H. A. Fieldon, College of Medicine, Newcastle-upon-Tyne; L. F. Hemmans, College of Medicine, Newcastle-upon-Tyne; E. Inman, College of Medicine Newcastle-upon Tyne; H. R. Kendal, College of Medicine, Newcastle-upon-Tyne; G. B. Picton, College of Medicine, Newcastle-upon-Tyne.

Chemistry and Physics.—T. B. Watson, College of Medicine, Newcastle-upon-Tyne.

Biology and Physics.—W. H. I. Bathurst, King's College.

Elementary Anatomy, Chemistry, and Physics.—F. G. H. Cooke, Cooke's School of Anatomy.

SECOND EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.—The following candidates have satisfied the Examiners:

Anatomy, Physiology, Materia Medica.—Second Class Honours: J. R. McKinlay, Westminster Hospital; F. W. Rix, Westminster Hospital; J. A. Swindale, Mason College, Birmingham. Pass List: T. G. D. Adams, College of Medicine, Newcastle-upon-Tyne; W. O. Arnold, College of Medicine, Newcastle-upon-Tyne; C. H. Dickens, St. Thomas's Hospital; F. C. Ford, St. Bartholomew's Hospital; T. H. Hulme, London Hospital; H. H. Markham, College of Medicine, Newcastle-upon-Tyne; D. W. Patterson, College of Medicine, Newcastle-upon-Tyne; W. A. Baverley, College of Medicine, Newcastle-upon-Tyne: T. J. Phillips, College of Medicine, Newcastle-upon-Tyne; C. S. Smith, Mason College, Birmingham; R. A. Wilson, College of Medicine, Newcastle-upon-Tyne: T. Woodman, College of Medicine, Newcastle-upon-Tyne.

ROYAL UNIVERSITY OF IRELAND.

THIRD EXAMINATION IN MEDICINE. SPRING, 1895.—The Examiners have recommended that the following candidates be adjudged to have passed the above-mentioned examination:

Upper Pass Division.—*R. P. Farnan, Catholic University School of Medicine; *T. Finucane, Queen's College, Cork; T. H. Gloster, B.A., Queen's College, Cork; P. J. Hamilton, Catholic University School of Medicine; A. W. Montgomery, Queen's College, Galway; *G. Ross Queen's College, Cork.

Candidates marked with an asterisk may present themselves for the Further Examination for Honours.

Passed.—R. Allan, Queen's College, Belfast, and Catholic University School of Medicine; H. F. Browne, Queen's College, Belfast; W. Caldwell, Queen's College, Belfast; W. Canning, Queen's College, Belfast; E. O. B. Carbery, Queen's College, Galway; S. Conner, Queen's College, Cork; J. Cowan, Queen's College, Belfast; H. Currell, Queen's College, Belfast; J. H. C. Daly, Queen's College, Galway; R. S. A. Drought, B.A., Queen's College, Cork; D. Fleck, Queen's College, Belfast; J. St. L. Kirwan, B.A., Queen's College, Galway; J. Lennox, Queen's College, Belfast; A. I. McCully, Queen's College, Belfast; F. J. McGlade, Catholic University School of Medicine, and Queen's College, Cork; H. J. McNabb, B.A., Catholic University School of Medicine; M. T. Moran, Queen's College, Belfast; R. Morrow, Queen's College, Belfast; R. Nevin, Queen's College, Belfast; T. P. O'Carroll, Catholic University School of Medicine; J. O'Neill, Catholic University School of Medicine; H. H. Orr, Queen's College, Belfast; E. F. O'Sullivan, Catholic University School of Medicine; H. Paterson, Queen's College, Cork; W. Porter, Queen's College, Belfast; R. G. Stuart, Queen's College, Belfast; J. F. Whelan, Catholic University School of Medicine.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, IRELAND.

FINAL PROFESSIONAL EXAMINATION (CONJOINT SCHEME).—The following candidates have passed:

Completed the Examination.—C. Cavanagh, H. G. F. Dawson, J. W. Griffin, J. T. Harold, T. H. La N. Hewitt, E. C. Hodgson, E. J. K. Hogan, H. T. J. Kennedy, A. L. E. Orme, H. E. Stone, R. G. S. Whitla.

In Medicine.—P. J. M'Hale, H. S. Roberts.

In Surgery.—T. J. Crean, W. M. Cummins, E. F. L'Estrange, P. J. M'Hale, H. S. Roberts, M. G. Sterling, J. Thomson, J. S. Watson.

In Ophthalmology.—J. P. Cassidy, W. M. Cummins, E. F. L'Estrange, P. J. M'Hale, H. S. Roberts, M. G. Sterling, J. Thomson, J. S. Watson.

In Midwifery.—M. A. J. J. M. Caraher, T. J. Crean, H. S. Roberts, J. E. P. Shera, M. G. Sterling, J. Thomson.

In Forensic Medicine, etc.—J. Thomson.

Omitted from Pass List Third Professional Examination, A. N. M'Kelvey.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

THE following candidates were enrolled as Licentiates in Medicine and Midwifery of the College on Friday, May 3rd, 1895: C. Cavanagh, H. G. F. Dawson, J. W. Griffin, J. T. Harold, T. H. La N. Hewitt, E. C. Hodgson, E. J. K. Hogan, H. T. J. Kennedy, A. L'E. Orme, H. E. Stone, R. G. S. Whitla.

The undermentioned Members of the College have been admitted to the Fellowship: R. Gray, L.R.C.P.I. 1873, M.R.C.P.I. 1893; E. H. Tweedy, L.R.C.P.I. 1885, M.R.C.P.I. 1894; A. K. F. M'Cutcheon, L.R.C.P.I. 1887, M.R.C.P.I. 1894, B.A., M.D., Univ. Dubl.; R. A. Flynn, L.R.C.P.I. 1887, M.R.C.P.I. 1894.

THE SOCIETY OF APOTHECARIES OF LONDON.

MR. FRANK HAYDON, L.R.C.P., Assistant Surgeon to the West London Ophthalmic Hospital, has been appointed Secretary to the Court of Examiners of the Society of Apothecaries, in succession to the late Dr. C. E. A. Semple.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

Quarantine in South America.—Sir E. GREY, in answer to Sir J. FERGUSON, said that the South American Republics had been approached in the sense indicated: but none of them had as yet expressed themselves willing to adopt the principles of the Dresden Sanitary Convention. Mr. Phipps, Her Majesty's Minister at Rio de Janeiro, had been specially instructed on proceeding to his host to make earnest efforts for improvement in the quarantine arrangements in Brazil, and a conference was now sitting at Rio to consider the question. It was understood that the Brazilian Government had promised to provide three fresh quarantine stations, besides some other reforms in their regulations.

Fever Patients.—Mr. BARTLEY asked the President of the Local Government Board whether his attention had been drawn to a report, dated April 8th last, from the medical officer of health for Islington, concerning the premature discharge of fever patients from the Metropolitan Asylums Board's hospitals, especially in the cases of residents at 32, Essex Road, and 21, Cromwell Road; and whether he would allay public anxiety on the subject by appointing a committee to inquire into the question.—Mr. SHAW LEFEVRE said in reply that he had communicated with the Metropolitan Asylums managers with respect to the report mentioned in the question, and he was informed that they had referred to their General Purposes Committee for consideration and report, not only this particular report, but also the whole question raised in the annual report for 1894 of the Medical Superintendent of the North-Eastern Hospital as to the outbreak of illness in households after the return from hospital of recovered patients. Allegations had been made as to similar outbreaks where patients had been discharged from the hospitals of other bodies, and the subject had recently received the attention of the Medical Department of the Local Government Board, who hoped shortly to issue a report with respect to it.

Aldershot Water Supply.—Mr. HANBURY asked the Secretary of State for War whether, under War Office instructions, the Professor of Military Hygiene at Netley, Brigade-Surgeon Notter, made a sanitary inspection of the water supply and other matters at Aldershot in March last; and whether this officer's report thereon had been received and would be published.—Mr. CAMPBELL BANNERMANN said that the water supply to the new barracks at Aldershot had been recently investigated, and the water had been analysed by the Professor of Military Hygiene at Netley. The steps to be taken on that report were now under consideration. It was not usual to publish such a report.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar General has just issued his return relating to the births and deaths registered in England and Wales during the first, or winter, quarter of this year, and to the marriages during the three months ending December last. The marriage-rate was equal to 17.2 per 1,000 of the population, and was slightly below the mean rate in the corresponding periods of the ten preceding years.

The births registered in England and Wales during the three months ending March last numbered 240,455, equal to a proportion of 32.1 per 1,000 of the population, estimated by the Registrar-General to be nearly thirty and a-half millions of persons in the middle of this year. This rate was very slightly above the mean rate in the corresponding period of the ten preceding years, and exceeded that recorded in the first quarter of any year since 1886. The birth-rates in the several counties during the quarter under notice ranged from 25.7 in Surrey and in Sussex, 26.3 in Rutlandshire, 26.9 in Huntingdonshire, and 27.0 in Dorsetshire to 36.8 in South Wales, 37.6 in Durham and in Monmouthshire, and 38.1 in Staffordshire. In thirty-three of the largest English towns the birth-rate last quarter averaged 33.5 per 1,000, and exceeded by 1.4 per 1,000 the general English rate. In London the birth-rate was 32.5 per 1,000, while it averaged 34.1 in the thirty-two provincial towns, among which it ranged from 22.2 in Huddersfield, 24.8 in Halifax, and 25.7 in Croydon to 38.4 in Sunderland, 39.6 in Liverpool, and 40.0 in Wolverhampton.

The births registered in England and Wales during the quarter ending March last exceeded the deaths by 69,954; this represents the natural increase of the population during that period. It appears from returns issued by the Board of Trade that 39,260 emigrants embarked during last quarter for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these, 19,072 were English, 2,230 Scotch, and 6,279 Irish. Compared with the averages in the corresponding periods of recent years, the proportion of emigrants from England and from Scotland showed a considerable decline, while that from Ireland showed a slight increase.

During the first quarter of this year the deaths of 170,501 persons were registered in England and Wales, equal to an annual rate of 22.8 per 1,000 of the estimated population; this rate exceeded by 1.1 per 1,000 the mean rate in the corresponding periods of the ten preceding years, 1885-94. The lowest county death-rates last quarter were 17.0 in Westmorland, 18.1 in the North Riding of Yorkshire, 18.5 in Middlesex, and 19.0 in Leicestershire; while the highest rates were 24.4 in Lancashire, 24.6 in North Wales, 24.8 in Huntingdonshire, 25.1 in Herefordshire, and 25.4 in South Wales. In the urban population of the country, estimated at about twenty and a-half millions of persons, the rate of mortality during the quarter under notice was 23.4 per 1,000; while in the remaining and chiefly rural population of about ten millions it was 21.5 per 1,000. These rates were respectively 1.1 and 0.7 per 1,000 above the mean rates in the corresponding quarters of the preceding ten years. Among thirty-three of the largest English towns the mean death-rate was 25.2 per 1,000; in London the rate was 26.0 per 1,000, while it averaged 24.8 in the thirty-two provincial towns, and ranged from 18.3 in Leicester, 18.8 in Derby, and 20.4 in Croydon and in Norwich to 27.5 in Manchester, 27.9 in Preston, 28.2 in Wolverhampton, 28.8 in Brighton, and 34.1 in Liverpool. In sixty-seven other large towns, with an estimated aggregate population of about three and a-half millions, the mean death-rate was 21.9 per 1,000, or 3.0 per 1,000 below the mean rate in the thirty-three large towns.

The 170,501 deaths registered in England and Wales during the three months ending March last included 2,862 which resulted from whooping-cough, 2,150 from measles, 1,673 from diphtheria, 1,446 from diarrhœa, 923 from "fever" (including typhus, enteric, and ill-defined forms of "fever"), 883 from scarlet fever, and 43 from small-pox; in all, 10,045 deaths were referred to these principal zymotic diseases, equal to an annual rate of 1.34 per 1,000, against an average rate of 1.81 in the corresponding quarters of the ten preceding years. The mortality from diphtheria showed a slight excess, and that from diarrhœa corresponded with the average; while the mortality from each of the other principal zymotic diseases was below the average. Of the 43 fatal cases of small-pox registered in England and Wales last quarter, 10 belonged to London, 8 to Liverpool, 7 to Birmingham, 4 to Aston Manor, and 4 to Derby.

The rate of infant mortality in England and Wales last quarter, or the proportion of deaths under one year of age to registered births, was equal to 152 per 1,000, and slightly exceeded the mean rate in the corresponding periods of the ten preceding years. In London the rate of infant mortality was 159 per 1,000, while it averaged 179 in the thirty-two large provincial towns, among which it ranged from 125 in Derby, 138 in Sunderland, and 139 in Bristol and in Birkenhead to 188 in Swansea and in Salford, 190 in Preston, 197 in Oldham, and 203 in Huddersfield.

The mean temperature of the air during last quarter at the Royal Ob-

servatory, Greenwich, was 35.2°, and was 3.7° below the average in the corresponding periods of 124 years; the mean temperature in January was 2.9°, and in February 9.8°, below the average, while in March it showed an excess of 1.7°. The rainfall during the quarter amounted to 3.27 inches, and was 1.68 inch below the average.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,893 births and 3,551 deaths were registered during the week ending Saturday, May 4th. The annual rate of mortality in these towns, which had declined from 35.0 to 18.9 per 1,000 in the eight preceding weeks, further fell to 17.5 last week. The rates in the several towns ranged from 10.6 in Nottingham, 11.9 in Portsmouth, and 12.4 in Leicester to 23.3 in Oldham, 23.9 in Manchester, and 26.7 in Burnley. In the thirty-two provincial towns the mean death-rate was 18.1 per 1,000, and exceeded by 1.5 the rate recorded in London, which was only 16.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the death-rate was equal to 1.7 per 1,000, while it averaged 1.4 in the thirty-two provincial towns, and was highest in Plymouth, Salford, and Preston. Measles caused a death-rate of 1.1 in Manchester, 2.3 in Plymouth, and 2.6 in Bolton; and whooping-cough of 1.6 in Burnley, 1.8 in Wolverhampton, 1.9 in Preston, and 2.0 in Salford. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 49 deaths from diphtheria in the thirty-three towns included 29 in London, 5 in Birmingham, and 3 in Leeds. One death from small-pox was registered in London, but not one in any of the thirty-two large provincial towns. There were 34 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, May 4th, against 47, 35, and 37 at the end of the three preceding weeks; 8 new cases were admitted during the week, against 9, 4, and 12 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,463, 1,514, and 1,469 at the end of the three preceding weeks, had further declined to 1,413 on Saturday last, May 4th; 107 new cases were admitted during the week, against 117, 162, and 132 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, May 4th, 990 births and 602 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 24.7 to 20.6 per 1,000 in the three preceding weeks, was 20.9 last week, and exceeded by 3.4 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the death-rates ranged from 15.6 in Dundee to 25.7 in Perth. The zymotic death-rate in these towns averaged 2.5 per 1,000, the highest rates being recorded in Perth and Leith. The 299 deaths registered in Glasgow included 14 from whooping-cough, 6 from measles, 4 from scarlet fever, and 2 from diphtheria. Eight fatal cases of measles were recorded in Edinburgh, and 6 in Leith.

CONSUMPTION HOSPITALS IN SCOTLAND.

In a paragraph which appeared on page 1014 of the BRITISH MEDICAL JOURNAL for May 4th, it was, by an oversight, stated that the hospital in process of erection at Bridge of Weir was the *first* consumption hospital in Scotland. This was an error, for the outdoor department of the Victoria Hospital for Consumption, Edinburgh, was opened in 1887, and has afforded outdoor relief to many thousands of consumptive patients. The hospital for the reception of indoor patients, situated in large grounds to the north-west of the city of Edinburgh, was made available for 15 patients in August, 1894. The Committee of Management have in contemplation further extension of the hospital, and only the other day a donation of £1,000 was given by an Edinburgh citizen towards this end. The hospital is devoted exclusively to the treatment of tuberculous patients. The outdoor department continues its operations, and it is only matter for regret that a greater percentage of the necessitous tuberculous patients cannot, for lack of space, be admitted to the benefits of indoor treatment.

THE NOTIFICATION OF DOUBTFUL CASES OF DIPHTHERIA.

VARIOLA.—A similar difficulty has occurred in many other towns. Sometimes it has been overcome by insisting upon scrupulous attention to minutiæ of disinfection and quarantine, however slight the case may be. There could be no objection to a carefully-worded circular upon the lines suggested if the means of bacteriological examination are available.

INQUEST FEES ON WORKHOUSE CASES.

R. B. D., who is a resident medical officer in a provincial workhouse, writes to ask whether this residence excludes him from claiming a fee for evidence at an inquest on a workhouse patient, as the coroner has refused him a fee on the ground that it could not be legally paid. He further asks whether on a future occasion he can decline to give evidence unless a fee is promised by the coroner?

*** The question of residence or non-residence in the workhouse has no bearing on the subject. Our correspondent as a workhouse medical officer is entitled to the ordinary fee. It is now fairly decided that workhouse medical officers are not debarred from the receipt of inquest fees by Clause 22, Subsection 2, of the Coroners' Act of 1887. A medical witness, however, cannot refuse to give evidence if properly summoned, even if he believes that the fee will be refused by the coroner. He must give evidence, and take the necessary steps to obtain the fee afterwards. We should suggest that when next summoned R. B. D. should politely inform the coroner, before giving his evidence, that he intends to claim the usual fee.

MEDICAL NEWS.

THE May dinner of the Aberdeen University Club will be held at the Holborn Restaurant on Wednesday, May 15th, at 7.30 P.M.

HER Royal Highness the Princess of Wales has graciously consented to open a grand bazaar, in aid of St. Mary's Hospital, Paddington, at the Portman Rooms on June 27th next.

MR. A. WYNTER BLYTH, M.O H. for St. Marylebone and barrister-at-law, was on Wednesday elected Chairman of the Council of the Sanitary Institute, in succession to the late Mr. Ernest Turner, F.R.I.B.A.

THE Sixth Congress of the German Gynæcological Society will be held this year in Vienna on June 4th and three following days. The two chief subjects proposed for discussion are Endometritis and Rupture of the Uterus.

THE Hon. W. F. D. Smith, M.P., presided over the festival dinner in aid of the funds of the Royal Hospital for Children and Women, Waterloo Bridge Road, held on May 4th at the Hôtel Métropole. Subscriptions to the amount of £1,350, including 100 guineas from the chairman, were announced during the evening.

PRINCE NUSSEER, the second son of the Ameer of Afghanistan, is expected to arrive in England about May 12th or 14th. Colonel A. C. Talbot, C.I.E., the Deputy Foreign Secretary, will be in political charge, and Dr. Leahy has been selected by the Government of India to accompany the party as medical officer.

AT the examination for inspectors of nuisances held by the Sanitary Institute in London on May 3rd and 4th, 161 candidates presented themselves, and 93 were certified, as regards their sanitary knowledge, competent to discharge the duties of sanitary inspectors. On the same dates the first examination in Practical Sanitary Science was held by the Institute, and certificates were granted to 9 candidates.

THE Emperor of Japan has conferred the Third Class Decoration of the Order of the Rising Sun upon Mr. William Anderson, of St. Thomas's Hospital. Mr. Anderson was for many years Professor of Anatomy in the University of Tokio, and is well known as the author of the most important existing work on the *Pictorial and Glyptic Arts of Japan*, of which he was one of the earlier students and is an accomplished expert. Mr. Anderson has also rendered services to Japan as the first chairman of the now flourishing Japan Society.

THE Glasgow Eastern Medical Society at a recent meeting adopted a series of resolutions touching the medico-legal relations of medical men in Scotland, the tenure of office of parochial medical officers, payment for certificates of death, and for those required by school boards, the regulation of dispensary treatment, the rate of pay by medical sick clubs and societies, and the constitution of the General Medical Council. As we understand that it is proposed to bring the resolutions under the notice of the Glasgow and West of Scotland Branch of the British Medical Association at an early date, we forbear from commenting upon them further than to say that any well-considered scheme for reforming abuses in connection with sick clubs and societies, and with dispensaries, as well as any proposal to ensure reasonable fixity of tenure of Poor-law appointments, is ensured warm sympathy and support.

MAMMERN HYDROPATHIC ESTABLISHMENT.—This is a pleasantly-situated "water cure," about 1,300 feet above the sea, and one of the most accessible in Switzerland, as it is situated only a few miles from Schaffhausen, between that place and the Lake of Constance. It lies in its own grounds on that expanse of the Rhine between Schaffhausen and Constance which is known as the Untersee. It is especially designed for the treatment of chronic affections of the nervous system—neura-thenia, hysteria, morphine craving, etc., as well as those affections of the digestive system in which careful and strictly-regulated dieting is essential. Baths, douches, gymnastics, massage, electricity, all under skilful medical supervision, can here be applied amidst tranquil and agreeable surroundings and at a moderate cost. Dr. O. Ullmann is the resident physician.

MEDICAL EDUCATION IN THE UNITED STATES.—According to the New York *Medical Record*, of the 140 medical schools in the United States there are only fourteen which absolutely require a four-year course of medical lectures. Nearly one hundred schools announce that they graduate on three terms of lectures, and about twenty-five on two terms, the length of the term varying from five to nine months.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—The next general meeting of this association will be held at 11, Chandos Street, Cavendish Square, on May 16th, under the presidency of Dr. Conolly Norman. The Council meeting will take place at 1.30 P.M. At 4 o'clock Dr. Mercier will read a paper on Collective Investigation on Mental Disease. Dr. Andriezen will read a paper entitled Insomnia and Cephalalgia and their Correlated Brain Changes in Early Alcoholic Insanity. Seven new members are down for election as ordinary members of the society.

THE ZOOLOGICAL SOCIETY OF LONDON.—The sixty-sixth anniversary meeting of this Society was held on April 29th, at the offices, 3, Hanover Square, W. The chair was taken by the President, Sir William H. Flower. The number of animals in the Society's collection on December 31st last was 2,563, of which 669 were mammals, 1,427 birds, and 467 reptiles. Among the additions made during the year were two young white-tailed gnu (born in the gardens), an eland of the striped form from the Transvaal (obtained by purchase), two giant tortoises, a young male Pleasant antelope, two Somali ostriches of the blue skinned variety, ten Surinam water toads, a Pel's owl, and two tree kangaroos. About 30 species of mammals, 12 of birds, and one of reptiles had bred in the Society's gardens during the summer of 1894. The report was adopted, and Sir William H. Flower was re-elected President.

MEDICAL MISSIONARY ASSOCIATION.—The annual meeting of this association was held at Exeter Hall, on May 2nd, Dr. C. Y. Biss presiding. The report, presented by Dr. J. L. Maxwell, showed an income of £1,603, leaving a credit balance of £142. The students under training were drawn largely from the Church of England, but other churches were also represented. While preparing for foreign work they carried on medical missions in Islington and St. Pancras. The chief object of the association was to multiply medical missionaries, and during the year the number of those holding British qualifications had increased from 185 to 202. The rapid and striking progress of medical and surgical science had added enormously to the power of the medical missionaries. Among other signs of progress was the commencement at Ludhiana, in North India, of a school of medicine for native women. The need of fully qualified natives, not only to work with the foreign missionaries but to take up independent work, was so urgent that that every missionary body should welcome this new departure. The meeting was addressed by Dr. Margaret Pearse, of the Canning Town Medical Mission; Dr. Rigg, of Fuhning, China; Dr. Whitney, of Tokio; and Mr. Mackay, of the Antsihanaka Medical Mission, Madagascar.

THE MEDICAL GUILD.—The first quarterly meeting of the Medical Guild, the establishment of which in Manchester we recorded a short time ago, was held in that city on April 30th, under the presidency of Dr. Henry Simpson. It was reported that the Council of the Guild proposed to consider the following matters: The abuse of medical charities and its remedy; club practice and provident dispensaries; the irregular practice of medicine, surgery, and midwifery, including the improper employment of unqualified assistants; the possibility of fixing in districts a minimum fee for visits, consultations, and other forms of professional work; the right of parents to send their own medical attendants to see their children, when removed to a rate-supported (fever) hospital, in consultation with the medical superintendent; the dissemination of a knowledge of the essentials of medical ethics and the promotion of the teaching of ethics in medical schools. The Chairman said that the Guild sought to be a bond of union between members of the profession, and Dr. S. Woodcock and Alderman Walmesley insisted on the necessity for union and the dangers of the present disorganised state. A resolution was unanimously adopted expressing the opinion that it was desirable that greater facilities should be given to the inmates of rate supported fever hospitals to obtain consultations with medical practitioners not on the staff, and expressing the opinion that such facilities would increase the confidence of the public in such hospitals. The Honorary Secretary, from whom further information can be obtained, is Dr. Stewart, 27, Eccles Old Road, Manchester.

MEDICAL VACANCIES.

The following vacancies are announced:

ASYLUM FOR IDIOTS, Earlswood, Redhill, Surrey.—Assistant Medical Officer. Salary, £150 per annum, with board and residence. Applications marked "Assistant Medical Officer," to the Secretary, 36, King William Street, London Bridge, E.C., by May 23rd.

BARNSTAPLE UNION.—District Medical Officer. Salary, £70 per annum and midwifery fees. Applications to William Henry Toller, by May 30th.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon, will be required to enter into an agreement not to commence private practice within the Borough of Blackburn for a period of three years. Salary, £50 per annum with board, washing, lodging, etc. Applications and testimonials to N. A. Smith, Secretary by May 23rd.

BOROUGH OF STOCKTON-ON-TEES.—Medical Officer of Health and Medical Superintendent for the Fever Hospital. Salary, £300 per annum. Applications and testimonials to Mat. B. Dodds, Town Clerk, by May 14th.

BRECON INFIRMARY.—Resident House-Surgeon, unmarried, doubly qualified. Salary, £70 per annum, with furnished apartments, board, attendance, fire and gas. Applications to W. Powell Price, Secretary, by May 15th.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road.—Clinical assistants. Applications to the Secretary.

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer to act as *locum tenens* for about three months during the summer. Salary, £2 2s. per week with board and lodging. Applications to the Medical Superintendent.

DARLINGTON HOSPITAL AND DISPENSARY, Darlington.—House-Surgeon; doubly qualified, registered, and unmarried. Salary, £100 per annum, with board and lodging. Applications and testimonials to the Secretaries, 80, Bondgate, Darlington, by May 16th.

DENBIGHSHIRE INFIRMARY AND GENERAL DISPENSARY, Denbigh.—Honorary Medical Officer, doubly qualified. Applications to the Chairman of the Committee of Management by May 14th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Dental Surgeons. Candidates must be Licentiates of Dental Surgery of one of the licensing bodies recognised by the General Medical Council. Applications and testimonials to J. Francis Pink, Secretary, by June 10th.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—Assistant Physician for the Out-Patients; must be F. or M.R.C.P.—House-Surgeon. Board, lodging, etc., provided, but no salary. Applications to the Secretary for the former appointment by May 25th, and for the latter by May 11th.

EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House-Surgeon, unmarried, doubly qualified. Salary, £70 per annum, with board, lodging, and washing. Applications to the Secretary by May 14th.

GENERAL HOSPITAL Birmingham.—Assistant House Surgeon, must possess surgical qualification and be registered. Appointment for six months. No salary, but residence, board, and washing provided. Applications with certificate of registration and copies of testimonials to H. J. Collins, House Governor, by June 1st.

GENERAL HOSPITAL, Nottingham.—Assistant House-Surgeon and Assistant House-Physician. Appointments for six months. Board, lodging, and washing in the hospital. No salary. Applications to the Secretary by May 11th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—Pathologist and Registrar. Appointment for one year. Honorarium at the rate of fifty guineas per annum. Applications to the Secretary by May 27th.

HALIFAX INFIRMARY AND DISPENSARY.—House Surgeon, must be unmarried, doubly qualified and registered. Salary, £80 per annum, advancing £10 per year up to £100, with residence, board, and washing. Applications and testimonials to Oates Webster, Secretary, by May 22nd.

KENSINGTON WORKHOUSE INFIRMARY.—Second Assistant Resident Medical Officer, must be between 21 and 30 years of age, must possess both a medical and surgical qualification. Salary, £80 per annum, with apartments, board, and washing. Applications and testimonials to J. H. Ruthergien, Clerk to the Guardians, by May 25th.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House-Surgeon. Honorarium at the rate of £50 per annum and board. Applications and testimonials to G. W. Fox, Honorary Secretary, 53, Princess Street, Manchester, by May 15th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—Physician to the Out-patients; must be Fellows or Members of the Royal College of Physicians of London. Applications to the Secretary by May 14th.

PARISH OF ST. LEONARD, Shoreditch.—Male Second Assistant Medical Officer, for the Infirmary, Hoxton Street, N. Doubly qualified. Salary, £40 per annum, with rations, furnished apartments, and washing in the Infirmary. Applications to the Medical Officer, 204, Hoxton Sreet, N.

ROTHERHAM HOSPITAL AND DISPENSARY.—Resident House-Surgeon; doubly qualified. Salary, £100 per annum, with rooms, washing, and commons. Appointment for three years. Applications to the Secretary by the end of May.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board and lodging. Applications to the Secretary by May 15th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, West Strand. Clinical Assistants. Appointments for six months, must be duly qualified; and preference will be given to those who have had previous experience of ophthalmic practice. Applications and testimonials to T. Beattie-Campbell, Secretary, by June 1st.

ST. LUKE'S HOSPITAL, E.C.—Clinical Assistant, must be duly qualified to practise, and registered. Appointment for six months with board and residence. Applications and testimonials to Percy de Bathe, M.A., Secretary.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Lecturer on Physiology. Applications to the Dean by May 25th.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Junior House-Surgeon, must be duly registered and unmarried. Salary, £50 per annum, with rooms and board. Applications and testimonials to the Honorary Secretary by May 24th.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho, W.—Honorary Surgeon. Applications and testimonials to J. J. Johnson, Secretary, by May 20th.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fifth Assistant Medical Officer. Salary, £100 per annum, rising £10 a year to £150, with board, etc. Applications to the Secretary by May 15th.

WORCESTER GENERAL INFIRMARY, Worcester.—Assistant House-Surgeon and Dispenser; fully qualified; unmarried. Salary £70 per annum, with board, residence, and washing. Office tenable for not more than two years. Applications and testimonials to William Stallard, Secretary, Worcester Chambers, Pierpoint Street, Worcester, by May 18th.

MEDICAL APPOINTMENTS.

ADCOCK, Dr. G. R., appointed District Medical Officer to the Hoxne Union.

BAILEY, Thomas R., M.D.Edin., reappointed Medical Officer of Health to the Bilston District Council.

BAKEWELL, R. Turle, M.B., M.R.C.S., appointed Anæsthetist to the Hospital for Sick Children, Great Ormond Street.

BODEN, J. S., M.R.C.S., L.R.C.P., appointed House-Accoucheur to King's College Hospital.

BOND, N. Troughton, M.B., C.M.Edin., appointed Medical Officer for the No. 5 District of the Liskeard Union.

BOUSFIELD, A., B.A.Cantab., B.Sc.Lond., M.R.C.S., L.R.C.P., appointed Assistant House-Physician to King's College Hospital.

BURRIDGE, H. A., M.R.C.S., L.R.C.P., appointed Assistant House-Accoucheur to King's College Hospital.

CRAWFORD, Raymond, M.A., M.B., B.Ch.Oxon., M.R.C.P.Lond., appointed House-Physician to King's College Hospital.

DAVIDSON, Dr., appointed Medical Officer for the Eaton District of the Macclesfield Union.

EDMUNDS, F., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Chesterfield District and the Workhouse of the Chesterfield Union.

EDWARDS, E. C., M.B., C.M.Edin., appointed Senior House-Surgeon to the East Suffolk Hospital, Ipswich.

ENSOR, H. C., M.R.C.S.Eng., L.S.A., appointed Assistant Ophthalmic Surgeon to the Cardiff Infirmary.

GRÜN, Edward F., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the No. 2 (Southwick) District of the Steyning Union, *vice* John Reeks, M.R.C.S.Eng., deceased.

HOWIE, Alexander, M.B. & C.M., appointed Medical Officer for the Alberbury District of the Atcham Union.

JAMESON, Joseph S., M.D., B.S., B.A.O.Dubl., appointed Medical Officer and Public Vaccinator to the Unions of Wix, Ardleigh, and Great Bromley.

KEMPTHORNE, A. E., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Second District of the Parish of St. Matthew, Bethnal Green.

OLIVER, Dr. G. H., appointed Assistant Surgeon to the Bradford Eye and Ear Hospital, *vice* G. H. Dodd, M.R.C.S., resigned.

OLVER, R. S., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital.

PATERSON, D. R., M.D.Edin., M.R.C.P.Lond., appointed Assistant Physician to the Cardiff Infirmary.

PENNY, F. S., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital.

RICE, T. E., L.S.A.Lond., appointed House-Surgeon to King's College Hospital.

RUSHTON, John L., M.D.St. And., M.R.C.S., reappointed Medical Officer for the Rainow District of the Macclesfield Union.

SHEEN, A. W., M.D.Lond., F.R.C.S.Eng., appointed Assistant Surgeon to the Cardiff Infirmary.

SHEPPARD, Amy, M.B.Lond., appointed Assistant Ophthalmic Surgeon to the New Hospital for Women, Euston Road.

SMITH, G. U., M.R.C.S., L.R.C.P., appointed Ophthalmic Clinical Assistant to King's College Hospital.

TAYLOR, J. W., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of Health for the Methley Urban District Council.

THOMAS, J. Lynn, F.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Surgeon to the Cardiff Infirmary.

TREASURYWALA, Edalju J., M.D., L.R.C.P. & S., appointed Assistant Electrician at St. Bartholomew's Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Lachrymal Affections. London Throat Hospital, Great Portland Street, 8 P.M.—Dr. Edward Law: Examination of the Throat and Nose.

MEDICAL SOCIETY OF LONDON, 8 P.M.—General Meeting for the Election of Officers and Council. 8.30 P.M.—Ordinary Meeting: Mr. C. B. Lockwood: The Diagnosis of Retroperitoneal Sarcoma, with Cases. Mr. H. Allingham: A Series of Cases of Operations upon the Stomach.

TUESDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Hypochondriasis.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Adjourned Discussion on Dr. Felix Semon's paper on the Probable Pathological Identity of the Various Forms of Acute Septic Inflammations of the Throat and Neck.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: The Diseases called Lichen. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Stanford Morton: Retinal Affections.

ROYAL METEOROLOGICAL SOCIETY, 12, Great George Street, Westminster, 7.30 P.M.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, W., 8 P.M.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Beevor.

THURSDAY.

LONDON POST-GRADUATE COURSE, Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Ormerod: Paraplegia. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. W. S. Colman: Stammering and other Speech Defects. Central London Asylum, Cleveland Street, 5.30 P.M.—Mr. Reginald Harrison: Cases in the Wards.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture, Examination of Air, Soil, and Water; Practical work, Plate Cultivations.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 P.M.—Professor Lane Notter: On Soil as a Factor in the Production of Disease.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital 11 A.M.—Dr. Percy Smith: Melancholia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BEEVOR.—On May 5th, at 18, Serjeant's Inn, Temple, E.C., Lady Beevor, of a daughter.

CULHAM.—On April 22nd, at 122, Mount Pleasant Road, Hastings, the wife of F. W. S. Culham, of a daughter.

HURRY.—On May 5th, at Abbotsbrook, Reading, the wife of Dr. Jamieson B. Hurry, M.A.Cantab., of a daughter.

MARRIAGES.

ARCHER—SHAW.—On April 30th, at St. Mary's and St. Michael's, Commercial Road, E. (by licence), Sidney Hugh Langston, L.R.C.P., L.R.C.S.I.Edin., L.S.A.Lond., son of the late Sidney James Archer, of Dartford, Kent, to Nancy Allen, daughter of the late James Allen Shaw, of Dublin.

IRVINE—STAMPS.—On May 1st, at Walmley Church, by the Rev. A. B. Irvine, M.A., vicar of Holy Trinity, West Bromwich, father of the bridegroom, assisted by the Rev. J. Westley Davis, M.A., vicar of Walmley, Arthur Gerard Cheyne Irvine, M.R.C.S., L.R.C.P., to Charlotte Ellen K. Stamps, youngest daughter of Thomas Stamps, Esq., of Berwood, near Erdington.

DEATHS.

DURHAM.—On May 7th, at 82, Brook Street, Grosvenor Square, Arthur Edward Durham, F.R.C.S., Consulting Surgeon to Guy's Hospital, Member of the Council of the Royal College of Surgeons—in his 82nd year. No flowers by request. The Funeral Service will be held at St. George's Church, Hanover Square, at 1 o'clock P.M., on Friday, May 10th. Funeral at the Crematorium, Woking. Train leaving Necropolis Station, L. & S. W. R., Westminster Bridge Road, at half-past 2.

GUNNING.—On May 1st Brigade-Surgeon-Lieutenant-Colonel James Davis Gunning, A.M.S., on board the troopship *Malabar*, one day out from Gibraltar, homeward bound. Aged 50.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

C. C. R. asks to be referred to any publication on the effect of elevation above sea level on the digestive organs.

MR. T. EDWARD WILLIAMS, F.R.C.S.Ed. (Talgarth, R. S. O., Breconshire) desires to learn of some charitable institution where a young woman who has lost one arm and the other hand through a railway accident could be received on a payment of £14 per annum.

HOME FOR IMBECILE EPILEPTICS.

MEMBER will be glad to hear of any charitable institution where a girl, aged 16, could be received. The parents are unable to afford more than 4s. a week for her maintenance. She is of feeble mind, a dipsomaniac, subject to epilepsy, but would be able to assist in household work.

TREATMENT OF SOFT CORNS.

SUFFERER asks for a remedy for soft corns, which are very sore, and are situated between the toes. Caustic, salicylic acid, iodine, pads of wadding, broad boots, etc. have already been tried without avail. In warm weather the feet sweat pretty freely.

TOUTING BY THE AGENTS OF PROVIDENT DISPENSARIES.

A CORRESPONDENT writes to complain of the injury done to his practice by the frequent canvassing of his patients by the agents of various provident medical societies. He asks whether it would not be legitimate for a practitioner under these circumstances to protect himself by starting a dispensary of his own, giving attendance and medicine at the same rate, for he says he has been repeatedly asked by patients, who have left him in order to join one of these institutions, whether he has a dispensary, and he is of opinion that by this means he might keep many of those patients who are now drifting away from him.

*** The question here propounded is by no means an easy one to answer. There can be little doubt that the detriment complained of is very real, and affects many practitioners, and it would doubtless be very beneficial to the profession if a remedy could be suggested for this evil. It must not, however, be forgotten, that some remedies tend to be worse than the disease, and it is to be feared that if the bulk of the profession were to open dispensaries in this way, it is by no means certain that the general gain would exceed the inevitable loss that such a system would be sure to entail by cheapening in a wholesale manner medical skill in the eyes of the public. In many neighbourhoods practitioners would soon find that all their patients would demand to be admitted to the advantages of these dispensaries, and if nearly every medical man had a dispensary, it would be difficult to refuse them. Competition, again, would soon spring up between these dispensaries, and it would probably be of a more lowering character than that which at present divides the ranks of the profession. Although such a movement might considerably diminish the business of the various touting medical aid societies now in existence, it is doubtful whether even the abolition of these would not be obtained at too high a cost. That our correspondent would be fully justified in acting in this way, if the facts are as he states, cannot be denied; but he would be wise to pause, and consider whether, after all, he may not be a loser in the end by such an enterprise. At the same time his action would probably be condemned by many of his professional brethren, who, although ready to admit that self-preservation might warrant many things otherwise inadmissible, would be most unwilling to countenance that which might so easily be turned to the advantage of an unscrupulous practitioner, seeing that the individual himself must always remain the sole judge when the necessity for this self-preservation arises.

ANSWERS.

MEMBER has omitted to enclose his card.

W. X.—The only company, so far as we know, that offers special terms to medical men is the Rock Life Assurance Company, which allows a rebate of 5 per cent. to all medical men effecting policies through the agency of the Medical Assurance Society.

A. F.—An abstract of Quincke's paper, which contains a description of his method of lumbar puncture for hydrocephalus can be found in the *Centralblatt für Chirurgie*, 1892, p. 429. Our correspondent may consult also the EPITOME of the BRITISH MEDICAL JOURNAL, May 27th, 1893, par. 429, which contains a description and discussion of Quincke's method by von Ziemssen. See also EPITOME, April 20th, par. 329, and May 11th, par. 354.

CYMRO.—There is no evidence that the use of large quantities of yeast for making bread produces injurious effects on the consumer. Bread of inferior quality and unpleasant in taste may result from this. Yeast is liable to adulteration and varies greatly in quality, and, without knowing the nature of the yeast actually used in any given case, it is not possible to give a decided answer.

EMBALMING.

DR J. M. CUTHBERTSON (Droitwich) offers in reply to "Member," who in the BRITISH MEDICAL JOURNAL of April 6th made an inquiry as to embalming, to supply our correspondent with information on the subject by private letter.

RULES OF COTTAGE HOSPITALS.

E. M.—Before answering our correspondent's inquiry we obtained a copy of all the proposed rules of the institution. These have evidently been drawn up by someone who is not familiar with the regulations attaching to cottage hospitals nor with the principles governing the admission of patients to institutions where payment is taken from certain cases. Where the payments are less than the actual cost of maintenance, free medical service may be given by the staff without question. In cases where patients' payments exceed this limit, provision should be made for a proportion of all money so received to be set apart for the payment of the medical attendants. The rules as they stand require much modification, and that sent by our correspondent is especially objectionable.

NOTES, LETTERS, Etc.

THE CASE OF MR. C. BRYAN TOWNSHEND.

THE following donations have been received in addition to those already announced, and are hereby thankfully acknowledged:

	£	s.	d.
Dr. Peter Horrocks, London Bridge	2	2	0
Lt. T. Carr...	0	2	6
T. C., Leeds	0	5	0
Dr. Langdon-Down, London	2	2	0
Dr. G. Evan H. Norton, London	1	1	0
Dr. John Hall, Sheffield	1	1	0
Mrs. Williams, Birkenhead	0	2	6
Dr. Hy. Cayley, Southampton	0	10	6
Dr. H. F. L. White, Caxton, Cambs	0	7	6
Dr. F. N. Williams, Brentford	2	2	0
Dr. C. J. Williams, Lincoln	1	1	0
Dr. John Alcock, Bursiem...	1	0	0
Dr. Jas. Braithwaite, Leeds	1	1	0
Dr. Alfred Sangster, London	0	10	0
Dr. R. Douglas Powell, London	5	0	0
Dr. H. J. Macevoy, Brondesbury	0	10	6
Dr. Jas. Weaver, Southport	0	10	6
Dr. B. Addy, Seedley, Pendleton	1	1	0
Dr. F. S. Cahill, Berwick-on-Tweed	1	1	0

Further donations, even smallest amounts, will be thankfully acknowledged by the Rev. H. Townshend, 41, King Henry's Road, South Hampstead, N.W.

ORCHITIC EXTRACT AS A PREVENTIVE OF MANIA AFTER CASTRATION.

DR. JAMES MACMUNN (Finsbury Pavement, E.C.), writes: It would at least be interesting to try the effects of Brown-Séquard's treatment in these cases, or possibly the grey cerebral extract. It is likely that the same idea has occurred to others.

SCARLATINIFORM RASH IN INFLUENZA.

SADDLE AND BRIDLE writes: I have had one of a family with such a rash. Three of the family had influenza, and one case developed the scarlet fever rash and small white patches on swollen tonsils, but the temperature only registered 99°. The rash seemed to remain only about a day and a-half.

THE BINIODIDE OF MERCURY.

DR. C. R. ILLINGWORTH (Ventnor) writes: I thank Dr. Robert Cook for the observation he makes in the BRITISH MEDICAL JOURNAL of May 4th. It explains the fact that in order to procure a solution of the biniodide from one of the bichlorides of 1 in 1,000 strength twice the amount of potass. iodid must be added—namely, 2½ drachms to 80 ounces of a 1 in 1,000 of bichloride solution (℥lxxx). I therefore stand "chemically corrected."

ARE RHUBARB LEAVES POISONOUS?

THIS question has again come to the front. One person, whose experience of this life, as he himself reveals, is, to say the least, unpleasant, writes to say that the ordinary surroundings of this popular vegetable are frequently unwholesome, if not actually injurious. It appears that "besides the immense quantity of rhubarb imported and raised, much

of the home-grown is forced in filthy stables, sties, and sewage-soaked cellars, and underground caverns." It is difficult to deal seriously with a statement so devoid of common sense. Some rhubarb may be imported, but we doubted whether any is imported from beyond the sea, as our neighbours still regard it as a curiosity. Our readers may rest assured that persons who force rhubarb, whether for their own consumption or for sale, would not resort to such a troublesome method as that described. Moreover, plants, like other organisms, can only assimilate certain substances, and if they absorb deleterious foreign substances they suffer disease or death. There is another aspect of the question; the roots of rhubarb ordinarily used for forcing are much too big to go into this "favourite forcing pot."

THE NATION'S DRINK BILL.

FROM the usual annual estimate just given by Dr. Burns in the *Times*, some interesting facts are to be gleaned. In 1894 the retail cost of intoxicating liquors consumed was £153,757,528 in the United Kingdom, as against £138,854,829 in 1893, showing a decrease of £117,001. There was an aggregate decrease of £525,003 on spirits (£237,767) and wine (£287,236). But as the expenditure on beer had gone up £408,002, the net decrease was £117,001. The population having been estimated, in 1894, at 38,779,031 (England, 30,060,763; Scotland, 4,121,691; Ireland, 4,593,577), the average cost per head was £3 11s. 03d., equivalent per family of 5 individuals to £17 17s. 03d. The corresponding figures in 1893 were £3 12s. 3d. and £18 1s. 3d. There had been a decrease since 1876 of over two millions sterling. During the past ten years the average annual cost has been £132,600,500, and the average annual per head expenditure £3 10s. 6d. Sir F. Seager Hunt's Parliamentary Return shows that since 1861 the increased consumption of non-alcoholic drinks (tea, coffee, cocoa, and chicory) has far outstripped that of intoxicants. The former rose from 125,000,000 lbs. in 1861 to 265,000,000 lbs. in 1893; while the latter, spirits rose from 25,000,000 gallons to 51,000,000 gallons, the greatest increase having been from 1872 to 1878. Beer went up 50 per cent., though also lower since 1878. Tobacco advanced from an average of 1 9 oz. annually per head to 26 oz. in 1893.

THE CAUSATION OF GOITRE.

DR. A. ALEXANDER (Upper Tollington Park, N.), writes: About a year ago I had under my charge a clergyman suffering from goitre of the simple hypertrophic type. Among all the data which he supplied in regard to heredity, habit, etc., I could find only one fact to account for the overgrowth. His hobby is voice training, and he devotes one or two hours a day to the improvement and maintenance of his voice. Among his exercises were some in which he forced air with violent expiratory effort through his tightly-closed lips. The effect of this action, as anyone may perceive on attempting it with bare neck before a mirror, is to cause a considerable amount of swelling in the lower part of the thyroid gland. This swelling disappears with the cessation of the effort, but it is easy to see how perseverance in such exercises may lead to hypertrophy. The condition yielded so readily to treatment that in three months the circumference of the neck (measured round the thickest part) diminished from 17½ inches to 14 inches. The hypertrophy had existed from 9 to 18 months before I saw him, but there is as yet no appearance of recurrence.

A CASE OF TRAUMATIC TETANUS.

DR. R. E. BURGES (Chester) writes: H. J., a boy aged 10, met with an injury on April 13th, 1895, causing an incised wound on the forehead about an inch above the right eye. His mother treated it with some ointment bought at a grocer's shop and brought him to me on the night of April 15th. The wound looked angry and inflamed then, and I ordered her to poultice it. I was sent for on the morning of April 17th and found him feverish and restless. I ordered him some sedative medicine, but was sent for again about 10 that night, and found him with well-marked symptoms of tetanus. Opisthotonic spasms occurred about every five minutes. The arms were extended and the hands clenched. He did not complain very much of pain or stiffness about the neck or jaws. I sent to see if I could obtain any tetanus antitoxin, and found I could obtain none nearer than London. As I could not afford to lose time in waiting to telegraph in the morning, I gave the boy a hypodermic injection in the arm of 3 minims of a solution of morphine and atropine (morphine gr. j, and atropine gr. ⅓ to 12 minims) about 10.45 P.M. I saw him at 5.45 A.M. on April 18th, and found he had had no spasm since 12.30 A.M., but had been sick since 3.15 A.M. I saw him again at 10.45 A.M., and found he had had two spasms since 10. I repeated the hypodermic injection, and ordered him bismuth for his sickness. Since that the boy has done well, and is now able to be up and about. The wound is now nearly quite healed up also.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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BOOKS, ETC., RECEIVED.

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A CLINICAL LECTURE
ON THE
PROGNOSIS OF APOPLEXY DUE TO CEREBRAL HÆMORRHAGE.

Delivered at the General Infirmary at Leeds.

By ALFRED G. BARRS, M.D.Edin., F.R.C.P.Lond.,
Physician to the Infirmary, Professor of Materia Medica and Therapeutics in the Yorkshire College of the Victoria University.

In the observations I am about to make I am desirous of calling attention to the prognostic indications afforded by cases of apoplexy due to cerebral hæmorrhage, and more especially to those afforded by cases of apoplexy which are due to that form of cerebral hæmorrhage which has for its primary seat the substance of the hemisphere, usually the neighbourhood of the external capsule of the corpus striatum; but while making this limitation I may say that I believe that the conclusions which I shall venture to lay before you may readily be applied to all cases of apoplexy from whatever cause arising.

My observations concern only the prognosis as to life, and have no bearing on the probability of recovery of movements in paralysed parts.

Before proceeding further I wish it to be clearly understood that I use the term "apoplexy" in its original, clinical, and proper sense: that is, to describe a condition in which a person passes suddenly from a state of apparent health, it may be, to one in which all the functions of the cerebrum are suspended or in abeyance, the vital functions of the medulla alone, of those of the encephalon, remaining; a state in which the patient is suddenly stricken down, so that he is deprived of all voluntary movement and all perception, so that he neither sees, nor feels, nor hears, nor moves.

Prognosis is admittedly one of the most difficult of the functions which the practitioner has to perform, and it is never more difficult or more responsible than it is in the case of cerebral apoplexy. There are very few of us who cannot call to mind cases of apoplexy where a fatal event seemed to be inevitable, and yet the patient has recovered possibly to pass through a second, and even a third, seizure of equal severity, and yet escape with life; while in others a seizure, so slight as to pass almost unrecognised, has gone on rapidly to a fatal issue. I may venture to quote a typical case of each class.

Some five years ago I was asked to see a lady, then in her 79th year, who had, in the midst of excellent health, and whilst still of great mental and bodily activity, been suddenly thrown into the apoplectic state. When I saw her, along with one of my colleagues, she was absolutely insensible, all the limbs relaxed, the face blue from venous obstruction, the breathing stertorous and audible at some distance from her room, and the chest rapidly filling with mucus. My colleague and I, and the members of her family, stood around the bed awaiting her death, which seemed to be a matter of minutes rather than of hours (her age alone seemed then sufficient to compel us to that opinion), yet she recovered, and, in spite of a left hemiplegia remaining, she lived an active life till her 83rd year, to die in the end of bronchitis, having in the interval had another apoplectic seizure. Her urine never contained albumen.

As a contrast to this case I may mention that of another lady, 75 years of age, who had been for some time under my observation. She had been known for two years previous to her death to be the subject of chronic albuminuria. One morning on getting out of bed she fell, it was supposed from her weakness, to the floor, where she remained for a moment, and then got into bed again, apparently none the worse except for a little bruising of the right hip and elbow on to which she had fallen. There was not the smallest suggestion of loss of consciousness. She said she had caught her foot in the carpet, and so had fallen. A trifling difficulty in using the right limbs was attributed by her to the bruised elbow and hip, and nothing was thought of it until I saw her, when a little flattening of the face and a little blurring of her articulation (she was never aphasic) made it clear that she had had a hemiplegic seizure. From this she steadily became more and more helpless in the limbs, then dull and apathetic, and ultimately died comatose at the end of fourteen days.

To draw still further on my own experience: In the medical out-patient department of a large general hospital there is usually to be found a not inconsiderable number of old hemiplegics who come up in the hope of getting some help for their useless limbs. During the eight years in which I was in charge of patients in the out-patient department I was very much struck by the fact that these cases of long standing hemiplegia the survivors, so to speak, of the initial attack were, almost without exception, free from albuminuria; so that at the end of eight years of careful observation on this point, although I have no figures to put before you, I came to the conclusion that one did not see cases of hemiplegia associated with albuminuria (Bright's disease) in the out-patient room; or, in other words, that cases of hemiplegia in which there was Bright's disease did not survive in any number; that cerebral hæmorrhage was a mode of death rather in, than an incident in the course of, Bright's disease.

Some recent figures published by Dr. Dana[1] which have come into my hands during the last few days confirm this in a striking manner, for out of 100 non-fatal cases of hemiplegia only 1 case of Bright's disease was found.

Although albuminuria is incidentally mentioned by some writers as an indication of a dyscrasic condition which should be taken into account in forming a prognosis in cases of cerebral hæmorrhage, I am not aware that it is usually and particularly set down as an important factor to be borne in mind in estimating the immediate danger to life in any given case. The reason for this is, I think, clear.

The association between albuminuria and sanguineous apoplexy has been so much and so frequently insisted upon, that some observers seem to regard Bright's disease as responsible for by far the largest number of cases of cerebral hæmorrhage. This view of the relation of chronic kidney disease to vascular disease, and so to cerebral hæmorrhage, is to a great extent explained by the fact that the observations upon which it is based have been very largely, if not entirely, made in the *post-mortem* room, that is, upon fatal cases.

I think that there can be little doubt, and it is a point upon which I may rely for support of my main contention, that a large majority of the cases of cerebral hæmorrhage found in the *post-mortem* room present well-marked renal disease. To quote one observer only, Dr. Fagge[2] says: "In this country the most obvious pathological change found in the bodies of those who have died of effusion of blood into the brain is undoubtedly chronic renal disease. Among 116 cases which came under observation consecutively in the dead house of Guy's Hospital, some morbid condition of the kidneys is stated to have been present in 86, while in only 15 of the whole number is it reported that these organs were healthy." Dr. Fagge's figures are practically confirmed by the experience of this hospital. I have searched the *post-mortem* records for a period of ten years, and find 32 cases of fatal cerebral hæmorrhage (3 meningeal, 25 into the hemisphere, 1 into the pons, and 1 into the cerebellum). Of these, 20 had granular kidneys, and in 3 only are the kidneys described as healthy.

I think from these figures alone the great prevalence of granular kidney amongst fatal cases of cerebral hæmorrhage is well established, and there is no need for me to dwell further upon what has been a well-recognised fact for many years. But it seems to me that here, as in many other matters in medicine, there has been too great a tendency to settle the whole question of cerebral hæmorrhage by the findings of morbid anatomy, and to conclude that Bright's disease is the commonest associated condition of all cases of cerebral hæmorrhage fatal and non-fatal alike, whereas, as I have already stated, as the result of my experience in the out-patient room, large numbers of cases of hemiplegia, the result of cerebral hæmorrhage, have, so far as the condition of the urine can tell us, no renal disease. Upon this point I

[1] *New York Medical Record*, February 23rd, 1895, p. 225.
[2] *Textbook of the Principles and Practice of Medicine*, Fagge and Pye-Smith, 3rd edition, vol. i, p. 588.

have by the kindness of my colleagues Dr. Eddison and Dr. Churton, and with the able assistance of Mr. Stoney, obtained some interesting figures. Mr. Stoney has been good enough to inspect with great care the records of cases of hemiplegia diagnosed as due to cerebral hæmorrhage, and under observation in the hospital during the years of 1880 to 1887 inclusive. Seventy-seven such cases were found. Of these, 3 were fatal, 50 had no albuminuria, 4 had albuminuria, in 18 no note of the urine was made, 2 are excluded as incomplete or doubtful cases. So that in 54 cases in which the observation was made, 50 had no albuminuria (1 of them a fatal case), and 4 only had albuminuria. I have also tabulated the cases of cerebral hæmorrhage which appear in my own private casebooks, with a view to ascertaining the frequency of renal disease amongst them. These cases are 35 in number (so that I am dealing with 112 cases in all); 18 of them died of their disease, and 17 survived. Of the 18 fatal cases, 9 had albuminuria, 4 had not albuminuria, in 4 no examination of the urine could be made, and in 1 there was albuminuria of cystitis. The 4 fatal cases without albuminuria all had some special condition which determined the result. One died a month after the seizure from incontinence and bedsores. One had lost both knee-jerks (always a dangerous sign, I believe). One had great cardiac irregularity, and died from cardiac failure. One died quite suddenly and unexpectedly from cardiac syncope when apparently making a good recovery from her seizure. One of the fatal cases with albuminuria had had two previous seizures, and had been known to have renal disease since the second seizure. Of the 17 who survived, not one had albuminuria.

One word as to the value of albuminuria as a sign of renal disease in cases of apoplexy. I quite recognise the fact that there are certain sources of fallacy in arguing the presence of renal disease from, it may be, a single examination of the urine; but in middle-aged men, who afford the greatest number of examples of cerebral hæmorrhage, an albuminous urine of low specific gravity may be taken as a very strong indication of the presence of destructive renal disease. But there is another point which deserves mention in this regard, and that is the possibility of a transient albuminuria being actually induced by the apoplectic state; in what manner I will not pause to inquire, but a statement made by Dr. Gowers seems to suggest that such may be the case. He says, in speaking of the prognosis of cerebral hæmorrhage, that the early appearance of albuminuria is a serious sign[3]—clearly meaning that albuminuria may appear during the apoplectic state. I have myself seen one case of apoplexy, not due to cerebral hæmorrhage, in which both albumen and sugar were present for a time in the urine and then disappeared. This patient was never hemiplegic, and he made a complete recovery, except that his knee-jerks were absent and had not returned when he left the hospital. It was a remarkable case, possibly an example of the apoplexy of tabes. According to Dr. Gowers, then, an albuminuria which appears during the apoplexy, and which therefore cannot be due to renal disease, is of serious import. Beyond the case I have mentioned I have no personal experience in this matter, but I think there need be no difficulty in admitting that the profound vasomotor disturbances seen in fatal apoplexy may well give rise to an albuminuria not due to actual renal disease. If Dr. Gowers's view be correct, it does not materially affect the point I am anxious to make, and that is that the presence of albuminuria is almost invariably of fatal import.

For the last few years I have made it a rule to defer any expression of opinion as to the probable outcome of any given case of apoplexy due to cerebral hæmorrhage until an examination of the urine has been made and when that examination has shown, in my judgment, the presence of renal disease I have always, or almost always, seen the patient succumb to his seizure. I have, in a few instances, the details of which I need not trouble you with, departed from the teachings of my experience, and have given a favourable opinion in the presence of renal disease, or have given an unfavourable opinion where there was no evidence of renal disease and other unfavourable signs were absent, and have almost always been wrong in the end. In speaking thus positively may I repeat that I have in view a quite definite class of cases, namely, those in which the patient is unconscious and the diagnosis of cerebral hæmorrhage has been made on good grounds? I do not propose to apply the test to any other cases, although, as I said at the beginning, I have a strong reservation that it will be found to be a good rule for all cases of apoplexy from whatever cause arising.

It will follow from this that in the presence of renal disease the first attack of apoplexy should be fatal, or, in other words, that those who have repeated attacks of apoplexy are not also the subjects of renal disease. A curious confirmation of this point is afforded by Dr. Dana's statistics, already referred to, for he found that in 79 fatal cases only 4 had had previous attacks.[4] It will be remembered that in my 35 private cases there was only 1 of the 18 fatal cases with albuminuria who had had a previous attack.

I may be permitted for a moment to consider why it it is that renal disease exercises this fatal influence upon the course of apoplexy due to cerebral hæmorrhage. The immediate cause of all cerebral hæmorrhage, it will be at once admitted, is disease of the cerebral blood vessels. It will be as readily admitted that without vascular disease renal disease can never cause cerebral hæmorrhage. I am one of those who believe that a large number, possibly the majority, of cases of the vascular disease which gives rise to the cerebral hæmorrhage is quite independent of renal disease. The immediate cause of all cerebral hæmorrhage is the same in the fatal and the non-fatal cases alike; the fatality in the instance under discussion, if my view is correct, is dependent on the renal lesion. Why is this so? It seems to me to be so constantly so that I should hesitate, and my experience has justified me in hesitating, to give anything but an unfavourable prognosis in even the most trifling seizure associated with renal disease. I think the explanation is not far to seek, and that that which so commonly happens as I have tried to show, namely death, is what we should expect in such a serious and sudden lesion occurring in a person whose organs are in the damaged and spoilt condition which results from long continued renal disease. What is true of other organs is true of the brain and its blood vessels. The patient's safety in apoplexy depends upon an early arrest of the bleeding and rapid repair of the injured parts. Both of these processes seem to be well nigh impossible in the presence of renal disease, and I have no doubt that precisely the same causes which make ordinary surgical injuries and operations so notoriously dangerous and fatal in chronic renal disease are acting in the case of cerebral hæmorrhage.

Hitherto I have been attempting to deal with the prognostic indications afforded by the ascertained presence of renal disease, and in doing so have doubtless done nothing more than repeat facts and conclusions already well established in the minds of many observers, although not to my knowledge formally and publicly stated.

I wish in a very few words more to call attention to some signs of fatal import in cases of sanguineous apoplexy in which renal disease is not present, for apoplexy occurring in those free from renal disease is not infrequently fatal. First of all, I may be allowed to state that which is obviously true, and that is that there is no immediate question as to life in any case of cerebral hæmorrhage in which the patient is conscious. All observers are agreed that whenever the effusion of blood has been so large as to invade the ventricles a fatal tissue is inevitable, but what the certain signs of blood in the ventricles during life are it is very difficult, if not impossible, to state. I am, however, strongly of opinion that the mere intensity and duration of coma is not a safe guide as to this point. The locality of the hæmorrhage, supposing we are able to determine it, will in certain cases decide the question of life or death. Bleeding into the pons, medulla, or fourth ventricle must, renal disease or no renal disease, soon prove fatal.

Many attach great importance to the condition of the pupils in apoplexy, as in many other diseases of the brain, but I think most will agree that they are an uncertain guide. Permanently contracted pupils, with deep coma, have been for long regarded as a most unfavourable sign in apoplexy, and on the whole I believe them to be such. Most of us no doubt have our own favourite omens in apoplexy as in other diseases. I am, however, desirous of calling attention to

[3] [illegible], *Nervous System*, 2nd Ed., 1893, vol. ii, p. 410.

[4] *New York Medical Record*, February 23rd, 1895, p. 226.

two conditions well known and referred to in all standard works as signs of great significance—namely, certain disturbances of breathing, especially the peculiar form of breathing known as Cheyne-Stokes respiration, and a rapid rise of temperature. Disturbances of respiration in cases of apoplexy are, I have no doubt, of grave omen. So long as the respiration remains regular, however noisy and stertorous it may be, other things not being unfavourable, I believe the patient may recover, but when irregular breathing sets in, and above all when undoubted Cheyne-Stokes respiration is present, the patient is, I believe, in the greatest danger. I am speaking of course of Cheyne-Stokes respiration along with insensibility; without insensibility it has no serious meaning at the moment.

A certain, always moderate, amount of pyrexia occurs in many cases of cerebral hæmorrhage after the initial depression due to shock has passed away, but a temperature rapidly rising to 104°, 106°, or even 108° is of absolutely fatal significance. Hyperpyrexia is not, I believe, of any great value in showing the locality and extent of the lesion; it indicates probably an extension to, or involvement of, the basal ganglia and pons, and so probably means an invasion of the ventricles.

There are then, as I have tried to show, in my opinion at least, three important prognostic indications to be looked for in any given case of apoplexy due to hæmorrhage into the substance of the hemisphere—namely,

1. Renal disease.
2. Cheyne-Stokes respiration.
3. Hyperpyrexia.

By far the most important of these is renal disease.

If, in conclusion, I may state my opinion in the form of a rule for prognosis, I would say this. In any case of apoplexy due to hæmorrhage into the hemisphere, if renal disease, Cheyne-Stokes respiration, or hyperpyrexia, any one, two, or all three be present, the patient will in all probability not recover. If no one of these is present, and does not make its appearance, he may, and probably will, recover, however long insensibility may last and however deep it may be.

The presence of other serious conditions, such as diabetes, chronic alcoholism, typhoid fever, idiopathic anæmia, will, I have no doubt—for I have seen examples to this effect—exert just as fatal an influence as renal disease upon the course of sanguineous apoplexy.

THE VALUE OF EXPERIMENTAL EVIDENCE IN THE DIAGNOSIS OF DISEASES OF THE CEREBELLUM.

By J. S. RISIEN RUSSELL, M.D., M.R.C.P.,
Assistant Physician to the Metropolitan Hospital.

A review of the literature in connection with diseases of the cerebellum makes it evident that considerable confusion exists with regard to the symptoms on which we are to depend for the diagnosis of such morbid processes, and for their localisation in one rather than another part of the organ. Much of this confusion appears to be due to the following causes: (1) The discrepancies which exist in the results obtained by different experimental physiologists who have investigated the functions of the cerebellum. (2) A disregard on the part of the clinical observers, of experimental evidence bearing on the question. (3) Faulty attempts to apply experimental evidence in the elucidation of clinical phenomena. (4) A preconceived idea that such and such symptoms cannot be directly due to a lesion of the cerebellum, and that therefore some other explanation for their occurrence must be sought for.

The Absence of Characteristic Symptoms.

One of the first points which calls for our attention is the fact that extensive disease of the cerebellum may exist in man with next to no clinical evidence pointing to the existence of any morbid condition of this part of the central nervous system. We find it at first difficult to reconcile this with the fact that in animals ablation experiments on the cerebellum result in most profound disturbances of function, even when comparatively small portions of the organ have been removed. And yet nothing is more simple than the explanation of what at first appears to be so irreconcilable a discrepancy. It is perfectly true that the most pronounced disturbances of function result when a part or the whole of the cerebellum is removed; but it must not be forgotten that recovery takes place with marvellous rapidity, each disordered function being in turn compensated for with such exactitude that no one unfamiliar with this would believe that an animal presenting all the disorders of function observable directly after the operation could recover to the extent that it does even in the course of a month. Now, if after removal of a large part of the organ such complete restoration of function can be brought about by compensation through other parts of the central nervous system, what is more likely than that the slow processes of disease, destroying the substance of the cerebellum only gradually should produce no symptoms as a consequence of the loss of function of the part destroyed, owing to the fact that compensation goes on *pari passu* with destruction, the latter being so slow as to allow the former to keep pace with it, and thus no recognisable evidence of the destructive process in the cerebellum is forthcoming?

We need not look to the experimental side of the question alone for evidence in support of the above proposition, for in morbid processes of the cerebellum occupying precisely the same situation in the organ we meet with the most varying symptoms and all degrees of the same symptom. I am convinced that these various differences depend not so much on the extent of the morbid process as on the rate of its development; the more sudden its onset and rapid its development, the more pronounced are the evidences of disordered function, the more gradual its onset and slow its progress the more likelihood is there to be only slight evidence of disordered function or a complete absence of such. In support of this contention I would adduce the following three considerations: 1. The most sudden of all lesions of the cerebellum in man is a hæmorrhage into some part of its substance, an event which, as we are all aware, is attended by disorders of function of a pronounced character. 2. Abscess of the cerebellum may be of rapid or slow development, and correspondingly we find such cases presenting the most varying evidences of disordered function from pronounced to trivial or completely absent. Of course it is, with some exceptions, almost impossible to fix the exact time that the morbid process has been in existence, so that these cases are only of value in supporting the argument when taken in conjunction with cases of the first and third group. 3. Tumour cases more than any others show how trivial the evidence of disease of the cerebellum may be in conjunction with the most gross changes within that organ. It is no uncommon experience to find extensive new growth in the cerebellum with an almost total absence of symptoms which we are in the habit of associating with tumour in that part of the central nervous system. In this statement I of course exclude such general symptoms as headache, vomiting, and optic neuritis—symptoms common to intracranial tumour in the most varied situations. With this—the most slowly progressing of morbid processes to which the cerebellum is prone—we most commonly meet with an absence of or only trivial indications of disorders of function peculiar to the organ under consideration.

Thus, while with the most sudden of lesions of the cerebellum (hæmorrhage) we meet with the most pronounced symptoms of disordered function, with that of slowest development (tumour), we find least evidence of a similar nature, and with a process which may be rapid or slow (abscess) we meet with variations in symptoms which justify our attributing their variations, in great measure, to the rate at which the morbid process is developed.

There is one other factor which has to be taken into account, more especially in connection with tumours of the cerebellum, and that is, that the morbid process may displace without actually destroying the cerebellar tissue, so that unless the process of extension is rapid the organ is able to accommodate itself to the altered pressure relations for a considerable time.

Just as all symptoms characteristic of disease of the cerebellum may be absent, so it often happens that we have

to depend on one or two symptoms alone for diagnosis. The typical picture, comprising all the various phenomena which may be associated with disease in this part is of exceptional occurrence, so that in any given case we must be prepared to depend on the detection and correct interpretation of one or two phenomena to aid our diagnosis, rather than refrain from diagnosis because the typical picture is not before us. It will, therefore, be instructive to consider separately each symptom in which experimental evidence aids us, and on which we may have to depend largely for the correct localisation of disease in the cerebellum.

INCO ORDINATION.

Probably no symptom is more closely associated with cerebellar disease than co-ordination. This is not the occasion to discuss the nature and mode of production of this phenomenon; it is sufficient for our present purpose that we recognise that it occurs, and attempt to diagnose the seat of the disease in the cerebellum from a consideration of the characters of the inco-ordination. It may be said at once that experimental, and, in the main, clinical evidence, are at one in ascribing to lesions of the front part of the vermis or middle lobe of the cerebellum instability of such a nature that the tendency is to fall forward, whereas when the posterior part of this lobe is affected, the tendency is for the animal or human subject to fall backward. And yet, that the direction of the fall cannot be relied on absolutely as indicating the precise locality of the morbid process in this lobe in the human subject is made evident by such cases as that recorded by Handford,[1] in which the patient tended to fall backward, and yet the whole of the middle lobe of the cerebellum was destroyed by a sarcoma.

When we turn to consider lesions of the lateral lobes of the cerebellum we find a great want of unanimity of opinion; experimental physiologists and clinical observers are alike at variance as to the direction in which the animal or human subject reels or falls when one or other lateral lobe of the organ is affected. According to one class of observers, in destructive lesions of one lateral lobe the tendency is for the subject to rotate, reel, or fall to the opposite side from the lesion; whereas the other class of observers hold that the instability results in a rotation, reel, or fall to the same side as the lesion. For my own part I have always adopted the former view, and I cannot help thinking that we all mean the same thing, but express ourselves differently. In discussing the subject with Dr. Beevor recently, he made a suggestion which appears to me calculated to clear up a good deal of the confusion which at present exists with regard to this subject. Dr. Beevor's suggestion was that we should describe the direction of rotation as compared to a corkscrew as it is turned in going into the cork of a bottle, or in coming out of one.

Now according to my observations, which lead me to the conclusion that the animal rotates away from the side of the lesion; if the lesion happened to be in the right lateral lobe of the cerebellum the animal would rotate like a screw going into a bottle, whereas if of the left lateral lobe, then like a screw coming out of one. To make my meaning clearer, let us suppose that a man with disease of the right lateral lobe of the cerebellum is placed to stand facing the observer, he would tend to rotate in such a manner that his left side would next present itself to the observer, then his back, then his right side, and then his face once more; whereas a man with his left lateral lobe affected, similarly placed, would rotate in such a manner that his right side would first present itself to the observer, then his back, then his left side, and then his face once more.

In making the above remarks with regard to the direction of rotation, it must be clearly understood that I refer to the objective phenomena of reeling or rotation, and not to any subjective sensations experienced by the individual, for in experiments on animals it is of course on the objective phenomena associated with inco-ordination that we have solely to depend. Many of the records of clinical cases are wanting in this respect, inasmuch as it is not definitely stated whether the patient actually fell or tended to fall in a certain direction, or whether there was only a subjective sensation of falling in a given direction. Then again a point which appears to be often lost sight of by clinical observers is the fact that implication of the auditory nerve, by pressure or otherwise, may give rise to inco-ordination. Now in animals[2] irritation or intracranial section of the auditory nerve results in rotation or reeling to the same side as the lesion, so that in the absence of middle-ear disease, deafness, or other auditory phenomena on one side, are of great importance quite apart from the evidence with which they supply us that the lesion of the cerebellum is probably situated on that side, for if neglected by those who consider that in an affection of one lateral lobe of the cerebellum the patient falls to the opposite side, a faulty localisation of the lesion would result if staggering, in reality due to implication of the auditory nerve, were attributed to the cerebellum.

It must further be remembered that, inasmuch as there may be motor paresis of the limbs on one side, the patient may, in such cases, tend to fall to that side in consequence of the inability of the lower extremity to support the weight of the body, and therefore this condition of things must be carefully distinguished from the instability which has already been discussed. The distinction is important, for, as we shall presently see, paresis of one side of the body may result as a direct consequence of a unilateral lesion of the cerebellum, in which case the paresis is on the same side as the cerebellar lesion, and the direction in which the patient would fall in consequence of failure of the lower extremity to support the weight of the body would be to the same side as the lesion, while, as I have already urged, the direction of the fall consequent on loss of balance associated with rotation or reeling, would be to the opposite side, that is, away from the side of the cerebellar lesion.

MOTOR PARESIS.

This leads me to speak of a symptom of cerebellar lesions to which little attention has been paid, and which has not been hitherto recognised as consequent on the cerebellar defect; I allude to motor paresis involving the same side of the body as the lesion of the cerebellum.

It has, of course, long been recognised that tumour or abscess involving one side of the cerebellum may, by pressure exerted on the pyramidal tract of the same side, occasion paresis of the opposite side of the body in consequence of the pressure being exerted on the pyramidal tract above its decussation. But the cases recorded in which there has been paresis on the same side of the body as that on which the cerebellar lesion has been found *post mortem* have met with no satisfactory explanation. In fact, where an attempt has been made to localise the exact seat of the lesion during life it has resulted in error, inasmuch as a lesion of the opposite side of the cerebellum pressing on the pyramidal tract has been diagnosed, or a lesion of the opposite cerebral hemisphere has been looked for as the probable cause of the motor paresis, which was in reality due to a destructive lesion of the side of the cerebellum corresponding to the paresis.[3]

My own observations on animals[4] leave no doubt in my mind that such paresis on the same side as a lesion of the cerebellum is a direct consequence of the cerebellar defect, and is in no way indirectly induced by pressure on other parts. The precise way in which the cerebellar defect induces this paresis does not so much concern us in a paper of this kind as does the practical question whether motor paresis ever occurs on the same side as a unilateral lesion of the cerebellum. That it does is made evident by the results of my experiments, which are further supported by clinical and pathological facts that have been placed on record, and also by others which have come under my own observation. Among recorded cases of the kind one by Ogle[5] is especially interesting because a cyst the size of a walnut occupied the region of the corpus dentatum on the left side of the cerebellum, and there was loss of power in the left arm and leg during life.[6] When, therefore a patient presents, in conjunction with other symptoms usually associated with disease of the cerebellum, paresis on one side of the body, this sym-

[1] *Brain*, 1892, vol. xv, p. 468.

[2] *Phil. Trans. Roy. Soc.*, 1894.

[3] *Cf.* Drummond, *Lancet*, July 28th, 1894.

[4] *Loc. cit.*

[5] *Brit. and Foreign Medico-Chir. Rev.*, 1865, vol. xxxvi, p. 234.

[6] Such loss of power on the same side as a unilateral lesion of the cerebellum has been sometimes erroneously ascribed to pressure on the pyramidal tract below the decussation.

ptom" properly interpreted becomes a localising sign of the highest significance. It is only when taken in conjunction with other evidences of disease of the cerebellum that we can hope to obtain any useful information from this symptom, however, inasmuch as it may signify a lesion of the same side of the cerebellum, or, if occasioned by pressure on the pyramid, then of the opposite side of the organ. Cases of the latter class are generally accepted, and call for no illustration, but it is otherwise with the former class, of which the following is a good example:

At a recent meeting of the Neurological Society of London, Dr. Acland and Mr. Ballance showed a case of right-sided cerebellar abscess which had been successfully operated on by Mr. Ballance. Before the operation this patient had, in addition to other signs of cerebellar disease, paresis of the right arm and leg, and conjugate turning of the eyes to the left. Now no other lesion of the cerebellum but one of the right lateral half of the organ could be responsible for this combination of symptoms, for, had the cerebellar lesion been on the left side, causing the motor paresis on the right side by pressure on the pyramid, the eyes, if deviated, would have been directed to the right and not to the left.

Another instructive case in this connection is one recorded by Vulpian,[7] in which a tuberculous tumour of the right side of the cerebellum was responsible for paresis of the right extremities together with turning of the eyes to the left.

There is one point of difference between animals (more especially dogs) and man, and that is that in the former the hind limb on the side of the lesion appears to be the most paresed, while in the latter, when any details have been given in the record, it is the upper limb which has been noted as chiefly paresed, the lower limb being less so, or apparently escaping in some cases.[8] Instances are not wanting, however, in which the paresis has involved both inferior extremities alone in man, and that even in cases of unilateral lesion of the cerebellum.[9] Similar cases have also been recorded in which a tumour growing from the inferior surface of the middle lobe has exerted pressure on the medulla, and in which the movements of the superior extremities have been perfectly preserved.[10]

Before passing from the subject of motor paresis I must refer briefly to the fact that Dr. Hughlings Jackson has long maintained that in affections of the middle lobe of the cerebellum weakness of the spinal muscles results—an opinion which was also held by Niemeyer.[11] It is not easy to judge of the condition of the spinal muscles in most animals, but I found that monkeys deprived of the whole cerebellum were unable to sit up,[12] a condition probably depending on weakness of the back muscles. A year ago I had the privilege of recording a case, in conjunction with Dr. Hughlings Jackson, in which there was undoubted evidence of weakness of the spinal muscles in a patient the subject of a cyst of the cerebellum which involved its middle lobe chiefly.[13]

Ocular Deviations.

Closely associated with this question of motor paresis of the trunk and limbs is that of the displacement of the eyes, which I believe to be of a paralytic nature also. Formerly the abnormal positions of the globes were attributed to over-action of certain of the eye muscles, that is, they were classed among the so-called irritation phenomena of cerebellar lesions, in which category they have been included even by Luciani[14] in his comparatively recent work on the cerebellum. I have contended that these abnormal positions of the eyes are due, not to overaction of any muscles, but to want of action of certain of them. In other words, that they ought to be classed with the paralytic and not with the irritation phenomena of cerebellar lesions, in support of which contention I have adduced arguments elsewhere.[15]

Experimental and clinical evidence point to turning of the eyes from the side of the lesion, as the abnormal position which is met with in an uncomplicated unilateral lesion of the cerebellum. Among other cases illustrating this is one of cerebellar abscess, successfully operated on, which has been recently recorded.[16] Luciani[17] found that both eyes turned to the opposite side as a result of ablation of one lateral lobe in animals, while, according to my observations, it is the opposite eye which is chiefly displaced in that direction.[18] In a certain number of cases which have been published convergent strabismus has been noted in which the eye on the opposite side from the lesions has been the more displaced, or in which it was alone displaced.[19] As far as I have been able to ascertain, however, the disease has not been limited to the lateral lobe in such cases, but has extended up to the middle line, or even across to the opposite lateral lobe. But we have another point to consider with regard to these cases and that is generally recognised that, from the length of their intracranial course, the sixth nerves are peculiarly liable to suffer in cases of increased intracranial pressure, so that even where no obvious changes have been detected in these nerves, the pressure may have been sufficient to interrupt the transmission of impressions along them, which would account for the convergent strabismus met with, an explanation especially applicable when both external recti are weak.

It is my belief then that the displacement of the globes, which depend on an uncomplicated defect of one lateral lobe of the cerebellum in man, is that in which both eyes are turned to the opposite side, but instead of the eyes being turned to one side, they may appear to be normal until the patient is asked to look to the side of the lesion, when it is found that such a patient is unable to turn the eyes in that direction, or that the resulting movement is very feeble, and that there is a difficulty in keeping the eyes turned to that side.

Ocular displacements differing from those just described probably indicate defect of the middle lobe if they are directly due to the cerebellar disease, and not secondarily induced by pressure on adjoining parts or extension of the morbid process to these. When there is any evidence of pressure on the auditory nerve it ought to be remembered that this in itself is capable of producing ocular displacement and nystagmus.

Nystagmus.

Nystagmus commonly occurs in association with ocular displacements, the result of weakness of the external muscles of the eyes, or it may occur apart from any such displacement. The experimental evidence points to lateral nystagmus, with the jerks from the opposite side towards the side of the lesion, as being that met with in lesions of one or other lateral lobe, and clinical evidence supports this. My experimental results lead me to conclude that any irregular or rotatory nystagmus ought to direct our attention to the middle lobe as the probable seat of the disease, and clinically I have not met with a case in which nystagmus of this nature, depending directly on the cerebellar defect, was present, in which the middle lobe was not involved, whether the lateral lobes were also involved or not. In these statements I, of course, exclude all cases in which the nystagmus is not a direct result of the cerebellar defect, but is secondarily induced by pressure, etc., on other parts—for example, the auditory nerve.

The Attitude.

In animals there is a curious rotation of the neck, so that the side of the face corresponding to the lesion is turned upwards, and at the same time the chin is directed to the affected side. So too the trunk is curved with the concavity to the side of the lesion. Similar twisting of the neck with retraction of the head and curving of the trunk with the concavity on the side of the cerebellar lesion has been met with in man, especially in cases of abscess.[20] These conditions no

[7] *Compt. Rend. Soc. Biol.*, 1881, iii, p. 29.
[8] *Cf.* Macewen, *Pyogenic Infective Diseases of the Brain and Spinal Cord.*
[9] *Cf.* Davidson, *Med. Times and Gaz.*, 1878, ii, p. 213.
[10] *Cf.* Poole, *Lancet*, 1891, ii, 664.
[11] *A Textbook of Practical Medicine*, 1876 (Transl.), ii, 244.
[12] *Loc. cit.*
[13] British Medical Journal, February 24th, 1894.
[14] Il Cervelletto; *Nuov. Stud. d. Fisiol. Norm. e Patol.*, Firenze, 1891.
[15] *Loc. cit.*
[16] Winter and Deanesly, *Lancet*, December 8th, 1894.
[17] *Loc. cit.*
[18] It is necessary for me to call attention to the fact that I observed "skew deviation" only when the animals were under the influence of the anæsthetic, as I have evidently been misunderstood on this point. Reliance must only be placed on the effects observed after the influence of the anæsthetic has passed off when comparing the effects in animals with those resulting from disease in man.
[19] *Cf.* Hadden, *Trans. Path. Soc.*, 1890, xli, 17.
[20] *Cf.* Ballance, *Clinical Journal*, 1893.

doubt depend on spasm of the muscles on the side of the lesion, of which we have next to speak in connection with muscular rigidity in the limbs.

MUSCULAR RIGIDITY.

Muscular rigidity is most marked in the limbs on the side of the lesion,[21] and especially in the fore limb,[22] which is rigidly extended in animals. In the human subject such rigidity has been noted chiefly in cases of hæmorrhage, and also in cases of abscess. When it exists on one side only, it deserves careful consideration in conjunction with the other evidences of unilateral disease of the cerebellum, for it may be either the direct result of the cerebellar defect, or it may be consequent on the morbid condition in the cerebellum exerting pressure on the pyramidal tract above the decussation on one side, and thus causing rigidity in the muscles of the opposite side of the body. So that, like motor paresis, this symptom is only of value in diagnosis when taken in association with others, inasmuch as alone it may indicate disease of either side of the cerebellum according as we interpret it as due directly to the cerebellar defect, or as the result of pressure on the pyramidal tract above the decussation.

CONVULSIONS.

Closely associated with this last symptom is a form of convulsion which has been observed to affect the limbs on the same side as a lesion of the cerebellum.[23] As a rule, the convulsions resemble tetanus seizures rather than those which result from discharges having their origin in the cerebral cortex.

I have not myself made any observations with regard to excitation of the cerebellum in animals; but the results obtained by Ferrier[24] are in accordance with the condition of things occasionally met with in man, for this observer found that movements of a sudden and spasmodic character occurred in the limbs on the same side as the hemisphere of the cerebellum excited. Of course, to both muscular rigidity and convulsion of supposed cerebellar origin it has been objected, and fairly so, that these phenomena may result from pressure on the pons, and where both sides of the body are involved, either in rigidity or convulsion, it must be admitted that there is no satisfactory argument to adduce against this view. The same may be said, and more, when the rigidity or convulsions involve the opposite side of the body to that on which the lesion is situated. Under such circumstances there can be little doubt that these symptoms are consequent on pressure on the side of the pons corresponding to the cerebellar lesion. But it is otherwise when, with a lesion limited to one side of the cerebellum, we meet with rigidity or convulsions involving the muscles of the same side of the body as that on which the cerebellar defect exists. In such cases I am convinced that these phenomena are directly due to the cerebellar defect, and that they are not in any way indirectly induced by pressure on adjacent structures, which could only result in the symptoms being general, or, if unilateral, then limited to the opposite side of the body.

THE TENDON REFLEXES.

The tendon reflexes present curious differences according as they are observed in animals after experimental destruction of portions of the cerebellum, or in man where morbid processes are responsible for the alterations met with. In animals exaltation of the tendon reflexes is the rule, for, with the exception of the fact that immediately after the operation of removal of the lateral half of the cerebellum the opposite knee jerk is greatly diminished if not abolished, they are always exaggerated. The knee jerk on the same side as the lesion is greatly increased in activity immediately after the operation, after which it gradually becomes less so, but even three months after it is still brisker than normal, and the opposite knee-jerk, so much diminished at first, becomes very active also, in fact, almost as much so as its fellow; but at a remote period while it is still more active than normal, that on the side of the lesion can be demonstrated to be a little more active than it is.[25] This last characteristic was well shown in a case of cerebellar abscess, successfully operated on by Mr. Dean,[26] and shown at a recent meeting of the Neurological Society of London. In this case, although the abscess formerly existed on the right side of the cerebellum, both knee-jerks were exceedingly active two years and a-half after the operation, and Mr. Dean was unable to say which was the more so.

While exaggeration of the knee-jerks occurs in cerebellar disease in man, it is quite as common an experience to find them diminished or abolished; and beyond stating that in those cases in which there is evidence of pressure on the pyramidal tract, causing paralysis, the knee-jerk on the paralysed side is exaggerated, it cannot be said that we have any satisfactory clinical data to rely on in attempting to come to a correct conclusion as to what significance exaltation or diminution of the knee-jerks has in conjunction with cerebellar disease. All that can be said is that the experimental evidence points to exaltation of the knee-jerk more marked on one side as being the result of ablation of the side of the cerebellum on which the knee jerk is the more active; whereas any marked diminution is to be associated with the opposite side. In either case these statements are only true when the altered condition of the reflexes is directly dependent on some cerebellar defect, and not indirectly induced by pressure on the pyramidal tract.

ANÆSTHESIA.

Anæsthesia is a symptom which, so far as I am aware, has not been met with clinically in any case in which it could be said to be directly due to a lesion of the cerebellum, whereas I have met with it in animals[27] after ablation of one lateral half of the organ, in which cases it has, like the motor paresis, involved the limbs on the same side of the body chiefly, the opposite posterior extremity being only slightly involved, and the anterior escaping altogether. So transitory is this symptom in animals, however, that it is not surprising to me that it is absent in cases of cerebellar disease in man, where, as I have already urged, the processes of compensation go on *pari passu* with the slowly destructive processes of disease.

The only lesions of the cerebellum in which we might reasonably expect to find this symptom present, apart from pressure on sensory tracts, are possibly abscesses of rapid formation, and hæmorrhage producing extensive destruction of the cerebellum. Now in both these classes of cases the probabilities are that the rapid or sudden onset of a lesion at all extensive would be attended with loss of consciousness, so that the patient would be unable to give us the necessary information; and probably by the time that consciousness is recovered the symptom, if even it existed previously, would have disappeared. Nevertheless that such cases are worthy of being carefully tested with regard to the perception of sensory stimuli is evident from what has already been said. Like many of the other evidences of cerebellar disease that have been dealt with in this paper, it is only when carefully considered in conjunction with other symptoms that anæsthesia, if present, can be expected to furnish us with any reasonable guide as to the probable seat of the disease in the cerebellum; or, what is practically the same, help us to decide whether the anæsthesia is a direct result of the cerebellar defect, or whether it is only a secondary result consequent on pressure on sensory tracts.

CONCLUDING REMARKS.

Throughout this paper I have attempted, as far as possible, to limit myself to the consideration of those clinical phenomena with regard to which we have experimental data for comparison. In so doing many important clinical aids to the localisation of cerebellar disease have not been discussed, as the space at my disposal would not allow of this. Besides which, the chief object of the paper has been to show how experimental results may aid us in the diagnosis and localisation of cerebellar disease in man, to call attention to certain phenomena not generally recognised as the direct results of defect in the cerebellum, and to offer a different explanation for the occurrence of some symptoms to that which has been formerly accepted.

[21] *Cf.* Drummond, *loc. cit.*
[22] *Cf.* Macewen, *loc. cit.*
[23] *Cf. Drummond, loc. cit.*
[24] Ferrier, *The Functions of the Brain*, second edition, p. 190.
[25] *Proc. Roy. Soc.*, 1893.
[26] Dean, *Lancet*, July 30th, 1892.
[27] *Phil. Trans. Roy. Soc.*, 1894.

REMARKS
ON
THE NATURE AND TREATMENT OF PERNICIOUS ANÆMIA.

By RALPH STOCKMAN, M.D., F.R.C.P.E.,
Lecturer on Materia Medica and Therapeutics in the School of Medicine, Edinburgh; Assistant Physician to the Royal Infirmary.

(Concluded from page 1029.)

Such seem to me to be the causes and explanations of the symptoms and pathological changes found in "pernicious anæmia." To recapitulate somewhat: the patients are first subjected to varied debilitating conditions, which produce at first an anæmia differing in no respect from so-called "simple anæmia" or from "chlorotic anæmia." In a small number of persons degenerative changes occur in the blood vessels, which lead to persistent capillary hæmorrhages; the manufacture of red blood corpuscles and hæmoglobin does not keep pace with the loss, and the persons ultimately die from anæmia, or the process may be stopped and they recover. Some cases develop almost entirely from chronic external blood losses, the internal hæmorrhages playing but a small part in their causation.

Why so small a proportion of individuals out of the millions subjected to these debilitating influences develop the degenerative vascular changes is difficult to explain except by analogy with such conditions as mental derangement or phthisis. Out of the enormous numbers of human beings who have undergone severe nervous strain, losses, or disappointments, comparatively few succumb to insanity; we are all more or less exposed to tuberculous infection, and yet only a certain percentage become affected. We explain this by heredity and many other complex considerations, and the reasons why only a few anæmic persons should develop pathological vascular changes are just as obscure.

As has been previously pointed out, the causes of the initial anæmia are still imperfectly known, and cases sometimes occur in people who are apparently healthy and living under good conditions. Hunter may be correct in holding that a cadaveric poison breaks down the blood in some cases, and if this be so, debilitating conditions with hæmorrhages need not necessarily precede the "pernicious anæmia." It is possible too that degenerative changes in the small vessels may occur spontaneously in certain people. In these also there might be no preceding causes or illnesses of a marked kind, and few *post-mortem* lesions would be observable except in the light of our very recently acquired knowledge. But conclusive evidence is wanting on all these points. As I have previously pointed out, the capillary hæmorrhages found *post mortem* may be very few in number, and this might lead us to adopt Hunter's view that in some cases, at least, a blood-destroying body may be the cause of the condition, but the course and history of such cases lead me to believe that hæmorrhages have been more frequent previously and have become absorbed.

Treatment.

The prognosis is grave, and treatment is generally regarded somewhat hopelessly—rather too hopelessly. It is very difficult to obtain statistics as to cure, but Quincke records 7 recoveries out of 21 cases, Müller only 3 out of 44, while Pye-Smith has collected 20 cases of recovery compared to 110 deaths. Dr. Hale White insists that a large number of so-called recoveries in hospital practice drift out of sight, and ultimately relapse and die, but although this may be true to a certain extent, yet it is certain that many cases have made permanent recoveries.

Cases secondary to malignant disease or atrophy of the stomach must at once be recognised as hopeless, but, on the other hand, the most brilliant results have attended the treatment of those due to intestinal parasites. Out of 72 cases of tapeworm anæmia Schauman records only 12 deaths, 4 of which patients were practically moribund when first seen, and the other 8 very far gone; Runeberg[1] says that before the discovery of the causal connection between the parasite and the "pernicious anæmia" all his cases died in spite of treatment with iron, arsenic, tonics, and good diet, whereas afterwards out of 19 treated with anthelmintics only 1 proved fatal. Reyherr[2] records 13 cases without a death. After the parasite is expelled the patient has to be kept in bed on light diet, with tonics and iron, so as to assist recovery from the extreme debility, but the blood begins to improve at once, and in six to eight weeks the patient is practically well. The febrile attacks commonly persist for one or two weeks, or longer.

In ankylostomiasis recovery takes place also when the parasites are expelled. In Germany, Austria, and Italy, where the habits and surroundings of the patient are fairly good, deaths are now almost unknown; but in Fiji, in coolies (dirt eaters, and living on very poor food), Hirsch reports 26 deaths out of 126 cases.

We may now consider the ordinary run of cases which are seen in this country. It is to be regretted that a special name like "pernicious anæmia" has been given, as if it were a distinct disease, to the extreme blood changes which sometimes result from atrophy of the stomach, cancer, and other diseases which are necessarily fatal, while the same blood changes may also result from conditions not in their nature incurable. The application of a special name leads us to classify all cases presenting these blood changes in the same category, and tends to a neglect of the etiological factor in diagnosis and treatment. The frequent unsuccessful results of treatment are, partly at least, attributable to the very general idea that the condition is a specific disease always of the same nature, and to be cured, if cured at all, by certain somewhat empirically used remedies.

Therapeutic measures are not so often without result as is generally assumed, for which we have the authority of Habershon, who says, after very considerable experience, that many patients at an early stage recover completely under bracing air, good diet, and iron. One great hindrance to successful treatment in curable cases is encountered in the very advanced state of anæmia and debility in which patients often first apply for advice. The gastric and intestinal glands are already in a state of fatty degeneration, and this gives rise to severe gastric dyspepsia with frequent and obstinate attacks of diarrhœa. In fact diarrhœa very commonly exhausts the patient and brings the case to a fatal termination. If one saw many of these cases earlier there can be little doubt that the results of treatment would be much more favourable. Probably when the vascular degeneration has become very pronounced it is difficult to restore the capillaries to their pristine condition, and the internal bleedings still persist. Ignorance of the original exhausting cause, which is therefore allowed to go on, must also no doubt be sometimes held blamable for failure.

In my experience the cases in which most may be hoped from treatment are those which have been brought on by external hæmorrhage, but even in these, time, patience, and very great care are needed. Two cases which I have under observation at present illustrate this. In one it has required four months to raise the corpuscles from 1,900,000 to 3,170,000 per c.mm., and the hæmoglobin from 20 to 50 per cent. She had bleeding piles for three years, and a year ago lost a great deal of blood at her confinement, which precipitated matters. In the other a year has been required to raise the corpuscles from 3 to 3½ millions, and the hæmoglobin from 30 to 52 per cent. The second patient had also suffered for many years from bleeding piles, she was of a deep yellow tint, and for the first three months of treatment lay in bed in a state of almost complete debility and apathy, and without making the slightest progress towards recovery, or improvement in her blood condition. She has since gradually improved, has lost her yellow tint, and is able to do household work without extreme fatigue. In both of these cases there was dyspepsia, and in the second frequent diarrhœa. The first was treated exclusively with gastric sedatives and careful dieting along with small doses of iron which had frequently to be intermitted. The second had in addition comparatively large doses of iron and arsenic. In such cases any blood loss should be stopped with the most jealous care. Piles should be specially treated and if necessary removed, while if menstruation occur (as it occasionally does) the patient should be instructed to at once stop it with a hot douche.

Sandoz[3] relates a case due to excessive fermentation in the

stomach and intestine, which he cured by persistent lavage; while Jürgensen[4] states that a patient of his recovered after the expulsion of enormous numbers of Bacterium termo from the bowel. Hunter has advocated strict intestinal antisepsis, and it is possible that in some cases this may prove effective. Habershon[5] describes a case where very severe vomiting and dyspepsia were the only symptoms besides the "idiopathic anæmia," and recovery took place in five months under treatment with bismuth, diet, and iron. There seems therefore to be a considerable number of cases due to gastro-intestinal derangements, in which recovery occurs under strict attention to diet, local sedative measures, and antisepsis.

When the condition has been brought on by hardships and poor feeding, as seems to occur much more commonly on the Continent than here, good feeding will no doubt arrest it if the patient be not too far gone. In pregnancy and lactation a similar timely interference to avert the initial anæmia is indicated.

Bleeding ulcers in the bowel sometimes give rise to chronic fatal anæmia. Several cases have been reported, and the possibility of this with its bearing on treatment may be borne in mind. Blood is seldom seen in the fæces, but hæmin will be present. In the only case of severe anæmia which I have met with due to chronic small bleedings from the bowel, I was able to obtain both hæmoglobin and hæmin, showing that the source of the blood must have been low down the intestinal canal, and that the blood was not digested. The man recovered.

Lastly, Müller has suggested that in cases where constitutional syphilis is present, antisyphilitic treatment may do good. His results are not very encouraging, however, as out of four cases only one recovered. Laache has also reported a case of recovery, but the treatment was very mixed.

Special Remedial Agents.

Iron.—It has been stated and reiterated by nearly all writers that iron is of no value in pernicious anæmia. This is to a limited extent true, in so far that iron fails to cure or improve many patients, but such a way of stating the case is hardly correct. If a case is curable at all (excluding those which are necessarily fatal) then iron is bound to be of value, as it is of value wherever a deficiency of hæmoglobin has to be made good. The iron of the hæmoglobin must be obtained from somewhere, and if a patient once begins to pick up, and the number of red corpuscles to increase, the iron in the liver and elsewhere will soon be used up, and the metal has to be supplied by the food, reinforced by a further supply in the usual pharmaceutical forms. The reason why iron so often fails to cure the anæmia is simply that, owing to the numerous hæmorrhages, blood manufacture does not keep pace with the blood loss. For the same reason iron is apparently quite useless in the anæmia of scurvy or purpura so long as the bleedings continue.

Quincke treated his seven cases of recovery with iron, and Wilks[6] and Finlay[7] both record cases in which arsenic failed to effect any improvement, and iron was afterwards successful.

It is always advisable, therefore, to give iron. It is often, however, very badly borne by the stomach, and has frequently to be cautiously given in small doses of non-irritating preparations. Often it agrees well enough in large doses. Non-irritating preparations (ferrum tartaratum, ferri et ammonii citras) may be given *per rectum*, and act efficaciously enough if iron cannot be taken by the mouth.

Arsenic and Phosphorus.—Arsenic was first strongly recommended in anæmic conditions by Isnard (1865), but its value in pernicious anæmia was first drawn attention to by Dr. Bramwell. Since then it has been largely used, and a number of cases of recovery from "pernicious anæmia" have been recorded after its administration. Broadbent found phosphorus valuable in two cases, and Gowers[8] in two cases of lymphadenoma with anæmia found it to increase the number of corpuscles. On the other hand phosphorus has frequently proved ineffective (Bradbury, Eichhorst, and others), and it has never attained the reputation of arsenic. The mode of action of both is little understood, but neither of them can replace iron in the blood corpuscles, and hence as they both have a powerfully stimulant and alterative effect on bone, it is probably not far from correct to assume that they may stimulate the bone-marrow, and thus increase the number of blood corpuscles produced by it. We have no definite knowledge on this point however.

Arsenic has undoubtedly started many cases towards recovery by increasing the number of red corpuscles, but it cannot supply their most necessary constituent, and hence after the increase has begun it seems advisable to use iron to help in maintaining the improvement. Too often it seems to simply stimulate the exhausted bone marrow into a last display of activity, and the temporary improvement is followed by a relapse and death. Many cases of this temporary improvement have been recorded (Pye Smith, Barrs,[9] and others). Fürbringer[10] states that of 57 cases treated by himself with arsenic, 27 died, 16 had improved, and 10 remained *in statu quo*—not a very brilliant record.

It is probable that at the present time too much reliance is placed on arsenic, it has come to be looked upon as a specific in "pernicious anæmia," acting in some mysterious recondite way, and is used in a routine fashion to the exclusion of therapeutic measures based, so far as possible, on etiological considerations. Of its good effect in some cases there can, however, be no reasonable doubt.

Transfusion.—I have had little experience of transfusion; 3 to 6 ounces of defibrinated blood seems to have been the amount generally used by others. Frequently it produces some slight temporary improvement, in a very few cases permanent benefit has followed, and in many it is reported to have caused considerable systemic disturbance with albuminuria and hæmaturia. Some authors have recorded a fatal issue almost immediately after. Theoretically, if one wishes to give blood, it seems to me that frequently repeated subcutaneous injections of defibrinated human blood (as used by von Ziemssen[11] and Silbermann[12]) would be the most efficacious and least dangerous method of administration, but a sufficient supply would be difficult to obtain. One cannot use the blood of animals, as, whether given by a vein or subcutaneously, it tends to cause dangerous systemic disturbance to a much greater extent than human blood.

I think that both experience and theory are on the whole against transfusion of blood in chronic anæmia. If it be given under the idea of supplying iron in the form of hæmoglobin, it is a cumbersome and bulky way of giving a very small quantity, with some risk of sepsis and other dangerous complications. The serum is in this case a useless addition. If it be given under the idea of supplying red corpuscles the number is again very small, and at best they only survive for a few weeks or less. In this case, however, it may help to tide over threatened death from anæmia, and give time for other measures to be carried out. I have heard the opinion expressed that the serum may act as an antitoxin, antagonising a supposititious toxin which is destroying the blood corpuscles, but hitherto no evidence has been advanced which supports this view.

Bone Marrow.—Professor T. R. Fraser[13] has reported a case of pernicious anæmia treated with 3 ounces of ox and calf bone marrow daily. Iron, and subsequently arsenic and salol, were also given, but under these no improvement took place until the bone-marrow was administered in addition. Dr. A. G. Barrs[14] has also published a case in which arsenic had failed to effect any improvement, and in which he then administered bone marrow without any other drug. Complete recovery took place in about two months.

Owing to the kindness of Dr. John Wyllie, I have had the opportunity of studying the effects of bone-marrow in a case under his care in the Royal Infirmary. The patient was a woman, aged 41, with a history of some degree of menorrhagia and a very doubtful history of melæna, but the cause of the extreme anæmia was never satisfactorily determined. On admission the corpuscles numbered 1,400,000 per c.mm., and the hæmoglobin was 20 per cent. of the normal. Under treatment with iron and arsenic these improved to 1,700,000, and 30 per cent., but she then ceased to progress. Bone-marrow, 1½ ounce daily, was given without any other treatment except careful dieting, and in eighteen days the corpuscles had fallen to 1,200,000, and the hæmoglobin to 15 per cent. The bone-marrow disagreed with her stomach, owing to its being so fat, and a larger quantity could not be borne. She died afterwards, but an examination was not obtained.

It is difficult to account for the good results obtained by Drs. Fraser and Barrs, if recovery were really due to the bone-marrow, and not to the other treatment. I have examined the marrow as supplied in the Royal Infirmary and in the Leeds Infirmary, and found it to consist of yellow marrow which is not a hæmopoietic tissue like red bone-marrow, but is entirely fat with a little connective tissue. The amount of iron present in it was also determined in three specimens from different animals, with the following results: 26 g. contained 0·001 g. Fe; 20 g. contained slightly under this amount; and 100 g. contained 0·0025 g. Fe. That is to say, 1 ounce of bone marrow contains about $\frac{1}{20}$ grain of iron or less. I have also examined the amount of iron present in red bone-marrow from the calf; 40 g. contained only 0·0035 Fe, while 26 g. contained 0·092 Fe, equal only to about $\frac{1}{30}$ gr. of iron per ounce. The butchers informed me that a calf only yields about 3 or 4 ounces of such marrow, and that a large supply would be very difficult to obtain. Clearly it cannot be the iron which is beneficial, if benefit does result.

CONCLUSIONS.

1. That "pernicious anæmia" is not a special disease,
2. But is secondary to numerous exhausting conditions.
3. That these induce an initial anæmia
4. Which is followed in certain cases by degenerative changes in the blood vessels.
5. That capillary hæmorrhages result, and induce an excessive degree of anæmia.
6. Some cases are due chiefly to external bleeding.
7. That these bleedings account for all the characteristic symptoms and *post-mortem* appearances.
8. That treatment should be based on etiological considerations.

The clinical work on which this paper is based was done in Chalmers' Hospital almost entirely, and I am extremely indebted to Dr. George W. Balfour, who, during the five years he was physician to the hospital, most kindly placed at my disposal as many beds as I had anæmic patients to put into them. A good deal of experimental and pathological work was done in the Laboratory of the Royal College of Physicians of Edinburgh, and I am indebted to the Superintendent, Dr. Noël Paton, for several valuable suggestions. I am also under great obligations to my friends Dr. Gulland, Dr. Gibson, Professor of Chemistry in the Heriot-Watt College, and Dr. Dobbin, of the Chemical Department of the University of Edinburgh, for the very great amount of trouble they have taken in checking all my pathological and chemical observations.

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A CASE OF PERNICIOUS ANÆMIA TREATED WITH BONE MARROW.

By W. B. DRUMMOND, M.B.EDIN.,
Assistant Medical Officer Argyll and Bute Asylum.

SINCE the publication of Professor Fraser's paper on "Bone Marrow in Pernicious Anæmia" in the BRITISH MEDICAL JOURNAL for June 2nd, 1894, records of a number of cases of pernicious anæmia and other diseases of the blood in which the same treatment was adopted have appeared from time to time. The therapeutic value of bone marrow cannot, however, be said to have been even yet precisely determined. The following case of pernicious anæmia, which presents some features of special interest, and was under treatment for a protracted period, is recorded as a contribution to the subject.

M. W., a woman, 73 years of age, was admitted to the Argyll and Bute Asylum on May 20th, 1891. Throughout her stay in the asylum she was silly in manner and conversation, and her memory was somewhat impaired. She was subject to periodical outbursts of excitement, during which she developed delusions of suspicion. The case-book records state that her bodily health was much impaired on admission, but that it subsequently greatly improved.

When I first saw the patient, in April, 1894, she was obviously anæmic, but her appearance was far from suggesting the degree of anæmia which was subsequently found to be present. The skin was slightly yellow in hue, and the subcutaneous fat abundant. The principal symptoms were great weakness and, later, prostration, various pains of indefinite localisation (chiefly in the abdomen), pruritus vulvæ associated with slight cystitis, anorexia, palpitation, and shortness of breath. No retinal hæmorrhages could be discovered, pyrexia was absent, and there was no œdema of the feet. On June 5th the blood was examined, and the red corpuscles were found to be reduced to 700,000. The white corpuscles were about 2,000. A few irregular corpuscles and some megalocytes were present, but no nucleated red corpuscles could be discovered. The corpuscles formed imperfectly into rouleaux. The patient at this time was completely prostrate, and could only take very small quantities of liquid nourishment

She was ordered finely divided bone marrow in milk. She got at first, perhaps, an ounce a day, but the quantity was increased as soon as possible to two ounces. Improvement took place very rapidly. By June 13th the red corpuscles had risen to 1,140,000, and the patient had gained strength considerably. By July 23rd the red corpuscles had increased to 1,710,000. The patient was now able to sit up in bed, and to take most of the ordinary diet. The marrow was given to her on bread and butter, or minced with bread crumb. She was very particular about her food, and would sometimes surreptitiously give away the marrow to other patients, or conceal it about her bed, partly because she was tired of it, and partly, as she said, because she was tired of life and did not wish to take anything which might make her better. She complained greatly of obscure abdominal pains and of weakness. During August her general condition continued to improve, so that she was able to be up for a short time every day. There was a slight falling off, however, in the number of the hæmocytes, which on August 25th were 1,450,000, while the hæmoglobin was 25 per cent.

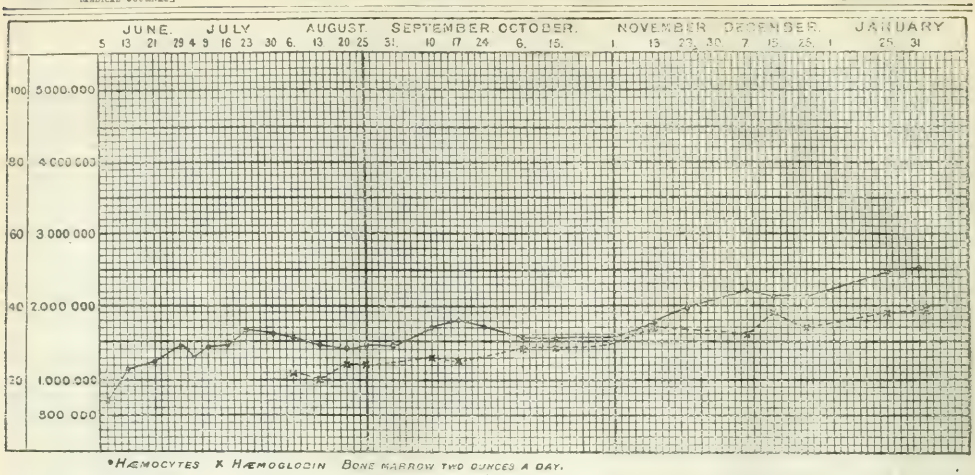
The patient was now ordered Blaud's pills, three to nine daily. On September 17th the hæmocytes were 1,850,000, the hæmoglobin 25 per cent. Subsequently the hæmocytes fell to 1,500,000. The patient continued to gain strength, her appearance became much more healthy, and she was able to be up nearly all day.

On November 6th she was ordered arsenious acid $\frac{1}{50}$ gr., afterwards increased to $\frac{1}{40}$ gr. (in pill), in addition to the iron and bone marrow. Under this treatment the improvement was still further maintained, and the hæmocytes and hæmoglobin rose steadily. The highest point noted was reached on January 31st, 1895, when the hæmocytes numbered 2,500,000, while the hæmoglobin stood at 39 per cent.

On February 21st the patient died of œdema of the lungs, after having laid up for a few days by a sharp attack of quinsy.

Post mortem both pleuræ were found to be completely adherent. The lungs were congested and extremely œdematous—water-logged, in fact. All the viscera were in a condition of advanced fatty degeneration. No hæmorrhages were anywhere present. Furthermore, sections of the liver stained with ferrocyanide of potassium and hydrochloric acid revealed a copious deposit of iron in the peripheral zones of the lobules. It will be noticed that a number of the usual signs of pernicious anæmia were absent in this case. The percentage of hæmoglobin was uniformly less than the percentage of hæmocytes. The blood—fresh, in normal salt solution tinted with methyl violet, and in films fixed and stained in various ways—was carefully and repeatedly searched for nucleated red corpuscles without a single example being observed. No retinal hæmorrhages could be discovered. Throughout the progress of the case pyrexia was absent (except on two occasions when the patient was suffering from tonsillitis). Dr. Muir informs me that he has seen fatal cases of pernicious anæmia in which the same symptoms were absent.

As the patient had been living under the same conditions



as to surroundings, diet, and nursing since 1891, we may fairly ascribe the great improvement which took place under treatment in her general health and condition, an improvement hardly sufficiently indicated by the rise in the number of hæmocytes, to the administration of bone marrow. Small doses of liquor arsenicalis were ordered comparatively early in the treatment of the case, but after a single dose the patient complained of severe gastralgia, and positively refused to take any more of the medicine or any food in which she suspected it might have been placed. Arsenic was afterwards administered in the form of pills resembling in appearance the Blaud's pills she was taking, and no inconvenience was complained of.

In conclusion I have to thank Dr. Cameron for permission to publish these notes.

A CASE OF DIABETES INSIPIDUS TREATED BY INGESTION OF SUPRARENAL GLANDS.

BY WALTER F. CLARK, L.R.C.P.&S.ED., D.P.H.,
M.O.H. Cheshunt.

A GREAT many cases have been reported in the BRITISH MEDICAL JOURNAL, in which the thyroid gland, or its extracts, have been used in the treatment of various diseases. The following case, in which the suprarenal capsules were used, may therefore be of interest.

Mrs. A., aged 39, the mother of four children, was found on May 13th, 1893, to be suffering from diabetes insipidus. She then for some months attended the London Hospital as outpatient, but considered that she steadily grew worse.

On May 6th, 1894, I attended her in a confinement. Her condition of extreme debility made me a little anxious, but she made a good recovery so far as the confinement was concerned. She was in hopes that "the child would take the disease," but found that her condition was unchanged.

On May 24th she passed the usual quantity of water—two gallons during the night only. The urine was characteristic, pale, slightly alkaline, specific gravity 1005, containing neither sugar nor albumen. She complained of great thirst, weakness, and continued loss of flesh, and she had little sleep, but spent the night in getting into and out of bed. She was only able to move about the house.

I then gave her half of one suprarenal of a sheep every third night, chopped fine and taken in a small sandwich. About two hours after taking it she felt very hot and giddy, so giddy that she could not stand. A moderate perspiration followed, and she slept. The thirst was much diminished, she passed less urine, felt stronger, and had much more sleep.

On May 30th she, by mistake, took one whole capsule. The giddiness was much increased, she felt very faint, and thought she would die, and suffered from restlessness all night.

On June 5th her weight was 8 st. 13 lbs. The urine passed was 5 quarts in twenty-four hours, slightly alkaline; specific gravity 1008.

On June 8th the urine during the night only was 1 quart, though on most nights it was 2 quarts. I then ordered one-half capsule every second night. Finding some difficulty in procuring fresh glands, I wrote to Messrs. Burroughs, Wellcome, and Co., who sent me some tabloids of dried glands, and on June 10th I gave one tabloid every other night, but as the patient complained much of the giddiness, I reduced the dose to half a tabloid.

On June 19th the amount of urine during the night was 1 quart, but on the night on which the half tabloid was taken, it was always more—about 2 quarts. The patient complaining of indigestion, I gave her a mixture containing rhubarb and soda before food, and a glass of port wine with her dinner. She said she felt much stronger, but did not apparently gain flesh.

On July 31st she felt much better; a sick child gave her a bad night. The urine measured 4 quarts in twenty-four hours; specific gravity 1006; alkaline. The dose was increased to one tabloid every other night.

On September 3rd she still felt better. The urine measured 3 quarts in twenty-four hours; it was slightly acid, of specific gravity 1009, and contained urea 180 grains. She did not take any tabloids for a week, and the urine doubled in quantity.

On October 6th she passed 3 pints in twenty-four hours; it was neutral; the specific gravity 1010, and the amount of urea 210 grains; and on November 3rd, having been three days without taking the drug, she passed 7 pints of urine in twenty-four hours; specific gravity 1009, and the urea 210 grains.

On January 20th, 1895, having been three weeks without taking the glands, the urine was about 6 quarts in twenty-four hours, with great thirst and weakness. Two fresh glands were then taken at intervals of three days, and the amount of urine was reduced to 3 quarts and half a pint in twenty-four hours.

On February 27th she was taking one fresh gland every third night, and the urine passed amounted to 3 pints in twenty-four hours.

On March 15th her condition was the same.

On April 2nd she had stopped taking the glands, and the urine was increasing in quantity.

I have had great difficulty in inducing the patient to continue the treatment with regularity, and to give me opportunity for accurate observations. I feel that this case has been very insufficiently watched and reported, but I have done the best I could under the circumstances.

I was led to try the effect of the adrenals by remembering the large nerve supply accompanying their blood vessels, which might or might not influence the nerves governing the blood supply of the kidneys, both being derived from the semi-lunar ganglia. Whether the effect is thus produced, or whether it is the result of the tonic effect alleged to be induced by the ingestion of the adrenal substance on the blood vessels of the system generally, I cannot say, but in the case before me I find that:

1. The urine has been reduced in amount from 4 gallons to 3 pints in the twenty-four hours.

2. The general health and strength have been much improved. The patient, who before could hardly move about the house, can now walk several miles, can do all the work of the house, and attend to her children.

3. So long as she takes the glands the urine is moderate in quantity, but when she ceases taking them the urine increases in amount, and great thirst and weakness result.

What also strikes me is the fact that though the amount of urine passed has so much diminished, the quantity of urea excreted should remain so small. Though so much stronger her weight has not increased. I may also mention that the glands from frozen mutton appeared to have much less effect than those from mutton recently killed.

A CASE OF DISSEMINATED SARCOMA, WITH HÆMORRHAGES INTO THE SKIN AND ELSEWHERE.[1]

By T. C. RAILTON, M.D.Lond., M.R.C.P.,
Physician to the Manchester Clinical Hospital.

History.

J. W., a boy 12 months old, was brought to the Manchester Clinical Hospital in March, 1894, on account of certain soft projections which had appeared upon his head in the course of the previous two months, accompanied by increasing weakness and wasting. He only lived ten days after admission.

He was born naturally and of healthy parents. He was the second child, the other being alive and well. It was not thought that he had received any injury. The projections on the forehead were the first symptom of anything being wrong, and they had made their appearance gradually and painlessly, one or two first showing themselves and continuing to grow steadily, while others followed in the neighbourhood. One of these, prominently situated upon the left side of the forehead, had attained the size of a hen's egg, being surrounded by smaller ones. Another had appeared upon the right side a little more than a fortnight before he was brought to the hospital and this ultimately became the largest. While these swellings were appearing the child deteriorated perceptibly; he became pale, lost flesh and at the time of his admission he weighed 22¼ lbs., having weighed 23 lbs. when five months old.

When he was admitted, he presented an appearance of the most profound anæmia, his complexion was waxen, his lips and conjunctivæ bloodless. There were traces of hæmorrhage in the skin of the forehead in various stages of absorption, a blueish ecchymosis in the right upper eyelid towards the inner canthus, and two smaller ones upon the inner and outer sides of the left upper lid. He did not appear to be in pain, but lay quietly in bed with his eyes apathetically looking into vacancy. The numerous bosses upon the anterior part of the head and forehead were soft and fluctuating, the skin over and around them was tinged with blue from blood extravasation. Over the right frontal eminence there was a rounded fluctuating projection nearly 2 inches in diameter, which yielded chocolate-coloured semi-fluid blood when explored with a needle. Three smaller swellings of similar character were placed behind it. On the left side there were several swellings of moderate size over the frontal and parietal bones. None of the projections were tender to pressure. Blue veins stood out in the middle and at the sides of the forehead. The patient had beads on his ribs and the radii slightly enlarged at the wrists. He had six teeth. The gums were pale but otherwise normal. The bridge of the nose was somewhat depressed. The liver appeared considerably enlarged, and felt decidedly harder than usual. The spleen could be felt a little below the costal border.



There was no evidence of effusion of blood about the limbs nor of deep-seated swelling around the shafts of any of the long bones. He moved freely and showed no tenderness. The urine contained no blood during the time he was under observation. There were no purpuric spots on either body or limbs, nor was there hæmorrhage from any mucous membrane.

Three days after admission a fresh effusion of blood was observed upon the right temple. On the fifth day proptosis of both eyes occurred, the right eye being the more prominent. On the seventh day a fresh swelling made its appearance on the left side of the frontal bone near the suture. The following day the temperature, which had previously been hovering between 100° and 101°, suddenly rose to 104·2°, but without any fresh physical signs. The chest showed no evidence of disease; there was no alteration of the pulse-respiration ratio, and no diarrhœa. On the ninth day the right eye appeared considerably more prominent, and the ecchymosis in the upper lid much deeper in colour. The patient moved both hands, occasionally bringing the right one up to his ear and then putting it down by his side again. The temperature rose to 105.2° F. There was a slight trace of albumen in the urine. The following day he died, the temperature before death being 105.8° F. He had no sickness; the pupils were equal and not unduly dilated. No symptoms of paralysis were observed.

At the *post-mortem* examination made the following day the scalp was found to strip off readily from the pericranium. The tumours beneath the latter consisted of a soft, excessively vascular growth, and were seen under the microscope to be composed of small round cells, evidently of a sarcomatous nature. Between the dura mater and the bone in the anterior part of the skull there was a large, diffuse, lobulated swelling. The bone was roughened both externally and internally at the seat of the growths. The chief mass of the internal growth was at the left side of the frontal region, but

[1] Read before the Pathological Society of Manchester.

it extended also to the right side, and also backwards as far as the occipital region. The brain was compressed by the growth, but otherwise normal.

The liver was not found to be very much enlarged, but there was a large, rounded, encapsulated tumour intimately adherent to the under surface of the right lobe, with its outer surface continuous with that of the liver. This growth measured 4 inches from before backwards, and 3½ inches from side to side at its broadest part. Upon the upper surface of the liver there were three nodules showing a white, cheesy-looking substance when cut into.

The lungs were congested, but there was no consolidation nor evidence of any new growth. There were no hæmorrhages in the pleura. The heart, kidneys, and spleen were apparently healthy. There were some enlarged glands at the roots of the lungs which when cut open showed a soft pigmented substance, and the retroperitoneal glands at the root of the mesentery formed a large lobulated mass presenting the same appearance on section.

The stomach and intestines appeared healthy and neither growths nor hæmorrhages were to be found in them. One long bone—the right femur—was removed for examination. This was selected at hazard, as there was neither swelling nor bruise about any of the limbs. On cutting, however, through the periosteum of this bone, blood extravasation was found beneath in two places, around the upper end of the shaft below the trochanters, and around the lower end above the condyles. The periosteum was not thickened.

Microscopic examination showed the sarcomatous growth within the skull to be infiltrating the dura mater, though not extending to the inner surface. Extensive hæmorrhages had taken place between the cells in both internal and external tumours. Sections of the nodules from the upper surface of the liver showed a similar small-celled growth, the liver substance being shrunken and attenuated in their midst into thin bands and certain parts existed in which no trace of secreting cells was to be seen. Sections from the retroperitoneal glands and bronchial glands showed similar collections of round cells interspersed with the remains of hæmorrhages. The kidneys and lungs showed no abnormality.

REMARKS.

The subject of disseminated sarcoma associated with cutaneous and other hæmorrhages was dealt with by the late Dr. Hilton Fagge in *Guy's Hospital Reports* for 1881, his paper containing an account of six cases. Further cases have since been reported by Drs. Kingsford, Harris, Anderson, and others. It is the relation between the growths and the hæmorrhages which renders the matter peculiarly interesting. Dr. Fagge pointed out the fact that a large proportion of the fatal cases of purpura hæmorrhagica occurring at Guy's during a period of twenty years were of this nature. In some of his cases, notably his first case, some of the purpuric spots were raised, forming indurated nodules, which, when microscopically examined, were found to consist of new growths, probably originating as he suggested, in minute emboli from a primary tumour. In a most interesting communication published in the BRITISH MEDICAL JOURNAL by Mr. Jonathan Hutchinson in 1888, a picture of the leg of a gentleman is shown with an eruption upon it of more than a hundred sarcomatous nodules, possibly due to embolism from a growth in connection with the lumbar vertebræ.

This view, however, as Dr. Fagge admitted, does not exhaust the subject. The profound alteration in the composition of the blood which obtains in disseminated sarcoma may have a considerable part to play in the production of the hæmorrhages in mucous or cutaneous surfaces. The ecchymoses in the eyelids and about the forehead of the patient I have described were not raised, and forcibly reminded me of the cutaneous hæmorrhages one sees in scurvy, congenital occlusion of the bile duct, and other diseases of a like character.

The subperiosteal hæmorrhage around the shaft of the femur is to be noted in this connection, bringing as it does the disease, with its intense anæmia and hæmorrhages into the skin, into close relation with infantile scurvy in its clinical aspect.

OBSERVATIONS ON THE TREATMENT OF EPILEPSY.[1]

BY T. SYDNEY SHORT, M.D.,
Assistant-Physician to the General Hospital, and Visiting Physician to the City Infirmary, Birmingham.

FIFTY cases were selected from the female wards of the Epileptic Department of the Birmingham City Infirmary. Of the male cases under my care, so many work in the grounds that I thought perhaps the exact number of fits that occurred amongst them might not be so accurately recorded. All the women work indoors, either in the wards or in the laundry, and are therefore more closely under observation. These 50 cases were chosen haphazard, in order to avoid the fallacy arising from special selection. Their ages varied from 16 to 70 years. They were all subject to true epileptic convulsions with loss of consciousness. Many of them also, as one would expect, suffered from the minor attacks which occur in epilepsy. The fits recorded in this paper refer to attacks in which the loss of consciousness and struggling were sufficient to attract the attention of a second person, so that they could be entered in the book as a fit. Of the fifty patients originally chosen, a few passed out of observation by reason of removal from the infirmary, or on account of some other unforeseen cause; but I was able to keep a full and complete record of 43, and these form the basis of my observations.

For about twelve months—the actual period being 348 days—the ordinary routine treatment of the cases was continued. The diets varied; most of the patients were taking 3 oz. of cooked meat a day, and a few took as much as 5 oz. Medicinally a mixture containing 7½ gr. each of bromide of potassium and bromide of ammonium was given according to the case and the severity of the attacks; and in the event of numerous fits occurring within a short period of time other drugs were given, such as those contained in the following mixture: 10 gr. of bromide of potassium, 15 gr. of chloral hydrate, in 1 oz. of chloroform water. This period then formed a fair example of the life of these people, such as many of them had been living for years.

During the 348 days the total number of fits recorded for the 43 cases was 5,001, or, in other words, 14.37 fits occurred on an average amongst the whole number for each day. This is not the average number of each individual case, but the average number amongst all the cases together. I have put the average in this way because if the number of fits experienced by each person were taken as an average, the number which I must presently compare would be expressed as fractions of unity instead of whole numbers, and numbers below unity are more difficult to compare rapidly. Books were kept in the rooms or wards in which the women worked, and daily the number of fits were recorded by the nurse on duty. This number, then, 14.37, may be taken as the average number of fits occurring daily amongst the 43 cases during a period of twelve months.

The first change made was this: For eleven weeks—the actual time being seventy-nine days—all the cases were put upon a uniform diet, which I call "A" diet, containing: Meat, 3 oz.; bread, 18 oz.; potatoes, 12 oz.; butter, 1 oz.; tea, 2 pints; gruel, 1 pint; and for medicine they were ordered a mixture of soda and gentian. It happened occasionally that during the occurrence of a succession of severe fits a mixture containing bromide of potassium was given for a short period, usually from one to three days. The main difference, then, between this period and the last was that the diet was made uniform, and the bromide was only given occasionally, so occasionally indeed that only a few had it at all. It is interesting to note that during these seventy-nine days the whole number of fits was 1,119, or 14.16 a day; a record which is practically the same as the average taken as a standard.

The amount of meat in the diet was now decreased during a period of six weeks, the actual number of days being forty-three; all the patients being again on a uniform diet. This diet I call "B" diet: Meat, 2 oz.; bread, 14 oz.; potatoes,

[1] Abstract of a paper read before the Birmingham and Midland Counties Branch of the British Medical Association.

12 oz; butter, 1½ oz.; milk, 1 pint; tea, 2 pints; gruel, 1 pint. At the same time they were put back upon the bromide mixture once or thrice a day, according to the requirements of the case. The result here was very striking. During the forty-three days the whole number of fits recorded was 399, or only 9·28 a day, a very decided decrease in the number. Since the drug treatment was the same as that during the long period of twelve months the improvement appears to have been due to the decrease in the animal food. A fallacy might, however, have crept in here. It might be suggested, for instance, that as these observations were made during the months of January and December, the time of the year might affect the result. Accordingly, I counted up the number of fits that occurred during forty-three days of the December and January of the preceding year, when the patients were taking the ordinary routine diets, and found that the total number was 782, which gives an average of 18.19 fits a day. It will be seen that this shows the decrease during the observed period in an even more marked manner than before, and it certainly shows that the time of year did not assist in lowering the average.

The result of this "B" diet seemed so satisfactory that they were kept upon it, and after this the drug treatment was alone changed. A mixture containing 5 grains of biborate of soda was ordered three times a day, and at the end of a week 10 grains of bromide was added on account of the general complaint of nausea. This was continued for twenty-eight days. The total number of fits was now 304, or 10.87, still showing a decrease, but not so great a decrease as when bromide alone was given. To test more keenly the effect of the "B" diet, all the patients were put upon it for three weeks, the actual time being twenty-two days, and no medicine was given at all except when circumstances demanded it. At first sight it may appear that a mixture containing bromide and chloral hydrate given in this way detracts from the value of the observations. It is not so, however, because during the whole time I was watching these particular cases this draught was given at times, so that it is a constant and not an intermittent factor. It will also be clear that treatment of some kind must be made use of now and then if the patients are likely to suffer by its being withheld. During this period, then, of the "B" diet, and discontinuance of daily medicine, the number of fits rose again, being 266 as a total, or 12.09 a day. Even then it was less than the average of 14.37.

It has been my object in this note to recount briefly the results of my observations without discussing in any way their theoretical aspects. The principal conclusion that I was able to arrive at is that during a period of five months, when all the cases were on a diet containing less meat food than their usual amount, the average number of daily fits was distinctly lowered. It was to come to some definite numerical conclusion on this point that the foregoing observations were made. I am quite aware of the fact that these observations do not extend over a sufficient length of time to make the apparent results anything more than probabilities. In making trustworthy reports on a large number of cases for even so short a time as eighteen months, the difficulties are very great—the accurate charting of the fits alone requiring great care and attention—and several of my cases had to be omitted on account of unavoidable lacunæ in the notes. The results are at any rate interesting, and I hope to be able to carry out similar observations more completely at a future date.

THE BROMIDE OF STRONTIUM IN EPILEPSY.[1]

By ANTONY ROCHE, M.R.C.P.I.,
Professor of Medical Jurisprudence and Hygiene, Catholic University, Dublin; Examiner in the Royal University of Ireland.

THE various modifications of epilepsy are of such serious import to the unfortunate individual who may suffer from them, and indeed to his family, that I am induced to bring under your notice this evening one of the bromides I have found in some cases to afford some relief in reducing if not curing the manifestations of the condition. I regret the number of cases is limited, and that therefore no general deduction can be drawn from them; but I think they are sufficiently encouraging to induce others to give this bromide a trial in suitable cases. My attention was drawn to the use of bromide of strontium some two years ago by reading some reports from the French medical papers in which it had been found useful when the other bromides had no beneficial effect or could not be borne. I determined to give it a trial in a case I had then under my care, and found the result so satisfactory that I have since used it alone or in combination with the other bromides in four cases.

CASE I.—A gentleman, aged 45, married, no history of syphilis or injury family history markedly neurotic, consulted me in May, 1892, complaining of attacks of vertigo, which lasted a few seconds, and occurred several times a day; the first attack two years ago in Melbourne, when he fell, but asserts he never loses consciousness; he had been treated for stomach and aural vertigo, but without good results. The number of attacks increasing; health generally good; well nourished; heart and kidneys normal; hearing same both sides and normal; complains his memory not so good as formerly. Wife says he turns pale and looks queer when he gets an attack. When speaking to me in my study he suddenly got pale, the muscles of his face twitched, and he nearly fell from chair; in a moment he was all right and said, "There it is." He had distinctly lost consciousness, though he was not aware of it. I ordered him a purgative dose of calomel and santonin powder next morning, but he passed no worms. I wish to dwell upon this, as many years ago I was asked by a medical man to call upon a specialist in London in reference to his son, aged 10, who had a severe epileptic attack when playing. The child had had convulsions when young, but no other attack. The specialist gave a very bad prognosis, and was of opinion that probably the boy would be permanently epileptic. The child, however, got a dose of castor oil, followed by a powder of santonin, passed a round worm, and from that day to this—now fifteen years ago—never had another attack. I have known similar cases to this, and you will find Watson and others have likewise. So do not let this apparently simple irritant escape you. Of course in such cases the nervous system cannot be in its normal condition To return, however, to the patient. I gave him a combination of the bromides of sodium, potassium, and ammonium, 5 grs. of each three times a day, increasing the dose to 15 grs. of each three times a day. This lessened the number of attacks, but he still had them two or three times a week. I then gave 10 grs. of each of the bromide of strontium and potassium three times a day, and the patient had not an attack for a month. I continued this dose, and reduced the attacks to one slight one every six weeks. The gentleman returned to Australia, and I have since learned he remains practically free from the attacks so long as he takes the medicine, but they return on his leaving it off, which he does now and then against my advice.

CASE II.—Gentleman, aged 35. Fits since his 15th year, both *grand* and *petit*, generally once a week. No history of syphilis or injury. Good family history. Has taken pot. bromide frequently. Controls fits but depresses much. Gave him 10 grains pot. bromide and 10 grains strontium bromide three times a day. He assured me the medicine did him more good than any he had taken; sometimes has not an attack for six weeks. He has continued this a year and a half, and although it does not prevent, it certainly much lessens the number and severity.

CASE III.—Boy, aged 8 years; healthy parents; no injury or worms. For the last four years he will suddenly fall; no convulsions, but complete insensibility, lasting from few seconds to two minutes. This will occur sometimes twenty times a day; quite bright after attack; mental condition fair; healthy-looking Has been taking bromide of potassium and sodium 5 grs. to 15 grs. three times a day. This has to some extent lessened the number, but still four to eight daily. Gave him 5 grs. pot. bromide and 5 strontium bromide three times a day. Attack reduced to one or two a week.

CASE IV.—A man, aged 25, has had fits since his 8th year, generally one or two a week; no syphilis; sister had fits from 10 years; fell into fire when 16, and died from burns. Has taken bromide of potassium frequently, but not regularly; lessens number of fits, but depresses much. I gave him 10 grains bromide of strontium three times a day; had not fit for three weeks, and then not for a month; has been and is taking medicine for last three months; consider doing him much good, and says does not lower him as other medicines.

None of these cases were cured, but all of them much relieved. In all of them other bromides had been employed before, and the combination of the strontium seemed to be more beneficial. It has long been noticed that a combination of the bromides act more favourably than any one, and I would advise you to impress on the patient that he must take the medicine for a long period, whether it has at first a beneficial effect or not. I think the bromide of strontium well entitled to further trial.

[1] Read at the meeting of the Medical and Scientific Society of the Catholic University, Dublin.

OWING to the great pressure in the Extern Department, the Board of Management of the Hospital for Sick Children, Queen Street, Belfast, has decided to appoint an additional assistant-surgeon and assistant-physician. A large number of candidates are already in the field, and a stiff contest is expected.

MELÆNA AS A COMPLICATION OF MALARIA.

By Surgeon-Captain H. DEMPSTER MASON, A.M.S.,
Karachi.

THE following cases, which are intended to illustrate one of the less frequent and more serious complications of malaria, have all occurred here within the last two years, during which period malarial diseases have not only affected a far larger number of soldiers than at any other period during the last decade, but the disease itself has proved of a far more virulent type, as exemplified by the profound cachexia following its attacks, the protracted period of convalescence, and the large number of men invalided either to the hills or to England.

Whether melæna is merely the outcome of a severe type of malaria acting on an already debilitated subject or not, it is a curious fact that up till 1893 not a single case had been recorded in the military hospital, whereas since then there have been no fewer than 23 cases up to date. There have been no cases among the women of the garrison, and out of a population of 200,000 not a single case has occurred at the native hospital. It occurs most commonly in men in debilitated health, the subjects of repeated and often long-continued attacks of ague after exposure to chill, less commonly in men who have only had ague once or twice, and that only lasting a few hours. In some it has occurred during the cold stage, when one would, from physiological reasons, naturally most expect it. In others it has occurred with no relation to the malarial attack whatever.

The onset is usually sudden, preceded for a short interval by crampy pains in the belly, accompanied by slight hæmatemesis; the latter symptoms are so uniform that, accompanied with the above-named previous history, they are almost pathognomonic.

In the minority of the cases only has there been any preliminary diarrhœa, but in the majority and severer class the first indication of impending danger has been the passage *per rectum* of large quantities of pure bright-coloured blood, the bowels acting in such rapid succession that in the space of a few minutes the patient has become completely blanched, with a cold clammy skin, running pulse, and every symptom of the severest form of collapse. The pain in the belly and cramps in the legs are most severe, reminding one of the algid stage of cholera.

When it occurs in sthenic patients recovery is surprisingly rapid; the man who, during an attack, has seemed actually at death's door, expresses himself the very next day as feeling perfectly well and fit for duty. This would appear to indicate that the hæmorrhage is of a salutary and safety-valve character. The term melæna is of course theoretically a misnomer. After collapse has set in the hæmorrhage usually ceases, whether treatment has been adopted or not, but in one case neither treatment nor collapse completely stayed the bleeding, which terminated fatally eight hours after the first appearance of blood. Most of the cases after the collapse stage make an uninterrupted though very tedious recovery.

The pathological condition of the whole intestinal tract of the fatal case was one of extreme acute congestion, which extended from the œsophageal end of the stomach to the cæcum in gradually increasing intensity; the mucous membrane was thickened, opaque, of a deep purple colour, with almost black patches on the valvulæ conniventes. About 5 or 6 inches down the jejunum were a series of very small acute shallow ulcers, with thin ragged edges. Throughout the large intestine the same condition existed excepting the ulceration. The spleen and liver were both enlarged, the former weighing 22 ozs., of a dark marcon colour, soft in texture, and acutely congested.

The treatment in all cases was directed towards combating the hæmorrhage and collapse, and has proved so successful that one marvels alike at its effects and the recuperative vitality of the British soldier.

DR. GARDINER ROBB has been appointed one of the Poor-law Medical Officers of Belfast, in succession to Dr. Jamieson, whose death from typhus fever we had recently occasion to record. There were several candidates, but Dr. Robb secured a very large majority at the first ballot.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ACUTE BRONCHOCELE FOLLOWING INFLUENZA.

IN January, 1893, I attended a middle-aged clergyman for an ordinary attack of influenza. Three days after the temperature had fallen, he complained of pain in the throat with difficulty of breathing. I found that the temperature had again risen, and that there was an acute inflammatory enlargement of the thyroid gland. The skin was reddened, but not adherent to the gland. There was much stridor and slight dyspnœa. The whole mass moved freely when the patient swallowed. The enlargement appeared to be almost uniform, both lobes and the isthmus being enlarged. The swelling was treated with hot moist applications. Salicylate of soda and iodide of potassium were given internally. The swelling had gone down considerably in two or three days, but when I last saw the patient, more than eighteen months after the illness, there was still some enlargement of the isthmus. The case seems worth recording as a companion to that recorded by Dr. Russell in the BRITISH MEDICAL JOURNAL of May 4th.

Leeds. C. W. SMEETON, M.R.C.S., L.R.C.P.

A CASE OF FATAL HÆMATEMESIS FROM ULCERATION OF GALL STONE INTO THE DUODENUM.

L. H., aged 52, of no occupation, had suffered from attacks of biliary colic for nine years, and on several occasions after the attacks had subsided gall stones had been found in the motions. The last attack of colic was nine months ago, and this had been exceptionally severe. An operation had been advised at this time but had been refused.

On March 24th, 1895, he had the first attack of hæmatemesis, when he vomited more than a pint of dark partially clotted blood.

I first saw him on April 8th, during the absence of his usual medical attendant, Mr. Jordison. His skin and conjunctivæ were jaundiced, and he had suffered for some time from intense irritation of the skin, but with this exception had been quite free from pain. The abdomen was flaccid and easily palpable, and no enlargement of the liver or gall bladder could be made out. The bowels were confined, the motions clay coloured, and the urine contained bile pigment. All the other organs were healthy; his appetite was fair, and he had no pain after food. The temperature was normal, the pulse 80. He had been allowed to get up for an hour or two for two days previously.

I saw him again on the morning of March 10th, when he expressed himself as feeling better than he had done for some time. During the afternoon of that day he over-exerted himself, and at 6 P.M. I was sent for urgently on account of renewed hæmatemesis. When I arrived (a distance of two miles) he was collapsed and almost pulseless. He had vomited about a pint and a-half of semi-fluid dark blood, just as he was sitting down to tea. By means of injections of brandy and strychnine he rallied sufficiently to allow of his removal to bed.

At 8 P.M. he again vomited half a pint of dark blood, and passed unconsciously several loose motions containing partially decomposed blood. I injected gr. $\frac{1}{4}$ of morphine, and gr. $\frac{1}{5}$ of ergotinin. I ordered these to be repeated every four hours, no food to be given by the mouth, but small pieces of ice to be sucked to relieve his intense thirst, and an ice-bag to be applied to the epigastrium. He had several hours' good sleep till 6 A.M. on March 11th, when he complained of faintness and dimness of sight, and soon afterwards vomited three pints of clotted blood, one clot showing a distinct cast of the pyloric end of the stomach and the upper part of the duodenum. He was much collapsed, with a weak and intermittent pulse. I saw him at 10 A.M. with Dr. Taylor, of Chester, and Mr. Jordison, and it was decided to continue the injections of morphine and ergotinin every four hours. At about 3 P.M. he became restless, and further hæmatemesis took place at 4 and 7 P.M.; and he died at 9 P.M. on March

11th, nearly three weeks from the first onset of the hæmorrhage.

A partial *post-mortem* examination was permitted. The viscera were bile-stained; the liver was hard, and slightly contracted. The stomach contained a quantity of blood. The mucous membrane of the stomach was thickened, and there was no trace of any ulceration. The pylorus was normal. The gall bladder was small, contracted, and empty, and its walls thickened. On introducing the finger into the gall bladder it was found that it could be passed on easily into the duodenum directly, to which it was firmly adherent. Lying loose in the duodenum was an unfacetted gall stone, with a quantity of blood. The edges of the opening were soft, and probably of recent date. The gall stone measured $\frac{3}{4}$ by $\frac{1}{2}$ an inch, and weighed when dry 40 grains.

Malpas, Cheshire. Henry A. Duffett.

FRESH FRUIT IN CHRONIC DYSENTERY.

I should like to draw attention to the value of certain sorts of fresh fruit in the treatment of chronic dysentery. As far as I know, none of the textbooks on the subject (except Davidson's *Hygiene and Diseases of Warm Climates*) allude to this. From my own personal as well as professional experience I have found them of the greatest value. I may specify strawberries, grapes, figs, and, if they can be so classed, tomatoes, these being all seed fruits as distinguished from stone fruits. Of course they must be in absolutely good condition. For some years past I have made use of them largely in treating chronic dysentery and diarrhœa, with most happy results. I must own the idea is not original, but was impressed on me by the late Dr. Sausmarez Lacy, of Guernsey, who, I believe, had practised this treatment for many years. As the season for invalids from India and the tropics has now commenced, the suggestion may be of use to those of my brother practitioners who find diet a difficulty in such cases.

Folkestone. Arthur De Butts, L.S.A.Lond.

TRAUMATIC PNEUMOTHORAX.

Having read in the British Medical Journal of April 13th Mr. Lucas's two cases of traumatic pneumothorax, I am induced to send you brief notes of a case recently under my care.

On February 11th last I was called to see a young man, aged 20, who had received a blow from the end of a pole with which he was placing a belt on a pulley. He had been struck just above and to the outer side of the left nipple, about the lower edge of pectoralis major. He was then suffering from shock, and though I noticed the heart's sounds to be feeble, I thought it was due to the shock, and as he was dressed did not make a thorough examination.

Next day, however, I found the heart displaced to the right of the middle line quite an inch; percussion over the whole of the left side was hyper-resonant, the bell sound well marked, also metallic tinkling, vocal resonance was amphoric, while no breath sounds were audible. There was very little external evidence of the blow, nor were there any subjective symptoms beyond slight shortness of breath on exertion and the soreness of the bruise, which latter subsided in a few days. There was certainly no fractured rib. After a week or so the heart began to go back, but it was not until six weeks after the accident that things were in their normal condition.

Warrington. A. W. Hall, L.R.C.P., etc.

VESICULAR HERPES OCCURRING ON THE GLANS PENIS IN TYPHOID FEVER.

Herpes occurring in the most common situation—the lips—is rare in typhoid fever; it is certainly very rarely met with in the situation here recorded. The patient, aged 22, on the twelfth day of the disease, informed me that on the previous day an eruption had appeared near the end of his penis, and that it came as a crop of six or seven "little blisters," which had since burst or been broken. On examination the remains of the vesicles were seen on the dorsum of the glans, close to the corona, kept moist by secretion under a rather long prepuce. There was no swelling of the inguinal gland, and no urethral discharge. There were no vesicles on the inner surface of the prepuce, nor was there any labial herpes. The patient's evening temperature at this time was 102.2° F.; he was passing five loose motions on the average daily, and was slightly delirious. The eruption was dressed with a little boracic ointment, and healed in less than a week, leaving no trace.

Rickmansworth. H. W. Webber, M.S., M.D.Lond.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE LEICESTER INFIRMARY.

A CASE OF ENTERIC FEVER, WITH THROMBOSIS OF BOTH FEMORAL VEINS AND ABSCESSES IN LUNG AND SPLEEN.

(Under the care of Dr. Cooper.)

[Reported by Michael B. Foster, M.R.C.S., L.R.C.P., House-Physician.]

R. G., a labourer, was admitted on August 3rd, 1894, with a history of seven days in bed, the prominent symptoms being diarrhœa and pain in the belly. He had been ailing for a previous week with headache and pains in the limbs and back. On admission most of the signs and symptoms of enteric fever were present. Spots were well out, large, and numerous. The splenic edge was felt just below the costal margin. The urine contained a large trace of albumen. There were no signs of bronchitis.

Fresh spots appeared on the next four days. For the first seven days nothing of special note occurred. The temperature was continuously between 103° and 104°; the pulse 108, soft; the tongue thickly furred, tending to become dry; the stools light and pea-soupy, four to five a day. The urine remained albuminous.

On the next three days there were morning remissions of temperature of 1°, with slight improvement in the general symptoms. On August 13th (ten days after admission and in the fourth week of illness) the patient had a rigor, which was repeated on the next two days. The temperature ran up to 104°, 104.6°, and 105° respectively. Swelling and œdema of the left leg and thigh were then noticed, with a tender, hard cord in the left groin, over the femoral vein; his general condition was worse, the motions and urine were passed in bed. The tongue was dry and cracked; the pulse 128, small and feeble, and he wandered at night. The urine contained one-eighth albumen.

For the next four days the patient's condition improved. The pulse was stronger (108). The motions—which had resumed a normal colour, though loose and liquid—were passed naturally. The tenderness and swelling of the left leg and thigh appeared to be subsiding, but the cord still persisted. The temperature was more or less continuous 102° to 103°.

On August 20th the patient had another rigor, followed by two on the next day. On examining the chest, dulness at the left base was noticed, reaching up to the scapular angle. The breath sounds were very faint in this situation, and a few liquid *râles* were present. There was no cough or expectoration; the respirations were 24.

From this time the patient's appearance and condition differed considerably from that noticed during the earlier part of his illness. The pulse was very feeble (132), the tongue dry and cracked, and the face pinched and grey. The motions and urine were passed in bed. He muttered at times and was in a condition of semistupor. The belly was quite flat and the stools dark in colour.

For the next week the temperature was of septic type, 102-103° at night, normal in the morning. No more rigors occurred, but the patient was much weaker, drowsy, and wandering by day and night. The pulse was thready (140). The physical signs at the left base remained the same. The urine contained one-eighth of albumen.

On August 31st swelling and œdema of the right leg occurred, with a tender hard cord in the right groin and prominent superficial veins over the lower part of the

abdomen and thigh. The temperature went up gradually in the course of the next four days, reaching 104°. Rigors were repeated daily. The patient became jaundiced, grew gradually weaker, and died on September 5th.

Post-Mortem Examination (September 6th).

Intestines.—No ulcerating patches to be seen, but several recent cicatrices on non-attached margin of gut; a few slightly enlarged mesenteric glands; none contained pus.

Lungs.—Right, healthy. Left: At base of lower lobe an abscess-cavity size of small orange; walls of which are grey and ragged; bronchi leading to it blocked and vessels thrombosed.

Spleen.—A small abscess, size of walnut, at upper end, to which diaphragm is adherent, and forms upper wall of abscess cavity; no connection between splenic and lung abscesses discoverable.

Kidneys.—White and flabby; cortex narrowed; capsule strips readily.

Veins.—Clot extends downwards on either side from the junction of common iliac veins to junction of deep with superficial femorals: it is of reddish grey colour, toughish on outside, but soft and breaking down in centre; no thrombosis in portal vein.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Tuesday, May 14th, 1895.

On the Probable Pathological Identity of the Various Forms of Acute Septic Inflammation of the Throat, hitherto described as Acute Œdema of the Larynx, (Œdematous Laryngitis, Erysipelas of the Pharynx and Larynx, Phlegmon of the Pharynx and Larynx, and Angina Ludovici.

Adjourned Discussion.

Dr. Stephen Mackenzie opened the adjourned discussion on Dr. Semon's paper. The breadth of view displayed in the paper completely contradicted any idea that devotion to a special branch of the profession had the slightest tendency to lead to narrowness. Previous speakers had agreed that the various diseases described were allied clinically, but did not consider them pathologically identical. He considered the etiological factor in disease to be of great importance, and instanced peripheral neuritis as being due to numerous and dissimilar causes. Acute inflammation of the tongue, floor of the mouth, and larynx might be due to herpes, and he quoted two cases, clinically indistinguishable from angina Ludovici, which after death were found to be associated with, if not due to, trichina spiralis and miliary tuberculosis respectively. He thought the author of the paper had rather cut the ground from under his own feet by quoting Jordan's bacteriological results. Without positive bacteriological evidence these various affections could not be considered to be pathologically identical.

Dr. Dundas Grant thought that much good would result from this simple modification in the classification of these diseases suggested by Dr. Semon. His own experience tended in the same direction. Of the affections thus grouped together, typical angina Ludovici was the one least likely to be pathologically identical with the rest, since he had seen it secondary to disease of the teeth and also of the ears. He had been struck by the fatal tendency of such cases, quite apart from the respiratory embarrassment they might produce. He quoted a case of phlegmon low down on the pharynx, followed by various septic phenomena, such as facial erysipelas and wandering pneumonia, in support of Dr. Semon's contention. The term "Ludwig's angina" should be discarded, since it served as a refuge in cases of difficult diagnosis; the title "acute septic inflammation" of the throat would be preferable.

Dr. Lovell Drage had long directed his attention to allied subjects. He had seen a boy, aged 10 years, at a school, with acute inflammation of the fauces and probably œdema glottidis, on whom tracheotomy was followed by immediate relief. In a few hours, however, dyspnœa, double pneumonia, and a rash, probably septic, developed, and death followed twenty-four hours after the tracheotomy. In the first instance this case was probably an acute inflammation of the fauces which was then prevalent; subsequently other cases were seen at the same school in an early stage, and were treated antiseptically, with the result that no extension of the disease occurred. This fortunate event he thought due to the treatment. The first case did not come under observation until the early stages were over. In a paper in the *Lancet* of February 23rd and March 24th, 1894, he had upheld the same unity in puerperal fevers that Dr. Semon now contended for in the case of the throat. As long ago as 1733 Dr. Huxham had pointed out the inflammations of the throat associated with influenza. He had noticed in 1892 that the inflammation might remain limited to the fauces or extend downwards, and that its spread could be prevented by antiseptic sprays and gargles. For this purpose biniodide of mercury was better adapted than boracic acid. He referred to the close connection between the prevalence of autumnal diarrhœa and the occurrence of typhoid fever, and commented on the increasing severity of the diarrhœa before the outbreak of typhoid fever.

Dr. W. Hill said that since Dr. Semon's cases were due to different etiological factors, he wished to ask what was meant by the phrase "pathological identity." He quite agreed that the cases had a clinical resemblance to each other, but did not think they were alike from a pathological point of view.

Dr. Kanthack would confine his remarks to the pathological and bacteriological aspects of the question. He had examined four cases of so-called angina Ludovici (1) acute cellulitis of the neck following tonsillitis in which the streptococcus was present; (2) gingivitis due to dental caries in which the staphylococcus albus and aureus were found; (3) œdema glottidis and pneumonia in which the pneumococcus (Fraenkel) was found; and (4) phlegmonous inflammation in a pregnant woman who aborted and died of septicæmia; streptococci were found in the spleen and in the tissues of the neck. In these four cases various pyogenic micro-organisms were found producing various stages of the same process. Although bacteriologically distinct the processes were pathologically identical. The distinction between pathological and bacteriological identity was illustrated by the phenomena of ulcerative endocarditis. Clinically, and from the standpoint of morbid anatomy, ulcerative endocarditis was a pathological entity, but bacteriologically, at least twelve different microbes could be isolated. It was true that these micro-organisms were more or less allied, but this was equally true in the pathological conditions grouped together by Dr. Semon. The subject of dispute between clinicians and pathologists was really one about terms which had been invented long before the advent of bacteriology, and it was impossible and inadvisable to try to fit new views to old terms. He endorsed Jordan's views that different micro-organisms could produce conditions pathologically identical. The term "specific" should be employed with caution, since some morbid conditions were due to the interaction of several kinds of micro-organisms. The streptococci of erysipelas and of inflammation were indistinguishable. The same micro-organism might produce a local or a general morbid change, the determining factor was as yet unknown. Microscopically there was no essential difference between inflammation and suppuration, they were only different stages in the same process. In conclusion, he said the present state of pathological knowledge supported Dr. Semon's views.

Mr. R. W. Parker thought there was room for a legitimate divergence of opinion as to the propositions brought forward by Dr. Semon. From analogy he thought that the micro-organisms found in the various forms of inflammation of the throat and neck were specific. He referred to the possible instability and difficulty of bacteriological research. Clinically he considered the conditions grouped together as essentially different, and thought that the old terms should be retained and not superseded.

Dr. Semon, in reply, said that the fact that most of the criticisms had been somewhat adverse did not surprise or discourage him. The immediate verdict was not always the ultimate one. In 1882, at the Clinical Society, he had brought

forward the view that myxœdema, cachexia strumipriva (Kocher), and cretinism, both sporadic and endemic, were due to the same lesion, but it was then considered too simple to be true. The thesis in this paper had been brought forward as a working hypothesis, not as a proved fact. The paper was largely clinical, and he regretted that the discussion had rather neglected this aspect, and especially that nothing had been said about the *rôle* played by the tonsils as a portal for microbic infection. Much of the discussion of the paper had turned on the term "identical." Identity might refer to pathological conditions, anatomical site, or clinical phenomena. By pathological identity was meant the occurrence of the same process in diseases which might appear to be different. The different kinds of inflammatory exudations passed by gradual transitions one into the other. All his cases showed violent exudations into the tissues and severe clinical symptoms. At first he regarded the cases as being merely closely allied, then noting slight variations in the locality of the affection he became convinced that the actual site of invasion was accidental, and due to the presence of some abrasion, and that the morbid process was the same. Mr. Lockwood had said that to be identical a disease must not only be due to the same causes, but occur in the same tissues. If this was the case tubercle must be considered a different disease in each organ or tissue of the body. He considered the various micro-organisms found in the cases thus grouped together as being interchangeable. Jordan's results were the collected opinions of the most eminent bacteriologists of the world, and not merely his own. He felt confident that in the future his views would be accepted, and quoted a recent paper in *Virchow's Archiv* by Küttner of Berlin and a pamphlet by Suchannek which embodied exactly the same ideas.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., Vice-President, in the Chair.

Friday, May 10th, 1895.

The Chairman referred to the loss suffered by the Society in the deaths of Sir G. Buchanan, a Vice-President, and of Mr. A. E. Durham.

Congenital Absence of Some of the Abdominal Muscles.

Mr. R. W. Parker read notes of this case, the patient being an infant. The abdominal wall was thin as parchment. Except along the middle line, where the upper and lower extremities of the rectus could be distinctly felt, the anterior abdominal wall contained no muscle; it was extremely flaccid, and permitted manual examination of each one of the viscera. The muscles of the back appeared normal. The infant died of collapse and emphysema of the lungs. A detailed account of the necropsy, made by Mr. Theodore Rake, was appended.

The Chairman described the case of a child in St. Bartholomew's Hospital with part of the anterior wall of its abdomen gangrenous. This being removed the intestines were exposed. The part removed was shown by the microscope to consist of the skin and subcutaneous fat, but contained no muscular structure.

Nævoid Growth of the Mucous Membrane of the Bladder.

Mr. Arbuthnot Lane recorded a case of very extensive nævoid growth of the mucous membrane of the bladder in a female child aged 3½, admitted into St. John's Hospital, Lewisham. Two years previously the child commenced to pass bloody urine, and at times large flat clots, and this condition, varied in degree, the hæmorrhage being at times so profuse that the child appeared to be in great danger. There were scattered about the anus and buttocks a few small patches of degenerated nævoid tissue, which had led Mr. L. Burroughs and Mr. Stokes, whose patient the child was, to diagnose the condition of the bladder as being also nævoid. The bladder was distinctly large, as felt above the pubes and by the rectum. Mr. Lane opened the bladder above the symphysis, when large nævoid masses, some as large as grapes, protruded through the incision. They were mostly soft and bled very readily, while others were hard and apparently cystic. Almost the whole of the mucous surface was affected. It seemed unwise to attempt to include masses of the growth in ligatures. Mr. Lane therefore closed the incisions into the bladder and skin, intending to interfere subsequently should styptics applied locally not have the desired effect. Strychnine was used for this purpose. For some unexplained reason the child's condition changed after the operation, the hæmorrhage ceased, and her colour and weight improved rapidly. Occasionally she passed a little coloured urine at long intervals. Mr. Lane had expected to find an adenomatous or papillomatous tumour or tumours.

Mr. Parker had never seen a case of spontaneous hæmorrhage from a nævus, though he had seen spontaneous ulceration of a nævus.

Mr. Pearce Gould had seen two cases of spontaneous bleeding from nævi, once from the rectum, once from the œsophagus.

Mr. Gordon Brodie remarked that Mr. Bland Sutton had had a case of nævus of the male breast from which there was spontaneous hæmorrhage.

Mr. Hurry Fenwick knew of no other case of nævus of the bladder in a child; the cases recorded and specimens in museum, with two exceptions, were instances of myxosarcoma.

Gastric Ulcer.

Mr. L. A. Dunn recorded two cases of gastric ulcer in which he had performed laparotomy. Case I. A girl of 15, admitted into Guy's May 19th, 1894, had had gastric disturbance for four months. The day before admission she was suddenly seized with intense pain in the abdomen and vomiting. Dr. Pitt diagnosed perforating gastric ulcer, and ordered nutrient enemata and other medical treatment, but as the case did not improve he called upon the surgeon to explore the abdomen. The abdomen was opened in the middle line. The perforation, ¼ × ¼ inch, was on the anterior wall of the stomach near the small curvature. It was with great difficulty brought into the wound and closed by a double row of Lembert's sutures. The abdomen was flushed and closed in the usual way. The patient progressed favourably for thirteen days, when she vomited and had intense pain. The pulse, which before was 88, ran up to 160. Her face was pinched and there was great restlessness. As no improvement took place it was decided to open the abdomen again as probably a fresh perforation had occurred. Nothing was found save a distended stomach attached to the abdominal parietes by a few recent adhesions. These were separated and the wound was closed. After this recovery was rapid and uninterrupted. Case II. A girl, aged 28, under the care of Dr. Hale White, admitted June 4th, 1894, with well-marked symptoms of gastric ulcer, and treated in the usual way till June 29th, at 6 P.M., she suddenly screamed out with pain in the epigastrium, vomited half a porringer full of greenish fluid, and became intensely collapsed. As it seemed almost certain that perforation had occurred laparotomy was performed at midnight. The anterior surface of the stomach was exposed by a median incision. Nothing unusual was found in the way of adhesions, gas, or other fluid. The stomach was fairly distended, and no gas escaped on moderate pressure, so the wound was closed in the usual way. Vomiting continued after the operation, and the patient succumbed in four days. The necropsy revealed neither peritonitis nor extravasation of gastric contents. A large gastric ulcer was found, through the floor of which, now that *post-mortem* digestion had taken place, the gastric contents could be made to pass on squeezing the sides. The wound was quite healthy and healing. This last case showed the difficulty of diagnosing when an ulcer had perforated. It was thought that perforation had here taken place before the operation but it had not.

Mr. A. Quarry Silcock described two cases of perforating gastric ulcer. Case I. A barmaid was admitted on April 10th, 1894, to St. Mary's Hospital under the care of Dr. Lees, who diagnosed that she was suffering from a gastric ulcer which had perforated. Mr. Silcock opened the abdomen, and found a small perforation admitting the end of a large probe, amidst the remains of recent adhesions of lymph which glued the anterior wall of the viscus to the anterior abdominal wall. A few bubbles of gas and a little clear fluid neutral in reaction escaped on opening the peritoneum. There had

been no further extravasation of stomach contents, the necrotic edges of the ulcer were excised, and, thus freshened, were enfolded by Lembert's sutures. A drainage tube was so disposed as to carry away any discharge from the neighbourhood of the perforation, the stomach and parts involved in the operation being sponged over with corrosive sublimate solution and the wound dressed antiseptically. The patient was fed by nutrient enemata. She died fifteen days after the operation of septicæmia, due to the accumulation of pus between the left lobe of the liver and the diaphragm, behind the stomach, and above the spleen (subphrenic abscess). All efforts to drain this abscess failed. *Post-mortem* examination showed that the perforation had soundly healed. Mr. Silcock contrasted this case of fatal issue with the following, pointing out that the woman was comparatively healthy, the perforation recent and easily got at, the surgeon requisitioned at the earliest possible moment, and the closure of the perforation a success surgically. Case II. A cook, aged 24, was admitted into St. Mary's Hospital under the care of Dr. Cheadle on April 7th, 1895. She was evidently suffering from acute gastric ulcer, and was treated in the usual way. Seven days after admission she became suddenly worse, and symptoms of perforation were present. The abdomen was opened by Mr. Silcock, a small quantity of turbid serum of neutral reaction together with a few bubbles of gas escaping on incision of the peritoneum. A wide band of fibrinous adhesions bound the anterior surface of the stomach to the under surface of the left lobe of the liver. The perforation being evidently in the midst of these well-developed reparative adhesions, and the ulcer being of unknown extent, they were left alone, a drainage tube being placed in position and the wound closed. The operation was followed by immediate relief, and the patient made an uninterrupted recovery. Mr. Silcock thought that the issue in this case showed the inadvisability of interfering with adhesions when these shut off the perforation from the general peritoneal cavity, and mentioned the possibility of infecting the general cavity of the peritoneum had this been done, and of opening up a perforating ulcer so large that it would have been difficult or impossible to have dealt with it adequately by suture.

Dr. Lees related four cases that he had seen. The first was one of limited subdiaphragmatic abscess, not easily diagnosed from localised empyema. It was reached by Mr. Pepper with a trocar, and pus drawn off; he tried then to reach it with a director, but failed, and the left pleura was opened. Time was, therefore, allowed for the formation of adhesions. There was at first pneumothorax, but within twenty-four hours all the air was absorbed. Death from hæmorrhage ensued two or three days later. On the posterior wall of the stomach was found the cicatrix of a large circular ulcer. The second case was operated upon by Mr. Page within forty hours of the perforation, and the case had been reported. The ulcer was quickly found on the front wall of the stomach; it was sutured, and after death the union was found to be quite firm. Case III was operated upon by Mr. Pepper within a few hours after the patient's admission. The ulcer was easily found, and sutured, but the patient, after first doing well, on the third day had pain, and died. At the inspection it was found there had been a large ulcer at the roof of the stomach extending down both the front and back walls of the viscus. A perforation in the front wall had been found and sutured, but the ulceration on the posterior wall, which was continuous with that in the front, had also perforated, and this perforation had not been found at the time of the operation. The fourth case was the first of those narrated by Mr. Silcock. Although the ulceration was easily found in these four cases, adhesions had to be broken down to get at it, and the inflammatory fluid tended, wherever the perforation was situated, to find its way over the liver to the head of the spleen, and collect just below the diaphragm. He inquired if it would not be possible to drain these abscesses from behind without entering the pleura. If possible, he thought it would be good practice to do it in addition to the suture of the ulcer, or preferably to drain and not suture the perforation, leaving that to cure itself. In another case a patient was admitted with severe pain and tenderness at the epigastrium, though the symptoms were not very urgent. Notable relief followed the local application of ice. In three-quarters of an hour, however, the pain returned; morphine was used, but made the patient sick; ice was then again applied, the pain was relieved, and the patient recovered.

Dr. Turney had well considered the method advocated by Dr. Lees and for two years had tried to put it into operation. Excision of the eighth rib would open the pleura, but would be below the margin of the lung, and would tap a subdiaphragmatic abscess or a localised empyema equally well. Empyema, also, was not so serious a condition as it was once considered to be, and would be drained at the same time that it was produced. In the case of a girl, aged 21, there was the important symptom of absence of liver dulness extending up to the right nipple. All the symptoms, which seemed to clinch the diagnosis of perforation, gradually disappeared without operation, and the patient recovered. A second patient, seized with sudden pain in the epigastrium, walked to the hospital. She had rigidity of the upper part of the abdomen, absence of liver dulness, but with normal pulse and temperature for several days. On administration of food vomiting occurred, the temperature began to rise, and a hectic condition ensued. An area of dulness appeared over the region of the spleen—thought to be due to a subdiaphragmatic abscess. An inflammatory lump appeared on the right side of the chest at the edge of the ribs, which was opened, and gave rise to bile-stained pus. The patient died. *Post mortem* the liver was found to be full of abscesses, there was an abscess of the spleen, a subdiaphragmatic abscess, and a perforation of the diaphragm. A cicatrised ulceration existed on the front wall of the stomach, but there was no general peritonitis. The case admitted with the slight symptoms died, but the one with the more serious signs recovered, though after a long period of illness.

Mr. Watson Cheyne mentioned the case of a girl aged 17, who, with perforation of the stomach, was almost moribund. He opened the anterior wall of the abdomen over the stomach, and found the perforation at the bottom of a collection of fluid in a localised peritonitis bound by adhesions all around. He therefore left it open. At the end of a week he stitched it; but two days later she died with abscess behind the stomach, which had probably been infected before the sewing up. In another case an abscess was opened in the left hypogastric region, and the patient recovered.

Dr. Hale White remarked that the real gravity of the case bore no relationship to the apparent gravity of the symptoms. This was well shown in a case at Guy's Hospital, where perforation occurred whilst the patient was in bed and the operation was done within six hours, yet the patient died. *Post mortem* no trace of the ulcer could be found, and hardly any evidence of peritonitis. If it were difficult to find the perforation, might it not be advisable to distend the stomach with gas and thus determine the point? Another case showed the difficulty of diagnosis. A barmaid had sudden pain at the stomach, and on admission had general peritonitis. She had had some pelvic trouble. There was nothing to make one suspect gastric ulceration. She vomited, but this was at once relieved by washing out the stomach. She died quite suddenly. *Post mortem* a perforated ulcer was found, firmly adherent to the under surface of the liver, and the adhesions were not broken down by the washing out of the stomach. He thought no surgeon could have found that ulcer except by breaking down the adhesions. As to the question of drainage of the abscess from the back, Mr. Dunn and himself had had a patient with an appendix 7 inches long, passing behind the duodenum. It suppurated, and Mr. Dunn performed laparotomy; but the abscess burst during the operation and the patient died. That would have been a good case for an operation from the back.

Dr. Rose Bradford had had two cases that illustrated some of the points raised by different speakers. The first patient, a girl, was operated upon quickly, and recovered, but had thrombosis of the femoral vein. The second patient, also a girl, was quickly operated upon, when a large quantity of fluid escaped from the abdomen. In neither case was there any difficulty in finding the ulcer. After fourteen days the second patient died of abscess at the base of the left lung. In both cases the liver dulness was absent. He asked if air disappeared from the peritoneum as quickly as from the pleura. In another case there was a collection of pus at the back of the liver beneath the diaphragm. The abscess was

opened just below the last rib, and drained by a tube 6 or 7 inches long, and the patient recovered.

Dr. Hale White said that in his case the perforation occurred on Wednesday night, and the patient was admitted on Sunday, when the liver dulness was normal, so that presumably the gas had already been absorbed.

Mr. Dunn, in reply, remarked that in his patient operated upon twice the tympanitic area was well marked each time. He would be extremely shy of opening the abscess from the back; the result in either of his patients would have been disastrous.

Mr. Silcock, in reply, said that in his case it was not possible to say if there was an abscess behind the liver or not. As to the absence of the liver dulness, he thought the gas rose to the highest point in the abdomen; but it did not vary its position if the patient were moved, even if there were no adhesions to keep the gas in its place. As to opening from behind, one must penetrate the diaphragm and open the chest, which he would not like to do.

MEDICAL SOCIETY OF LONDON.

Annual Meeting.

Sir William Dalby, M.B., F.R.C.S., President, in the Chair.

Monday, May 13th, 1895.

Annual Report.

The annual report was read and adopted. It showed that in respect of members and finances the condition of the Society was most satisfactory.

The election of officers for the ensuing year was then proceeded with, the official list being confirmed.

The late Sir George Buchanan and Mr. Arthur Durham.

On motion from the Chair, votes of condolence were agreed to in respect of the death of Mr. Arthur Durham, the Treasurer of the Society, and of Sir George Buchanan, a past Lettsomian lecturer.

The Diagnosis of Retroperitoneal Sarcoma, with Cases.

Mr. C. B. Lockwood read this paper. He said that although retroperitoneal sarcoma was a rare disease, everyone who performed many laparotomies was sure to meet with examples. He had twice met with this embarrassing condition. In neither was a diagnosis arrived at. Had the nature of the disease been diagnosed an operation would not have been performed. In the first case the signs pointed apparently to a solid ovarian tumour. When the abdomen was opened a tumour like a thick-walled cyst appeared. The abdominal distension was so great that the hand could hardly be introduced, but the examination seemed to confirm the supposition, but nothing escaped by the trochar, and a quantity of semigelatinous fluid was removed by the hand. The relations of the tumour could then be ascertained. It grew from behind the peritoneum into the folds of the mesentery and had lifted up the left colon, which lay in front of it. The mesenteric vessels traversed its substance, and its removal was impossible. The tumour was a myxosarcoma, and extended behind the peritoneum from the brim of the pelvis to the diaphragm. It did not seem to spring from any of the great organs. It probably originated in the retroperitoneal connective tissue. The second case had also many of the characters of an ovarian tumour, but the diagnosis seemed very doubtful. The abdomen was not quite so distended as in the first case. The tumour grew behind the peritoneum, lifted up the intestines, and had distended and nearly obliterated the mesentery. The patient recovered from the operation after a severe illness. Mr. Lockwood thought these growths ought to be diagnosed. In the early stages this might not be so difficult, but their onset was insidious and the patients were not seen until the abdomen had become distended. However, the anomalous character of the tumour ought in future to awaken suspicion. Also in each of these cases the abdominal resonance must have been peculiar, owing to the distribution of the intestines over the growth. In the last case the tumour was at one time dull and at another resonant—presumably as the intestinal coils were distended or collapsed. Unfortunately the significance of this sign was not appreciated.

After some remarks from the President,

Sir Hugh Beevor referred to the case of a man, aged 32, who had first noticed swelling of the abdomen seven weeks before coming to the hospital. He had been gradually emaciating. The tumour reached 2 inches below the umbilicus, the swelling being most marked on the left side. On palpation it gave the sensation above the navel of hydatid fremitus. There was resonance over a small area in the epigastrium on one occasion for a short time. The urine contained a trace of albumen, and the arteries were thickened. The patient died suddenly, he supposed, as the result of perforation. They had noticed a small movable nodule in the left iliac region. *Post mortem* this proved to be omentum. The growth was the size of a cranium. The case was interesting because of the impossibility of obtaining evidence that the transverse colon passed across the growth, which was, however, the case. He commented on the fewness of the cases on record.

Dr. Snow said he could not see how the diagnosis of these cases could possibly be based on the position of the colon; the glands from behind might become diseased and push forward the intestines, and the gut might sometimes be filled with gas and at others quite empty. He asked if the author could assign any cause for the growth? In some cases, he thought, they probably arose from congenital rudiments of the Wolffian bodies, which not infrequently gave rise to tumours in children. In intraperitoneal tumours there were often secondary growths about the abdomen. When these were pushed downwards one obtained a curious emphysematous feeling which he had not met with except in connection with malignant growths.

Mr. Lockwood, in reply, said such cases could not be very rare, since he had had two in four years. He had been struck by the fact that so few should have been placed on record. He was referring only to retroperitoneal tumours at an advanced stage, and had suggested this symptom as a means of assisting in the diagnosis.

Cases of Operation on the Stomach.

Mr. Herbert Allingham read notes of 13 cases of operation on the stomach, and said that, although he had nothing new to bring forward, it might be well to give the result of his experience. The cases comprised 7 gastrostomies, 4 gastro-enterostomies, 1 Loreta's operation, and 1 pyloroplasty. There were 3 deaths out of the 13—1 gastrostomy, 1 Loreta's operation, and 1 gastro-enterostomy. If such operations were to be of any use they must be done fairly early. His first case of gastrostomy had died of mere asthenia, and in the fatal case of gastro-enterostomy the stomach was so greatly distended that it had quite lost the power of contracting. After trying various incisions, he had come to the conclusion that an incision above the left linea semilunaris was the best for operations on the stomach; but in pyloric stricture he preferred a vertical incision in the middle line, above the umbilicus. He had tried several methods of performing gastrostomy, and he had no hesitation in saying that the method advocated by Mr. Jessett was the best. Very few stitches were required—none, indeed, to fix the stomach to the abdominal parietes—and the operation need not take more than a quarter of an hour. The opening into the stomach should not be larger than would admit a No. 8 catheter. In 5 of his cases, as soon as the stomach was opened and the patients fed through the opening, the œsophagus was relieved of spasm and the patients could take food through the mouth, but this, of course, was only temporary. He did not like Senn's plates, because they did not keep the lips sufficiently apart and the opening soon ceased to be large enough. By Mayo Robson's bobbin or Murphy's button the lips were maintained well apart, and there was no danger of the opening becoming too small. Pyloroplasty was the best operation for non-malignant stricture of the pylorus. He doubted whether lasting benefits would be derived from Loreta's operation. In endeavouring to force a rigid structure there was a danger of tearing it through and causing extravasation. Moreover, stretching did not give permanent results elsewhere—as in a urethral stricture, for example.

The President observed that in many of these cases the object was to enable the patient to pass the remainder of his

life in comfort rather than to prolong life; indeed, he doubted whether any such prolongation of life would be desired by the patient.

Mr. LOCKWOOD observed that gastrostomy seemed to afford relief in some cases, while in others the patients objected to the artificial opening. He referred to three patients who were operated upon during the same week. Two of them died, not so much from the operation as from exhaustion, and the third, a young woman, was so little pleased with the operation that she allowed the hole to close up.

The PRESIDENT pointed out that his remarks only applied to cases of lingering disease.

Mr. LOCKWOOD, continuing, asked the author what was the condition of the patient who survived the operation eleven months. Was there any escape of gastric fluid and consequent irritation of the skin? Did the patient, in fact, consider the operation a boon? He observed that surgeons were usually called upon to perform gastrostomy when the patient was practically moribund, and the chances of a successful issue were necessarily very small. The proper time to operate, if at all, was when the patient had ceased to be able to swallow soft solids but could take a fair amount of fluid nourishment. In advanced cases if a tube could be passed this would often do away with the necessity for gastrostomy.

After some remarks from Dr. H. SNOW,

Mr. ALLINGHAM, in reply, said that when patients had to decide whether or not to have recourse to operation they rarely hesitated, having in fact to choose between two evils. In the case referred to the patient had experienced very great relief from the operation. Patients of course did not like the operation, nor did they like being fed through the artificial opening. He maintained that gastro-enterostomy ought to be done in every case of pyloric stenosis with marked gastric dilatation, the relief being so great. In one of the cases which he had brought before the Society in February last the patient gained 3 stone in weight, and was enabled to resume her occupation, and although she was once again very ill, he thought such a result justified having recourse to the operation in every suitable case.

HARVEIAN SOCIETY OF LONDON.

Sir JOHN WILLIAMS, Bart., M.D., in the Chair.

Thursday, May 2nd, 1895.

THE SURGERY OF THE RECTUM.

Mr. BERNARD PITTS read Some Remarks on the Surgery of the Rectum. He dealt with certain changes in operative procedure, the result of which had been shorter and quicker cures with lessened risks, while the operations themselves had become more radical. The free removal of cicatricial and sinus tissue in chronic anal fissure and uncomplicated cases of fistulæ was recommended. The interference with fistulæ of tuberculous origin was discountenanced unless the operator were prepared to remove the whole of the infected tissue. For the treatment of internal piles the ligature was to be preferred in most cases, but when the piles involved the whole circumference of the bowel, excision by Whitehead's method was strongly advocated. The questions of simple, malignant, and congenital stricture were discussed, and cases quoted to illustrate the choice of procedure advocated.

Mr. EDMUND OWEN regretted that the paper had not dealt more particularly with the surgery of developmental errors, and alluded to the case of an infant, in which the hypoblastic and epiblastic portions of the rectum were perfectly formed, while the septum between the anal and pelvic portions of the bowel persisted. There was complete obstruction until the septum was perforated by introducing the finger. Persistence of the fibrous circumference of such a partition was likely to cause lifelong trouble from recurrent attacks of constipation. In such a case inguinal colotomy might be required. Mr. Owen agreed with Mr. Pitts in condemning the wholesale resort to inguinal colotomy in cancer of the rectum. With careful diet cancer patients might live long in comfort before the operation was needed. Blockage in the bowel was the signal for colotomy.

Mr. HERBERT ALLINGHAM said he quite agreed with Mr. Pitts that excision of a fissure with suture was unnecessary. With regard to Whitehead's operation for piles he considered it quite an unnecessary proceeding, as it took much time to do. The bleeding was severe, and if the mucous membrane tore away from the stitches great contraction resulted; in fact, some of the worst forms of anal stricture he had seen follow Whitehead's operation. He much preferred Salmon's operation of ligature with incision. The rapid dilatation of stricture of the rectum he regarded as a very dangerous mode of treatment, as the stricture constantly ruptured into the peritoneum. The best mode of treatment consisted of very gradual dilatation or division of the stricture by many small incisions. As regards cancer of the rectum, he strongly insisted that it was most unnecessary to colotomise all patients with cancer of the rectum. Colotomy should only be employed when the symptoms complained of were very severe, and where palliative treatment failed to procure the desired relief. He had seen many patients who had been recommended to have colotomy done, but refused, and had by palliative measures been able to go on for three or four years before colotomy at last had to be performed.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

T. W. GRIMSHAW, M.D., in the Chair.

Friday, April 19th, 1895.

DEFECTIVE INFANTILE LIFE UNRECOGNISED BY STATE MEDICINE.

Dr. WALTER BERNARD (Londonderry) read a paper on this subject. Contractures and arrests of development (illustrated by casts shown) were generally associated with an enfeebled and easily-disturbed nervous system. In such cases the enfeebled senses obtained much unconscious guidance and perfection by the exercise of the muscles of the deficient or rigid limb, the latter more especially by posture. Consequently, in a minor degree, a kindergarten and gymnasium were indispensable in the household. Hygiene in the homes was essential. The time table and simple rules of health which he presented for inspection had rendered good service. On these grounds he asked for State support. For the principles which suggested early promptitude in detecting, arresting, and dealing with mental imperfections in infantile life were not sufficiently recognised by State measures. In consequence, the North-West Branch of the British Medical Association in Ireland considered that if the family doctor's duties were strengthened for voluntary co-operation by an applied system of jurisprudence, framed, confirmed, and recommended by State Medicine, it would tend to establish more fully in domestic life the fundamental needs that existed in carrying out rules for the normal formation of character in the defective in the initial stages of existence.

Dr. J. W. MOORE said that within the last decade or two there was a wonderful change regarding the value put on the life of children. The death-rate among young children had been steadily falling.

Sir W. STOKES referred to the importance of educating people, and this more particularly in Ireland, to a better knowledge of how to cook their food. One of the main causes amongst the poorer class of having recourse to the public-house was the want of properly-cooked food in their homes.

Dr. NINIAN FALKINER, referring to the mental impressions received during childhood, considered that a great many of the unfortunate careers of men and women were due to immoral suggestions made to them in their infancy by nurses.

Dr. RAINSFORD said he had had three years' experience in a very large lunatic asylum, and thought that the early training received in childhood had a great effect on the after-life of the individual.

The CHAIRMAN said that there was not nearly enough done in the training of medical men on how to bring up children. There was no doubt that babies could be educated from their cradle. With regard to the question of nurses, referred to by Dr. Falkiner, he thought great damage, both physical and mental, was done by them. The practice of lying was learned in the nursery. These evils were produced by the mothers paying others to do what they should do themselves. In almost every instance in which the Society for the Prevention of Cruelty to Children, of which Dr. Rainsford was the

medical officer, proposed to start a branch in any town, they were met with the reply that they knew how to take care of their children. The clergymen were especially strong in this opinion. The number of uncertified deaths in Dublin was appalling. It meant either that a medical man was not called in at all, or that he was called in so late that he was not able to give a certificate of the cause of death.

Dr. Bernard, replying, said the Jubilee nurses had cleared the way for ladies to visit the poor people, and teach them cooking, thrift, and cleanliness. If rules were formulated by the State, insanity would be diminished. The lower classes carried out the rules as well as the upper classes.

Private Hospitals, or Home Hospitals.

Dr. J. W. Moore read a paper on this subject. The institution and administration of a private hospital called for the exercise of exceptional mental and bodily powers. They were quite incompatible with the practice of the medical profession. They should be subject to inspection by the sanitary, or some other responsible, authority, and should be conducted on sound financial principles. The term "home hospital" was more fitting than private hospital. A "home hospital" should be housed in a building especially constructed for the purpose on an eligible site. It should be a detached building, heated, ventilated, and lighted on the most approved lines. The sanitary arrangements should be above suspicion. Lastly, such an institution should be licensed, and freely open to periodical and systematic inspection by the sanitary authorities of the district in which it stands. It should be managed by a committee the members of which would inspire confidence, and to which the officials would owe allegiance. Its finances should be controlled by this committee, and a report and statement of accounts should be published at least once a year. If all this were done we should have private hospitals worthy of the name; and in them persons of refinement and culture might, when suffering from sickness or injury, enjoy the advantages of medical or surgical care and good nursing, together with that privacy and quiet which in such cases so largely conduce to comfort and even to recovery.

Remarks were made by Dr. Falkiner, Dr. Montgomery, Sir W. Stokes, Dr. Parsons, Dr. Savage, Dr. Thompson, and Dr. Bernard; and Dr. J. W. Moore replied.

West London Medico-Chirurgical Society.—At a meeting on May 3rd, Dr. Banning (President) in the chair, Dr. William Hunter read a paper on Antipyretics, their Use and Abuse. The extent to which antipyretics were used and their manner of employment was greatly influenced by our views of fever. In its simplest aspects, as it presented itself in animals, it might be looked upon as a reparative process, but in man, owing to the higher organisation of the nervous system, it had greatly lost this character, and the febrile process invariably tended to be much in excess of any possible requirement, and became in itself a source of danger. It was with regard to the more recently introduced antipyretics derived from coal-tar products, such as antipyrin and phenacetin and antifebrin, that opinion was reasonably divided. After considering the analgesic properties of these drugs, he pointed out that the control of the nervous system by these drugs was one of the most important desiderata in the treatment of fever. Their proper object was not to abolish fever by a *coup de grâce*, as was at first thought and attempted, but to bring fever within reasonable limits, more particularly in severe sthenic cases where the temperature rose above 104°, and bade fair to rise higher. In such a case it would be one's object to bring the temperature down one or two degrees. In all cases the dose ought to be guarded, more particularly of antifebrin, the dose of which, as given in books—3 to 10 grains—being much too high; it rather ought to be 1 to 3 grains. Their best effect could be observed if cold sponging were employed as an adjunct. The President had found that no antipyretic equalled, either in efficiency or in safety, the application of cold sponging and of wet packs. Dr. Symons Eccles believed that the direct action of antipyrin, though commonly considered to be stimulant to the heat centres, could also be attributed to their reducing qualities, depriving the protoplasm of the nerve cells of its oxygen, and thus reducing activity and producing analgesia. In regard to the high temperature of man being of nervous origin and peculiar to him, he could not altogether agree with Dr. Hunter, but believed that animals suffered also from nervous manifestations, which might be due to excessive oxidation produced by Nature in order to get rid of leucomaines or other toxins. Remarks were also made by Dr. Atkinson and Mr. MacAdam Eccles; and Dr. Hunter replied.—Dr. Cagney read a paper on the Recognition and Treatment of Peripheral Neuritis. He quoted cases to show that in many instances of alcoholic neuritis there was a danger of administering alcohol for the relief of symptoms which were in reality due to that poison. He maintained that a combination of toxic states was most often the probable cause of neuritis, and dwelt upon the summation of causes in this manner, quoting illustrative cases. In view of the great importance of recognising this condition early, and the certainty of detection in all cases where the motor system was involved, every medical man ought to make himself familiar with the very simple methods of electro-diagnosis.

REVIEWS.

The Extra Pharmacopœia. By William Martindale, F.C.S., etc.; Medical References and a Therapeutic Index by W. Wynn Westcott, M.B., Coroner for North-East London. Eighth edition. London: H. K. Lewis. 1895. (Med. 24mo, pp. 610. 9s.)

The eighth edition of a work so well known and so highly appreciated as this would call for but brief notice at our hands were it not that Mr. Martindale has taken advantage of the occasion to give the results of his extended inquiries as to the drugs and preparations in general use, and to express certain opinions having regard to the approaching revision of the *British Pharmacopœia*.

In the first place, a strong plea is made for the adoption of the metric system. The main arguments used are two—first, the convenience of the pharmacist, who by its use is able to perceive at once the relationship of liquids by measure to solids by weight, especially in preparing small quantities. This is not the case now, since the grain and minim bear no simple integral relationship to each other. And, secondly, the fact that Great Britain, the principal manufacturer of medicinal preparations for the world, is in danger of losing a great part of her export trade with South America, Japan, and many dependencies and colonies of other nations, unless the supply can in future be made in such a manner as will bear comparison with the formulæ, quantities, and price-lists of other countries, our commercial rivals; for all civilised countries, with the single exception of Great Britain, have now adopted the metric system. In making this change it is suggested that we should follow the example of the United States and use the mode of measuring liquids in dispensing in place of weighing them, as is done generally on the Continent of Europe.

Like the majority of persons of experience, whether medical men or pharmacists, the authors find the *British Pharmacopœia* both redundant and deficient. Of new classes of preparations thought desirable to be introduced, mention is made of granules and pilules such as those now official in France; of cachets, capsules, medicated gauzes and wools, elixirs, and compressed tablets for administration by the mouth and for the preparation of hypodermic solutions. The official enemata are considered to be redundant, and it is stated that practically they are never prescribed; the propriety of omitting lamellæ with a gelatine basis for eye medication is suggested, and a doubt is expressed whether inhalations should be retained. It is urged that the strength of tinctures should be decimalised. The antiquated lozenges of the *Pharmacopœia* are spoken of with something akin to contempt, and it appears to be implied that the list of concoctions and infusions might be materially diminished in length and improved in method of manufacture.

Mr. Martindale adds an analysis of prescriptions based on the examination of 25 000 recent prescriptions dispensed in Great Britain, Ireland, the Colonies, and India. Some of

the deductions from these have already been published by the author in part or in whole. But it is interesting to find that an examination of a long series of prescriptions from Australia, New Zealand, Canada, and India shows that the requirements of an Imperial *Pharmacopœia* "are to a great extent collateral with those of Great Britain and Ireland." In the Colonies generally it would appear that few drugs are in request that have not been tried, and are not well known here. Fluid extracts are prescribed more often, and decoctions less often than in this country, and in Canada whisky (*spiritus frumenti*), in India brandy are prescribed rather frequently. In Canada also the influence of the United States pharmacy is felt, and a number of fluid extracts and of specially manufactured preparations little known here are commonly prescribed.

To the body of the book numerous additions have been made. Of new drugs the most important belong to the classes of hypnotics or internal antiseptics, but the number of new preparations of drugs noticed in previous editions is very large, and the care taken in improving the formulæ is, from the practical point of view, the most valuable feature of the book. A new section on antitoxins, serums, and lymphs, and on animal glands and tissues and their preparations has been added.

The recent publication of supplements to the French *Codex*, and the German *Pharmacopœia*, as well as of the unofficial formulary of the British Pharmaceutical Conference (1894) has rendered it possible to embody all the new preparations contained in these publications. Altogether we are told in the preface that while it has been possible to omit about thirty pages, it was found necessary to add over 100. This was no doubt inevitable, and the work is so well arranged that the increase in bulk is not as yet a serious drawback to the book, though it is not difficult to see that in the future, unless the pruning knife is applied with the utmost impartiality, especially to the therapeutic references, the book will outgrow the compact form which has become so familiar, and has made it so convenient.

A History of Epidemics in Britain. By Charles Creighton, M.A., M.D. Vol. II. From the Extinction of Plague to the present time. Cambridge: University Press 1894. (Royal 8vo, pp. 896. 20s.)

[Second Notice.]

We now pass to the least satisfactory part of Dr. Creighton's work, his history of small-pox. This disease he traces as gradually coming into prominence, but not attaining a leading place till the beginning of the seventeenth century. During the whole of this century it increased pretty steadily, and became much more prevalent in the eighteenth, though the imperfection of statistics makes it difficult to ascertain the precise mortality; but when "the curtain rises" with the first general registration records in 1837, we find the prevalence of small pox, already greatly diminished, diminishing still further and steadily (with occasional relapses as in 1870-71), till it has gone down to a vanishing point. That this decline has been coincident with more and more complete enforcement of vaccination is beyond dispute. Dr. Creighton has made up his mind that vaccination has nothing to do with the question, and hence gives only a short account of Jenner's discovery, and has almost omitted the further history of vaccination, though he has given a large space to the interesting but less important subject of inoculation of small-pox.

This seems a serious omission in a historical work, but we do not propose to discuss the subject of vaccination. We will only consider the alternative theories by which Dr. Creighton proposes to explain the decline in mortality from small-pox generally, and what is also important, the shifting of its severer incidence from infants or children to young persons and adults. He remarks that the great epidemic of 1837-40 was the last which showed the disease in its old colours; and when it recurred as a great epidemic in 1870-71, beside other changes, it affected young persons and adults more than infants and children; but that things had been moving that way since 1840, and since 1871 the same tendency has been at work.

Putting out of sight for the moment the facts that in 1840 vaccination was first made a general public duty, and in 1853 compulsory, we come to Dr. Creighton's explanations of these changes.

His first explanation is that these changes were due to unexplained fluctuations in the severity and age-incidence of small-pox, such as had occurred even before vaccination was introduced; and the second is founded on the doctrine of substitution of one zymotic disease by another, first enunciated by Watt in 1813, and endorsed by Farr in 1867, which he regards as "one of the soundest and most instructive generalisations in epidemiology." Doubtless all epidemic diseases vary in their prevalence and severity from time to time, but the theory of unexplained fluctuations hardly calls for remark, except in regard to the age-incidence of small-pox, which will be noticed later. The theory of substitution requires some consideration.

Dr. Robert Watt, a most laborious and accurate investigator, found that in Glasgow, in the years 1783-1812, there had been an enormous diminution in the mortality from small-pox (attributed by him to vaccination), and a still more striking increase in mortality from measles, and concluded that measles was coming to occupy the ground vacated, as it were, by small-pox. Farr in 1867 applied the same theory to explain a great increase in mortality from scarlet fever for several years, which he attributed to the diminished mortality from small-pox consequent on vaccination. He ultimately formulated the law in these words: "The zymotic diseases replace one another, and when one disease is rooted out it is apt to be replaced by others—as one species recedes, another advances."

This, which may be called Watt's law of substitution, has much *a priori* reasoning in its favour, and seems to be true to a certain extent and for certain periods. But in the long run it is not supported by facts. In England and Wales since the commencement of registration, while the general death-rate has declined—and that from small-pox most notably—the rates from other infantile zymotic diseases have also declined, though not in the same ratio as small-pox. Even the loss from diphtheria is more than balanced by the saving in scarlatina. A contrary impression might be produced by what we must call the very misleading table printed by Dr. Creighton on page 614, where he gives the absolute mortality from various zymotic diseases in England and Wales from 1837, ignoring the fact that the population has about doubled in that time. If we substitute death-rates the result is as above stated.

But even if Watt's law were proved it would not in any way account for the diminution of small-pox, which is what is implied by the word *displacement*, often used by Dr. Creighton instead of *substitution*. To say that a disease A comes in to supply the gap left by the disappearance of B, and to say that the increase of A is the cause of the disappearance of B are totally different propositions, requiring different arguments. There is something to be said for the former, but we can find no argument in favour of the latter.

The other point which Dr. Creighton labours to explain is the change in the chief incidence of small-pox from children to adults which has occurred, as most people believe, since the introduction of vaccination. He tries to show that small-pox has been at various times—notably in England in the seventeenth century—as much a disease of adults as of children. Doubtless deaths of adults were more talked about, but no physician of that time ever seems to have questioned the old Arabian doctrine that small-pox was chiefly an infantile disease. The oldest statistical tables given, those of Geneva (1580-1760), tell the same tale. Even the earliest accounts of epidemics in Britain (page 434) refer chiefly to children. The mortality of children appears to have been still higher in the eighteenth century, and no one can deny the obvious law that when any such disease is continuously prevalent, it will affect adults proportionately less than when it only comes occasionally, since many adults will have passed through the disease. But will this explain such facts as those given by Curschmann, who at Mainz in the early seventies, under the strict Prussian vaccination laws, could not quote a single case of small-pox (out of 632) in a child between 1 and 12 years old?[1] Dr. Creighton, how-

[1] *Ziemssen's Cyclopædia*, article Variola.

ever, gives (page 627) the further argument that "Small-pox has ceased to attack children because other infective and non-infective diseases more appropriate" [why more appropriate?] "to the modern conditions of the population are attacking them instead. Such are measles, whooping-cough, scarlatina, diphtheria, and the more chronic after-effects of these," the fallacy of which statement has already been pointed out.

Space forbids any further discussion, and we have no hesitation in saying that, apart from these troubled questions, Dr. Creighton's book is one of great, and in some respects unique, value. It contains a vast store of facts, and is very well written. It is not only the best book in its own field, but it can hardly be said to have had any predecessor in English literature. Its main defect is that while questions of etiology are by no means left undiscussed, the author's attitude with regard to them is so isolated and so completely out of touch with all modern pathology that it is difficult to discover any common ground for discussion. The theory (if it must be called so) of pathogenic living organisms supplies, however, the key to so many tangled problems in epidemiology, and especially furnishes so sound a basis for the idea of evolution in diseases, which Dr. Creighton is much attached to, that we do not despair of finding him one day on the side of the bacteria.

TRAITÉ ÉLÉMENTAIRE D'OPHTALMOLOGIE. [Elementary Treatise on Ophthalmology.] Par H. NIMIER et F. DESPAGNET. Paris: Felix Alcan. 1894. (Roy. 8vo, pp. 952, 432 illustrations. Fr. 20.)

THIS well-written treatise was intended originally for the use of students, and grew out of the lectures delivered to the students by the authors, but it contains such a great amount of information that it will appeal to a much larger circle of readers as a book of reference. The object of the authors has been to set forth the most approved modern views on the diseases of the eye and their treatment; they have as far as possible excluded theories and methods which have only a historical interest, and where they have felt obliged to give more than one view they indicate the one which, in their experience, is the more correct one.

The work is divided into parts corresponding to the lids, to the different membranes of the eye, the central organs of perception, the media for transmission, the lachrymal apparatus, and the orbit. Each section begins with a chapter on anatomy and physiology, with a description of the congenital anomalies. This is followed by an account of the injuries, inflammations, degenerations, and tumours of the part; the section is completed by a chapter on surgery.

The chapters on refraction have been made as practical as possible by the omission of mathematical formulæ for the understanding of which the ordinary student is not as a rule well prepared.

An important part of the book is devoted to the cerebral centres of vision and of the eye movements. The authors have set out at length the results of the most recent discoveries in this branch of medicine, and have been urged to do so by the thought that the neurologist and the ophthalmologist are each by themselves often unable to bridge over the gap between their two special studies. In directing the studies of the young ophthalmologist towards the lesions of the central nervous system in which the eye is involved they point out to him a new sphere of work, which is not to be despised in this time of professional plethora.

It is perhaps ungracious to criticise such a work so conscientiously prepared, but we could have wished that the pathology of the eye had been treated more fully. The whole pathology of glaucoma is described in a few general terms, and all the modern work on that subject is passed over in silence; the reason for this is to be found in the admission by the authors that they have always given preference to French authorities in their references. In future editions we hope they will spell the name of Bowman without reduplication of the final letter, an error which is becoming very common in Continental literature.

Some of the illustrations are good, but many of them, especially the ophthalmoscopic ones, are poor. The printing is good and clear, and comes up to the standard that should be required in a book on ophthalmology: the headings of chapters and sections are clearly indicated by differences in type, so that it is easy to use the book as one of reference, an object which is aided by a comprehensive index at the end.

We congratulate the authors on having produced a very valuable and readable work.

MODERN MATERIA MEDICA; for Medical Men, Pharmacists, and Students. By H. HELBING, F.C.S. Fourth Enlarged Edition. London: H. K. Lewis. New York: Lehn and Fink. 1895. (Cr. 8vo, pp. 295. 8s. nett.)

THIS volume should prove of value to physicians and pharmacists who have to keep abreast of the times in their knowledge of new drugs and new preparations. Many of these are of little value, and still more of them are simply imitations of tried drugs already well known, but even if they be in current use only for a short time it is a great convenience to have a small handy reference book in which may be found definite and reliable information regarding them. Apart from such ephemeral substances, however, a great deal of new and useful matter regarding largely-used drugs such as guaiacol, phenacetin, ichthyol, lanolin, chloralamide, is also to be found in the book, and judgment has been shown by the author in devoting a proper proportion of space to the more important remedies.

The activity of manufacturing chemists is shown in the astonishing number of variations which they have succeeded in making on bodies the value of which has been definitely proved, although it is very doubtful if more than a mere fraction of these constitute any improvement on the original substance. To take one or two examples: Of "derivatives and allied compounds" of antipyrin more than twenty are enumerated, some of which approach perilously near the region of proprietary medicines; for instance, "migranin," which is a citrate of antipyrin and caffeine recommended in headache, and "pelagin," an ethereal solution of antipyrin, cocaine, and caffeine, reputed to be efficacious in sea sickness. Others of them are designated by imposing chemical titles, but the wonder to the ordinary physician is where a market can be found for such substances or who uses them in practice. From bromol no fewer than seven closely-allied derivatives have been made and apparently used to some extent, and the same number from chinolin. In an appendix is placed a large number of unimportant and little-used new drugs, such as buxine, arecoline, terpin hydrate, of which only a very short account is given. There are also useful tables of doses, solubilities, melting points, and tests at the end of the volume. The chemical and pharmaceutical information is, on the whole, extremely accurate, exact, and practical, while the therapeutical part has been made quite subordinate.

NOTES ON BOOKS.

The Society of the New York Hospital. One Hundred and Twenty-fourth Report for the year 1894. Presented to the Legislature of the State of New York.—This volume, consisting of official reports and statistics—in their nature of the driest possible character—of the work of the New York Hospital, the Bloomingdale Asylum, and the House of Relief, has been rendered interesting by the introduction of a number of excellent reproductions of photographs of the buildings, and of various wards and appliances. The Society, which directs a general hospital in New York, with an average number of 174 in-patients; the House of Relief, which would appear to be a combination of accident hospital and ambulance station, where 35,000 persons received immediate treatment; and a lunatic asylum with an average of 294 inmates, received a charter from George III in 1771. A *fac-simile*, unfortunately illegible, of the charter and a very beautiful photograph of the seal are given. Of the other photographs, the most interesting is perhaps that of the "Sunstroke Ward" in the House of Relief. It shows the electric lift, by which it would seem that a patient can be transferred from a couch to a bath by one attendant and a nurse, *cito, tuto, et jucunde*.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

COLD DRAWN CASTOR OIL.

CASTOR oil may be obtained from the seeds by expression or decoction. The chief part, if not the whole, of the oil consumed in this country is procured by expression. It is considered that all processes in which heat is employed are objectionable, as a quantity of fatty acids are produced which render the oil acrid. The oil is expressed either by hydraulic power or by the common screw press in a room artificially heated, so that very little, if any, of the so-called "cold drawn" castor oil sold is properly so termed. After expression the oil is purified by rest, decantation, and filtration, and then bleached by exposure to light on the tops of houses. Castor seeds have, unless very old, a pleasant nutty flavour, and the disagreeable taste of ordinary castor oil has been produced by the conjoint action of moisture, air, heat, and fermentative changes during the expression of the oil from the seed, and its subsequent treatment. An oil can be obtained as pleasant to the taste as the fresh seed if the expression is not assisted by artificial heat, and the oil at once freed from impurities by filtration without heat, in vessels from which air is excluded, and bottled *in vacuo*.

We have received from the British Castor Company, Limited, 47, Victoria Street, Westminster, a specimen of cold drawn castor oil, prepared by Mitchell's cold process. In this process the seed is passed into a specially constructed hydraulic press in a room the temperature of which averages 47° F. The "cold drawn" oil, having passed through a strainer, is at once drawn into a system of vacuum pipes, receivers, and filters, finally being delivered through a vacuum trap into vacuum bottles ready for sale. The oil thus obtained has a simple bland taste resembling olive oil, the nauseous taste associated with the ordinary cold drawn castor oil being entirely absent.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

WOLVERHAMPTON GENERAL HOSPITAL.

CASES TREATED BY DR. KLEIN'S ANTITOXIN.

J. A. CODD, M.B., B.Sc.Lond., House-Physician, sends the following reports:

CASE I.—B. H., a boy aged 14, was admitted on the third day of disease at 9 A.M., very weak and ill, and breathing with stertor due to nasal obstruction. There was a large patch of membrane on the fauces and much nasal discharge, but no laryngeal obstruction. Temperature 103°, pulse 130, respirations 30. A spray of menthol and eucalyptol in paroleïn was frequently applied to the throat, and douches of salt and phenol to the nose, and brandy was freely administered. At 9 P.M. he was much weaker, but there was no laryngeal obstruction. Antitoxin (5 c.cm.) was injected. At 2.30 A.M. there was cyanosis and laryngeal stertor, but very little retraction of the lower chest. The pulse was imperceptible and the patient collapsed; operative interference did not appear justifiable, and soon after he suddenly changed and died. On *post-mortem* examination, the larynx would easily admit a No. 8 catheter. There was little swelling about the cords, and much œdema of the epiglottis and aryepiglottic folds. The larynx was lined with very thin membrane, and there was narrowing of the cricoid ring. There was a thick membrane forming a cast of the trachea, and thin membrane from the bifurcation to the secondary bronchi, but no further. The membrane in the bronchi was very loose, and washed off with a very gentle stream of water. The kidneys were much injected. The diagnosis was confirmed bacteriologically.

CASE II.—G. T., a boy aged 2, was admitted on the second day of the disease (January 25th) about 6 P.M. There was laryngeal stridor, but no obstruction. He had a croupy cough, but the voice was clear and the child did not appear ill. There was a small patch of white membrane on tonsil. Temperature 101°. On January 26th, at 9 P.M., there was progressing dyspnœa with retraction. I inserted a No. 2 intubation tube with immediate relief, but the dyspnœa soon returned, and Mr. Cholmeley performed tracheotomy with great relief. At 3 P.M. antitoxin (4.5 c.cm.) was injected. The throat and trachea were sprayed with a saturated solution of salol in warm parolein, and m$\frac{3}{4}$ of liq. strychninæ was injected every two hours. At 8 P.M. the temperature rose to 104°, but was reduced by 1 grain of acetanilid, and at 9 P.M. and midnight the child looked very well. On January 27th there was frequent blocking of the tube with thickened mucus of a yellowish semitranslucent nature. Antitoxin (4.5 c.cm.) was again injected. The temperature was frequently at 104°. On January 28th the material plugging the tube was more membrane-like when floated out, and next day it consisted of reddish shreddy membrane. The fauces were quite clear of membrane. Antitoxin (4.5 c.cm.) was injected. On January 30th, the sixth day of the disease, membrane was still being ejected. The wound was thickly lined with sloughy-looking material. The breathing became worse towards night. On February 1st there was slight improvement; the sloughs had almost disappeared from the wound: no membrane was ejected. The anterior tracheal wall had sloughed away for $\frac{3}{4}$ inch. The tracheotomy tube was removed and the smallest intubation tube inserted, and reached to the lower angle of the wound. The child breathed very readily through the tube, which was coughed up at 3 A.M. next morning, and the tracheotomy tube had to be replaced. Later an attempt was made to pass a No. 2 intubation tube, but during the process the child became very cyanosed and stopped breathing; the trachea tube was replaced, and breathing was with difficulty resumed. A rubber tube was then inserted. At 7.30 P.M. the patient became very weak, and had difficulty in ejecting mucus; ammonium carbonate and eucalyptus oil were placed in his steam kettle. From this time to the end the respiration became worse, and to a less degree the pulse, with a few intermissions, which gave ground for hope. There were no definite signs in the chest except some rhonchi in front. He died on February 6th, on the fourteenth day of the disease. The diagnosis was confirmed bacteriologically.

At the necropsy the larynx was fairly free; the anterior wall of the trachea had disappeared for $\frac{3}{4}$ inch, leaving a narrow gutter. The right lung had a small patch of broncho-pneumonia in the lower lobe, and the left lung had numerous lobules affected throughout. There was much engorgement of the right auricle.

Note.—It would appear that the antitoxin had cured the diphtheria, but that, owing to the unfortunate sloughing of the wound, possibly by diphtheritic infection, the anterior tracheal wall had necrosed, thus preventing air from entering the larynx, and so preventing the removal of the tracheotomy tube, and predisposing to, if not causing, the broncho-pneumonia with its fatal event.

CASE III.—T. J., a boy aged 5. Five days before admission he began to have sore throat, and the day before admission he had difficulty in breathing. He was breathing heavily, but there was no stridor. There was a small piece of membrane on the tonsil and profuse nasal discharge. Antitoxin (7 c.cm.) was injected. Next day he was much better; the membrane had gone from the fauces. A salol-paroleïn spray was used frequently for the throat and nostrils, and strychnine was injected every two hours. From this time he steadily improved; the membrane never reappeared, and the nasal discharge rapidly ceased. The temperature was never high. Later the child had some suppuration of the cervical glands, which caused a little trouble. The diagnosis was confirmed bacteriologically, and faucial mucus taken on the forty-first day contained no diphtheria bacilli.

CASE IV.—A. F., a girl aged 9, was admitted on the second day of disease, on February 9th, at 11 P.M. There were well-marked membranous patches on the tonsils, but no respiratory obstruction. Salol-paroleïn spray was used, and strychnine injections were given. No other medicine or stimulant

was administered. On February 10th antitoxin (7 c.cm.) was injected. The child slept continuously for ten hours and a-half afterwards. On February 12th, for the first time the fauces were clear of membrane. There was a little pyrexia on the 10th (reaching 101° at 2 P.M.), but none subsequently. The diagnosis was confirmed bacteriologically. Faucial mucus removed on March 13th was free from diphtheria bacilli.

Case v.—A. W., a boy, aged 9, was admitted on the third day of the disease. There were white membranous patches on the throat. Temperature 101°. Antitoxin (6 c.cm.) was injected. The throat was sprayed with the solution of izal oil in parolein (1 in 50). No other treatment. The next day the temperature was normal. The day after, the membrane had cleared from the fauces, and from this point the boy made a steady recovery. The diagnosis was confirmed bacteriologically, and faucial mucus removed on the thirteenth day was free from diphtheria bacilli.

Case vi.—J. W., a girl, aged 8 (sister of Case v) was admitted on the second day of the disease, on February 28th. There were large patches of greyish, fœtid membrane in the fauces. The face was flushed, the pulse soft and rapid. Respiration was easy. The child looked very ill. Antitoxin (5 c.cm.) was injected. Izal-parolein spray was used; strychnine injections. No other treatment. On March 1st there was much improvement. The membrane now was white. On March 2nd antitoxin (5 c.cm.) was again injected. On March 3rd there was much less membrane. On March 4th the membrane had completely cleared off. The temperature was 103° on admission, from 6 to 8 P.M., and after the antitoxin (8 P.M.), went down to 101° (midnight), remaining there till 6 A.M. on March 1st, from which time it remained between 99° and 101° until March 3rd, after which no pyrexia occurred. The diagnosis was confirmed bacteriologically, and faucial mucus removed on March 13th still contained diphtheria bacilli, but some removed on March 30th was free from them.

Case vii.—H. H., a boy, aged 4, was admitted on the fifth day of the disease, on March 13th, at 10 A.M. There was much laryngeal stridor and dyspnœa, with marked retraction and cyanosis. Calomel fumigation (gr. 15) caused much increase in dyspnœa. Strychnine injections and izal-parolein spray were used. At 11.30 the child became much worse; there was great pallor, with a blue tinge of the lips, and he gasped for breath. Mr. Cholmeley performed tracheotomy, and pieces of membrane were coughed through the wound. The dyspnœa was completely relieved. The supply of antitoxin was, unfortunately, exhausted, and a fresh supply was not received till 9 P.M., when I injected 5 c.cm. He was then distinctly weaker, and gradually became worse until he died at 2 A.M. The diagnosis was confirmed bacteriologically. On *post-mortem* examination the larynx and trachea were found to be lined with very thin membrane; it was thicker over the larynx. The lungs presented patches of collapse and early broncho-pneumonic changes.

Case viii.—E. H., a girl, aged 6 (sister of Case vii) was admitted on the first day of the disease, on March 15th, at 9.30 A.M. There were white patches on the fauces. The child looked ill; temperature 101°, pulse 152, respirations 48. Antitoxin (5 c.cm.) was injected. Liq. strychninæ (mj) was injected every two hours. Izal-parolein spray was used, and brandy freely exhibited. At 2 P.M. the child was distinctly worse; the pulse was almost imperceptible. Temperature 104.4°; reduced by sponging to 100°, but twice again it went up to 104° that day. On March 16th there was great improvement. Antitoxin (5 c.cm.) was again injected. On March 18th the temperature was steadily going down from an average of 102° to 100°; there was slight albuminuria and copious nasal discharge. On March 21st the membrane and the nasal discharge had both disappeared; the temperature went up to 100° at 6 P.M., but continued normal afterwards. The diagnosis was confirmed bacteriologically, and faucial mucus removed on March 30th was free from Klebs-Loeffler bacilli.

Case ix.—S. W., a woman, aged 39, had been ill for seven weeks with "brouchitis." Seven days before admission she began to have sore throat, dysphagia, and for two days she had not swallowed anything. There were patches of ulceration, with whitish exudation on the soft palate. She was very collapsed; the pulse was imperceptible. She could not swallow. There was much cough and purulent nummulated sputum. There was consolidation at the left base and numerous rhonchi all over the chest. Antitoxin (8 c.cm.) was injected, and izal-parolein spray, pumilio, and menthol vapour, and strychnine injections were used. Rectal feeding was employed. On March 28th there was still cough, and abundant sputum and dysphagia. There was no palatal paralysis. An œsophageal bougie was passed, and the patient could swallow afterwards. The throat was much the same. Next day she became very collapsed, and again had difficulty in swallowing, and brandy was administered by the rectum. She died in the evening. On *post-mortem* examination both pleural cavities were obliterated. The right lung had the posterior part of the base consolidated, and there were numerous small-sized cavities. In the left lung the whole lower lobe was affected with tuberculous consolidation. There were numerous cavities. There was much froth (not milky) in the trachea and larger tubes. The stomach was almost tubular and very atrophied. In the right kidney the pelvis was dilated, the renal substance atrophied, and there was one large and one small stone. The other organs were normal.

Cases Treated by Antitoxin obtained from the British Institute of Preventive Medicine.

[Notes by Mr. Whitehouse.]

Case x.—M. A. T., a girl, aged 8, was discharged from the Infectious Hospital on April 5th, after scarlet fever, and admitted here on April 12th, on the third day of disease. She was very collapsed. Temperature 100°, pulse 136, respirations 48. There was recession. She had "strawberry tongue." Within an hour breathing became much worse. Antitoxin (10 c.cm.) was injected, and she had a croupy cough. Two hours later antitoxin (10 c.c.) was again injected, and tracheotomy was performed by Mr. Cholmeley, after which membrane was coughed up. On April 13th the temperature ranged between 98° and 100.2°. The child slept well, and frequently coughed up membrane, which she continued to do until April 16th, when the wound was somewhat dirty, and she breathed readily through the larynx. The tube was removed, and the wound treated with red lotion. There was slight albuminuria. She then rapidly improved, and the wound healed in a few days. The temperature was normal since April 15th. Diagnosis confirmed bacteriologically. Faucial mucus removed on May 4th was free from bacilli diphtheriæ.

Case xi.—B. E., a girl, aged 10 months, five days before admission began with cough, and on the morning of admission was seized with laryngeal stridor. She was admitted on April 24th at 6.15 P.M., with very rapid and distressed breathing, and laryngeal stridor. She had a bluish tinge and a pinched appearance of face, which became worse while preparations were being made for intubation. There was retraction. There were large flakes of membrane on the fauces. Within ten minutes of her arrival I performed intubation, with immediate relief of breathing, and the face rapidly assumed a clear, normal colour, and much mucus was coughed up. Antitoxin (10 c.cm.) was then injected. Food was taken by the Casselberry method, but not readily. There was mucous rattling in the throat and numerous *râles* in chest. On April 25th she was much the same. At 7 P.M. antitoxin (10 c.cm.) was injected. On April 26th she had slept well; she had a slight clonic convulsion in night. Breathing was good. There was a yellow profuse nasal discharge; there was copious albuminuria. On April 27th the membrane had disappeared from the fauces, and the nasal discharge had ceased. Loud rhonchi were heard over the chest. There was not much cough; the patient looked very well. On April 28th the *râles* were moister and smaller; the tube was removed. She breathed readily but did not cry. On April 29th the chest was much clearer. The albumen in urine was reduced to 0.05 per cent. On May 2nd she took food badly, and sometimes regurgitated through the nose. There was no palatal paralysis. On May 4th she took food readily again. There was very little cough, and the chest was almost quite clear. The faucial mucus was free from diphtheria bacilli, which were found in the membrane removed originally. The temperature became normal on May 1st. Before that it ranged between 97.6° and 101.8°.

Remarks.—It is to be noted that all the fatal cases had the antitoxin injected some hours after admission, except Case ix, and with that exception all who had antitoxin immediately administered recovered. Although Cases iii, iv, and v did not appear very ill on admission, and might have got well without the serum, the same might be said of Case ii, who appeared to be quite as well for the first six hours as Cases iii, iv, and v, and Case iv, and perhaps Case iii, might have become much worse had they been left for many hours longer without the antitoxin. Certainly Cases viii, x, and xi would probably have ended fatally if they had not received the remedy at so early a stage of the disease, and so perhaps would Case vi. It would be quite legitimate to exclude Case ix as having succumbed rather to advanced basal phthisis and renal inadequacy than to diphtheria. Omitting this case, we have 10 cases with three deaths, and in 1894 we had 13 cases with 11 deaths. This comparison should be sufficiently convincing. The record of Case xi is in itself a very eloquent proof of the value of antitoxin, and also of the superiority of intubation over tracheotomy in certain cases. My colleagues were both out, and tracheotomy would have been very difficult, even with an anæsthetist, and the child would have died had many more minutes elapsed without relief, and the operation took far less time than would tracheotomy under the most favourable conditions. The Cases iii, vii, viii, and ix were under the care of Dr. Tothe-rick, and i, ii, iv, v, vi, x, and xi under Dr. Malet, who have kindly permitted these notes to be published. The bacteriological examinations were made at the British Institute of Preventive Medicine.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XLVII.—TONBRIDGE UNION.

This workhouse is situated on a hill, commanding a view, that a millionaire might envy, over some of the loveliest scenery in Kent, which looked its best in the bright sunshine as we reached the house after a drive of two and a-half miles from Tunbridge Wells. The buildings, standing in extensive grounds, include the workhouse proper, erected sixty years ago, with the prison-like windows, solid walls, and small courts of that period; the old hospital, a four-square building apart from the house; the modern red-brick infirmary; and the schools block.

The Medical Officer,

Dr. Walter Malden, was kindly awaiting us, and under his escort, and accompanied by the master, we turned our steps to the sick department. There is accommodation for 230 sick and infirm, who are distributed in the old hospital, the infirmary proper, and the isolation block, for already the rapid growth of the population in the neighbourhood is taxing the resources of the house to the uttermost.

The Old Hospital,

containing 80 beds, is now used exclusively for the infirm male patients; it represented the whole of the sick department until the year 1890, when the new infirmary was opened. The building comprises a ground floor with two storeys above. The door is in the middle, opening on to the staircase, and giving access to the wards on either hand. On the ground floor are two day rooms leading into wards; these day rooms are small, and insufficient to accommodate all the patients who are up. In the summer this would not affect the comfort of the inmates, as they have free access to the extensive grounds; but in the winter the majority of the old men must needs live and take their meals, as well as sleep, in the wards. The wards are square or oblong, holding from 8 to 12 beds; the smooth-surfaced walls are colour-washed or painted. The windows are small, and divided into two by a heavy moulding; they are set rather high and open sashwise. There are also hopper openings below the cornice for additional ventilation. The wards are heated by open fireplaces and lit by gas. The bedsteads are ranged along the walls; there is a table in the middle; armchairs, a locker, a commode, sometimes a piece of matting, and a few pictures completing the furniture of the wards. There was an air of comfort in the place. Most of these patients were up, as this building is intended for those who can be dressed; the few whom we saw in bed were there for some slight precautionary reason.

On each landing there is a bath room and lavatory; the former in the old style, a metal bath with unprotected sharp edges, with hot and cold water laid on from the hospital kitchen; the latter modernised, with a good flush and glazed brick risers, all quite clean and serviceable. On the intermediate landings are two small wards, in which a noisy or troublesome patient may be kept apart. These were empty at the time of our visit.

The bedding is various, flock or hair on a straw paillasse, and the bedsteads, though of good width, are low and of the old pattern. As we understood that changes were in contemplation for this block, it is probable that the furniture will be modified. This part of the house furnishes a good example of the transition period, when public opinion was beginning to realise that the sick pauper needed other treatment than that of the workhouse as it was constituted under the Act of 1834.

The New Infirmary Block

gives expression to the modern opinion of the requirements of a hospital for the sick, even if they happen to be paupers. It stands a little apart from the old hospital. The entrance is under an archway which gives access to the grounds and the schools beyond; the male and female wards opening from either side of the archway. We entered first a spacious hall on the female side, out of which on the left is a day room, leading into a ward of 12 beds, from which a door communicates with the lavatory through an intercepting lobby. Out of the same hall are the kitchen, bath room, head nurse's sitting room, and staircase to next floor; this plan is followed throughout the building.

The wards are oblong, having windows on either side, with bedsteads placed between; open fireplaces, two in each ward; smooth painted wall surface, coloured matting down the middle of the ward, and pictures, give a cheerful appearance. We also noticed a good supply of arm chairs, in which the patients were sitting round the fire. This was the arrangement through the general wards. In the corners are "hit-or-miss" ventilators, which are supplementary to the sash windows. Nevertheless there was a sense of stuffiness in all the wards, more or less; as this cannot be attributed to the machinery, which was adequate, the cause must be sought elsewhere. The bedsteads are new and wide, some of them furnished with pulls: the bedding consists of the straw paillasse and hair mattress, and each bed has an allowance of four blankets. There were some screens prettily covered with chintz; the screens themselves might have been lighter with advantage, so as to be readily carried wherever they were required for privacy. On the female side there are 65 beds, including those in the

Lying in-Wards,

which are placed in the top storey, and comprise the labour and convalescent wards, and a larger ward for such pregnant women as require to be kept under observation at night. There is a bath room on the landing, and here also is the bedroom of the head nurse, who acts as midwife. In the "waiting" ward we found children under seven, infirmary patients, there being no children's department—a great omission; for it cannot be desirable to keep the children carefully apart in health, and then allow them to mix with the loose women who frequent the maternity department of a workhouse. Otherwise we have nothing but praise for this part of the building.

The Male Infirmary

is on the same plan as the female; it has 60 beds on two floors. The men, as they are fit for it, are drafted to the old hospital, so that we found the work heavier on the male side,

the cases more serious, the convalescents in smaller proportion. There are four day rooms in this block, but the meals are served in the wards.

The Isolation Hospital,

miscalled the infectious hospital, is a detached building communicating with the main portion by a long corridor from the female block. It has 33 beds in various small wards, and was at first intended for infectious complaints, but as these are now sent to the rural sanitary hospital, it is reserved for sick cases, offensive patients, or for measles and whooping-cough among the children, the latter complaint being, at the time of our visit, prevalent in the schools. The block is complete in itself, and is planned to receive male and female patients, and a portion can be locked off entirely if required for quarantining purposes. We found patients there with whooping-cough, some venereal cases, and the wet cases. The wards are smaller, but quite as well found as in the main building. The corridor is sheltered and sunny, making an excellent resort for the inmates.

An Overlooked Detail

in the quarantining system is that there is no intermediate ward between the receiving wards and the house, for the reception of the fresh arrivals, wherein they can spend the fortnight under observation before being passed by the medical officer to the department to which they are assigned.

Classification.

There is no system of classification among the patients; the medical and surgical cases are together, and we also saw the feeble-minded among the patients. The medical officer informed us that the greater number of the idiots are in the infirmary department for their safer custody. There are, however, the small wards, where a noisy or an unruly patient can be placed, or for the isolation of the severe cases of fits. As already noted there is no children's ward.

System of Nursing.

We have been describing a well-planned and well appointed infirmary, but when we look for the human machinery to develop its resources we meet with disappointment; the nursing does not keep pace with the structure. There are no trained nurses by day; the present head nurse has been six years in her post, and, we are sure, gives of her best, but, however willing her service, it cannot be as efficient as skilled service. The staff consists of the head nurse and two assistants in each block, one nurse in the old hospital and one in the isolation hospital by day: there is only one night nurse for all the buildings, but another is shortly to be appointed. None of these are fully trained nurses except the night nurse, who is only temporarily engaged. In each ward there is a pauper help.

The Nature of the Cases

demands skilled nursing; there are the usual bedridden and helpless patients, and we were informed that many serious cases of heart disease are often to be found in the wards, as also cases of phthisis, rheumatism, paralysis, and ulcerated legs. Moreover, the doctor undertakes any surgical operation which he may consider necessary, and has performed major operations in the infirmary. At night, even though the nurse be trained, she cannot nurse, for her work is very scattered, and, however zealous, she cannot be in more than one place at a time.

By a Strange Oversight

no provision for a nursing staff was made in the plans, so that the makeshift quarters occupied by the nurses are cramped and insufficient: their only mess room is one of the ward kitchens, and they have no recreation room. The night nurse is lodged close to the isolation wards. The Board is alive to these deficiencies, and is endeavouring to make things more comfortable for the staff.

The Nursery

is in the house, a new erection just added to the old building; the day nursery is on the ground floor, and the night nursery above with a room adjoining it for the mothers whose infants are still at the breast. The whole department is under a trustworthy paid officer, who is responsible for the infants and for the discipline of the mothers when with their children. It was the dinner hour, and several of the mothers were present in the nursery; the other children not in arms formed a happy little group round a low table. They remain here till they are 5 years old, when they pass into the schools. The nursery was bright and cheerful with toys and pictures, and the little ones looked well cared for. We were glad to see the old-fashioned boat feeding bottle in use. In the night nursery each child has its own cot.

The Kitchen Offices

are in the hands of the builder, the whole of that part being in course of reconstruction. We were given to understand that when the alterations are complete, improved methods of cooking and serving would be introduced. At present the rations are served to the infirmary in the bulk, being carved and weighed by the nurses; this renders it necessary for the whole of the small staff to be in the kitchens instead of feeding the sick. As we went round we saw the paupers feeding each other, a practice much to be deprecated. We were struck by the monotony of the meat diet, which is always mutton. Doubtless with the remodelling of the range will come the recasting of the dietary tables, and also the method of carriage; at present the diets are carried in open wooden trays in a covered barrow.

The Hospital Linen

is all passed through the one laundry, and is collected daily; offensive linen is sent away at once to a special tank, through which it passes before reaching the laundry. No particular receptacle for soiled linen was in use in the sick department. In this connection we may also note the absence of lockers or cupboards for the patients' clothing and possessions. We saw clothing lying about, under beds, on tables and chairs, giving an air of untidiness to the wards. Nor was there any provision for the storage of nursing appliances adjacent to each ward. There is a complete surgery on the ground floor, with its locked cupboard for poisons, and store of drugs (provided by the guardians) for the use of the medical officer.

The Sanitary Appliances

are of modern construction: the waterclosets are at the far ends of the wards, separated by an intercepting lobby; there is a sink for emptying pails and cleaning vessels, but all bed vessels are emptied at the closet. We always marvel at the absence of the handy slop sink. Here also are stored the vessels, though we were surprised to see chambers under some beds in the infirmary. There are also commodes in the wards, a result we suppose of the insufficient night staff. We were informed that slippers were provided if the patients chose to make use of them, and we would suggest that one or more dressing gowns might be provided in each ward. The bathrooms, one for each ward, open off the wide landings; they are fitted with porcelain baths, set out from the wall and provided with hot and cold water.

Fire Escapes

are supplied to every part of the old hospital and infirmary, and the whole building is in telephonic communication with the head of each department, with the master's office, and with the doctor's house, a quarter of a mile away. The master has drilled his male officers and the more intelligent of his inmates into a fire brigade, and we had the pleasure of seeing these assembled, properly equipped, with engine, hose cart, and stretcher, within three minutes of the alarm being given.

Recommendations.

We have noted minor details as they occurred to us, but there are a few points, affecting the efficiency of the whole, to which we would more especially draw the attention of the guardians. First, the nursing question. A large sum has been expended on the buildings, but the full value of that outlay cannot be secured whilst the administration is in the hands of an unskilled staff. In the next place, wards for the children of both sexes under 12 years of age should be provided. Thirdly, there is need of a quarantine department for the fresh arrivals. The alteration and increase in the nursing staff would also render additional quarters for the nurses necessary; but as these really ought to have found a

place in the plans for an infirmary department of 230 beds, this is not a difficulty which will give rise to much sympathy, while it calls loudly for a remedy.

WORKHOUSE NURSING IN SOME NORTHERN COUNTIES.

THROUGH the courtesy of some of our correspondents we have received a tabulated statement of the number of nurses employed in the care of the sick throughout the district inspected by Mr. Jenner-Fust; indeed, the return is due to that gentleman's enterprise, and it forms a most valuable table of reference, exhibiting the present condition of this important branch of Poor law work in the county of Lancashire, part of Cumberland, Westmorland, and two unions in the West Riding.

We are struck by the wide divergence in the size of the infirmaries, the largest containing 1,401 and the smallest 3 patients, with the discrepancies in the staff variously engaged in the nursing of these inmates, especially at night, and with the meagre amount of trained supervision over the nurses employed. The total number of infirmaries tabulated is 52; of these only 26 contained less than 50 patients at the time the return was made; the proportion of patients per nurse varies from 1 to 44 to 1 to 8; in 29 there was no night nurse, one of these infirmaries having 87 patients left without a trained attendant at night; in 12 only is there a superintendent or head nurse, in 1 infirmary a staff of 36 nurses working without a trained head; at night 6 superintendents are returned, and a staff of 7 in one infirmary is on duty at night without a superintendent. With regard to pauper nursing, 20 are stated to have no pauper nursing. These figures, so far, refer to the sick, exclusive of the imbeciles and epileptics. The total number of this class is 2,699, 18 infirmaries having no imbeciles or epileptics; 8 are returned as having no paid attendants; in one 33 patients are left to look after themselves; 36 infirmaries return no paid attendant at night; the highest number to one attendant is 86, and the lowest 10.

This brief analysis amply proves the want of uniformity in the administration of the Poor Law in its care of the sick.

TREATMENT OF EPILEPTICS IN BELFAST WORKHOUSE.

IT appears from the evidence given before a coroner's jury that a man was admitted to the infirmary suffering from fits, and that he was placed in the epileptic ward, which forms part of the lunatics' department; whilst there he died. The question put before the jury did not turn so much upon the reason of his death as upon whether the medical man was justified in placing him in the lunacy department. We see that an official inquiry is to be held; but this furnishes another instance of the ignorance so often shown by guardians as to the provision made for the treatment of the paupers under their charge. A medical officer is often forced to place his epileptic patients in the insane wards for their safer custody, because the amount of nursing provided for the lunatics is markedly in excess of that found in the wards of the sick. This reason may have influenced Dr. Beattie in this instance.

THE KEIGHLEY WORKHOUSE INFIRMARY.

MR. KENNEDY, the Government inspector, has reported with regard to the action of this Board. Our Commissioner reported on the infirmary in the BRITISH MEDICAL JOURNAL of September 22nd. At that time extensive alterations were in progress that promised well, and we then offered some suggestions based on that report which, in our opinion, would have increased the usefulness of the building and have improved the nursing. However, to judge from the report of the inspector, not only have these recommendations received no consideration, but the guardians have retrograded from their original plan; they look upon this building, standing 750 yards apart from the workhouse, merely as a separate block to relieve the house of its overflow, and ignore the fact that if it is to answer the purposes of an infirmary, it must have an adequate nursing staff under the control of a trained head, the fiction of the workhouse matron being at the same time responsible for the nursing still has a firm hold in the guardian mind. Sanitary arrangements, though of recent construction, are defective in ventilation, having no intercepting lobby; washhouse and laundry are badly placed and inadequate, there is no children's ward, and the lying-in ward has been built without a labour room. The accommodation is insufficient, and we foresee that in very short time the Board will have to spend another large sum in supplementing and altering work which, given a more liberal expenditure at the time, would have sufficed for the requirements of the population. This is sad waste of public money.

LONDON UNIVERSITY COMMISSION BILL.

THE following is the text of the Bill introduced into the House of Lords by Lord Playfair on behalf of the Government on May 9th:

A BILL, INTITULED AN ACT TO MAKE FURTHER PROVISION WITH RESPECT TO THE UNIVERSITY OF LONDON.

WHEREAS the Commissioners appointed to consider the draft charter for the proposed Gresham University in London, have by their report made recommendations with respect to the reconstitution of the University of London, and to the appointment of a Statutory Commission for that purpose.

Be it therefore enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

Appointment of Commissioners.

1.—(1) There shall be a body of Commissioners styled the University of London Commissioners, and consisting in the first instance of the following persons, namely,—

(2) If and whenever any vacancy occurs among the Commissioners, it shall be lawful for Her Majesty the Queen to appoint a person to fill the vacancy; but the name of every person so appointed shall be laid as soon as may be before both Houses of Parliament.

Duration and Proceedings of Commissioners.

2.—(1) The powers of the Commissioners shall continue until the end of the year one thousand eight hundred and ninety-six, and no longer; but it shall be lawful for Her Majesty the Queen, from time to time, with the advice of Her Privy Council, on the application of the Commissioners, to continue the powers of the Commissioners for such time as Her Majesty thinks fit, but not beyond the end of the year one thousand eight hundred and ninety-seven.

(2) The Commissioner first named in this Act shall be the Chairman of the Commissioners; and in case of his ceasing from any cause to be a Commissioner, or of his absence from any meeting, the Commissioners present at each meeting shall choose a chairman.

(3) The powers of the Commissioners may be exercised at a meeting at which three or more Commissioners are present.

(4) In case of an equality of votes on a question at a meeting, the chairman of the meeting shall have a second or casting vote in respect of that question.

(5) The Commissioners shall have a common seal, which shall be judicially noticed.

(6) Any act of the Commissioners shall not be invalid by reason only of any vacancy in their body; but if at any time, and as long as, the number of persons acting as Commissioners is less than four, the Commissioners shall discontinue the exercise of their powers.

Powers and Duties of Commissioners.

3.—(1) The Commissioners shall make statutes and ordinances for the University of London in general accordance with the scheme of the report hereinbefore referred to, but subject to any modifications which may appear to them expedient after considering any representations made to them by the Senate or Convocation of the University of London, or by any other body or persons affected.

(2) In framing such statutes and ordinances, the Commissioners shall see that provision is made for securing adequately the interests of non-collegiate students.

(3) All such statutes and ordinances shall be laid forthwith before both Houses of Parliament, and shall come into operation on the expiration of forty days after they have been so laid, and shall have effect as if enacted by this Act, but shall be subject to alteration in manner provided by such statutes and ordinances.

Short Title.

4. This Act may be cited as the University of London Act, 1895.

OBITUARY.

THE LATE MR. A. E. DURHAM.

THE first portion of the funeral of the late Mr. A. E. Durham was conducted on Friday, May 10th, at St. George's, Hanover Square, by the Rev. D. Anderson, the Rector. The chief mourners were the sons, Messrs. Herbert and Frank Durham, the brothers Messrs. E. Ashley and Frederic Durham, and Mr. Godfrey Hickson, son-in-law of the deceased, Mr. Albin Ducamp, Mr. Sharon Turner, and Mr. John Croft. The President of the Royal College of Surgeons, Mr. Christopher Heath, Mr. E. H. Lushington (Treasurer of Guy's Hospital), and nearly all Mr. Durham's former colleagues at the Royal College of Surgeons and at Guy's Hospital, Mr. H. Irving, Mr. Bancroft, Sir W. Broadbent, Sir R. Quain, Sir W. B. Dalby, Dr. C. Holman, and a very large number of other friends, both professional and lay, who crowded the building, were present at the church. During the service, the hymn "Now the Labourer's Task is o'er" was sung, and as the coffin left the church the "Dead March" from *Saul* was played. Many of the mourners then proceeded by train to the Crematorium, near Woking, where the concluding ceremony took place.

WE regret to have to announce the death of Mr. HARRIS BUTTERFIELD, of Sevenoaks, Kent. Mr. Butterfield took the diploma of M.R.C.S., L.S.A.Eng., in 1857, and some twelve years since was appointed Medical Officer of Health of West Kent. Mr. Butterfield had been ailing for a considerable time, and some few months since he underwent an operation for cancer. He was 59 years of age, and leaves a widow, two sons, and a married daughter to mourn his loss. The funeral took place on May 4th at the Sevenoaks Cemetery, a large number of friends of the deceased following the coffin to the grave.

DR. KARL VOGT, the distinguished Professor of Comparative Anatomy of the University of Geneva, died recently, at the age of 77. In 1847 he was appointed to a chair in the University of Giessen, which he soon resigned in consequence of the political troubles of 1848, in which he took an active part. He was banished from Germany and took refuge in Switzerland. After teaching some years at Berne, he was invited in 1852 to the University of Geneva, where he continued in active work as Professor till two years ago.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 18TH, 1895.

THE UNIVERSITY ODYSSEY.

One more stage has been passed in the long course of procedure in the matter of the reconstitution of the University of London, and we are one step nearer the realisation of the hope that London students may at length have within their reach medical degrees upon conditions which will not place them at an unfair disadvantage as compared with students in other medical centres. Lord Playfair has introduced a Bill into the House of Lords to provide for the appointment of a Statutory Commission, which will have the power to carry through the actual business of reconstitution. Should the Bill, which is printed at page 1104, become law the Commission will have power to make statutes and ordinances in general accordance with the scheme of the last Royal Commission, but subject to any modifications which may appear expedient after considering any representations made to them by the Senate or Convocation of the existing University, or any other body or persons affected. The Statutory Commissioners will be specifically instructed adequately to secure the interests of non-collegiate students. The period named in the Bill for the termination of the Commission is the end of 1896, but the term may be extended by the Queen in Council. The statutes and ordinances as revised by the Commission will come into force forty days after being laid before Parliament.

In introducing this Bill the Government are acting in accordance with the specific recommendation of the last Royal Commission—that appointed to report on the Gresham University Scheme. That scheme is dead, and Mr. Fitch, speaking at the meeting of the Convocation of the University of London on Tuesday evening, assured us that it is buried. The scheme which now holds the field is that of the last Royal Commission, which has already been fully explained in these pages. Its main features are the admission to the Senate of the University of representatives of all the colleges interested in the work of higher education in London, including the colleges and schools engaged in medical education, and the admission as constituent elements of the University of the medical schools of London.

The difficulty was and will be to reconcile the interests of the colleges and medical schools of London with those of the non-collegiate undergraduates of the University. This side of the work of the University has been of great value in the past, and there is abundant evidence to prove that the University continues to exercise an elevating influence on these isolated students scattered over the length and breadth of the empire who have found in its examinations tests of the worth of their solitary studies, and in its degrees the rewards of many silent hours of toil. In the medical faculty, however, such men are necessarily not to be found, for the period of medical study must, under the regulations of the General Medical Council, be passed in recognised schools of medicine.

It does not seem to be any longer contended that the reconstitution of the University, bringing it into closer relation with teaching, can have anything but a favourable influence on medical education. The Statutory Commission, if ever the exigencies of business and of party politics in the House of Commons permits the Bill constituting it to become an Act, may be trusted to adjust the scheme so as prevent any injustice to those schoolmasters and others who are desirous to obtain the degree of B.A. or of M.A. We say schoolmasters, because Mr. Bompas, in the speech which he addressed to Convocation on Tuesday, seemed to rely chiefly on the hardship which the deserving class of young schoolmasters ambitious of a University degree would suffer if they were compelled to submit themselves to examination by the same examiners as students trained in the constituent colleges of the University. The examinations, he said, could not be fair and equal, but he did not advance any very convincing reasons for this opinion. In consequence, he invited Convocation to rescind the decisions come to last January to the effect that there should be but one university in London, and expressing general approval of the scheme of the last Royal Commission, that to which Lord Playfair's Bill proposes to give effect.

Convocation did not consent thus to stultify itself, but rejected Mr. Bompas's motion by 238 to 177. At the same meeting, however, evidence of the strength of the opposite party was shown by the fact that Mr. T. B. Napier, LL.D., who is an opponent of the scheme, was returned first on the Senatorial list by 1,231 votes against 733 cast for Mr. Cozens-Hardy, Q.C., who was the champion of the Unionists on this occasion. The voting for choice of members of the Senate is by ballot papers, which may be sent by post. On resolutions proposed in Convocation the voter must, of course, attend and vote in person. It will be contended, not without show of reason, that the decision of Convocation in favour of a Royal Commission scheme, and of a single University, was obtained through and by "the London vote."

There is no need to be greatly alarmed by this prospect. Granting all that may be or has been said by the most enthusiastic admirers of the imperial characteristics of the present University of London, it must be admitted that the questions whether London is to have a teaching university or not, and whether it is to have two rival universities with the inevitable tendency towards a downward competition, or a single strong one, are emphatically questions upon which London is entitled to have an opinion. If we are not to be permitted to call London a city or even a "locality," it is yet becoming something more than a mere inchoate province of houses. The great metropolis may fairly claim to exercise the rights of the predominant partner in any solution of questions in which she is so nearly interested.

THE NEED FOR BACTERIOLOGICAL INSTITUTES IN INDIA.

Of the importance of bacteriological research in reference to the causation of many forms of disease there can be no question. Whatever views may be held as to micro-organisms, there can be no doubt of their etiological importance generally, and this applies with even greater force to disease in India than to disease elsewhere.

It seems very desirable, therefore, that every opportunity should be given for the fullest investigation of this subject throughout India, and that centres should be formed in different parts of the country, where, under the superintendence and direction of a thoroughly trained bacteriologist and chemist, the opportunity of exhaustively conducting such researches should exist. Apparently two such centres, presided over respectively by D.. Simpson and Mr. Hankin, exist in the Bengal Presidency. These should be largely added to, and in them the means of thorough investigation, both bacteriological and chemical, should be available. Such establishments would not only be centres for reference in the case of water or other possible vehicle of disease, but schools where the methods of investigation might be systematically taught to the numerous persons, whether Europeans or natives of the country, to whom such information may be necessary, and who may not have had the means of acquiring it elsewhere

The science of bacteriology has already made great progress, but it has by no means arrived at anything like finality, and, considering its etiological importance, it seems highly expedient that such research should be steadily pursued. The results would certainly be advantageous, for although with advancing knowledge present views might change, there can be little doubt that a better knowledge of the nature of and control over disease would be obtained, and, as a result, a saving of life and an amelioration of the general sanitary conditions of the people.

Such a scheme might be gradually adopted, a few such centres being first established and gradually increased in number and scope of operation as results demonstrated their utility and justified their maintenance. The importance of this question was clearly pointed out in the letter addressed by Mr. Ernest Hart to Sir A MacDonnell, the Secretary to the Home Department of the Indian Government. We have submitted that document for the critical opinion of one of the most eminent and well-informed authorities on the subject in this country now at home, and he writes as follows :

"With reference to the capability of the medical officers of the Indian Service for carrying out the investigations necessary for detecting bacterial or other causes of disease, we know that these young officers are very carefully trained in all these points, if not before they go to Netley, at least during the single session that they spend there. Considering how much they have to do during the short period of one session, it perhaps can hardly be expected that all should obtain—unless indeed they have studied the subject before going there—that full and complete knowledge of bacteriological research which would render them capable of carrying out the necessary investigations.

"The question, therefore, naturally arises whether a longer sojourn at Netley and a more protracted scheme of instruction in these subjects be not desirable. The best part of a year, and not a few months only, might well be devoted to this purpose. Of course difficulties would stand in the way of this, but none that might not be overcome. Increase in efficiency would probably more than compensate for any disadvantages that might seem *a priori* to be associated with this scheme.

"As to the multiplicity and variety of work devolving upon the civil medical officers of India, this might be relieved by making over much of the detail of work to the highly trained medical men who are to be found in the subordinate medical services of India. Relieved of this detail, the work of supervision and control of the higher professional and scientific departments of their work would not then be so onerous.

"The division between the civil and the military practically to a great extent now exists, and as time goes on, further differentiation might be effected. In the meantime it cannot be doubted that the medical schools of India are quite capable of furnishing medical men who would be fully competent to assist the European medical officers already engaged in these important duties. Moreover, the establishment of centres for bacteriological research, as previously suggested, would afford means of instruction in this particular department of science, and so add to the utility of the class to which I now allude."

TWO SIDES OF THE OPIUM QUESTION.

One of the most serious questions in regard to the opium habit is whether and how far it becomes a necessity instead of a luxury to those who indulge in it, and how far it tends to grow upon them. In regard to this, Sir William Roberts, in his memorandum on the medical aspects of the opium habit in India, appended to the Report of the Royal Commission on Opium, writes: "The opium habit once begun is usually a lifelong habit. . . . . At the beginning . . . . there is a tendency to a progressive increase of the dose. This increase goes on until the limit of the individual tolerance is approached. When this point is reached, the dose becomes stationary, and usually remains stationary for years, or for life."

Excess is to be measured not by dose but by tolerance. "When an opium eater goes beyond his tolerance he may be said to go to excess, whether the quantity consumed be small or great."

When an opium eater exceeds his tolerance "he becomes sluggish and drowsy; if he be a magistrate he nods on the bench, and is, perhaps, made the subject of gentle chaff by his brother magistrates. These signs soon pass off, and leave no trace behind. But when the excess is habitual more serious results follow. The consumer becomes persistently indolent, stupid, and incapable of attending to his business, his appetite falls off, and he becomes lean and shrivelled. The bowels are either obstinately costive or there is alternate diarrhœa and constipation. No organic disease is developed, and the man continues to live on, provided he escape intercurrent disease, to his natural term; but his useful life is certainly shortened, and he becomes a cumberer of the ground." This is the "opium sot." Fortunately he is a rare spectacle, and many experienced witnesses had never seen him and scarcely believed in his existence.

There seems no doubt, however, that habitual opium

eaters do in a manner become the slaves of the habit. Sir William Roberts says: "If the opium eater does not get his dose at the appointed time he feels very uneasy; he looks stupid and exhausted, his eyes and nose begin to run, he yawns, has pains about the abdomen, and no appetite for his meals. When at length he obtains the belated dose, all these symptoms vanish as if by a charm."

When the supply of opium is suddenly and entirely cut off, the reaction appears to be much more pronounced than in the case of alcohol or tobacco. It is the general rule in Indian gaols to cut off the supply of opium to prisoners on admission, so that the medical officers to these institutions were able to give exact information on the subject. The usual effects are: looseness of the bowels, dejection and misery, restlessness and loss of sleep, failure of appetite, aching of the bones, lassitude, and weakness. After a few days, or a week or two, health is restored; sometimes, however, the disturbance assumes alarming proportions, and "instances are not unknown, though seemingly of extreme rarity, where life has fallen a sacrifice to the process of stopping the opium habit."

So much for the bad side of opium eating.

In regard to the use of opium in malarial diseases, Sir William Roberts draws attention to the observations of Dr. Palmer and Dr. Garden as to the antiperiodic action of anarcotine, a constituent which exists in large proportion in Indian opium, that from Patna containing more than three times as much anarcotine, and less than half as much morphine, as ordinary Smyrna opium.

From these observations it appears that this constituent of the opium used in India has a definite antiperiodic effect, and it is not difficult to understand that the habitual use of the comparatively large doses so often taken in that country may act, as it is strongly urged that it does act, as a prophylactic against malaria. At the same time the large proportion of morphine contained in opium puts a bar to its general use for this purpose, as sufficient cannot be given except to those who have a considerable tolerance of the drug.

MEDICAL PRACTICE BY LIMITED COMPANIES.

The gallant stand made by the medical profession in Cork against the unreasonable exactions and demands of the medical clubs and societies in that city has earned for them the gratitude of the medical profession as a body throughout the country. Whether it be a consequence of their example or a coincidence produced by the operation of similar causes, the fact remains that we have recently had the opportunity of recording action of a similar nature taken by the medical profession in various parts of England. We now learn that an even more pernicious method of exploiting the services of the medical profession has begun to make way in Cork, for we are informed that on May 11th the manager of the National Medical Aid Company had an interview with the Medical Committee formed in connection with the South of Ireland Branch of the British Medical Association in Cork, when he stated that he proposed to extend the operations of this company to Cork. He informed the Committee that he had already twenty-eight active men in the city acting as touts, that it was not proposed to enforce any wage limit, and that the weekly charges would be ¾d. a week for adult members and ½d. a week for children. This scheme was reported to a large meeting of the profession in Cork, and we are informed that the following resolution was adopted unanimously:

> Having heard the statement by Mr. Dillon, the local manager of the National Medical Aid Company, we are unanimously of opinion that we cannot entertain its establishment, as it would not be in accordance with the rules of the profession.

There can be no doubt that this resolution correctly expresses the true view upon this matter. These medical aid companies are really commercial bodies whose stock in trade is the knowledge and skill of medical men. If not actually illegal they constitute a method of evading the intention of the Medical Acts, and their growth and extension is a serious danger to the future development of the medical profession, and is inimical to the public interests. It is surprising and disappointing to find that these companies are able to obtain the services of duly qualified medical men as their salaried officers. We mentioned recently that in a town in the West of England a company of this kind had suddenly been placed in an extremely awkward position by their inability to obtain the services of such a man. We now learn that this difficulty has been overcome, and that the company is advertising the appointment of their new medical servant.

The position of medical men who accept such appointments is, to say the least of it, most undignified; they sell their services to these companies at a rate which enables the companies to make a profit. Surely, putting the matter on the lowest ground, this is a suicidal course of action merely from the pecuniary point of view, for the profit should belong to the man who earns it. Further, from the point of view of professional ethics, the action of medical men who accept such appointments is worthy of condemnation. The companies generally obtain business by an organised system of touting which is in flagrant contradiction of the principles which govern the conduct, not only of the medical, but of the other learned professions. The companies tout and advertise, but they would have nothing to tout for and nothing to advertise if only the medical profession were true to itself. The men who thus permit their names to be used as the chief attraction of an advertisement and the main bait of a tout, are morally responsible for the actions of the companies to which they have sold themselves. Each man will no doubt plead, in the words of the Apothecary to Romeo, "My poverty and not my will consents." The company's manager in each locality no doubt fully recognises this, and replies—in deed, if not in word—"I pay thy poverty and not thy will," for the salaries certainly afford no cure for poverty. Hard work, small pay, a precarious tenure of their office, and an abiding knowledge that by accepting it they are inflicting serious injury on the profession to which they belong, are the lot of the misguided young men who become the servants of these trading companies.

At the opening by Her Royal Highness the Princess of Wales of the Grand Bazaar in aid of St. Mary's Hospital, at Portman Rooms, on June 27th next, Her Royal Highness will be received on her arrival at the Bazaar by their Royal Highnesses the Duke and Duchess of York.

We are informed that in consequence of representations made by the Society of Members of the Royal College of Surgeons of England the Home Secretary has declined to

sanction the alterations in the by-laws proposed by the Council of the College, on the ground that they are of too wide and indefinite a character.

DR. J. S. BILLINGS.

It is announced that Dr. J. S. Billings will relinquish his appointments as Curator of the Army Medical Museum and as Librarian of the Surgeon-General's Library at Washington, in October next. Dr. Billings hopes to leave the printed catalogue of the Library in a complete state. In retiring from active work in this department Dr. Billings will take with him the hearty thanks not only of his fellow countrymen, but also of all workers in the field of medical literature in this and other countries for the great help received from the Catalogue which was initiated by him, and which he has produced with such marvellous success. So long as the library lasts this undertaking will remain a monument to the ability and perseverance of Dr. Billings. The medical world will not be entirely deprived of Dr. Billings's services, as he will undertake the duties of Professor of Hygiene in the University of Pennsylvania.

DR. THORNE THORNE AND THE GENERAL MEDICAL COUNCIL.

The *London Gazette* of May 14th contains an announcement of the appointment by Government to the membership of the General Medical Council of Dr. Thorne Thorne, C.B., F.R.S., in place of Sir John Simon, K.C.B., resigned, the appointment taking effect from May 11th for a period of five years, and being made under the provisions of the Medical Acts 1858 and 1886. We must congratulate the Council on the replacement of Sir John Simon, in their unhappy loss of his services, by one so worthy to fill the position which he has vacated. The selection of Dr. Thorne Thorne for the post formerly held by Sir John Simon as Principal Medical Officer of the Central Health Department will be pleasing to the circle of sanitary scientists as showing that their official representative will now have a voice in the practical administration of the Medical Acts.

THE TEACHING OF TROPICAL MEDICINE.

Dr. Patrick Manson will commence his first course of systematic lectures on "The Diseases of Tropical Climates" in the medical school of St. George's Hospital on Tuesday next, May 21st, at 5 P.M. They will be continued on Fridays and Tuesdays at the same hour till July 26th. Particulars will be found in our advertisement columns, or may be obtained from the Dean of the school. We have pleasure in drawing special attention to this course, as it has been established to meet a serious deficiency in English medical education to which we first drew attention in an article published on November last. We congratulate the school of St. George's on its promptness in taking up our suggestions. It may be as well to mention that women being qualified practitioners are admissible to Dr. Manson's course.

A QUESTION OF DIAGNOSIS.

An action was tried in Dublin on Monday and Tuesday, May 6th and 7th, which is of great importance to the profession, and apparently establishes a decision which will have serious consequences. The plaintiff was a shopkeeper named Mason, and he sought damages from the defendant, Dr. John E. Hadden, of Rathmines, for having negligently diagnosed as small-pox a disease called erythema nodosum. The patient was one of the plaintiff's *employées;* she was removed to Cork Street Fever Hospital, and the case was reported by the defendant, according to the Act, as a case of small-pox. The plaintiff alleged that his business was damaged in consequence. Evidence was given that the case was not one of small-pox. For the defence it was pleaded that the words were privileged, and were written in compliance with the Notification Act, and in the belief that they were true. The defendant proved that the patient had a temperature of 103°; that she had papules on her forehead, that she complained of headache and backache, and that she had on her legs erythema nodosum, but that the symptoms distinct from the latter were those of small-pox. She had recently been vaccinated, and he believed that she was suffering from small-pox subdued by vaccination. Dr. James Little, President of the Royal Academy of Medicine, stated in evidence that the symptoms were such as to lead to the belief that the case was one of small-pox, and he would not have allowed the girl to remain an hour longer in the house. Mr. Thornley Stoker, President of the Royal College of Surgeons, was of opinion that the case was really small-pox modified by vaccination; and Dr. J. W. Moore, of the Meath Hospital, held a similar opinion. Mr. Justice Murphy said the chief question to decide was whether the defendant had exercised fair and reasonable care and skill as a physician in advising that the patient should be sent to a hospital, and whether he reasonably and honestly believed that the girl was suffering from small-pox. The jury found for the plaintiff with £100 damages. The verdict is of so serious a character as affecting the position of medical men, not only in Ireland but throughout the kingdom, in relation to their work that we hope some means may be found for having it reconsidered.

THE REVISION OF THE "BRITISH PHARMACOPŒIA."

We understand that nearly 5,000 answers have already been received to the circular recently forwarded to the members of the British Medical Association by the Therapeutic Committee. As it seems desirable to ascertain to what extent the pharmacopœial drugs and preparations named in this circular are employed, members of the Association who have not filled in the form are earnestly requested to do so without delay, and to return it to the Honorary Secretary, Dr. Tirard, 74, Harley Street, W.

DEFECTIVE EYESIGHT AMONG SAILORS AND RAILWAYMEN.

Three months have now elapsed since an influential deputation of ophthalmic surgeons urged upon the President of the Board of Trade the desirability of excluding defective-sighted lads and men from responsible duties in the mercantile marine as well as on railways. The general public naturally supposes that a precaution so obviously essential to the safety of ships with their precious freights and so important for the welfare of seamen would have been long ago introduced and enforced in our great merchant service, by the adoption of stringent regulations to prevent the possibility of defective-sighted persons steering a ship or acting as a "look-out." From much that has been said and written in these last months it is evident that the British press and public unfortunately take too much for granted in this matter. To enable them to realise more precisely the present state of the question we think it desirable to publish more fully than our space at the time permitted the carefully prepared statement of the case submitted to Mr. Bryce by Mr. Bickerton, of Liverpool on the occasion above referred to (see page 1112).

ANTITOXIN AT THE ASYLUMS BOARD HOSPITALS.

At the meeting of the Metropolitan Asylums Board held on May 11th, resolutions were read from eight metropolitan Boards of Guardians in favour of giving power to patients, or the parents of patients, suffering from diphtheria to say whether or not antitoxin should be used in their treatment. A more mischievous resolution it would be difficult to conceive, and, with commendable wisdom, the Board contented themselves with instructing the clerk to acknowledge the communications. We cannot but hope that the guardians who attempted to interfere in this ill-judged manner as to the treatment of these patients entirely misunderstood the

position of the Asylums Board in the matter. Diphtheria antitoxin, as used in the Asylums Board Hospitals, stands precisely on the same footing as any other drug: it is prescribed by the medical officers to such cases as they think require it, and will be benefited by it, just as if it were ipecacuanha or anything else. The only point where the Board comes in is this, that, recognising the difficulty of obtaining the article in purity and of a standard strength, they have arranged for it to be prepared by a public body above all suspicion, instead of purchasing it in the market, and knowing the supreme importance of some definite conclusion being arrived at as to the efficacy of this mode of treatment, they have arranged for a complete record being kept on a uniform plan of all cases in which the remedy is used. That is all. The medical officers prescribe the treatment, the Board provide the drugs, and among them diphtheria antitoxin. At the same meeting a suggestion made last week by the British Medical Journal was brought before the attention of the managers. This was to the effect that in future reports of the Statistical Committee the results at the different hospitals should be issued in the form of percentages as well as of whole numbers, so that they should be capable of ready comparison among each other, and with the results at other places. We understand that an assurance was given by the Chairman that this should be done.

THE SICK POOR IN PROVINCIAL WORKHOUSES: TONBRIDGE.

The sick department of this union offers a curious example of the want of logic so often displayed by public bodies. The workhouse has a modern, well-appointed infirmary, while the infirm male patients are in the old hospital, distinct from the quarters of the able-bodied. Except in some minor details, noticed by our Commissioner, the structure and arrangements are those of a general hospital But what would be said of a hospital of 230 beds which was entirely nursed by untrained persons assisted by paupers? Yet this is the state of the case in the Tonbridge Union. The only trained nurse is the temporary night nurse, and she has no assistant, so that, since her charges are in three distinct buildings, her nursing must be merely nominal. This is an anomalous state of things, and one which surely cannot be long maintained by a Board of Guardians who have shown themselves anxious to provide for the comfort of the sick in so many other ways. No merits of structure can ever compensate for the lack of nursing, and much complex machinery is simply thrown away without the skilled management of those who understand it. Our Commissioner notes, for instance, the stuffiness of wards where there is ample provision for ventilation, a detail which is significant of the absence of those trained to understand the value of fresh air in the sick room, and able to secure that personal cleanliness of the patients which it is one of the principal duties of the nurse to maintain.

QUEEN'S COLLEGE, BELFAST.

The summer session opened on May 1st. The most interesting feature of the new session is the advent of the new lecturer on Pathology, Dr. Lorrain Smith, who comes to Belfast with the highest credentials and a most brilliant academic record. In his inaugural address he dwelt upon the importance of pathology, as standing midway between the biological sciences and medical work proper. He reviewed the three great departments of pathology, namely, morbid anatomy, experimental pathology, and bacteriology, and with reference to the last of these spoke as follows: "Bacteriology has wrought changes in medicine and surgery, in other branches of pathology, in public health, and in the management of many trades and industries.....It has enormously extended the utility of other branches of medical science. It has put in our hands the cause of many acute diseases, and enabled us to deal with them in a preventive manner. It has radically changed many methods of treatment in both surgery and medicine, and if many of its upholders are not mistaken we are about to have in serum therapeutics a method not only for the prevention of disease, but also for the cure of it after the attack has begun. Every year introduces us to large and important developments of the science. For example, how much has the study and treatment of diphtheria been quickened by the recent work of Behring and Roux? Here, even if the therapeutics fail to do all that has been promised, the mere aid to diagnosis which bacteriological methods afford is certain to be of the greatest value in the work of the profession. The direct gain to the practice of medicine will yearly become greater. Even at the present day bacteriology has, by its contributions to professional knowledge, taken such a place that it is really impossible for anyone who wishes to train himself fully for his life's work to allow the opportunities for learning it to escape him." The erection of the new physiological and pathological laboratories is to be commenced forthwith, and it is hoped that they will be ready by next spring.

THE HEALTH OF THE PREMIER.

We have authority for stating that the sea trip on which Lord Rosebery has embarked has in no sense been undertaken in consequence of the incident at the National Liberal Club which has been so much talked about. The trip had been planned before and was only delayed for want of opportunity. We understand that Lord Rosebery's health has much improved, that he sleeps much better than he did some time ago, and that every assurance is given that he will entirely throw off the results of the severe attack of influenza which he lately passed through.

SICKNESS AMONG THE GUARDS IN LONDON.

We referred recently to the fact that at the inspection of the Grenadier Guards held by the Commander-in-Chief in Hyde Park a short time ago, the muster was very much below full strength, owing to illness. We were then enabled to state that though the number of cases had been large they were not of a severe type, and were chiefly examples of the epidemic type of sore throat which has recently been so prevalent in metropolitan districts. We now learn that the actual numbers of sick in the three battalions of the Grenadier Guards at the date of the inspection by the Duke of Cambridge were as follows: 1st Battalion, 46; 2nd Battalion, 63; third Battalion, 23; total 132. It would appear, therefore, that the number absent on account of sickness at the date mentioned was considerably exaggerated in some of the reports which appeared.

THE DEVELOPMENT OF IRISH HEALTH RESORTS.

Our Belfast correspondent writes: On May 11th, the Great Northern Railway of Ireland opened a fine new hotel at Bundoran, on Donegal Bay, a few miles from Ballyshannon. A large company from Dublin, Belfast, Derry, and some of the adjoining counties were conveyd by special trains to Bundoran and hospitably entertained. The County Down Railway have just begun the erection of a hotel at Newcastle, co. Down, which will accommodate 100 guests, and will be in close contiguity to the well-known and excellent golf links. These two events signalise a general and much-needed effort to popularise the health resorts of Ireland, many of which possess every natural advantage, and only require suitable accommodation and readiness of access in order to attract large numbers of tourists. Some years ago the Northern Counties Railway purchased the Antrim Arms Hotel, as it was then called, at Portrush, and put it under first class management. This hotel, now known as the Northern Counties Hotel, is one of the best in the kingdom, and has proved an excellent property to the enterprising railway company which purchased and renovated it. Good hotels have recently been erected at Larne, Ballycastle,

Port Salon, Rosapenna, Gweedore, Carrick, and elsewhere on the northern and western seaboard of Ireland, and similar enterprise is now being shown in the south. The railways are also showing some public spirit, and excursion tickets at reasonable fares are now generally available. We trust these efforts will meet with their appropriate reward. The Irish health resorts have much to commend them. Portrush is one of the most bracing resorts in the United Kingdom, and is within easy reach of some of the finest coast scenery in the world. Newcastle, in co. Down, under the lee of the picturesque Mourne mountains, is a most romantic spot. Ballycastle, Port Salon, Bray, Kilkee, and Tramore are all worthy of the attention of the tourist. The Irish golf links are excellent in their natural advantages, and are, on the whole, very well managed. The great drawback to the Irish resorts has hitherto been the paucity and indifferent quality of the accommodation. This drawback is now in a fair way to be removed, and no doubt the sister island will come in for more and more of tourist patronage in consequence. It is a great mistake to suppose that the Irish summer is wetter than that of, say, Cornwall, or some parts of the west coast of Scotland. Portrush and Donaghadee have two of the lowest rainfalls in the British Islands, and may be reckoned fairly dry resorts.

A CONGRESS OF MILITARY HYGIENE.

A CORRESPONDENT in the *Morning Post* writes to suggest the holding of a congress in London, Aldershot, or Netley, devoted solely to questions relating to military hygiene. He says he knows of no sphere of life and action other than that embracing the conduct of warfare in which such vast and radical changes have been effected during the last two decades. The subject might be divided thus :— Section 1 : Home service. The recruit, his physique and training, clothing and equipment, recreation, cookery, construction of barracks, hospitals, etc., drainage, lighting, heating and ventilation, enteric fever, infective diseases in garrison towns. Section 2 : Active field service. Injuries incidental to modern warfare, their nature and treatment, transport of wounded, bearer companies, nursing organisations and Red Cross Societies, camp diseases, tropical diseases, cholera camps, etc., field and base hospitals, hospital ships and sick transports, condition of the killed in war and best methods for their disposal. Section 3. Exhibits of medicines, instruments, equipments, etc., and latest sanitary inventions. Without Government aid any attempt in the direction suggested would be a failure, and State help would not be readily obtained. Apart from this, there would be some difficulty in getting suitable persons to organise such a congress. The multiplication of congresses is to be deprecated. Practically the International Medical and the corresponding Hygienic Congresses meet all the real requirements in this matter, and any defects which now exist might be remedied by extending the scope and aims of the naval and military sections at the next meetings in Madrid and Moscow. There is no demand for any such special congress (as suggested in the letter) among service men in this country just now, and its promotion would, it is held, be a mistake.

WOMEN SANITARY INSPECTORS.

THE Kensington Vestry rather more than eighteen months ago instituted a new departure among London sanitary authorities by appointing two lady inspectors for the purpose of inspecting workshops in which women were employed. The new officers were not in the first instance given the status of sanitary inspectors, and the obvious disadvantages resulting from their not possessing the powers of statutory officers soon became apparent. Both ladies qualified themselves, therefore, by obtaining the certificate of the Sanitary Institute, and a Committee of the Vestry recommended a year ago that the lady inspectors should be vested with the powers which attach to a sanitary inspector. This recommendation was subsequently withdrawn, and it was simply decided to continue the appointments for a further period of a year. In the meantime, one of the lady inspectors was appointed a Government Inspector of Factories and Workshops, and the Vestry of Kensington appointed a successor. The question of the status of the lady inspectors has recently been again under consideration, and the Vestry have now decided to confer upon the present senior lady inspector the full powers of a sanitary inspector. Dr. Dudfield's report gives a detailed statement of work done during the past year by the two lady inspectors, and shows that 200 workshops not previously on the register were discovered by them, and that 50 instances of overcrowding, 48 of inadequate ventilation, and 136 of want of cleanliness were dealt with.

THE CLIMATES AND BATHS OF GREAT BRITAIN.

THE first volume of the report of the Committee of the Royal Medical and Chirurgical Society of London on the Climates and Baths of Great Britain is on the eve of publication. This volume, which has been prepared under the direction of Dr. W. M. Ord, Chairman, and Dr. A. E. Garrod, Hon. Secretary of the Committee, deals with the climates of the South of England and the chief medicinal springs of Great Britain, and contains contributions from Drs. Robert Barnes, J. Mitchell Bruce, W. H. Dickinson, W. Ewart, A. E. Garrod, W. Lazarus-Barlow, W. M. Ord, F. Penrose, Frederick Roberts, Symes Thompson, and Mr. Malcolm Morris. The information upon which the reports are based has been derived from replies received from medical men practising in the several localities, from published meteorological data, and in some cases from personal inspection by the reporters. Geology, soil, protection, meteorology, and therapeutical indications, as well as water supply and drainage, are considered, and detailed descriptions are given of the more important places. The majority of the more important British mineral water spas are described with regard to situation, bathing arrangements, and the nature and therapeutical effects of the waters. The second volume will deal with the medical climatology of the remainder of Great Britain, and with the mineral springs not noted in this volume.

MILK-BORNE TYPHOID.

AN interesting report has just been issued by Dr. Sargeant, the County Health Officer of Lancashire, on an outbreak of enteric fever at Great Harwood, clearly traced by him to be due to the agency of milk specifically infected by human means. Incidentally, the report possesses interest also by reason of the fact that the chairman of the local sanitary committee concerned had himself medically attended many of the cases of fever, and materially assisted the inquiry by his readily rendered help. The data show that from the second week to the close of January last the health officer of the invaded district received notifications of enteric fever greatly in excess of the normal, and that hereafter the disease rapidly declined, but not before 80 persons, of whom 5 died, had been attacked in 49 families. The chief symptoms were headache, often diarrhœa, sometimes nausea, characteristic temperature, and frequently abdominal rose spots. The age incidence in the invaded households at five periods ranged from 12·0 (35 to 45 years) to 54·0 per cent. (5 to 15 years), and of the total number of members no fewer than 30·7 per cent. were attacked. It was soon seen that the one single community of conditions was the milk supply, and that all other known methods of fever dissemination might be excluded. Of 1,037 families living in 21 localities in which the milk in question was supplied, 147 consumed the milk, and of these 49 (or just one-third) were invaded, no cases occurring outside the supply. The drinkers of raw milk were attacked more virulently than users of milk in a boiled state or only in tea or coffee ; one patient attributed his illness to the consumption of one glass of raw milk, and another in an adjoining district to occasional cups of tea to-

which the milk was added. The incubation period varied from two to fourteen days, and the duration of illness from two to six weeks. The cause of spread of the fever thus established, search was made for the original source, failure to associate the cow herself with the malady resulting, since no condition of the milch cattle could be found sufficing to account for the infectivity of their milk. Not so, however, as regards the human beings who had the care of the cows, as after a man in whose family two cases of fever occurred had been set aside, although a milker, as the source of infection—his children sickening after many other cases had arisen—a young woman was, on January 30th, found to have been ailing slightly all the month, having lost flesh, her tongue being coated, and a pulse of 108, with a temperature of 100°. Her case proved to have been of the ambulatory form, attended most likely with at least one relapse. During the whole of her illness she had been engaged in milking the cows and in washing the dairying utensils. Allowing for the period of incubation, it was found that the outbreak declined from the time at which this young woman was removed from the dairy premises, the few cases which occurred later being traceable to secondary infection, which might have been prevented had not hospital accommodation been wanting; the danger of the whole situation being augmented by the absence of proper means of disinfection of soiled bedding and the like. It should be added that the house in which the dairymaid resided had such conditions as "probably accounted for the occurrence of fever in the house." The value of compulsory notification is once again demonstrated by this outbreak, since the common item of milk as a likely cause of disease was soon made apparent, though the actual source of the mischief was not at once traceable owing to the abortive nature of the dairymaid's attack.

THE PATHOLOGY AND TREATMENT OF DIPHTHERIA.

WE published last week a review of the recent work on the serum treatment of diphtheria, by Dr. A. Baginsky, Professor of Children's Diseases and Director of the Imperial Hospital for Children in Berlin; but it may be convenient to call attention to the exceedingly interesting and complete article which he has contributed to the third edition of Eulenburg's *Real Encyclopädie der gesammten Heilkunde*.[1] This article is of special value from the fact that Dr. Baginsky, with great experience of the treatment of this disease, has taken the opportunity of studying most carefully the whole subject, and in placing in connected form the results of his own observations, interpreting them in many cases by the aid of the observations of his medical and scientific colleagues and contemporaries. Although it is from the point of the clinician that these studies must have the greatest interest, the recent development in the etiology and treatment of diphtheria have received such full and impartial consideration, that the article will also be read with interest by pathologists and bacteriologists, whilst the thesis is so clearly stated and discussed throughout, that even laymen will be able to follow the author through the whole of his statement and argument. First of all is a definition of diphtheria which is described as a contagious disease usually accompanied by fever and profound constitutional disturbance, having local manifestations in the fauces and the upper sections of the respiratory tract; the membrane is then described, and the relations of the Klebs-Loeffler bacillus, either alone or accompanied by streptococci, and also of these to the formation of the special poison which brings about diphtherial sequelæ, are discussed. The history of the various outbreaks of this disease is summarised from Hirsch's work on the geographical distribution of disease, and the recent observations on the pathology of the process are then stated briefly. It is interesting to observe that as early as 1858 Professor Laycock, of Edinburgh, in the *Medical Times and Gazette* of that year, described diphtheria as the product of the oïdium albicans, indicating that he believed in the micro-parasitic origin of the disease. The recent history of the disease is very fully given, and is of considerable interest. It appears that the mortality per 100,000 living varies enormously in different large Continental towns. For instance, in Christiania, Dresden, Berlin, Warsaw, and Munich the mortality ranges from 159 to 112; in Paris, Stuttgart, St. Petersburg, Berne, Stockholm, Bucharest, Amsterdam, Copenhagen, and Vienna from 91 to 77; whilst in Antwerp, Ghent, Brussels, London, and Liége the mortality is 49 in the highest and 32 in the lowest, London and Brussels being 37. The part of the work relating to the etiology of diphtheria is exceedingly well done, especially that part bearing on the Klebs-Loeffler bacillus and its relation to the process, whilst the summary of the pathological phenomena is exceedingly interesting. The author then deals in turn with the pathological anatomy; the symptomatology; the applications and sequelæ; the special localisation of diphtheria; the diagnosis, prognosis, and therapeutics. In this latter part, however, he does not deal at all fully with the question of therapeutics, which he takes up in a special article in the same work. It is not necessary to go into this question of treatment beyond indicating that he considers that it is divided into four sections, the first of which, prophylaxis, is now much more fully understood than it has ever been up to the present; secondly, the destruction of the toxic products of the bacillus in the organism, in which of course the blood-serum therapeutics play a prominent part; thirdly, mention is made of Klebs's "antidiphtherin," which consists practically of the products of digestion of the dead bodies of the diphtheria bacillus. This, however, can scarcely be taken very seriously. Fourthly, it is urged that treatment must be directed to the prevention of suffocation of the patient and to the treatment of the sequelæ. This article, which is one of the most interesting that we have read for some time, is completed by exceedingly full references—240 in number—to the literature of the subject.

[1] Urban and Schwarzenberg, Vienna and Leipsic, 1895.

DEATHS UNDER ANÆSTHETICS.

CHLOROFORM.

WE are indebted for the following report of a death under chloroform to Dr. J. Nixon Morris, Resident Medical Officer at the Royal Albert Hospital, Devonport: On April 28th it was found necessary to circumcise E. D., aged 5 weeks, whose condition of phimosis was rapidly causing double inguinal hernia. Chloroform (Duncan and Flockhart's) was administered in the usual way. The child was at no time deeply under, but when the operation was about half over he ceased breathing, and the operation had for the time to be discontinued. The head being lowered, and artificial respiration being persevered with, the child again commenced to breathe, and the operation was completed, no more anæsthetic being administered; almost immediately the child, whose breathing had never been good, again ceased to breathe. This time the heart could not be felt beating. Ether was injected, brandy administered by the rectum, and artificial respiration performed, the tongue being held well forward, but though efforts were continued for more than thirty minutes the child never rallied. The child had been very delicate from his birth; arrangements had been made to operate three weeks before but had to be abandoned owing to his delicate condition. A *post-mortem* examination was not made. Not more than one drachm of chloroform was used.

NATIONAL HEALTH SOCIETY.—In the absence of Her Royal Highness Princess Christian, through indisposition, the Duchess of Westminster presented, at Grosvenor House on May 11th, some 300 medals and certificates to the successful students who had passed the Society's examinations. The chair was taken by Mr. Arthur Arnold, Chairman of the London County Council.

COLOUR BLINDNESS AND DEFECTIVE EYESIGHT IN THE PERSONNEL OF THE MERCANTILE MARINE.[1]

THE following full transcript of the statement made by Mr. Bickerton (Liverpool) before the President of the Board of Trade, February 1st, 1895, on the Board of Trade Tests and Regulations for Eyesight and Colour Blindness, will be read with interest, and may be of use in calling more general attention to the many serious interests involved in this important practical question:

With the object of avoiding collisions at sea, the Board of Trade, in the year 1852, issued an order compelling vessels to carry bright lights and coloured lights, so as to indicate their positions to any other vessels in their neighbourhood. In 1855, Dr. Wilson, of Edinburgh, called attention to the fact that these bright and coloured lights could not prevent accidents from still occurring if the sailors employed on board were poor sighted or colour blind. No notice was taken of his remarks. Twenty-one years later, Dr. Caldwell, surgeon on the Cunard crack passenger steamer *Russia*, noticed that one of the look-out men had a glass eye, and that the other man on the same watch was blind in the opposite eye. Dr. Caldwell wrote to Messrs. MacIver, who considered the suggestion to have all the look-out men tested in regard to their eyesight an excellent one, and acting upon it they wrote to each captain and surgeon in their employment the following letter:

Cunard Line British and Foreign Steam Packet Company,
8, Water Street, Liverpool, March 22nd, 1876.

Captain ———

DEAR SIR,—Annexed is a letter addressed to the surgeon of your ship. You will at once perceive the importance of being assured of the capability of your look-outs, especially at night; and, besides taking the opinion of a surgeon upon the question, you will kindly impress upon your officers that grave responsibility rests with them in their selection of men for a duty which is of paramount importance.—Yours truly,

D. and C. MACIVER.

The accompanying letter to the surgeons was as follows:

DEAR SIR,—As it is of the greatest importance that a thoroughly efficient look-out should be always kept, we have to request that upon the day of muster you will kindly pay particular attention to the eyesight of the men who are told off as look-outs, so as to ascertain whether those men have sufficiently good vision to enable them to see with natural acuteness, both by daylight and in the evening, and also readily to distinguish the colours of the different lights displayed by ships at night, so that they may report quickly and accurately, and may otherwise fulfil the duties of a thoroughly efficient look out. In the event of your having any doubt as to the possession of the necessary qualifications by any of the men, you will be pleased to report your opinion to the captain, so that these men may not be employed upon a duty for which, in the exercise of your professional discretion, you consider them unfit.—Yours truly,

D. and C. MACIVER.

These letters seem to me to have done the Cunard Company great credit, and I cannot help ascribing to the care they exercised in this matter much of the immunity from disaster which enabled them for many years to make it their proud boast that they had never lost the life of a passenger.

But so little public attention has been paid to this question of eyesight, that in 1875, although the slowing of H.M.S. *Vanguard*, which led her to be rammed and sunk by H.M.S. *Iron Duke*, was directly due to the report of a partially blind "look-out" man that a ship, which never existed except in this man's disordered vision was crossing the bows, not one single comment was made on the dangers of employing defective-sighted sailors. The real cause of the disaster was neglected; six imaginary causes were found.

Dr. Caldwell, besides calling the attention of his employers to this matter, made it a point to seek an interview with Mr. Thomas Gray, then Assistant Secretary to the Marine Department of the Board of Trade on the subject of colour blindness, night blindness, and defective sight generally. Following upon this, the Board of Trade, in the year 1877, for the first time issued rules and regulations dealing with this question. In 1890 the Government, in response to public opinion expressed in Parliament and through the press, handed the matter over to a committee appointed by the Royal Society.

On September 1st, 1894, the Board of Trade issued fresh tests as to form vision and colour vision to be applied to masters and mates in the Mercantile Marine. If carried out by competent medical examiners this standard of tests would be sufficiently good; but if the object in view is the attainment of perfect safety so far as human foresight can ensure it for the sea travelling public, it contains a fatal flaw. This consists in the fact that the eyesight and colour-blind tests become compulsory only when a man enters for a second mate's certificate, instead of, as they ought to be, at the threshold of the sailor's career. The evils arising from this non-compulsion seem to me to be: (1) Colour blind and defective-sighted boys are being brought up on training vessels for a profession for which they are physically and morally unfitted; (2) colour-blind and defective-sighted boys are being apprenticed for four or five years to the Mercantile Marine Service; (3) colour-blind and defective-sighted men are entering the Mercantile Marine as cabin boys and deck hands; (4) colour-blind and defective-sighted officers with endorsed certificates are to-day sailing the seas in charge of vessels; and (5) colour-blind and defective-sighted men become pilots. The consequences of the present condition of things are that, while there is no real safeguard, the hardships inflicted upon these colour-blind and defective sighted men who enter for a second mate's certificate with the laudable desire of rising in the sea service is enormous, seeing that after years of hard work and drudgery these men, who are often well educated and gentlemanly, are debarred from rising from the hard life of a man before the mast, which they are compelled to follow with no more ambitious prospects in life, or to seek some other employment for which they spend many more years in qualifying themselves. And here let me mention that there are special difficulties in the path of young men of this class abandoning a seafaring life and entering a new field of industry. Let me quote a recent case in point:

A young man, who had been at sea for eight years, and who had been rejected from defective sight on applying for his second mate's certificate, and who was glad to accept employment as a cotton porter at 27s. per week. Even this remuneration is only nominal, because the employment was not constant, and he would willingly accept 20s. per week with a permanent situation.

Another young man, who was found to be colour blind, told me that after having done his best for three weeks to obtain a situation ashore, and utterly failing, he got employment last week on a well-known passenger steamer.

A very painful case which came under my notice was that of a young man of high promise who, having been educated on the training ship *Conway*, entered the service of a well-known Liverpool shipping firm, in which he behaved with such conspicuous gallantry in a high storm at sea that he received special commendation from the First Lord of the Admiralty and the bronze medal awarded in such cases. On his eyesight being afterwards tested he was found to be colour blind, and the brilliant prospects which he and his friends naturally entertained as to his career in life were cruelly dispelled from a cause over which he had no control.

These are only isolated instances out of hundreds which might be cited of the evils and hardships arising from the absence of compulsory measures.

But if it is a hardship to a man whose defective vision is found out after a few years' employment at sea, what is to be said of it in the case of officers who, after having been passed by the Board of Trade as colour perfect, are now, on the institution of further tests, found to be colour blind, with the result of being at once deprived of the highest and most responsible and lucrative positions in the Mercantile Marine Service? Such a deprivation, it can be readily understood, means in most cases not only the sudden collapse of ambition in life, but ruin and sometimes starvation to themselves and families.

The case of a seaman named John Smith will serve for illustration. Having been twenty years at sea, and having successfully passed in turn the examinations for second mate, first mate, and captain, under some of the best shipping companies, he found himself, at the age of 33, under the necessity of being retested at the instance of his employer, whose activity in this direction had been aroused by public attention being so much attracted to the subject. The result was that the officer was declared to be colour blind, and that he could no longer hold his position. Though he had previously hardly ever suffered a day's illness, his dismissal so preyed upon his mind that he died shortly afterwards.

Another case which might be cited is that of a gentleman, aged 40, who had spent twenty-six and a-half years of his life at sea, and who, in the service of some of the leading steamship companies in England, had held the post of first officer. On his employer insisting on a re-examination he was found to be colour blind, and was immediately reduced from a

[1] Copies of this Memorandum can be obtained on application to Dr. George Mackay, 2, Randolph Place, Edinburgh, Secretary of the British Medical Association Committee on the Control of Railway Servants' and Mariners' Eyesight.

position of affluence on one of the finest passenger steamers sailing out of the port of Liverpool to a condition of penury. The best shipowners in such cases provide shore duty of some kind which, though not nearly so lucrative as that from which they had been deposed, is likely to be much better than a discharged seaman usually finds for himself in the open market. In this case the firm found such an opening for him, but it was only after an interval of two years, during which the best employment the man could find was in the service of an Insurance Company, where, for a pittance of 18s. a week, he had to perform daily journeys of twenty miles as a collector.

Coming to the consideration of the remedies, one naturally asks, "How is this objectionable state of affairs to be rectified?" The remedies I would propose are as follow:—

1. No boy nor man should be allowed to enter the mercantile marine service until his form vision and colour vision have been adequately tested and proved to be sufficient. This involves little or no difficulty. Every boy on being apprenticed to the sea has to obtain an indenture paper from the Board of Trade Office. Before obtaining this paper, his sight should be made the subject of a careful test, in which case discovery of colour blindness would arrest at the proper time in their advances towards a seafaring life most of the class who usually develop into officers of the Mercantile Marine.

2. Every navigating sailor on going to sea is compelled by law to "sign on," that is, to sign articles at the Board of Trade Office. Before allowing the seaman to sign, the shipping clerk should ask for his certificate as to eyesight. To do this would entail no difficulty, since every sailor is required to keep his discharges carefully, and show them each time he signs on. To add another to his stock of certificates would, therefore, cause him no additional trouble, and were these two suggestions consistently carried out, a colour-blind sailor would be as rare as he is now common and readily found.

3. Colour blindness and defective vision in apprentices already bound by indentures should be in itself a reason for breaking the engagement. The necessity for this will be obvious when it is known that an apprentice of two years' standing can sometimes do the work of an able seaman, though he receives perhaps only one-seventh of the pay, and that it is therefore to the interest of an unscrupulous shipowner to retain his services.

4. Officers who at present hold endorsed certificates and whose names are of necessity known to the Board of Trade should, as occasion offers, be given shore employment in the Board of Trade offices; for though some of the better companies find employment for those they depose on account of colour blindness, there is a still larger number of cases where no such consideration is extended to them, and where dismissal is necessarily followed by the greatest hardship, and often by absolute ruin.

5. The method of testing for colour blindness or any defect in vision must be improved:

(*a*) By being done by competent medical examiners.

(*b*) In a room specially set apart for this purpose, and fitted with artificial light of a standard which would supply equal illuminating power all the year round and obviate the varying and unsatisfactory results of tests, applied at one time in the strongest light at midsummer, and perhaps another during the fogs of midwinter.

(*c*) This testing room should be open daily in large seaport towns.

In drawing to a close I would like to emphasise the fact that, taking the hundreds of officers in whom colour blindness has been detected by the Board of Trade, there is absolutely no guarantee whatever that every man of them is not at the present moment doing duty at sea. In this connection I feel constrained to state openly that the apathy displayed by the Board of Trade throughout the long controversy which has existed between it and the medical profession since the year 1855 has been most deplorable and discreditable to it. Instead of having the best interests of these poor fellows at heart, it has thrown every possible obstacle in the way of reform, and only when Dr. Farquharson called the attention of the House of Commons to the question in 1890 did the Board make a move from their do nothing policy. The Board cannot plead ignorance, for the fallacy of their tests and regulations has been pointed out time after time, and notably by Mr. Brudenell Carter, and now, instead of placing the matter on a right footing, it is being tinkered with. The present regulations do not arrest colour-blind boys at their entrance to the sea life, and they do permit colour-blind sailors, even when detected, to continue the sea life and even take complete charge of vessels. But no condemnation of mine can equal the condemnation passed upon the Board's policy by their own representatives. For the first time in the history of the Board of Trade inquiries, the representatives of the Board of Trade did take, in February, 1892, official notice of the condition of affairs to which I have frequently called attention, and which amounts to little less than a public scandal. In concluding their report upon the stranding of the s.s. *Violet* they said:

> There is one circumstance to which this Court wishes particularly to call attention. After the close of the inquiry, and the respective certificates had been given up in the usual way, it was subsequently found that the mate's certificate bore in red ink the memorandum—"This officer has failed to pass in the examination of colours; signed by J. Clark Hall, Registrar General." On the face of it, and without some explanation, it seems a most undesirable and reprehensible thing that a master's certificate should be granted to a man who is apparently unable properly to distinguish colours. The danger of entrusting the command to such a man is too obvious to need further comment. And assuming that a correct register of certificates granted be kept, then the Board of Trade's solicitor, conducting the inquiry, should have been instructed on the point in order that he might bring to the notice of the Court the fact, as under certain circumstances it might have had an important bearing upon the subject of the investigation.
>
> (Signed) WM. M. ANGUS, JAMES E. WOODS } Justices.
> A. ANDERSON, E. BROOKS } Assessors.

Such condemnation of the Board of Trade is, I think, well warranted and well deserved. Since 1877, even by the defective tests in use, the Board of Trade examiners have rejected for imperfect colour sense up to the present time no fewer than 409 candidates for masters' or mates' certificates. But this rejection by no means implies that the unfortunate one is debarred from going to sea. The custom has been in the past to issue the certificate if the result of the examination in other subjects was satisfactory, and to merely endorse it —"failed in colours." This left it optional on the part of the colour blind to go to sea or not, and thus, although the Board of Trade has for seventeen years recognised the dangers of colour blindness, it has practically connived at colour-blind officers being placed in command of British ships.

In conclusion, it only remains for me to quote from a letter to myself from Mr. T. H. Ismay, of the White Star Line, to show the opinion entertained on the subject by the head of one of the largest and most successful firms owning passenger steamers in the country. After apologising for his inability to take part in the present interview, Mr. Ismay writes:

> I fully enter into and sympathise with the work that is being done, for I consider it of the utmost importance both for the mercantile marine and the railways that colour blindness should be eliminated and guarded against. In my connection with the training ship *Indefatigable*, instances of colour blindness have come under my notice, and it is most desirable that cases like these should be discussed before the lads are sent to sea. I shall watch with much interest for the result of the interview with the President, and wishing every success to the good work that has been undertaken.—I am, yours faithfully,
>
> (Signed) THOMAS H. ISMAY.

THE LATE M. W. VIGNAL.

[FROM A CORRESPONDENT.]

WE have before us an abstract from the *Comptes Rendus* of the Société de Biologie which consists of a notice of the life and works of M. W. Vignal. This note has been drawn up by his friends and colleagues, MM. Malassez, Chaslin, Darier, and Rigal, and is exceedingly sympathetic in tone though rigorously accurate as regards facts. As Vignal was well known personally to many Englishmen and Scotchmen interested in his work, the writer, as one who knew him well during the period that he was working with Professor Rutherford in Edinburgh, would like to place on record in this country some of the facts mentioned by his French colleagues.

Born on April 11th, 1852, at La Flèche, Vignal early lost his father, a Chevalier of the Legion of Honour, who was killed in the Crimea. His mother was a Campbell. He was educated at the Lycée at Mâcon, where he was described by a friend as very intelligent, very boisterous, but the best com-

panion in the world. This energy, in later years diverted into other channels, enabled him to accomplish an extraordinary amount of work for a man of his years. During the time that he was studying medicine the Franco-Prussian war broke out, and Vignal was wounded at Metz and carried prisoner to Germany. At the close of the war he at once commenced to study histology under Max Schultze, and shortly afterwards went to Edinburgh. It was here, whilst assisting Rutherford in his experiments on the physiological action of drugs on the secretion of bile, that I first met him, and although a comparatively young student, was much struck by his tremendous energy, his power of constant work, and his invariable good temper and *camaraderie*. In the laboratory he was a great favourite, and Dr. W. J. Dodds, now Commissioner of Asylums and Hospitals in South Africa, who was then engaged on his work on the brain, and who was working in the same room with Vignal, would often speak in the highest terms of him and his work. An exchange of ideas was rendered all the easier from the fact that Vignal spoke English with great facility and with scarcely a trace of accent. On completing his work in Edinburgh he returned to Paris, entering the hospital laboratory of the Collége de France, where he was soon appointed *répétiteur*, a post which he retained up to the time of his death. At first entering thoroughly into the work of his chief, M. Ranvier, he afterwards undertook independent investigations, as the result of which he was elected a member of the Société de Biologie. After taking his degree of Doctorate of Natural Science he undertook a considerable amount of laboratory work, writing for the *Journal des Connaissances Médicales*, of which he ultimately became one of the principal contributors, and also to the British Medical Journal. During this period he appears to have worked night and day, spending his mornings in the laboratory and hospital, the afternoon at the Collége de France, and continuing his work in the evening at home, keeping this up week-day and Sunday, "always ready to serve friends, often attempting the impossible." Under these conditions a breakdown sooner or later was inevitable; this breakdown came when he found tubercle bacilli in his sputum. Whether the consumption was contracted as the result of his fatigues and privation during the war or during his period of imprisonment, or whether he became infected during his investigations on tuberculosis, can never be determined. Although he did not despair, he retired with his wife and young son to the south of France. Here no improvement was observable, and he decided to go to the Canary Islands. Here again, however, the disease continued to gain ground, and he retired to Erquy in Brittany, where he had built a small cottage for holiday retirement. Here he died, as we know, long before his work should have been finished.

His friends give a summary of his work, grouping his papers under the headings of normal histology, pathological histology, and microbiology. His principal work in the first department was in connection with the nervous system, especially with the mode in which the nerve elements are developed, and it was in connection with his work on the development of nerves that he described the cell, named after him—"cellule de Vignal"—by M. Matthias-Duval. He was able to demonstrate the relation between the nerve fibres and the nerve cells in crustacea, pointing out that the nerve fibrils penetrate the ganglion cells, and end as fine granules in the neighbourhood of the nucleus of the cell. His work on the histology and physiology of the noctiluca and that on endothelium of the blood vessels of the snail and the crayfish, and its relation to the connective tissue spaces is very important in view of Ranvier's researches on the lymphatic and vascular system of vertebrate and invertebrate animals.

His investigations in pathological histology were chiefly in connection with the deposition of lime in tissues, and the bearing of this on the modifications of the tissues in pseudarthroses. Some of his most important work, however, was carried out on the microbe of tuberculosis, and he, in collaboration with Malassez, after drawing attention in France to the importance of Koch's work, described the micro-organisms of pseudo-tuberculosis (*tuberculose zoogléique*). His work on the *Micro-organismes de la bouche et des matieres fécales* is now well known, as he described several new species, and determined their action on various substances. His observations on the action of antiseptics, on dental caries, and allied subjects are important contributions to microbiology, whilst his improvements in various technical methods are as numerous as they are important. A complete list of his papers or of the work that he did can never be published, as much was written anonymously, and many of his observations were placed at the disposal of other workers, who never went to him in vain for advice or assistance. Then, too, at the time of his death much of his work was left in an incomplete condition, and could not be published.

In his early death France lost one of her most active and able sons, and his friends a wise and genial companion.

THE ANDERSON APPEAL FUND.

We have received from the Civil Rights Defence Committee (President, Lord Stamford) a circular letter containing a further appeal for subscriptions in aid of the fund which is being raised to enable the appeal of Dr. Anderson from the decision of the late Lord Chief Justice to the Privy Council. The facts of the case are well known to our readers, and it will be recollected that Lord Coleridge decided against Dr. Anderson on the ground that an action could not lie against a judge acting in his judicial capacity. That Dr. Anderson lies under a great injustice is admitted, but the matter has been complicated by the fact that the chief instrument of this injustice, Chief Justice Gorrie, of Tobago, died before the litigation in this country reached its primary stage.

We quote from the letter of a "Juror" summoned on the jury when the case was tried before the Lord Chief Justice, published on May 14th in the *Pall Mall Gazette*, which we are glad to see has opened its columns to a discussion of this case and of the general constitutional question which it raises. The "Juror," who gives practical proof of his consciousness of the present unsatisfactory position of the case by sending a subscription of £10 towards the fund now being raised by the Civil Rights Defence Committee, writes as follows:

"After a lengthened period of gross injustice, during which time, it was stated in evidence, the island of Tobago was brought to a state of ruin, and incalculable damage caused to Mr. Anderson and other British subjects, a Royal Commission was issued, and reported on the proceedings of the three judges in even stronger terms than the jury in the case before the late Lord Chief Justice Coleridge. Before Mr. Anderson's case came on for hearing the instigator of the injustice, Chief Justice Gorrie, had died, and as the cause of action died with him the two defendants Cook and Lumb only were left. The former had been dismissed from his office for misconduct apart from this case, and it was believed that he was without means. The view which some of the jury took was that Mr. Lumb had been in an exceedingly difficult position, and consequently he had the benefit of the doubt. It was, I believe, stated by himself that he had protested to the Governor of the Colony against the illegal acts of the Chief Justice."

The Council of the British Medical Association has expressed its sympathy with Dr. Anderson in the unfortunate position in which he finds himself, and several of the Branches have received subscriptions from their members which have been forwarded to the Civil Rights Defence Committee and acknowledged by suitable resolutions of thanks. Further subscriptions may be sent to the Manager of the Union Bank of London (Chancery Lane Branch) and be made payable to the "Anderson Appeal Fund Account."

ROYAL COLLEGE OF PHYSICIANS.

An extraordinary comitia of the College was held on Thursday, May 9th, Sir J. Russell Reynolds, Bart., President, in the chair.

The newly elected Fellows, whose names we gave in our last report, were admitted.

A letter was received from Mr. Edgar Willett, Honorary Secretary of the Museum Committee for the forthcoming meeting of the British Medical Association, asking for the loan of some pathological specimens for the temporary

museum to be formed in the Examination Hall on that occasion, and after some discussion the request was acceded to.

Sir Alfred Garrod brought up the report of the Pharmacopœia Committee, and moved its adoption. He said that a great many of the preparations they proposed to reject would still be retained in some form, whilst those substances only used in the preparation of medicines were relegated to the Appendix; they had proposed to add but very few new substances.

Dr. Farquharson, M.P., in seconding the motion, congratulated the Committee on having hardened their hearts, and proposed to expel substances only retained from a superstitious reverence; they had taken a good step in omitting the preparation of many of the substances. It was a very drastic report, but he regarded it as a laborious and successful piece of work.

A long discussion followed, in which Drs. Yeo, Squire, Theodore Williams, Hare, Leech, Moore, and F. Taylor took part, and eventually a proposal of Sir Richard Quain, who pointed out that there was absolutely no time to be lost, was carried, after being seconded by the Senior Censor, to the effect that the report should be sent up to the General Medical Council as the report of a special committee of the College appointed for the purpose.

Sir Dyce Duckworth proposed that there should be no Harveian dinner this year in view of the expense the College would incur in the *conversazione* to be held in August.

This was seconded by Dr. Latham, and agreed to.

Sir D. Duckworth then moved that in future the annual Harveian dinner should be held in June, the oration being delivered, as now, on St. Luke's Day; the chief ground for this was the almost insuperable difficulty that was found in securing the presence of distinguished men whom the College would naturally wish to entertain at that season of the year, and the consequent very considerable amount of correspondence thrown on the President, on whom the task of inviting the guests devolved; the late President had, he said, felt the burthen of it very greatly.

The President and Registrar confirmed the Treasurer's statement as to the difficulty in securing acceptances, and Dr. Symes Thompson and Sir William Priestley supported the proposal.

Drs. Pollock, Latham, and Mackenzie opposed, the latter pointing out that the primary object of the dinner as instituted by Harvey was the promotion of good fellowship amongst the Fellows, and it was decided by a considerable majority not to alter the date of the dinner.

A report from the Committee of Management was received and adopted.

ROYAL COLLEGE OF SURGEONS.

An ordinary Council was held at the College on May 9th, Mr. Christopher Heath (President) in the chair. The minutes of the last quarterly Council were read and confirmed.

A vote of condolence with the friends of the late Mr. Arthur Edward Durham was unanimously passed.

Mr. H. J. Waring was introduced and received the Jacksonian Prize, together with the instrument declaratory of its award.

The following recommendations from the Committee of Management were approved and adopted:

1. That on the application of the Dean of the Westminster Hospital Medical School, the course of Clinical Demonstrations in Lunacy given by Dr. Mercier at the London County Asylum, Cane Hill, be recognised so long as he shall hold the lectureship on Mental Diseases in that medical school.
2. That the following institutions be added to the list of recognised places of instruction in Chemistry, Physics, and Practical Chemistry:
   a. The Grammar School, Bromyard.
   b. The Nonconformist Grammar School, Bishops Stortford.
3. That the Hospital for Sick Children, Great Ormond Street, be recognised as a place of study during the fifth year of the curriculum.
4. That the course of lectures on Pharmacology and Therapeutics delivered by Dr. J. B. Bradbury, Downing Professor of Medicine at the University of Cambridge, be recognised as fulfilling the requirements of the regulations of the Board.
5. That on the application of the Dean of the Faculty of Medicine of University College the course of Clinical Demonstrations in Lunacy given by Dr. Julius Mickle at the Grove Hall Asylum, Bow, be recognised so long as he shall hold the lectureship on Mental Diseases in that College.
6. That Dundee Royal Infirmary be added to the list of hospitals recognised by the Board.

The Committee further reported that they had held a conference with the examiners in Public Health, and had found that at the last examination, which was subsequent to that visited by the inspector appointed by the General Medical Council, all the candidates in Part I were efficiently tested in practical bacteriology, the examiners understanding that such examination came within their province under the existing schedule. As a result of the conference, and having had the valuable advice of Dr. Thorne Thorne, Dr. Stevenson, and Professor Notter, the Committee recommended the following syllabus of the examination for Part I, and that every candidate be required to undergo this practical examination:—

1. Physics in their application to health; with reference to—
   (*a*) Warming and ventilation.
   (*b*) Water supply, sewerage, and drainage.
   (*c*) Sanitary construction.
2. Meteorology, in relation to health.
3. Chemistry with special reference to food, air, soil, and water.
4. Microscopical examinations, as applied to air, food, and water.
5. Bacteriology, including the cultivation and recognition of micro-organisms.
6. Geology and soil, in relation to drainage and water supply.

With respect to the examination in Infectious Diseases, the Committee having discussed the question with the examiners, adhered to their report on that subject already published in the British Medical Journal.

Mr. N. C. Macnamara was appointed Bradshaw Lecturer for the ensuing collegiate year. The subject of the lecture will be "Diseases of the Extremities of the Long Bones in Relation to affections of the Joints and their Treatment."

A committee was appointed to superintend the arrangements for the *conversazione* to be held at the College on the occasion of the meeting in London of the British Medical Medical Association.

The annual meeting of Fellows of the College for the election of members of Council will be held on Thursday, July 4th.

It was resolved that in the event of the sanction of the Secretary of State to Section IV of the By-laws as revised being obtained before May 21st, the election to the Council would be held under the revised by-law.

A meeting of the Fellows of the College will be held at the College on July 4th, after the election.

A letter was read from the Secretary of the National Dental Hospital, communicating the following resolution:

That the Medical Committee of the National Dental Hospital and College request the licensing bodies to arrange for an examination in Mechanical Dentistry for dental students, previous to their commencing their surgical training.

This letter was referred to the Dental Board for consideration and report to the Council.

A committee, consisting of Messrs. Hutchinson and Bryant, with the President and Vice-Presidents, was appointed to consider and report to the Council on the Bill for the Compulsory Registration of Midwives.

The members of the Dermatological Society of Great Britain were invited to visit the museums of the College during their forthcoming Congress, and to inspect the drawings and models relating to skin diseases.

THE EXAMINATION OF SANITARY INSPECTORS.

On May 3rd, Sir Walter Foster, Parliamentary Secretary for the Local Government Board, received a deputation representing the Sanitary Inspectors' Association.

Sir B. W. Richardson, in introducing the deputation, said that the Sanitary Institute had discharged the duty of conducting examinations and granting certificates to sanitary inspectors well in the past, but it would not be satisfactory in the future to have this function left as a monopoly to an outside body such as the Sanitary Institute. An independent board of examiners, appointed by the Local Government Board, would be infinitely more satisfactory.

Several members of the deputation spoke and claimed for the Sanitary Inspectors' Association that it was entitled to be represented on any board of examiners which might be appointed.

Sir Walter Foster, in reply, pointed out that the Local Government Board was required by statute to recognise some body which should examine and grant certificates to sanitary inspectors. So far the Local Government Board had, as a temporary provision purely, accepted the certificates of the Sanitary Institute, which had constituted itself an examining body and elaborated a scheme of examination. It must, he thought, be evident, however, that this temporary expedient was not one which, in the nature of things, could become permanent, because other bodies had come into existence which had obtained powers and articles of incorporation and were desirous of holding examinations and granting certificates. Applications for recognition by the Local Government Board under the Act had already been received from such bodies. He thought it probable that when the law was altered certificates would be required from persons seeking the appointment of sanitary inspector, not only in London, but in every part of Great Britain. It was therefore of the first importance that the certificates should be of the highest possible order. The Local Government Board must look to the future. It was impossible for it to contemplate the persistence in the future of a monopoly, since any future Minister could determine to recognise some other body. If such a course were followed, a deplorable competition between two or more examining bodies would arise. Competition in examination, unlike competition in teaching, was always injurious, because the inevitable tendency was for each competing examining body to lower the standard of examination in order to attract candidates. The Local Government Board felt that it would be a fatal step to give a number of bodies the power to grant the certificates. In the face of other applications and other claims to public consideration, he had found it impossible to entertain the suggestion that the Sanitary Institute should continue indefinitely in the exercise of these examining functions. He had suggested, therefore, that all the societies interested should form a Joint Board, established on such a basis as to be permanent and not likely to be disturbed in the future. It must represent all the bodies competent to grant certificates, and it should be able to receive into itself in the future any additional body competent to grant such certificates. Were such a Joint Board formed, no Minister in the future would feel justified in permitting a new body to enter the field in competition with the Joint Board, because such new body could be granted representation on that Board. It had been suggested that the Joint Board should be incorporated under articles, of course not for trading purposes, so as to obtain a corporate existence. That particular form of organisation, however, was not an essential of the scheme, and if any great objections to it should be shown to exist, no insuperable difficulty would be found in altering the scheme so for as that point went. He would in any case bind the Joint Board down to the following definite purposes and to no others: (1) It must be an examining body, and in no sense a teaching body; (2) it must give certificates for the purpose of qualifying gentlemen as they have been qualified hitherto, and those who possessed certificates already should in no wise be injured, as their certificates would be held to be equal in value to the new ones; (3) the several bodies at present existing in connection with the training of sanitary inspectors and the teaching of sanitary science must as far as possible be recognised by this Joint Board. In constituting this body, the various societies concerned must be dealt with equitably; (4) this Joint Board must have the power of adding to itself from time to time new bodies just as, in the case of the General Medical Council, Parliament had recognised that gentlemen already possessing qualifications as medical men should have the power of electing representatives to sit on the Council, so in future sanitary inspectors might be represented. In conclusion, Sir Walter Foster stated that he agreed with the suggestion that the Joint Board ought to contain some men of practical experience in the work of sanitary inspection, and in reply to a question he said that he would again consider whether there were any means by which a body such as the Sanitary Inspectors' Association could properly be represented on the Joint Board.

Lord Chelmsford and Mr. Thornton, M.P., having thanked Sir Walter Foster, the deputation withdrew.

THE ROYAL MEDICAL BENEVOLENT COLLEGE FESTIVAL DINNER.

Some two hundred guests assembled at the Imperial Institute on May 15th, to support the Right Hon. Arthur J. Balfour, who took the chair at the festival dinner of the Royal Medical Benevolent College, Epsom.

After the "Health of the Queen" had been given by the Chairman, and duly honoured,

Sir Richard Webster, Q.C., M.P., gave the toast of "The Medical Corporations," in a humorous speech, in the course of which he hinted that his experience as one of the counsel of the Royal College of Surgeons had led him to the opinion that the medical was a profession little given to litigation.

The toast was acknowledged by Mr. Christopher Heath, President of the Royal College of Surgeons; Sir Dyce Duckworth, Treasurer of the Royal College of Physicians; and Dr. Long Fox, President of the British Medical Association, who, speaking as the representative of a body so closely identified with the interests of general practitioners, bore testimony to the unselfish devotion so commonly displayed by them in the discharge of their duties, and expressed his sympathy with the work of the Royal Medical Benevolent College, which sought to lend a helping hand to those who in their own persons, or through their children, had suffered in the cause of humanity.

The toast of the evening was then given by Mr. Balfour, who, after referring to the double function discharged by the institution of giving pensions to those members of the profession and their widows who deserved it, and of supplying the best possible education to their children, said that, as a member of the general public he would make an appeal to the general public to assist in the good work, for the public were under immense obligations to the medical profession for the benefits conferred by them. Was there, he asked, any body of men who had given to the public a larger measure of gratuitous service? "In every district and parish, almost in every street," he continued, "you will find that the medical profession have been ever ready to come, with or without remuneration, to the succour of the unfortunate, and that they have lavished the treasures of their time and skill on those who, from their worldly circumstances, are very ill able to repay them. And this should call to our minds the fact that the great charity on whose behalf I speak is not called into existence merely to subserve the interests of the incompetent or unsuccessful members of the profession, but that, on the contrary, there are many and many cases of medical practitioners who from no want of skill, certainly from no want of energy, zeal, and public spirit, have carried out their great work in districts and under circumstances which made them not less, it may be more, useful to mankind, but made it also quite impossible for them to leave adequate provision for their wives and children. I think that to these members of the profession, not waifs and strays, not the wastage which must necessarily occur in such a vast body of men, but men very often prominent members of their body in point of zeal and devotion, the public will feel that they owe a duty, and they are bound to feel that among the great charities of the country calling upon their support this medical charity does not rank amongst the least." Mr. Balfour went on to point out the successful application of scientific method to the growing knowledge of all the arts, which was one of the characteristics of this and the last generation, was in none more conspicuous than in the great art of medicine, and he thought it was not oversanguine to anticipate a period when not only would the insight into the nature and cause of disease be incomparably greater, but when the command of suitable remedies would be obtained in a far larger measure.

Dr. C. Holman, the Treasurer, in responding, after thanking Mr. Balfour for the manner in which he had proposed the toast, and for the appeal which he had made to the general public for support, sketched the recent history of the institution. Its financial position had, he said, been very notably improved since he had taken office as Treasurer in 1887. At that time there was a debt of £11,000, a condition of affairs which could not but be regarded as most serious, apart from other unfavourable circumstances in connection with the school which appeared to threaten the vitality of the institution. Now, happily, the whole of this large debt had been

wiped out, and this in spite of the increased yearly expenditure which an increase in the work of the College entailed. The annual expenditure now reached a total of £6,000 out of which only £800 came from sources which were entirely dependable. This annual sum had been found in the past, and he believed it would be found in the future, because it was recognised that the work—both the educational work and the benevolent work—which was being done was good. The school had been improved, and as a result it was now full to overflowing, so full that expansion had become a necessity. In the history of institutions, as in the careers of individuals, it was impossible to stand still. Hesitation to meet increased demands meant retrogression. The Council had therefore resolved to build, from the plans of Sir Arthur Bloomfield, a lower school for 100 boys, to enlarge the chapel, and to erect a laundry. Complementary to this growth and expansion of the school was the progress of the scheme for increasing the pensions under the benevolent fund, so as to permit the pensioners to reside where they would, and no longer to compel them to live within the precincts of the College. The success of this scheme was now happily assured, and he looked forward to the future with confidence, based on his experience of the past, which was that good work would command the needed support.

The Rev. T. N. Hart Smith (Head Master), who also responded, dwelt particularly on the advantages which the school was enabled to offer to the foundationers. At Epsom these boys, unfortunate in the loss of parents, and often almost unfriended in the world, were given an education which fitted them to take a good place at the universities, not only through the knowledge acquired in the classes, but also by bringing them into association with boys more fortunate in their family circumstances.

Mr. J. Lumsden Propert gave "The Health of the Chairman" in a speech happily conceived and loudly applauded, to which Mr. Balfour made a brief and humorous response.

Subscriptions and donations to the amount of £1,700 were announced by the Secretary.

The toast list was brought to an end by that of "The Honorary Local Secretaries," given by Mr. Henry Morris, and acknowledged by Mr. Edmund H. Galton.

LITERARY NOTES.

In the *Kansas City Medical Index* for March, Judge H. C. M'Dougal, President of the Missouri State Bar Association, deals with the question of Hamlet's state of mind strictly from a legal point of view. He says he has not examined any of "the many learned, elaborate, and able opinions of insanity experts upon this question, either *pro* or *con*," but he has formed his own conclusions solely from an independent study of the text. He quotes definitions of insanity from legal textbooks, and the evidence of Hamlet's words and acts leads him to the conclusion that although at times desperate and melancholy, he was "civilly and criminally responsible for his acts, and therefore not insane." Hamlet feigns madness, having previously announced his intention "to put an antic disposition on," and therefore, says the judge, "he knows and understands from the beginning to the end the full scope and meaning of every material act and word." To the legal mind, as usual, the whole question turns on whether Hamlet knew, when he was avenging his father's "foul and most unnatural murder", that he was acting contrary to law. Judge M'Dougal, if the case had been before him, would therefore no doubt have felt himself conscientiously bound to hang Hamlet.

La Regeneracion Medica is the somewhat ambitious title of a new medical periodical which has lately begun to appear at Salamanca. It is edited by Dr. Lopez Alonso, who was formerly editor of *El Correio Medico*, which has been some time defunct.

Dr. Galabin's well-known *Guide to the Diseases of Women* has been translated into Greek by Dr. Luke G. "Mpellos," of Athens. It presents quite a classical appearance in its new garb. The transliteration of English names gives some curious results. Γαλαβινος might have been the name of a professor at Alexandria, but we confess we at first failed to recognise Σῶδναμ till we noticed that he was described as "the English Hippocrates." Σπένσερ Οὐελλς presents no difficulty, but when confronted with Πλαΐῦφερ we had, like Mr. Gladstone before the proposal to abolish the House of Lords, to think once, and even twice, ere we could identify the distinguished physician for diseases of women to King's College Hospital. Ματθαίος Δαγναν and Οὐίλσων Φὸξ have an unfamiliar look; Mr. Tait's name seems to have been something of a stumbling block to the translators, as it is given in some places as Λῶσον Τέϊτ, and elsewhere as ὁ Ταΐτ; Dr. Barnes appears variously as Βάρνες and in plain Roman characters. The names of Sir John Williams and of Hodge of pessary fame seem to have presented insuperable obstacles to transliteration, as they are given in all their native plainness. We note that Greek as spoken by latter-day Athenians is somewhat deficient in point of medical terminology; so we infer, at any rate, from the fact that such words as "suggestion," "massage," "tourniquet," "enucleation," "laminaria," "decidua," "prolapsus," "procidentia," "gutta-percha," "repositor" are placed in brackets alongside the Greek rendering, as if the translator was not quite sure that the latter would be understood without a clue being given to the meaning. The names of certain medicinal substances, such as "carbamide of quinine," are simply left untranslated. We commend these facts to the attention of the able editor of the New York *Medical Record* and other enthusiasts who are urging the claims of modern Greek to be the international language of medicine.

In the *Letters of Samuel Taylor Coleridge*, just published under the editorship of his grandson, Mr. Ernest Hartley Coleridge, the poet gives a curious prolepsis of Lombroso's views as to the intimate connection between genius and disease. The author of *The Ancient Mariner* writes:

> It is a theory of mine that virtue and genius are diseases of the hypochondriacal and scrofulous genera, and exist in a peculiar state of the nerves and diseased digestion, analogous to the beautiful diseases that colour and variegate certain trees. However, I add by way of comfort, that it is my faith that the virtue and genius produce the disease, not the disease the virtue, etc., though when present it fosters them.

Coleridge, as is well known, was a slave of opium. He is said to have swallowed two quarts of laudanum in a week, and on one occasion he took a whole quart in four-and-twenty hours. He struggled hard for deliverance, and wished that he might be kept from the possibility of indulgence by *force majeure*. In the following passage he sketches out a plan for the "therapeutic seclusion" of narcomaniacs:

> This might give occasion for the suggestion of one new charitable institution, under authority of a legislative Act, namely, a Maison de Santé (what do the French call it?) for lunacy and idiocy of the will, in which with the full consent of, or at the direct instance of, the patient himself, and with the concurrence of his friends, such a person under the certificate of a physician might be placed under medical and moral coercion. I am convinced that London would furnish a hundred volunteers in as many days from the ginshops who would swallow their glass of poison in order to get courage to present themselves to the hospital in question; and a similar institution might exist for a higher class of will maniacs or impotents. Had such a house of health been in existence I know who would have entered himself as a patient some five and twenty years ago.

It should not be forgotten that Coleridge spent the last eighteen years of his life under the roof of Mr. James Gillman, a medical practitioner of Highgate, who tended him with more than brotherly care (the expression is Coleridge's own) as an honoured and cherished guest, not as a patient in the ordinary sense. It was at Mr. Gillman's house that he used to enrapture visitors with the eloquent monologues of which descriptions have been left us by Carlyle and many others. It would be interesting to have some account of Mr. Gillman's life, for he must have been a very remarkable man; we are not aware whether any such record exists.

In the Philadelphia *Medical News* of March 23rd Dr. R. Harcourt Anderson gives an interesting account of Anæsthetics in the Early and Middle Ages. Among the most important drugs used by the ancients for the production of anæsthesia he mentions atropia mandragora or mandrake, which somewhat resembles but is not identical with the atropa belladonna known to us. Dioscorides states that wine of mandrake was used in cases of amputation or of application of the hot iron, and he speaks of the pure juice of the plant as being used in the form of a suppository to induce sleep. Pliny says: "Mandrake is taken against serpents, and before cutting and puncture, lest they be felt. Sometimes the smell is sufficient." According to Apuleius, half an ounce of the wine would make a person insensible even to the pain of amputation. According to Lyman the "wine mingled with myrrh" offered to Christ on the cross was this anæsthetic wine

which the Greek physicians, by whom it was largely used, called *μήριον*. Mandragora was combined with opium, hemlock, belladonna, lettuce, and other substances to annual sensation. In the darkness of the Middle Ages even the rude pharmacy of the ancients was to a great extent forgotten, but mandragora seems to have kept its place in public estimation as a narcotic. Thus in Shakspeare we have Cleopatra asking for mandragora that she may "sleep out this great gap of time" her Antony is away; and Iago, when his poison begins to work in the mind of the Moor, says:

Not poppy nor mandragora
Nor all the drowsy syrups of this world
Shall ever medicine thee to that sweet sleep, etc

Dr. Harcourt Anderson quotes one William Bullein, a practitioner in the reign of Henry VIII, who was famous for an anæsthetic mixture composed of "the juices of a certain herb pressed forth and kept in a closed earthen vessel, according to art," which "bringeth deep sleep and casteth man into a trance or deep terrible sleep—until he shall be cut of the stone." Herodotus speaks of anæsthesia being produced in Eastern countries by means of bhang or haschish. Albertus Magnus, in the twelfth century, speaks of the anæsthetic properties of *aqua ardens*, an alcoholic preparation obtained by distillation of a mixture of red wine, quick lime, common salt, and green figs. The ancient Assyrians are said to have made circumcision practically painless by compressing the veins and probably the arteries in the neck.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

NOTICE is hereby given that the Library of the British Medical Association will be closed from May 24th till June 4th next for the purpose of cleaning and painting.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 10th and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of this Branch will be held on Tuesday, June 11th, at 5.15 P.M., at the Royal Forest Hotel, Chingford.—ANDREW CLARK and ISAMBARD OWEN, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—A general meeting of this District will be held on Friday, May 24th, at 4 P.M., at Tottenham Hospital, the Green, Tottenham. The officers of the District will be elected for the coming year. Dr. Ewart, F.R.C.P., will read a paper on Some Practical Aids in the Diagnosis of Pericardial Effusion in Connection with the Question as to Surgical Treatment. Interesting clinical cases will be shown by the hospital staff. Dr. Cleveland will preside. The District Committee are requested to attend at 3.45 P.M.—HUGH WOODS, Honorary Secretary, 11, Archway Road, Highgate.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of this District will be held at the Kent and Canterbury Hospital, on May 23rd, at 3.30 P.M., Mr. J. Bowes, of Herne Bay, in the chair. The dinner will take place at the Fountain Hotel, at 6 o'clock; charge (exclusive of wine) 6s. 6d. An extra charge of 2s. is made to those who take no wine. It is hoped that the dinner will be well attended, and members intending to dine are particularly requested to communicate with the Secretary by May 21st, so that adequate arrangements may may be made. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends. Agenda:—The usual business of the annual meeting. Notice of Resolutions:—Dr. Gosse, in support of certain medical men in Cork in relation to medical clubs. Dr. Welsford, in reference to a printed advertising letter emanating from a member of the British Medical Association. Papers:—Dr. Selby: Observations on Cases of Typhoid Fever. Mr. Treves: Notes of (*a*) Abscess of Liver opened through Chest Wall; (*b*) Abscess of Lung, opened and drained. Mr. E. G. Morris: Concurrent Diphtheria, Varicella, Influenza, and Parturition under one roof.—THOS. F. KAVEN, Hon. District Secretary, Barfield House, Broadstairs.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will be held at the Calverley Hotel, Tunbridge Wells, on Tuesday, May 28th. Mr. James Bisshopp will preside. Meeting at 3.30 P.M. Dinner at 5.30, charge 6s., exclusive of wine. The following communications have been promised:—Dr. Adeney: Heart Disease occurring in Old People. Mr. J. B. Footner: A Case of Tumour of the Breast of an Extraordinary Size. Dr. Bisshopp: A Case of Morvan's Disease. Dr. Ranking: The Menorrhagia of Girlhood. Dr. Starling: The Selection of an Anæsthetic. Dr. Vise: Short Notes on a Case of Scurvy Rickets and its Treatment.—J. W. BATTERHAM, Honorary District Secretary, Bank House, Grand Parade, St. Leonards-on-Sea.

EAST ANGLIAN BRANCH.—The annual general meeting of this Branch will take place in the Castle, Framlingham, on Thursday, June 13th, at 12 at noon, under the presidency of Mr. G. E. Jeaffreson. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting, will communicate at once with one of the secretaries. Members desirous of nominating candidates for election as officers of the Association under By-law 9, must send their nominations to Dr. Barnes, so as to reach him not later than May 23rd.—EDGAR G. BARNES, M.D., Eye; MICHAEL BEVERLEY, M.D., Norwich; THOMAS CARR, M.D., Braintree, Honorary Secretaries.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held at Penrith, on Friday, May 31st. Members desirous of reading papers, etc., please communicate without delay with J. ALTHAM, Honorary Secretary, Penrith.

MIDLAND BRANCH.—The annual meeting will be held at Derby on Thursday, June 13th. Members desirous of reading papers or exhibiting cases are requested to communicate with the Honorary Secretary before May 27th. Gentlemen who wish to be elected to the Association through the Branch Council must send in their application by the same date.—W. A. CARLINE, M.D., Honorary Secretary, Lincoln.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Liverpool on Wednesday, June 19th. Gentlemen wishing to read papers, give demonstrations, or make any communication to the meeting, are requested to communicate as soon as possible with Dr. JAMES BARR, Honorary Secretary, 72, Rodney Street, Liverpool.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will take place on June 13th, at 3.30 P.M., in the Medical Institute, when, after the transaction of formal business, the President-elect, Dr. A. H. Carter, F.R.C.P., will deliver an address. The annual dinner will be held the same day, at the Great Western Hotel, at 6.30 P.M. Gentlemen desirous of attending should send their names to GILBERT BARLING, Honorary Secretary, 85, Edmund Street, Birmingham.

STAFFORDSHIRE BRANCH.—The the third general meeting of the present session will be held at the Bell Medical Library, Wolverhampton, on Thursday, May 30th. Dr. Charlesworth (the President) will take the chair at 3.30.—GEO. REED, Honorary Secretary, Stafford.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Royal Infirmary, Newcastle-upon-Tyne, on Thursday, May 30th, at 4.45 P.M. Dr. Gowans will read notes on recent cases of Abdominal and Brain Surgery. Mr. Williamson will show preparations from a Melanotic Sarcoma of the Ciliary Body. Dr. Murphy: (1) A Specimen of Extra-uterine Gestation Diagnosed (by Dr. Robertson, of Ryhope) and Removed before Rupture. (2) Notes of a Series of Cases of So-called Puerperal Fever treated by Abdominal Section; and another series treated by curretting and drainage. The Secretary will be glad to receive notice of other communications. The dinner after the meeting will take place at 6.30 P.M., at the Douglas Hotel; 6s. 6d. each, exclusive of wine.—G. E. WILLIAMSON, F.R.C.S., Honorary Secretary, 8, Eldon Square, Newcastle-upon-Tyne.

DORSET AND WEST HANTS BRANCH.—The next meeting of this Branch will be held at Blandford, on Wednesday, May 27th. The business meeting will be held at the Crown Hotel, at 3.30 P.M. Agenda:—Secretaries' accounts for 1894. Report of election of Branch Council. Election of a representative of the Branch on the Council of the Association. Election of a representative of the Branch on the Parliamentary Bills Committee. Election of new members of the Branch. Place of summer meeting. Communications from the Council of the Association: (1) Enclosing draft of a Bill to Amend the Medical Act. (2) Enclosing draft of a Bill to Amend the Law relating to Unqualified Persons. (3) Respecting the abuse of medical charities, Dr. Lush to move:—"That a committee of the Branch be appointed to inquire as to the abuse of medical charities in the Dorset and West Hants Districts, and, if found to exist, to suggest remedies." (4) Respecting the contention which has occurred at Cork, respecting the medical profession, medical clubs, and societies. Communications from the Lancashire and Cheshire Branch Committees: (1)

Relating to the registration of midwives, and to persons granting diplomas or certificates to pupil midwives. (2) Relating to the drafts of proposed Acts to Amend the Medical Acts. Discussion: — Various Matters Affecting the Interest and Welfare of General Practitioners, which are under consideration by the Committee appointed by the Council of the Association, namely: (1) Midwives' registration. (2) Medical aid associations. (3) Assistants. (4) Tenure of office of sanitary officials. (5) Retiring pensions of Poor-law officers. (6) Medical defence and prosecution of irregular practitioners. (7) Underselling of public appointments. (8) Relations of consultants and general practitioners. Communications:—Dr. Ransome: Ozone in Phthisis. Mr. Ewens: The Treatment of Talipes, with special reference to Advanced Cases of Talipes Equino-varus by Tarsectomy; illustrated by casts and photographs. Dr. Lawrie: (1) Removal of Suppurating Ovarian Tumour with Purulent Peritonitis and Adhesions. (2) Total Extirpation of the Uterus and Ovaries. (3) Specimen of Fibro-myoma of the Uterus removed by Enucleation. Dr. Whittingdale: (1) Specimen of Ovarian Tumour. (2) Cast of a Fatty Tumour occurring in an Unusual Situation. Dr. Harsant: Notes of a Case of Diphtheria successfully treated by Antitoxin. No paper, except on the subject for discussion, must exceed ten minutes in length, and no subsequent speaker must exceed five minutes. Dinner at the Crown Hotel, at 6 P.M.; charge 6s. each, without wine. Members intending to be present are requested to communicate with Dr. Spooner by Monday, May 20th. Messrs. Daniell, Humphrys, and Spooner will be pleased to see members and friends at luncheon at their residences before the meeting.—William Vawdrey Lush M.D., Weymouth, and C. H. Watts Parkinson, Wimborne, Honorary Secretaries.

SPECIAL CORRESPONDENCE.

PARIS.

Small-Pox and Vaccination.—Adulteration of Wine.—The Madagascar Expedition.—Scientific Aspects of Madagascar.—Dangers of "Sand Pies" in the Tuileries Gardens.—Dearth of Water.—A School of Massage.—General News.

Dr. Auché, in the *Gazette des Sciences Médicales de Bordeaux*, sums up the deductions to be drawn from a series of notes taken on the influence of small-pox among parents in the receptivity of their children in relation with vaccination and small-pox. Small-pox among parents is not followed by any effect on the children in respect of their receptivity to the influence of vaccination. If both parents have had small-pox before conception, the influence on the infant is not more marked than when the mother only has had the disease. Small-pox previous to pregnancy frequently renders the child immune. If small-pox attacks the mother during pregnancy different results may follow. When the child is born the period of incubation may be in progress. Small-pox is frankly manifested after a few days' interval, or the child may be born in small-pox or bearing the marks of the disease. It is refractory to vaccination. If the child has neither had small-pox during the fœtal period nor been born with it, and if the birth takes place whilst the maternal incubation period is in evolution, or when the eruption is out or suppuration going on, it will be susceptible to vaccination; later on it will be immune, and this condition continues from a few months to two or three years.

M. Girard, Director of the Municipal Laboratory, has made a series of analyses of wines offered for sale by Paris wine sellers. He has detected in them the presence of boric acid, and demands that the vendors be proceeded against, as the presence of boric acid in wine is detrimental to the public health.

News comes from Madagascar that the heavy rains, unusual at this time of the year, have increased the sufferings of the French troops. Apparently benign fevers have become dangerous, and the number of the sick increases daily. The stay in the marshy zone of the Betsiboka has been prolonged too long, and orders are given to concentrate at Majunga all the troops stationed on the right bank.

The scientific world is very busy about Madagascar. The Natural History Museum has organised an exhibition, in its geological gallery, of specimens of natural history, geology, etc., peculiar to that island. Lectures will also be given by Professor Milne-Edwardes on the zoology of the island; by Professor Stanislas Meunier on its geology; by Professor Hamaz on its anthropology; by M. Bureau on its vegetable life. A committee has been formed to organise scientific missions to be undertaken in 1896, when it is assumed the present military expedition will have ended satisfactorily.

The *Temps* sees a danger to the public health, and especially to that of a large section of the baby world, in the fact that the sand in the Tuileries Gardens has not been removed within the memory of man. *Nounous* of both categories (dry and wet nurses) have been interviewed, and they declare that after their youthful charges have enjoyed the pastime of making "sand pies" they are besmeared and dirty, and that they are with difficulty washed clean; this cleansing is a dangerous process, inasmuch as it is carried on at the edge of the big ponds, and the children by an unlucky slip would quickly become immersed. The *Temps*, therefore, humanely proposes that whilst waiting for the sand to be renewed fountains be erected where nurses may wash their children in safety.

The unusual heat of the last two or three days has caused a dearth of water in some parts of Paris. In the Avenue Trudain the flats of the upper storeys are without water after 7 A.M.

A massage school has been organised by Dr. Archambaud under the title of the Ecole Français d'Orthopédie et Massage. Medical men and students can there study cases under treatment from beginning to end. Pupils wishing to attend the lectures, if not medical students, are obliged to pass a written and oral examination on elementary anatomy and sanitation. The school certificate is given after a public examination on massage.

General Zurlinden, War Minister, presided, on May 10th, at the inauguration of the new School of Military Sanitation.

A meeting of the members of the Société des Sauveteurs de la Seine was held on May 12th at the New Sorbonne. M. Leygues, Minister of the Interior, presided. The society has a capital of £7,200. The *grand diplôme d'honneur* was awarded to Dr. Roux.

The General Councils of the Vaucluse and Gard Departments have decided to build a sanatorium for tuberculous children at Peyraube, near Vigan, in the Gard Department.

The Society for the Protection of Infants has held its annual meeting. The Society has distributed £1,600 in meat, milk, cradles, and baby clothes, and 1,588 families have been assisted from 1893 to 1894. Medals and other honorary rewards were distributed to some members of the medical profession.

HONG KONG.

College of Medicine for Chinese, Hong Kong.—Influenza in China.—The Plague.

At a meeting of the Court of the College of Medicine for Chinese, held on April 9th, four students had the diploma of the College conferred upon them. Of these Wong I. Ek passed with distinction. All the graduates have obtained immediate employment. Wong I Ek has been appointed Demonstrator of Anatomy; W. I Kai is employed by the Hong Kong Government in the civil hospital; and the two other graduates, Wong Sai Yan and Law Go Fuh, have been appointed to the native hospital in Selanga in the Straits Settlement. Ten students are at present studying in the College, and the number of applications for admission which have come to hand lately seems to indicate that the Chinese are beginning to benefit by the lesson Japan has taught them, and that western methods may now obtain a hearing. All the College requires to promote its usefulness is help in funds to give it a good start. The Chinese are willing to, and do, pay for their instruction in medicine, but the sums charged cannot allow of a surplus for endowment.

Never has influenza been so rife as at present. For four months, December to April, it has prevailed. The fact of its presence in China and in Europe at the same moment points to a new development in the behaviour of this disease. Up to the latter end of 1894, influenza travelled as a distinct wave, now in China, now in Russia, then in Western Europe, and later in America, again to cross the Pacific and recur in China. Now the tidal indications have ceased, and influenza seems to have settled down generally on Eurasian soil. The type in China is identical with that described in England. Catarrhs of bronchial, nasal, conjunctival, and intestinal mucous membranes; faucial affections imitating diphtheria; peculiar pleural affections sometimes of the type of sudden

effusion, sometimes of the nature of chronic pleurisy. The latter almost invariably develops at the base of the right side of the chest, and the pain both in seat and character points so significantly to hepatic ailment that the diagnosis rests on fine distinctions. One extraordinary case, which rapidly ended fatally, developed general serous inflammation with effusion in the pleura, peritoneum, and pericardium. The illness lasted only five days.

There is no reappearance of the plague in Canton or Hong Kong. In Macao, a Portuguese settlement within thirty miles of Hong Kong, plague cases are met with, but not in epidemic form. This looks like a retrocedent wave, however, from the old focus of last year.

[Sir W. Robinson, Governor of Hong Kong, has telegraphed to the Marquis of Ripon that no more cases of plague have occurred there, and that the hospital is now empty.]

CORRESPONDENCE.

THE OBSTETRICAL SOCIETY AND THE MIDWIVES QUESTION.

Sir,—Mr. Henry Owen, B.C.L. Oxon., Honorary Secretary of the York Road Lying-in Hospital, Lambeth, asserts, with an illustration as offensive as his law is bad, that if I have an attack of influenza, am no better for the assistance of my colleagues, and call in a female quack to attend me, that person can "compel me to pay for her time and labour just as if she had been 'properly educated.'"

As I stated in my previous letter the law does not recognise any such iniquity, and if Mr. Owen, instead of parading a legal degree before your readers, had copied out Clause xxxii, 21 and 22 Vic., cap. 90 they would have had the opportunity of seeing that his statement is precisely contrary to fact.

Hoping, as I do, that properly educated women will obtain registration as "midwifery nurses," I regret to see their cause injured by the honorary secretary of a lying-in hospital.
—I am, etc.,
Victor Horsley.

Cavendish Square, W., May 10th.

Sir,—The third Midwives Bill has now been introduced, and it may honestly be said that it is a much more dangerous and misleading Bill than its predecessors. By Clause 2 it defines a "midwife" as a woman who attends cases of natural labour without the direct supervision of a medical practitioner. The Bill therefore proposes to create a new order of midwifery practitioners, and with one swoop to hand over at least 990 out of every 1,000 confinements to midwives. Those responsible for the Bill are careful not to define the words "without the direct supervision of a medical practitioner," but they no doubt mean that the "midwife" is to have the sole and undivided control of the woman before, during, and after her confinement, and also of the infant. They further refuse to give us a legal definition of "natural labour." Nor do they introduce any penalty for the punishment of any midwife who attends labours other than natural. What, therefore, is the use of pretending to define her duties? Nor do they introduce any penalties for the punishment of any midwife who visits, treats, or prescribes medicine for the pregnant or puerperal woman and infant. Nor do they provide any penalty for the punishment of a midwife who performs any surgical operation, such as stitching the perineum, cutting a tied tongue, or using forceps, turning or removing an adherent placenta. Nor do they provide any penalty for the punishment of the midwife who vaccinates. Therefore this misleading Bill, for all practical purposes, creates, not only a new order of midwifery, but of medical and surgical practitioners. It practically says: "We propose to create by law a new order of midwifery practitioners; we say they shall attend natural labours only, but we absolutely refuse to make it an offence if they use forceps, or turn, vaccinate, perform any surgical operation, or supply medicines, or treat pregnant or puerperal women and infants." This is the Bill; but surely its promoters are not proud of it. No doubt, by Clause 4, line 20, it is stated that this "midwife" is not to be supposed to be "qualified to grant a certificate of death or of a stillbirth." But here, again, no penalty is provided for the punishment of the "midwife" who grants such a certificate. What, therefore, is the use of this explanatory clause? What, moreover, do those responsible for this mongrel Bill mean by the misleading words "certificate of death?" Do they mean a certificate of the cause of death or of the fact of death? Let us recollect that at present, unfortunately, any person can give a certificate of the cause of death; the midwife could give a certificate of the cause of death of the mother, or infant, or of stillbirth. No penalty is introduced for the punishment of a "midwife" who gives such certificates.

Taking all these points, I would ask: Why have the promoters of this Bill tried to blind us by using the word "midwife," when they practically propose to make her a medical and midwifery and surgical practitioner? It may be said that by Clause 6 (*f*) it is proposed that the Midwives Board shall "frame" rules for regulating the practice of midwives. But what would be the good of such rules? because I cannot discover in this Bill any clause which distinctly empowers the Midwives Board to remove the name of a midwife from their Register. It is not even provided that such rules, when approved by the General Medical Council, shall have the same effect as if they were enacted in the Act. What, therefore, is the good of such "rules"? No doubt the promoters practically mean that such rules shall not be enforced. Not all, I should say, because Clause 8—which provides that a fee of two guineas shall be paid as the examiner's fee—would be rigidly enforced. This point—that it is not really meant to enforce any penalties—is borne out by a reference to Clause 14, which provides that no prosecution against this so-called "midwife" shall be instituted "by a private person." The Medical Act, the Dentist Act, and the Pharmacy Act (S. 17) provide that "any person" can institute proceedings; but the criminal midwife is to go free.

Clause 6 provides that the Midwives Board shall consist of three practitioners appointed by the College of Physicians of London, three by the College of Surgeons of England, three by the Society of Apothecaries of London, and three by the Midwives Institute. It is, therefore, easily to be seen that this Board is to be a London affair only, even though the Bill is to relate to all England and Wales. Such a Board will consist of specialists and consultants only, as the councils of these bodies will appoint three of their own bodies. It should be provided that the members and licentiates only of these three bodies should appoint practitioners to the Board and not the councils. Why, I would here ask, have the Irish and Scottish Colleges been excluded from appointing members to this Board?

I have mentioned just a few of the more gross flaws of this third Midwives Bill. It will be seen that it cannot command the support of even moderate men; or of those who would wish to see midwives registered, but with the duties of obstetric nurses only. It must, therefore, be opposed. We have prevented two Bills from passing. Let us prevent this one also. This is a threatened danger to the lives of all pregnant and puerperal women, and infants. Not one of the medical supporters of this Bill would employ such midwife to attend their own wife or infant. Why, therefore, should the wives and infants of the industrial classes suffer; even should only the cry of "cheap midwifery" for them be the inducement?

The Council of the Obstetrical Society has done a grossly illegal act by selling £1 903 worth of useless diplomas to women. Their only chance now is to try and make legal their illegality, by rushing a measure, which is opposed by the great mass of our profession, through Parliament. Let them cease selling any more diplomas, and their illegality will then cease. This is the better plan.

I need only refer to the injustice of this Bill in so far as it cruelly bears upon midwives in Scotland and Ireland. Such midwives are to be excluded from the register of midwives, and could not practise in England and Wales (see Clause 4). I would only repeat that the grave question is: Must the examining and granting of qualifications, which entitle the holder to practise medicine, surgery, and midwifery, rest alone with the Universities and Colleges mentioned in the Medical Acts; or are the Medical Acts to be repealed by the establishing an inferior Board, empowered to grant the single qualification in midwifery only?

I earnestly suggest that each practitioner shall at once write to the members of Parliament for his district, and ask them to oppose, and to obtain the promise of a member of the House of Lords to oppose, this degrading, retrograde, and dangerous Bill. If only practitioners will do this, no Bill can possibly pass. If this Bill do pass the great blame will lie at the door of each practitioner who fails to help us.—I am, etc.,

ROBERT R. RENTOUL.

Liverpool, May 14th.

IS CANCER HEREDITARY?

SIR,—May I be allowed to point out that, in order to prove or disprove the inheritance of a tendency to cancer, it is necessary to note the residence as well as relationship of cases which occur in one family? A mother and daughter both suffering from cancer may easily have acquired it from a common source without any special predisposition. That one side only of a family is affected, as shown to be sometimes the case by Mr. Butlin, is no proof of inheritance, as the male members might be exposed to a source of infection which did not affect the female members, or *vice versâ*. If, as is possible, cancer is waterborne, it might easily be acquired by residence in a particular house or the use of a particular restaurant. Similar considerations apply to the inheritance of tuberculosis, allowing for the different incidence at different age periods.—I am, etc.,

Welbeck Street, W., May 4th. F. R. WALTERS.

SIR,—We very commonly see cases of cancer recorded in which the mode of causation is not only unreferred to, but in which not the least attempt to elucidate this seems to have been made. No single instance of malignant disease in its ordinary forms ever arises without the previous operation of a direct exciting cause, nearly always readily ascertainable if sought for: and until that has been determined it is hardly permissible to invoke the vague influences of predisposition, congenital or otherwise, for I suppose no one would now regard heredity as a *vera causa*, a primary excitant of cancer.

At the Cardiff meeting in 1885 I was permitted to lay before the Association an analysis of 1,075 cases of malignant disease, which had been under my own observation. Including 22 doubtful, only 169, or 15.7 per cent.. could indicate a single cancerous relative. Of these 169, 129 were near relations; there were only $\frac{1}{7}\frac{9}{3}$ instances of cancer in more than one member of the family, and, again, but 2 out of the 7 in which a parent and grandparent had been cancerous. But with profound disbelief in statistics, unless carefully collated with "control tests," I had also addressed circular inquiries to 150 medical men in practice: 78 kindly favoured me with a reply: 15, or 19.2 per cent., had cancerous relatives. Secondly, a like inquiry was made among the in-patients at the Brompton Consumption Hospital: $\frac{3}{2}\frac{5}{7}$, or 11.3 per cent., returned a affirmative reply. And in the third place, out of 175 persons applying at the Cancer Hospital with various non-malignant lesions—lupus, strumous glands, etc.—no fewer than 46, or 26 3 per cent., deposed to a cancerous family history, often involving more than one individual. For further details, the paper published in the BRITISH MEDICAL JOURNAL for October 10th of the same year may be referred to. The net result was, I perhaps unwarrantably thought, almost a *reductio ad absurdum* of the theory that cancer is ordinarily a transmitted disease in the same sense as insanity or epilepsy. Even if a small minority of exceptional instances lend colourable support to the contrary view, the researches of the Collective Investigation Committee, already referred to in the columns of the BRITISH MEDICAL JOURNAL; of Mr. Harrison Cripps;[1] and I think I may say of every writer who has closely investigated the subject, prove beyond a doubt that the great majority of cancer cases arise wholly *de novo*.

I would very humbly suggest to those whom Mr. Power's address may tempt to further research in the same field, that they will do well to bear in mind these maxims: (1) No cancer arises without a direct and usually obvious cause, which should be investigated before the question of heredity can arise. (2) In matters such as this, statistical arguments should be brought forward as a rule only to reinforce the evidence of close personal investigation, and never, if possible, without adequate "control tests." (3) The exciting causes of the various cancer species being so diverse, to group all promiscuously together when investigating their origin is a procedure which should be fraught with great caution. The source of buccal epithelioma, for example, is always patent; the development of this lesion is a pathological experiment daily worked out by Nature in the light of day. On a very different footing are those obscure aberrations in the normal devolution of the mamma which lead up to scirrhous carcinoma.—I am, etc.,

Gloucester Place, May 6th. HERBERT SNOW.

[1] *Bart. Hosp. Rep.*, xiv.

SIR,—I am extremely obliged to Mr. Butlin and to Mr. Roger Williams for their most interesting and courteous letters, giving me statistics as to the heredity of cancer. Mr. Butlin's analysis of the Collective Investigation upon Cancer of the Breast brings out the important fact that "the relationship was almost invariably upon one side" when the disease was hereditary. It appears to me that we shall advance another step in regard to this point if we can ascertain whether, in cases where cancer has occurred in two successive generations, the affected persons in the second generation have lived in closer contact with their predecessors than those who have escaped the disease. In other words, the predisposition being granted, it will be of the greatest interest to know whether the child or younger relative has lived in the same house or has nursed the older member of the family through the various stages of the mortal illness. The cases published by Mr. Law Webb and other observers show that this has sometimes happened. Is it of frequent occurrence?

At present we can only gather such facts patiently, correctly, and if possible without bias, taking stock of our knowledge from time to time to find out whether it is possible to generalise. It is still too early to dogmatise.—I am, etc.,

Bloomsbury Square, W.C., May 3rd. D'ARCY POWER.

HYSTERICAL (FUNCTIONAL) DEAFNESS.

SIR,—Dr. W. B. Ransom, in the BRITISH MEDICAL JOURNAL of May 4th, has done me the honour to refer to the case of hysterical deafness which was lately brought by me before the Medical Society of London, and was reported in the JOURNAL of March 16th.

Dr. Ransom's version of my case is, however, so misleading that I shall be grateful if you will allow me to make the necessary correction. Dr. Ransom says: "In this instance a widespread suspension of nervous function followed the introduction of the diphtheritic toxin into the system." I stated that the patient had had a slight sore throat, which possibly might have been diphtheritic, but was followed by none of the usual sequelæ of diphtheria. The first sign of nervous disturbance was the loss of hearing. The subsequent widespread suspension of nervous function which developed in the course of about twenty-four hours, at an interval of some three months after the throat affection, did not in any way resemble diphtheritic paralysis. The paralysis lasted eighteen months, and only yielded when systematic exercise of the muscles was absolutely forced on the patient, and by re-education she was made to walk.

Dr. Ransom goes on to say: "Prolonged loss of hearing was associated with some evidence of inflammatory trouble, and possibly trauma in the middle ear."

The fact is trauma—rupture of the membrane through forcible Politzerisation—was the sudden starting point of the deafness. As I pointed out, trauma is one of the commonest causes of hysterical affections. The only evidence of inflammatory trouble in the middle ear was the existence of slight earache before the Politzerisation. The membrane healed perfectly within ten days, and there were never any signs of local trouble afterwards.

The cure of the deafness in less than a fortnight by the method I described, after its persistence for nearly two years, was perhaps the most convincing proof which could be furnished that the deafness was functional. Had the facts of my case agreed with Dr. Ransom's version of them, I should have considered it a much more remarkable case than it was, and one to which the term "hysterical" was not particularly

appropriate. As it was, the whole case was one of hysteria, and nothing but hysteria, from beginning to end.

To restrict the use of the word "hysterical" to its popular sense, as describing the general state of a person who is emotional and capricious, as Dr. Ransom proposes, is impossible. Everyone recognises the usefulness of the term "functional" for certain forms of nervous disorder. There would be a decided disadvantage if it were adopted as a general substitute for the term "hysterical" in relation to disease.—I am, etc.,

Welbeck Street, W., May 5th. HECTOR W. G. MACKENZIE.

TAPPING THE PERICARDIAL SAC.

SIR,—The comments of Drs. Samuel West and Ward Cousins on my paper on the above subject, published in the BRITISH MEDICAL JOURNAL of March 23rd, bring into prominence one point mentioned in the paper, namely, the improvement following the removal of minute quantities of fluid from the serous cavities. I would suggest the idea that the explanation of the disappearance of fluid from the serous cavities under the circumstances named is due to a nervous cause, in the shape of a powerful impression made on the nervous system by even the thrusting in of a needle in the neighbourhood of a vital organ. Be this as it may, there can be no doubt as to the disappearance of considerable collections of fluid after puncture, and it teaches us the lesson that tapping near a vital organ or organs is a more serious operation than we are generally taught. I have seen a collection of fluid in the peritoneal cavity that had resisted the most heroic medicinal treatment go away after a trocar and cannula had been thrust in and only about a teaspoonful of fluid withdrawn.

The explanation offered by Dr. Ward Cousins—namely, that although little fluid may escape externally, still there is escape through the pericardial puncture wound into the cellular tissue of the mediastinum—only clears up the difficulty as far as the pericardial cavity is concerned, of course. What about the peritoneal and pleural cavities, where we could only have exudation into the cellular tissue with convincing evidence of its presence? The whole question is beset with difficulties. It is not only serous fluid that is absorbed, but even pus, for I have notes of two cases, confirmed by brother practitioners, where in each a small exploring syringeful of pus was withdrawn from the pleural cavity, and both of which absorbed without further operation. One was a man of 48 and the other a girl of 12. The danger of the case was explained to the friends of each, but they stoutly refused to have anything further done. Two years after the finding of pus both were well. The girl was seen off and on for some weeks after the exploration, and the dulness gradually cleared away. The man went his own way when told of the necessity for further operating; but I know he had nothing done, and when I examined him two years later the chest was well.—I am, etc.,

Leeds, May 11th. GORDON SHARP.

SIR,—I notice in the BRITISH MEDICAL JOURNAL of March 30th and one or two previous numbers, letters regarding tapping the pericardial sac. I am interested in the remarks made in Dr. West's letter. Some years ago I devised, and had made, a "guarded aspirating needle," specially designed for such operations. The needle is sharp and hollow, and after insertion a probe, also hollow, and working within the needle can be projected so as to guard the point during exploration within a cavity. I sent you the instrument, and it is represented and fully described in the JOURNAL of March 26th, 1886, and other dates; it is now made and sold by Messrs. Ferris and Co., Bristol.—Yours faithfully,

M. L. HODDER, M.B.,
Brigade-Surgeon-Lieutenant-Colonel, A.M.S., retired.

Grahamstown, South Africa, April 22nd.

THE RESPONSIBILITY OF RAILWAY COMPANIES FOR ATTENDANCE ON ACCIDENTS.

SIR,—About a month ago I was sent for to see a man that was run over by a Midland train. I went immediately, attended to him, and was away about half an hour. I sent a bill for 10s. 6d., which the company declined to pay; they say they are not legally responsible. This is a matter that requires attention, and I think that the profession should insist on railway companies admitting the responsibility, and fixing a scale of charges. I have notified the company through their station master that I shall not attend accidents on their line in future unless they are willing to pay me for my time.—I am, etc.,

Clown, Chesterfield, May 14th. J. A. MAGEE, L.R.C.S.I.

FLIES AND INFECTION.

SIR,—In the BRITISH MEDICAL JOURNAL of May 4th, there is a notice of the recent *conversazione* at the Royal Society which contains an account of some interesting experiments made by Mr. W. T. Burgess on the conveyance of infection by flies. The subject is not an entirely new one, but in asking you to allow me space for the following remarks I wish it to be understood that I in no way impeach the originality of Mr. Burgess's experiments, but merely wish to draw attention to some practical bearings of the question.

The first to make experimental research in this direction was Hoffmann, who (in 1886, I believe) demonstrated the presence of tubercle bacilli in the bodies of flies captured in a room occupied by a consumptive, and found that their droppings (scraped off the chandelier) were also full of tubercle bacilli which inoculation experiments showed to be fully virulent. In 1892 I repeated his experiments, and, extending them in order to find out whether flies could transport infection merely by their feet, I employed cultures of chromogenic bacteria in precisely the same way as Mr. Burgess, with the same results. The publication of Simmonds's paper on the subject (in connection with cholera) in the *Deutsche med. Wochenschrift* led me to withdraw my communication, but in 1893 I demonstrated the whole matter at the annual meeting of the State Medical Society of Colorado. In one experiment I mixed (by grinding in a mortar) pieces of a culture of bacillus prodigiosus with highly-tuberculous sputum in such a way that stained preparations showed them to be present in about the same numbers as the tubercle bacilli. I then allowed flies to run across the surface of the sputum, and, after they had flown about again for a time, caused them to walk across sterilised potato surfaces, which in the course of about forty-eight hours showed numerous colonies of bacillus prodigiosus. This removed at once the objection made by some to the experiments with pure cultures, that in the case of most infectious matter the germs are so far less numerous than in pure cultures that it is highly improbable a fly would by mere contact transport them to fresh soil.

It is to be hoped that Mr. Burgess's experiments will attract the attention they deserve, for, in consequence of the foolish scares raised continually by irresponsible, incompetent "observers," there is no little danger of valuable warnings being treated merely as cries of "Wolf! wolf!"—I am, etc.,

Davos Platz, Switzerland, May 12th. A. COPPEN JONES.

CLUBS AND THE PROVIDENT PRINCIPLE.

SIR,—I am greatly obliged to Dr. Forsyth's courtesy for directing my attention to a report of a Joint Committee of the Manchester Medico-Ethical Association and the District Provident Society, recommending that the wage limit existing in connection with the Manchester and Salford Provident Dispensary system should be abolished. The members of the Medico-Ethical Association, however, who served upon the Joint Committee deny having ever sanctioned or agreed to any such report or recommendation, and, on the contrary, aver that, at the very outset of these deliberations they were treated with such discourtesy by the members of the District Provident Society that they declined having anything further to do with the matter. The issue of such a joint report, therefore, by the Provident Society, instead of endorsing, on behalf of our profession, the abolition of a wage limit in connection with our local provident dispensaries can only be regarded as a piece of very sharp practice.

Dr. Forsyth correctly states that up to the year 1882, when the above-mentioned report was issued, a wage limit was enforced, and was found to be "unsatisfactory." The latter statement I see no reason whatever to doubt, as the presence of such a check upon abuses, no doubt, tended to act as a

drag and a hindrance to the successful expansion of the provident dispensaries. It was, therefore, a most natural thing on the part of the promoters of these institutions to desire the possession of a richer pasture than they had previously enjoyed, and one which they could cultivate at much less expense, and with greater ease and profit. I have unfortunately yet to learn that the right of members of our profession to live by their labour, or that any regard for the injuries which the sweating operations of these provident dispensaries were capable of inflicting upon our profession, ever entered into the thoughts or calculations of these men.

Dr. Forsyth is also apparently constrained to admit that the "gross error inadvertently made" in the annual report of the Dawson Street Dispensary was made deliberately, or had at least been made for ten years. I am not, however, on the present occasion, inclined to blame the Dawson Street Committee for this unfortunate bit of straightforwardness. They have had the courage to state publicly what I believe every one of these provident dispensary committees is in the habit of doing in private. I am, however, greatly gratified to learn that although the Dawson Street Committee consider "application for membership open to all," they have out of consideration for Dr. Forsyth's feelings agreed to exclude aldermen in future.

The catering for the medical needs of the lower strata of the population is, beyond all doubt, a matter of some difficulty, requiring for its successful solution a certain amount of medical statesmanship. There can be for us, whether as individuals or as a profession, no greater mistake than a failure to recognise the essentially beneficent character of our calling. The benevolent relations which are usually regarded as existing between the poor and members of our profession have probably done more to raise and maintain the social status of the profession than the noblest achievements of its greatest men. These the public are quite incapable of either understanding or appreciating, but the good Samaritan is very easily understood and appreciated. It is, therefore, a question of importance, in this increasingly commercial and materialistic age, that this side of our professional life should not be overlooked, and I am for that reason in favour of any well considered provident scheme which, while safeguarding the interests of our profession, would supply the medical needs of those incapable of paying remunerative medical fees. It should, however, in my opinion be regarded as an indispensable condition in connection with any such scheme that it should either be conducted in common by the members of the profession residing in any town or district, or should, so far as rates of payment and the admission of patients are concerned, be substantially under their control.

The Manchester and Salford Provident Dispensary system complies with neither of these conditions, and my objections to it may be briefly summarised as follows:

1. Because it is entirely under lay control. The idea of our profession handing over its affairs to be managed by a body of men calling themselves a Provident Dispensary Committee, and who have absolutely no interest in its welfare, certainly is one of the most original notions ever heard of upon this planet. I am afraid that if the members of the Dispensary Committee conducted their affairs in that fashion, they would soon find themselves in the Bankruptcy Court.

2. Because it is a sweating system. Of this fact there can, I think, be no doubt whatever. A medical friend connected with one of the branch dispensaries has furnished me with the following facts. From a number of ordinary sick clubs paying 3s. per head per annum, he receives £120. From seventy families in the provident dispensary he receives £30 per annum. Having regard, however, to the work done for each, his much-despised clubs pay him four times as well as his provident dispensary patients. At this particular dispensary, also, the average remuneration is 30 per cent. above the ordinary provident dispensary limit. At the Ancoats Dispensary I have seen it stated that the remuneration of the medical staff is at the rate of 1s. 6d. a member per annum. It is hard to imagine any member of our profession working for such wages, and giving all, "the halt, the lame, and the blind," in the district the privilege of being forever on his doorstep. I can fancy the lot of an African slave, always sure of bed and board at least, as a happy and a desirable one by comparison. So far as I can form a judgment of the loss inflicted, either directly or indirectly, by our local provident dispensary system upon the general practitioners of Manchester and district, I do not think that the average can be less than 10s. a member per annum. As the membership of the various branch dispensaries now numbers 22,000, the annual loss to the profession may be taken at £11,000. As, however, the promoters of the dispensary movement look forward to an early membership of 100,000, the equivalent loss would in that case amount to £50 000—an extremely grave condition of affairs for those who have the welfare of our profession at heart.

3. Because there is no wage limit, and a lay committee is permitted to sell the labour of the medical staff, practically to all comers, at a rate that does not represent a living wage. In this respect it is in no sense a provident system, but a huge organisation for "doing the doctor," and it does its work very effectively.

4. Because it is a "touting" and an advertising system, and the medical appointments are not open to all the qualified medical men residing in the district. "Touting" for patients has never been recognised as a legitimate professional proceeding; and why a medical man should be permitted to avail himself of such methods with impunity, merely because he has become the servant of a so-called Provident Dispensary Committee, is very hard to understand. It is at least very obvious that, where appointments to the medical staff are regarded as a close corporation, and touting is extensively practised, as it generally is, great wrong and injustice is inflicted upon honourable members of our profession. The same is true of the extensive and most objectionable system of advertising; for permitting which the medical staffs of the dispensaries concerned have frequently been so justly and severely blamed.

These are the more important objections to our local provident dispensary system. Any one of them ought to be fatal to the professional character of any provident scheme whatever, and, taken collectively, they ought to condemn the Manchester and Salford one in the eyes of all right-thinking men.

Dr. Forsyth's defence of the system is not, it is true, a very formidable one, and is on the whole rather a damning with faint praise. His observation that hospitals are abused is not original, but his notion that such abuse justifies the abuses of the provident dispensaries is entirely so. May I remind Dr. Forsyth that the privileges, the social status, and the just emoluments which we as members of a great profession now enjoy have been handed down to us by our professional fathers, and it is the duty of every one of us to pass these on to those who shall come after us undiminished and unimpaired. Whether in supporting such a professional system as I have endeavoured to depict Dr. Forsyth is discharging that duty is a question I shall very gladly leave your readers to determine.—I am etc.,

Salford, April 21st. WM. FRASER, M.B., C.M., D.S.Sc.

PAVILION v. BLOCK HOSPITAL.

SIR,—If it were true, as Mr. J. Hardie asserts, that "we have been shown how to deal with septicity at its origin so as to prevent it altogether," then it were a matter of small importance whether we built our hospitals on the block or on the pavilion principle. Recent events at more than one London hospital, however, show that even with due observance of antiseptic precautions septic diseases cannot be excluded from our wards, and consequently it is necessary for us to see that our sick are placed in the best hygienic surroundings, where they shall run the smallest possible risk from infective processes.

No comparisons based upon length of stay in hospital, or upon the results of operations, are of use when weighing the relative merits of two hospitals, the one built on the block and the other on the pavilion principle, for the surroundings, the class of patient, and many other factors will vitiate the results. We are then driven to consider the matter from the point of view of merely "sanitary principles," or "the latest scientific teaching of the day. Looking at the matter thus, I conclude that:

1. The pavilion principle secures for each ward the maximum amount of light and air space, two of the most constant and powerful weapons against septic organisms. In block

hospitals the antiseptic treatment of wounds is a necessity; in a pavilion hospital the aseptic system may be successfully adopted.

2. The problem of ventilation is much simplified in pavilion hospitals, the necessity of an artificial system with its many risks is done away with, and the circulation of polluted air from the lower to the higher wards (a necessary evil in block hospitals) is obviated.

3. In block hospitals, though proper cubic space be given to each bed, yet the piling up of one floor upon another leads to gross overcrowding of the site. At the present moment, many London hospitals have a population exceeding 500 persons to the acre. The evil results of such a proceeding are now acknowledged in relation to our so-called "model dwellings," and it is obvious that when applied to hospitals such a plan of construction must render the attainment of "sweetness and light" extremely difficult.

4. The pavilion principle ensures with greater certainty the effectual isolation from the wards of administrative offices and out-patient department, a benefit that cannot be too highly estimated.

5. Supposing a block hospital so constructed and placed as to secure proper ventilation, and free access of light and air; to maintain it in this condition, apparatus must be elaborate, and care unremitting, and even then a trivial accident may serve to put the whole out of gear.

On all grounds, therefore, save that of cost, I maintain that preference should be given to hospitals built on the pavilion principle.—I am, etc.,

April 30th. J. O. S.

SCHOOL BOARD AND OTHER CERTIFICATES.

Sir,—If a medical man undertakes to attend a person in his last illness, I do not think it "involves" much "time and trouble" to fill up a "medical certificate of the cause of death," although I see no reason why he should not be paid for it by the Registrar-General through the local registrar of births and deaths; but before this can be done a special Act of Parliament would require to be passed. Mr. Hooper grants such certificate without fee to a poor woman, who takes it to the registrar, who gives her a "short copy of it" for the undertaker. This is what he does not do, but he (the registrar), after registering the death, hands her a "certificate of registry of death," to be delivered up at the funeral to the officiating minister or other person officiating at the burial of the dead body, and to no other person (*vide* Births and Deaths Registration Act, 1874, Section 17).

Other inaccuracies appear in Mr. Hooper's letter which might have been avoided if he had first taken the trouble to make himself acquainted with the form of certificates which he states are "abbreviated copies" of the "large and troublesome original certificate." For general information I enumerate copies of certificates bearing on Mr. Hooper's letter:

1. Medical certificate of the cause of death—the long and troublesome original.

2. Certificate of registry of death.

3. Certificate of death—which is admissible in any court of justice, and which is required for all insurance companies, including Prudential.

4. Certificate of the death of a person aged 10 years or upwards (Friendly Societies Act, 1875). Form No. 1.

5. Certificate of the death of a child between 5 and 10 years of age. Form No. 2.

6. Certificate of the death of a child under 5 years of age. Form No. 3.

—I am, etc.,

A. W. Sinclair,
Medical Officer and Public Vaccinator and Registrar of Births and Deaths to the 5th District Yeovil Union.

South Petherton, April 22nd.

LATERAL CURVATURE OF SPINE.

Sir,—It cannot be but that the profession owes its most grateful and cordial thanks to Mr. Christopher Heath for his services in drawing attention to what may be justly termed the physiological treatment of lateral curvature as opposed to the artificial treatment by sundry and complicated apparatus. This is specially to be welcomed as a justification of attempts to cure spinal curvature without apparatus, seeing that the general public usually look for some kind of machine, and are very much encouraged in this, both by the "apparatus practitioner" and the instrument maker. In several cases of lateral curvature that have come under my notice, after careful observation, I was tempted to use the very agencies which produced the curvature in order to effect the rectification.

Too much emphasis cannot be placed on relationship of the legs and their differences as to weight bearing, or rather as to the exact amount thrown on one or other leg, first, as to the production of the curvature; and, secondly, when judiciously used, as a means of cure.

With respect to the causative agency of the relative lengths of the legs, it seems very hard indeed to come to a definite conclusion, for in several instances, where there was most undoubtedly a short leg before treatment, when measured after disappearance of the curvature both legs were found of the same length, and *vice versâ*.

Careful inquiry nearly always elicits the facts that, particularly in primary lumbar curvature, the young ladies have been in the habit of sitting with the left leg tucked up and under them, resting the left elbow on the desk or table, the head on the left hand, reading, or writing with the right hand, and enthusiastically describe it as their "favourite attitude." The lateral semi-recumbent attitude tends to produce a lumbar curvature, with the concavity towards the right, thus overstretching the left lateral spinal ligaments.

This position is at once rectified on assuming the erect posture, but too oft repetition, coupled with the fact that the right foot is the "push-off foot" in walking, and the leg usually called upon to bear more weight than the left, soon produces a slight deviation; the patient calls to her aid her sense of balance, throws her body more and more to the right, increases the weight on the right leg, forces up the right arm of the pelvic lever, and rapidly gets worse.

Strange as it may seem, the dressmaker has invariably been found to be the person to first give warning by calling attention to the necessity of lengthening the skirt on the right side, and also pointing out the right hip as "growing out." This occurs long before the dorsal compensation is sufficiently well marked to effect the prominence of the right scapula. Acting on the suggestions of my old teacher, Professor Chiene, of Edinburgh, an eminently practical man, I have always endeavoured to force up the left depressed arm of the pelvic lever, and to that end have been in the habit of transferring the entire weight on to the left leg.

The patient now exerts herself to produce an equilibrium in her "sense of balance," rapidly undoes the commencing right lumbar curve—and in one case, through an oversight in not appearing for guidance, produced a left primary lumbar curve. This occurs when no spinal jacket or apparatus is worn, so much so that in two cases no improvement took place till they were discarded.

My main object in writing is to point out two slight difficulties to be met with in the leverage treatment: (1) When the cases are almost cured there is a point at which the curvatures tend to relapse at the slightest laxity; it is then that I have found a light steel apparatus of signal service, not to hold up the head and shoulders and relieve the spine, but to prevent the young lady exerting her sense of balance adversely by raising or lowering one or other shoulder. (2) Great care is needed in the amount of sole or heel that is used to effect the elevation of the depressed arm of the pelvic lever, as even one-eighth of an inch too much will produce severe pains in the back from overstrain, by fatiguing the muscles used to maintain balance and rectification, and mislead by indicating lying down, when all that is necessary is to remove some heel or sole from the depressed side. On the same principle, an inclined board with a single step for the leg of the depressed side, throwing the weight on it, is most serviceable.—I am, etc.,

New Brighton, April 30th. F. W. Forbes-Ross, M.D.

A clinical meeting of the Neurological Society of London will be held at the house of the Royal Medical and Chirurgical Society on Thursday, June 6th, at 8.30 P.M., when cases will be shown. The Council will propose Dr. George Savage for election as Vice-President in the place of the late Dr. Hack Tuke.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The last post on Wednesday is the latest by which these announcements can be received.

A SURGEON-CAPTAIN, due to go abroad next trooping season, wishes to exchange with an officer low down on the roster for foreign service. Apply, stating terms, etc., to "Devon," care of Holt and Co., 17, Whitehall Place.

CHANGES OF STATION.*

THE following recent changes of station amongst the officers of the Army Medical Staff have been officially notified:

		From		To
Surg.-Col.	E. C. Markey, C.B.	—	...	Portsmouth.
,,	A. F. Churchill, M.B. ...	Woolwich	...	Madras.
,,	C. A. Maunsell, M.D. ...	Cork ...	...	Bombay.
,,	T. F. O'Dwyer, M.D. ...	Dover ...	...	Nova Scotia.
,,	W. S. M. Brice	—	...	Woolwich.
Brig.-Surg.-Lt.-Col.	W. E. Riordan ...	—	...	Cork.
,,	D. C. Grose ...	Belfast ...	...	Edinburgh.
,,	J. A. Clery, M.B...	—	...	Aldershot.
Surg.-Lt.-Col.	R. H. Robinson	—	...	Dublin.
,,	H. Scott, M.B.	Aldershot	...	Curragh.
,,	G. H. Le Mottee, M.D.	—	...	Aldershot.
Surg.-Major	U. J. Bourke	—	...	Woolwich.
,,	G. A. Hughes, M.B. ...	—	...	Chatham.
,,	P. J. O'Sullivan, M.D. ...	Curragh ...	...	Aldershot.
,,	E. R. Power, M.B. ...	Chatham...	...	Devonport.
,,	A. Hewett	York ...	...	Leeds.
,,	D. O'Sullivan	Belfast ...	...	Newry.
,,	J. R. Dodd, M.B.	—	...	York.
,,	G. J. Coates, M.D. ...	Tipperary	...	Cork.
,,	J. W. Beatty, M.D. ...	Belfast ...	...	Enniskillen.
,,	J. Semple	—	...	Dover
,,	W. W. Pike	—	...	Belfast.
,,	C. R. Bartlett	—	...	Edinburgh.
,,	J. D. T. Jackitts	Dover ...	...	Jamaica.
,,	H. S. McGill	—	...	Dublin.
,,	V. E. Hunter	Hilsea ...	...	Portsmouth.
Surg.-Capt.	R. J. M'Cormack, M.D...	Hounslow	...	Sierra Leone.
,,	J. R. Forrest	Half Pay ...	...	Exeter.
,,	G. E. Hale, D.S.A. ...	Ashton-un.-Lyne	...	Beaumaris.
,,	C. C. Reilly...	Bengal ...	...	Curragh.
,,	A. E. Morris, M.D. ...	Parkhurst	...	Portsmouth.
,,	J. F. Bateman, M.B. ...	Egyptian Army	...	York.
,,	R. G. Thompson, M.D. ...	Chatham...	...	Sierra Leone.
,,	J. S. Green, M.B.	Birmingham	...	Dublin.
,,	C. S. Sparkes	Colchester	...	India.
,,	A. P. H. Griffiths... ...	—	...	Chester.
,,	F. T. Skerrett	Half Pay ...	...	Carnarvon.
,,	S. J. W. Hayman	Canterbury	...	Lydd.
,,	J. Moir, M.B.	Maryhill ...	...	Fort George.
,,	C. J. MacDonald	Newry ...	...	Cork.
,,	H. W. Austin	Devonport	...	Pembroke.
,,	A. L. F. Bate	Dublin ...	...	Wicklow.
,,	H. St. G. S. Hore	Malta ...	...	Aldershot.
,,	D. Stiell, M.B.	—	...	,,
,,	L. E. A. Salmon	Aldershot ...	...	Devonport.
,,	H. I. Poock	—	...	,,
,,	C. R. Elliott, M.D. ...	—	...	Belfast.
,,	C. A. Young	—	...	Dublin.
,,	B. J. Inniss...	—	...	Cork.
,,	R. C. Thacker	Aldershot	...	Curragh.
,,	S. F. Clark, M.B.	—	...	Canterbury.
,,	E. M. Hassard	—	...	Aldershot.
,,	B. Feeny, M.B.	York ...	...	Dublin.
Surg.-Lieut.	B. W. Longhurst ...	Portland ...	...	Portsmouth.
,,	D. J. Collins, M.B. ...	Cork ...	...	Wexford.
,,	A. E. Master, M.B. ...	Fort George	...	Piershill.
,,	G. Dansey-Browning ...	Barry Links	...	Maryhill.
,,	W. S. Harrison, M.B. ...	Aldershot	...	Chester.
,,	H. A. L. Howell	,,	...	Hounslow.
,,	D. Lawson	,,	...	Portsmouth.
,,	E. B. Steel, M.B.	,,	...	Chatham.
,,	C. W. Profeit, M.B. ...	,,	...	Dunbar.
,,	F. Kiddle, M.B.	,,	...	Devonport.
,,	H. E. Staddon	,,	...	Cork.
,,	J. H. Whitehead	,,	...	,,
,,	J. A. Murison, M.B. ...	,,	...	,,
,,	L. P. Tomlinson	,,	...	Dover.
,,	S. J. C. P. Perry	,,	...	Dublin.
,,	A. F. Heaton	,,	...	Belfast.
Quartermaster	R. T. Osborne... ...	Portsmouth	...	London.
,,	J. B. Short	London ...	...	Egypt.
,,	W. J. Blackman	—	...	London.
,,	H. G. Hasell	—	...	Netley.
,,	D. Dallas	—	...	London.

* At the request of several correspondents we have resumed this section of military intelligence, and purpose again giving it monthly, as was done some time back.

ARMY MEDICAL STAFF.

SURGEON-COLONEL E. C. MARKEY, C.B., is promoted to be Surgeon-Major-General, *vice* J. Davis, retired, April 15th. Surgeon-Major-General Markey was appointed Assistant Surgeon, March 1st, 1859; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1874; Brigade-Surgeon, April 18th, 1885; and Surgeon-Colonel, September 11th, 1890. He served in the Afghan war in 1879-80, and was present in the engagement at Saif u deen, the occupation of Candahar, the advance on and capture of Khelat-i-Ghilzai, the battle of Ahmed Khel, and the operations around Ghuznee; he accompanied Sir Frederick Roberts in the march to Candahar, and was in the battle of September 1st: he was mentioned in despatches, received the medal with two clasps and the bronze decoration. During the Nile Expedition in 1884-85 he had charge of the movable field hospital with the Desert Column, and was for some time Principal Medical Officer at El Gubat, being present at several skirmishes during the retreat to Korti (mentioned in despatches, medal with clasp, and Khedive's bronze star). He was favourably mentioned by the Government of India for his services in the Chin-Lushai Expedition in 1889-90, and was nominated a Companion of the Bath in 1890.

Brigade-Surgeon-Lieutenant-Colonel W. E. RIORDAN is promoted to be Surgeon-Colonel, *vice* E. C. Markey, C.B., April 15th. Surgeon-Colonel Riordan entered the service as Assistant Surgeon, September 30th, 1864; became Surgeon, March 1st, 1873; Surgeon-Major, September 30th, 1876; and Brigade-Surgeon-Lieutenant-Colonel, May 8th, 1890. He was in the Egyptian war of 1882, and was present at the surrender of Kafr Dowar (medal and Khedive's bronze star); he was also in the Soudan campaign in 1885, in charge of No 3 Field Hospital, and organised the Camel Ambulance of the force; he was Senior Medical Officer of the British troops at Suakin from May 28th to November 28th, 1885 (clasp).

Brigade-Surgeon-Lieutenant-Colonel P. L. Day retires on retired pay, May 15th. His commissions are thus dated: Assistant Surgeon, October 2nd, 1865; Surgeon, March 1st, 1873; Surgeon-Major, October 2nd, 1877; and Brigade-Surgeon-Lieutenant-Colonel, March 10th, 1892; he having attained the rank of Lieutenant-Colonel, October 2nd, 1885. He has no war record in the Army Lists.

Surgeon-Lieutenant-Colonel J. G. WILLIAMSON is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* W. E Riordan, April 15th. Brigade-Surgeon-Lieutenant-Colonel Williamson was appointed Assistant Surgeon, April 1st, 1871; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; and Surgeon-Lieutenant-Colonel, April 1st, 1891. He was in the Afghan war in 1878-80, and has the medal granted for that campaign.

Deputy-Inspector-General EDWARD MOORHEAD, M.D., died at Margate on May 6th, at the age of 75. He was appointed Assistant Surgeon, August 2nd, 1843; Surgeon, May 25th, 1858; Surgeon-Major, August 22nd, 1862; and Honorary Deputy-Inspector General, on retirement, January 22nd, 1868. He served with the 32nd Regiment at the first and second siege operations before Mooltan, including the capture of the city and surrender of the fortress, receiving the medal and clasp.

Surgeon-Major GEORGE LAFFAN, M.D., died on April 27th, at Belgaum, Madras. He was the son of Mr John Laffan, of Farranferris, Cork, and was born on December 17th, 1845. He was appointed Surgeon, February 4th, 1877, and was promoted Surgeon Major, February 4th, 1889. Surgeon-Major Laffan served in the Soudan Expedition of 1884-85, and received the medal with clasp and the Khedive's bronze star. He was also employed with the expedition to Manipur in 1891, and was awarded the North-West Frontier medal with clasp.

INDIAN MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL SIR JOSEPH FAYRER, M.D. K.C.S.I., Retired List, Bengal Establishment, Honorary Physician to the Queen, late President to the Medical Board, India Office, is granted the honorary rank of Surgeon-General, January 12th.

Surgeon-Major-General J. WARREN has been granted an extension of the tenure of his appointment as Principal Medical Officer, Bombay Army, until July 6th, 1896.

Brigade Surgeon-Lieutenant-Colonel R. DE LA C. CORBETT, M.D., D.S.O., is directed to officiate as Principal Medical Officer, Oude and Rohilcund Districts.

Brigade-Surgeon-Lieutenant-Colonel G. M'B. DAVIS, M.D. Bengal Establishment, is granted the temporary rank of Surgeon-Colonel from March 31st, while officiating as Principal Medical Officer, Punjab Frontier Force.

Surgeon-Colonel L. D. SPENCER, M.D., Bengal Establishment, is granted the temporary rank of Surgeon-Major-General from April 1st.

Brigade-Surgeon-Lieutenant-Colonel G. HUTCHESON, M.D., Bengal Establishment, is granted the temporary rank of Surgeon-Colonel, from April 1st.

Surgeon-Colonel R. HARVEY, M.D., D.S.O., Bengal Establishment, and Surgeon-Colonel C. E. MCVITTIE, Madras Establishment, are promoted to be Surgeon-Major-Generals from April 1st.

Surgeon-Majors G. S. KEARNEY, M.B., R. D. MURRAY, M.B., D. W. D. COMINS, P. F. O'CONNOR, M.D., J. MORAN, M.D., W. A. SIMMONDS, R. MACRAE, M.B., and T. E. L. BATE, of the Bengal Establishment, are promoted to be Surgeon-Lieutenant-Colonels from March 31st.

Surgeon-Colonel J. G. PILCHER, Bengal Establishment, is permitted to retire from the service from March 29th. He was appointed Assistant-Surgeon October 1st, 1860, and became Surgeon-Colonel March 29th, 1890.

Surgeon-Major HENRY JOHN CARTER, retired Bombay Army, died at Budleigh Salterton on May 4th, aged 82.

Deputy-Surgeon-General H. HARPER, retired Madras Establishment, died at Kensington on May 3rd.

Surgeon-Major J. SHEARER, M.B., Medical Officer 27th Punjab Infantry, is, amongst other officers, specially mentioned in Sir William Lockhart's despatches regarding the recent operations in Waziristan.

THE YEOMANRY AND RIFLE VOLUNTEERS.

SURGEON-CAPTAIN G. F. A. ENGLAND, M.B., Hampshire Carabineers, has resigned his commission, May 15th; and Mr. JOHN F. G. DILL, M.D., is appointed Surgeon-Lieutenant in the same corps, also May 15th.

Mr. JOHN MARNOCH, M.B., is appointed Surgeon-Lieutenant to the 1st Aberdeenshire Artillery, May 16th.

Surgeon-Lieutenant J. MACDONALD, M.B., 3rd Durham Artillery (Western Division Royal Artillery), has resigned his commission, May 15th.

Surgeon-Lieutenant H. D. BROOK, 20th Middlesex (Artists') Rifles, is promoted to be Surgeon-Captain, May 15th.

The Volunteer Officers' Decoration has been conferred upon the following officers: Surgeon-Captain A. T. BRAND, M.D., 2nd Volunteer Battalion the East Yorkshire Regiment; Surgeon-Majors WILLIAM WILSON and WILLIAM FREW, M.D., 1st Volunteer Battalion the Royal Scots Fusiliers; and Surgeon-Captain JAMES STEPHEN, M.D., 3rd (The Buchan) Volunteer Battalion the Gordon Highlanders.

VOLUNTEER MEDICAL STAFF CORPS.

SURGEON-LIEUTENANT P. O. HAYNES, the Woolwich Company, to be Surgeon-Captain, May 15th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

BONESETTERS AND MEDICAL TESTIMONIALS.

THE medical men who have allowed their names, addresses, and qualifications to be attached to testimonials in favour of a bonesetters' liniment and, further, have permitted such testimonials to be freely circulated in handbills, should be dealt with by the bodies from which they obtained their diplomas. Failing which, steps should be taken to bring their conduct before the General Medical Council. An action would probably lie against the bonesetter if evidence could be obtained to prove the alleged libel, but the expense of such action would be heavy.

PUBLIC EXPRESSION OF GRATITUDE.

A CORRESPONDENT sends us an advertisement of a most curious character, which he states was cut out from the *South Bucks Free Press* of April 27th. In this, one Josiah P. Starling returns thanks to his friends for their sympathy, and then continues as follows: "Especially does he feel deeply indebted to his earnest painstaking doctor (Dr. Fleck), who, not only by his skill, but by his Christian, kindly manner, has, under the blessing of the 'Great Physician,' been the means of rescuing a life which was fast ebbing away. God grant that he may live long to spread health and happiness around him." Here follow the address and date, and the injunction: "N.B.—Please read Psalm cxvi." The insertion in such an advertisement of a reference to him must, we feel sure, have been extremely distasteful to Dr. Fleck, who might do well to induce his patient to let it be equally well known that the advertisement was inserted without Dr. Fleck's authority.

SCHOOL FEES AND INFECTION IN SCHOOLS.

A SINGULAR point has arisen in the course of a case in Bristol County Court with regard to the administration of the rule intended to guard boys at the Bristol Grammar School from infectious disease. The suit was brought by the governors of the institution to recover £1, one term's fees, for the son of Mr. W. Alford, a Clifton solicitor. It was contrary to the rule to receive scholars from a home where infection existed unless a medical certificate that there was no danger was sent. One of the masters at the school kept a house of boarders, and, measles having broken out there, isolation was promptly resorted to, and the boys not affected continued attending school. Other boys in the school took measles, from what source could not be said, and one lad of Mr. Alford's also became ill. Mr. Alford (who himself strictly obeyed the rule) considered the regulation for the common protection had been broken, and took his son away when he ascertained the facts. No notice having been given (in accord with the contract) to withdraw the pupil, the fees were claimed and the action resulted. Mr. Weatherly, one of the counsel in the matter, stated that he could find no such case in the law books. The judge thought the rule directed against careless parents and not binding on the schoolmaster who kept the boarding house. He saw nothing to set aside the contract, and therefore gave judgment in favour of the school governors with costs on the highest scale.

IRISH GUARDIANS AND DOCTOR'S FEES.

AT the Dingle Quarter Sessions last week, Dr. Hayes, of Tralee, brought an action against the Board of Guardians for fees which they had declined to pay. The plaintiff had been summoned by the medical officer (Dr. Behan) to help him in a case in which the patient's eye had been blown out and his arm shattered by a gunpowder explosion, so that amputation was necessary. The guardians refused to pay on the ground that Dr. Behan had not acted on the authority of a medical relief ticket. Judge Shaw said in his opinion the guardians, and not the employer, were liable for the fees. A dispensary doctor was not bound to wait for a medical relief ticket in an urgent case. It would be a scandalous thing if that were so, that a patient should be allowed to die while the doctor was waiting for the relieving officer or any other person to give him leave to attend. The dispensary regulations and the Medical Charities Act were very clear on the point, and were not capable of being misconstrued. As to the power of a dispensary doctor to call assistance, they were not all clear, but it was very evident that unless he was allowed to use his own discretion in such matters, very often serious results would occur, and life probably be lost. A dispensary doctor was, in his opinion, clearly entitled to use his own discretion in all urgent cases, and had power to call in all requisite assistance, and in this case Dr. Behan had not exceeded his power in any way. Dr. Hayes had charged a very moderate fee indeed for his services, and was entitled to be paid. He gave a decree with costs and expenses.

CHANGE OF ADDRESS.

HELENSBURGH.—If Dr. A. Gordon Ingram had been a young, inexperienced graduate, ignorance of the medico-ethical rule in question might not unfairly have been pleaded in extenuation; but, in view of the fact that he is a practitioner of some twelve or thirteen years' standing, no such excuse can justly be urged for contravening it by notifying his change of residence in the lay press. This change should have been communicated to his patients by an autograph note or *facsimile*, or by an ordinary address card, as advised in the BRITISH MEDICAL JOURNAL of April 27th under the heading of "Change of Address," p. 956, col. 2.

AN URGENT CASE AND SUBSEQUENT ATTENDANCE.

ASSISTANT B. writes that in the absence of his principal A. he was sent for to attend X., who is an old patient of A.'s. The case was urgent, and when Assistant B. arrived he found that several other doctors had been called in, and had rendered temporary assistance. One, C., continues in attendance, stating that he has been asked so to do by some of X.'s friends. X.'s wife desires B. to attend until A. returns.

*** Assuming, as we do, that the above statement conveys a true version of the facts, there cannot, in our opinion, be the slightest doubt that C. is not justified in continuing his attendance, and especially in view of the fact that it is contrary to the wish of the wife of the patient.

THE CIRCULATION OF TESTIMONIALS.

C. writes: A. has recently started practice in a village where, before his coming, there was one doctor (B.) only. A servant from one of the houses in the neighbourhood consults him, whereupon he gives her copies of testimonials he received from various members of the staff of his hospital. One of these copies the servant gives to her mistress, who in turn shows it to her own doctor (C.), who lives in a village some miles distant. Is A.'s conduct in thus distributing testimonials justifiable?

*** If our correspondent will refer to the *Ethical Code*, chap. ii, sec. I, rule 3, he will find it distinctly laid down that to adduce or distribute—except when seeking a hospital or other public appointment—testimonials of skill is justly held to be incompatible with the honour and dignity of the profession, and to correspond with the ordinary practice of charlatans.

FREE ATTENDANCE ON THE FAMILIES OF MEDICAL MEN.

A MEMBER FOR THIRTY YEARS.—Although it is not in accord with professional custom to charge for attendance on the son of a brother practitioner, our correspondent will find, on referring to the following rule[1] that it is optional with the attendant practitioner to do so or not.

"All legitimate practitioners of medicine, their wives, and children while under the paternal care, are entitled, not as a matter of right, but by professional courtesy, to the reasonable and gratuitous services—railway and like expenses excepted—of the faculty resident in their immediate or near neighbourhood. In the case also of near relatives, who are more or less dependent upon a professional brother (other than wealthy), it will likewise be well, at his request, to forego or to modify the usual fee. On the other hand, a son or a daughter altogether independent of the father, or the widow and children of a practitioner left in affluent or well-to-do circumstances, should be charged as ordinary patients, unless feelings of friendship, or other special reasons, render the attendant practitioner averse to professional remuneration; in such case the rule need not apply. Moreover, if a wealthy member of the faculty seeks professional advice, and courteously urges the acceptance of a fee, it should not be declined, for no pecuniary obligation ought to be imposed on the debtor which the debtee himself would not wish to incur."

DELTOID.—The principle of the above rule applies equally, and should be extended to registered students of medicine, whether such be the sons of medical men or otherwise.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

WALSINGHAM MEDAL.—The Lord High Steward has generously offered to continue the annual award of the Walsingham Medal for the best original research in Botany, Geology, Zoology, or Physiology, presented by a graduate of the University under the standing of M.A. Essays are to be sent to Professor Newton by October 10th, 1895.

DEGREES.—At the Congregation on May 6th the following degrees in Medicine and Surgery were conferred:

M.D.—J. A. Arkwright, M.A., Trinity; J. Attlee, M.A., St. John's; L. G. Glover, M.A., St. John's.

M.B.—J. J. Powell, M.A., Clare; W. Thomas, B.A., Christ's; L. G. Davies, B.A., non-coll.

B.C.—J. J. Powell, W. Thomas.

UNIVERSITY OF LONDON.

MEETING OF CONVOCATION.

THE annual meeting of Convocation was held on Tuesday last at the University building. Mr. E. H. BUSK was re-elected Chairman, and Mr. H. E. Allen clerk.

Professor S. P. THOMPSON presented the report of the Annual Committee, which was accepted without discussion.

Mr. H. M. BOMPAS, Q.C., moved the following resolution:

"That the three resolutions contained in paragraphs 7, 10, and 12 of the *Minutes* of the Meeting of Convocation held on January 22nd, 1895, are hereby rescinded, this House being of opinion that if a local teaching university for London be desirable, it ought to be constituted apart from the existing University of London."

He said that a question had arisen upon which the interests of the provinces and of London differed as regarded the members of that Uni

[1] *Code*, chap. ii, Sect. 2, Rule 1.

versity, inasmuch as it was proposed that special privileges should be given to the London colleges and the London graduates. He felt that the meeting in January last was composed entirely of London graduates, and he desired to give country graduates this opportunity of discussing the scheme and voting upon it. The question which he desired to raise had not been put to the University fairly and straightly before. The examinations of the University were now open to all the world, candidates coming to it from all parts and from other universities. If made a teaching university, its examinations must tend to be greatly to the advantage of London students, and could not remain the scrupulously fair tests they were at present. He thought London should have a teaching university; but it should be a separate body, if in the new university attendance at lectures was to count instead of examinations alone as a means of obtaining a degree. At present every man, whether he came from the London Colleges or whether he taught himself, and whether examined in London or Calcutta, felt that he was subjected to an equal and fair standard. This had been the foundation of the University's great success and the unique value of its degrees. The Gresham scheme proposed to alter that entirely, and if carried out it would establish an examination of such a character that those trained in the London Colleges would have an advantage over those trained elsewhere. A teaching university for London was required, but it should be separate from the present University. It had been argued that if such another university were established the present University would lose its students; he ventured to think that was an entire mistake. On the contrary, if their University were converted into a teaching university they would certainly lose their country graduates.

Mr. H. H. COZENS HARDY, Q.C., M.P., strongly opposed the resolution. He said that if he brought the scheme would put an end to non-collegiate students he would oppose it; but, as he thought those students should be in association with a university of the highest reputation, he opposed Mr. Bompas's proposition. For years Convocation had voted in favour of association with the coming teaching university. The details of the scheme had been discussed *ad nauseam*. Mr. Bompas had said that the January meeting was composed entirely of London graduates, but he emphatically denied that there had been a larger number of graduates then present than he remembered ever having seen before except on one occasion. The scheme had been approved after immense care and discussion, and he trusted they would not now make themselves the laughing-stock of the country by rescinding their former vote.

Dr. H. L. HART seconded the motion of Mr. Bompas, which was opposed by

Dr. J. G. FITCH, who said that he was confident the Government intended to adhere to the principle of protecting the interests of non-collegiate students. He knew that the University had been of the greatest possible assistance to schoolmasters and scholars all over the country; and the scheme for the new university would not lessen that usefulness. Convocation should not now interpose any further difficulty in the way of the realisation of the scheme, which would serve a problem difficult, indeed, but not, as some seemed to suppose, insoluble. Their University could adapt itself to the circumstances of the times; and they must "take the tide when it served or lose their venture."

The resolution was opposed by Mr. J. E. H. COTTON and Mr. T. C. LOWE, who considered that the country graduates possibly saw the real bearing of the question better than the graduates living in the metropolis. He considered that the points in favour of Mr. Bompas's proposition were that it was honest, embodied a good policy, since it would attract men to their University, and would lead to the speedier formation of the much-desired teaching university in London, since the Gresham scheme was likely to be contested at every point.

Mr. THOMAS said that the two Universities in the North of England had excluded non-collegiate students because their inclusion was considered to be thoroughly impracticable.

Mr. H. MANCHESTER said that if the balance of power in the Gresham scheme could be taken from the teachers many of those now opposing it would vote for it.

Dr. H. L. SNOW asked why they should sacrifice all the advantages of the present imperial University by the adoption of a fundamentally diverse constitution.

The Rev. Principal CAVE said that Nonconformist Colleges did not wish a cheaper or easier degree than that of the present University. If another university were founded in London, to which the Colleges were affiliated, their University would be starved, only self-taught students would come to it; he, therefore, should strongly oppose the resolution.

After some further discussion, Mr. BOMPAS said, in reply, that Mr. Cozens Hardy and Dr. Fitch had both remarked that if they thought the proposed change would be inimical to the non collegiate students they would not support it; he himself failed to see how it was possible for it to be adopted without that result to those students.

Upon a division, 117 votes were recorded for the resolution, and 238 against it. The resolutions of January consequently stand as passed. It was further resolved that the names of graduates voting should be printed in the report.

The CHAIRMAN announced that the nomination of a list of three persons to be submitted to Her Majesty for the selection therefrom of a Fellow of the University had resulted as follows: For Dr. T. B. Napier, 1,231 votes; for Mr. H. H. Cozens-Hardy, Q.C., M.P., 733 votes; and for Mr. Greig, 30 votes.

Mr. W. J. SPRATLING proposed that a special Committee of Convocation be appointed for the purpose of further reviewing the scheme for London Local Examinations.

Mr. T. TYLER seconded the proposition.

After some discussion an amendment was proposed by Dr. B. E. DAWSON, and seconded by Mr. H. M. BOMPAS, Q.C., "That it is inopportune at the present time to further proceed with the consideration of any scheme for local examinations" was put to the meeting and carried by a two thirds majority.

The voting for the annual committee for the ensuing year resulted in the adoption of the list of names in all the Faculties, exactly as recommended in the circular issued by the committee of graduates (chairman, Mr. H. H. Cozens-Hardy) favourable to the scheme of the Gresham University Commission, and constituted in April, 1894. The following graduates in Medicine were elected: Mr. Stanley Boyd, Dr. J. Rose Bradford, Mr. H. G. Howse, Dr. H. M. Murray, Dr. A. E. Sansom, Mrs. M. A. D. Scharlieb, Dr. T. W. Shore, Mr. W. G. Spencer, Dr. F. Taylor, Dr. N. I. C. Tirard, and Mr. H. J. Waring.

Through an error in counting the votes on the part of the scrutineers of the ballot, the names of two of the above graduates were omitted from the list of graduates elected as it was first announced by the Chairman, and two other members were declared elected. But the error was afterwards rectified by the scrutineers, and the correction announced by the Chairman.

UNIVERSITY OF GLASGOW.

EXAMINERS FOR MEDICAL DEGREES.—The University Court, at their meeting on May 9th, made the following appointments of Examiners for Degrees in Medicine: Mr. Henry Edward Clark, M.R.C.S., to be Examiner in Clinical Surgery; and Dr. Thomas D. Savill, M.R.C.P. & S., D.P.H., to be Examiner in Clinical Medicine. Each appointment was made for the term of three years.

ROYAL UNIVERSITY OF IRELAND.

EXAMINATION FOR THE M.B., B.CH., B.A.O. DEGREES.—SPRING, 1895.—The Examiners have recommended that the following candidates be adjudged to have passed the above-mentioned examination:

Upper Pass.—*J. A. Craig, Queen's College, Belfast; *T. Houston, B.A., Queen's College, Belfast; A. Trimble, Queen's College, Belfast; and J. H. Whitaker, Queen's College, Belfast.

Candidates marked with an asterisk may present themselves for the Further Examination for Honours.

Passed.—R. H. Allan, Queen's College, Belfast; W. P. D. Allen, Catholic University School of Medicine and Royal College of Science; J. Booth, Queen's College, Cork; J. D. Boyd, Queen's College, Belfast; J. P. Cashman, Queen's College, Cork; J. A. Clements, Queen's College, Galway, Catholic University School of Medicine, and Medical School, Edinburgh; L. A. J. Crinion, Catholic University School of Medicine; W. Herron, Queen's College, Belfast; J. Huston, B.A., Queen's College, Belfast; T. J. Kelly, A. Johnston, Queen's College, Belfast; J. Lowry, Queen's College, Belfast; J. H. McBurney, Queen's College, Belfast; C. McCarthy, Queen's College, Cork; J. W. McHenry, Queen's College, Belfast; D. J. O'Connor, M.A., Queen's College, Cork; J. Roantree, Catholic University School of Medicine; D. Somerville, B.A., Queen's College, Belfast.

The following have also been recommended to pass examination for the M.D. degree:

H. W. Cunningham, private study; J. Eldon, St. Bartholomew's Hospital, London; J. S. Morrow, B.A., Queen's College, Belfast, and private study.

Examination for M.Ch. degree:

J. Eldon, St. Bartholomew's Hospital, London.

SECOND EXAMINATION IN MEDICINE, SPRING, 1895.—The Examiners have recommended that the following candidates be adjudged to have passed the above-mentioned examination:

Upper Pass.—N. J. Blaney, Catholic University School of Medicine; R. T. Booth, Queen's College, Cork; E. J. Butler, Queen's College, Cork; G. E. Charles, Queen's College, Cork; A. Grahame, Queen's College, Belfast; J. B. Slattery, Queen's College, Cork; G. K. Smiley, Queen's College, Belfast.

The above candidates may present themselves for the Further Examination for Honours:

Pass.—R. Ahern, Queen's College, Cork; Dora E. Allman, Queen's College, Cork; W. L. Armstrong, Queen's College, Belfast; W. Cahill, Queen's College, Cork; H. L. Craig, Queen's College, Belfast; J. Queen's College, Cork; J. Duff, Catholic University School of Medicine; H. Hanna, B.A., Queen's College, Belfast; G. C. R. Harbinson, Queen's College, Belfast; J. C. B. Hayes, Queen's College, Cork; J. J. Hill, Queen's College, Cork; S. Hill, Queen's College, Belfast; G. A. Hogg, Queen's College, Belfast; F. S. Irvine, Queen's College, Belfast; W. E. J. Jones, Queen's College, Belfast; J. N. Lynch, Queen's College, Cork; D. Murphy, Queen's College, Cork; E. McDonnell, Queen's College, Cork; P. M. O'Meara, B.A., Queen's College, Cork, Queen's College, Cork; P. M. O'Meara, B.A., Queen's College, Cork, and Catholic University School of Medicine; T. S. Ross, Queen's College, Belfast; J. Scott, Queen's College, Belfast; W. J. Sweeney, Royal College of Surgeons, School of Physic Trinity College Dublin, and Royal College of Science, Dublin; S. Waddell, Queen's College, Galway; J. E. Whyte, Queen's College, Belfast.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen passed the First Professional Examination for the Diploma of Fellow, at a meeting of the Board of Examiners, on Monday, May 13th:

W. E. Bennett, L.R.C.P.Lond., M.R.C.S.Eng., Mason College, Birmingham, and St. Bartholomew's Hospital; A. H. Burgess, Owens College, Manchester; R. Campbell, M.B.R.U.Irel., L.R.C.P.Lond., M.R.C.S.Eng., Queen's College, Belfast; J. L. Dick, M.B.Edin., L.R.C.P.Lond., M.R.C.S.Eng., Edinburgh University and St. Bartholomew's Hospital; and W. B. H. Wood, Mason College, Birmingham.

Fifteen gentlemen were referred back to their professional studies for six months.

Passed on Tuesday, May 14th:

A. E. Atkinson, L.R.C.P.Lond., M.R.C.S.Eng., Middlesex and St. Thomas's Hospital; W. R. Battye, University Colleges, Bristol and London; D. L. F. Davies, Middlesex Hospital; E. S. E. Hewer, St. Bartholomew's Hospital; and T. H. Molesworth, Cambridge University and St. Bartholomew's Hospital.

Fifteen gentlemen were referred back to their professional studies for six months.

THE following are the arrangements for the Final Examination for the Fellowship, for which 47 candidates have entered their names:

Monday, May 20th, Written Examination, at Examination Hall, 1.30 to 5.30 P.M.

Tuesday, May 21st, Clinical Examination, at Examination Hall, 2.30 to about 6.30 P.M.

Wednesday, May 22nd, Operations, at Examination Hall, 1.30 to about 6 P.M.

Thursday, May 23rd, Surgical Anatomy, at Examination Hall, 2 to about 4.15 P.M.

Friday, May 24th, Pathology, at Royal College of Surgeons, 5 to about 8 P.M.

Saturday, May 25th, Pathology, at Royal College of Surgeons, 5 to about 8 P.M.

Candidates will be required to attend on each of the first four days, and on Friday or Saturday.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,494 births and 3,585 deaths were registered during the week ending Saturday, May 11th. The annual rate of mortality in these towns, which had declined from 35.0 to 17.5 per 1,000 in the nine preceding weeks, rose again to 17.7 last week. The rates in the several towns ranged from 12.9 in Swansea, 13.5 in Brighton and in Hull, and 13.6 in Sunderland to 23.6 in Halifax, 24.5 in Preston, and 25.8 in Plymouth. In the thirty-two provincial towns the mean death-rate was 18.4 per 1,000, and exceeded by 1.8 the rate recorded in London, which was only 16.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the death-rate was equal to 1.7 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were recorded in West Ham, Bolton, and Plymouth. Measles caused a death-rate of 1.3 in West Ham and in Newcastle-upon-Tyne, 2.6 in Bolton, and 3.5 in Plymouth; and whooping-cough of 1.5 in Salford and 1.6 in Burnley. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 65 deaths from diphtheria in the thirty-three towns included 33 in London, 6 in West Ham, 4 in Birmingham, 3 in Liverpool, and 3 in Wolverhampton. No fatal case of small-pox was registered either in London or in any of the thirty-two provincial towns. There were 33 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, May 11th, against 35, 37, and 34 at the end of the three preceding weeks; 6 new cases were admitted during the week, against 4, 12, and 8 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,514, 1,469, and 1,413 at the end of the three preceding weeks, was 1,438 on Saturday last, May 11th; 179 new cases were admitted during the week, against 162, 132, and 107 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, May 11th, 947 births and 540 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.6 and 20.9 per 1,000 in the two preceding weeks, declined to 18.7 last week, but exceeded by 1.0 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the death-rates ranged from 16.2 in Dundee to 27.8 in Leith. The zymotic death-rate in these towns averaged 2.0 per 1,000, the highest rates being recorded in Paisley and Leith. The 246 deaths registered in Glasgow included 12 from whooping-cough, 2 from scarlet fever, and 1 from small-pox. Eight fatal cases of measles and 1 of small-pox were recorded in Edinburgh, and 9 of measles in Leith.

PENSIONS FOR POOR-LAW MEDICAL OFFICERS.

LAMBDA asks the following questions:

1. Are Poor-law medical officers at present entitled to a pension after having served a certain number of years?
2. If so, what is the time they must serve before becoming so entitled?
3. If a pension is granted, must the recipient reside in any special place?
4. If medical officers are not now entitled to a pension, is it probable that within a few years legislation will render them so?

*** Poor-law medical officers at present only become entitled to a pension if such is granted by the guardians and the grant is confirmed by the Local Government Board. As a general rule no pension can be granted for less than twenty years' service. We are not aware of any restriction as to residence if a pension is once awarded.

It is impossible for us to say what future legislation will effect in reference to this subject. There is a Bill now before the House which, if passed, will in the future make pensions compulsory after long service.

MEDICAL SUPERINTENDENT.—The point has been well threshed out amongst the Poor-law Officers in their *Journal*, and it is considered that it would be unwise to revive the question. The getting the principle of superannuation acknowledged is nearer accomplishment than ever, and it is well not to let trivial matters interfere with united efforts. Mr. Rutherglen, the President of the Poor-law Officers' Association, has worked hard in the cause, and has welcomed the medical officers' accession warmly, and it would not be acting right for the medical element to throw obstacles in the way.

DR. T. H. REDWOOD asks for information as to the birth-rate and the death-rates, general and infantile, and zymotic, urban and rural, for all England and Wales, for the year 1894. If the rate under 5 years, including under 1 year, could be given also, all the better.

*** The following are the rates for England and Wales, 1894:

Birth-rate	...	...	...	= 29.6 per 1,000 living.	
Death-rate	...	...	...	= 16.6	,, ,,
Zymotic rate	...	...	...	= 1.76	,, ,,
Urban death-rate				= 17.1	,, ,,
Rural	...	...	...	= 15.6	,, ,,

Deaths under 1 year of age = 137 per 1,000 births.

The death-rate under 5 years of age is not yet available.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.

The University of London.—Lord PLAYFAIR introduced a Bill for the purpose of reconstituting the University of London. After recapitulating the action of the two Royal Commissions which have reported on this question, he stated that the Bill proposed to carry out the recommendation of the last Royal Commission that the reconstitution should be carried out by legislative authority, that was, by a Statutory Commission. The scheme was elaborate, and the Bill gave power to the Statutory Commission to carry out the necessary adjustments to ensure that justice should be done to all interests. The plan of giving such powers to a Statutory Commission was an old one, as it had already been followed in the case of the Universities of Oxford and Cambridge and the Scottish Universities. There was no intention to interfere by the Bill with the Imperial character of the existing University. The power of the University to examine and grant degrees to students external to London would be preserved by a clause in the Bill. The names of the Statutory Commissioners would be inserted in the Bill before the House was asked to read it a second time.—Some conversation subsequently took place, in the course of which Viscount CROSS and the Marquis of SALISBURY complained that proper notice had not been given of the intention to introduce the Bill, and also that Lord Playfair had made a speech in introducing the Bill.—Lord PLAYFAIR protested that he had given due notice, and eventually the Bill was read a first time.

Midwives Registration Bill.—Lord BALFOUR moved the second reading of this Bill. He said that in this country alone in Europe was no care or supervision exercised over the calling of the midwife. Any woman might undertake and continue that calling. Even the fact that a woman had been convicted upon a criminal charge would not justify any authority in preventing her continuing to practise. The mortality amongst the mothers who employed these women was much greater than it ought to be; and disease, both in mothers and children, resulted from incompetent attendance during childbirth. The report of the Select Committee of the House of Commons (1892-3) showed that midwives did attend women of the humbler classes in great numbers without the supervision of qualified medical men; that a great number of them were untrained, and that the mortality and injuries from their want of skill was greater than it should be. He read a letter from Sir John Williams in which were enumerated the sources of this mortality, and the opinion was expressed that the mortality of childbed among the poorer classes would be greatly reduced if the women who attended possessed an elementary knowledge of midwifery. Lord Balfour then described the provision of the Bill (which was issued on May 9th, and published in the JOURNAL of May 11th); he believed that the effect of the Bill would be to induce women to send for medical advice, and that such a Bill was a matter of crying necessity in the interests of public health, as well as in those of common humanity.—Lord THRING expressed the hope that the Bill should be referred to a Select Committee, and due care taken to see that midwives were properly represented on the Council.—Lord PLAYFAIR said that the Government had no objection to the general principle of the Bill, but considered that several important amendments might be necessary. One point of weakness was the attempt to define "natural labour." Further, he thought it would be difficult to limit the application of the term "midwife," one of the oldest words in the English language. Clauses 8 and 12 were so elaborate that he feared in practice they would prevent the success of the Bill. He concluded by asking Lord Balfour to postpone the further consideration of the Bill for a short time, so as to enable the Government to consider what amendments should be put down before the Committee stage.—Lord BALFOUR acquiesced, and the Bill was then read a second time.

HOUSE OF COMMONS.

Tuberculosis Commission.—Mr. KNOWLES asked the Speaker's ruling with regard to a clerical error which appeared on the notice paper. A motion standing in his name (Tuberculosis Royal Commission) appeared as a notice of motion instead of as a motion on going into Committee of Supply, and he wished to know whether that clerical error could be now corrected.—Mr. CALDWELL, as a matter of order, wished to know if it was competent at this stage to alter the motions on going into Committee of Supply, regarding which alterations members had had no notice.—The SPEAKER said he understood from the hon. member that a mistake had been made in the printing of the paper, the motion in question being put down as a substantive motion, whereas it should have appeared as an amendment on going into Committee of Supply. The matter would be put right in the evening paper if no substantial objection was taken.

MEDICAL NEWS.

DR. FANCOURT BARNES was elected Consulting Physician to the British Lying-In Hospital at a general meeting of the Governors on May 7th.

THE Society of Obstetrics and Gynæcology of Bordeaux, in organising a Congress for August 8th, on the occasion of the Exposition, has elected Dr. Robert Barnes "President d'Honneur" of the Congress.

THE annual exhibition of the St. George's Hospital Graphic Society, which is strictly limited to the works of members, will be opened in the Museum of the hospital immediately after the annual meeting, which is to be held on May 28th, at 2.30 P.M. Visitors will be admitted to the exhibition, which will remain open until the end of the week, on presentation of their cards.

FRENCH CONGRESS OF INTERNAL MEDICINE.—The second French Congress of Internal Medicine will be held this year at Bordeaux under the presidency of Professor Bouchard. The date of meeting is August 8th. The subjects proposed for discussion are: (1) Infectious Myelitis; (2) Relations of the Liver and Intestine in Pathology; (3) Analgesic Antipyretics.

LIFE INSURANCE OF CHILDREN IN AMERICA.—A Bill has been reported to the Massachusetts Legislature providing that no life insurance company shall issue a policy upon the life of any child under 10 years of age living in the State. The penalty is 100 dollars for each offence, the law to come into force on September 1st, 1895.

PATHOLOGICAL SOCIETY OF LONDON.—The following is the list of officers and Council proposed for election by the Council at the annual general meeting of the Society on May 21st. An asterisk (*) signifies that the gentleman to whose name it is appended was not on the Council, or did not hold the same office during the preceding year: *President:* *Henry Trentham Butlin, D.C.L., F.R.C.S. *Vice-Presidents:* Thomas Barlow, M.D.; William Selby Church, M.D.; *Norman Moore, M.D.; *Seymour Sharkey, M.D.; Alban H. G. Doran; *Frederick S. Eve; Cuthbert H. Golding-Bird; *Frederick Treves. *Treasurer:* Sidney Coupland, M.D. *Honorary Secretaries:* G. Newton Pitt, M.D.; *J. H. Targett, M.S. *Council:* Wilmot Parker Herringham, M.B.; A. A. Kanthack, M.B.; *Hector Mackenzie, M.D.; Sidney Martin, M.D.; William Pasteur, M.D.; H. D. Rolleston, M.D.; Charles Scott Sherrington, M.B.; *F. Charlewood Turner, M.D.; *A. F. Voelcker, M.D.; Dawson Williams, M.D.; Gilbert Barling, M.B.; James Berry, M.B.; Stanley Boyd; *Anthony Bowlby; E. Hurry Fenwick; C. B. Lockwood; Stephen Paget; *Bilton Pollard, M.B.; Samuel G. Shattock; Charles Stonham.

MEDICAL VACANCIES.

The following vacancies are announced:

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident House-Physician. Salary, £65 per annum, with board, lodging, and washing in the hospital. Applications to the Secretary by May 30th.

ASYLUM FOR IDIOTS, Earlswood, Redhill, Surrey.—Assistant Medical Officer. Salary, £150 per annum, with board and residence. Applications marked "Assistant Medical Officer," to the Secretary, 36, King William Street, London Bridge, E.C., by May 23rd.

BARNSTAPLE UNION.—District Medical Officer. Salary, £70 per annum and midwifery fees. Applications to William Henry Toller, by May 30th.

BIRKENHEAD UNION.—Medical Officer of Workhouse and Schools. Salary, £30 per annum for the Workhouse and £10 for the Schools, with extra medical fees, and will also be appointed Public Vaccinator. Also Assistant Medical Officer. Salary, £60 per annum for the Workhouse and £20 for the Schools, with rations, attendance, washing, and residence in the workhouse. Candidates must be registered. Applications and testimonials endorsed "Medical Officer," or "Assistant Medical Officer" (as the case may be), to John Carter, Clerk to the Guardians, Clerk's Offices, 45, Hamilton Square, Birkenhead, by May 31st.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon, will be required to enter into an agreement not to commence private practice within the Borough of Blackburn for a period of three years. Salary, £50 per annum with board, washing, lodging, etc. Applications and testimonials to N. A. Smith, Secretary by May 23rd.

CARDIFF INFIRMARY.—Senior Resident Medical Officer; doubly qualified. Salary, £100 per annum, with board, washing, and furnished apartments. Applications to George T. Coleman, Secretary, by May 27th.

COUNTY AND CITY ASYLUM, Hereford.—*Locum Tenens* for three or four months. Salary, £2 2s. per week, with board, etc. Applications and testimonials to the Medical Superintendent.

COUNTY ASYLUM, Lancaster.—Holiday Assistant for five months; fully qualified. Salary, 2 guineas per week, with all found. Applications to Dr. Cassidy, the Medical Superintendent.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Dental Surgeons. Candidates must be Licentiates of Dental Surgery of one of the licensing bodies recognised by the General Medical Council. Applications and testimonials to J. Francis Pink, Secretary, by June 10th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon, must possess a surgical qualification and be registered. Appointment for six months. No salary, but residence, board, and washing provided. Applications with certificate of registration and copies of testimonials to H. J. Collins, House Governor, by June 1st.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—Pathologist and Registrar. Appointment for one year. Honorarium at the rate of fifty guineas per annum. Applications to the Secretary by May 27th.

GUARDIANS OF KENSINGTON.—Second Assistant Resident Medical Officer for the Workhouse and Infirmary. Age between 21 and 30 years; doubly qualified. Salary, £80 per annum, with apartments, board, and washing. Applications on forms to be obtained at the office of the Clerk to the Guardians, Marloes Road, Kensington, where they must be delivered by 10 A.M. on May 25th.

HALIFAX INFIRMARY AND DISPENSARY.—House Surgeon, must be unmarried, doubly qualified and registered. Salary, £80 per annum, advancing £10 per year up to £100, with residence, board, and washing. Applications and testimonials to Oates Webster, Secretary, by May 22nd.

HOLBORN DISTRICT.—Medical Officer of Health. Salary, £350 per annum. Applications on printed forms to be obtained from Matthew H. Hale, Clerk to the Board, Holborn Town Hall, accompanied by not more than three testimonials, to be returned to him before May 30th.

KENSINGTON WORKHOUSE INFIRMARY.—Second Assistant Resident Medical Officer, must be between 21 and 30 years of age, must possess both a medical and surgical qualification. Salary, £80 per annum, with apartments, board, and washing. Applications and testimonials to J. H. Rutherglen, Clerk to the Guardians, by May 25th.

LIVERPOOL STANLEY HOSPITAL. — Junior House-Surgeon. Must possess a registered medical and surgical qualified qualification. One who has filled a similar office preferred. Salary, £70 per annum, with board, etc. Applications and testimonials by May 30th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Two Qualified Medical Women as House-Surgeons. Applications to the Secretary by May 29th.

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—House-Physician. Appointment for six months, and at the expiration of this term the House-Physician will be required, if eligible, to serve as House-Surgeon for a further period of six months. Must possess a medical and surgical qualification. Salary as House-Physician at the rate of £60 per annum, and as House-Surgeon at the rate of £80 per annum. Applications and testimonials to T. Glenton-Kerr, Secretary, City Office, 27, Clement's Lane, Lombard Street, E.C., by June 11th.

PARISH OF BIRMINGHAM.—Resident Medical Officer for the Workhouse. Doubly qualified and registered. Salary, £150 for the first year, rising £10 yearly to £200 per annum, rations, apartments, washing, and attendance. Applications to be made on printed form, to be obtained from Walter Bowen, Clerk to the Guardians, Parish Offices, Edmund Street, to be returned to him by May 25th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Resident House-Surgeon; doubly qualified. Salary, £100 per annum, with rooms, washing, and commons. Appointment for three years. Applications to the Secretary by the end of May.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Hunterian Professors, the Erasmus Wilson Lecturer, and the Arris and Gale Lecturer for the ensuing year. Applications, with particulars of subjects upon which it is proposed to lecture, to E. Trimmer, Secretary, by June 6th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Two Resident Medical Officers. Doubly qualified. Appointment for six months, but the holder will be eligible for re-election. No salary, but board, residence, and washing. Applications and testimonials to Conrad W. Thies, Secretary, by June 1st.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, E.C.—Clinical Assistant and Anæsthetist required for six months. Doubly qualified. Salary, at the rate of £30 per annum. Applications and testimonials to R. Gerrard Kestin, Secretary, by May 29th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, West Strand. Clinical Assistants. Appointments for six months, must be duly qualified; and preference will be given to those who have had previous experience of ophthalmic practice. Applications and testimonials to T. Beattie-Campbell, Secretary, by June 1st.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Lecturer on Mental Diseases. Applications to G. P. Field, Dean, by May 27th.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Lecturer on Physiology. Applications to the Dean by May 25th.

SOCIETY OF APOTHECARIES.—Examiners in Medicine (including Forensic Medicine, Pathology, and Midwifery). Applications to J. R. Upton, Clerk to the Society, Apothecaries' Hall, Blackfriars, by May 27th.

TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months without salary, but with board, washing, and lodging in the institution. Applications, endorsed "Assistant House-Surgeon," to the House-Surgeon by May 18th.

UNIVERSITY COLLEGE, London.—Professorship of Materia Medica and Therapeutics. Applications by May 29th.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Junior House-Surgeon, must be duly registered and unmarried. Salary, £50 per annum, with rooms and board. Applications and testimonials to the Honorary Secretary by May 24th.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho, W.—Honorary Surgeon. Applications and testimonials to J. J. Johnson, Secretary, by May 20th.

MEDICAL APPOINTMENTS.

BAKER, Arthur W. W., M.D.Dubl., F.R.C.S.I., appointed Examiner in Dental Surgery and Pathology at the Royal College of Surgeons in Ireland.

BARNES, Fancourt, M.D., appointed Consulting Physician to the British Lying-in Hospital.

BARTON, John M.D., F.R.C.S.I., appointed Examiner in Anatomy at the Royal College of Surgeons in Ireland.

BATE, Abraham William, M.D St.And., F.R.C.S.I., appointed Examiner in Midwifery and Gynæcology at the Royal College of Surgeons in Ireland.

BURGESS, John J., L.R.C.P., F.R.C.S.I., appointed Examiner in Pathology at the Royal College of Surgeons in Ireland.

CHANCE, Arthur, L.R.C.P., F.R.C.S.I., appointed Examiner in Surgery at the Royal College of Surgeons in Ireland.

COLLIS, A. J., M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., appointed Resident Medical Officer at the Weston-super-Mare Hospital and Dispensary.

CONWAY, Dr., appointed Deputy Medical Officer to the Workhouse of the Uxbridge Union.

COPPINGER, Charles, M.D., F.R.C.S.I., appointed Examiner in Physiology and Histology at the Royal College of Surgeons in Ireland.

ENSOR, H. C., M.R.C.S.Eng., L.S.A., appointed Honorary Ophthalmic Surgeon to the Newport and Monmouthshire Infirmary.

FISH, Fred W., M.B., Ch.B., appointed Resident Medical Officer to the Southport Convalescent Hospital and Sea Bathing Infirmary.

GARLAND, Edward Charles, L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Yeovil Town Council.

HARDING, L. N., B.A., M.B., B.C.Camb., M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Brighton, Hove, and Sussex Throat and Ear Hospital.

HAYDON, F., L.R.C.P.Lond., appointed Secretary to the Court of Examiners of the Society of Apothecaries, *vice* C. E. A. Semple, M.B., M.R.C.P. Lond., deceased.

KENDALL, B. C., M.R.C.S., L.R.C.P., appointed Medical Officer to the Helston Dispensary, *vice* C. F. Seville, M.B.Lond., resigned.

KINGDON, Edward O., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer for the No. 3 District of the Holdsworthy Union.

KNOTT, John, M.D., F.R.C.S.I., appointed Examiner in Chemistry and Physics at the Royal College of Surgeons in Ireland.

LAPPER, Edwin, F.R.C.P., L.R.C.S.I., appointed Examiner in Chemistry and Physics at the Royal College of Surgeons in Ireland.

LEAF, Cecil Huntingdon, M.A., M.B., B.C.Cantab., M.R.C.S., appointed Assistant Demonstrator of Anatomy at the London Hospital.

MCCLELLAND, W., M.B., Ch.B.Vict., reappointed Non-Resident Medical Officer to the Gynæcological Department of the Liverpool Royal Infirmary.

MACKAY, William Alexander, M.B., C.M.Glas., appointed Assistant Medical Officer to the City of Glasgow Parochial Board.

MAXWELL, Patrick William, M.D Edin., F.R.C.S.I., appointed Examiner in Ophthalmology at the Royal College of Surgeons in Ireland.

MYLES, Thomas, M.D., F.R.C.S.I., appointed Examiner in Anatomy at the Royal College of Surgeons in Ireland.

OLIVER, George H., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Assistant Surgeon to the Bradford Eye and Ear Hospital, *vice* G. H. Dodd, B.A., M.R.C.S., L.S.A., resigned.

PATON, R. J., M.B., C.M.Edin., appointed Honorary Surgeon to the Inpatients at the Newport and Monmouthshire Infirmary.

PATTESON, R. Glasgow, M.B., F.R.C.S.I., appointed Examiner in Pathology at the Royal College of Surgeons in Ireland.

PRATT, J. Dallas, M.D.Dubl., F.R.C.S.I., appointed Examiner in Medical Jurisprudence at the Royal College of Surgeons in Ireland.

ROBB, A. G., M.B.R.U.I., B.Ch., appointed Medical Officer for No 10 Subdistrict (Springfield) of the Belfast Dispensary.

ROLL, Dr., appointed Honorary Assistant Physician to the Leicester Infirmary, *vice* Dr. Pratt, resigned.

ROPER, Leonard, M.A., M.B., B.C.Cantab., reappointed Clinical Assistant and Demonstrator in the Throat Department at Guy's Hospital.

SCOTT, J. Alfred, M.D., F.R.C.S.I., appointed Examiner in Physiology, Histology, and Biology, at the Royal College of Surgeons in Ireland.

STACK, R. Theodore, M.D Dubl., F.R.C.S.I., appointed Examiner in Dental Surgery and Pathology at the Royal College of Surgeons in Ireland.

STANTON, Dr. W. E. appointed Medical Officer for the Deeping St. Nicholas District of the Spalding Union.

STOKES, Sir William, M.D., F.R.C.S.I., appointed Examiner in Surgery at the Royal College of Surgeons in Ireland.

STORY, John Benjamin, M.B.Dubl., F.R.C.S.I., appointed Examiner in Ophthalmology at the Royal College of Surgeons in Ireland.

TAYLOR, Dr. J. C., appointed Medical Officer for the Third District of the Westbury and Whorwellsdon Union.

WESTON, Dr., appointed Medical Officer for the Leighford District of the Stafford Union.

WHITE, George Surbridge, M.B Dubl., F.R.C.S.I., appointed Examiner in Biology at the Royal College of Surgeons in Ireland.

WILLS, Thomas Munns, F.R.C.S.I., Senior Honorary Surgeon, appointed Consulting Surgeon to the Bootle Borough Hospital Liverpool.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. A. Stanford Morton: Affections of Eyelids. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. G. Charles Wilkin: Aural Polypi.

MEDICAL SOCIETY OF LONDON, 8 P.M.—Annual *conversazione*. Oration at 8.30 P.M. by Mr. A. Pearce Gould, on the Recent Evolution of Surgery.

TUESDAY.

LONDON POST GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Hyslop: Stupor; Catalepsy; Katatonia; Dementia.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Vaughan Harley: Absorption and Metabolism in a Case of Pancreatic Obstruction, etc. Mr. Edmunds: Observations and Experiments on the Pathology of Graves's Disease. Mr. A. C. Collum (introduced by Dr. Pitt): Imperforate Duodenum. Mr. G. S. Shattock: Diphtheria and Pseudo-diphtheria Bacilli, from two sisters simultaneously affected. Mr. H. J. Waring: Actinomycosis of the Cheek. Dr. Herbert Snow: Malignant Reversion of Cystic Fibromata. Mr. Shattock: Cultural Variations of the Streptococcus Pyogenes. Recent Specimens: Mr. Hilton Fagge: Series of Specimens of Ulcerative Colitis from Cases of Swine Fever. Card Specimens: Messrs. Fletcher, Paget, Battle, Mackenzie, etc.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Herpes; its varieties. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Progressive Myopia, with Illustrative Cases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Gowers.

THURSDAY.

LONDON POST-GRADUATE COURSE, Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Buzzard: Multiple Neuritis. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. Bernard Pitts: Abdominal Surgery in Children. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Dr. Stephen Mackenzie: Cases in the Wards.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture, Anthrax and Malignant Œdema; Practical work, Staining Sections.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Annual General Meeting; Report of Council; Election of Officers. Papers: Dr. Lucas Benham: Thickened and Contracted Mesentery Simulating Tumour in a Case of Cirrhosis of the Liver. Dr. Sidney Phillips: A Case of Splenic Abscess; Secondary Suppuration in the Liver; Death from Pyæmia. Dr. S West: A Case of Recovery from Tuberculous Meningitis. Mr. Battle: Calculus of Kidney associated with Simple Growth of the Renal Pelvis, Nephrotomy, Nephrectomy.

BRITISH ORTHOPÆDIC SOCIETY, Liverpool Medical Institution, 4 and 8 P.M.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital 11 A.M.—Dr. Craig: Delusional Insanity; Paranoia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CULHANE.—On April 22nd, at 122, Mount Pleasant Road, Hastings, the wife of F. W. S. Culhane, of a daughter.

O'BRIEN.—On May 7th, at Catchgate, the wife of T. M. O'Brien, M.D., of a son.

DEATHS.

DAVIDSON.—On the 10th inst., at 1, Berkeley Square, W., May, wife of W. Marshall Davidson, M.B., daughter of the late Rev. Kyrle Ernle Aubrey Money.

SMITH.—On the 5th inst., at 226, Goldhawk Road, W., after a few days' illness, Frederick Augustus Alfred Smith, M.D., for many years of Portland House, Cheltenham, in his 50th year.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

RATES OF SUBSCRIPTION TO PROVIDENT DISPENSARIES.

BONES writes: I have been asked to form a dispensary for a village four miles from here, and should be glad if you would give me some help with regard to what the members ought to pay. They will consist of labourers and mechanics, and there will be no help from subscriptions, but a room will be found free, and the contributions will be collected. It is proposed to admit any poor people (chronics will be admitted) not receiving parish pay, and a wage limit and house-rent limit will be imposed. The wages in the district varies from 15s. to 30s. a week.

Could you give me some idea what the payments per annum should be for:

1. Single persons.
2. Man and wife.
3. Families up to 14 years of age.

I should have to provide drugs, and visit at the room provided once or twice a week.

*** It is difficult to answer a question of this kind, as so much must depend on local conditions, which are best known to our correspondent. We might suggest, however, that none should be admitted in receipt of more than 30s. a week, unless under special conditions; (2) that the ordinary subscription be one penny a week for every 10s. a week of wages for each person to be attended, three halfpence a week for each 15s. a week, and so on; (3) no one earning only 15s. a week to pay more than sixpence a week, or earning 30s. a week more than a shilling a week, and in proportion; (4) chronic cases ought not to be admitted except on special terms; (5) no child over 14 years of age should be included in a family.

GOVERNMENT MEDICAL APPOINTMENTS.

A. C. asks where he could obtain a list of medical appointments under the British Government, with the rules concerning the various posts and examinations?

*** We know of no list of such appointments, but would suggest that application be made to the head—preferentially the Parliamentary head—of any Government department in which office is desired, asking as to the *modus operandi* for securing consideration of claims to appointments in the department, sending at the same time copies of any recent testimonials as to qualifications for the post sought. We do not know of any set rules for candidates, nor are we acquainted with any examination required of applicants. Rather we should imagine that those chosen are selected on account of their recognised fitness for the post by reason of their previous work. Among English Government departments employing medical inspectors are the Local Government Board, the Lunacy Commissioners, and the Home Office. The Colonial Office publishes a paper (which can be had on application to the Under-Secretary) showing the conditions under which candidates are admitted to the Colonial medical services.

ANSWERS.

W. O'B. W.—The address of the Medical Defence Union is 20, King William Street, Strand, W.C.

E. A. H.—The paragraph in question does not appear to contain any internal evidence that the gentleman referred to is responsible for its appearance.

JUSTICE.—The attention of the bodies from which the gentleman in question has obtained his degrees might with advantage be called to the advertisement in question.

M.D., M.R.C.P.LOND.—We have so recently dealt with the subject of the insertion in the public newspapers of the advertisements of candidates for appointments at hospitals that it hardly seems necessary to reiterate the opinions then expressed. The practice ought not to be allowed to continue, but it is unfair to blame too severely those who fall in with a custom which has long existed in certain localities. Our correspondent should use his influence with the hospital authorities to have the mode of election altered in accordance with the recommendations recently given in these columns.

MEDICAL AID SOCIETY.

C. R. I.—This Society has been over and over again condemned in the columns of the BRITISH MEDICAL JOURNAL. It is deplorable indeed that in West Kensington practitioners can be found to accept appointments at the rate of 3d. per month per member—that is to say, at a rate 25 per cent. less than the ordinary club rate paid in Bethnal Green and Whitechapel.

TREATMENT OF SOFT CORNS.

ANOTHER SUFFERER writes in reply to "Sufferer": I had been a sufferer also for several years from soft corns, and could get no permanent relief until I used Maw's "corn shields;" since then I have quite got rid of my soft corns, but if I leave the shields off for a month or so my troubles begin again. These shields fit on to the toes as a signet ring does on the finger. They are made of india-rubber, and where the stone is in an ordinary ring there is a small cushion with a hole in the middle; this you adjust over the corn, and the ring round the toe keeps it from shifting.

DR. C. M. JESSOP (Redhill) writes: I would suggest to sufferers to paint the soft corns with a strong solution of perchloride of iron, and to place a thin layer of linen between the toes. I have not tried, but I should think painting the feet generally with the same fluid might lessen sweating.

SOLDIERS ON FURLOUGH.

SUBSCRIBER.—Soldiers on ordinary furlough may, if sick or disabled, be admitted into a military hospital, but are not entitled to have the fees of private medical practitioners defrayed at the public expense. At the same time there is probably no rule—even a War Office one—without exceptions; and therefore there can be no harm in our correspondent sending in his claim for attendance on a broken-legged soldier on furlough to the army authorities; he should do so to the Director-General Army Medical Department, through the Principal Medical Officer of the military district in which he resides.

NOTES, LETTERS, Etc.

"AN INSULT TO THE PROFESSION."

A CORRESPONDENT sends us the following, received recently by him:

"63, Strand, London, W.C., March, 1895.—Private and Confidential.—Sir,—I have ventured to send for your kind acceptance a copy of my book *Our Eyes*, which has now had an increasing sale for more than ten years. I should take it as a great favour if you would allow this to lie on the table in your consulting-room, as many eminent medical men have placed it in that position of their own accord. Should you have reason to believe that any of your patients are suffering from abnormal vision, or defects of refraction in the eyes, if you would kindly mention my name to them, I should be glad to acknowledge your attention by remitting you my professional discount of 15 per cent. on any amount they may pay me. I could give you, in confidence, the names of several leading physicians who have, unasked, for years honoured me with their recommendation, and trusting that you may feel yourself able to do the same, with the assurance that any such cases shall receive my careful personal attention,—I am, Sir, yours faithfully, JOHN BROWNING."

*** There can be no doubt that the correspondent who sends us this circular letter is right in characterising the suggestion which it contains as "most objectionable." We requested the Council of the Ophthalmological Society of the United Kingdom to favour us with their opinion, and that body, which may fairly be considered to represent the opinion of ophthalmic surgeons, uses in the reply with which they have favoured us even stronger terms; they characterise the circular as "an insult to the profession." We believe that this will be the general feeling throughout the medical profession.

THE WATER SUPPLY OF ZERMATT.

MR. R. WESTLAND MARSTON (Ziegler strasse 26, Berne) writes: As considerable publicity has been given to the occurrence of a case of typhus at Zermatt last year, and doubts have in consequence been expressed of the purity of the water supply there, I wish to state on behalf of Dr. de Carten, of Zermatt, that during the twelve years he has been practising there he has met with but three cases of typhus, none of which were amongst the native population. In each case the disease supervened so soon after the arrival of the person attacked as to make it evidently impossible that it could have been contracted at Zermatt.

As regards the water supply, this was subjected to a chemical and microscopical examination in September last by Dr. E. Schuhmacher, Public Analyst of the Canton of Lucerne, and was found to present none but the normal characteristics of a good drinking water, containing from 3 to 10 milligrammes per litre of organic matter, 3.5 to 7 of chlorine, and no trace of nitrous acid, nitric acid, or ammonia.

*** Our correspondent doubtless refers to typhus abdominalis, the term frequently and unfortunately applied in Germany to enteric fever.

THE CASE OF MR. C. BRYAN TOWNSHEND.

THE following donations have been received in addition to those already announced, and are hereby thankfully acknowledged:

	£	s.	d.
Dr. C. H. Carter, Hyde Park	2	2	0
From the Thames Valley Branch of the British Medical Association per Dr. R. N. Goodman, Kingston-on-Thames:			
Dr. J. E. Viney	1	0	0
Dr. W. Bateman	1	0	0
Dr. Graham	1	0	0
Dr. Newton Pitt	1	0	0
Dr. R. N. Goodman	1	0	0
Dr. O. Richards	0	10	0
Dr. Atkinson	0	10	0
Dr. Daldy	0	7	6
Dr. H. B. Collins	0	5	0
Dr. Wallace	0	5	0
Dr. Martindale Ward	0	5	0
Dr. C. C. Scott	0	5	0
Mr. R. Creary	0	5	0
Mr. Howard Marsh, Bruton Street, W.	2	2	0
Dr. Brooks, Oxford	0	10	0
M.A., M.D.	0	10	0
Dr. Lloyd Williams, Llanberis	0	5	0
Dr. Wm. Williams, Liverpool	0	2	6
Dr. N. Whitelaw Bourns, South Kensington ...	0	10	6

Further subscriptions will be thankfully acknowledged by the Rev. H. Townshend, 41, King Henry's Road, South Hampstead, N.W.

PRESENT DAY DIGESTIVE FERMENTS.

DR. CHARLES FORBES (late Surgeon, Wassa Gold Mines, West Africa) writes: On reading Dr. E. M. Smith's paper, in the BRITISH MEDICAL JOURNAL of May 11th, 1895, I awoke to the fact that a few remarks on one of these agents, namely, papain, might be of practical interest to the profession. In 1891, while residing and practising on the Gold Coast, I made and noted down some observations on the therapeutic results of internal administration and external application (*a*) of the pericarp; (*b*) of the seeds of the fresh papaw fruit. Testing both parts on Europeans and natives it was most beneficial in cases of dyspepsia which pepsin and zymine had failed to cure. The Asanti and Fanti "doctors" held it in high esteem, the seeds being discarded and afterwards employed as a purgative. It proved of value in chronic sore throats, etc. These facts have been confirmed by Dr. Herschell[1] and by Shoemaker. In 1892 I discovered that it would dissolve albumens (fibrin), and deemed that it would be valuable in treating diphtheria. Mr. Chambers[2] established this by the successful treatment of three severe cases of diphtheria, giving fresh papaw juice internally and topically, the membrane disappearing in a few hours. As a local application to lupus, epitheliomata, and condylomata it gave somewhat satisfactory results.

THE APPLICATION OF SOLUTIONS TO THE CONJUNCTIVÆ.

DR. F. HYDE MABERLY (Eversley, Hants) writes: I have found the following manœuvre of use in applying solutions to the conjunctivæ of nervous patients. The patient is seated, the head extended at right angles to the trunk, the eyelids closed; several drops of solution now form a little pool over the inner canthus, and on opening the eyelids the solution flows gently over the conjunctivæ, stays there as long as required, and the difficulty of the spasmodic closure of the lids is avoided.

PECULIAR SUSCEPTIBILITY TO THE EFFECTS OF ANTIPYRIN.

DR. EDWARD KNIGHT (Gravesend) writes: Dr. Russell's description, in the BRITISH MEDICAL JOURNAL of May 4th, of a case of peculiar susceptibility to the effects of antipyrin reminds me that I have seen urticaria produced rapidly by a single dose of 10 grains of the drug. I have also known the same dose to cause a patient to sneeze violently several times and to complain that she felt as if her nose and throat were so much swollen inside as to make it difficult for her to breathe through them. It seems as if antipyrin sometimes affected the mucous membrane in much the same way as it does the skin, causing swelling and irritation. I venture to suggest that there may be a tendency to the formation of wheals internally as well as externally. In urticaria due to other causes marked dyspnœa has been observed in some persons at the same time that the eruption appeared on the skin.

DR. W. H. PAYNE (Brockley, S.E.) writes: A fellow student was advised by another to take, I think, 10 grains of antipyrin to relieve a severe headache. He did so, and within a quarter of an hour after he began to experience considerable irritation in several parts of his body, which increased. He was found to be covered from head to foot with urticaria, the wheals varying in size from that of a pin's head to that of a half-crown. It was relieved, I believe, by an alkaline bath. The headache disappeared.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. A. G. Auld, Glasgow; Another Sufferer; A. M. W.; C. F. M. Althorp, M.B., Bradford. (**B**) Dr. R. Broadbent, Leicester; Bonus; G. S. Buchanan, M.B., London; Mr. H. Butterfield, Sevenoaks; Mr. W. Mr. W. L'H. Blenkarne, Leicester; Mr. A. Bradshaw, Shrewsbury; Messrs. Burroughs, Wellcome, and Co., London; Dr. R. S. F. Barnes, London; Dr. A. B. Brabazon, Bath; G. Barling, M.B., Birmingham; Dr. E. G. Barnes, Eye; Mr. H. E. Blake, London; J. W. Batterham, M.B., St. Leonards-on-Sea; Beacon. (**C**) J. A. Codd, M.B., Wolverhampton; Mr. G. T. Coleman, Cardiff; Professor J. Mc K. Cattell, Garrison-on-Hudson, U.S.; Mr. A. Curran, Dover; Dr. R. W. Carter, Weymouth; Civis Sum; Mr. J. D. Costine, Liverpool; A. J. Collis, M.B., Swinford; A. Clarkson, M.B., Edinburgh; Dr. J. M. Clarke, Clifton; Country Member. (**D**) Deltoid; Mr. H. A. Duffett, Redhill. (**F**) F. W. Fish, M.B., Mytholmroyd; Mr. E. C. Fawley, London; Mr. W. P. Fox, London; Sir Joseph Fayrer, London; Mr. W. E. Fothergill, Manchester. (**G**) Mr. J. Gay, London. (**H**) Mr. E. J. Howes, King's Lynn; J. E. Hunter, M.B., Helensburgh; Dr. W. Habgood, Battle. (**I**) Inquirer; Dr. C. R. Illingworth, Ventnor. (**J**) J. A. C.; Dr. C. M. Jessop, Redhill. (**K**) Mr. E. Krog, London. (**L**) Mr. J. B. Lamb, London; Lambda; C. H. Leaf, M.B., London; Dr. W. G. V. Lush, Weymouth. (**M**) Dr. L. Maybury, Southsea; Dr. F. J. Mays, Philadelphia; Medical Superintendent; W. McClelland, M.B., Liverpool; G. Martyn, M.B., London; Dr. Muloch, Liverpool; Mr. R. W. Marston, Berne; R. Morison, M.B., Newcastle-on-Tyne; Dr. F. H. Maberley, Winchfield; M.D.; Dr. D. Mackinder, Gainsborough; Dr. C. W. M. Moullin, London; M.D. and Constant Reader for 25 Years; Member; Mr. J. Moir, Fort George; Mr. S. Marsh, London; R. C. Macdonald, M.B., Aberdeen; J. E. Mallins, M.B., Dublin; Dr. J. W. Moore, Dublin; Mr. E. H. Monks, Southport; Mr. J. A. Magee, Clown; Mr. R. Macartney, Cinderford. (**N**) National Hospital for the Paralysed and Epileptic, Secretary of the, London. (**O**) Mr. S. Osborn, London; Dr. G. F. Oldham, Gosport. (**P**) Dr. R. Pratt, Leicester; Mr. J. H. B. Pinchard, Taunton; G. S. Perkins, M.B., London; Dr. T. W. Parry, Youlgreave; Perineum. (**R**) T. Redmayne, M.B., Hastings; Mr. T. Ryan, London; Dr. T. H. Redwood, Rhymney; Mr. T. F. Raven, Broadstairs; Dr. J. B. Ridley, Woking; Mr. L. Roper, London; Retired Surgeon-General; Dr. R. R. Rentoul, Liverpool. (**S**) Mr. A. H. Solomon, London; Mr. J. K. Stone, Newport; Messrs. Street Brothers, London; T. J. Selby, M.B., Frodsham; Mr. G. Sharp, Leeds; Mr. G. F. Stone, Bristol; Mr. J. F. Sarjeant, Wellingborough. (**T**) A. Todd, M.B., Market Drayton; Mr. G. E. S. Taylor, Liverpool. (**V**) Mr. W. Vincent, London; Veteran; Victor. (**W**) Dr. E. F. Willoughby, London; Mr. E. W. Wallis, London; A. C. Wilson, M.B., Liverpool; Dr. H. Woods, London; Mr. J. W. Wallen, Wakefield; Mr. W. O'B. White, Tralee; Mr. F. Wiggins, London; G. E. Williamson, M.B., Newcastle-on-Tyne; Dr. F. J. Waldo, London. (**X**) X.X.X.; etc.

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[1] *Indigestion*, 1895, p. 220.

[2] *Indian Medical Record*, January 16th, 1895, p. 49.

BOOKS, ETC., RECEIVED.

The Diseases and Deformities of the Fœtus: an Attempt towards a System of Ante-natal Pathology. By Dr. J. W. Ballantyne. Vol. II, Congenital Diseases of the Subcutaneous Tissue and Skin. Edinburgh: Oliver and Boyd. 1895. 10s. 6d.

La Syphilis des Centres Nerveux. Par Dr. H. Lamy. Paris: G. Masson. Fr. 2.50.

La Cocaïne en Chirurgie. Par Dr. P. Reclus. Paris: G. Masson. Fr. 2.50.

Year-Book of the Scientific and Learned Societies of Great Britain and Ireland. London: Charles Griffin and Co. 1895.

The Life of Sir William Petty, 1623-1687. London: John Murray. 1895. 16s.

The Elements of Botany. By F. Darwin, M.A., M.B., F.R.S. Cambridge: University Press. 1895. 6s.

The Scientific Transactions of the Royal Dublin Society. Vol. V. (Series ii). VIII, The Brain of the Microcephalic Idiot. By Dr. D. J. Cunningham and Dr. T. Telford Smith. Dublin: Royal Dublin Society. 1895. 3s.

Traité de Médecine et de Thérapeutique. Publié sous la direction de MM. P. Brouardel, A. Gilbert, et J. Girode. Tome Premier, Maladies Microbiennes. Paris: J. B. Baillière et Fils. 1895.

Klinische Vorlesungen über Syphilis. Von Dr. E. During. Hamburg und Leipzig: Leopold Voss. 1895.

*** In forwarding books the publishers are requested to state the selling prices.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Each additional line	0	0	6
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N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

THE INGLEBY LECTURES
ON
APPENDICITIS.

Delivered at Mason College, Birmingham, on May 9th, 1895.

By GILBERT BARLING, M.B., F.R.C.S.,
Professor of Surgery, Mason College.

Lecture I.

[After thanking the Council of Mason College for his appointment, the lecturer described at length the structure and relations of the first portions of the large intestine. The points specially emphasised were the complete investment of the cæcum and vermiform appendix by peritoneum, the absence of a meso-cæcum, the absence, too, of loose cellular tissue beneath this portion of the large intestine, and the rarity of a meso-colon in the ascending portion of the large gut. In speaking of the appendix attention was particularly directed to its blood supply, mainly by a single vessel in the free margin of the mesentery, and to the abundant distribution of lymphoid tissue in its mucous membrane. Both of these conditions have an important influence in the initiation and development of the inflammatory and perforative lesions of the part.

The normal position of the vermiform appendix is hard to define, but the ordinary positions are as follows:

1. In this, the commonest, it lies to the inner side of the cæcum, covered by the ileum, and extending obliquely upwards from right to left.

2. The next most common is, when lying still to the inner side of the cæcum, it passes downwards from right to left, reaching to and, perhaps extending into, the pelvis.

3. It occupies a position to the outer side of the cæcum, running upwards, it may be, until its free extremity reaches to, or even in front of, the right kidney.

4. It may be found lying entirely underneath the cæcum, or partly there and partly there and partly herniated into certain small peritoneal pouches, such as the sub-cæcal and the ileo-cæcal. Other rare positions may be found, as, for instance, when it occupies the sac of an ordinary inguinal hernia or some part of the abdomen, not the right iliac fossa, the appendix being widely displaced with the cæcum to which it is attached.

The lecturer then said that to render clear the relations of the various inflammatory collections in the right iliac fossa familiarity with the anatomy of this region is necessary.]

He proceeded: I turn now to the pathology of these conditions. Formerly they were spoken of as typhlitis, perityphlitis and paratyphlitis. Now the tendency is to drop these names and to speak only of appendicitis.

Without defending the use of this term on etymological grounds, there is every justification for its adoption from the pathological standpoint. There is a constantly increasing mass of evidence, obtained partly by operation on the living, and even more conclusively by inspection in the *post-mortem* room, showing that in the appendix we have the actual seat of the inflammation which results in the formation of a tumour in the right iliac fossa, possibly of abscess, perhaps of acute peritonitis. The terms typhlitis and perityphlitis were used for a long time because careless examination overlooked the condition of the vermiform appendix, and even at the present time many prefer to use these terms, sanctioned by long use, as expressing fairly well the clinical conditions we are called upon to treat. What's in a name? says Shakespeare. Not much, perhaps, so long as we are all agreed upon the nature and characters of the thing meant; but when there is divergence upon these points, and when one name more than any other conveys some definite information about the object we speak of, it is better to adopt it, and for this reason I prefer to use the terms appendicitis. A similar and equally justifiable change in nomenclature has been adopted in the pelvic inflammations of women. What was spoken of as peri- and parametritis is now commonly referred to as salpingitis, owing to the recognition of the importance of the Fallopian tube. The parallel between the parts played by the Fallopian tube in pelvic inflammations and by the vermiform appendix in perityphlitis is remarkable. Later on I shall point out the influence of catarrh of the cæcum in initiating that of the appendix. This does not alter the fact that it is the appendix in which all our interest centres, and that the catarrh of the cæcum alone would give us little concern.

Examining the *post-mortem* records at the General Hospital for the past twenty years, I find that there have been twenty-two deaths directly traceable to inflammation of the vermiform appendix. During the same period, apart from stercoral perforations of the large intestine due to obstruction, which do not concern the question now at issue, I find two cases of primary perforating ulcer of the cæcum with a circumscribed collection of pus as a result. In both these cases the vermiform appendix appears to have been healthy. The cause of these cæcal ulcers is quite uncertain, but it is interesting to note that in one case there were five small simple ulcers in the stomach and three in the pharynx. Two doubtful cases I have not added to either side of the account, though could they be clearly unravelled I believe they would both be classed as cases of appendicitis. In one of these, the post-cæcal tissues are described as infiltrated with pus extending from the diaphragm to the pelvis, but not a word is said as to the condition of the appendix. In the other abscess behind the cæcum communicated through an ulcer with the interior of the bowel. It is, however, quite as likely that this was an appendical abscess which had ruptured into the bowel as that the perforation of the cæcum caused the abscess. There was old matting and adhesion of the appendix, which was sharply bent upon itself, and these are changes recognised as often the forerunners of abscess around the appendix. However this may be, we have twenty-two deaths clearly traceable to disease starting in the appendix to two deaths attributed to primary ulceration of the cæcum, whilst none are traceable primarily to the so-called cellular tissue behind the cæcum.

Inflammation of the appendix commences from within, probably in the lymphoid tissue, with which the mucous membrane is so richly supplied. This is doubtless the reason why the incidence of the disease is so considerable in childhood and adolescence. Originating here as a catarrhal inflammation, we have a swollen softened state of the mucous membrane with sometimes a collection of mucus. In the mildest cases the disease process stops at this point, and so far only a catarrhal appendicitis results. More commonly, however, the outer coats become involved, and the muscle, fibrous tissue, and peritoneum are infiltrated with inflammatory cells; we then have an interstitial appendicitis. The essential point now is that the inflammation is an infective one, and tends to spread from the appendix to the structures lying in contact with it, giving rise to peritonitis. This frequently results merely in the production of a limited plastic peritonitis with adhesion of intestine and omentum, etc., to the appendix. On the other hand, but more rarely, the inflammation becomes a quickly-spreading one, which in its severest form produces a general septic peritonitis. Another common result of the infection spreading through the walls of the appendix, a sort of middle course, is abscess formation around it. This may amount only to a few drops of pus, or if not interfered with may increase until the collection becomes a large one. In what direction the pus will extend depends upon the position of the appendix. It may be towards the pelvis, down into the thigh, outwards to the iliac crest, or directly upwards behind the ascending colon.

So far I have spoken of interstitial appendicitis, without actual necrosis of the walls of the gut. But now I have to speak of those intense inflammations which give rise to actual gangrene, or else to perforation of the appendix. Actual gangrene of the appendix is not so common as perforation or molecular death. I have met with it thrice only. In the first case I opened the abdomen of a young child with appendicitis and advanced general peritonitis, removing the appendix. This presented, in addition to general severe inflammation throughout its length, a localised patch of about one-third of an inch in diameter, near the free end, quite black in colour. It looked as though it might have been pinched by forceps until it had died, and there was no compressing body inside or outside the appendix to explain the occurrence. The second case was in a young man whose appendix I removed within fifty hours of his seizure, and found

that two-thirds of the organ were pulpy and necrotic, again without any explanation, such as the pressure of a stercolith inside or a strangulating band outside. Conditions such as these appear to be due simply to the intensity of the inflammation. By the pressure of the inflammatory exudation in the dense unyielding walls of the appendix on the outside of its supplying vessels, and partly from thrombosis inside those vessels, the blood supply to the whole or to part of the appendix is cut off, and gangrene more or less extensive occurs. Perforation may result, of course, from gangrene such as that I have just described, but it is commonly due to ulceration set up by the pressure of a stercolith or foreign body; the curious thing is that these hard bodies may reside for some time in the appendix without ulcerating their way through its walls. It is only when inflammation has been lit up by some accidental cause that the pressure of the retained body produces ulceration and perforation.

With gangrenous appendicitis there is very early, it may be almost immediate, development of general septic peritonitis. The intensity of the infective process and the absence of limiting adhesions explain the fulminating clinical development of the case. With perforative appendicitis, on the contrary, although immediate general septic peritonitis is unhappily quite frequent, yet it is not the rule. There is generally time before actual perforation occurs for adhesions to form, which prevent general infection of the peritoneal cavity, at all events for a time, and a circumscribed abscess results. This limitation of the inflammatory process is often greatly assisted by the position the appendix occupies, covered as it may be by the cæcum, or lying to the outer side of that part of the gut, or more or less completely enclosed in one of the peritoneal pouches to which I referred in my account of the anatomy of the parts. When abscess has formed, whether from perforation or without it, an extension of infection to the general peritoneal cavity may still take place, but usually this is brought about by the rupture of the limiting adhesions of the cavity.

To sum up these possible changes, we have in the first instance catarrhal appendicitis, which easily may develop into the interstitial form. Once this has happened, either a limited plastic peritonitis with adhesion results, or a circumscribed suppuration—that is, abscess—or a spreading peritonitis. When from the intensity of the inflammation in the appendicular walls gangrene results, a fulminating general septic peritonitis is set up very early. If a stercolith or foreign body produces perforation of the appendix a well-defined abscess may form around or, mainly owing to the position of the appendix free in the abdominal cavity, general septic peritonitis of an intense kind rapidly follows perforation.

Causation.

What are the factors which set going inflammation in the appendix with its various possibilities? We cannot always recognise them. The attack may come on in the midst of perfect health, go on to a fatal termination, and the clinical history and the necropsy fail to explain its origin. In other cases we are not so much in the dark. First, because most easily recognised, among the exciting conditions I place the presence of a hard body inside the appendix. Generally this can be easily made out to consist of inspissated fæcal matter, though sometimes the concretion is so dense and stone-like that, shown apart from the appendix, it might be impossible to tell it from a renal calculus. Occasionally a genuine foreign body is present, a fruit stone, a shot, a grain of corn. In what proportion of cases a hard body is contained in the appendix cannot be determined. In a series of cases requiring operation, or examined in the *post-mortem* room, it may be almost constantly present; but these are the most severe examples, and perforation very common. In the milder non-perforative cases, which are more numerous than the former, and usually come under the care of the physician rather than the surgeon, we have no data as to the presence of concretions. From the fact that such practically always recover without surgical intervention, we are likely to remain without information; but I infer that stercoliths are not common in the milder types of appendicitis. Where are the concretions formed? An ingenious attempt has been made to show that they are formed in the cæcum, are forced thence into the vermiform appendix, giving rise to intense colicky pain, and a clinical term, "appendicular colic," has arisen out of this. Patients who ought most often to suffer from colic of the appendix, if this were true, are elderly people and women especially, whilst experience shows overwhelmingly that appendicitis is much more common in the young rather than the old, and in males rather than females. That severe colic occurs there is no doubt; it is a most significant symptom, the importance of which cannot be over-estimated; but the inference as to its production and its analogy to renal or biliary colic is, I believe, entirely false; this will, however, be discussed later on. It is certain that fæces enter the appendix and there become inspissated, as in this large appendicular calculus which I show, and such is probably the common origin of these concretions within the appendix. The curious thing is that concretions may exist, possibly for a long time, without doing harm, when suddenly an acute inflammatory process is ignited, and the concretion perforates the walls of the appendix.

This leads me to the second exciting cause, which, whilst not so readily recognised as the concretion, is, I believe, much more common. It is catarrh of the cæcum and ascending colon. Careful inquiry will in a proportion of cases, especially amongst the poorer classes and in children, reveal the fact that the colicky pain follows some hours after a large and indigestible meal or is due to exposure to cold. This suggests a catarrh of the colon which extending to the appendix sets up swelling of the mucous membrane with increase of secretion. The swollen mucous membrane blocks more or less completely the orifice of the appendix, and the retained and stagnant secretion, always mixed with various putrefactive and pathogenic organisms, provides them with suitable conditions for active growth, and we have a simple catarrhal inflammation converted into an infective one. This may become of the most intense description, producing any of the disastrous results to which I have alluded—perforation, gangrene, or general peritonitis. If a concretion exists in the appendix, although it may have been formed and fixed there a long time previously, the infective inflammatory changes I have just spoken of determine the ulcerative process at the point of impact of the concretion, and perforation results. This is the only way in which I can reconcile the facts that a stone-like body is formed in and remains a long time within the appendix without doing harm, and that suddenly this tolerance of the appendix gives place to those changes which result in perforation.

The part played in appendicitis by micro-organisms is not yet clearly unravelled, and at the present time I am engaged in some investigations on this subject. In the contents of the appendix, in its walls, and in the abscess or general peritonitis round it numerous germs may be found, but chiefly the bacterium coli commune. This bacillus is constantly found in the healthy intestine, where it does no harm, yet, under certain circumstances, it appears capable of invading the intestinal walls and spreading through them to the peritoneal cavity, producing an infective inflammatory process of possibly the most intense kind. What induces this change, that a bacillus usually unable to attack and penetrate the intestinal wall every now and then appears to acquire this power? The changed condition may be either in the bacillus, in the contents of the intestine, or in its walls. In appendicitis I believe that a catarrhal process, spreading from the cæcum to the appendix, with retention of the secretion in the partly-choked narrow gut, provides conditions of food and rest, which invite a luxuriant and, it may be, malignant development of the bacillus. At the same time the swollen and succulent mucous membrane is less resisting and becomes invaded by the organism, and all the worst possibilities of inflammation of this part may follow. To catarrh, therefore, of the large intestine I attribute the initiation of appendicitis; to the activity of the ordinary colon bacillus the conversion of a simple to an infective inflammation with all its possible extensions; while the accident of perforation is generally due to a concretion. If such be present, although previously not harmful, the acutely-inflamed appendicular walls undergo necrosis from its pressure, and perforation is produced. It must be borne in mind that once the appendix has been inflamed it is often embarrassed in the future by adhesions from without, tying it down in a kinked position, so that its contents cannot easily escape;

or a partial or complete stricture may form, giving rise to retention of secretion, as in this specimen I show you, where the dilatation was so considerable as to produce a cavity holding some drachms of fluid.

As to the influence of age and sex in the production of the disease there can be no doubt. Adolescents suffer most heavily, and nearly 50 per cent. of the cases occur between the ages of 10 and 25. Infancy is not exempt, nor is old age. The explanation of the predisposition of young people to be attacked is, I believe, supplied by Kelynack, who attributes it to the large amount of lymphoid tissue in the appendix, and the well known tendency of this tissue to inflammation in the young. Males are said to suffer about three times as often as females, and for this there is no sufficient explanation forthcoming. My own cases are nearly evenly divided between the two sexes.

Typhoid fever has been described as the forerunner of appendicitis, it being assumed rather than proved that the orifice of the appendix becomes involved in typhoid ulceration, a stenosis resulting. The possibility of this can hardly be questioned, but I have only once seen a case in which appendicitis has followed typhoid, and in this there was an interval of five years between the two illnesses.

There are certain features common to appendicitis generally which I shall describe before attempting to group the widely varying cases.

First in importance is the onset of the attack. This when carefully investigated will be found to be often so typical as to give the key to the whole position. It may be as characteristic as the commencement of acute pneumonia or scarlet fever. A patient, previously in good health, is seized with abdominal pains of a crampy, colicky character. This pain at first is not well defined, but rolls over the whole of the abdomen, and if localised at any particular point this is generally in the neighbourhood of the umbilicus. The pain may be of the greatest severity, and I have seen a patient bathed in sweat and rolling about the bed as in the worst attacks of renal colic. The term appendicular colic has been applied to this seizure, and it is often so characteristic that no exception need be taken to the term. Talamon's explanation of the colic as due to the squeezing of a hard fæcal mass into the appendix from the cæcum is opposed by several facts. There is positive evidence that many stercoliths have long resided in the appendix, and that they are produced there by inspissation of fæces. In many cases of appendicular colic no concretion is found, and again the mechanical relations of the appendical orifice to the wall of the cæcum, quite unlike those of the ureter to the kidney pelvis, are such as forbid the idea that the contractions of the cæcum would drive bodies into the appendix when they could escape by the ascending colon. I attribute the colic myself to a widespread reflex spreading through the sympathetic plexuses in the abdomen, and excited by the severe inflammation in the resisting and inelastic walls of the appendix. The seizure is frequently spoken of by the patient as cramp or spasms, or a bilious attack. It may last some hours with partial remissions, and is generally accompanied by vomiting. Vomiting at this stage may only occur once, or if repeated is not persistent like that of peritonitis or intestinal obstruction, and the vomited matters consist of the last taken food with admixture of bile. I shall have to refer again to the symptom of vomiting. Here I will only add that persistent vomiting or persistent hiccough are evil signs, as is coffee-coloured vomit from the presence of altered blood. After the widespread pain has existed for from an hour to as long as ten or twelve hours, the seat of pain will be referred to the right iliac fossa, and examination of the abdomen by palpation will reveal marked tenderness here.

This is the typical onset, and if it were constantly present diagnosis would be rendered so much the easier. Though not constant it is present in a large proportion of cases, and I am convinced is not rarely overlooked. Its value is greatest in the acute perforating cases because in these it is apt to be most marked, and in these early diagnosis is essential to successful treatment. In exceptions to the typical attack it may happen that the pain is not diffused at first, but is localised to the right iliac fossa, or that, after the diffuse pain has ceased, some part distant from the right iliac fossa is localised as the seat of pain.

In a case under the care of my colleague, Dr. Stacey Wilson, a boy had the widespread pain with the subsequent local pain in the left iliac fossa. He died in collapse after a severe exacerbation of pain, and it was found that his vermiform appendix in the usual situation on the right side had perforated and given rise to peritonitis. In a case I have recently operated on there was a diffuse colicky pain with vomiting, but pain, if anywhere localised as most severe, was in the left iliac fossa. Despite exceptions such as these the typical onset is most valuable in diagnosis, and, when it is atypical, we have the presence of other indications to help us to a correct conclusion. In this early stage rigor is exceptional, and, personally, I have only met with it once as part of the onset. Late in the disease, and associated with well-defined suppuration, it is not uncommon to have one, or even several, rigors if the pus is allowed to remain unevacuated. Constipation is the rule at this stage and immediately preceding it, although a scanty motion may be passed, and diarrhœa may even take the place of constipation.

The temperature is almost always elevated at the onset. It may within twenty-four hours reach to 102° or 103° F., but a commoner range is 101° to 102°. If the case is a mild one, in two or three days all fever may have disappeared; if on the contrary it is an acute perforating case, the temperature tends to increase, and on the third or fourth day it may have steadily risen from 101° to 103° or 104°. If abscess formation is taking place the temperature will be raised at night to 101°, 102° or more with a morning remission such as in commonly seen in pus formation in other parts of the body. To this general description of the range of temperature many exceptions may be mentioned. For instance, there was one perforative case in which the temperature fell on the fourth day from 101.2° to normal, and remained so for two days, when perforation into the peritoneal cavity suddenly occurred. In another case, at the commencement of the third day of the disease the temperature fell from 104° to 99°, other symptoms becoming aggravated, and that day several ounces of fœtid purulent fluid were evacuated from around the appendix. The erratic course taken by the temperature in such cases as I have just quoted has induced some surgeons to declare that the temperature is of little value as an aid to diagnosis. I should put the matter rather in this way—that it is an uncertain guide and one only to be relied upon when confirmed by other phenomena present. If it presents the paradox of a falling temperature with a quickening pulse, the improvement in the temperature would be a fallacious guide. If on the other hand the temperature goes on increasing, on the third or fourth day this is a symptom of serious importance indicating a severe infection which is extending beyond the locality it originated in. In the differential diagnosis between appendicitis and such conditions as intestinal obstruction or renal colic the presence of two or three degrees of fever would point strongly to the first mentioned condition, and for this reason alone the state of the temperature is too valuable to be made little of.

The pulse is undoubtedly a guide more to be relied on than the temperature. Much quickened it always is in the acute onset, running from 100 to 110 or more, but subsiding in three or four days if the case is a mild one, speedily to undergo resolution. Otherwise the rapidity of the pulse remains, and may increase up to 120 quite commonly, and far beyond this if a fatal termination from peritonitis is impending. The quickening of the pulse despite improvement of the temperature—and it may be in other directions—is a fact of great importance, and the surgeon should carefully scan the patient to see if he has overlooked any other point. In a case referred to just now, with a fall of temperature from 104° to 99°, the pulse increased from 114 to 132 and the respiration from 36 to 42.

As to the character of the pulse little is to be said, but just this much should not be omitted. Generally the pulse is soft and easily compressible, and remains so even when peritonitis is commencing or well established. There is a tradition that in peritonitis the pulse is hard and wiry, and I have often, when discussing these cases, had my attention drawn to the fact that these characters are absent as an argument against the presence of peritonitis. Everyone has, of course, met with a wiry pulse in peritonitis, but in my experience it is oftener absent than present.

After the severe colicky pain of the onset has passed away and local pain is felt in the right iliac fossa, some general tenderness of the belly may exist with rigidity. As a rule, the limited acutely tender spot in the right iliac fossa can be detected about the point indicated by McBurney, in a line from the anterior superior spine to the umbilicus, about 3 inches from the former. This brings me to the question of the presence or absence of tumour. Some time ago, examining the records of a large number of cases occurring consecutively in the General Hospital, I found that in two-thirds a distinct tumour was recognised in the right iliac fossa. From my own experience, I should say that what is sometimes felt and spoken of as a tumour here is merely the rigid contraction of muscle over the appendix and adjacent parts acutely inflamed and tender. However that may be, undoubted tumour is very common, and is due to thickening and matting of the appendix to the gut and omentum round it, sometimes also to the parietal peritoneum, and to infiltration later into the fasciæ and muscles of the abdominal wall. In this way a most massive swelling may result. In addition to this matting and infiltration, later pus may be added, making the tumour larger and more definite. The presence of a tumour produced in either of the ways indicated is a common and valuable sign. Where, owing to tenderness and general muscular rigidity, no tumour can be felt, by relaxing the muscles with an anæsthetic one can pretty certainly be detected, though in the most acute cases it may amount to nothing more than an ill-defined fulness in the right iliac fossa. In only one case that I have operated on have I failed under anæsthesia to find this, and I lay stress on the great value of this method of investigation in young children who resent examination, and in adults with fat belly walls. This description of the formation and presence of a tumour would be incomplete without a reference to those exceptional cases in which the cæcum and vermiform appendix occupy some unusual part of the abdomen. Should an erratic appendix become inflamed, the irregular position of the point of the greatest tenderness and the tumour would be very puzzling, yet a few brilliant examples are on record of diagnosis and successful operation of such cases.

Is anything to be learnt by examination *per rectum* or *per vaginam?* In a limited number of cases a tumour may thus be felt, but I believe it is exceptional for a tumour thus to be located which cannot be felt through the abdominal walls. Personally I have once obtained information in this way when examination of the abdominal walls failed to give it. From the published reports of cases it is evident that other observers have reaped greater advantage from bimanual examination. It therefore should not be omitted as part of a routine examination.

A symptom not to be ignored, though not commonly present, is pain before, during, or after micturition. It is due to the position of the inflamed appendix within, or close to, the brim of the pelvis. The inflammatory process extends thence to the peritoneal coat of the bladder, and as the organ is stretched, relaxed, and contracted, pain is produced. I have met with it in five cases, all males. In one of them retention of urine resulted, which I was called on to relieve, the presence of appendicitis not having been recognised until I detected it. In one of the others the pain connected with micturition was the chief trouble of which the patient complained. Curiously enough, the only patient I have operated on for appendical abscess opening into the bladder (a female) had no trouble in micturition at any time.

The patient practically always assumes the dorsal decubitus, lying as a rule with the legs extended. Exceptionally the right hip is flexed to relax the muscles and fasciæ overlying the inflamed area, and when general peritonitis exists both lower limbs may be drawn up. If the case is very acute the muscles of the abdominal wall will be fixed more or less completely and will be little used in respiration. This rigidity of the belly does not necessarily imply that peritonitis exists; indeed, I have seen it in a marked degree when I have had positive evidence by operation that there has not been general peritonitis. Nevertheless, it is a sign which no prudent surgeon will ignore, as it tells that a severe infection has involved the appendix, and that extension to the general peritoneal cavity is one of the results to be apprehended. Distension of the abdomen with rigidity is much more significant of peritonitis, and yet I hesitate to say that the combination of the two certainly indicates the presence of general peritonitis. In three very acute cases upon which I operated, all of which recovered, both marked rigidity and distension existed, and I am bound to say I believed that general septic peritonitis was present, the more so as two of them were vomiting frequently. Yet the cessation of all the bad indications immediately after removal of the vermiform appendix in one case, and drainage of an ill defined collection of pus around the vermiform appendix in the other two, leaves me in doubt whether I had not diagnosed general extension to the peritoneum when it did not exist.

The patient's face is worthy of study. Early in the disease it is the puckered face of pain, especially in children. As the acute pain subsides the face becomes more restful. If general infection of the peritoneum occurs we have the flushed face of septicæmia or the pinched collapsed face which, known as the facies Hippocratica, stamps the case as one of severe peritoneal inflammation.

Delirium is not often present, but when there is a septic peritonitis it may be, as in septicæmia from other conditions. There is nothing characteristic about it, but it is of evil prognosis.

COLECTOMY.

By F. T. PAUL, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

In placing the following seven cases of colectomy on record, I am aware that my contribution may have the reverse effect to that which I would wish, yet it is not the less a matter of duty to relate them. The mortality has been from various causes unsatisfactory. The first three patients died outright from the operation, one of the others died from a second operation undertaken to improve her condition, and the sum of the existence of the remaining three survivors was nothing to boast of. The reader is therefore naturally inclined to accept this as further evidence against an operation, the expediency of which he probably already regards as problematical. The statistician, too, if he adds these cases *en masse* to his statistics, helps to show what a fatal and unsuccessful operation colectomy is, quite regardless of the fact that no true deduction can be made from a pile of figures in which tried or untried operations, and experience or inexperience on the part of the operator have no significance. As a matter of fact, these seven cases represent the education of an individual surgeon, and the resulting mortality has more reference to the impossibility of attaining sound judgment and technical skill without practical experience, than it has to the chances of success or failure of colectomy under proper conditions. Surgery has not at present by common consent laid down any laws regarding colectomy. The whole subject may be considered *sub judice* pending further evidence; but in the narration of these cases I shall take the opportunity of expressing an opinion as to the class which in my judgment is best suited for the operation, and as to the most safe and satisfactory methods of accomplishing it. A short history of each case is given in chronological order, and the notes will show the path which I have followed in trying to find success. There may be a difference of opinion as to the lessons to be learnt from these cases and the deductions which should be made from them; but facts are always useful, and if none of them deserve to be regarded as guides to success, at least some may have value as a warning against failure.

Case I.—In May, 1890, I was asked by Dr. Briggs to see a patient in one of his wards, aged 49. She had been suffering for the past few months from gradually increasing chronic obstruction of the bowels, which had recently culminated in absolute constipation. She was a spare woman, a good deal pulled down by her illness; the pulse was small, and the temperature normal. There was complete obstruction, with frequent vomiting of greenish fluid, and constant attacks of violent colicky pain, abdominal distension, and visible peristalsis. On palpating the abdomen the cæcum and all the large intestine appeared to be distended. The handling at once set up colic, and the peristaltic wave could be seen to move along the bowel from the cæcum to the sigmoid flexure. The rectum was quite empty, and we therefore felt sure that the stricture must be situated either in the upper part of the rectum or the sigmoid. Having decided to operate, the patient was removed to the infirmary and put under the influence of chloroform. I made an incision in the left

inguinal region, drew out the sigmoid flexure, and found there, as we had expected, a small malignant ring stricture, which was easily excised. At this time I unfortunately imagined approximation by invagination on the decalcified bone tube to be as feasible in the large as in the small intestine. It was so on dogs and in the *post-mortem* room; but I had to learn in this and another case that the living human colon could not be dealt with in this way. The invagination was just possible; but, instead of the bowel accommodating itself to the new condition, it tended to unfold again. At last, with the help of plenty of Lembert sutures, I hoped that a satisfactory job had been accomplished, and released the clamp on the distended upper end of the bowel. There was no leakage, so that the parts were cleansed and returned, and the wound closed. The operation had taken much longer than I had expected, and it was with a feeling of considerable disappointment that I sent the patient back to the ward. This feeling was very soon justified by subsequent events; for, soon after she recovered from the effects of the chloroform, the bowels began to act violently, accompanied by severe abdominal pain. This was followed by a deepening of the collapse; she gradually became more and more exhausted, and died during the night. On subsequent examination it was found that some leakage had occurred. It was not much, but quite enough rapidly to put the finishing touch to a long and exhausting operation.

The loss of this patient was clearly due to a mistaken operation. Barring the severity of the symptoms the case was a most suitable one for colectomy. The growth was small; it was of the least malignant type, and in the best possible situation, and the patient, though very ill, was of the wiry kind that generally make a good recovery. I know now that if I had been content with an inguinal colotomy involving the removal of a loop of bowel my patient could scarcely have failed to survive; but then this was before I had formed a just estimate of the value of inguinal colotomy. And I feel almost equally sure that continuity of the bowel might have been successfully restored, but by a method which was not tried until after other failures.

CASE II.—On February 11th, 1891, a female patient, aged 47, was admitted into the Royal Infirmary, under my care with intestinal obstruction. She was quite well until five weeks before admission, when she began to suffer from pains in the abdomen and constipation, but with the help of medicine the bowels were moved every day. Eleven days before admission she woke up with pain and vomited. From this time she had complete obstruction, and vomited everything. On admission she was in a collapsed condition, with great abdominal distension and faecal vomiting. Nothing could be felt in the rectum, but stricture of the large intestine was diagnosed, and right lumbar colotomy at once performed. The colon was found full of fæces, and a quantity escaped as soon as it was opened. For a few days she remained very ill, but soon began to pick up, and in less than a week was quite out of danger. When the abdomen was collapsed a further examination revealed a tumour in the descending colon. On February 23rd, the patient's condition having very much improved, I decided to excise the growth without further delay, as the operation seemed to me much less dangerous owing to the bowel being kept empty by the artificial anus. The tumour was larger than in the last case, but there was nothing very formidable about its excision had the patient possessed even moderate powers of resistance. She, however, bore the operation very badly, and by the time the growth was excised had not sufficient strength to enable me to suture the ends of the bowel together, so I brought them out of the abdomen. At the same time the operation was not done as quickly as it might have been, and more blood was lost in dividing the mesenteric vessels than was good for her. The patient was put back to bed in a weak and collapsed condition, and though everything was done to restore her the state of exhaustion increased, and she died at the end of thirty-six hours.

I consider that the loss of this case was due chiefly to a want of appreciation of the profound and prolonged effect of a serious attack of intestinal obstruction, and partly to the absence of sufficient technical skill. I have since met with other cases, showing how seriously and for what a long time obstruction lowers the constitution, especially when there has been fæcal vomiting, and how badly such patients bear a second operation if undertaken before they have fully regained their strength.

CASE III.—On April 4th, 1892, my colleague, Dr. Glynn, transferred to my wards a case of cancer of the cæcum. The patient was a thin, anæmic man, aged 47, who had been in better circumstances. Twelve months earlier he had first begun to lose strength, and eight months before admission had had his first attack of abdominal pain and vomiting. Since then he had suffered more or less from diarrhœa, abdominal pain, and occasional sickness. He had been steadily losing flesh, and had become very pale. On examining the abdomen, which was not distended, a tumour the size of a large orange could be felt in the right iliac fossa, apparently involving the ileo-cæcal valve. With the help of my senior colleague, Mr. Mitchell Banks, I cut down on this tumour and dissected it out. It was a large mass of growth, and necessitated the removal of about 2 inches of the ileum and all the cæcum to get it away. The operation was a graver one than I had contemplated; but he bore it well, as very little blood was lost owing to the vessels being carefully tied before they were cut, and as efficient help enabled me to complete it quickly. Having removed the tumour, I again attempted approximation by the bone-tube method. It answered somewhat better this time, and was not, at any rate, the direct cause of death; but this case taught me that invagination was not the best method of approximating the large bowel, however well it might act in the small. The end of the ileum was invaginated for about two-thirds of an inch; no reasonable force could introduce it any further, and it required plenty of Lembert sutures to keep it there. When the approximation was completed and the mesentery sewn up, the bowel was cleansed and returned and a drainage tube inserted into the lower part of the wound. The first night the patient did fairly well, and the next morning the temperature was only 99.8°, so I hoped he was going to recover. There was no vomiting, flatus was passed, and the wound looked well; but in the afternoon the temperature rose to 102° and the pulse increased, at first to 140 and then to 160, and it became clear that he was going to fail rapidly. He died the following morning forty-two hours after the operation. The cause of death was found to be sloughing of the lower end of the colon, presumably from its blood supply being cut off.

In this case I was perfectly satisfied with all the details of the operation except the mode of approximation. In the first place the disease was probably—almost certainly—too advanced for excision: but the subsequent course of the case indicated that he might still have recovered and lived for a time if the ends of bowel had been brought out, and this I fully determined to do next time. The sloughing of the cut end of the colon would probably have taken place with any mode of approximation; but had it been outside instead of inside the peritoneal cavity the small ring of gangrene would have done no harm.

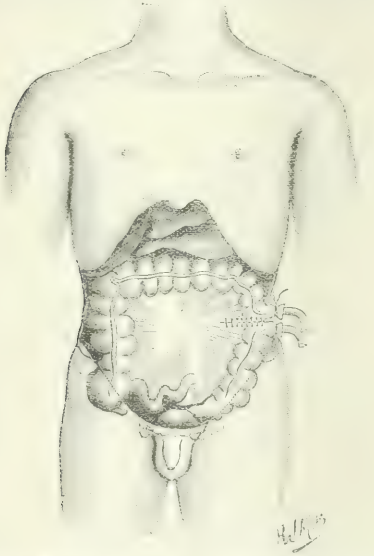
CASE IV.—In May, 1894, I was asked by Dr. Peirce, of Hoylake, to see with him a lady, aged 60, ill with intestinal obstruction. She gave a long history of failing health, with a tendency to vomiting—biliousness, she called it—and for the past twelve months gradually increasing constipation. For nine days there had been complete obstruction, and no food had remained on the stomach. She was now in a most distressing condition, the abdomen hard, painful, and distended almost to its utmost limits, and the vomiting very frequent and becoming faculent. The rectum was empty, and no clue could be obtained as to what part of the colon was strictured. Operation was agreed to, and I therefore made an incision, as was my custom then, in the left inguinal region. The sigmoid flexure was easily withdrawn, and a malignant ring stricture found in it. Having clamped the bowel, the portion containing the growth was excised, and a glass intestinal drainage tube ligatured into each end. Dressings were applied, and then the plug was removed from the upper tube, and the fæces allowed to flow, which they did until a wash basin was more than half full. The patient suffered no collapse, and was relieved from the first; in fact, the course of the case was merely that of a successful colotomy. During the afternoon an almost inconceivable quantity of black liquid motion escaped into the basins; the vomiting ceased, and everything went on well. Convalescence was rapid, and she was soon able to resume supervision of her household duties.

In this case I made no attempt to restore continuity, thinking that at her time of life she had better be content with the advantage already gained, not that I intended to rest satisfied with an artificial anus in future cases, but for the time being I felt sufficiently well pleased that a patient should survive the operation under any circumstances, and live out her life in comparative comfort. She continued in good health until the autumn of 1894, when she was attacked with diarrhœa and vomiting, from which after a short illness she died. Drs. Peirce and McAulay kindly made a careful *post-mortem* examination. They state that her death was entirely due to enteritis, and that there was no trace of new growth in either the bowel, glands, or other internal organs. It was disappointing that this patient should not have lived until recurrence occurred, or until such time as she might have been pronounced cured, but up to the present I have been consistently unfortunate in the subsequent progress of such cases of colectomy as have recovered from the operation, and from my own experience have still nothing to contribute as to the length of immunity which may be hoped for. If, however, any cases are susceptible of permanent cure it is certainly these of ring stricture. The main point, however, to lay hold of in this case was that the patient recovered without a bad symptom, and I felt one might conclude that, when the excision was not too extensive and the ends of the bowel were brought out, colectomy could be undertaken with comparatively little danger to life. Of course I intended to act on this experience in future cases.

CASE V.—On January 10th, 1893, Dr. Finegan sent me a domestic servant, aged 38, suffering from an abdominal tumour. In the spring of 1892 she began to suffer from pains in the abdomen and irregularity of the bowels. She was treated for indigestion, as have several of my cases of malignant stricture of the colon. In November the pains became so severe that she had to leave her situation, and about Christmas consulted Dr. Finegan, who discovered the tumour. In addition to the other symptoms mucus was found in the motions and sometimes blood. There was no distension, and the tumour, which was about the size of an egg, could be readily felt in the descending colon. On January 16th I excised the bowel from the splenic to the sigmoid flexure. A few surroundin adhesions having been tied and severed, the mesenteric vessels were ligatured with the help of an aneurysm needle, the mesentery divided, and the bowel drawn out of the wound; a glass tube was then ligatured into each end and the intervening portion cut off. Although the growth was large and the patient anæmic and much reduced, the operation did not prove to be at all severe. The tubes were removed on the seventh day and a rapid recovery took place, the highest temperature recorded being 99.4°.

This patient again demonstrated the comparative safety of simple colectomy performed in this way, even when the operation itself was an extensive one: but I was not content that she should remain for life like the last case with all the discomforts of an artificial anus. She readily submitted to a second operation, having for its object restoration of the continuity of the bowel. On February 17th, the patient having perfectly recovered, and being in a suitable condition of health, I resected the ends of the bowel and united them with sutures. The result was unfortunate. Acute peritonitis supervened, from which she died on the fourth day.

I was naturally very much disappointed to feel that having arrived at a safe method of removing the growth, there yet remained a great risk to the patient's life in endeavouring to re-establish the natural channel, and I decided that it would be better to bear the evils of artificial anus if to avoid them it was necessary to take the chance of a fatal peritonitis. There remained, however, to be tried the old plan of restoring continuity by Dupuytren's enterotome, to which very little risk attached. If such a method could be perfectly successful when the spur was accidentally formed by Nature, how much more ought it to be so when a spur was deliberately constructed with the object of being subsequently safely



olectomy: Preparation of the bowel for the subsequent safe removal of the spur.

removed. I therefore thought out and determined to put in practice the following mode of operating in the next case: First, to excise the strictured portion of bowel as in the last two cases, then to suture together the cut edges of the mesentery and the adjacent sides of the two ends of the colon in such a manner that they would adhere together for about 3 inches in the position of the two barrels of a double-barrelled gun. If this succeeded the spur might be demolished without the slightest risk of peritonitis, and to such an extent as to insure a free passage and easy closing of the artificial anus. This plan is of course extremely simple, and is well shown in the accompanying illustration, for which I have to thank our medical tutor, Dr. Buchanan.

CASE VI.—The patient, a lady, aged 36, began to be attacked with pain in the abdomen and flatulence towards the latter part of 1893. The pain was of a colicky nature, and often very severe, and the abdomen was always more distended than it used to be. In December vomiting at intervals commenced, and her appetite failed. With the help of medicine the bowels were fairly regularly moved, but she gradually lost flesh, and becoming unfit to attend to her household duties, finally took to bed. When seen in consultation with Dr. James Hendry she was in a weak state of health with colicky pains, abdominal distension, and vomiting due to chronic intestinal obstruction. The bowels were only moved with great difficulty, and the motions contained mucus and sometimes blood. Malignant structure of the colon was diagnosed. It could not be located, but was thought to be high up, as she was able to retain large enemata. On February 15th, 1894, I opened the abdomen in the middle line for exploration, and easily detected with one finger a tumour in the ascending colon. The exploratory incision was therefore closed, and a second one made over the position of the growth. As soon as the peritoneum was opened the cæcum, greatly distended, bulged into the wound and interfered with the progress of the operation, so it was incised, and a quantity of gas and fluid fæces allowed to escape. When the bowel had emptied itself the opening was clamped, and the mesenteric vessels leading to the affected portion of bowel were ligatured, the mesentery divided, and the loose loop of gut brought out of the abdominal cavity. About 5 inches was now excised, and glass intestinal drainage tubes were tied into each end. Finally the wound in the mesentery was drawn together with green catgut, and the two ends of bowel were attached side by side, as shown in the engraving. By the next day a quantity of fluid motion had been passed through the lower tube into basins, and the abdominal distension disappeared. There was no vomiting, and in every way she was comfortable and doing well. The temperature did not once exceed 99·2°, and she made a rapid recovery. The upper tube was removed on the seventh day, and the lower one, which was in the proximal end of the bowel, on the tenth day. On March 1st a finger was introduced into the bowel on each side of the spur, and the two ends were felt to be in contact as far as the finger could reach, so a long dressing forceps was applied to the spur with one blade in the bowel on each side, and the handles fastened together with indiarubber tubing. On March 7th the forceps came away, a good part of the spur having been divided. On March 19th the operation was repeated, and this time the spur was removed for a full finger's depth. It now only remained to close the artificial anus, so the rosette of mucous membrane showing on the surface was separated from the skin and sutured together, and the skin closed over it. Primary union occurred, and henceforth the bowels were moved by the natural passage.

At last a case was satisfactorily completed so far as the operation was concerned; but I knew from the first that this was one of the typically malignant class, and that life could not be much prolonged. The patient was young, the tumour was large, and already at the time of the operation there were small malignant glands scattered about in the mesocolon. Hence, though the case demonstrated the feasibility and success of each stage of the operation, it did not add much to the lustre of colectomy. Within a few months I heard that there was already evidence of internal recurrence, from which she died in October, eight months after the operation.

CASE VII.—1895.—The patient was a small man, aged 37, with sallow complexion and dry skin. Ten years earlier he had suffered from severe pains in the right inguinal region, and fifteen weeks before admission was attacked with similar pains in the same region. He had to stop work and sent for the doctor, who he says treated him for inflammation of the bowels. In the course of a fortnight he felt better and tried to resume work, but was very soon laid up again. He then came under the care of Dr. Hudson, of Millom, to whom I am indebted for the opportunity of subsequently treating him, and who correctly diagnosed that he was suffering from chronic intussusception. When admitted his chief symptoms were obstinate constipation, frequent vomiting and violent colicky pains in the abdomen. Handling the abdomen at once caused spasmodic pains and visible peristalsis; it was not distended, and palpation revealed a large ill-defined tumour in the right inguinal region, which extended up into the loin, and which was distinctly affected by the peristaltic contractions. With the help of aperients and injections the bowels were moved occasionally, but apparently without giving any relief. The motions consisted of small scybala and thin liquid; they contained very little mucus, and no blood. The vomited matters consisted of whatever was in the stomach at the time, the act being frequently excited by the attacks of colicky pain. The tongue was furred and the breath foul. The urine, I am afraid, was not examined. On December 13th I made an incision over the swelling, and found it everywhere covered with matted adhesions, some of which were half an inch thick. It took quite half an hour of rapid operating to divide them all and liberate an enormous cæcum containing an intussusception, which was about 8 inches long and extended up into the ascending colon. Although the bowel had been invaginated for such a long time I was able by forcible extrusion to reduce it. The handling, however, was necessarily rough, and it was not considered by myself and others present that it would be safe to leave it in the abdomen. The mesentery was therefore ligatured and divided, and the entire mass measuring 14 inches in length, and very heavy, was cut away. Glass intestinal drainage tubes were ligatured into both ends of the bowel, which were brought out side by side, and sutured together as in previous cases. The thick mesenteric stump was arranged to lie near the wound under the bowel, so that if any hæmorrhage occurred the blood might escape externally. I rather anticipated this contingency, because the stump consisted of greatly thickened tissue, in which were numerous large vessels, and I have observed that no matter how tightly the ligatures are tied in such cases hæmorrhage will occasionally occur a few hours later, when the ligatures slacken owing to the fluids being squeezed out of the tissues. As a matter of fact it did occur here during the evening, and the dressings were saturated with blood. Had the stump been so placed as to allow the blood to collect in the peritoneal cavity it might have gone badly with him. What with the hæmorrhage and the length and severity of the operation—for the bowel was enormously hypertrophied—this patient at first suffered from shock; but the next morning he was doing all right, and his subsequent convalescence was uneventful. The temperature remained normal throughout, never

exceeding 99°. The tube in the distal end was removed on the third day, but the other, through which the fæces discharged, was retained and kept the wound perfectly clean until the thirteenth day. On January 4th the patient was considered quite convalescent. He felt well, and had an excellent appetite, so the enterotome was applied to divide the spur. As in the last case, I attacked the outermost half first, and in the course of a few days it sloughed through. So far everything had gone well, and I congratulated myself that at last I had to deal with a case in which the patient had every prospect of living for years to come, and in which we should be able to watch the result. However, it was not to be. On January 12th without any reason he vomited his dinner. This created no alarm in his mind or mine, and when he vomited again he said it was only because he had been eating much more strong food than he was accustomed to. I put him on careful diet, and did my best to stop the vomiting; but it was repeated from day to day until he became very thin, and his abdomen absolutely empty. In course of time he became completely exhausted and died, death taking place seven weeks after the operation, and three weeks since division of the spur was commenced. I confess I did not know the cause of his vomiting, though I ought to have done so. All we made out was that there was no local cause for it, as the alimentary canal and peritoneum were perfectly sound. A *post-mortem* examination was made by our pathologist, Dr. Abram, who found the cause of death to be uræmia due to advanced granular contraction of the kidneys; the right weighed 1½ ounce, and the left 1¾ ounce, the structure being much degenerated and cystic. This was the only disease present in the body.

The *post-mortem* examination in this case, however, afforded a valuable piece of evidence respecting the condition of the bowel. It was found that the two ends were completely united as far as they were sutured together, and that it would have been quite safe to cut down the spur for a full 3 inches from the first. The knowledge of this fact added considerably to my confidence in the operation, and made me more reconciled to the unexpected loss of my patient.

CASES FOR WHICH COLECTOMY IS SUITABLE.

Having now recorded the cases, I wish to make a short and clear statement of my views as to those which are most suitable for operation, and as to the best and safest methods of accomplishing it.

First as to the selection of cases. Young subjects, with a comparatively short history, who are passing mucus and blood in the motions, and in whom the tumour is large enough to be felt, are the cases in which the growth is most malignant. Unless very large, the affected part can be safely removed, but recurrence must be expected. Older people, upwards of 45, with generally a longer history of gradually increasing constipation, frequently culminating in absolute and sudden obstruction, often have a ring stricture, which is much less malignant, and when satisfactorily removed may undoubtedly be followed by permanent cure. Personally I am willing to remove the growth in almost all cases in which there are no secondary deposits; but those who wish to select carefully should be content with colotomy in the former class, and restrict colectomy to the latter. In passing I again direct attention to the frequency with which the abdominal pain (colic), flatulence, and vomiting of the earlier stages of chronic obstruction are mistaken and treated for dyspepsia. The sooner the disease is recognised the better is the surgeon's chance of success.

MODE OF PERFORMING THE OPERATION.

The operation may be accomplished in two very different ways: one by immediate and one by delayed approximation; each in my judgment being suitable for a certain class of case. Each may of course be carried out by a considerable diversity of methods, but I have formed a distinctly favourable opinion of a special method for each. When the patient is in good condition, the abdomen not distended, the tumour small, and the proximal end of the bowel not greatly hypertrophied, I advise immediate approximation by Murphy's button method. But when the opposite of these conditions prevails I strongly urge that the ends of the bowel should be brought out in the manner explained and illustrated, and I feel sure, though I have been unfortunate in the sort of cases I have had to deal with, that this method of bringing out the ends is much safer than any plan of immediate approximation, all statistics notwithstanding. The important steps of the operation are as follows:

1. Explore first in the middle line unless the stricture has been located.

2. Make a sufficiently free incision over the site of the tumour.

3. Having cleared away any adhesions, ligature the mesentery with the help of an aneurysm needle, and divide it sufficiently to free the bowel well beyond the growth on each side.

4. Let the loop of bowel containing the growth or stricture hang out of the abdomen, and sew together the mesentery and the adjacent sides of the two ends, as shown in the engraving. See that the stump of mesentery lies beneath the bowel, where, if deemed advisable, it can be drained by packing cyanide gauze down to it.

5. Ligature tightly a glass intestinal drainage tube into the bowel above and below the tumour and then cut away the affected part. Do not cut off first or blood will be unnecessarily lost. Only the proximal tube is really necessary. The distal end may be closed or included in the proximal ligature.

6. Close the ends of the wound with a few silkworm-gut sutures, passing through all the layers of the abdominal wall; no others are necessary.

When the operation is performed in this way all the vessels, except those in the primary incision, are tied before they are cut, and the intraperitoneal work is rendered quite bloodless.

The second stage of the operation, that of breaking down the spur with an enterotome, should generally be undertaken about three weeks later. As soon as this has been satisfactorily accomplished the artificial anus is closed by separating the rosette of mucous membrane from the skin, turning it in, and bringing the freshened edges of the latter together over it.

REMARKS ON THE LIMITS OF DRAINAGE IN SUPPURATIVE CONDITIONS OF THE ABDOMINAL CAVITY.

BY ARTHUR F. BARKER, F.R.C.S.,

Professor of the Principles and Practice of Surgery at University College, and Surgeon to University College Hospital.

I SUPPOSE there are few students of the history of surgery who would deny that the drain tube has played a large part in the modern advances of our art. And yet there are many of us who now feel that in the past we have often carried the practice of drainage far beyond what was demanded by the principles of wound treatment, and in some cases at least with mischief to the patient. Occasionally, at least, while laudably aiming at removing all traces of effused serum or blood which might prevent the coaptation of deep surfaces, and at the same time might form a most favourable soil for the growth of those putrefactive organisms which interfere dangerously with the vitality of healing tissues locally, and of the system generally, we have seen that our drain opening has not only carried off these products from the damaged tissues, but has given access from without to those very septic organisms against which we were anxious to guard our wound. In many cases too we appear to have lost sight of the fact that aseptic vital fluids, even in considerable amount, may be pent up under an unbroken skin or in a deep cavity without any disturbance, local or general, until they are absorbed completely. This is well illustrated by the case of large subcutaneous hæmatomata, which only rarely lead to dangerous conditions when let alone. In short, we have often ignored the capacity of the natural forces, when protected from external interference, to take care of the organism without any help from ourselves. We are now beginning to recognise this, and to make it a common practice to close even the largest wounds, provided they are clean, without any provision for drainage, and with almost absolute certainty that they will heal throughout, even in their deepest parts, as completely by first intention as superficial parts do under similar conditions.

But I venture to think that there is another aspect of the same subject to which we have not given a due amount of thought, namely, the limits of drainage in the case of certain conditions which are undoubtedly produced by the presence of saprophytic or pathogenic organisms, though perhaps not intensely toxic.

Some years ago I endeavoured to show[1] that tuberculous

[1] BRITISH MEDICAL JOURNAL, 1889, p. 121.

joint cavities, when cleared out to a certain degree, might be safely closed without drainage, and with every prospect of healing up soundly. Now, in clearing out a ragged tuberculous cavity, there could hardly be a pretence that every trace of infective tuberculous matter had been removed, and yet I showed that such cavities really did heal up, and in many cases remained soundly closed for at least years. In two cases of psoas abscess which I recently showed at the Clinical Society this was the case in the first after five years, and in the second at the end of eight months. Since then this practice has been largely employed by others, and I constantly hear of results bearing out the contention I then put forward. Nowhere is this better exemplified in the case of tuberculous disease than in the abdomen, although excision of joints and evacuation of psoas abscesses are adduced as the most striking illustration. Here, when we operate for tuberculous peritonitis, we evacuate as much of the morbid products as possible, but cannot pretend to have removed all the infective material which produced the original effusion. In such cases I have always held that the wisest course to pursue was to close up the abdominal wound as perfectly as possible without drainage, and increasing experience has strengthened this conviction. I have seen such cases heal absolutely, and all traces of the residual disease in the abdomen disappear absolutely in some cases, and show no signs of recurrence even after the lapse of years. Had drainage been employed in such cases there would have been considerable risk of prolapse of the bowel during the vomiting, which frequently follows the chloroform narcosis, or of septic infection being grafted on to the tuberculous infection, or of the drain track becoming a chronic tuberculous sinus, or of the scar in the abdominal wall being weak. These several risks, and others, such as greater liability to adhesions, were all avoided by immediate closure of the whole wound. Let me give a case in illustration, but briefly, as it has been already published in detail.[2]

Case I.—Some years ago a girl of 18 was admitted into University College Hospital, with acute intestinal obstruction and stercoraceous vomiting. I opened the abdomen, found a strong fibrous band constricting the intestine, and divided it with complete relief. It sprung from fresh tuberculous patches, with which all the intestines and omentum were thickly dotted wherever exposed. Some pint or so of turbid effusion was also removed with flakes of lymph. The wound was carefully closed without any drainage, and the patient recovered without a bad symptom. I saw her some years after with a sound scar, and no trace of abdominal trouble.

In this case there could be no question as to the presence of infective tubercle in the abdomen when it was closed. It could be seen on all sides; and yet it was disposed of by the natural forces once the effused fluid was dried out and the cavity was stitched up, and the absence of drainage in no way impeded the cure. Such cases have since become common.

But, again, I have had other cases in which the infective material producing the peritonitis was certainly not tuberculous, and in which the careful removal of the inflammatory material and closure of the abdomen absolutely without drainage was followed by rapid recovery. And yet in all these cases there was no hope that every trace of the infective material had been removed out of the cavity by operation.

Let me quote three typical cases.

Case II.—(Already recorded in Clinical Society *Transactions*, 1886, p. 149). Some six years ago I was asked to see a man, aged 26, who had previously been quite healthy, and who had acute intestinal obstruction for forty-eight hours. He was vomiting constantly, was in great pain, and his abdomen was much distended. I opened the latter, and evacuated some pints of turbid fluid with lymph flakes, released a coil of intestine which was deeply ecchymcsed, washed the bowel, and closed the wound without any drainage. Recovery was rapid. I have seen him quite well (February, 1895).

Case III.—A child of 7 was admitted three years ago under Dr. Barlow with the abdomen distended evidently by suppurative peritonitis. I did laparotomy, evacuated about a pint of creamy pus from over the intestines, washed out the abdomen with hot water, and closed the wound without drainage of any kind. Recovery was rapid and complete. Here there were no tubercles or evidence of disease of the appendix, but the suppuration was free and presumably infective.

Case IV.—A child of 8 was admitted a short time after under Dr. Barlow with a similar but more acute condition. The treatment was the same, without drainage of the abdomen. Here I evacuated about a pint and a half of pus from over the intestines, and closed the wound without drainage. Recovery was complete. It was, however, a little delayed by an accumulation of treacly blood and serum under the incision, which escaped by the stitch holes after complete union of the wound; but the general abdominal condition remained quiet. I have lately heard of this child as quite well.

[2] British Medical Journal, 1890, i, p. 124.

In none of these cases probably would anything have been gained by elaborate drainage, while much might have been lost in the various ways indicated above.

Such cases and many others give us food for reflection as to whether in the past we have done well in employing the routine of drainage in all cases of abdominal inflammation, even when due to septic agents. It is quite plain that the abdomen as a large lymph sac can dispose of considerable quantities of septic material unaided by operation. We know, for instance, that many cases in which inflammation starts in the vermiform appendix, and reaches the stage of suppuration, get well without any operation under ordinary medical treatment, the inflammatory products being absorbed. Such cases, taken with others of proved suppuration, such as those just related, have convinced me that drainage is often unnecessary, and has many times been carried too far as a routine practice, and might be dispensed with in some cases, at all events without disadvantage, if not with great gain to the patient, even where septic suppuration is undoubtedly present.

Let me take a short review of four cases in which I have recently done excision of the vermiform appendix for relapsing appendicitis.

Case v.—A coachman was admitted under my care for a moderately acute attack of this disease. Under rest, fomentation, restricted diet, and opium all his symptoms, except slight swelling over the appendix, disappeared. After being up for some days he was about to leave hospital when he had another attack, which subsided under the same treatment. Another attack succeeded to this, and he begged for operation. I cut down and removed a greatly swollen and inflamed appendix adherent to some coils of small intestine covered with lymph. The abdominal wound was closed without drainage. Recovery was most perfect, and many months after I saw the patient in the most robust health, and with a sound scar.

Case vi (Private Case).—Here I was called one evening to see the patient, aged 26, who was in the ninth day of an attack of appendicitis, which was probably the second or third of the same kind. She was collapsed, and vomited stercoraceous matter. I opened the abdomen and found a very long appendix reaching into the pelvis, and surrounded there by a small, very foul abscess, which was shut in by coils of small intestine sharply kinked around it, hence the acute obstruction. The vermiform was perforated in three places. It was removed *in toto*, the intestines relaxed, the abscess dried out and mopped with iodoform emulsion. The wound was closed without drainage, and the patient made an excellent recovery. The deep stitches, however, had evidently been infected from the abscess during the operation, and a small subcutaneous abscess formed, which discharged through the lowest stitch holes in the skin. Some of the deep-buried sutures, as a consequence, came away subsequently after the patient was up, but this in no way interfered with the course of convalescence, the intra-abdominal condition remaining satisfactory, and now six months after operation there is no weakness of the scar.

Case vii (Private Case).—Here I was called in to operate for primary acute appendicitis of some days' standing. I opened the abdomen and found the perforated appendix surrounded by a small abscess. It was removed at its base and the abscess dried out. The wound was completely closed with stitches reaching through all the tissues of the abdominal wall, and without any drainage. These stitches, too, were infected from within, and began to cut, and when removed on the tenth day part of the wound gaped. It closed, however, when some pus had escaped, and all went well to satisfactory recovery.

Case viii.—A girl of 20 was admitted under Dr. Ringer's care in the third attack of acute appendicitis. This subsided under the usual treatment. A fourth and then a fifth attack followed while in the hospital, and as the latter was subsiding I removed the appendix with some difficulty. Its apex was surrounded by a small abscess, and was bound down to the brim of the true pelvis and to the small intestines by very firm adhesions, which had to be divided by scissors. There was fresh lymph also on several of the adjacent coils of intestine. The wound was completely closed by stitches through the whole abdominal wall. Recovery was absolutely uneventful. The stitches were removed on the tenth day, and the wound was soundly healed and has remained so ever since.

Now, in these 4 cases, too, there was an undoubtedly septic condition in the abdominal cavity. In 3 of them there was a definite abscess, and in 2 at least there had been a diffused peritonitis, which in the last case remained at the time of operation, the exposed coils of small intestine showing flakes of recent lymph; and yet in none of them does there appear to have been any loss from the absence of drainage.

There are of course other cases of suppurative appendicitis in which we have to deal with large collections of pus round a sloughing vermiform. In these drainage will always perhaps be considered imperative, and should be thorough. Some other varieties of suppuration, especially of the diffuse form, will also need the most elaborate drainage. But what I want particularly to suggest to my surgical *confrères* is that we must not be misled by our experience in the latter class of cases to push drainage too far. Because they require careful provision for the escape of much virulent secretion,

it does not follow that in other cases in which the secretion is very moderate and localised, and not very virulent after thorough examination, cleansing of the focus of infection, and removal of the exciting cause it should be necessary to provide elaborate drainage for a secretion which the peritoneum itself can dispose of easily.

Another conclusion follows upon these considerations, if they be correct, namely that in those cases in which we open the abdomen for septic peritonitis, and regard drainage as indispensable, we may in many cases remove the tube at a much earlier date than has hitherto been the custom. The tube will have done all that is required of it in many cases in the first twenty-four hours, and though there may still be a certain amount of effused fluid to be got rid of, what does not leak away through the chink left by the removal of the drain, may often be left safely to be disposed of by the peritoneum. But only often, not always. It is for the surgeon of large experience in abdominal work to determine for each case which line he will adopt; but I would suggest again that where he can dispense with the drain tube he will find it a great gain.

OBSERVATIONS ON EXCISION OF THE RECTUM FOR MALIGNANT DISEASE, DESCRIBING A METHOD OF OPERATION.[1]

BY FRANCIS T. HEUSTON, M.D., M.CH., F.R.C.S.I.,
Professor of Anatomy, Royal College of Surgeons in Ireland; Consulting Surgeon to the Coombe Lying-in Hospital and to the Cripples' Home; Surgeon to the Adelaide Hospital, Dublin.

THE operative treatment of malignant disease of the rectum has been for many years a subject of interest to surgeons, and of the different methods recommended for dealing with such cases none has had more vicissitudes than that of excision of the diseased portion of bowel and implicated structures surrounding it. Since the introduction of this operation by Faget in 1763 there have been periods when it held an acknowledged position, as there have also been periods when it was considered inadmissible. The reason for the disrepute into which this operation fell for so many years is evidently due to its adoption in improper cases. It is, however, my belief that, with our advance in surgery and a more accurate knowledge of the special circumstances which indicate the different methods of operation, its value will be more generally recognised. My object in bringing this subject forward is to state what I consider to be the best method of dealing with a certain class of such cases.

CASE I.—Mr. J. K, aged 59 years, was recommended to me by my friend Dr. Cooper Stawell, of Bagnalstown, in September, 1891, with the following history. For a lengthened period, although his bowels were relieved normally in the morning, he had a great desire to go again about 10 P.M., when he passed a small quantity of mucus. Some seven months since he noticed blood on the stools, and a little blood also appeared with the mucus when he went to the evening stool. For this time he had great desire at intervals, it being frequently necessary to relieve the bowels seven or eight times during the night, blood and mucus passing on each occasion with a feeling of soreness near the anus. For the month before I saw him he had pain and difficulty during micturition, it being necessary to stand and force for some time before the urine came. On examination I found a hard irregular growth implicating the anterior aspect of the bowel, extending from slightly above the upper border of the internal sphincter for about 3 inches upwards on the anterior and lateral walls of the bowel, but not implicating its posterior wall.

Operation being recommended and agreed to, the patient was retained in the lithotomy position by Clover's crutch, and an incision was made in the median line from the anus to the tip of the coccyx. The bowel was now separated in its entire circumference by a scissors, keeping below the diseased structures and above the attachments to the bowel of the levatores ani and the sphincter muscles, when the bowel came down without trouble, except on its anterior aspect, where it was intimately attached to the prostate gland, off which I separated it by careful dissection with a blunt knife and scissors, when there was no difficulty in drawing the bowel down and removing the diseased portion. There was little hæmorrhage, as clip forceps were applied to each portion of the bowel before it was removed. Catgut sutures were now passed through the bowel about an inch above its cut extremity, including all its thickness, with the exception of the mucous coat, and then through the pelvic fascia and levator ani muscle; this closed off the superior pelvic space, and fixed the bowel in its position, thus hindering undue dragging on the second line of sutures which were applied, connecting the cut extremity to the attachment of the levator ani, the sphincter muscles and mucous membrane which I had left below when originally separating the bowel. A drainage tube was now placed into the space behind the bowel and the incision from the anus to the coccyx closed. After the operation, the patient progressed satisfactorily, the bowels being kept from moving by opium until the seventh day, when the temperature showing an upward tendency, a dose of castor oil was given, after which recovery was uninterrupted, the patient being allowed out of bed a fortnight after operation, and being allowed home a week later, having full control over his bowels. I have on several occasions since heard of this patient from Dr. Stawell, who reports that he is in perfect health. Microscopic examination showed the tumour to be cylindrical epithelioma. It is now three years and six months since operation.

CASE II.—In June, 1891, I was consulted by Mrs. H., aged 51 years, as to a pain in the lower part of her back, from which she had suffered for some years; this had become very severe for the past fortnight, being continuous even when lying down, although much worse when sitting or standing. Her bowels were confined, and, seven months before seeing me, she noticed a swelling at the anus, and pain on going to stool, which was much worse when the bowels were confined; she also noticed blood on the stools. On examination I found internal piles, one of which was ulcerated, but could ascertain no other abnormal condition. Under treatment she rapidly recovered and returned to the country.

I next saw Mrs. H. in June, 1892, when she informed me that she had had a severe attack of influenza in January, after which she was greatly debilitated, and had a severe pain in her back, with a gradually increasing difficulty in obtaining movement of the bowels. When the bowels were relieved she had a feeling as if some obstruction existed, and had a severe burning pain for some time, after which a considerable quantity of blood and mucus passed. Believing her symptoms to be due to the influenza she consulted a physician, who ascertained the presence of a tumour in the bowel. She was then seen by a surgeon, who agreed in the diagnosis of malignant disease but declined operation, owing to the fixation of the tumour to the sacrum. The patient desiring my opinion I examined her, and found a well-marked growth, implicating the posterior wall of the bowel, between 2 and 3 inches from the anus; this growth lay between the rectum and the sacrum, which it could be slightly moved. The mucous membrane over the tumour was ulcerated to about the size of a crown piece. Believing operation to be feasible I requested a consultation with Mr. Kendal Franks, who agreed with my opinion.

The operation was performed in a similar manner to that already described. When the tumour was reached I found it attached to the sacrum by cellular tissue, but had no difficulty in separating it, the diseased portion being removed, the bowel was drawn down and sutures applied as in the former case. When the second row of sutures uniting the extremities of the bowel were applied, I found a considerable cavity remained between the bowel and sacrum, a drainage tube was passed into this and the wound from the anus to the coccyx sutured, the tube being allowed exit at the posterior extremity of this incision. For some days after the operation the patient was very restless. The stitch nearest the anus tore through, and a large quantity of sanious discharge came through the drainage tube. A purgative was given on the eighth day. She was allowed out of bed on the seventeenth day, and went home on the thirty-first day after the operation, having all but perfect control over her bowel, the only subsequent trouble being that for a short time a slight mucous discharge came from the bowel at its posterior aspect where the suture tore through. This patient has since communicated with me, and states she has no difficulty with her bowels, and that her health has greatly improved. Two years and nine months have now elapsed since operation.

I will now direct attention to certain points in connection with the operation. In these cases it is of importance that the peritoneal cavity be not opened; this may be usually attained by remembering that the peritoneum usually covers the anterior aspect of the rectum in the male to within 3 inches of the internal sphincter, while in the female you cannot be sure of more than 2 inches, although there may be much more in either case. At the posterior aspect of the bowel you can count on 4 or 5 inches. As a practical rule I consider that if the surgeon can, by digital examination, reach above the malignant growth, the peritoneum should be safe.

The great objection to excision of the rectum by the usual operation is the incontinence owing to the removal of the sphincters and the importance of overcoming this sequela is apparent; and to point out how this may be attained I will describe the usual operation, and compare it with the method employed in the foregoing cases.

The usual operation is commenced by an incision from the rectum to the coccyx, called by the old writers "the key to the operation;" then incisions were made round the anus meeting in front, the attachment of the levator ani to the rectum was cut and the bowel with sphincters drawn down; thus most of the external sphincter and the entire of the internal sphincter were removed, and incontinence, which was often permanent, resulted. Further the remains of the bowel not being usually united to the skin, owing to the frequency with which the sutures tore through, the raw surface thus left to granulate was a frequent source of septic infection and subsequent stricture.

The operation I employ is commenced by an incision from the rectum to the coccyx, as in the former operation; this being in the median line, severs the attachment of the external sphincter and levator ani muscles to the ano-coccygeal

[1] Read before the Surgical Section of the Royal Academy of Medicine in Ireland.

ligament, the rectum is now separated from the surrounding cellular tissue, and clip forceps applied to the rectum at the commencement of the ampulla, below which the bowel is divided; the attachments of the levator ani and sphincter muscles to the bowel are thus not interfered with, and hæmorrhage is restrained. The rectum being now completely divided above the internal sphincter, there is not much difficulty in drawing it downwards and backwards through the median incision, its separation from the prostate and base of bladder being facilitated by having to draw it backwards. Clip forceps are now applied above the diseased portion, which is removed by a scissors. The upper portion of the bowel is now fixed by deep sutures attaching it, about an inch above its cut extremity, to the recto-vesical fascia and levator ani muscle, thus closing the space between the levator ani and the peritoneum. In applying these sutures, care should be taken that the mucous coat of the bowel is not penetrated. A second row of sutures is now applied between the cut extremity of the bowel and that portion which had been originally left below; these sutures should penetrate the entire thickness of the bowel in both instances. The object of the upper row of sutures is to so fix the bowel as to obviate the danger of the sutures uniting the cut extremities of the bowel tearing through. The incision from the anus to the coccyx is now closed, the most anterior suture including the posterior aspect of the bowel, but not penetrating the mucous coat. The levator ani and sphincters will thus have their normal relation to the extremity of the bowel preserved. It might be thought that the lower portion of the bowel is in danger of sloughing owing to the superior and middle hæmorrhoidal arteries being cut away from it, but the hæmorrhoidal branches of the pudic arteries are sufficient to maintain its vitality.

It will be seen that both the cases I bring forward were examples of malignant disease in the middle third of the rectum, in fact, such cases as are frequently considered inoperable on, as actually occurred in Case II, or are subjected to one of the numerous extensive surgical procedures recently recommended and employed. If I can show that such cases may be successfully operated on by a more simple and less fatal method, my object in bringing this subject forward will be attained.

On referring to recent literature on this subject, it will be seen that cases of malignant disease implicating the middle third of the rectum are frequently subjected to operations requiring removal of the coccyx and part of the sacrum by oblique or transverse section, as in the operations of Kraske and Bardenheuer, or osteoplastic resection of those bones as in that of Rydygier, and that in most of those cases no attempt is made to restore control over the bowel, owing to the necessarily abnormal position of its termination, the patient being thus condemned to the permanent employment of some usually imperfect apparatus to retain the fæces in the bowel until evacuation is desirable. I wish it to be understood that I do not condemn such operations, which have a fair and legitimate field of their own, when the disease is situated in the upper part of the bowel, but I consider them unnecessary in most of the cases restricted to the middle and lower third of the bowel.

Should the peritoneal cavity be opened in the operation I favour, it is very effectually closed by the deep row of sutures, and although the probability of a favourable termination to the case is thus lessened, I do not consider the possibility of such a complication to be sufficient to contraindicate its employment.

The advantages I claim for this operation are—it preserves the normal functions of the bowel, subsequent stricture is not so liable as after the usual perineal operation, convalescence is rapid, the mortality is low, and the disease is no more liable to recur than after the more extensive operations.

At the recent meeting of the Women's Liberal Federation a discussion took place on a resolution favouring a Bill for the registration of midwives. The Countess of Carlisle, who presided, in answer to statements that great expense would be cast on the poorer classes, said she looked to the time when all sick nursing of the poor would be thrown upon the rates. She also urged the appointment of women upon the proposed board of control.

TWO CASES OF APPENDICITIS ASSOCIATED WITH RHEUMATISM.[1]

By W. H. BRAZIL, M.D.Lond., D.P.H.Camb., M.R.C.S., Bolton.

Cases of appendicitis associated with symptoms of rheumatism are sufficiently rare to warrant me in believing that the two which I now place on record will be of interest to the profession.

The first case occurred in a young man whose illness began somewhat suddenly with pain in the ileo-cæcal region of the abdomen. From the nature of his occupation he had often been exposed to cold and wet, and had, in fact, been wet through a few days before the commencement of the attack. When I first saw him he was complaining of great pain and tenderness at and around McBurney's point; he had vomited several times; the temperature was raised, being slightly over 102°, and there was double tonsillitis. I gave him morphine and ordered poultices to be applied over the painful area. Very little improvement took place in his symptoms, however, and in the course of the next few days he began to complain of pain in the right shoulder-joint, and had somewhat profuse perspirations. I now changed his medicine, and gave him 15 grains of salicylate of sodium every four hours. The effect was magical. On the following day pain and tenderness had almost disappeared, and by the next day—the seventh from the commencement—he was practically convalescent.

The second case was that of a girl, aged 12, in whom there was also a history of getting wet. She was taken suddenly ill on February 14th, 1895, with pain in the right iliac fossa and vomiting. This was followed by pain in the left shoulder-joint and along the spine. I saw her first on February 18th. She had pain and tenderness at McBurney's point extending downwards towards Poupart's ligament. The temperature was 101.2°, the pulse 120; the urine was loaded with urates. Profiting by the experience of my former case I gave salicylate of sodium (gr. xv) with tincture of opium (m x) every four hours. Next day the pain and tenderness had all disappeared, the temperature was normal, and the pulse 88. In short she was convalescent, and has had no return of the symptoms since.

Remarks.—The occasional association of the symptoms of typhlitis or appendicitis with those of rheumatism appears only to have been noticed quite recently, and I can find no mention of it prior to an article by Dr. Haig, published in 1893.[2] Dr. Haig here mentions several cases "which were clinically typhlitis, but which got well as if by magic under salicylate of soda." In the same year Sir James Grant recorded a case of what he termed[3] "rheumatic perityphlitis," and in the following year Dr. Burney Yeo published another case under the same title.[4] Recent researches have shown that cases which used formerly to be termed typhlitis and perityphlitis are almost invariably appendicitis in reality, and we shall probably not greatly err in regarding all the cases here alluded to as belonging to that category. Whether the symptoms of appendicitis were really of rheumatic origin or not is a question on which we cannot dogmatise as yet. I venture to think, however, that there is already some clinical evidence pointing to that conclusion, and the remarkable similarity of structure between the vermiform appendix and the tonsil, together with the well-known liability of the latter organ to rheumatic inflammation would lend support to the view.

[1] Substance of a communication read before the Manchester Medical Society, February 20th, 1895.
[2] *Practitioner*, January, 1893.
[3] *New York Medical Record*, November 11th, 1893.
[4] See British Medical Journal, vol. I, 1894, p. 1289.

The Third International Congress of Physiology will be held at Berne on September 9th, and four following days.

The French Institute has decided to open an international subscription for the erection of a statue to Lavoisier, the great chemist.

NOTES OF TWO CASES OF ABDOMINAL SECTION ILLUSTRATING POINTS OF INTEREST.[1]

BY J. CRAWFORD RENTON, M.D.,

Assistant to the Professor of Clinical Surgery in the University of Glasgow; Assistant Surgeon to the Western Infirmary, Glasgow; formerly additional Examiner in Clinical Surgery in the University of Edinburgh.

I.—ABDOMINAL SECTION FOR LARGE TUMOUR IN THE STOMACH: DISAPPEARANCE OF THE TUMOUR: COMPLETE RECOVERY.

ON November 14th, 1893, I was asked by Dr. Sinclair to see Mrs. F., aged 55. He informed me that she had suffered from recurrent attacks of vomiting for a year; five months ago a tumour was detected in the epigastric region. This had gradually increased, the vomiting had become more frequent, and when I saw her she was entirely confined to bed; she had a wasted anxious look without elevation of temperature, and I found a large tumour in the epigastric region passing down below and to the right side of the umbilicus. As Dr. Sinclair had tried all the ordinary forms of treatment I recommended that the abdomen should be opened, the tumour examined, and, if possible, gastro-enterostomy performed.

The patient was admitted to the Blythswood Home, and on November 27th, assisted by Drs. Sinclair, Bryce, Pace, Dewar, and Burnside Buchanan, I opened the abdomen, and found a large, hard, irregular tumour extending from the pylorus over the anterior wall of the stomach upwards to the cardiac end. The tumour was fixed in every direction, and had all the appearance of malignancy, and this was the feeling of those present at the operation. No operation could be performed, so the abdomen was closed. The patient recovered without a bad symptom, and has never vomited once since the operation.

The tumour has entirely disappeared, the patient has gained a stone and a-half in weight, and has returned to her work as a sick nurse. As it is now eighteen months since the exploratory incision, I think we are justified in recording the case; at the same time it must not be forgotten that malignant tumours, after exploratory incision, sometimes diminish for a time.

A good deal of attention has been directed from time to time to the spontaneous disappearance of tumours, and also to the effect which exploratory incisions produce on the internal vital activity of processes going on in the abdomen. In a very interesting paper by Professor George Buchanan[2] he refers to several cases, and recently, before the Royal Medical and Chirurgical Society, Mr. Greig Smith,[3] of Bristol, read a most instructive paper on the Spontaneous Disappearance of Solid Abdominal Tumours.

The case which I have recorded serves to confirm the opinion of those who have written on the subject, that where a solid abdominal tumour disappears after exploratory incision and exposure to the light—that tumour was inflammatory in its nature. Considering the effect of exploratory incisions and their almost absolute safety, it seems right that in cases of abdominal tumour giving rise to any urgent symptoms which do not yield to ordinary treatment an exploratory incision is justifiable and proper.

II.—ABDOMINAL SECTION IN A CHILD OF 9 MONTHS FOR OBSTUCTION OF THE BOWELS: RECOVERY.

At midnight on June 14th, 1894, I was asked by Dr. Suttie to see a child, aged 9 months, suffering from obstruction of the bowels. Dr. Suttie had seen the child five hours previously, and then the mother stated that the bowels had not moved for twenty-four hours, and the child had vomited. Dr. Suttie found a tumour in the right iliac region, which he diagnosed as an intussusception. Having washed out the lower bowel, he inflated and succeeded in reducing the tumour one-half, but the other half remained, in spite of manipulations, shakings, and inversion.

On examination I found a well-marked tumour in the right iliac region, with very little tenderness, and, as the inflation and other means had been thoroughly tried, I advised abdominal section. Assisted by Dr. Suttie, I opened the abdomen, and with some difficulty I drew out the invaginated piece of bowel at the ileo-cæcal region; on gently pulling out the bowel it was evident that slight adhesion had formed. The child made a perfectly good recovery.

There is no doubt that in cases in which intussusception takes place and is not reduced by ordinary means, the sooner an operation is done the better it is for the patient; on the other hand, there are many difficulties in arriving at a certain diagnosis.

We should always bear in mind that any abdominal derangement quickly lowers the vitality of the patient, and the more rapidly we can give relief the better.

[1] The cases were shown at a meeting of the Glasgow Pathological Society.

[2] *Lancet*, November 7th, 1885.

[3] BRITISH MEDICAL JOURNAL, 1894, i, p. 190.

A CASE OF IMPACTED GALL STONE: JAUNDICE OF SIX YEARS' DURATION.

BY CHARLES M. CHADWICK, M.A., M.D.OXON., M.R.C.P.LOND.,

Honorary Physician, General Infirmary, Leeds; Lecturer on Forensic Medicine in the Victoria University.

THE following case of jaundice consequent on impacted gall stone appears worthy of record for various reasons, principally, perhaps, on account of its unexampled duration:

In January, 1889, J. A. A., aged 36, a respectable married woman, with no history of alcoholism or miscarriage, was seized during the night with excruciating abdominal pain, accompanied by vomiting, but without any history of rigor. Ordinary domestic remedies were resorted to and the pain was relieved. The following morning the patient was found to be jaundiced, and remained so until her death in December, 1894—a period of five years and eleven months.

No history of any subsequent or previous attack of similar pain was obtainable, and the patient remained in fairly good health until January, 1892, when she was admitted into the Leeds General Infirmary under Dr. Eddison. The notes report that she was considerably jaundiced, with enlarged liver, much ascites, and considerable tenderness over the site of the gall bladder. Xanthelasma was present; œdema of legs appeared; albumen was present in the urine; the ascitic fluid somewhat diminished; "hard nodules" were felt in the right lumbar region. When the patient left the hospital the opinion was that she was suffering from malignant disease of the liver.

In October, 1894, five years and nine months after the primary onset of the disease, the patient was admitted again under my care. She was markedly jaundiced, spare, aged-looking, with no ascites, great enlargement of spleen, irregular outline of abdomen, visible peristalsis, dilatation of the stomach, and ballooning of the rectum. She was seen by Mr. Mayo Robson, who reported no enlargement of the liver, and no distension of gall bladder. An exploratory operation was suggested, but owing to the condition of the patient's general health could not be undertaken. She was put upon chloride of calcium; the hæmorrhagic staining diminished, her blood showed no increase in white blood cells. Violent hæmatemesis with melæna ensued, and copious vomiting of yeasty material, from which sarcinæ were obtained. On November 30th the patient vomited upwards of 2 quarts of blood, without any very decided shock to her system; the splenic enlargement showed considerable diminution, and three days later death occurred, five years and eleven months after the primary onset of the jaundice.

Aided by the old notes, by the fact that Dr. Roberts, resident medical officer, who remembered the patient when in the infirmary nearly three years previously, and was able to state that there was practically little difference in her appearance, the diagnosis was rendered a simple matter, and on December 4th a *post-mortem* examination by Mr. F. Walker showed general matting together of all the abdominal contents by old peritonitis, obstruction to the passage of bile by a stone which had in all probability remained where it was found for a period of nearly six years. The following report on the liver is kindly provided by Mr. W. A. Stott, Pathological Curator: "The gall stone is egg-shaped, and weighs 4

grammes when dry; it is so soft that it can be indented by the finger nail; one side of the stone is black with dark-brown patches, the other side is yellowish-grey. There is a shallow depression in the duodenum half an inch from the pylorus in which the stone was found; at the bottom of the depression is a circular aperture one-eighth of an inch in diameter, leading into a passage of similar diameter, and nearly 2 inches in length; from the end of the passage a distended hepatic duct leads into the left lobe of the liver for a distance of 7 inches. The gall bladder measures three-quarters of an inch in length, one-third of an inch in breadth. No trace of cystic duct can be found. The bile papilla opens into the duodenum 3 inches from the pylorus; the common duct appears normal; the liver is of normal weight; it is covered by adhesions on both the upper and under surface of the right lobe."

The facts of the whole case appear clear. In January, 1889, the stone left the gall bladder, and was lodged at the junction of the common and cystic ducts. In January, 1892, adhesion to the duodenum and ulceration occurred, setting up a general peritonitis with accumulation of fluid. This gradually subsided, and by degrees the peritoneal sac was obliterated by adhesions. Interstitial changes progressed in the liver, enormous congestion of the spleen occurred, which was relieved by several small hæmorrhages, and on November 30th by an enormous hæmatemesis (upwards of two quarts). As all this blood had been stored up in the spleen, outside the circulation as it were, no great immediate collapse occurred; but the patient's death ensued in a few days, in consequence, no doubt, of further blood being withdrawn from the "general circulation" by the obstruction in the liver.

The case appears interesting in several particulars:

1. The unexampled duration of the jaundice.

2. The very great enlargement of the spleen during the later stages, and comparatively moderate size (21 ounces) after death, a fact explained by the very copious hæmatemesis (2 quarts) which occurred a few days before death, and explaining the comparatively slight general upset resulting from such an enormous sudden loss of blood.

3. The entire absence of xanthelasma in 1894 when its presence was noted in 1892

4. That the presence of a gall stone causing irritation and jaundice for a period of six years had not given rise to any appearance suggestive of malignancy.

TREATMENT OF GALL STONES BY LARGE DOSES OF OLIVE OIL.

By WILLIAM H. STEPHENSON, L.R.C.P., L.R.C.S.Edin.,
Harpurhey, Manchester.

In July, 1893, Mrs. T., aged 48, came under my care suffering from biliary colic. She was suffering from acute pain, situated over the hepatic region and extending through to the right shoulder blade, accompanied by severe retching and vomiting and collapse. The pain was relieved by hypodermic injection of morphine. The attack was followed by well-marked jaundice, which, however, passed off in a few days' time. She stated that she had suffered from these attacks at various intervals for upwards of four years, and that they were invariably followed by slight jaundice. I had the fæces carefully examined for gall stones, but none could be discovered. About two months later she was again seized with a severe attack of colic, but very careful search failed to detect any trace of gall stones in the fæces. These attacks continued at intervals of about three to six weeks for nearly five months, although the patient was constantly under treatment, all the usual remedies, such as Carlsbad salts, phosphate of sodium, sulphate of sodium, salol, ether, and turpentine, being tried without avail. In no instance was a gall stone ever found in the fæces.

On examination the patient complained of pain on pressure over the region of the gall bladder and there was a somewhat resistant swelling in this region, but, as she was rather stout and the abdominal walls were very thick, it was very difficult to make out any gall stones. About the end of February 1894, she had a very severe attack of colic, which lasted for nearly thirty-six hours, during which time she was kept continuously under the influence of morphine and free stimulation, as there was severe collapse. She managed, however, to rally, but remained jaundiced for a fortnight. Acting on my advice she decided to go into hospital and have cholecystotomy performed.

Whilst waiting to be admitted, however, I decided as a last resort to try the effect of large doses of olive oil. Pil. hydrarg. (gr. ij) was taken at bedtime, and this was followed at 6 A.M. by ℥ iij of pure olive oil, the patient being ordered to lie on the right side. At 8 A.M. the blue pill acted, producing a copious biliary motion, but no gall stones were passed. The oil was continued in tablespoonful doses every three hours during the day. In the three motions that were passed between 3 and 8 P.M., six large gall stones were found; two of them measured nearly half an inch, and were facetted. No pain was experienced during the passage of the stones, nor did the oil cause much nausea. The jaundice passed off in a week or ten days, and the patient made a complete recovery. She has never had an attack of colic since, now twelve months ago.

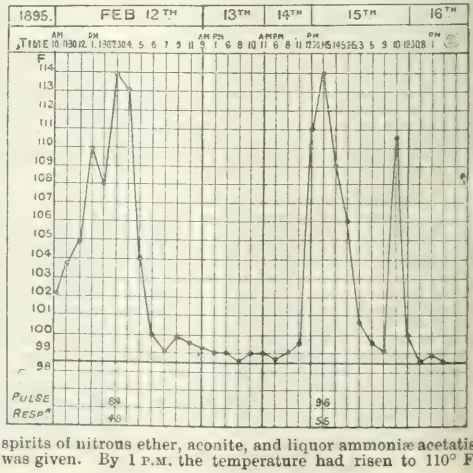
The treatment by large doses of olive oil is, I think, well worthy of a trial in cases of recurring biliary colic, and also in cases of jaundice due to impacted gall stone. How the oil acts in these cases it is difficult to explain. Gall stones and their constituents (cholesterin) are soluble in solutions of olive oil at body heat. Is it possible that it acts by softening and reducing the stones in size, or by assisting in relaxation of the duct, or in both ways? Whatever its *modus operandi*, its administration was followed in this well-marked and persistent case by exceedingly satisfactory results.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

HYPERPYREXIA ACCOMPANYING PLEURISY AND PNEUMONIA: RECOVERY.

On February 12th last I was called to see a lady about 30 years old, who complained of great pain in the left side and difficulty of breathing. I found the usual signs of pleurisy and pneumonia. The dulness on percussion was confined to the base of the left lung. The temperature was taken at 10 A.M., and was 102° F., as will be seen by the accompanying chart. Linseed poultices were ordered, and a mixture of



spirits of nitrous ether, aconite, and liquor ammoniæ acetatis was given. By 1 P.M. the temperature had risen to 110° F.

The poultices were now applied as hot as possible every twenty minutes. By 2.30 P.M. the temperature had risen to the alarming height of 114° F. (Wishing to be correct in my statements I may say that the mercury reached the top of the thermometer, which is only marked 110° F., but above this marking there is space for four extra degrees.) I gave at once 15 grains of antipyrin, followed in an hour's time by another similar dose, and by 5 P.M. the thermometer registered the comforting temperature of only 104° F. At 7 P.M. the patient seemed quite easy, with little or no pain; there had been during the time of high temperature no excitement or delirium. I naturally doubted the accuracy of my thermometer when seeing it had registered 114°, especially as the temperature was taken in the mouth, so immediately sent for two others, but found they all registered alike. For the next two days, the temperature kept between 99° and 100° F., but on February 15th it again rose to 114°. The patient was, however, this time in such a weak and debilitated state, that I thought I was not justified in again giving antipyrin and so gave the acetate of ammonia mixture, and resumed the poulticing every twenty minutes. The patient complained at the end of ten minutes that they were quite cold, although when taken off they were quite hot to the touch of the attendant.

During the periods of high temperature the patient complained of complete loss of sensation in the hands and feet, and requested to have them rubbed. The absence of any delirium was most remarkable. As will be seen by the chart, the temperature was normal on the 16th, and since then the patient has progressed most favourably. I have had the thermometer verified at Kew Observatory; it was practically correct.[1]

Small Heath, Birmingham. ALFRED STANLEY.

A CASE OF PLACENTA PRÆVIA.

MRS. C., aged 25, whose first child was 2 years old, was found on my arrival to be losing a large quantity of blood. Slight labour pains had been experienced for six hours. I was informed that she had suffered from occasional hæmorrhage for the previous three months.

I found the os the size of half a crown, covered by the placenta, which was very thick and hard. Not being able to find the edge or any thinner part, I attempted to tear through the placenta, but was unable to do so. I then attempted to pierce it with a metal catheter, but without success. Finally I was obliged to cut through the placenta with scissors, holding it down as well as possible with the fingers of my right hand. I could then find the insertion of the cord about 1 inch anterior and a little to the right of the opening I had made. By cutting away posteriorly, on the opposite side to the cord, I made room to pass my hand through and turn. The placenta caused some difficulty by catching the head. The child was dead. The placenta came away without trouble fifteen minutes afterwards, and the mother made an excellent recovery.

The placenta was thick, and an area of about 4 inches diameter was hard and firm almost like leather, so that it offered considerable resistance to the scissors. I did not see that any large vessels were divided, nor did any blood appear to come from the wound made by the scissors.

Cheshunt. WALTER F. CLARK, L.R.C.S.

SPONTANEOUS LACERATION OF STOMACH.

A STRONG, well-nourished woman, aged 37 years, and weighing nearly 12 st., after eating her dinner vomited a small quantity of blood, rapidly became unconscious, and died in about half an hour. She had had a slight attack of influenza in March, and occasionally complained of dyspeptic symptoms, but had otherwise enjoyed good health during the nine months she was in the prison. On the day of her death she made no complaint, and appeared to be in her usual health until about an hour after her dinner. The seizure commenced with an attack of retching, but as the woman so rapidly became unconscious, and before the gravity of the case was recognised, it was not possible to obtain much information as to her first sensations on feeling ill.

A necropsy was made twenty-four hours after death. There were no external signs of injury or disease. The heart, large blood vessels, and lungs were healthy, and nothing abnormal was found in the thoracic cavity. The abdominal cavity contained about 10 ounces of bloody serum. The stomach was much distended, and in the anterior wall at the cardiac extremity was a distinct rent, about ¾ inch long, through the entire thickness of the wall, and extending about ¼ inch further through the serous coat only. The direction of the laceration was downwards and to the right. The interior of the organ was filled with coagulated blood, which when broken up was found to contain pieces of imperfectly masticated meat and other material, which appeared to be bread. The mucous membrane was free from all signs of disease, and appeared perfectly healthy, only a slight redness, such as normally exists during digestion, being apparent. The walls of the stomach were thick and strong, and displayed no appearances of degeneration or softening. The diaphragm and muscular walls of the abdomen were very strong and well developed, and the remainder of the abdominal organs were normal.

Spontaneous laceration of the stomach would appear to be a very rare occurrence. Its possibility is denied by some, but Taylor, in his work on *Medical Jurisprudence*, gives several examples. In the subject of this memorandum it was certainly not the result of any external injury or violence, but would appear to be due to violent contraction of the stomach itself upon a mass of undigested food, accelerated by the action of a strongly developed diaphragm and abdominal muscles.

RICHARD BRAYN, L.R.C.P.,
Governor and Medical Officer Her Majesty's Convict Prison, Woking.
J. BROOKE RIDLEY, M.D. EDIN.,
Late House Surgeon Hunts County Hospital.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GLASGOW ROYAL INFIRMARY.

CASTRATION FOR ENLARGED PROSTATE.

(Under the care of Dr. FLEMING.)

[Reported by J. W. THOMSON WALKER, M.B., House-Surgeon.]

J.C., aged 65, a boiler maker, was admitted on December 21st, 1894. For two years he had had incontinence of urine. He had for a long time been mentally peculiar but not sufficiently so to entail restraint. For eight days before admission he had had complete retention and required his urine drawn off twice daily.

On admission No. 7 catheter passed easily. The urine was of dark colour and fœtid odour. *Per rectum* well marked enlargement of the prostate was detected. The urine was drawn off thrice daily and the bladder washed out with boracic acid solution.

On January 9th the urine contained pus but was no longer fœtid. There was considerable difficulty in the passage of an india-rubber catheter and a little bleeding. Under chloroform Dr. Fleming removed both testes by median incision.

On January 10th the wound was quiet. The urine was dribbling away and the dressings were continually wet. On this account, on January 11th, bladder drainage by tying in a rubber catheter was established. On the night of January 11th the patient became restless and excited. This continued at night till January 14th when he became very noisy. The wound, which was quiet and painless, was painted over with collodion to prevent contamination with urine.

On January 15th there was a slough on the anterior surface of the scrotum and the rest of the scrotum was a good deal excoriated. The wound was still dry and quiet.

On January 16th the mental state was steadily getting worse. The patient was sleepless and lay muttering quite unconscious of his surroundings. He had frequent maniacal outbursts lasting about ten to fifteen minutes at a time.

[1] The corrections to be applied to the scale readings, determined by comparison with the standard instruments at the Kew Observatory, Richmond, are: At 95°, 0.1°; at 100°, 0.2°; at 105°, 0.1°; at 110°, 0.1°.

After large doses of sulphonal he was much quieter on January 17th.

On January 18th a No. 8 gum elastic catheter passed easily. This could not be accomplished before the operation. The patient was still maniacal at times. On probing deeply some pus was obtained from the upper part of the scrotum. This was drained.

On January 19th the patient began to get weaker. He lay in a low muttering delirium resisting attempts to administer nourishment. Rectal feeding was resorted to. Later he developed Cheyne-Stokes respiration and died on January 26th. Permission for a *post mortem* examination was not granted.

REMARKS BY DR. FLEMING.—While it is not my custom to publish isolated cases of which a series is likely to be obtained, in response to Mr. Moullin's request I have asked my house-surgeon to send the above report.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

WILLIAM PAVY, M.D., F.R.S., President, in the Chair.

Tuesday, May 21st, 1895.

ABSORPTION AND METABOLISM IN OBSTRUCTION TO THE PANCREATIC DUCT.

DR. VAUGHAN HARLEY showed first the changes in the absorption of food in animals after partial or total extirpation of the pancreas. He then proceeded to give the results of analyses he was able to make through the kindness of Dr. Auld, of Wimborne, in the case of a boy, aged 13, who apparently suffered from pancreatic obstruction due to enteritis following scarlet fever. In a series of analyses in this case sugar never appeared in the urine, neither did acetone or aceto acetic acid, so that it was evident that the obstruction had led to destruction of the gland tissue. The biliary passages had remained free, as there was neither jaundice nor bile in the urine, and bile products were found in the fæces. The boy was placed for four days on a diet entirely of milk, all medicines being stopped. A healthy person, on milk, passes daily with the fæces about 1.5 gramme, or 7.7 per cent. of the nitrogen given. The boy passed 5.25, or 40 per cent. of the nitrogen given. Dogs, after removal of the pancreas, passed much the same percentage; so that in the boy absorption of the proteids from the intestine was much hindered. As regards the fats, a person in health on milk diet passes about 6.7 grammes, or 5.6 per cent. the quantity given. In the boy no less than 143.8 grammes was passed daily—that is, 73.05 per cent. of the quantity given. It was thus obvious that the absorption of proteids and fat is influenced when the pancreatic juice is hindered from reaching the intestine. Carbohydrates are also somewhat interfered with, as pointed out by Abelmann. As regards body weight, the boy's weight on ordinary diet was 84 1 lbs., and during the second day on milk diet it was 83½ lbs.; the third and fourth day on milk diet it remained 83.1 lbs. On a return to ordinary diet he regained his original weight. In the milk diet he was given no less than 2983.83 calories per diem, that is, 78.9 calories per kilo. When from this is subtracted the quantity of calories lost in the fæces, it is found that the boy absorbed 1,336.8 calories, that is, 36 calories per kilo. It appears, then, that in this case of probable obstruction to the pancreatic duct, not only is the absorption of food from the intestine interfered with, but that even the food which has been absorbed from the intestine is not properly assimilated. One could not otherwise explain the fact that a healthy person when not doing excessive muscular exercise may retain his body weight on about 30 calories per kilo., while this boy, even whilst absorbing 36 per kilo., did not retain his weight. Another point brought out was that both in animals and man, when the pancreatic juice is prevented from reaching the intestine, the fats are nevertheless broken up, not only into free fatty acids and glycerine, but form soap, the only difference being that in this case a slightly increased amount of soaps is eliminated in the fæces. The secretion therefore does not owe its power to the fat-splitting ferment of Claude Bernard; and the non-absorption of fat in these cases is yet to be explained. Summarising: in cases of obstruction to the pancreatic flow in man, the fat absorption was diminished to 26.95 per cent; in dogs, after partial removal of the pancreas, 4 to 37 per cent. of fat given was absorbed; in dogs from which the pancreas had been entirely removed, no fat whatsoever was absorbed in the space of seven hours. As regards the proteids, 22 to 53 per cent. given were absorbed in dogs; when the animal had lost much flesh only 17 per cent. were absorbed. In the boy's case 60 per cent. of the proteids given were absorbed. Lastly, the body weight could not be kept constant when the individual absorbed the normal quantity of calories.

Dr. W. P. HERRINGHAM inquired what evidence there was that the pancreatic duct was obstructed, and whether anything unusual had been noticed in the colour of the fæces.

Dr. RUSSELL WILLS asked for the clinical signs present in the case.

Dr. VAUGHAN HARLEY replied that his reasons for the belief were that when fed with raw pancreas the patient gained weight, and that the stools contained large quantities of oil and were exceptionally offensive.

PATHOLOGY OF GRAVES'S DISEASE.

Mr. WALTER EDMUNDS gave a lantern demonstration of micro-photographs illustrating the above, during which he made the following statements: In exophthalmic goitres there was as a rule little colloid substance, but solid cylindrical processes of cells composed the main structure; similar tissue was also met with in places in ordinary goitres; erectile tissue might be encountered in a goitre, and would account in some cases for the pulsation observed during life. The colloid substance in a goitre at times stained in parts more deeply than in others, even in the same vesicle. A thickened arteriole was exhibited from a case of Graves's disease, but the author could not say whether the condition was peculiar to it. He discussed briefly the view that the general symptoms in Graves's disease were due to an excessive secretion, not of colloid, but some other substance, and the passage of this into the circulation. The particular tissue resembled that of accessory thyroids in animals, such as the dog, rabbit, monkey, sheep: and also in the human subject. In the dog the accessory glands lay on the surface of the thyroid, and, if removed with it, death ensued; in the rabbit the accessory glands were left behind in the operation of excision, as they were discontinuous. If the accessory thyroids were removed and part of the gland left, death sometimes ensued, but on this further experiment was needed. In the monkey the accessory thyroids—that is, nodules of the tissue described—were embedded in the gland. It was obvious that the secretion of a common goitre did not cause exophthalmos. He had given a dog sixteen sheep's thyroids in a day, moreover, without producing any result. The protrusion of eye could, it had been shown, be induced by the dropping of cocaine solution into the eye; or by subcutaneous injection also in monkeys, as he had himself found. Division of the cervical sympathetic in the monkey caused the eye to recede; and this might be an operation indicated in extreme cases of exophthalmos in man, for it led also to closure of the lids. In a cretin he had found a thyroid with little colloid in it. It had been shown that after partial removal of the goitre in Graves's disease improvement followed, and the author had observed the same in one case he had so treated; the operation was serious, and a certain number of deaths had taken place on the operating table. In conclusion, the author gave his belief that the causation of exophthalmic goitre was probably a neurosis, and that the general symptoms were due to a similar cause.

ULCERATIVE COLITIS FROM SWINE FEVER.

Mr. LEOPOLD HUDSON pointed out the close likeness there was between the lesions of swine fever and the ulcerative colitis now so well known in man, and asked whether the first disease was communicable to the human subject. In the pig, the earliest lesions consisted in the formation of simple circular ulcers in the cæcum and large intestine, the ulcers becoming confluent, and leading to the most extensive destruction of mucous membrane with necrotic patches of tissue. In swine there was an acute, highly infective form in which death ensued in from four to ten days, the intestines

being ulcerated. In the human subject some cases ran a similarly acute course, others were chronic. The speaker proposed to feed the pig with material obtained from the human subject in order to ascertain if an ulcerative colitis could be set up.

Dr. A. A. Kanthack observed that it had been alleged that the injection of colon bacillus into the intestine would produce ulceration. The disease in swine, of course, was due to another and a well-known organism.

Dr. H. D. Rolleston did not think the likeness of the lesions very close; the gangrene so common in the pig was not usually seen in man, nor was there the same tendency to perforation in swine.

Dr. Herringham referred to a specimen of Dr. Howard Tooth's as showing that necrosis may occur, for sloughs may be passed during life, and the same had been observed in one of Dr. Hale White's cases.

Dr. Hale White did not hold that the likeness between the two conditions was a real ground for connecting them; for some cases of ulcerative colitis were themselves indistinguishable from the results of dysentery; the variations in ulcerative colitis, in fact, were very wide.

Dr. Francis Voelcker had seen necrosis in ulcerative colitis and perforation of the bladder. He thought the lesions more discrete in the pig.

Mr. Leopold Hudson, replying, remarked that in Dr. Allchin's case the patient had attributed the disease to eating pork. Perforation was in reality common in swine fever; and the ulcers were not always discrete.

Mr. Cope was able to say, from his large official experience of swine fever, that the ulcers were preceded by hyperæmic spots; a black necrosis soon followed and the ulcers spread. In young animals the disease was very fatal; the older are more resistent, and, in this case, the more extensive ulceration is met with.

Owing to the rest of the time being occupied in the official business customary at the last meeting of the session, the following communications were taken as read:—Mr. A. C. Collum: Imperforate Duodenum.—Mr. S. G. Shattock: Diphtheria and "Pseudo-diphtheria" Bacilli, from two sisters simultaneously affected.—Mr. H. J. Waring: Actinomycosis of the Cheek.—Dr. Herbert Snow: Malignant Reversion of Cystic Fibromata.—Mr. S. G. Shattock: Cultural Variation of Streptococcus Pyogenes.

Card specimens were exhibited by Messrs. Morley Fletcher, Stephen Paget, W. H. Battle, and Dr. Hector Mackenzie.

BRITISH GYNÆCOLOGICAL SOCIETY.

Clement Godson, M.D., President, in the Chair.

Thursday, May 9th, 1895.

Specimens.

Mr. Jessett showed (1) a Large Fibroid removed with the Uterus from an unmarried woman, aged 39. The patient's mother had been operated on by Mr. Jessett eight years previously for uterine fibroid. (2) A case of Hæmatosalpinx. Blood was found in both tubes, and by rupture of one of them during the operation old dark blood clots passed into the peritoneal cavity. The patient had made a good recovery. Dr. Purcell observed that a new table at the hospital was used for both operations, whereby Trendelenburg's position could be adopted. The first specimen illustrated a new departure in hysterectomy: five cases had been operated upon by that method, and had all done well.—Dr. Heywood Smith showed (1) a Migrating Ovarian Dermoid. The uterus in this case was retroflexed in such a way that when replaced in its normal position it fell back with a jerk. The tumour was to the right of the uterus, but was found to belong to the left side. The corresponding tube passed in front of the uterus, so as to hold it in a backward position. The ovary and tube of the right side were deep in the pelvis and atrophied. Patient made a good recovery. (2) Sarcoma of the Uterus removed by Vaginal Hysterectomy. Before operation a fragment of the growth was examined by a pathologist, who reported it to be sarcomatous. Dr. Purcell and Mr. Jessett joined in the discussion on the second specimen.—Dr. Macnaughton Jones showed (for Dr. Duke) some Intrauterine Stems, as well as one of his own. He never used them himself except after division of the cervix for stenosis and dysmenorrhœa. Much of the harm caused by stems was due to their being too long.

Pregnancy Complicated by Suppuration within the Pelvis.

Dr. H. Michie (Nottingham) read this paper. He thought it was now time to drop the vague term "puerperal fever," as the term "surgical fever" had been discarded. He believed that the two diseases were produced by similar, if not identical, causes. He related 6 cases, which divided themselves naturally into three groups: (1) Perforation of the vermiform appendix, giving rise to abscess within the pelvis; (2) suppurative peritonitis, probably due to pre-existing disease of the uterine appendages, and operated upon after delivery; (3) suppuration of the appendages, operated upon during pregnancy—that is, before delivery. Group 1. One case. Patient was four months pregnant; the symptoms and physical signs pointed to disease of the appendix. Abdominal section was performed, when the ruptured appendix and an escaped concretion were removed. Recovery was uneventful, and she was delivered naturally at term. Had the complication arisen at or near the time of delivery, it might have been overlooked, and the practitioner thereby accused of neglect in the use of proper antiseptic precautions. Group 2. Two cases. The first was seized five days before labour with acute abdominal pain. The symptoms subsided with rest, but were aggravated by her delivery. She rallied slowly till the sixth day, when she became rapidly worse. She was operated upon without delay, and about three pints of thin offensive fluid were evacuated from the abdominal cavity. The tubes, which contained pus, and the ovaries, which were gangrenous-looking and studded with small abscesses, were removed, and drainage used. Recovery was slow but uninterrupted. The second case was very similar. The appendages did not seem so much diseased, and though adherent, were not interfered with. Her recovery was satisfactory, and she was at the present time seven months advanced in a second pregnancy. These two cases were thus instances of puerperal peritonitis commencing before delivery. In the second case the history of gonorrhœa was definite. Group 3. Three cases. The first was seized with severe pain during the fourth month of pregnancy. The uterus was retroverted. Abdominal section was performed, and both tubes removed. The left contained pus; the right was thickened and inflamed, but not otherwise diseased. She recovered rapidly; pregnancy proceeded to term, and the labour was natural. The second case was that of a multipara, aged 40, four to five months pregnant, and suffering from gonorrhœa and peritonitis. He advised immediate operation, but she delayed it for four days, at the end of which all the symptoms had got worse. The pelvis contained about half a pint of sero-purulent fluid; there was double pyosalpinx. The appendages of both sides were removed, and a rubber drainage tube inserted. She went on well for two days and then miscarried; soon after, all the signs of acute septic peritonitis set in, and she died on the sixth day. The last case was that of a married woman, aged 22, the mother of two children, the youngest 2½ years old. She ceased to menstruate in May, 1892. In August she had at irregular intervals labour pains, with discharge of blood from the vagina. When seen in October, the abdomen contained two tumours; the one on the right was fixed, smooth in outline, reached to the umbilicus, and almost filled the pelvis; in the pelvic part fluctuation was felt; the other on the left side was movable, uniform, and smooth, and reached to within two fingers' breadth of the costal cartilages. By the vagina the os was felt, close behind the pubes, and dilated to the size of a florin; a fœtal head was presenting, the membranes being unruptured. The next day labour pains came on strongly; blood clots were passed; she suffered from rigors and vomiting; the pulse rose to 136 and the temperature to 103.6°. The next day her condition became critical. The abdomen was opened and a right-sided universally adherent ovarian cyst containing fœtid pus was removed. The operation occupied fifteen minutes, and labour was completed four hours after. In the evening there was much distension, and a glass drainage tube was introduced. She gradually improved till the sixth day, when distension returned; the

drainage tube was reintroduced and a quantity of seropurulent fluid passed. Three days later the tube was finally removed, and recovery proceeded without interruption. Thirty-three days after the operation she was discharged well. In March, 1894, she returned, and was found to have a small ovarian cyst on the left side. This was removed, and she went home fourteen days after operation. At this second operation all the previous adhesions were found to have disappeared. Dr. Michie concluded by saying that, whilst believing that in the immense majority of instances puerperal peritonitis arose from septic material introduced during or soon after delivery, and that therefore the strictest septic or antiseptic precautions were required, these cases showed that occasionally, at all events, it might originate in pre-existing conditions of an inflammatory nature, and be altogether independent of immediate infection from without.

The President had seen a case at St. Bartholomew's Hospital, very like the first one related. The patient suffered from pain, fever, and vomiting, and peritonitis was diagnosed. In twenty-four hours labour came on, and the patient died. At the necropsy a ruptured vermiform appendix was found. In another case a lady was taken ill during pregnancy with pelvic pain. Mr. Bloxam, who saw her with him, advised operation, but this was not allowed. Within twelve hours she died, probably from a ruptured pyosalpinx. They must all feel indebted to Dr. Michie, whose paper would help to clear the stigma from men who were in some cases unfairly accused of having conveyed infection to their patients.

Dr. Leith Napier thought that the causation of puerperal disease by septic infection had been exaggerated; and men had gone from one extreme, manual infection, to the other, defective drainage. It was said that these cases were rare; yet Dr. Michie had met with six within a limited time and radius. Doctors and nurses alike had at times been made unjustly responsible for conveyance of infection in childbed.

After some remarks by Dr. Routh and Dr. Kempster, Dr. Michie briefly replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

W. Thornley Stoker, F.R.C.S.I., President, in the Chair.

Friday, April 26th, 1895.

Excision of the Rectum.

Dr. Heuston read a paper on excision of the rectum in malignant disease implicating the middle third of the bowel which is published at p. 1141.

The President entirely disagreed with Mr. Heuston regarding the removal of cancer of the rectum by the perineal as compared with the trans-sacral operation. He had at present two patients in the Richmond Hospital, both of whom he could not have ventured to touch by the perineal method. He did not dread the opening of the peritoneum; he preferred the lateral semiprone position to having the patient placed on his back. The last modification of the trans-sacral operation was a conservation of the sacrum. The dangers in the trans-sacral operation were less than from the blindfold operation of groping in a pool of blood through the perineum. One danger was the infection of the wound by the discharge from the bowel. In both of his cases he had applied a circular ligature round the rectum, intending to remove it if the patient had any vomiting or intestinal symptoms. It sloughed away of itself in forty-eight hours. In the meantime a copious lymph exudation had taken place in the wound. In this operation there was hardly ever any necessity to remove the coccyx. He did not remove it in his last case. He removed the lower part of the sacrum. If the coccyx was in the way it was quite easy to split it in two and turn the halves aside.

Mr. Ball said Dr. Heuston's paper had raised what the President had described as a test between the perineal and trans-sacral excision of the rectum. He did not think there was any doubt that both of these operations had their right place. The perineal excision of cancer must be kept for a very small minority of cases in which the disease is very close to the anus. The so-called trans-sacral operation need not necessarily be a trans-sacral one when the cancer was low down. Quite sufficient room could be got by dividing the coccyx from the sacrum without cutting the sacrum at all. The additional room gained by removing the sacrum was very great. He did not quite follow Dr. Heuston's description of the operation he performed. Did the incision from the anus to the coccyx involve the anus or start outside it? If it did not involve the anus it was the operation selected by everybody in suitable cases. The coccyx could be excised, or the sacrum up to the third sacral foramen. Above this foramen the bladder would be paralysed.

Mr. Croly said his experience of cancer of the rectum was that it was constantly overlooked till it had gone on too far. If he could not get his finger above the diseased part he either left the case alone or did a colotomy. He thought whether the lymphatic glands were implicated or not was a very important point.

The President said that in one of his cases he found considerable implication of the lymphatic glands, and that he readily removed them as high as the brim of the true pelvis. The trans-sacral operation gave great opportunity for examining the pelvis.

Mr. Kendal Franks said that in a case of cancer of the rectum high up he would prefer a trans-sacral operation. Of all situations in the body, with the exception of the lower lip, cancer of the rectum offered the best hope of non-recurrence. The disease usually lasted a considerable time before it invaded the glands. In a case which he had operated on the disease involved the anus, and extended up 3 inches. He removed the whole anus, and brought down the bowel and sutured it to the skin. He saw the patient nine years after operation, and there was no return of the disease. She had no trouble although she had had no sphincters during this time. In another case in which the disease had extended as high up as he could feel, he had considerable difficulty in removing the rectum, and afterwards discovered that the disease had been treated elsewhere by caustics and the cautery. This patient lived for three years, after which he lost sight of the case. If the growth were irremovable the French method of proctotomy was better, in his opinion, than colotomy.

Mr. Wheeler said that with regard to the recurrence of cancer of the rectum, his experience was not so favourable as Mr. Franks's. He did not agree with him that patients objected to colotomy.

Sir W. Stokes said that up till now he had followed the teaching of Syme, who laid down that all cases of cancer of the rectum that were beyond the reach of the finger were unfit for operation. Now, however, he had changed his opinion. He had only operated on cases in which the disease was near the anus by the old perineal operation. His results were mostly very satisfactory.

Mr. Thomson believed that prognosis of cancer of the rectum was more favourable than in most other parts of the body. When the cancer was close to the anus he agreed with Mr. Ball that the perineal operation was the proper one to adopt. When the disease was higher up he had no doubt that the trans-sacral was the best. It gave them room, and enabled the parts around the seat of the disease to be thoroughly examined. There was very little hæmorrhage, and it was easily controlled.

Dr. Heuston, replying, said he did not agree with the President that the peritoneum must be opened if the disease occurred in the middle portion of the rectum. On the anterior aspect the rectum could be removed as high as the prostate; on the latter aspect 4½ inches of the bowel could be removed, and 5 inches on an average behind, without opening the peritoneum. If the peritoneum was opened it could be effectively closed by the deep row of sutures. He agreed that the trans-sacral operation was the best where the disease was high up in the bowel, or where there was much implication of the glands of the pelvis. The glands could not be cleared out in the perineal operation. In making the incision he went clean through from the anus, as he got more room. His experience of colotomy was such that he would never perform the operation unless driven to it. His experience of it was that it did not relieve the patient of pain.

The annual dinner of old students of King's College, London, will be held at the Holborn Restaurant on Monday, June 24th, when the chair will be taken by the Bishop of London.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

T. S. Clouston, M.D., President, in the Chair.

Wednesday, May 15th, 1895.

Cases.

The President showed a case of a Cure of Prolonged Insanity by Thyroid Treatment. The patient, a woman aged 24, had a neurotic, but not an insane, heredity. She became pregnant some six years ago. During pregnancy she suffered from hysteria, and, after confinement, from puerperal mania. In June, 1892, she was again pregnant, and again the confinement was followed by puerperal mania, with secondary stupor. Since she had been put on thyroid feeding she had gained 2 stone in weight, and appeared to be perfectly well and fit for work.—Mr. C. W. Cathcart showed two cases of Gonorrhœal Warts without Gonorrhœa. It was generally stated that warts were the result of the gonorrhœal discharge, but he doubted this; and in support of his contention he showed these two young men. The first showed warts three weeks after the gonorrhœa was cured, and the second had no gonorrhœa at all. These cases seemed to show that warts were due to a distinct contagion, and not necessarily to gonorrhœa.

Specimens, etc.

Dr. A. Bruce showed specimens of the Guinea-worm (Filaria medinensis) and their intermediate host, the Cyclops. The embryos were to be found in water. Such specimens were rarely seen in this country.—Dr. G. A. Gibson showed: (1) Drawings of Brain from a case of Parencephaly. The right side was well developed, the left small, and there was a large cyst on the right side. The clinical features were essentially those of the *status epilepticus*. There had been two right-sided Jacksonian seizures, and one left-sided. When three days old the patient was paralysed on one side. (2) Drawings of Brain from cases of Thrombosis of the Lateral Sinuses and Cerebral Veins. The patient was a woman, aged 25, and the clinical features were severe occipital headache, stupor, and the opisthotonic state. (3) Photographs of a patient suffering from Double Facial Paralysis. There was ptosis, external strabismus, paralysis of right arm and leg, and *post mortem* it was found that thrombosis was the cause. (4) Photograph of a patient suffering from Alternate Paralysis from a lesion of the Crus Cerebri.

Skin Grafting from the Lower Animals.

Mr. Miles read a paper on this subject. The animals used were dogs, rabbits, kittens, and frogs. He preferred dogs, and found frogs the least satisfactory. With one exception he always used young animals. The surface of the ulcer to be treated must be aseptic and the patient in good health. In the majority of cases he planted on granulations. The animal was killed or pithed, stretched out, and nailed down. The flanks and abdomen were shaved and washed with an antiseptic solution, small pieces were cut out, the largest being 6 inches by 1 inch, but mostly much smaller. The subcutaneous tissue was always taken with the skin. The grafts were pressed on the tissue close to one another, then dressed with ordinary protective and iodoform gauze. The first dressing should be 72 hours after, and this should be done very gently. After that dressing every 24 or at most 48 hours. Certain difficulties were encountered: (1) sloughing of a graft, usually due to too early dressing, though sometimes due to hæmorrhage under the graft. Apparent sloughing of the graft was sometimes seen though after all the skin grew quite well. The formation of pustules was sometimes seen, sometimes granulations grew through the graft and destroyed it. He had tried sulphate of copper to prevent this but in vain, and he now scraped with a sharp spoon. The situation of the sore called for special care; sores on the abdomen and thorax were more unsatisfactory than elsewhere, the thorax from its movements. It was important in this case to use a loose dressing. Mr. Miles had had 10 cases of grafting, in 4 of these the results were successful, in 4 partially successful, and the remaining 2 were complete failures. These last 2 were an old man with a callous ulcer and a rachitic girl. The pigment and the hairs of the grafted skin disappeared.

Dr. Joseph Bell had many years ago done some grafting, and he chiefly used white rats. Small bits about the size of a fourpenny-piece were placed on healthy granulation tissue not close to one another, and he never scraped before grafting. The upper layer often came away, leaving a transparent layer behind. He had also done sponge grafting with successful results. The sponge seemed to act as a matrix for the growth of granulations.

Mr. A. G. Miller thought the results might be summed up thus: (1) Whatever results after skin grafting is not true skin but cicatrix. There were no sweat glands, no sebaceous glands, and no hairs. (2) Whatever you put on does good more or less. Skin is best, but sponge is good. The graft, even if it die, does good; for contraction, that is cicatrisation, takes place. (3) Sponge grafting is mainly useful for the production of granulations on a glazed, bare, raw surface. (4) The puppy has been the most useful animal.

Mr. C. W. Cathcart advocated the simplification of Thiersch's plan. He would avoid scraping away tissue. Why might young pigs not be used?

Dr. A. James would like to see a microscopic preparation of the tissue that remained after grafting. He thought that whatever was put on acted as a support, as sort of "pea trainer" or "pea support," so to speak.

Mr. David Wallace thought that in making a Thiersch graft the skin was not taken deep enough to give sweat glands or hair bulbs, but just deep enough to bleed.

Mr. Miles replied. He said there was no microscopic preparation because nobody wished to tear up that which he had just got successfully healed. Young pigs were far too expensive.

A Case of Multiple Diabetic Neuritis, with Pathological Specimens.

Professor Fraser and Dr. Bruce read this paper. Professor Fraser first gave the clinical points. A man, aged 36, was admitted to the Royal Infirmary in October, 1894, suffering from symptoms of diabetes. There was no anæmia: there were phthisical changes in the upper lobes of both lungs. On admission he was passing 194 ounces of urine per diem, 7,187 grains of glucose, and the specific gavity was 1038. After resting in hospital for a few days the quantity fell to 132.5 ounces, 738 grains of urea, and 3,862 grains of glucose. On a restricted diet, 120 ounces, 657 grains of urea, and 2,736 grains of glucose. Later pains in the legs and ankles came on; there was no numbness; the thermal and electric sensations were normal; the knee-jerk was absent on both sides; he could stand without swaying; there was central scotoma on the right side. Despite increase in weight, no real progress was made, and by-and-bye he could not leave his bed. Dyspnœa, orthopnœa, and death soon followed. There was no albumen in the urine. The *post-mortem* examination showed the upper part of each lung phthisical, but otherwise there was no gross pathological lesion, save in the muscles and nerves. The causal relations had not been well made out, but there appeared to be: (1) Paræsthesic or neuralgic groups; (2) motor or paralytic groups, chiefly of lower limbs; (3) ataxic forms, with paræsthesia of various kinds. The amount of sugar bears no relation to the intensity of the malady. Probably the neuritis was toxic in nature, due to a poison derived from alcohol and glucose.

Dr. A. Bruce had examined the optic and posterior tibial nerves and portions of the gastrocnemii muscles. He had not yet had an opportunity of examining the spinal cord. While there was central scotoma, but no change in the discs by the ophthalmoscope, there was a very marked area of degeneration in one of the optic nerves. The medullary sheath was quite gone, there was a parenchymatous degeneration, and the axis cylinder was still mostly present. The changes in the muscle were rather peculiar. Between the muscular columns there were little patches, consisting of rows of black dots, such as in the muscle of the heart in fatty degeneration. The rows of dots appeared to be in the substance of the fibres binding these together. The striation was still present. Dr. Bruce illustrated his remarks by diagrams and a series of microscopic preparations.

Dr. James, Dr. S. A. Gibson, and others made some remarks, and Professor Fraser replied.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

E. Malins, M.D., in the Chair.

Friday, April 26th, 1895.

Senile Gangrene of the Foot.

Mr. F. Marsh related this case. A man, aged 62, was admitted into Queen's Hospital on November 16th, 1894, with senile gangrene of the left foot. No pulsation could be felt in the tibial arteries, and the internal saphenous vein was thrombosed up to the level of the internal condyle of the femur. The gangrene was slowly spreading, so amputation through the lower third of the femur was performed on November 23rd. Primary union was obtained, and the patient made a rapid recovery.

Recurrent Adenomata of the Larynx.

Mr. F. Marsh showed some large multiple adenomatous growths removed by thyrotomy from the larynx of a woman, aged 23, on April 20th. Twelve months ago he had removed similar growths by thyrotomy, and a microscopical examination showed them to be adenomatous. A month after the operation recurrence was noticed, and large doses of arsenic were given, which for a time seemed to have a beneficial effect. During the last six months the growths had slowly increased in size, and had lately caused much dyspnœa. Intralaryngeal removal had not been attempted, both on account of the situation of the growths—chiefly below the true cords in the anterior commissure—and from want of self-control on the part of the patient. No complications had occurred. The tube was permanently removed on the fourth day, and the patient was making a good recovery.

Melanotic Sarcoma of Liver.

Dr. Codd showed a specimen of melanotic sarcoma of liver, the growths breaking down and forming large cystic masses. The tumour was noticed eight months ago in the umbilical region, and since had gradually enlarged. On admission, a tumour occupied the whole of the front of the abdomen, which was completely dull except just above the pubes, and in the left flank one large well-defined projection near the umbilicus readily fluctuated. There was a larger but less defined mass occupying the epigastric region, and other cystic bodies in the right flank. Vaginal examination revealed nothing. The diagnosis was polycystic ovarian cyst, and abdominal section was performed by Mr. Hunt, and a smooth, dark-coloured cyst with large vessels on its surface presented. A small trocar was inserted and immediately blocked with grey shreddy material of which the cyst appeared to consist. The gall bladder was found close to the pelvis on the under surface, and the tumour was found to be in the liver. The abdominal wound was closed, and the patient died the next day. The liver weighed 13 lbs. 10 oz., and contained about six large masses, readily fluctuating, and containing the grey semi-solid material. Several small growths also were seen, from the size of a pea upwards, some black, others white, the former all showing a tendency to break down. Growths were also found in the heart, pancreas, right kidney, and right lung, the one in the heart involving the whole thickness of the right ventricular wall and softening. Subsequent inquiry showed that the left eye had been removed by Mr. Cheshire in 1890, for growth.

Extrauterine Gestation.

Dr. Malins showed a specimen of extrauterine gestation. The patient, aged 28, had five children, the youngest 16 months old. She menstruated for the first time after this confinement in October last, again three weeks afterwards, and at Christmas time it recurred with violent pain, since which the discharge continued until she came to Birmingham on March 5th. There was then found a mass in the pelvis pushing the uterus to the left, and appearing above the brim. The abdomen was opened on March 6th. The space occupied on the right of the uterus was filled with recent clots; at the bottom of it was a fœtus 6 inches in length, and a flattened adherent placenta. The patient lived thirty-two hours, dying from shock and exhaustion, attributable in great measure to the effects of a long railway journey on the day before the operation, which evidently gave rise to bleeding inside the sac.

Vaginal Hysterectomy.

Dr. Purslow showed a uterus removed by vaginal hysterectomy. The patient, aged 47, had been suffering from hæmorrhage and discharge for six months, and was rapidly losing flesh. There was a small malignant growth in the cervix; the uterus was free from adhesions. The whole organ was removed, the broad ligament being tied in sections with silk, and the ends of the ligatures left long. The last of these came away on the sixteenth day. The patient made a good recovery.

Thyrotomy for Laryngeal Papillomata.

Mr. Heaton showed a boy, aged 10, on whom he had performed thyrotomy for the removal of multiple papillomata of the larynx. The boy had suffered from suffocative attacks of dyspnœa, with hoarseness and almost complete aphonia, for several years. A year previously tracheotomy had been performed for one such attack. Tracheotomy was performed, and a week later the larynx opened. The trachea was plugged below with a sponge. Seven small papillomata and one large one, growing from the left false cord, were removed. The boy was shown, and had a very good voice, and had entirely lost all his dyspnœa. Mr. Heaton laid stress on the necessity of an external operation in such cases, partly owing to the small size of the larynx, and partly because it was the only way in which multiple small growths could be thoroughly and completely removed and their bases cauterised.

Extreme Dilatation of the Vagina in an Infant.

Mr. Heaton showed the pelvic organs of an infant, aged 6 weeks, who had died with a large pelvic and abdominal cystic tumour. The cyst, which was the size of a large melon, had the bladder attached to the front surface of it, the rectum behind, and communicated above with a small but dilated uterus. The uterine appendages, kidneys, and ureters were normal. The cyst caused death by retention of urine. The walls were composed of unstriped muscular tissue and elastic fibres, and were buried by stratified squamous epithelium. Mr. Heaton regarded it as an imperforate vagina, which, owing to a chronic inflammation, had become greatly enlarged and distended. Such a malformation extremely rarely caused symptoms before the age of puberty, and rarely attained such relative proportions. The cyst during life reached up to the costal margin. The specimen was referred to a committee.

Angular Curvature of the Spine.

Mr. W. Thomas showed a case of angular curvature of the spine in a girl 18 years of age, in order to illustrate his method of treatment by the spinal vest. The vest consisted of a splint of Swedish iron, strong enough to support the spine, but so soft that it could easily be moulded to any shape. It was formed of two narrow bars of iron, which when applied rested on the articular processes of the vertebræ on each side of the spines, the bars being connected above and below by cross pieces. After being carefully fitted to the spine, padded, and covered, it was firmly sewn into a vest of stout jean fitted with eyelets in front, by means of which it could be firmly laced to the patient. He had used the vest now for several years, and claimed for it advantages over either the poroplastic jacket or Sayre's plaster case. In the case shown the patient had almost lost all power of movement in the lower extremities; but although she had only worn the vest about a fortnight she could walk in it fairly well.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Professor Sheridan Delépine, M.B., President, in the Chair.

Wednesday, May 8th, 1895.

Specimens.

Dr. Wahltuch showed some Coloured Cutaneous Products obtained by friction of any part of the body of a lady, unmarried, aged 55. She had suffered for six years, since her

menopause, from periodical attacks of skin irritation, relieved by a warm bath and the separation by rubbing with towel or hand, of coloured fluffy and curly masses. There was no skin affection otherwise to be noticed. The microscopic examination showed each roll to be composed of: (1) A thick covering of epithelial cells; (2) thin tangled hair, some long and colourless a few broken up, and red, blue, green, or brown; (3) irregular pigmental masses, red, blue, brown, or black; (4) a few starch corpuscles; (5) hardly any trace of fat.—Mr. J. W. Smith and Dr. J. G. Clegg showed the Cervical Spine from a case of Fracture of the Atlas and Axis, with Pulping of the Spinal Cord, in which life was prolonged for several hours by artificial respiration.

The Relation between the Structure of the Liver and Certain Pathological Lesions.

The President gave an account of his views on the structure of the human liver. He demonstrated by means of preparations and microphotographs that in the classical or vascular lobule of Kiernan there were evidences of an arrangement of the columns of liver cells incompatible with the notion that the arrangement of the epithelial elements was entirely subordinated to that of the veins. By taking certain precautions it was possible, even in the normal liver, to see that the columns of liver cells were tubes with a very narrow lumen, branching from terminal bile ducts. This branching was evidenced by a divergence of the columns from lines extending between adjacent portal vessels (portal lines of divergence). This arrangement proved clearly that Sabourin's views regarding the biliary lobule were wrong. The President exhibited a number of microscopical preparations of lesions which showed clearly the grouping of columns of liver cells round terminal bile ducts, and not round the so-called intralobular veins, for example: (1) Starving liver, showing clearly portal and hepatic lines of divergence and the branching of columns of liver cells from portal spaces towards hepatic veins. (2) Fatty liver, with typical grouping of infiltrated cells in the form of alternate nodes on the sides of portal vessels and surrounding Glisson's capsule. (3) Parenchymatous hepatitis followed by almost universal atrophy of epithelium and the almost total transformation of the columns of liver cells into tubes containing cylindrical casts of bile pigment. (4) Epithelioma of bile ducts causing accumulation of bile pigment within the intralobular and intracellular bile canaliculi. (5) Livers in various stages of digestion, showing the grouping of iron and glycogen in various parts of the lobules.

North-West London Clinical Society.—At a meeting on May 8th, Dr. R. H. Milson in the chair, Dr. Harry Campbell showed a case of Post-hemiplegic Hemichorea in a woman. The condition dated from infancy, and Dr. Campbell thought that in all such cases the cause was softening rather than hæmorrhage. He had given bromides and opium with benefit. Dr. Guthrie showed a similar case—Violent Post-hemiplegic Spasm—in a man aged 25. He drew attention to all the prominent symptoms, showing that they pointed to a lesion in the cort x of the frontal convolutions, and raised the question of operation by trephining over the arm area. Mr. Jackson Clarke said surgical interference should be based upon more certain pathological data.—Mr. Jackson Clarke showed a female child, aged 14 months, having a Syphilitic Lesion on the Buttock, and exhibited specimens of Gummata from the Viscera of other patients. He advocated mercurial inunction in the treatment of infantile syphilis. Dr. Coode Adams suggested that the lesion in question was tuberculous. He based this view upon the family history.—Mr. Gordon Brodie showed a large Angioma of the Buttock with Nævoid Growth in the Hamstring Muscles. He referred to the literature of such cases, and did not doubt he would obtain a cure by excision after preliminary electrolysis. Mr. Brodie also showed a case of Dermatitis ascribed to contact with bichromate of potash. Dr. Herschell, Dr. Coode Adams and Dr. Gill spoke.—Dr. Harry Campbell showed the Heart and Spleen of a patient who had died from Ulcerative Endocarditis. Dr. Guthrie, Dr. Cameron, and Dr. Clayton joined in the discussion.

Bradford Medico-Chirurgical Society.—At an ordinary meeting held on May 7th, 1895, Dr. S. Johnston, President, in the chair, Dr. Chapman showed a specimen of Fractured Spine in a child aged 2 years. The child was admitted into the Bradford Infirmary dead, and on *post-mortem* examination a fracture of the fourth dorsal vertebra was found. There was blood effused outside the membranes of the cord; the spinal cord was torn across, but the membranes were not injured.—Dr. Kerr showed a patient who had been trephined for Tuberculous Meningitis. The patient was a boy, with a tuberculous family history, whose health began to fail in January, 1895. Until March he attended school. He then began to be sickly; a squint, which he previously had, became more marked, and his temperature was 99·5° F. Dr Kerr diagnosed tuberculous meningitis; the symptoms being headache, constipation, talking in sleep, and the meningitic cry. There was, in addition, great restlessness, stiffness of the muscles of the neck, cerebral vomiting, and optic neuritis in the left eye. Dr. Wood trephined the middle fossa, the dura mater was incised, and a small quantity of fluid escaped. The brain did not pulsate. A trochar was introduced into the lateral ventricle, no fluid being obtained; a drain of silkworm gut was passed towards the base of the brain. The wound was dressed, and the patient made a good recovery. The symptoms cleared up, there was less irritability, and the optic neuritis became less marked. The drain was removed on the seventeenth day, the wound healed soundly, and within a month the boy was able to play cricket.—Mr. Horrocks showed a patient with Double Hydrocele.—Dr. Major gave a demonstration on the Management of Medical Batteries, pointing out the importance of the practitioner being able to recharge the cells himself; and that frequent use was the best way of keeping the batteries in order. The fluid recommended for the faradic battery was a saturated solution of ammonium chloride, ammonium bichromate being used for the galvanic.

Folkestone Medical Society.—At a meeting on May 15th Dr. Norton, of Capel Lodge, read a paper on Inebriety, in which he stated that habitual drunkenness should be looked on as a symptom of a disease, and not as a moral delinquency. The disease was an absence of the normal power of inhibition. Of the predisposing factors the strongest was heredity, and possibly head injuries and sunstroke. The various "specifics" for the treatment of drunkenness were discussed. Dr. Norton was strongly of opinion that while drugs, Turkish baths, etc., were useful as adjuvants, the only effectual cure was brought about by persevering attempts on the part of the medical attendant to develop the will power of the patient. The paper terminated with some statistics from the Dalrymple Home.

REVIEWS.

Illustrations of the Nerve Tracts in the Mid and Hind Brain and the Cranial Nerves arising Therefrom. By Alexander Bruce, M.A., M.D. etc. Edinburgh and London: Young J. Pentland. (Long 4to, pp. 52, and 27 Plates with Letterpress. 50s.)

[Second Notice.]

For some years prior to its appearance the work now before us had been anticipated by many interested in the histology of the central nervous system, and the fact that Dr. Alexander Bruce had decided to produce an atlas of the histology of the mid and hind brain was in itself a sufficient guarantee of its worth. Now that the completed atlas lies before us we can safely foretell for it a cordial reception, as it is the outcome of well-directed and conscientious investigation into the complicated structure of these regions. To those familiar with the *technique* of the subject, and the very laborious investigation required for any thorough examination of the intricate centres and fibre plexuses of the pons and medulla, it will be sufficiently evident that Dr. Bruce had undertaken an arduous task, and one which only a genuine love for the subject itself could so successfully

have accomplished. Neurological science has advanced of late at so rapid a pace that the student of nervous diseases has had no excuse left him for omitting from his curriculum a full acquaintance with the skeletal structure of the nervous centres—a knowledge which would have been regarded as quite superfluous two decades ago; and the works of Axel Key, and Retzius, of Meynert, Obersteiner, and Schäfer (in the recent edition of *Quain*), Golgi and Ramon y Cajal, sufficiently testify to the attempts made to familiarise the student with the intimate structure of these obscure regions of the nervous system.

Dr. Bruce has in his atlas made a laudable attempt to simplify the subject for the student's use by supplying him with the artistic delineations of serial sections of the embryonic brain. He thus eliminates the more intricate detail which is apt to confuse the beginner in his studies, and reproduces the main fibre tracts at their early medullation when most readily mapped out, tracing thus their developmental history, and excluding all non-essential and secondary systems. His plates (owing to this fact) are all exceedingly clear and simple—a simplicity in notable contrast with such illustrations as are supplied in the works of Meynert. This is a great gain to the student. The method also adopted by the author of supplying text references grouped around the figure, rather than the more clumsy plan of figure references below (equally irritating and bewildering to the reader) is a very admirable feature in these illustrations.

Commencing at the transition realm between medulla and cord, we have a series of sections of all characteristic levels necessary for the tracing medullated tracts as high as the uppermost limit of the motor oculi nuclei, whilst the explanatory reference to these regions in the text accompanying each plate affords the reader ample opportunity of tracing every detail of structure, and of acquiring an acquaintance with the architecture of these regions with the minimum of labour expended. Dr. Bruce has not restricted himself to the reproduction of such sections alone; he has interspersed throughout his work numerous diagrams whereby the more elaborate connections (which could not be represented in any single plane) are made clear to the student's mind. Another feature we must not omit to mention is the fact that the author has given us therein the benefit of his original observations upon points of special interest and obscurity, and, where the usually accepted version is open to any doubt, Dr. Bruce has not hesitated to challenge the question with characteristic boldness and ability. The ascending antero-lateral tract of Gowers, once suggested as the conducting paths of thermal and painful impressions, he traces up into the antero-lateral nucleus of the medulla; the complex formation of the restiform tracts, that bewildering *terra incognita* of the student, will no longer be a puzzling maze of connections; and the fillet tracts so far as modern research has led will cease to trouble. The segmentation of the motor oculi nucleus, which Dr. Bruce has made so peculiarly his own in an elaborate paper to the Royal Society of Edinburgh, accompanied by exquisite illustrations, is alluded to here quite as fully as requisite for the student's purpose, and the views of authorities at variance are carefully classified and balanced with judicial skill.

No student can take up this atlas with any serious intention of learning the course of the conducting strands and ganglionic masses of the mesencephalon without feeling ever-increasing interest in the work, nor will he fail to recognise in the clear, concise, incisive, and vigorous style, the exclusion of all non-essentials, the admirable arrangement of sections and beauty of illustration, the potential enthusiasm of the author.

Dr. Bruce's, perhaps more than any similar work of the kind, will afford the student solid assistance; it will stimulate him to seek practically an examination of these regions by section cutting and histological methods, and we can conceive no more useful or fascinating employment for the advanced student of medicine than that of acquiring for himself serial sections of the parts here delineated, and their study by means of this admirable atlas. We wish the atlas all success. No school of medicine, public hospital, or asylum which boasts of a medical reference library should be without a copy of this work.

HEALTH AND CONDITION IN THE ACTIVE AND SEDENTARY. By NATHANIEL EDWARD YORKE-DAVIES, L.R.C.P., M.R.C.S. London: Sampson Low, Marston, and Co. 1895. (Demy 8vo, pp. 266.)

THIS book is avowedly written for the lay public, and its obvious intention is to whet the reader's appetite for the further information which is to be sought for and obtained in the consulting room of the author. Thus, in the chapter on obesity, on which subject Mr. YORKE-DAVIES tells us he is a great authority, we wander hopelessly through mazes of discursive matter, finding scarcely any clue to the methods by which we are to disembarrass our unfortunate selves of our superabundance of too solid flesh till we reach the following recommendation. "I presume," says our author, "that I have treated more cases of corpulency than anyone else in this country, as I have devoted my attention entirely to the dietetic treatment of this and other conditions due to improper food and mode of life, and my experience is that each particular form of malnutrition should be treated strictly on its merits, and no two cases should be treated exactly alike. People who attempt to formulate a diet for themselves or who listen to the voice of the incompetent do themselves much more harm than good. It is a better plan to be guided by medical authority." In other words, read this book and then consult the author. This is a form of self-recommendation which we cannot commend.

Mr. Yorke-Davies's views on the causation and dietetic treatment of some diseases are unusual: thus anæmia is referred in some cases to tight lacing, and in Bright's disease it is recommended that the food should consist largely of fish, game, meat, and strong soup. There are, however, in the book many useful hints for the lay reader, particularly in the chapters on constipation and indigestion. That the information given is appreciated by the public is to be deduced from the fact that the book has reached a second edition.

ATLAS UND GRUNDRISS DER OPHTHALMOSKOPIE UND OPHTHALMOSKOPISCHEN DIAGNOSTIK. [Atlas and Elements of Ophthalmoscopy and Ophthalmoscopic Diagnosis.] Von Dr. O. HAAB. Munich: J. F. Lehmann. 1895. (Cr. 8vo, pp. 76, 64 figures with letterpress. M. 10.)

THIS Atlas of Ophthalmoscopy is intended for the use of students and practitioners. It contains 102 coloured pictures of the fundus of the eye, with a description of each one, and an introduction to the use of the ophthalmoscope. The object aimed at has not been to present very rare or abnormal cases, but to give a series of pictures of the most common diseases of the fundus in their different forms and stages; they are all lithographed from original drawings made by Professor HAAB himself. In the introduction the author urges every student to learn to draw what he sees, as he rightly believes that nothing sharpens the power of observation so much as the attempt to reproduce what is seen.

The first part of the book contains 70 pages devoted to a description of the ophthalmoscope, its use by the direct method in all conditions of refraction of the eye, the estimation of errors of refraction by it, the examination of the inverted image, the methodical examination of all parts of the eye, and to a description of the shadow test for the estimation of refractive errors. The second part contains the ophthalmoscopic plates, to each of which a description is appended.

As a rule the plates are good, and give a correct rendering of the conditions seen in the eye, but the omission of all the retinal light reflexes from the pictures gives them a want of life, and is likely to prove a difficulty to beginners in the use of the direct method of examination. The series of plates representing the congenital abnormalities of the eye and those devoted to affections of the yellow spot are complete and good; some of the retinal affections are well represented, but the two plates of diabetic retinitis are not at all characteristic. The various forms of inflammation and degeneration of the choroid, as well as the effects of injury by foreign bodies, are well illustrated, but some of the plates, especially those showing detachment of the retina, are coarse and diagrammatic.

The book is very convenient in form, and is rightly called a "hand atlas;" it is likely to prove very useful to those for whom it is intended.

The Etiology of Osseous Deformities of the Head, Face, Jaws, and Teeth. By Eugene S. Talbot, M.D., D.D.S., Professor of Dental Surgery, Woman's Medical College; Lecturer on Dental Surgery and Pathology, Rush Medical College, Chicago. Third edition, revised and enlarged. Chicago: The W. T. Keener Company. 1894. (Demy 8vo, pp. 510. 4 dollars.)

Dr. Talbot's work, though not well known in this country, has gained sufficient popularity in the United States to reach a third edition. The author has continued his laborious researches on a somewhat unpromising subject, and extended in various directions his inquiries as to the causation of irregularities of the teeth and jaws. These irregularities, he holds, are in most instances the result of constitutional, and not of local, conditions. The conclusions he has now formed are not expressed very clearly, but they seem to indicate that in heredity, and not in any local or accidental affections, are to be found the causes of many of those deformities and degenerations of the jaws and teeth which come under the notice of dentists. Not only these practitioners but all members of the profession will find entertaining as well as instructive reading in this volume. Dr. Talbot has collected an immense amount of information with regard to deformities of the cranial and facial bones, and applies the results of his investigations to many serious problems in sociology. We trust that literary societies are conducted in this country on different lines from those of some societies with a similar aim in America, for we are informed that in the latter brilliant men and women meet to form marriages, and that as a result children are born who may become idiotic, deaf, and dumb, blind, or, late in life, insane, criminals, or drunkards.

The strictly scientific portion of this work, which is well illustrated, and contains, in addition to much earnest work done by the author, a host of references to the work of others, claims especially the attention of those engaged in dentistry.

On Some Symptoms which Simulate Disease of the Pelvic Organs in Women and their Treatment by Allo-Piesto-Myo-Kinetics (Massage), and by Auto-Piesto-Myo-Kinetics (Self-movement of muscles under pressure). By A. Rabagliati, M.A., F.R.C.S.Edin., Honorary Gynæcologist, Bradford Infirmary. London: Baillière, Tindall, and Cox. 1895. (Demy 8vo, pp.77. 7s. 6d.)

The author is of opinion that the disease sometimes termed ovarian neuralgia, in which the internal organs are tender, without any evidence of inflammatory enlargement, and the health greatly impaired, is neither ovarian nor neuralgic. He justly explains how these patients are nervous very much as many other weak people, men as well as women, are nervous; they may often burst into tears, but other weaklings are not unused to the melting mood. He deprecates the practice of giving special names to a group of symptoms which merely imply debility involving the mind. Dr. Rabagliati directs our attention to the hyperæsthesia common in these nervous women. There are numerous tender tracts in the muscles, tendons, bones, and tissues along the course of nerves. On this fact he bases the theory that the so-called ovarian neuralgia is a general rheumatic condition.

Dr. Rabagliati recommends that solutions of potash salts and nux vomica, in hot water, should be taken about an hour before food. The carbon element in the diet should be limited; especially does bread come under the author's displeasure. The dietary here prescribed is a free allowance of beef, mutton, fish, fowl or game, with green vegetables, and well boiled onions, tomatoes, and such fruit as the apple to take the place of bread at the later meals.

To restore the flabby, tender muscles to their right tone and development, Dr. Rabagliati advocates a course of self-conducted gymnastics to which he applies the formidable term Auto-Piesto-Myo-Kinetics. He gives the derivation which signifies "self-squeezing-muscle-movements." A series of photographic illustrations explains how the patient should carry out these gymnastics. Perhaps "self-massage" will prove a clearer and more convenient term for a system of treatment which we are assured has given excellent results. In his arguments in favour of self-massage the author very reasonably attributes much of the virtues of bathing to the friction used during soaping and drying.

There are many difficulties in making patients, especially patients of this kind, treat themselves, but none are insuperable, and the author's system has obvious advantages over massage and other therapeutic measures which involve skilled attendance and great expense.

His condemnation of oöphorectomy as a surgical practice in these "neurotic" cases and his explanation of the cures attributed to this operation are hardly necessary. No true surgeon would think, we trust, of removing normal appendages for the cure of a so-called neurosis.

Diätotherapie für Ärzte und Studirende. [Treatment by Diet for the use of Practitioners and Students.] Von Dr. Friedrich Schilling, Kreisphysikus. Wiesbaden: J. F. Bergmann. 1895. (Cr. 8vo, pp. 166. M 3.)

This is a small handbook for practitioners and students, setting forth the principles and practice which should obtain in feeding the sick. The subject matter is divided into sixteen short chapters. The first few chapters are devoted to the consideration of the physiological principles underlying the subject; then comes a chapter on artificial feeding, which is succeeded by one on food in fevers. The next chapter deals with dietetic cures, and surveys briefly the application and objects of the milk cure, the Weir-Mitchell cure, the koumiss, kefyr, whey, and grape cures, Schrotte's dry cure, Oertel's cure, etc., etc. The remaining chapters deal with the dietetic management of constitutional diseases, of diseases of the nervous, circulatory, and digestive systems, of disease of the liver, kidneys, bladder, and sexual organs, and in pregnancy and childbed. To do all this in a small book of 166 pages necessitates great brevity of treatment, and in many instances it would doubtless have been more edifying if fuller discussion and greater detail had been afforded.

NOTES ON BOOKS.

Essentials of Diseases of the Ear, arranged in the form of Questions and Answers, prepared especially for Students of Medicine and Post-Graduate Students. By E. B. Gleason, S.B., M.D. (Philadelphia: W. B. Sanders. 1894. Pp. 147.)—This work is one of a series of "Question Compends," and in addition to possessing the fascination (which we, however, fail to comprehend) of the catechism form it contains in the briefest possible space a very large amount of otological information. Many of the sections are unusually clear, as, for instance, those on the treatment of exostosis, on the management of foreign bodies, on the parts of the ear to which the attention of the observer should be particularly directed in otoscopy, on the diagnosis of cicatricial areas in the membrane, on the operations for removal of the membrane and ossicles, and on keratosis obturans. The diseases of the internal ear receive proportionally rather scant notice, but the book as a whole (with a judiciously drawn up formulary) may be found useful.

An Inquiry into the Etiology of Rötheln (German Measles). By Donald W. C. Hood, M.D.(Cantab.), F.R.C.P.Lond., Senior Physician to the West London Hospital. (London: John Bale and Sons. 1895. Cr. 8vo, pp. 60.)—In this essay Dr. Donald Hood discusses the diagnosis and etiological relations of German measles. Arguing mainly from the inconstancy of the symptoms of German measles and the mildness of the disorder sometimes produced by true measles, he appears to be anxious to establish that the special group of cases presenting the clinical condition known as "rötheln" or German measles should be looked upon "as due to the specific contagium of measles which has been profoundly modified by

those evolutional changes underlying its life-history; profoundly modified by the varying conditions affecting the 'soil' of the 'host.'" There is much that is attractive and plausible about theories of this nature, and it may be that in the future we shall have to modify in material respects current views as to the immutability of infections. As to the infections known to be associated with certain microbes, it is clear that we have to deal with two variables—the virulence of the infecting organism and the resistance of the organism infected. Analogy is probably a safe guide in this matter, and therefore such speculations as those which Dr. Hood advances in this essay are interesting and serve a useful purpose in stimulating thought, although the weight of evidence appears to be against his contention in this instance.

Examination Questions in the Practice of Physic; Answered and Annotated. By W. RAMSAY SMITH, M.B., C.M., B.Sc. (Edinburgh and London: Young J. Pentland. 1895. Cr. 8vo, pp. 36. 1s. 6d.)—This small book contains 41 questions set in the examination in practice of physic for the M.B. and C.M. degree of Edinburgh University during the past ten years. After each question the answer is given. The questions are arranged under the various systems. For a book of this kind to be really of service to the student it is essential that the answers to the questions should be exceptionally excellent, as the main object is to show how a question should be answered rather than to provide the necessary knowledge. Presumably this latter has already been obtained by the student from bedside teaching and the recognised textbooks on medicine. The answers given here are mostly short and to the point. Some part of the answer to question 8 on diphtheria requires rewriting.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SPIRAL WIRE STEM FOR THE TREATMENT OF MEMBRANOUS DYSMENORRHŒA.

DR. ALEXANDER DUKE (Cheltenham) writes with regard to the treatment of membranous dysmenorrhœa that the treatment he adopts is to scarify the os at intervals of three or four days between the periods, to purge the patient freely twice a week, and before the period to dilate rapidly the cervix with his dilator, which differs from almost all others in being curved, and so accommodating itself to the cervical canal, which is not straight. He then curettes the uterus with either a blunt or a sharp curette, according to the condition of the interior found, and at once introduces one of his spiral wire stems, to be worn during the next three subsequent periods at least, the patient being directed to syringe the vagina with hot water both during the period and at short intervals while wearing the stem. The illustration represents his latest pattern. These stems were originally designed to be used in the treatment of stenosis of the cervix, and worn after rapid dilatation. He has found them most useful also as a "drain" in cases of chronic endometritis, and as a stimulant to the uterus and ovaries in certain forms of amenorrhœa, where the usual drug treatment had failed.

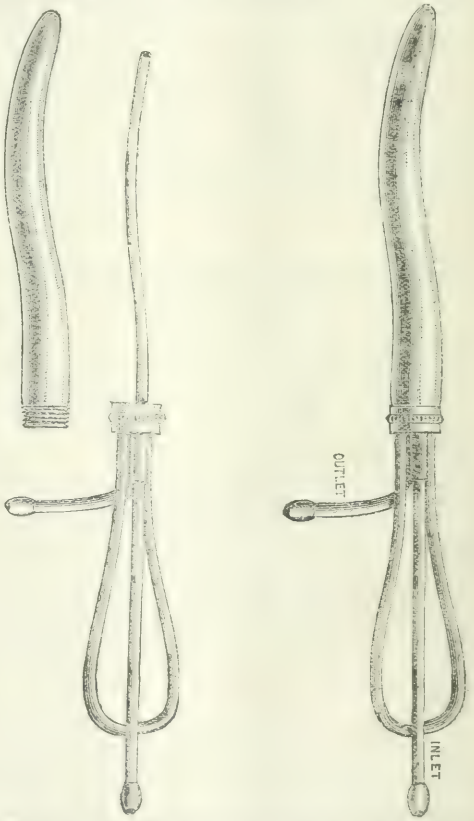


He is satisfied that he has thus succeeded so far in curing the cases and the stem can be worn for a considerable period. One patient of Dr. More Madden has, he states, worn one for over a year without the slightest discomfort and with complete relief.

The stem is flexible, open from top to bottom, can be worn while the patient is up and about, and, if kept clean by the patient using a syringe or douche, will, Dr. Duke believes, be found in practice reliable.

HOT WATER UTERINE DILATOR.

DR. GEORGE BELL TODD, Dispensary Physician to the Glasgow Samaritan Hospital for Women, has designed a form of hot water uterine dilator, for which he claims the advantages that by its use the patient suffers less—though an anæsthetic is usually given; the rigidity of the cervical tissue is more easily overcome; there is less chance of laceration as little or no force is required, and no boring movement is necessary; while the handle is large so that the operator has full command over his instrument. Further, the dilators are made of block tin, and can be bent over to any desired curve. Their general form, as well as that of the handle, which is made of brass (nickelled) is shown in the accompanying drawings. The set of dilators consists of six, ranging in diameter from that of a No. 10 catheter to that of a forefinger. The narrow end is conical, the other is fitted with a screw. All the dilators screw on to the one handle, which is fenestrated,



strong, and light. When screwed home the junction between the dilator and handle is made tight by an india-rubber washer. Water can be introduced into the dilator through the inlet tube, which is continuous with an anterior portion—also made of block tin—which ends about half an inch

from the front (narrow) end of the dilator. The outlet tube is also shown in the drawing, and the water flowing from it when the instrument is in use can be conducted away by adjusting an india rubber tube. To the inlet the tube of an ordinary irrigation apparatus can be fixed. When the dilators are warmed by using water of the temperature of 15° to 20° F. above the normal temperature of the body dilatation is more easily effected than by the ordinary Hegar's dilators, though the instrument can be used without the warm water if desired. The instrument—which packs into a small case—is manufactured by Messrs. S. Maw, Son, and Thompson, Aldersgate Street, London, E.C.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

SPECIAL COMMISSION OF THE "BRITISH MEDICAL JOURNAL."

XLVIII.—NOTTINGHAM.

THE workhouse stands in a crowded part of the town, on rising ground with open space at the back, but shut in by buildings in front. It is one of the older houses, the greater part being over fifty years old, but the wards used for the surgical patients date from twenty years later. The house is licensed for 876 inmates, but at the time of our visit there were over 1,000 on the books.

The medical officer (Dr. Ashwell) and some of the guardians kindly accompanied us round the building, and the courteous officials of the house gave us every facility for making our inspection.

THE HOSPITAL.

It is difficult to give the reader a clear idea of this department, as the sick quarters are simply wards in the body of the house, and formed at one time part of the quarters for the able-bodied; the overflow of the sick are in a separate block to the front of the building, at some distance from the hospital. The house is a long building, consisting of two extended wings with the administration block in the middle, and it rises to a height of four storeys. The wings are divided in their length by long narrow passages, having wards or dormitories on either hand; a narrow stone stair leads from the passages to the upper storeys. Besides these staircases, one on either side of the administration block, there are enclosed stone stairs in some of the wards, leading to the floor above; they appeared to serve as a depository for useless lumber.

THE SICK

are nursed in these dormitories, the able-bodied being now lodged in miscellaneous low buildings to the front of the house. On the male side there are fourteen wards, holding at the time of our visit 210 patients. Each ward has nominally 14 beds, but, when necessary, more beds are put in, as on this occasion. The wards looked over full, and, being low pitched, are deficient in cubic space. The windows are on one side only, the upper half being swung on a pivot for ventilation. There are besides small grated openings in the cornice, but these appeared to be choked with the dust of ages. In each ward was a fireplace, a few arm chairs, and straight chairs, a long deal table, commodes, stools, and one or more screens. The floors are either of paving stone or cement; a linoleum path is laid down each ward, and we noticed, in a few cases only, a strip of carpet at the bedside. The surface of the brick walls is painted a light colour: a T gaslight hangs from the middle of the ceiling. This description applies to all the wards on both male and female sides, with the exception of the

OLD WOMEN'S WARD,

a spacious room on the ground floor, holding 22 beds. The appearance of this ward was as bright and cheerful as flowers and pictures could make it, though it was deficient in windows. It is reserved for cases of infirmity and old age among the women; though none of these are acutely ill, nearly all were in bed. It is really the only suitable ward in the building.

THE BEDS

are of the old pattern, iron laths, low and of good width; no pulls except in rare instances. The bedding is mostly flock: there are a few spring beds and a liberal supply of water mattresses. The need for these results from using flock mattresses, which are most unsuitable for the sick and infirm. Only two blankets were allowed to each bed, and, as both these were required for warmth, in very few cases was there any blanket under the patient.

CLASSIFICATION

obtains to a very moderate extent; there is a separate department for the idiots and feeble minded, and the surgical and lock cases are in the block at the front of the building, but the male infirm and acute cases are mixed together in the wards. We noticed some very severe cases among the medical patients, a bad case of typhoid fever, chest complaints in all stages, heart disease, frostbite, rheumatism, phthisis, all cases that would be treated in a hospital, besides the usual type of workhouse patients. In an attic ward we saw a man who had broken his back fourteen years ago when he was working as a navvy on the line. He was in good case, and contentedly employed himself in doing fancy work. There are no children's wards, as there is an infirmary ward at the schools.

THE SURGICAL BLOCK

includes the nursery department, the male and female surgical wards, and the lock cases—158 beds in all. It is a more modern structure; the wards are loftier, the surface of the walls is smooth, the larger windows have sash openings, and are placed lower in the wall. To reach this building from the other sick wards we left the main entrance, and passed along a covered way and down some steps into a court. The lock patients are in the top storey; there were two female patients in a ward of 8 beds. There are no separate offices for these patients on the female side, but the male lock ward, also on the top floor, has a separate lavatory. The wards on the female side are large but crowded; on the male side the wards are smaller. There are no airing courts for this block. The medical officer informed us that he did all necessary operations. There were cases of ulcerated legs, bladder cases, cancer, lupus, and strumous abscesses.

THE LYING-IN WARD

is in the hospital part of the house on the first floor. It consists of one ward of 8 beds; a small space, divided from the rest by a thin partition, forms a labour ward. Here we found an old wooden bedstead with a flock bed on it, which was, we were told, taking the place of the mattress which had gone to be cleaned. The bed was amply provided with appropriate sheets. This enclosure is, of course, not sound proof, but is otherwise private. There was one woman and her babe. The confinements are from 70 to 80 a year. The senior nurse is the midwife. One closet at the end of a passage is kept for the use of the lying-in ward.

THE IDIOTS

are lodged in distinct wards, but close to the hospital quarters. There are 120 beds for male and female patients of this class. We saw the patients gathered in the day rooms as it was the dinner hour. We noticed with pleasure a mincing machine handy for the attendant to mince the food of any helpless patient. Their dormitories are similar to those of the sick, but the beds are furnished with side planks and other contrivances for the restraint of the restless. The airing courts for this department are good, but the day rooms appeared to be too small to admit of the amusement of the inmates. At each side there is a padded room off the attendant's room. The inmates are certified, and are attended by trained attendants, two on the male side and two on the female. Altogether the department contrasted favourably with the sick quarters.

SYSTEM OF NURSING.

On the male side are two trained male nurses, who attend to the 210 patients in the hospital wards, and the male

patients in the surgical block. Under these circumstances pauper help is largely used in nursing the sick. On the female side there are three trained nurses, including the midwife, who has charge of some of the general wards; thus there are two nurses for the 160 female patients in the hospital, and one in the surgical block. A staff of inmates watch in the wards during the night; these sleep during the day in the body of the house, and one night nurse is on duty in each wing. There are no means of communication between the wards and the master's lodge but by messenger, but the master's quarters are connected by telephone with the doctor's house, which is close by. Our brief inspection was yet sufficient to show that the nursing was carried on under great difficulties, very crowded wards, a lack of appliances, an insufficient staff, supplemented by pauper help, no day rooms. It is greatly to the credit of the officers that any results which can be called satisfactory are obtained. The quarters provided for the nurses are cramped and uncomfortable: they have no mess room or recreation room, and their bedrooms are too close to their work. There appears to be at present no room for an increased staff of nurses, even if the Board were convinced of the desirability of employing them.

Isolation

is provided for by two iron huts placed in one of the courts adjacent to the main building. These huts are self-contained, and are used for the nursing of cases of measles or whooping-cough from the schools. Fever and small-pox are taken to the rural sanitary hospital. Nurses are engaged from the town when the huts are required; they were empty at the time of our visit. The last use to which they had been put was to accommodate the overflow of able-bodied men from the house. There are no small wards in the hospital for the keeping apart of an objectionable patient.

Sanitary Appliances.

There are several closets in the hospital, but not always conveniently placed; some are on landings between the floors, some at the end of the long passages; they are well flushed, but of the old make, small, and the fittings enclosed in wood. Near the closets are the washing-up sinks, few in number, and also some fixed basins for the use of those inmates who are up. The bath rooms opened in most instances off the wards. The whole of the sanitary appliances for the old women's ward are in a lobby leading out of the ward; the lobby was used as a kind of scullery or pantry, and we were surprised to see the bread intended for the dinner lying in very close proximity to the w.c., which opens from this lobby. On inquiry we found that there was no satisfactory provision for keeping the food for the wards. In each ward were commodes; in some we saw chambers under the beds. Slippers and dressing gowns are provided for the inmates. The water is heated by a central boiler.

The Nursery.

is placed, as before mentioned, in the surgical block; it occupies three storeys. The day nursery is on the second floor, and the night nurseries on the first and ground floors. The whole department is under a paid officer, and bore marks of thoughtful care on the part of the guardians. Toys, pictures, suitable chairs, and tables were provided for the little ones; proper cots for the night, boat-shaped feeding bottles, etc. We were specially pleased with the bath room, where each child had its separate towel and brush and comb on a numbered hook, a running water supply over a trough for washing, and a suitable bath, all of modern construction. The infants remain in the nursery until they are 5 years old, when they are drafted to the schools, a mile or more away.

The Diets

are cooked and weighed in the central kitchen, and distributed to the various departments. The inmates on meat diet have it boiled except on Sundays, when it is roasted. This is an old custom which dies hard; but it is not rational, and we shall be glad when the infirm in the workhouses are allowed a more varied diet. The sick are dieted by the medical officer. We noticed a very handy carriage for the diets, heated by a hot-water jacket; each ration was in a separate dish, on a tray containing the number for the ward, the whole running on wheels. The food appeared to be well cooked, and was served hot.

The Receiving Wards

are simply for the detention of inmates until passed by the medical officer; there is no quarantining arrangement. The boys or girls are placed apart in wards in the hospital for a fortnight before being sent to the schools. Adjacent to the receiving wards are two large storing rooms under the care of the labour master. We ascertained that the guardians have no vehicle for the removal of the sick to the workhouse; they employ the public cabs, a highly reprehensible practice unless they have the vehicle thoroughly disinfected before it leaves their hands.

Recommendations.

It will be gathered from the foregoing report that the only possible remedy for the present unsatisfactory state of affairs is to build a new infirmary, a course which, as we were informed, has been resolved on by the Board. As it is now ten years since the question was first mooted, we shall expect shortly to see some steps taken towards the carrying out of the resolution. We would suggest: the substitution of female for male nurses, or at least that there should be female supervision; a liberal increase of the nursing staff, with the complete abolition of pauper nursing; wards for nursing the sick children apart from the school; the provision of an ambulance for the removal of the sick; and a more varied diet for the infirm. There appeared to be room for improvement in the imbecile department; more might be done for the patients in the way of employment and recreation, and in the dormitories there should be more means of isolating the fit cases and the unruly.

ORGANISATION OF THE MEDICAL PROFESSION.

At a meeting of the Hunterian Society, on April 24th, Mr. Charters J. Symonds in the chair, Mr. F. R. Humphreys read a paper on the Necessity of a Central Organisation in the Medical Profession. He approached the different subjects included in his paper from the point of view of showing their causes and remedies, illustrating them by facts derived from his own or other people's experience, so as to show the necessity for speedily meeting the evils. The lay Medical Aid Associations were first attacked, and the resolution of the General Medical Council, which had appointed a committee to consider the question, and which had come to the conclusion that these associations overworked their officers and underpaid them, was referred to. Under the present system, or want of system, how was it possible to defeat these dispensaries, and what amount of medical ethics would keep a man straight who would not allow any mere ethical questions to prevent his acquiring a practice at the expense of his neighbours? Lay companies must be fought with capital if they were to be beaten. Provident dispensaries appeared to have been established early in the century, and now not only were the rates for members too low, being at the highest 7½d. for a visit or consultation, but a great part of the money went towards paying unnecessary offices and officers. He gave a few instances of payments at various provident dispensaries, including Tunbridge Wells, Reading, Leamington, and Salisbury, showing the latter to be the only one which attempted to pay the medical men properly. In the case of sick clubs, which were provident societies without wage limit, the club doctor received usually from 3s. 6d. to 5s. per head per annum, but in the country these clubs rarely paid their medical man more than 4s. per head per annum, a sum which it was allowed on all hands could not pay at all, but which would be accepted in order to prevent another man getting it. It was simply impossible for a dispensing man to comply with the necessities of medical practice and charge such fees. He must be dishonest in some direction in order to make enough to live upon; and inferior and insufficient drugs, unqualified assistants, card advertising, etc., were a few of the common evils attached to "cheap dispensaries." The only way to avert these evils lay, in the author's view, in the properly worked provident system under which charges, fair alike to medical men and patients, were made. The present condition of things would

not be long tolerated if thoroughly exposed through the medium of a representative committee under the Royal Colleges, taking evidence like a select House of Commons committee, as already proposed by Mr. Bryant, for the adjustment of such matters. Reviewing the present condition of the out-patient departments of hospitals, Mr. Humphreys said it was estimated that in London one in every two persons received charitable medical relief, and from figures given by Dr. Rentoul it would appear that 50 per cent. were unsuitable cases. He then read part of a letter from a medical man, stating that he took a *locum tenens* last July at the City of London East London Public Dispensary, where he had to see 210 people in three hours, 100 more people being dismissed with repeat medicines. Many of the applicants were utterly unsuitable, and some came from Gravesend and other equally distant places to be treated with medicine for a week for 6d. Another evil connected with hospitals was the pay ward. If a medical man could send his patient to the pay wards of a hospital and attend him there it would not matter; but when once they were within the hospital walls they were practically lost to the outsider. Another danger threatened in the shape of nursing homes, where patients were received, but were either attended by no medical man at all or by one specially appointed to the institution. Mr. Humphreys thought an agreement was advisable by which no medical man should patronise these nursing homes unless the patients were under medical advice. The author went on to deal with the question of the relations between consultants and general practitioners. The junior consultants found it hard to live; but if the leading physicians would behave properly and take fees corresponding to their position there would not be half the trouble. Much might be done if those practitioners who were willing to act as pure consultants were to state this fact in some binding way. The term "infamous conduct" had been much objected to as meaning one thing to the profession and another to the outside public. He had written to Sir Richard Quain, asking him if the General Medical Council would be likely to approve of an organisation to promote discipline in the profession, and if it might be possible to pass resolutions bearing on the subject so that some body might take the matter up; to which Sir Richard had replied that he was confident that the General Medical Council would confine its duties to its statutory authority, which did not enable the Council to interfere in the internal discipline of the profession. In another letter he said that it would be quite impossible for the General Medical Council to strain its powers in that direction. The question naturally arose, What force could be made use of to control the profession and to assure each man that his neighbour was not cutting his throat? Mr. Humphreys himself proposed a union of medical associations, whose delegates should form local boards, and these in turn appoint directors.

The CHAIRMAN then asked for opinions on the best way of meeting the evil of the existence of the various bodies mentioned; whether by the formation of a purely moral and ethical influence brought to bear upon them, or whether the establishment of an ethical association, to which every man would belong, non-membership marking him as not respectable, would influence them to attend to the behaviour of their members. Speaking of provident societies, and the special evils attending them, it had been suggested that the best remedy was that all the medical men in a particular district should combine together to form a provident society of their own, and so exclude anyone else, the fees being used for the payment of the members.

Mr. BRYANT said there could be no difference of opinion between those present as to the faults which Mr. Humphreys had discussed. The question was before the Society in a very difficult shape. How were these things to be prevented? The Corporations of London, the Royal Colleges, and the General Medical Council could do much, but the limits of the law must be kept, and certainly nine-tenths of what Mr. Humphreys had suggested could not be carried into effect. It was impossible to tell a medical man he must not undersell. Most of the faults that existed in the profession arose through competition, but what power had the General Medical Council to influence those who undersold? A man must be brought up to it, and taught in the inner man what was right and what was wrong. It was not only in the lower grade of the profession that this under-bidding went on, but it was also seen in the higher grade. If all the corporations and societies throughout the country were to consider one of these questions at least once in a year much might be done. These were diseases of the body corporate, and must be treated from the beginning. Five years ago the Government was asked by the Royal College of Surgeons for further powers, but it would not grant them. It had again been approached on the subject, and a series of by-laws put before the Home Secretary. Since the question was put before the Home Secretary an association had risen up, speaking in the name of the Members of the College of Surgeons, and asking the Home Secretary not to grant the desired powers. The only mode of punishment was by removing the names from the list of Members of the College, but that seemed a hard thing to do. It was very easy to take a diploma away from a man but not so easy to give it him back again. If the Government would do what it was asked to do, it might be possible to point out to these gentlemen what harm they were doing.

Dr. GLOVER was disposed to think with Mr. Bryant that the powers of the General Medical Council were too limited to permit of its doing anything. He did not think that any attempt to interfere with the practice of medical men would have the support of the General Medical Council. It had already been tried, and the Council declined to pass any judgment upon the conduct of the men. Coming to the question of medical corporations, he could not agree that the medical corporations could not do more than they did. The power of the General Medical Council should be reserved for extreme cases, and should only come into play if the medical corporations declined to do what they were asked. The medical corporations would condemn what seemed a contempt of their authority. They would take the name of a medical man off their list, and they would deprive him of his diploma, but the man from whom the diploma was withdrawn would use his title, and continue to do so without the slightest sign from the corporation which had withdrawn the diploma. Could anything be more obvious than that it was the duty of the body whose rules had been defied to bring that man to court? In every locality there should be an association of medical men to bring pressure to bear upon those who did these things. He thought with Mr. Bryant that this was a subject which should be brought before the British Medical Association.

Dr. ALDERSON wished to say a few words about the out-patient departments of hospitals, as they had done a grievous wrong to the general practitioner. He wished to point out the proposition made by Colonel Montefiore as to the desirability of a Central Board. Such a Board would prevent the starting of unnecessary special hospitals merely for the interests of one medical man. As to the sick club system, the General Medical Council could not do much, but higher education must be looked to to rectify a good deal. He hoped that the suggestion that medical men should not be allowed to dispense their own medicines would be acted upon.

Dr. COTMAN said he was under the impression that the General Medical Council was competent to declare what was infamous in a professional respect. Combination was the strong point, and without combination nothing could be done. A commercial spirit must not be allowed to interfere, but the suggestion that medical men should combine in the various districts in which they live was the one which would be of the most benefit to the profession.

Dr. CAMPBELL POPE thought that the last speaker had hit the right nail on the head when he said combination was important. The men who did these things were the men who would not combine, and therefore some system of censure must be brought to bear upon them. It was the most hopeful thing that the College of Surgeons, which included the great bulk of practitioners in England, was trying to get further powers. The General Medical Council would greatly help if they could define some degree of conduct less strong than that which was termed "infamous." Being struck off the *Register* was a very serious thing to a man who had any self-respect, and if something less could be arranged

it would have great effect. Another way in which the General Medical Council could help was by notifying to the registrars the names of those who had been struck off the *Register*. The practices which came before the Society were those of canvassing patients for clubs, in addition to sending out advertisements, and when such cases came up with really substantial evidence it would be well to forward them to the corporations from which the offenders received their diplomas. The hospitals would be very much bettered by having a more thorough inspection of their patients. In one neighbourhood many patients with good incomes were going daily to different hospitals, and the special hospitals were patronised by a better class than the general hospitals. This had been pointed out by the managers of special hospitals themselves. There was a certain amount of charity connected with the general hospitals, and people did not like to say they had been to Guy's or Bartholomew's or University Hospitals, but they did not mind saying they had been to the Eye or Skin or Paralysis Hospital, because they thought they got better advice there than anywhere else. Although the corporations helped in the way Mr. Bryant mentioned, and the General Medical Council helped by noticing a less degree of bad conduct than that which was now termed "infamous," there was another evil connected with universities. There was only one university which could remove a member for conduct of that kind, and there were many men who had been deprived of their diploma, but who still flourished their degree in the face of the General Medical Council. The real secret was, as Mr. Bryant had remarked, that the reform must come from the conscience of the man.

Mr. Smallpeice said there seemed only one simple way in which the influence might be brought to bear upon erring members, and that would be to give a vote of censure without removing the member from the College. A great many members felt that the corporations did not look after the members of their associations. As regarded the laws of the College of Physicians, it would be found that the standard of the Fellows was much higher than that of the Licentiates. What was wanted was an ethical association in some form which should be regarded as authoritative.

Dr. Cagney said he came as the representative of the British Medical Association, and knew what their feeling was. The Association boasted of over 15 000 qualified men, and if it did not do the work for which it was instituted, there must be something wrong in the institution. He agreed with Dr. Glover and most of the speakers that the introduction of the word "commercial" was not wise. He did not believe that any medical council would have the power to deal with it. It was an insult to doctors to suppose that they wanted looking after more than any other body of men. The medical student as a man must be considered as inferior to no man in the United Kingdom; he could not be improved upon, and if only allowed a conscience he would do all that was required to raise the condition of the profession.

Mr. Humphreys concluded by saying that on looking through the points he had come to the conclusion that there was no governing body. But there were men who were selling their profession below trade prices. There must be some protection from this class of men, which was bringing the whole profession down, and they must be fought. Medical etiquette did not touch these men at all, and if they were to be fought they must be fought with capital.

NOTES ON HEALTH RESORTS.

XX.—SOUTH AFRICA AS A HEALTH RESORT.

By John K. Murray, M.B., M.Ch.(Edin.),
Whittlesea, Cape Colony.

While concurring in the high estimate Surgeon-Colonel Hamilton gives of the South African climate in the British Medical Journal of January 26th, I think his statements as to the food, hotels, native servants, and other difficulties of the seeker after health may lead to misapprehensions.

Throughout the colony there are several sanatoria, Aliwal North, Beaufort West, Ceres, where patients who are unable to rough it can have the comforts consumptives require. In the average up-country hotel the visitor will get the ordinary fare which is met with at the tables of the middle class in England, and such fare as bread, milk, eggs, butter, fruit, vegetables, are obtainable here at a farm house.

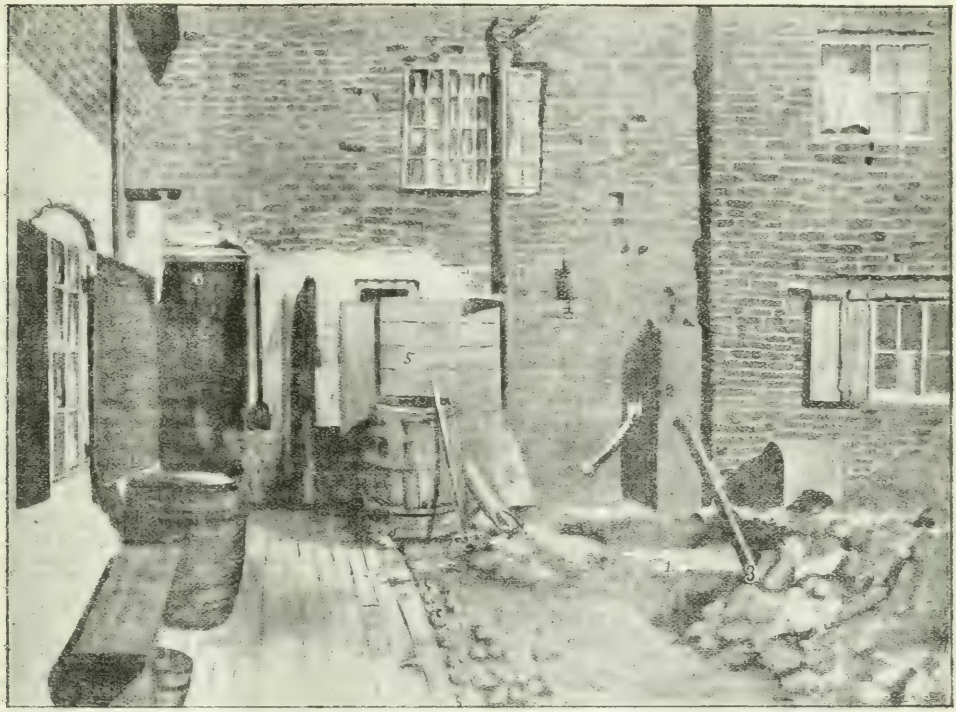
Dr. Theodore Williams said last year that the main point in all climatic treatment was an open-air life. This is well shown by the cases which come to the colony. The up-country towns have numbers of young men suffering from phthisis who work in stores, banks, and offices for six to eight hours daily, and who see the green veldt perhaps once a week. I believe the mortality amongst such cases is great. This is not wonderful any more than the mortality amongst phthisical men who lead sedentary lives in England. Moreover, the average colonial town is in a bad sanitary state. Queen's Town, an important centre up country, has cesspools and sluits, the cleansing of which is ancient history. On the other hand one may see cases of phthisis where the patients spent their time on a farm, and perhaps "roughed it," and yet recovered a fair measure of health.

As to Dr. Hamilton's conclusion that "where there is fever and the lung is breaking down South Africa is not advisable," I have some doubts. Hughes Bennett taught that the greatest danger the sufferer from phthisis in the lungs had was in becoming himself phthisical. Now many of the cases which come out here to die are suffering not only from an apex lesion, but from general tuberculous infection or scrofulous phthisis. No doubt they have breaking down of lung tissue and pyrexia, but other cases come out here which present both these symptoms, and yet the patients steadily improve from the first, even under a farmhouse *régime*. I would go further, and say that *per se* the stage of the lung lesion as regards consolidation or excavation is of secondary importance as compared with the general state of the patient's health and his immunity from general infection. The cases which do best out here are men who have a remnant of former health and physique, which can be resuscitated in the open-air life. The soil gets too healthy for the bacillus, and the lung process becomes fibroid. Yet on leaving England such cases have breaking down of lung tissue and pyrexia similar to the cases which die. I have noticed among the colonial-born population that whilst consolidated apices which have been quiescent for years are not uncommon, scrofulous phthisis runs but a short course.

Of late there has been much outcry against the indiscriminate sending by English doctors of consumptives to die in South Africa. I believe this emigration is more often due to the pertinacity of *spes phthisica* than to the advice of medical men. Still there is great difficulty in selecting cases which are likely to improve out here. That breaking down of lung tissue and pyrexia constitute a guide I very much doubt. I am inclined to think that localisation of the lesion rather than the stage it has reached, a favourable condition of the general health, and freedom from bowel or kidney complications are the hopeful indications. One mistake which patients make when they come out here is in staying at or near the coast line. The ordinary consumptive runs a much better chance at Ramsgate than at Cape Town, East London, or Grahamstown. There are tracts of country fifty, and even a hundred, miles from the coast line which compare with Westmorland for dampness and rainfall.

Dr. Hamilton enumerates two curses of South Africa—native servants and liquor. I concern myself now with the upland districts of the colony used as health resorts. Here the servants are Kaffirs and Hottentots. From five years' residence and experience I would state that good native servants are to be got and are no rarity. Europeans coming out here too often expect a raw native to come up to their standard of requirements in one week. Trained Kaffirs prefer a more reasonable master or mistress. The liquor traffic is a curse to the natives. How it would be cured by an excise here any more than in England and other countries, where there is an excise, is difficult to see.

As regards the cost of living, nearly all the produce of the country is cheap. As to imported goods, the average import duty is 12 per cent. *ad valorem*. In fact, the colony's import dues are purely for revenue purposes, and not for the protection of manufactories. The difficulty which emigrants find is not the cost of living but the scarcity of work, whether trade, mercantile, or professional.



Coach and Horses yard, Ashbourne, 1893. 1. The well in the Coach and Horses yard (it had been uncovered at the time the photograph was taken). 2. The pump immediately over the well; (at the time the photograph was taken a temporary pipe had been attached to convey the water pumped from the well to the gulley in the process of emptying it). 3. The gulley close to the well; down this excrement had been commonly emptied by the inhabitants of the yard. 4. Window of the Coach and Horses water closet close to the well, alongside of which filth from the broken soil pipe had been accumulating for some time. 5. The urinal used by the customers of the Coach and Horses. 6. Back entrance to the Coach and Horses.

THE ASHBOURNE CHOLERA OUTBREAK OF 1893.

Perhaps no one of the localised outbreaks of Asiatic cholera recorded in Dr. Thorne Thorne's report of Cholera in England in 1893 created more stir at the time of its occurrence than that at Ashbourne. It was confined to one yard, with thirty-nine inhabitants, of whom no fewer than fifteen were attacked within seven days in September, nine deaths resulting.

The yard is situated behind the Coach and Horses inn, and "itself abounded in those conditions which are notorious as favouring pollution of air, soil, and water, by reason of emanations from and soakage of filth." With a view of placing permanently on record the circumstances of this very fatal and circumscribed outbreak, we have here given a drawing of the first of two plates with which Dr. Bruce Low has illustrated his detailed report on the occurrence. It tells its tale very well, showing as it does the disgraceful state of the premises which were allowed to persist until, as usual with disease provoking filth, disease and death drew special attention to them. Not that attention had been withheld from the particular spot. Here is the tragedy of the whole circumstance:

It appears that so long ago as six years back Dr. Low called attention to this very yard in a printed report on diphtheria in the town, and generally laid special emphasis on the state of the relations of the urinal and the well. Then in June of 1893 another of the medical inspectors, we are told, had occasion to speak strongly as to the condition of the yards within the town. Dr. Thorne truly says that the cholera outbreak in this yard "recalls the worst we have ever known of cholera in this country;" and whilst it is pleasing to know that the district council at Ashbourne are now stirring, the lesson is again plainly written that "excrement-sodden earth, excrement-reeking air, excrement-tainted water," cannot with impunity be suffered to remain around human dwellings without the natural corollary of disease.

MR. MUNDELLA ON POOR-LAW EDUCATION.

Mr. A. J. Mundella, M.P., Chairman of the Poor-law Schools Committee of Inquiry, distributed the prizes, on May 18th, at the North Surrey District School at Anerley. The right hon. gentleman said he was not there to forecast anything of the Committee's report, for at present he knew nothing of it, they had not yet agreed upon it. But he sincerely trusted that the result of their investigations and deliberations would be that they would be able to place before the Government the best scheme of any at present in existence for the training and education of the children o the State. He hoped that one result of their labours would

be a recommendation to the effect that in connection with every school in the kingdom under the Poor Law there should be an association of managers, men and women, who would devote themselves to the work, and there was no better work in which women could be engaged in. As an example he would mention the Metropolitan Association for Befriending Young Servants, which consisted of 1,100 ladies in direct contact with 8,000 young servants in London. There was no more ennobling work than that which those ladies were engaged in. He was glad to see they had new probation wards at the school, for he could not lay too great stress on the importance of children, the moment they came in charge of the school, being brought into the probation wards, and at once brought into touch through the teacher and superintendent with the future life which they hoped they would lead. That was the only way to break the hereditary pauperism of the country.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

Case Treated with Antitoxin from the British Institute of Preventive Medicine.

Dr. H. Elliott Blake (Upper Woburn Place) sends the following report:

E. G., a girl, aged 2 years, came under my care on the second day of an attack of sore throat, which proved to be diphtheria. On April 18th I first saw her looking flushed and anxious. She presented stridulous breathing, dribbling saliva, nostrils plugged with purulent yellow masses, pulse 124 (feeble), respirations 24, and temperature 101.5° F. Membrane was present on the left tonsil, the back of the pharynx, and the back of the nose, and in the evening began to extend down into the larynx; the glands under the left angle of the inferior maxilla were enlarged. On April 19th the morning temperature was 101°, pulse 130, respiration 22. The urine contained no albumen; the membrane was thicker but had only spread a little down the larynx. Before injecting a piece of the membrane was detached, and subsequently proved to contain the bacillus diphtheriæ at the British Institute of Preventive Medicine. After full antiseptic precautions and boiling the syringe, I injected 15 c.cm. of the serum for diphtheria in the hepatic region of the right hypochondrium, the child weighing about 18 lbs. In the evening the temperature had risen to 102.4°, pulse 158, respirations 16 to 24 (irregular), the child being irritable and peevish; the parts were much swollen and the breathing noisy; in fact, the "reaction" was much like what I had noticed occurred in the Berlin hospitals when the tuberculin treatment was first introduced. The next morning (April 20th) the temperature was 100°, pulse 138, respirations 19; the parts were less swollen, but membrane appeared on the right tonsil and the soft palate, not on the uvula. The urine for the first time contained a trace of albumen.

On April 21st the temperature was 99°, pulse 116, respirations 14; the membrane was drier and not so thick; the larynx and soft palate began to clear; the right submaxillary glands were matted together. Before injecting, some membrane was detached and again examined at the British Institute of Preventive Medicine. They reported that the bacillus diphtheriæ had been isolated. At about 5 P.M. I injected 10 c.cm. of the serum. Slight collapse and irregular breathing followed soon after, but later in the evening the patient was only drowsy; the temperature rose to 101° F., the throat more swollen, and voice became husky.

The temperature on April 22nd was 100.6°, pulse 124, respirations 20. The throat and membrane were drier, the glands on the right side were less, those on the left side still enlarged. The scanty urine presented more albumen. On April 23rd the temperature was 100.4°, pulse 126, respirations 16, and the membrane was now limited to the left tonsil and the back of the pharynx, but the child seemed very weak.

On April 24th the morning temperature was 100.8°, pulse 120, respirations 20, and the last injection was made of 15 c.cm. of the serum. The temperature in the evening rose to 102.2°, and the parts became swollen, but the nasal secretions were very slight in quantity.

The temperature on the following day (April 25th) began to fall, and was normal on April 26th. Dr. Wallis, in whose practice I saw the patient, very courteously supplied me with what has occurred since. All the membrane and albumen disappeared the next week. On May 1st the temperature rose to 102°; the day after an erythematous rash appeared over the body, but both soon subsided. Subsequently convalescence progressed, except that on May 7th slight paralysis of the soft palate was noticed, with regurgitation of fluids, but this and her health are rapidly improving, and she may be considered on the road to complete recovery.

During the treatment by serum injections, only a citrate of iron mixture was given, with slight but necessary stimulants, and good nutritive liquids.

LITERARY NOTES.

We have received the twelfth annual issue of the *Year Book of the Scientific and Learned Societies of Great Britain and Ireland*. This annual publication is one of great utility as a work of reference, and its value is now so generally recognised that it appears to be unnecessary to say more than that the present maintains the high standard of accuracy and completeness reached by former issues. The volume is published by Messrs. Charles Griffin and Co., at the price of 7s. 6d.

The Philadelphia *Medical News* pleads for the abandonment of eponymous designations for diseases, and recommends that more accurately descriptive or scientific names should be given them. Our contemporary admits, however, that in the case of signs and symptoms of disease, operations, tests, stains, bacteriological methods, and methods of treatment, the use of the discoverers' names has decided advantages. Our contemporary also protests vigorously against the use of Latin in medical terminology, urging that "there are no ideas that cannot be expressed in healthy modern virile English." We certainly should be glad to see plain English more in honour among medical writers. Oliver Wendell Holmes, being told by a student that he was "ligating" arteries, replied "Why not say 'tie'? I find that country practitioners ligate arteries and that surgeons tie them." It is not only country practitioners, however, who "arrest hæmorrhage" instead of stopping bleeding; who "evacuate" instead of emptying the bladder; who speak of "micturating" when they mean passing water or voiding urine; who "exhibit" remedies, etc. Of course technical language is often necessary for the sake of precision and sometimes for the sake of decency, but the abuse of it is pedantic and exposes us to the charge of using big words to give us the appearance of learning, as soldiers are made to wear bearskins to make them look tall.

At any rate, if we must needs try to show that we have been at a feast of languages, let us be quite sure that the scraps we steal are genuine. Mr. Andrew Lang has been making merry (in the *Illustrated London News* of May 4th) over the philological misadventures of Dr. Charles Dana, who, writing recently in *Scribner's Magazine* anent "Giants and Giantism," volunteered the information that the word "acromegaly" is derived from "ακρον, extremely; μεγαλος, great." One might in charity suppose that "extremely" was a misprint for "extremity" had not Dr. Dana, with the characteristic inventiveness of his nation, presented us with the word μεγαλος, which is the coinage of his own intellectual mint, or, as Mr. Lang puts it, "a freak or sport of the Hellenic language casting its mighty limbs abroad in the free Transatlantic air." The error, it may be added, is logical as well as philological, for "acromegaly" means properly greatness of the extremities, not necessarily extreme greatness of the body generally. It is no disgrace in these days, even in the members of a so-called "learned" profession, not to know Greek, and indeed practical people might not unreasonably prefer a doctor who has thoroughly studied the dead body to one who has spent his time on the dead languages. If we must quote Greek, however, in heaven's name let us quote it correctly: and if we set up to be authorities on Greek etymology, let us take the elementary precaution of learning the rudiments of Greek grammar.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

Subscriptions to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 25th, 1895.

THE APPROACHING MEETING OF THE GENERAL MEDICAL COUNCIL.

The summer session of the General Medical Council commences on Tuesday next, and it will have to consider several subjects of more than usual interest to the general body of the medical profession. As has already been mentioned the Government desire to obtain the opinion of the General Medical Council on the Midwives Bill introduced into the House of Lords by Lord Balfour of Burleigh, and read a second time on May 14th. We believe that the Lord President of the Privy Council has already taken steps to bring the Bill under the notice of the Council, and there is every probability that this will be the first matter for discussion after the despatch of the usual formal business.

The Bill, which was printed in the British Medical Journal on May 11th, was only issued on May 9th, but the approaching meeting will not be the first occasion on which the General Medical Council has had the question of legislation for the control of midwives before it. So long ago as November, 1889, the Council adopted a resolution, on the motion of Sir Walter Foster, seconded by Dr. Glover, to the effect that it regarded "the absence of public provision for the education and supervision of midwives as productive of a large amount of grave suffering and fatal disease among the poorer classes," and urged "upon the Government the importance of passing into law some measure for the education and registration of midwives." In view of the eventuality which has now arisen, the Council a year later appointed a special Committee "to consider the provisions of any Bill for the registration of midwives which may be submitted by the Government to this Council." This Committee includes the names of Sir Richard Quain, Sir Walter Foster, Mr. Wheelhouse, Dr. Glover, and Mr. Carter, and the procedure on the present occasion will probably be that the Bill will be referred for report to this Committee strengthened by the addition of some members to replace two of its original members—the late President of the Council and Sir John Simon, who has resigned his seat on the Council. The functions of this Committee would be to draft a report containing recommendations to the Council as to the opinion which it should express on Lord Balfour's Bill. The Council in 1889 declared that it "would not be able to discharge, and would, therefore, not be prepared to undertake, any duties of detail as to the registration of midwives or as to the local arrangements for licensing and controlling them."

In connection, moreover, with the general question of the control of midwives the Council will have to consider the action of the Obstetrical Society and in particular the propriety of a revised and modified certificate which this Society proposes in future to issue to midwives after examinations conducted by it. The Council of the Society proposes to alter the appearance and wording of the certificate and to endorse on it a statement to the effect that it confers no legal qualification under the Medical Acts.

A number of memorials on the subject of the education and certification of midwives have also been forwarded to the Council and will be, no doubt, considered along with the representations of the Obstetrical Society.

Another subject of more than passing or formal interest which will have to be considered by the Council are the arrangements for the approaching revision of the *British Pharmacopœia*. The series of articles which were published in the Journal during the earlier months of this year have indicated the character of the modifications which it will, probably, be found necessary to introduce during the process of revision. The desirability of giving to the new edition a character better adapted to the needs of the whole empire appears to be generally recognised, and Colonial and Indian authorities have responded readily to the request of the Council for an expression of their views. Their replies, which contain much interesting and valuable matter, have been analysed by Professor Attfield, under the head of each drug mentioned, and a voluminous report, embodying the results of this analysis, will, we understand, be among the documents serving as material for the consideration of the Pharmacopœia Committee, to which will be confided the duty of advising the Council as to the nature and scope of the revision. The reports from home corporations and other bodies are not, we believe, in quite so forward a state—an illustration, perhaps, of the old saying that "the nearer the church the further from heaven."

We may take this opportunity of inviting those members of the British Medical Association in the United Kingdom, who have not already done so, to return to the Honorary Secretary of the Therapeutic Committee—Dr. Nestor Tirard, 74, Harley Street, W.—the circular letter of inquiry as to certain drugs and preparations issued by post a few weeks ago. The information sought will be of the greatest value in deciding as to the omission of preparations believed to be obsolete; but unless it can be laid before the Council during the coming session it is doubtful whether it can be utilised.

Among the other business to come before the Council are several penal cases, among them one which is likely to occupy much time.

LOCAL GOVERNMENT (SCOTLAND) BILL.

A further consideration of the public health clauses of this Bill deepens the first impression that they are very susceptible of amendment.

Section 9, dealing with the sanitary regulations of new buildings, is partly based upon Section 157 of the English Public Health Act, partly upon the corresponding clauses of the Burgh Police Act. Subsection 1 authorises by-laws to be made "with respect to the excavation of the site of new

buildings." It is probably intended to prevent houses being built upon objectionable "made" ground, but that is not clearly conditioned; and to fulfil its purpose it would be well that some such words should be added as "and for preventing the building of houses upon sites made up with unwholesome or offensive refuse." No provision is made against the besetting sin of houses in rural districts—dampness. A new subsection is required, to run somewhat as follows: "With respect to the prevention of dampness." This would cover the provision of subsoil drains, where necessary, of a damp-proof course, of a layer of asphalte or concrete under the house, and of rhones and rain-water conductors, as well as the construction of walls, in such a manner as to be impervious to moisture. No provision is made for ventilation under the floors of houses. The addition of the words "and underneath floors" to Subsection 2, which deals with air space and ventilation, would meet the requirements of the case. Subsection 4 is unhappily expressed. The owner is required to give notice that the house is "fit" for occupation. "Ready" would be the more suitable word. The clause fails unmistakably to express what ought to be the object of such a by-law—to prevent the owner from proceeding to let his house until a certificate has been granted upon a report by the medical officer of health.

Section 11 is the most important clause, from a sanitary aspect, in the Bill. It is, in effect, Section 4 of the Infectious Disease (Prevention) Act, 1890—which has also been incorporated in the Public Health, London, Act, 1891—strengthened in respect that the local authority may stop a milk supply on the report of a medical officer of health that infectious disease "is likely to arise" from the consumption of milk from a dairy. Notwithstanding the sanction of its origin, the clause is based upon clearly erroneous principles. It proceeds in the teeth of the fundamental principle that local authorities should be held responsible for all conditions existing within their districts which are likely to promote the spread of disease. The clause makes no provision for informing the local authority of the district in which the dairy is situate of the serious allegations against their district, until the medical officer of health of another district has gone into it, made an inspection, made a report based upon that inspection, had the report considered by his local authority, had the dairyman summoned before them, and until his local authority has determined that the allegations are justified. Then, and then only, is the local authority responsible for the sanitary condition of the district informed. The clause was originally dictated by a natural impulse to empower the medical officer of health of a district in which disease was believed to be distributed through causes arising in another district, to proceed straightway to that district and brush aside its executive. The incongruity of the situation was not so apparent when the administration of the Public Health Acts in rural districts was in the hands of Boards of Guardians in England, and Parochial Boards in Scotland; and the clause has not aroused the antagonism which might have been anticipated, largely because, from the delays associated with its procedure, it has been comparatively little taken advantage of. All the same, the principle upon which it proceeds is a vicious one. It is calculated to realise the old saying that a "short cut" is often the longest way round. Its evident effect is to weaken the sense of responsibility of rural sanitary authorities, and at the same time to induce an attitude of armed neutrality, where otherwise friendly co-operation might have prevailed. On the other hand, the clause is calculated to react harshly upon the unfortunate dairyman. Every petty urban authority, negligent of its duty of preventing the spread of infectious disease within its own bounds, can interfere with his business in a way which means very serious damage, if not practical ruin, on a capricious assumption that the spread of infectious disease is due to conditions existing outside of the district, undeterred by the sense of responsibility which a liability to an action for damages inspires. It would be well if the clause were withdrawn, and another substituted embodying the policy of conjoining, at the earliest possible moment, the executives of both districts. This being probably too much to expect in respect of a provision which has twice received legislative sanction, an effort should be made to modify its more objectionable features.

It is difficult to conceive how a clause ever found its way into an Act of Parliament which empowers a medical officer of health to examine the animals in a dairy only "if accompanied by a veterinary inspector or surgeon." We all know that it was a medical man who first recognised the significance of the health of the cow in such inquiries. We all know that the suggestion has met with bitter opposition from the members of the veterinary profession. The clause ought to be altered so as to empower the medical officer to examine the animals and the workers in connection with the dairy, and to be accompanied, if necessary, by a veterinary surgeon.

ALCOHOL IN WORKHOUSES.

We have from time to time drawn attention to the remarkable decrease in the amount and cost of alcoholic intoxicants during the past twenty years in workhouses throughout England and Wales. This decrease of £48,222, the difference between £82,554 in 1871 and £34,332 in 1891, was practically almost 60 per cent., an object lesson in temperance progress and in therapeutic advance, the importance and significance of which have not by any means been realised within or without the profession. That this steadily lessening Poor-law consumption of intoxicating liquors has, however, met with a temporary check we learn from a Parliamentary paper, just issued, of the quantity of spirits, wines, and malt liquors consumed in each workhouse during 1892 and 1893. While in 1891 the total expenditure in England and Wales was £34,332, we find that the corresponding charge in 1892 had risen to £35,635. This was, however, but a temporary arrest of the decreasing process, for in 1893 the amount fell to £32,911. Thus there was the substantial decrease of £1,421 during the two years of 1892 and 1893, if these years be taken together. There is, therefore, no reason to regard the tide of alcoholic decrease as ebbing; the sum of an average of £710 a year (notwithstanding an evanescent increase of £1,203 in the first of the two years) being a substantial proportion of the total expenditure. The solid decrease of £1,421 in the two years 1892 and 1893 did not arise in any way from a smaller number of paupers cared for. On the contrary there were 9,161 more inmates (taken on the daily average number) in the latter year than in the former. In these two years, therefore, 9,161 inmates cost £1,421 less for intoxicants. We

have no doubt that such an explanation, either from some accidental transference of some particulars from one year to its successor or from a special epidemic or unusual severity of weather, might be found as would show that the rate of diminution of the quantity and cost of alcoholic beverages has, after all, gone steadily on towards, we trust, a much greater reduction still.

We are glad to observe that in the latest return improvements suggested by us have been adopted, especially in the presentation of a summary for Ireland and Scotland, as well as England and Wales. A still further improvement is, in addition to the summary for each country, one of quantity and cost for the United Kingdom, which renders comparison between succeeding returns easier still. A curious feature is that in several workhouses a plentiful supply of malt liquor was provided on the occasion of the Royal marriage as well as on Christmas, 178 gallons in one instance having been provided on the former rarer festivity. In Ireland there was an increase of £58 in 1892 over 1891, but a decrease of £759 in 1893, under the expenditure in 1892. In Scotland 1892 showed an increase over 1891 of £97, and in 1893 over 1892 of £4, Scotland thus being an exception to the general diminishing tendency elsewhere throughout the kingdom.

We cannot too strongly impress on Poor-law medical officers the recommendation of the Poor-law Medical Officers' Association at the Liverpool meeting, to prescribe intoxicant beverages only with a deep sense of the responsibility of such a prescription and in clearly defined doses limited to the occasion.

Dr. W. Marcet, F.R.S., will deliver the Croonian Lectures at the Royal College of Physicians of London, at the College, at 5 P.M., on June 18th, 20th, 25th, and 27th. The course will be entitled Contribution to the History of the Respiration of Man.

It is rumoured, says the *Petit Caporal*, that suspected cases of cholera have declared themselves at Cairo, where considerable uneasiness is manifested. The inhabitants have begun to quit the capital. The same journal says that Mr. Gorst, the English Adviser at the Ministry of the Interior, has gone to Alexandria to ask the Khedive to convoke a Council of Ministers, in order that measures of precaution may be taken immediately.

YELLOW FEVER IN THE WEST INDIES.

News was received on May 16th, from Halifax, to the effect that yellow fever had recently broken out at St. Lucia, West Indies. Twenty-three men of the Royal Artillery, including three non-commissioned officers, were attacked, many of whom succumbed. It is stated that the remainder will be invalided, and that a company will be sent to replace them.

THE MEN OF KENT.

The death has just taken place in London of Mr. Robert Swinford Francis, who formerly for 40 years practised as surgeon at Boughton, near Faversham. He was one of the few persons remaining who personally witnessed the affray in Rossenden Wood, near Canterbury, in 1838, between a body of troops under Lieutenant Bennett and the deluded followers of an impostor who called himself Sir William Courtenay, Knight of Malta, *alias* Baron Rothschild, *alias* the Earl of Devon, *alias* the King of Jerusalem. Courtenay shot the lieutenant dead, and the soldiers thereupon opened fire and Courtenay and a number of his followers were killed on the spot and others wounded. Mr. Francis attended to the wounded and by the order of the Government took charge of them professionally until they recovered. In view of the wide franchise in existence at the present day it is remarkable that only about sixty years ago the citizens of Canterbury nearly elected Courtenay their member of Parliament, between 450 and 500 votes being recorded for him. It was Mr. Francis who gave Harrison Ainsworth the information upon which the novelist based his descriptive verses on "The Knight of Malta," in *Rookwood*.

THE LEPERS ON ROBBEN ISLAND.

The Cape Town Leprosy Commission, after an inquiry extending over two years, have now completed their report. They state that they have personally examined 100 lepers in Robben Island. They recommend a modification in the existing plans for the segregation of lepers by henceforth allowing those sufferers who have means to be segregated on the mainland under proper supervision. Changes are also recommended in the present restrictions in the case of blacks.

THE DERMATOLOGICAL SOCIETY.

The annual general meeting and Congress of the Dermatological Society of Great Britain and Ireland will take place at 20, Hanover Square, W., on Thursday, May 30th. The following arrangements have been made:—4 P.M., address by the President, Dr. Pye-Smith, F.R.S.; 4.30 P.M., annual general meeting, election of officers, etc.; 5 P.M., paper by Dr. H Radcliffe Crocker, on the Internal Therapeutics of Psoriasis and some other Diseases of the Skin. An exhibition of living patients, drawings, microscopic specimens, etc., will take place afterwards.

THE CHEMICAL LABORATORY OF LIVERPOOL UNIVERSITY COLLEGE.

We are pleased to record the fact that the want of additional accommodation in the chemical laboratories of University College, Liverpool, alluded to in a former number of the British Medical Journal, is now in a fair way of being supplied. Owing to the liberality of Mr. Gossage and Mr. Timmis, the authorities are now in a position to enter on the construction of the first section of the required additions, and it is hoped that it will not be long before it will be possible to complete the whole scheme in its entirety.

THE SANITATION OF LONDON BARRACKS.

We understand that numerous improvements in the sanitary arrangements of the Guards' barracks in London have recently been carried out or are now in progress. These improvements have been undertaken in consequence of representations made by the medical officers in charge of the various barracks in their weekly reports. Many of the sanitary appliances and arrangements are, or until recently have been, such as have been rendered obsolete by the advance of sanitary science; but we believe that there is every intention on the part of the authorities to render the barracks in London as complete and perfect as possible in sanitary matters. We trust that no pains will be spared to achieve this object as speedily as possible.

NEWTON ABBOT AGAIN.

In the beginning of last year Newton Abbot Workhouse Infirmary attained the memorable notoriety of being one of the worst managed and most miserably appointed of these institutions. We should have thought that the guardians would have earnestly set to work to clean out their Augean stable; instead we read in the *Western Guardian* of May 16th that things are in nearly as bad a state as before the inquiry. Dr. Culross reports: "Receiving wards totally un-

fit; no wards for isolation, a bad case of contagious disease being isolated in the sewing room; sick wards unsuitable; no labour room; vagrants' wards utterly bad; mortuary unfit; baths insufficient; laundry inadequate; no suitable recreation ground for the women." After the manner of guardians, the Board blamed the doctor, the architect, the Local Government Board, the architect of the central authority—everyone but the right persons, namely, the incompetent Board of Newton Abbot.

HOSPITAL CARAVANS.

The local authority of the Eastern District of East Lothian County Council are having three hospital caravans built in Edinburgh, and the first of these has just been finished. It is 19 feet long, 10 feet from floor to ceiling, 8 feet wide, and has 1,520 cubic feet of air space. The walls are double, with an intervening space of an inch and a half. The caravan can be taken to pieces for thorough disinfection. It is fitted up with two beds, stove heated, ventilated on the Tobin tube principle, and is otherwise fully equipped. By removing the ends of the two caravans, and placing them together, a hospital of four beds can be made. It is proposed to provide a tent with each caravan, for the nurse or for cooking, with the intention of making each hospital self-sufficient. Each caravan, with its full equipment, is estimated to cost £100.

THE LATE SURGEON-GENERAL BOSTOCK.

The announcement of the decease of Surgeon-General Bostock, at the ripe age of 79, will be received by many with deep regret. Surgeon-General Bostock passed a long and useful life entirely in the service of his country, first in the Army Medical Department, where he greatly distinguished himself both in the Crimea and in India, and subsequently by his incessant attention to the work of the Metropolitan Asylums Board and other good civic works. His services as a member of the Metropolitan Asylums Board are beyond praise. Indefatigable, clear-headed, inflexibly just, but invariably courteous, he won the respect and friendship of all with whom he came in contact. By all who knew him intimately he was regarded with deep affection. His was a most worthy life and a prolonged career of usefulness of which there are but too few examples.

THE SEWAGE FARM NUISANCE AT ALDERSHOT.

We have more than once alluded to the abominable nuisance caused by the sewage marsh at North Camp, Aldershot. The disgraceful state of things has been forcibly pointed out by the Medical Officer to the Surrey County Council, Dr. Edward Seaton, and it is admitted by the military authorities themselves, yet it is allowed to continue practically unabated. Who is responsible for this negligence? The nuisance is of such a nature that a magistrate sitting in a Court of Summary Jurisdiction would, with the evidence that could be brought before him, at once make a peremptory order under the Public Health Act and inflict penalties for any failure to obey such order. The Surrey County Council is anxious to do its duty, and has urgently pressed the matter on the attention of the War Department. At a meeting on May 14th the chairman, Mr. W. Welch, who has taken an active personal interest in the matter, spoke strongly of the nuisance caused by the sewage farm, and of the *laissez aller* policy which the War Office had pursued till lately. The Aldershot Sanitary Authority is prepared to deal with the nuisance in a manner which Dr. Seaton thinks fairly satisfactory, and which would involve an outlay of £15,000. The War Office, however, has a scheme of its own, the execution of which will cost £60,000, and necessitate complicated and prolonged negotiations. This means delay, and the evil is one that will not brook delay. The situation strikingly illustrates the inconvenience (to say no more) caused by the fact that the War Department is not subject to the ordinary sanitary authority. If the War Office had not stood in the way the nuisance would have been abated long ago. It is simply scandalous that the chief camp in a country which boasts of being in the forefront of sanitary progress should thus be allowed, as the result of red tape or official incompetence, to be and to remain a source of danger to the health of the district in which it is situated. We call on the War Office either to take immediate steps for the removal of the intolerable nuisance of the sewage marsh, or to allow public bodies with less of the taint of the Circumlocution Office about them to deal with the matter.

THE BAILLIE AND HUNTERIAN LECTURES AT ST. GEORGE'S.

The Hunterian Lecturer in Surgery at St. George's Hospital, Mr. Timothy Holmes, will deliver a course of three lectures on Wednesday, June 5th, Thursday, June 6th, and Wednesday, June 12th. The subject chosen is the Experience of St. George's Hospital in Abdominal Surgery (gynæcological operations apart) during the years 1888-1894 inclusive. The Baillie Lecturer in Physic, Dr. W. H. Dickinson, will also deliver a course of three lectures. The first on Wednesday, June 19th, on some recent observations relating to the cardio-vascular change of Renal Disease; the second on Wednesday, June 26th, on some points touching Disease of the Heart; and the third, on July 3rd, on Dropsy. To both courses, which will be delivered in the school at 5 P.M. on the days named, member of the profession will be admitted on presenting their cards.

PAUPER BARRACK SCHOOLS COMMITTEE.

It will not be forgotten that the Parliamentary Bills Committee had considerable influence in inducing Mr. Shaw Lefevre to agree, in response to a large deputation, to constitute a Committee to inquire into the conduct of the pauper barracks schools, on which an unexpected light had been thrown by wholesale poisoning and criminal cruelties. The subject is vast, and, under the presidency of the Right Hon. J. A. Mundella, the Committee has, so far as can be judged by the witnesses seen, worked with assiduity throughout the winter. At the time that the Committee decided to sit with closed doors, we regretted their decision, and we still regret that the public have been unable to share or sympathise with their labours; but the report will, we presume, soon be out, and social reformers or those specially interested in this subject will be able to judge of the value of the inquiry and the wisdom of the conclusions at which the Committee have arrived.

CHOLERA IN MECCA.

Various reports are current as to the appearance of cholera in Mecca, but whilst they are of a somewhat conflicting nature there is no longer any doubt of the main fact that the disease is actually in the Holy City. One report gives the daily number of deaths there as 25 during the present month, and adds that cholera has also broken out among the pilgrim caravans in the Hedjaz. M. Monod is credited with having stated at a meeting of the Council of Hygiene in Paris that there had been 210 deaths at Mecca in a fortnight, and was good enough to add that England was responsible for them by reason of her reservation, which had blocked the ratification of the Paris Convention. The reasoning is so obscure that we are altogether unable to follow it; and this especially since the Mecca cholera commenced amongst Turkish soldiers, who, in the Yemen and elsewhere have for long not been free from the disease. In addition, we learn of the occurrence of 28 deaths from cholera at Djeddah on the 1st of this month, where by that time some 30,000 pilgrims had arrived. Many more thousands had still to arrive, and the outbreak of the disease so early this year makes it all the more

serious. In confirmation of our statement as to the origin of the Mecca cholera, we learn from the East that the appearance of the disease in the holy places is in nowise to be looked upon as due to the outbreak at Kamaran quarantine station which we chronicled in the British Medical Journal of May 11th, since, altogether apart from the fact that the pilgrim ships from India were attacked some days after their arrival at Kamaran, there is the more telling fact that the pilgrims coming by those vessels were still undergoing their period of observation on the quarantine ground when cholera was announced at Mecca. Thus, Kamaran having already proved a centre of infection through which numerous pilgrims must needs pass, might well be thought of as transmitting the disease to Mecca, and we are, therefore, the more pleased to be in a position to state that the India-Kamaran pilgrim traffic is free from all suspicion of having led up to renewed cholera in Mecca.

COVENTRY PROVIDENT DISPENSARY.

We have received from Dr. Soden, Honorary Secretary to the Public Medical Service, the report of the annual meeting of the Coventry Provident Dispensary, and are glad to recognise that recent events, and the rescinding of the obnoxious rule by which any person might claim its benefits without any reference to his pecuniary means, have given it a greatly improved position and prospects. And we are happy also to see that the efforts of this Journal in that direction are appreciated. We are happy also to see it stated on authority that the patients are liberally treated—that "all drugs are of the best quality and that no considerations of expense are ever entertained with regard to anything that would be for the benefit of the members." We are not surprised, however, to learn that there are still some points which give a little anxiety to the staff. They are three: 1. The difficulty of fixing a fair wage limit; This difficulty is felt in all provident dispensaries; nor can the limit ever be a perfectly rigid one. We believe the fairest plan to be to take a tolerably high limit—40s. a week has been suggested for London—and to give the committee (of which the medical staff are members) power to relax it in special cases. 2. A rule exists in the dispensary prohibiting their medical officers from meeting local practitioners in consultation on dispensary cases. We must avow ourselves unable to see the object or the wisdom of such a rule. 3. The other question relates to an alliance between the dispensary and a certain benefit society. But this depends too exclusively on local circumstances to render it safe for us to give an opinion. The best course, as it strikes us, would be to refer it to a small committee of leading laymen and medical men.

THE CASE OF DR. CORNELIUS HERZ.

The long delay in arriving at some legal way of disposing of the case of Dr. Cornelius Herz is a public scandal. The accused has been in custody untried for years; it has all along been known and admitted that he was so seriously ill that he could not be brought before a court of law, and this difficulty appears to be one which no existing legal expedient meets. It has been asserted by certain French papers that the accused has been travelling about and paying visits to London and even to Paris. From statements and certificates which are before us, signed by the medical men in this country who have consulted upon his case, it is abundantly clear that these assertions are the merest figments of the imagination. We learn upon the authority of Dr. William Frazer, of Bournemouth, who has been in constant attendance on the patient, that since the beginning of January, 1893, he has been unable to leave his bed on a single occasion. Dr. Frazer's uncorroborated statement as to the condition of his patient would be received with the most implicit confidence in this country, but it is amply confirmed by a formal certificate signed also by Dr. Lauder Brunton on April 27th last, after an examination of the patient made on that day. Dr. Herz was then unable to raise his head from the pillow, though he had recovered from the condition of collapse into which he had fallen some time before. The lower extremities were cold, the respirations 23, the pulse 86. The heart was feeble, the apex beat imperceptible, though there were signs of dilatation; a murmur at the apex, which had existed before, was louder. There was a loud aortic systolic murmur, and a diastolic murmur over the sternum indicating stenosis of the aortic orifice and incompetence of the aortic valves. There was also indication that the aorta itself was beginning to dilate, a new symptom. The pain over the heart was nearly constant, but underwent exacerbation. The disease of the heart it was concluded had grown worse. The urine contained a trace of albumen and 3 per cent. of sugar. The condition of the patient is therefore obviously one of the greatest gravity, and death may end the scene at any moment. Dr. Herz is clearly unfit to be moved, much less to stand a trial in a court of law. In this opinion Sir Richard Quain, Sir William Broadbent, Sir George Johnson, and Mr. McHardy, who have seen the patient on former occasions, fully concur after a perusal of the certificate signed by Drs. Lauder Brunton and Frazer. They "deprecate any excitement as being most prejudicial to the patient," and there can hardly be two opinions as to the pressing necessity, in the interests of justice, of finding some means, exceptional it may be, of relieving the unfortunate patient from the condition of suspense in which he has remained so long.

THE SICK POOR IN PROVINCIAL WORKHOUSES: NOTTINGHAM.

Our Commissioner's report on the Nottingham Workhouse infirmary seems to call for little comment, since the guardians are aware of its very grave structural defects and are about to build a new infirmary, thus providing a suitable sick department, and setting the present sick wards free for the use of the able-bodied, whose quarters are also now overcrowded. We trust that the new hospital will be so designed as to admit of proper classification, and that quarters for an adequate staff of nurses will form a part of the plans. Pauper nursing is a survival from a more uncivilised past, an abuse which cannot, we should hope, endure much longer. May the opening of the new infirmary at Nottingham be the signal for its abolition in one more union.

DERMATOLOGICAL SOCIETY OF LONDON.

The annual meeting of this Society or clinical club, founded in 1882, was held on May 8th, and important changes in the constitution of the Society were unanimously adopted. Previously the number of members was limited to thirty, but it was resolved to expand the Society, and not to fix a limit to the number. The following gentlemen were elected to form an Executive Council for the session 1895-96: Mr. William Anderson, Dr. Cavafy, Dr. Radcliffe Crocker, Dr. James Galloway, Dr. Robert Liveing, Mr. Malcolm Morris, Dr. J. F. Payne, Dr. E. C. Perry, Mr. A. Marmaduke Sheild, Dr. Frederick Taylor, Dr. Stephen Mackenzie (*Treasurer*), Dr. T. Colcott Fox, Dr. J. J. Pringle (*Honorary Secretaries*).

EDINBURGH AND INFECTIOUS DISEASE

At a meeting of the Edinburgh Town Council on May 21st, it was reported by the Convener of the Public Health Committee that there were then 196 cases of infectious disease in the City Hospital, the lowest number for a year or more. There had not been a fresh case of small-pox for a month, and there now only remained two cases in the hospital, and one was to be discharged on the following day. The Committee were now considering the question of a site for a new hospital, and they hoped soon to bring up a report to the Council. A letter was read from the Secretary to the Board of Works intimating that the First Commissioner thought it

desirable that the temporary hospital for small-pox in the Queen's Park should be removed. The Convener said the matter was under consideration, but reminded the Council that small-pox was prevalent in Glasgow and elsewhere; therefore Edinburgh might again suffer, and that it would be a mistake hastily to remove the temporary hospital in question.

ANTICHOLERAIC INOCULATIONS.

In reply to questions which had been asked regarding Dr. Haffkine's work in making anticholeraic inoculations, Dr. Simpson, principal medical officer of Calcutta, stated at a recent meeting of the Municipal Commissioners of Calcutta that 4,090 persons had presented themselves for inoculation, and he considered it so important fully to test the value of the experiment that he had urged that a further grant of money should be made for the purpose. The cost, up to date, to the Municipality had been 5,000 rupees, and he had made an application for a grant of a similar sum of money to be given again this year. M. Haffkine continues to carry out his investigations with the enthusiasm born of the belief in a great principle, and he was recently in Assam inoculating very large numbers of coolies, who are the victims of frequent epidemics of cholera. Whatever may be the final result of these experiments in preventive medicine on a large scale, it seems but reasonable that in a country which is so ravaged and decimated by cholera the moderate sum of money asked for by Dr. Simpson should be granted by the Government.

HYDROPHOBIA ALLEGED TO FOLLOW THE BITE OF A HEALTHY DOG.

It is surprising and melancholy to see how the most mischievous popular fallacies seem to die the hardest, and still more vexing is it to find them kept alive by want of what is really ordinary knowledge on the part of a medical practitioner. Of this the following is an example. At an inquest recently held at Cheadle in the case of a child which had died of hydrophobia, the medical practitioner who had attended the patient is represented in the local press as having replied, when asked by a juror whether a child would be liable to take hydrophobia from the bite of a dog *not* suffering from rabies, "It just depends upon the constitution of the patient. It does not necessarily follow." In other words, the occurrence of hydrophobia is not due to the introduction of the specific virus of rabies, but may be caused by any bite of a healthy animal. Such a distressing lack of familiarity with the commonest known facts about rabies is only paralleled by the celebrated occasion on which a certain Surgeon-General stated that if a man broke his leg hydrophobia might result. But such a mistake unfortunately is not merely ridiculous; it causes endless misery, and the worst apprehensions in the minds of those who may endure the common mischance of a bite from a healthy dog. The present instance is an illustration of the very old story that too often a medical man in the witness box forgets when he is speaking as an ordinary witness to facts and when as an expert. He should always be on his guard never to express himself in an *ex cathedrâ* manner on questions of pathology unless he is absolutely sure of the facts upon which his opinion is based. It has been truly said that the "misfortune of ignorance is publicity;" it is doubly so in an instance of this kind.

THE RESPONSIBILITIES OF FRIENDLY SOCIETIES.

The position of a medical officer to a friendly society as a "servant" has been brought prominently before us by an action lately tried at Lincoln. A clerk in the employ of Messrs. Ruston and Co. (Lincoln) sued the "Lincoln Odd fellows' Medical Institution" for recovery of damages for breach of contract by reason of the neglect of the society in providing efficient medical attendance for his wife in accordance with the rules and objects of the society of which he was a member. The plaintiff's case was established, and the jury having found that the medical officer was guilty of negligence in his treatment of the plaintiff's wife, and that such unskilful treatment was the cause of her lengthened illness, the sum of £25 19s. was awarded as damages. Certain points of law were reserved for discussion in Chambers before the judge, but the fact that a society employing a medical practitioner as their agent or servant is responsible for his actions and liable for damages in case of negligence being proved against him was clearly established. This is an important decision, and one which the "medical aid societies" may be well advised to take to heart.

THE MEDICAL SOCIETY OF LONDON.

On Monday evening last a large number of Fellows of the Medical Society of London and their friends assembled at the Society's rooms to hear the oration, which was delivered by Mr. A. Pearce Gould, who took for his theme the Recent Evolution of Surgery. After the oration, which was much applauded, there was a reception by the President (Sir William Dalby), followed by a *conversazione*, at which many, if not most, of the eminent members of the profession were present, and the company included a large number of medical practitioners, to whom the Society is so largely indebted for its success. During the evening the "Bijou Orchestra" played at intervals, and altogether this *fête*—marking, as it does, the term of the proceedings for the spring session—proved, as heretofore, an agreeable way of bringing Fellows into social communion before granting them leave of absence until the autumn.

INDEX TO THE REPORTS OF THE MEDICAL OFFICERS.[1]

The Index to the Reports of the Medical Officers of the Privy Council and Local Government Board has been prepared by Drs. Marsh and Irvine, at the suggestion of Dr. J. B. Russell, for use in the Glasgow Sanitary Department. The Commissioners of Police have decided to publish a limited impression only, but the index is certainly likely to prove of immense value to those interested in public health administration. The period covered by the index is from 1858 to 1893, during which many of the reports were written by such men as Sir J. Simon, the late Dr. Seaton, the late Sir George Buchanan, and Dr. Thorne Thorne. There are comparatively few people who are fortunate enough to possess a complete series of these reports. Some of them have been out of print for years, and have become scarce. The entries have been arranged under subjects and authors, and will greatly facilitate reference to these valuable records, especially when one has to use a library other than their own. In writing of these reports we are reminded that the Librarian of the British Medical Association will be glad to hear of a copy of the first Report, 1858, which is missing from the series in the Library.

THE NEW PATHOLOGICAL AND BACTERIOLOGICAL LABORATORY AT LIVERPOOL.

On May 18th, at Liverpool University College, the new Pathological and Bacteriological Laboratory, which owes its existence to the munificence of Mr. George Holt, was formally declared open. The building, which is known as Ashton Hall, is at the corner of Ashton Street and Brownlow Hill, facing the College, and has been most successfully modelled with a view to obtaining as much light and space as possible. The top floor consists of one large lofty room, with north and south lights, completely equipped for the practical teaching of pathological anatomy and for lecture and

[1] The volume is published by William Hodge and Co., Bothwell Street, Glasgow, on behalf of the Police Commissioners of Glasgow, price 3s. 6d.

demonstration purposes. It can accommodate forty students for practical work, and as many more for lectures and demonstrations. The benches are fitted with sinks and other requisites, and are covered with white enamelled iron. Arrangements are made for readily projecting photographs on the screen to illustrate lectures and demonstrations. The first floor contains rooms for advanced work. There is a large bacteriological laboratory with a north light, and adjoining it a room for special research, and another for chemical pathology. The ground floor is occupied by students' rooms, a library, and the professor's private rooms. In the basement there are balance and microphotographic rooms, a workshop, and storerooms. The internal arrangements have all been made with great forethought and attention to detail; and Professor Boyce, under whose close supervision everything has been done, is to be congratulated on having at his disposal one of the best equipped laboratories in the kingdom. It is fully anticipated that Ashton Hall will be used, not alone by the students of the School of Medicine, but by many of the medical practitioners of the city and neighbourhood.

QUARANTINE IN THE RED SEA.

A Reuter's telegram from Cairo, dated May 22nd, states that Mr. J. L. Gorst, Adviser to the Ministry of the Interior, and M. Miéville, President of the Quarantine Board, have returned, after inspecting the quarantine station for pilgrims at El Tor, at the northern end of the Red Sea, where, under the international agreement, all pilgrims returning from Mecca through the Suez Canal have to undergo quarantine. Cholera now exists at Mecca, and it is most important to make every preparation at El Tor, as about 20,000 pilgrims are expected there, of whom 5,000 will be Egyptians. Mr. Gorst's visit had as its special object the securing of the material comfort of the pilgrims during their stay at El Tor, and it is hoped that their hardships there will be reduced to a minimum. At the same time, no precaution will be neglected to prevent the cholera from being conveyed westwards.

OYSTER SCARES AND OYSTER TRADE.

There are certain people who are never content to be saved from danger if, in the process, their appetites or comforts are in any way interfered with. Hence it happened that the warning which we gave last winter as to oysters being in some cases vehicles for the spread of enteric fever, instead of being received with gratitude, has brought down upon us a by no means gentle shower of abuse from certain journals, which has continued ever since. The facts, however, remain, and although we greatly regret to hear that the trade in oysters has been so seriously interfered with, as is stated to have been the case, the blame should properly be laid, not on those who pointed out the danger, but on those who had so long allowed it to continue. Our inquiries have shown that there are plenty of places in England where oysters can be grown in great perfection and with perfect safety. On the other hand, it is perfectly clear that there are other places in which the oyster beds are exposed in various degrees to contact with water into which sewage has obtained access. It is also plain that although in many instances the oysters, after they are collected, are dealt with in a proper and cleanly manner, instances also occur in which risks are run of exposure to infection. The matter then lies with the trade. So long as mixed oysters are the rule, and the public is provided with no guarantee as to the source of the oysters which they consume, and so long as facts such as those we published continue at intervals to crop up, so long will the public hesitate to run what after all is a perfectly avoidable risk. Just as in the milk trade those purveyors who can give a guarantee that their milk has been produced amid sanitary surroundings and under continual inspection are able to command a higher price, so will fortune come to the oyster grower who by sanitary guarantees gains the confidence of the public. It certainly is for the trade a melancholy fact that during the first four months of the present year there should have been a decline of 4,575,000 in the number of oysters landed on the English and Welsh coasts compared with the corresponding period last year. Nevertheless there seems no reason why the trade should not revive, but for that consummation two conditions are necessary: first, some guarantee as to wholesomeness; and, secondly, a reasonable price.

THE PHARMACEUTICAL SOCIETY.

The annual dinner of the Pharmaceutical Society of Great Britain, on Tuesday last, May 21st, was attended by a large number of members, and the Society, as is customary, seized the opportunity to entertain a numerous body of distinguished guests. After the health of the Queen had been honoured, Mr. Michael Carteighe, the President of the Society, proposed the toast of "The Houses of Parliament," which was acknowledged by the Right Hon. James Bryce, who, in the course of an interesting speech, observed that since he had become President of the Board of Trade he had been more than ever impressed by the increasing importance of science in every trade and every profession. The toast of "The Medical Profession" was given by Mr. Cross, of Shrewsbury, and acknowledged by Sir Richard Quain, President of the General Medical Council, who, in a humorous speech, touched on some conveniences and inconveniences of some of the recent developments of the Pharmacists Act and of the drug trade. Mr. Christopher Heath, President of the Royal College of Surgeons, also spoke, and the toast of "Science" was acknowledged by Professor Michael Foster and Mr. Vernon Harcourt, the President of the Chemical Society. The toast of the evening, "The Pharmaceutical Society and the Health of the President," was given by Dr. Thorne Thorne, C.B., who said that though his life had been devoted to preventive medicine, he none the less found himself under a debt to all those who, like the pharmacists, were in any way concerned in the advancement of curative medicine. In the future this debt was likely to grow greater in view of the probable extension of the use of antitoxins in combatting disease. "The Health of the Guests," which was acknowledged by Professor Burdon Sanderson, Sir Dyce Duckworth, and Dr. W. J. Russell, President of the Institute of Chemistry, brought the toast list to an end; and the company, which included, in addition to those whose names which have been already mentioned, Sir Walter Foster, M.P., Dr. Farquharson, M.P., Sir Frederick Abel, Sir Trueman Wood, and Mr. Victor Horsley, separated.

MILK-BORNE THROAT ILLNESS: PHENOMENAL EPIDEMIC.

Dr. Kenwood records a somewhat unique outbreak of throat illness in Finchley in November last, followed by what was undoubtedly a prevalence of true diphtheria. The throat illness was of short duration, thanks to Dr. Kenwood's efforts to trace the cause so soon as cases began to be notified, he having concurred in the conclusion already arrived at by the private medical attendants of many of the patients that the malady was not diphtheria. Acute symptoms set in rapidly, and the cases tended to group themselves in one particular neighbourhood, houses being in several instances invaded by multiple attacks, and houses of all classes and sanitary conditions being affected, the one community of condition being, as Dr. Kenwood soon discovered, their milk supply. His suspicions were strong by the fourth day of the outbreak, and twenty-four hours after the issue of a handbill warning all persons to boil their milk, the epidemic was stayed as suddenly as it had started. Not only could Dr. Kenwood exclude all other known causes of diphtheritic disease, but it was seen that better class houses, those using most milk, were most largely attacked—

though children were not mainly sufferers—adults over 20 years of age being in the proportion of two to each child patient. Nothing was discovered amiss with the throats of the milkers of the cows supplying the implicated milk, but three of the cows were found to have diseased teats, and one had a chronic abscess on her udder. Of the 17 per cent. of total houses supplied by the milk, there were as many as 94 per cent. invaded in the period November 8th to 18th. Dr. Kenwood comes to the conclusion that climatic conditions preceding the outbreak, together with the cold damp soil and the season of the year, sufficed to give rise to throat ailment, which, by reason of the milk infection, acquired an aggravated property and marked infectiousness—one of its prominent features throughout. Meanwhile, and while the throat illness was in progress of development, there began on November 13th a series of true diphtheria cases, which increased to thirty-eight by the 25th, there being twenty-eight houses invaded, and twenty-five of the patients being persons who had a few days previously suffered from the minor throat malady. Secondary infection seemed in every case improbable, and a progressive development of diphtheria from the former illness appeared most probable, bacteriological investigation with material from the cases of throat trouble having satisfied Dr. Kenwood that the milk throats were not those of diphtheria. Whence the diphtheria came Dr. Kenwood feels unable to say, but he opines that the milk-caused throat trouble laid the foundation for the subsequent diphtheria by rendering the throat incapable of resisting the graver malady. The case is one of exceptional interest to sanitary workers, and certainly deserves a place among milk outbreaks. The mildness of the disease—whatever its true nomenclature—may be gathered from the fact that only one death was registered from diphtheria in Finchley in the whole of the fourth quarter. Incidentally, Dr. Kenwood raises the question of the desirability of frequent skilled inspection of animals in dairies and cowsheds by some competent body, and we commend the suggestion to the central authorities.

TESTIMONIALS TO NOSTRUMS.

The difference between a medicine used as a quack remedy and used legitimately appears to be one to be decided not by the patient but by the administrator; nowadays, in fact, it has resolved itself into a question of advertisement, and it may be taken as a safe guide as to whether a medicine is pushed as a quack medicine or administered legitimately when the questions of advertisement and direct personal advancement, or accumulation of wealth, come into greater prominence than the welfare of the patient, either the individual or the general public. It would be well if medical and scientific men could be brought to bear this in mind when they are tempted to give testimonials in favour of patent pocket preventers of disease—electrical apparatus, microbe killers, and like cure-alls. A perfectly harmless statement, often made in perfectly good faith, but perhaps a little strengthened because of the amount of the fee attached, is distorted into an extravagant testimonial in favour of the substance that is being advertised, and is placed side by side with the laudatory opinions from the Church and the Bar, the knowledge of whose members of their own special subject being, we hope, as profound as appears to be their ignorance of medicine, and who are as well qualified to give an opinion on medical subjects as most medical men are qualified to give an opinion on an abstruse legal question. It is quite possible, for instance, that Radam's microbe killer will kill microbes, so will many other substances. It is quite possible, too, that it is harmless as far as its action on the tissues of the patient goes, so are many other microbe killers; but because it may kill microbes and may be harmless, it is surely a little beyond the province of a scientific investigator to state that it is a "valuable preventive," whatever that may mean, and "consequently should be used in every household," this coming after the statement that the microbe killer "enters the stomach, stops fermentation, and purifies the blood from all diseases." We do not wish to give a gratuitous advertisement to any of these patent medicines, but our attention has been from time to time called to a number of these so-called preventive and curative substances, and we wish to warn the public against accepting as medical gospel the statements of quack advertisements. There is no substance in the universe, so far as we know, which, by its action on microbes, prevents their passing through their regular course of development which does not exert some effect, either immediately or ultimately, on their protoplasm, and therefore (probably later) deleteriously on the characters of the secretions of the protoplasms. The vendors of these substances no doubt are honest enough in their convictions as to the efficacy of their wares, but those convictions are usually built up either on prejudice, ignorance, or personal interest.

THE RELATION OF MEDICINE TO CYCLING.

In the *Medical Chronicle* for April Dr. T. N. Kelynack discusses the relation of medicine to cycling. In health the use of the wheel tells most directly on the heart, producing marked quickening of the pulse, which may continue as long as the cyclist is riding. Few attempts have hitherto been made to study the physical development of persons who have been using the bicycle properly for years. Dr. G. M. Hammond, of New York, who has examined a number of cyclists, found in fourteen amateurs who had ridden from five to thirteen years, travelling from 5,000 to 27,000 miles, simple cardiac hypertrophy without dilatation, and a breathing capacity above the average. A careful examination of fourteen celebrated professional bicyclists failed to show any deformity of the spinal column. All had excessive hypertrophy of the thigh and abdominal muscles, cardiac hypertrophy without dilatation, and, except in two instances, a lung capacity above the average. Cyclists, however, are apt to acquire the bad habit of mouth breathing. In disease the use of the cycle is not necessarily to be proscribed. In some cases of cardiac dilatation, slight valvular involvment, and degeneration of the heart muscle, carefully supervised riding on level surfaces may be very beneficial. Varicose veins may also sometimes be relieved by properly regulated cycling. In certain neurotic conditions, especially neurasthenia and hysteria, cycling may be productive of benefit, and it is frequently useful in the treatment of insomnia. Gynæcologists have found cycling advantageous in relieving local pelvic congestion. Carefully regulated cycling may be advantageous in certain affections of the respiratory organs, such as latent phthisis. A cautious and restricted use of the cycle has also proved serviceable in cases of functional dyspepsia and constipation, gout, diabetes, and general anæmia. Dr. Kelynack gives an impartial summary of all the evidence that has so far been collected relative to the evil effects of cycling. Each case must be dealt with individually, but as a general rule the following conditions may be looked upon as making the exercise inadvisable. Arteriosclerosis, tuberculosis, emphysema, extensive valvular disease, asthma, affections of the abdomen and pelvis, obesity, epilepsy, and chronic affections of the joints and muscles. Fast and long-distance riding, especially in adolescents, is to be condemned. Straining to climb hills or to meet head winds is injurious. Light, judiciously-selected meals should be taken at frequent intervals. The use of alcohol, meat extracts, and such stimulants as coca is to be prohibited. Women should not ride during menstruation. The clothing should be of wool and adapted to the easy and unrestrained movements of the rider. Dr. Kelynack's article presents one of the fairest statements of the case for and against cycling that we have seen, and gives full references to the literature of the subject. We commend it to the attention of all persons interested in cycling as well as to all members of the medical profession.

ST. ANDREWS UNIVERSITY AND DUNDEE COLLEGE.

[FROM A CORRESPONDENT.]

THE DIFFICULTIES AND THEIR CAUSE.

THE difficulties which for so long have surrounded the question of the union of the more modern University College of Dundee with the ancient University of St. Andrews seem as far from being surmounted as ever. The recent decision in the Law Courts of Scotland quashing the affiliation order of the University Commissioners upon a point of the Commissioners' procedure has been a source of considerable annoyance both to the teachers of the University College and to the Commissioners themselves. A deadlock has been produced. At the present no University business can be done so far as Dundee is concerned. The teachers are discouraged and the students have to give close heed as to whether all or any, or none of the classes which they attend in University College, Dundee, will be accepted as qualifying for degrees in St. Andrews University. The continued discord brings to the student only uncertainty, to the University College nothing but disaster and waste of money and of valuable teaching energy.

COMPARISON OF CLASSES.

Taking a year at random, we find the number of students at St. Andrews, in the United College, 172; in the Theological, 36; and in the same year the University College day students numbered 168. The students were divided among the classes as follows:

	University of St. Andrews.	Dundee College.
Latin (three classes)	86	10
Greek (three classes)	88	5
Mathematics (three classes)	97	27
Logic (two classes)	50	—
English (one class)	28	16
Moral Philosophy	27	—
Natural Philosophy (Physics)	47	44
Chemistry	20	64
Physiology	9	6
Natural History	11	10
Botany	15	27
Education	8	No chair
Anatomy	No chair	19
Engineering	No chair	39
French	No chair	15
Surgery	No chair	5
Art	No chair	10

The friction between the two Colleges has been long continued on questions regarding original agreements, questions of duplication of professorial chairs, the arrangement of classes and courses of study, and considerations of finance. The main trouble, however, so far as we can gather, seems to be the feeling engendered by the existence of rival schools, one of which has the advantage of a modern equipment, and the other the renown of its antiquity and its power of granting degrees.

THE FACULTY OF MEDICINE AT ST. ANDREWS.

St. Andrews possesses a Professor of Medicine who teaches physiology to classes varying in number from 3 to 11. The incumbent of the chair has been described as Professor of Medicine and Anatomy, and Dean of the Medical Faculty of St. Andrews. There appears to be no chair of medicine, and no opportunity for dissection. The Faculty consists of the teacher of physiology, the teacher of natural history, and the teacher of chemistry. There are examinations for the degree of M.D. at the fee of £50 apiece, but recent enactments have reduced their number.

PHYSIOLOGICAL EQUIPMENT OF ST. ANDREWS.

It would be interesting at this stage to contrast the appliances found in the University College at Dundee and the facilities for teaching the various subjects there with those found in the ancient University of St. Andrews, which was founded in 1411.

The present Professor of Physiology of St. Andrews carried with him on his appointment a record of good physiological work, which, however, has not been conspicuously continued since his appointment. The following considerations will probably indicate the reasons for this. The appliances at his disposal at St. Andrews consist mostly of wax models of portions of the body, several drawers full of home-made diagrams, a human skeleton, and a model of the human body made to open and shut with delicate springs and screws. To these must be added a few specimens of fœtuses of different animals and stages of development preserved in spirit, some pathological specimens, with sundry other preparations commonly met with in board schools and science academies. There is a lecture room capable of accommodating about 200 students, a professor's room, and a small side room in which the diagrams are kept. Two large boxes could be made to contain all the apparatus, including a few microscopes.

PHYSIOLOGICAL EQUIPMENT AT DUNDEE.

Contrast this impoverished physiological department with the modern equipment of the University College at Dundee, which is under the direction of Professor Waymouth Reid. It was built only two years ago, conveniently situated, commodious and well equipped with fittings of the most modern type.

A general feature, striking a stranger at once, is the excellent lighting of the rooms obtained entirely from the north and east by windows of great area, on the design of those in the new buildings at Montpellier.

The laboratory at Dundee contains the following rooms: (1) General laboratory for private research and special demonstrations; (2) practical class room; (3) histology preparation room; (4) animal room; (5) photographic room; (6) store room; (7) professor's private room and departmental library. A ranarium is situated in the garden. Motive power is supplied by a water engine (half-hose), and transmitted to the rooms by shafting. The engine is powerful enough to drive a centrifugal separator by Runne of Heidelberg at a speed of 2,000 turns to the minute. It is also used for driving students' drums, kymographion, shaking machine, artificial separation apparatus, etc. A Zeiss projecting microscope enables the images of microscopic preparations to be thrown on a plaster screen at 1,000 diameters, for demonstration purposes, and is much used by the professor. The source of light is a 3,600 candle-power arc lamp fed from the College dynamos.

Stone slabs built solid into the masonry of the walls protect galvanometers, balances, etc. Wall presses contain the most modern types of time-recording apparatus, spring manometers, electrical apparatus, teaching models, and the like. The general laboratory is further fitted with lecture desk, ground-glass writing screen, lantern screen for convenience of demonstrations. The theoretical lectures are delivered in the adjoining lecture theatre. The photographic room has a portion of one wall separating it from the adjoining storeroom, built of wood, so that lenses, wires, etc., may be fitted with ease for recording purposes, the operator being within his own camera. The heating of the laboratory is by steam, which can be utilised in the stink cupboards for boiling ether and alcohol in extractines without danger from naked lights. The departmental library takes in all works relating to physiology, both English and foreign.

THE EFFECT OF ADDITIONAL CHAIRS.

This contrast is exceedingly striking, and might be carried still further if the other departments of practical science were compared in the two Colleges. Students and their guardians are quick at recognising such distinctions. The efforts of the Dundee professors resulted in the withdrawal from the University of St. Andrews of the powers to confer the special degrees in medicine on the ground that they seriously damaged the status of the medical degree which it is the ambition of Dundee to create. This results in a loss of £500 a year to the University of St. Andrews, but it is made up many times over by the additional funds they receive from Government in the reorganised grants. It appears that this action of the Dundee professors is the main cause of the present efforts to establish chairs at St. Andrews in materia medica and anatomy. Even if the University authorities had facilities for the study and teaching of anatomy, the number of students who could be found willing to study medicine in so remote a district would probably be small. In face of the total absence of any physiological laboratory, the total want of modern appliances for teaching physiology in a practical way, the proposal to found a chair of anatomy in St. Andrews must cause surprise. How would the subjects for the study of anatomy be

obtained, and into what part of the University would they be placed, and who would be found to dissect them, are problems more easily propounded than answered at the present time.

The Arts Question.

The Dundee authorities insist on emphasising the desirability of an Arts curriculum in Dundee, to such an extent as to put it in the power of the St. Andrews professors to allege that in Dundee the professors are pursuing a "grasp all" policy. On the other hand, Dundee asserts that it asks only for a single definite avenue within the College towards the M.A. degree, which shall at least enable students who conform to the curriculum to take this degree without being obliged necessarily to go to St. Andrews. The Dundee professors admit, and indeed assert, that the general bulk of M.A. students would naturally go to St. Andrews. The main attention in Dundee is given to the degree in science. Compromise on this head might be possible.

The Berry Bequest.

It is proposed to devote a portion of the income derived from the Berry Bequest, amounting to £3 500, to founding chairs of anatomy and materia medica in St. Andrew's University; other portions of it to go to increase the number of bursaries, and still another part to increase the incomes of the existing chairs.

Bursaries for all.

The number of bursaries at St. Andrews University is so great that it has been said that practically every student that goes there could get one if he wished. If there were no bursaries it would be an interesting question to ascertain what would happen to the University in the way of students' attendance. According to the official return, the number of open bursaries is 62, of bursaries localised to certain districts or to persons bearing a certain name 53. There are 18 tenable at any university—St. Andrews, of course, getting its share of the bursaries. These bursaries are exclusive of the theological bursaries. It will be at once understood that the figures represent a considerable sum of money, for no fewer than 66 of these bursaries amount to over £20. In addition to these there are 10 scholarships averaging £70 a year. Ample though this would appear, it has been proposed to devote part of the Berry Bequest partly to founding new chairs in anatomy and materia medica, and partly to founding new scholarships and bursaries to the extent of nearly £1,100 a year, all guarded against any use being made of them for purposes of study at Dundee. It would be interesting to consider where 11 students could be found whose ability deserved recognition to the extent of £100 a year each, and who, being possessed of such abilities, would aspire to study medicine at least in the University of St. Andrews.

The "Emoluments."

The professors of St. Andrews further wish to employ a portion of the Berry Fund to add to their income £100 a year each. No proposal appears to have been made to use any of this bequest for the permanent equipment or development either by way of endowing useful or special branches of science, or literature, or such subjects as are unrepresented at present both at St. Andrews and Dundee, nor in the way of providing apparatus or general scientific equipment for those chairs which are admittedly defective. The salaries of the professors at St. Andrews, without the addition from the Berry request, range from £450 to £650 a year. The professor who is called the Dean of the Faculty, of which there are three, one for medicine, science, and arts respectively, receives, in addition to his professorial income, from £25 to £75 a year. The professor who is Dean of the Faculty of Arts apparently receives £650 from his chair, and he proposes to take £100 from the Berry bequest. He gets £75 for acting as Dean of the Faculty of Arts, a total of £325. The work begins in the middle of October and ends in the middle of April. Further, the peculiar product of St. Andrews called the L.L.A. degree ensures an additional income.

The Earl of Mount-Edgcumbe laid on May 21st, with full Masonic honours, the foundation stone of the cottage hospital which is being provided at Liskeard by Mr. Passmore Edwards, at a cost of £2,000.

THE DIFFICULTIES OF DIAGNOSIS.

The verdict in the case of Mason *v.* Hadden, to which we referred in the British Medical Journal of May 18th (page 1108), must not, in the interests of the whole community in general and of the profession in particular, be allowed to stand without an appeal to a higher court. If the Notification of Diseases Act is to be carried out in the future fearlessly and without undue delay, the verdict must be reversed.

The action, it may be remembered, was brought by a draper residing at Rathmines, Dublin, against Dr. Hadden, of Castlewood Avenue, Rathmines, to recover damages for having "negligently, improperly, and unskilfully diagnosed as small-pox a disease which was not small-pox but erythema nodosum; for having the patient, a young girl named Maria Hawkins, in the plaintiff's employment, removed to Cork Street Hospital for the Treatment of Infectious Diseases; and for having, under the Infectious Diseases (Notification) Act, reported the case to the municipal authorities of Rathmines as a case of small-pox, to the injury of the plaintiff's business."

The defendant in his pleadings denied negligence, also denied that he had improperly or unskilfully diagnosed the disease; that the plaintiff had suffered any of the loss or damage alleged; and he further denied that the words in the letter to the municipal authority were written or published in the defamatory sense imputed. A special defence was also put in to the effect that the words were written and published by the defendant, honestly believing that the said Maria Hawkins was then suffering from small pox, for the purpose of complying with the provisions of the Infectious Diseases (Notification) Act, 1889 and 1890, whereby the defendant was bound under penalty, on becoming aware that any patient of his was suffering from an infectious disease, to notify the same to the medical officer of health for the district, and the persons to whom the said words were published have legitimate interest in being informed thereof for the purposes of the Act, and that the words were published by the defendant on a privileged occasion for the purposes aforesaid *bonâ fide* and without malice, and in the belief that they were true.

The case was tried before Mr. Justice Murphy and a special jury in the Exchequer Court, Dublin. The plaintiff gave evidence as to the alleged damage which his business had sustained.

For the defence, Dr. Hadden detailed the circumstances under which he had attended the patient, and described the symptoms which caused him to come to the conclusion that the case was one of small-pox modified by previous vaccination, and that so believing, it would have been criminal for him to have allowed her to have remained in the house, there being other girls employed there.

Dr. Little, Mr. Thornley Stoker, and Dr. J. W. Moore gave evidence that in their opinion Dr. Hadden was fully justified in supposing the disease was small-pox, and that he was then bound by law to notify under penalty, and that the patient was rightly immediately removed to the hospital.

The judge having summed up, directing the jury that there were two questions further to decide, whether or not the defendant exercised fair and reasonable care and skill as a physician in or about the treatment of the girl Maria Hawkins, and in or about advising that she should be sent to hospital as suffering from small-pox; and, secondly, if the defendant, when he wrote the certificate on December 10th, honestly and reasonably believed that the girl was suffering from the disease of small-pox. The jury, after deliberating for a short time, brought in a verdict for the plaintiff, damages £100.

We need hardly point out the very serious danger which exists for the practioner of medicine as long as this verdict is unchallenged in a higher court, and, it is to be hoped, reversed. If, to the risk of incurring a penalty of £5 for non-notification, an action for damages of an unknown quantity be added as the reward of honest notification, it is easy to see how difficult it will be for the Act to be carried out in the future as it has been in the past to the great advantage of the public health.

It is, we confess, difficult to see how the verdict given was

arrived at considering that it was clearly shown that Dr. Hadden had reasonable and just cause for his opinion that the case was one of modified small-pox, that he was fulfilling a statutory duty by so notifying, and that he was bound, for the health and safety of the other persons residing in the house, on becoming aware of the presence of an infectious disease, to have the patient at once removed to the hospital. In a somewhat similar case heard in London last year (Russell *v.* Cree), a case defended by the Medical Defence Union, the judge and jury promptly dismissed the action with costs against the plaintiff, holding that a medical man who honestly was of opinion that he was dealing with a case of infectious disease could not be held liable for damages if the patient were found later not to be so suffering after removal to a fever hospital.

We notice with pleasure that practical sympathy is being shown with Dr. Hadden both by members of his profession and by the lay public. The Council of the Irish Medical Association, at a meeting on May 20th, 1895, adopted the following resolution with relation to this case:

That the Council of the Association, upon consideration of all the circumstances set forth in the evidence submitted to the court in the case of Mason *v.* Hadden, is of opinion that the course pursued by Dr. Hadden was such as was imperatively imposed upon him by the Infectious Diseases Act, and that his duty so imposed was discharged with due care and discretion. That the Council therefore expresses its earnest sympathy with Dr. Hadden in the position in which he has been placed by a conscientious endeavour to perform his public duty; and, furthermore, regards the decision in this case of great importance and fraught with the most serious consequences to the public, as it must have the effect of causing the notification of these diseases to be delayed until they shall have so far developed as to be extremely dangerous to the health of the community.

Subscriptions to reimburse Dr. Hadden are being collected by the *Irish Times* (Dublin), and a considerable number have already been received, in order that an appeal may be prosecuted in a higher court. We trust that the appeal will not be allowed to be passed for want of funds; every practitioner in the United Kingdom is personally interested in the revision of a verdict which is at once dangerous to the community and an injustice to the medical profession.

SANITARY PIONEERS IN INDIA.

The interest which is now being excited in the subject of cholera by the prospect of its approach to the shores of Europe by way of Mecca cannot but make the older amongst us look back to the times when the theory that cholera was conveyed by water was scouted on every hand. It is interesting, and as a matter of justice to early pioneers it is important, to bear in mind what opposition was encountered by the water theory of cholera. Even now its general acceptance can be ensured only by dint of constant preaching and constant reiteration of the facts which ought to be well known enough. Within three years of the present time a paper was read at one of the leading medical societies in London the aim of which was to show that, however much or little we might know about the cause of cholera, at any rate it was not to be found in water.

Let us then give all honour to the pioneers. Dr. Snow, and those who followed him in England, however small their reward, at least are known, and their names are honoured in the profession; but we fear that those who accepted the truth and taught it in India in those early days, when the whole force of official opinion went against it, have received but little credit for the courageous stand they took against the ideas accepted by those who wielded power and influence in that most red-tape-ridden country.

Among these Indian pioneers one should not forget the name of Surgeon-General A. C. C. De Renzy, C.B., who in his report on the Sanitary Administration of the Punjab for 1867 urged again and again the importance of infected water as a cause of cholera. It is interesting to note that even so long since as 1867, a time when every discouragement was thrown in the way of the water theory of cholera distribution, De Renzy reported that the outbreak of cholera in that year at Hardwar was probably due to fæcal poisoning of the well water by cholera discharges.

He pointed out the meaning of the sudden and simultaneous outbreak of the disease in every section of the encampment, and showed its dependence upon implication of the water supply. "In the present instance," he said, "we find a great multitude, which on April 11th was so little tainted with cholera as to be believed to be quite free from it, thoroughly contaminated in all its parts on the 12th." He then pointed out the manner in which the excreta of the multitude were disposed of by burial in a sandy soil, through which water percolated with great facility, and stated that cholera certainly was in the neighbourhood, probably in the camp, and that the great rainfall on the night of the 11th and the morning of the 12th washed down these discharges through the porous soil, and carried them into the wells; and that the cholera contagium having thus found admission to the drinking water, cholera broke out in all parts of the camp with explosive suddenness.

In the same report, speaking of cholera at Simla, he said: "The prevalence of cholera in these beautiful and naturally healthy stations is chiefly due, I believe, to the same causes that give rise to it at Peshawur—cholera-tainted water." Nor did he speak without reason. His description of the spring supplying one of the large reservoirs is a striking commentary on the sort of civilisation which is introduced into a country by British occupation when the official class does not accept the canons of sanitation. "The water bubbles out of the rock over an area of about 8 square feet; on this spot when I inspected it on January 18th I found fæcal matter, bones, old shoes, empty sardine boxes, preserved soup tins—in fact, the refuse and filth of the club overlooking it. The soil about the spring was a rich compost, formed by the decay of leaves and the excremental accumulations of years deposited from the club. The fæcal matter and the compost were being gradually worn away by the current and carried into the reservoir for distribution to the residents in their drinking and cooking water."

This, it may be retorted, is ancient history; certainly it is a quarter of a century old, but how slowly we advance in such matters even in a quarter of a century, unless we accept the dogma of the water carriage of disease, is well shown in Dr. Barry's quite recent report on enteric fever in the Tees Valley. His photographs of the banks of the river whence the water supply was drawn quite tally with De Renzy's description of the spring at Simla. This description occurs in a report for 1868. To us in England, who date our certain knowledge of the water carriage of cholera from Snow's researches many years before, the acceptance of such doctrines in 1868 may seem only natural. It is necessary, however, to bear in mind the stolid resistance of the water theory of cholera which for long after that period was offered by those in authority. Surgeon-General Cuningham, Sanitary Commissioner with the Government of India, in his Report for 1872, said: "That it would be a gross exaggeration, as it would be pure assumption, to affirm that the troops and other communities who were attacked suffered because they drank water which had been contaminated with cholera discharges." And again: "The belief in the dissemination of cholera through water is founded on bare assertions altogether unsubstantiated by details—bare assertions such as would not be received by any judicial court, even in the pettiest case that could be brought before it." When such views were held by high officials, no small credit should be given to those who in the face of it preached the opposite doctrine, and we again say that honour should be given to whom honour is due.

HALF-TIMERS IN TEXTILE FACTORIES.

[FROM A CORRESPONDENT.]

Five years have now passed by since an international labour conference assembled at Berlin, composed, not of the delegates of socialist and anarchical associations, but of the sober representatives of all the principal European Governments, convened by the invitation of the German Emperor issued little more than a twelvemonth after he had ascended the throne. The proposal was at first received with ridicule or incredulity, as the dream of an enthusiast, and we were told that the resolutions of the Conference would, however excellent in the abstract, remain dead letters, since there was no common authority to enforce them, and no probability of the

different nations severally and spontaneously adopting them in their factory legislation, at any rate as society was at present constituted. Yet Sir John Gorst, in his eloquent farewell to his colleagues at Berlin, said:

We trust that the result of our labours will not end with the drawing up of protocols, but that the Governments represented will give most serious attention to the suggestions we have made.....We can pledge ourselves for Great Britain that our Government, faithful to its action in the past, will conform resolutely in the future to, even if it do not go beyond, the benevolent principles of the Conference. The limit of twelve years has been generally adopted by the Conference in consideration of the demands of the physical, moral, and intellectual development of the children.

One of these recommendations was "that the inferior limits of age at which children may be admitted to underground work in mines should be gradually raised, as experience may prove the possibility of such a course, to fourteen years complete," and an exception as regards the general twelve year limit in favour of Italy and Spain was firmly opposed by Great Britain.

This was in 1890, and now, in 1895, no attempt has been made in this country to redeem the pledge thus solemnly given by our senior representative, and promptly confirmed by the Prime Minister, Lord Salisbury. France has accepted it, Germany and Switzerland have gone beyond it, fixing 13 years as the lowest age, and England alone sends her children to work at 11 or 10 if they pass a certain standard at school, while work in mines begins under ground at 12, and where the standard for total exemption is low there is no restriction to their work except the statutory limit for all ages of ten hours a day or fifty-four in the week, and yet an eight hours' day for adult men is well within the range of practical politics.

It is, however, not so much the millowners and masters who are to blame, as the operatives themselves, who, especially in piecework, are the employers of their own and others' children as "tenters," "doffers," "scavengers," etc. It is they who have always opposed any raising of the age, while agitating for shorter hours for themselves. Thus the operative spinners of Bolton not long since, having described in their annual report the conditions under which the "minder"—an adult—worked, in the following words:

"In addition to these disadvantages he has to labour in a temperature ranging from 80° to 110° F., and in a vitiated atmosphere, which is not completely changed even once in a week. These conditions render him peculiarly liable to contract chest complaints and rheumatic affections;" declared that "eight hours a day was sufficient for adults under such trying conditions;" and at a subsequent meeting, "having carefully considered the proposal to raise the age of half-timers from ten to twelve years, they were strongly of opinion that such an amendment was totally uncalled for," asserted "that a child did not suffer either physically or intellectually," and "respectfully urged the Government not to accede to the demand for raising the age of partial exemption" from five or more hours' work in addition to three hours subsequently spent in school. Whether they do suffer or not may be judged from the testimony of medical officers of health, certifying surgeons, inspectors of schools and of factories, and Royal Commissions. Dr. Sidney Barwise, when medical officer of health for Blackburn, stated that 20.9 per cent. of the deaths of cotton operatives took place between the ages of 10 and 25, the corresponding percentage among labourers being 6.8. Dr. Torrop, certifying surgeon at Heywood, said: "The promising child of 10 degenerated into the lean and sallow young person of 13, until a whole population became stunted." The average weight of "healthy" children of 13 or 14 being 14 lbs. below that of other children of the same age, and the growth of a large number very much worse.

One of Her Majesty's inspectors of schools wrote of a little girl of 11 years:

The child rose at 5 A.M. and walked through frost and snow nearly two miles to the mill. Work began at 6 and continued till 8.30, when there was an interval for breakfast, the child not leaving the mill. At 9 work again till 12.30, then dinner (such as she could bring with her) in the mill. At 1.30 the child trudged off to school at 2 P.M. To school! to comprehend the decimal point, to conjugate the verb "to sleep," or perchance to fathom the idiosyncrasies of English etymology until 4.30 P.M. And this in England at the end of the nineteenth century!

Work in a steaming temperature of 80° to 100° F., perhaps with water standing on the floor, legs and feet bare, and only cotton knickers or frocks; then straight into the cold draughty passages to eat an unappetising meal.

The rules against cleaning machinery in motion are habitually ignored by the employers of child labour, and in the Bolton district in one year 160 out of a total of 627 accidents, or one-fourth, happened to children while thus illegally engaged. The inspector can rarely visit a factory oftener than once in a year, and can never take the workers totally unprepared. In some mills, it is asserted, even the registers are systematically falsified, the steam turned off and the cisterns of the wet bulb thermometers refilled with cold water before the daily thermometric and hygrometric observations required by the Act are recorded.

The standards for partial and total exemption from school attendance are determined by local by-laws, which vary in different districts. Thus five per cent. of the children are partially exempt in the first standard or none, ten per cent. in the second, 60 per cent. in the third, 20 per cent. in the fourth, and 1 per cent. in the fifth; while 30 per cent. are wholly exempt on reaching the fourth, and 48 the fifth standard.

The Act requires that the child shall be "beneficially and necessarily employed," but though this is usually taken to mean that work can be found in a mill, too often no such condition is demanded, and it is a mere excuse for taking the child from school to earn money, perhaps in some wholly unregulated work. The practices of different school boards vary widely. For example, the Halifax Board, as Mr. Wilson, Her Majesty's Inspector of Schools explains, imposes only a nominal standard (the second) for partial exemption, allows the provision for "beneficial and necessary" employment to become a dead letter, and does not require a statement from the employer before issuing the labour certificate; while the Huddersfield Board insists on the fourth standard, allows no child to go to work unless the clerk is satisfied, after inquiry, that its employment is necessary—on account of the poverty of the parents, the number of the family, or some equally satisfactory reason—and requires a declaration to be signed by the employer that he is prepared to employ the child; the result being that, while Halifax has the smaller population, it has five times as many half-timers, and the number of so-called "domestic" half-timers in Halifax is nearly equal to the total of domestic and factory half-timers combined in Huddersfield. In other towns the disproportion is even greater; for example, Blackburn and Derby,[1] with like populations, have respectively 7,892 and 7 half-timers, all told. As to the "necessity" of employment, it is a fact that the majority of half-timers are not the children of ill-paid artisans and poor widows, but of comparatively well-to-do weavers and spinners; indeed, many come from families in receipt of good wages, even from some whose aggregate earnings amount to £4, £6, or £8 a week! The operatives of Oldham save £10,000 annually for going to the seaside at the "wakes," and yet there are over 6,000 half-timers in that town. Nor can the bogey of foreign competition be justly urged in extenuation while adults are clamouring for shorter hours. Mr. Mundella, referring to the statement of Mr. Matthews, the late Home Secretary, that if they raised the age of half-timers the silk trade would be destroyed, pointed out that by far the largest silk industry was in Switzerland, where there were no half-timers, and children did not begin to work till they had reached the age of 14. Well might he say of Mr. Matthews's definition of half-time "as a combination of technical and literary education which sharpened the child's wits" that "it was one of the most preposterous fallacies ever trotted out by an interested class to hoodwink the community." And now that his party is in power, they have brought in a Factory Bill which cares for dockers and navvies but has not a word to say for the little factory slave!

[1] These two towns are not rightly comparable; the work is too much unlike.

Proposed International Surgical Congress.—At the German Surgical Congress recently held in Berlin, Professor Gussenbauer announced that a proposal had been received from some American surgeons that an international surgical congress should be organised, which should meet every five years at different places. The German Congress appeared to be favourably inclined to the proposal.

PAYMENT FOR POLICE CALLS.

A CORRESPONDENT, who signs himself "Viator," states that he was recently called three miles from his house to attend to a man who had been run over and seriously injured. The messenger, the injured man's brother, said that he had wished to take him to the local hospital but that a policeman who was present said that he must not be moved until he had been seen by a medical man, and told the brother to go for "the nearest doctor." Our correspondent states that he found the man, who had been run over, drunk and in charge of a policeman, but without any serious injuries. "Viator" sent a bill for half a guinea to the superintendent of police, who, in reply, wrote: "I am in no way liable to pay the bill returned herewith neither can it be shown in the police accounts." He further suggested that the person liable was the injured man. The incident thus related is a sample of many others which are brought to our notice from various parts of the country from time to time. "Viator" has certainly been very badly treated but we are afraid his only legal remedy would be to take out a summons in the county court against the person who actually requested his attendance, that is the brother of the injured man, which, of course, would settle nothing as regards the police. As we have more than once pointed out in these columns, the rule of the metropolitan police is that when a surgeon is called by the police to a station or attends by their request elsewhere to visit a person suffering from injury or illness, or even supposed to be so suffering, a certificate of attendance is to be given by the inspector on duty to the surgeon which ensures him payment for his services at certain fixed fees; and there seems no reason why a similar course should not be adopted by the various police authorities outside the metropolitan area. The only person, however, who could influence those authorities to move in the matter is the Home Secretary, and the present case seems in every way a suitable one to lay before him.

ASSOCIATION INTELLIGENCE.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

NOTICE is hereby given that the Library of the British Medical Association will be closed from May 24th till June 4th next for the purpose of cleaning and painting.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 10th and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Hastings on Wednesday, June 12th. Dr. B. H. Allen, President-elect.—T. JENNER VERRALL, Honorary Secretary and Treasurer, 97, Montpellier Road, Brighton.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will be held at the Calverley Hotel, Tunbridge Wells, on Tuesday, May 28th. Mr. James Bisshopp will preside. Meeting at 3.30 P.M. Dinner at 5.30, charge 6s., exclusive of wine. The following communications have been promised:—Dr. Adeney: Heart Disease occurring in Old People. Mr. J. B. Footner: A Case of Tumour of the Breast of an Extraordinary Size. Dr. Bisshopp: A Case of Morvan's Disease. Dr. Ranking: The Menorrhagia of Girlhood. Dr. Starling: The Selection of an Anæsthetic. Dr. Vise: Short Notes on a Case of Scurvy Rickets and its Treatment.—J. W. BATTERHAM, Honorary District Secretary, Bank House, Grand Parade, St. Leonards-on-Sea.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of this Branch will be held on Tuesday, June 11th, at 5.15 P.M., at the Royal Forest Hotel, Chingford.—ANDREW CLARK and ISAMBARD OWEN, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The annual meeting will be held at St. Thomas's Hospital (by kind permission of the Treasurer), on Thursday, May 30th, at 4 P.M. The election of officers for the next year will take place. Cases of clinical interest from the wards of the hospital will be shown and demonstrated upon by members of the hospital staff. All practitioners, whether members of the Association or not, will be heartily welcomed.—H. BETHAM ROBINSON, Honorary Secretary, 1, Upper Wimpole Street, W.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The annual meeting will be held in the Gordon Arms Hotel, Elgin, on Thursday, June 20th, at 12 noon. Members desirous of making any communication, or members of the profession within the district who may wish to become connected with the Branch, will oblige by communicating with the Honorary Secretary not later than June 12th.—J. W. NORRIS MACKAY, Honorary Secretary, Elgin.

BATH AND BRISTOL BRANCH.—A meeting of this Branch will be held in the Medical Library of University College, Bristol, on Wednesday evening, May 29th, at half-past seven o'clock, Nelson C. Dobson, F.R.C.S., President. The following communications are expected: Dr. J. G. Swayne: Cases of Induced Premature Labour for Diseases of the Mother not causing Obstruction to Delivery. Mr. J. Freeman, F.R.C.S.: On the Administration of Ether as an Anæsthetic. Dr. J. Michell Clarke: Demonstration of (*a*) Urobilin and Methæmoglobin from Urine of a Case of Pernicious Anæmia, with Attacks of Paroxysmal Methæmoglobinuria; (*b*) Eosinophilous Cells in Blood from a case of Leucocythæmia. Dr. P. Watson Williams: A specimen of Cardio-Vascular Hypertrophy in Chronic Granular Kidney. Dr. H. Waldo: A Case of Myxœdema; the Patient to be exhibited.—E. MARKHAM SKERRITT (Clifton), W. M. BEAUMONT (Bath), Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual general meeting of this Branch will take place in the Castle, Framlingham, on Thursday, June 13th, at 12 at noon, under the presidency of Mr. G. E. Jeaffreson. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting, will communicate at once with one of the Secretaries. Members desirous of nominating candidates for election as officers of the Association under By-law 9, must send their nominations to Dr. Barnes, so as to reach him not later than May 23rd.—EDGAR G. BARNES, M.D., Eye; MICHAEL BEVERLEY, M.D., Norwich; THOMAS CARR, M.D., Braintree, Honorary Secretaries.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held at Penrith, on Friday, May 31st. Members desirous of reading papers, etc., should communicate without delay with J. ALTHAM, Honorary Secretary, Penrith.

MIDLAND BRANCH.—The annual meeting will be held at Derby on Thursday, June 13th. Members desirous of reading papers or exhibiting cases are requested to communicate with the Honorary Secretary before May 27th. Gentlemen who wish to be elected to the Association through the Branch Council must send in their application by the same date.—W. A. CARLINE, M.D., Honorary Secretary, Lincoln.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Liverpool on Wednesday, June 19th. Gentlemen wishing to read papers, give demonstrations, or make any communication to the meeting, are requested to communicate as soon as possible with Dr. JAMES BARR, Honorary Secretary, 72, Rodney Street, Liverpool.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will take place on June 13th, at 3.30 P.M., in the Medical Institute, when, after the transaction of formal business, the President-elect, Dr. A. H. Carter, F.R.C.P., will deliver an address. The annual dinner will be held the same day, at the Great Western Hotel, at 6.30 P.M. Gentlemen desirous of attending should send their names to GILBERT BARLING, Honorary Secretary, 85, Edmund Street, Birmingham.

STAFFORDSHIRE BRANCH.—The the third general meeting of the present session will be held at the Bell Medical Library, Wolverhampton, on Thursday, May 30th. Dr. Charlesworth (the President) will take the chair at 3.30.—GEO. REED, Honorary Secretary, Stafford.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Royal Infirmary, Newcastle-upon-Tyne, on Thursday, May 30th, at 4.45 P.M. Dr. Gowans will read notes on recent cases of Abdominal and Brain Surgery. Mr. Williamson will show preparations from a Melanotic Sarcoma of the Ciliary Body. Dr. Murphy: (1) A Specimen of Extra-uterine Gestation Diagnosed (by Dr. Robertson, of Ryhope) and Removed before Rupture. (2) Notes of a Series of Cases of So-called Puerperal Fever treated by Abdominal Section; and another series treated by curetting and drainage. The Secretary will be glad to receive notice of other communications. The dinner after the meeting will take place at 6.30 P.M., at the Douglas Hotel; 6s. 6d. each, exclusive of wine.—G. E. WILLIAMSON, F.R.C.S., Honorary Secretary, 8, Eldon Square, Newcastle-upon-Tyne.

SHROPSHIRE AND MID-WALES BRANCH.

THE spring meeting of this Branch was held at the Salop Infirmary on May 10th, Mr. J. M. M'CARTHY, President, in the chair. Thirty-two members were present.

New Members.—The following new members were elected: Mr. E. W. Cooke, Shrewsbury; Dr. F. Edge, Wolverhampton; Dr. C. R. Leader, Worthen.

The late Dr. A. G. Brookes.—The PRESIDENT announced the death of Dr. A. G. Brookes, a former member, and a vote of condolence with his relatives was passed.

Branch Representative on Council.—Mr. J. D. Harries was re-elected to represent the Branch on the Council of the Association and on the Parliamentary Bills Committee.

Amendment of Medical Acts.—The report of the Subcommittee appointed to consider the proposed Bill to amend the law relating to unqualified persons who practise medicine and surgery was considered. The Subcommittee recommended that the Bill should be made much stronger so as to include "bonesetters" and some forms of "counter prescribing," and advised that the resolution passed by the Lancashire and Cheshire Branch Committee be adopted, namely:

That in any Bill aiming at the suppression of unqualified practice the act of practising medicine, surgery, or midwifery for gain by an unqualified person should be made penal.

Further, that under Clause IV, Section 2, the British Medical Association, as represented by its Council should be expressly included. Also that to give the power of instituting proceedings to any private person unless with the consent of one of the bodies mentioned in the clause would be unwise. After some discussion these recommendations were adopted unanimously.—Mr. EDDOWES proposed:

That the members of this Branch consider that the time has arrived when the Council of the British Medical Association should take action whereby they may be able to devote some of their funds to the prosecution of unqualified practitioners.

The resolution was seconded by the PRESIDENT, carried *nem con.*, and ordered to be forwarded to the Council of the Association.

Abuse of Medical Charities.—A communication was read from the Council of the Association *re* abuse of medical charities, and a Committee was appointed to inquire into and report upon the matter in this district.

The Cork Branch.—A communication was read from the Council of the Association *re* the action of the Cork Branch. Dr. CÆSAR moved and Dr. CALWELL seconded a resolution strongly commending the action of the medical men of Cork in reference to the benefit clubs of that city as worthy of all support, and strongly condemning the conduct of those medical men who accept such appointment under existing circumstances. Resolution carried *nem. con.*

The Anderson Appeal Fund.—A resolution passed by the Council of the Branch on January 7th, 1895, approving of the action of the Civil Rights Defence Committee, and warmly commending the Anderson Appeal Fund to its members was read, and copies of the appeal were distributed to the members.

Communication.— Dr. CURETON read notes of a series of cases of Dilatation of the Stomach. He recommended washing out the stomach by means of a long siphon tube, and showed the apparatus required. He considered that the method was not inapplicable to cases in which the dilatation was the result of malignant stenosis. In his experience the cases had usually occurred amongst the agricultural population, and he believed that this was largely due to an excessive proportion of farinaceous matter (especially potatoes) in their diet. An interesting discussion ensued, in which many members took part.

Cases and Specimens.—The PRESIDENT showed: (1) Several cases of Miners' Nystagmus, and demonstrated how the phenomenon could be elicited or increased by posture. (2) A case of Partial Paralysis of the Hand following Spinal Injury. —Dr. CHARNLEY showed: (1) A case of Pulsating Tumour of the Neck. (2) A case of Sarcoma of the Fauces.—Dr. GARDNER showed a case of Pseudo-hypertrophic Paralysis.—Mr. GODSON showed a case of Spinal Curvature.— Mr. ROPE showed a specimen of Suppurating Ovarian Tumour showing imminence of rupture, which he had recently removed.—Mr. T. LAW WEBB showed Microscopical Preparations illustrating diagnosis during life of Carcinoma of Large Intestine.

Tea.—After the meeting the President entertained the members at tea.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

AN ordinary general meeting of the Aberdeen, Banff, and Kincardine Branch was held at Aberdeen on May 15th; Professor OGSTON in the chair.

The late Samuel Davidson.—On the motion of the CHAIRMAN the Branch passed a vote of condolence with the family of the late Dr. Samuel Davidson, of Waitte, on his demise; and the Secretaries were instructed to enter the same in the minutes, and to intimate it to his son Dr. A. Gordon Davidson.

New Members.—Brigade-Surgeon-Lieutenant-Colonel Davidson and Dr. J. Ellis Milne were admitted members of the Branch.

Proposed Conjoint Meeting.—An invitation from the Dundee and District Branch to a conjoint meeting to be held at Dundee on May 29th was read; and the Secretaries were instructed to accept the same on behalf of the Branch, and to intimate the meeting to the members.

Operative Treatment of Congenital Hip Dislocation.—Professor OGSTON gave a description of the operative methods of treatment of congenital hip dislocation, and showed a patient on whom he had operated for this condition with marked improvement.—Dr. MACKENZIE BOOTH read notes of two cases of Prostatic Calculus, and showed specimens.

GRAHAMSTOWN AND EASTERN PROVINCE BRANCH.

AN ordinary meeting of this Branch was held in the Albany General Hospital on April 25th; Dr. GREATHEAD in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Communications.—The following papers were read:—(1) By Dr. GREENLEES: General Paralysis of the Insane; Patients from the Asylum and Microscopic Slides were shown. (2) By Dr. BLACK: The Bacteriological Diagnosis of Diphtheria; Slides, Cultures, and Charts were shown. (3) By Dr. GREATHEAD: Some Surgical Lung Cases; a Patient from the Hospital was shown.

Vote of Thanks.—The usual vote of thanks to the Chairman closed the proceedings.

SPECIAL CORRESPONDENCE.

PARIS.

Hospital Appointments in Paris.—The Assistance Publique and Emergency Cases.—The Bouzey Catastrophe and the Public Health.—Centenary of the French Institute.—Athletic Sports in France.—Erection of a Memorial to Dr. Laulier.—General News.

ACCORDING to the new law in connection with hospital reform the *chefs de service*, the duly appointed assistants, or their substitutes, will, after each hospital consultation in the out-patient department, receive a *jeton de présence* entitling them to receive 4*s.* 8*d.* The assistant staff officer will be elected for ten years; they can remain during another year if sanctioned by the *Conseil de Surveillance*. In order to obtain this post the candidates must have a French M.D. degree, and have been four years *interne* in the Paris hospitals. The assistant surgeons are selected by a special committee of surgeons; the assistant physicians by the presidents of important medical societies.

A case of death in the streets has attracted a good deal of attention. A police commissary directed that a man found in a fainting condition in the Rue d'Aboukir should be at once removed to the Hôtel-Dieu. There he was refused admission. The policeman took him to the office of the commissary, and he was afterwards humanely taken to a hotel. The next morning he was again picked up in a fainting fit, and taken to another police commissary's office. Every available means were used to restore consciousness, but he died shortly after his arrival. The two commissaries have sent in a joint report to the Prefect of Police, drawing atten-

tion to the fact that notwithstanding the means possessed by the Public Assistance, it admits its inability to give shelter to a dying man. The *Progrès Médical* declares that all cases brought in at night should be received at hospitals, and only rejected the next morning after a careful examination, which is impossible at night.

The Subcommittee of the Health Council have inspected the districts flooded in the Bouzey catastrophe. They report that the sanitary measures prescribed have been promptly and successfully carried out, oats and other quick-growing cereals and plants have been sewn, the mud banks have been removed, and the public health is said not to be in danger. There is, however, one uncomfortable little circumstance. Some of the inhabitants of Bouzey imprudently drank contaminated well water, and "cases of indisposition" have already been notified, but apparently not classified. The Committee of Health insists that the use of the contaminated wells should be forbidden. The Prefect of the Vosges has visited Nomexy, where it was feared an epidemic might break out in consequence of the mud which had soaked into the foundations of the houses and the cultivated lands. Bouzey, Chamousey, Sanchey, Uxeguey, Domèvre were subsequently visited by the Prefect.

All the sections of the Institute of France have met to consider the report drawn up by the Centenary Festival Subcommittee. All the foreign members (associates and corresponding members) will be invited for October 24th, the date of the festival. An imposing ceremony will take place at the Sorbonne, at which the President of the Republic will be present. The President will entertain the members of the Institute and their guests at the Elysée. There will be innumerable Ministerial receptions and banquets. Excursions will also be organised. A dramatic performance will also take place at the Comédie Française, on which occasion some verses written for the occasion will be delivered.

Athletic sports are making their way in France. The Norman "Lendit," under the patronage of the Union des Sociétés Francaises de Sports Athletiques, will take place at Evreux on June 4th and 5th. M Zeort, Rector of the Caen Academy, will act as president. Pupils under 15 will not be permitted to take part in the matches. The same player cannot be entered for more than four "events." The over-fatigue which resulted last year from the "Lendit" will thus be avoided. Fourteen schools and lycées will take part in the "Lendit." The programme comprises walking matches, football, cycle matches, leaping, boxing, shooting, gymnastics, and fencing. On May 5th the sixth gymnastic meeting took place at the Voltaire Gymnasium. The prizes were distributed on May 20th at the Tribune, by M. Griard, Rector of the French Academy. In a short address M. Griard pointed out the hygienic advantages of athletic sports, and combated the opinion of Professor Mosso that classical and scientific studies suffered in consequence.

A bust of Dr. Lailler has been placed in the St. Louis Hospital. He was more than a *Chef de Service;* he was a benefactor to the hospital and also a defender. Communists and afterwards the Versailles troops summoned him to deliver the hospital into their hands; he refused in both instances. Attached to the St. Louis Hospital is a library for the benefit of the patients, also a school for children with contagious skin diseases. The school is to be called "Ecole Lailler." The eminent surgeon Chaissagnac said: "Lailler is unbearable; no one has made more discoveries than he, and no one keeps so much in the background; he has the mania of anonymity."

"La Société d'Encouragement au Bien" has awarded a civic crown to Dr. Roux.

ROME.

A Training School for Nurses.—Opening of a New Ophthalmic Hospital.—A New Meteorological Station.—New Hygienic Regulations.—General News.

A very influential committee has been formed in Rome composed largely of ladies belonging to some of the chief Roman families, and including Professors Rossini, Mazzoni, and Tosti, for the purpose of founding a training school for female nurses to attend the sick at their homes. Such an institution is much needed here as, up to the present, there has been nothing of the kind for the Italians. The English-speaking residents and visitors are, however, well provided with nurses, as there are two excellent nursing homes here, the English Nursing Sisters, a Catholic community who also do a considerable amount of good work amongst the Roman poor, and St. Paul's, which is an American institution. Both these homes also receive resident patients. The Italian school will be in connection with one of the large hospitals, where the probationers will be instructed under the guidance of the medical staff and the sisters of the hospital. The course of instruction will be practical and theoretical, and will extend to two years. At the end of the term the probationers, after passing an examination, will obtain a certificate, and the committee will recommend them for employment. They must be either single or widows, and not less than 21 or more than 35 years of age. The first course will begin on June 15th next.

A new ophthalmic hospital for the poor of the province of Rome was opened on May 12th. It is situated at the foot of the Janiculum, and is well adapted to its requirements. The building has been given by Prince Torlonia, and the Provincial Administration have furnished it, and will provide the cost of maintenance. The hospital is so arranged that the male and female sections are completely separated. It contains forty-four beds; a splendid operating room, semi-circular in shape, with marble floor, and lighted from above; refectories, rooms for the professor and his assistants, a little chapel, and out-patient departments. The organisation has been carried out by Professor Scellingo, who has gratuitously assumed the directorship.

A meteorological station has been lately established in Rome in connection with the Institute of Public Health, under the direction of Professor Pagliani. It is furnished with all the instruments and apparatus required, especially those which are necessary for experimental investigations in connection with biology and hygiene. Observations are taken three times a day, and the results will be published annually.

The Giunta discussed at their last meeting the proposed new hygienic regulations for Rome. These regulations have been compiled by Assessor Panizza, and embrace all the branches of hygiene and public health, and also include the reorganisation of the sanitary offices and the *personnel*. The Giunta agreed to the regulations with slight alterations, and, as soon as they are completed, they will be placed before the Council. It is said that the Syndic wishes to have them passed by the Council before the administrative elections take place.

The annual Congress of the Italian Society of Medicina Interna will be held in Rome in October. Sero-therapeutics will be one of the chief subjects for discussion, in which Professor Foà, of Turin; Maragliano, Genoa; De Renzi, Naples; and Giovanni, Padua, will take part.

Dr. Patrizi, assistant in the physiological laboratory of Turin, has been appointed Professor of Physiology and Materia Medica to the University of Ferrara.

CORRESPONDENCE.

THE OBSTETRICAL SOCIETY AND THE MIDWIVES' QUESTION.

Sir,—I see that my friend Mr. Victor Horsley hopes "that properly educated women will obtain registration as 'midwifery nurses.'" Will he kindly define exactly what he means by the new-fangled name "midwifery nurse?" This is the more desirable since I understand that the term is approved of by some members of the General Medical Council. If by "midwifery nurse" is meant a properly-educated woman of the kind now generally known as a "monthly nurse," that is, one who is to nurse a lying-in woman during and after her confinement under the supervision of a medical man who is to attend the patient in labour, then, of course, the midwives question would not be touched, even if Mr. Horsley's hope were realised. If by "midwifery nurse" he means a woman of the kind now examined and certificated by the Obstetrical Society, who is supposed to be capable of attending women in natural labour, then the difficulty of the

midwives question is only met by calling a woman who is in fact a midwife by another name.

I have always understood that a spade is not the less a spade when it is called a shovel; but perhaps this principle does not extend to calling a midwife a "midwifery nurse."—I am, etc.,

Hanover Square, W., May 18th. W. S. PLAYFAIR.

SIR,—In regard to the letter in the BRITISH MEDICAL JOURNAL of May 11th, from Dr. Pratt, concerning the appointment of a midwife by the Leicester Board of Guardians, I feel that it is due to the latter body that the actual facts should be made known.

Up to six months ago the guardians employed a midwife to attend the poor in their confinements, but, owing to complaints made on behalf of the poor, they considered this state of things eminently unsatisfactory, on account of the neglect of the mothers and babies after confinement, and the absence of any attempt on the part of the midwife to carry out the most elementary antiseptic precautions. I believe I am right in saying that there was no particular evidence of neglect at the time of confinement, or neglect in sending for medical aid when required, but the neglect during the time following the confinement was sufficiently serious to justify a change, and the matter was referred to a committee composed of the lady members of the Board to report to the Board thereon, and make what suggestions they considered would meet the requirements of the case. The result was the election of a midwife holding the certificate of the Obstetrical Society.

The question of employing the district medical officer was considered, but the Board felt that, although the patients would be better off than before during labour, the nursing afterwards, if the patients were left to the tender mercies of neighbours, would counteract any advantage that might result from skilled attendance during the actual childbirth. The decision was arrived at to employ a midwife who could be trusted to send for medical aid when necessary, but would thoroughly attend to the patients during the puerperal state. I am told on high authority that the question of expense in the choice between doctors and midwife never entered into the question at all. The arrangement (so far as I personally am concerned) has proved eminently satisfactory.

While feeling with Dr. Pratt that any attempt at medical sweating should be exposed and deprecated, I think this particular matter is one that cannot be classed under this head, and it is due to the Leicester Board of Guardians that this statement should be made.—I am, etc.,

W. PEMBERTON PEAKE,
Medical Officer to No. 1 District Leicester Union.

Leicester, May 17th.

SIR,—I thank Mr. Horsley for giving me the reference to the Act of Parliament, with which, however, I was already familiar. The case which I imagined was of set purpose an extreme one, in order to emphasise my position as to midwives, but if Mr. Horsley will read the section of the Act with care, he will see that the suggested attendant would have done nothing to bring herself within it. May I also point out that although the law may refuse the machinery of the courts for the recovery of payment for certain acts, it does not thereby render those acts illegal, and that the law is to be found not only in the statutes, but in the interpretation of them by the courts of law, who, so far, have not decided in Mr. Horsley's favour?

I am sorry and I am surprised that Mr. Horsley should have found my last letter "offensive." Should this one be equally unfortunate, I would counsel him not to reply while his anger is still hot.—I am, etc.,

General Lying-in Hospital, May 20th. HENRY OWEN.

P.S.—In my last letter "would" was printed for "could" in the twenty-second line.

SIR,—I see that once again the question of midwives registration is being discussed in the BRITISH MEDICAL JOURNAL, but already the correspondence has assumed a party character, one party supporting the Bill now before Parliament, the other party offering it an uncompromising opposition. Surely it is time steps were taken to come to an agreement in this most important matter; I mean for the medical profession to agree, for the usefulness, the success, the very life of any such measure will depend on the support it receives from the medical men practising in the country, where it is to take effect. I think we are all in accord that the present state of affairs is one not to be borne, and that the existence of midwives is a necessity. Then there are several minor points and details that might easily be arranged to meet the requirements of both parties. But with regard to the more essential parts it is different; the one most vital objection raised to the present Bill is the want of control, generally and individually, of the new order of midwives that it is proposed to create, and to meet this objection I would suggest that the new midwives, made in whatever way it may be agreed, should not be allowed to practise except as the servants of some body, such as a Board of Guardians, a village nursing association, or a maternity charity; that these bodies should be compelled to adopt specified rules for the management of the midwives employed by them, and that every such body should appoint a medical man or medical men as paid or honorary officer or officers, or make some arrangement for the payment of any medical man that the midwife may call to her assistance.

I trust some suggestion like the above may be acceptable to the opponents of the scheme of registration as at present proposed, and I do not think it would be any real hindrance to the object we all want to see achieved; in fact, it might do much to advance it, apart from removing opposition it would help to make the Bill practicable in its working.

I am almost certain that, in country districts at least, the receipts from the pure midwifery practice proposed would not suffice to support a woman or to induce her to undergo the necessary training and examinations and pay the required fees. This statement, apart from inquiries and calculations I have made on the point, is supported by the admission that "of the 2,000 diplomates of the Obstetrical Society, few are found practising except as the *employées* of institutions or charities."

Of course, if this plan is to succeed nursing associations and the various charities suggested must be more in number than at present, and in some districts at any rate the guardians must co-operate; this would make its adoption more gradual than otherwise would be the case—perhaps an advantage. However, until there is some recognised system of training midwives it is of little use, nay almost impossible, for these charities and nursing associations to increase in number.

This letter is I am afraid, Sir, very crude, but not wasted if its meaning is clear and if it in the least little way helps to advance a measure that is a part of the great work of an unselfish profession—the relief of human suffering.—I am, etc.,

Freshford, May 21st. CHAS. E. S. FLEMMING.

THE NEW MIDWIVES BILL.

SIR,—I wish to urge the following objections to the Bill for the Registration of Midwives now before the House of Lords.

Definitions.—The term "midwife" as interpreted by the public, means a person competent to attend midwifery. The term "natural labour" cannot be applied to any labour until it is completed.

Registration.—Not made penal to practise midwifery only penal to assume title. The title "monthly nurse" would not infringe the Act. The greatest amount of evil is said by the supporters of the Bill to be done by women *sine* diploma. They now propose to register these women and "hall mark" them with a government stamp of competence.

Privileges of Registration.—Midwives are put by this Bill on the same footing as medical practitioners (male and female) while they have only to study a small portion of one branch of medicine, and no evidence of previous education is required as proof of intelligence and ability, to understand what is taught. In point of education and intelligence the midwife is much inferior to the trained nurse who acts only under medical superintendence and control. Normal labour is not incompatible with the stillbirth of the child. Is the parent to be subjected to the distress and annoyance of an inquest if the child is stillborn? This must be so if the midwife is not to give certificate. If she is to give it, it is a dangerous power. Already, according to Dr. Tatham's

statistics, 45 per cent. of the stillbirths in Manchester are certified by midwives.

Provision for Existing Midwives.—Anyone practising as a midwife at the passing of this Act can be registered. The number of ignorant women who could give evidence of having acted in this capacity is enormous.

Medical Officer of Health.—How can the medical officer of health or county council supervise the midwife? Who is to report? Are medical men to act as spies? Poor-class midwifery is mostly done by younger practitioners, who could least afford the opposition which would follow his report. What an invidious position a young medical man or woman would be placed in by this Act!

Rules.—How will the following cases be dealt with: Lingering labours; concurrent diseases—heart disease, etc.; ruptured perineum—never admitted; suspended animation of child; *post-partum* hæmorrhage; adherent placenta; abortions and miscarriages—treated now by midwives? Will the imperfectly educated midwife be able to diagnose abnormalities? If so, she will be tempted to interfere; and if she interfere, she will say she acted to the best of her ability in the interest of the patient. Conviction for malpractice would be difficult.

The Position of the Medical Practitioner.—He is to be a spy on the midwife. He is to be consulted only in abnormal cases. If a young man, his experience will be limited and the field for its enlargement greatly contracted. He will receive half fees for difficult and abnormal cases. The responsibility for dangerous and bungled cases will fall upon him. Is the registered midwife to be a female only? What about the L.M.?

The advocates of this Bill are specialists or men in high class practice, not working among the poor. The opponents are mostly general practitioners with large experience of midwifery practice, its difficulties and its dangers. They are as 40 or 50 to 1 of the supporters of the Bill. Would the supporters of the Bill be satisfied with the attendance of women of such limited knowledge and skill as they propose to register upon their own wives and daughters? The Bill is an attempt at retrograde legislation, and if passed would virtually repeal the Medical Acts passed for the public safety and well-being.—I am, etc.,

Manchester, May 20th. S. WOODCOCK, M.D.

THE VALUE OF EXPERIMENTAL EVIDENCE IN THE DIAGNOSIS OF DISEASES OF THE CEREBELLUM.

SIR,—In speaking of the want of unanimity among observers regarding the side to which a patient falls, when suffering from a lesion of one lateral lobe of the cerebellum, Dr. Risien Russell, in the BRITISH MEDICAL JOURNAL of May 18th, says that probably "we all mean the same thing, but express ourselves differently." I cannot help thinking that in endeavouring to clear up the confusion he has himself fallen into an error of expression. After saying that the patient rotates away from the side of the lesion, he proceeds to explain this as follows: The patient being placed to stand facing the observer, if the right lateral lobe be affected, the rotation which occurs will cause the left side of the patient to first present itself to the observer, and after that his back; in other words, he executes the movement which, in military phraseology, is known as "right-about-turn." Or, if we place the patient in the recumbent position, flat on his back, and cause him to rotate "like a screw going into a bottle," the effect will be to turn him on to his right side; that is to say, when the right lobe is affected the patient turns to the right. Surely this is rotation towards, not away from the side of the lesion, as Dr. Russell states.—I am, etc.,

R. BRUCE FERGUSON, M.A., M.D.Cantab.

New Southgate, N., May 20th.

UNIVERSITY REFORM.

SIR,—May I be allowed to point out that the large vote in favour of Mr. T. B. Napier, LL.D., for the London Senatorial list is no proof that the bulk of the graduates of the University of London are opposed to the assumption of teaching functions by the present University? It is, I believe, much more a sign that they are opposed to any lowering of the present standard for degrees, which they fear will happen if too much power is put into the hands of teachers of London medical schools. That the present regulations are not sufficiently elastic is quite possible, but it is, in my opinion, a mistake and a slur on the medical student class to represent the London University examinations as too severe. That so many think they are too severe is due to the inefficient and limited teaching in so many middle-class schools.

When we remember that the medical profession is already overstocked it seems to me mistaken kindness to the medical student to in any way lower the standard of medical examinations. Teachers are necessarily interested in passing as many of their own students as possible, and this bias will be much more strongly felt in the case of medical teachers than in that of the schoolmasters. The medical teachers should not therefore have a predominance in the councils of the coming university even though they may justly be accorded a large share of the management.—I am, etc.,

Welbeck Street, May 18th. F. R. WALTERS.

IS CANCER HEREDITARY?

SIR,—Perhaps the most direct way of answering such a suggestion as Dr. Walters's, that "A mother and daughter both suffering from cancer may easily have acquired it from a common source without any special predisposition" is by an appeal to the fact, demonstrated by me, that the disease is so often homotopic in its transmission, that is to say, it attacks the corresponding organ in each of the related individuals with preponderating frequency. The following cases illustrate this in a particularly striking manner:

1. A woman, aged 53, came under my observation with uterine cancer, whose maternal grandmother, mother (aged 45), mother's sister, and the patient's two sisters (aged 32 and 36) had all died of cancer of the uterus.

2. In a case recorded by Sibley, a mother and her five daughters all died of cancer of the left breast.

3. Of the celebrated Bonaparte family, Napoleon I, his father, his brother Lucien, and two of his sisters all died of cancer of the stomach.

Cases of this kind seem to me to prove conclusively the hereditability of cancer.—I am, etc.,

Preston, May 18th. W. ROGER WILLIAMS.

CLUBS AND THE PROVIDENT PRINCIPLE.

SIR,—Dr. Fraser, in his letter in the BRITISH MEDICAL JOURNAL of May 18th, has travelled very widely beyond the principle hitherto involved, namely, the difficulty of deciding a wage limit for provident dispensary members. This was the only part of the provident system in Manchester and Salford that was under discussion, but your correspondent has not endeavoured in the slightest degree to debate this question—a question so far-reaching and important and yet so many-sided as to claim for it much thought and deliberation.

If the Provident Society, as he avers, issued a joint report on behalf of themselves and the Manchester Medico-Ethical Association recommending abolition of the wage limit clause without the sanction of the latter body, their action was in the highest degree reprehensible. But this report was issued over ten years ago; why, therefore, did the Medico-Ethical Association allow such a report to go unchallenged at the time, and why has it been allowed to remain so?

But your correspondent, in running away from the point at issue, assumes the offensive, and proceeds to attack the whole provident system of working, and in doing so makes some very extravagant statements. Medical practitioners in Manchester and Salford acquainted with the stratum of population who make use of the provident dispensaries, and who have read the latter half of the paragraph under objection 2, will thoroughly appreciate this remark as well as, perhaps, derive some amusement from its absurdity.

Into the merits or demerits of his objections to the provident system I am not at present going to enter. For and against most of them much might be written: indeed, each opens up a wide and fruitful field for discussion.

To those who are simply actuated by biassed feelings or who have not thoroughly grasped the difficulties underlying all methods for providing medical aid to a class which, while unable to meet ordinary medical charges yet are unwilling to avail themselves of our charities, this statement may at first sight appear indefensible; yet, notwithstanding the weighty, decisive, authoritative and judicial verdict delivered by your correspondent, such I would submit is the case.

In writing thus I am making no attempt to defend the

modus operandi referred to, nor am I admitting the accuracy of your correspondent's charges; so far as I am concerned the matter lies *sub judice*. The whole question is one which requires investigation at the hands, not of those who, for various reasons, seek to overthrow the only institution of its kind in this district—an institution which supplies an undoubted want—but of those who, while taking an unselfish and sympathetic interest in the difficulties of a large proportion of our working classes, will not overlook the interests of, or disregard the respect due to, our profession.

After delivering himself of these objections Dr. Fraser proceeds to take me to task for defending them. Those who have read my last letter will fail to see where any attempt at defence was made. There was, therefore, no necessity for him to step so much out of his way to make an uncalled for and unmerited attack.

Dr. Fraser need not be alarmed. The "privileges, social status, and just emoluments," of which he writes, are in no danger of being diminished or impaired by those medical gentlemen who are on the staff of the Provident Society. Those of them whose acquaintance I have the privilege to possess are gentlemen who are keenly alive, not in a narrow sense merely, but to everything that appertains to the honour and welfare of our calling. They will therefore strongly resent the *rôle* that Dr. Fraser has so arrogantly assumed in attempting to instruct his professional brethren in the dignities and duties of the medical profession.—I am, etc.,

Salford, May 22nd. ROBERT FORSYTH.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice. The last post on Wednesday is the latest by which these announcements can be received.

A SURGEON-CAPTAIN, due to go abroad next trooping season, wishes to exchange with an officer low down on the roster for foreign service. Apply, stating terms, etc., to "Devon," care of Holt and Co., 17, Whitehall Place.

THE NAVY.

THE following appointments have been made at the Admiralty: SAMUEL KEAYS, Staff Surgeon, to the *Tamar*, May 28th; JAMES MACC. MARTIN, Staff Surgeon, to the *Colossus*, May 28th; HORACE X. BROWNE, Staff Surgeon, to the *Melampus*, May 20th; EDWARD R. D. FASKEN, Surgeon, to Sheerness Dockyard, May 20th; JAMES C. F. WHICHER, Surgeon, to the *Wye*, May 20th; HAMILTON E. L. CARLE, Surgeon, to the *Victory*, May 20th; PERCY LORD, Surgeon, to the *Tamar*, May 20th; PERCIVAL M. MAY, Surgeon, to the *Esk*, May 20th.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL D. C. GROSE is promoted to be Surgeon-Colonel *vice* F. H. WELCH, retired, May 1st. Surgeon-Colonel Grose was appointed Assistant-Surgeon, September 30th, 1864; Surgeon, March 1st, 1873; Surgeon-Major, September 30th, 1876; and Brigade-Surgeon-Lieutenant-Colonel, August 20th, 1890, having attained the rank of Lieutenant-Colonel, September 30th, 1884. He was with the expedition from Aden into the interior of Arabia in 1865-66, was in medical charge of the force at the action of Bir Said, and was present in the subsequent operations.

The undermentioned Surgeon-Lieutenant-Colonels are promoted to be Brigade-Surgeon-Lieutenant-Colonels, namely:—W. J. FAWCETT, M.B., *vice* G. Andrew, M.B., retired, April 24th; W. E. SAUNDERS, *vice* D. C. Grose, May 1st; W. J. CHARLTON, *vice* J. D. Gunning, deceased, May 2nd. Their previous commissions, which are simultaneous, are thus dated:—Assistant-Surgeon, April 1st, 1871; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; and Surgeon-Lieutenant-Colonel, April 1st, 1891. Brigade-Surgeon-Lieutenant-Colonel Fawcett served in the Soudan campaign in 1885 (medal with clasp, and Khedive's bronze star), and with the Hazara Expedition in 1888 (mentioned in despatches, medal with clasp). Brigade-Surgeon-Lieutenant Colonel Saunders was in the Zulu war in 1879 (medal), and in the Boer war in 1881. Brigade-Surgeon-Lieutenant-Colonel Charlton has no war record in the Army Lists.

Surgeon Colonel A. F. CHURCHILL, M.D., has been appointed to the administrative medical charge of the Mandalay District and Chin Hills Command.

Brigade-Surgeon-Lieutenant-Colonels C. F. POLLOCK, R. DE LA C. CORBETT, D.S.O., and H. T. BROWN are appointed to officiate on the administrative medical staff of the Bengal Army, the first two with the temporary rank of Surgeon-Colonel.

Deputy Surgeon-General JOHN ASHTON BOSTOCK, C.B., Honorary Surgeon to the Queen (late Scots Guards), died at 73, Onslow Gardens on May 18th, aged 79. He entered the service as Assistant-Surgeon, February 4th, 1842; became Surgeon, February 17th, 1854; Surgeon-Major, March 24th, 1857; and Honorary Deputy Surgeon-General on retirement, February 26th, 1876. He served with the 3rd Buffs at the battle of Punniar on December 29th, 1843, and received the bronze star granted for that action. He was also in the Eastern campaign in 1854, and up to April 16th, 1855, with the Scots Fusilier Guards with which he was at the battles of Alma, Balaklava, and Inkerman, at the siege of Sebastopol, and the sortie of October 26th. He received the medal with four clasps, and the Turkish medal, and was made a Knight of the Legion of Honour. He was appointed Honorary Surgeon to the Queen in August, 1859, and nominated a Companion of the Order of the Bath, May 20th, 1871.

INDIAN MEDICAL SERVICE.

THE services of Surgeon-Colonel J. H. NEWMAN, M.D., Principal Medical Officer in Rajpootana, have been replaced at the disposal of the Home Department.

Brigade-Surgeon-Lieutenant-Colonel A. L. HACKETT, Madras Establishment, has retired from the service, which he entered as an Assistant Surgeon, April 1st, 1857.

Surgeon-Colonel C. E. MCVITTIE, Madras Establishment, is granted a good service pension, *vice* Surgeon-Major-General W. F. de Fabeck.

Surgeon-Lieutenant-Colonel G. E. E. BURROUGHS, Bombay Establishment, is permitted to retire from the service from July 10th, next. He was appointed Surgeon, March 31st, 1875, becoming Surgeon-Lieutenant-Colonel, March 31st, 1895. He was in the Afghan war in 1878-80, being present at the engagements of Khushk-i-Nakhud (for which he was mentioned in despatches) and Girishk, at the defence of Candahar, and the battle of Candahar (medal with clasp).

The promotion of the undermentioned officers of the Bengal Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen: Surgeon-Colonel JAMES CLEGHORN, M.D., to be Surgeon-Major-General, March 28th; Brigade-Surgeon-Lieutenant-Colonels J. H. NEWMAN, M.D., and J. C. G. CARMICHAEL, M.D., to be Surgeon-Colonels, March 28th.

The retirement of the undermentioned officers, which has already been reported in the JOURNAL, has received the approval of the Queen: Surgeon-Major-General W. R. RICE, M.D., C.S.I., March 29th, and Brigade-Surgeon-Lieutenant-Colonel ARCHIBALD CAMERON, M.D., April 1st, of the Bengal Establishment; Brigade-Surgeon-Lieutenant-Colonel JAMES SMITH, April 1st, and Surgeon-Major DONALD ELCUM, M.D., March 10th, of the Madras Establishment.

THE VOLUNTEERS.

THE undermentioned Surgeon Lieutenants are promoted to be Surgeon-Captains in their respective regiments, May 22nd: W. P. THORNTON, Royal East Kent Yeomanry; W. G. CRESWELL, M.D., 2nd Volunteer Battalion the Royal Warwickshire Regiment; J. M. H. MARTIN, M.D., 1st Volunteer Battalion the East Lancashire Regiment.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps named, May 22nd: HAROLD M. EVANS, M.D., 1st Norfolk Artillery (Eastern Division Royal Artillery); Lieutenant JOHN QUICK, 5th (the Hay Tor) Volunteer Battalion the Devonshire Regiment; EVAN JONES, 21st Middlesex (the Finsbury).

Surgeon-Lieutenant A. M. SINCLAIR, 2nd Volunteer Battalion the East Lancashire Regiment, is now appointed Second Lieutenant in the same corps, May 22nd.

Surgeon-Captain A. FLETCHER, M.D., 1st Volunteer Battalion the Lancashire Fusiliers, has resigned his commission, May 22nd. Surgeon-Captain T. A. DAGG, 1st Surrey (South London), has also resigned from the same date.

Brigade-Surgeon-Lieutenant-Colonel W. MILLIGAN, North Midland Brigade Volunteer Infantry, has resigned his appointment, May 22nd.

EXAMINATION FOR THE MEDICAL SERVICE R.N.

THE undermentioned gentlemen, who competed on May 6th and following days at the Examination Hall, Victoria Embankment, for appointment as surgeon in the Royal Navy, have been granted commissions, and were by the *Gazette* of May 15th, appointed to the *Victory* for Haslar Hospital.

Name.	Marks.	Name.	Marks.
R. J. Mackeown, M.B. ...	2,785	S. T. Reid	2,277
A. R. Bankart, M.B. ...	2,735	P. W. MacVean, M.B. ...	2,238
P. H. M Star ...	2,611	J. F. Hale, M.B.	2,205
E. S. Miller, M.B. ...	2,539	H. W Hull...	2,146
H. H. Pearse	2,449	C. J. E. Cock	2,134
O. Rees, M.D.	2,377	J. E H. Phillips	2,116
H. A. Julius	2,366	T. Gibbons, B.A., M.B....	2,114
C. H. Rock	2,307	A. X. Lavertine	2,104

AGE EXTENSION IN THE MEDICAL STAFF.

A CORRESPONDENT writes: As an example of official equivocation the answer of the Secretary of State for War to Sir Albert Kollit regarding Surgeon-Major-General Grimdi's extension cannot be surpassed. It is clear by Article 347 of the Royal Warrant that any prolongation beyond 60 is decidedly an extension. As to the "interests of the service" being materially advanced by these extensions the less said the better. They retard promotion, and do not advance the "interests of the service." As to the officer in question having been "verbally" informed that his services are to be retained to 62, such "verbal" statements are not calculated to insure certainty where official intimations in writing are surely demanded. There is a need for such extensions being duly gazetted.

THE LATE DEPUTY-SURGEON-GENERAL S. S. SKIPTON, M.D.

A CORRESPONDENT sends us a cutting from the *Cheshire Observer*, in which, alluding to the death of this distinguished and much-liked officer, it is remarked: "It is disappointing to think that, though a volunteer whose services have been confined to sham fights at Aldershot and marches past the Queen may receive a soldier's funeral, the gallant veteran who had borne the burden and heat of the day, and met death fearlessly face to face on the battlefield, was buried as a civilian." This may be perfectly true as a regret; but still the great majority of retired military officers of all grades are buried as civilians—indeed, in many cases it would be impossible to give them a military funeral according to rank, even if that were desired by the relatives. Deputy-Surgeon-Genera

Skipton was a distinguished and highly-respected officer, who had gallantly faced death in battle both in the Crimea and the Mutiny; yet, according to the Duke of Cambridge, he was only a "brave civilian."

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE class of regimental stretcher bearers composed of officers, non-commissioned officers, and men of volunteer corps of the Home District was inspected on May 9th at the Queen's Hall, Westminster, by Surgeon-Major Kobbins, Army Medical Staff, who also distributed the prizes, including the handsome challenge bowl recently presented to the school by Surgeon-Colonel J. B. Hamilton, late P.M.O. of the District, which was won by a squad of the London Scottish R.V., one man, Corporal Ducat, obtaining the highest possible marks. The next class will be held at the headquarters of the London Rifle Brigade.

THE SENIOR MEDICAL OFFICER, STRAITS SETTLEMENTS.

BRIGADE-SURGEON-LIEUTENANT-COLONEL N. B. MAJOR, in charge of the 2nd Station Hospital, Aldershot, has, the *Aldershot News* states, been posted to the Straits Settlements for duty. This announcement points to the relief of Brigade-Surgeon-Lieutenant-Colonel J. H. Hughes, probably pending the latter officer's promotion.

ARMY MEDICAL OFFICERS ON ENTERIC FEVER IN INDIA.

ON April 27th we made a very brief allusion to Brigade-Surgeon Climo's article in the *United Service Magazine* for that month on enteric. In the May number of the same magazine appears a rejoinder from Surgeon-Major Perry Marsh, who brings to his aid numerous statistics. The articles on "The Scourge of India" are discussed from two standpoints, and although the topic has already been well threshed, it is interesting to read opposite views on the etiology of a disease which shows a steady annual increase in attacks and deaths.

HOW SANITARY RECOMMENDATIONS ARE TREATED.

OUR comments on sanitary representations made by army medical officers have brought to light examples of the most extraordinary procedure on the part of the military authorities following on sanitary recommendations. An officer of Surgeon-Lieutenant-Colonel's rank, now on retired pay, writes:

> Lord Wolseley complained of what he termed "want of initiative." The following will show how our initiative is dealt with when we do dare to take it: In the —— Barracks a few years ago, some four or five very bad cases of measles having occurred, I advised, in writing, the immediate closing of the garrison schools, which was done; but only for the moment. As soon as the inspector of army schools at —— (headquarters of the Command) heard of it, he conferred with the General, who ordered the commanding officer at —— (my station) to at once reopen the schools, the inspector of schools sending a memo. to me, through the officer commanding, that in his opinion—that is, the opinion formed at ——, the headquarter station, miles away—the disease had not yet assumed an epidemic type, and there seemed no reason for closing the schools. The General had ordered that the schools should be reopened, and on this authority it was done. In vain I replied that my recommendation as to closing the schools was made in the hope of preventing the spread of the disease. The military authorities know better, and here is the result: The school children sickened one after another; nearly half a hundred cases occurred, with three deaths from respiratory complications. The foregoing facts were mentioned in the quarterly sanitary report and in the Annual Report of Medical Transactions submitted to the medical authorities; but because the military authorities grossly erred, and their action was followed by loss of health and life, nothing came of my report; but it would be easy for an M.P. to call for that annual report.

"THAT BRAVE CIVILIAN."

VETERAN writes: The profession must thank you again for your assertion of its dignity and independence in your leading article in the JOURNAL of May 11th, on Surgeon-Major Robertson, at Chitral. The remarks of H.R.H. the Commander-in-Chief at the Academy dinner were most unfortunate, as lay journals point out as well as yourself. The criticism is so general that we need not be surprised if an attempt is made to explain them away, and afford H.R.H. a means of retreat from an untenable position. For instance, he may have used the term "civilian" in its technical sense, for in India a "civilian" means an officer of the Civil Service, and not merely a man who is not a soldier. A military officer in civil employ is commonly called a "military civilian," to distinguish him from the officers of the Civil Service, who are termed "covenanted civilians" and "uncovenanted civilians" respectively. It is to be feared he is thoroughly imbued with the "Junker" prejudice against all but "combatants;" but this must be resisted at all costs. There are great numbers of army officers who do not share this prejudice, which were, indeed, a mistaken policy, especially in India and in the field, where they are so dependent on medical officers, not only for treatment, but even personal nursing in sickness and wounds. Lady Roberts's fund goes a very short way in providing hospital accommodation for sick officers in India. There is a far greater strain thrown on the medical than the combatant officers in the campaign; and so while they work till they drop, then the "frequent change of doctors" is made a grievance of. The outcry against them after the Tel-el-Kebir campaign, raised by officers from England who had never before been in the field, was thoroughly refuted and disposed of by Lord Morley's Committee. The tendency of the unworthy prejudices against medical officers and their army status keeps good men out of the service, and drives the best to early retirement.

*** "That brave civilian" was indeed a most unfortunate utterance, o for the medical profession—because it will compel the public to look into the question of the status of medical officers of the army—but for the military hierarchy who seek to confuse the whole matter. We are as curious as our correspondent to see the words explained away, as the means of escape from a thoroughly "untenable position." Even according to our correspondent's definitions, Surgeon-Major Robertson was at least entitled to be called "that brave military civilian," absurd though the title seems.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE SANITATION OF A HOUSE.

IN the suit of Paulson *v.* Judge, in the Queen's Bench Division on Saturday, May 18th, the plaintiff's case was that upon the representation of an agent that a furnished house at Sandgate, called Castle Glen, was in a perfectly sanitary condition, he hired it for the benefit of his family in the spring of last year; that immediately after entering into possession some members of his family had scarlatina, his wife had sore throat, and his servants were also made ill from foul smells coming from the scullery sink and the dampness of the dining room. Evidence in support of the plaintiff's case was given by Dr. Paulson, Dr. Cheale, and others. For the defence it was contended that the house was in a good sanitary condition, and the evidence of Mr. Mark Judge (sanitary engineer), the defendant, was to the effect that the sanitary arrangements were perfect, and that he and his family had resided in the house both immediately before and after Dr. Paulson, and had not experienced any ill-effects. The jury returned a verdict for the defendant on the claim and also on the counter claim.

TESTIMONIALS AND TRADE ADVERTISEMENTS.

A CORRESPONDENT calls our attention to an advertisement of a mineral water, in a Richmond and Twickenham newspaper, containing commendatory letters from various medical men whose names, qualifications, and addresses are given in full. These advertisements, he says, have been continued for several months. We need hardly say that such a publication of names and addresses is most objectionable, and is in contravention of well recognised ethical rules. It doubtless will sometimes happen that a young man, or a man whose knowledge of the world is small, will write a letter in such form that it may be used as an advertisement, and when once written it may not be easy to prevent its publication. Perhaps he is to be pitied rather than blamed, but it is difficult to believe that sixteen medical men in one district could have sinned accidentally in regard to one and the same mineral water. The appearance of such an advertisement shows well the widespread evils of bad example; one man straying from the ways of ethical propriety may lead to a lowering of the tone of a whole district. We hope the medical men alluded to will take such steps as they may be able to prevent the continuance of such a misuse of their names.

AN ACTION FOR FEES.

DR. W. P. FOX calls our attention to an action brought by him recently, in the Bloomsbury County Court, to recover fees for medical attendance rendered to a fellow passenger who was attacked with fatal illness on board a tourist vessel, returning from Bergen to Newcastle. It appears that the defendants, the trustees of the deceased patient, at first denied liability, and subsequently paid £5 into court. Judgment was given for the plaintiff for £4 3s. and costs in addition to the sum paid into the court. Dr. Fox points out that the profession at large may be glad to know that fees are recoverable under the circumstances mentioned.

ACTION FOR DAMAGES FOR RUPTURED PERINEUM.

PERINEUM asks: Are there any cases recorded in the law reports in which an action for damages in respect of a ruptured perineum due to alleged negligence has been brought against a medical man, and if so with what result?

*** One such case was heard quite recently before Baron Pollock, Dunkley *v.* Langley. Drs. Cullingworth and Herman gave evidence in favour of the defendant, and the jury, without hearing the speeches of counsel, found that there had been no negligence, and returned a verdict for the defendant.

"DR.," PHYSICIAN, AND APOTHECARY.

TREPHINE.—There is nothing illegal in such an assumption of titles. Although legal, however, it is not expedient, and it would show good sense and proper professional feeling if the word "Surgeon" were used instead. The tactics referred to are rarely successful, and the General Medical Council has the power to erase the names from their *Register* of persons who, after due inquiry, are found guilty of misconduct from a professional point of view.

CORONER'S INQUIRIES.

K. C. M., M.D., writes that he was called to see a child who had died very suddenly. As he had never attended the child he declined to give a certificate of the cause of death. The coroner then makes a preliminary inquiry and certifies the death as from "natural delicacy," upon which the death is registered and the body buried. There was no inquest.

*** In certain cases there is a discretionary power vested in the coroner as to the holding of an inquest, and he may, if he is quite satisfied that the death arose from natural causes, and the circumstances under which it occurred require no further investigation beyond a preliminary inquiry, give a certificate, provided by the Registrar-General for the purpose, in which he states the alleged cause of death, and that he does not consider an inquest necessary. Upon this the death would be registered as an uncertified death. We agree

with our correspondent in thinking that if such certificates were given simply upon the report of police constables and unskilled witnesses it would open the door to crime, and the Registrar General's returns on such cases would be valueless as accurate statements as to the causes of deaths. Our correspondent did right in declining to give a certificate of the cause of death, as he could form no opinion without a *post-mortem* examination.

EMERGENCY CALLS.

AJAX writes that a patient of his recently met with a carriage accident, and that a practitioner living near was called in. This practitioner has retained the charge of the case, and in reply to a remonstrance from our correspondent is reported to have expressed the opinion that in cases of accident "it was first come first served."

*** The ethics of our correspondent's colleague are primitive and selfishly erroneous, for the case in question is governed by the following rule: "When a practitioner is called in to an urgent case, either of sudden or other illness, accident, or injury in a family usually attended by another, he should (unless his further attendance in consultation be desired), when the emergency is provided for, or on the arrival of the attendant in ordinary, resign the case to the latter, but he is entitled to charge the family for his services."—*Code*, chap. ii, sect. 5, rule 7.

DOORPLATES.

H. makes an inquiry as to the usual practice as regards doorplates in the case of medical men practising in partnership. I, he writes, the oldest established practitioner in the place, having been junior partner in a firm for ten years, acquire the whole practice, and take into partnership another medical man commencing practice. We agree on a joint plate, with my name first, to be placed on each other's gate, and the individual partner's name on the door. Some time afterwards my partner on moving into a new house transposes the names on his plates, placing his own first, having been informed that it is more usual to have the name of the partner first that occupies the house. The partnership is for a term, and there is nothing in the articles of partnership about the style of the firm. I contend that the alteration is unfair to me, being documentary evidence that I am junior partner. Which is right?

*** Notwithstanding the omission of the name and style of the firm from the deed of partnership, in which it is the general rule to embody it, immemorial custom and usage would establish our correspondent's indubitable right to precedence for his name on the respective doorplates, and the contention of his junior partner to the contrary in the instance referred to is incorrect, and, if sanctioned, would naturally lead the public to an erroneous impression of their relative positions.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.

Inebriates Act.—The Lord Chancellor brought in a Bill to amend the Inebriates Act of 1879 and 1885, which was read a first time.

Richmond Lunatic Asylum, Dublin.—In reply to the Earl of Belmore, Lord Ribblesdale said that the estimated cost of remodelling the Richmond Asylum was £60,000, not £110,000. For that sum suitable buildings and accommodation would be provided for the residue of the lunatics of the district, about 800 in number, who could not be accommodated in the new buildings at Portrane. The new buildings were estimated to cost £240,000 and to accommodate 1,200 lunatics. The Irish Government at first held the opinion that it would be better to abandon the existing asylum and to erect new buildings on a better site, and they made representations to that effect to the Board of Control, but the answer was that whereas the old buildings were worth £100,000 while used for the accommodation of the lunatics they were worth more than £20,000 if sold in the open market. After that answer the Irish Government did not feel justified in further interference with the discretion of the Board of Control.—In the course of a brief discussion which followed Lord Ashbourne said that the Richmond Asylum was enormously overcrowded and inquired what was to happen to the lunatics hitherto housed at that asylum who could not be accommodated in the new building at Portrane. He questioned the accuracy of Lord Ribblesdale's figures, expressing the opinion that the total expenditure of the Richmond Asylum would amount to a total of £110,000.—Lord Ribblesdale said that the estimates supplied to him were £60,000, and Viscount Powerscourt expressed the opinion that the building could not cost anything like £110,000.

HOUSE OF COMMONS.

Bovine Tuberculosis.—Mr. Shaw Lefevre informed Mr. Knowles that the Royal Commission on this subject issued a few days ago their report of the evidence which had been taken, but made no recommendation. Reference was made to the consumers of milk, and the conclusions on that part of the subject appeared to point to the extension of inspection of dairies, butchers' shops, and possibly of slaughterhouses.

The Influenza.—Mr. Thornton asked a question as to the promised inquiry into the different natures of ordinary cold and influenza.—Sir W. Foster said that the object of the inquiry referred to had been to ascertain whether any relation existed between the ordinary influenza cold and epidemic influenza, and it had been found that the acute stages of the two diseases alone afforded opportunity for the necessary bacteriological examination. It was not considered that further study of the sequelæ or after-effects of the disease was necessary, or would be helpful to that end.—Mr. Thornton asked whether medical men would be encouraged to give their experience to the Local Government Board.—Sir W. Foster replied that medical men required no encouragement to publish for the benefit of the public the results of their studies as to the means of preventing the spread of the disease.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Degrees.—At the Congregation on May 16th the following Medical and Surgical degrees were conferred:

M.D.—A. W. Metcalfe, M.A., M.B., B.C., Trinity College.

M.B. and B.C.—A. Burton, B.A., King's College; A. Eichholz, M.A., Fellow of Emmanuel College; J. E. Bates, B.A., Queens' College; and E. Whichello, B.A., Sidney Sussex College.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following gentlemen having passed the necessary examinations and having conformed to the by-laws and regulations, have been admitted Members of the College, namely:

Adams, P. E., L.R.C.P.Lond.
Bacon, R. A. E., L.R.C.P.Lond.
Barritt, J. T., L.R.C.P.Lond.
Basden, H. S., L.R.C.P.Lond.
Baxter, S. E., L.R.C.P.Lond.
Bennett, A. G., L.R.C.P.Lond.
Birley, H. K., L.R.C.P.Lond.
Blackburn, E. W., L.R.C.P.Lond.
Blackett, E. J., L.R.C.P.Lond.
Blount, G. B. C., L.R.C.P.Lond.
Burnett, F. M., L.R.C.P.Lond.
Burridge, H. A., L.R.C.P.Lond.
Burton, C. H., L.R.C.P.Lond.
Butler, T. H., L.R.C.P.Lond.
Caldicott, C. H., L.R.C.P.Lond.
Clark, W. G., L.R.C.P.Lond.
Clemesha, W. W., L.R.C.P.Lond.
Conford, G. J., L.R.C.P.Lond.
Cooper, R. M. Le H., L.R.C.P.Lond.
Croasen, S. G., L.R.C.P.Lond.
Crouch, H. C., L.R.C.P.Lond.
Dalál, R. D., L.R.C.P.Lond.
Devereux, N., L.R.C.P.Lond.
Dickin, E. P., L.R.C.P.Lond.
Dixon, W. E., L.R.C.P.Lond.
Dobbin, E. J., L.R.C.P.Lond.
Dodd, F. L., L.R.C.P.Lond.
Dodgson, R. W., L.R.C.P.Lond.
Down, E., L.R.C.P.Lond.
Dunn, W. E. N., L.R.C.P.Lond.
Edge, B. E., L.R.C.P.Lond.
Fison, E. T., L.R.C.P.Lond.
Fuller, A. E., L.R.C.P.Lond.
Gardner, W. J., L.R.C.P.Lond.
Gibbons, A. P., L.R.C.P.Lond.
Gillies, S., L.R.C.P.Lond
Goddard, G. H., L.R.C.P.Lond.
Griffiths, J. C., L.R.C.P.Lond.
Groves, E. W. H., L.R.C.P.Lond.
Hallwright, M. L. G., L.R.C.P.Lond.
Harrison, H. G., L.R.C.P.Lond.
Head, E. E., L.R.C.P.Lond.
Heaton, A. B., L.R.C.P.Lond.
Higginson, G., L.R.C.P.Lond.
Hopton, R., L.R.C.P.Lond.
Horton, W. H., L.R.C.P.Lond.
Isacke, M. W. S., L.R.C.P.Lond.
James, C. H., L.R.C.P.Lond.
James, F. C., L.R.C.P.Lond.
Jones, J. E., L.R.C.P.Lond.
King, T. P., L.R.C.P.Lond.
Lane, J. G. O. H., L.R.C.P.Lond.
Laslett, M. H., L.R.C.P.Lond.
Lawson, R., L.R.C.P.Lond.
Legg, T. P., L.R.C.P.Lond.
Lister, W. T., L.R.C.P.Lond.
Lockett, G. V., L.R.C.P.Lond.
McArthur, A. N., L.R.C.P.Lond.
Madge, H. A., L.R.C.P.Lond.
Marks, H. W. J., L.R.C.P.Lond.
Marriott, A., L.R.C.P.Lond.
Meacker, J. H., L.R.C.P.Lond.
Mills, H. W., L.R.C.P.Lond.
Moffat, H. A., L.R.C.P.Lond.
Montgomery-Smith, E. C., L.R.C.P. Lond.
Moore, P. L., L.R.C.P.Lond.
Mott, C. H., L.R.C.P.Lond.
Mumford, W. G., L.R.C.P.Lond.
Norbury, W., L.R.C.P.Lond.
Ogden, O. W., L.R.C.P.Lond.
Owen, A. D., L.R.C.P.Lond.
Owles, O. W., L.R.C.P.Lond.
Pakes, W. C., L.R.C.P.Lond.
Palin, E. W., L.R.C.P.Lond.
Pardoe, J. G., L.R.C.P.Lond.
Peake, W. H., L.R.C.P.Lond.
Pearson, M. G., L.R.C.P.Lond.
Perry, E. C., L.R.C.P.Lond.
Perry, E. L., L.R.C.P.Lond.
Phillips, D., L.R.C.P.Lond.
Pinchard, M. B., L.R.C.P.Lond.
Pitt, W. C., L.R.C.P.Lond.
Playfair, E., L.R.C.P.Lond.
Price, G. B., L.R.C.P.Lond.
Reynolds, E. E., L.R.C.P.Lond.
Richards, J., L.R.C.P.Lond.
Rigg, S. E., L.R.C.P.Lond.
Sedgwick, H. R., L.R.C.P.Lond.
Smith, F. L., L.R.C.P.Lond.
Smith, L. A., L.R.C.P.Lond.
Smith, P. M., L.R.C.P.Lond.
Sowry, G. W., L.R.C.P.Lond.
Stanley, H., L.R.C.P.Lond.
Statham, C. J. B., L.R.C.P.Lond.
Stevenson, J. S., L.R.C.P.Lond.
Stewart, C. B., L.R.C.P.Lond.
Stokes, J. W., L.R.C.P.Lond.
Swainson, E. A. C., L.R.C.P.Lond.
Thomas, W. P., L.R.C.P.Lond.
Thompson, H. E., L.R.C.P.Lond.
Townend, R. H., L.R.C.P.Lond.
Toye, E. J., L.R.C.P.Lond.
Tressider, P. E., L.R.C.P.Lond.
Tribe, P. E. E., L.R.C.P.Lond.
Tucker, E. F. G., L.R.C.P.Lond.
Van Someren, E. H., L.R.C.P.Lond.
Vivian, J. H. P., L.R.C.P.Lond.
Walker, H. R., L.R.C.P.Lond.
Walls, E. G., L.R.C.P.Lond.
Wanhill, C. F., L.R.C.P.Lond.
Waring, A. H., L.R.C.P.Lond.
Warrington, R. J., L.R.C.P.Lond.
Waters, F. W., L.R.C.P.Lond.
Webster, T. L., L.R.C.P.Lond.
Whitley, H. W., L.R.C.P.Lond.
Wilkins, J. C. V., L.R.C.P.Lond.
Wilks, M., L.R.C.P.Lond.
Williams, D. F., L.R.C.P.Lond.
Williams, K. T., L.R.C.P.Lond.
Williams, L. A., L.R.C.P.Lond.
Willis, W. M., L.R.C.P.Lond.
Winter, J. B., L.R.C.P.Lond.
Wiseman, D. W., L.R.C.P.Lond.
Woodman, A., L.R.C.P.Lond.
Worthington, G. V., L.R.C.P.Lond.
Wyborn, W. E., L.R.C.P.Lond.
Young, A., L.R.C.P.Lond.
Young, C. W., L.R.C.P.Lond.

The following gentlemen passed the First Professional Examination for the Diploma of Fellow, at a meeting of the Board of Examiners, on Wednesday, May 15th:

A. Baldwin, L.R.C.P.Lond., M.R.C.S.Eng., Middlesex Hospital; H. J. Curtis, L.R.C.P.Lond., M.R.C.S.Eng., University College, London; C. B. Hall, L.R.C.P.Lond., M.R.C.S.Eng., St. Mary's Hospital; S. B. Hulke, L.R.C.P.Lond., M.R.C.S.Eng., Middlesex Hospital; C. R. Keyser, St. George's Hospital; F. E. Scrase, L.R.C.P.Lond., M.R.C.S.Eng., University College, Bristol, and St. Bartholomew's Hospital; T. R. H. Smith, L.R.C.P.Lond., M.R.C.S.Eng., Cambridge University and St. Bartholomew's Hospital; and F. J. Worth, L.R.C.P.Lond., M.R.C.S.Eng., St. Mary's Hospital.

Twelve gentlemen were referred back to their professional studies for six months.

Passed on Thursday, May 16th:

F. S. Collard, L.R.C.P.Lond., M.R.C.S.Eng., St. George's Hospital; M. G. Dyson, St. Bartholomew's Hospital; G. R. Fox, L.R.C.P.Lond., M.R.C.S.Eng., St. Bartholomew's Hospital; R. M. Going, Trinity College, Dublin, and London Hospital; F. Jaffrey, L.R.C.P.Lond., M.R.C.S Eng., St. George's Hospital; S. F. Lynch, King's College, London; H. Mundy, St. Bartholomew's Hospital; N. C. Ridley, L.R.C.P.Lond., M.R.C.S.Eng., St. Mary's Hospital; A. H. Spicer, Guy's Hospital; W. G. Sutcliffe, L.R.C.P.Lond., M.R.C.S.Eng., St. Thomas's Hospital; L. A. R. Wallace, L.R.C.P.Lond., M.R.C.S.Eng., Oxford University and St. Thomas's Hospital; and J. H. T. Walsh, Surgeon-Captain I.M.S., L.R.C.P.Lond., M.R.C.S.Eng., Westminster Hospital.

Eight gentlemen were referred back to their professional studies for six months.

Passed on Friday, May 17th:

R. C. Brown, M.B.Melb., Melbourne University and Westminster Hospital; W. R. Caveragh-Mainwaring, M.B.Adelaide, Adelaide University and London Hospital; J. H. Churchill, St. Bartholomew's Hospital; J. H. Crowley, M.B.Melb., M.R.C.S.Eng., Melbourne University; F. E. Freemantle, Oxford University and Guy's Hospital; T. S. Novis, London Hospital; E. J. O'Meara, Guy's Hospital; and M. Randall, M.R.C.S.Eng., L.R.C.P.Lond., University College, London.

Eight gentlemen were referred back to their professional studies for six months.

Passed on Monday, May 20th:

E. Evans, Guy's Hospital, and J. F. Wood, L.R.C.P.Lond., M.R.C.S.Eng., St. Bartholomew's Hospital.

Ten gentlemen were referred back to their professional studies for six months.

ROYAL COLLEGE OF PHYSICIANS, EDINBURGH; ROYAL COLLEGE OF SURGEONS, EDINBURGH; AND FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.

THE following gentlemen having passed the requisite examination, received the Diploma in Public Health:

T. H. Thomson, M.D.; G. D. Browning, M.R.C.S.Eng., L.R.C.P.Lond., Army Medical Staff.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, MAY, 1895.—The following candidates passed in:

Surgery:—J. Ash, St. Thomas's Hospital; E. R. Bowen, Brooklyn and Bristol; E. E. Cornaby, Cambridge and London Hospital; A. H. P. Dawnay, University College and St. Thomas's Hospital; R. A. Fegan, St. Bartholomew's Hospital; C. F. Le Sage, London Hospital; E. D. Macnamara, Westminster Hospital; A. P. Mürtz, King's College; G. H. Smith, St. Bartholomew's Hospital; H. Williams, Middlesex Hospital.

Medicine, Forensic Medicine, and Midwifery.—S. B. Blomfield, Westminster Hospital; W. E. Kirby, University College; W. G. Noble, London Hospital.

Medicine and Midwifery.—A. J. Petyt, Cambridge and Leeds; M. White, St. Thomas's Hospital.

Medicine.—A. C. Fenn, St. Bartholomew's Hospital; W. A. Higgins, Cambridge and Birmingham; M. Umanski, Kharcoff.

Forensic Medicine and Midwifery.—A. P. Dawnay, University College and St. Thomas's Hospital; B. L. Dhingna, Lahore; P. G. Lodge, Leeds and St. Thomas's Hospital.

Forensic Medicine.—E. D. Macnamara, Westminster Hospital; G. H. Smith, St. Bartholomew's Hospital.

Midwifery.—W. E. Bremner, King's College; H. Clapham, Sheffield; J. H. R. Pigeon, Bristol; W. H. Reed, Bombay and King's College; A. Robinson, Leeds; E. H. Tippor, Guy's Hospital; L. G. W. Tyndall, St. Mary's Hospital.

To Messrs. Bremner, Fenn, Higgins, Kirby, Le Sage, Macnamara, Noble, Petyt, and Umanski was granted the diploma of the Society entitling them to practise medicine, surgery, and midwifery.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

FILTERING SEWAGE EFFLUENT.

THE London County Council have been having a series of experiments carried out during the last four years in regard to the best means of further purifying the effluent obtained by precipitation at the Barking outfall by means of filtration through various media. The experiments have been made with filters of from one two-hundredth of an acre to one acre in area, which tend to show that of the various materials used coke breeze was the most effective. An average quantity of no less than one million gallons of effluent a day an acre has been purified to such a degree as to remove odour, colour, and liability to putrefaction. It is not intended at present to interfere with the precipitation works for London, as the condition of the Thames is satisfactory; but in view of the ever-increasing population it is felt it will be invaluable in the near future to have ready to hand such a simple filtration on biological principles through coke breeze.

THE NOTIFICATION OF MEASLES.

THE question whether on the whole it is advisable to include measles in the list of infectious diseases which shall required to be notified under the Infectious Disease (Notification) Act is one upon which there is still much difference of opinion. Every contribution to the subject founded on experience of the actual working of notification of measles is valuable. Dr. Sydney Marsden, medical officer of health for Birkenhead, has recently published his observations on the working of the notification of measles in that town during twelve years, and he states that it has there been found "that the advantages derived from such notification fully justify the continuance of it, and more than counterbalance the disadvantages of cost and trouble involved by such a course." One main argument against the application of the Act to measles is that the disease is so highly infectious in the pre-eruptive stage that it is useless to notify the cases, since the mischief is already done before the sanitary authority can become aware of the existence of an attack. Dr. Marsden does not accept this conclusion; he argues that this early infectiousness renders it all the more important to get information of the first cases, in order that the patient and other members of the household likely to contract and so to spread the disease may be isolated and kept from school or public places of resort until the danger of their carrying infection has passed. He admits that if a general outbreak occurs in all parts of a district notification may not help much to limit the epidemic, but he believes that when the cases are limited to a small area, and when the earliest cases are known, a medical officer may do much to isolate cases by visiting the infected house and warning the relatives of the danger run by the exposure of the patient, and by prosecuting if the warning is neglected. Further, closure of the schools in the affected district may be resorted to. Large blocks of tenement houses are a great difficulty, and it is necessary, if the epidemic is to be checked, to isolate the first case in hospital, and to watch for the development of fresh cases during the period of suspicion, and to remove any which may arise to hospital. Another advantage claimed for notification is that when the case occurs at the house of a dairy, confectioner, or other purveyor of food, special precautions can be taken. Finally, in the poorer neighbourhoods, great advantage results from the opportunity which is afforded for disinfection of the premises.

Dr. Marsden appends a table showing the number of cases of measles notified during the twelve years, and points out that the number of deaths registered among unnotified cases has steadily diminished, so that it is probable that very few cases now escape the knowledge of the sanitary authority. The measles death-rate per mille is given also, but does not seem to show any distinct diminution since notification has been enforced.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,175 births and 3,569 deaths were registered during the week ending Saturday, May 18th. The annual rate of mortality in these towns, which had been 17.5 and 17.7 per 1,000 in the two preceding weeks, declined to 17.6 last week. The rates in the several towns ranged from 12.3 in Croydon, 12.7 in Norwich, and 13.1 in Brighton to 25.7 in Manchester, 26.5 in Salford, and 28.7 in Preston. In the thirty-two provincial towns the mean death-rate was 18.3 per 1,000, and exceeded by 1.8 the rate recorded in London, which was 16.5 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.8 per 1,000, while it averaged 1.3 in the thirty-two provincial towns, and was highest in Gateshead, Newcastle-upon-Tyne, and Preston. Measles caused a death-rate of 2.2 in Bolton and 2.3 in Newcastle-upon Tyne; and whooping-cough of 1.9 in Preston, 2.0 in Salford, and 2.2 in Gateshead. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 52 deaths from diphtheria in the thirty-three towns included 41 in London, 3 in Leeds, 2 in West Ham, and 2 in Birmingham. One fatal case of small-pox was registered in Liverpool, but not one in London or in any other of the thirty-three large towns. There were 27 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, May 18th, against 37, 34, and 33 at the end of the three preceding weeks; 4 new cases were admitted during the week, against 12, 8, and 6 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,469, 1,413, and 1,438 at the end of the three preceding weeks, was 1,444 on Saturday last, May 18th; 185 new cases were admitted during the week, against 132, 107, and 179 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

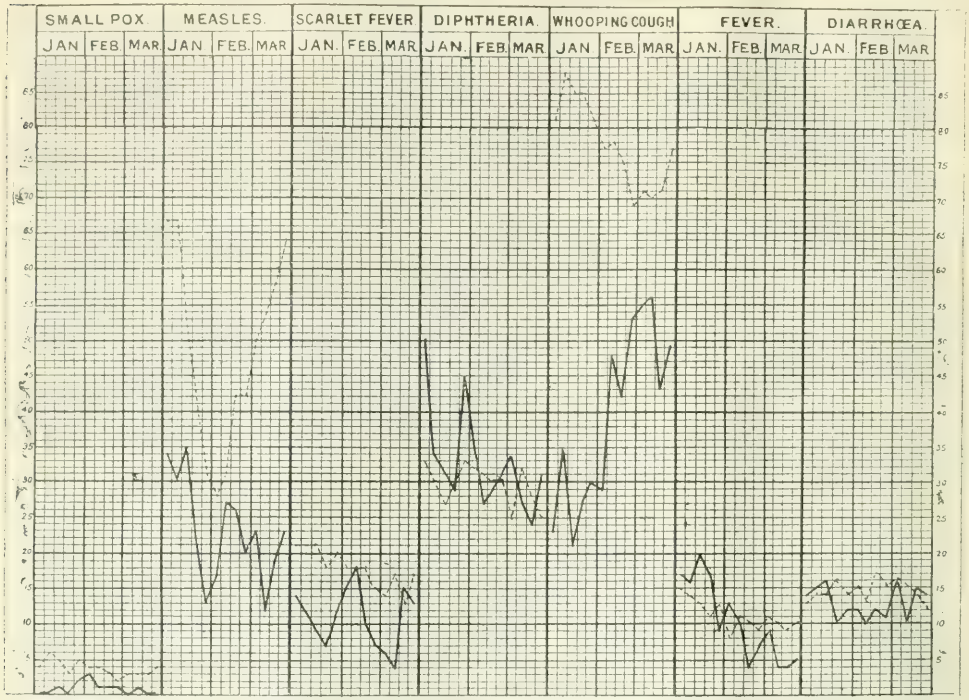
DURING the week ending Saturday, May 18th, 988 births and 668 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.9 and 18.7 per 1,000 in the two preceding weeks, rose again to 21.1 last week, but exceeded by 3.5 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the death-rates ranged from 14.8 in Aberdeen to 23.4 in Dundee. The zymotic death-rate in these towns averaged 2.3 per 1,000, the highest rates being recorded in Perth and Leith. The 301 deaths registered in Glasgow included 11 from whooping-cough, 7 from measles, 2 from diphtheria, and 1 from small-pox. Six fatal cases of measles were recorded in Edinburgh, and 6 in Leith

ZYMOTIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal zymotic diseases in London during each week of the first quarter of the current year. The fluctuations of each disease, and its fatal prevalence as compared with that recorded in the corresponding weeks of recent years, can thus be readily seen

Small-pox.—The deaths referred to small-pox, which had been 37, 43, and 5 in the three preceding quarters, increased to 10 during the three months ending March last, but were 37 below the corrected average number in the corresponding periods of the preceding ten years, 1885-54. Of these 10 deaths, 9 belonged to Marylebone and 1 to Newington sanitary areas. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been 123, 93, and 16 at the end of the three preceding quarters, had risen again to 54 at the end of March last; 185 new cases were admitted during last quarter, against 559, 427, and 79 in the three preceding quarters.

DEATHS FROM ZYMOTIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1895.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding week of the preceding ten years 1885-94.

Measles.—The fatal cases of measles, which had been 1,745, 459, and 300 in the three preceding quarters, were again 300 during the three months under notice, and were less than half the corrected average number. Among the various sanitary areas of the metropolis measles showed the highest proportional fatality in Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, Poplar, Battersea, Greenwich, and Plumstead.

Scarlet Fever.—The deaths referred to this disease, which had declined from 286 to 175 in the three preceding quarters, further fell to 141 during the three months ending March last, and were rather less than half the corrected average number in the corresponding periods of the preceding ten years. Among the various sanitary areas this disease showed the highest proportional fatality in Fulham, Islington, and Plumstead. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 2,042, 2,058, and 1,865 at the end of the three preceding quarters, had further declined to 1,485 at the end of March last. The number of cases admitted into these hospitals, which had been 3,144, 3,075, and 2,748 in the three preceding quarters, further fell to 1,881 during the three months ending March last.

Diphtheria.—The fatal cases of diphtheria in London, which had been 652, 641, and 653 in the three preceding quarters, declined to 426 during the three months under notice, but were 39 above the corrected average. Among the various sanitary areas this disease showed the highest proportional fatality in Fulham, St. Martin-in-the-Fields, Strand, Limehouse, Mile End Old Town, Poplar, Battersea, Camberwell, and Greenwich. The cases of diphtheria admitted into the Metropolitan Asylums Hospitals, which had been 917, 1,143, and 1,229 in the three preceding quarters, declined to 804 during the three months ending March last, and 435 patients remained under treatment at the end of the quarter.

Whooping-cough.—The fatal cases of this disease, which had declined from 932 to 205 during the four quarters of 1894, rose again to 511 during the three months ending March last, but were only half the corrected average number; among the various sanitary areas whooping-cough caused the highest proportional fatality in St. Pancras, Clerkenwell, St. Luke, Shoreditch, St. George-in-the-East, Limehouse, Lambeth, and Battersea.

Fever.—Under this heading are included deaths from typhus, enteric fever, and simple and ill-defined forms of "fever." The deaths referred to these different forms of "fever," which had been 131, 111, and 286 in the three preceding quarters, declined again to 135 during the three months ending March last, and were slightly below the corrected average. Of these 135 deaths from "fever," 1 was certified as typhus, 131 as enteric fever, and 3 as ill-defined fever. Among the various sanitary areas the highest proportional fatality of "fever" was recorded in Strand and London City. The Metropolitan Asylums Hospitals contained 73 enteric fever patients at the end of March last, against 72, 99, and 104 at the end of the three preceding quarters; 168 new cases were admitted into these hospitals during last quarter, against 141, 173, and 183 in the three preceding quarters.

Diarrhœa.—The 167 fatal cases of diarrhœa registered in London during the first three months of the current year were slightly below the corrected average; this disease showed no marked excess in any of the sanitary areas.

In conclusion it may be stated that the 1,690 deaths referred to the principal zymotic diseases in London during the first quarter of this year were no fewer than 935, or 36 per cent., below the average number in the corresponding periods of the ten preceding years, 1885-94, owing principally to the exceptionally low mortality from measles, scarlet fever, and whooping-cough. Among the various sanitary areas the lowest zymotic death-rates were recorded in Kensington, Westminster, St. James Westminster, Hampstead, Stoke Newington, Whitechapel, and St. Saviour Southwark; and the highest rates in Holborn, Shoreditch, St. George-in-the-East, Limehouse, Poplar, Battersea, and Greenwich.

FARM SERVANTS (SCOTLAND) BILL.

UNDER this ambiguous title a Bill has been introduced into the House of Commons by Mr. Seymour Keay, which is to be "construed as one with the Housing of the Working Classes Act, 1890," and which considerably extends the powers of that Act for dealing with farm servants' dwellings.

Under Section 3 it is required that every dwelling or sleeping place for farm servants "shall be provided with suitable and sufficient accommodation in the way of cubic contents, fireplaces, sanitary arrangements, and fixtures," and for the separation of the sexes; and the local authority is empowered to make by laws with respect to these matters. The local authority is required, within a month from the receipt of a report from the medical officer of health to the effect that the provisions of the Act are not complied with in the case of any building, to issue a notice or "order" demanding the necessary alterations and additions.

Section 5 provides that any person aggrieved by such an order may appeal to the sheriff. The most novel feature of the Bill is that it constitutes the local authority—indeed, practically the medical officer of health—a court of first instance.

Section 6 requires that the medical officer of health shall inspect any farm servant's dwelling, with respect to which he receives a complaint, within eight days, and forthwith report to the local authority.

The Bill as drawn is defective in various points of detail, but it has been practically adopted by the Government, and the Lord Advocate has given notice of a series of amendments, the effect of which will be to transform a well intended but somewhat crude attempt to deal with a difficult question into a workable enactment.

SANITARY WORK IN ST. GEORGES SOUTHWARK.

THE annual report of the Medical Officer of Health of St. George the Martyr Southwark for the year 1894, which has just been issued, deals with several questions of considerable importance. The parish is a particularly poor and crowded one, and its efficient supervision is no light matter. Up to the year 1894 the whole of the sanitary inspection was carried on by two sanitary inspectors. Early last year, however, the staff was doubled, to the great advantage of the district; moreover, during last year a new steam disinfector has been provided, and the efficiency of the disinfection carried out has thus been greatly increased. Again, a system of house-to-house inspection has been instituted, and Dr. Waldo writes: "This important step has been rendered possible by last year's increase of the staff of inspectors." The report comments, however, upon the urgent need of a "reception house" for the shelter of persons who have to leave their rooms while disinfection is being carried out, and it is stated that owing to the lack of such a reception house 268 infected tenements, occupied by 1,331 infected persons, were not efficiently disinfected during the year 1893. A summary of the work carried out under the Housing of the Working Classes Act shows that representations were made as to the unfitness for habitation of 69 houses and tenements, accommodating 345 inhabitants during 894, while during the three years 1892-94 applications were made for closing orders in the case of 210 houses and tenements, sheltering upwards of 1,000 persons. In connection with this matter, it may be noted that at a meeting of the Vestry on May 7th a return of pulled-down, closed, and uninhabitable property in the parish, was presented by the Working Classes Act clerk. The number of dwellings within this description dealt with in the past three years was 588, and the number of persons displaced 2,352. The medical officer, in his report, urges that steps should be taken to re-house persons whose occupations necessitate their living in or near the district, and commends this matter to the serious attention of the sanitary authority.

The report deals with other subjects of interest, notably the excessive infant mortality in St. George's, the insanitary area in the neighbourhood of Falcon Court, and with certain legal decisions on the subject of Salvation Army shelters. The report is a document which will repay perusal.

NOTIFICATION AND NUISANCE REMOVAL.

DR. KENWOOD, in his annual report on the Finchley district during 1894, lays stress on the good work achieved in the locality by the remedying of the defective sanitary conditions in houses visited on the notification of infectious disease. The notification certificates in the year numbered 171, involving 131 houses, to each of which a visit was at some time paid, with the result that in 56 cases sanitary defects were discovered, or over 40 per cent. of invaded houses, the number of "grave" defects being 24, or nearly 20 per cent., the term "grave" being applied to instances in which the defect was of such nature as to have possibly conduced to the disease notified. Dr. Kenwood properly points out that this is a phase of the system of compulsory notification which is apt to be lost sight of, and that the true value of the information thus acquired as to the state of invaded houses is enhanced by the fact that the defects are brought to light at a time when all concerned are willing to recognise the importance of righting what is wrong, and to lend their aid to this end. Promptness of notification, Dr Kenwood further points out, is an essential element in the matter, and we entirely agree with him that, whilst in some instances there may be reasons for delay in the certification of cases, yet in the vast majority of occurrences the notification can be made "forthwith" in accordance with the terms of the statute.

CONSUMPTION OF ALCOHOL IN WORKHOUSES.

A PARLIAMENTARY return has been issued of the quantity of spirits, wines, and malt liquors consumed in each workhouse in the United Kingdom during the years 1892 and 1893, together with the expenditure in each institution, and setting forth the daily average number of inmates in each union. There was a considerable decrease in the consumption in 1893, and with it a corresponding decrease of expenditure. Although the number of paupers had greatly increased in 1892, the expenditure on spirits was £20,556, representing 178,491 pints. During the year 1893 the spirit bill amounted to £18,735, the quantity consumed being 163,460 pints. In 1892 the wine bill amounted to £5,040, representing 85,180 pints. In 1893 the number of pints fell to 76,168, and the cost was £3,495. Of malt liquors consumed during 1892, the figures show 491,115 gallons, the cost being £19,182; for the year 1893 the cost was £18,071, representing 463,418 gallons. The total expenditure in alcohol in 1892 was £45,778; in 1893 it was £42,299. The total daily average of inmates of the workhouses was during the year 1892 231,880, and in 1893 the number is given as 241,041.

LEICESTER HOSPITAL ACCOMMODATION.

DR. PRIESTLEY is to be commended for having returned to the pressing matter of increased hospital provision for Leicester in his report for the year 1894. While laying special stress on the absence of any accommodation of a permanent character for the isolation of small-pox, he also has felt it incumbent upon him to mention the lack of provision existing for the other infectious fevers, with the exception of scarlet fever, for which disease the hospital seems to be almost entirely kept up. Dr. Priestley refers to the fact that the hospital for the isolation of small-pox is of a temporary character only, and on an unsuitable site, and that even so it can only accommodate a maximum of twenty cases, whereas he maintains that fifty should be the minimum thought of as necessary to be provided for a town like Leicester, where so much stress is laid upon isolation of small pox. Needless to say that a site suitable for the reception upon it of a disease possessed of the power of aerial dissemination such as pertains to small-pox is insisted upon, and the necessity for its acquisition is put forward the more pressingly on account of the near approach of important railway works, which will bring in their train large numbers of navvies. A like influx, it will be remembered, in the case of some parts of Derbyshire, led to widespread epidemicity of the infection of small-pox in 1893. It is to be hoped that the past failures of the Sanitary Committee at Leicester to bring the matter of increased hospital accommodation to a successful termination will not weaken their health officer's efforts to secure the co-operation of his council in his desire to see the town adequately prepared to cope with any outbreak of disease which threatens the health and safety of the community.

FORMS FOR THE USE OF MEDICAL OFFICERS OF HEALTH.

WE have received from Messrs. Knight, 90, Fleet Street, a series of forms or registers for the use of medical officers of health. The first is a register of complaints or applications, with appropriate columns for recording the action taken in the matter until finally disposed of. The second is a monthly and annual register of births and deaths, and the third deals in like manner with notified cases of infectious disease and with admissions to the isolation hospital. These two forms include all that is needed for tables A and B required by the Local Government Board, and they also comprise details which, though omitted from the official tables, might very properly have found a place therein; such, for example, as the numbers born of each sex, and the numbers illegitimate. The fourth and last register is concerned with schools closed by the sanitary authority on account of infectious diseases. The forms have been drawn up by Mr. H. B. Vincent, medical officer of health for Cromer and several adjacent districts. They are published at prices ranging from eight to fifteen shillings for the book of one quire. The labour of preparing an annual report is greatly lessened if methodical records are kept, and Mr. Vincent's carefully planned registers will be found most useful.

AN INEFFICIENT SEWAGE FARM.

LONDON-OVER-THE-BORDER writes: There is a sewage farm in a neighbourhood near London, and during the last few months there has been a sheet of water covering the greater part of it, stagnant. Is this a farm in proper working order when the sewage water hangs about? Further, since the farm was made houses have grown up much nearer than then, in fact almost to its borders. The smell is, and has been for some time, at times very strong, and I am sure that some friends who cannot move away from the farm neighbourhood are gradually being made very ill by it. There is an abnormal amount of sickness in the district, and on warm days the windows are covered with flies of all sizes; does not this show that there is putrid matter? To whom must I apply about the farm? The local authorities may rest on an old medical decision, so it would have to be pressed on them from outside; to whom am I to appeal?

*** The condition of the sewage farm should be brought to the notice of the Local Government Board.

OBITUARY.

JOHN CRERAR, M.R.C.P.Ed.

WE regret to have to record the death, on May 11th, of Dr. John Crerar, of Maryport. He was in his 60th year of age, and his death was due to cardiac disease, induced, as it is thought, by the severe labour to which he devoted himself. He obtained the diplomas of L.R.C.P. and L.R.C.S.Ed. in 1864, and shortly afterwards settled at Maryport. He rapidly acquired an extensive practice, especially in connection with the collieries and ironworks of West Cumberland, which were at that time entering on a period of great prosperity. Of late years the decline of these industries led to a change in the direction of his activities in practice though not at all to their diminution. In spite of the fact that few men could have had their days and nights more fully occupied by the calls of professional duty, he found time to become a good classic and to be well read in Celtic literature. A friend who knew him well thus writes:

"His was no mere superficial knowledge, but was that of the cultured philologist, kept up to date and in touch with modern scientific developments. He was an excellent speaker, and took a prominent part in public matters, both in religious and secular questions. One of the most strongly-marked features in his character was his enthusiasm for any subject in which he was interested. Though habitually

sagacious, he occasionally allowed his judgment—which in ordinary life was rarely at fault—to be influenced by data which should have, perhaps, formed grounds for inquiry but were insufficient for decision. The same enthusiastic temperament, however, endowed him with immense capabilities for work and a power of influencing others which would have been absent with a less active mind. He was a fast friend, a fearless but just controversialist, a man of purest life and noblest aims. He was a general practitioner of the best type, who did not let his knowledge grow cold and stale for want of use or revision; equally able, ready and willing to amputate a limb, attend a confinement (complicated or uncomplicated), or treat an ordinary cold."

Dr. Crerar, who obtained the diploma of M.R.C.P.Ed. in 1871, was an original member of the Border Counties Branch (then the Cumberland and Westmorland) of the British Medical Association. He was a frequent attendant at the meetings of the Branch, and became its President in 1891. On his retirement from office in the following year he was elected a permanent Vice-President. The funeral, which took place on May 13th, was attended by a large number of mourners.

JAMES STEADMAN CRAIGIE, M.D.Ed., B.Sc.(P.H.).

We regret to announce the death, on May 16th, after a long illness, of Dr. J. S. Craigie, the Medical Officer of Health for Musselburgh. He was a native of Edinburgh; was largely educated at Kilmarnock Academy; served an apprenticeship as an engineer: took to medicine, and graduated M.B. and C.M. at Edinburgh in 1880. In 1884 he took his M.D. degree, his thesis on Our Present Knowledge of the Production of Monstrosities being commended. In 1888 he took the degree of Bachelor of Science in Public Health, and was shortly after appointed Medical Officer for Musselburgh, to succeed Dr. Sanderson. His duties in this office were most efficiently done.

Dr. Craigie was a linguist of no mean order; a musician; had a wide interest in literature, and was a keen golfer.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Fano, formerly *professeur agrégé* of the Paris Medical Faculty; Dr. L. Druhen, Honorary Professor in the Medical School of Besançon; Dr. Lucian Rydel, Professor of Ophthalmology in the University of Cracow, aged 57: Dr. Theodore Knauthe, of Dresden, author of works on diseases of the respiratory organs, etc., aged 56; Dr. Felix Vulpius, Chief Physician to the Municipal Hospital of Weimar, and a nephew of Christiane Vulpius, whom Goethe married, aged 79; Dr. Tebaldo Rosati, Professor of Surgery in the Medical School of Florence, and Chief Surgeon to the Arcispedale di S. M. Nuova of that city, aged 63; and Dr. Emil Noeggerath, formerly Professor in the Medical College, New York, and well known by his work on the relation between gonorrhœa and certain diseases of women.

Mr. George Giles Corbould, of Bristol, died suddenly on May 18th, at the age of 64. When quite a young man he was apprenticed at Bristol to the late Dr. Wilson, and subsequently he succeeded to the practice of this gentleman, whose daughter he married. The deceased had been actively engaged in his professional duties up to May 17th, apparently in good health. On the morning of May 18th he had a seizure of apoplexy, which proved fatal. Mr. Corbould qualified as M.R.C.S.Eng., L.S.A., in 1855.

The death is reported of Mr. F. C. Spackman, of Faringdon, at the age of 69. The deceased gentleman qualified as M.R.C.S.Eng., L.S.A., in 1849, and had for a number of years a large practice in Faringdon. A few years since he retired in favour of his son.

A French gentleman, M. Guzman, has left 50,000 francs to the Assistance Publique, the Paris Municipal Charity Department, to defray the cost of musical entertainments be given to the sick poor in the hospitals and asylums under its control.

MEDICAL NEWS.

Presentation.—Mr. W. Davies, of Peckham, has been presented with a timepiece, aneroid barometer, thermometer, and perpetual calendar combined in one piece. The presentation was made on behalf of the ambulance class for women lately conducted by him at Messrs. Braby's works, Deptford.

The Association of German Alienists.—The Association of German Alienists will hold its annual meeting this year in Hamburg, on September 13th and 14th. The following are the principal questions on the programme: The Diagnostic and Prognostic Significance of the Knee Phenomenon in Mental Diseases (to be introduced by Dr. A. Cramer, of Göttingen); Action-bringing Insanity in its Nosological and Forensic Relations (to be introduced by Dr. Koppen, of Berlin); Transitory Mental Disorders of Epileptics in their Medico-Legal Relations (to be introduced by Professor Siemerling, of Tübingen).

Mr. Campbell-Bannerman, M.P., Secretary of State for War, will take the chair at the dinner of the Glasgow University Club, London, to be held at the Holborn Restaurant on Monday next, May 27th, at 7.30 p.m. The guests of the evening will be General Sir Evelyn Wood, V.C., G.C.B., and Mr. Fletcher Moulton, Q.C., M.P. Graduates or former students of the Glasgow University who may wish to join the club can obtain full particulars on applying to Mr. Norman L. MacLehose, 13, Queen Anne Street, Cavendish Square, W., or Mr. James M. Dodds, Dover House, Whitehall, S.W.

Clinical Society of London.—At the annual meeting to be held this evening (Friday), the election of officers and Council for the year 1895-6 will take place. The following are the names of the gentlemen proposed for election. Those whose names are marked with an asterisk were not on the Council, or did not hold the same office, during the year 1894-5: *President:* *Thomas Buzzard, M.D. *Vice-Presidents:* F. Taylor, M.D., T. T. Whipham, M.B., *T. Barlow, M.D., R. W. Parker, *W. H. Bennett, and *R. J. Godlee, M.S. *Treasurer:* W. M. Ord, M.D. *Council:* W. H. Allchin, M.D., W. P. Herringham, M.D., Constantine Holman, M.D., *P. Manson, M.D., *F. W. Mott, M.D., H. M. Murray, M.D., S. Phillips, M.D., G. N. Pitt, M.D., *S. J. Sharkey, M.D., *E. M. Skerritt, M.D., Dawson Williams, M.D., C. A. Ballance, M.B., W. Watson Cheyne, M.B., W. Bruce Clarke, M.B., *A. Pearce Gould, M.S., *C. R. B. Keetley, W. A. Lane, M.S., *Bilton Pollard, A. W. Mayo Robson, and J. Bland Sutton. *Honorary Secretaries:* W. Hale White, M.D., and *G. H. Makins.

At the recent annual meeting of the Glasgow Medico-Chirurgical Society, Dr. Wm. L. Reed was elected President, and a special vote of thanks was passed to Dr. Walker Downie for his services as General Secretary during the last six years. Dr. C. O. Hawthorne was elected in his stead. The following office-bearers were also elected for the session 1895-96: *Section of Medicine.—Vice-President:* Dr. Finlayson. *Councillors:* Dr. James W. Allan and Dr. R. B. Ness. *Secretary:* Dr. Hinshelwood. *Section of Surgery.—Vice-President:* Mr. A. E. Maylard. *Councillors:* Dr. James A. Adams and Dr. Walker Downie. *Secretary:* Dr John Barlow. *Section of Pathology.—Vice-President:* Dr. T. K. Monro. *Councillors:* Dr. L. R. Sutherland and Dr. Lindsay Steven. *Secretary:* Dr. R. M. Buchanan. *Section of Obstetrics.—Vice-President:* Dr. Samuel Sloan. *Councillors:* Dr. George Halket and Dr. J. Nigel Stark. *Secretary:* Dr. Lawrence Oliphant. *Treasurer:* Mr. Henry E. Clark.

The annual general meeting of the Society for the Relief of the Widows and Orphans of Medical Men was held on May 16th under the chairmanship of the President, Sir James Paget. The report stated that 13 new members had been elected during the year, and that the total number on the books was 306. The number of widows on the books was 53, 3 having died and 2 having been admitted. The orphans numbered 9, as in 1893. The grants, including £303 for Christmas presents, amounted to £2,805, and the expenses £241, a total of £3,046. The total receipts had been £3,262, and a sum of £785 had been invested. To fill the vacancies caused by deaths and retirements Sir J. Russell Reynolds and Mr. Willett had been elected vice-presidents, and Drs.

Buzzard, Pollock, Kempe and Lewers, and Messrs. Manley Sims, Underwood, and Pearce Gould directors. A vote of thanks to the Editors of the medical journals for their assistance in making known the work of the Society was proposed by Mr. Christopher Heath, President of the Royal College of Surgeons, and carried unanimously. A vote of thanks to Sir James Paget for his conduct in the chair was adopted unanimously on the motion of Dr. Glover.

MEDICAL VACANCIES.

The following vacancies are announced:

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident House-Physician. Salary, £65 per annum, with board, lodging, and washing in the hospital. Applications to the Secretary by May 30th.

BARNSTAPLE UNION.—District Medical Officer. Salary, £70 per annum and midwifery fees. Applications to William Henry Toller, by May 30th.

BIRKENHEAD UNION.—Medical Officer of Workhouse and Schools. Salary, £30 per annum for the Workhouse and £10 for the Schools, with extra medical fees, and will also be appointed Public Vaccinator. Also Assistant Medical Officer. Salary, £60 per annum for the Workhouse and £20 for the Schools, with rations, attendance, washing, and residence in the workhouse. Candidates must be registered. Applications and testimonials endorsed "Medical Officer," or "Assistant Medical Officer" (as the case may be), to John Carter, Clerk to the Guardians, Clerk's Offices, 45, Hamilton Square, Birkenhead, by May 31st.

BRIGHTON AND HOVE LYING-IN INSTITUTION AND HOSPITAL FOR WOMEN.—House-Surgeon, unmarried, and under 30 years of age; doubly qualified. Salary, £80 per annum, with furnished quarters, board, coals, gas, and attendance. Applications to the Honorary Secretary by May 31st.

CARDIFF INFIRMARY.—Senior Resident Medical Officer; doubly qualified. Salary, £100 per annum, with board, washing, and furnished apartments. Applications to George T. Coleman, Secretary, by May 27th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Board, residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the office, 24, Finsbury Circus, E.C., by June 13th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Dental Surgeons. Candidates must be Licentiates of Dental Surgery of one of the licensing bodies recognised by the General Medical Council. Applications and testimonials to J. Francis Pink, Secretary, by June 10th.

DURHAM COUNTY ASYLUM.—Pathologist and Junior Resident Medical Officer. Salary, £100 per annum. Applications to the Superintendent, Durham County Asylum, Winterton, Ferryhill, by June 8th.

GENERAL HOSPITAL, Birmingham.—Assistant House-Surgeon, must possess a surgical qualification and be registered. Appointment for six months. No salary, but residence, board, and washing provided. Applications with certificate of registration and copies of testimonials to H. J. Collins, House Governor, by June 1st.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Junior Assistant Medical Officer, unmarried, age not over 30. Salary, £100 per annum, with board (no wine or beer), lodging, washing, and attendance. Applications to the Medical Superintendent by May 30th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—Pathologist and Registrar. Appointment for one year. Honorarium at the rate of fifty guineas per annum. Applications to the Secretary by May 27th.

HOLBORN DISTRICT.—Medical Officer of Health. Salary, £350 per annum. Applications on printed forms to be obtained from Matthew H. Hale, Clerk to the Board, Holborn Town Hall, accompanied by not more than three testimonials, to be returned to him before May 30th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Senior Clinical Assistants. Applications to the Secretary by May 30th.

HOSPITAL FOR PARALYSED AND EPILEPTIC (Albany Memorial), Queen Square, Bloomsbury.—Senior and Junior House Physician. Salary for the former £100, and for the latter £50 per annum. Board and apartments in the hospital provided in each case. Applications to B. Burford Rawlings, Secretary and General Director, by June 4th.

HOSPITAL FOR SICK CHILDREN, Newcastle-on-Tyne.—Resident Medical Officer, doubly qualified. Salary, £60, with board, lodging, and laundry. Applications to the Secretary by June 6th.

LIVERPOOL STANLEY HOSPITAL.—Junior House-Surgeon. Must possess a registered medical and surgical qualified qualification. One who has filled a similar office preferred. Salary, £70 per annum, with board, etc. Applications and testimonials by May 30th. Also Honorary Assistant Surgeon. Applications to J. E. Bennett, Honorary Secretary, by June 5th.

LONDON COUNTY COUNCIL.—Pathologist to the London County Asylums. Salary, £700 per annum, and travelling expenses. Applications (on forms provided), endorsed "Applications for Pathologist," to R. W. Partridge, Clerk of the Asylums Committee, 21, Whitehall Place, S.W., by June 17th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Two Qualified Medical Women as House Surgeons. Applications to the Secretary by May 29th.

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—House-Physician. Appointment for six months, and after the expiration of this term the House-Physician will be required, if eligible, to serve as House-Surgeon for a further period of six months' Must possess a medical and surgical qualification. Salary as House-Physician at the rate of £40 per annum, and as House-Surgeon at the rate of £80 per annum. Applications and testimonials to T. Glenton-Kerr, Secretary, City Office, 27, Clement's Lane, Lombard Street, E.C., by June 11th.

NORTHERN INFIRMARY, Inverness.—House-Surgeon and Dispenser. Salary, £70 per annum, with board, etc. Applications to Mr. Duncan Shaw, Honorary Secretary, by June 5th.

OXFORD COUNTY ASYLUM, Littlemore.—Assistant Medical Officer. Salary, £100, increasing to £150 in two years, with board and lodging. Apply to Medical Superintendent.

ROTHERHAM HOSPITAL AND DISPENSARY.—Resident House-Surgeon; doubly qualified. Salary, £100 per annum, with rooms, washing, and commons. Appointment for three years. Applications to the Secretary by the end of May.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Hunterian Professors, the Erasmus Wilson Lecturer, and the Arris and Gale Lecturer for the ensuing year. Applications, with particulars of subjects upon which it is proposed to lecture, to E. Trimmer, Secretary, by June 8th. Also Two Examiners in Dental Surgery; applications by same date.

ROYAL EAR HOSPITAL, Frith Street, Soho, W.—House-Surgeon. Appointment for six months. Honorarium, £12 12s. Application to D. Murray, Honorary Secretary, by June 8th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Two Resident Medical Officers. Doubly qualified. Appointment for six months, but the holder will be eligible for re-election. No salary, but board, residence, and washing. Applications and testimonials to Conrad W. Thies, Secretary, by June 1st.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, E.C.—Clinical Assistant and Anæsthetist required for six months; doubly qualified. Salary at the rate of £30 per annum. Applications and testimonials to R. Gerrard Kestin, Secretary, by May 29th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, West Strand. Clinical Assistants. Appointments for six months, must be duly qualified; and preference will be given to those who have had previous experience of ophthalmic practice. Applications and testimonials to T. Beattie-Campbell, Secretary, by June 1st.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Lecturer on Mental Diseases. Applications to G. F. Field, Dean, by May 27th.

SOCIETY OF APOTHECARIES.—Examiners in Medicine (including Forensic Medicine, Pathology, and Midwifery). Applications to J. R. Upton, Clerk to the Society, Apothecaries' Hall, Blackfriars, by May 27th.

SOMERSET AND BATH LUNATIC ASYLUM, Wells, Somerset.—Second Assistant Medical Officer, unmarried, and under 30 years of age. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. Wade, Medical Superintendent.

TRINITY COLLEGE, Dublin.—Lecturer in Pathology. Applications to the Registrar of the University by June 15th.

UNIVERSITY COLLEGE, London.—Professorship of Materia Medica and Therapeutics. Applications by May 29th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodgings provided. Applications to R. J. Gilbert, Secretary-Superintendent, by June 19th.

MEDICAL APPOINTMENTS.

AGNEW, T. H., L.R.C.S., L.R.C.P.Edin., appointed House-Physician to the Liverpool Royal Infirmary.

ARMSTRONG, Hubert, M.B., Ch.B.Vict., appointed House-Surgeon to the Liverpool Royal Infirmary.

BICKERTON, R. E., M.B., Ch.B.Vict., appointed House-Physician and Ophthalmic Assistant to the Liverpool Royal Infirmary.

BRADFORD, R. D., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Adbro' District of the Skirlaugh Union.

BRIDEWELL, Mr. T., appointed Medical Officer for the Chigwell District of the Epping Union.

BUNDLE, Mr. T., appointed Medical Officer for the Southwick District of the Fareham Union.

CAMPBELL-SMITH, A., M.B., C.M.Edin., appointed Dispensary Surgeon to the Bradford Infirmary.

CARWARDINE, Thomas, M.B., M.S.Lond., F.R.C.S.Eng., appointed House-Surgeon and Senior Resident Officer to the Bristol Royal Infirmary.

COLLINS, Mr. A. H., appointed Medical Officer for the Riseley District of the Bedford Union.

ELKINS, F. A., M.B., C.M.Edin., appointed Medical Superintendent to the Sunderland Borough Asylum.

FINNIE, J. E., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Lock Hospital, Liverpool.

FLETCHER, T. J., M.B., C.M.Edin., M.R.C.S., appointed Medical Officer and Public Vaccinator for the Castle Donington District of the Shardlow Union.

GODFREY, Frank W. A., M.B., C.M.Edin., appointed Honorary Surgeon to the Scarborough Hospital and Dispensary, *vice* J. A. Calantarients, M.D., resigned.

GREEN, Mr. T., appointed Medical Officer for the Second District of the Cambridge Union.

HARTLEY, A. C., M.D.Edin., F.R.C.S.Edin., appointed Medical Officer for the Bedford and Kempston District of the Bedford Union.

HOWIE, Alex., M.B., C.M.Glasg., appointed Medical Officer for the Westbury District of the Atcham Union.

HUNTER, William, M.D., M.R.C.P., appointed Pathologist and Curator of Museum to the Charing Cross Hospital.

JOHNSTONE, J. Lloyd, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator for the Upholland and Dalton Districts of the Wigan Union.

MALCOLMSON, John A., M.D.Q.U.I., L.M., reappointed Medical Officer of Health to the Eston Urban District Council.

ODELL, Robert, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Third District of the Hertford Union.

PALMER, Ambrose M., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Whittington Urban District Council.

ROSS, S. J., M.B., Ch.B.Vict., appointed House-Surgeon to the Liverpool Royal Infirmary.

SCHOFIELD, G. T., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer and Public Vaccinator for the 12th (Mossley) District of the Ashton-under-Lyne Union, *vice* J. L. Andrew, M.D., resigned.

SMALLWOOD, Ed., L.S.A., appointed House-Physician to the Liverpool Royal Infirmary.

SWETE, Edwd. H. W., M.D.St And., M.R.C.S., reappointed Medical Officer of Health to the Droitwich Rural District Council.

TAYLOR, Leo., F.I.C., F.C.S., appointed Public Analyst for Hackney, *vice* Dr. Tripe, deceased.

TOMORY, J. Kay, M.B., C.M.Edin., appointed Public Vaccinator for the Parish of Halkirk.

WALKER, Dr., reappointed Medical Officer of Health to the Wrotham Urban District Council.

WHITEHEAD, A. Meredith, M.B., C.M.Aberd., M.R.C.S.Eng., appointed Honorary Surgeon to the Wellington Hospital, New Zealand.

WILKINSON, J. Howard, M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Surgeon to the Dudley Dispensary.

WILSON, H. R., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Liverpool Royal Infirmary.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Conjunctival Affections. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. George Stoker: Chronic Glandular Disease of the Naso-Pharynx.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Percy Smith: Developmental Insanity; Circular Insanity.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Drs. St. Clair Thomson and R. T. Hewlett: Micro-organisms in the Healthy Nose.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Pemphigus and its Allies. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Stanford Morton: Optic Neuritis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Beevor.

THURSDAY.

LONDON POST-GRADUATE COURSE, Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Bastian: Cases in the Wards. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. Bernard Pitts: Abdominal Surgery in Children. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Mr. Jonathan Hutchinson: Cases in the Wards.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture, Tuberculosis and Leprosy; Practical work, Staining Sputum and Sections.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital 11 A.M.—Dr. Hyslop: Puerperal and Lactational Insanity.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

NANCE.—On March 31st, at Royal Naval Hospital, Hong Kong, the wife of Surgeon Arthur Stanley Nance, R.N., of a daughter.

DEATHS.

BOOTH.—At 231, Union Street, Aberdeen, on May 20th, Catherine Watson Booth, only daughter of James Booth, M.D., M.R.C.S.

CRAIGIE.—At Musselburgh, on May 16th, James Stedman Craigie, M.D. Edin., B.Sc.Pub.Health, Edin., aged 40.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. A asks how hot air treatment can be used locally to any part in a rheumatoid arthritic subject.

DR. WHEELER O'BRYEN (Sydenham, S.E.) will be glad to hear of any institution for inebriates where a lady whose parent (mother) is unable to afford more than 1 guinea a week could be received.

L.R.C.P. writes: Will some member kindly give me a hint as to how to rid a patient of warts round the corona glandis and on the glans penis? He has not had gonorrhœa, but the warts appeared some short while after connection.

DR. GRANT (Chatham) desires to learn of an institution where a fatuous girl, aged 16, could be received, where she could get attention and education free of charge or by her parents, who are poor, paying a very small sum weekly. On certain days the child could make herself useful in household duties.

SMALL-POX HOSPITALS.

DR. C. N. ELLIOTT (Oundle, Northamptonshire) writes to ask for information as to the best form of small-pox isolation hospital for rural district, 14,000 inhabitants; as to cost, material, etc.

NOCTURNAL INCONTINENCE OF URINE.

H. W. H. inquires as to the best way to arrange the bed of a patient suffering from nocturnal incontinence of urine so that a rubber urinal will act satisfactorily, as he finds great difficulty in preventing the urine from flowing into the bed.

A SPA FOR SCIATICA.

A. B. has had a severe attack of sciatica during the past year; some slight effects in the way of stiffness still remain. He intends to spend a month in the summer at a mineral bath, and he is anxious to learn what bath would be most suitable (1) in Great Britain and (2) in Germany.

THE SMELL OF IODOFORM.

C.M.M. writes: Patients of mine have a large dairy, and are in the habit of washing down the walls and the floors of the various milk houses with chloride of lime every now and then. Last August this was contaminated with iodoform in some mysterious fashion—on the train, the chemist says—and since then milk, cream, and butter simply "reek" of iodoform, and the young couple are in despair, as ruin is staring them in the face.

*** To get rid of the taint communicated by iodoform will probably be a troublesome matter. The most hopeful plan is copious washing and scraping of the walls. Dr. B. T. Paul, editor of the *Pharmaceutical Journal*, informs us that some years ago he had experience of a similar case where chloride of lime had been used to wash the walls and woodwork of a restaurant, with the result that all the food acquired a taste of chloride of lime, which drove the customers away and seriously damaged the business. Washing with solution of sulphurous acid was tried ineffectually, and eventually relief was obtained by the use of water with caustic lime suspended in it, and alternate scraping of the walls, but it was several weeks before the taint was fairly got rid of.

HOSPITAL STAFFS.

A CORRESPONDENT writes: Our present hospital building has been newly erected on a very much larger scale than the old one, and every effort has been made to make it as perfect as possible. In the old hospital the medical staff, who are indiscriminately called "honorary medical officers" or "honorary surgeons," were all put down as "Dr." on the board and in the annual reports, whether they had the

degree of M.D. or not. Now, in our new hospital we are anxious that everything should be correct, and therefore I intend to propose at the next Board meeting that appropriate titles be given to each member of the staff, and that those having the degree of M.D. should have the title "Dr." precede their name, and those not possessing that degree be called "Mr."—not excluding even an M.B. from being called "Mr."

*** Probably the most usual and, on the whole, the best plan is not to insert any prefix to the names, but to append to each the letters indicating the qualification—M.D., or F.R.C.S., or others, as the case may be.

INCOME-TAX.

BEACON writes: I received notice a few days ago to make a return of my income, but under the following circumstances I think I am justified in asking for total exemption for current year:

1. I have bought out the partner in this practice, he giving me six months' introduction to his personal clients till midsummer, he taking all receipts of his share, and paying all expenses to the end of March, I doing so to midsummer.

2. The practice is almost entirely a booking one, and accounts are rendered at Christmas and midsummer, therefore my income from January to midsummer is practically *nil* and in addition I have to live out of capital, and pay my share of expenses from Lady Day.

3. Am I not legally entitled to make a separate return for my share, after deducting the various items for contingent expenses incurred in the practice, my partner making a similar return for his?

4. What is the address of the society which undertakes the conduct of any income tax cases where the Inland Revenue refuse to concede what is fair and reasonable?

*** The Inland Revenue look upon "Beacon" as succeeding to the part of the practice, and therefore charge him in accordance with the provisions of the Act on the average of the three years' profit. If at the end of the year his profits have not reached the amount at which he was assessed, he can claim a return of income tax, but will have to pay next January, and claim the refund afterwards. There is no difference made between a booking practice and a ready-money practice. All book debts have to appear in the accounts, except bad debts and estimated loss on doubtful ones. He can be separately assessed as suggested, but there is no advantage in so doing. As explained above, he must make the return on the three years' average. The address asked for is "The Income Tax Repayment Agency, 6, Chichester Road, Paddington, W."

ANSWERS.

A. B.—So far as we know, the circular does not contravene any regulation of the General Medical Council. If it was addressed to the patients of other practitioners it is certainly contrary to the ethics of the profession.

NAME ON PRESCRIPTION PAPER.

L. M.—We do not see that it would be unprofessional for a physician or surgeon's name to appear at the top of his prescription paper; and, in view of the illegibility of many signatures, it would have distinct advantages. It is a common practice amongst members of another profession—that is, solicitors.

THE RESPONSIBILITY OF RAILWAY COMPANIES FOR ATTENDANCE ON ACCIDENTS.

DR. J. WIGMORE (Bath) writes: In answer to Mr. Magee's letter I am able to say that some time ago my assistant was called to a man who was injured on the Great Western Railway, near Bath, and the company paid the fee without any objection.

ALLEGED COVERING OF UNQUALIFIED ASSISTANTS.

M.D.—The General Medical Council can only take cognisance of cases brought under its notice, with at least *primâ facie* evidence that the offence alleged has been committed. It is very probable that the Medical Defence Union would investigate the case and bring it to the notice of the General Medical Council if the facts are communicated to the Secretary, 20, King William Street, Strand, W.C.

TREATMENT OF SOFT CORNS.

MR. J. WINTHROP WOODRUFF M.R.C.S.E., etc. (Reading) writes that the points to bear in mind are, first, remove pressure and friction; secondly, keep the feet dry. The felt corn plasters should be accurately adjusted over every corn so that the circular opening is over the centre of the corn; the plasters must be renewed about three times a week. If there is hyperidrosis the feet should be painted daily with linimentum belladonnæ, and when dry powdered with the following: Acid. boracic., 6 parts; pulv. oxidi zinci, 2 parts; pulv. amyli, 3 parts; pulv. camphoræ, 1 part. The socks should also be powdered inside with it. When washing the feet a 5 per cent. solution of acid. carbolici should be used. Broad-toed boots should be worn.

T. W. A. recommends a strip of adhesive plaster round the toe and covering the corn. He has found such simple treatment successful both in hard and soft corns. The plaster confines the perspiration, so that the corn becomes macerated and can be removed with the finger nail after wearing the plaster for a few days.

THE COCKADE.

F.R.C.S.I.—In the JOURNAL of January 12th, page 113, Mr. G. Ambrose Lee (Bluemantle), of Heralds' College, stated that the opinion given by that College is that the privilege appertains and is confined to the Naval and Military Services, including the Militia, Yeomanry, and Volunteers, but that every officer, whatever his rank, as long as he holds Her Majesty's commission, has a right to mount, in the person of his servant, a cockade.

TESTS FOR MARGARINE.

MEMBER B.M.A. writes: In reply to a query by "W. R. C." in the BRITISH MEDICAL JOURNAL of May 4th, an "easy test" for detecting margarine is to burn a small portion of the suspected substance on the end of a spatula; the peculiar odour of burning tallow will be distinguished in the case of margarine. One of the best tests, however, and also an "easy" one, is to take 3 c.cm. of melted fat (the substance under consideration) with 3 c.cm. of the strongest acetic acid, and place in a test tube; a thermometer should be inserted, and it will be found that whereas margarine, with the acid, does not form a clear solution until 95° C. is reached, the mixture of butter and acid will clear at about 33° C.

NOTES, LETTERS, Etc.

THE printed documents forwarded by Dr. R. Rentoul have been referred to the Subcommittee of the Parliamentary Bills Committee, of which Professor Victor Horsley is the acting chairman.

A WARNING.

AN OLD STUDENT OF ST. THOMAS'S HOSPITAL writes to warn others against the attacks of a person who wrote recently to him from a coffee house in London, representing himself to be an old fellow student who had been in practice in the Colonies, and had fallen into temporary difficulties. A small loan was asked for. Our correspondent's suspicions were aroused, and he ascertained that the letter was an imposition, or rather an attempted imposition, for our correspondent did not fall into the trap.

*** A very similar trick was tried upon several other correspondents not very long ago, and we called attention to this shameless form of begging letter writing at the time.

THE CASE OF MR. C. BRYAN TOWNSHEND.

THE following donations have been received in addition to those already announced, and are hereby thankfully acknowledged:

	£	s.	d.
Dr. James Chapman, Southampton	1	1	0
Dr. Hammond-Williams, Oswestry	1	0	0
Dr. James Little, Dublin	3	3	0
Dr. H. R. Hadden, Dublin	2	2	0
Dr. Wright Wilson, Birmingham	1	1	0
Dr. Arthur S. Wills, Stafford	1	1	0
Dr. C. W. J. Brasher, Bristol	0	10	0
Dr. Arthur A. V. Wood, Corsham	0	10	0
Dr. Clarke, Highampton, Devon	0	5	0
Dr. N. V. Wise, Trowbridge	0	10	0
Dr. Jno. F. Churchill, Chesham	1	1	0
A Friend, Dublin	0	7	6

Further subscriptions will be thankfully acknowledged by the Rev. H. Townshend, 41, King Henry's Road, South Hampstead, N.W.

"ACADEMICAL DRESS."

AN OLD MEMBER writes: It has been many times suggested that at public meetings of the profession it might be well for many reasons that academical dress should be worn by its members, and in some instances, as at the delivery of the Harveian Oration at the Royal College of Physicians, etc., this has been done. It occurs to me that the forthcoming meeting of the British Medical Association in London, which must be an unusually large and important one, would be a fitting occasion on which the suggestion might be carried out, and might form a precedent for future years. This plan was adopted at the late meeting of the British Association at Oxford, both at the president's address and *soirées*, and I think with good effect; and it is only at similar evening meetings that I should recommend its adoption by our own Association.

M. D. writes: The vexed question about medical titles, and medical men using the prefix of "Dr." who have no right to do so, has cropped up in the pages of the BRITISH MEDICAL JOURNAL from time to time. It has occurred to my mind as a remedy for the holders of a university degree to wear their robe or gown during consulting hours, so that the patients would be cognisant of the degree the doctor holds. My friend down the street has the prefix of "Dr." on his plate, though he is only an L.R.C.P., and the public has no means of distinguishing between us, but they would soon do so if it were the custom of doctors to wear the robe or gown of the university where they graduated. A soldier when on duty wears uniform according to his rank; a clergyman the vestments and hood of the university where he graduated, and a barrister does the same, and if he wears silk, so much the more he is thought of. Why then should we be debarred by custom of those robes, gowns, and hoods which it has cost us so much time and money to acquire, and of which the general public knows nothing, simply because they have never seen them? In fact I have never worn the doctor's robe myself, except when I paid a guinea to wear it during the time I had the degree conferred. I know it is not easy to get men to adopt fresh ways, but in this age of competition let each man be known as far as possible as to his qualifications, and not all covered under the one hood of "Doctor."

TIGHT LACING AND MOVABLE KIDNEY.

DR. STUART TIDEY (Florence) writes: With reference to my note on "Movable Kidney" which appeared in the BRITISH MEDICAL JOURNAL of May 4th, may I ask you to insert the following note of explanation.

I said I could trace no causal relationship between the occurrence of movable kidney and tight lacing. This should be read literally. I had made a point of inquiring into the practice of tight lacing, expecting to find it had been practised, but failed to do so. My impression is that the wearing of corsets acts in a twofold way on the abdominal walls and their contents: 1. If tight lacing is practised, it displaces the abdominal organs and causes tissue atrophy by continual pressure, so that the organs are mechanically loosened and their natural supports removed. 2. If tight lacing is not practised, but corsets worn for support only, they induce weakness of the abdominal muscles and fascia

by supplanting these in their normal function of maintaining the form and stability of the abdomen and loins. In short, the wearing of corsets weakens the waist in the same way as the wearing of a kneecap weakens the knee.

A letter received from Dr. A. R. F. Evershed of Penzance on the subject has prompted me to write this note of explanation.

THE OBSTETRICAL SOCIETY AND THE MIDWIVES QUESTION.

DE PROFUNDIS writes: When I read the letter of Dr. C. G. Havell of Felixstowe in the BRITISH MEDICAL JOURNAL of May 11th my bosom swelled with envy of the practitioners who would gladly hand over their "guinea midwifery" to qualified midwives. If Dr. Havell himself is prepared to do so, then indeed the first half of the name of the town where he resides is truly applicable to himself. Why, in my neighbourhood respectable midwives are complaining of the fees of a certain qualified medical man who attends confinements for less than they do, in addition to personally canvassing ladies whom he observes to be in an interesting condition "whene'er he takes his walks abroad."

BROMIDE OF STRONTIUM IN EPILEPSY.

DR. CHARLES COPPINGER (Dublin) writes: In the BRITISH MEDICAL JOURNAL for May 18th a paper appears entitled "The Bromide of Strontium in Epilepsy," with notes of four cases, one of which was treated with bromide of strontium, while the other three received potassium and strontium bromides in combination. The author, Mr. Roche, states, candidly enough, that "none of these cases were cured, but all of them much relieved." Bromide of strontium is not a new drug, nor is its use in epilepsy new. On the contrary, it has been prescribed in the treatment of epilepsy here and elsewhere for many years, while it was prominently reintroduced to notice some three years ago in a pamphlet in English forwarded to many if not all the physicians in Ireland, and probably elsewhere.

THE APPLICATION OF SOLUTIONS TO THE CONJUNCTIVÆ.

DR. PERCY NEWELL (Crowborough) writes: In the BRITISH MEDICAL JOURNAL of May 18th Dr. Hyde Maberly mentions a method which he uses in the above; I do not suppose he wishes us to think it is original. For the past ten years I have adopted this manœuvre almost daily. I first learned it from an old practitioner to whom I was assistant, and he had been using it many years also. It is practically the only method for instillations in children, who do not mind shutting their eyes, but decidedly object to opening them if they learn they are going to have anything dropped into them. The method saves time and also fluid, a much less amount being wasted, which is a consideration when cocaine is frequently used.

HYDROPHOBIA AND INEFFICIENT MUZZLES.

ON May 16th Mr. Coroner Yates invested an extraordinary case of death from hydrophobia at Winsford. On April 20th Ernest Smith, aged 7 years, was playing in the street, when a large dog, round the mouth of which there was simply a strap, flew at him and bit him, causing his nose to bleed. For three weeks the boy was well; then he refused to eat and drink, and the doctor recognised the symptoms as those of rabies. The boy died on May 15th, and a *post-mortem* examination confirmed the medical opinion. The coroner said it was a most deplorable case, and he hoped the public would take notice of the muzzling order. It was thought that a strap was sufficient, but it was not, and in view of the great risk it was their duty to protect the public and assist justice.

FRESH FRUIT IN CHRONIC DYSENTERY.

SURGEON-LIEUTENANT-COLONEL J. S. McCUTCHAN, M.B., writes: In the BRITISH MEDICAL JOURNAL of May 18th I read with interest the remarks of Mr. Arthur De Butts on the above ailment. I have had a fair experience in the treatment of dysentery abroad, and when a case of acute dysentery in a patient, apparently otherwise healthy, came under my charge, and threatened to become chronic, I looked for a malarial or scorbutic complication. Quinine in the one instance, or lime juice with fresh fruits or vegetables in the other, quickly alleviated the symptoms. I believe most cases of chronic dysentery are to a great extent due to malaria or scurvy, when contracted abroad.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) F. W. Aird, M.B., Wallington; Mr. W. Adams, London; Dr. H. Armstrong, Liverpool; Ajax; A. A. (B) Dr. H. D. Bishop, Weston-super-Mare; Mr. H. L. Bowman, Oxford; Mr. H. J. F. Badcock, New Brompton; Messrs. R. and J. Beck, London; Mr. R. Barnes, Lincoln; Dr. B. Bramwell, Edinburgh; Mr. G. H. Broadbent, Manchester. (C) Dr. E. Canney, London; Dr. J. S. Coghill, Ventnor; Clarendon; C. Christy, M.B., East Molesey; Dr. G. Croker, Belfast; Dr. J. A. Calantarients, Scarborough; Dr. C. Coppinger, Dublin; Dr. J. Cagney, London; T. Carwardine, M.B., London; Messrs. J. and A. Churchill, London; Mr. W. C. Costine, Liverpool. (D) Dr. W. Duncan, London; G. Dale, M.B., Weston-super-Mare; Deltoid; Mr. T. Davidson, London, Dr. Debout d'Estrees, Contréxeville; Messrs. Day and Co., Weston-super-Mare; Dr. E. W. Diver, Jarrow-on-Tyne; Mr. W. Davies, London. (E) Mr. J. R. Evans, Dowlais; E. M. S. (F) Mr. W. W. Fyfe, Cardross; Dr. R. Fitzgerald, London; Dr. R. B. Ferguson, London; Dr. R. F. Fox, Strathpeffer Spa; Mr. C. E. S. Flemming, Bath; Dr. Fitch, Halifax, N.S.; F.R.C.S.I.; Dr. W. Frazer, Bournemouth; R. Forsyth, M.B., Salford. (G) F. W. A. Godfrey, M.B., Scarborough; G. P.; Dr. Gomperz, Vienna. (H) Mr. C. W. Harrison, London; Mr. C. W. Hall, Warrington; Dr. W. Hunter, London; Mr. C. G. Havell, Felixstowe; Mr. H. N. Hardy, London; Dr. B. Hofmeister, Carlsbad; Hunterian Society, The Secretary of the, London; G. E. Hale, M.B., Manchester; Mr. W. F. Haslam, London; J. Hamilton, M.B., Glasgow; Mr. F. Hornor, Norwich; Dr. W. M. Hutton, Edinburgh; C. E. Harrison, M.B., London; Mr. C. P. Hooper, Cirencester; H. W. B.; T. E. Hill, M.B., Durham. (J) Jeyes Sanitary Compound Company, London; Mr. A. C. Jones, Davos Platz; Mr. S. W. Johnson, Suez; Mr. J. L. Johnston, Wigan. (K) Mr. C. M. Kempe, New Shoreham. (L) Mr. C. R. Lunn, Birmingham; Dr. Leet, Liverpool; Dr. C. Latter, Folkestone; Mr. A. D. H. Leadman, Pocklington; L.R.C.P. (M) Mr. M. M. McHardy, London; Dr. Maclaren, Carlisle; Dr. T. H. Morton, Sheffield; Member of the B.M.A.; Dr. C. Moore, Dublin; Mr. H. L. Mills, London; Messrs. Maclure and Co., London; Member; Mr. N. M. MacLehose, London; C. J. MacAlister, M.B., Liverpool, J. S. McCutchan, M.B., London; Mr. R. R. H. Moore, Netley; M.D. (N) Neurological Society of London, The Hon. Sec. of the, London; Dr. C. P. Noble, London; Mr. P. Newell, Crowborough. (O) Dr. W. O'Bryen, London; Mr. Henry Owen, London; Observer; Old Member. (P) Mr. W. P. Peake, Leicester; Dr. W. S. Playfair, London; Protoplasm; Mr. C. Phillips, Eccles; A. G. Price, M.B., Carshalton; Mr. H. B. Pinchard, Taunton. (R) Dr. E. S. Reynolds, Manchester; R. J.; Mr. H. Renshaw, London; Mr. T. Ryan, London; Mr. T. F. Raven, Broadstairs; R. T. W.; Dr. H. B. Robinson, London; Royal Academy of Medicine in Ireland, The Secretary of the, Dublin; Mr. A. W. M. Robson, Leeds; R. G. M.; Dr. R. R. Rentoul, Liverpool. (S) Mr. G. F. Stone, Bristol; Mr. J. Startin, London; E. Solly, M.B., Harrogate; Mr. Noble Smith, London; Mr. T. A. B. Soden, Coventry; Dr. J. H. Stowers, London; Messrs. Street and Co., London; Dr. G. Simmonds, London; Dr. E. M. Skerritt, Clifton. (T) Mr. L. Taylor, London; Mr. T. Taylor, Accrington; Dr. S. Tidey, Florence; Mr. A. W. Tabuteau, Dunfanaghy; Trephine; Mr. J. H. Thompson, Stockport; Dr. N. Tirard, London. (U) C. T. Urquhart, M.B., Aberdeen. (V) Mr. H. C. Vance, Norwich; Veritas; The Vitalia Company, London; Mr. T. J. Verrall, Brighton. (W) Mr. J. W. Woodruff, Reading; Mr. W. R. Warburton, Halstead; Dr. D. Wallis, Panama; Mr. H. Waite, Leeds, Dr. F. R. Walters, London; J. R. Williams, M.B., Penmaenmawr; Mr. W. R. Williams, Preston; Mrs. C. E. Ward, Southampton; Mr. J. H. Warner, Oxford; Dr. J. Wigmore, Bath; etc.

BOOKS, ETC., RECEIVED.

Archbold's Lunacy. By S. G. Lushington, M.A., B.C.L. Fourth edition. London; Shaw and Sons. 1895. 42s.

Essays in Heart and Lung Disease. By Dr. A. Foxwell. London: Charles Griffin and Co. 1895. 12s. 6d.

The Theory of Physical Education in Elementary Schools. By T. Chesterton. London: Gale and Polden. 2s. 6d.

An Introduction to Pathology and Morbid Anatomy. By Dr. T. H. Green. Eighth edition. Revised and enlarged by Dr. H. M. Murray. London: Henry Renshaw. 1895.

A Guide to the Income Tax Law and Practice. By J. Affleck, jun. Manchester: Income Tax Agency. 1895. 5s.

Trattato di Patologia e Terapia Chirurgica Generale e Speciale. Per Professore F. Durante. Rome: Società Editrice Dante Alighieri. 1895. 5 lire.

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Handbuch der speciellen Therapie innerer Krankheiten. Herausgegeben von Dr. F. Penzoldt und Dr. R. Stintzing. Leiferungen 15-18. Jena: Gustav Fischer. 1895.

The Law of Copyright in Design. By Lewis Edmunds, D.Sc., LL.B., assisted by T. M. Stevens, M.A., and M. W. Slade, B.A. London: Sweet and Maxwell. 1895.

Surgical Pathology and Morbid Anatomy. By A. A. Bowlby, F.R.C.S. Third edition. London: J. and A. Churchill. 1895. 10s. 6d.

Medical Gynecology: a Treatise on the Diseases of Women from the Standpoint of the Physician. By Dr. A. J. C. Skene. Edinburgh and London: Young J. Pentland. 1895.

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A CLINICAL LECTURE

ON

STONE IN THE BLADDER.

Delivered in University College Hospital on May 13th, 1895,

BY CHRISTOPHER HEATH,

President of the Royal College of Surgeons of England.

GENTLEMEN,—On May 8th you saw me remove these three stones from the bladder of a patient aged 45. He was admitted into the hospital from the Out-patient Department, where he presented himself complaining of pain about the bladder and trouble generally of the urinary organs; and from the symptoms he gave Mr. Drew thought it right to examine his bladder, and, on sounding, immediately detected the presence of a stone, and sent him into the ward. I proceeded to examine his bladder with a sound; and I then, without difficulty, detected a good-sized stone. Under these conditions, and, taking into consideration the fact that his urine was only slightly acid and that it was very cloudy, with a good deal of bladder irritation, I decided on performing a suprapubic lithotomy rather than lithotrity. That operation I did on May 8th quite successfully; and you have just seen the man—five days later—lying in bed perfectly well and practically cured. All I have done to-day is to remove the tube which was introduced at the time of the operation.

THE SYMPTOMS OF STONE.

With regard to the symptoms of stone you must remember that we constantly have patients coming here who think they have stone and who have not. You will recollect that only a week ago I sounded a man who was sent here under the impression that he was suffering from stone in the bladder, and you must remember that everyone, I do not care who it is, occasionally makes a mistake in overlooking a stone. It is just as well, however, not to be too cocksure about the business and decide as to the absence of a stone on one examination only; and I therefore told that patient to come again, that I might examine him under chloroform, so as to make quite sure.

Now the symptoms of stone are these: You find in the first place that the patient has increased frequency of micturition, and further that the frequency is more noticeable by day than during the night, which is just the reverse of what occurs in a patient with an enlarged prostate. A prostatic case is always worse at night, and gets completely worn out by his rest being broken through constantly getting up during the night; while on the other hand a stone case, once in bed and at rest gets quite comfortable and his pain leaves him, but if he has to be about in the daytime, and especially if he has to go through any violent exertion, the pain naturally comes on severely.

A man suffering from stone in the bladder becomes very artful. He will tell you that he can ride in a tram without any inconvenience but that he cannot manage an omnibus; obviously the tram being smoother in its motion makes all the difference. He knows, too, from experience that he has more pain when he empties his bladder, the reason being, of course, that the empty bladder comes in contact with the calculus, and thus pain is produced, which is referred very generally to the end of the penis. In children that is very marked, and you see that a child will pull at its penis, and sometimes elongate the foreskin very considerably from the irritation arising from a stone; and you will find every now and then that a child is circumcised under the impression that it is suffering from an elongated foreskin, while it really has stone in the bladder.

After that the next most important symptom is the occasional passage of blood. The patient passes every now and then a little blood, and more particularly after any exertion. Your patient will recognise this relation of blood to exertion, and, if a hunting man, will say that he notices if he has had a hard run that the bleeding is worse than when he has had a quiet day.

THE DETECTION OF STONE BY SOUNDING.

If you have, then, these symptoms—increased frequency of micturition, pain after emptying the bladder, pain at the end of the penis, and occasional passage of blood—you will conclude that the patient probably has a stone, and you will be quite justified in sounding that patient; and you will have no difficulty in touching the stone if it is anything of a size.

Now, you may remember a case in No. 1 Ward sent up to me last winter by a medical man, who said he thought the patient had stone in the bladder. I sounded him in the ward and could not find any stone; still, following the rule to sound a second time under chloroform, I had him brought into the theatre and sounded him with a lithotrite, and found, rather to my surprise, that the lithotrite had caught a small stone, which I at once crushed and extracted. It was so small that I had failed to detect it with a sound; but when the stone is of any size, such as these three, you can have but little difficulty unless there is an enlarged prostate. And then there comes in this fallacy: The surgeon, in the case of an enlarged prostate, may not push the sound completely into the bladder. He uses the sound in the usual fashion, rotating it in the prostatic urethra, and may easily fancy that there is no stone present; but if he pushed the sound well up into the bladder he would find the stone. You should make sure, therefore, that you have pushed the sound well up into the bladder, and directly the sound has entered turn it down and explore behind the prostate. Then comes the question, Shall you or shall you not have some water in the bladder? Well, you ought to have some, and I take it that whatever is in the bladder at the time will probably be enough, but if you fail to detect the stone there may be more water than you want, so it is convenient to use a hollow sound to enable you to draw the water off, and as you do so you may feel the stone click against the sound. It is possible, of course, to make a mistake. It has happened that growths in the bladder, which are coated with phosphates, have been mistaken for stone. It is said, too, that in the case of children mistakes may arise through the sound striking the pelvis. In this particular case there was no question at all. Here was man of 45 years of age with a large stone in his bladder, and I therefore resolved to do the suprapubic operation.

THE SUPRAPUBIC OPERATION.

This operation is a revival of a very old proceeding, an operation which was done, so far as we can tell, about the year 1560 by a French surgeon, Pierre Franco, and it appears to have arisen in this way: He was going to remove a stone by the perineal operation, but found that it was so large that he could not do so; and then he found that the stone could be easily pushed up above the pubes, and accordingly he cut down upon it there and took it out without difficulty, and the patient did perfectly well.

Cheselden, who was a great lithotomist in this country about the year 1700, and whose bust you may see at St. Thomas's Hospital, and whose portrait, when you are fortunate enough to get your diploma, you will see in the Council Room at the College of Surgeons, took up the operation, and then seems to have abandoned it in favour of the lateral perineal operation. Although the operation of suprapubic lithotomy was occasionally performed after its first introduction, for the last 250 years the operation has practically been disused. What brought it into notice again was this: that a British anatomist, Dr. Garson, drew attention in the *Edinburgh Medical Journal* for October, 1878, to the effect on the bladder of distending the rectum.

Here is Dr. Garson's diagram of a frozen section of the bladder and rectum in their natural positions, and in this other diagram is shown the effect of the distension of both viscera: the front of the bladder is in contact with the anterior wall of the abdomen, and you will notice that the space between the peritoneum and the top of the pubes is about 1½ inch, which would be quite sufficient to allow of a suprapubic lithotomy.

This paper did not attract much attention among surgeons, but, two years afterwards, in 1880, Petersen, a Danish surgeon, of Kiel, quite independently promulgated the notion

that if you distended the rectum, and at the same time the bladder, you would get the effect which Dr. Garson had already pointed out. So Petersen invented the rectal bag, which is a sausage-shaped or conical india-rubber ball, which is introduced into the rectum and distended with fluid, and the bladder, being also filled, is raised, and the peritoneum is pushed up out of the way. This plan gave a great impetus to the operation, and it has been very generally employed since in this country and in other countries, and with very great success. But you may have noticed that I did not use Petersen's bag, and that I did not distend the bladder with water, but that I preferred distension with air. It is the first time I have done it, and I think it is an extremely good plan. The suggestion was made by Bristowe, of Brooklyn, to Dr. Keen, of Philadelphia, who was, I believe, the first to employ air. You saw that I put a catheter into the urethra, and, having first washed out the bladder as a precautionary measure, I then emptied the bladder again and distended it with air, and purposely left the catheter still in so that I could put more air in if necessary, and also that I might use the catheter to raise the apex of the bladder if I wanted to do so. Having felt that the bladder was fairly well distended, I made an incision immediately above and on to the pubes about 2½ inches in length. I then worked in carefully between the muscles, and having exposed the fat and cellular tissue I came on the bladder with my finger, and then, in order to keep it within

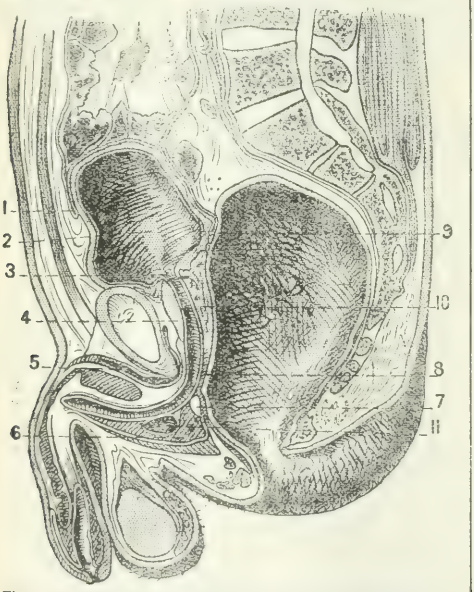


Fig. 1.—Longitudinal section through a frozen body with the rectum much distended (artificially). 1. Peritoneal fold passing over the bladder from the abdominal walls. 2. The bladder. 3. Internal orifice of urethra. 4. The prostate. 5. Dorsal vein of penis. 6. Bulbous portion of urethra. 7. Cowper's glands. 8. The upper end of the membranous portion of the urethra. 9. Peritoneal fold forming Douglas's pouch. 10. Prostate. 11. Abscess in the bulbous portion of urethra.

reach, I passed two threads with a curved needle, one on each side, to hold the bladder in position; next I scraped a little on to the muscular fibres of the bladder, taking care to avoid some veins, and for this I used a little ivory instrument, which was a suggestion of Sir Henry Thompson's. I was then able to open the bladder in the middle line without any difficulty, and the air immediately escaped. There is this advantage of the air over the water distension, that the air escapes easily and there is no mess. There is also another consideration: if there is a sudden rush of water it may wash out with it a small calculus, which may get lost. Now this actually occurred to an eminent surgeon, a friend of mine, who in the presence of a large class opened a bladder for stone and no stone could be found. My friend was quite sure that he had felt the stone but he could not find it, and he went away in great dudgeon; but the stone was found afterwards in the blanket of the patient, having been washed out in the rush of water.

THE NECESSITY OF SOUNDING IMMEDIATELY BEFORE OPERATION.

Here let me say that no one, however eminent he may be, is justified in cutting into a bladder for stone under any circumstances whatever without first sounding the patient at the time of the operation. It is one of the rules of surgery, which ought never to be forgotten, that you are bound to sound the patient on the table. It is not sufficient to have sounded the patient the day before; it must be done at the moment of the operation. It occurred once to Liston, here in this theatre, on sounding a child's bladder not to find a stone; he sent the child away to bed, and again sounded him the following week, and found a stone easily and removed it, and I give you that as an example of what ought to be done. I have known a surgeon cut into a bladder for stone, being contented with somebody else having some days before sounded the patient, and in that particular case there was no stone in the bladder.

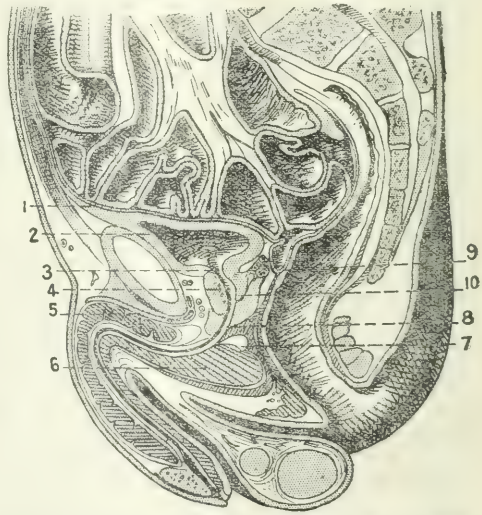


Fig. 2.—Longitudinal section through a frozen body with the rectum filled (naturally), but not distended. 1. Peritoneal fold passing over the bladder from the abdominal walls. 2. The bladder. 3. Internal orifice of urethra. 4. The prostate. 5. Dorsal vein of penis. 6. Bulbous portion of urethra. 7. Cowper's glands. 8. The upper end of the membranous portion of the urethra. 9. Peritoneal fold forming Douglas's pouch. 10. Prostate. 11. Abscess in the bulbous portion of urethra.

AFTER-TREATMENT.

In regard to the after-treatment I have but little to say. We put in a flanged india rubber tube, and we fastened a sheet of oil-silk beneath the flange and attached it to the pubes with plaster. The man has been lying perfectly dry and comfortable in bed, the urine being soaked up by mess pads, and to-day we have removed the tube, and in another week or so the opening will be closed up. The patient was

relieved from all pain, and has eaten and slept well from the first.

Details of the Operation.

Then with regard to the mechanical part of the operation. In the first place, you may have noticed that I stood, as I always do, on the patient's right hand. It is much more convenient when you sound a patient to stand on the right; taking the sound in your left hand to pass it along the urethra, and then into your right hand to enter the bladder and sound. That is what I did with the silver catheter which I used as a sound; then, still standing on the right side, I made my incision from above downwards, and I found no difficulty in slipping over my finger a pair of slightly curved forceps, and picking out the three calculi one after the other. The largest weighs 247 grains, the next 93 grains, and the smallest 36 grains, or a total of 376 grains. Now it is not always quite so easy to pick stones out of a bladder, for you may have to deal with a very rough calculus, a mulberry stone, which may be partially adherent to the coats of the bladder, or again you might have a stone which has become encysted, that is to say, where the stone is in a pouch from which you have to dislodge it with a scoop. Or it may happen to you, as it did to me once, to have so large a stone to remove as to make it difficult to take it away. Here is the stone, which weighs nearly 11 ounces, and that stone I took out of the bladder of a patient in the year 1890—on a Sunday I remember, and I never had such a sultry Sunday afternoon's work in my life.

The remarkable thing about the case was that the patient had suffered from urinary symptoms all his life, and the medical man who called me in had brought him into the world. The patient had always been a weakly lad and troubled with his waterworks, and yet for over thirty years, with these symptoms continually present, the patient had never been sounded. The probability is that the stone was there very early in the patient's life—possibly at birth even, for such a thing no doubt does occur. Immediately after the operation the patient did fairly well; but he only lived for three weeks, gradually sinking, worn out with kidney disease.

So much then for the operation of suprapubic lithotomy, which I must say is an exceedingly easy one if properly done; but it is possible to make mistakes in it as in any other operation. I have myself seen the peritoneum opened in this operation, and it is naturally a thing to avoid. It is well to remember that you should always endeavour to have the bladder in as healthy a state as possible, so that if the peritoneum is opened as little harm may follow as possible. In the case I mention the peritoneum was opened and the bowels were exposed, but it was carefully washed out and then stitched up, and no harm came; still it is a very great point not to open the peritoneum.

Changes in the Method of Treating Stone.

Now just a word with regard to the changes which have taken place of late years in the treatment of stone. You are most of you probably aware that this theatre was the place where the great Robert Liston did most of his operations from 1836 to 1847, when he died; and it was crowded week after week by students and practitioners anxious to see Liston operate. I suppose he was one of the greatest lithotomists that ever lived; he had a very large number of cases of lithotomy and enjoyed very great success. The operation he performed was the lateral operation, and being a very powerful man, he cut boldly into the bladder and then with a large pair of forceps he grasped the stone and somewhat roughly drew it out. You must remember that the great bulk of his operations were done before the days of anæsthetics, when rapidity was a very great point. The patient was held by force in the lithotomy position, and the surgeon was naturally anxious to be as rapid as possible and thus save prolonged suffering.

Let me say *apropos*, that I think it is much to be regretted that Mr. Pepys, who wrote *Pepys's Diary*—and I presume you all are acquainted with that classic—was not keeping his diary at the time he was cut for stone, about the year 1660. He alludes to the fact indeed very often, but he did not begin his diary till two years after he was cut. It would have been extremely interesting if a man like Pepys, who could so accurately describe even the smallest detail of his domestic life, had been able to give us his account of what he felt during the operation of lithotomy.

After Liston's death, when anæsthetics came more into vogue, of course rapidity was not so much sought after; and Sir William Fergusson, who was perhaps the next greatest lithotomist, was more deliberate. He was equally successful, but was more deliberate, and he made freer incisions into the neck of the bladder. That was at King's College Hospital; and when I was a student there, week after week lithotomy was performed with a large amount of success, especially considering the dangers that the patients then incurred from septic complications.

After Liston's time, of course, we had here Sir John Erichsen, who was also an excellent lithotomist, and then Sir Henry Thompson, who, I suppose, is the greatest living authority on stone. He devoted his attention to lithotrity, and I have seen him do four and five cases in one afternoon with remarkable success. He so much preferred lithotrity that he seldom did lithotomy, except under special circumstances. All these lithotomy cases were perineal, lateral or median operations, and a suprapubic operation was only performed under very exceptional circumstances. But practically nothing else has been done here since the operation was brought into vogue by Petersen, and I know that Sir Henry Thompson has had a large success with the suprapubic method in private.

You can hardly go wrong in a suprapubic operation as you can in the perineal operation, and there have in former years been in this city and in other large cities melancholy cases of mismanagement of perineal lithotomies. I have myself seen one or two tragedies of the kind. I was assistant surgeon at another hospital to a surgeon who came, so to speak, a "cropper" with his first lithotomy on a child. The result was that he never would do another case, to my very great advantage, because I had all the lithotomies, and did a large number of operations in both children and adults. They were all, of course, perineal lithotomies. I have done a fair number here too, but of late, following the lead of others, I have adopted the suprapubic method when the stone is too large to remove comfortably with the lithotrite.

In doing a suprapubic lithotomy you are entirely independent of an assistant, you only require ordinary help; but if you cut into the bladder from the perineum you require a skilled assistant to hold the staff, and the result of want of proper skill on the part of the assistant may react on the principal, and not only may mischief be done to him, but a catastrophe may happen to the patient. On the other hand, a principal may attribute his mishap to an assistant unfairly, as happened once to myself.

I do not want to trouble you with the details of perineal lithotomy, because you will probably never see it done. The suprapubic method seems so thoroughly to have established itself among surgeons that one may reasonably look forward to its being the operation in the future.

The fifth International Congress of Otology will be held in Florence under the presidency of Professor Grazzi from September 23rd to the 26th. The following are the subjects selected for general discussion: 1, the Treatment of Intracranial Abscesses consequent on purulent diseases of the ear, introduced by Dr. Thomas Barr, of Glasgow; 2, General Treatment in Diseases of the Ear, introduced by Dr. Gellé, of Paris; 3, General Treatment of Diseases of the Internal Ear, introduced by Professor Gradenigo, of Turin; 4, The Present State of our Knowledge of the Pathology of the Labyrinth, introduced by Professor Politzer, of Vienna; 5, On the Physiology of the Middle Ear, introduced by Dr. Charles Secchi, of Bologna. All members of the profession who intend contributing papers or being present at the Congress are requested to communicate with the Secretary not later than June 15th. Early in July each intending *congressista* will receive a detailed programme of the meeting. The official languages are Italian, French, German, and English. The subscription, which includes a copy of the printed Transactions of the Congress, is 20 francs. The Secretary-Treasurer is Dr. T. Bobone, of San Remo.

A CLINICAL LECTURE
ON
ACUTE INFLAMMATION OF THE CÆCUM AND ITS APPENDIX.

Delivered in the Richmond Hospital, Dublin.

By W. THORNLEY STOKER,

President of the Royal College of Surgeons in Ireland;
Surgeon to the Richmond Hospital and to Swift's Hospital; Fellow of the Royal University.

So much has been written about typhlitis in connection with modern developments of abdominal surgery, and so much said as to the exact diagnosis and the treatment of the various inflammations which attack the cæcum, its appendix, and the tissues about them, that I desire to clear the ground for myself and others who may sympathise with my difficulty in accepting all that has been put forward in this context. The question of exact diagnosis is that which puzzles me most, and I must confess to inability to follow or apply in general the nice symptomatic distinctions which some writers draw between inflammation of the cæcum, of its appendix, of the areolar tissue behind it, or of the peritoneum which covers it. If localisations so exact exist—and I doubt their frequency—their discovery is more likely to be made on the operating table or in the *post-mortem* room than in the bed, and they are therefore of little help to the surgeon in guiding him as to the treatment he should adopt.

The cases to which I propose to refer are those of acute inflammation. What I have to say does not apply to relapsing inflammations, which present acute recurrences with chronic intervals. With them we have a more educated acquaintance; we recognise their clinical features; during their quiescent intervals we can often determine their exact nature by physical examination, and we have now attained definite views as to their proper treatment. I only mention them for the purpose of excluding them; they almost invariably have their origin in a diseased appendix, and usually demand removal of that organ during a chronic interval. It is because they always first bring themselves into prominence by an acute attack, and because operative treatment during that attack is so unfavourable when compared with laparotomy during a quiescent interval, that I desire to formulate my experience concerning the nature and treatment of acute attacks of typhlitis, be they primary or secondary. Of these relapsing inflammations we may, for the present purpose, dispose with the remarks:—

a. That they generally demand laparotomy, usually for the purpose of removing a diseased appendix.

b. That the operation, if done during an interval of freedom from acute disease, is seldom dangerous or unsuccessful.

The knowledge of these facts makes us more anxious to be able to overcome initial attacks of typhlitis by minor treatment, on account of the grave danger of operation at such a period, and of the frequency with which a first attack proves the only attack. The same reluctance to operate should obtain during subsequent acute relapses, in view of the confidence with which we may open the peritoneum when they have subsided.

If I use the term "typhlitis," I do so for want of a better, and not because it is in any way exact. I mean it to comprehend inflammation in or about the right iliac fossa of the varieties variously named cæcitis or typhlitis, perityphlitis, paratyphlitis, and appendicitis. That an acute attack of one of these may occur without the other is evident, but the persistence of one of them without the other is a rare incident, and one not usually open to exact diagnosis.

I have seen a very large number of cases of acute primary typhlitis, and in nearly all of them have found it impossible to make an exact diagnosis as to the seat of the lesion, and in spite of the much writing which should have made us exact, have found myself lamentably behind the numerous arbitrary writers on this subject. To be sure, it is generally safe to accuse the appendix in these cases, because it presents the most characteristic symptoms and signs, because it undoubtedly is usually the seat of the initial inflammation (for reasons to be estimated hereafter), and—less worthy reason—because by the time operation or the progress of disease has rendered matters more evident, the enterprising and exact opinion will be justified by finding it in a state of inflammation which, if not primary, cannot be proved to be secondary. In other words, when it is, exceptionally, not the seat of the initial disorder it is almost sure to be attacked subsequently.

In a most instructive paper by Mr. Treves,[1] he deals with the influence of the bacterium coli commune in producing typhlitis, and the circumstances under which it assumes the abnormal virulence which enables an otherwise harmless inhabitant of our intestines to become so destructive. With what he says on that branch of the subject it is not possible to disagree; it is logical and practical; but when seeking for the circumstances under which the appendix becomes the seat of recurrences he hardly goes far enough. It is not necessary to assume deformity or abnormality to explain why with, or without, the assistance of this bacillus the appendix becomes so frequently the seat of inflammation. If it be conceded that a foul or constipated large intestine predisposes to the virulent development of this micro-organism, it must be allowed, *a fortiori*, that the narrowest, most obscure, and most unused by-way of the bowel is the likeliest breeding place for mischief; also, the frequency with which appendicitis appears only once and does not relapse is a strong argument in favour of the view that the normal appendix is generally that affected. There is one passage in Mr. Treves's paper which appeals most strongly to experience; it is that in which he remarks that the number of cases in which there has been only one attack is much greater than that in which there have been recurrences. This is a fact that will speak loudly to those who have seen a large number of cases of typhlitis, and it is at once an argument against the ready adoption of operations in first attacks, and against the probability of a deformity of the appendix being present. Recurrences are rare in children, and of greater frequency in vigorous adult life.

Observation has taught me that operation in acute typhlitis is highly fatal, and should only be resorted to in very exceptional cases. Further, certain lines of minor treatment are often successful, at all events in tiding over the immediate danger, and usually in producing permanent relief. Once we allow that persons who suffer from single attacks are much more numerous than those who are subject to relapses, we have found the strongest reason, in the face of the fatality of laparotomy in the acute stage, for using every other reasonable means. I have rarely seen a case of acute typhlitis in which the large bowel was not full of old fæces, and I have still more rarely seen a case in which the colon could be unloaded in which recovery did not take place. So true is this, that of late years I have nearly always regarded the emptying of the colon as ending the immediate danger to life, provided of course that the inflammation has not proceeded to the point where an abscess has formed or perforation taken place. The question as to when laparotomy should be done in acute typhlitis is one that is often difficult to answer. To be able to formulate an accurate reply to it would be to have reduced this branch of surgery to an exact science, and to be able to set aside the advantage which experience gives. So far as I am able to state my opinion on the matter, it is that if an abscess has formed or perforation taken place, laparotomy should at once be resorted to, but that, short of these misfortunes, operation should be delayed until the last possible moment. Of course there are exceptions to such a rule, but they are only to be learned by clinical study, and cannot well be conveyed by words.

We are now at the top of an epidemic wave of operative treatment of inflammatory disease of the cæcum. It has risen too high, and like other disturbances, will presently subside to a mean level. In 1889 I ventured to express strong opinions against the propriety of usually performing laparotomy in acute intestinal obstruction due to collections

[1] British Medical Journal, March 9th, 1895.

within the lumen of the bowel.[2] This opinion I have since advocated still more forcibly,[3] and experience and observation of the practice of others have led me to form an equally strong judgment against the general wisdom of operating in cases of acute typhlitis, except under the conditions just expressed, or where other means have failed. These cases are of common occurrence in all classes, and at most ages except very advanced ones. There is a pleasant poetic justice in the reward of our surgical anxieties, implied by the fact, as I have observed it, that acute typhlitis is one of those complaints commoner among patients of the better class than in those in poorer circumstances. It is more frequently met with in private than in hospital practice. This is perhaps due to the high feeding and constipation which are more usual among well-to-do people than among poor ones.

Putting aside the ultimate question of operation, it is to be considered what measures are at our disposal to empty the bowel, and so place it in as strong a position as possible to resist the poisonous effects of the colon bacillus. It is so generally the case that the inflammatory process is initiated and kept alive by fæcal accumulations, and that if it has not proceeded to suppuration or perforation it will be arrested if the bowel can be emptied, that too much weight cannot be attached to the means of effecting this. There are two lines of treatment to be considered—the negative and the positive, the first embracing things that are to be avoided, the second things that are to be done. Under the former head may be grouped as both improper and in common use: (1) the local use of irritants; (2) the employment of opium; (3) the abuse of feeding; (4) reliance on the value of temperatures.

1. Local applications capable of causing any irritation are to be avoided. Anodyne or other liniments, too hot poultices, or any treatment likely to inflame the skin, ought not to be used: such measures have no good effect on the bowel, they obscure symptoms by rendering the skin tender, and should operation be unfortunately called for it is not done to the best advantage through an inflamed integument and areolar tissue.

2. Opium should be used most cautiously, if employed at all. The number of acute bowel cases in which it is pushed to such a point as to conceal symptoms is large, and most surgeons can record abundant instances in which patients have been regarded as not alarmingly ill because they have been kept narcotised until their condition was desperate. The only indication for its use is pain, and by concealing this it may keep the surgeon in a fool's paradise.

3. The abuse of feeding is a constant danger. In their anxiety "to keep up the patient's strength," solicitous friends give food to an embarrassing extent. It is difficult to make them understand that even fluids, if taken freely, can increase the loading of the disordered bowel. The quantity of material which can be introduced into the intestine by steady and persistent administration of repeated small quantities is astonishing. If vomiting be present the mistake is even greater, for the patient becomes exhausted by it and by the failure to assimilate even the small quantity of nourishment he otherwise could. Of all food, that which I most dread is milk. The popular ignorance of the fact that it curdles when introduced into the stomach, and that it is not easily digested by persons suffering from intestinal obstruction, is productive of infinite harm. It is not only dangerous because its good reputation induces its administration in larger quantities, but also because the curds are quite indigestible in these cases, and the use of milk adds to the solid load in the bowel. I have over and over again seen acute typhlitis stopped by a judicious process of starvation. This is particularly true in the case of children, and singularly difficult to carry out in them owing to the anxious prejudices of mothers.

4. The value of temperatures as a diagnostic aid in all disturbances involving the peritoneum is slight. They are very deceptive, and any undue reliance on them will lead to trouble. They may range high in insignificant cases, and are even more likely to be very low in grave examples of disease.

So much for things to be avoided. What of more positive treatment? This may be arranged under the heads of (1) diet, (2) local applications, (3) purgatives, (4) enemas.

1. The food should be fluid, and of as small a quantity as will sustain the patient. If vomiting be present it ought to be reduced to the lowest possible point. Rectal alimentation is impracticable owing to the necessity of inducing the bowel to act. The choice lies between meat juice, beef-tea, whey, water, and some form of alcohol. The distressing thirst which exists in these cases is most difficult to overcome. If it be sought to relieve it by introducing much fluid into the stomach this provokes vomiting. Ice increases the thirst, and by insidiously introducing water into the stomach tends to induce vomiting. Frequent rinsing of the mouth with hot water, and swallowing occasionally a teaspoonful of warm water, are the best means at our command to allay thirst.

2. The only local application of much value is a soft linseed meal poultice, not so hot as to redden the skin. It should not, as has lately been pointed out, be covered with waterproof material, which by preventing evaporation lessens its cooling qualities. I have never seen any other local measure of use.

3. Purgatives, if cautiously used, are not to be dreaded, except in cases of great acuteness and intensity. If there be vomiting they must be administered by the rectum, but in that event they are of less value. The sulphate of soda is perhaps the best, and if a purgative by the mouth be permissible, I usually order it in 2 drachm doses, repeated every hour until an effect has been produced or four doses taken. But purgatives should be avoided unless the enema has failed, or until it has commenced to be effective, or except in cases where complete obstruction does not exist in the beginning of the attack.

4. Of all means at our command, the enema, if properly employed, is the safest and best agent for the relief of a loaded large intestine. The method of employing it which I now invariably use is that described in the British Medical Journal of January 26th in the present year. To the enterprising operating surgeon it has one objection—it is extremely slow. I have often spent two hours at the bedside of a patient suffering from impacted large intestine, with or without typhlitis, before fæcal matter began to come away. But when it does begin to come away the corner is generally turned. If the process is tedious to the surgeon, it is, at all events, not exhausting to the patient. There is nothing of which I have become more thoroughly convinced than that nearly all cases of acute typhlitis have their origin in a loaded colon, except the fact that if that colon can be unloaded in time, recovery will take place. The process of fæcal impaction of the large intestine begins in the sigmoid flexure; it gradually extends in a proximal direction, first involving the descending colon, then the transverse colon, and, lastly, the ascending bowel and cæcum. The time at which the proximal accumulation may set up inflammation varies greatly. The hostile effects of the bacillus may show themselves in some patients who have accumulation not nearly reaching to the cæcum; in others it is not evident until the caput coli itself is involved. But this in no way upsets the theory of fæcal accumulation as an exciting cause of typhlitis. It is merely an assertion of what every pathologist knows—that some people and some bowels are more susceptible to morbid influences than others. If it once be conceded (and can it be denied?) that the colon bacillus is rendered hostile by constipation, it seems evident that purgation is, if achieved early enough, likely to be a remedy for its ill effects. If, as I believe, the bowel can best be emptied by a process of washing—a process perhaps laborious, but almost certain in its result—then it has a claim for careful employment. Beyond the theory of the matter is the practical fact, which I trust will obtain acknowledgment, that purgation, if obtained before perforation has occurred or an abscess formed, is generally the end of immediate danger in typhlitis.

I do not produce a list of cases in illustration of my views, although my observations have been numerous and extended over many years, because conclusions, and not isolated instances, are what we want in matters of debate. My conclusions, very anxiously arrived at, are:

1. That in this, as in some other acute peritoneal inflammations, operation is most unfavourable, should be seldom resorted to, and has been too freely adopted; and

2. That purgation, if it can be induced, is the best remedy

[2] *Trans. Acad. Med. Ireland*, 1889.

[3] British Medical Journal, January 26th, 1895.

at our disposal; and that the most likely and safest way to effect it is by hydrostatic washing with warm water and a soft tube.

MORPHŒA HERPETIFORMIS:

A NEUROLOGICAL STUDY.

By JONATHAN HUTCHINSON, F.R.S., LL.D.,
President of the Royal Medical and Chirurgical Society.

(With a Coloured Plate.)

The coloured plate which forms the principal illustration of my paper represents the condition of the foot in Mrs. B., a woman, aged 63, who was the subject of morphœa. On the outer side of her foot and ankle, it will be seen that a large, irregularly-shaped patch of skin has become hardened, and assumed a tint of yellow ivory or smooth washleather. To the finger the affected skin felt board-like, and it was quite impossible to pinch it or lift it from the subjacent parts. A certain amount of contraction was present by which the three outer toes were drawn upwards, and the movements of the ankle were much impeded. At the margin of the affected part the skin was a little congested, and on the side of the leg, about 4 inches above the outer malleolus, there was an ulcer as large as a half-crown. These conditions had been present about nine months when the portrait was taken on July 11th, 1893. The woman has remained under my observation since, and I am now, nearly two years later, able to report that the ulcer has healed, and that the whiteness and induration of the skin have to a very large extent disappeared. There remains, however, a tight, almost scar-like, condition of the affected skin, which is of a dusky colour, and adherent to the parts beneath.

We are in a position in this case to trace the progress of an attack of herpetiform morphœa from beginning to end. The patient in October, 1892, first noticed "a reddish ring" on the dorsum of the foot, just above the base of the little toe. Others near to it soon followed, and in the course of about two months the patch was well mapped out. After that there was no lateral extension, but the ulceration did not take place until three or four months later. The morbid processes had attained their height in about eight months, and during the two years which have subsequently elapsed they have been slowly subsiding. The patient has been in fair health throughout, and has had no similar patches elsewhere.

I have now to ask attention to the interesting fact that the portion of skin involved is exactly that supplied by the terminal twigs of the short saphena nerve. This nerve, made up of the two communicating branches from the popliteal and peroneal, passes down the lower half of the back of the calf subcutaneously, and is distributed to the skin on the outer side of the ankle and foot, as far as the roots of the toes. That the outlines of the patch are not much suggestive of nerve distribution is to be freely admitted. They are irregular, and in some parts run almost in straight lines, and the upper boundary is almost square. In explanation of these peculiarities something may be said in a further part of the paper another time.

I have next to ask attention to particulars of the case which the woodcuts on p. 1196 concern. This case was one in some respects exactly similar to that just related, but it went beyond it in several most important features. Both feet were affected, and with almost exact symmetry, and although on the outer sides of the feet the distribution was precisely like that in Mrs. B., that, namely, of the lesser saphena nerve, there were patches on the inner side of the feet as well. These latter could only be explained by supposing that certain twigs from the popliteal, in addition to that which it supplies as its communicans branch, were involved. There is nothing improbable in this supposition, and we may note that the affected parts were as definitely limited as in Mrs. B.'s case, and that in neither was there the slightest tendency to extension of the patches after their limits had been once well declared. The subject of this second case was a drayman, aged 32, residing in Liverpool. He was under the care of Dr. Foulston and Dr. Hugh R. Jones, the latter of whom had drawings made which he was kind enough to allow me to copy. He also procured me an opportunity of seeing the patient, for myself, during a visit to Liverpool. The disease had existed eighteen months at the time the drawing was taken, and the patient described it as having commenced by "a speckling of scaly white spots on the skin," which gradually coalesced into white, hard patches. The patches had been present fifteen months before the ulceration occurred. As in the preceding case, the affected portions of skin were somewhat depressed by contraction. Excepting "a little springing and tickling," no abnormal sensations were complained of, and there was no appreciable loss of sensibility. The man was in good health and had no skin disease elsewhere. He remained under observation for some considerable time, but Dr. Jones tells me he has now been lost sight of. It is believed that his disease was undergoing the same retrogressive changes which were noted in the preceding case.

The above two cases illustrate in brief the most important facts which have been established respecting what has hitherto been known as the ivory-patch morphœa. They both show that it has slow stages, alike of development and decline; that it is abruptly and definitely limited to the parts affected and has no tendency to serpiginous spreading; that, after lasting for a certain time, the affected parts are restored to a more or less healthy condition. The first case shows us the disease in its unsymmetrical or definitely unilateral form, whilst in the second changes of a precisely similar character were arranged with almost accurate symmetry.[1]

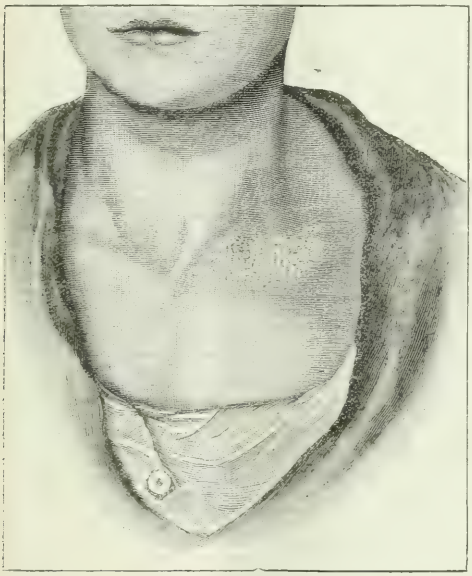
It is more than twenty years since I gave a special lecture[2] at the Blackfriars Hospital on some of the points of resemblance between herpes and morphœa. At that time the connection of morphœa and the nervous system had been scarcely if at all recognised. I pointed out that the distribution of the patches was in many cases exactly like that of herpes zoster, and ventured the theory that, as herpes zoster is an example of an inflammation of the skin located by sensory nerves, so morphœa is an instance of changes of a more chronic kind and of a very different character, located either by the same nerves, or perhaps more probably by the vasomotor filaments which accompany them. My friend the late Dr. Hilton Fagge, one of the best observers who ever lived, amongst others, expressed some dissent from this view, and I remember that he was good enough to send me a case in which the ivory patches were arranged almost as a circle below the knees, and appeared to be definitely influenced by the pressure of the woman's garters. One of the arguments which I strongly urged in reference to the parallelism between zoster and morphœa was that the latter, like the former, was rarely arranged with bilateral symmetry, and next that the patches of neither the one nor the other, after having once well declared themselves, show any tendency to enlarge their borders or to spread serpiginously. To these two statements many of those who have written on morphœa recently have more or less demurred. I have been shown repeatedly by my friends cases which were considered to be symmetrical, and others in which the patches were alleged to have gone on increasing in size. In spite, however, of these apparent or supposed exceptions, I believe that the majority of derma-

[1] I am obliged to speak with a little doubt on this point, for, although in the Liverpool case both feet were affected, I possess drawings and detailed descriptions of only one. The other is stated to have been like it. The late Professor Rasmussen, of Copenhagen, was I believe the first to describe the microscopic appearances in morphœa. He was in England in 1882, and I had the pleasure of his company for a day in the country. We spoke much of morphœa, but for some time, because I asserted that I had seen six cases, I could not convince him that we meant the same malady, for morphœa was, he alleged, so rare that "no physician had seen more than one example of it." Since then I have no doubt that I have seen forty cases and, thanks to the organisation of special departments at our hospitals and the multiplication of societies for clinical observation, there are now others whose familiarity with the disease may equal my own.

[2] I cannot find that this lecture was ever published even in abstract, nor can I assign its exact date. It had for its title "On the Parallelism between Herpes Zoster and Morphœa. A letter from Dr. Hilton Fagge on the subject bears date July 13th, 1867. In 1879 I published in *Lectures on Rare Skin Diseases*, a summary on the same subject, and at page 347 the reader will find a reference to what had previously been written as regards the connection between morphœa and the nervous system.

tologists in the present day admit that morphœa is often, if not usually, distributed by the sensory nerves, and that in this respect it has a close resemblance to zoster. For myself, I may say that I have been carefully observing cases ever since my lecture, and that I have been more and more convinced of the general accuracy of what was advanced. I have scarcely ever seen a case in which there were not certain definite deviations from bilateral symmetry, nor one in which the evidence offered convinced me that there had been any real serpiginous spreading.

I now venture with some confidence to propose that the adjective "herpetiformis" should be used in reference to those forms of morphœa which resemble herpes in their distribution. I am sure that this word will be found convenient, and that it will denote an obvious and important clinical fact. A case which was the subject of demonstration at the Clinical Museum a year ago afforded an excellent illustration of what is meant. The group of morphœa spots were arranged in two long oval leashes on the clavicular region, exactly like herpes.



The patches were also made up of separate spots, which, although they had coalesced in some instances, had by no means done so in all. Not long previously I had shown two patients who illustrated the occurrence of zoster on precisely the same regions. The vesicles in these cases extended just across the middle line of the sternum, and in exactly the same manner as the ivory-white spots did in the case of morphœa. A drawing from the museum illustrates the occurrence of morphœa spots in precisely the same region. The term "herpetiformis" must, however, by no means be restricted to cases in which the eruption is in spots. The more common ones, in which it constitutes a single patch, probably differ only in the circumstance that the disease is attended by more severe and deeper changes, and that the spots, originally separate, have coalesced. A very remarkable example of this was recently shown me by Mr. James Startin. The patient was a young girl on one side of whose chest there curved downwards and forwards a long band of morphœa, exactly in the position of common shingles. It was, however, a broad band of induration, and showed only a few separate spots near its edge.

The term "herpetiform" may be suitably applied to all cases of morphœa in which the changes are arranged in bands or after the manner of a corymb or paniele. More than a few of these cases will be found to be bilateral, and in a certain number the streaks may be arranged almost symmetrically. The tendency to be bilateral and to occur on many parts at once is very rare in zoster and very common in morphœa, but does not in the least invalidate the theory of the nerve distribution of the latter. It proves only that many nerves may be affected at the same time, and possibly that in some cases there is a definite tendency for the same nerve trunk on the two sides to suffer. In all cases of multiple morphœa which should be called "herpetiform," it will be observed that there are areas of skin between the diseased portions which are quite healthy, and that the diseased areas are arranged according to the distribution of nerves.

In this the contrast with what is known as "diffuse morphœa" is quite definite. I am by no means sure that there are not connecting links between the two, and I freely admit that there are some cases in which it is exceedingly difficult to give any plausible explanation of the law of distribution. These for the present it may be better to keep apart. We shall find out how to explain them some time. For the present, let us place together and recognise by a distinctive name those in which the distribution is, as I have said, after the pattern of herpes zoster.

We must note as a peculiarity of certain cases of morphœa and as distinctly exceptional to the nerve distribution theory, that we occasionally see the patches placed transversely across a limb. I have mentioned a case which Dr. Hilton Fagge showed me, in which the changes were apparently influenced by the patient's garters. In another case which Dr. George Hastings sent to me in October, 1884, there were patches on the inner sides of the upper arms on both limbs, the long axis of which was distinctly transverse.

In explanation of these and certain other conditions we must admit the probability that, during the inception stage, local irritation may take a certain share in determining the size and form to be finally taken by morphœa patches. In other words the cell elements are for a short time and to a limited extent infectious, and may under the influence of pressure and the like, cause a certain degree of extension beyond the area of distribution of the affected nerve. This can probably take place only in the very beginning, and it never causes more than very limited increase. It may, however, be sufficient to explain the otherwise perplexing conditions of great irregularity in the form of patches, angularity of outline and transverse position as regards the axis of the limb.

It is a point of some importance to determine whether the cases in which a great number of separate spots are present, which become confluent only in part, are exactly of the same nature as those which present a thick, brawny patch with an abrupt margin, and but few if any adjacent satellites.

A similar question arises in other cases in which there is brawny induration or a hidebound condition, but no lardaceous or ivory-like infiltration. My impression is that we should count all these several states, the "morphœa maculosa," the ivory patch, and the hidebound condition when in patches, as partaking of the same nature. I think that they are not infrequently met with together in the same case, and that their difference simply implies different degrees of severity in the local change. It is to be admitted, however, that there are cases of the macular kind which are so slightly marked and so peculiar in their features that it is difficult to know whether they should be accounted as morphœa at all. In this group are to be placed a case which Dr. Vinrace showed me recently, and another which I had myself recorded some years previously.[3] These cases appear to prefer the genital organs, parts which are very rarely affected either by herpetiform morphœa or diffuse scleriasis.

I hope that I shall not be blamed for preferring still to use the old name "morphœa" rather than the new one of "sclerodermia." The latter is a pathological term; it denotes a theory, and is applicable to many affections and to only certain stages of each. The former is a clinical one, is well understood in its conventional signification, and has the great advantage of being almost meaningless as regards pathological theory. Using the word morphœa in its old sense as applicable to all hide-bound conditions of skin, I

[3] Clinical Lectures, vol. i p. 328; see also the *Clinical Journal*,

would propose, by suitable adjectives, to discriminate its different forms. For clinical purposes these latter present us with most important peculiarities of character.

We may perhaps conveniently recognise three principal divisions, under each of which several groups may in the future be arranged:

Division I.—Herpetiform morphœa; the patches being arranged on the pattern of herpes in streaks or bands, and, however extensively bilateral, seldom or never with exact symmetry.

Division II.—Acroteric morphœa, in which, although the whole skin may suffer more or less, the beginning and the greatest severity of the disease are almost invariably at the extremities. No location in streaks, symmetry always marked, and Raynaud's phenomena not unusual. This form is met with almost solely in adult women, and shows no tendency to spontaneous cure.

Division III.—Hide-bound conditions of skin, in which the subcutaneous tissue rather than the skin itself is implicated. In this division are to be placed for the present certain cases which differ more or less definitely from both the preceding, and concerning the exact relations of which it is very difficult to speak. There are no ivory patches, nor are the extremities preferentially affected.



These woodcuts show the state of the foot in the Liverpool case of morphœa affecting the saphena nerves. They are copied from drawings lent by Dr. Hugh Jones

In illustration of Divisions II and III I have before me some very interesting and important cases. They must, however, for the present be left aside, as it is the purpose of the present paper to deal only with the herpetiform class.

(To be continued.)

A CASE OF TETANY TREATED BY THYROID EXTRACT.

By BYROM BRAMWELL, M.D., F.R.C.P.Edin.,
Assistant Physician to the Edinburgh Royal Infirmary, etc.

About a year ago I was asked by Professor Annandale to see a patient in whom tetany had developed after removal of the thyroid gland. The case was being treated with small doses of thyroid extract. The spasms were very severe, and the small doses of thyroid extract had not produced any apparent benefit. Professor Annandale's object in asking me to see the patient was to ascertain what quantity of the thyroid extract it was advisable to give in such a case. I advised that the remedy should be pushed in much larger doses. This was done. In the course of a short time the tetany and other serious symptoms disappeared, and the patient made a rapid and complete recovery.

Now, it is well known that after complete removal of the thyroid gland tetany not infrequently develops, and that the patients in whom this form of tetany is developed often die. Gowers, for example, says: "When the whole thyroid is removed tetany supervenes in about one-sixth of the cases. This is the average of a series of cases reported by various surgeons, which have varied from 7 in 70 (Wölfler) to 12 in 53 (Billroth). All the patients have been young females still in the developmental period of life. The symptoms of tetany set in during the first ten days after the operation. It does not follow partial extirpation. It has been observed in association with atrophy of the thyroid and myxœdema. This remarkable relationship to thyroidectomy will be considered further in connection with the pathology of the disease."[1] And, in speaking of the pathology of the disease, he says (p. 707): "The frequent occurrence of the disease after excision of the thyroid gland is a pathological fact of great importance but not yet of clear significance, although most observers consider that a toxic mechanism is the probable explanation. The malady has been thought to be the first result of the process which leads to myxœdema and the 'cachexia strumipriva,' and to be due to the accumulation in the blood of some material, as mucin, which it is the function of the thyroid to change. With the admission of the possibility of this we must at present be content."

My own view of the pathology is that this operative tetany, as it may be called, is merely one manifestation of acute myxœdema, and that it is the result of the arrested thyroid secretion. The fact that this form of tetany, which, if left to itself, is apt to terminate fatally, can be arrested and cured, as Professor Annandale's case shows, by the administration of thyroid extract confirms this view. And here I should state that it is not the tetany which is fatal, but the acute myxœdema—that is, the arrested thyroid secretion—of which the tetany is only one manifestation.

The striking and prompt benefit which was produced in Professor Annandale's case made a profound impression upon my mind, and I said to myself mentally, "If arrest of the thyroid secretion can produce operative tetany, and if the administration of thyroid extract can cure operative tetany, may it not be the fact that ordinary (idiopathic) tetany is due to a deficient thyroid secretion, and that ordinary (idiopathic) tetany can be cured by the administration of thyroid extract?" I mentally determined to try the remedy in the first case of idiopathic tetany which came under my notice.

On March 20th, 1895, Dr. Young, of Dundee, wrote me as follows: "Would it be too much trouble to tell me if anything more might be done for the little fellow W., who was in your ward suffering from tetany last April? He has been taking large doses of bromide of potassium without any effect, and, although fairly well during last summer, he is now much as he was when you saw him."

The patient, a boy aged 8, was under my care in the Edinburgh Royal Infirmary from April 5th to 25th, 1894. The

[1] *Diseases of the Nervous System*, vol. ii, p. 700.

case was a highly typical and characteristic one. The disease was of some six months' duration. The spasms were very frequent and severe; they affected the muscles of the hands and feet, arms and legs, chest and larynx. The pain which resulted from the spasm was so great that the patient frequently cried out. The temperature was subnormal. Cold induced and aggravated the spasms. There were no indications of rickets.

During his stay in hospital he was treated with bromide of potassium and chloral hydrate, and was kept in bed and protected from cold. Under this treatment he improved considerably, and was sent home relieved but not well.

During the summer of 1894 he remained fairly well, but, as Dr. Young's letter states, a relapse occurred and the spasms again became severe during the past winter and great frost of the present year.

And here let me say that the fact that cold seems to aggravate the spasms and to produce relapses, and that the disease is much more frequent in winter and in spring than in summer or autumn, is another important point of relationship between tetany and myxœdema. Everyone knows that cold predisposes to the production of myxœdema. Professor Victor Horsley's experiments illustrate this most forcibly. He excised, for example, the thyroid gland of a sheep; it remained well until it was shorn; it then manifested the symptoms of acute myxœdema and died. Further, in cases of myxœdema and sporadic cretinism, the symptoms are almost always aggravated by cold and relieved by heat. In some cases of tetany, too (my experience of the disease is insufficient to allow me to make a more definite statement on this point), as in almost all cases of myxœdema and sporadic cretinism, the temperature is subnormal.

In reply to Dr. Young's letter, I advised him to try the internal administration of thyroid extract; and I explained to him my reasons for recommending this plan of treatment. These reasons were as follows:—

1. Total extirpation of the thyroid gland is followed in a considerable proportion of cases by the development of tetany. This form of tetany is often fatal.

2. In some cases at all events (as Professor Annandale's case shows) this operative tetany can be promptly arrested and cured by the internal administration of thyroid extract.

3. Operative tetany is in all probability merely a manifestation (symptom) of acute myxœdema and due to arrested thyroid secretion.

4. Idiopathic tetany, like idiopathic myxœdema, seems to be induced and aggravated by cold.

5. It is not improbable, therefore, that idiopathic tetany may be the result of defective thyroid secretion.

6. If this is so it is probable that idiopathic tetany can, like idiopathic myxœdema, be cured by the administration of thyroid extract.

In my letter to Dr. Young I asked him to let me know in the course of two or three weeks what the result of the treatment was. On April 11th, 1895, he wrote me as follows:

It is now three weeks since the little fellow W. began to take thyroid extract, and the success seems almost phenomenal. His spasms have quite ceased and he is much brighter and more active. He has been taking three tabloids (Burroughs, Wellcome and Co.) for the last fortnight. Shall we continue the thyroid still? His parents wish me to say how very much obliged they are for your kindness in suggesting this "wonderful cure."

On receipt of this letter I again wrote Dr. Young asking him to give me in his own words a further statement of the case. On April 16th he wrote me as follows:

I am glad to be able to give you the particulars you wish regarding the tetany case.

J. W., aged 9 years, has suffered from tetany since November, 1893. In 1890 he suffered from a very severe attack of whooping-cough. In 1892 he had an attack of influenza with bronchitis. In July, 1893, he was knocked down by swinging jute. His parents are healthy; his father exhibits unilateral sweating. He has two sisters alive and healthy; a sister died at the age of 13 from pernicious anæmia. The disease (the tetany) was excited by cold, and always worse in cold weather. He rarely missed a day without an attack; the spasms were very severe, affecting the arms and legs and the muscles of the chest and larynx (laryngismus). Between the attacks he complained of pain in the wrists and ankles. He also suffered from headache, breathlessness, and palpitation on the least exertion. Before the thyroid treatment was commenced his mental activity was much impaired; he had no desire to look at pictures, or to go out or play. His temper was wicked; he was easily angered, and would attack other children. The tetany has been treated by the usual drugs, arsenic, chloral, antipyrin, bromides (15 to 45 gr. daily), cod liver oil, etc., but without marked improvement. In May, 1894, he had an attack of pneumonia, preceded by a convulsion; for some weeks after this attack the spasms were less severe.

The thyroid treatment was commenced on March 22nd, 1895. For the first three days he took one tabloid (Burroughs, Wellcome and Co.) a day; for the next three days two tabloids daily, and then three tabloids daily, in accordance with your recommendation. At the end of three weeks (on April 13th) the thyroid treatment was stopped as you advised.

There was no marked change until the three tabloids were given; since then the symptoms have gradually passed off. Since then there have been no spasms, no crowing, no pain, no breathlessness, no headache, and no palpitation. He is going out every day, is much brighter, and, his mother says, in every way a "different boy." There have never been any symptoms of thyroidism.

On May 15th Dr. Young again wrote me as follows:

The tetany case is still doing well. There has been no return of the spasms, and the mental condition seems very much better. He is now at school, and is interested in his tasks, and has lost that stupid look which he previously had. He is altogether a "different boy," his mother says.

Such is the result of the treatment in this case. Now, under ordinary circumstances I would not think of drawing any definite therapeutic conclusions from the results of treatment in a single case. But the circumstances of this case are not ordinary. The administration of the remedy was advised with a definite therapeutic object, based upon a definite line of reasoning and upon undoubted clinical and pathological facts. (See above.) The remarkable success of the treatment seems to corroborate that reasoning, and seems to show that in some cases at least idiopathic, like operative, tetany is due to defective thyroid secretion, and can be arrested and cured by the administration of thyroid extract.

My object in publishing the case and directing attention to the subject at this early stage of my investigations is to obtain information from the experience of other and independent observers. I see very few cases of tetany, and if I were to wait until I had had personal opportunities of treating a sufficient number of cases to justify me in forming a definite opinion as to the value of the treatment, I might have to wait much longer than I would wish. I am anxious, therefore, to have the co-operation of other observers. I look forward with some degree of confidence to the results, for the prompt success which resulted from the treatment in Dr. Young's case seems to be such a striking confirmation of the reasoning on which the administration of the remedy was recommended that it is difficult to believe that in it the disappearance of the symptoms was a mere coincidence or accident.

It is highly probable, I think, that the thyroid extract will be found to be a valuable remedy in some other cases of tetany. I do not say in all cases, for it is possible that the clinical condition which we term tetany may, like the clinical condition which we term an epileptiform convulsion for example, be due to a variety of different causes; hence it does not follow that because thyroid extract can cure operative tetany (as Professor Annandale's case shows), and some cases of idiopathic tetany (as Dr. Young's case seems to show), that it will cure all cases of idiopathic tetany.

Idiopathic tetany is a comparatively common condition in young children, but is rare in older children and in adults. It is possible that the infantile and the older cases may be due to different conditions, and that thyroid extract may cure the older cases but may be useless in the infantile cases. Whether this is so or not can only be determined by direct observation and therapeutic research.

Infantile tetany is in the vast majority of cases associated with rickets. Like laryngismus stridulus it is merely a manifestation of rickets, and it is important to remember that it is usually very amenable to treatment, easily cured by appropriate feeding, milk, fresh air, tonics, cod-liver oil, the syrup of the phosphates, lacto-phosphate of lime, bromide of potassium, and chloral hydrate. Further, in many cases it tends to get well of itself. These facts must be kept in mind in drawing conclusions as to the effects of the thyroid extract in the treatment of this, the ordinary infantile form of tetany.

I am anxious then to know whether (*a*) the ordinary infantile form and (*b*) the rarer adult form of tetany can be arrested and cured by the administration of thyroid extract.

If it should prove to be the case that the ordinary form of infantile tetany is arrested by the administration of thyroid extract, it will, I think, be reasonable to conclude that it, like operative tetany, is due to deficiency of the thyroid secretion. But, further, if the ordinary form of infantile

tetany, which seems merely to be a manifestation of rickets, can be cured and arrested by the administration of thyroid extract, it will be very interesting and important to note the effect which thyroid extract (or, preferably, perhaps, thymus extract) has in cases of rickets and laryngismus stridulus.

In thinking over the results of Dr. Young's case several other interesting therapeutic questions have suggested themselves to my mind; but it is useless to theorise or to publish these suggestions until we have further facts.

I repeat that my object in publishing this isolated case is to direct the attention of other physicians to the subject. In the first place, I wish to know whether idiopathic tetany—both the infantile and adult forms—can be cured by the administration of thyroid extract. I hope those members of the profession who happen to have well-marked cases of tetany under observation will try the effect of the remedy and will publish their results.

In conclusion, I have to thank Dr. Young for so kindly placing the case at my disposal.

A CASE OF ACROMEGALY WITH WERNICKE'S DIFFERENTIAL SYMPTOM.

By J. LYNN THOMAS, F.R.C.S.Eng.,
Assistant Surgeon to the Cardiff Infirmary.

THIS case is under the care of Dr. J. D. Williams, of Cardiff, and before it came under his observation the patient was diagnosed as suffering from dropsy and imbecility.

B. K., aged 18, was a strong healthy girl until six years before she came under treatment, when she is reported to have had an attack of Bright's disease. Up to that time she was a bright, intelligent, and very promising child. About four years before she came under treatment she had violent pains in both temples, lost self-control, sang and whistled at odd times, and afterwards her parents noticed her to be dull, forgetful, and to have lost control over the sphincters. She has suffered a great deal at times from temporal and occipital headaches, lassitude, and *tædium vitæ*. Her eyesight began to fail three years and a-half before she came under treatment, and the large size of her hands attracted the mother's attention about the same time.

It is unnecessary to enter into a detailed description of her general appearance, as it tallies in most aspects with the classical reports of other cases. She has large hands, large feet, large lower jaw, large nasal and laryngeal cartilages. She is 5 feet 9 inches in height, and her voice is rather masculine in type. The circumference of the skull is 23 inches. The thyroid gland is enlarged. There is no evidence of the existence of a thymus gland. The character of the body, including the mammæ, is masculine. She has dorsal kyphosis, as is fairly well shown in the photograph. She has never menstruated.

Last January she had excruciating pain along both inferior dental nerves, and she could not smell iodoform and eau de Cologne; but ammonia and other olfactory stimulants of the fifth nerve she could smell.

THE CONDITION OF THE EYES LAST JANUARY.

The following notes made in January, 1895, are very interesting compared with her present condition. She had a slight alternating internal strabismus. The palpebral fissures were equal. The pupils were equal, and their movements harmonious in the sun and shade.

The movements of the eyes were normal in all directions. The right eye was totally blind, and when the left eye was shaded the pupil dilated, and its reaction to light reflected on the retina was *nil*. The left eye was hemianopic on the left or temporal side, and the optic atrophy was not so marked as in the right eye. Like many other patients with defective eyesight, she was surprised to find that her right eye was totally blind. By throwing a pencil of light obliquely on the functionless half of the left retina, there was no contraction of the pupil, therein indicating lesion of the "tract."

By throwing a pencil of light obliquely on the functional half of the left retina, both pupils contracted "consensually," indicating in my opinion that the lesion is in great probability anterior to the anterior quadrigeminal bodies as the connecting fibres of the centre for "consensual movements" of the pupils is located presumably immediately underneath this region. From reports of the *post-mortem* examination of cases of acromegaly in which the pituitary body was found enlarged, I think that there is very little doubt that the eye symptoms and the anosmia are due to a similar cause in this case.



CONDITION OF EYES ON APRIL 29TH, 1895.

The left eye is *in statu quo*: the right eye is now hemianopic on the temporal side. So that now we can further localise the cause to a lesion of the decussating fibres of the optic chiasma.

In January Dr. Williams and I put the patient on arsenic and antipyrin, but lately she has been taking iodide of potassium, and Dr. Williams thinks the latter has done the most good; but still, owing to the intense periodical headaches she suffers from, we propose to remove a parallelogram of the skull.

[1] Read before the South Wales and Monmouthshire Branch of the British Medical Association at Cardiff.

SIR PETER EADE, M.D., has been elected Mayor of Norwich, in the place of the late Lieutenant-Colonel Bignold. Sir Peter has filled the office twice previously.

A MARKED CASE OF OSTEOMALACIA OCCURRING AT THE AGE OF 18.

BY H. E. DRAKE-BROCKMAN, F.R.C.S.E.,
Surgeon-Captain I.M.S., Civil Surgeon, Muttra, N.W.P., India.

THE following very exaggerated case of osteomalacia came under my care a short while ago, and for many reasons, I think, deserves notice. The case was that of a young woman, Brahmin by caste, about 18 years of age, who, according to the custom of this country, was married at the early age of 8, and three years later had gone to her husband's house and cohabited ever since, that is from the age of 11. At the age of 14 she gave birth to a female child, from all accounts perfectly healthy, and at the time the mother suffered in no way. She had always up till then enjoyed excellent health,



Fig. 1.—Front view.

and came of a healthy family,' a fact attested by both her parents and husband. The onset of the symptoms appears to have been very insidious, and she seems to have suffered a great deal from pains of a rheumatic character. The condition of the patient when seen by me was pitiable in the extreme, the deformities being so general and abundant as to prevent her even from standing; they can be better appreciated by glancing at the two accompanying photographs of her, which were taken by me on the spot, giving both the front and lateral aspects of the unfortunate cripple.

On examination of the patient the spine showed marked cyrtosis, and was affected more or less along its whole extent. The pelvis showed marked prominence at the symphysis, indicating that the horizontal rami were approximated—in fact, was a specimen of the rostrated malacosteon variety—and, doubtless, had I had the opportunity of examining the patient's pelvis internally, it would have confirmed the external diagnosis. The bones of the head were unaffected, as were those of the upper extremities. The clavicles showed marked deformity, the right one more especially, it being bent nearly into a semicircle, and semi-dislocated in consequence. The lower ends of the femora and both tibiæ were also extremely deformed, with more or less outward dislocation of the patellæ, a direct result of the deformities induced by the disease. The bones were soft and tender, eliciting considerable pain on pressure; and the urine contained on analysis a fair amount of phosphates. The muscles generally showed signs of atrophy (due to want of use probably) in all the limbs affected, giving the body a very emaciated kind of appearance.

The chief points of interest in this case are: First, the early age, namely, before 18, at which the disease manifested itself; secondly, the exaggerated stage at which seen; thirdly, that the disease occurred after the first pregnancy; and, fourthly, that there were not, nor had there been, any fractures of bone, notwithstanding the exaggerated stage the disease had arrived at and the extent of the deformities. I attribute this probably to the fact that the disease occurred in such a young subject at a time of life at which the bony



Fig. 2.—Side view.

skeleton was yet immature, and hence the chance of fractures occurring was minimised.

I think that the rarity of the disease and the peculiarities present in this case are sufficient excuse for my having brought it to the notice of the profession.

LARGE SPINA BIFIDA: EXCISION: RECOVERY.

BY F. WINSON RAMSAY, M.S.DURH., F.R.C.S.ED.,
Surgeon to the Royal Victoria Hospital, Bournemouth.

E. H., aged 2 months, was first seen by me on July 1st, 1894. He had a large ovoid tumour over the sacral region which measured 8 inches across in its longest diameter and 16 inches in circumference. The tumour at birth was only about half the size, but had been rapidly increasing. I explained the nature of the case and its risks to the parents, and received permission to do whatever I thought best. The child was admitted into the Royal Victoria Hospital on July 6th, and the tumour tapped by passing a curved aspirator needle through sound tissue an inch from the margin of the tumour. When the contents were evacuated it was ascertained that

the opening into the spinal canal was just large enough to admit the tip of a finger. Pressure was applied by means of broad bands of strapping pads and bandages; but, in spite of these, the tumour had refilled in twenty-four hours.

On July 17th chloroform was administered by the house-surgeon, Mr. Livesay, and, assisted by Dr. Lys, I excised the tumour. An elliptical incision was made on each side of the tumour, meeting above and below, and the skin was dissected away from the sac wall on each side. This was a matter of great difficulty, as the wall was so thin and its components adherent. Once the sac was punctured and the hole closed with pressure forceps. The sac was then dissected down until the pedicle was only about an inch across. A ligature of stout silk was passed round the pedicle and the sac opened. The interior had the characteristic ventricular appearance. No nerve loops were seen, but a bunch of whitish tissue seemed to terminate in the sac and was enclosed in the ligature. The ligature was tightened and the tumour removed. The pedicle immediately began to bulge, and while



Fig. 1.



Fig. 2.

we were looking the ligature slipped off, a quantity of fluid escaping. This fluid was allowed to run for a minute, and then the pedicle religatured by snipping a groove round the pedicle with scissors, and using a finer ligature. The two elliptical flaps being found redundant were shaped with scissors, brought together in the middle line, and secured with nine deep silkworm-gut sutures, one of which was made to include the pedicle superficial to the ligature, so as to act as a further security to the ligature. The wound was powdered with a mixture of iodoform and boracic acid, and a dressing of double cyanide gauze and cotton wool applied with a bandage. Owing, probably, to the bandage being applied too tightly, the child, who up to this point had taken the anæsthetic well, suddenly stopped breathing and became cyanosed. The bandage was at once loosened, and the child, after artificial respiration and the application of cold water and other restoratives, soon recovered. Owing to the wound being so low down it was a matter of some difficulty to keep the dressings sweet; the wound, however, closed by first intention, and all the stitches were removed on the eighth day.

Since the operation the child has not had an unfavourable symptom, and now, nine months after the operation, is in perfect health. I am indebted to my colleague, Dr. Marriner, for the photographs taken both before and after the operation.

THREE CASES OF INOCULATION OF TUBERCULOSIS FROM TATTOOING.

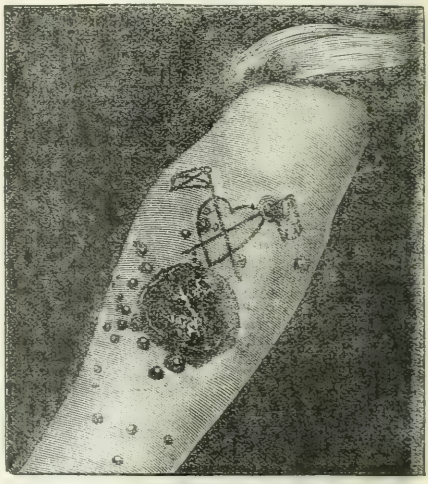
By D. W. COLLINGS, M.B. and W. MURRAY, M.B.,
House-Surgeons to Tottenham Hospital.

The comparative rarity of inoculated tuberculosis is sufficient justification for our bringing the following cases before the notice of the profession:

H. N., aged 15, died on October 21st of advanced phthisis. A short time before his death he tattooed his brothers W. N., aged 13, and A. N., aged 10, using Indian ink, rubbed up with his saliva in the palm of his hand. He also tattooed J. H., aged 15, a friend, but there is no direct evidence in this case that saliva was used, although the patient states that he may have done so.

The following is a brief abstract of the notes of the cases:

Case I.—W. N. was tattooed on the flexor surface of the right forearm, the design being a heart crossed by two flags with a rose below. The accompanying figure is a fair



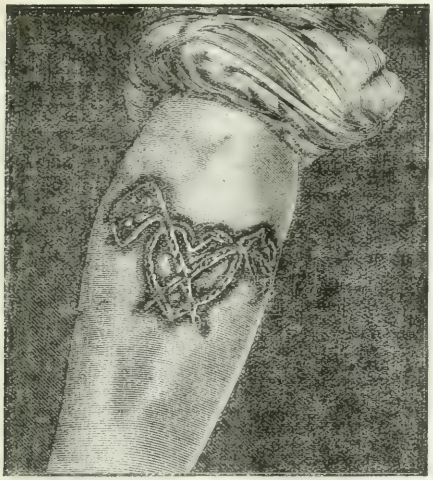
representation of the arm when first seen on November 12th, five weeks after inoculation. The pustules scattered over the front of the arm were said to have appeared only after the application of a poultice. The rose was the seat of the principal lesion, and consisted chiefly of a mass of pustules; the remaining part was scarred and covered with white scabs.

Case II.—A. N. was tattooed on October 11th with the same design, but without the rose. On November 12th, a month after the operation, the pattern, especially the flags, was raised and covered with scabs. Pus was escaping at several points.

Case III.—J. H. was tattooed on October 18th, and was first seen on November 7th, three weeks after the operation. The design, which was similar to that in the last case, was raised, indurated, and covered with scabs. He did not appear again for a week, during which time he had assiduously applied poultices to the arm. On his reappearance the scabs had come off, leaving in lines of the pattern deep ulcers with hard, round, smooth edges and granulating bases. The whole design was raised, and surrounded with an erythematous border. The second figure shows the appearance of the lesion in this case.

In all the cases there was enlargement of the epicondylar and axillary glands. The general health of the boys did not

seem to have suffered *pari passu* with the development of the local lesions. On December 11th, J. H. and W. N. were shown at Mr. Jonathan Hutchinson's clinical museum. Mr. Hutchinson was distinctly of opinion that the pathological condition had been produced by the inoculation of tubercle.



A piece of skin from J. H.'s arm was cut out and examined; well-marked giant cells were found in the corium immediately under the Malpighian layer, although the presence of bacilli was not demonstrated.

The parents of the boys, in spite of repeated warnings as to the danger the latter ran, would not use their influence to make them attend the hospital; consequently we were unable to witness the result of any local treatment.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

POISONOUS TICK.

I HAVE lodged eight specimens of this insect, known to the natives as carapato or tampan, in the Natural History Department of the British Museum, where it is known as the "poisonous tick." In appearance it resembles a large sheep tick, and it is impossible to crush it between the finger and thumb, as it is so tough.

The Portuguese at Tete say that they have lost many men from the bite of this insect. Newcomers are warned against sleeping on the floor of the huts, as the insect dwells in the grass roofs. In the houses at Tete the legs of the bedsteads are seen to be placed in vessels containing kerosene, to keep it away from the bed. Fever and acute dysentery are said by the Portuguese to follow the bite, the severity of the attack being in proportion to the number of bites received.

A European who was travelling through Tete requested me to see his servant, who was sick. I found that he was a native lad from a distant part of the country, and that for two nights he had been sleeping on the floor of the hut in which his master was stopping. He complained of great pain in the left great toe, the pain running up the leg, and said that something had bitten him during the previous night. The toe was slightly swollen, but I could not detect any puncture in the dark skin. His temperature was 104.2°, and he had vomited twice. In twenty-four hours, with the exception of numbness in the toe, he was quite well.

This insect is mentioned by Livingstone in his description of Tete in his *Travels* (I think the second volume); it is also found, though apparently to a less extent, at the Portuguese town of Lena, lower down the Zambesi.

J. DOWSON, M.R.C.S., L.R.C.P.,
Surgeon, R.N.

*** Through the kindness of Sir William Flower we have been favoured with the following memorandum on the subject by Mr. R. I. Pocock, of the Natural History Museum, Cromwell Road: "The effects produced upon human beings in tropical countries by the bite of ticks have long been known, and cases of the supposed injury to health caused by these animals have been recorded from various parts of the world as well as from equatorial Africa. The effect of the bite, however, appears to depend very largely upon the physical condition of the individual at the time of being attacked. The carapato or tampan of Tete is very closely allied to, if not identical with, a species from Egypt named *Argas savignyi*. Another closely allied form has been brought from the Congo."

THE PROGNOSIS OF APOPLEXY.

WITH reference to the prognosis of cerebral apoplexy in the absence of renal disease, Professor A. G. Barrs in his valuable lecture in the BRITISH MEDICAL JOURNAL of May 18th, enumerates as unfavourable conditions, disturbances of respiration, diabetes, chronic alcoholism, typhoid fever, and idiopathic anæmia. To these I would venture to add as determining factors in many cases, condition of the circulation, condition of the nervous system, and the possibility or otherwise of prophylactic treatment. For example, a lady, aged about 70, drank sulphur waters freely, on her own prescription, became constipated, and one day "fell in a fit." As she was naturally plethoric and presented a most unusual degree of arterial and venous tension, I bled to 35 ounces. She regained consciousness in eight hours, was slightly hemiplegic for two or three months, and died six or seven years later of influenza. Again, a highly sensitive clergyman, aged 75, occupying a harassing public position, had a sudden slight left hemiplegia, and three months later, for a few days, a partial aphasia and paresis of the right hand, with nervous excitement. He resigned his position just in time, and in the tranquil atmosphere of retirement had no recurrence of the attacks, but died three years later of another complaint. Lastly, a gentleman, aged 53, in the theatrical profession, is attacked by numbness of the right hand and of the right side of the tongue and aphasia lasting four hours. There are slight returns of these symptoms and occasionally twitching of the right side of the face for several months. The pulse is full, slow, and hard; the urine, otherwise healthy, loaded with urea. He continues to live at high nervous tension and dies of apoplexy at 54. The last case illustrates the fact that very slight attacks may be of very serious prognosis, especially if it is impossible to enforce nervous and circulatory repose. In a large number of cases cerebral hæmorrhage is the result of plethora, with what is conveniently called "suppressed gout," and constipation; and if one can at once employ active depletion, and prevent by a judicious regimen the return of the causal conditions, the prognosis is good.

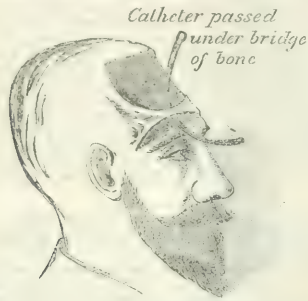
Strathpeffer Spa. R. FORTESCUE FOX, M.D., M.R.C.P.

CONDITION IN A CASE OF FRACTURE OF SKULL THIRTY YEARS AFTER INJURY.

THE following curious condition was observed in a miner, since dead, employed in one of the South Wales coalpits.

A. B., a man of about 60, of somewhat feeble intellect and addicted to drink, stated that he had received an injury to his head from the bursting of a shell during the Chinese war of 1860. He was unable to say how long he had remained under treatment, but stated that he was "unconscious for a long time;" how long and what were the immediately following symptoms unfortunately could not be ascertained, but apparently since his discharge from hospital he had not suffered in any noticeable manner. His memory for after-events was fairly good, but he could only detail the circumstances immediately preceding the receipt of his injury in

an uncertain and hazy manner. On his recovery he returned to England, married, and has had several children. The whole frontal region from the supraorbital eminences to the coronal suture appeared to have sustained a severe compound fracture, or series of fractures, for it must have been completely smashed in, and presented, thirty years after the occurrence, a concave uneven surface. Bony union was complete, and irregularities, probably corresponding with the



lines of fracture, could be distinctly felt through the skin. Passing laterally across the concavity about 1 inch above the supraorbital eminence was a bridge of bone 2½ inches in length by ¼ inch in depth, entirely invested by skin and leaving an opening beneath it through which a No. 12 catheter could be passed.

Unfortunately no photograph was obtained, but the accompanying sketches give some idea of the condition.



The patient was the subject of chronic bronchitis, and eventually succumbed to an acute attack.

Permission to publish this case has been kindly granted by Dr. J. R. James, J.P., of Pentre, South Wales.

J. Wherry Willson, M.R.C.S.Eng., L.R.C.P.Lond.
Southwark Bridge Road, S.E.

PREGNANCY ASSOCIATED WITH AN UNRUPTURED HYMEN AND A VAGINAL CYST.

On October 3rd, 1894, I was called to see Mrs. E. F., aged 35. She had been married for ten months. Her husband explained to me that he had never had proper connection with his wife, as he had found it impossible to obtain entrance, adding that he thought the hymen was the cause of the obstruction. His wife had not menstruated since the beginning of April, and her abdomen had greatly enlarged, but he did not think it possible that she could have become pregnant in the circumstances. I found an unruptured and very tough hymen, with a small opening at its anterior margin, the size of this opening being rather less than the diameter of a piece of slate pencil. The woman was in the sixth month of pregnancy, and the sounds of the fœtal heart were distinctly audible. I incised the hymen freely, but on digital examination found that the vagina was occupied by a swelling about the size of a small orange, and it was with difficulty that I could pass my finger up to the os uteri. On more careful examination the swelling was discovered to be a cystic tumour growing from the posterior vaginal wall, about half-way between the posterior fornix and the ostium vaginæ. Nothing more was done at the time, and no mention of the tumour was made to the patient.

On November 4th I was informed that Mrs. F. had been suffering from pain, and that something came down outside. A small incision was made in the cyst, and a semifluid jelly-like matter of the colour of barley sugar squeezed out. The cyst soon filled up again, and gave rise to a good deal of discomfort, frequently protruding from the ostium vaginæ.

On November 26th the tumour was again incised, this time more freely, and its contents expressed. In the patient's advanced condition of pregnancy I did not consider it advisable to attempt total or partial extirpation of the cyst. Since that date there has been no recurrence of the tumour, and on examination on April 23rd, 1895, nothing was to be found but a little thickening at the seat of its growth.

Mrs. F. gave birth to a full-time female child on January 9th. The labour was quite a normal one, except that there was a little perineal laceration.

This case appears to present the following points of interest:

1. The occurrence of pregnancy notwithstanding the presence of the unruptured hymen, and the partial blocking up of the vagina by the tumour.

2. The tumour gave rise to no inconvenience until the hymen was operated upon, the tough hymen apparently acting as a support, thus preventing prolapse of the cyst.

3. The fact of simple incision being followed by cure of the cyst up to the present time (over five months). The time which has elapsed is, however, too short to allow us to look upon the cure as permanent.

Portland. Dav. J. Lawson, M.D.

A CASE OF THROMBOSIS AND RUPTURE OF THE HEART IN AN INFANT.

On February 20th I was sent for suddenly to see a boy, aged 9½ months, who had died without apparent cause. He was one of twins, and had been delicate and subject to convulsions from birth. On the day on which he died he was seated on his grandmother's lap, and his mother was in the room by him. His mother told me that he was then seized with a fit and died in three minutes. She said that the fit was different in character from those he had previously gone through; he appeared quite well up to the time when he had the fit.

An inquest was held. On making a *post-mortem* examination I found the pericardium distended with fluid blood, and a rupture one-third of an inch in length in the right ventricle. It was gaping and started about the middle of the ventricle at its junction with the septum ventriculorum. On opening the right ventricle I found a white thrombus loose in the cavity. It was an inch long, one-third of an inch wide, and about a quarter of an inch thick. There were two smaller thrombi situated between the columnæ carneæ of the right ventricle. The walls of the right ventricle were stretched, but appeared normal in other respects. The remainder of the heart and other organs were normal. This case is interesting on account of the age of the patient and the absence of any definite degeneration or malformation of the heart; also from the fact that in this case the rupture took place in the right ventricle, whereas in the other recorded cases of spontaneous rupture the tear has occurred almost without exception in the walls of the left ventricle.

Hendon. F. W. Edridge-Green, M.D., F.R.C.S.

A Musical Doctor.—Dr. Hemmeter, of Baltimore, has composed a cantata entitled *Hymn to Hygeia*. The composition is said to be in "modern classical style," and to contain a "hygeia motive." This motive is "first given out in the reed and wind instruments," and then the tenor and bass voices enter upon "a spirited chorus in G major, the harmony beginning in full massive ascending chords, expressing the glory and honour of the calling of the followers of Æsculapius."

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

KING'S COLLEGE HOSPITAL.

DESTRUCTION OF NOSE BY LUPUS: ADJUSTMENT OF ARTIFICIAL NOSE.

(By Arthur S. Underwood, M.R.C.S., L.D.S., Professor of Dental Surgery King's College Hospital, and Lecturer on Anatomy and Physiology Dental Hospital of London.)

I have recently restored the nose of a patient attending at King's College Hospital under the following circumstances: The patient, aged 28, female, had suffered from extensive lupus of the face, and her nose was, as far as the soft parts and cartilages were concerned, absent. A plastic operation was performed with perfect success, which, however, was not permanent. A second operation not being considered advisable, she was referred to me in the hope that some artificial restoration might be effected.





A model of the parts was taken, and to this a wax sketch of the proposed restoration was modelled; at the upper margin of the bridge a dental alloy wire was fixed, following the margin of the new nose in the upper third. This wax sketch was reproduced in white vulcanite, and retained in place by a pair of spectacles attached to the dental alloy wire, and passing behind the patient's ears. These spectacles, which contained only plain glass, were excellently made and adapted by Mr. Hawes, of Gt. Marylebone Street; they served the double purpose of retaining the new nose in place and concealing the "join." The white rubber was then painted up to Nature with oil paint and the shiny surface dulled with violet powder.

The result was so far satisfactory that the patient was enabled to go about the world without being an object of curiosity and horror to others. The fact that the nose was artificial was not perceptible at a distance of two or three paces, and with a veil on it could not be detected at all.

I have found since that this method has been already carried out by my friend Mr. England, with equally good results.

ST. MARYLEBONE INFIRMARY.

A CASE OF DERMOID CYST OF THE BRAIN.

(By Lullum Wood Bathurst, M.B. Lond., M.R.C.S., L.R.C.P., late Assistant Medical Officer.)

The following case is of interest owing to its extreme rarity. I am enabled to publish it by the kind permission of Mr. J. R. Lunn.

C. D., a woman aged 54, had been in and out of the infirmary for years, being admitted at various times for her peculiar mental condition, and for debility and incontinence of urine among other disorders. She was last admitted on October 19th, 1893, when it was said that she had been weak-minded and "peculiar" all her life, but that during the last few years she had become progressively worse. No history of syphilis or injury was obtained, nor did there appear to be any family history of insanity. She was a wizened woman, older by far in appearance than her stated age, with a constant startled expression on her face. She had no affection of speech, and understood and answered questions correctly, but seldom or never volunteered a statement, and could not enter into conversation. She was in the habit of crawling about and sitting on the floor for hours at a time, refusing to rise when bidden to do so; this she was able to do by herself when first admitted, but latterly from weakness needed aid. She suffered from constipation, but was exceedingly dirty in her habits, and did not retain urine for long. Her gait was unsteady; she could walk by herself, but shuffled her feet; she would often fall down, the knees suddenly giving way; this would occur from the slightest causes. No paralysis nor loss of sensation was discovered; the knee reflexes were natural; there was no muscular wasting apart from the general ill-nourished condition of the body. The appetite was generally good, but vomiting was a frequent symptom. No abnormality was found in the chest or abdomen; no optic neuritis was made out, though the eyes were examined many times; she was never known to have fits or twitchings. The urine in no way differed from that of health. She was thought by us to be suffering from simple dementia, and this opinion was supported by several neurologists, who saw her with us. The question of cerebral tumour was discussed and thought improbable owing to lack of symptoms and the possibility of its being purely functional was thought of; in accordance with these suggestions iodide of potassium was administered for a time in increasing doses, and the battery was applied from time to time in her refractory moods; this latter, though of temporary benefit, in no way affected her general condition, and the iodide had no apparent effect.

She was in her usual condition on the morning of June 15th, 1894, when on getting out of bed she fainted; on regaining consciousness she was very weak and the pulse feeble; she died three hours later.

Post-mortem Examination.

There was marked distension of the cæcum and ascending colon and of the small intestines, with blood-stained fluid in the abdominal cavity. The intestines in the region of the

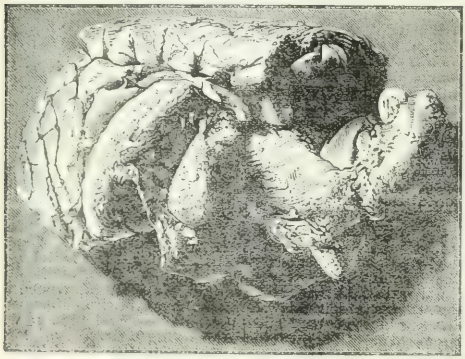
ascending colon were much congested and somewhat adherent.

On removing the skull cap no abnormality was seen, and the brain was removed. The meningeal fluid was found to be slightly in excess. At the base of the brain, along the Sylvian fissures, some meningitis was seen, and four or five small masses the size of large peas, which looked exactly like pieces of yellow soap; some of these were also found in the lateral ventricles. A swelling was found on the inner surface of the right hemisphere in the frontal region, which slightly indented a corresponding part of the opposite hemisphere; there was also a bulging on the under surface of the right frontal lobe. On cutting into the swelling, after dividing a very thin layer of nerve tissue, a bilobed encysted tumour, about 2 inches in its longest diameter, presented itself.

The tumour was situated in the frontal portion of the right hemisphere, occupying a position immediately in front of the right corpus striatum; its upper limit was about $\frac{1}{2}$-inch above the level of the corpus striatum, the lower limit extending to within $\frac{1}{2}$-inch of the under surface of the frontal lobe; it extended forwards to within $1\frac{1}{2}$ inch of the anterior extremity of the hemisphere.

The tumour was therefore in the situation of the anterior part of the corpus callosum, which had been destroyed. The inner surface of the hemisphere over the seat of the tumour was atrophied and bulged slightly over the median line, and there was bulging of the under surface of the frontal lobe. In a direction outwards and slightly backwards the brain substance had been destroyed so as to expose a small portion of the fibres of the anterior limb of the internal capsule. The corpus striatum was not involved, and the growth shelled out from its surroundings easily. There was no apparent infiltration of tissue, nor did the tumour appear to have any connection with the meninges, but attached to it was the choroid plexus. The ventricles contained excess of fluid and some of the soap-like bodies before mentioned.

On cutting into the growth it was found to consist of a definite cyst wall containing sebaceous matter mixed with numerous dark-coloured hairs.



The accompanying figure shows the inner surface of the anterior part of the right hemisphere, with portions cut away. The cyst is *in situ*, with the corpus striatum immediately behind and the optic thalamus still more posteriorly.

A Sanatorium in Berlin for Consumptives.—Herr von Bleichröder, the wealthy banker who died recently, has bequeathed a million of marks (£50,000) to the city of Berlin for the foundation of a sanatorium for consumptive patients. The authorities have decided that this sanatorium shall be in connection with the new (fourth) Municipal Hospital, which is now in course of erection. The sanatorium will accommodate fifty patients. Cases certified to be incurable will not be admitted.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Tuesday, May 28th, 1895.

Micro-Organisms in the Healthy Nose.

Dr. St. Clair Thomson and Dr. R. T. Hewlett read this paper. They had been working at the bacteriology of the upper air passages. Commencing with the nose they first of all investigated its bacteriological condition in a state of health. The results arrived at were in direct opposition to the opinion held by many physicians, and founded chiefly on *a priori* reasoning. About 500 litres of air, bearing on a low average 1,500 organisms, were inspired every hour. As all, or at least the greater portion, of this came in contact with the moist mucous membrane lining the tortuous passages of the nasal fossæ, it had been taken for granted that the interior of the nose must show a rich profusion of micro-organisms. This conception was now widely adopted, and its general acceptance probably accounted for the scarcity of recorded observations of bacterioscopic examinations of the nasal cavity in a state of health. The literature of the subject was gone over in chronological order. Only two papers had been found devoted entirely to the bacteriology of the normal condition; all other references to the healthy state were only made incidentally in the course of researches on diseased conditions. The most diverse results had been arrived at both as to the varieties and abundance of organisms met with. Only two authorities—Loewenberg and Hajek—found a scarcity of bacteria in the nose; others recorded a greater or less variety and profusion. One observer found the streptococcus of Fehleisen present in one out of every five healthy individuals, and another found the diplococcus pneumoniæ (Fraenkel-Weichselbaum) once in every four observations. This latter observer frequently met with the bacillus pneumoniæ (Friedländer), the streptococcus pyogenes, and the staphylococcus pyogenes aureus, and not only in considerable numbers, but sometimes in pure culture. The method of examination adopted by the authors was that of cultivations on agar and cover-glass preparations stained with gentian violet. No attempt was made to differentiate the organisms met with. This research only dealt with the presence or absence of bacteria, and a simple method was adopted to insure uniformity of comparison. Thirteen healthy individuals were examined. Twenty-seven cultures and fourteen cover-glass preparations were made from the vestibule of the nose. Seventy-six cultures and thirty cover-glass preparations were made from the mucous membrane of the nasal cavity. The results were summarised as follows: (1) In all bacterioscopic investigations of the nasal fossæ, in all researches as to the action of nasal mucus, etc., a clear distinction must be made between the vestibule of the nose and the proper mucous cavity. The former is lined with skin and is furnished with hairs and with sudoriparous and sebaceous glands; it is not part of the nose cavity proper, but only leads to it. (2) The neglect of this distinction may account for the discrepancy in previous observations on the subject. Contamination with the lining of the vestibule is difficult to avoid, even when this source of error has been realised. (3) In the dust and crusts of mucus and *débris* deposited among the vibrissæ of healthy subjects micro-organisms are never absent. They are rarely scanty in number; as a rule they are abundant. (4) On the Schneiderian membrane the reverse is the case. The authors do not assert that micro-organisms are completely absent; obviously some must occasionally occur, but, under normal conditions, they are never plentiful; they are rarely even numerous, and in more than 80 per cent. of their observations no organisms whatever were found, and the mucus was completely sterile. (5) The occurrence of pathogenic organisms must be so infrequent that their presence on the Schneiderian membrane can only be regarded as quite exceptional. Clinical experience bore out the above conclusions, and their application in practice was sufficiently obvious. In conclusion the authors touched upon the problems suggested by the results of their researches and referred to the questions they were at present engaged in solving.

Mr. SPENCER WATSON thought that it was perhaps premature to conclude that the vestibule and the vibrissæ there filtered out nearly all the micro-organisms in the air entering the nose. Since the vestibule was ill developed and the vibrissæ were only represented by down in children, it was improbable that in them micro-organisms were thus arrested. The authors might reply that children were in fact more subject to respiratory affections than adults. This might be so, but before drawing a definite conclusion as to this function of the vestibule and its vibrissæ, further observations on children were required. The greater part of the nasal fossæ was confessedly inaccessible to bacteriological investigation; the anterior part had been shown to be almost free from micro-organisms, but it was possible that the micro-organisms were carried past the smooth anterior parts, and then came to rest on the more convoluted inaccessible parts. He inquired how the automatic cleaning of the nose was carried out; was it by filtration in the vestibule or was it due to some active process in the deeper parts of the nasal fossæ, possibly phagocytic in nature? The rapidity and ease with which wounds of the nasal mucous membrane healed to some extent supported the authors' views, but wounds of the face generally, and especially of the eyelids, healed readily; possibly this was a result of the free vascular supply of the parts.

Dr. F. SEMON, while congratulating the authors on their paper, regretted that they had not differentiated the varieties of micro-organisms met with. He quite agreed that wounds of the nasal mucous membrane healed rapidly, and did not think it necessary to wash these parts with antiseptics before operating, but at the same time he drew attention to the fact that lacunar tonsillitis, now generally considered to be of septic origin, frequently followed, and apparently was secondary to, cauterisation of the nasal mucous membrane. It was remarkable how the nose escaped the inflammations common in the lower regions of the respiratory tract. Tuberculosis of the nose was one of the rarest diseases met with in practice, and suppuration rarely occurred after nasal operations; these clinical facts were now explained by the authors' bacteriological researches. From a clinical standpoint he thought it unlikely that micro-organisms passed over the parts of the nose accessible to bacteriological examination, and settled in the deeper inaccessible parts.

Dr. A. MACFADYEN said the prevailing idea in the medical profession that the nasal fossæ swarmed with micro-organisms had been shown to be inaccurate by the authors. The interesting question arose as to the action of the nasal mucus on micro-organisms; had the mucus a direct bactericidal action or was it only an unsuitable medium for the growth of microbes? Bacteria might, however, remain a long time in the nasal fossæ; Wolff had shown that the micro-organism of diphtheria might survive in this situation for 120 days. He inquired whether any attempt had been made by the authors to estimate the number of bacteria retained in the nasal fossæ.

Dr. S. H. HABERSHON thought the paper raised the interesting question as to absorption of microbes by mucous surfaces. He had observed that the parts of the larynx normally covered by ciliated epithelium were less likely than others to become inflamed. Possibly the same was true of the ciliated epithelium of the nose. The tonsil covered by squamous epithelium was very readily invaded by micro-organisms; he had recently noted cases of tuberculous invasion of the tonsil.

Dr. R. T. HEWLETT, in reply, said that no stress had been laid on the vibrissæ as agents in keeping the nasal fossæ aseptic. Many factors were concerned in keeping the nasal mucous membrane free from micro-organisms and dust. The ciliated character of the epithelium, the probability that mucus was an unsatisfactory medium for the growth of microbes, the mechanical effect of the mucus trickling over the mucous surface and so removing bacteria, and the activity of phagocytes were all in some degree responsible.

Dr. ST. CLAIR THOMSON thought it improbable from clinical facts that micro-organisms accumulated in the deeper parts of the nose which were inaccessible to bacteriological investigation. In connection with the part possibly played by ciliated epithelium in preventing septic infection he quoted an observation of Sir Joseph Lister that an empyema bursting into a bronchus did not become foul nearly so soon as one opening externally, and that this was due to the activity of the ciliated epithelium of the bronchus.

CLINICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., Vice-President, in the Chair.

Friday, May 24th, 1895.

CIRRHOSIS OF THE LIVER, WITH EXTREME THICKENING AND CONTRACTION OF THE MESENTERY, SIMULATING A TUMOUR.

DR. F. L. BENHAM reported this case. The patient was a man, aged 55, suffering from advanced cirrhosis, with the history of former excess of alcohol, and of an attack of jaundice some years ago. He had a large amount of ascites, and was almost *in extremis* when first seen. Paracentesis was performed and gave relief, but the patient died two days after. The unusual feature of the case was that, during paracentesis, when thirteen quarts of clear reddish fluid had been removed, a large, irregular, rounded, solid tumour was noticed fixed in the centre of the abdomen, the nature of which was doubtful, as it presented some of the characters of a malignant growth. At the necropsy about a gallon and a-half of remaining fluid escaped. There was no acute peritonitis, but the surface of the peritoneum was without gloss. The liver was typically cirrhotic without perihepatitis. The kidneys were normal. The tumour discovered during life was found to consist of the enormously shrunken mesentery, which was shortened, thickened, and loaded with fat, the small intestines being huddled up compactly together. The omentum was thickened and condensed into the shape of a sausage. The condition was evidently that of one form of chronic peritonitis, but one which had not been described, as far as the author knew, in connection with cirrhosis of the liver, though a slight degree of the affection, namely, condensation of the omentum, was not uncommonly met with *post mortem* in cases of this disease. The points of interest seemed to be: (1) the question of the pathology of the complication, especially in its relation to alcoholism and cirrhosis; (2) the practical fact of the presence of a tumour whose nature might be mistaken.

Mr. BARKER had recently had a case that partly resembled the case narrated. His patient was a man, aged 48, who had for fifteen years had obscure symptoms of intestinal obstruction. He passed pus by the rectum, and the bowels acted with difficulty. There was a distinct sausage-shaped tumour in the median line just below the umbilicus which lay transversely. At the operation a fortnight ago the peritoneum was thickened and the gut hard and rigid. The mesocolon was occupied by a rounded tumour, and could not be dragged out. It did not look like a malignant growth, and he suggested that it was possibly a thickening of the kind described by Dr. Benham.

Dr. HALE WHITE had had cases of the kind under his care in which chronic peritonitis had caused contraction of the omentum and formation of a tumour often mistaken for malignant disease. On careful examination, however, the connection with the liver could be made out. Curiously, although his cases had occurred in people of alcoholic habits and suffering from chronic Bright's disease, in none was there cirrhosis of the liver, which was usually soft and fatty. Possibly the inflammation of the peritoneum over the liver had caused secondary perihepatitis. Recently, however, he had seen cases with cirrhosis.

Dr. BENHAM, in reply, asked if the tumour in Mr. Barker's case was thickened omentum, and whether there was fluid in the abdominal cavity.

Mr. BARKER replied that there was no fluid, and that the tumour was undoubtedly not omentum.

SUPPURATIVE PYELOPHLEBITIS, WITH ABSCESSES IN THE SPLEEN; FOREIGN BODY IN MESENTERIC VEIN; DEATH FROM PYÆMIA.

DR. SIDNEY PHILLIPS recorded the case of a man, aged 52, who had had rheumatic fever at the age of 17, had suffered from asthma, and been a free spirit drinker. On August 15th, 1894, when in good health, he suddenly had a violent rigor; rigors and sweats succeeded on the four following days, and after an interval of eighteen days he had another

rigor. When admitted into St. Mary's Hospital, on September 11th, the liver and spleen were very greatly enlarged, but both organs were hard and without signs of abscess; the respirations were 40 a minute, and there was much bronchitis. There being evidences of left pleural effusion, an exploring needle was introduced, and the fluid was found to be pure blood; the temperature was, throughout the patient's stay in the hospital, 101° to 102° F. Microscopic examination of the blood (from the finger) showed only a great decrease in the number of red corpuscles; ten ounces of pure blood were removed from the pleura by aspiration, relieving the dyspnœa, but the patient's septic condition advanced, he became delirious and more exhausted, the fever persisted, the signs of enlargement of liver and spleen decreased, and he died on September 17th. At the necropsy the portal vein was found full of pus, which extended into its ultimate ramifications in the liver. The spleen was almost destroyed by three large abscesses in its substance. The mesenteric veins were full of pus, and in the interior of the upper part of the inferior mesenteric vein were discovered two bristles, ¾ in. and ¼ in. long; they were probably parts of one original bristle which had broken. There was no ulceration or disease of any part of the intestine or stomach. Dr. Phillips remarked it was evident during the patient's life that there was suppuration in the abdomen, but no abscess could be detected in liver or spleen. The cause of the general suppurative pyelophlebitis was probably the bristles found in the inferior mesenteric vein; they had probably been swallowed and passed as one bristle through the wall of the intestine and that of the vein, though no trace could be discovered of their passage. The splenic abscesses probably resulted from the pyæmic state ensuing while the splenic vein was intensely engorged with blood from the thrombus. A case of traumatic pyelophlebitis somewhat similar to this had been recorded by Lambron in 1842. In that case a fish bone passed through the stomach wall and became impacted in the superior mesenteric vein. It would be well in future cases of splenic abscesses, found *post mortem* without evident cause, to search for any foreign body in the intestinal veins. The pleural effusion was hæmorrhagic, probably on account of the pyæmic blood state and the disturbance in the function of the spleen. When the spleen became purulent it became so much softened that it gave the erroneous impression that its enlargement had lessened.

Recovery from Tuberculous Meningitis.

Dr. S. West contributed a case of a female child, aged 2½ years, who had been quite well until April 3rd, when she became feverish and began to vomit frequently. On April 5th she had a fit, became stiff and was convulsed. She remained in this condition for two days, when she rallied somewhat, but hardly slept at all. She was admitted on the 11th. She lay on the left side, with the head drawn back, and took little notice of her surroundings. The eyebrows were slightly contracted, the eyes half open, the pupils and the movements of the eyes normal. She was continually grinding her teeth. The pulse was 165 per minute, and the evening temperature rose to 103° F. On the 14th a patch of broncho-pneumonia was found at the right apex. The child continued delirious, and on the 20th a slight squint was observed. The pulse had fallen to 120, and the temperature was subnormal. On the 23rd the right pupil was smaller than the left. On the 28th there was a double optic neuritis, most marked on the left side. On May 2nd the patient was semicomatose, vomited constantly, and had to be fed through the nose. The pupils scarcely reacted at all to light. On the 4th the breathing became very irregular, and only numbered about 8 to the minute. Pulse 54, temperature subnormal. During the night the child had an attack of twitching all over, and appeared to be dying of what seemed to be tuberculous meningitis; but from this time she began to improve, though at first slowly and with many relapses, but the twitchings continued, and there was pain in the head. During June there was gradual improvement, though the retraction of the head and stiffness of the legs continued. The knee-jerks were absent as they had been for some time. By July 18th the optic neuritis had almost disappeared, but the child did not seem able to see much, though the pupils reacted to light. On September 6th the patient had a relapse, but by the 19th this had subsided. By October 26th she was able to understand what was said to her, and to sit up a little. By December 1st she was able to walk with a little assistance. In February she was running about actively, could see perfectly, and spoke plainly. Her health at the present time was excellent. During the child's illness (June 19th) her little brother, aged 9 months, was admitted into the hospital with a history of having been ill for three weeks with vomiting and fits. On admission there was marked retraction of the head, tense fontanelle, varying squint, and frequent vomiting. The discs were normal, and the temperature not raised. The child died on August 16th, and on *post-mortem* examination the tuberculous lesions were not very numerous, nor was the amount of inflammation great. As this child did not die until the tenth week, it might be presumed that the inflammation was not very severe or extensive. The diagnosis in the first case, in the absence of a necropsy, must be a matter of opinion and judgment. The evidence of the meningitis being tuberculous in many cases was not strong, but, as in the majority of such case, the diagnosis was confirmed at the necropsy, it was not really as difficult as it might seem. These two children of the same family were attacked at the same time, and the same diagnosis was made in each case. The one patient died, and the diagnosis was confirmed at the necropsy. The presumption was, therefore, that the diagnosis was correct in the case of the other patient who recovered. Both cases ran a somewhat unusual course.

Dr. Charlewood Turner said that the case would have been more satisfactory if micro-organisms had been found in the case that died. It was just possible that the symptoms described in the case that recovered were not caused by the bacillus of tubercle. Also the course of the disease was not usual in typical cases of tuberculous meningitis, a fact that lessened the importance of the author's conclusions.

Dr. Glover inquired as to the nature of the treatment adopted in the case.

Dr. Hale White said that the treatment he usually adopted was that advocated by Dr. Fagge, namely, the administration of mercury with chalk.

Tumour of Kidney with Calculi.

Mr. W. H. Battle read notes of a case of a rare form of tumour of the pelvis of the kidney associated with calculi, for which nephrotomy and subsequently nephrectomy had been performed. The patient, a man, aged 51, came under treatment in 1893 for hæmaturia, first noticed in April of the previous year. The hæmaturia was constant on admission, and there was a history of renal calculi seven years before. The bladder was explored, but there was no disease there: blood was issuing from the left ureter. Mr. Battle agreed in the diagnosis of calculous pyelitis with new growth, and explored the kidney from the loin on February 23rd. Several oxalate of lime calculi were removed, and a villous growth growing from the lower anterior aspect of the renal pelvis was scraped away. It presented no signs of malignancy, but was reported as squamous epithelioma on examination. The patient left in April. He resumed work on June 25th, but in August blood again appeared in the urine, at first only at intervals, once a week or so, then more frequently until Christmas, 1893, when the urine always contained blood. Thence until July, 1894, the hæmaturia was profuse and constant so that he was obliged to keep his bed, and only left it to come up for admission on the 19th. He had become very anæmic, but was not losing flesh. The urine was always of a deep purple colour. He had passed some small stones by the urethra during the past twelve months. The left kidney was enlarged and adherent to the scar, and there was a little pain on manipulation. There was much albumen in the urine, which, during the twenty-four hours after admission, measured 41 ounces. On August 15th the left kidney was removed from the lumbar region. The delay before operating had been purposely made that the man might recruit his strength; hamamelis appeared to diminish the loss of blood: the kidney was less easily felt, the highest temperature had been 99° on one or two occasions. The kidney was extremely adherent to the old scar; on separating the adhesions a small abscess was found communicating with the renal pelvis and containing one or two stones. After removal the

capsule was stitched over the stump and the wound closed, with a drainage tube passed down to this. On the 17th there was no blood, pus, or albumen in the urine. A month later the wound was closed satisfactorily, and the quantity of urine passed was normal; there was less anæmia, and he was gaining strength rapidly. He went home on September 19th, but had been seen recently, and was in good health. The kidney removed showed some thickening where involved in the scar, which extended so as to form a tumour projecting into the pelvis. The surface towards the pelvis was papillated and firm. Sections examined under the microscope showed no new growth in this part. Mr. Battle remarked upon the most unusual character of the growth. He had expected at the first operation to find an epithelioma, but the examination showed a growth of innocent nature which he felt justified in removing by scraping. The report of the pathologist that it was squamous epithelioma came as a surprise, and he regretted then that he had not done nephrectomy. When the patient again came under care there was sufficient reason for removal of the organ in the constant and prolonged hæmorrhage, but the clinical signs were still those of innocent growth. Subsequent examination had caused the pathologist to alter his verdict in favour of simple papilloma.

ANNUAL MEETING.

ELECTION OF OFFICERS AND MEMBERS OF COUNCIL.

The result of the ballot showed that the gentlemen recommended for election by the Council were unanimously chosen, with Dr. Buzzard as President. The list was printed at page 1184 of the BRITISH MEDICAL JOURNAL of May 25th.

THE REPORT OF COUNCIL.

This was read by the SENIOR SECRETARY. It alluded to the losses by death during the year, especially in the cases of Mr. Hulke, Sir G. Buchanan, Mr. A. Durham, and Dr. Maunsell. The Antitoxin Committee was stated to be actively pursuing its investigations, but had not presented a report to the Council.

TREASURER'S REPORT.

This was presented by Dr. ORD, Treasurer, who advised that the increasing surplus should be devoted to the furtherance of clinical investigation rather than to interest-bearing investments. He moved:

That the report of the Council, together with the Treasurer's audited statement of accounts, be received, adopted, and published in the next volume of the *Transactions*.

This was carried *nem. con.*

VOTES OF THANKS.

Mr. BARKER and Mr. BRUCE CLARKE moved a vote of thanks to the acting President, Mr. JOHN LANGTON, which that gentleman gracefully acknowledged.

Mr. JOSEPH WHITE proposed votes of thanks to the retiring Vice-Presidents and members of Council; Mr. LONGHURST seconded the proposal, which was carried; and Dr. GLOVER returned thanks.

Dr. GLOVER then proposed a very cordial vote of thanks to the retiring Secretary, Mr. Gould.—Mr. HUDSON seconded the vote, which was supported by the CHAIRMAN, and carried with applause.—Mr. GOULD, in replying, spoke of the great services also rendered to the Society by the two medical colleagues who had assisted him in the secretaryship—namely, the late Dr. Hadden, and the present Secretary, Dr. Hale White.

EPIDEMIOLOGICAL SOCIETY.

SHIRLEY F. MURPHY, M.R.C.S., L.R.C.P., President, in the Chair.

Friday, May 17th, 1895.

THE SOIL IN RELATION TO DISEASE.

PROFESSOR LANE NOTTER, of Netley, read a paper on this subject. Our knowledge of soil processes, even so simple as that of plant food, and the nature of the organic matters in the soil was very imperfect, and as to the evolution of pathogenic micro-organisms outside of the body still more so. There were, however, some diseases as to the connection of which with soil conditions there could be no doubt. *Cholera:* The importation of the disease was, of course, necessary, save where it was endemic, but there were, as Pettenkofer pointed out, localities where outbreaks were always severe, and others where it never established itself, though the sanitary conditions were no better, these latter being on absolutely impervious soils, or where the ground water was at a low and constant level. In this country and elsewhere it was doubtless almost always connected with the water supply, but in Germany much importance was attached to the movements of the ground water, and rightly so, especially where wells and cesspits existed, since not only did the changes of level lead to pollution of the water supplies, but by these were determined the moisture, aëration, and even the temperature of the surface soil, the home of all kinds of bacteria. Extremes of wet and drought were alike unfavourable to the development of cholera, which in India broke out in a severe form only during light rains in the more arid regions, and in the comparatively dry season in the humid districts of Bengal. The bacillus was often observed in tanks and filters, but had not been detected in the soil, though they could be cultivated in warm moist earth for six weeks, perishing, however, in a week in the presence of crude fæces, being crowded out by other forms. Fairs and pilgrimages also aided in every way in the diffusion of great epidemics in the East. *Diphtheria* was propagated mainly by personal contact, but its recurrence year after year in certain places pointed to some connection with the soil. It seemed to be favoured by cold and damp, and the bacillus could be kept growing in moist earth at a temperature not over 14° C. and in the dark for four months, but heat, light, and dryness were speedily fatal to it—facts that explained the absence of diphtheria from the plains of India, while it was of frequent occurrence in the hill stations. *Enteric fever* was most prevalent on pervious and sewage-sodden soils, the movements of the ground water—according to Pettenkofer, a rapid fall—being mostly the exciting cause. The bacillus lived longer in rich garden mould than in poor sandy soil, and died quickly in peat. It was frequently diffused by pollution of water supplies, but might be with dry fæcal dust—a fact that had a bearing on the use of earth closets, especially in India. *Diarrhœa*, as seen in summer and autumn, was dependent on putrefaction of foods, especially milk, and of organic pollution, not necessarily fæcal, of the soil. Dr. Ballard was the first to show how the mortality began to rise when the earth temperature at a depth of 4 feet reached 66° F., and fell a week after it had sunk to 60°, irrespectively of the air temperature. *Malarial fevers* were more strictly earthborne and local than any; they were communicated by drinking water and through the air, the movements of the ground water on the one hand and changes of atmospheric pressure on the other, especially the aspiratory action of light, warm, moist air at night, causing the escape of the germ-laden ground air; excavation acting in like manner. The organism was probably protozoic, not bacterial, the plasmodium of Laveran, the "spores" of which stored in the spleen reproduced it at regular intervals. *Phthisis:* The conclusions of Buchanan, Bowditch, and Middleton, as to the relation of phthisis to dampness of soil, and its diminution after the drainage and sewerage of certain towns had been severely criticised. The fact was that phthisis prevailed without regard to soil or elevation, wherever the conditions, whether cold and damp or deficient ventilation, overcrowding, etc., were such as to lead to catarrhs of the respiratory tract, for catarrhs constituted the non-tuberculous forms of phthisis, and rendered the individual more susceptible to tuberculous infection. As to its reduction in towns, the improved social conditions of the people should not be overlooked. *Rheumatism:* Chronic rheumatism was caused by exposure to cold, wet, and wind. Acute rheumatism preferred warm dry sites, and seemed to assume an epidemic character in seasons of little rain and low-ground water. It was probably an earth microbe akin to erysipelas. *Yellow Fever:* Confined to the mouths of rivers and ports in the tropical zone of the Atlantic, where mud saturated with organic matter was exposed to alternate submersion and drying, and disappearing when the mud was covered by shingle or quays, it was almost as bound to localities as malaria. Creighton's theory of its evolution from the bilge water, etc.,

of slave ships, reeking with the excreta of dysentery and typhus-stricken negroes, was highly probable.

Dr. Saltet (Medical Officer of Health for Amsterdam), remarked that ague had almost disappeared from Holland since, by the substitution of steam pumping engines for windmills, the ground water had been maintained at a low and constant level.

Dr. Newsholme regretted that owing to the neglect of Pettenkofer's teaching in this country there were no records kept, except at Brighton and Croyden, of the movements of the ground water such as were made daily at sixteen stations around Berlin. It seemed that under existing conditions an impervious soil might be more healthy than one of sand or chalk. In comparing the frequency of epidemics on different soils, the number of the population living on each should be taken into account. As regards phthisis and diphtheria, the same factors of the surroundings and of personal intercourse were involved, but inversely, so that while it was not easy to prove tuberculous infection, it was almost impossible to determine the effect of soil, etc., on diphtheria.

HARVEIAN SOCIETY OF LONDON.

Sir John Williams, Bart., M.D., in the Chair.

Thursday, May 16th, 1895.

Cases.

Dr. Leonard Guthrie showed an infant, aged 1 year and 8 months, suffering from Splenic Anæmia of about eight months' duration. The spleen could be felt within half an inch of the umbilicus. The blood contained about 36 per cent. of the normal amount of red corpuscles, and a similar reduction in the percentage of hæmoglobin was found. There was a slight increase in the number of white corpuscles, not amounting to leucocythæmia. The cervical and inguinal glands were slightly enlarged. The child was rickety, but showed no symptoms of hereditary syphilis, malaria, or tubercle. This condition was slowly progressing, and had resisted a variety of forms of treatment. Recovery in such cases was well-nigh hopeless. Dr. Guthrie suggested that splenectomy might afford a chance of life, and invited discussion on the justifiableness of the operation. Dr. Clifford Beale commented on the case.—Dr. G. A. Sutherland showed an unusual case of Rickets in a child.—Mr. C. Mansell Moullin showed a case of Phelps's Operation for Inveterate Talipes; one of Laminectomy for an Intraspinal Caseous Abscess that was pressing upon the anterior columns of the cord; and a third of Meyer's Operation for Carcinoma of the Breast. He pointed out the unsatisfactory position of the operation for removal of the breast, as performed at present, stating that nearly every surgeon admitted at least 60 per cent. of local recurrences (as distinguished from metastatic deposits and regional recurrences), and many of them an even higher proportion. Meyer's and Halstead's operations aimed at a much more thorough removal; the skin was excised very widely, without regard to apposition when the operation was completed; the whole of the axillary and infraclavicular spaces were cleared, both pectorals were excised, and the whole of the mass removed was taken away *en bloc*, without the growth being touched or even approached, so that there was no risk of cancer dissemination during the operation. The operation took but a very little longer than the ordinary one; there was practically no hæmorrhage, and but very little shock. Unfortunately, Halstead's statistics were worthless, as only 2 of his 50 cases were of three years' duration. Volkmann, however, who admitted 60 per cent. of local recurrences for his ordinary cases, had performed a somewhat similar operation (removing the pectorals, etc.) in 38 especially bad cases with a local recurrence of only 35 per cent. Mr. Mansell Moullin pointed out that it was practically impossible to remove the fascia covering the pectoral muscle (and with it the lymphatics running upwards from the carcinomatous deposit) without removing the whole of the muscle; and to this free removal must be attributed the comparatively much higher proportion of success achieved. The arm, it was true, was tied down to the side, but if the risk of recurrence could be reduced by 25 per cent. that was of little importance. Mr. Peyton Beale thought that laminectomy should be performed only as a means of reaching some special part—for example, the posterior aspect of the body of a vertebra. If the surgeon was going to operate upon a vertebral body, the seat of tuberculous disease, it was certainly his duty to operate thoroughly, and this would often involve the cutting through and removal or displacement of the whole or part of one or more laminæ. Mr. Jackson Clarke and Mr. Keetley also commented on the cases.—Mr. C. B. Keetley showed a case of Ankylosis of the Hip in which the malposition had been remedied by a wedge osteotomy just below the great trochanter. Mr. Jackson Clarke discussed the operation.—Dr. William Hill showed a case of Tubercle of the Nose. Dr. Clifford Beale spoke of the necessity of early diagnosis in these cases.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

J. A. Scott, M.D., President, in the Chair.

Friday, May 17th, 1895.

Aneurysm of Abdominal Aorta.

Dr. H. Gray Croly and Dr. Graves showed an aneurysm of the abdominal aorta which had commenced posterior to the cœliac axis. There had been no symptoms of aneurysm during life, no pulsation, no pain in the back, although the anterior surfaces of the first dorsal and first and second lumbar vertebræ were eroded, pain in the region of the left kidney alone being complained of. The kidney was displaced downwards by aneurysm. Death took place suddenly from rupture through the diaphragm into the left thorax.

Dr. Croly said that the man was admitted and treated for kidney disease. The only explanation he could give of the absence of pulsation was that the tumour was bound down by very strong adhesions.

Dr. Graves, in reply to Dr. M'Weeney, said the aneurysm had become glued to the psoas muscle, and had eroded it and shoved it up, and that it had then burst through the diaphragm. He agreed with him that the kidney only showed interstitial changes in one part.

Syringomyelia.

Dr. J. O'Carroll exhibited the brain and spinal cord of a case of syringomyelia.

Dr. M'Weeney said the case was unique in his experience. The only part that he had as yet been able to make sections of was in the cervical region. The section was stained by Pal's method. The central canal was lined by the usual columnar epithelial cells. At each lateral aspect there was a cleft or aperture through which the central canal communicated with two wing-shaped cavities, which extended back to the exit of the posterior nerve roots. There were then two things which had occurred. One a dilatation of the pre-existing central canal, and the second a channeling out of the grey matter on each side of the cord. There was no evidence of neuroglia, either of new formation or of embryonic origin. The cavity in the grey matter was bounded by inspissated grey matter. The dilatation of the cavities of the central nervous system must have been forming many years before he suffered from the spinal cord symptoms. Then it suddenly opened out the grey matter on each side of the cord, forming there two large cleft-like cavities, extending through its whole length. In the cervical region there was a small aperture between the central canal and the canal in the grey matter. This aperture gradually widened out, so that in the dorsal region there was no division between the two canals. The sclerosis was chiefly situated in the white matter of the posterior columns.

Intraocular Sarcomata.

Mr. Story and Dr. Graves made a communication upon ocular sarcomata, and exhibited two eyeballs with tumours springing from the corneo-scleral margin, and one with a tumour in the anterior portion of the choroid, which had perforated the sclerotic. All these tumours were pigmented in only a portion of their extent, and were mostly formed of spindle cells. The choroidal sarcoma was of the alveolar type. The patient in whom the latter tumour occurred was a lady, aged 33. She lived in good health for ten years after the enucleation, and then died with symptoms of secondary

growths in the liver. The other tumours occurred in males—No. 1 in an officer aged 57, and No. 2 in a pensioner aged 76. The ultimate fate of these patients was unknown.

Hydatid Cyst of the Arm.

Dr. M'Weeney showed a specimen of hydatid cyst evacuated together with a quantity of pus from a painless swelling of the upper and lower part of the arm. The patient was a lady aged about 30, under the care of Mr. P. J. Hayes. She had first noticed the swelling about a year before operation. The cyst was about the size of a plum, and floated in the pus of the abscess; it contained two nodules projecting from its inner wall; the smaller of these proved to be a typical barrel capsule of T. echinococcus. A remarkable feature was the presence of a large number of calcareous granules, which from their size and resemblance to each other bore a close similarity to ova. The occurrence was rare in Ireland.

Chronic Articular Rheumatism.

Dr. E. H. Bennett read a paper upon the limitation of chronic articular rheumatism to parts of joints. Dr. Bennett, referring to the extraordinary polish shown by the pisiform bone in one of the specimens, said that always where there was the least range of movement there was always the greatest amount of polish.

Three Cases of Fracture of the Fibula.

Dr. E. H. Bennett gave details of three cases of fracture of the fibula, with dislocation of the ankle-joint, which had united with great deformity, which he had been able in great measure to rectify by extension and manipulation. The cases had been left unreduced for periods respectively of a month, six weeks, and, lastly, three months. He pointed out the error of regarding Pott's fracture as the commonest injury of the fibula found associated with dislocation of the ankle. He showed by the series of fractures collected in the museum of Trinity College, and by his own clinical experience, that the oblique fracture of the external malleolus caused by traction acting through the external lateral ligament, was of much more frequent occurrence than the classical Pott's fracture.

Dr. Croly said that the fibula was not usually fractured as high up as originally described by Pott. If there was great tenderness over the lower end of the fibula when pressed on there was a fracture there. Very often it did not present the typical appearance of a Pott's fracture, the foot not being displaced. Pott never mentioned anything about the tip of the internal malleolus being knocked off.

Laryngological Society of London.—At a meeting on May 8th, 1895, Dr. F. Semon, President, in the chair, Dr. J. B. Ball showed a girl, aged 21, with complete Occlusion of the Right Nasal Passage, no doubt congenital. Mr. Cresswell Baber, Dr. Dundas Grant, and Mr. C. Symonds had each successfully treated cases of this description by operation.—Dr. Ball also showed a patient, aged 18 years, suffering from Paralysis of the Right Vocal Cord, due to disease in the right apex.—Mr. Butlin showed an engine driver, aged 56, with a large mass of apparently Malignant Glands on the Left Side of Neck, with difficulty in swallowing, of four months' duration. There were also typical signs of paralysis of the cervical sympathetic. Mr. Butlin believed it to be a case of carcinoma of the œsophagus very high up. In answer to Mr. Symonds, he stated that in a similar case, where thyroid disease was suspected, the *post-mortem* examination showed the œsophagus to be the seat of the affection.—Mr. Butlin also showed a woman, aged 28, who after suffering for some weeks from severe cough, suddenly lost her voice. Hypertrophied tonsils and complete paralysis of the right vocal cord were present. No cause could be found. Dr. Spicer considered that as the paralysis was unilateral functional aphonia was excluded.—Dr. Dundas Grant showed a patient who ten days after convalescence from typhoid fever complained of Sore Throat and Dyspnœa, and tracheotomy had to be performed. On admission considerable redness and swelling of the larynx were visible. Some granulations were seen at the posterior part, with a web formation at the anterior commissure. Dilatation of the glottis and division of the web with intubation improved the breathing slightly. The larynx was opened and scraped, and bare cartilage was felt; the breathing was much improved.—Dr. William Hill showed a woman, aged 34, suffering from Syphilitic Perichondritis of the Larynx.—Dr. A. A. Kanthack and Dr. W. Jobson Horne showed a specimen of Diffuse Syphilitic Pachydermia.—Mr. C. A. Parker showed a patient, aged 17, with Tuberculous Ulceration of the Nose and Pharynx. He improved greatly under *curettement* and lactic acid applications.—Dr. Pegler showed microscopic sections illustrating the histology of Anterior Hypertrophies of the Anterior Turbinate Body.—Mr. W. R. H. Stewart showed a patient whom he had previously exhibited at the Society suffering from a Fistula in the Neck. This healed a day or two afterwards, and the case was now brought forward again to show that it was possible for these cases to be cured by operation.—Mr. C. Symonds showed specimens of Polypi taken from the maxillary antrum; an unusually large Nasal Polypus; a Post-nasal Sarcoma, and the case of Pachydermia Laryngis shown on many previous occasions, and which was now much improved.—Dr. Herbert Tilley showed a case of Laryngeal Ulceration. There was a history of syphilis of ten years' standing. The patient had an attack of hæmoptysis when 18 years old, and there were some slight signs of consolidation at the apex. There was a large granulation in the interarytenoid space, the left processus vocalis was swollen, and a swollen mass over the position of the right vocal cord, with laryngeal stenosis to a considerable extent. Dr. Bronner thought it was syphilitic. Dr. Spicer and Mr. Stewart considered it tuberculous. Mr. Butlin suggested that it might possibly be malignant.

West London Medico-Chirurgical Society.—The annual dinner of this Society was held at the Café Royal on May 22nd; Dr. Banning, President, in the chair. Among the numerous guests was the President of the Royal College of Surgeons. "Prosperity to the Society" was proposed by Mr. Keetley, and the health of "The Guests" was given by Mr. A. G. Wells. Mr. Christopher Heath, in replying for "The Visitors," mentioned that he was specially interested in this Society, since he had been surgeon to the West London Hospital thirty-five years ago. Mr. Edwards proposed the health of "The President," which was received with acclamation, and the evening concluded with the toast of "The Officers," proposed by Dr. Alderson, to which Messrs. Lake and Bidwell replied. The dinner was enlivened by selections of music by the Oliveira Quartet.

Nottingham Medico-Chirurgical Society.—At a meeting of the Society on May 15th, Dr. Tew, President, in the chair, Mr. Tresidder showed: (1) A woman, aged 40, affected with Diffuse Sclerodermia, which involved the lower part of the face and neck, the forearms and hands, and the lower part of the legs and feet. The extremities were subject to attacks of blueness resembling Raynaud's disease. Nodules resembling those of rheumatism had from time to time appeared on various bony prominences. The patient suffered from extreme debility and intermittent vomiting. The pathology of the disease was obscure, but was in all probability a trophoneurosis. (2) A man, aged 42, in whom he had performed Nephrectomy for Calculous Abscess of the Kidney; the patient had been twice operated on for stone in the kidney successfully. The kidney was shown, and also a large branched renal calculus from this case.—Mr. Kingdon showed five cases: (1 and 2) A man, aged 50, and his daughter, aged 18, who suffered from Anterior Pyramidal Cataract; (3) a boy, aged 10, suffering from Hydrophthalmos; (4) a woman, aged 28, affected with Lupus of the Conjunctival Surface of the Upper Eyelid; (5) a woman, aged 18, affected with Double Dermoid of Cornea.—Mr. Wood described a case of Quinine Poisoning from a dose of 40 grains. The symptoms were deafness, staggering gait, and giddiness; and much relief was obtained by the administration of an emetic.—Dr. Michie read notes of a case of operation for Intestinal Obstruction in a man, aged 28 years. Nothing was revealed by rectal examination. At the operation a growth was found in the splenic flexure of the colon, and another in the remains of the urachus. A temporary artificial anus was made on the proximal side of the growth, as the man's condition would not then admit of prolonged operation. At a subsequent operation the growth was removed and the arti-

ficial anus closed, the patient making an excellent recovery. Dr. Michie had operated in all on thirteen cases of intestinal obstruction; ten recovered, though one died from recurrence of malignant disease. Messrs. Cattle, Tresidder, Hunter, and Wray spoke; and Dr. Michie replied.—Dr. Michie also showed the following Pathological Specimens: 1. The Portion of Intestine showing the Tumours, removed from the case described. 2. Solid Ovarian Tumour. 3. Hydronephrotic Kidney. 4. Two Specimens of Vermiform Appendix removed by operation. All the cases recovered.—Mr. Williams showed specimens of a case of Double Hæmatosalpinx which had been successfully removed by operation; on one side the distended tube had ruptured into the space between the layers of the broad ligament, the tumours being at the time of the operation the size of a large cocoanut.

REVIEWS.

The Pathology of Mind. A Study of its Distempers, Deformities, and Disorders. By H. Maudsley, M.D. Second Edition. London: Macmillan and Co. 1895. (Royal 8vo, pp. 586. 15s.)

Although this is nominally a second edition, it is so entirely rewritten that it is practically a new book. Dr. Maudsley has long been known not only as a high authority on mental disorders, but as a writer of power and grace. It is no small thing to be able to point to a member of our busy profession who is not only willing but able to spend so much labour on the fit presentation of his ideas to his readers. Scientific men, as a rule, are far too careless of the dress in which their work appears. Dr. Maudsley's style is florid, and his command of and use of metaphors and similes is almost exuberant. The author's tendencies are distinctly materialistic. Yet he recognises that there are many things in Nature which are not to be explained by man. He admits this, but does not care here to go into the more metaphysical speculation.

It is not possible within the limits of a review to epitomise the book under consideration; it is too full for that. We know that the earlier edition turned men of thoughtful minds into the study of medicine, and we are sure this present book will attract similar men, for there is nothing which in any way attracts the mere prurient student of medical books. The book begins with a clear description of what insanity is, and points out that the essential feature of insanity is alienation from the normal self and from human fellowship.

The next few chapters are the most full and characteristic of the whole, for in them is shown the causation or evolution of insanity in the race, the family, and the individual, and this leads to the understanding of the prevention of the disease. The book would not bear the mark of its author if there were not sly cynical cuts at the prides and weaknesses of men, passages which give a special spice to the book. Dr. Maudsley is a believer in the criminal lunatic, but does not follow the Italian authors in their full belief in a special criminal anthropology, for he says: "But no criminal is really explicable, except as by an exact study of his circumstances as well as his nature; when there is a struggle in him between the social habits and the savage instincts it will depend much on the surroundings which will gain the upper hand."

Following the causation of insanities we find the symptomatology discussed, and this leads to the clinical grouping which takes the place of any formal classification. General paralysis of the insane has its place, and is ably described, but we cannot agree with our author, who still, as in the first edition, looks to sexual excess as the great factor in the production of this deadly disease. He does not assign to syphilis the importance which most more recent writers, both in England and on the Continent, give it.

The section on pathology is by far the best introduction to a proper study of insanity which exists. It does not fill the place of the manuals or textbooks on insanity and its treatment, but all members of the profession who wish to acquire a broad view of the subject may trust to this guide. The book, we feel sure, will win the attention which it deserves.

The Science and Art of Surgery. By Sir John Eric Erichsen, Bart., F.R.S., LL.D. Edin., Hon. M. Ch. R. Univ. Ireland, and F.R.C.S. Ireland; Surgeon Extraordinary to Her Majesty the Queen; President of University College, London; Fellow and Ex-President of the Royal College of Surgeons of England, etc. Tenth edition, revise by the late Marcus Beck, M.S. and M.B.Lond., F.R.C.S., etc., and by Raymond Johnson, M.B. and B.S.Lond., F.R.C.S., etc. London: Longmans, Green, and Co. 1895. (Two volumes, Royal 8vo. 48s.)

When a work of the character of Sir John Erichsen's *Science and Art of Surgery* has reached its tenth edition it may be considered to have passed into that serene region of established reputation where the reviewer ceases from troubling. The mere fact that a work dealing with so progressive a science as surgery should have kept its place as a textbook of recognised authority for more than forty years is a striking testimony to the soundness of its conception and the excellence of its execution. While large changes in detail have been made in successive editions, the book still remains an organic whole animated throughout by the judicial spirit and ripe practical wisdom of its distinguished author.

In the preparation of the present, as in that of the two previous editions, Sir John Erichsen had the co-operation of Mr. Marcus Beck; but that devoted helper did not live to finish his work, and his place was taken by Mr. Raymond Johnson, on whom the chief burden of editing has fallen. How well he has performed his task the most cursory examination of the work is sufficient to show. Some parts have been rearranged, a large amount of fresh matter has been introduced, and considerable portions of the work have been rewritten. More than 100 new figures have been added. Statistics have everywhere as far as possible been brought up to date.

Space will not allow us to indicate in detail all the changes that have been made; it need only be stated that Mr. Raymond Johnson has evidently spared no pains to bring the work thoroughly up to date in its pathological as well as in its practical teaching. In the first volume the section on Anæsthetics has been to a large extent rewritten; that on Inflammation and the Relation of Micro-organisms to Suppuration was almost rewritten by Mr. Beck, and now includes the results of the most recent research.

Under the head of Gunshot Injuries the wounds made by the new bullets are fully considered; the pathology of concussion and compression and the treatment of head injuries are discussed in the light of the latest additions to knowledge. The section on Injuries of the Spine has been rewritten, the symptoms hitherto classed as secondary effects of concussion being ascribed to traumatic neurasthenia, the term "concussion of the cord" being reserved for transitory symptoms. The section on Abdominal Injuries has been considerably modified, the indications for operation in particular being very fully discussed. The section on Infective Diseases accurately represents the actual state of knowledge as to their pathology and treatment.

In the second volume the parts which show greatest evidence of change are the sections on Operations on the Branches of the Fifth Nerve, on the Excision of Aneurysm, on Arthrectomy of the Elbow and Ankle, on the Treatment of Paraplegia in Spinal Caries, on the Complications of Middle Ear Disease, and on Intubation of the Larynx. The sections on Tuberculous Disease of the Bones and Joints, on Diseases of the Breast, on Hernia, on Typhlitis, on Intestinal Obstruction, and on Intestinal Anastomosis, all bear the marks of most careful revision. In the chapter on Diseases of the Bladder, the comparison between lithotomy and lithotrity has been rewritten. A description of the cystoscope has been introduced, and the effect of castration for prostatic enlargement is discussed. The concluding chapter on Diseases of the Female Generative Organs has been largely rewritten by Mr. A. W. Meredith.

On the whole this new issue of Sir John Erichsen's standard work fully maintains its character as a worthy representative of British surgery in its best form, and it need not fear a comparison with any foreign publication of the same kind.

Les Tuberculoses Animales, leurs Rapports avec la Tuberculose Humaine. [Animal Tuberculoses, their Relations to Human Tuberculosis.] Par Ed. Nocard, Professeur à l'École Vétérinaire d'Alfort. Paris, 1895. G. Masson; and Gauthier-Villars et Fils. (Encyclopédie Scientifique des Aide-Mémoire.) (Small 8vo, pp. 208. Fr. 2.50.)

Professor Nocard in this small volume has brought together a great deal of information on the subject of tuberculosis, especially as it is observed in bovine animals, and discusses with much learning and authority the many questions which arise in connection with the consumption of milk and meat derived from tuberculous animals, and the dangers which attend it. Although he uses the plural in the title of his book, he is decidedly of opinion that the tuberculosis of domestic animals is the same disease as human tuberculosis. The only possible exception he admits is avian tuberculosis, and as to this M. Nocard holds the view that it is due to the bacillus tuberculosis which has undergone a certain modification in becoming adapted to survive in the organism of the common fowl, the pheasant, the pigeon, the turkey, the peacock, and the guinea-fowl. M. Nocard is a strong believer in the value of tuberculin as a diagnostic agent for determining the existence of tuberculosis in an early stage in bovine animals. He claims to have been one of the earliest defenders of the view that the flesh of animals in which the tuberculous process is still limited to the internal organs, and capable of being removed entire, may be used safely for food if reasonable precautions are taken in the butchering. This is the view which has been adopted with some reserve by the Royal Commission on Tuberculosis. M. Nocard, however, urges strongly that the only logical position is to take every means to induce stockbreeders and dairymen to make use of the increased facilities for diagnosis afforded by the use of tuberculin in order to check the evil at its origin. The book is one which we would strongly commend to the notice of medical officers of health, since it contains a succinct account of the present positions of questions which are likely in the near future to claim more and more attention from them.

The Elements of Pathological Histology, with Special Reference to Practical Methods. By Anton Weichselbaum, Professor of Pathological Anatomy in the University of Vienna. Translated by W. R. Dawson, M.D., Demonstrator of Pathology in the Royal College of Surgeons of Ireland. London: Longmans, Green, and Co. 1895. (Demy 8vo, pp. 472, 8 plates, 221 figures in the text. 21s.)

This handbook of pathological histology for the use of the student in the pathological laboratory has the distinct advantage of combining in one volume of a convenient form directions for the preparation and descriptions of the appearances of pathological specimens.

There are three parts: the first contains a general sketch of the technique of histology and bacteriology, which is supplemented by the description of special methods when the different lesions and organs are dealt with in detail. The translator has added a note on the gum-freezing method, and use of Farrant's solution as a mounting agent.

The second part—general pathological histology—deals with the processes of degeneration, inflammation, and tumour formation, and under the heading of Parasites gives a clear, detailed account of the more important pathogenic micro-organisms, and at the same time of histological lesions produced by them. There are some very successful microphotographs of the bacteria and some beautiful figures showing the micro-organisms in the tissues. In a systematic account of the animal parasites, there are numerous illustrations, including drawings of the amœba coli and coloured figures of the plasmodion malariæ, but there is only the briefest reference to the debated question of protozoa as a cause of malignant growths. This omission is doubtless due to the fact that the original work was published in 1892, but a brief summary of the present state of opinion on this subject might with advantage have been added by the translator.

The third and largest part of the book is devoted to the consideration of the special pathological histology of the various organs and tissues of the body. A somewhat brief sketch of the blood is followed by an account of the morbid conditions of the heart and vessels, which is well illustrated. The lymphatic and ductless glands are somewhat rapidly dismissed. An account of the thyroid gland should contain some reference to the morbid histology of myxœdema and exophthalmic goitre.

The sections on the alimentary canal and the respiratory system contain some capital figures, and give a satisfactory sketch of the chief lesions and morbid processes met with. The account given of biliary cirrhosis is meagre, and the statement that melanotic sarcoma of the liver is "perhaps always" a secondary growth is open to question. Again, in the sections on the skin and mammary glands we should have been glad to have seen a note by the translator on rodent ulcer and on duct carcinoma, since these are subjects which the English student should certainly find described in a textbook of pathology.

This work is essentially a student's book, and cannot be considered a book of reference, or, like Ziegler's textbook of pathological anatomy, a combination of these two kinds of books, since it does not contain any bibliography, and though covering a large amount of ground in morbid histology is far from treating the subject exhaustively.

The translation is excellent and the get-up of the book admirable, but as we have already hinted the strong point of the work is in the illustrations rather than in the text; some figures showing micrococci in the tissues are beautifully executed.

Considering the rapid advance of pathology, it must be admitted that this translation is under a considerable disadvantage, in that it is published in 1895, while the date of the original from which it was taken was February 1892.

Thoughts, Observations, and Experiments on the Action of Snake Venom on the Blood. By G. B. Halford, M.D., Professor of Physiology in the University of Melbourne. Published by Stillwell and Co., Melbourne. 1894. (Pp. 71, 3 plates.)

Professor Halford gives in a pleasant manner his views regarding the action of snake poisoning on the blood. It will be found that he still lays stress on the white cells which he described as early as 1867. After mentioning the researches of Mr. C. Martin as to rapid injection of snake poison causing an increased coagulability of the blood, and the slow injection inhibiting the coagulation, he goes on to remark that he regards the poison in the light of a ferment which destroys "what should have been in normal blood (fibrin), its place being taken by large white cells. These cells appear in the blood a few hours after the bite as very transparent, almost invisible, masses (best seen on staining with magenta), and in twenty-four hours they are usually at their greatest size." He holds that these cells are not, as usually supposed, altered leucocytes, but "arise from the molecular or nebulous masses (of plasma) lying in the intervals of the red corpuscles." This little book contains plates of these white cells, and finishes by giving in an appendix a series of experiments.

International Congress of Charities, Correction, and Philanthropy, Chicago, June, 1893, Reports. Baltimore: The Johns Hopkins Press. London: The Scientific Press, Limited. 1894. (Demy 8vo, pp. 324. 6s.)

The greater part of this volume is occupied by the papers read in the fourth Section of the above Congress, and reports of the discussions upon them. In this Section the subjects dealt with were the commitment, detention, care, and treatment of the insane. The papers and report of the discussions in the eighth Section of the Congress relate to the subjects of the care and training of the feeble-minded, and they occupy a few pages only. In the fifth Section of the Congress the subjects were the prevention and repression of crime, and the papers and discussions in this Section occupy a space intermediate in extent to that devoted to each of the other two Sections.

The authors of the majority of the articles contributed were residents in the United States and Canada, but a number from other countries, including our own, also made contributions.

The articles range from the widest to the most narrow scope, from statistical records to the account of an individual case. They are of very unequal merit and, indeed, this appears always to be the case with ambitious congressional efforts to gather everything in a wide net. In this case the net gathers in not only the calm, sober, and judicious writer, but also the faddist, the person of extreme views, expressed in strong language, and backed up by the misleading citation of such of the words and acts of certain persons, taken as authorities, as suits the purpose, and the ignoring or explaining away of such of them as have a contrary significance.

NOTES ON BOOKS.

The Modern Trained Nurse. By Sir Dyce Duckworth, M.D., LL.D. An Address delivered before the Royal British Nurses Association, March 15th, 1895. (London: Harrison and Sons. 1895. Demy 8vo. pp. 20. 6d.)—The eminent position occupied by the lecturer is a guarantee that he brings experience and judgment to bear on this question. We are impressed with the chaos which, unconsciously to himself, he reveals as existing in the nursing profession, both as to the time to be set apart for training and as to the matter to be taught. The lecturer further introduces another element into this chaos—even the question of remuneration, recommending first, second, and third grades of nurses, who shall be remunerated according to their grade. We cannot altogether endorse this recommendation; the condition of the patient cannot be graduated in accordance with the fees he may be in a position to pay. The amount of knowledge required of the nurse, as of the medical man, should be fixed at an average standard, the position subsequently attained by the nurse resulting from her own exertions, skill, and character. There are many pieces of good advice to nurses, which, coming from a friendly counsellor, are worthy of their consideration.

Die königlichen Trink-, Bade-, u. sonstigen Kur-Anstalten in Bad Ems. (Wiesbaden: Brems and Plaum. 1895. Demy 8vo. pp. 50.)—This pamphlet sets forth the claims of Bad Ems to the favour and regard of the medical profession. The character and application of the warm sodium chloride and sodium carbonate springs of Ems are too well known, however, to need any enforcement. Their use and value in the treatment of bronchial catarrh, as well as in gastric, vesical, and uterine catarrhs and in many chronic affections of the generative and nervous systems in women, are universally admitted. All the advantages of an extremely well-organised bath establishment with a variety of appliances useful and necessary for invalids can be found at Ems.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CHAMPAGNE "SANS-SUCRE."

We have had occasion to speak favourably of the high dietetic value and remarkably fine quality of the champagne of Laurent-Perrier, introduced here by Messrs. Hertz and Collingwood. It was found on strict and repeated examination to be absolutely free from sugar, and therefore it fills a much-needed place as a dietetic stimulant and table luxury for diabetics, rheumatics, the gouty, and the obese, to whom champagne had hitherto been a forbidden luxury. Only a champagne of the highest quality could be thus presented free from loading with syrups or added liqueurs, and yet sound, full of bouquet and of delicate flavour. Feeling a certain responsibility in thus certifying a wine which might perchance prove to be of variable character we have recently had these tests repeated, and it is satisfactory to find that the more recent growths and the products of the brand at present on the market are of the same high and unimpeachable character and as completely sugar free as those first submitted. A wine so largely called for was sure to bring rivals into the field, and the agents of a large firm have shown the sincerest form of flattery, which consists in approximate imitation of the title. From a document put before us, however, we observe that they have withdrawn the label objected to.

CHAMPAGNE CIDER.

We have analysed a sample of the champagne cider manufactured by Messrs. Kingsford and Rake, of Chepstow, and from the results we have obtained we find it to have the composition of an unadulterated cider. We notice that the manufacturers describe it as non-alcoholic, but from a consideration of our analytical results it does not appear that this term can be correctly applied to this cider. Analysis indicates that it contains 2.83 per cent. by weight of absolute alcohol to 6.22 per cent. by volume of proof spirit, strength equal to that of some beers and of most ciders.

FRIEDRICHSHALL WATER.

We record with interest the successful opening of a new spring at Friedrichshall. The world-famous Friedrichshall spring, which has been continuously worked for upwards of fifty years, and was referred to by Baron Liebig as "a treasure of Nature," has of late given indications that the combination of saline deposits which gave it its value was becoming exhausted. Geologists were of opinion that this was simply due to the dissolving action of the water upon that portion of the vein of deposits which fed the spring, and that the same vein could as easily be struck and worked by another shaft. Borings were accordingly made, and a new spring found, with the satisfactory result that the water drawn therefrom proves to be practically identical with that originally yielded by the old Friedrichshall spring. The following analysis by Professor B. Fischer, of Breslau, compares with that of the old spring made by Professor von Liebig in the year 1846:

Parts in 1,000.

—	Fischer, 1894.	Liebig, 1846.
Sulphate of Soda	5.9461	6.0560
,, Magnesia	5.9624	5.1502
,, Lime	0.7408	1.3456
,, Potash	0.1707	0.1882
Chloride of Sodium ...	7.3112	7.9560
,, Magnesia ...	4.7135	3.9380
Bromide of Magnesia ...	0.0072	0.1140
Carbonate of Soda ...	0.3168	0.0000
,, Magnesia ...	0.0113	0.5198
,, Lime ...	0.2193	0.0147
Carbonic Acid	0.2338	0.4020
Silicic Acid	0.0012	Traces
Oxide of Iron	Traces	Traces
Alumina	Traces	Traces
Total	25.6143	25.6855

The valuable combination of sulphates of soda and magnesia (in about equal proportions) with the chlorides of sodium and magnesia constitute the chief and unique value of Friedrichshall water. This combination renders the taste of the water singularly pleasant, wholesome, and cleansing to the palate. It has for many years enabled it to be used as an aperient, occasionally or habitually, with reliable and agreeable results and without violence. The results of experiments carefully conducted at a number of hospitals in Germany, demonstrate that even when taken continuously Friedrichshall water gives rise to no derangement of the stomach or any other unpleasant secondary effects. Unlike most mineral aperients its dose may, during prolonged use, be progressively reduced. After a careful examination of the water, of its analysis, and of the ascertained results of its action as a customary aperient for occasional or continuous use, we can recommend the Friedrichshall water, as now bottled at the new spring, as being in every respect equal to the Friedrichshall water which, for the last fifty years, has been a favourite aperient with the medical profession on the Continent of Europe and in this country.

BRITISH MEDICAL ASSOCIATION.

SIXTY-THIRD ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION IN LONDON, 1895.

THE MEDICAL INSTITUTIONS OF LONDON.

IT is customary each year, as the date of the annual meeting of the British Medical Association approaches, to publish some account of the medical institutions of the town in which the meeting is to take place. This year the medical interests of London are so numerous and important that the task of giving anything approaching a complete account of their history and functions would make too great a call upon our limited space, but it is thought that a few short notes, mainly historical, on the origin and growth of the Colleges and the Medical Schools of London will be read with interest by those members and visitors not already well acquainted with the history of these institutions, and they may, perhaps, serve also a wider purpose by indicating the very great advance which has taken place in medical education, and the means by which this advance has been achieved.

The articles which follow have been compiled from the best sources, and many of the facts contained in them, and some of the drawings by which they are illustrated, have not hitherto been published.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE Royal College of Physicians of London is probably the most ancient medical society in Europe. It was founded in 1518, when King Henry VIII was full of his youthful zeal for learning, and has continued without any material alteration in its constitution to the present day. It was flourishing before there was a professor of medicine in either of the ancient universities of England, and its existence and policy have profoundly affected the character and status of physicians in this country.

Dr. Thomas Linacre, the physician to whom its foundation was mainly due, was a disciple of the new learning of his time, who had studied Greek under one of the last men who knew literary Greek as a living language, and had brought from Byzantium into Italy all the knowledge of the writings of ancient Greece which remained in the capital of the Eastern empire.

The College library contains a copy of the edition of Suidas, the Greek lexicographer, which Demetrius Chalcondylas, the tutor of Linacre, published at Milan in 1499. The paper on which it is printed is admirable in its colour and strength; the Greek type cast from the handwriting of the editor is of beautiful design, but whoever looks out a word in it will be struck with the advantages which the modern student has over one who, like Linacre, read Greek at the period of the Renaissance. The dictionary runs on in continuous lines, with no paragraph till at the end of one letter and beginning of another it exhibits two phrases such as "End of the alphabetical order of Sigma"; "Beginning of the alphabetical order of Tau." It must, nevertheless, have been a great help to the student of Greek in the sixteenth century, and well worth the three pieces of gold which its preface tells us was its price. The actual copy which belonged to Linacre probably perished with a large part of the library of the College in the Fire of London in 1666, but one volume, a collection of treatises on husbandry, published in 1496, which belonged to the founder, and contains his signature, is still to be seen in the library.

The original College consisted of the three physicians to the King—John Chambre, Thomas Linacre, Ferdinand De Victoria: and three other London physicians—Nicholas Halsewell, John Francis, and Robert Yaxley; and Linacre was its first President. It has continued to elect its Fellows in succession to these since 1518, and now numbers about 300 Fellows. It has, perhaps, the least restricted constitution of any corporation or body politic in existence, for every Fellow has an equal voice in its affairs, and an equal vote in the decision of all matters that come before the College.

The President is elected in each year on the Monday after Palm Sunday, by a method closely resembling that of the College of Cardinals in the election of a Pope. The Fellows having assembled in the great library of the College and the office of President having been declared vacant, proceed to the election of any Fellow of not less than ten years' standing. No proposal is made, but each Fellow writes on a slip of paper the name which he approves; the votes thus given are collected in a silver bowl, are publicly enumerated, and the decision announced to the College by its senior Censor, the officer next to the President in dignity. A second voting on the names of the two Fellows who obtain most votes, where several are proposed, is sometimes necessary, and an absolute majority then determines the election. At the conclusion the Bedell of the College carries round a dish from

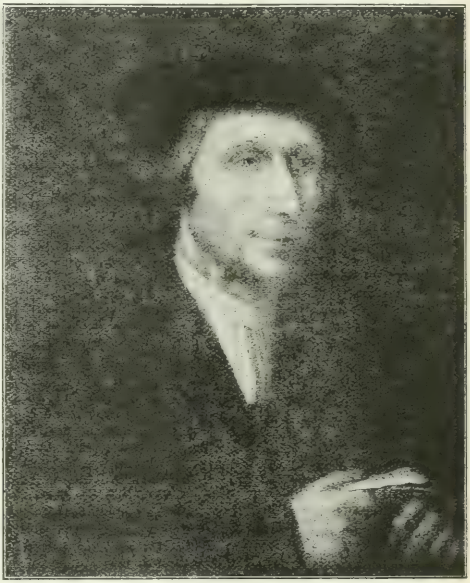


Fig. 1.—Thomas Linacre, first President of the Royal College of Physicians, died October 20th, 1524.

which he gives each Fellow present a new half-crown piece. The President is vested in a black damask gown embroidered with gold, and at the beginning of every meeting of the College has a mace carried before him and placed on the table, and always enters with a silver sceptre or rod of office in his hand. This sceptre, which has four small serpents at the top was made in 1556, and was first borne by Dr. Caius, then President, after whom Caius College, Cambridge, is called. The College of Physicians, under its charter, has the power to grant licences to practise, and besides its numerous Licentiates, admits candidates after a higher examination to the degree of Member, a status in which after a certain number of years they are eligible, if they become distinguished in medical or in general learning, for election to the Fellowship of the College, an election in which the College always attaches importance to character as well as to attainments.

The history of the Society, which has been set forth with exhaustive research by Dr. Munk in his "Roll of the Royal College of Physicians of London," shows that the College has had very few unworthy Fellows, and that of all the really great physicians of London during nearly four centuries, only one, otherwise eligible, failed to become a Fellow of the College. It has been suggested that some transaction connected with the Great Rebellion may have stood in the way of the

election of Dr. Thomas Sydenham after the restoration of the monarchy and our liberties in 1660, but the College records, which are throughout free from signs of political or theological animus, prove the contrary, and show that the College highly esteemed him, would gladly have elected him, and only did not do so because, for some fancy of his own, he did not desire to become a Fellow.

The College from 1518 till the middle of the reign of James I held its meetings in a house given to it by Linacre in Knight Rider Street, on the south side of St. Paul's Cathedral. It then moved to Amen Corner, to the north-west of the Cathedral, where are now the houses of the canons residentiary, but after the great fire, in which its buildings were destroyed, it was rebuilt at the end of Warwick Lane, an ancient street which takes its present name from the house once situate in it of the great Earl of Warwick, the kingmaker of the Wars of the Roses, but which had existed many centuries before his time under the designation of Eldenes Lane. Here the College remained till it removed to its present site in Pall Mall East. The present building was opened on June 25th, 1825. All the meetings of the College take place in this building; here the examinations for the Membership are held, and here the public lectures of the College are usually delivered.

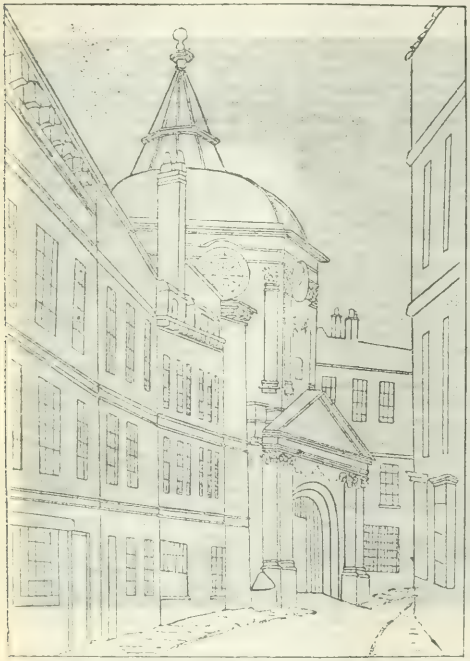


Fig. 2.—Outline drawing from an old print of the entrance to the old buildings of the Royal College of Physicians in Warwick Lane.

If a lecturer desires to exhibit elaborate experiments or apparatus during his lecture he usually obtains leave to deliver it in the larger theatre of the Examination Hall on the Embankment, where the College of Physicians, in conjunction with the Royal College of Surgeons of England, holds conjoint examinations for candidates who desire to receive its licence and at the same time to be admitted Members of the Royal College of Surgeons, and where the two Colleges maintain laboratories for pathological research, open free under proper restrictions to members of the medical profession.

Numerous medical lectures are delivered during the year at the College in Pall Mall East, called, after their founders, the Lumleian, Goulstonian, Croonian, Bradshaw, and Milroy lectures, and an Oration in honour of Harvey and in praise of the benefactors of the College is delivered on St. Luke's Day. As the College income is small it seldom gives a public dinner, but the Fellows dine together at their own cost and charge four times a year, and sometimes also entertain a few guests after the Harveian Oration.

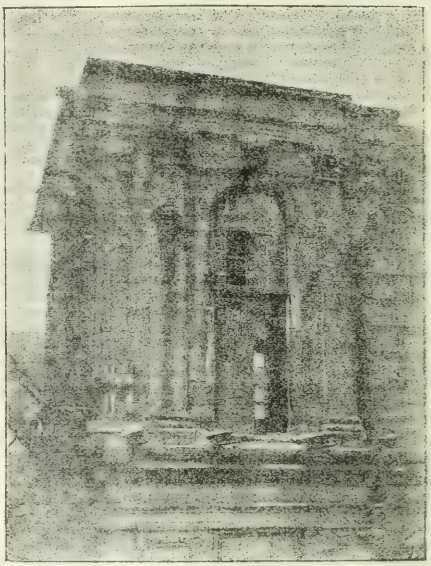


Fig. 3.—Part of the buildings of the old College of Physicians in Warwick Lane, formerly containing the Library, etc. The ruined arch on the left formed part of a niche containing a statue of Charles II. (From a photograph taken May, 1895.)

But if the aroma of rich viands, the glitter of splendid plate, and the free flow of choice wines which are asssociated with so many ancient and well-endowed corporations in London are not to be sought at the Royal College of Physicians, its rooms afford ample subject for that "sweet discourse, the banquet of the mind" of which Dryden speaks, a poet to whom special funeral honours were paid by the College. In the portico are the statues of Linacre as the person chiefly concerned in the original foundation; of Harvey, the greatest discoverer belonging to the College; and of Sydenham, a Licentiate of the College, the greatest expositor of the modern method of medicine—three figures which, besides commemorating these great men, typify the relations of our profession to learning in general, to the natural sciences, and to clinical observation. On the left of the hall into which the entrance leads is the College reading room, which is open to all Licentiates and Members as well as to the Fellows. On its walls are numerous portraits of Fellows famous in former times, each with the name and date.

There are also portraits of two Fellows still living—Sir William Jenner, formerly President, one of the most illustrious modern followers of the method of Sydenham, and Sir Henry Pitman, Emeritus Registrar of the College, the storehouse of all its honourable traditions, and the highest authority on its procedure. Just inside the door are five physicians of the

family of Monro who were successively Fellows of the College between 1729 and 1880. At the far end of the room is the full-length figure of Sir William Browne, President of the College in 1767, and well known by name to all Cambridge men as the founder of the medals for classical verse. The artist was Thomas Hudson, the master of Sir Joshua Reynolds.

On the wall opposite the windows are many physicians known in English history. Sir John Micklethwaite, the successor of Harvey as physician to St. Bartholomew's; Sir Edmund King, who used to do chemical experiments with King Charles II, and who bled him at the sudden onset of his last illness so as to produce a brief temporary restoration of the King's senses; Sir Hans Sloane, whose collections form the basis of the British Museum; Dr. Paris, President of the College, whose life of Sir Humphry Davy and many other books were once widely read; Dr. Richard Bright, physician to Guy's Hospital, known to all students of pathology in relation to the group of renal diseases bearing his name; Messenger Monsey, whose subsequent success as a physician was due to his attendance on the owner of one of the earliest and most famous of English racehorses, and whose talk suited the host and the company at the hilarious table of Sir Robert Walpole. Dr. Johnson spoke vehemently about his conversation, and when the Bishop of Dromore tried to diminish the force of the censure, attacked Dr. Percy and Monsey with renewed severity. However wanting in restraint Monsey's conversation may have been, it was never heard in the College, for he did not attain any higher standing than that of extra Licentiate.

On the opposite wall to Sir William Browne, besides those of Sir Andrew Clark and Sir William Jenner, there is a portrait of Dr. Francis Glisson, President in 1667, and author of the *Tractatus de Rachitide*, published in 1650, the first thorough book on a single disease by an English physician, a work admirable in its careful morbid anatomy as well as in its clinical observations. On the same wall is Dr. Walter Charleton, President in 1689, the author of several books on medicine and on metaphysics as well as on natural science, all more remarkable for ingenuity than profundity. Except by that late learned Oxonian Mr. Mark Pattison and a few among the junior Fellows of the College, who sometimes "waste time" by reading obsolete books, his volumes have probably rarely been looked into since his death in 1707, but Dryden's *Epistle to Dr. Charleton*, the finest tribute of just praise which English poetry has paid to English science, will for ever preserve him from oblivion in spite of his *Spiritus Gorgonicus*, which maintains the existence of a stone-forming spirit or essence in the human body, his dialogues between Athanasius and Lucretius in the presence of Isodicastes, his *Deliramenta Catarrhi* and the *Physiologia Epicuro-Gassendo-Charltoniana*, which maintains the interesting hypothesis that since the vast number of 295,232,799,039,604,140,847,618,609,643,520,000,000 combinations are attainable among the twenty-six letters of the alphabet, varied arrangements of numerous atoms may be the cause of the differences of appearance and structure in material substances.

On the staircase of the College there is an interesting portrait of Sir Theodore Mayerne, who was physician first to Henry IV of France and afterwards in England to James I, Charles I, and Charles II. He was the friend of King James and of both Charles and Queen Henrietta Maria, and his extant writings show that both his character and medical skill justified their trust in him. He was fond of entomology and of chemistry, and made many experiments about pigments. He used to write out the regimen as well as the treatment of his patients, with an elaboration which extended to even more detail than the well-known minute regulations which the eager care of Sir Andrew Clark prompted him to write out for his patients. Dr. Hale, who gave a fine library to the College, and Dr. Charles Goodall, one of its historians, Registrar of the College, and a zealous defender of its rights, occupy prominent places on the staircase; and there, too, is the portrait of the delightful Arbuthnot, the friend of Swift and of Pope, with a better-balanced mind than either, whose few verses are superior to many that the poet wrote, and whose conversation was relished by one so impatient of human imperfection as the Dean of St. Patrick's. Both have commemorated him in their works, Pope in the *Epistle to Arbuthnot*, and Swift in the lines on his own death:

> Poor Pope will grieve a month, and Gay
> A week, and Arbuthnot a day.

At the top of the staircase is the library of the College—a spacious room lined with books, in which the comitia or general meetings of the College are held. The library may be regarded as a sort of museum, exhibiting the mental occupations and tastes of the Fellows of the College since its foundation. Here are the books which filled the minds of such learned men as Caius, Gilbert, Harvey, Mayerne, Ent, Glisson, Sir Thomas Browne, Dr. Edward Browne, Mead, Freind, Askew, Brocklesby, Heberden, Sir George Baker, and Matthew Baillie. The actual volumes whose pages they turned over are often to be found on the shelves. The library shows how strongly at all periods the College has held to the view that physicians ought not be careless of any kind of learning, and that the standing of the profession in public estimation must depend, not on royal favour and decorations, in the race for which physicians may easily be outstripped by men of an inferior kind, but on that solid learning which is so thorough in its own department that it appreciates and is properly associated with every kind of erudition.

It is this spirit and tradition in the College, which it received from Linacre at its commencement, and has maintained ever since, which has secured more respect for physicians in England during four centuries than they have received in any other European country. This tone in the highest order of medicine has from its nature and by its example tended to the steady improvement and enlightenment of the whole profession in a way which could have been accomplished by no external influence or State patronage. The library, exhibiting as it does, when looked at book by book, the reading and attainments of many past generations of Fellows of the College, shows that the general aim of the order has been to attain learning and to add to the world's stores of knowledge, and that fortune and Court favour have generally been regarded in the College as only to be deserving attention when they were the natural sequel of true professional merit and scientific depth.

In the principal place in the library is Jansen's portrait of Harvey, painted from the life, and in the gallery above it are a series of dried preparations of the vascular system prepared by the hands of the great discoverer of the circulation. Over the fireplaces, on each side of the central one, are portraits of Dr. Baldwin Hamey, a Fellow and benefactor of the College, who died in 1676; and of Dr. Radcliffe, a benefactor of the College and of his own University of Oxford, as well as of St. Bartholomew's Hospital. On one mantelpiece is a curious little figure, in painted unbaked clay, of Dr. Anthony Askew, Physician to St. Bartholomew's Hospital, a Fellow of Emmanuel College, Cambridge, who lived till 1774 in Queen Square, Bloomsbury. The figure, which shows Askew in his scarlet gown as a Cambridge Doctor of Medicine, was made for him by a Chinaman whom he had treated. The College also possesses a fine bust by Roubiliac of Dr. Mead, presented by this learned physician and student of Aristophanes, and has also busts of Matthew Baillie, of Halford by Chantry, of Harvey by Scheemakers, and several others. One of these was lent for exhibition at the Royal Academy, and was returned with a black mark on it caused by a surreptitious attempt there to take a cast of it. The College has since declined to lend any of its works of art; nor is it necessary that they should be lent, as they are always open to the view of the learned or the curious on application.

In a case at the end of the library are preserved several valuable and curious objects—the mace of the College and the caduceus, the silver-mounted rod which Harvey used in demonstrating anatomy, the silver bowl in which votes are taken, several other pieces of plate, and the gold-headed cane which was successively the property of Dr. Radcliffe, who died 1714; Dr. Mead, who died 1754; Dr. Askew, who died 1774; Dr. William Pitcairn, who died 1791; Dr. David Pitcairn, who died in 1809; and Dr. Matthew Baillie, after whose death in 1823 this interesting relic bearing arms of its several possessors was given to the College by Mrs. Baillie.

A frame at this end of the library contains an account, signed by the physicians who were present, of the translation

(during the presidency of Sir William Jenner) of the remains of Harvey from the ruinous vault in which they lay wrapped in lead into a white marble sarcophagus in the Harvey chapel of the parish church of Hempstead, in Essex. The translation took place on St. Luke's Day, 1883. Many of the Fellows whose signatures attest it have since joined the majority, but the survivors will always retain a vivid recollection of that cloudy day, of the out-of-the-way village with its bull-baiting ring remaining, of the partly unroofed lonely church, of the flock of rooks flying in great circles in the air above some tall trees, cawing loudly while the leaden case was being raised from the vault outside the church, of the slow adjustment of the lid of the white marble sarcophagus within while Sir William Jenner, with the silver caduceus in his hand, resolutely stood by to the very end, of the venerable aspect of the Regius Professors of Physic from Cambridge and from Oxford, of Sir Andrew Clark with a volume of *Butler's Sermons* under his arm, and of the other Fellows, successors of those who more than two centuries before had paid the last honours to Harvey.

To the left of the record of Harvey's translation is a door leading by a very narrow staircase to the lecture theatre of the College and to the museum. The museum is a small pathological one, and the means of the College necessarily restrict the duties of the curators to the preservation of the few but interesting specimens it contains. In it is also a wooden model of the old lecture theatre of the College, familiar to readers of English literature as the frontispiece of the early editions of Garth's poem of *The Dispensary*.

Another door leads out of the library to the Censors' room, which is panelled with oak, the gift of Dr. Baldwin Hamey, whose arms, duly tinctured, with those of Sir George Ent, a friend of Harvey, and President of the College when Hamey made his gift, are displayed on the cornice. The College grant of arms is over the fireplace, and on the walls are some of the choicest portraits belonging to the Society. Near the window is that of Dr. Richard Warren, Fellow in 1763, physician to King George III, by Gainsborough, one of the finest portraits of a man ever painted by that celebrated artist. Dr. William Pitcairn, President from 1775 to 1784, and Physician to St. Bartholomew's Hospital, is by Sir Joshua Reynolds, while that of his nephew, Dr. David Pitcairn, Physician to the same hospital (by Hoppner) shows a frank intelligent countenance which assures us of the genuine regret with which his early death was regarded by the physicians of his time. Vandyke's portrait of Dr. Thomas Wharton, who died in 1673, and was the first describer of the duct of the sublingual gland, hangs over one door, and near another is that of "virtuous and faithful Heberden," whose commentaries may justly be regarded as only second to the writings of Sydenham among the works of Englishmen on clinical medicine. The portrait is by Sir William Beechy, and we cannot but regret that the pencil of Reynolds had not preserved the features of a physician of such great qualities when in the full vigour of life. There is Freind, whose *History of Physic*, published in 1725, is no less admirable as a work of literature than it is accurate as a history; and Sir Samuel Garth in flowing wig by Sir Godfrey Kneller. *The Dispensary*, his amusing account of the great controversy which arose in London when, in spite of the opposition of the Apothecaries, the College of Physicians instituted the first out-patient department in London, is not often read now, but entitles him to a permanent place in English literature. He experienced in January, 1719, his own fine lines:

> To die is landing on some silent shore,
> Where billows never break nor tempests roar,
> E'er well we feel the friendly stroke 'tis o'er.

There are fine portraits of two famous modern physicians, both Presidents of the College, both, like Garth, Cambridge men, Sir Thomas Watson and Sir George Burrows. Near Burrows is Sir George Baker, once a Fellow of King's College, Cambridge, the discoverer of the true cause of the colic of Devonshire. He demonstrated that the cider of his native county, made in leaden vats, contained lead in solution, and that the colic was thus produced. He was much attacked by his countrymen, but truth of course prevailed, and that the hardy farmers of Devon can drink tankards of cider without suffering subsequent tortures and palsies is due to Baker's persevering investigations and lucid exposition of their results. His essays are the foundation of existing knowledge on lead palsy.

It would be easy to spend many days in relating the histories which a visit to the College of Physicians would recall to most readers of English medicine. Those here briefly mentioned are sufficient to show how many interesting associations are added to the practical usefulness of this ancient yet vigorous Society.

ARCHÆOLOGICA MEDICA.

XIII.—THE BOWER MANUSCRIPT.

THE MOST ANCIENT SANSKRIT MEDICAL TREATISE EXTANT.

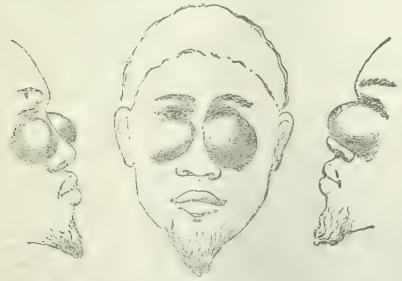
IN the year 1890 Captain Bower, whose travels in Thibet are so well known, obtained at Kuchar, Eastern Turkestan, a packet of old manuscripts written on birch bark. They had been dug out of the foot of one of the curious old brick erections—*stupas*—which existed just outside the subterranean city of Mingai, distant about sixteen miles from Kuchar, on the banks of the Shahyar river. This "find" was exhibited at a meeting of the Asiatic Society of Bengal held at Calcutta on November 5th, 1890, and at once attracted the keen attention of Sanskrit scholars. At a meeting of the same Society held on April 1st, 1891, Dr. A. F. Rudolf Hoernlé, the learned Principal of the Calcutta Madrasah, read a preliminary paper on the MS. which had recently come into his hands. He found that it consisted mainly of a medical treatise, and from the character of the writing arrived at the conclusion that it must have been written about the beginning of the sixth century A.D. A similar conclusion was independently reached by Professor Bühler, of Vienna, on similar grounds. Dr. Hoernlé has since then published in the *Journal* of the Asiatic Society of Bengal, Vol. LX, Part I, No 11, p. 79, a more detailed description and criticism of the Bower Manuscript, fully sustaining his earlier impressions. He has now completed a translation of the MS., two parts of which have been published in connection with the archæological survey of India. The MS. consists of 56 leaves of birch bark, measuring about 10½ inches long by 2¼ inches broad, and held together by a string passing through a rough hole near one end of each leaf. The leaves are enclosed between two boards, and written in black ink in the Nágari character, mostly on both sides. The Thibetan origin of the work is indicated clearly by intrinsic and extrinsic evidence. It is the oldest Sanskrit MS. which has hitherto been found, and about two centuries more ancient than the works of Charaka and Sus'ruta, which have hitherto been considered the earliest Indian medical treatises. Of the 56 leaves, the main portion—consisting of 31 leaves—is a medical work called *Návanítaka*, in sixteen chapters, written by a Buddhist in the form of Sanskrit Slokas. Five other leaves are a fragment of another medical treatise. The remaining leaves constitute several compositions of a different kind — collections of proverbs and a story. The present instalment of Dr. Hoernlé's work includes the five leaves of the incomplete medical treatise, and thirteen of the leaves of *Návanítaka*. Both sides of each leaf are reproduced by the photo-etching process; an elaborate transliteration in Roman characters, with restorations of lost parts as far as possible and abundant notes, is given; and an English translation of each verse, evidently of the most faithful and accurate character, follows. This translation is enriched by notes referring to later works on Hindu medicine. The scope of the treatise is set forth in the first ten verses. "(1) I will compile a standard manual by the name of *Návanítaka* containing the foremost formulas of the Maharishis made up by them of old. (2) Whatever is beneficial to men and women afflicted with various diseases, whatever is also beneficial to children, that will all be declared in this book. (3) It should become a favourite with those physicians whose minds delight in conciseness, but on account of the multiplicity of its formulas it will also be welcome to those who desire copiousness. (4) The first chapter will give formulas for powders, the second will be concerned with various kinds of (medicated) clarified butter, and the third with (medicated) oils. (5) The fourth will be a

miscellaneous chapter giving formulas for the treatment of various diseases; the fifth will give formulas for enemas, followed by one with directions for tonics. (6) The seventh will deal with gruels, the eighth with aphrodisiacs, the ninth with collyriums, the tenth with hair washes. (7) The eleventh will be concerned with the modes of using the Chebulie myrabolan; the twelfth will be about bitumen, the thirteenth about the plumbago root. (8) The fourteenth is intended to deal with the treatment of children, the fifteenth will concern itself with the treatment of barren women. (9) And the sixteenth with the treatment of women who are blessed with children. These sixteen chapters will constitute the *Návanitaka*. (10) It should not be given to anyone who has no son nor to anyone who has no brother, nor should it be taught to anyone who has no disciple."

To criticise the subject matter of this work in detail would be labour wasted. Its interest is rather antiquarian than scientific. The formulas are of a most elaborate kind, some containing over thirty ingredients; the manner of preparation is tedious and often complicated, and the benefits to be obtained by their use startling and manifold. For example, the maha-tiktaka or clarified butter "will infallibly cure skin diseases due to derangement of the air and bile, hæmorrhoids suffused with blood, erysipelas, disorders of the blood through bile, disorders of the blood through air, and morbid pallor, scab, mania, jaundice, worms, itch, heart diseases, tumours, pimples, unhealthy menses, and adenia." The well-known humoral pathology of the Hindus—bayu, kapha, pittu, air phlegm, bile—underlies the explanation of the action and use of the remedies, whose identification is rendered easy by the addition of the scientific names of the materials composing them. No doubt many of the articles of the Hindu materia medica are of important therapeutic character, and might with advantage be tested in hospitals; but a collection of complex farragos prescribed according to a fanciful and erroneous pathology is practically useless. Dr. Hoernlé has brought to bear on this work immense labour and consummate erudition, and its completion will contribute to the archives of ancient Hindu medicine a most valuable addition.

GOUNDROU OR ANAKHRÉ (GROS NEZ).

DR. MACLAUD, of the French Navy, gives[1] an interesting and very clear account of a singular affection of the bones of the face to which a considerable proportion—1 or 2 in every 100 or 150 of the natives of certain villages on the Ivory Coast, West Africa, are subject. The disease is met with in the districts of Bettié, Krinjabo, Indénié, Attié, Morénou, Baoulé, and Esikasso, that is to say, in the riveraine district of the lower Comoë. He has not heard of its existence elsewhere, unless it be in individuals from some of these districts.



Usually the disease commences soon after early childhood—unless in the case of adult visitors to the endemic districts, who may become affected in the same way. The earliest symptoms are severe and more or less persistent frontal headache, a sanguineo-purulent discharge from the nostrils, and the formation of symmetrical swellings the size of a small bean or of an almond at the sides of the nose, apparently situated in the bone somewhere about the nasal process of the superior maxilla. The cartilages are not involved, and, although it is not stated, the nasal duct appears to remain intact. Headache and discharge persist for six months, or even for one year, the swellings gradually increasing. After a time the headache and discharge cease, but the swellings continue slowly to grow during the remainder of the patient's life, until finally they may acquire the size of an orange or even of an ostrich's egg, encroaching on the eyes, interfering with vision, and, finally, destroying these organs. There is no pain in the tumours themselves, which appear to consist of a shell of bone, and, judging from the percussion note, to be hollow. The superjacent skin is not involved, being healthy looking and freely movable. The tumours are oval, the long axis directed downwards and slightly from within outwards; they look, when of moderate dimensions, like two half eggs laid alongside the nose, one on either side. The nostrils are bulged inwards and their lumen is considerably obstructed; but, in the later stages at all events, there is no breach of the mucous surface to be made out. The hard palate is not affected in any way.

Dr. Maclaud in all saw seven cases of this disease. He heard of many more. The cases were at all stages of development, from the initial stage of headache and discharge and where the tumour was no larger than a bean to cases in which the tumour had attained enormous dimensions, the eyes had been destroyed, and the unhappy victim had become hideous in the extreme. He also saw a young chimpanzee with the same disease at an early stage.

No opportunity was afforded him of ascertaining the nature of these singular growths. He inclines to think that in the first instance the morbid process is started by the larvæ of some insect which had obtained entrance into the nostrils. The symmetry of the affection, its slowly but steadily progressive advance after the early acute stage has subsided, are difficult to account for by this otherwise plausible hypothesis.

It would be interesting to know if other travellers have ever come across this or any similar affection.

The drawings, which we reproduce from the *Archives*, is that of a man, aged between 40 and 45, who had suffered from the disorder since puberty. Pressure was already being exerted on the eyeball by the tumour on the left side, and the patient stated that he expected that within two years he would lose his sight.

[1] *Archives de Médecine Navale*, January, 1895.

PROVIDENCE AND SELF-HELP IN THE PROFESSION.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, W.C., on May 16th. There were present Dr. DE HAVILLAND HALL, in the chair; Dr. James B. Ball, Dr. J. Pickett, Dr. W. Knowsley Sibley, Mr. F. Swinford Edwards, Dr. J. W. Hunt, Dr. Walter Smith, and Mr. H. H. Clutton.

The accounts presented showed the Society to be growing in strength and usefulness, and to have well maintained its career of phenomenal success. During the eleven years in which the business has been carried on more than 2,000 members of the medical profession have entered the Society, and nearly 1,600 are now in full membership. As the average age of the members increases, the number and duration of the sick claims increase with it, but great care is exercised in the examination of the new proposals, and the sickness average remains well within that expected and provided for in the table of premiums. No commission is paid for the introduction of new business, and the management cost is low beyond any precedent or parallel, less than 5 per cent. of the premium income. The reserve funds are rapidly growing, and now amount to over £84 000. The influence of this Society in cultivating self-help and providence in the profession, and especially among its younger members, is inestimably valuable.

Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary Medical Assurance Society, 33, Chancery Lane, London, W.C.



Kamaran: cholera camp of Indian pilgrims showing latrines in foreground; the huts are of straw with latticed windows.

CHOLERA AND THE MECCAN PILGRIMAGE.

Dr. Samuel W. Johnson, M.B., etc. (Surgeon R.N.) writes to us: In connection with the cholera now prevailing among the Meccan pilgrims at Kamaran and Djeddah in the Red Sea (as also at Mecca), a few remarks of a recent visit to these ports may be of public interest, especially in reference to the great Indian meetings of Mahommedans at Hyderabad and Calcutta addressed by Mr. Ernest Hart recently on this subject, and their resolutions protesting against the horrors of quarantine at Kamaran and Jeddah, and urging upon the Sultan the measures of reform which Mr. Hart has formulated. It is high time that these protests were followed by energetic action. "On March 19th and 20th last I was shown over the quarantine lazaretto on Kamaran Island by Dr. Vaumé, Inspector-General, and other members of the Medical Board who are quartered annually in the island from January to June inclusive, the period of the 'Hadj.' There are five camps in Kamaran, each consisting of twenty to thirty huts, and intended for about a thousand pilgrims; the huts are of lattice work and straw, and practically have open ventilation; the floor, consisting of sand, is overlaid with mats. Latrines are situated on the southern side of each camp, from which the excreta, before being cast into the sea, are mixed with chloride of zinc, lime, and other disinfectants. Each camp is provided with a well in its midst, which is surrounded by a stone wall surmounted with a thatched roof. I was assured by the Medical Board that the water in the wells is quite pure, and cannot be contaminated, owing to the precautions taken.

"I herewith append two photographs I took of a camp inhabited by Indian pilgrims, showing some pilgrims ascending the well to draw water, etc.

"All pilgrims from India are compelled to undergo ten days' quarantine on a payment of 10 rupees per head; while pilgrims from Singapore, Java, and the Dutch colonies are quarantined for five days. There is a cordon round each camp guarded by three or four Turkish soldiers, who prevent egress or ingress to the camp. The Medical Board at Kamaran consists of an inspector and five qualified physicians, but there are no Mahommedan nor female physicians at the lazaretto. A physician lives in each inhabited camp.

"At the end of the period of quarantine the pilgrims have to pass through a disinfecting establishment, where their clothes and belongings are introduced into a steam chamber for twenty minutes at a temperature of 220° F.

"As Kamaran is about eleven days by steamer from Bombay and considerably longer from Singapore, Java, etc., this compulsory and lengthy quarantine, coupled with the extortionate charge of a rupee per day per head, is fraught with unnecessary delay and expense to pilgrims. The fears expressed by Mr. Ernest Hart and endorsed at the great Mohammedan meeting at Hyderabad of the scandalous quarantine regulations now in force are being realised with an appalling sacrifice of life. What is needed is instead of the present compulsory quarantine of all pilgrims a medical inspection by which the sick only should be detained in the quarantine establishments at Kamaran, Djeddah, and Yambu, and an adequate staff of properly trained Mohammedan doctors, male and female, in a cholera hospital at Mecca, where there is no such provision whatever.

"Latest advices state that cholera is rapidly increasing at Mecca, and the Inspector-General of Kamaran has appealed to the International Sanitary Council at Constantinople to petition the Sultan to stop further pilgrimage this year from India and the East, which is the only remedy available. It is well known that after the annual sacri-



Camp of Indian pilgrims in quarantine; on the right is a well showing pilgrims ascending to draw water; in front the physician in charge of the camp.

ficial feasts at Mecca the remains of the animals sacrificed, from the camel to the goat, are allowed to putrefy on the plain outside the city walls. The International Sanitary Council might see to this outrageous state of things, and a representation be made to the higher authorities."

SALE OF FOOD AND DRUGS ACT.

A FURTHER valuable contribution to the evidence being taken by the Select Committee of the House of Commons was given last week by Mr. Charles Umney, of the firm of Wright, Layman, and Umney. Speaking in his capacity of wholesale druggist and manufacturing chemist, with a practical experience extending over some thirty years, Mr. Umney bore testimony to the beneficial influence of the existing Act in improving the quality of drugs sold in this country by retail. It was mainly to the difficulties which have been experienced in the administration of the Act that Mr. Umney's evidence was directed. Chief among these is the fact that the *British Pharmacopœia* is not constituted by statute the legal authority as to the standard for drugs. Some public analysts have assumed that the contrary is the case, and they have consequently been led into error when advising local authorities as to the desirability of instituting prosecutions. Such a result was also attributed in part to a want of sufficient knowledge of drugs on the part of public analysts, and it was suggested that their official functions should be restricted to the performance of the chemical work for which they are qualified as experts. Another difficulty which has caused public analysts considerable embarrassment is the persistent demand on the part of the public for household medicinal preparations compounded according to antiquated formulæ differing from those given in the *British Pharmacopœia* for similar preparations. Owing to that circumstance many unnecessary disputes have arisen as to alleged infringements of the Act, for which there was not really any adequate foundation.

In connection with the trade in drugs, Mr. Umney suggested that the application of the term "drug" should be extended more in conformity with the spirit of the Act, and not specifically restricted to articles used for medicinal purposes. In regard to all such articles he thinks that wholesale transactions should be subject to the operation of the Act as well as retail sales, and in support of that opinion he instanced the case of drug brokers who sometimes offer spurious articles for sale under the names of drugs which they resemble, or for which it was thought they might be substituted. To prevent such practices, and to secure the purity of drugs sold by retail, it was suggested that the standards adopted for articles included in the *British Pharmacopœia* should be made the legal standards for all purposes of the Act, and that in the case of articles used in medicine, but not included in the *British Pharmacopœia*, the standards given in other *Pharmacopœias* should be adopted according to the particular circumstances of the case.

As to the indication to be given by sellers in regard to the quality of articles supplied by them, Mr. Umney suggests that the warranty should be limited in regard to time according as the articles were or were not liable to change or decompose when kept. The actual form of such a warranty might be either the invoice relating to the article sold or a label affixed to each parcel, according as the sales were wholesale or retail.

In regard to the authoritative settlement of all these points, and of any disputes which arise in relation to them, Mr. Umney lays special stress upon the desirability of constituting a competent council or committee of advice or reference as being a condition essential for the due administration of the Act and proper regard for the interests of all concerned. The suggestions he makes for the constitution of such an authority are of a nature to indicate his opinion that not only should the general public be represented, but also traders and various classes of the community possessing special professional or technical knowledge. With that object he suggests that the members should be nominated respectively by the General Medical Council, the Board of Inland Revenue, the Institute of Chemistry, the Pharmaceutical Society of Great Britain, and the London Chamber of Commerce. The utility of a body so constituted in settling the numerous questions which have arisen of late years in regard to what is to be generally understood by the term adulteration, and how far the application of a principle is to be carried in particular instances, cannot be questioned. It may indeed be said that the efficient administration of a statute for preventing fraudulent and hurtful adulteration is to a large extent dependent upon the assistance and guidance which such a controlling body could render. Nothing could be more conducive to the protection of public interests or of traders desirous of fairly meeting the demands of their customers, and it may be inferred that Mr. Umney's statement as to the feeling in favour of such amendment of the Food and Drugs Act prevailing in the trade with which he is more closely connected would meet with general approval and support from all sections of the trading community.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE members of Council who retire in July, having served eight years, are Sir T. Spencer Wells, Mr. Hutchinson, and Mr. Willett. Of these three, Mr. Willett alone seeks re-election. Two "substitute members" will also be elected. The late Mr. Durham's place will be filled by one substitute till 1900, as Mr. Durham was re-elected in 1892. Mr. Hulke's substitute will hold the deceased member's place till 1897, as the re-election of the late President as member of Council dates from 1889. As the latter vacancy is the earlier of the two, it will be filled by the candidate who comes fifth in number of votes, the fourth taking Mr. Durham's place.

The following are the twenty-four members of Council, as the list stood before the recent losses. Three retire yearly, whilst the vacancy caused by the death of a member must be filled by a new member until the deceased's eight years are completed.

President (deceased, 1895).—Mr. Hulke; *Council* (1) 1881, (2) 1889, *President*, 1893-5.
President (elected 1895).—Mr. Christopher Heath; C, (1) 1881, (2) 1889, *President*, 1895.
Vice-President.—(1) Mr. Reginald Harrison; C, (1) 1886, (2) 1894.
Vice-President.—(1) Mr. Willett; C, 1887.
Other Members of Council.—Sir T. Spencer Wells; C, (1) 1871, (2) 1879, (3) 1887; P, 1882.
Mr. Jonathan Hutchinson; C, (1) 1879, (2) 1887; P, 1889.
Mr. Cadge; C, (1) 1880, (2) 1888.
Mr. Bryant; C, (1) 1880, (2) 1888; P, 1890-92.
Mr. Thomas Smith; C, (1) 1880 (substitute), (2) 1884, (3) 1892.
Sir W. MacCormac; C, (1) 1883, (2) 1894.
Mr. Durham (deceased); C, (1) 1884, (2) 1892.
Mr. Macnamara; C, (1) 1885, (2) 1893.
Mr. Pemberton; C, (1) 1885, (2) 1893.
Mr. Pick; C, 1888.
Mr. Howse; C, 1889.
Mr. Langton; C, 1890.
Mr. Mitchell Banks; C, 1890.
Mr. Rivington; C, 1891.
Mr. Jessop; C, 1891.
Mr. Howard Marsh; C, (1) 1892 (substitute), (2) 1894.
Mr. Tweedy; C, 1892.
Mr. Henry Morris; C, 1893 (substitute for Mr. Marcus Beck until 1897).
Mr. Mayo Robson; C, 1893.
Mr. James Hardie; C, 1894.

The members may be classified thus:

St. Bartholomew's	4
Guy's	2*
St. Thomas's	1
University College	2
Middlesex	1*
St. George's	1
Westminster	1
London	2
Total number attached to London Schools ...	14
Members attached to special hospitals in London	2
Provincial members	6
Deceased (both from London Schools)	2
Total	24

* Also one deceased.

A COLLEGE Hospital for Infectious Diseases is to be established in connection with Yale University.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

A meeting of the Committee of the Association of Fellows of the Royal College of Surgeons, England, was held at 25, Grosvenor Street, W., on May 22nd. Dr. Robert Barnes occupied the chair.

The minutes of the last meeting having been read and confirmed, the Honorary Secretary, Mr. Percy Dunn, read a letter of thanks written on behalf of Mr. J. W. Hulke in acknowledgment of a resolution of sympathy adopted by the Committee at a previous meeting. A letter was also read from the Secretary of the Royal College of Surgeons acknowledging the receipt of the copy of a resolution of sympathy upon the death of Mr. Hulke, as President of the College, and conveying the announcement that the resolution would be laid before the Council at its next meeting. The Honorary Secretary reported that this resolution had been acknowledged with the thanks of the Council.

The Honorary Secretary also called attention to the appointment of the new President of the Royal College of Surgeons in succession to the late Mr. Hulke, and pointed out that the time had now come for the subcommittee appointed at the last meeting, in reference to the proposed alterations in the charter, to begin its work. Thereupon a resolution was passed that the subcommittee should be summoned to meet at 101, Harley Street, on May 28th, at 9 P.M., to determine the points which should be pressed upon the Council of the College by the subcommittee acting as a deputation to the Committee of the Council.

The Honorary Secretary having reported that there would be five vacancies on the Council of the College to be filled on July 4th next, the Committee proceeded to consider the names of those Fellows who should be invited to represent the views of the Association at the election. After some discussion it was proposed, seconded, and unanimously resolved that Mr. Arthur Trehern Norton, Mr. Victor Horsley, and Dr. Ward Cousins be invited to come forward as the candidates of the Association. Mr. Norton, who was present, accepted with thanks the nomination of the Committee, and the Honorary Secretary was instructed to communicate with Mr. Victor Horsley and Dr. Ward Cousins respectively.

It was understood that of the three retiring members of the Council of the College—namely, Sir Spencer Wells, Mr. Jonathan Hutchinson, and Mr. Alfred Willett—only Mr. Willett was likely to offer himself for re-election, and it was decided that the Committee should recommend the members of the Association to support his candidature.

BIRTHDAY HONOURS.

Among the list of honours conferred on the occasion of the Queen's Birthday, we recognise with pleasure the knighthood which has been received by Dr Joseph Ewart, who, since his retirement from the Indian Medical Service, has interested himself much, and with great advantage to the community, in sanitary matters. He is at the present time Mayor of Brighton, an office which he holds for the third year. He is a Fellow of the University of Calcutta, and was in succession Professor of Physiology and of Medicine, and Principal of the Calcutta Medical College. He attained the rank of Deputy Surgeon-General in the Bombay Army, and during his period of service showed himself to be a man of untiring energy and great resource, and by his writings made himself an authority on questions affecting the health of British troops in India.

Dr. William Hales Hingston, who also receives the honour of knighthood, is Surgeon-in-Chief to the Hotel Dieu, Montreal, and Professor of Clinical Surgery in the Laval University. When others despaired of the formation of Canadian Branches of the British Medical Association, on the occasion of Mr. Ernest Hart's visit to Canada in 1893, Dr. Hingston gave his energetic and cordial help, and the brilliant results achieved, which are now a matter of history, were greatly aided by his example and influence. Those who were present at the annual meeting of the British Medical Association in Nottingham in 1892 will not have forgotten that on that occasion he delivered the Address in Surgery, an address which will long be remembered for its breadth of view, elegance of diction, and thorough grasp of surgical detail. We may congratulate the profession in the great Dominion on the honour thus done by the Crown to one of its most eminent members.

Director General James Nicholas Dick, C.B., R.N., has been promoted to the rank of K.C.B., an honour which has been well earned. During a long course of arduous service in the Royal Navy he gave evidence of administrative abilities which marked him out as the natural successor of Sir J. W. Reid, as Director General of the Medical Department, an office which he has filled with great success.

In the order of Saint Michael and Saint George, John Christian Schultz, M.D., late Lieutenant-Governor of the Province of Manitoba, in the Dominion of Canada, has been appointed a Knight Commander (K.C.M.G.); and Salvatore Luigi Pisani, M.D., Chief Medical Officer in the Island of Malta, a Companion (C.M.G.). Dr. Pisani is at the present time the President of the Malta and Mediterranean Branch of the British Medical Association.

LITERARY NOTES.

Messrs. Longmans and Co. have nearly ready a *Textbook of Forensic Medicine and Toxicology*, by Dr. Arthur P. Luff. The work, which is in two volumes, with numerous illustrations, is intended as a textbook for students of medicine, and as a work of reference for practitioners in connection with medico-legal cases.

The same publishers have in the press a new work on ophthalmic surgery, by Mr. William Lang, which will be issued in three parts, the first being on the examination of the eye, the second comprising diagnosis and treatment, and the third dealing with the pathology of eye affections.

The Reports of the Royal Commissions on Opium have now been issued in seven folio volumes. They may be consulted in the Library of the Association.

The May number of *Clinical Sketches* contains a good reproduction of Samuel Cousins's engraving of Sir Thomas Lawrence's portrait of Sir Astley Cooper, with a brief account of the career of the great surgeon.

We welcome with pleasure the first number of a new series of the *Health News*, which for the future will be published monthly instead of fortnightly as before. One of the features of this periodical is a series of vigorously-written "Exposures of Quackery." In the present issue "bone setting" and the so-called "Mattei treatment" are amusingly dealt with. There is also an excellent answer to Mr. A. W. Hutton's book, *The Vaccination Question*, by Dr. Edmund M. Smith, assistant secretary to the York Medical Society.

Messrs. Dulau and Co., of Soho Square, have issued a catalogue of the separate papers published by the Royal Society in the *Philosophical Transactions*, 1800-95. The price at which each paper may be purchased is marked. The catalogue itself is most useful as forming an alphabetical author index to the papers published in the *Philosophical Transactions* in recent years.

In the *Revue Scientifique* of May 18th M. E. Duhousset gives an account of an interesting relic which he had the opportunity of examining in the office of M. Victor Duruy, who was then (1866) Minister of Public Instruction in France. This was the head, or rather the face, of Cardinal Richelieu, which was stolen from his tomb at the time of the French Revolution, and at last found its way into the keeping of M. Duruy. The back part of the head had been cut away, but the features of the mummified face were still distinct. M. Duhousset studied the relic from the anthropological point of view and satisfied himself that by the shape of the lower jaw the great Cardinal was as far as possible removed from an ape. He gives full measurements and illustrations of the mummified face with a reproduction of the contemporary portrait of Richelieu by Philippe de Champagne for purposes of comparison. M. Duruy handed the relic over to Monseigneur Darboy, then Archbishop of Paris, and it was replaced in Cardinal Richelieu's tomb with the appropriate ecclesiastical rites on December 15th, 1866.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 1ST, 1895.

THE JOURNAL AND THE PROFESSION: PROSPECT AND RETROSPECT.

THOSE whom seas sever and distances divide the BRITISH MEDICAL JOURNAL now joins in close communion and frequent converse on common social and scientific interests. And every year their number grows; for although the supposed limits of the possible circulation of a medical newspaper have long since been passed, the expansion of the circle of our clients still continues, and knows no pause. The greatest circulation ever attained by any medical journal at the date when first the BRITISH MEDICAL JOURNAL came under our guidance was 6,000. That is now thirty years since. It was of exiguous size—less than a sixth of its present ample dimensions; its circulation was under 2,000 in the fortieth year of its existence, and we were condoled with by a distinguished surgeon on becoming the Editor of "the great uncut." The cost of production closely balanced the receipts.

It has now upwards of 18,500 medical readers and subscribers, a number which steadily grows by semi-annual increment; its contents weekly amount to those of an ordinary octavo volume. Its illustrations are profuse, and its staff of editorial writers exceeds 240, all selected for special expert knowledge and acknowledged eminence in the subjects on which they are designated to write, and an average of 50 weekly contribute the unsigned editorial articles, each according to his knowledge, so that from end to end the editorial comment is condensed and authoritative without padding or hack writing. As the result of this laborious and faithful policy the JOURNAL has achieved a popularity which enables it to contribute some six thousand a year to the resources of the Association, and towards its surplus accumulation for the purposes of stability and general usefulness. Its usefulness and acceptability are now recognised as being almost as great to the English-speaking doctors of India, Canada, and Australia, as in this country. The splendid and spontaneous reception accorded to the Editor of the JOURNAL during his last winter visit to India, as on the occasion of former visits to Hong Kong, Japan, Gibraltar, America, and Canada, testify unmistakably to the the world-wide reputation and acceptability of the literary and scientific organ of the Association.

The most palpable proofs of its present vigorous vitality and its influence for good as a medium of professional publicity to the republic of medicine at home may perhaps be found, among other things, in the continuous and overwhelming pressure for admission to its columns, which exceeds by far the possibilities of space; the development and expansion of its departments—which have been favoured year after year by the sincere flattery of repeated imitation elsewhere; the classified wealth of its clinical and scientific original papers which make successive numbers of the BRITISH MEDICAL JOURNAL the *locus classicus* and indispensable reference book for each new advance in medical practice and the medical sciences, and the treasure house for pillage by yearbooks and "periscope"; the central place of debate for all controverted questions and progressive reforms, whether on Medical Acts amendment, provident dispensaries, medical aid societies, registration of midwives, abuse of hospitals, undercutting competition, anonymous dispensaries, unqualified assistants, breaches or *cruces* of medical etiquette, medico-legal difficulties and decisions, public health problems, local, national, and international hygiene.

It has been of much public and professional benefit that the Editor of the JOURNAL has for many years officiated as Chairman of the Parliamentary Bills Committee, and given to that work the best years of his life and nearly the whole of his hours spared from editorial duties; for in this way questions expounded, investigated, debated, and matured in these pages have been transported from the regions of academic discussion and evanescent talk into those of official, parliamentary, and executive action. The Reports on State Medicine from his pen, issued in our columns, have been converted into the materials for legislation or for administrative reform. In this way, to speak only of the work of the year past and now passing, the exposure of the Forest Gate School scandals, due to this JOURNAL alone, after the most persistent official effort to stifle it, led on to our searching investigation of the barrack school system generally, then by rapid steps to the organisation of a great deputation to the Local Government Board, at which the statements submitted by Mr. Ernest Hart in his twofold capacity made inevitable the appointment of a powerful departmental Committee. This has just completed its sittings, and from it a most valuable report and subsequent reform may with confidence be expected at an early date. So too with our Report on Filters, carried out by the valuable and original research of Dr. Sims Woodhead, which has demonstrated the hollow worthlessness of most of the popular filters in use, and the hygienic value of the Pasteur type. It is only fair to give a reasonable time for the withdrawal from publicity of the quite erroneous claims now put forward for useless filters—the great majority in fact; but at a proper time we shall insist on the adoption of some public method of standardising and certifying the bacteriological potency or worthlessness of the approved or condemned types. The present state of things is a public danger, and has to answer for the loss of many lives, especially in India. Our report on the Use of Opium in India, obtained, at small cost and very promptly, a mass of decisive information, more crucial and instructive even than that which cost three years, a Royal Commission, and £30,000. It settled the whole question as anticipated. Our Provincial Workhouses and In-

firmaries Reports have been infinitely useful and beneficent, and have not only led to inestimable relief of suffering and merciful improvements in nursing and accommodation for the sick poor, but to a new method and spirit of official inspection at the Poor-law Board, which is of far-reaching importance. Warned by our action in the Barrack School Question, and guided, as we believe, by the statesmanlike and humane views of Mr. Shaw Lefevre and Sir Walter Foster, every one of our reports has been put before the official notice of the inspectors, and their comments thereon have been called for and are being acted upon. Finally, the Paris Convention and the declarations of M. Hanotaux, the great meetings of Mohammedans in Calcutta and Hyderabad to welcome and take counsel with Mr. Ernest Hart on the subject of international prevention of cholera and the Meccan cholera outbreaks show that the influence of the JOURNAL for good extends far beyond any local limits, and that its vitality and initiative are still fertile in far-reaching good results.

May this continue to increase. It is all new since the last London meeting, now twenty-two years ago. We numbered then but few adherents in London, for the mission of this JOURNAL was for many years to call a new provincial world of medical influence into power to counterbalance the retrogressive conservatism, the policy of privilege, and the market of monopolies, which then had their chief seat in the metropolis. All that has long since been redressed, and the balance of power shifted. Our pages have afforded an arena in which the rank and file of the profession, however remote from "the centre" were made prominent in every direction, and were able to find a platform in which scientific sincerity and social earnestness were the only tests of favour. The great organisation of the Association, when set in motion by the JOURNAL or by committees, affords facilities for transforming, at the timely moment, words into deeds; the Poor law officers have thus been aided to effect their chief reforms, the army and navy officers to strike off their wounding fetters; the profession to achieve direct representation on the General Medical Council, and now to aim at new and yet larger reforms in the Council and in the Medical Acts.

London, at a long interval, once more heartily welcomes the Association — at which it so long looked askance—and this time not in its hundreds but in its thousands. Even the resources of medical London will be taxed to accommodate the vast gathering which is approaching; but the medical men of the metropolis and the home counties will assuredly not prove unequal to the task, and will requite with due splendour and enthusiasm the magnificent hospitalities of which during the last twenty years they have so often been the recipients in the great provincial cities and centres of the kingdom.

THE BRITISH MEDICAL ASSOCIATION IN 1895 AND THE LONDON MEETING.

THE programme of the work of the Sections, together with a description of the general arrangements already made for the sixty-third annual meeting of the British Medical Association, which commences on July 30th in London, will be found at p. 1235. In accordance with custom, this issue of the BRITISH MEDICAL JOURNAL will be placed in the hands of many of those members of the medical profession in the United Kingdom who are not already members of the British Medical Association. The number of those who still remain outside the pale of this, the greatest of all associations of medical men, is, we are glad to know, steadily diminishing in all parts of the United Kingdom, and indeed throughout the British Empire. We have once more the satisfaction of recording a notable increase in the circulation of the JOURNAL. The weekly issue during the present half-year has risen to 18,500; last year at this date it stood at 18,000, and with the large enrolment of new members which always follows the extra circulation outside the Association of this annual specimen number, it will undoubtedly reach 19,000.

To those who watch closely the course of the affairs of the medical profession, it must be clear that it is passing through a somewhat critical period. While on the one hand the standard of education, of knowledge, and of skill has been raised to a remarkable degree during the present generation, while the services, therefore, which the profession collectively renders to the public have become more valuable and more efficient, on the other hand the material interests of the profession are threatened on many sides. A Minister of the Crown, well acquainted with the history and the present needs of the profession to which he belongs (Sir Walter Foster), in replying recently to a deputation of medical men which waited upon him with regard to the tenure of office of public health appointments, said that we were "a broken and a disorganised profession." If this is the impression produced on the mind of a friendly critic by an experience of official life, what wonder that we find the general public more and more exacting and less and less liberal? To mend this unfortunate state of things we must look to the growth of a healthier public spirit within the profession itself—to the development of a stronger *esprit de corps*.

In the British Medical Association the profession has an organisation which has already done more in a few decades to consolidate and organise it than had been done in all the preceding centuries. In the near future it will accomplish yet more. When the day comes that the Association shall be able to speak in the name not merely of a majority, including the leading spirits in every grade of the profession, but in the name of a united profession, then the profession, which is only beginning to appreciate the value and power of association, will begin fully to realise its privilege and its duty. For consider how much has already been done during the last twenty years; how through its Parliamentary Bills Committee the Association has been able to make known the wishes of the medical profession to Parliament, to Ministers, and executive departments in charge of important measures affecting its interests; how, when necessary, pressure has been brought on the Government of the day through the Houses of Commons to respect the legitimate interests of the profession; how through that Committee and through occasional special committees information had been gathered expeditiously, and promulgated with authority, for the instruction of public opinion, it will be seen that the members of the Association possess an unequalled machine for the collection of knowledge, whether scientific or political, and for its speedy dissemination. When all these things are weighed, it may fairly and without exaggeration be claimed

that the Association has already accomplished a great work of organisation. While great things have been done for every class of the profession, yet much more remains to be done, especially in the way of awakening each member of the Association and the profession to a sense of his own duty and honour as a professional man and his avoidance of undercutting and ousting his neighbours.

The annual meeting of the Association is to be held this year under the most favourable auspices. The President will be Sir Russell Reynolds, the President of the Royal College of Physicians, the most dignified, as it is the oldest, medical corporation in this country. The Address in Medicine will be given by Sir William Broadbent, whose qualifications for the post are too well known to need any description here. The Address in Surgery, which was to have been given by Mr. Arthur Durham, whose death we have had recently to lament, has been undertaken by Mr. Jonathan Hutchinson, an ex-President of the Royal College of Surgeons, and a surgeon and pathologist of European reputation. The Address in Physiology will be given by Professor Schäfer, an able representative of that younger school of physiologists who have so largely contributed to the advance of medical science by their contributions to its institutes. It has been found necessary to form fifteen Sections, and an examination of the arrangements announced by the officers of the Sections in the programme published in this number will show that a large number of interesting subjects have been selected for discussion, well calculated to give rise to valuable debates and affording many opportunities for the interchange of experiences and opinions among the large number of members and foreign guests who, it is anticipated, will take this occasion of participating in the work of the annual meeting.

When the Association last met in London in 1873 it had for President Sir William Fergusson, at that time the acknowledged leader of surgery in this country; while at its previous meeting in London, in 1862, the presidential chair had been taken by Dr. George Burrows, afterwards Sir George, and President of the Royal College of Physicians. At this meeting the Address in Medicine was delivered by Dr. W. H. Walshe, and that in Surgery by Mr. (now Sir) James Paget, still happily spared to us; while the Address in Physiology was given by the late Dr. Sharpey, the father of physiology in England. In 1873 the Address in Medicine was delivered by the late Dr. Edmund Parkes, that in Surgery by the late Mr. John Wood, and that in Physiology by Dr. Burdon Sanderson, now Regius Professor of Medicine in the University of Oxford. In 1862 the number of members of the Association was about 1,500, and the attendance at the annual meeting, which was held at the Royal College of Physicians, was about 350, and it still stood at about that number in 1866. From that date, however, when the Journal was reorganised on its present footing, a new era of growth abruptly commenced, and in 1873 the number of members of the Association had risen to 5,400, and the attendance at the annual meeting reached the unprecedented total of 2,200, or rather more. If this proportion, or anything like this proportion, between membership and attendance is kept up this year, it is reasonable, since the members of the Association now number over 15,000, to expect an assemblage so numerous that it will put a severe strain even on the comprehensive arrangements made by the Local Executive Committee. It is therefore very much to be desired that those who intend to take part in the meeting should return at as early a date as possible the circular letter of inquiry enclosed in this number of the Journal.

METROPOLITAN SICK POOR.

One of the planks of the London Reform Union platform is, if we are not mistaken, that of an elected body to manage metropolitan Poor-law matters. The arguments in favour of such a Board are obvious from a medical point of view. It would allow of efficient classification of diseases and tend to both better staffing and more adequate salaries for the medical officers as well as nursing for the sick and enfeebled. For many years we have advocated the utilisation for the purpose of clinical instruction of the Poor-law infirmaries and sick asylums, claiming that if this were done it not only would ensure for the sick and aged greater individual medical care but would bring them more under the public eye, which is the only safeguard of large institutions.

If arguments for a central authority were wanting they are to be found in the three matters of Poor-law administration which were noted in the press last week. At Mitcham Schools we have the matron arraigned before the inspector of the Local Government Board on the charge of drunkenness. In the St. George Hanover Square Workhouse it is stated that there is "insufficient laundry and lavatory accommodation," and "that many of the old women inmates were obliged to wear the same garments for two months; and that the old men had to wash themselves in the chamber utensils owing to there being no basins for them." From another district, Wandsworth and Clapham, we get a public appeal for 1,000 pictures to decorate the walls. The variation of standard is very striking. In one workhouse 1,000 pictures are wanted; in another basins are wanting. Management by a central authority would do away with all such inequalities. At present the Boards of Guardians are neither large enough, public-spirited enough, nor powerful enough to attack otherwise than as philanthropists persons of character, repute, or position; while the surveillance that is exercised by the Local Government Board, although it may prevent serious mistakes, is yet destructive of freedom of initiative.

We are glad to note that the state of St. George Hanover Square Workhouse is brought to light by one of the Local Government Board inspectors, Mr. Herbert; but we would ask if, as the report states, that "many of the wards have not been cleaned for years," why that fact was not discovered by the inspector before. Perhaps it was. It is not unlikely that Mr. Herbert may have reported the condition of things to his superiors at the Local Government Board months ago, but that that Department has only just seen fit to send his report to the guardians. Such cases of delay are not unknown, and are unanswerable arguments for the abolition of the present system of dual control. On the case of Mitcham it does not behove us to comment while the matter is *sub judice*, but we would point out that, as at the Forest Gate School scandal, the inspector of the school is the person chosen to sit as judge. This is alike unfair on accused and accusers. Up to a certain point the inspector is responsible for the conduct of the school, and a condition so serious as to call for an inquiry could hardly, barring acci-

dents, have come about had he adequately done his duty. To place him then in a position of judge is frequently tantamount to asking him to condemn himself, or, at least, errors of management of which he ought to have been cognisant.

Not the least of the advantages of the management of such institutions by a metropolitan authority would be the election of ladies, who by standing and education could not be liable to be accused of drunkenness, or of teachers who took a "little gin in school hours." An elected public body, acting with generosity or impartiality, is able to attract better officers than will take service under smaller or less dignified authorities.

PROFESSOR ESMARCH, of Kiel, was on May 28th elected a correspondent of the Academy of Medicine of Paris.

MR. LEOPOLD HUDSON, F.R.C.S., has been elected Assistant Surgeon to the Middlesex Hospital. Mr. Hudson, who is Assistant Surgeon to the Hospital for Sick Children, Great Ormond Street, had previously held the appointment of Aural Surgeon to the Middlesex Hospital.

A COMMITTEE of the Spanish Chamber of Deputies has reported in favour of making vaccination compulsory in Spain. It is expected that the proposed measure will encounter some opposition when it comes under discussion in the Chamber.

THE 113th Harveian Festival will be held in the Hall of the Royal College of Physicians of Edinburgh, on June 28th, when the President, Dr. Yellowlees, will deliver the Harveian Oration. After the oration, Harveians and their guests will dine.

THE BRITISH MEDICAL ASSOCIATION IN SCOTLAND.

A CONJOINT meeting of the Aberdeen, Banff, and Kincardine; Edinburgh; Dundee and District: Perthshire; and Stirling, Kinross, and Clackmannan Branches of the British Medical Association, was held in the Chemical Department of University College, Dundee, on May 29th, under the presidency of Dr. Sinclair, when a long programme was gone through, followed by the annual dinner.

DIFFICULTIES OF DIAGNOSIS AND THE CASE OF DR. HADDEN OF DUBLIN.

WE are glad to learn that notice for a new trial has been served by Dr. Hadden's solicitors. The decision which has been come to is, as we pointed out at length last week, most unsatisfactory, and it is therefore desirable, in the interests of the public even more than the profession, that the whole proceedings should be reviewed. There has been a very general expression of sympathy with Dr. Hadden. Many letters have been addressed to the lay press. A subscription list to defray expenses has been opened; and the Council of the Royal College of Surgeons, the Dublin Branch of the British Medical Association and the Irish Medical Association, have passed resolutions approving of the step which has just been taken to have the verdict, if possible, set aside. The questions raised will be discussed before the Court of Appeal very shortly, and the decision will be awaited with general interest.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual meeting of the Royal College of Surgeons in Ireland will be held on Saturday, June 1st, when the annual report will be submitted. The election of officers will take place on the following Monday, June 3rd. Mr. Thornley Stoker will be elected President for the second year, and Mr. William Thomson Vice-President, also for a second term. There are two vacancies on the Council by the election of Mr. Chance and Mr. J. B. Story to the Court of Examiners. The new candidates are: Mr. A. H. Benson, Mr. H. G. Croly, Dr. Purefoy, Mr. J. H. Scott, Mr. Murray, Dr. E. H. Thompson (Omagh), Mr. Sherlock, and Mr. William Stoker. The statement of accounts shows that the debit balance, created by the erection of the new schools, has been reduced from £7,478 0s. 9d. to £4,093 6s. 8d. The expenditure shows a decrease of £2 558 3s. 3d., and although receipts have diminished by £406 7s., the expenditure has kept within ordinary income by £384 14s. 1d. This is a satisfactory statement, and is creditable to the Council of the College.

ELECTRIC LIGHTING OF MEDICAL SCHOOLS.

THE buildings of the new School of Medicine, Edinburgh, which were opened in October last, as noted in the BRITISH MEDICAL JOURNAL at the time, have been wired for the electric light, and are now connected to the Corporation mains. The switch room is situated at one end of the building, and contains the meter, main switch, and a distributing switch board by means of which the circuits to the various lecture rooms, tutorial rooms, and the anatomical department are controlled. The lecture rooms are lighted by means of pendant incandescent lamps of 16 and 32 candle power, and these are controlled in groups by means of conveniently placed switches. Each lecture room is also provided with an arc lamp circuit for lantern projection, and both the arc and incandescent circuits are under the control of keys placed close to the lecture table. Close fitting dark blinds are provided in each class room, so that the rooms are available for lantern demonstrations at any hour of the day. The lighting of the anatomical department is a special feature of the installation. The wiring is carried out in three circuits. The first provides a series of bracket lamps, which serve for general illumination and for the special illumination of wall and table preparations. The second circuit provides a pendant lamp over each dissecting table. Each of these lamps has a switch in the holder, so that the lamp can be turned on by the student when required. The third circuit provides central and side lamps for the bone room. All three circuits are under the control of the lecturer from a switch board in his private room. The general effect of the lighting of the class rooms is exceedingly good. The distribution is very equable, and there is an equally marked absence of glare and of shadow. The new School of Medicine is the first educational institution in Edinburgh to adopt electric lighting.

THE COUNCIL OF THE COLLEGE OF SURGEONS OF ENGLAND: CANDIDATES.

As there will be five vacancies to be filled up on July 4th, there is likely, we understand, to be very active competition at the election. We have drawn up the usual analytical table of the actual constitution of the Council for the benefit of Fellows of the College. It is impossible that all who hold the higher diploma can be expected to remember all about the dates of election of members of Council, the meaning of "substitute members," and the proportional representation of London and provincial schools. Blank forms of the requisite notice from a candidate, and of his nomination, may be obtained on application to the Secretary, and the same must be received by him duly filled up not later than on Monday, June 10th. A voting paper will be sent by post to each Fellow whose address in the United Kingdom is registered at the College on Saturday, June 22nd, and Fellows will not be required to apply for voting papers. Fellows of the College are particularly requested to furnish the Secretary with their correct addresses. Notwithstanding the existence of these voting

papers, which need only be filled up and posted to the Secretary of the College, some Fellows still have an idea that a proxy is required for the purpose, and therefore fear the necessary inconvenience. Anybody, therefore, who speaks or writes about "proxy papers" is misleading others, if not actually deterring them from making use of their votes. The names of several possible candidates have been mentioned. Mr. Willett, an active friend of progress, will alone of the three outgoing candidates seek re-election. The Treasurer of the British Medical Association has been pressed to offer himself, but he informs us that he feels obliged to decline for the present the support of many friends, whilst thanking them for the compliment of their offer; for Mr. Butlin points out that he has still another year to hold the Treasurership, and he has just been elected President of the Pathological Society. Hence he could not afford the necessary time to devote to duties on the Council of the College. The President of the Council of our Association, Dr. J. Ward Cousins (F. 1860, M. 1856), is, we are informed, a candidate. The Chairman of the Council of the British Medical Association is distinguished for his administrative not less than his professional ability. Though now practising as a mere surgeon he would from past experience adequately represent not only the provinces but general practice; the latter has had no representative on the College Council since the late Mr. Sibley's retirement. Mr. A. Trehern Norton (F. 1867, M. 1862) is also a candidate, and, like Dr. Cousins, has the support of the Association of Fellows. He offered himself at a previous election, but was disqualified by an accidental informality. He is a well-known surgeon, and belongs to St. Mary's Hospital, which is at present unrepresented: he has also been a firm supporter of reform.

THE BACTERIOLOGY OF CLOTHES.

CARLYLE gave us the philosophy of clothes; now Dr. Seitz, of Munich, gives us their bacteriology. On examining a worsted stocking he found 956 thriving colonies, while on a cotton sock there were 712. Both these articles had been worn, but no information is vouchsafed as to the personal habits of the wearer. Thirty-three colonies were found on a glove, 20 on a piece of woollen stuff, and 9 on a piece of cloth; none of these articles had been worn. On a piece of cloth from a garment which had been worn a week there were 23 colonies. Of the micro-organisms found on articles of clothing relatively few were capable of causing disease; the pathogenic species were almost without exception staphylococci. In one case, however, Dr. Seitz found the typhoid bacillus in articles of clothing from twenty-one to twenty-seven days, and the staphylococcus pyogenes albus nineteen days, after they had been worn. The anthrax bacillus found in clothes was still virulent after a year. The microbe of erysipelas, on the other hand, could not be found after eighteen hours, nor the cholera vibrio after three days. Dr. Seitz studied with special care the question whether in tuberculous subjects who sweated profusely the bacillus was conveyed by the perspiration to a piece of linen worn for some time next the skin of the chest. The inoculation of two guinea-pigs, however, gave negative results.

WANTED: A SHERLOCK HOLMES.

IN the *Review of Reviews* of May 15th, that *fin-de-siècle* Don Quixote, Mr. W. T. Stead, once more appears in his favourite character of champion of the oppressed. This time, however, it is not a distressed damsel for whom he comes forth to do battle, but an ex-doctor now languishing in Portland Prison, where he is working out a sentence of nine years' imprisonment for forgery. Mr. Charles Augustus Bynoe (L.R.C.P.Edin., 1889; L.R.C.S.Edin, 1889; L.F.P.S.Glasg., 1889) it may be remembered, was struck off the *Register* by the General Medical Council on May 25th, 1892, on the ground that on January 11th of that year he had been convicted and sentenced to a term of imprisonment for having feloniously forged a warrant for the payment of a certain sum of money with intent to defraud. Mr. Stead now assures us that Mr. Bynoe was wrongfully convicted, and he takes the opportunity of announcing the fact that he has published a "sixpenny shocker" to put the matter right again. Briefly, his story is that the forgeries were committed by a woman, who, "not conscious of any criminal intent," endorsed dividend warrants and wrote letters in other people's names—all to oblige the real villain of the drama, a dark-haired man with strongly-marked feature, "black eyebrows beetling over deeply-set eyes, black moustache, slight, very slight whiskers." This is the person whom a Sherlock Holmes is wanted to discover—on the strength of a tin-type photograph which he was weak enough to have taken for the lady when they were out walking in Regent's Park. There is a suggestion of mystery about this work of art, for the countenance of the "wanted" man can be seen only when the piece of tin is held at a particular angle and all attempts to photograph it have failed. The woman is said to have confessed her part in the affair, but as she did not produce the man at whose instigation she says she acted, the Home Secretary (Mr. Henry Matthews) refused to interfere. Mr. Stead asks us to believe that Mr. Bynoe was the victim of a conspiracy quite devilish in its ingenuity. We may add on our own account that on Mr. Stead's own showing his *protégé* would also seem to have been the victim of some special spite of fate manifested in the unaccountable disappearance of several pieces of documentary evidence that would have led to his triumphant acquittal. It is a curious and not uninteresting story that Mr. Stead has to tell, and we should be glad, for the credit of the profession, to believe that it is true. We cannot, however, shut our eyes to the fact that a good deal in Mr. Stead's explanation requires to be further explained. May we venture also to hint that the distinguished journalist's mind is not of a strictly judicial temper, and that his championship of supposed victims of erring judges or brutal policemen has sometimes been more vehement than discriminating? We sincerely hope that in the present case he will achieve his object "of getting the innocent man out, and of bringing the guilty man to justice." But why does he want a Sherlock Holmes to help him in his enterprise? We should have thought the problem could present little difficulty for "Julia," or indeed for any "spook" of average intelligence.

CONTRA-SEXUAL PERVERSIONS.

WHATEVER else he may be, man is a member of the animal kingdom. This fact is obtrusive throughout his life. From the primal union of the two cells whence the individual springs to the final dissolution of the millions of cell elements that have proceeded from the first pair, each feature of his frame, each process in his life, bears testimony to the fact. The growth of intellect and all that seems to us above the intellectual cannot obscure the persistence of the animal. The poet may urge us to

> Work out the beast
> And let the ape and tiger die.

But the "working out" can be but relative. It is as an animal that the human race is perpetuated, that the existence of every individual is maintained. To "work out the beast" would be to extinguish the human race. Essential to the continuance of man upon the earth, the instincts through which the race continues seem, as might be expected, little touched by the progress of culture. Through almost every warp and weft of the vast texture the red line runs, now dim, now bright, but often dominating every other colour. Associated as it is with much that we deem highest, it may bring the high and low into the closest proximity. The sense of form and colour seems to be at work throughout the animal world in the sexual selection by which so much of that which is beautiful is preserved and is increased. With the development of man comes a higher, wider, more intense and varied sense of beauty, but still subordinated in its chief intensity

to the same instinct, not always consciously perhaps; but the intellectual development of man has destroyed the pristine balance between the varied functions of the body, and civilisation, with its artificial conditions of existence, has furnished a field for the growth of perverted tendencies. That which may be acquired may be perhaps not transmitted, but facilitated, by congenital derangement. All unperceived may be the tendencies which only come to light when the years bring into full influence the instincts on which the continuance of the race depends. These instincts themselves may also be the subjects of a morbid tendency, under which they acquire an unnatural character. These unhappy victims of perverted instinct are most sincerely to be pitied, not less for that which is theirs by innate constitution, but also for that which they bring on themselves. They cannot perhaps perceive the need, or produce the power of will, which alone can suppress the manifestation of the abnormal tendencies. But pity cannot obscure the compulsory necessit there is to free society from their presence. There are always others who, without definite perversion, have yet the want of balance which makes perversion easy, and to all such, these unhappy beings, with that "contra-sexual impulse" of whom Caspar has told us so much, are frightful dangers. The great need is to make their influence for ever impossible. As the law stands, this is not done; and the wisdom of that which is done is open to some doubt. Penal servitude for a brief time, and then release upon the world, does little for the individual, and almost nothing for the society which the law exists to save. It simply lowers the social stratum on which the pernicious influence is exerted.

THE ABUSE OF CLUBS.

A discussion took place at a recent largely-attended meeting of the Inverness Medical Society on medical clubs and medical aid societies. The discussion showed that there was a general opinion that the salaries paid to the medical officers of such clubs and societies were quite inadequate to the amount of work performed and the responsibility borne. The conclusions reached by the meeting were embodied in the following resolutions: 1. That all candidates for admission to any friendly society, medical club, or any other medical benefit society be charged an examination fee of 2s. 6d., whether "passed" or not; such fee to be paid by the society. 2. No "married members'" branch to be countenanced on any terms. 3. That 2s. 6d. per head per annum be the minimum sum paid to the medical officer for attendance on members of these societies; this not to include medicines. Dr. J. Munro Moir (15, High Street, Inverness), the Honorary Secretary of the Society, informs us that it is hoped that the matter may be further discussed at the summer meeting of the North of Scotland Branch of the British Medical Association. The Inverness Medical Society has since received an expression of the sympathy of the medical profession in Cork, where it will be remembered that a determined stand against the exactions of the organisations by which the medical profession is exploited has been made since the commencement of this year. The resolution adopted in Cork was in the following terms: "That we cordially approve of the action of the Inverness medical profession in the stand they are taking against the absurdly low rate of Society remuneration hitherto paid in that city. That we wish them every success in their effort, which we hope will be extended to every city in the United Kingdom, to raise the rates paid to medical men, and to discountenance in every way the admission of unsuitable members to the societies, and that a copy of this resolution be sent to Dr. Munro Moir, the Secretary Inverness Medical Society, and the medical journals." We are glad to learn that this question is engaging attention in the south also. A general meeting of the medical profession in Portsmouth was held on May 23rd to consider the admission of women to clubs on the same basis as healthy adults, whether they should be admitted on a higher scale, or whether they should be refused altogether. The discussion was adjourned, but a large number of medical men present signed a declaration pledging themselves not to take the appointment of medical officer to any friendly society vacated by the discharge or resignation of any medical practitioner in the district on account of his refusal to accept any additional burden to or new conditions of his duties as medical officer.

A NOVEL FORM OF OBSTACLE RACE.

Some years ago a favourite comic song at suburban evening parties recorded the adventures of a man with a "cork leg," which, if we remember right, ran away with its owner. If races of the kind which recently took place at Nogent-sur-Marne become fashionable, a modern Pindar will be required to celebrate the swiftness of wooden legs. The "events" were arranged for runners who had had the lower limb amputated above the knee (*cuissards*), and for those who had lost a leg below the knee (*jambards*). The distance in each case was 200 metres. In the final heat for the "grand championship" the prize among the "thigh-ers" fell to M. Roulin, who did the distance in excellent style in 30 seconds. Among the "leggers" the victor was M. Florant, who travelled over the same course in 36 seconds. It is worthy of note that the "thigh-ers," on the whole, showed better form than the "leggers," two others—MM. Blangy and Jhienne—having in earlier heats done their 200 metres in 30 and 33 seconds respectively, while the fastest time among the "leggers" was 36. The longest time among runners who were "placed" was 55 seconds. Several of the runners were over 50 years of age. The champion, Roulin, who belongs to Orleans, is 30 years of age, and lost his leg as the result of an accident when he was 22. This interesting athletic contest may possibly lead to boxing matches for men who have lost an arm, but it is hoped that we shall be spared a singing competition among persons with artificial larynxes.

PRESENCE OF MIND.

If we were asked what single quality more than any other conduces to success in medical practice, we should be disposed so say presence of mind. The doctor must be master of himself, not only "though china fall," but though he discovers that he has been studying the pathological changes in a glass eye, or feeling his own pulse like the intoxicated physician of the legend. Swift, in his *Diary to Stella*, speaks of the frequency with which people "reason wrongly at first thinking." Medical men are no more exempt from this infirmity than the rest of mankind; but the carefully-cultivated presence of mind, which is the first law of professional self-preservation, generally makes them more successful in concealing it. The young practitioner often gives himself away by offering the first muddy stirrings of his thought as an opinion instead of waiting for it to settle. Everyone remembers the young doctor in one of Wendell Holmes's books, who tells his first patient that he has discovered various complicated murmurs in his heart, which turn out to be caused by the buzzing of a fly in the stethoscope. An older hand might have heard the "murmurs"—perhaps with his ear at the wrong end of the stethoscope—but he certainly would not so artlessly have taken the patient into his confidence. We have known a "coloured person" diagnosed offhand to be suffering from Addison's disease; and a dark spot, which subsequently proved to be amenable to simple treatment by soap and water, pronounced "at first thinking" to be a melanotic sarcoma. Absurd mistakes are often due to nervousness rather than precipitancy. Students attending their first midwifery case sometimes go astray in making the necessary examination. Shyness has made a young practitioner mistake an indiarubber bag for an ovarian cyst. Perhaps the most appalling misadventure of this kind be-

fell the physician of the Emperor Rudolph the Second, who, in trying to feel his illustrious patient's pulse under the bedclothes, grasped a different part of the Imperial anatomy, and was informed of his mistake by His Majesty in the following dignified words: *Erras, amice, hoc est nostrum imperiale membrum.* How the doctor got out of his embarrassing position is not recorded, but presence of mind will often save an apparently hopeless situation. If a student who finds himself exploring the rectum instead of the vagina will calmly rebuke the patient for not paying more attention to the condition of her bowels he will change an imminent defeat into a victory. Coolness will extricate a man from almost any difficulty. We have heard a story of a distinguished surgeon who began to amputate the body from a limb, and when his attention was called to the fact, carried the matter off by telling the assistant to take his hand out of the way. Danton's maxim *De l'audace* finds its application in medical practice under such circumstances. The possession of this quality is the secret of the success of many second-rate men, and the lack of it accounts for the failure of many otherwise admirably equipped.

OUR FOREIGN VISITORS.

MEMBERS of the British Medical Association resident in London who are prepared to offer hospitality to foreign guests are invited to communicate with the Honorary Secretary of the Foreign Reception Committee, Mr. G. H. Makins, 47, Charles Street, Berkeley Square, W.

THE CASE OF DR. LIONEL SMITH.

WE have already on several occasions had to refer to the long persecution which Dr. Lionel Smith suffered at the hands of the Government of Western Australia. The history of the case has already been fully related in the BRITISH MEDICAL JOURNAL,[1] and it is unnecessary to repeat it here. There have been many expressions of sympathy with Dr. Smith in his unmerited misfortunes, and of indignation at the treatment which he received, in the press both of this country and of Australia, but, as far as we are aware, nothing has yet been done to redress the grievous wrong which has been done him. It is necessary therefore to point out once more that the case concerns not only the individual sufferer, but the whole profession of which he is a member, and the nation at large. According to the decision given by the Privy Council on appeal in Dr. Smith's case, acting officials holding appointments under Colonial Governments can be dismissed *ad nutum*, as the canonists say, by the person in authority, without any cause being assigned. It is clear that this decision destroys the very notion of fixity of tenure in such appointments, and must therefore make men with any reputation to lose chary of taking them. In the BRITISH MEDICAL JOURNAL of February 2nd we appealed to the Secretary of State for the Colonies to issue some distinct statement as to the security of tenure of medical or other officers holding colonial appointments which should make it plain that they are not subject to the absolute caprice of a Governor or even a Colonial Secretary, but so far Lord Ripon has made no sign. We are willing to believe that the omission may be due to the stress of the battle for life which now absorbs the greater part of the energies of the Government, but it is intolerable that a matter so vital to the efficiency of the public service should be left any longer undecided. As regards Dr. Lionel Smith himself, there can be no doubt that he was the victim of the "insolence of office." He has been practically ruined by the protracted litigation forced upon him to clear his professional reputation of a slur which was proved to be altogether undeserved, and he now finds himself and those dependent on him face to face with a position of great pecuniary embarrassment. It would be no more than mere justice if some compensation were made to Dr. Smith for the loss which he incurred during the seven years that he was driven from legal pillar to post. The official reply to this suggestion will of course be that there is no money at the disposal of the Government available for such a purpose. There is, however, another way in which some tardy reparation might be made to Dr. Smith, and that is by giving him some public appointment such as his knowledge and experience would fit him for, and which might relieve him of at least some part of the burden of anxiety which he has borne so long. If something is not done soon in the matter, we hope to see the whole question submitted to the judgment of Parliament.

[1] See BRITISH MEDICAL JOURNAL, December 3rd, 1892; February 4th, 1893; and February 2nd, 1895.

PAYMENT FOR POLICE CALLS.

A CORRESPONDENT at Horley, in Surrey, writes that cases similar to the one noticed in the BRITISH MEDICAL JOURNAL of May 25th are of frequent occurrence in that neighbourhood, and mentions a case in which a practitioner was sent for at 10 o'clock at night to attend a tramp taken ill by the roadside. The police authorities refused to pay any fee, and soon afterwards issued instructions that in such cases application must be made to the relieving officer for an order to obtain the attention of the district medical officer. (This, we were recently informed, is the usual course taken in Ireland in such cases in order to avoid payment of fees). It is hardly necessary to point out that it is wholly unsuitable for cases of sudden illness or accident, which, if they are to receive any benefit from medical attendance, must be seen to at once without waiting for a relieving officer, who is necessarily often absent from home for hours together. Neither is there anything whatever in the distinction attempted to be drawn by the police authorities at Horley between cases of sudden illness or accident occurring to outsiders and those in which the patient is in custody or charged with any crime. The rule of the Metropolitan Police is quite clear that in cases of casualties occurring in the streets, such as accidents or sudden illness, as well as in those of persons brought to a police station charged with any offence who are suffering from injuries, or who may be taken ill while in custody, medical help is to be sought, and a certificate of attendance given by the inspector on duty in all cases in which the patient cannot pay. If this rule were adopted by other police authorities it would, we believe, meet the difficulty, and we trust the representations which have been made to the Home Secretary may result in some such settlement of the question. In the meantime, those of our readers who meet with similar treatment would do well to send us particulars as briefly as possible.

DEATH THE ENEMY.

MR. BALFOUR is always interesting, even when we disagree with him. We confess we had rather disagree with Mr. Balfour than agree with many another man, because his words stimulate thought. Any opinion of his is fresh and lucid, and bears the marks of original views and broad culture. However, we are far indeed from disagreement from the President of the festival dinner of the Medical Benevolent College in the graceful, kindly, and weighty words which he spoke on that occasion. How generously he spoke of the labours of the rank and file of our profession we need not repeat; we are not likely to forget it. We will turn rather to the ethical questions raised by him, questions which raised his speech above the common level of mere compliment, and shed an added light upon his eulogy. The keynote of Mr. Balfour's speech was that there are higher ambitions before men and societies than the mere prolongation of life. In these columns we have ventured more than once to recall our readers' attention from a mere carnal regard to human life. The soldiers of our profession are as brave as those of other ranks, whether they face death in the hospital or even on the battlefield—the feats of Dr. Robertson are, even as we write, the pride not only of our profession but of our race—yet the duties of our daily lives tend to concentrate our attention upon the

mere prolongation of life apart from the ends of life. Mr. Balfour will not allege that we are wrong in this immediate purpose. It is our business to obtain or to increase the boon of life itself; it is for the man himself to see that the gift is well used. It were a terrible error in a physician to consider curiously at the bedside how much wickedness his patient could gather into the added year that medical skill might procure for him. It would be but one step to consider whether a villain should be allowed to flicker out, or even receive a gentle push into the court of the Brethren who judge in the shades. What our practical duty should be in the strife with death there can be no doubt. It is our business to stretch out the span to the utmost: to see that no breath of air break the thread before the fatal shears are closed. That physician would be a traitor to his craft who failed to throw his utmost skill into saving the life of the greatest scoundrel unhung, if he were called in to save him. There is no halfway house on this way: every day, every hour shall be saved with miserly economy. Nay, though life be a burden to the sufferer himself—even, as Mr. Balfour says, "a burden to all those whom he loves best"—even then we shall stay not our grasp on that life. We may not solve the riddle of life and death. The issues are not ours. As a brave man living with brave men, Mr. Balfour sees that pain is the real enemy of life. To prolong life, he says, is a performance of ours; to relieve pain is our triumph. But we cannot divide the tasks. It is for us to make disinterested search into the laws of biology irrespective of the applications of our knowledge; scientific discoveries do not come by taking thought of our needs, but of love of knowledge for its own sake. A physician is at once an investigator and a craftsman; as an investigator he knows nothing of ends; as a craftsman he will find that the same skill which governs life in one aspect governs it in another; and the means which feed the lamp of life in one peril will feed it in another. As physicians, then, we cannot be too carnally minded, if we may use such a phrase: the breath in that individual body is our concern. But we are often invited to speak as citizens, indirectly perhaps as lawgivers; it is then our duty to remember that there are considerations far higher than life itself; that not only is the soul more than the body, honour more than life, but that the mind and its works are more than physical prowess, and more than any splendours of the flesh. As our speaker reminded us, death is often rather an enemy of the doctor than of the patient; but pain is found not only in the busy hours of life, but also on the deathbed; and the doctor is the last of the watchers to forget that noble conception of Watts, where at the bedside of the wan and weary sufferer stands Death as a beautiful mother with an infant at her breast.

TREATMENT OF INEBRIATES IN ENGLAND.

THE eleventh annual report of the Dalrymple Home for Inebriates at Rickmansworth is of special interest at the present time when a thoroughgoing report is expected from the Scottish Departmental Committee, and a Bill is being considered in the House of Lords having for its aim some additional legislative procedure for the curative detention of habitual drunkards. During the past year 22 admissions were under the Inebriates Acts, and only 11 without attestation by justices. Formerly the private cases were in excess, but in the past two years 45 patients were received into the Home under the Acts to 28 non-attested patients. This is a hopeful indication of the increasing favour with which the voluntary surrender of liberty is viewed by inebriates and their friends. No patient was expelled, and 33 left from efflux of time, 20 being still in residence. In 377 discharges, the average age of cases on reception was 35.82 years, 196 having entered between 30 and 40 years, 99 between 40 and 50, 61 between 20 and 30, and 21 between 50 and 60. Another important point in the etiology of inebriety is the predisposing influence of heredity. Of the 377 patients treated at the Dalrymple Home, there was a genealogy of inebriety or insanity in 202, or somewhat more than one-half. This is the latest corroboration of the experience of practically all similar homes where the disease is therapeutically studied and treated on the recognised lines of sound therapeusis. The average period of addiction prior to admission was 7½ years. Spirits were the favourite intoxicant of 237 of the inmates, but there were 17 cases of wine and beer inebriety, about 4 per cent. of the whole number. Syphilis was noted in 10 cases, gout or rheumatism in 11, neuritis in 7, delirium tremens in 123. Nervous shock was a factor, with 52, injury or ill-health with 45. Considerably over one-half were habitual or constant, as distinguished from periodic, inebriates. A praiseworthy example is set by the managers of this institution in furnishing as accurate an account as possible of the after-history of the patients. In this report it is stated that nearly one-third of the cases have "done well," though 71 have not been heard from.

THE MARTYROLOGY OF SCIENCE.

SCIENCE numbers yet another martyr in Dr. John M. Byron, chief of the Bacteriological Department of the Loomis Laboratory and Lecturer on Bacteriology in the University Medical College of New York, who died of pulmonary tuberculosis on May 7th, in the 34th year of his age. He believed that he had contracted the disease by inhaling tubercle bacilli while experimenting with some material which he had allowed to become dry. The first symptoms of the disease showed themselves some fifteen months ago, and Dr. Byron betook himself for a time to a milder climate. Finding, however, that the malady continued to make progress, he resigned himself to his fate, and went back to his laboratory, where until a short time before his death he continued calmly to direct the work of his assistants, his own disease forming the subject of careful observation and furnishing the material for research. Dr. Byron was born at Lima in 1861, and took his doctor's degree in the University of Naples, afterwards pursuing his studies in Paris. He began to teach bacteriology in New York in 1888, and during the cholera scare in 1892 he was appointed bacteriologist at the quarantine station, and had medical charge of Hoffmann and Swinburne Islands. He was a member of the Bacteriological Bureau of the New York Board of Health, and a short time before his death he had been appointed bacteriologist to the Quarantine Department.

BETEL LEAVES AND TAXATION.

THERE is considerable opposition to the tax which the Government of Madras intends to place on betel leaves. Everybody who has been in India will remember how the natives frequently appear with a red stain on their lips and with their teeth blackened in a way which is far from beautiful. The stained lips and the blackened teeth are due to the continual chewing of betel leaves, which the Indians declare is a habit which prevents hunger and promotes digestion. It is strange that almost every nation, in the most diverse climates, has selected some one vegetable drug as a supplementary article of diet which is always taken with the same object in view—namely, of staying hunger and promoting digestion. The cuca of the Peruvians, the betel nut of the Indians, the coffee of the Arabs, the tea of the Chinese and of the English, all contain alkaloids which the French call "*aliments d'epargne*," and which have the power of preventing tissue waste. The poor Indian, whose earnings are of the smallest for work done under a tropical sun, looks to the betel leaf to aid him to store energy, to make life endurable, and work possible. It is, therefore, easily understood how he should object to this to him necessary article of diet being taxed for revenue purposes.

BRITISH MEDICAL ASSOCIATION.

SIXTY-THIRD ANNUAL MEETING AT LONDON.

THE sixty-third annual meeting of the British Medical Association will be held in London on Tuesday, Wednesday, Thursday, and Friday, July 30th, 31st, and August 1st and 2nd; the programme as far as at present arranged is as follows:

On Tuesday, July 30th, there will be a meeting of the Council of 1894-5 in the Council Room of Exeter Hall; at 11.30 there will be divine service at St. Paul's Cathedral, when the sermon will be preached by his Grace the Lord Archbishop of Canterbury. The first general meeting will be held at 2.30 in the Large Hall of Exeter Hall, when the report of the Council and reports of Committees will be presented. In the evening there will be a reception by the metropolitan members at the Imperial Institute, where the adjourned general meeting will take place, and the President, Sir J. Russell Reynolds, Bart., will deliver his address; the galleries of the Imperial Institute will be thrown open and the gardens will be illuminated, and the Strauss Orchestra will perform at intervals.

On Wednesday, the 31st, the Council for 1895-6 will meet at 9.30, and the Sectional meetings will be held from 10 to 2; at 3 P.M. the second general meeting will take place in the Large Hall of Exeter Hall, and the Address in Medicine will be given by Sir William Broadbent, Bart., and any business adjourned from the preceding day will be proceeded with. In the afternoon Dr. Tuke will give a garden party at Chiswick, and the Salters' Company have kindly promised to open their hall to a limited number of visitors; in the evening there will be a *fête* in the gardens of the Royal Botanic Society, and arrangements are being made for several other entertainments.

On Thursday, August 1st, the Council will meet at 9.30, and sectional meetings will continue between 10 and 2; the third general meeting will be held at 3 P.M., when the Address in Surgery will be delivered by Mr. Jonathan Hutchinson, F.R.S. In the afternoon Dr. Langdon Down will give a garden party at Normansfield, Hampton Wick. The Association dinner will be held at 7.30, in the Queen's Hall, Langham Place, and arrangements are being made to accommodate nearly 800 guests.

The Ladies' Reception Committee are organising an evening party at the New Gallery in Regent Street, for the ladies who are attending the meeting, and the Æsculapian Lodge are arranging a smoking concert at the Portman Rooms for their Masonic brethren. There will be a special display of fireworks at the Crystal Palace, and a limited number of members will be provided with seats in the reserved galleries.

On Friday, August 2nd, the Sectional meetings will be held between 10 and 2, and at 3 o'clock the concluding general meeting will take place, when the Address in Physiology will be given by Professor E. A. Schäfer, Jodrell Professor of Physiology, University College, London. In the afternoon Sir Spencer Wells will give a garden party at his residence at Hampstead, and in the evening the Royal College of Physicians and the Royal College of Surgeons propose to give a *soirée* at their Colleges.

On Saturday, August 3rd, several excursions have been arranged, details of which will be given later on. The work of the meeting will be carried on in the following fifteen Sections:—

A, Medicine; B, Surgery; C, Obstetrics and Gynæcology; D, Public Medicine; E, Psychology; F, Physiology; G, Anatomy and Histology; H, Pathology and Bacteriology; I, Ophthalmology; J, Diseases of Children; K, Otology; L, Pharmacology and Therapeutics; M, Laryngology; N, Dermatology; O, Ethics; and the arrangements, so far as they are at present settled, will be seen in the programme printed elsewhere.

PLACES OF MEETING.

The Conjoint Examination Hall and King's College have kindly been placed at the disposal of the Committee, and Exeter Hall has been secured for the purposes of the meeting. These buildings are in close proximity to one another, and telephonic communication is being arranged between them. The Reception Room will be the large hall of King's College, where a post and telegraph office will be arranged for the convenience of members, and five of the Sections will hold their meetings in that building; the remaining Sections, except that of Public Health, will hold their meetings in the Conjoint Examination Hall, and the meeting room for the Section of Public Health will be at Exeter Hall, in which building the general meetings will also be held. The Royal Society has been good enough to place a suite of rooms at Burlington House at the disposal of the Ladies' Committee, and Reception and Reading and Writing Rooms for ladies will be arranged there.

The Pathological Museum will occupy the top floor of the Conjoint Examination Hall, which is admirably adapted for the purpose, and a very interesting collection of specimens is expected to be brought together. Arrangements have been made for the supply of microscopes, and a room capable of holding about 200 persons will be available for lantern demonstrations for the use of those Sections that require it.

The Annual Museum will be arranged on the first floor of the Conjoint Examination Hall, and it is expected to be of especial interest, a large number of leading firms having applied for space: it will include the following Sections: Drugs and Foods, Surgical Instruments, Books, and Sanitary Appliances. Further details will be given in due course.

PLACES THAT MAY BE VISITED.

The Royal Medical and Chirurgical Society and the Medical Society have kindly promised to open their rooms and library to the members of the Association during the week of the meeting; the Parkes Museum will also be open, and a reception will be held there on one of the afternoons. The various hospitals and Poor-law infirmaries will be open for inspection during each afternoon of the week. The Zoological Society have kindly promised to admit members during the week of the meeting on presentation of their card of membership, and the Royal Botanic Society give the same privilege and extend it to a lady to accompany each member. Several city companies are opening their halls to a limited number, and the Barbers' Company have arranged for special parties of fifty to inspect the plate and pictures on each day of the meeting. Buckingham Palace and the other Royal Palaces and the Royal Mews and Stables will also be open for inspection. Among the houses of interest, Hatfield House, Holland House, Stafford House, Hertford House, and Apsley House may be visited. The Flaxman Gallery at University College and the Foundling Hospital will also be open for inspection, and the Museum of the College of Surgeons, the Soane Museum, the Parkes Museum, and the Custom House will be open to members on presentation of their tickets.

Several manufacturers have promised to open their works to members of the Association; among them Doulton's Works and Powell's Glass Works. The *Times* and *Daily Graphic* Printing Offices, and Cassell's offices will also be open to limited parties. Arrangements are also in progress for the admission of visitors to the Blackwall Tunnel Works, the Sewage Pumping Station, Crossness, the Fire Brigade Stations and Polytechnic Institutions, under the London County Council.

On several afternoons Dr. Ruffer has kindly arranged a demonstration on the method of preparing antitoxin to those members who will make a journey to the farm at Harrow.

Numerous excursions during the week and visits to places of interest, including Cambridge, Westminster Abbey, and many other places, have been arranged by the Ladies' Committee for the ladies attending the meeting during the hours of the business and scientific meetings.

SATURDAY EXCURSIONS.

More difficulty than usual has been experienced in arranging for Saturday's excursions this year, owing to the large number of people who are moving about at that time; but the following have, notwithstanding, been arranged. There will be an excursion to the South Coast, and the medical men of Hastings have arranged to entertain 150 members; negotiations are in progress for visits to other places. An excursion of 200 will proceed to Reading, and visit Pangbourne and Goring; Windsor will also take a considerable number, and launches will be provided to proceed to Hampton Court. The Queen has been most graciously pleased to

order the Castle and other places of interest at Windsor to be opened to members and their friends visiting the town. There will also be an excursion to Epping, and a luncheon at Claybury Asylum; and, after a drive through the Forest, members will be entertained at tea at the Royal Forest Hotel, Chingford.

Foreign Guests.

A large number of distinguished foreign members of the medical profession have accepted invitations to take part in the proceedings of the annual meeting of the Association, which have been extended to them by the Foreign Reception Committee. Among those who have accepted these invitations are:

In France: Professor Lancereaux, Dr. Galezowski, Professor E. Meyer, Professor Berger, M. Lucas-Championnière, Professor Terrier, Dr. Jules Comby, Dr. Pozzi, Dr. Luc, Professor Dupuy, Dr. Gley, Professor Tillaux, Professor Malassez, Dr. Segond, Dr. Apostoli, and Dr. Pietra Santa, of Paris; Professor Gayet, of Lyons; and Dr. Brachet, of Aix-les-Bains.

In Germany: Professor Gerhardt, Professor Hirschberg, Professor Ewald, Professor Fraenkel, Professor Baginsky, Professor Pistor, Professor H. Munk, and Professor Zunz, of Berlin; Professor Tillmanns, of Leipzig; Professor Baümler, of Freiburg; Professor Rindfleisch, of Würzburg; Professor Jürgensen, of Tübingen; Professor Helferich and Professor Schulz, of Griefswald; Professor v. Ranke and Dr. Grünwald, of Munich; and Dr. Moritz Schmidt, of Frankfort.

In Austria: Professor Nothnagel, Professor Fuchs, Professor Gussenbauer, and Professor Benedikt, of Vienna.

In Switzerland: Dr. Cérenville, of Lausanne; Dr. Kummer and Professor D'Espine, of Geneva.

In Italy: Professor Semmola, of Naples; Professor Ceccherelli, of Parma; Professor Mosso and Professor Ottolenghi, of Turin; Professor Maragliano, of Genoa; and Professor Marchiafava, of Rome.

Among the guests from other European countries who have accepted invitations are Dr. Collignon, of Brussels; Professor Stokvis and Professor Guye, of Amsterdam; Professor Lazarewitch, of St. Petersburg; and Professor Kobert, of Dorpat; Professor Trier and Professor Lange, of Copenhagen; Professor Laache, of Christiania; Professor v. Babes and Dr. Cantacuzene, of Bucharest.

Among the guests from the United States of America are Dr. Weir, Dr. Lusk, Dr. Delavan, and Dr. Northrup, of New York; Dr. Nicholas Senn and Dr. Murphy, of Chicago; Dr. Da Costa, Dr. W. W. Keen, and Dr. H. A. Hare, of Philadelphia; Dr. R. H. Fitz, of Boston; and Dr. C. H. Hughes, of St. Louis.

The Foreign Reception Committee, of which Mr. Ernest Hart is Chairman and Mr. G. H. Makins (47, Charles Street, Berkeley Square, W.) is Honorary Secretary, have arranged to open a special reception room for foreigners at King's College, and foreigners arriving in London on July 30th to attend the meeting should make application in this room for information.

Members of the Association resident in London who are prepared to offer hospitality to foreign guests are invited to communicate with the Honorary Secretary of the Foreign Reception Committee at the address given above. It is probable that this Committee will arrange to offer a special dinner to foreign guests during the course of the meeting.

THE REPORT OF THE SCOTTISH DEPARTMENTAL COMMITTEE ON INEBRIATES LEGISLATION.

The valuable report and recommendations presented last year by the English Departmental Committee on Inebriates have been followed by a still more extensive report and drastic suggestions just issued by the Scottish Departmental Committee on Habitual Offenders and Inebriates. Of the seven members of the Committee, three were members of the medical profession: Sir Charles Cameron, Bart., M.P., Dr. Farquharson, M.P., and Dr. J. F. Sutherland. Though the evidence has not yet appeared, the report proves that the inquiry was most searching. Instances of rapid intoxication and of methylated spirit drunkenness are given, with an analysis of police court habitual inebriates. There is also an account of existing homes, with a history and condemnation of certain well-known "secret cures." The main recommendations are:

1. That no person or institution, not already subject to Government inspection and control (such as a poorhouse, prison, or lunatic asylum), should receive more than one habitual inebriate at a time.

2. That poorhouses and labour settlements should, for the purposes of the Inebriates Acts, be considered "retreats."

3 and 4. That the Secretary for Scotland should exercise in that country all the powers of the existing Acts, makes rules, and settle the form of affidavits regulating the admission and readmission of voluntary applicants to retreats in addition to or instead of the affidavits now required.

5. That the establishment of retreats should be encouraged for those who cannot provide the whole of the funds necessary for their maintenance, the residue being supplied by voluntary contributions; the Scottish Secretary to be empowered to make regulations to enforce a certain amount of suitable work by each patient.

6. That the maximum period of detention be raised to two years.

7. That power should be given for the compulsory committal to a retreat, at the instance of their friends, of persons coming within the definition of an habitual drunkard, as laid down in the Act of 1879, the application to be made to the sheriff in chambers or in open court as the alleged inebriate may elect.

8. That the property of the person committed be liable for his maintenance and the committal order provide, when necessary, for a curator, with power to apply the estate to the support of the wife and family.

9. That town councils and other local authorities have power to contribute to the support of licensed retreats in consideration of poor inebriates being received at a reduced rate.

10. That when the friends of an inebriate compulsorily committed are unable to pay charges in an ordinary retreat the sheriff have power to commit to a labour settlement or poorhouse on friends paying actual cost of maintenance, recoverable, at the option of the sheriff, from the estate.

11. That the definition of habitual drunkards includes persons so affected through opium and other drugs.

12. That the fees for licences to keep retreats be reduced or abolished.

These recommendations provide for all classes of inebriates. The police-court inebriate offender would go to a labour settlement. Voluntary inebriate applicants who can pay are provided for by the present Acts. Non-criminal inebriates would be reached by compulsory committal at the instance of their friends if able to pay; if poor by the Procurator Fiscal; at the public cost if a public nuisance.

SMALL-POX IN GLASGOW.

The Value of Vaccination.

In the report presented by the medical officers for the City of Glasgow, they state that ten of the cases form an interesting group. On April 18th an infant aged 2 months, unvaccinated, was taken to a public dispensary for advice. It was there found to have malignant hæmorrhagic small-pox, and died in the institution. The body was at once removed to Belvidere; the names of all present in the dispensary were, as far as possible, ascertained. All were kept under surveillance, and revaccination was offered.

In the family to which the child belonged three cases subsequently appeared, and one on the same stair. Among the persons in the dispensary six cases of small-pox have occurred. The distribution of the dispensary cases as to age was interesting. There were here congregated in one hall, and subjected to one infective influence, mothers and children, the exact number of each not known, but no doubt the children predominating. Of the mothers, four took small-pox; of the children, only two, aged 6 and 9 years; and although they were said by their parents to have been vaccinated, no marks to indicate a successful operation could be discovered. The well-known characteristic of natural small-pox is to seize upon and decimate children. The influence here which neutralised this property of the disease was that of vaccination. In the adult mothers this influence was

losing its effects. In the only children who succumbed to the infection, the protective influence was imperfectly exercised, if at all; indeed, in one case, the attack is very severe and unmodified.

"BRITISH MEDICAL JOURNAL" REPORTS *RE* PROVINCIAL INFIRMARIES.

DURING the past twelve months we have placed before our readers 47 reports of provincial workhouse infirmaries, drawn up by our Special Commissioner from notes taken on the spot. Our aim in publishing them has been to draw public attention to the sad condition of the sick and infirm in the rate-supported hospitals under the control of the guardians. Our Commissioner has visited all parts of the country—populous localities and remote rural districts. The reports, therefore, represent the condition of the sick pauper under the varying local circumstances under which the authorities have to deal with the problem.

We have not concerned ourselves with other questions of Poor-law management, such as the discipline of the vagrants or the treatment of the able-bodied; and in the criticisms on the present system of inspection, which we feel called on to make, we limit ourselves to the inspection of the sick department.

We will now sum up the result of these visits, endeavouring to point out the deficiencies which are most apparent, and the direction that wise reform should take. There are four points to be considered—the nursing, the appliances and buildings, the officials, and, lastly, the inspection. First in importance is a reform in the nursing of the sick by day and night. In 35 reports we read "no night nurse;" in 25 infirmaries there is no trained nurse (we do not reckon the nurse who holds only the midwives' certificate as a trained nurse). In those infirmaries in which a nurse is employed, we note in the majority of cases that the number of patients under the care of the nurse is so large as to make it impossible for her to give them much personal attention. It is not possible within the compass of this article to give full statistics, but we will quote a few examples. At Bath there was (for we hear that there has been some change in the right direction since our Commissioner's visit) by day 1 trained nurse, and 2 untrained assistants to 230 beds and no night nurse; at Darlington 1 nurse to 72 beds; at Chester 1 nurse to each block containing 80 beds; at Wrexham 2 nurses for 126 beds, the work, moreover, being carried on in scattered wards of ancient construction. In such important infirmaries as Stockport, Tonbridge, Great Yarmouth there are no trained nurses; it is only when we come to the well-appointed hospitals like Withington or Reading that we find an adequate staff of nurses, and here also find that the guardians have broken through old traditions, and are working their infirmaries on the lines of a general hospital. But though we urge the appointment of the trained nurse most earnestly, an important preliminary step is required of the Local Government Board before this reform can be satisfactorily carried out, and that is the organisation of the nursing department in the Poor Law service. On looking into the General Orders we find that the nurse has no position assigned to her, and that she has no rights, though the nature of the work required of her and her previous training should place her on the level of the superior officers. Comparing her standing with that of the schoolmistress we note a marked difference: in the case of the schoolmistress, a proportion of her salary is paid from the Parliamentary grant to the Local Government Board conditionally on her holding a certificate of professional efficiency; she has, moreover, a definite position among the other officials, and is responsible to the guardians for her own department. With the nurse it is not so; she is entirely subordinate to the matron, even though the matron is untrained in hospital work. The master or matron can come between the doctor and the nurse, and can interfere with the carrying out of the doctor's orders (several instances have recently come under our notice). The nurse has no communication with the Board but through the master; and in domestic details, such as the issuing of linen stores or diets, it is in the power of the matron to harass the nurse. It is a well-known fact that Boards of Guardians find increasing difficulty in obtaining respectable and qualified nurses to take up appointments under them, and this is not from deficiency in supply, but from the objection that all nurses feel at trusting themselves to the mercies of the average workhouse official. If the Local Government Board would remove the anomalies in the nurse's position, we are convinced that an ample supply of properly qualified nurses would gladly offer themselves for Poor-Law work.

Under the second head we would draw attention to the inadequacy of the appointments and accessories provided for the nursing of the sick, and the unsuitable nature of the buildings in which the work is carried on, causing much additional work to the staff, as well as extravagance in the management. Here we meet with the pauper help, so dear to the heart of the average guardian, who, because he does not sign a cheque for the wages of this functionary, is convinced that he has secured the cheapest form of service. There is a flaw in this reasoning: it has been proved over and over again that the pauper help causes more waste and loss of material than any other form of servant: yet when more help is wanted in the wards the guardians are satisfied with the addition of a few more of these worse than helpless helps. Imbeciles, idiots, old men, and depraved women form the *personnel* of the sick ward, sometimes with a nurse over them, sometimes irresponsible masters of the situation. Then the buildings match the service; we read of no bathrooms, no supply of hot and cold water, but such as is carried from a distance; sanitary arrangements defective or absent, no proper provision for the comfort or privacy of the lying-in woman, no children's wards, no surgical supplies, no screens for decency, overcrowding in wards where the hapless sick live, sleep, and eat the year round; miserable dark rooms for the use of the coarsely-termed "dirty cases," no classification, no means of isolation, dreary airing courts, indeed an absence of all intelligent appreciation of the needs of the sick. The majority of the infirmaries are antiquated, having been built at a time when there was no nursing of the sick as it is now understood; wherever an attempt has been made to bring them up to date it is more often in the style known as "patching," which only results in added vexation for those who have to work in patched buildings, and arithmetically represents spending £100 to save £5. In the appointments of her department we find that the schoolmistress has the advantage of the nurse; the guardians are required by the General Orders to supply all needful apparatus for the school on the requisition of the mistress; but in the nursing department the master has the revision of the nurse's list unless she is backed by the medical officer; neither has she the visits of a skilled inspector to strengthen her position, as in the case of the teacher.

The third point to which we would direct attention is the necessity for an improved style of officer. Taking into consideration the vast responsibilities placed in the hands of the master and matron, and the autocratic position that they assume in the house, we would urge that these officers be recruited from the educated and intelligent classes, and out of the Poor-law rut. There is an unwritten law enforced by the Local Government Board, which requires that the master and matron be husband and wife, the reason alleged being that this ensures freedom of consultation in all official matters. This, however, is attained at great cost, for it favours collusion and incompetence, and must restrict the range of selection. It does not follow that a competent master is married to a woman of equal capacity, or *vice versâ*; freedom of action or independent criticism on the part of the master or matron is next to impossible, and the guardians can with difficulty arrive at facts concerning the management of the house. No one can have read the reports without being struck with the responsibility of the master's office or with the large authority placed in his hands; for this reason we would urge that men of a superior class be sought for to fill the post, and that gentlewomen, especially those trained in hospitals, should be encouraged to offer themselves as matrons.

The fourth head under which we would discuss the need of reform is in the matter of inspection. The Local Government Board employs a large staff of highly paid inspectors; the inspectors have been visiting the infirmaries for years,

and yet when we send our Commissioner, armed with no official power to go below the surface of things, what is the result? The country is surprised and startled at the abuses brought to light. We have no hesitation in saying that our reports have shown the worthlessness and hollowness of this so-called inspection as far as the sick are concerned; as an engine of reform it has proved itself signally weak; these highly paid officials have not justified their existence. Coincidently with the appointment of the trained nurse, we advocate the appointment of the woman inspector, having full powers to investigate the nursing of the sick, and, in the workhouse, the concerns of the women and children. To this suggestion we add another: that the inspectors, whether masculine or feminine, should be properly trained for the work; that training counts is evident in the thoroughness and accuracy of the inspection when the lay inspector is accompanied by the medical man. The exclusive employment of the doctor, however, would not be wise; the various questions of business details that come under the eye of the inspector are such as require the business faculty for their solution, but we do see that special training is of value in inspection.

The time has surely now come when we may urge an advance on the part of the Local Government Board, in the direction of improving the condition of the sick pauper. We know the difficulties that hamper a central authority in carrying through reforms, especially when that body is advisory and consultative, without coercive powers; but public opinion is behind it, and the time is ripe to take steps in the direction that we have indicated. The blot of inertia has lain too long on our Poor-law system; over fifty years ago ardent reformers were clamouring for a more humane and intelligent treatment of the sick pauper; yet in some country workhouses things are as they were then. Cruelty, neglect, parsimony, can be read between the lines in some of our reports; with the country it now rests to make an end of this state of things.

In concluding this series we take the opportunity of thanking all those officials, guardians, and others, and especially the medical officers, whose efficient and courteous aid has enabled our Commissioner to furnish these reports; we have been standing shoulder to shoulder in a good cause, and we may now look for results.

ASSOCIATION INTELLIGENCE.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

Research Scholarships.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

Applications to be sent in writing addressed to the General Secretary on or before June 15th, stating the particulars of the intended research, qualifications, and work done.

Francis Fowke, *General Secretary.*

429, Strand, Lond , May 8th, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Notice is hereby given that the Library of the British Medical Association will be closed from May 24th till June 4th next for the purpose of cleaning and painting.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

Meetings of the Council will be held on July 10th and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch.—The annual general meeting of this Branch will be held on Tuesday, June 11th, at 5.15 P.M., at the Royal Forest Hotel, Chingford.—Andrew Clark and Isambard Owen, Honorary Secretaries.

Birmingham and Midland Counties Branch.—The annual meeting of this Branch will take place on June 13th, at 3.30 P.M., in the Medical Institute, when, after the transaction of formal business, the President-elect, Dr. A. H. Carter, F.R.C.P., will deliver an address. The annual dinner will be held the same day, at the Great Western Hotel, at 6.30 P.M. Gentlemen desirous of attending should send their names to Gilbert Barling, Honorary Secretary, 85, Edmund Street, Birmingham.

Midland Branch.—The annual meeting will be held at the Royal Infirmary, Derby, on Thursday, June 13th, at 2 P.M. After the transaction of the usual business, the following papers will be read and discussed:—Mr. C. J. Bond: Remarks on a case of Splenectomy, with observations on the Condition of the Blood. Dr. Pope: Case of Post-diphtheritic Paralysis; Feeding under Chloroform for Ten Days; Recovery. Mr. J. P. Greenwood: (1) Fractured Pelvis in Man; (2) Torn Urethra; (3) Perineal Section following upon Suprapubic Opening of Bladder; Recovery. Dr. J. H. Neale: Some Remarks on Enteric Fever and its Treatment. Dr. Sympson: A case of Primary Cancer of the Pancreas. Mr. C. H. Hough: Bovine Tuberculosis: its Relation to Milk as Human Food. Dr. W. Benthall: A case of Friedreich's Disease, with notes. Luncheon will be provided by the President-elect at the Midland Hotel at 12.45 P.M., and the dinner will take place at the same place at 5.30 P.M.; tickets 7s. 6d., exclusive of wine.—W. A. Carline, M.D., Honorary Secretary and Treasurer, Lincoln.

East Anglian Branch.—The annual meeting of this Branch will be held at The Castle, Framlingham, on Thursday, June 13th, Mr. A. C. Mayo (Great Yarmouth) President. Programme:—11.30 A.M. Meeting of the Council of the Branch. 12 noon. Meeting of the Branch for business. 1.30 P.M. Luncheon in the Castle by invitation of Mr. G. E. Jeaffreson, President-elect. 2.30 P.M. Introduction of new President by retiring President. Short address by the President. Consideration of a communication from the Parliamentary Bills Committee *re* Midwives Registration Bill; discussion to be opened by Dr. A. R. Manby. Dr. J. C. Thresh: The Bacteriological Diagnosis of Diphtheria, with exhibitions of cultures and culture outfit. Mr. H. Cooper-Pattin: On Notified Diarrhœa in Norwich, 1894. Mr. W. H. Crowfoot: Case of Vaginal Hysterectomy, with specimen. Mr. W. W. Sinclair: Intraocular Sarcoma, with specimens. There will be an exhibition of surgical instruments and appliances by Messrs. Down Brothers, of London, and of pharmaceutical novelties by Messrs. Burroughs, Wellcome and Co. By the courtesy of the Rev. J. Holme Pilkington, afternoon tea will be provided in the rectory grounds.—Edgar G. Barnes, M.D., Eye; Michael Beverley, M.D., Norwich; Thomas Carr, M.D., Braintree, Honorary Secretaries.

Cambridge and Huntingdon Branch.—The annual meeting of this Branch of the Association will be held at Bishop's Stortford on Friday, June 14th, Dr. Morris, the President-elect, in the chair.—Joseph Griffiths, 4, King's Parade, Cambridge, Honorary Secretary.

South Wales and Monmouthshire Branch.—The twenty-fifth annual meeting will be held at the Hospital, Swansea, on Thursday, June 27th. Members desirous of reading papers, etc., should send titles to Dr. Sheen by June 12th.—A. Sheen and D. A. Davies, Cardiff, Honorary Secretaries.

Yorkshire Branch.—The annual meeting of this Branch will be held at the Sheffield School of Medicine on Wednesday, June 26th, at 3 P.M., when the usual business will be transacted and the alteration of a rule proposed. Members intending to read papers are requested to communicate with Arthur Jackson, Sheffield, Honorary Secretary.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The summer meeting of the Branch will be held at Keith on Thursday, June 20th. There will be a drive to Gordon Castle, and an opportunity will be given of inspecting the castle and grounds. A light luncheon will be provided, and a dinner will be held at Keith. Full particulars as to the fares and prices will appear in the BRITISH MEDICAL JOURNAL of June 8th, and will be intimated to members by circular.—C. THISELTON URQUHART and J. SCOTT RIDDELL, Aberdeen, Joint Honorary Secretaries.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at the Town Hall, Hastings, on Wednesday, June 12th, at 1.45 P.M., Dr. B. H. Allen, President-elect, in the chair. The President-elect invites members and their friends to luncheon at the Town Hall from 12.30 to 2 P.M. Dinner at the Palace Hotel at 5.15 P.M.—T. JENNER VERRALL, Honorary Secretary, 97, Montpellier Road, Brighton.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The annual meeting will be held in the Gordon Arms Hotel, Elgin, on Thursday, June 20th, at 12 noon. Members desirous of making any communication, or members of the profession within the district who may wish to become connected with the Branch, will oblige by communicating with the Honorary Secretary not later than June 12th.—J. W. NORRIS MACKAY, Honorary Secretary, Elgin.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Liverpool on Wednesday, June 19th. Gentlemen wishing to read papers, give demonstrations, or make any communication to the meeting, are requested to communicate as soon as possible with Dr. JAMES BARR, Honorary Secretary, 72, Rodney Street, Liverpool.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE third meeting of the thirty-eighth session was held at Gravesend on May 16th; Mr. R. J. BRYDEN (Milton-next-Sittingbourne) in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Next Meeting.—It was decided that the next meeting be held at Rochester in October, and that Mr. J. Holroyde, of Hammond Hill, Chatham, be asked to preside.

Election of Hon. Secretary.—It was proposed by Mr. SELLS, and seconded by the CHAIRMAN, that the Hon. Secretary be re-elected for the ensuing year; this was carried.

Communications.—Dr. W. HALE WHITE read a paper on the Increase during Epidemics of Influenza of Empyema as a Complication of Pneumonia. He gave the history of 26 cases in which this complication had occurred, in most of which cultivations of pus removed from the pleural cavity revealed the pneumococcus. In many of the cases the inflammation of the lung had subsided before any indications of the formation of the pus occurred, there being an apyrexial interval before the temperature began to exhibit the evening exacerbation of empyema. In others the pneumonia and empyema appeared to progress simultaneously. One case occurred of unusual interest from its presenting the symptoms of pneumonia, commencing with blood-stained sputum, increased vocal fremitus, and bronchophony, and was diagnosed as such; but at the necropsy 56 ounces of pus only were found in the pleural cavity, and no indication in the lungs that pneumonia had existed. With regard to treatment, Dr. White pointed out the uselessness of aspirating such cases except for diagnostic purposes, and urged the importance and necessity of free incision and efficient drainage.—The CHAIRMAN read notes of a case of Traumatic Encephalitis occurring in a boy who fell from a barge into the water, striking his head in falling. He developed symptoms of encephalitis, and died a few days afterwards. The necropsy revealed lymph exudation in the membranes on the vertex and hyperæmia of the brain substance; but no bruising of the scalp nor fracture of the skull.

Exhibits.—Mr. J. MILNE exhibited a large assortment of Antiseptic Dressings and Appliances.

Dinner.—The members dined together at the Old Falcon Hotel after the meeting.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

AN ordinary meeting of this district was held at Portsmouth on May 1st.

Cases, etc.—Dr. WARD COUSINS exhibited (1) two patients on whom Excision of the Knee-joints had been performed; (2) a patient on whom Radical Cure of Hernia, Castration, and Cure of Varicocele had been performed at one operation.—Dr. CLAREMONT exhibited a case of Coloboma of both Irides and Choroids.—Mr. E. WILLMER-PHILLIPS exhibited a specimen of Incomplete Femoral Hernia. The patient, a man, aged 73, had symptoms of intestinal obstruction, with stercoraceous vomiting, for fourteen days with only slight distension of the abdomen. The bowels acted freely on the fourteenth and fifteenth days, when vomiting ceased, but the patient died on the sixteenth day from exhaustion. No hernia could be felt externally. On *post-mortem* examination a portion of circumference of a loop of small intestine was found nipped by and adherent to the left crural ring, there being a free passage above and below.—Dr. B. H. MUMBY showed microscopic slides of Bacillus Diphtheriæ (Klebs-Loeffler) and of Streptococcus Pyogenes.

Bacteriological Diagnosis of Diphtheria.—Dr. MUMBY read a paper on the bacteriological diagnosis of diphtheria and its treatment by antitoxin. After referring to the increase of diphtheria, he gave a description of the Klebs-Loeffler bacillus, its relation to the false membrane, and its association with other organisms and the method of making cultures. He compared the mortality of diphtheria abroad and in England, and described the method of immunising horses, and of preparing the antitoxin serum. He mentioned five cases in which he had tried the serum treatment. The serum was obtained from the Institute of Preventive Medicine. The first case, a child of 23 months, was injected with 20 c.cm. at 9 P.M. on the fourth day. The fauces were almost covered with a grey, pultaceous, foul-smelling membrane. There was slight lividity, but no obstruction to the larynx. The child died of syncope at 4 A.M. the next morning. Three of the remaining cases were very slight ones, and would probably have recovered under any treatment. In all these four the bacillus diphtheriæ was discovered. The fifth case was a very severe one, in a boy aged 9 years. The membrane not only covered the tonsils and soft palate, but advanced over almost all the mucous membrane of the mouth. The fœtor was horrible, but his larynx was not affected, and although his urine was almost solid with albumen, his strength was well maintained. He had three injections, the first on the day of admission, and two more after intervals of twenty-four hours. On the morning of the third day the British Institute of Preventive Medicine reported that the case was not one of diphtheria, streptococcus pyogenes only having been found. The boy was still very ill, but had no more serum. He recovered, but the uvula and two-thirds of the soft palate sloughed off. There was no paralysis. Dr. Mumby quoted statistics from the BRITISH MEDICAL JOURNAL showing the marked reduction in mortality effected by the serum treatment. Drs. C. KNOTT, F. T. PEARSE, CLAREMONT, and WARD COUSINS took part in the discussion, and a vote of thanks to Dr. Mumby was carried unanimously.

Papers.—Dr. WATSON read notes of a case of Transverse Myelitis. The symptoms came on after exposure to wet, and the patient made a complete recovery.—Dr. F. T. PEARSE made some remarks on the Value of an Ethical Section at the Annual Meetings of the Association.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A MEETING of this District was held on May 24th at Tottenham Hospital.

Paper.—Dr. WILLIAM EWART read a paper on Some Practical Aids in the Diagnosis of Pericardial Effusion in Connection with the Question as to Surgical Treatment.—A discussion ensued, and Dr. EWART replied.

Clinical Cases.—Dr. HOOPER MAY and Dr. LLOYD SMITH showed some interesting clinical cases.

The late Dr. Henty.—Dr. CLEVELAND expressed deep regret at the recent death of Dr. Henty, formerly Honorary Secretary of the District, who had always been very greatly respected and beloved by his professional brethren; and it was resolved:

That this meeting desires to record with deep regret its sense of the loss sustained by the District through the death of their late Honorary Secretary, Dr. Henty, and to express condolence and sympathy with Dr. Henty's family in their bereavement.

The Honorary Secretary was directed to forward a copy of the resolution to Dr. Henty's daughter, Mrs. Forsyth.

Election of Officers.—The following officers were elected for the coming year: *Vice-President of the District:* Dr. Cleveland. *Representative on the Branch Council:* Dr. Morton. *District*

Committee: Drs. and Messrs. Hooper May, C. F. Bailey, Norman Kerr, J. Anderson Smith, F. Greaves, Winslow Hall. *Honorary Secretary:* Dr. Hugh Woods.

Votes of Thanks.—Votes of thanks were passed to Dr. Ewart, to the hospital staff, and to the hospital authorities.

DORSET AND WEST HANTS BRANCH.

THE annual meeting of this Branch was held at Blandford on May 22nd, Mr. C. H. W. PARKINSON, President, in the chair. Forty-three members and visitors were present.

Council and Representatives.—Dr. G. H. Batterbury (Wimborne), Mr. G. W. Daniell (Blandford), Dr. J. Davison, (Bournemouth), Dr. J. M. Lawrie and Dr. A. McLean (Weymouth), and Dr. W. V. Snow (Bournemouth) were elected members of the Branch Council for the ensuing year; Mr. C. H. W. Parkinson (Wimborne) was re-elected representative on the Council of the Association and on the Parliamentary Bills Committee.

New Members.—The following were elected: Mr. Ernest Edmund Dalton (Cerne Abbas), Dr. Richard William Hare (Weymouth); Dr. John Braxton Hicks (London), and Dr. Arthur Ransome (Bournemouth).

Next Meeting.—It was decided to hold the summer meeting at Bridport on July 17th.

Abuse of Medical Charities.—It was resolved:

That a Committee of the Branch be appointed to inquire as to the abuse of medical charities in the Dorset and West Hants Districts, and, if found to exist, to suggest remedies.

Cork Indemnity Fund.—A donation of three guineas was voted to the fund.

Amendment of Medical Acts.—A resolution was passed generally approving of the Bill.

Discussion.—A discussion on various matters affecting the interest and welfare of general practitioners was opened by the PRESIDENT, and taken part in by Dr. MOORHEAD, Mr. EWENS, Mr. MARSH, Dr. DYER, Dr. SPOONER, Dr. MCLEAN, Dr. GRIFFIN, Dr. LAWTON, and Dr. LYS, and the following resolution was passed:

That the parliamentary representatives of the district be requested to support Mr. Long's Bill relating to the retiring pensions of medical officers That this Branch disapproves of the Midwives Registration Bill.

Communications.—Dr. RANSOME: Ozone in Phthisis.—Mr. EWENS: The Treatment of Talipes, with special reference to advanced cases of Talipes Equino-varus by Tarsectomy, illustrated by casts and photographs.

Dinner.—The members dined at the Crown Hotel.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE annual meeting of this District was held at the Kent and Canterbury Hospital on May 23rd, Mr. J. BOWES, of Herne Bay, in the chair. Twenty members and visitors were present.

Confirmation of Minutes.—The minutes of the last ordinary meeting and the last annual meeting were read and confirmed.

Accounts.—The accounts of the past year, duly audited, were presented and passed.

Re-election of Honorary Secretary.—Mr. Thomas F. Raven, of Broadstairs, was unanimously re-elected as honorary secretary.

Future Meetings.—It was decided that the meeting in September should take place at Margate, and that the meeting in March, 1896, should be held at Dover. Mr. Bertram Thornton, of Margate, was appointed chairman of the Margate meeting.

Resolution.—A touting circular, signed and issued by a member of the South-Eastern Branch was read, and a resolution was unanimously passed that the Council of the Association should be called upon to expel the offending member from the ranks of the British Medical Association.

The Cork Branch and the Benefit Societies.—A resolution in support of the action of certain medical men in Cork in relation to medical clubs was unanimously passed.

Paper.—Dr. SELBY (Teynham) read a paper entitled "Observations on Cases of Typhoid Fever." He dwelt upon some of the various symptoms, complications, and methods of treatment parsued in the course of this disease.—A discussion followed. Owing to the time occupied in the foregoing business the other papers on the agenda were of necessity postponed.

Dinner.—After the meeting the annual dinner took place at the Fountain Hotel, when twelve members dined together, under the presidency of the CHAIRMAN.

BRITISH MEDICAL ASSOCIATION.

SIXTY-THIRD ANNUAL MEETING.

THE sixty-third Annual Meeting of the British Medical Association will be held in London on Tuesday, Wednesday, Thursday, and Friday, July 30th, 31st, August 1st and 2nd, 1895.

President: E. LONG FOX, M.D.Oxon., F.R.C.P., Consulting Physician to the Bristol Royal Infirmary.

President-Elect: Sir J. RUSSELL REYNOLDS, Bart., M.D., F.R.C.P., F.R.S., President of the Royal College of Physicians.

President of the Council: J. WARD COUSINS, M.D.Lond., F.R.C.S., Senior Surgeon to the Royal Portsmouth Hospital.

Treasurer: HENRY TRENTHAM BUTLIN, F.R.C.S., D.C.L., Surgeon to St. Bartholomew's Hospital, E.C.

An Address in Medicine will be delivered by Sir WILLIAM BROADBENT, Bart., M.D., F.R.C.P., Physician-in-Ordinary to H.R.H. the Prince of Wales.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.S., F.R.C.S., Consulting Surgeon to the London Hospital.

An Address in Physiology will be delivered by EDWARD ALBERT SCHÄFER, F.R.S., Jodrell Professor of Physiology, University College.

The Scientific Business of the Meeting will be conducted in Fifteen Sections, as follows, namely:

A. MEDICINE.

Lecture Theatre—Conjoint Examination Hall.

President: F. W. PAVY, M.D., F.R.S. *Vice-Presidents:* Sir FREDERIC BATEMAN, M.D.; D. W. FINLAY, M.D.; W. S. CHURCH, M.D.; J. W. MOORE, M.D.; STEPHEN MACKENZIE, M.D.; E. MARKHAM SKERRITT, M.D. *Honorary Secretaries;* WILLIAM COLLIER, M.D., St. Mary's Entry, High Street, Oxford; W. P. HERRINGHAM, M.D., 13, Upper Wimpole Street, W.; Sir HUGH R. BEEVOR, M.D., 18, Serjeant's Inn, Fleet Street, E.C.

The following subjects have been selected for discussion:—

Wednesday, July 31st.—I. Discussion on Diphtheria and its Treatment by the Antitoxin (embracing the following points: (1) Pathology of Diphtheria and its Sequelæ; (2) Symptoms and Progress; (3) Statistics of Mortality under the Antitoxin Treatment and under other Treatment; (4) Effect of the Antitoxin Treatment upon the Local Affection, upon the General Condition, and upon the Sequelæ; (5) Effects that may arise from the Antitoxin Treatment). Introduced by Sidney H. C. Martin, M.D. The following also intend to join in the discussion: G. Sims Woodhead, M.D.; E. W. Goodall, M.D.; Claude Muirhead, M.D. (if possible); Alex. Johnston, M.D.

Thursday, August 1st.—II. Discussion on Acute Lobar or Croupous Pneumonia, its Etiology, Pathology, and Treatment. Introduced by Douglas Powell, M.D. The following have announced their intention of taking part in this discussion: Professor Clifford Allbutt; Samuel Barton, M.D.; Sidney Coupland, M.D.; Samuel Gee, M.D.; G. A. Gibson, M.D.; James E. Pollock, M.D.; Walter G. Smith, M.D.; Sir T. Grainger Stewart; T. Henry Green, M.D.; W. R. Thomas, M.D.; G. W. Balfour, M.D.; David Finlay, M.D.; Arthur Foxwell, M.D.; J. Dreschfeld, M.D.; Alfred Barrs, M.D.; A. G. Auld, M.D.; J. Sinclair Coghill, M.D.; F. M. Pope, M.D.; Lovell Drage, M.D.; Samuel West, M.D.

Friday, August 2nd.—III. Discussion on the Causes of Acute Rheumatism and its Relation to other Affections. Introduced by W. B. Cheadle, M.D. The following will join in the discussion: Archibald Garrod, M.D.; J. F. Goodhart, M.D.; Alfred Mantle, M.D.; J. Maclagan, M.D.; A. Newsholme, M.D.; P. G. Latham, M.D.; H. Handford, M.D.; Sir Dyce Duckworth, M.D.; A. Haig, M.D.; T. Churton, M.D.; H. Lane, M.D.; M. K. Hargreaves, M.D.; H. A. Caley, M.D.; M. Charteris, M.D.; Samuel West, M.D.

The following also hope to take part in these discussions: J. Magee Finny, M.D.; C. F. Nixon, M.D.; Alfred Parsons, M.D.; M. A. Boyd, M.D.; J. O. Carroll, M.D.; Richard A. Hayes, M.D.; H. C. Tweedy, M.D.; J. A. Lindsay, M.D.; C. Y. Pearson, M.D.; R. J. Kinkead, M.D.; Walter Bernard, M.D.

The following papers have been announced:

ALDERSON, F. H., M.D. Latent Ulcer of the Stomach.
CAMPBELL, Colin, L.R.C.P. On Intratracheal Treatment.
CHAPLIN, Arnold, M.D. Phthisis in Relation to Heart Disease.
COGHILL, J. Sinclair, M.D. The Hypodermic Use of Guaiacol in Acute Pulmonary Tuberculosis.
DAVIS, Arthur, M.D. An Account of Fourteen Cases of Myxœdema.
DRESCHFELD, Julius, M.D. On Ataxic Paraplegia.
FOXWELL, Arthur, M.D. Hypertrophic Cirrhosis of the Liver.
GILLIES, H. Cameron, M.D. The Natural History of Pain.
JONES, E. Lloyd, M.D. Chlorosis.
LANE, Hugh, L.R.C.P. Chronic Rheumatic Arthritis: further points in differentiation from Chronic Rheumatoid Arthritis.
LONGHURST, Arthur E., M.D. The Use of Alcoholic Stimulants and their Relation to True Physiological Health.
MORISON, Alexander, M.D. The Treatment of Aortic Valvular Disease.
OGILVIE, G., M.B. The Exceptions to Colles's Law and their Practical Teaching.
PARSONS, Alfred, M.D. Arsenical Multiple Neuritis following the Application of a Cancer Cure.
REYNOLDS, E. S., M.D. A Point in the Diagnosis between Chronic Rheumatism and Chronic Gout.
SEDGWICK, William, M.R.C.S. Notes on the Influence of Heredity in Disease.
SEMMOLA, Professor. Sur la Toxicité des urines dans son degré et dans son nosographisme comme élément de diagnostic et de prognostic dans les maladies en général et surtout dans les maladies aiguës infectieuses.
SMITH, Wilberforce, M.D. The Weighing Machine in Diagnosis and Treatment.
SQUIRE, J. E., M.D. Influence of the Bacillary Theory of Tuberculosis on the Treatment of Phthisis.
TAYLOR, Seymour, M.D. On the Connection between Chlorosis and Gastric Ulcer.
THURSFIELD, T. W., M.D. Goitrous Dyspnœa.
WASHBOURN, J. W., M.D. On the Pathology and Treatment of Pneumonia.
WEST, Samuel, M.D. On the Treatment of Diabetes Mellitus by Uranium Nitrate.

B. SURGERY.

Central Room, Second Floor—Conjoint Examination Hall.

President: Sir WM. MAC CORMAC, F.R.C.S. *Vice-Presidents:* T. BRYANT, F.R.C.S.; C. N. MACNAMARA, F.R.C.S.; REGINALD HARRISON, F.R.C.S.; A. WILLETT, F.R.C.S.; Sir W. STOKES, M.D.; MAYO ROBSON, F.R.C.S. *Honorary Secretaries:* J. D. HARRIS, M.R.C.S., 45, Southernhay, Exeter; J. BLAND SUTTON, F.R.C.S., 48, Queen Anne Street, W.; A. MARMADUKE SHEILD, F.R.C.S., 4, Cavendish Place, Cavendish Square, W.

The President made some introductory remarks, in which he will refer to the Effects produced by Modern Rifle Bullets on the Human Body.

The following subjects have been selected for discussion:

1. The Diagnosis and Treatment of Fractures of the Upper Third of the Femur, including the Neck. To be introduced by Sir William Stokes, M.D. The following gentlemen have intimated their intention of taking part in the discussion: Professor E. H. Bennett, M.D. (Dublin); Thomas Bryant, F.R.C.S. (London); Professor Chiene, M.D. (Edinburgh); H. H. Clutton, F.R.C.S. (London); J. Ward Cousins, M.D., F.R.C.S. (Portsmouth); Davies-Colley, F.R.C.S. (London); Sir George Murray Humphry, M.D., F.R.S. (Cambridge); Mansell Moullin, F.R.C.S. (London); Howard Marsh, F.R.C.S. (London); Professor Macewen, M.D., F.R.S. (Glasgow); Rushton Parker, F.R.C.S. (Liverpool); Mayo Robson, F.R.C.S. (Leeds); F. A. Southam, F.R.C.S. (Manchester); Greig Smith, M.B. (Bristol); A. Willett, F.R.C.S. (London).

2. The Surgical Treatment of Cysts, Tumours, and Carcinoma of the Thyroid Gland and Accessory Thyroids. To be introduced by H. Trentham Butlin, F.R.C.S. (London). The following gentlemen have intimated their intention of taking part in the discussion: Professor Annandale, F.R.C.S. (Edinburgh); James Berry, F.R.C.S. (London); Victor Horsley, F.R.S. (London); Bowreman Jessett, F.R.C.S. (London); C. B. Keetley, F.R.C.S. (London); Professor Kocher (Berne); Dr. Kummer (Geneva); Professor W. Macewen, M.D. (Glasgow); Rutherford Morison, F.R.C.S. (Newcastle-on-Tyne); Mayo Robson, F.R.C.S. (Leeds); W. G. Spencer, F.R.C.S. (London); Sir William Stokes, M.D. (Dublin); Charters Symonds, M.D. (London).

The following papers have been announced:

ANDERSON, William, F.R.C.S. Three Cases of Sacless Hernia of the Sigmoid Flexure through the Left Inguinal Canal, with Anatomical Specimen.
BROWNE, G. Buckston, M.R.C.S. A Hitherto Undescribed Locality in the Male Urinary Bladder where a Stone may lie and elude contact with any Instrument introduced through the Urethra.
CHEYNE, Watson, F.R.C.S. On Operations for Malignant Disease of the Pharynx and Naso-pharynx, with Cases.
HORSLEY, Victor, F.R.S. The Results of Operative Treatment of Injury or Disease of the Cervical Vertebræ.
KEEGAN, Brigade-Surgeon-Lieutenant-Colonel D. F., M.D. Rhinoplasty in India (Lantern Demonstration).
KEETLEY, C. B., F.R.C.S. On Thirty Cases of Osteotomy of the Hip, with Cases.
LOCKWOOD, C. B., F.R.C.S. On the Treatment of Hydrocele by Incision.
MARSH, Howard, F.R.C.S. The Pathology and Clinical History of some Rare Forms of Bony Ankylosis.
MURPHY, J. B., M.D. (Chicago). Peritonitis.
PAGET, Stephen, F.R.C.S. Two Cases of Suppurating Hydatid of the Liver drained through the Chest Wall.

C. OBSTETRICS AND GYNÆCOLOGY.

Large Theatre—King's College.

President: Sir WM. PRIESTLEY, M.D. *Vice-Presidents:* A. R. SIMPSON, M.D.; J. WATT BLACK, M.D.; Sir FRANCIS LAKING, M.D.; J. KNOWSLEY THORNTON, M.B.; W. J. SINCLAIR, M.D.; M. HANDFIELD-JONES, M.D. *Honorary Secretaries:* W. S. A. GRIFFITH, M.D., 114, Harley Street, W.; A. H. F. BARBOUR, M.D., 4, Charlotte Square, Edinburgh; W. R. DAKIN, M.D., 57, Welbeck Street, W.

The following subjects have been selected for discussion:

Wednesday, July 31st.—The Aseptic and Antiseptic Precautions to be Observed in Private Midwifery Practice, to be introduced by G. E. Herman, F.R.C.P.

Friday, August 2nd.—The Early Diagnosis of Malignant Disease of the Uterus, and the Treatment by Partial or Total Excision, to be introduced by J. Knowsley Thornton, M.B.

D. PUBLIC MEDICINE.

Lower Hall—Exeter Hall.

President: ERNEST HART, D.C.L. *Vice-Presidents:* J. SPOTTISWOODE CAMERON, M.D.; C. H. W. PARKINSON, M.R.C.S.; WM. COLLINGRIDGE, M.D.; LOUIS C. PARKES, M.D.; P. BOOBBYER, M.D.; JOHN C. THRESH, M.D. *Honorary Secretaries:* C. E. PAGET, M.R.C.S., Town Hall, Salford; REGINALD DUDFIELD, M.B., Sanitary Department, Vestry Hall, Harrow Road, Paddington, W.; F. W. CLARK, M.B., Lowestoft.

The work of the Section will be inaugurated by an address from the President (Mr. Ernest Hart) on Waterborne Typhoid.

The regular business of the Section will commence each day with a formal discussion by gentlemen who have been invited to open the debates. The subjects selected are as follows:—

Wednesday, July 31st.—The Regulation of the Slaughter of Animals for Human Food and the Inspection of Animals before and during Slaughter. Opener: T. M. Legge, M.D.

Thursday, August 1st.—Hospital Isolation, House Quarantine, and Disinfection. Opener: P. Boobbyer, M.D.

Friday, August 2nd.—The Insecurity of Tenure of Extra-Metropolitan Medical Officers of Health under the Public Health Act, 1875. Opener: B. A. Whitelegge, M.D.

At the conclusion of the discussion of each day papers will be read, selected from the following, as time and opportunity may allow: On the Diagnosis of Doubtful Cases of Diphtheria and the Use of Bacteriology for that Purpose; On the Ventilation of Sewers; The Destruction of Town Refuse by Heat; The Overcrowding of Houses on Land; The Extension and Limitation of the Schedule of Diseases for Notification; Enteric Fever as an Infectious Disease; The Prevention of Milk Epidemics; Hospital Accommodation by the Use of Ships; Meteorology in Relation to Disease; The Desirability of Appointing Medical Men as Registrars of Births and Deaths. Some of the preceding titles are tentative, as the authors have not as yet definitively decided thereon.

Endeavours are being made to arrange excursions to various places likely to interest those engaged in sanitary work. An offer has been received to practically demonstrate the method of rendering horses immune to diphtheria.

Further details, with full information as to titles of papers, names of speakers, etc., will be announced later. All communications on the business of the Section should be

addressed to Mr. Reginald Dudfield, M.A., M.B., 19, Blomfield Road, Maida Vale, W.

E. PSYCHOLOGY.

East Wing Room, Second Floor—Conjoint Examination Hall.

President: W. J. MICKLE, M.D. *Vice-Presidents:* G. H. SAVAGE, M.D.; T. CLAYE SHAW, M.D.; D. NICOLSON, M.D.; HENRY RAYNER, M.D.; J. G. McDOWALL, M.D.; LIONEL A. WEATHERLY, M.D. *Honorary Secretaries:* JAMES CHAMBERS, M.D., 99, Harley Street, W.; T. SEYMOUR TUKE, M.B., 37, Albemarle Street, W.; JAMES TAYLOR, M.D., 34, Welbeck Street, W.

The President will open the Section with an Address on the Brain, on Wednesday, at 10 A.M.

A discussion has been arranged to take place on each day, namely:

Wednesday.—On the Treatment of Melancholia, introduced by Henry Rayner, M.D.

Thursday.—On Insanity, in Relation to Criminal Responsibility, introduced by H. Maudsley, M.D.

Friday.—On Epilepsy, and its Relation to Insanity, introduced by W. R. Gowers, M.D.

The following papers have been announced:

BOND, C. H., M.B. The Relation of Diabetes to Insanity.
CAMPBELL, A. W., M.D. A Comparison of the Breaking Strain of Ribs in the Sane and Insane.
HEAD, H., M.D. Mental Symptoms in Relation to Bodily Diseases in the Sane.
MAUDE, A., L.R.C.P. Mental Symptoms in Relation to Exophthalmic Goitre.
REYNOLDS, E. S., M.D. Mental Symptoms of Bodily Diseases.
SAVAGE, G. H., M.D. Insanity in Conduct.
SHAW, James, M.D. The Early Symptoms of Insanity.
SHUTTLEWORTH, G. E., M.D. Operative Treatment of Idiocy.
SMITH, Percy M.D. Voluntary Boarders in Asylums.
WEATHERLY, L.A., M.D. The Law in Relation to Single Patients.

F. PHYSIOLOGY.

Physiological Laboratory—King's College.

President: DAVID FERRIER, M.D., F.R.S. *Vice-Presidents:* E. E. KLEIN, M.D., F.R.S.; WM. STIRLING, M.D.; DE BURGH BIRCH, M.D.; J. BERRY HAYCRAFT, M.D. *Honorary Secretaries:* C. S. SHERRINGTON, M.D., F.R.S., Brown Institution, Wandsworth Road, S.W.; E. H. STARLING, M.D., 14, Grosvenor Road, S.W.

G. ANATOMY AND HISTOLOGY.

Chemical Theatre—King's College.

President: HENRY MORRIS, F.R.C.S. *Vice-Presidents:* A. MACALISTER, M.D., F.R.S.; W. J. WALSHAM, F.R.C.S.; A. H. YOUNG, F.R.C.S.; B. C. A. WINDLE, M.D.; G. H. MAKINS, F.R.C.S.; A. W. HUGHES, F.R.C.S. *Honorary Secretaries:* F. G. PARSONS, F.R.C.S., St. Thomas's Hospital, S.E.; C. B. LOCKWOOD, F.R.C.S., 19, Upper Berkeley Street, W.

The following subjects have been selected for discussion:—

Wednesday, July 31st.—Art in its Relation to Anatomy, to be opened by Professor William Anderson, F.R.C.S., Joint Lecturer on Anatomy at St. Thomas's Hospital, Professor of Anatomy in the Royal Academy of Arts.

Thursday, August 1st.—The Development and Structure of the Placenta, to be opened by Professor A. H. Young, M.B., F.R.C.S., Professor of Anatomy at Owens College, Manchester.

Friday, August 2nd.—The Topographical Anatomy of the Abdomen, to be opened by Professor A. Thomson, M.A., Professor of Anatomy at Oxford University.

The following papers have been announced:—

KEITH, A., M.D. On Synostosis of the Mesosternum to the Præsternum in Man and Anthropoids, considered as to its Prevalence among them and its Value as Evidence of their Genetic Relationship.
HIGGINS, H., M.R.C.S. On the Mechanism of the Knee.
PATERSON, Professor A. M., M.D. On the Position of the Kidneys.
ROBINSON, Arthur, M.D. (Title of paper not received.)

H. PATHOLOGY AND BACTERIOLOGY.

South Room, Ground Floor—Conjoint Examination Hall.

President: SAMUEL WILKS, M.D., F.R.S. *Vice-Presidents:* J. M. PURSER, M.D.; J. F. GOODHART, M.D.; SIDNEY COUPLAND, M.D.; R. SAUNDBY, M.D.; W. WATSON CHEYNE, F.R.C.S.; ANTHONY A. BOWLBY, F.R.C.S. *Honorary Secretaries:* S. G. SHATTOCK, F.R.C.S., St. Thomas's Hospital, S.E.; H. D. ROLLESTON, M.D., 13, Upper Wimpole Street, W.

The work of the Section has been arranged as follows:

Wednesday, July 31st.

10 A.M.—Introductory Remarks by the President.

10.30 A.M.—Demonstration of the Malaria Parasite by P. Manson, M.D. (Illustrated by Lantern Slides.) A discussion will follow, in which it is hoped the following will take part: Professor Crookshank; A. A. Kanthack, M.D.; G. Thin, M.D.

11.15 A.M.—A. Foxwell, M.D., on Exophthalmic Goitre; G. R. Murray, M.D., Some Results of Thyroidectomy.

12.30 P.M.—Papers on Cancer and other New Growths: R. Hewlett, M.D., On the Chemistry of Carcinoma and Sarcoma; D'Arcy Power, F.R.C.S.; H. Snow, M.D., The Insidious Marrow Infection of Breast Carcinoma; G. Thin, M.D.; W. Roger Williams, F.R.C.S., On Uterine Neoplasms and their relative frequency.

1.45 P.M.—A. R. Parsons, M.B., Specimen of Larynx from case of Typhoid Fever.

Thursday, August 1st.

10 A.M.—Discussion on Neuritis. Introduced by S. J. Sharkey, M.D. The following have promised to read papers or to join in the discussion: W. Gordon, M.D.; F. W. Mott, M.D.; W. M. Ord, M.D.; Professor Trevelyan, M.D.; Russell Wells, M.B.; W. H. Wilson, M.B.

11.30 A.M.—Discussion on Vaccinia and Variola. Introduced by S. A. M. Copeman, M.D. It is hoped that T. D. Acland, M.D.; S. Coupland, M.D.; Professor Crookshank, M.B., and others will take part in the discussion.

12.30 P.M.—Discussion on Pernicious Anæmia. Paper by W. B. Ransom, M.D. S. A. M. Copeman, M.D., and W. Hunter, M.D., will speak.

1.15 P.M.—Paper by Professor Adami: The Effect of the Reactions of Media upon the Pathogenic Properties of Bacteria.

1.40 P.M.—Paper by A. G. Auld, M.D., on Hæmatogenous Jaundice.

Friday, August 2nd.

10 A.M.—Discussions on Lymphadenoma. Introduced by W. G. Spencer, F.R.C.S. The following have intimated their intention to take part in the discussion: W. J. Fenton, M.B.; H. Morley Fletcher, M.D.; R. M. Leslie, M.B.; A. A. Kanthack, M.D.; C. A. Morton, F.R.C.S.; G. N. Pitt, M.D.; D'Arcy Power, F.R.C.S.; H. Snow, M.D.; G. Thin, M.D.; Claud Wilson, M.D.

11.30 A.M.—Papers on Leprosy. By P. Abraham, M.D.; G. Thin, M.D.

12 NOON.—Professor Babes.

12.15 P.M.—Professor Crookshank on Actinomycosis.

12.30 P.M.—R. Hewlett, M.D.—(1) The Diazo Reaction in Typhoid Fever, (2) On Experimental Tetanus; R. Hewlett, M.D., and St. Clair Thomson, M.D.—On the Fate of Micro-organisms in Inspired Air.

1.30 P.M.—F. R. Walters, M.D.—Pulmonary Hypertrophic Osteo-arthropathy.

A. McFadyean, M.D., and R. Hewlett, M.D., will exhibit Cultures and Bacteriological Specimens.

The Secretaries venture to ask gentlemen who intend to show microscopic specimens to let them know the number of microscopes (and the powers) necessary to illustrate their papers, as this will be limited; and also to state whether the use of a lantern is required.

A separate room will be provided for the exhibition of microscopical and other specimens; lantern demonstrations will be given in the meeting-room.

I. OPHTHALMOLOGY.

Large Committee Room, Ground Floor—Conjoint Examination Hall.

President: H. POWER, F.R.C.S. *Vice-Presidents:* D. ARGYLL ROBERTSON, M.D.; W. A. BRAILEY, M.D.; G. ANDERSON CRITCHETT, M.A., F.R.C.S.Edin.; W. ADAMS FROST, F.R.C.S.; A. EMRYS JONES, M.D.; A. H. BENSON, M.B. *Honorary Secretaries:* R. W. DOYNE, F.R.C.S., Kilcrone, Oxford; E. TREACHER COLLINS, F.R.C.S., 84, Wimpole Street, W.; W. T. HOLMES SPICER, F.R.C.S., 47, Welbeck Street, W.

The following subjects have been selected for discussion:

1. On Certain Rare Cases of Recurrent Ophthalmia. Opened by E. Fuchs (Vienna). The affection occurs in

adults; it begins with conjunctival and ciliary injection, general or limited, myosis, slight transient myopia, with œdema of the lids in some cases, and occasionally vesicles on the cornea. The duration varies from twenty-four hours to a few days, and recurrence takes place at varying intervals. It is probably angeo-neurotic in its orgin.

2. On the Diagnosis of Orbital Growths. Opened by H. R. Swanzy, F.R.C.S. (Dublin), and Panas (Paris).

3. On the Question of Operating in Chronic Glaucoma. Opened by E. Nettleship, F.R.C.S.

The following gentlemen will take part in the discussions: Messrs. Fuchs, Panas, Swanzy, Nettleship, Galezowski, Hirschberg, Gayet, Meyer, Juler, Lawford, Spencer Watson, Drake-Brockman, Glascott, Mackinlay, Little, Snell, Adams Frost, Critchett.

The following papers have been announced:

BEAUMONT, W. H. On the Question of Latent Hypermetropia in the usual Examination of Candidates for the Public Services.

FUCHS, Professor. A New Theory of Erythropsia.

LEE, Charles. Cases of Pemphigus and Essential Shrinking of the Conjunctiva.

Papers have also been promised by Messrs. McGillivray, Snell, Edridge-Green, and Juler.

There have also been promises of Specimens for the Museum.

J.—DISEASES OF CHILDREN.

Theological Class Room—King's College.

President: JOHN H. MORGAN, F.R.C.S. *Vice-Presidents:* W. B. CHEADLE, M.D., F.R.C.P.; F. A. SOUTHAM, F.R.C.S.; H. HANDFORD, M.D.; W. ARBUTHNOT LANE, M.S., F.R.C.S.; A. FOXWELL, M.D., F.R.C.P.; D'ARCY POWER, F.R.C.S. *Secretaries:* DAWSON WILLIAMS, M.D., F.R.C.P., 25, Old Burlington Street, London, W.; HUGH R. JONES, M.D., 58A, Grove Street, Liverpool; HERBERT F. WATERHOUSE, F.R.C.S., 81, Wimpole Street, London, W.

The following discussions have been arranged:

A. Congenital Syphilitic Manifestations in Bones and Joints, to be opened by the President of the Section, John H. Morgan, F.R.C.S. Howard Marsh, F.R.C.S., H. H. Clutton, F.R.C.S., Anthony Bowlby, F.R.C.S., Robert Jones, F.R.C.S. (Liverpool), H. B. Robinson, M.D., and Leopold Hudson, F.R.C.S., intend to take part in the discussion, and C. A. Ballance, F.R.C.S., and H. Stansfield Collier, F.R.C.S., will contribute a series of cases.

B. On the Nervous Sequelæ of Acute Infectious Diseases in Children, which will be introduced by H. Handford, M.D. (Nottingham), and discussed by W. R. Gowers, M.D., F.R.S., Thomas Barlow, M.D., W. B. Cheadle, M.D., Jules Comby, M.D., (Paris), Professor v. Ranke (Munich), R. Robertson, M.D. (Liverpool), James Taylor, M.D., William Hunter, M.D., H. B. Donkin, M.D., T. More Madden, M.D. (Dublin), Fletcher Beach, M.B., F. W. Mott, M.D., Montagu Murray, M.D., W. S. Colman, M.D., and Dawson Williams, M.D.

C. On the Treatment of Hernia in Children, to be introduced by Rushton Parker, F.R.C.S. (Liverpool). Sir William Stokes, M.D., Ward Cousins, M.D. F.R.C.S. (President of Council), Professor William Macewen, F.R.S. (Glasgow), Professor Chiene (Edinburgh), Mitchell Banks, F.R.C.S. (Liverpool), W. Alexander, F.R.C.S. (Liverpool), F. A. Southam, F.R.C.S. (Manchester), D'Arcy Power, F.R.C.S., W. Arbuthnot Lane, M.S., F.R.C.S., C. B. Lockwood, F.R.C.S., H. P. Symonds, F.R.C.S. (Oxford), Herbert Waterhouse, F.R.C.S., and Reginald H. Lucy, F.R.C.S. (Plymouth), intend to take part in this discussion.

D. Doses of Various Remedies suitable for Children at the Several Ages, to be introduced by J. Kingston Barton, M.D., D. J. Leech, M.D. (Manchester), J. Mitchell Bruce, M.D., H. B. Donkin, M.D., A. Foxwell, M.D. (Birmingham), N. J. Tirard, M.D., and T. More Madden, M.D. (Dublin), intend to take part in this discussion.

It is hoped to arrange for the demonstration of cases of interest on each day after the discussions and reading of papers.

The following papers have been announced:

BALLANTYNE, J. W., M.D. (Edinburgh). The Relation of Certain Diseases of Infancy to Antenatal Anatomy and Physiology.

BARTON, J. Kingston, M.D. (London). The Relation between the Foods of Early Life and the Condition of the Teeth in Youth and Early Adolescence.

COMBY, Dr. J. (Paris). The Non-pathogenic Streptococci and Staphylococci of the Throat in Children.

GARROD, Archibald E., M.D., F.R.C.P., and FLETCHER, Morley, M.D. On the Maternal Factors in the Causation of Rickets.

GRATTAN, Nicholas, F.R.C.S.I. (Cork). Demonstration of Osteoclasis.

HANDFORD, Henry, M.D. (Nottingham). A Case of Erb's Paralysis following Enteric Fever.

LOCKWOOD, C. B., F.R.C.S. Hernia of the Ovary in an Infant with Torsion of the Pedicle.

LUCY, Reginald H., F.R.C.S. (Plymouth). The Causes of Hernia in Children.

TELFORD-SMITH, Telford, M.D. (Royal Albert Asylum, Lancaster). The After-History of Two Cases of Craniectomy.

K. OTOLOGY.

Room 22—King's College.

President: Sir W. DALBY, F.R.C.S. *Vice-Presidents:* CHARLES WARDEN, M.D.; G. P. FIELD, M.R.C.S.; E. CRESSWELL BABER, M.B.; J. DUNDAS GRANT, M.D.; EDWARD LAW, M.D.; C. A. BALLANCE, F.R.C.S. *Honorary Secretaries:* C. E. L. B. HUDSON, F.R.C.S., 16, Harley Street, W.; G. C. WILKIN, L.R.C.P., 39, Weymouth Street, W.

Thursday, August 1st.—Discussion on Cerebral Complications in relation to Middle Ear Disease. Opened by Professor Macewen, M.D., C.M., F.R.S., LL.D., Regius Professor of Surgery, University of Glasgow.

The Section has also arranged to hold a discussion on the the Treatment of Nerve Deafness. Particulars of this will be announced later.

Papers will be contributed and Specimens exhibited by the following amongst others:

COUSINS, J. Ward, M.D., F.R.C.S. On the Use of Artificial Tympanic Membranes.

JONES, Carmalt, F.R.C.S. On Turbinotomy in Cases of Deafness and Tinnitus Aurium.

LAKE, Richard, F.R.C.S. On the Anatomical Connections of the Tympanic Membrane, with a few Remarks on their Pathological Importance. Specimens will be exhibited to illustrate this paper.

SCATLIFF, J. M. E. On the Use of the Pneumatic Speculum in the Treatment of Diseases of the Ear.

L. PHARMACOLOGY AND THERAPEUTICS.

East Wing Room, Ground Floor—Conjoint Examination Hall.

President: Sir WILLIAM ROBERTS, M.D., F.R.S. *Vice-Presidents:* J. TALFOURD JONES, M.B.; T. LAUDER BRUNTON, M.D., F.R.S.; J. MITCHELL BRUCE, M.B.; W. HALE WHITE, M.D.; DONALD MACALISTER, M.D.; M. MCHUGH, M.B. *Honorary Secretaries:* VAUGHAN HARLEY, M.D., 25, Harley Street, W.; W. SOLTAU FENWICK, M.D., 10, Devonshire Street, W.

The following subjects have been selected for discussion:

July 31st.—Discussion upon Serum-therapeutics. Drs. Klein and Washbourn, Professor Fraser, Drs. Charteris, Tirard, Sidney Phillips, Gayton, Caiger, Bokenham, Goodall, Bruce, MacCombie, have promised to speak.

August 1st.—Discussion upon the Requirements of the Profession with reference to the Revision of the *British Pharmacopœia*. Dr. Leech, Professors Fraser, Donald MacAlister, and Bradbury, Drs. Page, Spender, Hale White, Talfourd Jones, Charteris, W. Carter, C. Pearson, Tirard, Neville Wood, James Oliver, H. G. Lys, and Ralph Stockman have promised to speak.

The following papers have been announced:

BOKENHAM, T. J., M.R.C.S. Erysipelas Antitoxin.

CAITLEY, E., M.D. Therapeutic Action of Foods in Diseases of Children.

EARDLEY-WILMOT, R., M.B. The Waters of Leamington.

FENWICK, W. Soltau, M.D. Intestinal Antisepsis.

FOX, Fortescue, M.D. The Waters of Strathpeffer Spa.

HARLEY, Vaughan, M.D. (Title of paper not received.)

HARRIS, Vincent, M.D. Creasote in Pulmonary Disease.

HYDE, Samuel, M.D. The Waters of Buxton.

MYRTLE, A. S., M.D. The Harrogate Waters.

OVEREND, Walker, M.B. Therapeutic Value of Arsenic and Belladonna in Chorea.

SHARP, Gordon, M.B. The Mydriatic Group.

SPENDER, J. Kent, M.B. The Waters of Bath.

TIRARD, Nestor, M.D. Treatment of Uræmic Dyspepsia.

WELSFORD, A. G., M.D. Artificial Foods.

WILSON, E. T., M.B. The Waters of Cheltenham.

M. LARYNGOLOGY.

North Room, Ground Floor—Conjoint Examination Hall.

President: FELIX SEMON, M.D. *Vice-Presidents:* Sir PHILIP SMYLY, M.D.; W. MACNEILL WHISTLER, M.D.; F. DE HAVILLAND HALL, M.D.; GREVILLE MACDONALD, M.D.; SCANES SPICER, M.D.; A. W. SANDFORD, M.D. *Honorary Secretaries:* J. MIDDLEMASS HUNT, M.B., 55, Rodney Street, Liverpool; ST. CLAIR THOMSON, M.D., 28, Queen Anne Street, W.; E. B. WAGGETT, M.B., 66, Park Street, Grosvenor Square, W.

The following subjects have been selected for discussion:

July 31st.—The Etiology of Mucous Polypi of the Nose, introduced by Professor Guye (Amsterdam), Dr. Luc (Paris), and Dr. McBride (Edinburgh).

August 1st.—The Infectious Nature of Lacunar Tonsillitis, introduced by Professor B. Fraenkel (Berlin), and Dr. J. Macintyre (Glasgow).

August 2nd.—The Indications for Early Radical Operation in Malignant Disease of the Larynx, introduced by Dr. Bryson Delavan (New York), and Mr. H. T. Butlin (London).

The following members have expressed their intention of joining in the discussions:

T. Mark Hovell, F.R.C.S.Ed., R. Lake, F.R.C.S., L. H. Pegler, M.D., A. Hodgkinson, M.D. (Manchester), W. Milligan, M.D. (Manchester), and Charles Warden, M.D. (Birmingham), on July 31st. T. Mark Hovell, F.R.C.S.Ed., A. Hodgkinson, M.D., Charles Warden, M.D., and Watson Williams, M.D. (Bristol), on August 1st. Philip de Santi, F.R.C.S., A. Hodgkinson, M.D., and Charles Warden, M.D., on August 2nd.

The following papers have been announced:

DE SANTI, Philip, F.R.C.S. The Operation of Thyrotomy, with a short account of the cases in which it has been performed at St. Bartholomew's Hospital during the last fifteen years.

HODGKINSON, Alexander, M.D. (Manchester). (1) A new form of Magnifying Laryngscope; (2) On the Vibrations of the Vocal Cord; (3) On Chorditis Tuberosa; (4) On the Function of the Laryngeal Ventricle.

MILLIGAN, William, M.D. (Manchester). Vocal Defects among School Board Teachers, with special reference to the occurrence of teachers' nodes.

SMYLY, Sir Philip. A Case of Non-Diphtheritic Diphtheria.

The following gentlemen purpose being present and taking part in the work of the Section: Professor Fraenkel, Professor Guye, Dr. Luc, Dr. Bryson Delavan, Professor Moritz Schmidt (Frankfort), Dr. Walker Downie (Glasgow), and Dr. Hillis (Dublin).

N. DERMATOLOGY.

West Wing Room, Second Floor—Conjoint Examination Hall.

President: H. RADCLIFFE CROCKER, M.D. *Vice-Presidents:* MCCALL ANDERSON, M.D.; MALCOLM MORRIS, F.R.C.S.Edin.; J. J. PRINGLE, M.B.; WM. ANDERSON, F.R.C.S.; H. A. G. BROOKE, M.B. *Honorary Secretaries:* J. HERBERT STOWERS, M.D., 41, Finsbury Square, E.C.; JONATHAN HUTCHINSON, Jun., F.R.C.S., 15, Cavendish Square, W.

Wednesday, July 31st, 10 A.M., President's Address.

The following subjects have been selected for discussion in the Section:

The Pathology and Treatment of Pruritus, introduced by McCall Anderson, M.D., of Glasgow, and H. A. G. Brooke, M.B., of Manchester.

Diet in the Etiology and Treatment of the Diseases of the Skin, introduced by W. Allan Jamieson, M.D., of Edinburgh, and Walter G. Smith, M.D., of Dublin.

The following papers have been announced:

COTTERELL, Edward, F.R.C.S. The Treatment of Syphilis by Injections of Syphilitic Autitoxin.

GALLOWAY, James, M.D. Certain Nervous Lesions of the Skin.

HARRISON, A. J., M.B. On Two Cases of Unusual Verruca Necrogenica (with Photographs).

PYE-SMITH, P. H., M.D., F.R.S. Affections of the Skin occurring in the Course of Bright's Disease.

ROBERTS, Leslie, M.D. Treatment and Prognosis of Trichophytosis based on the Physiology of the Trichophytons.

STOWERS, J. Herbert, M.D. On a Case of Dermatitis Repens (with Coloured Drawings).

O. ETHICS.

Room B—King's College.

President: W. F. CLEVELAND, M.D. *Vice-Presidents:* THOMAS BRIDGWATER, M.B.; J. HUGHES HEMMING, M.R.C.S.; D. B. BALDING, F.R.C.S.; C. PARSONS, M.D.; W. H. AXFORD, M.B.; A. DEMPSEY, M.D. *Honorary Secretaries:* MAJOR GREENWOOD, M.D., LL.B., 243, Hackney Road, N.E.; T. F. PEARSE, M.D., 12, Norfolk Street, Southsea; HUGH WOODS, M.D., 11, Archway Road, Highgate, N.

Wednesday, July 31st.—General Address by the President. Subjects concerning more particularly the relations of medical men with each other:

1. Intraprofessional Etiquette, introduced by Dr. Thomas Garrett Horder.

2. Advertising, introduced by Dr. George Wm. Potter.

3. Unqualified Assistants, introduced by Mr. George Brown.

Thursday, August 1st.—The Ethics of Gratuitous and Cheap Contract Practice.

1. Clubs, Medical Aid Societies, and Contract Practice; introduced by Dr. R. W. Doyne. The discussion will be continued by Mr. Hughes Hemming and others.

2. Hospitals and Dispensaries, introduced by Dr. Hugh Woods.

The Secretaries will be glad to hear from members willing to join in the above discussions.

Friday, August 2nd.—1. Any subject, the discussion of which has not been completed on the two previous days. 2. The reading of any selected papers which do not come under the above heads.

The following papers have been announced:

DICKINSON, D. G., L.R.C.P. Provident Principle in Sickness Attendance.

RICE, William Richardson, M.D. The Public Medical Service in its Relation to Medical Ethics.

SIBLEY, Knowsley, M.D. State Aided *v.* Voluntary Hospitals.

WILLIAMS, A. D. Changing Relations of the Profession and the Public.

Honorary Local Secretaries:
ANDREW CLARK, F.R.C.S., 71, Harley Street, W.
ISAMBARD OWEN, M.D., 40, Curzon Street, W.

Honorary Local Treasurer:
GEORGE EASTES, M.B., F.R.C.S., 35, Gloucester Terrace, Hyde Park, W.

PROGRAMME OF PROCEEDINGS.

TUESDAY, JULY 30TH, 1895.

9.30 A.M.—Meeting of 1894-95 Council. Council Room, Exeter Hall.
11.30 A.M.—Special Service at St. Paul's Cathedral. Sermon by the Most Rev. His Grace the Lord Archbishop of Canterbury.
2.30 P.M.—First General Meeting. Report of Council. Reports of Committees; and other business. Exeter Hall.
9.0 P.M.—Adjourned General Meeting from 2.30 P.M. President's Address, and Reception by Metropolitan Members, Imperial Institute.

WEDNESDAY, JULY 31ST, 1895.

9.30 A.M.—Meeting of 1895-96 Council. Council Room, Exeter Hall.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine. Any business adjourned from First General Meeting at 2.30 previous day, Exeter Hall.

THURSDAY, AUGUST 1ST, 1895.

9.30 A.M.—Meeting of Council. Council Room, Exeter Hall.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery. Exeter Hall.
7.30 P.M.—Dinner of the Association at Queen's Hall, Langham Place.

FRIDAY, AUGUST 2ND, 1895.

10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Concluding General Meeting. Address in Physiology. Exeter Hall.

SPECIAL CORRESPONDENCE.

PARIS.

Oysters as Food.—The Charcot Memorial.—Variolisation.—The French Medical Press Association.—A Fête at the Salpêtrière.—The Introduction of Massage.—The Stenches of Paris.

THE English "oyster scare" has not disturbed the calm of the oyster-eating French population. Recent scientific researches on this mollusc will inevitably increase the consumption of him next oyster season. The investigations seem to show that oysters are rich in bromine, iodine, fluorine, phosphorus, and iron. In Portuguese oysters the proportion of phosphorus capable of being assimilated is a gramme to every dozen. Ordinary oysters contain only one third of this amount. Professor Armand Gautier has satisfied himself that all forms of food found in the sea contain organic phosphorus. This explains the fact that cod liver oil, in addition to alkaloids, contains phospho-glyceric acid. M. Le Roy de Méricourt long since pointed out the good effects of oysters as diet in the treatment of diarrhœa in hot climates.

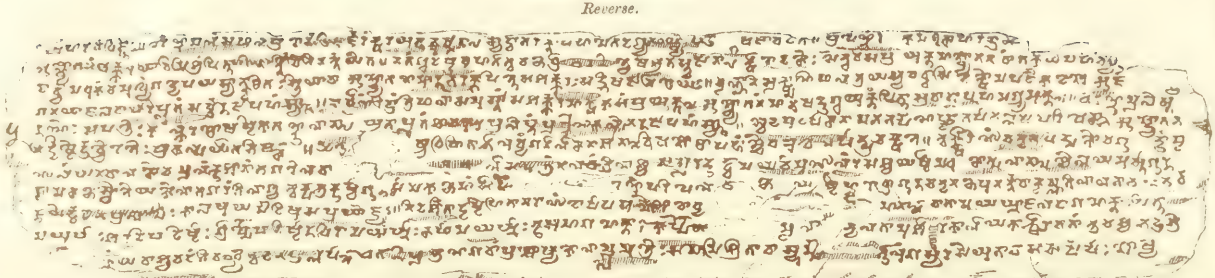
The Charcot Memorial Committee held a meeting on May 17th, M. Brouardel in the chair. It was announced that the subscriptions already paid amount to £1,346, and the amount promised will raise the sum to £1,600. Attention was drawn to the fact that nearly half of the subscriptions come from abroad.

M. Hervieux has published a contribution to the study of "variolisation," in which he shows that inoculation for small-pox was practised as soon as the disease affected



TO ILLUSTRATE MR. JONATHAN HUTCHINSON'S PAPER.

Reverse.



Reverse.

1. ०पङ्क्तरी विविक्त ॥ एरण्डमूलं सफलाग्रारोहं विजर्जरं क्षीरयुतं त्वजानाम् स्याद्दातरक्तापहमेतदथ्यमाद्यौतन०००पजो वदत ॥ प्रपौण्डरं कमधुकरुहरिद्रास्व०००००००
2. द्याद्यौतनमङ्करयाविभिर्यपित्तानिलार्त्तिविनिवर्त्तयेत ॥ नलस्य दर्भस्य तथोत्पलस्य स्वजानाम् क्षीरोदकैः सैन्धवमप्रयुक्तमाद्यौतनं वातकफापहं स्यात् ०००
3. दाद्यौमधुकत्वग्व्यपयस्याक्तयित स्त्रियावा आद्यौतनोमारुतरक्तपित्तेसमशर्करः सर्व्विषजाविषेय॥चूर्णानिसूक्ष्माणिफलत्वयस्यवध्वामितेक्षोमपटेकदेशेश्राजि०००य
4. गनया क्षौद्रेण वा परिप्लुत मक्षरजापहं स्यात्॥ दार्व्वी हरिद्रा त्रिफलां समस्तं मञ्जर्करं माक्षिकसंप्रयुक्तम् आद्यौतेन मानुषदुग्धयुक्तं पित्तासवातापहमक्ष्यमुक्तम् ॥ एरण्डमूलं स्त
5 पु रुणं मधुकं कर्करो पष्टिकतण्डुलानाम् घृताप्लुतं शावकरप्रलिप्तं पूर्व्वेण कल्पेन रजापहं स्यात् ॥ स्वेदपुटपाकनावनतर्पणघृतपानलेपपरिषेकान् आद्यौतेन
6 निर्हिष्टैर्दोषैस्तैः प्रकल्पयेत भिषक् ॥ ऋतु व्याख्यिताभीलुक्यगवीलोकनाशनान् विषशोथापहांश्चैव मुखलेपान्प्रचक्षते ॥ त्वक्पीरिणांचन्दनपद्मकोवगु ह्रांश
7. णालं घनवालकौ च मूल कुशानां तगरैलवा लुता लीसपत्रैनलदंतिलाश्च मसूरदूर्व्वामयवंरुणालरमश्वयष्टीमधु कौत्पलानाम् शैलेयमुस्तागुरु
8. भामकञ्चस्थौनेयकेलातगरतिलाश्यत्वक्चकुष्ठामुरुभामकञ्च मांसी ह रेणु परिप्लेल व ङ्ग य ष्टि ह रोध्रागुरुचन्दनञ्चपनत्रवाक्षणतिलालताच इत्यर्ध
9. रुपत्वंदनपर्णेषु कालेषु घर्मादिषु संप्रयोज्यः ॥ निर्दशिता दृष्टिहिता नराणां दोषापहाश्चे ऋण चोच्च मानान् वातामयघ्नाजलदागमोक्ता:पित्त
10. मयघ्ना: शरदि प्रदिष्टा: श्लोष्मोपदिष्टा रुधिरामयघ्ना: कफामयघ्ना: कुसुमागमोक्ता: कर्ण्यास मूला न्यलतामुशो रकालीयका चीरवतां त्वचश्च भद्रश्रि
11. ०००००क यवाश्च वदंति वर्ण्यान्चंदनपर्णपान् एतानि सूत्रेण गवां प्रशोथ कोलाम्बुसूत्रैः सह मिश्रिता वा स्युर्म्मा . तुलुंगस्य रसं युता वा सर्षपा: शोथ

TRANSLATION.

The tender roots of the castor-oil plant with its nuts and sprouts, added to the milk of goats, make an excellent lotion which cures *any eye-disease caused by vitiated* air and blood: so good physicians declare.

Prapaundrika liquorice, turmeric....., mixed with sugar, make a lotion which stops any *eye*-disease due to *vitiated* bile and air.

Nata (*Tabernaemontana coronaria*), Śvadanishtra (*Tribulus terrestris*), Vrihati (*Solanum indicum*), cinnamon and Hrivêra (*Pæonia odorata*): these, boiled in goat's milk and water, and mixed with rock-salt, make a lotion which cures any *eye-disease due to vitiated* air and phlegm.

.....Indian barberry and best liquorice, boiled in the milk of a cow or a woman, and mixed with sugar, may be applied by a good physician as a lotion in *any eye-disease due to* air, blood and bile.

The three myrobalans, finely pulverised and tied up in a piece of white linen, and soaked in milk of a goat or a woman or in water, are a remedy in all *eye*-diseases.

Indian barberry, turmeric, the three myrobalans, Musta (*Cyperus rotundus*), mixed with sugar and honey, and done up with human milk, make a lotion which is said to be a capital remedy for diseases due to *defects of* the bile, blood, and air.

Together with young roots and leaves of the castor-oil plant, as well as with paste of Shashtika rice, Śavaraka (*Symplocos racemosa*) steeped in clarified butter, and rubbed on according to the direction in the preceding formula, is a remedy against all *eye*-diseases.

With the same drugs as are prescribed for the lotions, a physician should prepare sudorifics, pulpaikas, errhines, emollients, potations of clarified butter, plasters and washes.

Plasters on the face are declared to be suitable for complaints of the seasons, to remove moles, freckles and black spots, and to be remedies against poisons and swellings.

(I) The bark of the *five* trees with a milky sap, also sandal and Padmaka (*Prunus paddam*), Gundra (*Panicum altissimum*), leaf-stalk of the lotus, also Ghana (*Cyperus rotundus*), and Vilaka (*Pæonia odorata*); (II) roots of Kusa grass (*Poa cynosuroides*), Tagara (*Tabernaemontana coronaria*), Elavâlu, leaves of Tâlisa (*Pinus Webbiana*), Indian spikenard, and sesamum seeds; (III) Masûra (*Vicia lens*), Durvâ (*Cynodon dactylon*), Amayava (uncooked barley), leaf-stalk of the lotus, and juice of liquorice and lotus; (IV) Śailêya, Musta (*Cyperus rotundus*), aloe wood, and Jhâmaka, Sthaunêyaka, cardamoms, Tagara (*Tabernaemontana coronaria*), and sesamum seeds; (V) bark and leaves of cinnamon, Kushtha (*Saussurea auriculata*), aloe-wood and Jhâmaka, Mânsi (*Nardostachys jatamansi*), Harênu (*Piper aurantiacum*), and Paripêlava (a kind of *Cyperus rotundus*); (VI) liquorice, Rôdhra (*Symplocos racemosa*), aloe-wood, and white sandal, Punarnavâ (*Boerhaavia diffusa*), seeds of Nigella and Sesamum, and Latâ (*Ichnocarpus frutescens*): with the *six* face-plasters *described* in the foregoing *six* half-verses *the patient* should be treated in the summer and the other *five* seasons *of the year*. They are declared to be beneficial for the sight. Listen now to me as I explain how they remove the *defects of* the humours of men.

In the rainy season they are said to cure diseases due to *derangement of* the air: in the autumn they are held to cure diseases due to *derangement of* the bile, in the summer they are held to cure diseases due to *derangement of* the blood; in the spring they are said to cure diseases due to *derangement of* the phlegm.

Roots of the cotton-plant, Latâ (*Ichnocarpus frutescens*), Usira (*Andropogon muricatus*), yellow sandal, and the bark of *the five* trees with a milky sap, white sandal,.....barley-corns: these are said to make plasters for the face beneficial to the complexion. These *drugs* should be dried and then mixed with the urine of a cow, or with the sour juice of jujube and urine, or they may be dried or mixed with the juice of citron and with mustard (and thus applied to the face).

humanity, beginning in the East and probably in China, thence spreading throughout Asia and reaching the African Continent. In the commencement of the eighteenth century small-pox appeared at Constantinople; thence it travelled on to all the European cities, and finally reached America. In the earliest times inoculation was practised by means of incisions, pricking, setons, scraping the skin, inserting small-pox scabs, etc. M. Hervieux summarises the general and local disturbances resulting from these procedures.

The next meeting of the Association of the Medical Press will be held at Bordeaux during the month of August. At the last meeting the Secretary presented to the members present a copy of the *Livre d'Or de la Souscription Lafitte*. The sums subscribed reach £780. A copy of this pamphlet will be given to every syndicate and every medical association; also to those who have subscribed to the Association of the Medical Press.

The annual *fête* given to the young patients at the Salpêtrière by the philanthropic M. Darthenay took place a few days ago. Quiet and decorum reigned. The patients apparently enjoyed the performance. The *gros Jules*—a myxœdematous subject with a monstrous development of the head and universal puffiness of the body—was present, with his constant companion, an unfortunate microcephalic idiot, called by the nurses *Ouistiti*: he resembles an ape, and is equally agile and cunning. This patient was perfectly fascinated by the representation, and applauded loudly. On the face of the *gros Jules* there frequently appeared a glimmer of content and perception. The pieces played were *Les Malheurs des Créanciers de Monsieur Pifambosse*: a scene from *Les Deux Timides* of Labiche; and *Les Noces de Jeannette*. The hysterical patients and the dements appeared to be favourably influenced by the music.

According to Dr. Forestier, physician to the Evangelical hospital and asylum at Aix-les-Bains, massage was imported into France from Egypt in 1799. It was first practised at Aix in 1808. Daquin's work published in 1808 and that of Despine in 1838 furnish Dr. Forestier with incontestable proof of these statements.

The *Progrès Médical* respectfully suggests to M. Lépine, the Police Prefect, that he would show his energy as an administrator if he called upon the Seine Sanitary Council to have the refuse and manure heaps deposited on the line of the fortifications skirting Paris, and sometimes invading principal thoroughfares, removed. This putrescent organic matter lets free nauseous and dangerous odours, which are disseminated all over Paris. The Prefect being the President of the Council, the hint could easily be acted on.

BERLIN.

Seaside Sanatoria for Children.—Medical Etiquette in the German Army.—The Friedrichshain Hospital and its House-Surgeons.—General News.

THE Society for Children's Sanatoria at German Seaside Places can look back on fifteen years of good and profitable work. It has four houses: one at Norderney, one at Wyk on the island Föhr, one at Zoppot near Dantzig, and one at Gross-Müritz, on the Mecklenburg coast. The number of children sent by the Society to these seaside sanatoria increases yearly; it was 1,133 in 1892, 1,304 in 1893, and 1,385 in 1894. The Norderney house (called after its lady patroness "Kaiserin-Friedrich-Hospiz") is by far the largest; it is also a winter station, and received 149 invalid children last winter. Except at Wyk, where the sanatorium had to be closed on account of an outbreak of diphtheria, the results have been uniformly encouraging. Two deaths occurred, but they were cases sent out in a precarious condition.

There is much talk in Berlin medical circles about a recent decision in medical etiquette. The case is as follows: A medical man had confessedly entered into partnership with a notorious quack, prescribing his "herbal juice" and praising it up in public lectures as a panacea. Upon this the medical society to which he belonged—Aerztliche Standesverein—expelled him, and, as he was also subject to military law, the society made the facts of the case known to the army medical authorities, expecting them to take further steps. But, instead of any such action, the authorities decide that "the fact that the doctor in question treats the patients on the system of the quack casts no blemish on his honour as a gentleman"!

There has been a little disturbance between the house-surgeons and the directors of the Friedrichshain municipal hospital. The complaint was that the very late hours kept, and the amount of drinking indulged in in the common room of the hospital, were bad for the next day's work, and also possibly disturbed the night's rest of the patients. At first the house-surgeons repudiated any interference in what they called their private affairs, and took no notice of a written reprimand; then the directors gave them all notice, and finally the required apology was tendered and the conflict brought to a peaceful close.

Drs. Graf, Wallich, and Becher have petitioned the Prussian Cultus-Minister for an extension of the disciplinary power of the Prussian corporate body of doctors—Aerztekammern—"in view of the increasing dangers of socialism"!

One of the leading practitioners of Berlin, Geheimrath Kristeller, has just completed his 75th year. It is interesting to note that Kristeller was the first Prussian district medical officer (*Kreis physikus*) of the Jewish faith.

CORRESPONDENCE.

MIDWIVES REGISTRATION AND THE MIDWIVES BILL.

SIR,—The term "midwifery nurse" is not mine, and I placed it in inverted commas chiefly for that reason, but also because it conveys in two words what a long sentence is necessary to express.

In trying to save the space of the JOURNAL I have unwittingly drawn upon myself the battery of Dr. Playfair, who, I am sure, understands the expression "midwifery nurse" in the connection that I used it to mean what I intended to convey, namely, that no woman whose training is that of a "nurse" shall be registered as a fully-qualified obstetrical "practitioner."

It is nothing to any of us what the future registered "midwife" is called so long as a fictitious qualification is not established by Act of Parliament. Dr. Playfair's instance of calling a spade a shovel is an excellent analogy, though it must be employed somewhat differently, perhaps, than as he intended. The capabilities and function of a spade are totally different from those of a shovel—the former does the skilled work, the latter merely gathers up. So it should be as regards our employment of the terms "practitioner" and "midwife;" it is as wrong to call an imperfectly-educated person a practitioner as it is to call a spade a shovel.

May I venture to add that, putting the matter broadly, everyone is agreed that it is of the highest importance that "midwives" should be trained and registered, so that the care of a "normal case of labour" shall not become a criminal case of negligent inattention, which, rendered into plainer English, means lack of training as a "nurse." Further, I take it that Dr. Playfair and everyone else is agreed that if such a trained "nurse" recognises (as all trained nurses of all kinds can and do) that a case is not "a normal one," she would only fulfil her duty by sending for a fully qualified practitioner.

There are some, I believe, who think that "midwives" might perform operations like the French midwives of the last century, and that registration should embrace qualification for such duties. In such case the *rôle* of "nurse" is more plainly abandoned, and that of "practitioner" is assumed.

As the Bill at present before the House of Lords has been referred to the Subcommittee of the Parliamentary Bills Committee for examination and report, may I urge upon Dr. Playfair and others interested in deciding where the line is to be drawn between "practitioner" and "nurse," that they should transmit at once in writing to Mr. Fowke for the assistance of the Subcommittee not only their views on this point, but also their detailed criticism of the clauses of the present Bill?

As regards Mr. Owen, I regret to see that he still withholds from your readers Clause 32 of the Medical Act, which I invited him to publish. Although he says he is "familiar"

with the Act, he states that if I would read Clause 32 "carefully," I would see "that the suggested attendant" (that is, the female quack) "would have done nothing to bring herself within it."

From this two things are quite clear: First, that Mr. Owen thinks the clause in question is a penal one; and, secondly, that whatever his familiarity with the Act may have been in the past, he has not refreshed his memory for present purposes by reading it again.

As Mr. Owen evades meeting my statement that only qualified persons "can compel" their patients to pay for professional attendance, I must here transcribe the clause in question:

"xxxii.—After the first day of January, one thousand eight hundred and fifty-nine no person shall be entitled to recover any charge in any court of law for any medical or surgical advice, attendance, or for the performance of any operation or for any medicine which he shall have both prescribed and supplied unless he shall prove upon the trial that he is registered under this Act" (21 and 22 Vict., cap. 90.).

From this it is sufficiently clear that Mr. Owen's quack, so far from shrinking, as he would suggest, from "bringing herself within" the terrors he imagines to lurk within Clause 32, would only be too glad if she could by availing herself of some magisterial misinterpretation haply get some of the scanty benefits secured by the clause to those whom Mr. Owen sneers at as being "properly educated."

As to his suggestion that I, a professional man, would call in a female quack to attend me not being "offensive," that is of course purely a matter of taste and feeling, for judgment upon which I would refer Mr. Owen to your readers and the members of his own profession.—I am, etc.,

Cavendish Square, May 29th. VICTOR HORSLEY.

SIR,—Though I have read letters interminable directed against the Bill now before Parliament I confess I am still at a loss to know on what principles the opposition is founded. Is it a mere question of "vested interests" or is it based on the only legitimate basis—the broad ground of public policy?

Assertions incapable of proof, arguments the most reckless are the current coin of many of your contributors on this subject. Not long ago a speaker against the measure in order to prove the debasing effects of teaching midwifery to women (save the mark!) displayed with much indignation what he said was an indecent drawing, executed by one of a class. It turned out to be a copy of a diagram from *Gray's Anatomy*. Another spurious coin—a fictitious account of an incident at Leicester—was nailed to the counter last week by Mr. W. P. Peake. Only this morning I received a circular from Dr. R. R. Rentoul, headed "Opinion of Counsel on the Midwives Registration Bill." On examination it turned out to be a mere *ex parte* statement of a case for counsel's opinion, which, it is needless to add, is an entirely different matter. Let me take at random a few extracts from the writings of opponents of the Bill. "The opponents are mostly general practitioners with large experience of midwifery, its difficulties and dangers. They are as 50 or 40 to 1 of the supporters of the Bill."[1] What is the authority for this astounding assertion? It is true that Dr. Lovell Drage carried a resolution against the principle of registration at the annual general meeting—a fact that he makes the most of in the public press.[2] Out of the 900 members present at the meeting—the subject which it is alleged so vitally affects their interests—attracted the ridiculous number of 47. And what claim has this residuum to speak in the name of our great Association? The fact is they represented nobody but themselves, and the resolution—carried by 32 votes to 14—is worthless as an expression of the feeling of the profession. The opponents of registration have managed to make a bear garden of the Lancashire and Cheshire Branch, but even there the minority was a very large one (83 to 65), and the minority took the unusual course of subsequently entering a formal protest against the Committee's report. On the other hand, the Perthshire, South Wales, Shropshire and Mid-Wales Branches, *nem. con.*, and the North of England Obstetrical Society have carried *nem. con.* resolutions in favour of registration. So much for the 40 or 50 to 1 majority. Of equal value are such expressions as "the Bill will virtually repeal the Medical Acts," "midwives are put on the same footing as medical practitioners" (Dr. Woodcock). Dr. Rentoul thinks the Bill will also repeal the Vaccination Acts, for, he says, "consequently they might look for a great deal of imperfect vaccination"[3] "The Bill sets forth that a person after attending a course of lectures for three months should be qualified to attend natural labours" (Dr. Rentoul). Nothing of the kind is to be found in the Bill. The course of study and scope of the examination is to be settled by a Board not even constituted until the Bill is passed. But there is still another argument, avowed unblushingly by some, imperfectly veiled by others, which is at once pitiful and shameful. It is to the effect that the Bill creates an inferior order of practitioners, who will be brought into competition with ourselves to our utter discomfiture ("with one swoop to hand over at least 990 out of every 1,000 confinements to midwives," Dr. Rentoul, BRITISH MEDICAL JOURNAL, May 18th). To those who thus humiliate themselves I can only say: *Courage! mes amis.* Though this direful Bill may repeal all the Acts in the statute book, there will still be left for your comfort some of the laws of Nature, among them that of survival of the fittest.

Blind your eyes to it, explain it away, evade it as you may, there is no getting away from the fact that the majority of women in our large towns are attended by midwives. Will the fact of their being taught, examined, and registered affect prejudicially or otherwise the wellbeing of the women they attend? This, and this alone, as the guardians of the health of the nation, is the question we are concerned with. The burden of proof is surely with those who say "Take care to keep that understanding weak and trifling which Nature has made capable of becoming strong and powerful." The preference for womanly help in woman's direst need is one of the most natural of sentiments and one that appeals most to our sympathies, and unless you would pass, with Dr. Rentoul, a new coercion Act to stop it, would promote, with Mr. Campbell, a system of outdoor relief to doctors by which philanthrophy is evoked to pay confinement fees, or adopt the much more effectual and equally practical course of legislating against the procreation of children altogether, there is no getting away from the fact that the profession of midwife is, and will continue to be, an essential part of the social scheme.

"Mrs. Brown, midwife," before the Bill, is "Mrs. Brown, midwife," afterwards; but in the former instance she is not only in many cases ignorant, but also, which is far worse, ignorant of her own ignorance and compelled by an *amour propre* to carry out a difficult labour at all costs or lose her reputation. In the latter she is not only more capable of recognising danger, but runs the risk of being struck off the register by incurring responsibility, and has everything to gain and nothing to lose by calling in medical aid. The parish medical officer will naturally be the person to whom she will appeal, he will be recouped by the extra fees allowed by guardians for such cases.—I am, etc.,

Felixstowe, May 27th. C. G. HAVELL.

THE VALUE OF EXPERIMENTAL EVIDENCE IN THE DIAGNOSIS OF DISEASE OF THE CEREBELLUM.

SIR,—I am exceedingly obliged to Dr. Bruce Ferguson for the courteous way in which he has drawn attention in the BRITISH MEDICAL JOURNAL of May 25th to a part of my paper with regard to which I am glad to have the opportunity of explaining my meaning more fully. On considering the matter, however, I find that there is so much confusion in medical literature on the subject of rotation that it would be impossible for me to explain my position satisfactorily in the space at my disposal in a letter. I have therefore decided to write a paper dealing solely with this question.—I am, etc.,

Queen Anne Street, W., May 29th. J. S. RISIEN RUSSELL.

COLLECTIVE INVESTIGATION IN LUNACY.

SIR,—At a recent meeting of the Medico-Psychological Association, it was decided to collect facts by pursuing in lunatic asylums the method of collective investigation. May I, through your columns, ask those medical officers of asy-

[1] Dr. Woodcock, BRITISH MEDICAL JOURNAL, May 25th.
[2] *Morning Post*, May 18th.
[3] Deputation to Baron de Worms, April 23rd, 1895.

lums who are willing to co-operate in the scheme to communicate their willingness to me?—I am, etc.,

Charles Mercier.

The Flower House, Southend, Catford, S.E., May 27th.

GENERAL COUNCIL

OF

MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1895.

Sir Richard Quain, Bart., President, in the Chair.

The first meeting of the summer session of the General Medical Council took place at the offices in Oxford Street, London, on Tuesday, May 28th. This is the fifty-eighth session of this Council. The attendance was very complete, and the usual introductory routine was gone through with expedition.

Resignation of Sir John Simon.

The first announcement on the programme of business was the official statement regarding the resignation of Sir John Simon and the appointment of Dr. Thorne Thorne, medical adviser of the Local Government Board, as his successor, "to be for five years a member of the General Council of Medical Education and Registration in the United Kingdom as the representative of the Privy Council."

The President's Address.

In opening the proceedings of the Council the President said: We meet to-day as a General Medical Council for our fifty-eighth session. Our first impression on assembling is that we fail to recognise the presence amongst us of Sir John Simon, who has been a distinguished Crown representative since May, 1876, a period of nineteen years. I feel that the words of regret I should desire to utter must seem inadequate to you, who knew Sir John so well, and esteemed his merits so highly, as an expression of our sense of the loss we have sustained. We know that Sir John Simon, whilst serving the public interest as medical officer of the City of London, as the medical officer to the Privy Council, and subsequently to the Local Government Board, never lost hold of his position as a member of the surgical branch of our profession, inasmuch as he continued to retain his appointment as surgeon, and subsequently as consulting surgeon, at St. Thomas's Hospital. We recognise, too, how vastly he added by his researches and writings on pathology to our knowledge of that subject. We also feel, in addition to this, that by his great experience of the means which tended to the preservation of the public health, he rendered inestimable services in his several official positions, more especially by his invaluable Annual Reports, which were published under the authority of Parliament. I need not say that, since the time when Sir John first joined us, we have received the greatest assistance from him in all that related to the duties of the Council, more especially in those which had reference to medical education. The sagacity, the prudence, the sincerity and honesty of purpose by which his actions were always guided were such that, however eminent his successor may be, and indeed is, we shall long miss him who has left us. Let us wish him improved health and happiness long to enjoy his high and well-earned reputation. We welcome his successor, Dr. R. Thorne Thorne, C.B., who holds the position in the Local Government Board formerly filled by Sir John Simon. In his presence I will not presume to say how greatly we estimate his past professional life and work, and what a high value we place on the great services he has rendered in the promotion of public health, in saving life, not only from local dangers, but from the invasion of foreign pestilences, by his judiciously planned arrangements for that object. During the period which has elapsed since the last meeting of the Council its duties and its functions have been as usual continuous. During the year ending December 31st, 1894, 1,426 medical practitioners were registered, a number which may be compared with 1,579 in 1893, and 1,513 in 1892. During the year 1894 1,671 medical students were registered, a number which may be compared with 1,747 in 1893, and, by a singular coincidence, with exactly the same number, 1,671 in 1892. I have the great satisfaction of announcing to the Council that, under the direction of the Executive Committee as determined by their resolution of February 25th, 1895, arrangements have been made for the purchase of the freehold of the property of our Council house and additional premises in the rear. The President then gave a brief history of the conditions under which the present *Pharmacopœia* assumed its existence, beginning from the time of Dr. Valerius Cordus, of Nuremberg University, in the year 1542. He mentioned the *Pharmacopœia* of Augustana in 1601, the London *Pharmacopœia* of 1618, of 1650, of 1677, and the fourth during the presidency of Sir Hans Sloane in 1721. Between this and 1746 was a wide gap, during which period, however, distinct improvement was noticeable in the *Pharmacopœia*. Successive editions were averaged at about twenty-five years, but the greatest improvements were noticeable in the ninth edition in 1836. It was produced under the management of Drs. Babington, Tuthill, Paris, Hue, aided by Mr. Richard Phillips, F.R.S., a renowned authority on pharmaceutical chemistry. This edition is marked by the admission for the first time of the alkaloids, such as aconita, morphia, quinia, strychnia, and veratria, of hydrocyanic and phosphoric acids, of iodine, bromine, and preparations of creasote, ergot, and lobelia. "If," says the College, "some of these would appear as yet but little approved by experience, we have, nevertheless, included them, that whosoever should think fit to administer them may have them at hand, accurately prepared and fitted for his use." The tenth and last edition, published in 1851, differed little from the previous edition, chloroform, cod-liver oil, tannic and gallic acids, and atropine were included, and aconite was omitted, so too was the bromide of potassium. He referred to the powers conferred by the Act of 1858 on the Council to cause to be published under their direction a book containing a list of medicines and compounds, and the manner of preparing them, together with the true weights and measures by which they are to be prepared and mixed, and containing such other matter and things relating thereto as the General Medical Council shall think fit, to be called the *British Pharmacopœia;* and the General Medical Council shall cause to be altered, amended, and republished such *Pharmacopœia* as often as they shall deem it necessary. The Committee appointed by the Council to undertake this work obtained power to request the co-operation of the three Royal Colleges of Physicians and the Pharmaceutical Society. Sub-committees were appointed for England, Scotland, and Ireland. The subcommittee in London consisted of the following members of the Council: Sir James Clark and Mr. Nussey, and as experts Dr. Farr, Dr. Garrod, Mr. Peter Squire, and Mr. Warrington; in Edinburgh of Dr. Christison, Dr. Maclagan, and Dr. Wilson; in Dublin of Sir Dominic Corrigan, Dr. Aquilla Smith, Dr. Apjohn, Mr. Leet, and Dr. Nelligan. The demy 8vo, after five years' careful compilation, was ready for the publisher in November, 1863. The Council resolved to issue 13,000 copies of the demy 8vo. and 15,000 copies of a 12mo edition. "The cost of the compilation of this edition," says the President, "seems to be £6,229, of which £4,430 were paid for 'authorship and editing.'" The price of the volumes, it appears, was decided by the Treasury, "who reported that the publication might have been got up in a far less expensive style for less than half the cost of printing and binding." These recommendations were followed in future. This work had scarcely issued from the press when faults in it and objections against it were found on all sides. Sir Thomas Watson, whose great experience, prudence, and moderation in language could not be questioned, declared from the chair of the College of Physicians that the work was "a dangerous one," and must not be used. The result was that this edition was virtually suppressed, to the great pecuniary loss of the Council. This result cannot be read as favouring the appointment of special experts in the construction of the *Pharmacopœia*, inasmuch as the Committees which prepared this issue was largely composed of eminent experts. It seemed to the President then, who had recently been nominated by the Crown as a member of the Council, that the Council must must prepare a revised issue of the work. On a motion made by him on April 27th, 1864, and adopted by the Council,

a Committee was appointed consisting of only five members—the President (Dr. Burrows), Dr. Christison as Chairman, Dr. Sharpey, Dr. Apjohn, and the present President himself (Sir Richard Quain) as Honorary Secretary. The book issued by this Committee was ready for the press on March 15th, 1867, and 20,000 copies were ordered to be printed. In all, 40,000 copies of this edition, which met with universal approval, were sold. A third edition of the work was called for and prepared in 1885, in which the President took a very prominent part along with Dr. Aquilla Smith, Sir Henry Pitman, Professor Macnamara, Mr. Collins, Mr. Bradford, and Dr. Haldane. The death of Mr. Warrington led to the appointment of Professors Redwood, Attfield and Bently, as editors of the work under the Committee. Of this edition 40,562 copies have been sold up to the present time. The amount of profit on the sale of this last edition and the Addendum for the last ten years is roughly £1,400. In 1874 an Appendix was prepared by Dr. Attfield, as ditor, Professor Redwood's health having then failed, and this was inserted in the reprints of the edition of 1867. After an interval of ten years since the last edition of the *Pharmacopœia* was published, it is proposed to issue a new edition. In this interval very considerable movement has taken place in all the matters which relate to the composition and construction of the *Pharmacopœia*. It may well be questioned whether that movement is in all instances one of progress, but whether it is so or not, it is the duty of the Council to take care that, in all that relates to it, the work is as accurate and complete as the most diligent research, care, and experience can make it. With a view of obtaining the fullest information on the subject, communications have been addressed to the whole of the licensing authorities, inviting suggestions as to additions, omissions, and emendations, and sixteen of these bodies have responded. The reports with which they have favoured the Council show the great interest and care which they have devoted to the subject. All these reports have been printed for the use of the Pharmacopœia Committee. A request for co-operation in the work was also addressed to the Pharmaceutical Society, which has responded by that body sending a report on the articles which, in the opinion of its Council, should be added to or omitted from the *Pharmacopœia*. The interest which the preparation of the *Pharmacopœia* has excited might be judged by the numerous papers which have appeared in the various journals, and by communications from other sources. It will be the duty of the Pharmacopœia Committee, increased in number if thought fit by the Council, to thoroughly investigate these various communications, of which analyses and summaries have been prepared for their convenience by the Editor. For this purpose it will be necessary for the Committee to hold a special meeting during the summer or autumn as may be most convenient to the members, the fees for which should be as for a meeting of the Executive Committee, according to a former precedent. Perhaps I may here point out briefly the conditions under which the Pharmacopœia Committee will have to act. They will have to regard, first, the legal definition of their duties as set forth in the Medical Act; secondly, they will have to regard their duties to the profession, which will require them to decide as to those preparations which should be omitted and those which should be introduced—to repeat a quotation of the remarks of the College of Physicians, to which I have already called your attention, "by rejecting medicines of little use, altering formulæ that are absurd and inconsistent, excluding such as savour of superstition, and, generally, endeavouring to make the work consonant to reason and experience;" they have, thirdly, to regard the interests and education of pupils who have to make themselves acquainted with the contents of the work. Above all things it is desirable that the *Pharmacopœia* should not be made a book on therapeutics and pharmacology. To do this would be to introduce a great novelty into the practice of physic, that is, the treatment of disease by Act of Parliament. My conviction is that the forthcoming edition of the *British Pharmacopœia* will be one worthy of the Council under whose direction it is issued. The attention of the General Medical Council has been called by the Lord President of the Council to a Bill on the subject of midwifery, which has been introduced by Lord Balfour of Burleigh, and read a second time in the House of Lords. With a view of giving the members of the Council time for the consideration of this subject, I have caused to be forwarded to each a copy of the letter from the Privy Council, together with a copy of the Bill, and also copies of the last resolutions previously adopted by the Council on the like subject. In addition to this communication, the subject of the registration of women for the practice of midwifery will be brought before the Council by numerous and varied communications in regard to the question, and by a deputation from the Lancashire and Cheshire Branch of the British Medical Association. These communications have been collected in the form of a pamphlet, which will be in the hands of members. The examinations of the Conjoint Board in Ireland of the Royal College of Surgeons and the Apothecaries' Hall were revisited in April last by Mr. Wheelhouse, accompanied by Dr. Duffey, the inspector, and a report will be presented. The President, alluding to the report of the Examination Committee, mentioned that the licensing bodies had furnished the dates of their examinations in Physics, Chemistry, and Elementary Biology. In accordance with the resolution of the Council passed on November 29th, 1894, the reports on the examinations in Public Health have been circulated amongst members prior to this meeting. In addition to those already presented at the last session, it will be noticed that there are now reports on the examinations of the Conjoint Board in England, the Conjoint Board of Physicians and Surgeons in Ireland, and the Universities of London and Dublin, all inspected by Dr. Duffey, leaving reports on the Royal University of Ireland, Victoria University, and the Universities of Oxford and Glasgow, to complete the series of reports on examinations in Public Health. The Education Committee will present a report dealing with communications from the Scottish Universities Commission, from the University of Wales, and also dealing with the question of the registration of dental students. The President continued: This reference to the subject of the reports by the Examination and Education Committees cannot be made without acknowledging the services of these Committees, but more especially of their chairmen, Sir Dyce Duckworth and Dr. Tuke. The duties of the chairmen have involved much correspondence and much consideration before the reports could be submitted, labours which claim, and cannot fail to receive, the best thanks of the Council. Since the last meeting of the Council twenty-one charges of alleged misconduct by registered medical practitioners have been received. All these charges have been investigated by the solicitor and the Penal Cases Committee, who decided that fifteen cases should be set aside, and that six of these practitioners should be summoned, five to attend during the present session, and one, residing in Australia, at the November session. In reference to dental business I may mention that Mr. Charles S. Tomes, F.R.S., the visitor to the dental examinations appointed by the Council, has commenced his visitation and will present a report on the examinations of the Faculty of Physicians and Surgeons of Glasgow. The examinations of the other dental licensing bodies will be visited during the present year. One case of a penal nature will be considered by the Dental Committee, who will find the facts and report thereon to the Council.

Mr. WHEELHOUSE proposed a vote of thanks to the President for his address.

Sir WILLIAM TURNER, in seconding, said, alluding to the introductory part of the President's address, that he was the only member of the Council now present who was in the Council when Sir John Simon took his seat as a member. He wished to re-echo all that the President had said about him. All members of Council must have been impressed with the thorough masculine, statesman-like grasp that he had of all the subjects brought before them. The Council had sustained a great loss when Sir John Simon was no longer amongst them. At the same time he wished to welcome his successor Dr. Thorne Thorne, and felt that the Lord President of the Council, in appointing so eminent a public servant as Dr. Thorne Thorne, had shown his desire that the General Medical Council and that most important branch of the public service which Dr. Thorne Thorne represented should move in unison, and it was more especially necessary that this should be the case now that the Council was entrusted with such large powers under the Act of 1886,

in connection with the inspection and the authorisation of registrable diplomas in Public Health.

The Rev. Dr. HAUGHTON added a few words to indicate that the President's address should not be allowed to pass with mere formal votes of thanks. He could not forget the services which the President had rendered on the Pharmacopœia Committee. He believed in general education—Greek, Latin, mathematics—but he thought that those who had been engaged in time past in working out this *Pharmacopœia* had performed a task which would be difficult to surpass. He was sure he expressed the unanimous feeling of the Council in offering to the President their warmest thanks and congratulations upon the serious and valuable work he had done in this connection.

The PRESIDENT thanked Dr. Haughton for his kind words.

THE BUSINESS COMMITTEE.

Mr. Wheelhouse (Chairman), Sir William Turner, Mr. Bryant, and Dr. William Moore were appointed the Business Committee.

THE USUAL TABLES.

Statistical tables were received, indicating the results of the Professional Medical Examinations during 1894; of Professional Examinations for Qualifications in Sanitary Science, Public Health, or State Medicine during 1894; of Professional Dental Examinations during 1894; of Preliminary Examinations during 1894; the Exceptional Cases in regard to Length of Course of Study during 1894; the Results of Competition held on February 15th, 1895, for Commissions in the Medical Staff of the Army; the Results of Competition hold on May 6th, 1895, for Commissions in the Medical Department of the Royal Navy.

Sir WILLIAM TURNER mentioned that the whole question of the form of the returns would be dealt with by the Examination Committee, and asked the Council to postpone comments meantime.

This was seconded by Dr. HERON WATSON.

THE MIDWIVES BILL.

The following communication has been received by the Council from the Privy Council:

Privy Council Office, Whitehall, May 16th, 1895.

Sir,—I am directed by the Lord President of the Council to transmit to you, to be laid before the General Medical Council, the enclosed copy of the Midwives Registration Bill now before the House of Lords; and I am to request that you will move the General Medical Council to favour his lordship, as early as possible, with any observations they may desire to offer in regard to the Bill.—I am, Sir, your obedient servant,

The Registrar of the General Medical Council. C. L. PEEL.

Sir WILLIAM TURNER, in moving

That the Midwives Registration Bill transmitted by the Lord President of the Council be referred to the Committee of the Council appointed on November 20th, 1890, to consider the provisions of any Bill for the registration of midwives which may be submitted by the Government to the Council,

thought that now was the time to reconsider the constitution of that Committee. It had consisted entirely of English members, with no Scottish or Irish representation. The reason for that obviously was the Bill was confined to England, and that the members of the English Branch Council could be easily brought together. There seemed now to be no reason why the members of this Committee should be confined to the English Branch Council. The Bill came now before them while they were assembled in session from different parts of the kingdom, and he thought the Council should take this opportunity of making the Committee more thoroughly representative. When the Committee was appointed in 1890 Sir John Simon and the late Mr. John Marshall were upon it, leaving now two vacancies. He proposed:

That the two vacancies in the Committee should be filled by a member from each of the Irish and Scottish Branch Councils.

That would supply the missing elements in the Committee.

Dr. GLOVER thought there could be no doubt that the course proposed by Sir William Turner was the right course to take in the matter.

The PRESIDENT hoped that Sir William Turner would allow his name to be placed on that Committee, as no one could render more valuable service on such a Committee.

Dr. GLOVER proposed that Sir W. Turner and Dr. Thorne Thorne should be appointed as the new members. On the previous Committee there were no Irish or Scotch names. Ireland and Scotland were not included in the Bill—a strong fact which should be taken into consideration in nominating members of this Committee. Sir John Simon, in this matter, should be succeeded by Dr. Thorne Thorne, as representing the statesmanship of this matter. He suggested that they might dismiss the nationality question, but he was willing to compromise matters by appointing Sir William Turner, who was a Scottish representative.

The Rev. Dr. HAUGHTON supposed that Lord Balfour of Burleigh was so satisfied with regard to the arrangements for delivering women in Scotland and Ireland, that he believed that England was the only nation requiring legislation in that respect. For his part he willingly left this matter to the benighted Englishmen. They might kill their own women by breech presentations or any other way they liked. He objected to Irishmen and Scotchmen being on this Committee. He took it to be a fatal blot in the Bill, due to some political device, that Scotland and Ireland were exempted from it.

Dr. HERON WATSON said it was the opinion of the General Medical Council that the Lord President asked for. The report of a Committee would not embody that opinion until it had been discussed by the Council. It appeared to him that the persons who formulated the report should consist of representatives not merely from one part of the kingdom, but of representatives of other parts, although the Bill might not allude to those places.

Sir WILLIAM TURNER proposed to nominate Dr. McVail. So far as he himself was concerned, he knew nothing whatsoever about the conditions of midwifery practice, and he thought Dr. McVail should be appointed as the Scottish representative on the Council.

The PRESIDENT urged Sir William Turner to allow himself to be nominated.

Dr. MCVAIL said that the nomination was not of his seeking, and it was only at the request of the Scottish Branch Council that he had entertained the idea. He entirely supported the view of Sir William Turner's eminent fitness for the position.

Sir William Turner was then appointed to serve on the Committee.

Dr. THORNE THORNE, on being proposed, said that though he felt flattered by the proposal to nominate him, it seemed that this was not a Committee upon which he could act. He had not given these matters much attention, and in this case he should be the last member of the Council to be placed upon such a Committee, where expedition and experience were required. He feared he would not be capable of discharging the duties of the post.

The PRESIDENT pointed out that the Bill might be of great assistance to the Local Government Board and continued to propose Dr. Thorne Thorne. It was, however, subsequently agreed to appoint an Irish member, and accordingly,

Dr. Lombe Atthill was elected to serve on the Committee.

Sir W. TURNER then moved:

That the Committee should report to the Council as early as possible during the present sitting.

The PRESIDENT thought this was a very satisfactory arrangement and it was agreed to.

SIR WALTER FOSTER'S MOTION.

Continuing on this subject notice of motion was given by Sir WALTER FOSTER:

That this Council, while desiring to improve the education, training, and control of midwifery nurses cannot support the Bill for the Registration of Midwives now before Parliament, inasmuch as that Bill would give a legal status to women who are not properly qualified to take sole charge of midwifery cases.

This was postponed until the Committee's report had been discussed.

THE PHARMACOPŒIA.

In moving an amendment to the Council's standing order, Dr. LEECH proposed:

That standing order No. 8 be amended as follows: The Pharmacopœia Committee shall consist of the President of the Council and eight members, of whom four shall be elected from the English, two from the Scotch, and two from the Irish Branch Council. The Pharmacopœia Committee shall have the charge of all matters relating to the prepara-

tion and publication of the *Pharmacopœia*, and shall report from time to time to the General Medical Council.

He did so on the ground that the work would be heavy. He thought it better to have the Committee elected not by the Branches, but by the Council generally.

Dr. McVail seconded the proposal. He thought that all divisions of the kingdom should have representatives on such an important Committee, whose work equally affected each division of the kingdom.

Dr. Leech proposed that the Pharmacopœia Committee should consist of Sir Dyce Duckworth, Mr. Brudenell Carter, Dr. MacAlister, Dr. Leech, from the English Branch Council; Dr. Tuke and Dr. McVail from the Scottish Council; and Drs. Charles Moore and Atthill for Ireland. This the Council agreed to.

The Apothecaries' Society.

Mr. Brudenell Carter moved the appointment of an Assistant Examiner to the Society of Apothecaries in place of Mr. Andrew Clark, who retires by rotation; he moved that Mr. Bilton Pollard should be appointed.

Mr. Bryant, in seconding, said Mr. Bilton Pollard was well known to them as an excellent surgeon and teacher, well qualified to discharge the duties of Examiner.

The Deputation on the Midwives Bill.

On approaching this subject, Dr. MacAlister did not see why the time of the Council itself should be taken up by receiving oral evidence or representations from various bodies. He thought that the deputation notified to meet the Council on Wednesday, and consisting of fourteen members from a Committee of the Lancashire and Cheshire Branch of the British Medical Association, should be referred to the Committee which had charge of the Bill.

After a brief conversation, in which most of the members of the Council expressed themselves in favour of receiving the deputation,

Dr. MacAlister said that he had only wished to know whether the Council had ever undertaken to receive such a deputation. He thought it should be explained why such a notice had been placed on the agenda paper.

The President pointed out that he himself, with the approval of the Executive Committee, had placed it on the paper, and that therefore the best course was now to receive the deputation courteously.

Dr. MacAlister assented.

Midwives Registration.

Communications sent to the Council relative to the registration of midwives were received and entered on the minutes.

This finished the agenda, and the Council adjourned in order that the several committees might complete their reports.

Wednesday, May 29th.

Sir Richard Quain, President, in the chair.

Deputation on the Midwives Bill.

After formally reading the minutes of the previous meeting, the Council received a deputation consisting of eleven members from a Committee of the Lancashire and Cheshire Branch of the British Medical Association on questions dealing with the diplomas issued by the Obstetrical Society and other unauthorised bodies, the continuance of lectures by unauthorised persons on midwifery to persons other than registered students of medicine, and with the Midwives Bill at present before Parliament.

The deputation consisted of the following gentlemen: Mr. James Taylor, F.R.C.S.; Dr. G. E. Shuttleworth, Dr. S. Woodcock, Dr. J. Brassey Brierley, Mr. F. H. Walmsley, M.R.C.S.; Mr. W. H. Hughes, M.R.C.S.; Mr. John Holden, M.R.C.S.; Mr. J. G. Gledhill, M.B.; Mr. Colin Campbell, M.R.C.S.; Dr. T. A. Helme, Mr. G. H. Broadbent, M.R.C.S.

The following petition, presented by the deputation, was taken as read:

To the President and members of the General Medical Council of Education and Registration of the United Kingdom. The Petition of the Lancashire and Cheshire Branch of the British Medical Association.

Praying the Council:

A. (1) To withold its sanction from any form of Certificate or Diploma, issued to so-called "Midwives," other than such as testifies to the ability of the holder to act as a Midwifery Nurse. (2) To declare infamous, in a professional respect, the conduct of those Registered Medical Practitioners who continue to deliver unauthorised lectures on the Science and Art of "Midwifery" to other than Registered Students of Medicine. (3) To countenance only such courses of lectures and instruction as shall be limited in their scope to the knowledge necessary for competency to perform the duties of a Midwifery Nurse.

B. To oppose in such a way as the Council may determine, the passing of a Bill entitled the "Midwives Act, 1895."

Humbly sheweth:

A. That your Council condemned diplomas to "Midwives" in November, 1892; in May, 1894; and in November, 1894. That in disregard of your Council's ruling an "examination" purporting to qualify for the Diploma of a Scientific Society called "the Obstetrical Society of London" was held in Manchester on January 7th, 1895. That prominent officials of the Obstetrical Society[1] have asserted in public—under lay patronage—that your Council "dare not enforce its ruling," and that your Council's ruling is "insulting." That, therefore, in condemnation of such disloyal actions and expressions, your Council should equally enforce its disciplinary powers against such combinations, and against individuals who contravene your ruling. That the continuance of the delivery of lectures on "Midwifery" by unauthorised persons to unauthorised pupils constitutes a grave anomaly. Your petitioners would respectfully direct your Council's attention to the fact that, whilst a few years ago, in the time of those honoured professors of the Obstetric Art, Drs. Ramsbottom and Churchill, all the practice which tended towards the production of Abortion was written in Latin, it is now customary to teach pupil midwives, besides turning, the treatment of dangerous complications of pregnancy and labour, the symptoms and treatment of abortion and miscarriage—and all in the three or four months' course which constitutes the instruction of an "Educated Midwife." Your petitioners respectfully submit that this practice is unsound, and directly leads to the practice of Criminal Abortion. That such a course of lectures and instruction as is now given to pupil midwives is a source of menace to the safety of pregnant and lying-in women, of grave moral danger to the public, and of great temptation to the so-called "Midwife." That those registered practitioners who continue to give such courses of lectures and instruction should be declared guilty of infamous conduct. That the registered practitioners who are directly connected with Institutions which advertise such unauthorised Lectures are equally guilty of "infamous conduct" in a professional respect.

B. That a Bill has been introduced and read a second time in the House of Lords, which, if passed into Law, will recognise the Diplomas which your Council has so frequently condemned, and legalise the practice of the holders of such.

Your Petitioners earnestly desire your Council's careful consideration of their prayer.

William Hugh Hughes, *Chairman*,
James Brassey Brierley, *Vice-Chairman*,
Colin Campbell, *Honorary Secretary*,
Lancashire and Cheshire Branch Committee.

Manchester, May 22nd, 1895.

Dr. Glover introduced the deputation, and the President hoped that the Council, while refraining from any expression of opinion, would listen with the greatest heed to the matters which the deputation had to lay before them.

Mr. Colin Campbell, addressing the Council, said he had been unofficially informed that the position of the deputation as representing the Lancashire and Cheshire Branch of the British Medical Association had been called in question, and he wished to know whether he had to deal with that point.

The President: That is just as you think fit yourself.

Mr. Colin Campbell: They appeared before the Council as representing the Lancashire and Cheshire Branch of the British Medical Association to ask the Council in the prayers of their petition to continue to object and to withhold its sanction from all certificates or diplomas issued to midwives other than such as testify to the competency of their holders to act as midwives and nurses. They desired the Council to maintain the position it had already taken up. They desired also to ask the attention of the Council to the continued training and teaching of midwives and to the issue of diplomas which had already incurred the condemnation of the Council. In Lancashire advertisements were constantly appearing of lecturers upon midwifery, usually mixed up with those of bonesetters and quacks, thereby tending to bring that branch of medicine into grave disrepute. He hoped the Council would do something to prohibit those gentlemen from delivering unauthorised lectures to unauthorised hearers. At the present moment there was nothing to prevent women who were even criminals from receiving the most elaborate instructions as to how to perform the most difficult and intricate operations in obstetric surgery. Their third requisition was to ask the Council to use its power in opposing the Midwives Bill, which was at present before the House of Lords. He asked the Council, as

[1] Dr. Herman, *vide* British Medical Journal, January 12th, 1895.

the great head of the medical profession, to resist the attempts of outsiders to legalise intruders upon their profession. This Bill, if it should become law, would render legal the very documents which the Council itself had declared to be calculated to deceive the public.

Dr. HELME then addressed the Council. He pointed out that the pathological tendency of labour was evident when they considered the question of mortality During 1893 there were no fewer than 5,950 deaths of mothers registered as being directly due to labour, a number equal to the number of deaths from typhoid fever. Figures taken from a large obstetric practice in Edinburgh and Manchester showed that the childbed mortality was really higher, certification being in many instances misleading, and often not showing any direct connection between confinement and death. Maternal morbidity was even a more important question than the mortality, as was clearly shown by the practice of special hospitals for diseases of women, which were flooded with patients suffering from diseases directly consequent upon labours and abortions. The child mortality was simply enormous, and he wished to lay stress on this as contributing to the pathological aspect of labour, which might otherwise be physiological or normal, although it was customary to characterise the labour only from the maternal side, and to ignore the point whether a living or a stillborn child was the result. While the maternal mortality, for example, in the Edinburgh Lying-in Hospital, where everything was supervised by qualified medical men, was 1 per cent., the child mortality was 7 per cent. His experience in Manchester showed him that the percentage of stillborn children was higher, probably 10 per cent., but no statistics could be got to afford absolute proof on this subject. Dr. Tatham, lately medical officer of health for Manchester, had shown that of the registered stillbirths in Manchester, 45 per cent. had been attended by midwives, although in the speaker's opinion every one of these labours must be considered abnormal. Statistics, however, gave no idea of the real mortality, because stillborn children were not required to be buried in the public burying ground. There was reason to believe that the number was enormous. He desired to emphasise these facts as to the pathological aspect of labour from the standpoint of the child. The term natural labour could not be applied to any labour until such labour was completed. This fact had been attested by Dr. Atthill among others in his evidence before the Parliamentary Commission. Infantile paralysis, idiocy, and other diseases developed at a period remote from the labour, but might be entirely dependent upon the labour. Supposing the labour to be natural, it was not impossible that it might be complicated by concurrent disease, or it might be normal for some time, and suddenly and without warning be transformed into an absolutely abnormal labour, giving rise to such dangerous states as hæmorrhage and lacerations of the uterus or perineum. Concurrent diseases, such as paralysis, heart disease, convulsions from kidney disease, and mania, required immediate treatment. If a midwife was to undertake to attend even a so-called natural labour without medical supervision, she ought to be competent to recognise and diagnose these diseases, and to treat emergencies. For this a thorough knowledge of midwifery was required. He protested against placing before the public (especially those more ignorant and less able to discriminate, whom it was their duty to protect) a body of women absolutely inefficient with the legal stamp of efficiency upon them, and approved by this Council. Their theoretical training was wide and superficial, as indicated by the syllabus of lectures to midwives which had been delivered in Manchester. They were instructed superficially in the diseases of pregnancy, in the administration of potent drugs, such as ergot, chloral, belladonna, opium, etc., in the treatment of abortion, miscarriage, and premature labour. The class of women receiving such instruction was such that it might lead to criminal conduct. Their practical training was insufficient, and the examinations ridiculous. When one of these registered midwives had canvassed the neighbourhood and had taken the place of the doctor there was a great temptation for her to delay calling in a medical man until the latest moment possible. An ordinary midwife, not having raised a false security, sent at the earliest moment. He was not against the higher education of women but he did not want it to be believed that the education given at present produced a woman even slightly better than the old-fashioned midwife. The training given was a source of danger to the public and a great temptation to midwives to exceed their legitimate function, and he asked that control should be exercised both as to the subjects and the extent to which they were taught.

Dr. WOODCOCK followed, remarking that this subject had seriously exercised the Lancashire and Cheshire Branch of the British Medical Association, which numbered 950 members. The Branch had voted £250 to carry on their work against this Bill. The Council would not think their motives were selfish. The profession were acting against this Bill because they knew that it did not in any sense safeguard the interests of the community, but merely served to stamp women with a legal position who were entirely unworthy of it. They objected to the term "midwife." It was taken to mean persons competent to undertake entirely the charge of obstetric practice. This Bill even emphasised this saying in the second clause that the term "means a woman who undertakes to attend cases of natural labour without the direct supervision of a medical practitioner." Specialists in the hospitals knew how much trouble resulted from, and was perhaps due to, the work of such midwives as it was proposed to register by this Bill. The Bill appeared to be creating a new order of practitioners who were to be placed on the same platform as men who had been instructed in a full knowledge of midwifery. The educated medical and surgical nurse was a comfort to the medical practitioner, but the woman midwife belonged to a different class of society altogether, moving about among the poor people who did not always think it a blessing to have their quiver full. At the present time midwives registered stillbirths, sometimes charging 7s. 6d. for granting the necessary certificates, and coroners sometimes called them in cases as witnesses to prove live birth. Dr. Helme had alluded to 45 per cent. of stillbirths being certified by midwives. If this was the case in the green tree, what would they do in the dry. This Bill did not indicate any penal clauses whatever, and the constitution of the Midwives' Board was one composed of those people most interested. Even this Council, which was created to safeguard the public interest and to maintain the dignity of the Council, was treated with suspicion and placed in an ignominious position by having to submit the rules approved by them to the Privy Council for confirmation. Further, the Bill added that "In the event of the General Medical Council failing to perform the duties entrusted to it under this Act, the Privy Council shall invite some other suitable body to undertake these duties, or shall itself forthwith proceed to do so. He thought there was something there entirely subversive of the dignity and interests of the profession. The Bill contained nothing to safeguard the interests of the poor. One clause suggested that the medical officer of health should be the superviser and controller. Take the case of Manchester. The medical officer's duties were already onerous and exacting, and there was no system of espionage possible except by members of the medical profession. He was sure the Bill would set up acute rivalry between the registered midwives and the younger practitioners. They had a strong feeling that the only way in which the interests of the public could be safeguarded was that this Bill should make it clear to the public that the possessors of the certificates were only competent to act in the capacity of obstetric nurses as other nurses were expected to act in the capacity of medical and surgical nurses.

The deputation thanked the Council and withdrew.

THE OBSTETRICAL SOCIETY OF LONDON AND MIDWIFERY CERTIFICATES.

It was ordered that the following communication from the Obstetrical Society of London should be read and entered on the minutes:

42, Upper Brook Street, W., May 28th, 1895.

DEAR MR. PRESIDENT,—I beg to acknowledge the receipt of your communication forwarding to me a copy of the resolution of the Executive Committee of the General Medical Council approving of a form of certificate for adoption by the Obstetrical Society of London. In reply, I beg to say that now, knowing what the wishes of the General Medical Council are, I, in the name of the Council of the Obstetrical Society, accept the form of certificate approved by the Executive Committee, which shall in future be issued.—F. H. CHAMPNEYS, President of the Obstetrical Society.

The President said he was sure this was a very gratifying result of a very unpleasant controversy.

Dr. McVail asked if he understood rightly that this communication was all that was put on the minutes of the Council; that it in no sense implied that the Council approved of anything it contained or anything which had been done; that, in fact, the Council expressed no opinion.

The President: It has been moved and carried that the letter be entered on the minutes.

Dr. McVail: And that is all?

The President: That is all at present.

Dr. McVail: It does not in any way approve of what has been done by the Executive Committee?

Sir Walter Foster: It does not at all pledge us to the form of the certificate which was before the Executive Committee?

Dr. McVail: Precisely; that is what I mean.

The President said he would deprecate discussion. He thought they might congratulate themselves on the end of this matter. The form of the certificate was approved by the Executive Committee, and could be seen by members in that Committee's minutes.

Dr. Haughton observed that the form had not yet been approved by the Council. He was particularly sensitive on constitutional matters. There was a tendency on the part of the Executive Committee to encroach on the privileges of the Council, and he submitted they were not bound by anything the Committee might do.

Dr. Heron Watson observed that this matter had been referred to the Executive Committee to deal with.

The President, replying to Dr. Haughton, said that in the absence of the General Medical Council the Executive Committee represented it always, even to the extent of spending £18,000 in purchasing the site of the buildings in which they met.

Sir Walter Foster warned the Council that there was a feeling of dissatisfaction with regard to this certificate, and the question would very probably come up again. The form adopted by the Executive Committee was open to objection.

Dr. MacAlister said he understood the Obstetrical Society had agreed, in compliance with the representations of the Executive Committee, to remove from their certificate any colourable imitation of a diploma. It was open to any member when the new certificate was issued to raise the objection that it was still a colourable imitation, but so far as its particular form was concerned he submitted the question must be regarded as settled.

Sir W. Turner said the Obstetrical Society had, in the judgment of the Executive Committee, entirely removed from the form of the certificate anything which could lead anybody to regard it as a colourable imitation of a diploma. The certificate was a certificate of having passed a particular examination, without reference to anything else.

The Registrar read the form in which the certificate was approved by the Executive Committee:

We hereby certify that A. B. has passed to our satisfaction the examination in midwifery instituted by the Obstetrical Society of London. Signed by the Chairman of the Examiners, and the Honorary Secretary. Note.—This certificate confers no legal qualification to practise under the Medical Acts.

Sir W. Turner said there was nothing in the certificate but the statement of a fact.

Sir W. Foster urged that the certificate should contain the words that the examination was "instituted for midwifery nurses." In view of the Bill now before Parliament they should be very careful against making up their minds in a hurry on the subject.

Dr. Bruce expressed his personal dissatisfaction with the form of the certificate.

Dr. McVail thought Sir W. Foster had struck the essential point of the matter by the words he had suggested should be inserted in the certificate. He was afraid, the footnote notwithstanding, that the certificate would be regarded by many people as indicating that it qualified to practise midwifery. He moved—That the matter be referred back to the Executive Committee for the purpose of introducing such words as would make it clear that the diploma was one certifying that the examination was one for midwifery nurses.

Dr. Pettigrew thought the suggestion of Sir W. Foster a very good one, but considered the Council should settle the matter now without sending it back to the Committee.

The President reminded the Council that they had no control over the Obstetrical Society, nor any society, except when they did something illegal under the Medical Acts. Any objection now felt to this certificate should be stated clearly. The Committee had seen it and had gone into the matter fully, and the Society had adopted the suggestions of the Committee.

Dr. Glover thought that the discussion was premature, inasmuch as the Midwives Bill and everything pertaining to that question had already been referred to a Committee of the Council.

Dr. Atthill concurred in the view of Dr. Glover.

Dr. Heron Watson gave a history of the proceedings in this matter and complained that the Executive Committee, which, between the sessions of the Council had plenary powers, had hardly had due consideration shown to it. He submitted that it was now captious criticism, after the different modifications which had been made on the original form, to require any further change.

Dr. McVail moved:

To remit back to the Executive Committee the matter of the midwifery certificate to be given by the Obstetrical Society of London, in order that the Committee may ensure that the certificate shall clearly bear that the examination is only to ascertain the qualification of the candidate for midwifery nursing.

Dr. Bruce seconded. He denied that the Executive Committee had had delegated to them full powers to deal with this matter. It was perfectly well known that the question of midwifery was to come before the Council, and he thought it a pity that the Committee had taken action which was calculated to prejudge the question.

Sir W. Turner, after giving a statement of the course of negotiations between the Committee and the Obstetrical Society, in the course of which he said they owed a great deal to the President for the care and judgment he had shown, stated that the Committee took much trouble to have taken out from the certificate presented to them anything which even the most critical person could have interpreted as giving to it a colourable imitation of a medical diploma. He could not help noting that the word "midwife" seemed to produce on some members of the Council a somewhat similar feeling to that which a red rag was said to produce on a bull. He thought the Obstetrical Society had met the Committee in a very kindly spirit. In his view they had come to an equitable decision, and he should be sorry if another negotiation was to be entered into.

Dr. MacAlister thought that until this new diploma or certificate was in print, engraved, and issued, it could not logically be urged by anyone that it was still a colourable imitation. Last session the certificate of a provincial hospital was before them, whose terms were much stronger than those of the new form now approved by the Executive Committee, but the Council decided that it did not come within the terms of its condemnatory resolution. Entirely new considerations were now being imported into the question. The Council had objected to the form of a certain document; some members wanted apparently to raise by a side-wind the different question of midwives *versus* nurses. That had not yet been discussed by the Council.

Dr. McVail, in the course of a short reply, said this was a certificate which was intended to create a class of persons who were to practise midwifery without the supervision of the profession. If the Obstetrical Society meant nursing only, there should be no objection to that being stated.

The President, in putting Dr. McVail's motion, said that if the matter was to be opened up it must pass out of his hands, for he would have nothing to do with it.

On a division Dr. McVail's motion was rejected by 20 to 7, the Council thus declining to challenge the action of the Executive Committee.

The Midwives Bill.

At the conclusion of the day's proceedings Sir Walter Foster asked leave to postpone the consideration of the motion to his name:

That this Council, while desiring to improve the education, training, and control of midwifery nurses, cannot support the "Bill for the Registration of Midwives," now before Parliament, inasmuch as that Bill would give a legal status to women who are not properly qualified to take sole charge of midwifery cases.

This was agreed to pending the report of the Committee appointed to consider the Bill.

[The great amount of space which we have felt it necessary to devote to the above subjects compels us to omit a full report of certain matters of a more formal nature considered by the Council. Among these were:

Certain suggestions by the Examination Committee for an alteration of the form in which returns are received from the public departments respecting competitive examinations with the view of rendering the information more valuable.

A report from the Education Committee as to certain medical ordinances of the Scottish University Commissioners. The Committee were of opinion that the Council must now await the expiry of the Commission, and then represent the state of matters to the University Courts of the Scottish Universities, in order that the offending ordinances might be repealed. The report was adopted.

A report as to the registration of dental students entering upon pupilage with a registered dental practitioner.

A report from the Education Committee recommending the recognition of the matriculation examination of the University of Wales subject to the condition that the student shall have being approved in one of the optional subjects required by the Council, and that whole examination has been passed at the same time. This was adopted.

It was reported that the freehold reversion of the premises 299, Oxford Street, and 16, Hanover Square, had been purchased, and the President and Treasurers were thanked for their services in this matter.

A proposal to vary the travelling expenses allowed to members coming from long distances was negatived, as was also a suggestion that the Council should sit three hours in the morning and three in the afternoon of each day of its sessions.]

MEDICO-LEGAL AND MEDICO-ETHICAL.

CHEAP DISPENSARIES IN POPULAR WATERING PLACES.

A HANDBILL of a very unpromising description has been received from the neighbourhood of Margate, vaunting the advantages of a cheap dispensary of the true East London type. Until quite recently these institutions had been peculiar to London and the large provincial towns, and we had hoped that our professional brethren elsewhere were free from these pests, and not exposed to this form of competition. It would seem, however, that medical aid societies, cheap dispensaries, and other means of depreciating the value of medical services are becoming general throughout the length and the breadth of the land, and it is sad to think what must necessarily be the fate of the practitioner of the future if some means of preventing these abuses cannot be arrived at.

A MIDWIFE AND PUERPERAL FEVER.

AT the Sunderland Police Court, on May 22nd, a midwife named Burlinson was charged with exposing clothing which had been in contact with persons suffering from an infectious disease without previous disinfection, whereby disease was disseminated. According to the report in the *Newcastle Daily Leader*, the midwife had been in attendance on a case of puerperal fever, and had been given notice by the medical officer of health not to attend any other case of confinement for six weeks. She disobeyed this order, and the woman she attended was found to be suffering from puerperal fever. The defendant agreed to attend no more cases for two months, and the case was withdrawn.

ASSISTANTS AND CANVASSING.

R.W.M.—Inasmuch as our correspondent's professional opponent and his branch assistant appear to be ignorant of or insensible to their ethical obligations to a brother practitioner we fear that but little can be done (otherwise than by a conscientious fulfilment of his own duty and thereby setting an example of brotherhood) to restrain the unethical proceedings with which he has to contend—unless the assistant in question be an unqualified man, in which case the General Medical Council may not improbably be induced on a due representation of the facts to take cognisance thereof, seeing that a medical practitioner who employs an unqualified assistant renders himself liable to their official censure.

THE RIGHT TO ENTER PREMISES.

AT the North London Police-court on May 15th an important decision was given by the magistrate with respect to the right of a sanitary inspector to enter premises. One of the inspectors of the Stoke Newington Vestry had been refused admission to premises in the occupation of a member of the Sanitary Committee of the Vestry. A summons was taken out, and it was urged, on behalf of the Vestry, that a penalty was incurred by the mere refusal to admit the inspector. The defendant pointed out that provision was made in the Public Health (London) Act for application to a justice for a warrant in cases in which admission was refused, and in which a nuisance was known to exist on the premises. The defendant argued that no question of wilful obstruction could arise until such a warrant had been obtained. The magistrate, however, held that Section 10 of the Public Health (London) Act, gave a right of entry for the purpose of examining as to the existence of any nuisance, and that refusal to admit an officer constituted wilful obstruction. The defendant was fined 20s. and 2s. costs.

The first Section of the Public Health (London) Act declares it to be the duty of every sanitary authority to cause to be made from time to time inspections of their district with a view to ascertaining what nuisances calling for abatement exist, and there can be no doubt that the officers of sanitary authorities might be considerably hampered in the performance of their duties under this section if the view taken by the defendant in the Stoke Newington case were held to be the correct one.

ACCEPTANCE OF PRESENTS BY ASSISTANTS.

R. G. M.—There can be no doubt that it is contrary to all professional rules for an assistant to receive money presents from a patient of his principal; were it otherwise it would be impossible in many cases for a medical man to avail himself of the services of an assistant, as it would often be most difficult to discriminate between these presents and money paid in remuneration of professional services. But, although there can be no question as to the general rule under the circumstances detailed by our correspondent, we think that most principals would in all probability permit their assistants to retain a present given thus openly in the presence of the principal.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty: CORNELIUS BEADLEY, M.D., Surgeon, to the *Herald*, May 23rd; J. P. WILES, M.D., to the *Mosquito*, May 23rd; THOMAS D. HALAHAN, B.A., M.B., to the *Repulse*, May 23rd; ERNEST J. FINCH, Surgeon, to Plymouth Hospital, May 23rd; EDWARD H. MEADEN, Surgeon, to the *Wildfire*, May 24th.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL R. DE LA C. CORBETT, M.D., D.S.O., is appointed to officiate as Principal Medical Officer, Oude and Rohilcund Districts, Bengal Command, *vice* Surgeon-Colonel W. T. Martin, who has been granted leave on medical certificate.

INDIAN MEDICAL SERVICE.

SURGEON-MAJORS G. T. THOMAS, A. J. STUBBER, and A. ADAMS, M.D., Madras Establishment, are promoted to be Surgeon-Lieutenant-Colonels from March 31st; Surgeon-Captain A. O. EVANS, of the same Establishment, is promoted to be Surgeon-Major from the same date.

Brigade-Surgeon-Lieutenant-Colonel A. L. HACKETT, Madras Establishment, is permitted to retire from the service from May 4th. He was appointed Assistant-Surgeon, April 1st, 1867, and Brigade-Surgeon-Lieutenant-Colonel, January 27th, 1891.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAINS H. C. LAMPORT, M.B., and J. A. RIGBY, M.D., 5th Lancashire Volunteer Artillery (Southern Division Royal Artillery) are appointed Surgeon-Captains of the Army Medical Reserve, May 29th.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

HISTOLOGY.—The Master of Downing (Dr. Hill) and Dr. Barclay-Smith announce a course of instruction in Practical Histology during the long vacation, beginning on July 6th.

HONORARY DEGREE.—The Senate propose to confer the degree of Doctor of Science, *honoris causâ*, on Dr. John Murray, F.R.S.E., editor of the *Challenger* publications, in recognition of his distinguished services to biological science and geography.

BACTERIOLOGY.—The State Medicine Syndicate propose to make a grant of £50 to the Department of Pathology in aid of the course of instruction in bacteriology therein provided for candidates for the Diploma in Public Health.

UNIVERSITY OF EDINBURGH.

FACULTY OF MEDICINE.—The following candidates have passed the First Professional Examination held in March:

Old Ordinance.—W. H. Dawson, M.A., M. L. Dhingra, Miss A. M. C. Geddes, D. J. Head, D. J. Hughes, B. E. Myers, R. M'K. Skinner, J. Vare (passed in July, 1894).

New Ordinance.—J. G. Bell, F. B. Bester, H. W. Boreham, E. R. Branch, H. H. Broome, A. L. P. Brown, E. A. Brown, G. H. J. Brown, R. Bruce, A. R. Buchanan, D. A. Callender, J. Cameron, R. Cameron, H. G. Carlisle, J. G. Carr, H. S. Coghill, J. Lucknoff (with distinction), J. M'Conaghey, E. M'Culloch, P. H. Macdonald, W. R. Macdonald, J. M'Gregor, T. J. T. M'Hattie, A. M. M'Intosh, A. M'Kaig, G. A. Mackay, W. M. Mackay, M. M'Kelvie, R. C. M'Lachlan, P. A. Maclagan, L. C. Maclagan-Wedderburn, G. C. M'Leavy, R. H. Macneill, W. Macniven, J. F. Martin, J. Mason, M.A., T. Meldrum, C. W. F. Melville, F. N. Menzies, G. H. Menzies, F. G. Middleton, J. G. Mitchell, A. H. D. Moore, A. Mouat, J. R. Munro, C. F. Neville, T. P. Oates, L. J. L. de Pavillet, J. Pender (with distinction), H. G. P. Raeburn, W. Raine, F. E. Robinson, G. B. Robinson, J. R.

Robinson, W. Rogers, J. M. Ross, A. Shearer, T. S. Shepherd (with distinction), G. F. B. Simpson, A. B. Slater, A. K. Smith-Shand, F. H. Stirling, C. S. Stevenson, W. J. Stuart, W. W. Thom, A. H. Thomas, J. P. Thorne, N. D. Walker, C. H. J. Watson (with distinction), A. Whittome, A. H. Wood.

The following candidates have passed the Second Professional Examination (Old Ordinance) in March and April, 1895:

D. N. Anderson, F. Anderson, R. W. Anthony, E. Arkwright, H. S. Ballantyne, B.Sc. (with distinction), J. E. Blackburn, E. Bramwell, W. Buchanan, L. M. Camras, T. M. Callender, A. F. Cameron, M.A., H. O. Dougall, H. Douglas, S. Ducat, A. R. Eates, W. Finlay, J. Forbes, M.A., B.Sc., H. Fowler, P. W. Freyer, J. M. de Frietas, D. D. Gold, N. Gunn, W. F. Harvey (with distinction), W. J. H. Hislop, J. D. C. Howden, R. K. Howden, W. Jagger, J. B. Jamieson, C. H. Johnson, T. F. Johnstone, D. T. R. Jones, H. Jones, R. W. Knox, C. D. Lander, J. Lee, J. F. Lindsay, R. E. Loney, A. L. Low, G. C. Low, M.A., J. D. M'Crindle, J. J. L. Macfarlane, G. M'Kellar, A. D. Macpherson, M. W. Manuk, J. E. Martin, E. Matthew (with distinction), N. Maudsley, F. H. Merry, J. Patton, C. H. Phillips, E. C. Porritt, C. Porter, M. S. Rau, B.Sc., J. A. Rees, J. Richards, T. A. Ross, G. B. Serle, J. T. Shirlaw, J. W. Simpson, G. S. Small, H. W. Smith, H. T. J. Thacker, H. M. Traquair (with distinction), J. R. H. Walker, A. H. Watt, A. E. White, J. H. White, A. R. Wight, W. G. Wight, F. M. Willcox, A. E. Williams, T. A. Williams, J. F. Woolfe.

Passed in Anatomy and Physiology (Old Ordinance):

A. W. G. Clark, J. Graham, J. S. Grinsell, N. Gunn, E. H. Jones, L. Kingsford, W. M. Milne, M.A., J. Muir, O. Rait.

The following candidates have passed the Second Professional Examination (New Ordinance):

B. C. B. Aldren, T. R. W. Armour (with distinction), T. Biggam, W. Burns, M.A., C. M. Cooper (with distinction), J. F. Falconer, J. S. Fraser (with distinction), W. Hamilton, P. Kinmont, I. L. MacInnes, J. Malcolm (with distinction), F. W. More, R. G. Riddell, J. R. Williamson.

Passed in Anatomy and Physiology (New Ordinance):

E. P. Baumann, L. W. Davies, W. S. Eston, G. Gatenby, A. Gibson, W. E. M'Kechnie, G. W. Miller, J. D. S. Millo, A. H. Pirie, C. M. Robertson, J. D. Slight, M.A., W. M. A. Smith, W. R. Somerset, J. W. Struthers.

Final Professional Examination for the Degrees of M.B. and C.M.—Some 240 candidates have entered for this examination in this University. There appears to be some grumbling among candidates that the arrangements are not so well made as formerly. They assert that they are summoned for their Clinical Examination in Medicine, and then receive notice that it is postponed, and when they appear some of them seem to have been told that a mistake must have been made. But after a little delay they are examined and go away happy or the reverse. It ought to be possible to avoid annoyance of this description, if it really be as bad as painted. The ordeal is severe enough without the superaddition of this.

THE COLLEGE OF SURGEONS AND ITS FELLOWS.

The following notice is to be circulated to the Fellows:

"Royal College of Surgeons of England,
Lincoln's Inn Fields, London, W.C.,
May 31st, 1895.

"Sir,—I am directed to acquaint you that a meeting of the Fellows of this College will be held at the College, in Lincoln's Inn Fields, on Thursday, July 4th next, at 5 o'clock P.M., for the following purposes—namely:

"I. To read the minutes of the half-yearly meeting of Fellows on January 3rd last. (Minutes herewith.)

"II. The President to report proceedings in connection with the application to the Secretary of State for alterations in Sections IV, XVI, and XXV of the By-laws.

"III. To read the following resolutions adopted by the Council on February 7th, 1895, in reference to the resolution adopted at the last meeting of Fellows requesting the Council to appoint a Conjoint Committee of members of the Council and other Fellows of the College, to consider the desirability of obtaining a new Charter—namely:

"(a) 'That, in accordance with the opinion of the legal advisers of the College, the Council do not deem it expedient to accede to the resolution passed at the meeting of Fellows held on April 3rd.'

"(b) 'That a Committee of the Council be appointed to receive deputations from the Fellows of the College upon the subject of the resolution of the meeting of Fellows of January 3rd last, and to report thereon to the Council.'

"(c) 'That copies of the two foregoing resolutions be forwarded to the mover and seconder of the resolution of the meeting of Fellows.'

"IV. For the consideration of any motions which may be introduced by Fellows in accordance with Clause 6, Section XXIII of the Regulations of the Council relating to meetings of Fellows.

"*These motions must be signed by the mover, or by the mover and other Fellows, and must be received by the Secretary not later than Wednesday, June 12th next. "Edward Trimmer, Secretary."

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The following gentlemen, having passed the necessary examination, have been admitted Fellows of the College:

R. H. Cox, S. Finlay, W. J. Greer, and W. J. Trewhella.

The death is reported, at the early age of 26, of Mr. T. B. Brierley, jun., of Tattenhall, Cheshire. He had lately held the post of House-Surgeon at the Children's Hospital, Wicker, Sheffield, and it was his intention to join his father in practice in June. The cause of death was blood poisoning of some ten days' duration. The deceased qualified as M.B., C.M.Edin. in 1891.

MEDICAL NEWS.

The new north block of the Hospital for Sick Children, Great Ormond Street, which has been erected for infectious diseases, diphtheria, measles, and scarlet fever, will be open for inspection on Friday and Saturday afternoons this week.

The Urban District Council of Waterloo and Seaforth, near Liverpool, have made arrangements for the local supply of diphtheria antitoxin serum to medical practitioners in the district, for the use of poor patients free and for other patients at cost price. The serum supplied is that made by the British Institute of Preventive Medicine.

The International Congress of "Thalassotherapy" (which being interpreted means "treatment at the seaside") will hold its third meeting at Ostend in August (27th to 31st). The questions on the programme are: 1. Pulmonary Phthisis at the Seaside; 2. *Technique* of the Sea Cure. An exhibition of hygiene and hydrotherapy will take place in connection with the Congress.

Life Assurance and Influenza.—The life assurance offices have had great stress put on their funds by the epidemic of influenza. The death-rate of nearly every company has been sadly swollen by it, and in some cases the disbursements in consequence have, it is reported, played sad havoc with the funds. One office is reported to have sustained a loss of £70,000.

Wills and Bequests.—The late Mr. Griffith Parry, of Ravenscourt Square, Hammersmith, has by his will bequeathed £25 each to the West London Hospital and the Flintshire Dispensary.—The late Very Rev. William Robert Freemantle has left, among other charities, £100 to the Bucks Infirmary at Aylesbury: £100 to the Jepson's Hospital, Ripon; and £100 to the Ripon Cottage Hospital.

Medical Students in Holland.—From a report recently presented to the Second Chamber of the States-General of Holland it appears that the total number of students of medicine in the four Dutch universities at present is 1,486. Of these, Leyden has 349; Utrecht, 277; Groningen, 235; and Amsterdam, 625. The total number of students of all faculties in the universities of Holland is 2,940.

Research Scholarships at Mason College, Birmingham.—The Council of Mason College, Birmingham, announce that three Priestley Scholarships in Chemistry, two Bowen Scholarships in Engineering, and one in Metallurgy, founded by the late Mr. T. Aubrey Bowen, of Melbourne, will be awarded in September. The scholarships are of the annual value of £100, and though good work done at the Mason College will be regarded as a specially favourable qualification; the scholarships are open to general competition. Full particulars can be obtained from the Secretary of the College.

National Society for the Employment of Epileptics.—At the first annual meeting of the governors of this Society a most encouraging report was presented by the honorary medical staff, in the course of which it was stated that the experience of the first half-year since the opening of the colony had been an agreeable surprise, even for those who had been most sanguine as to the ultimate success of an epileptic colony. Marked improvement in health of mind and body had been noted, and a corresponding improvement in the spirits of the colonists and the heartiness with which they worked. The Executive Committee in their report pleaded for funds to enable them to extend their work, and especially to confer the benefits of the colony on women and children. Further particulars can be obtained from the Secretary of the Society, 12, Buckingham Street, Strand, W.C.

MEDICAL VACANCIES.

The following vacancies are announced:

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Board, residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the office, 24, Finsbury Circus, E.C., by June 15th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Dental Surgeons. Candidates must be Licentiates of Dental Surgery of one of the licensing bodies recognised by the General Medical Council. Applications and testimonials to J. Francis Pink, Secretary, by June 10th.

DERBY COUNTY ASYLUM, Mickleover.—Second Assistant Medical Officer; unmarried, and not exceeding 30 years of age. Salary, £100 per annum, increasing £10 annually to £130, with board, lodging, and washing. Applications to the Medical Superintendent.

DISTRICT ASYLUM, Ballinasloe.—Assistant Medical Officer; doubly qualified, unmarried, must be under 30 years of age. Salary, £120 per annum, with allowances of furnished apartments, board, etc. Applications to the Medical Superintendent by June 7th.

DURHAM COUNTY ASYLUM.—Pathologist and Junior Resident Medical Officer. Salary, £100 per annum. Applications to the Superintendent Durham County Asylum, Winterton, Ferryhill, by June 8th.

HOSPITAL FOR PARALYSED AND EPILEPTIC (Albany Memorial), Queen Square, Bloomsbury.—Senior and Junior House Physician. Salary for the former £100, and for the latter £50 per annum. Board and apartments in the hospital provided in each case. Applications to B. Burford Rawlings, Secretary and General Director, by June 4th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—House-Surgeon to the Out-patients. Appointment for six months, but eligible for re-election for a further six months. Salary, 25 guineas. Applications to the Secretary by June 18th.

HOSPITAL FOR SICK CHILDREN, Newcastle-on-Tyne.—Resident Medical Officer, doubly qualified. Salary, £60, with board, lodging, and laundry. Applications to the Secretary by June 6th.

KENSINGTON DISPENSARY.—Resident Medical Officer; unmarried, under 35 years of age, and doubly qualified. Salary, £125 per annum, with furnished apartments, coals, gas, and attendance. Applications to the Honorary Secretary, Mr. Frederick Leach, 7, Stanford Road, Kensington Square, by June 12th.

LIVERPOOL STANLEY HOSPITAL.—Junior House-Surgeon. Must possess a registered medical and surgical qualified qualification. One who has filled a similar office preferred. Salary, £70 per annum, with board, etc. Applications and testimonials by May 30th. Also Honorary Assistant Surgeon. Applications to J. E. Bennett, Honorary Secretary, by June 5th.

LONDON COUNTY COUNCIL.—Pathologist to the London County Asylums. Salary, £700 per annum, and travelling expenses. Applications (on forms provided), endorsed "Applications for Pathologist," to R. W. Partridge, Clerk of the Asylums Committee, 21, Whitehall Place, S.W., by June 17th.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer; not under 25 years of age, unmarried, and doubly qualified. Appointment for one year, but eligible for re-election. Salary, £150 per annum, with board and residence. Applications to the Chairman of the Board by June 22nd.

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—House-Physician. Appointment for six months, and after the expiration of this term the House-Physician will be required, if eligible, to serve as House-Surgeon for a further period of six months' Must possess a medical and surgical qualification. Salary as House-Physician at the rate of £30 per annum, and as House-Surgeon at the rate of £80 per annum. Applications and testimonials to T. Glenton-Kerr, Secretary, City Office, 27, Clement's Lane, Lombard Street, E.C., by June 11th.

NORTHERN INFIRMARY, Inverness.—House-Surgeon and Dispenser. Salary, £70 per annum, with board, etc. Applications to Mr. Duncan Shaw, Honorary Secretary, by June 5th.

PARISH OF BIRMINGHAM WORKHOUSE INFIRMARY.—Resident Assistant Medical Officer, doubly qualified. Salary, £100 per annum, with furnished apartments, rations (no alcoholic liquors), coals, washing, and attendance. Applications, on forms provided, to Walter Bowen, Clerk to the Guardians, Parish Offices, Birmingham, by June 8th.

RADCLIFFE INFIRMARY, Oxford.—House-Physician. Appointment for six months. Salary at the rate of £60 per annum, with board and lodging. Applications, on printed forms provided, to be sent to the Secretary before June 10th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Hunterian Professors, the Erasmus Wilson Lecturer, and the Arris and Gale Lecturer for the ensuing year. Applications, with particulars of subjects upon which it is proposed to lecture, to E. Trimmer, Secretary, by June 6th. Also Two Examiners in Dental Surgery; applications by same date.

ROYAL EAR HOSPITAL, Frith Street, Soho, W.—House-Surgeon. Appointment for six months. Honorarium, £12 12s. Application to D. Murray, Honorary Secretary, by June 8th.

TRINITY COLLEGE, Dublin.—Lecturer in Pathology. Applications to the Registrar of the University by June 15th.

VESTRY OF LAMBETH.—Medical Officer of Health; not less than 25 or more than 45 years of age. Salary, £700 per annum, such salary to include the cost of a carriage to be provided by the officer. Applications, endorsed "Application for Appointment of Medical Officer," to Henry J. Smith, Clerk to the Vestry, Vestry Hall, Lambeth, by June 11th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodgings provided. Applications to R. J. Gilbert, Secretary-Superintendent, by June 19th.

MEDICAL APPOINTMENTS.

ARNOLD, G. J., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

BLOUNT, G. B. C., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

BRAKENRIDGE, F. J., L.R.C.P., M.R.C.S., appointed Non-resident House-Physician to St. Thomas's Hospital (extension).

BRANSON, Guy J., L.R.C.S., L.R.C.P.Edin., L.S.A., B.A.Lond., appointed House-Surgeon to the Queen's Hospital, Birmingham.

BRICKWELL, H. T., M.R.C.S., L.S.A., appointed Medical Officer and Public Vaccinator for the Chigwell District of the Epping Union.

CANDLER, G., B.A.Cantab., L.R.C.P., M.R.C.S., appointed Junior Obstetric House-Physician to St. Thomas's Hospital.

CLARK, Francis W., M.B.Durh., D.P.H.Camb., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health for the Borough and Port of Lowestoft, appointed (by the Crown) Health Officer for Hong Kong.

COXFORD, G. J., B.A.Oxon., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

DANIEL, E. G. C., L.R.C.P., M.R.C.S., B.A.Cantab., appointed Resident House-Physician to St. Thomas's Hospital.

DAVIS, H. J., M.A.Cantab., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

DIXON, W. E., L.R.C.P., M.R.C.S., B.Sc.Lond., appointed Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

DUMBLETON, C. E., M.A., M.D.Cantab., M.R.C.S.Eng., D.P.H., appointed Surgeon to the Dalby Hospital, Queensland.

EMERY, W. D'Este, M.R.C.S.Eng., L.R.C.P.Lond., B.Sc.Lond., appointed House-Physician to the Queen's Hospital, Birmingham.

FLEMING, Dr., appointed Medical Officer for the Newbridge Dispensary District.

FLETCHER, Dr., appointed Medical Officer for the Castle Donington District of the Shardlow Union, *vice* W. J. Butler, L.R.C.P.Lond., M.R.C.S., resigned.

GENGE, G. G., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

GREER, T., M.D., appointed Medical Officer for the Second District of the Cambridge Union.

HAINES, Aubrey Wheeler, L.S.A.Lond., B.Sc.Lond., appointed Obstetric and Ophthalmic House-Surgeon to the Queen's Hospital, Birmingham.

HARDING, H. W., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

HAYWARD, J. W., M.R.C.S.Eng., L.S.A., appointed Port Medical Officer for Whitstable.

JACOBSON, Dr., appointed Medical Officer of Health to the Kingston Urban District Council.

JENKINS, T. J. Pryce, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the First South-Eastern District of the Freebridge Lynn Union.

JENNER, L. L., M.A., M.B., B.Ch.Oxon., M.R.C.P., appointed Resident House-Physician to St. Thomas's Hospital.

LAVER, J. W., L.R.C.P., M.R.C.S., appointed Non-resident House-Physician to St. Thomas's Hospital (extension).

LISTER, S. R., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Fourth and Fifth Districts of the Wisbech Union.

MILWARD, F. V., B.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

PORTER, W. E., M.D.Edin., M.R.C.S.Eng., appointed Medical Officer to the Printers' Almshouses.

PRAIN, J. L., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital (extension).

RANDALL, W., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Maesteg Urban District Council.

RICHARDSON, S. W. F., M.B., B.S., B.Sc.Lond., L.R.C.P., M.R.C.S., appointed Senior Obstetric House-Physician to St. Thomas's Hospital.

ROCHE, Anthony, M.R.C.P.I., appointed Professor of Medical Jurisprudence and Hygiene in the Catholic University Medical School, Dublin.

RUSSELL, A. E., M.B.Lond., L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

SAUNDERS, Allan L., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator for the Eastern District, and Surgeon to the Workhouse of the Freebridge Lynn Union.

SECCOMBE, P. J. A., M.A.Cantab., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

SEDGWICK, H. R., B.A.Cantab., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

SKINNER, D. S., M.D.Brux., L.R.C.P.Lond., M.R.C.S.Eng., reappointed Medical Officer of Health to the Willesden District Council.

STEEN, William C., M.D., etc., R.U.I., appointed Honorary Assistant Physician to the Belfast Hospital for Sick Children.

STONE, W. G., M.A., M.B., B.Ch.Oxon., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

SYMONDS, Charters J., M.S.Lond., F.R.C.S.Eng., appointed Consulting Surgeon to the London and South-Western Railway Servants' Orphanage, *vice* A. E. Durham, F.R.C.S.Eng., deceased.

SYMONS, R. Fox, L.R.C.P., M.R.C.S., appointed House-Surgeon to St. Thomas's Hospital (extension).

TABB, J. F., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the North-Eastern District of the Greenwich Union.

TOOMBS, H. G., L.R.C.P., M.R.C.S., appointed Senior Ophthalmic House-Surgeon to St. Thomas's Hospital.

WALLIS, Fred C., M.B., B.C.Cantab., F.R.C.S., appointed Surgeon to the Out-patients at Paddington Green Children's Hospital.

WATKINS, A. M., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Workhouse and the Whitchurch District of the Whitchurch (Salop) Union.

WATTS, Brian, M.R.C.S.Eng., L.R.C.P.Lond., appointed House Surgeon to the Children's Hospital, The Wicker, Sheffield.

WESTON, E. F., M.R.C.S.Eng., appointed Medical Officer for the Seighford District of the Stafford Union.

WRIGHT, J. F., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the West Bolton District of the Bolton Union.

DIARY FOR NEXT WEEK.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Climateric and Senile Insanity.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Urticaria and Allied Affections. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Glaucoma, with Illustrative Cases.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL, 5 P.M.—Mr. T. Holmes: On the Experience of the Hospital in Abdominal Surgery (gynæcological operations apart) during the years 1884-1894 inclusive. Hunterian Lecture I.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Gowers.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown by Drs. Duncan, Playfair, Griffith, Lewers, Addinsell, and by Mr. O'Callaghan. Papers:—Dr. Eden: On the Development and Normal Structure of the Human Placenta, with limelight demonstration. Mr. Alban Doran: Placental Polypus.

THURSDAY.

LONDON POST-GRADUATE COURSE, Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Taylor: Varieties and Treatment of Epilepsy. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. A. E. Garrod: Congenital Heart Disease. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Professor Clifford Allbutt: Cases in the Wards.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL, 5 P.M.—Mr. T. Holmes: On the Experience of the Hospital in Abdominal Surgery (gynæcological operations apart) during the years 1884-1894 inclusive. Hunterian Lecture II.

NEUROLOGICAL SOCIETY OF LONDON, 20, Hanover Square, 8.30 P.M.—Clinical Meeting.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: Actinomycosis and Glanders. Practical work, Staining Sections and Cultivations.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital 11 A.M.—Dr. Percy Smith: Alcoholic Insanity.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BARR.—On May 27th, at Wentworth, Rotherham, the wife of Horace Carlos Barr, L.R.C.P., M.R.C.S., of a daughter.

COOK.—On May 13th, at Byfield, Bromley, Kent, the wife of P. Inkerman Cook, M.D., of a son.

HEWLETT.—On May 26th, at St. Anne's, East Sheen (the residence of her father), the wife of Richard T. Hewlett, M.D., M.R.C.P., of a daughter.

SINCLAIR.—On May 3rd, at Holmwood, Rangoon, the wife of Brigade-Surgeon-Lieutenant Colonel David Sinclair, M.B., V.H.S., Inspector-General of Gaols, with civil medical administration, Burmah, of a daughter.

WALTERS.—On May 26th, at 5, Fairfield Road, Croydon, the wife of F. R. Walters, M.D., M.R.C.P., of 60, Welbeck Street, of a daughter.

MARRIAGE.

BLAKESLEY—HURD.—On April 30th, at St. John's Church, Whitwick, Henry J. Blakesley, F.R.C.S.Eng., 46, London Road, Leicester, to Constance Mabel, younger daughter of the Rev. W. R. Hurd, Rector of Flowton, Suffolk.

DEATH.

BRIERLEY.—On May 14th, at the Wicker Hospital, Sheffield, Thomas Booth Brierley, M.B., M.R.C.S., eldest son of Thomas Booth and Mary Brierley, of Tattenhall, Cheshire, aged 26 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A CORRESPONDENT states that a friend who has undergone treatment known as "oxygène comprimé" at the Etablissment Pneumatique, 17, Rue de Fyramides, Paris, is anxious to visit England, and to know if, while here the treatment should be necessary, he can obtain it in London. It appears to consist of douching, and then sitting in a room where the particular air is pumped in by machinery and then inhaled.

FIXED OR STIFF TOE JOINTS.

PES inquires as to the best remedy for this condition in a healthy lad of 17? The tarso-metatarsal articulation of one foot is fixed, and very painful after much walking. Treatment so far has been inunction of oleate of mercury ointment; large (wide) brown boots and less walking, but cycling in moderation allowed.

SULPHUR AND BARIUM BATHS.

J. J. writes: I shall be glad for a reference respecting the use of sulphur baths as at Harrogate, also barium baths as at Kreuznach and (I think) Llandrindod in Wales. In both cases I want information about temperatures, frequency of use, and for what diseases supposed to be advantageous. There may be a handbook containing all required knowledge.

ANSWERS.

J. B. W.—Sir William Savory's work, entitled *Life and Death*, was published by Messrs. Smith, Elder and Co., in 1863.

PROTOPLASM.—Probably the best book for our correspondent's purpose would be Dr. P. M'Bride's *Diseases of the Throat, Nose, and Ear* (Young J. Pentland), of which a second edition appeared some months ago.

J. R. G.—The regulations referred to are contained in a pamphlet entitled *The Regulations as to Defects of Vision which disqualify candidates for Admission into the Civil or Military Government Services*, by Mr. Macnamara, published by Messrs. J. and A. Churchill (2s.)

R. H.—If the Colleges from which the advertiser derives his diplomas will take no action to restrain him, there does not appear to be any body empowered to take notice of his conduct. He has already been dealt with, to the limit of their statutory powers, by the General Medical Council.

A SPA FOR SCIATICA.

PEAT BATH writes to advise "A.B." to spend his month at Strathpeffer. The sulphur waters and the various forms of baths there employed are much used in cases like his.

REMUNERATION OF SURGEONS TO FRIENDLY SOCIETIES ACCORDING TO WORK DONE.

C. P. H. draws our attention to the rules of the National Deposit Friendly Society, whereby the medical officer is "paid for each thing he does at a certain fixed rate," and claims that in this way he gets a "fair remuneration," and that there is no "cadging."

As to the fair remuneration, this must largely depend on the amount of this "certain fixed rate," which is not specified; at the same time it must be admitted that in this way a better rate of payment is more likely to be received than under the usual system; for, if in a busy club practice the practitioner were to take the total amount he receives from his clubs, and were to form an estimate as to what this would allow "for each thing he does," the wretched pittance it would come to would be such as few friendly societies would care to offer to a member of our profession.

As to "cadging," if by this is meant "touting," it is by no means clear why this system more than the other should put an end to the practice.

THE COCKADE.

A. J.P.&M.D.—The reply to "F.R.C.S.I." evidently alludes to the military cockade only. The civil cockade may be worn by all magistrates placed on the Commission of the Peace by the Lord Chancellor. It is an open question at present whether those who are magistrates by virtue of their being Chairmen of District Councils, and thus magistrates by Act of Parliament, are entitled to use the cockade during their term of office.

MEDICAL PRACTICE AT MONACO.

R. B.—1. By the terms of a decree published in the *Journal de Monaco* of June 26th, 1894, the main provisions of which were given in the BRITISH MEDICAL JOURNAL of July 21st, 1894, p. 165, the degrees and diplomas of "the United Kingdom of Great Britain" and of Fellow of the Royal Colleges of Surgeons and Physicians of London, Edinburgh, Dublin, and of the Faculty of Physicians and Surgeons, Glasgow, are to be considered equivalent to the French diploma of Doctor of Medicine for the legal practice of medicine in the Principality of Monaco. 2. To obtain a licence to practise medicine in France, an English graduate must obtain the degree of Doctor of Medicine on examination before a French Faculty.

THE SMELL OF IODOFORM.

SURGEON-CAPTAIN J. S. EDYE, A.M.S. (Aldershot), writes: If C. M. M. will try a few pounds of freshly ground coffee he may succeed. I heard of one case on a small scale where equal quantities of fresh ground coffee and iodoform did away with the odour of the latter, and in no way affected its medicinal properties.

DR. F. G. GARDNER (Warwick) writes: I have for some years used flour of mustard for removing the smell of iodoform from the hands. This it does very effectually. I take a small quantity of mustard and rub it over the hands thoroughly, and then wash it off with cold water. I cannot say how it acts, but probably some chemical change takes place. "C.M.M.'s" patients might find the same material of use in removing the smell from their dairy; at any rate, it is worth a trial where so many things have failed. Used in water as a kind of wash, and followed by a free application of plain water, it might have the desired effect.

MEDICAL AID SOCIETIES.

DOUBTFUL.—This subject has been over and over again treated of in the BRITISH MEDICAL JOURNAL, and our correspondent must be referred to what has there been said on this matter. At the same time, in his letter he admits that the payments of these societies to their medical officers are 15 per cent. less than those of ordinary clubs, and seeing that the latter seldom average more than one penny per week per member, we should have thought that a reduction in this pittance of 15 per cent. from a pecuniary point of view was worth considering, apart from other more serious reasons of an ethical character.

NAME ON PRESCRIPTION PAPERS.

DR. W. W. HARDWICKE (East Moulsey) writes: A better place than having the name on these, is to have it on the prescription envelopes, as supplied by Silverlock at 10s. per 1,000, with note at bottom: "The enclosed prescription is to be retained by chemist and not redispensed without further order from physician." It is not advisable for the physician to give an open prescription, which the patient can read and copy for the use of his friends, but to enclose it in an envelope. Without this note the patient can claim the prescription as his property. This might be avoided, of course, by the physician sending his prescriptions to the chemist himself, but the plan would be inconvenient in the case of consultations at the consulting room. Messrs. Burroughs and Wellcome supply very convenient pocket prescription books with morocco case, in which may be carried a supply of these envelopes.

THE GUILD OF ST. CECILIA.

CECILIAN.—1. Information about the work of the Guild of St. Cecilia may be obtained from the Rev. F. K. Harford, 4a, Dean's Yard, Westminster. 2. The Guild, on its establishment, had, we believe, the approval of the late Sir Andrew Clark, and other leading men in the profession. 3. A treatise on the effects of music on the human body, by J. L. Roger, was published at Göttingen in 1760. A paper on the curative power of music, by Dr J. L. Desessarts, Dean of the Paris Medical Faculty, was presented to the National Institute of France in 1803, and an English translation of this was printed for the Guild of St. Cecilia in 1893. Dr. J. G. Blackman, of Portsmouth, some years ago issued a small work entitled *Music and Medicine*, and Dr. G. H. Lilley, medical officer H. M. Convict Prison, Portland, is the author of *The Therapeutics of Music*. 4. *Le Progrès Médical*, *La Médecine Moderne*, and *La Semaine Médicale* are among the best known French medical journals.

NOTES, LETTERS, Etc.

A PROTEST.

DR. WILLIAM HUNTER (Harley Street, W.) writes: My attention has been drawn to certain paragraphs recently appearing in an evening contemporary relating to myself. How far the information there given may or may not be fit subject for public comment I am not qualified and have no wish to speak. But I should like through your courtesy to enter an emphatic protest against the unwarranted and prejudicial use of one's name in connection with such purely professional information as is contained in the third paragraph.

LOCAL CANDIDATES AND THE PUBLIC ADVERTISEMENT OF VACANCIES.

D.P.H. writes: The post of medical officer of health to Cape Colony has been filled up by the appointment of a local man. I wish to protest against authorities in Cape Colony or elsewhere inviting competitors to apply for appointments which are already virtually filled up through local interest. I have applied for several vacancies—and the experience of my friends is similar—only to find that a local man has been promised the support of the majority of the electors. Surely these authorities should append to their advertisement "preference will be given to a local candidate," or similar words, and so avoid putting strangers to considerable trouble and expense.

OVERCROWDING AND DOWNWARD COMPETITION.

MEMBER writes: In the discussions which have been taking place of late regarding medical aid associations and other means by which medical men are "farmed," I have not seen any reference made to the fundamental cause of these abuses. This is that the number of men entering the medical profession is in excess of the increase of population. Some check has been put on this by the extension of the period of study to five years, and by the inspection of medical examinations. But the General Medical Council have not as yet inspected the too numerous preliminary examinations, some of which, to judge by the mental calibre of students, can be passed even by the most uneducated.

*** It will interest our correspondent to know that the General Medical Council have ordered the inspection and visitation of the preliminary scientific examinations for medical qualifications in the years 1895 and 1896. The list of Preliminary Arts Examinations underwent revision at the last meeting of the Council, and the standard has recently been raised in several points.

THE "GOLD CURE."

THE *Scottish Reformer* of May 25th states that the *Christian Advocate* of New York has been making an investigation into the effects of the "so-called Keeley cure for drunkenness," with the result that of 534 cases treated 251 relapsed after taking the "cure."

HOROLOGICAL SYMPATHY.

DR. H. CUTHBERT (Clun, Salop) writes: I have found, on comparing the pulse-rate and the clock-tick in patient's room that they are either synchronous or in some relation. I have asked patients to observe the same thing, and they have endorsed what I said, so it can hardly be mere coincidence. This being so, a slow-ticking clock may be a greater advantage than we think in neurotic patients. It may have been observed before.

ACADEMICAL DRESS.

UNIVERSITY DOCTOR writes: "An Old Member's" suggestion is a very good one, and was advocated by me last year in the BRITISH MEDICAL JOURNAL. Dr. Woodhead wore his academical gown and hood when delivering his oration on antitoxin in diphtheria at the London Conjoint College a short time ago, and very properly too. The extraordinary aversion medical graduates apparently have to appear in their academical dress is peculiar to them. A large photograph was some years ago taken of the "heads of the profession," nearly all of whom were graduates, and yet not one wore the gown and hood of his degree. It struck me at the time as being very curious. One point, however, ought to be cleared up. Would it be correct for "doctors" to wear the ordinary college stuff gown, or the full-dress scarlet or crimson cloth robe to which the doctors of each faculty are entitled, but which are very gorgeous and expensive, the cost of the former being about 30s., whilst that of the latter is £5 10s.?

MR. HUBERT T. SELLS, M.R.C.S.Eng. (Northfleet, Kent), writes: I think the suggestion of your correspondent "M.D.," that Doctors of Medicine should wear their gown and hood when practising their profession, an excellent one. I should be delighted to meet "M.D." in consultation over, say, a difficult case of labour involving the use of forceps. In a small stuffy room on a warm summer's night I fear I should appear in my "College" shirtsleeves, whilst "M.D." would be enjoying his *otium cum dignitate* (not to mention *sudore*) in a Doctor's gown and hood.

L.R.C.P. writes: Your correspondent "M.D." seems to assume that the degree of M.D. necessarily implies that its holder is of higher professional attainments than a man who is "only" a L.R.C.P. That this is not so must be obvious to anyone who compares the teaching of the London schools and that of the various provincial hospitals, where a large proportion of those who hold the M.D. degree are educated. By all means, however, let graduates wear their hoods or gowns or any other garment that is prescribed by their university if they think it will enhance their professional reputation, but let us have a further amendment to the Merchandise Marks Act, and let the name of the country or town from which it originates be printed in some conspicuous part of the gown.

MEDICO writes: It may interest "M.D." to know that only a few Sundays since, in company with the vicar of my parish, I headed a procession of Oddfellows (to whom I am surgeon) on their "annual parade," the vicar in cap and gown, and myself in cap and gown and wearing the pink silk hood of Bachelor of Medicine of my University. I am told that the members of the lodge looked upon the incident as a graceful compliment to their position and influence. I certainly think that medical men holding University degrees ought to appear on appropriate ceremonial and official occasions attired in their gowns and hoods. Several years ago I saw a well-known medical practitioner, a distinguished graduate of Dublin University, taking part in a town's procession attired in cap and gown, and wearing the hoods of M.A. and M.P. of his University. He certainly introduced a picturesque element into the procession, nor did I hear any disrespectful remarks from the usual would-be wits in a crowd.

PUBLIC COMPANIES AND MEDICAL MEN.

THE prospectus of an "Electropathic, Limited," formed for the purpose of establishing in Blackpool an establishment bearing this name, bore the names of two medical men resident in Blackpool, who were described as consulting physician and surgeon. We understand that these gentlemen have taken early steps to sever their connection with this company, and that at a meeting of the directors held on May 28th a resolution accepting with regret their resignation was adopted, together with a statement to the effect that on learning that the two medical gentlemen in question objected to their names appearing in the prospectus its issue had at once been stopped, and notice sent to the subscribers to the effect that the names of the two medical men had been withdrawn from the prospectus as issued.

Bromide of Strontium in Epilepsy.

Dr. Antony Roche, M.R.C.P.I. (Dublin), writes: In the British Medical Journal of May 25th my colleague, Mr. Coppinger, has some rather uncalled for criticisms on my paper. Had he carefully read the paper he would have seen I in no way claimed originality in the use of strontium. I was quite aware, and indeed stated plainly, it had been used for years. That it has been largely tried in Dublin I doubt. I know of no reports on its use here, and my first patient could not obtain it at two of the leading apothecaries. I used it in combination in three of the cases, as it is well recognised that a combination of the bromides is more useful, but the improvement became marked when the strontium salt was added. I do not consider even only improvement in cases of epilepsy is not very desirable, for more reasons than one.

Dr. W. E. Stainton Stanley (Llanwrtyd Wells) writes: If those who have been trying this drug in 7 grain or similar doses will give its proper dose—30 grains—they will get very different effects, and if there is combined with it, as our American brethren do, a fair dose of eserine (I use the inject. p. rostig. hypod. of Martindale in 6 or 8 minim doses) then the effect on epilepsy is marked. I need hardly remind anyone that the nauseous salines and alkalies are cloaked by glycerrhiza, entirely so with bromide of strontium. The worst case of chorea I have seen was greatly benefited by this mixture.

Sequel to a Case of Traumatic Tetanus.

Dr. R. E. Burges (Chester) writes: Referring to the case of traumatic tetanus reported by me at page 1076 in the British Medical Journal of May 11th, I may now report that the same boy, meddling with some knives on May 19th, got a cut on the left hand. His father came for me on the night of the 19th, saying the boy "had got the lockjaw back again," but did not tell me anything about the cut. I went and found that the boy had had three or four spasms, and he had one while I was examining him. I again gave him a hypodermic injection of morphine and atropine and ordered him a mixture containing bromide of potassium and belladonna. On visiting him next morning at 10.30 A.M. I found he had had no spasms since 12.30, but had been restless until 3 A.M., and had slept quietly since that. He had another spasm while I was there. I told them to continue the medicine and report to me that evening. The report I received was that he had had three spasms between 4 and 4.20 P.M., but none since. Medicine to be continued. Next morning I found that he had been quiet all night. He has done well since, and was out of doors playing about when I called on the 24th.

Birth of a Child without Rupture of Membranes.

Dr. W. M. Morison, L.R.C.P. & S.Edin. (Durham) writes: In your Epitome of Current Medical Literature you report a case of the Birth of a Child without Rupture of the Membranes. I don't know that this is a condition that occurs often in ordinary practice; but quite recently I had a case similar in some respects to that reported. The patient was suffering from acute phthisis, with a temperature of about 101°. Two days before parturition she complained of severe diarrhœa, which was, however, quickly and easily controlled. Some time before she miscarried at the fifth month, and a day or two prior to it she had a similar attack of diarrhœa, and from this she concluded that her second attack of diarrhœa was but the precursor of a second miscarriage. She was in her seventh month of pregnancy. Her surmise was perfectly correct, as in two days after she complained of some pains in the lower part of the abdomen, which soon came on, and during there found a cyst-like mass protruding from the vagina. The labour was absolutely dry, not a trace of blood was to be seen, and the uterus contracted without any trouble. The recovery from the immediate effects was highly satisfactory, considering the advanced stage of phthisis in which the patient was. The membranes enclosing the fœtus was quite intact, and contained practically no amniotic fluid. The cord was pulseless, and no indication of life in the child. The child was otherwise a well developed seven months' growth. The placenta was normally attached, and the presentation was a breech. Children born with a "caul," as a condition such as this is called, are, when the child survives, a source of great satisfaction to the parents, especially parents of a superstitious bias, and such are very numerous yet, because of a supposed "luck" which smiles upon the path through life of those who make their entrance into this weary world shrouded in the mysterious garb of the mysterious world from which they come. In premature births is it not a fact that breech presentations are as numerous, or at any rate a more frequent occurrence than at full time?

LETTERS, COMMUNICATIONS, Etc., have been received from:

(**A**) Dr S. T. Armstrong, New York; Mr. D. Ainley, Halifax; Alert; Mr. J. E. Allen, London; Ajax. (**B**) Dr. A. J. Bentley, Cairo; Dr R. T. Bowden, Ramsgate; R. Boyce, M.B., Liverpool; Messrs Burroughs, Wellcome and Co., London; Mr. H. T. Brickwell, Chigwell; Mr. A. Bradshaw, Shrewsbury; Mr. L. A. Bidwell, London; Dr. J. I. Berkart, London; Dr. R. E. Burges, Chester; Mr. H. J. Blakesley, Leicester; Mr. W. G. Black, Newcastle-on-Tyne; Mr. F. W. Baguley, Bury. (**C**) Dr. C. C. Claremont, Southsea; Dr. H. Campbell, London; Dr. P. J. Cork, Bromley; A. Cox, M.B., Gateshead-on-Tyne; F. Clark, M.B., Lowestoft; Cavendish Club, The Hon. Sec. of the, London; Mr. H. Cuthbert, Clun; Mr. H. B. Collins, Kingston-on-Thames. (**D**) Mr. R. W. Doyne, Oxford; Dr. W. R. Davison, Ballymena; Dr. T. M. Dolan, Halifax. (**E**) Dr. B. L. Eastman, Burlington; Mr. A. Eddowes, Loughborough; F. H. Edgworth, M.B., Clifton. (**F**) Fair Play; Furlough 1868; Mr. G. H. Fosbroke, Worcester; Mr. T. Fletcher, Warrington; W. Fraser, M.B., Salford. (**G**) Mr. J. Gerrard, London; J. H. Godson, M.B., Cheadle; Mr. W. Grainger, Birmingham; J. R. Gasquet, M.B., Brighton; Graduate and Licentiate; Mr. F. G. Gardner, Warwick. (**H**) Mr. H. Hutchinson, London; Mr. J. Hutchinson, Rugby; Mr. E. C. Hearne, London; Mr. F. R. Humphreys, London; H. K.; Dr. T. G. Horder, Cardiff; Mr. A. W. Haines, Birmingham; Mr. A. Hope, London. (**I**) Mr. J. K. Irwin, Dublin; Dr. A. Inglis, Cheltenham; An Indian Exile; Dr. C. R. Illingworth, Ventnor. (**J**) J. W.; Mr. F. W. Jordan, Stockport; J. D. M.; Mr. S. A. Jolly, London; Mr. A. H. Jacob, King's Langley; Mr. A. Jackson, Sheffield; J. E.; Mr. J. Jenkins, Llanwrtyd Wells; J. P. and M. D. (**K**) Mr. W. Kirkby, Manchester; Dr. J. H. Keay, Colne; Mr. J. Kyffin, Gosport. (**L**) Messrs. Lynch and Co., London; Dr. W. Lodian, Calcutta; A Lover of Dogs; Mr. F. Leath, London; Dr. C. R. Laurie, Redruth; Dr. A. E. J. Loryhurst, London; A Lover of the Old Dress; Dr. Lush, Blandford; Mr. E. A. Lubbock, London; L.R.C.P. (**M**) Dr. J. W. Miller, Dundee; Professor M. McHardy, London; R. W. Moir, M.B., Bonnybridge; Dr. T. Mc Naughton, Blackpool; J. H. McGee, M.B., London; Mr. P. E. Miall, Bradford; Mr. C. A. Mays, Sheffield, Dr. F. H. Maberly, Eversley; Member; C. Mercier, M.B., Catford; Mr. M. Wardle, Bishop Auckland; F. A. de T. Mouillot, M.B., Harrogate; M.R.C.S.Eng.; Dr. W. C. McIntosh, St. Andrews; Dr. T. Masson, Edinburgh; Dr. J. M. Moir, Inverness; F. H. Morison, M.B., West Hartlepool; Mason College, The Secretary of the, Birmingham; Medico-Asterisk. (**N**) N. A. P. S. (**P**) Mr. J. Poland, London; Mr. A. Paget, Harrogate; J. R. Purdy, M.B., Lower Hutt, N.Z.; Mr. M. J. Parry, Waterloo; Peat Bath; Dr. T. F. Pearse, Portsmouth; Mr. J. F. Palmer, London; Mr. W. H. Pearce, London; Pes; Mr. C. Palmer, Barton-under-Needwood; Poor-law Medical Officer. (**R**) R. J.; Mr. R. H. Rains, London; Mrs. E. G. Ravenstein, London; Mr. A. Roche, Dublin; Dr. A. Robertson, Glasgow; Dr. R. R. Rentoul, Liverpool; Mr. T. F. Raven, Broadstairs; Rusticus; R.; Dr. G. H. Rodman, East Sheen. (**S**) Dr. E. Soulby, East Grimsby; Mr. A. L. Saunders, Grimston; St. Thomas's Hospital, The Secretary of the, London; Mr. P. L. Sclater, London; Mr. H. T. Sells, Northilleet; Semper Fidelis; Sailor; Mr. W. E. S. Stanley, Llanwrtyd Wells; Dr. W. C. Steen, Belfast. (**T**) Dr. C. L. Tuckey, London; W. E. Tressider, M.B., Nottingham; Mr. C. J. Trimble, Bamber Bridge. (**U**) Dr. W. F. Umney, London; University of Edinburgh, The Dean of, Edinburgh; University Doctor; C. T. Urquhart, M.B., Aberdeen. (**W**) Dr. F. J. Waldo, London; Messrs. Woolgar and Roberts, London; Dr. J. W. White, Philadelphia; Mr. T. Wilson, Wallsend; Dr. A. Waller, London; Mr. S. Walker, London; Mr. J. B. Waddell, Slamannan; J. R. Williams, M.B., Penmaenmawr; etc.

BOOKS, Etc., RECEIVED.

Le Phénol Sulforiciné dans la Tuberculose Laryngée. Par A. Ruault. Paris: G. Masson. 1895. Fr. 2.50.

Untersuchungen über die Respiration und Circulation bei Aenderung des Druckes und des Sauerstoffgehaltes der Luft. Von Dr. A. Loewy. Berlin: August Hirschwald. 1895. M. 4.

Vital Statistics of Boston and Philadelphia covering a period of Six Years ending May 31st, 1890. Washington, D.C.: Government Printing Office. 1895.

Jackson's Compendium. By John Jackson, F.E.I.S. London: Sampson Low, Marston and Co. 1895.

Health Notes for the Seaside, with special reference to Whitby and District. By A. C. Dutt, B.A., M.B. Whitby: Horne and Sons. 1895. 6d.

The History of the Pennsylvania Hospital, 1751-1895. By Dr. T. G. Morton, assisted by Dr. F. Woodbury. Philadelphia: Times Printing House. 1895.

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THE INGLEBY LECTURES
ON
APPENDICITIS.

Delivered at Mason College, Birmingham.

BY GILBERT BARLING, M.B., F.R.C.S.,
Professor of Surgery, Mason College.

LECTURE II.

HAVING said so much of the general features of appendicitis, I approach what is in all diseases difficult, the classification of the cases into varieties. This difficulty, however, is one that must be faced owing to the extreme variability in the severity and danger of appendicitis, and the consequent variations in treatment required. I have adopted a classification which is mainly clinical, and which aims at associating in four main groups those cases which have similar clinical features and which require similar treatment. Whatever the classification, fault may be found with it, but no confusion or drawback is likely to arise if it is borne in mind that there is a certain amount of overlapping of the various groups, cases presenting themselves which are on the border line of two groups, and it is doubtful to which they should be assigned. The classification I adopt is into four groups:

I. Mild appendicitis in which neither abscess formation nor perforation occurs.
II. Appendicitis with abscess formation.
III. Acute perforating appendicitis.
IV. Relapsing appendicitis.

CLASS I.—APPENDICITIS WITHOUT ABSCESS OR PERFORATION.

A majority of all the cases of appendicitis may be assigned to this class. In hospital they come mainly under the care of the physicians; they do not call for operative interference, and under suitable treatment they speedily tend to get well. What the condition of the appendix and adjacent parts is is mainly a matter of inference. I believe it to consist in catarrh of the appendix, often with extension to the outer walls, and with a certain amount of adhesive peritonitis, matting adjacent structures to the appendix and perhaps to the parietal peritoneum. After the full description I have given of the symptoms it is unnecessary, when considering each variety, to recapitulate all the points. I propose only to dwell on the chief features of each group.

Class I is characterised by an onset of moderate intensity; the general abdominal pain is not severe; vomiting usually occurs but once or twice; local tenderness in the right iliac fossa is moderate. The tumour, if one is palpable, is small, and when the patient is under treatment soon begins to subside. Fever there always is in some degree; at the end of twenty-four hours it may be as much as 101° or 102°, but it soon diminishes, and in three or four days may be expected to be almost normal. The general aspect of the patient after the early colicky pain has subsided is satisfactory. In a typical case of this kind there is no further elevation of temperature, no return of acute pain, tenderness, or vomiting, and the local swelling will scarcely be found after a fortnight.

Treatment.—The general treatment about to be described is applicable not only to this class but in a great degree to the earlier stages of the more formidable cases to be spoken of later on, and will not therefore need repetition. The first principle is absolute rest in bed in the horizontal position. The patient must not be allowed to get up for micturition or defæcation, nor should he sit up to take his nourishment, or for similar purposes. Every case in its earliest stage, even though mild, should be regarded as potentially a severe one, and such I believe it is possible to make it by indiscretion. The diet should be fluids which are easily digested, and should be given at first in small quantities, especially if vomiting recurs after the onset. The bowels will generally be constipated, and will be best evacuated by an enema if any measure is required. Certainly purgatives should not be given by the mouth. When fæcal impaction in the cæcum was supposed to be source of the mischief, it seemed reasonable to give purgatives with the object of dislodging the offending mass. But wider knowledge has shown that such impaction does not exist, and that the tumour we find is an effort on the part of Nature to circumscribe the mischief in the appendix by adhesion. If pus is forming or a concretion perforating—that is, if we have erred in regarding the case as a mild one—increased peristalsis, dragging on and separating adhesions, may induce a calamity. For these reasons, then, if evacuation of the bowel seems called for, it should be induced by a simple enema which does not set up widespread peristalsis.

Locally, warmth should be applied either by hot fomentations or poultices. Leeches, up to as many as half a dozen, may often be used with advantage, and give speedy relief to the local pain and tenderness. When these symptoms are really severe we must be careful that the relief given does not lead us into a fool's paradise. The local depletion, although a comfort to the patient, may not retard the spread of an infective inflammation, and such is, of course, often the cause of the severe local symptoms. Of the use of opium I desire to speak guardedly. I give it very sparingly in any acute abdominal conditions from the dread I have of being misled by the relief it gives to the patient's pain. And yet it is hardly possible to dispense with opium in appendicitis. When the patient is suffering severe pain at the onset we may properly give a suitable dose of morphine for its relief. If, when the effect of this first dose passes off, pain seems to call for more sedative, we must reflect on the probable cause of the pain. It may be a gangrenous inflammation of the vermiform appendix or a perforation, or commencing septic peritonitis, and what is called for is not opium, but operative interference. I do not wish to speak dogmatically as to how long the use of morphine may be continued in a case of appendicitis, but to point out that its repeated use is dangerous because, by blunting the patient's sensibilities, it obscures the progress of the disease and defers operation until it is too late to expect much good from it. The treatment of appendicitis in the first instance, then, should be by absolute rest in bed, careful feeding, the use of warmth and perhaps of leeches locally, opium sparingly if at all, and by enemata if it is wished to empty the bowel. Under this treatment the majority of patients with appendicitis get well. If the early moderation of the symptoms is not followed by a later more intense development, this line of treatment should be persisted in, with such additions to the food as seem reasonable, until all local swelling and tenderness have disappeared. Allowing patients to get up before complete resolution has occurred is a fertile source of relapse, relapse which may be more intense than the original attack. Nothing is more firmly impressed on my mind than the risk and trouble which patients suffer either because their own wilfulness, or want of discretion on the part of their medical advisers, permits them to go about too soon.

I said just now if the early moderation of the symptoms continues the simple treatment described was all that would be required. It is the possibility of more urgent symptoms arising that makes the care of even quite mild and apparently simple cases an anxious responsibility in the first few days. I know of no disease which needs more careful watching, none in which we need to be more carefully on guard against an insidious or even a fulminating advance of the symptoms.

CLASS II.—APPENDICITIS WITH ABSCESS FORMATION.

Most of the cases requiring operation in my experience belong to this class. The formation of pus is either the result of an interstitial appendicitis which has spread through the walls of the organ, and though an infective process is still limited by well defined adhesions, or is due to perforation of the appendix around which well formed adhesions have been produced ere actual perforation occurs.

Speaking in general terms, the early symptoms of the attack in cases where abscess may be expected to form stand midway in severity between those of Class I just described and those of the acute perforating cases of Class III. It is, however, necessary to add that occasionally pus formation occurs in cases when the onset is ill marked and the progress of the case is very insidious. The extent of the abscess varies enormously, from a few drops of pus to pints.

For the recognition of abscess formation I rely partly upon local signs and partly upon constitutional symptoms. Assuming that the patient has been confined to bed and

treated on the general lines already laid down, the tumour and local tenderness should, if resolution is going to take place, in a few day begin to diminish. If this does not occur, and especially if the swelling increases, it is very suggestive of the formation of pus. Can we depend upon fluctuation, redness, and œdema to tell us with certainty that we have an abscess to deal with? All these conditions may be present, but to wait for them to develop is in the majority of instances absolutely inexcusable, and is running the patient into jeopardy. To detect fluctuation through the fat and muscular walls of the abdomen, infiltrated in the deeper layers perhaps by inflammatory tissue, may be impossible even though some ounces of pus be present. A fallacy may exist too when fluctuation is apparent. This lies in the elastic walls of intestine containing a certain amount of gas, fixed by adhesion in front of the tumour, and giving a feeling which is sometimes indistinguishable from true fluctuation. If fluctuation exists it is of course decisive; if it is absent this does not negative the presence of an abscess. Much the same may be said of redness and œdema of the skin. When present they are signs of great value; when absent they do not prove the absence of suppuration, and should not be waited for if other indications point to it. The local sign, then, of pus formation upon which I would lay stress is the increase in size of the tumour in the right iliac fossa when the patient is at rest in bed and under proper treatment.

The chief constitutional sign is the temperature. This has the feature which is characteristic of suppuration generally in other parts of the body, an elevation of two or three degrees or more in the evening with a morning remission to normal, or nearly so. This hectic temperature may follow directly upon and be continuous with the primary elevation, or the fever of the onset may have subsided and the temperature have been normal for two or three days. I have relied upon this type of fever with extreme local tenderness for the diagnosis of pus in appendicitis when no tumour could be felt, even under anæsthesia, and the evacuation of the abscess by operation has justified the diagnosis.

A rigor is significant if it occurs, but I have noted it as happening only occasionally; certainly it is not the rule. In one case which I saw in consultation but did not myself operate on, as many as a dozen rigors had occurred, but in this case pus had been present for some time, and had been allowed to remain and increase long after it should have been evacuated. To diagnose pus, then, the requirements are an increasing tumour, a hectic temperature, and persistent local tenderness. The diagnosis may be assisted by rigor, fluctuation, redness, œdema, all or any of which may be present but not necessarily.

Treatment.—The general treatment until the diagnosis of suppuration is made will be as in Class I. When pus has been diagnosed it should as early as possible be removed. It is not necessary to delay operating until the abscess becomes a "safe" one, that is, so adherent to the abdominal wall as to be opened as easily and with as little risk as an abscess of the subcutaneous tissue. The objections to leaving the abscess until it is thus easily dealt with are mainly two. The first is the risk of rupture of an abscess into the peritoneal cavity with resulting peritonitis. The reality of this danger cannot be too strongly emphasised, and patients should be warned against violent and incautious movements of the trunk and lower extremities in all cases. The second objection to delay in operating is the destructive results which may be produced upon the tissues by the extending suppuration. In addition to coming forward in the right iliac region, it may be spreading to the pelvis, finding its way, perhaps, into the bladder, getting between the liver and the diaphragm, and thence into the thorax. Most severe damage is done if the pus gets into the thigh beneath Poupart's ligament, or finding its way into the loin thence escapes between the muscles in this situation, when it may track widely up and down in the loose planes of tissue. Delay in operating for abscess arises from dread of finding what I generally speak of as the "non-adherent abscess." In this condition the pus collection around the appendix pushing forward has not yet come in contact with the anterior parietal peritoneum, and before the abscess is reached by the surgeon the general peritoneal cavity has to be opened. This, of course, implies the possibility of infecting the peritoneum as the matter is evacuated. Acknowledging this, I do not hesitate to say that danger from this accident may be so provided for that it ought not to weigh against the other more formidable ones incurred by delay. Before operation is commenced it should, of course, be noted whether the tumour be resonant or not. If it is, the resonance may be due either to intestine in front of the abscess or to gas in its cavity, due almost always to perforation of the appendix though possibly merely to putrefactive changes.

No definite line of incision can be formulated for appendical abscess. Its direction should be somewhat oblique from above downwards and inwards over the most prominent part of the tumour where the abscess is most likely to be adherent to the anterior parietal peritoneum. Its length must depend a good deal upon the fatness of the abdominal wall; generally it is 3 to 4 inches, and care should be taken not to get so low as to involve the deep epigastric artery. As the incision deepens œdema and infiltration of the deeper tissues may be met with, so much so as to make the different layers almost unrecognisable. In not a few cases pus wells out before the operator realises that the peritoneum is divided, owing to the alteration from inflammatory infiltration—that is, a "safe" or "comfortable" abscess has been opened. When the pus is evacuated the finger enters and searches for the appendix. It is often not recognisable, and even if it is it will almost certainly be firmly tied down by adhesions, and no attempt should be made to remove it. Stripping out of the appendix from the walls of the abscess is likely to break through the latter into the belly cavity and to lead to disaster. If the vermiform appendix is left, little anxiety need be felt as to future attacks of appendicitis; they rarely occur. When the finger searches for the vermiform appendix, it should also seek for fæcal concretions or a foreign body in the cavity. These should be carefully removed if detected, as otherwise they may be the cause of long-standing sinuses.

If the abscess is not of the "safe" kind, the peritoneal cavity is opened, and the wound should be enlarged to such an extent as to permit of careful examination of the tumour. Should resonance have been found, this may be due to the cæcum or small intestine in front of the pus cavity. Search should be made to either side of the adherent bowel to see if the pus is presenting there or perhaps below the cæcum. In one of these situations the pus may be easily approached. If not, the intestinal and omental adhesions must be separated to get at it. Whether intestine is adherent in front of the abscess or not, certain precautions have to be taken to prevent fouling of the general peritoneal cavity with the pus. Where it is feasible I prefer to stitch the anterior parietal peritoneum with a ring of interrupted suture to the covering of the abscess. When this has been done the pus may be evacuated through a small incision, which later is enlarged to allow of the finger entering to explore for the appendix or for perforating bodies, which should be dealt with as already stated. If protection by sutures is not available, then packing around by sponges and speedy mopping as the pus is evacuated will suffice, the cavity being packed with gauze when it is empty. During these manipulations the patient should be turned well on the right side, so that if the escaping pus fouls the abdominal cavity it may not travel widely but remain localised. Above all things, the abscess should not be irrigated, for fear of washing infective particles where they may set up general peritonitis. In all cases a drainage tube should be inserted to the bottom of the abscess cavity, and gauze packed around in addition if the circumstances require it. It is generally wise to partly close the incision by sutures. In exceptional cases, when the pus runs upwards above the ileum, a counter opening should be made here and used to drain the cavity, or the abscess may be attacked entirely from the ileo-costal space without an anterior abdominal incision.

CLASS III.—ACUTE PERFORATING APPENDICITIS.

Between this class and that just spoken of the line of demarcation is not to be easily drawn. In many of the acute perforating cases there is a collection of inflammatory fluid more or less well defined by adhesion, but the fluid is thinner than ordinary pus, has more the characters of turbid serum, and the adhesions are slight and offer a feeble barrier to the

spread of the inflammation into a general peritonitis. It will readily be appreciated therefore that the more acute cases of abscess formation merge into the present group. Acute perforation implies either the presence of a fæcal concretion or foreign body which has ulcerated through the walls of the appendix, or an intense infective inflammation which from stasis and thrombosis has caused gangrene and sloughing of the appendix. The part played by catarrh in initiating both these conditions I have already alluded to at length. However perforation is brought about, what happens after will depend partly upon the position of the appendix and partly upon the rapidity with which perforation occurs. If the appendix is lying free to the inner side of the cæcum and if the perforation occurs very acutely, there will be rapid infection of the peritoneum and a diffused septic peritonitis will speedily arise. If on the contrary the appendix lies to the outer side of or under the cæcum, or in a peritoneal pouch, or is adherent to surrounding structures from a previous attack, the inflammation will be localised for a time and the imminence of general septic peritonitis is not so great.

The mortality from these acute perforative cases is very serious, and is much greater than from those conditions previously described. The recognition of this mortality has led to what one may call a "scare," out of which a clamour for operation in all cases has arisen from a section of the medical profession. The argument used is based on the acknowledged difficulty of always recognising an acute perforative case in time to operate ere general peritonitis is set up. It is suggested that the removal of the vermiform appendix in all cases as soon as inflammation of it is recognised would be almost devoid of risk, and the general mortality thus incurred would be less than that following selection of cases. Personally I cannot assent to this view, seeing that a large number of patients, I believe the majority, get well without interference by operation, that generally it is possible to differentiate the more acute cases from those less so, and that the cases in which we are likely to be led astray occur mostly in children upon whom we may properly therefore operate earlier and with less reserve than in older patients.

An acute perforative case generally begins with very severe diffuse abdominal pain, followed by or associated with extreme pain and tenderness in the right iliac fossa. Vomiting is almost certain to occur, and whereas in Classes I and II it may be expected only once or twice, or perhaps not at all, in this variety repeated vomiting is common, and is a symptom of great importance. The temperature will run up sharply three to five degrees, the pulse will quicken to 110, 120, or more; the patient's face shows that he is very ill. It may be possible to detect the swollen vermiform appendix, but this will depend upon the will and the ability of the patient to relax his muscles. With a history such as I have recited, perforation may be expected to be imminent, if it has not actually occurred. In the first twenty-four hours of the attack, whilst the diagnosis is being formulated, the patient should be kept rigidly in the horizontal position. Little nourishment should be administered by the mouth, and no attempt should be made to empty the bowel either by purgatives or by enemata. If at the end of that time it is clear that the vermiform appendix is the starting point of the mischief, the question of operation should be seriously considered, and arrangements should be made for carrying it out at any time. In children the fatality is so great from acute perforation, and its certain recognition in them so difficult that I would advise operation, even at this early date, as involving the patient in less risk than delay. If the patient is older some delay is allowable provided always that he can be kept fully under observation. He must be seen every few hours so that any advance of the symptoms may be recognised and acted upon. No disease requires such careful watching if we are to intervene at a time when success is to be hoped for—that is, when the diagnosis of acute perforation, actual or potential, can be made, and general infection of the peritoneum has not yet set in. If, after a further period of observation—it may be only of a few hours, it may be for a couple of days—the symptoms become aggravated, or, if they do not abate, then further delay in operating is unwise and dangerous. The symptoms on which stress should be laid are persistent extreme tenderness over the vermiform appendix, vomiting which recurs despite careful feeding, elevation of temperature, quick pulse, and persistent abdominal face. The presence of these, or even of some of them, in my opinion, calls for very early operation, and the call becomes more urgent if the belly is becoming generally rigid and tender, or if there is distension commencing at the right iliac fossa, or if a sudden increase of pain is felt in the same region.

With typical symptoms such as I have sketched, the recognition of an acute perforative lesion is as a rule not difficult. When these are atypical, and some of the characteristics are absent, it is that difficulty arises. There may be no characteristic general colic, but pain from the first quite localised to the region of the cæcum. Or after general abdominal pain, pain and tenderness may be felt in both iliac regions, or it may be chiefly in the left. Again, the patient may not vomit at all. The great point in recognising these cases is not to regard any one indication as essential to diagnosis. It is desirable to dwell, not so much upon the absence of one particular feature, as upon the intensity of those that are present. I would lay the utmost stress upon an unaccountably quick pulse or intense tenderness (unless it were evidently a very neurotic patient) in the right iliac fossa, or a bad facial expression. If a fall in the temperature seems to indicate improvement which is contradicted by remaining or increasing quickness of the pulse, it is the adverse symptom that should receive most attention.

In any acute case, when from the rigidity of the abdominal muscles it is uncertain whether there is an inflammatory swelling in the right iliac fossa or not, chloroform should be given for a thorough investigation. Of course, the patient being anæsthetised and the surgeon having discovered the local trouble, he will probably proceed forthwith to operate; he should certainly be prepared for this, or defer his examination until he is. Examination bimanually with a finger in the rectum or vagina will tell more in some cases than mere abdominal palpation.

So far I have considered only the symptoms that may be expected before a diffuse peritonitis has arisen. I have already alluded to the difficulty which may exist in coming to a conclusion in some cases as to whether the inflammatory process is still localised to the right iliac fossa. If diffuse peritonitis exists in the later stages, there is no room for doubt. The persistent vomiting, the generally distended and tender belly, the absence of vermicular movements in the intestine, the complete obstruction, the quickening pulse, the Hippocratic face, all point to the diffuse septic inflammation.

Operation having been determined upon, how is it to be carried out? The position of the incision will be determined in the first instance by any tumour or thickening which can be felt. It is above all things important that the incision shall be as directly as possible on to any inflammatory collection, and that there shall be little disturbance of parts around it. This is the main secret of operating successfully on acute perforation without general peritonitis. The line of the incision should be somewhat oblique from above downwards and from without inwards, and after the division of the aponeurosis of the external oblique most of the fibres of the deeper muscles can be separated without much cutting so as to leave as little weakness as possible in the abdominal walls. It goes without saying that the general abdominal cavity is opened. The edges of the wound are now held open with retractors, and the finger carefully separates the coils of intestine to reach any thickening which may be recognised. This will probably set free a septic collection of thin pus or turbid serum, which must be carefully sponged up as fast as it escapes, the patient being at the same time turned well on to the right side to direct the fluid away from the general belly cavity. After the collection has been thus removed, the appendix itself must be sought at the bottom of it. It will often be found quite free or partially encircled by a fold of omentum, and should be secured as near to the cæcum as can safely be done. It may be desirable to transfix the base of the appendical mesentery with an aneurysm needle threaded with a double ligature, one half of which is tied round the base of the mesentery, the other round the appendix. If the appendix is not easily found no extensive search should be made for it or the whole purpose of the operation—the prever-

tion of septic infection of the peritoneum—will be defeated; it is so easy for the exploring finger to carry infection where it did not previously exist. For the same reason irrigation should not be used, but the cavity occupied by the inflammatory collection should be carefully cleansed by sponging. Whether the vermiform appendix has been removed or not, the emptied cavity should be drained without exception. I generally use an india rubber tube for the purpose, sometimes supplementing this with iodoform gauze packing. The upper portion of the wound should be closed with sutures, and the more effectively this is done the less likelihood is there of subsequent hernia at the scar.

If general peritonitis exists at the time of operation, the course to be followed is somewhat different. I have seen success follow median incision and drainage only, but notwithstanding this if the patient's condition permits it, the perforated organ should be removed at the same time. If both manipulations are not permissible then median drainage should be preferred. When the appendix has been removed and the abdomen opened in the middle line, irrigation is called for, but it should be done with care, so that if the highest part of the peritoneum is not involved, as I am sure is sometimes the case, it may not be contaminated by the surgeon's manipulations. Satisfactory irrigation is not easy. It must be done systematically, first in one region then in another; the hand must pass between the intestinal coils, allowing of the flushing out of the purulent pockets between them. Above all, the lumbar pouches and the pelvis must be thoroughly emptied. A drain should be placed in both incisions.

During the progress of the case, after a period of well doing, the patient may begin to lose ground. The quick pulse returns, the temperature again rises, there is sweating and an ill-looking face. The abdomen should be carefully examined for some collection which is not draining. This may be found in the pelvis or either loin, but the commonest region is by the ascending colon, where it may track up as high as the liver. I have seen an extensive collection between this organ and the diaphragm, although the rest of the belly cavity was doing well. Any collection such as I have indicated should at once be drained by direct incision.

CLASS IV.—RELAPSING APPENDICITIS.

A certain number of patients after apparent recovery from appendicitis become the subjects of future attacks of varying severity and at variable intervals of time. The appendix and the tissues around it do not return after the first attack to a normal condition. One of several altered states may be found. The appendix, bent upon itself and fixed by adhesion, is so kinked in its calibre that secretion, and it may be pus, is retained in its distal portion. Or from the previous inflammation complete obliteration of the lumen has taken place at some point, and beyond this retention of mucus or pus occurs until the organ may be distended to the size of the finger. Or around the distorted and adherent appendix a few drops of pus may be found secured by firm adhesion, or one or more concretions or foreign bodies may lie in its canal.

One of these conditions existing, renewed activity of the patient lights up a fresh inflammation. It is not necessary to describe the attacks in detail; they are, like other attacks of appendicitis, extremely variable in intensity and duration. After three or four the patient may recover, or abscess formation may occur, or, from breaking down of adhesions a perforation of the appendix or rupture of an abscess may give rise to diffuse septic peritonitis. Relapsing appendicitis is tedious from the chronic invalidism it produces, which interferes with the patient's comfort and his pursuit of business or pleasure. It may be dangerous to life from one of the acute manifestations just mentioned, a mild attack on the first and subsequent two or three occasions being no guarantee that those following will be of the same moderate intensity.

Treatment.—It is sometimes forgotten that the first and most important treatment of relapse is rest. Neglect of this in the first instance is, I am convinced, the cause of many relapses. With rest—it may be of many weeks' duration—general treatment should be combined. The diet should be restricted to such things as leave little solid residue in the colon, vegetables and fruits being excluded. The bowels should be emptied every day, either by a saline purge or by enema; locally one or more blisters should be applied, and the patient should be prohibited from getting out of bed for any purpose. By pursuing this plan of treatment I have had patients get well after several relapses. If such treatment fails to cure, or if the patient declines to adopt it, because his medical adviser cannot guarantee that rest, etc., will restore him to health, then removal of the appendix is called for. As to whether it should be done in a period of quiescence between two attacks or when signs of a recent outbreak of inflammation exist is a somewhat disputed point. Personally I would select a period of quiescence to operate in, with the proviso that some thickening or induration could still be felt at the site of the appendix. Otherwise I would wait for an acute development.

Operation having been determined upon, the operator is able to leisurely make his arrangements and select his own time. As to the position of the incision: here again we must be guided mainly by the position of any thickening which can be felt; the great point is to approach this as directly as possible. If the option is allowed by circumstances it is better to incise somewhat to the outer side of the linea semilunaris in an almost vertical line through the skin and external oblique; the deeper muscles can be separated with but little division of their fibres, then the transversalis fascia and peritoneum, the edges of the wound being retracted so as to make a transverse rather than a vertical wound. The first step now is to identify the base of the appendix, and the guide to this is one of the longitudinal bands of muscle on the cæcum—for choice the anterior—which, being persistently followed to its termination, must lead to the appendix, into which it enters. Adhesions of the utmost toughness, between appendix, intestine, and omentum may have to be separated, and this must be done often with considerable force, and yet at the same time with reasonable care, as the bowel may be easily torn.

At this stage the use of a flat, broad-ended director is often of considerable service. This recognition and stripping out of the appendix may be a task of the utmost difficulty, and in one of my cases I stripped out the middle and inner coats, leaving the peritoneal coat still adherent, but the result was perfectly satisfactory. The appendix having been separated, it should be removed as close as is safe to the cæcum, and the end may be closed over with one or two sutures, a precaution I do not take in all cases. Whether the abdomen should be drained or not will depend upon the amount of handling and whether any small abscess has been found. If the manipulations have been extensive, or if pus has been liberated, I prefer to err on the safe side and drain.

If the relapses eventually end in abscess, this should be dealt with on the lines previously laid down. In one case of this kind which came under my care, after abscess had formed and been operated on, the appendix being left, the patient had another relapse. Prolonged rest, however, appears to have eventually produced cure, as the patient has now remained well for more than a year. If relapse ends in general peritonitis from perforation or ruptured abscess, operation will be required on the lines previously laid down.

My own operations for appendicitis are 29 in number, and of these 23 were followed by recovery and 6 by death. In 11 cases there was suppuration well localised, the amount of pus varying from a few drops to ounces, and in one case pints. In 2 only was the appendix removed, and all recovered. In 1 case there was acute interstitial appendicitis with early peritonitis; the appendix was removed, and the patient recovered. In 5 cases there was acute perforative appendicitis with localised purulent peritonitis; in only 1 was the appendix removed, and all recovered and remain well. In 8 cases there was acute perforative appendicitis with general septic peritonitis; of these, 2 recovered, both after median drainage only. Four were relapsing cases; 2 of these had well-formed abscess, and the appendix was not removed. In the remaining 2 the appendix was removed; all 4 recovered and remain well.

PRESENTATION.—Dr. F. Sidney Grimshaw, of Stillington, Yorks, was presented recently by the members of the St. John Ambulance class conducted by him at Brandsby with a set of Queen Anne salt cellars in a morocco case, bearing a suitable inscription.

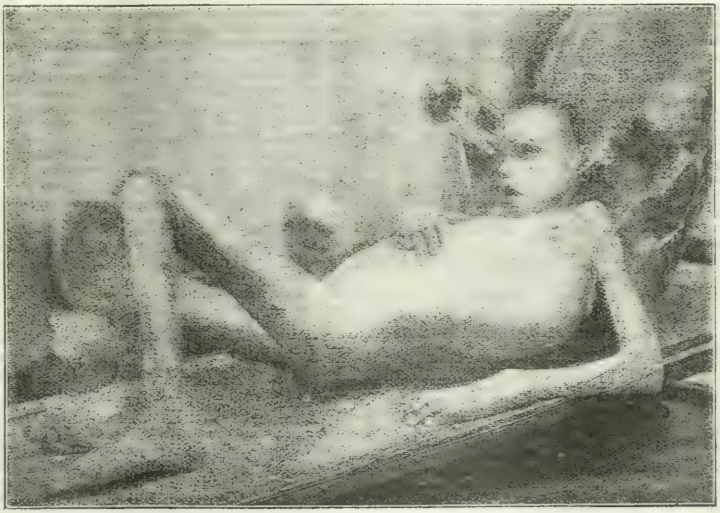
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ON A
CASE OF HYPERTROPHIC PULMONARY OSTEO-ARTHROPATHY.

Delivered to the Students of the Melbourne Hospital.

BY J. W. SPRINGTHORPE, M.A., M.D.MELB., M.R.C.P.,
Physician to the Melbourne Hospital, Lecturer on Therapeutics in the Melbourne University.

E. S., aged 21, was admitted into the Melbourne Hospital on January 23rd, 1893. His father was gouty, and died after an injury at 46. His mother is alive, neurotic, and suffering from climacteric neuroses. Of the 13 children 4 are living, 2 being slightly delicate, and 1 suffering from (?) hysterical paraplegia. Three died in infancy, 1 from marasmus and, later in life, 5 died from marasmus, abscess in the lung, typhoid fever, diphtheria, and burns respectively.

The patient himself was always strong and well up till 10 years of age. Neither mother nor elder sister noticed any abnormality of skin or bone, and none is visible in a photograph taken about the age of 8. At 10 he had an attack of right pleurisy with effusion, which was said to have been "followed by typhoid fever." He was very seriously ill for three months, and the probability seems that an empyema was then in progress. He continued ailing, and some three months later began to exhibit some curvature of the spine, for which he was put in a plaster-of-paris jacket at the Children's Hospital. Whilst there he was treated also for a skin affection, about which no notes can be found (the notes generally having been mislaid), but his then attendant, Dr. Snowball's, strong impression is that it was ichthyosis. Nothing abnormal was noticed about the joints or bones. The abnormalities in spine, skin, and bones increased gradually to their present condition. For the past two years there has been transient swelling of the feet, and for the past six months swelling of the stomach.



Hypertrophic pulmonary osteo-arthropathy; side view. Photograph taken after death by the coroner's orderly, Constable Davidson.

On admission the patient complained of dyspnœa, pain and swelling in the legs and stomach, weakness, and cough; the face also was swollen; the urine 1010, in fair quantity, and free from albumen; the temperature 97.4°; the right chest was very much flattened and retracted; the liver enormously enlarged; a medium quantity of fluid in the abdomen; the heart considerably enlarged, with thrill, heaving diffused impulse, and murmurs both systolic and diastolic over mitral and aortic areas. In addition he presented the following uncommon combination of signs in spine, bones, joints, and skin:

1. There was a very marked curvature of the spine, occupying the whole of the dorsal region; behind it was on a line with the end of the spine of the left scapula. The right chest in the intermammary line measured 5½ inches less than the left, the measurements being 11½ and 17 inches respectively. The sternum was displaced upwards and to the left, the left ribs higher than the right, and the head carried well over to the right side.

2. In addition to general wasting, the pectorals, the muscles of the scapulæ and upper arms were reduced almost to nothing. The skin over the abdomen, arms, forearms, and hands was thick and scaly; it was even more thick and scaly on all the surfaces of the lower extremities, especially the lower front of the thighs, knees, and the front of the ankles, where it could not be described as anything but ichthyotic. The colour was livid grey, except about the knees and ankles, where it was dirt-ingrained. The penis was that of a boy of 10 or thereabouts, the scrotum large, the cremasteric reflexes present, but there was no history of any erotic excitation at any time. Beneath the thickened epidermis of the legs and thighs was some œdema.

3. There was also noticeable enlargement, with deformity of the extremities, with, apparently general lengthening of the long bones. On each side the measurements were:

From tip of acramion to olecranon 12 in.; from olecranon to lower end of ulna, 10 in.; from carpus to end of second finger, 7 in.; from trochanter to external condyle 16 in.; from condyle to external malleolus, 16 in.; from heel to end of big toe, 10 in.

The lower ends of both radius and ulna were enlarged and prominent, measuring 6¾ inches round the left and 6½ inches on the right side. Both hands were enlarged, being increased in length but not in breadth; the fingers were lengthened, especially at the ends, and very markedly clubbed. There was also some prominence of the knees, the circumference being 13½ inches, and unusual prominence and thickening round the ankles, and both big toes were much enlarged. Unfortunately, his unexpected death a few days after admission prevented further and more extended examination.

4. The face presented no abnormalities.

Post-mortem Examination.—It was, unfortunately, only after considerable difficulty and delay that a limited *post-mortem* examination was obtained. The examination, conducted by our assistant pathologist (Dr. Mollison), disclosed the following: Abdomen distended, greenish, containing a moderate amount of fluid. Liver pushed down almost to anterior superior spine. No beading of ribs. Pericardium everywhere adherent. Heart large, flabby and pale; cavities much dilated and containing fluid blood; no valvular lesion and no congenital deformity; no thymus noticed; no enlargement of clavicles. Right pleural cavity—one large abscess cavity—still containing some pus; its walls irregular, thickened, pigmented, and in patches calcareous. The right lung com-

pletely collapsed; no connection between the empyema and spine; no necrosis of bone. The left lung rather small, engorged, and friable; no enlargement of glands or blood vessels. Liver, weighing 5 lbs. 6 ozs. (? lardaceous), decomposing. Spleen 12½ ozs.; fibroid element increased (? lardaceous). Kidneys pale, decomposing. Brain: pituitary body not enlarged; no increase in the fossæ at the base.

Remarks.—The foregoing case is, I believe, the first of its kind reported in Australia. As with Friedreich's first cases, it was some years ago taken for a case of osteitis deformans, and at first sight regarded by myself as acromegaly. Further examination, however, especially in the light of Dr. Souza-Leite's monograph on *Acromegaly* (New Sydenham Society, 1891) showed that it was rather one of what Marie has called "Ostéo-arthropathie hypertrophiante pneumique," or hypertrophic pulmonary osteo-arthropathy.

The disease is a rare one, and only a few cases have as yet been recorded. Marie[1] has reported 8 cases, 2 of Friedreich-Erb,[2] and single cases by Sollier, Lewis, Saundby,[3] Fräntzel,[4] Ewald,[5] and himself. In May, 1890, another case was reported by Spillmann and Haushalter,[6] and in December, 1890, a tenth by Gerhardt.[7] During 1891 another was reported by Rausier,[8] whilst Julius Arnold[9] and Bamberger[10] have discussed respectively the diagnosis and pathology. I can find no reference to any other cases in the *Index Medicus*, *D. M. W.*, *Sajous's Annual*, the *Lancet*, or the British Medical Journal for either 1891 or 1892. The present thus seems to be the twelfth recorded case.

Differential Diagnosis.

In the present state of our knowledge, we can readily exclude osteitis deformans. In osteitis deformans the principal symptoms described are as follows: Considerable increase in the size and curve of the long bones and of the bones of the head and trunk, producing a characteristic appearance, the femurs and tibiæ being curved forwards, the legs abducted, and the neck and trunk fixed as in rickets in a forward flexure, respiration impeded and diaphragmatic from the hypertrophy and ankylosis of the ribs, a history of lightning pains, a beginning in mid age, and protracted duration without marked affection of the general health.

Symptoms.	Acromegaly.	Hypertrophic Pulmonary Osteo-arthropathy.
Upper Extremity	Hands "spade-like," enormously widened and thickened, though not lengthened; fingers "sausage-shaped;" thenar and hypothenar eminences enlarged, nails small, wrist in proportion; as a rule, the hypertrophy ceasing at wrist	Enormous and deformed; not enlarged in carpo-metacarpal region, but in fingers, especially the last phalanx; nails enlarged and curved; lower ends of radius and ulna forming an enormous projection above the hand.
Feet	Similarly enlarged, thickened, flattened; hypertrophy ceasing at ankle	Like the hands; last phalanx enlarged; the ankle thickened and deformed, the tarso-metatarsus least hypertrophied.
Head and Face	Face enlarged, elongated, oval; lips thick; tongue hypertrophied; nose large and flat; orbital ridges projecting; prognathous lower jaw; ears large; skin pigmented	Not enlarged or oval; lower jaw not prognathous; lips, tongue, neck, and larynx not enlarged.
Spine	Marked cervico-dorsal curvature, with slight lumbar lordosis	Curvature, lower dorsal and lumbar.
General	Hypertrophy of all the tissues in the region *en masse* Alteration in voice; headache, pains, thirst; bulimia, changes in vision	Hypertrophy of long bones, especially at articular ends. Absent.
Post mortem	Skull sinuses dilated; fossæ at the base, especially pituitary, enlarged; pituitary body hypertrophied, also ganglia of sympathetic; thymus persistent; thyroid altered, also organs of speech and sexuality; heart and blood vessels hypertrophied	Respiratory affections—for example, empyema in two, neoplasm of lung in two, and bronchitic affection in three; heart affections also.

This is a very different clinical picture from that presented by the present case. From acromegaly, however (itself a rare disease, of which the total number of cases yet reported does not amount to fifty, and of which no instance has as yet, so far as I know, been reported in Australia) the diagnosis is a matter of greater difficulty. Still the accompanying table arranged from Marie's paper, as quoted in Souza-Leite's monograph, will make the distinction evident.

The case is thus, without doubt, one of hypertrophic pulmonary osteo-arthropathy. Its identity is still further illustrated by comparing the photograph with the woodcuts figured 20, 23, and 24 in Souza-Leite's thesis. The explanation of this peculiar disease is still only problematical. Marie, accepting gout and rheumatic affections as analogies, attributes it to the effect on the osteo-fibrous structures of the toxins of septic organisms, which have been absorbed into the general circulation from lesions in the respiratory tract. Bamberger finds himself unable to offer a solution which will cover all cases, and considers it probable that several causes exist favouring the theory that some chemical substance like phosphorus is produced in the diseased lungs, and acts as an irritant to bone.

In the present case the sequence of events seems to have been somewhat as follows: A family history with neurotic and tuberculous tendencies, an unrecognised empyema with adherent pericardium, extreme and permanent collapse of the lung with consecutive dorsal curvature, finally nutrition and development carried on under the double disadvantage of serious heart disease and much impaired oxygenation of the blood, with abnormalities present in the epidermis, and certain parts of the bony system. Several interesting problems present themselves:

1. The exact nature of the osteo-arthropathy. Bamberger calls this a periostitis. In my case no further examination was permitted. My only other note is that there was no other crepitus in the joints. Again, why are wrist and ankle, and also knee affected, whilst shoulder, hip, and elbow are apparently unaffected? Whatever be the true explanation it is suggestive to find that it is the lower articular ends of the long bones which are distinctly increased in size, and, so far as my remembrances in anatomy serve me, these seem to be the parts in which the greatest amount of developmental activity would be then taking place.

2. The kyphosis in this case occurred early, and apparently as a result of the collapse of the lung, and not as in some of Marie's four cases with curvature, some years after the other bony deformities, and dependent on lesion of the intervertebral articulations.

3. The condition of the skin is somewhat puzzling. It could scarcely be described as anything else than ichthyosis. The complication is absent from Marie's description, and is probably an accidental accompaniment of the present case. Though no history of such affection was procurable in the family, or remembrance of its presence in early life, still there is evidence of its presence when being treated for curvature at the age of 10. In all probability it existed still earlier in a mild form, and gradually reached its later noticeable manifestations.

4. The clubbing of the fingers was exceedingly marked, and exhibited in an extreme degree what may occur in ordinary chronic heart and lung disease. The other *post-mortem* appearances speak for themselves.

Theory as to Causation.—Dealing simply with the case under notice, the circumstances and sequence of events suggest in my mind a probable causation which I would advance only with great diffidence, and for purposes of further investigation. It is that this rare manifestation of disease may be the result of exceptional abnormality of development under the influence of continued and uncommon maloxygenation of the blood. Such a hypothesis seems to explain, to some extent at least, why certain portions of the long bones are

[1] *Revue de Médecine*, January, 1890, and *Bulletin Médical*, December, 1889.
[2] *Deutsches Archiv für klinische Medicin*, 1888, Bd. 42, p. 291.
[3] *Illustrated Medical News*, March, 1889.
[4] *D. M. W.*, August, 1888.
[5] *B. K. W.*, March, 1889.
[6] *Rev. de Méd.*
[7] *B. K. W.*
[8] *Rev. de Méd.*, p. 30.
[9] *Ziegler's Beiträge*, 1891, B. x, p. 1.
[10] *Zeitschrift für klinische Med.*, 1891, B. xviii, p. 198.

specially affected. It already explains the extreme clubbing of the fingers; and if we, following Erasmus Wilson, regard ichthyosis as "a defect of development and normal growth of the skin," it explains also why in the present case the skin took such a prominent part in the abnormalities produced. How far such a hypothesis fits in with the requirements of the other recorded cases I am, in the absence of information thereon, quite unable to express any opinion.

NOTES OF TWO CASES OF ACROMEGALY.

BY W. B. RANSOM, M.A., M.D., M.R.C.P.,
Physician to the General Hospital, Nottingham.

THE following are two typical cases of this interesting disease:

CASE I.—Miss M., aged 47, is of Irish birth, but has lived for ten years in New York, from whence she returned to England in the summer of 1894. She says that as a young woman she was slight and active, and had rather small hands and feet. For the last five or six years she has noticed enlargement of the hands, feet, and face, though she is not clear as to which enlarged first. It is five years since she last menstruated. During that time she has grown nervous, irritable, and languid, and thinks her memory is failing. Her vision has become very defective. For a year or two she has perspired very freely, and has been intolerant of heat, though she stands cold fairly. She has had no loss of hair, hardly any pains in the limbs, and but slight headache. She says that an American doctor whom she consulted a year ago told her she had myxœdema, but that another doctor said she had not. She had taken thyroid tablets for some time without benefit. There is no history of any similar disease occurring in any member of her family.



Fig. 1.—Case I.

When I first saw her, in August, 1894, the patient presented the characteristic countenance of acromegaly. The nose was long and thickened, the lower jaw large and prognathous, the lower lip swollen and everted, and the skin of the face generally coarse, thickened, and wrinkled. The eyebrows were of average quantity, and the hair of the head was not markedly altered. (In the photograph (Fig. 1) the hair has been touched up by the photographer who printed from my negative.) The hands were much enlarged, apparently both in the hard and soft parts, the fingers being uniformly enlarged, without bulbous extremities, and with flat square nails. The wrist, relatively to the metacarpus, was small. The feet were also increased in size. Owing to the nervous and almost hysterical state of the patient, a proper examination of the chest and abdomen was not feasible, but no kyphosis was obvious when she stood up in her clothes. The tongue was extremely large. The thyroid appeared of normal size, and there was no unusual dulness behind the manubrium sterni. The voice was somewhat "croaky" in character.

The patient complained of considerable shortness of breath on exertion, but the pulse was of fair quality, and there was no sign of arterial degeneration. The apex beat of the heart was just outside the nipple, but otherwise the organ presented no abnormal sign. The lungs were normal. There were varicose veins in the left leg. The patient slept fairly, was troubled only with slight headaches and slight occasional "rheumatic" pains in the limbs. The digestive system appeared normal, as was the urine. Vision was markedly impaired, and she could only read large print with strong convex glasses. Perimetric examination showed bitemporal hemianopia (Fig. 2). The pupils were normal, and there was

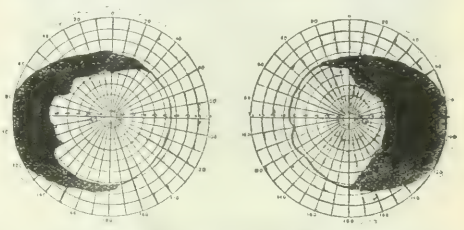


Fig. 2.—Visual fields of Case I.

no ocular or other paresis. The optic discs were rather small, pale, and irregular in outline, but the fundi were otherwise normal. The patient was treated with arsenic and tabloids of pituitary gland, but she grew gradually weaker and more languid in body and more fretful in mind. In February of this year she succumbed to an attack of bronchitis. No *post-mortem* examination was allowed.

CASE II.—Mrs. B., aged 34, came to the hospital in October, 1894, for general lassitude and excessive thirst. She first noticed enlargement of the hands about five years ago. At that time she had an illness called influenza, in which she had rigors, fever, and frontal headache, being ill a fortnight. This illness left her weak for some time, and a few months later she began to have severe headaches in the forehead and at the root of the nose, perhaps as often as twice a week. The hands continued to increase in size, and two years ago the feet did so also, so that instead of "fours" in boots she had to wear "sevens." The face and head began to grow large about the same time, and she says that two years ago her sight suddenly became dim, and she only saw one half of an object she was looking at. She thinks she increased in height as she certainly did in weight, rising from nine to thirteen stones. During the last eight months, however, she has been very thirsty and hungry, has passed a great quantity of urine, and has lost three stones in weight. Her strength has been much diminished during this time.

Whereas two years ago she began to sweat profusely, for the last eight months she has hardly sweated at all. The headaches have remained unaltered during the last five years. She has three children, aged 12, 10, and 8, and she has not menstruated since the birth of the last. The menstrual function has been always scanty; from the age of 14 to that of 22, when she married, she suffered from symptoms of anæmia, and menstruation was very infrequent, while since marriage it has only occurred once or twice.

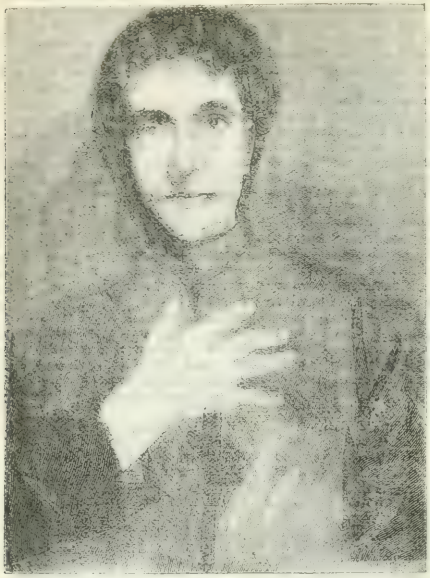


Fig. 3.—Case II.



Fig. 4.—Case II.

Just before the second confinement she was ill for three weeks with severe pain and swelling of the joints and much sweating. She has had no miscarriages and there is no history of syphilis. She had small-pox at 14 and scarlet fever at 20 years of age. She has not been alcoholic and has had no mental worry, though during the last few years she has become fretful and desponding.

As regards the family history, the patient's father had right hemiplegia at the age of 40, the mother is said to be "not strong," and the patient is the eldest of nine children, all the others being healthy.

On admission the patient presented the characteristic face of acromegaly, with elongated lower jaw, and nose and somewhat thickened lips, but the change was less marked than in the first case, the soft parts especially being less thick. (Figs. 3 and 4). (Fig. 5 represents Mrs. B. about the time she



Fig. 5.—Case II.

married.) The tongue is enlarged, as are the hands, and, to a less extent the feet. The fingers have square ends with flat ribbed nails, and the phalangeal joints are slightly swollen. She thinks the enlargement has slightly decreased since the excessive flow of urine began. There is no increase in the size of the bones of the arms and legs. There is a slight cervico-dorsal kyphosis and the lower ribs appear to push the belly forwards. The clavicles are of natural dimensions, but the second rib cartilages are very large. The thyroid gland is distinctly enlarged and is symmetrical, soft, and non-pulsatile. There is slight dulness at the manubrium sterni.

The hair on the head is abundant, coarse, and dry, but is not increased in other parts of the body. The skin is generally dry, and is slightly thickened on the enlarged extremities. There is slight exophthalmos, more marked on the left. There is no paresis of the external ocular muscles, but the left pupil is slightly larger than the right. The left pupil hardly contracts when light falls on the nasal half of the left retina. The optic discs are pale and small, and their appearance suggests commencing atrophy. Vision: with left eye = $\frac{6}{12}$; with the right eye she cannot read the largest type at any distance.

Perimetric examination shows bitemporal heminopia, with some contraction of the nasal field in each eye, and a central scotoma in the right eye. (Fig. 6.) Between the central and



Fig. 6.—Visual fields of Case II.

the temporal scotoma in the right eye is a zone in which light is dimly perceived.

General sensation and the other special senses appear normal. There are occasional moderate "rheumatic" pains in the limbs, and also feelings of numbness, and sometimes burning sensations.

The patient is intelligent, fairly cheerful, has no conspicuous defect of memory, but it is obvious that slight effort exhausts both body and mind. She is not especially emotional. The thoracic, abdominal, and pelvic viscera present nothing abnormal to physical examination. The patient passes from 100 to 200 ounces of urine daily, containing about 6 per cent. of sugar, and of specific gravity 1035 to 1045. There is no albumen and no peptone. Microscopical examination of the blood shows no abnormal conditions.

Progress of the Case.—The patient remained in hospital for five weeks, during most of which time she took arsenic in small doses. After the first week she was put on diabetic diet, with a result that the quantity of urine was not diminished, although the sugar was reduced to 2 per cent. Afterwards, under the use of codeia, the sugar went down to 1 per cent., without any reduction of the amount of urine passed per diem.

The temperature tended to be subnormal, varying from 97° F., to 98.6° F. The patient had several very severe attacks of diffused headache, sometimes accompanied with vomiting. These were usually relieved by antipyrin or, less efficiently, by croton oil. During the last three weeks of her stay in hospital, the patient took pituitary tabloids, and since her discharge has continuously taken these tabloids and arsenic. Since she left the hospital she has taken ordinary diet.

On the whole there has been very little change in her condition for good or bad. What change is observable is a slight loss of flesh, attributable to the glycosuria, which makes the enlargement of the face and hands less conspicuous. (During the stay in hospital her weight increased from 9 st. 7 lbs. to 9 st. 10 lbs.) The patient is certainly not otherwise worse, perhaps she is a little more cheerful, but I cannot trace any markedly beneficial effect to either the arsenic or the pituitary tabloids.

Remarks.

Without entering into a discussion of the pathology of acromegaly, for which our present physiological knowledge hardly suffices, attention may be called to three points illustrated by the two cases, namely, the early arrest of menstruation, the distinct signs of enlargement of the pituitary gland, and the absence of therapeutic effect of the pituitary tabloids.

Amenorrhœa is one of the most constant and earliest symptoms of the disease in women, often preceding the hypertrophy of the extremities, but it may occasionally come on later, as in a case recently published by Dr. George Murray, where the increase occurred two years before the cessation of menstruation. The experience of spaying both in women and in animals, however, shows clearly that suspension of ovarian function is not in itself a sufficient cause of acromegaly. It is also certain that neither mere increase in size of the pituitary gland, as when it is the seat of a tumour, produces the symptoms (except headache and hemianopia), nor does its destruction by growth or inflammation.

Simple hypertrophy of the gland is undoubtedly the condition found most frequently *post mortem*, and the hypothesis that the disease is due to exaggeration or perturbation of the normal function of the pituitary body has some degree of plausibility.

In some cases, on the other hand, no such enlargement has been found, as in one reported by Pel,[1] where the pituitary gland was said to be "completely normal, the thymus only slightly hyperplastic, and the thyroid moderately atrophic." In this case there was a large glioma of the left hemisphere.

It is possible, however, that there might be exaltation of the gland's function without increase in its size. But until we have some evidence as to what the normal function of the gland is, this hypothesis must remain doubtful. The fact that in myxœdema there is usually some hypertrophy of the pituitary body is distinctly opposed to it.

With regard to treatment, I venture to think that we have no reliable clinical evidence in favour of the administration of pituitary gland, while if the above hypothesis be true it is likely to be actually harmful.

NOTES ON ORCHITIC EXTRACT.

By H. GREY EDWARDS, B.A., M.D., B.Ch. Univ. Dub.,
Honorary Physician Carnarvon and Anglesea Infirmary, Bangor.

It may be of interest to some who have not yet used orchitic extract, to hear of a few cases which appear to point out the value of this remedy under certain circumstances. Dr. Brown-Séquard cited several cases in which the subcutaneous injection of orchitic extract in old men enabled them to devote themselves to business with a much increased vigour, and to endure, without fatigue, physical exercise far in excess of what they were capable of prior to taking the extract.

Case I.—On June 1st, 1894, I was called hurriedly to a gentleman, aged 65. I had been attending him for many months, but he was reported to be much worse. He was a man prematurely aged, worn down with care and trouble. He had a slight murmur at the base of the heart, was very anæmic, exceedingly thin, and now so weak that the simple act of struggling on to his elbow in bed to talk caused such breathlessness, that it was two minutes before he could utter a word. Every form of tonic and nourishment, peptonised and otherwise, had been used for this case for months without effect. The patient appeared like a battery that would not work; the component parts of each cell were in fairly good order, but the vital fluid had been used up and the cell was dry. Dr. Brown-Séquard's cases came to my mind, and I at once decided to give orchitic extract. The result was marvellous. In two days the patient declared himself much better, his appetite was much greater, while he was stronger in every way, and the breathing had greatly improved; he went steadily on with the orchitic extract tabloids, taking four every day, until on the tenth day he was able to walk downstairs without aid, and on the fourteenth walked upstairs without much difficulty. He now improved quickly, was able to return to his office, and go about fairly well, feeble no doubt, but in the words of his friends he was "a veritable resurrection." Some weeks later he took a very long walk, fainted by the wayside from fatigue, and was brought home in a cab; all efforts to revive him failed, and in a few days he quietly passed away. I have no doubt that this patient would have been alive now had he listened to advice and not used up his strength.

Since then I have given orchitic extract in a large number of cases with excellent results; and as it would go beyond the scope of this note to give details of every case, I will simply give a general outline of two or three, with remarks.

Case II.—A widow lady, aged 60, whose husband had been dead six months, had lost weight, suffered from dyspepsia, great weakness, and appeared feeble and failing. Many remedies and nourishments were tried without much effect. Orchitic extract was given, and in a few days she said that the "pills" were evidently doing her good. She took them from June 28th to November 16th, 1894, by which time she had brightened up, walked up stairs instead of being carried, and had put on 8 lbs in weight, which may be considered exceptional, as she was an exceedingly spare, slight woman.

Case III.—An unmarried lady, aged 45, very thin, suffering from many fancies, took orchitic extract with the best results from July 18th, 1894, up to March, 1895. She is much more cheerful, has got rid of her fancies, while she is nearly double the weight she was before. The case has been under my care for six years, and nothing did her good until she took the tabloids, so I think I am justified in giving the credit to them.

Cases IV and V.—Two sisters, approaching the climacteric period, one a widow and the other married to an elderly man, who both suffered from palpitation, flatulence, and extreme nervousness, derived great benefit from the tablets. The nervousness and depression passed away. They took the tabloids steadily from November 26th, 1894, to January, 1895.

Case VI.—In this case of impotence in the male the tablets were of no value whatever as regards the impotence, but the patient having ceased taking them for a while called again for a supply, as he found

[1] *Berl. klin. Woch.*, 1891, No. 3.

while he was taking the tablets that he felt stronger and more energetic with his work.

I have selected the above cases from many as types of the cases which are benefited by orchitic extract. I have not given the symptoms of each case in full, as the complaints of nervous women are difficult to put down in writing. Suffice it to say that all cases of nervous diseases, without organic lesion which are benefited by bromide of potassium, will receive ten times the good from orchitic extract. In old men who have led a quiet life, who have not been in the habit of having connection with women, the testicles from want of use atrophy, and the system suffers from the want of the orchitic extract which would be reabsorbed if the testicles were active. It was this latter theory that Dr. Brown-Séquard held when he prescribed orchitic extract for old men—the system lacked the vital fluid secreted by the testicle, and reabsorbed into the blood in a new form. I have found the extract supplied to me by Messrs. Duncan and Flockhart, Edinburgh, always excellent. I give it in tablets, one, three, or four times daily, directly after meals.

ON SOME TUMOURS OF THE THYROID GLAND.[1]

By ALFRED SQUARE COOKE, M.R.C.S., L.S.A.,

Surgeon to the Stroud General Hospital.

I propose only to give a few notes concerning three cases of operation on the thyroid gland, which I have performed or assisted in performing during 1894. It is well known that goître is very prevalent in the neighbourhood of Stroud; but, notwithstanding this, I have never yet come across a case of either malignant, tuberculous, syphilitic, or hydatid goître. In that neighbourhood, at least the great majority of cases are cystic in character, yet extremely varied in their minor characteristics.

Apart altogether from the great inconvenience and unsightliness of these tumours, they acquire an importance which compelled attention to them from the fact that they were a constant danger to life. This danger was caused by the lateral pressure which they exercised at times upon the trachea, narrowing it even to occlusion.

Case I.—The first case is an example of this. It was a case of a small hard round cyst (the cystic goître of Berry) occurring on the right side of the neck of a girl, aged 16. It caused her such urgent and frequent dyspnœa that an operation was imperative. The tumour was carefully and slowly dissected out; the numerous vessels were first exposed by dissecting with a director, and then divided between double ligatures. The stump of the divided isthmus was firmly ligatured, and then left protruding through the otherwise approximated edges of the wound. The patient made a rapid and good recovery; the dyspnœa was completely relieved, and there had been since no sign of the tumour re-enlarging.

Case II.—This case was one under the care of my colleague, Mr. Storry, to whom I am indebted for the following notes: It was one of general enlargement of the entire gland (the fibrous goître of Berry) in an elderly woman. Both lobes were much increased in size, and were connected by a greatly enlarged pyramid, rendering tracheotomy impossible. The circumference of the neck was 16 inches. The condition is shown in Fig. 1.

Mr. Storry commenced the removal of the right gland by incising the skin, and then carefully reflecting the superficial parts so as not to injure the greatly enlarged veins. From this point onwards the operation was similar to that on the goître last described, except that after the ligature of the stump containing the inferior thyroid vessels, the ligature slipped, and furious hæmorrhage occurred. This, however, was easily and quickly controlled by a Wells ovarian clamp, which was left *in situ* for seven days. The half removed weighed 13½ ounces. The case did well, and the patient wished for the other half to be removed. Her condition after operation is shown in Fig. 2.



Fig. 1.—Patient before operation.



Fig. 2.—Patient after operation.

Case III.—The last case was that of a cyst simple in character, but very exceptional in size, occurring in a woman, aged 50. Two years previously this patient had been seen, and even then she suffered from such urgent dyspnœa that relief was only obtained after the insertion of a trocar and the evacuation of 8 ounces of thick pultaceous material. The relief, however, was only temporary, the cyst filled again, and the patient's troubles recommenced. In October last the

[1] A paper read before the Gloucestershire Branch of the British Medical Association.

neck measured 22 inches in circumference, and an operation was decided upon. The condition at this time is shown in Figs. 3 and 4.



Fig. 3.—Case III. Before operation; front view.



Fig. 4.—Case III. Before operation; profile.

At the operation the incision made extended from the chin to the sternum, that there should be no lack of room or working in the dark. Every vessel was then carefully divided between ligatures, and during the operation each cyst was tapped, and some of its contents removed, a proceeding which greatly facilitated the completion of the operation. Three hours were occupied in the operation, but the patient did not lose one ounce of blood. The tumour weighed about 3 lbs. The patient's subsequent condition is shown in Fig. 5.



Fig. 5.—Case III. After operation.

As the result of my experience in these cases I would suggest that the observation of the following seven rules would greatly facilitate the successful completion of an operation:

1. Give chloroform as ether engorges the already enlarged veins.
2. Observe scrupulous cleanliness, have plenty of assistance, and many forceps and ligatures handy.
3. Take plenty of time.
4. After exposure of the cyst use only directors and fingers for dissecting, and keep close to the cyst wall.
5. Keep the fingers and wound moist with an antiseptic solution sufficiently weak not to irritate the sensitive and important nerves sometimes exposed, and, as far as possible, keep the parts in their normal position.
6. Partially evacuate a large cyst before removal to assist the later stages of the operation.
7. Insert a small drainage tube before sewing up for fear a collection of serum should press upon and occlude the trachea.

The possible dangers which must be kept in mind and guarded against are three in number; they are:

1. The wounding of large distended vessels.
2. The wounding of large nerves.
3. Cellulitis after the operation.

The after-treatment is quite as important as the operation. It also might be summed up under three heads:

1. Dust the wound with antiseptic powders, and apply gentle but firm pressure with a pad of antiseptic wool over the cavity left.
2. Keep the head and neck absolutely at rest for some days by pillows, sand bags, or splints.
3. Keep a careful watch that no retained serum causes pressure upon the trachea.

I consider that the following are the indications that the tumour need removal:

1. If the tumour be steadily increasing in size.
2. If there be troublesome pressure upon the trachea, œsophagus, or nerves.
3. If the tumour be so placed as to render impossible a possibly necessary tracheotomy.
4. If the patient strongly urge its removal because of its unsightly appearance, or its interference with the movements of the head.

INFLUENZA IN SUBJECTS WHO HAD PREVIOUSLY SUSTAINED A FRACTURE OF THE SKULL.

By P. P. JENNINGS, M.B.,
Ton-y-pandy, South Wales.

Two fatal cases of influenza occurring in subjects who at a previous period sustained a fracture of the base of the skull have recently come under my notice. The patients were coal miners: one, the father, aged about 38, sustained a fracture of the base of the skull about four years ago, and has not been the same since the injury, his powers of memory and speech being greatly diminished and his general behaviour towards his family altered; the other, the son, aged 18, sustained a fracture of the base of the skull about fifteen months ago and has not suffered any inconvenience from the injury since.

Both patients were as well as usual before the onset of the influenza. The son's illness preceded that of the father's by three days, the duration of the son's being three and a half days, that of the father four and a half.

The invasion in the son's case took place while he was engaged at his work at about 4 P.M. On returning home at 5 P.M. he complained of violent pain in one side of his head, which corresponded to the situation of the pre existing fracture; his temperature was elevated, and all the characteristic symptoms of influenza were present. Vomiting and delirium soon set in, and continued during the night. When I saw him on the following morning he was profoundly comatose, with wide dilatation of the pupil on the side opposite to that on which he received the injury. There was rigidity of both lower extremities and the upper extremity on the same side as the dilated pupil, paralysis of the bladder and rectum, and stertorous breathing. He remained in this condition for a period of twenty-four hours, after which he recovered partial consciousness and could be roused to reply to questions. However, as time went on he became more restless, and delirium increased in intensity, the before-mentioned rigidity became augmented, and the pupil which was previously dilated now became contracted. The patient was now able to pass urine, which previously had to be drawn off. He remained in this condition until death, which was determined by a convulsion.

In the father's case the coma came on sooner, and the period of consciousness was not so well marked, it having been difficult to obtain a reply to questions which were asked him. Death took place by coma, and not by convulsions as in the case of the son. The duration of the case was also longer by a day. In every other respect they were similar.

A *post-mortem* examination was made in the case of the father. On opening the calvarium and reflecting back the dura mater, the latter was found to be adherent to the cortex of the brain by old fibrous adhesions, which had to be cut through; these were situated on and close to the posterior end of the falx cerebri, and on the upper and under surfaces of the tentorium cerebelli. There was an excessive quantity of fluid in the subdural space, which was coloured with blood. The vessels in the pia mater were enlarged. The cerebral cortex presented a fairly healthy appearance, with the exception of the tempero-sphenoidal lobe of the left side and the inferior frontal convolution of the same side, both of which presented signs of advanced softening. The fluid in the ventricles was deeply coloured with blood, and the left lateral ventricle contained a large clot of blood of recent formation. On stripping off the dura mater on the left side of the posterior fossa the line of the old fracture was easily discernible by the presence of a raised ridge which was most prominent at the bottom of the groove for the lateral sinus.

REMARKS.—The peculiarly sudden invasion of acute febrile symptoms in these cases points strongly to influenza. Presuming it to be such the chief interest attached to these cases consists in the fact that the influenza was the cause of the setting up of active mischief in the previously injured skulls of the deceased.

PROFESSOR TRENDELENBURG, of Bonn, has been offered the Chair of Surgery in the University of Leipzig, in the place of the late Professor Thiersch.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ACUTE BRONCHOCELE FOLLOWING INFLUENZA.

THIS case differs somewhat from the two cases already reported,[1] and seems worth recording in connection with them.

In April, 1894, I was called to see a middle-aged lady suffering from influenza. She had a small uniform swelling of both lobes of the thyroid gland and of the isthmus. Of this she did not then complain, because she had had it from a girl, but hardly a month had passed by before she drew my attention to a pain in the left side of her neck. At the same time the temperature, which had come down, went up again, and the next day there was a very obvious swelling of the left lobe of the thyroid, with redness of the skin, which was not freely movable over the tumour.

Glycerine and belladonna outwardly neither giving relief to the pain nor reducing the size of the tumour, hot linseed poultices were applied. The swelling, however, steadily increased, and occupied the whole of the left side of the neck, from the inframaxillary bone above to the clavicle below, completely obliterating the natural curves of that region. By this time the skin had become very red and tense, and the tumour had pointed and was fluctuant near its lower margin, the tissues round about being hard.

Distressing dyspnœa amounting to orthopnœa developed, and the patient's condition became so serious that I passed a grooved needle into the tumour at its most prominent and softest part. This gave me no clue as to what I had to deal with as no fluid escaped, so I at once made a small incision through the skin and passed in a blunt probe, working my way deep down into the tissues with it. There exuded a thick viscid yellowish fluid, which day by day became less yellow and more limpid and thin.

The urgent symptoms at once disappeared on the incision being made, the temperature came down, and in a few days she seemed almost well. The discharge, however, continued, and now (thirteen months after) there still comes away the same limpid thin fluid with occasionally a little blood in it when the patient has more than usually exerted herself. The patient looks and feels well and goes about her work, only complaining when the sinus does not discharge with its usual vigour.

P. O. WATKIN BROWNE, M.B., C.M.Glasg.
Alderley Edge, Cheshire.

RETENTION OF FŒTUS *IN UTERO*: LABOUR AFTER TWELVE MONTHS' PREGNANCY.

MRS. W., aged 31 years, consulted me on February 7th, 1895, concerning her pregnancy which had become prolonged beyond the natural term. This was her twelfth pregnancy. The previous eleven conceptions had resulted in six abortions, each occurring at about the end of the third month, and of the remaining five, three children had been born dead at full term or died at the time of delivery, one lived six months only, and one child is still alive, aged 4 years. There were no signs or history of syphilis in the parents or living child. The last menstruation occurred in March, 1894, and there was a very slight show, quite abnormal in quantity and kind, at the next month, when she had doubtless become pregnant. This was her own decided impression. Quickening occurred in an unmistakable way in the middle of August, and development proceeded without interruption until the last week in October, when she became very low-spirited, and at that time had, as the husband expressed it, "a slight difference with a friend which ended in a good turn of screaming followed by a faint, and from that time the movements of the child became weak and died out altogether in a few days." During the next two months "sudden hardening of the stomach" happened two or three times a day, and afterwards up to the time of delivery slight pains, resembling labour pains, had come on at intervals, but had always passed away without further result. In November she noticed that the size of her abdomen was diminishing.

[1] BRITISH MEDICAL JOURNAL, May 4th and 18th.

In December, at about the time when she had calculated to be confined, the breasts became full and hard and a little milk ran from the nipples. After this time there was retrogression of the mammæ.

On February 7th her size did not appear diagnostic of advanced pregnancy, I measured her body at the level of the navel and found it to be 34 inches in circumference.

Vaginal examination proved the os uteri to be undilated, and the uterus to be large and heavy. No *ballottement* could be obtained and with a different history the case might have been pronounced one of fibroid tumour. There was no discharge whatever nor had there been any since the slight show in April. Between February 7th and March 27th, when labour occurred, I saw her several times. She walked to my surgery a few days before her confinement and had no more serious symptoms than a little anæmia and *malaise*. The labour was rapid, the fœtus being expelled with two or three sharp and quickly recurring pains. Hardly any fluid and practically no blood was discharged. In examining for the placenta, the finger went into a fissure in a hardened mass, which had a rough and somewhat gritty touch. The placenta came away readily and was found to be hard and tough, not easily torn like an ordinary placenta, and both it and the membranes were pale, being almost devoid of blood. There was sign of its having recently been attached to the uterus by a surface of considerable size. The fœtus, a female, weighing 3 lbs., presented a shrunken and withered or mummified appearance. The epidermis was peeling. The head was covered with hair and the nails were just developed. The body was considerably distorted by pressure of the uterus upon it: the sternum, pointing laterally, formed a prominence under the left arm, and the lower part of the spine was in the condition of lateral curvature.

The woman made a fair recovery. Her temperature was never raised, but she was for some time somewhat anæmic. The lochia were represented by a very little discoloured watery discharge. There was no further secretion of milk. A decided menstruation occurred on April 27th, that being the 31st day after labour.

It would appear in this case that the fœtus died at the end of the seventh month, and was afterwards retained *in utero* for five months. The placenta remaining attached may have allowed of a limited circulation through the fœtal tissues, where probably some deposition of calcareous material took place.

In the few cases recorded in which the remains of a fœtus have been discovered in the uterus many years after the pregnancy, portions of the osseous system alone have remained, the soft parts having been absorbed or discharged. It evidently requires a considerable time, however, for the destruction of even the softer tissues of a fœtus when putrefaction does not occur with its concomitant septicæmic symptoms in the woman, both of which were absent in this case.

A. ADAIR DIGHTON, L.R.C.P. & S. & L.M.Edin.

Cheltenham.

GLYCOSURIA AND THREADWORMS IN A CHILD.

I was called on March 28th to see a boy, aged 5, whose mother informed me had been losing flesh rapidly for a month. He had a little night cough and night terrors. He had lost his appetite, but was markedly thirsty, and would drink much water and suck as many oranges as he could get. At night time, when he awoke, this was specially noticeable. His mother said that the water he passed was less in quantity than usual. She thought he suffered from worms, as he grated his teeth at nights, and frequently picked his nose with his fingers during the daytime. She had given him several "worm cakes," but no worms had come away in his motions.

I found the patient emaciated; his face was thin, and the lines upon it were strongly and unnaturally marked. There was wasting of the intercostal muscles, his ribs being rendered unduly prominent. Physical examination of the chest revealed only signs of a mild attack of bronchitis. His temperature, as far as I can remember, was normal or nearly so—certainly not much above or below the normal line. His water, on examination, was found to be acid in reaction, of specific gravity 1031. It gave no trace of albumen, but a decided reduction of the copper salt was obtained on boiling a small quantity of the urine, after filtration, with some Fehling's solution. I do not think the reduction of the cupric salt was due to uric acid, as my testing was done as carefully as possible, and more than once to make certain. The next day I put the child on the diabetic's diet, with the exception of allowing him milk to drink, and prescribed a 3-grain dose of santonin the last thing at night, to be followed by an aperient the first thing next morning.

On April 3rd I again examined his water, and found it to be acid; specific gravity 1029; sugar was again present. I did not estimate the sugar present quantitatively but with a rude guess from the colour of the suboxide after reduction, there seemed to be probably about the same amount present as on the previous examination. Three santonin powders given at various intervals brought away a quantity of dead worms, after which the boy's nervous system seemed to settle down, his appetite returned, and he rapidly regained his former state of health. A later examination of the urine gave the following result—acid, specific gravity 1023; no sugar was present.

The points of interest in this case seem to me to be—Was the glycosuria due to, or was it merely coincident with, the presence of the thread worms in the intestine? Would the removal of the worms without the dieting have banished the glycosuria—in other words, was the glycosuria due to reflex nervous irritation? And, lastly, would the dieting without the removal of the worms have been sufficient to bring about the same result, that is, was it merely a case of physiological glycosuria? It seems possible that if diabetes can be produced by shock, which it undoubtedly can, a temporary glycosuria might be brought about by a temporary nervous irritation, whether central or reflex in origin, and consequently threadworms may be, under some circumstances, a definite cause of glycosuria in a child.

Youlgreave. T. WILSON PARRY, M.A., M.B.Cantab.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE MIDDLESEX HOSPITAL.

A CASE OF URTICARIAL ASTHMA, THE RESULT OF MUSSEL POISONING.

(BY GILBERT MARTYN, M.B., House-Physician to the Hospital.)

THE following case indicates clearly the relationship of urticarial eruption of the skin and mucous membrane which was so strongly advocated by Sir Andrew Clark as the main cause of asthma.

A woman, aged 43, came to the out-patient department here about 8.30 P.M. with the following history. She had eaten about a dozen mussels for her supper, and an hour afterwards began to feel a choking sensation and great difficulty of breathing. At the same time a "nettle rash" accompanied by great itching appeared on the body. Her friends stated that her breathing became so difficult that she went blue in the face and threatened to become asphyxiated. She was given a tumblerful of warm water, after sipping which she expectorated a little tenacious mucus and her breathing became slightly better.

She was then brought to the hospital. On arrival she was still cyanosed, her extremities cold, her breathing laboured, and an acute urticarial rash was present nearly all over her body, but most marked on the trunk. On listening with the stethoscope to the chest, the breathing was typically asthmatic with long wheezing expiration. The stomach and lower bowel having been effectively emptied and brandy and hot bottles having been used, the patient was much relieved, though the breathing still continued for some time of the above type. It is interesting to note that the woman had never been the subject of asthma before, nor markedly of bronchitis. She was in the habit of eating mussels, but had never before suffered ill-effects from so doing. Examination

of the mouth and pharynx revealed nothing save some injection of the posterior wall and fauces. She did not while in the hospital expectorate any more mucus, otherwise it would have been interesting to demonstrate the presence of Curschmann's spirals. She was able to go home in about three hours' time, the pulse and respiration having greatly improved. I cannot find recorded instances of the concurrence of urticaria of skin and mucous membrane the result of a common cause, though cases in which the two alternate are, I believe, comparatively common.

REPORTS OF SOCIETIES.

LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

E. West Symes, M.D., in the Chair.

Friday, May 3rd.

Cases and Specimens.

Cases and pathological specimens were shown by Drs. Solly and Moullot, Hellier, Mantle, Barbs, Griffith, Bronner, and Churton, and by Messrs. Robson, Littlewood, and Robinson.

Discussion.

A discussion was held on the paper read by Dr. Barrs on the Prognosis of Cerebral Hæmorrhage, and published in the British Medical Journal of May 18th.

Symphysiotomy.

Dr. Braithwaite read an account of a successful case of symphysiotomy.

Antitoxin Treatment of Diphtheria.

Dr. Mantle (Halifax) read a paper on the antitoxin treatment of diphtheria, with notes of two successful cases: (1) R. A., aged 4, had been suffering from diphtheria, apparently of a very mild form, for six days. There were small patches of exudation on both tonsils. There were enlarged glands but very little constitutional disturbance. The temperature and pulse were little altered, and there was no albuminuria. A fragment of membrane was sent to the British Institute of Preventive Medicine, when true diphtheria bacilli were cultivated. The symptoms improving, the injection of serum was delayed. The left nostril was involved on the seventh day, obstruction and sanious discharge from it being noticeable. The treatment adopted was germicidal applications locally, and perchloride of iron internally. Although the symptoms were apparently under control, on the eighth day a sudden constitutional change was manifest without any increase in local symptoms. The temperature ran up to 103·4°; the pulse became very rapid and the heart much embarrassed, with systolic murmurs at the apex and base. Antitoxin (10 c.cm.) was injected. In fifteen hours the nose was clear, and the throat also at the end of twenty-four hours, whilst the temperature steadily fell to 99° in this space of time. The second injection, which experience shows to be necessary at the end of twenty-four hours, was resented by the friends. The throat showed more membrane two days afterwards, and the temperature began to rise again. A second injection (5 c.cm.) was then allowed under chloroform, after which the child steadily improved, but with a permanent mitral systolic murmur. (2) A boy, aged 9, in the Halifax Infirmary for morbus coxæ showed diphtheritic patches on both tonsils. There was slight rise in temperature but no albuminuria. The breathing was more or less stridulous, insomuch that the house-surgeon was prepared to do tracheotomy. That night the patient was first injected with 5 c.cm. of Behring's antitoxin. A second injection of the same quantity was made next day. The following day, through the ward being closed, he was removed to the infectious hospital; the medical officer stated that the throat and larynx were quite clear soon after admission and that he made a good recovery. In both of these cases there was frozen drainage acting as the exciting cause. Dr. Mantle laid stress upon the necessity of adopting local as well as constitutional treatment. It being proved that the bacteria did not enter the tissues but were found chiefly on the surface of the lymph exuded on the mucous membrane, the local application of a germicide and preferably a solution of bichloride of mercury was of the greatest service. The fact that the bacilli produced toxins rapidly absorbed by the blood and tissues causing great constitutional disturbance rendered it necessary to adopt other means to neutralise these poisons. Experience had shown already that the injection of horse's serum which had been made to produce large quantities of antitoxins by repeated injection of diphtheritic toxins had the desired effect, and it would appear that we never before had such a complete control over the disease as by these methods of treatment.

REVIEWS.

The Dyspepsia of Phthisis: its Varieties and Treatment. By W. Soltau Fenwick, M.D.Lond., B.S., M.R.C.P. London: H. K. Lewis. 1894. (Demy 8vo, pp. 216. 6s.)

This book contains an elaborate study of the various forms of the so-called dyspepsia associated with pulmonary tuberculosis. It treats of dyspepsia preceding phthisis, as well as the more recognised forms occurring during the initial and late periods of that disease. It includes also a chapter on the dyspepsia of strumous children which deserves attention.

Nothing can be more obvious than the efforts made in recent times to restrict the term dyspepsia, and to regard it as signifying the symptom-complex or syndroma due to varying underlying morbid processes. From this point of view, the first two chapters dealing with the pathology and morbid anatomy, both naked eye and microscopical, have a certain special interest. In the chapter on the gastro-enteritis of phthisis Dr. Soltau Fenwick bases his remarks on the investigation of some fifty cases. An interstitial gastritis with changes in the gastric glands was mostly found. A number of propositions concerning the etiology of this gastritis are here discussed. The author adopts the view that it is due to the toxins produced in the pulmonary cavities, and some researches of his own are given in support of this opinion, which can of course only apply to the dyspepsia of later phthisis. It hardly appears necessary to discuss any causal relation between gastric disease and phthisis; such relation can only be that of a predisposing cause to be considered along with many other factors, both local and general, which may help to prepare the way for the tubercle bacilius. Under a form of dyspepsia which precedes the development of phthisis the author recognises an atonic and an irritable variety. It would appear a fairly easy matter to mistake for it the dyspepsia of incipient phthisis with few manifestations.

The clinical picture of dyspepsia in strumous children in Chapter IV is based on an analysis of 32 cases. It would seem desirable that further researches should be made into this interesting subject before it can be decided whether a special form of dyspepsia really occurs at all exclusively in so-called strumous children, and whether it is in sufficient measure dependent on the so-called strumous diathesis to warrant a separate description. In the absence of any morbid anatomy the author is inclined to look upon it as a moter and sensory neurosis of the gastro-intestinal tract.

A valuable analysis of 500 cases of dyspepsia in early phthisis will be found in Chapter VI, and the last chapter, which also includes an analysis of cases, is an important and interesting contribution to the subject of perforation of the intestine. Perforation due to tuberculous ulceration is not nearly so uncommon an event in the author's experience as current teaching would lead one to suppose. In describing each variety of dyspepsia, the symptoms, etiology, prognosis, and treatment are fully dealt with. The author apparently sets little store on the information obtained by the investigation of the gastric chemistry. If results are discordant, there is the more reason for further research. It can hardly be denied that much additional knowledge of gastric disease has of recent years been obtained in this way.

This book certainly provides much useful reading, and

forms, notwithstanding somewhat too finely-drawn distinctions and differences, an interesting contribution to an important and difficult subject.

Die Entstehungsweise der verschiedenen Formen von Peritonitis [The Mode of Origin of the Various Forms of Peritonitis]. Von Konrad Biesalski. Berlin: A. Hirschwald. 1895. (Royal 8vo, pp. 84. M.2.)

Peritonitis is a subject which has received much attention in recent years, and its mode of origin is certainly not the least important part of it. After a few words upon ascites the author treats the subject under the headings of (*a*) primary, (*b*) secondary, and (*c*) specific peritonitis. With more exact methods of examination the terms rheumatic peritonitis and peritonitis due to cold have been considerably restricted, and although bacteriology has thrown light on some of these cases, further research is still needed. The author also, under the primary form, discusses the question of traumatic peritonitis, whether it is due to a penetrating wound or less frequently results from a mere blow on the abdomen. The subject of secondary peritonitis, including the perforating variety, naturally receives much attention. The form which is secondary to diseases of the female generative organs is, owing to its importance, treated in a section by itself. It is considered under the infective and non-infective varieties, terms obviously open to objection. Specific peritonitis includes the forms due to tubercle, malignant disease, etc. This term is again unsatisfactory, for a peritonitis due to pyogenic micro-organisms, etc., is as deserving of the epithet specific as that caused by the tubercle bacillus. This pamphlet contains a valuable critical review of the subject, and points out in addition where our information is still deficient.

Lehrbuch der Histologie des Menschen einschliesslich der mikroskopischen Technik. [Treatise on Human Histology, including Microscopical Technique.] Von A. A. Böhm und M. von Davidoff. Wiesbaden: J. F. Bergmann. 1895. (Roy. 8vo, pp. 420, 246 illustrations. M. 7.)

This is a large octavo volume of some 400 pages, well printed, well illustrated, and well written. It represents histological teaching as carried on in the Munich School of Anatomy under the direction of Professor Kupffer, and is in every way creditable to that school. The illustrations are almost without exception original, and are singularly true to nature. The possibility of producing such illustrations in a book so low in price as that before us is due no doubt to the cheapness of the zincographic and other photo-mechanical methods of reproducing drawings, of which the authors have not hesitated to avail themselves. Hence we find in their figures the softness of effect of pencil sketches faithfully reproduced, this effect being much more satisfactory than the hard lines necessitated by the older and more expensive method of wood engraving. Moreover, the figures are taken as much as possible from preparations from the human subject, far more than is the case in most textbooks. It is, indeed, rarely possible in this country for the histologist to obtain sufficiently fresh specimens of healthy organs in man. Accordingly, most of our histological illustrations have been taken from preparations from animals, which may or may not correspond exactly in structure with the same parts in the human subject. In Germany, however, it is we believe customary to place the bodies of executed criminals at the disposal of the professors of anatomy, and opportunities are therefore less rare of studying under the most favourable conditions the microscopic structure of the internal organs of man. Were a proposal of this nature to be brought forward in our own country, what a storm of indignation would be raised by the anti-scientists!

The authors have followed the plan of giving an account of the *technique* necessary for studying the organs immediately after the histological description of each organ. For the most part this account is admirably concise, and not embarrassed by the introduction of a large number of methods which are either almost obsolete or not of the first importance. The book begins with a short description of the microscope and microscopical appliances, and with a general account of the ordinary methods, and also of certain special methods, of fixing, staining, and preparing specimens. This also is not overdone, as is so often the case in books dealing with histological methods.

On the other hand, it is a little defective in some particulars. Thus the only microtome that is mentioned is the Thoma-Jung. Possibly this is the best of its kind—that is, the best of the inclined plane microtomes, but surely such excellent instruments as Minot's, the Cambridge "rocker," or Cathcart's little apparatus, are worth bringing under the notice of the student of histology. The freezing method is hardly mentioned, and the need of previously soaking the frozen tissue in gum is not alluded to; an indication, we fear, that the knowledge of the Munich school regarding the methods elsewhere employed is confined within somewhat narrow limits. This indication of narrowness of knowledge is borne out elsewhere, for it is impossible not to notice, in running through the descriptions of tissues and organs, that the reading of the authors has been mainly confined to German authors, or to works which have been translated into German. Looking, however, upon the book as a whole, one cannot fail to be struck by its general excellence, and it will be safe to prophesy for it a large circulation amongst German-reading students of medicine.

The Preservation of Health in the Far East. By W. P. Mears, M.A., M.D. London: Church Missionary Society. (Demy 8vo, pp. 47, with Plans. 2s. 6d.)

The author of this pamphlet resided and travelled for many years, in the capacity of medical missionary, in Mid and South China. He declares in the preface that "in the case of nearly every precaution given he has known of trouble resulting from the neglect of it; on the other hand, every detail described has been tested by him and found to be satisfactory in use." A better commendation could not have been offered of a publication issued under the direction of the Medical Mission Committee of the Church Missionary Society for the guidance of the Society's missionaries in China. Housing, clothing, and feeding are the subjects discussed, and they are treated in a methodical, lucid, and practical manner, with an intelligent understanding of the conditions—geographical, climatic, and social—which are likely to be encountered, and the sort of life which the duties of the missionary compel him to lead. This life has its discomforts and dangers, but there is no need that it should be more irksome or perilous than is actually unavoidable. On the contrary, there is every reason why the missionary should strive to maintain a cheerful and contented mind, and a capable and healthy body. If he will follow the excellent counsel contained in this little book he will do the best possible towards that end; and what is good for the missionary is equally good for any other European whose lot may be cast in Southern China.

Most of the principles and precepts illustrated so practically and sensibly are applicable to other tropical places—Central Africa, for example—and the Church Missionary Society would do well to extend the use of the pamphlet, or, still better, issue a special adaptation of it, to other fields of missionary enterprise in Asia and Africa. The diagrams and plans appended to the pamphlet are well devised and executed, and must materially enhance its usefulness.

Die Syphilis der Nase und des Halses. [Syphilis of the Nose and Throat.] Von Dr. P. H. Gerber, in Königsberg i Pr. With two plates. Berlin: S. Karger. London: Williams and Norgate. 1895. (Demy 8vo, pp. 74).

Though well treated in all works dealing with the diseases of the nose and throat, the subject of syphilis as it affects those organs, is sufficiently important, especially from the point of view of diagnosis, to justify the publication of this excellent monograph. The whole subject is amply reviewed, the older opinions are criticised, and certain new points are brought out. The author opens fairly new ground in insisting on syphilis as a more frequent cause of disease of the accessory sinuses than is generally supposed. Special attention is directed to the "occult" forms of tertiary affection of the nasopharynx in which the disease is only detectable by

means of posterior rhinoscopy. The section on syphilis of the pharynx contains a good account of the not infrequent primary infection of the tonsil, in which he thinks many obscure cases of syphilitic infection originate (p. 29), as stated by Boeck, Schirajew, and Taylor.

The manifestations of syphilis in the larynx are described in a full and interesting section. To those who are conversant with Gottstein's treatise (from which free quotation is made) much of it will be familiar, but there are few who will not find their views clarified by its perusal. With Gottstein the author finds nothing characteristic in the laryngoscopic appearance of syphilitic laryngeal catarrh. The diagnosis of the other stages is clearly set forth. There is a valuable bibliography, and some characteristic coloured plates.

MIKROPHOTOGRAPHISCHER ATLAS DER BAKTERIENKUNDE [Microphographic Atlas of Bacteriology]. Von Dr. CARL FRAENKEL und Dr. RICHARD PFEIFFER. Zweite Auflage. Berlin: August Hirschwald. 1893. (Demy 8vo, pp. 50, 76 plates with letterpress. M. 62.)

IT is not to be wondered at that a second edition of this *Atlas* has been so quickly called for. The first edition, which was began in 1889, was no sooner completed than a second had to be commenced, and the parts of the second edition have been got out in a couple of years. Taking it altogether, the *Atlas* may be safely accorded the place of a classic work. The material from which the photographs have been made has been collected and prepared principally in Koch's laboratory in Berlin, where, too, the authors have had every opportunity of carrying on the photographic work under the best possible conditions. So well have they availed themselves of their opportunities, and so carefully have they gone into the subject of microphotography that their notes and observations on the *technique* alone will prove of the greatest service to anyone undertaking the photographic representation of bacteria, whilst many of the photographs given in the *Atlas* are examples of the best microphotographic work. In the reproduction of their photographs the authors have had the advantage of being able to associate with them J. B. Obernetter, of Munich, who has apparently brought out in the reproduction much, if not all, of the beauty and delicacy of the original photographs, with the result that, taking it altogether, this is a collection far in advance of anything of the kind that has hitherto been published.

The *Atlas* consists of fifteen sections, bound in seven parts, containing 155 figures in 76 plates, with full descriptive text. The first part is devoted to a description of the theory and practice of microphotography; in it is given a very good summary of the *technique* of colour photography; here the advantage of the orthochromatic sensitised plates and of coloured screens is pointed out, and the best methods of lighting described. The use of the diaphragm and the condenser are also described. All these points are illustrated by means of photographs of spectra of various staining reagents and of sunlight on orthochromatic and ordinary plates and also by a very good photograph of amphipleura pellucida in which the markings are beautifully brought out. Speaking generally, the authors recommend that all specimens stained with gentian or methyl violet, fuchsin, or methyl blue, should be screened with what is known as the "signal green" light filter and the image received on orthochromatic plates; whilst for brown preparations a pure blue screen should be used, such as can be obtained by the use of an ammonia copper solution. As for the results, the main point that strikes one is that as regards the bacteria alone greater detail can be recorded on the photographic plate than can be observed by the eye, and in this respect some of the photographs are exceedingly instructive. On the other hand, wherever it is necessary to photograph bacteria as they lie in the tissues the results obtained are not nearly so satisfactory, and although the photographs serve most admirably as keys and permanent records, they cannot be looked upon as representing, in any way fully, the appearances presented by these bacteria in the tissues. The photographs of the various cocci are admirable, as are also those photographs showing the process of spore formation and the structure of bacteria, cilia, etc. The specimens of anthrax, of malignant œdema, of *Rauschbrand* bacilli, of cholera and of typhoid fever bacilli, and of a number of other organisms are exceedingly satisfactory, but those representing the tubercle bacillus, the diphtheria bacillus, and one of those of fowl cholera are not nearly up to the same high standard, though were they not placed side by side with the others one would perhaps have been satisfied with them.

On going over the *Atlas* again the very great influence it has exerted on the textbooks of bacteriology is apparent, as many of the photographs are quite old friends of frequent occurrence owing to their having been borrowed to illustrate other works. It is like the play of *Hamlet*, in so far as "it is made up of quotations." The text in the present edition has been carefully revised, and altogether the work is of such value that it should be in every scientific library, whether public or private.

PREVENTIVE SURGERY. By GEORGE WHERRY, M.C.Cantab., F.R.C.S., Surgeon to Addenbrooke's Hospital, University Lecturer in Surgery. Cambridge: Deighton, Bell, and Co. 1895. (Cr. 8vo, pp. 29. 6d.)

IN this interesting little work Mr. WHERRY considers the possibility of doing something to prevent the miscellaneous accidents which cripple and only sometimes kill the inmates of hospital wards, but do not much affect the comfortable classes. Some of the accidents which happen to labourers are due to the almost inevitable conditions of their employment, and occur again and again, until, as in coprolite digging, the occupation is no longer followed, or the system of working is much improved and altered. In many cases of accidental injury, however, the disaster is the result of circumstances which might be readily prevented by a little forethought. As instances the author points out that an immense proportion of boat accidents would never happen if people held the sheet in their hands instead of making it fast, and also if no one were allowed to row unless able to swim. That accidents may be prevented to a considerable extent by intelligence associated with forethought, is proved by the fact that in the very dangerous pastime of mountain climbing no member of the English Alpine Club was killed last year, although from forty to fifty deaths occurred in the season. What is done in this way, Mr. Wherry asks, for the scaffolder? A number of instances are mentioned in which serious and disabling, though not fatal, accidents might be prevented, and as a stimulus to proper means of prevention it is suggested that it would be worth while to hold official and public inquiries on all eyes and limbs lost in this way.

NOTES ON BOOKS.

The Student's Handbook of Forensic Medicine and Public Health. By H. AUBREY HUSBAND, M.B., C.M. (Edinburgh: E. and S. Livingstone. 1895. Sixth Edition. Pp. 692. 10. 6d.)—When a book has received and retained such evident signs of public favour, it seems hardly necessary to do more than chronicle the fact that a sixth edition has appeared, and that the book is about the same size and just the same price as heretofore. The chief new feature is the introduction of three coloured plates.

B. Bradshaw's Dictionary of Mineral Waters, Climatic Health Resorts, Sea Baths, and Hydropathic Establishments. (London: Kegan Paul, Trench, Trübner and Co. Small 8vo, pp. 502. 2s. 6d., or bound in cloth with map, 3s. 6d.)—We have received the new edition of this useful work of reference, which is already well and favourably known. It contains an immense amount of information in a small compass, and reference to its pages will almost certainly afford an outline of the information wanted. After testing the book again in many ways, the only omissions we have discovered are Les Avants in Switzerland, and Gossensass in South Tyrol; room for which might perhaps have been found by deleting the article on Paris, which can hardly be reckoned a health resort. Several of the more important articles have been rewritten, among others that on Davos, under which, by the way, we find the names Zahnarzt, A., and Zahnszt,

A. L., which as the proper names of medical practitioners excite a certain amount of suspicion. The glossary of technical terms and phrases appears to require revision; "relating to intestines" is not a satisfactory definition of duodenal, nor "relating to non-orthodox practice," of empiric. Lupus is not "a disease like cancer," nor is pelvic cellulitis "internal inflammation of hip bone." Dysponia (*sic*) does not mean loss of voice, whatever else it may mean, and to define ecthyma, eczema, ichthyosis, and impetigo, each merely as "a skin disease," does not help the inquirer much.

General Surgery and Pathology for Dentists. By EDMUND W. ROUGHTON, B.S., M.D.Lond., F.R.C.S.Eng. (London: J. P. Segg and Co. Demy 8vo, pp. 142. Twenty-five illustrations.)—The author has prepared a book which, when supplemented by the promised second volume upon the surgery of the oral cavity, should be useful to dental students. This volume is divided into eight chapters dealing with Inflammation, Bacteria, Wounds, Surgical Fever, Shock and Delirium, Hæmorrhage, Fractures, Syphilis, Tuberculosis, Tumours, Cysts, Diseases of Arteries, Diseases of Veins, Injuries and Diseases of Nerves, Diseases of Lymphatics, Diseases of Bone. Each subject is carefully dealt with, but the compiler has found the process of elimination difficult, which must always be the case when an endeavour is made to write an abstract of so large a subject in 134 pages of tolerably large print. The chapters on Inflammation, Bacteria, and Wounds are the best, but in a future edition it would be well to explain more thoroughly, for instance, the reason for the application of cold in the early stages of inflammation, and how intense inflammation may cause a large part of an inflamed area to die. The book can be recommended to dental students preparing for their examination as a reliable guide, but it is to be hoped that it may so raise their interest in the subject as to make them extend their knowledge, and not be content with a narrow and constricted knowledge of one of the most exact and fascinating of the sciences.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPROVED "SANITARY TOWEL."

WHEN Messrs. Southall Brothers and Barclay first introduced the "sanitary towel," they were making under the guidance of the late Mr. Samson Gamgee pads of cotton wool enclosed in gauze for surgical purposes, and their invention of the "sanitary towel" for catamenial purposes was the outcome. We then anticipated that the old napkin with its many obvious defects would be superseded, and this prediction has been largely verified. Notwithstanding its many advantages, however, inconvenience frequently arises in the use of the "towel" in consequence of the area of the discharge contracting as the discharge advances in the pad. This tendency, in conjunction with the viscous nature of all discharges containing albuminous matter, is such an impediment to the penetration of the absorbent cotton wool by the discharge, that where the discharge is copious, inconvenience and injury to dress arise by the arrest of the absorption. Messrs. Southall Brothers and Barclay consequently turned their attention to the physical means of effecting the object they had in view. The result of further investigations and experiments are seen in the invention of the improved "sanitary towel."

This consists in forming a pad of alternating layers of absorbent cotton wool and gauze. The result of this combination is that the discharge, after having passed through a thin stratum of absorbent cotton wool, and its area in its passage having been contracted, immediately it comes in contact with the gauze, spreads laterally, and as it were makes a fresh start of large area in entering the next layer of cotton wool. In this way the tendency in the flow of the discharge to contract its area is wholly counterbalanced, and the absorptive capacity of the pads so largely increased that the inconvenience of the imperfect absorption of the ordinary pad is completely remedied.

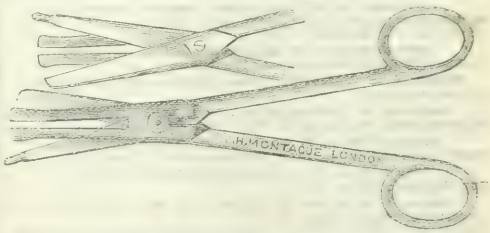
Southall's improved "sanitary towel" is as superior to all ordinary pads as their original "towel" was to the old-fashioned diaper. It possesses three distinct advantages: it is more absorbent, more comfortable in wear, and from its shape is more cleanly in use. We ought to add that the improved "towel" is being supplied at the popular price of one penny.

The "sanitary towels" and the wool accouchement sheets are prepared with special antiseptics according to the requirements of the profession; they are also supplied sterilised.

These improved "towels," like the original "towels," are antiseptic, and intended to be burnt after use, thus preventing any possible danger of infection; and they recommend themselves to the profession.

PHIMOSIS SCISSORS.

MR. ERIC FRANCE, M.B., House-Surgeon to the Belgrave Hospital for Children, has designed a pair of phimosis scissors for the removal of redundant prepuce. The advantages which he claims for his instrument are that it replaces three instruments—forceps for clamping the foreskin, scissors or knife for its removal, and director on which the mucous membrane is divided, and that only one hand is occupied by the instrument instead of two. The phimosis scissors, as shown in the drawing, consist of a pair of straight-bladed scissors, the lower blade being prolonged as a probe-pointed director, for three-sixteenths of an inch. A bifid shield is attached to the under surface of the scissors by a thumb screw. In operating, the prepuce is well drawn forward with the finger and thumb of the left hand. The shield having been fixed exactly between the two blades, but inferior to them, the prepuce is pulled into the slit of the shield so that the under surface of the prepuce is in close contact with the



bottom of the slit, care being taken that more of the dorsa than of the under surface is drawn through, so that the frenum may be spared and the foreskin cut off in an oblique manner. The amount removed may be regulated precisely, and injury to the glans is impossible. The shield is then turned back out of the way, and the projecting probe point of the lower blade passed up beneath the mucous membrane, which is divided, separated from the glans, and trimmed away. Mr. France finds that in children it is not necessary to tie any vessels, torsion being sufficient, and in only 2 per cent. has he used sutures. He dresses the parts at first with iodoform, and subsequently with oil. The instrument is made by Mr. J. H. Montague, of 101, New Bond Street.

SLATE CLEANER.

DR. FERGUSON, of Perth, who recently drew attention to the possible danger of infection arising from the ordinary method of cleaning school slates by the finger wetted at the mouth, has sent for our inspection an ingenious apparatus which has been devised by Mr. John Mason with the object of preventing this risk. It consists of a holder containing a piece of slate pencil, together with an arrangement by which it can be sharpened, and along one side of this is fixed a piece of felt, to be moistened by an antiseptic solution by which the slate is to be cleaned. The apparatus will obviously answer the purpose in view, if children can but be persuaded to use it.

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A large number of Medical Officers of Health have kindly responded to the request of the Honorary Librarian by sending copies of their reports.

Calendars of all the important Medical Colleges and Schools for the session 1894-5 have been received in response to our request.

THE LEICESTER PROVIDENT DISPENSARY.

A GREAT and standard example of a successful provident dispensary is said to exist at Leicester. In other less-favoured spots the working man must either pay ordinary medical charges or he must go in debt for them and leave the doctor to fight out the question in the county court, or he must accept charity. In Leicester, however, so the theory goes, he pays his 1d. a week and is independent, or at any rate he thinks himself so. It is worth while, then, to inquire how this Leicester Provident Dispensary is managed.

Unfortunately, however pleasing may be the principles of thrift and providence, the practice of these virtues on the large scale brings into view many sordid motives and unpleasant details. Those curious combinations of thrift and charity which go by the name of provident dispensaries will often be found to be far less perfect solutions of the problem of providing medical attendance for the independent poor than some suppose. Wherever a provident dispensary exists

every member and subscriber should ask himself the question: Who profits most? We hope it does not betray an undue want of faith in human nature to suggest that he will be found neither among members, doctors, or subscribers, but will be discovered under the head of management.

The artizan pays his 1d. a week for medical attendance, and, thinking that this goes to the doctor, imagines that he has done his duty in providing for a rainy day. All honour to him! But his 1d. a week does not go to the doctor; it is in some mysterious way absorbed, and the doctor gets, according to the last report of the Leicester Provident Dispensary, the noble sum of 1s. 10.9d. for a year's attendance. For this wretched sum—less than 2s. a year—less than half an adult subscription—the independent artizan gets his medical attendance. What then becomes of the rest? The answer is—management.

Here is the weak spot of nearly every workman's organisation, whether it be a trades union, a benefit society, or provident dispensary. The workman pays his money willingly, because he sees that collectively he gets more for it than individually. Nevertheless, he does not get its full value—something is dropped in the passage—and, however much benefit he himself receives, thrice blessed is the organiser.

According to its last report, this so-called Provident Dispensary received from its members in 1894 the sum of £6,863 11s., or, excluding special fees for midwifery, £5,189 9s. Of this the medical officers received £3 530 5s. 7d., drugs cost £795 13s. 3d., and the surgeon-dentist received £15 5s. 9d., a total of £4,341 4s. 7d., or 70 3 per cent. of the sum paid. Thus the ordinary member of the Leicester Provident Dispensary receives 7d. worth of "goods" for every 10d. that he pays, which, however satisfactory from the managerial point of view, does not, as a mere matter of marketing, seem a great bargain.

But the oddity of the situation by no means ends here. The independent working man who is content to pay 10d. for 7d. worth, as estimated by the sum actually paid for it, leaving management to pocket the difference, is by no means the independent being he thinks himself.

The whole of this so-called provident system, thrift, providence, self-help, and all combined would have gone to the dogs years ago but for the contributions of the charitable. "Management" is not content with a puny percentage of nearly a third of the members' contributions.

Besides being "provident," the affair poses as a charity; subscriptions and donations are collected, and legacies pour in, all of which go to swell the fund on which "management" subsists; but even that is not enough, and every year the institution runs in debt, and the item of balance due to treasurer appears with ominous regularity. The year 1894 started with a balance due to treasurer of £1,193 17s. 4d., and it ended with a similar balance of £856 19s. 10d. But to obtain even this diminution of indebtedness all the subscriptions, all the donations, all the congregational donations, an exceptional legacy of £500, and a contribution of over £1 500 derived from the members' payments, had been used up for purposes of the so-called Honorary Fund; in other words, management, including salaries, wages, rates (but not rent, except for the branches), taxes, etc. Not one penny of all this went either to the doctors, the dentists, the midwives, or the drugs, nor even to pay the collectors.

The salaries alone in 1894, including £600 a year to the manager, amounted to £1,376 6s. 9d., and the collectors' wages to £396 4s. 3d., making a total of £1 772 11s. spent in salaries alone in collecting and paying out £6,863 11s. and in dispensing £795 worth of drugs.

We need hardly, then, be surprised at the fact that the doctors only get 1s. 10.9d. a member for a year's attendance, or that the institution is in debt. The question how far this institution is a business concern and how far it is a charity is one of some interest. It is useless for the advocates of thrift and self-help to put Leicester forward as an example, if its dispensary is really a charity; nor is it fair to speak of it as a successful example of the provident principle if, so far as its providence goes, it is a failure.

A subscriber to the Leicester Provident Dispensary has forwarded to us the following statement of the charitable contributions by which it is kept on its feet, and also of its debt for the several years from 1884 to 1893:

Balance due to Treasurer:

1884	January 1st	£1,009 1 10
1885	" "	1,093 18 9 "
1886	" "	996 18 10
1887	" "	493 15 6
1888	" "	417 10 0
1889	" "	852 9 11
1890	" "	1,258 12 1
1891	" "	1,072 18 9
1892	" "	1,220 3 0
1893	" "	1,121 17 3

Subscriptions and Donations, Legacies, etc., to Leicester Provident Dispensary for Ten Years 1884 to 1893 inclusive.

Date of Year.	Subscriptions.	Donations, Legacies, etc.
	£ s. d.	£ s. d.
1884	395 13 6	387 12 8
1885	372 16 0	271 11 7
1886	399 6 8	1,075 6 2
1887	379 15 6	461 8 0
1888	363 7 8	61 16 3
1889	345 10 9	86 19 6
1890	335 19 6	735 4 [illegible]
1891	325 0 6	307 11 6
1892	292 10 6	147 8 5
1893	327 10 0	95 0 6
Total	£3,577 10 8	£3,629 19 3

N.B.—The above figures are taken from the annual reports.

It is clear from all this that the Leicester Provident Dispensary is in no sense self-supporting, but is a charity, supported by charitable subscriptions, donations, and legacies; that it is not a success financially, being constantly in debt, notwithstanding the help it gets from subscriptions, etc.; that it is badly managed, as judged by the proportion which its expenses bear to its turnover, £524 being paid as salaries to dispensers for dispensing drugs, the total cost of which only amounted to £205, and £1,159 being spent in the salaries of manager, clerks, and collectors engaged in managing an institution the total income of which, so far as it is derived from members' payments, only amounts to £6,863.

REPORTS
ON
THE NURSING AND ADMINISTRATION OF PROVINCIAL WORKHOUSES AND INFIRMARIES.

Special Commission of the "British Medical Journal."

XLIX.—BELMONT ROAD TEST HOUSE AND MILL ROAD INFIRMARY.

These two institutions, with the large workhouse at Walton-on-the-Hill, belong to West Derby Union, which includes within its radius a large portion of the city of Liverpool, hence they are the complement of each other. Armed with a permit from the Board, we applied for admission at the Belmont Road House. This house is called the "Test House" because in the original scheme it was used as a place of labour for the large number of vagrants that passed through the union; it is now used by the vagrants, but there is besides a certain proportion of permanent able-bodied inmates, and also infirm and old people. The Mill Road Infirmary receives all the sick who apply for medical relief, such patients as are in Belmont Road House being the cases that have occurred among the inmates or the vagrants.

The Hospitals,

for there are two, in blocks at opposite extremities of the building, are assigned to the inmates and the vagrants respectively. The plan of the building is a series of separate blocks standing one behind the other, connected by a covered corridor; the intersecting corridor, divided in its length, separates the blocks into male and female portions. The

inmates' hospital is at the extreme end of the block and the tramps' hospital is to the front, being the next block behind the tramps' wards. The inmates' hospital block contains 36 beds for females in two wards, and 42 for males in two wards. The wards are on the first and second floors, the ground floors being used as day rooms.

THE WARDS

resemble each other in style and arrangement; they are long and narrow, lighted by windows on each side, having the nurse's sitting-room on the landing, and at the far end the waterclosets and slop-sink and an inside stone staircase for a fire escape. The beds are placed against the long walls; they are of full width, having iron canvas-covered laths, with flock or straw beds. The wall surface is painted brick. There are two open fireplaces in each ward; wooden floors, with a strip of carpet down the middle. The ventilators are of ingenious construction; above the upper sash is a continuation of the framing with louvred apertures. When the sash is down the ventilator is in action, when closed it is pushed up into a space in the wall prepared for it. The windows are set high in the walls, giving a somewhat gloomy appearance to the wards.

THE PATIENTS.

The hospital was nearly empty at the time of our visit, and the bulk of the patients were in the day rooms; those who were in the wards represented the sick cases under treatment. The worst case was one of pneumonia following influenza. There was a very good temperature chart giving a record of the disease, and showing that the man had a good chance of recovery, but he had been seriously ill. A man convalescent from bronchitis, another with chronic bronchitis, one crippled with rheumatism; and, among the women, cases of old age and infirmity, which prevented them going up and down stairs. In the day room most of the women were at needlework; a few of the men were playing a game, but the larger number were in a listless group round the fire.

THE TRAMPS' HOSPITAL.

This block is similar in plan and arrangement to that already described, but it holds a slightly larger number of beds; there are 35 for the females and 44 for the men. As its name indicates it is reserved for the treatment of all cases of sickness among the casuals, all offensive patients are placed here; the top floor on each side is set apart for the lock cases. We found many more cases of acute illness here, patients who had been exposed to chill or severe weather, skin eruptions, and cases of syphilis; the medical officer endeavours to keep them under treatment until cured, though they are often restive under the detention.

LYING-IN PATIENTS

are not received in this hospital; such cases as are nursed in the workhouse are sent to Walton-on-the Hill; but it is the practice in this union to urge the women to be confined at their own homes, attended by the nurses from the infirmary. Likewise there is no children's department; the children are located in the cottage homes at Fazakerly, where they have their own infirmary; such children as we saw are either detained by magistrate's order, or are on the tramp with their parents.

SYSTEM OF NURSING.

Trained nurses, both male and female, are employed in the hospitals, assisted by the inmates. There is one nurse in each section by day and the same at night; also an inmate is on duty in each block at night, who sleeps in the ward by day. Three of the female nurses are also midwives, and are ready to deal with any emergency that may arise in the tramps' department. We conversed with several of the nurses and were shown the cupboards for poisons and medicines, also the temperature charts, discussed the work with them; as far as the nature of the cases permitted there was skilled nursing. The hospital is visited daily by the doctor, and if required he is fetched by messenger at night. According to the statements made to us, there appeared to be careful feeding during the night; the man with pneumonia being fed at regular intervals during the night.

THE SANITARY APPLIANCES

are of modern construction, especially the baths. Each section has its bathroom in the corridor adjacent to the block; the bath is of porcelain set in the middle of the floor; the walls are tiled and cemented, and the floor is laid in tiles; there is no means of heating the rooms, but the matron informed us that it was not necessary. In the bathrooms for the tramps there are four baths in a room; we did not see any screens to ensure privacy. We have already noticed the slop sink in the ward lobbies, an adjunct to cleanly nursing more frequently conspicuous by its absence. We now turned our steps to the

MILL ROAD INFIRMARY.

An inspection of this place was not in our brief; but the authorities were urgent on us that we should see it, assuring us that the Test House was nowhere in comparison, and so we presented our request to the medical superintendent for permission to go over the institution under his charge. Unfortunately he was out, but his place was readily taken by the matron. The infirmary is a hospital in its arrangements and in its method of working. It stands three-quarters of a mile from the Test House, and nearer the city; it occupies the place of the old hospital, part of which is incorporated in this building with extensive additions. The ground plan is that of a double H, the two side blocks being respectively male and female wards, half of the middle block being the administrative department, the rear portion having the children's wards and those for the lock cases. The building stands four storeys high, including the basement, where are wards which are only used in time of pressure. The total accommodation is for about 900 beds; this includes 150 in the Lower Hospital, reserved for the imbeciles and epileptics. This hospital is a detached building in the same enclosure at right angles to the main hospital.

THE WARDS,

of which there are 16 of 36 beds, and 4 of 32 beds, occupy the entire length of the uprights of the letter; at the near end is a day room, a ward kitchen, single ward with 2 beds, and a linen room; in the transverse portion, on the ground floor, are the receiving rooms with bath room attached, and lifts for conveying the patients to the respective floors. The upper portions of the transverse corridors are converted into recreation grounds, the iron columns from the one floor supporting the balcony above. The walls of the wards have a smooth surface painted in two colours. There are two stoves, each having one fireplace, in the middle of the ward, the flues being carried under the floor. The lighting is by numerous single gas brackets on the side walls. The windows face each other: the ventilation is by means of the the upper half of the sash formed into a hopper opening, and there are besides intakes below the windows and outlets in the cornice communicating with the patent extractors in the roof by shafts in the wall. In each ward there are low cupboards for the ward necessaries—dressings, medicines, etc.; these are placed tablewise down the middle of the wards. The bedsteads have the spring mattress, on which is laid a wood-fibre mattress, and they are furnished with removable pulls. At the end of the ward, in an annexe with an intercepting lobby, are the lavatories and bath rooms; the walls are tiled in two colours and the floor laid in tiles, all set in modern style. The surgical patients are nursed in the top wards, near the small room that is used as an operating theatre.

THE NURSING

is such as one would expect to find in so well-appointed a building; there is no pauper help of any kind. The medical superintendent has under him a trained matron with two assistants, a staff of from 60 to 70 nurses, some of whom have been trained in the infirmary, and a night superintendent. The cases are the acute sick surgical patients and operation cases, so that there is excellent material for the training of the nurses; these nurses are lodged in the home placed on the opposite side of the road, and connected by a subterranean passage with the hospital. Here are the dining and sitting rooms, a large hall useful for various purposes, 63 bedrooms for the nursing staff and other conveniences, accommodation for sick nurses, and rooms for the household servants on the top floor. A home sister is responsible for the work of the home under the matron. Each officer is responsible for her own department under the medical superintendent.

THE LAUNDRY

service for these two hospitals is provided for at the Test House, where a large and well-appointed laundry has been fitted up for the purpose of taking the washing from the infirmary, thus providing work for the able-bodied paupers in the union. The soiled linen is removed daily. The bread for the infirmary is also baked in the Test House.

THE GUARDIANS

may feel proud of their infirmary, of which we carried away a most favourable impression. We trust that it will serve as a pioneer in the cause that we have at heart, namely, the nursing of the sick pauper in a manner that bears a common-sense relation to his ailment, irrespective of the fact that he receives such medical relief from the rates. The guardians of West Derby Union have evidently approached the subject in an enlightened manner, and we doubt not that in course of time they will receive the indirect reward of their policy in the decrease of pauperism due to the generous bestowal of medical relief. As we made the round of the building we saw points in which there still lingered the trail of the workhouse system; but we feel sure that in time these marks will vanish, and that our best plan is to leave the matter in the hands of the Board and its advisers.

AXMINSTER BOARD AND THE "BRITISH MEDICAL JOURNAL" COMMISSION.

THERE are some public bodies who think that they can distract public attention from their own misdeeds by the use of long words spoken in an imperative manner; our friends at Axminster are to be found among them. They speak of the report published in the BRITISH MEDICAL JOURNAL as being "made up of absolute misstatements and gross exaggerations," but we notice that they carefully abstain from specifying any details, though our Commissioner named the defects in a manner which admits of specific contradiction. We accept the challenge, and are prepared to justify the report made; but as we read more of this discussion in the Board we note that the Visiting Committee has recommended various improvements, and so we conclude that the "misstatements and gross exaggerations" have been justified even in the eyes of some of the members of the Board.

POOR-LAW NURSES.

WE have before us three advertisements for nurses to work in infirmary wards, and these advertisements again mark the wide divergence of opinion among guardians as to the kind of officer whom it is suitable to appoint. Dorchester Union wishes for a nurse's assistant, not younger than 18, to receive £12 a year; Truro Union seeks for a woman who must have had some experience and training, limit of age not stated, to receive £18 a year rising to £20, she is to act as assistant to the nurse; Stoke Damerel requires a trained nurse (certificated), aged 28 to 40, at £35 a year. At Dorchester we believe there is no trained nurse, and to place a young girl of 18 in such a post is reprehensible; Truro has no trained nurse; Stoke Damerel has 71 infirmary beds in the workhouse, which appear from the advertisement to be nursed by this one nurse under the master and matron. At Lexden and Winstree the Local Government Board inspector said that "for one nurse to attend to about 50 patients by day and night was more than could be expected of any one person; it was more than she could properly perform, and too much of a strain upon her." It is surely time that this question of workhouse nursing was brought into line.

LISKEARD AND THE USE OF THE STRAIT-JACKET.

THERE appears to have been a conflict of authority between the medical officer and the master of this union, the trained nurse being the buffer. The doctor states that he authorised the nurse to make use of the strait-jacket to restrain a man suffering from senile decay, who stripped himself and alarmed the other patients. The master appears to have ordered the jacket to be taken off, and reported the nurse at the meeting of the Board. This is only one of the many instances in which a master can and does override the orders of the doctor. In this instance we are glad to note that the guardians recorded their opinion that no cruelty had been practised on the patient who was placed in the jacket.

THE SCOTTISH UNIVERSITIES.

THE statistics of passes and failures in the preliminary examinations in arts, sciences, and medicine in the four Scotch Universities have just been published. Taking the statistics as they apply to medical students only, they show a total number of candidates in the four universities of 290, of whom 160 passed. At the different universities the numbers were:

St. Andrews: Candidates, 2; passed, 1. Glasgow: Candidates 107; passed, 55. Aberdeen: Candidates, 42; passed, 27. Edinburgh: Candidates, 139; passed, 77.

These figures include all candidates whether entering for all or only one of the four subjects of the examination. In Glasgow 95 (out of 107) entered for all the four, in Aberdeen 39 (out of 42), in Edinburgh 125 (out of 139). Taking only the candidates entered for all subjects of the examination the percentage of passes is as follows: St. Andrews, 50; Glasgow, 52·6; Aberdeen, 64·1; Edinburgh, 55·2. These figures may be taken to mean that in Aberdeen either the preliminary education of the candidates is of a higher order or that the test is not so severe.

It is interesting to compare these figures with those of last year, and the comparison is shown in the following table:

Universities.	Candidates.		Failures.		Passes.	
	1894.	1895.	1894.	1895.	1894.	1895.
St. Andrews ...	3	2	4	1	4	1
Glasgow ...	89	107	56	47	31	55
Aberdeen ...	32	42	22	15	10	27
Edinburgh ...	121	139	68	62	52	77
Totals ...	250	290	150	125	97	160

Thus the statistics for March-April, 1895, show an increase of 40 candidates and an increase of 63 passes over those of September-October, 1894.

ST. ANDREWS UNIVERSITY AND DUNDEE COLLEGE.

A REJOINDER.

PROFESSOR BELL PETTIGREW writes: I have had my attention directed to an article from a correspondent, headed as above, in the BRITISH MEDICAL JOURNAL of date May 25th, 1895, containing a number of statements so inaccurate and misleading, and so unfair to St. Andrews University, that I deem it my duty to inform your readers as to the actual facts. I deal with the statements *seriatim*.

COMPARISON OF CLASSES.

Under this heading a table is given purporting to give class attendance in St. Andrews and Dundee for a year taken at random. The number of students attending the United College, St. Andrews, is given at 172, and those attending the Theological College, St. Andrews, at 36; the day students attending University College, Dundee, being set down at 168. In this connection I would observe that a very small proportion of the day students attending University College, Dundee, are *bonâ-fide* matriculated students aiming at graduation. According to St. Andrews University returns published in March of the present year (1895), the numbers were as follows:—Matriculated students attending the St. Andrews Colleges, 199; matriculated students attending University College, Dundee, 50. There is, I would point out, a very considerable difference between 50 and 168. In reality, the 168 day students said to be attending University College, Dundee, are not students in the ordinary university sense, more than two thirds of them being mixed, ordinary day scholars.

The table given by your correspondent is misleading in its details. It gives the number of students attending chemistry at University College, Dundee, as 64; the real number, according to the University returns referred to (March, 1895), being only 18. The table gives 19 as the number of students attending anatomy at Dundee—the real number is 10. It states the number of students attending physiology at Dundee as 6—the real number is 3. It makes out the number of students attending physiology at St. Andrews as 9, and your correspondent states in another place that the class of physiology at St. Andrews varies from 3 to 11.

It is right to inform your correspondent that for the five years prior to 1890, when the Scottish Universities Commissioners commenced their work and when an attempt was made to transfer science largely and medicine wholly to Dundee, the average class attendance in physiology at St. Andrews was 17.

Under the heading

PHYSIOLOGICAL EQUIPMENT AT ST. ANDREWS,

your correspondent, with very questionable taste and certainly with no regard to truth, does his best to traduce the

physiological equipment and teaching at St. Andrews in favour of both at Dundee.

He leads your readers to infer that nothing has been done for physiological teaching at St. Andrews since 1411, the year the University was founded. He says "the appliances at St. Andrews consist mostly of wax models of portions of the body, several drawers full of home-made diagrams, a human skeleton, and a model of the human body made to open and shut with delicate springs and screws" . . . "a few fœtuses of different animals in spirit, some pathological specimens with sundry other preparations commonly met with in board schools." . . . . "Two large boxes could be made to contain all the apparatus, including a few microscopes."

I wish to inform your correspondent, and all whom it concerns, that the physiological laboratory at St. Andrews contains the physiological equipment actually employed in teaching human and comparative physiology by such celebrated physiologists as Dr. John Reid and Dr. George Day, both of whom occupied in succession the Chair of Medicine and Anatomy at St. Andrews.

As regards the diagrams (nearly 800 in number), they are not home-made, as your correspondent asserts, but executed by the best artists, the collection embracing that of the late Professor Saunders—a famous Edinburgh teacher. As regards the microscopes, they are 30 in number, and not "a few," as stated by your correspondent.

In addition to the foregoing, there are over 1,000 very fine microscopic specimens, illustrating every department of physiology.

There are also most of the modern instruments for physiological research claimed for Dundee and so much praised by your correspondent, such as electric batteries and appliances, galvanometers, modern time-recording apparatus, tambours, sphygmographs, telephones, phonographs, laryngoscope, ophthalmoscope, acoustic apparatus, models and preparations of the eye, ear, brain, and nervous system (human and comparative), injecting apparatus, reagents and stains, spring manometers, refrigerators, hatching appliances, a Zeiss's projecting microscope for enlarging and throwing microscopic specimens on the screen, a zoopraxiscope (the only one in Britain) for showing animal movements in a darkened room by the aid of the oxyhydrogen light, etc.

It will be seen that the physiological laboratory and the physiological teaching at St. Andrews are not in the miserable condition which your correspondent, ignorantly and apparently of set purpose, tries to make out.

It is, no doubt, a little disconcerting to your correspondent that in Dundee, with a population of 150,000 or thereby, so little advantage is taken of the vaunted Dundee Physiological Laboratory and supposed advanced teaching. Dundee seems to have everything but students. A class of three in physiology cannot be regarded as a triumph in a population of 150,000!

Under the heading

Effect of Additional Chairs,

your correspondent, continuing his disparagement of St. Andrews equipment in favour of the Dundee equipment, says: "This contrast is exceedingly striking, and might be carried still further if the other departments of practical science were compared in the two Colleges."

As a matter of fact the equipments in chemistry, natural philosophy, and zoology are better in several respects at St. Andrews than at Dundee; and there are, in addition, a teaching botanic garden and a marine laboratory at St. Andrews which do not exist at Dundee. He then says, "students and their guardians are quick at recognising such distinctions." Let me add, with the result that much the larger number of students are sent to St. Andrews.

He then endeavours to throw cold water on the proposal to found additional medical chairs at St. Andrews, and asserts that "the number of students who could be found willing to study medicine in so remote a district would probably be small."

It may interest your readers to know that for nearly a century St. Andrews has never lacked medical students, and that the ancient University, as the crow flies, is only some eight miles from the Dundee College.

University College, Dundee, is fired by a noble ambition to elevate the status of the St. Andrews medical degrees. That institution should begin by reforming itself. It has failed in almost everthing it has attempted.

If it was performing its relative or fair share of academic work, and attracting students in the same proportion as the St. Andrews Colleges, it ought to have had last session (1894-95) an attendance of 119 matriculated students instead of 50.

In reality, the Dundee College is performing less than half its relative share of the academic work of St. Andrews University—a circumstance not a little surprising, and extremely difficult to account for considering the enormous population of Dundee as compared with St. Andrews. The Dundee College, even in its youth, is in a semi-moribund condition, and it is, moreover, considerably in debt.

Under the heading

The Arts Question

your correspondent claims for University College, Dundee, "a single definite avenue within the College towards the M.A. degree, which shall at least enable students who conform to the curriculum to take this degree without being obliged necessarily to go to St. Andrews."

In plain English, University College, Dundee, aspires to being a complete and rival University to St. Andrews. That institution claims to give a complete course of arts, to teach the whole of medicine, and the major portion of science. The only thing it proposes to leave St. Andrews is the honour and privilege of graduating the few students taught at Dundee. After Dundee the deluge.

Your correspondent is churlish over the Berry Bequest of £100,000, left lately to the University of St. Andrews, and the number of bursaries in the gift of St. Andrews. He bemoans that "no fewer than sixty-six of these bursaries amount to over £20. In addition to these there are ten scholarships averaging £70 a year. Ample though this would appear, it has been proposed to devote part of the Berry Bequest partly to founding new chairs in anatomy and materia medica, and partly to founding new scholarships and bursaries to the extent of nearly £1,100 a year all guarded against any use being made of them for purposes of study at Dundee."

St. Andrews University, under the enlightened guidance and advice of University College, Dundee, is reproached for spending its own money as it thinks best! What next?

Lastly, your correspondent deals with the "emoluments" at St. Andrews. Nothing about the ancient University pleases him. He says the Professors wish to employ a portion of the Berry Bequest to increase their annual incomes. This is quite legitimate, and was intended by the late Mr. David Berry, who bequeathed the legacy.

Further, that "no proposal appears to have been made to use any of this bequest for the permanent equipment or development, either by way of endowing useful or special branches of science or literature, or such subjects as are unrepresented at present both at St. Andrews and Dundee."

This is the reverse of the truth. I myself proposed there should be set apart annually from the interest of the Berry Bequest:

£450 for a Berry Chair of Anatomy.
£350 for a Chair of Materia Medica.
£420 for fourteen Medical Bursaries.
£500 for a Chair of English Literature.
£50 for the upkeep of the United College Museum.
£30 for the expenses of the Students' Union.

Various other sums for additional buildings, equipments, etc.

The salaries of the St. Andrews Professors offend your correspondent. They range from £450 to £650 a year. Prodigious in his eyes no doubt; still they are not large.

The 1877 Scottish Universities Commission recommended that no Scotch Professor should have less than £600 per annum.

The St. Andrews Professors are certainly not paid too much for the work performed by them.

It may interest your correspondent to learn that the teaching at St. Andrews costs considerably less than at Dundee.

At Dundee, during the session 1894-95, nine Professors were engaged in teaching fifty matriculated students. The cost

for the teaching of each student was £83 10s. The salaries of the Dundee Professors are certainly not too large, but the excessive expenditure for the teaching staff is due to the fact that the Dundee Professors, on an average, had during last session less than six students each.

Your correspondent has a parting fling at the LL.A. diploma of St. Andrews. He says "the peculiar product of St. Andrews, called the LL.A. degree, ensures an additional income."

Spleen and discourtesy can scarcely go further. The LL.A. was started by St. Andrews University some ten years ago, and has given an enormous impetus to all kinds of learning in Great Britain and other countries.

It has proved an increasing success and includes ancient and modern languages, literature, art, science, etc. It is equivalent to the M.A. degree when the seven M.A. subjects are taken.

It embraces such subjects as Latin, Greek, French, German, Italian, music, history, geography, moral philosophy, English literature, mathematics, natural philosophy, physiology, hygiene, chemistry, botany, zoology, geology, astronomy, fine art, etc.

The success of LL.A. of St. Andrews induced the University of Edinburgh to give an L.A., which is in every respect a similar degree, and nothing but good can be said of the new degrees as conferred after severe examinations by both Universities.

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA*.

MEMORANDUM ON THE *BRITISH PHARMACOPŒIA*.

BY THE

THERAPEUTIC COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

D. J. Leech, M.D., F.R.C.P., Chairman.

Nestor Tirard, M.D., F.R.C.P., Ralph Stockman, M.D., F.R.C.P.E., } Hon. Secretaries.

As it has been announced that a new edition of the *Pharmacopœia* is in course of preparation, the Therapeutic Committee thinks it desirable to set forth its views concerning certain points which seem to it to require special attention.

It is proposed to adapt the new edition of the *Pharmacopœia* to the use of our colonies and dependencies by introducing alternatives to many of the drugs now official, suitable to their varying requirements. Besides this, it will be necessary to make official many of the therapeutic substances recently introduced and not infrequently employed, and also some of the new forms in which medicines are now commonly administered.

Yet an increase of the size of a *Pharmacopœia* is to be deprecated on several grounds. A bulky *Pharmacopœia*, abounding in detail and containing not only the medicines in general and common use, but also those occasionally employed, may serve some purpose as a work of reference; but it is not likely to be used as such by the members of the medical profession, for it cannot contain the exact kind of information they require.

Moreover, a *Pharmacopœia* of large size will not be used in the daily work of the practitioner, for he will not bear in mind its contents. The greater the amount of unnecessary detail it contains, the less will he use it.

Further, although it is quite true that the *Pharmacopœia* is not written with any educational view, so far as the student is concerned, yet the relation of the *Pharmacopœia* to medical education has an important bearing on its employment by medical men. The knowledge which a practitioner has of the *Pharmacopœia* is largely dependent on the extent to which his work, whilst a student, is associated with it. But the numerous claims on the time and memory of the medical student and the size of the present *Pharmacopœia* have caused some Examining Boards to require a knowledge of only a portion of the drugs and preparations now official, thereby implying that the remainder are of such little value as not to require attention.

Other Examining Boards, on the contrary, make all the substances and preparations in the *Pharmacopœia* the subject of examination, notwithstanding that a not inconsiderable number of them have admittedly fallen into disuse.

If the present *Pharmacopœia* be increased in bulk there is some probability that it will be even less employed than heretofore.

The *Pharmacopœia* is primarily intended "to afford to the members of the medical profession and those engaged in the preparation of medicines throughout the British Empire one uniform standard and guide whereby the nature and composition of substances to be used in medicine may be ascertained."[1]

The body of the work should include all such remedies as the existing state of medical practice requires.[2] It should contain the methods of preparation in so far as these are of service to the medical profession and those engaged in the preparation of medicines, with the weights and measures by which they are prepared. It should contain, too, descriptions of the remedial agents included, such as may afford a clear indication of what they are intended to be, and enable those engaged in their administration to determine their identity and purity;[3] yet it should be of such size that it may be fully known and used by the members of the medical profession in their daily work, and it should, if possible, be so arranged as to form the basis of that information concerning drugs which medical men require to fit them for their daily work.

With the view of fulfilling these requirements in the new edition three modifications are necessary: (i) elimination; (ii) alterations; (iii) additions.

I.—Elimination.

Elimination may be carried out in three directions:

(1) By the omission of drugs now but little used, and of superfluous Galenical preparations.

(2) By the exclusion of methods of preparation of medicinal substances found in commerce.

(3) By the omission of other details which seem of no value either to chemists or medical men.

(1) Omission of Drugs and Galenical Preparations.

It has been often said that whenever it is suggested to omit a substance from the *Pharmacopœia* someone is sure to assert that this is a drug which he finds very serviceable. This may be true: but it does not seem a sufficient reason for retaining drugs which are not in common use, since the omission of a drug from the *Pharmacopœia* in no way prevents a practitioner ordering and obtaining the drug for his patient. The older remedies ought no more to be retained because they are much used by a few individuals or even in a few localities than new remedies ought to be introduced for the same reason.

The Committee has deemed it desirable to make a systematic inquiry as to the extent to which certain drugs and preparations have fallen into disuse, and into the comparative frequency of employment of some compounds which possess similar properties. For this purpose a list of the principal drugs and Galenical preparations concerning which information was needed, has been submitted to the members of the British Medical Association, with a request that each member should indicate whether he uses these drugs often, rarely, or never. Of this list 12,490 copies have been issued, and about one-half have been returned; the replies from 5,609 have been available, and have been tabulated as follows:[4]

[1] Preface, *British Pharmacopœia*, p. xii.

[2] *Ibid.*, p. xii.

[3] *Ibid.*, p. xiv.

[4] A certain number of members stated that they knew so little of these preparations that they were unable to tabulate the frequency of employment.

	Often.	Rarely.	Never.
Acidum lacticum dilutum	122	845	4,639
Ammonii phosphas	35	417	5,157
Antimonii oxidum	13	267	5,326
Antimonium sulphuratum	27	301	5,281
Aqua foeniculi	137	437	5,015
,, laurocerasi	583	1,128	3,598
,, menthæ viridis	450	900	4,259
,, pimentæ	253	869	4,478
Argenti oxidum	130	937	4,542
Beberinæ sulphas	48	411	5,150
Bismuthi citras as distinct from liquor)	118	322	5,169
Bismuthi et ammonii citras (as distinct from liquor)	287	416	4,956
Bismuthi oxidum	284	699	4,715
Calcii carbonas præcipitata	268	815	4,455
Carbo animalis	212	1,586	3,811
Cambogia	92	784	4,733
Cetraria	44	323	5,242
Charta epispastica	406	1,274	3,929
,, sinapis	178	1,231	3,470
Cinchonidinæ sulphas	163	442	5,004
Cinchoninæ sulphas	152	580	4,577
Confectio opii	56	462	5,091
,, rosæ caninæ	205	953	4,451
,, scammonii	34	318	5,257
,, terebinthinæ	59	373	5,177
Cupri nitras	22	158	5,429
Decoctum cetrariæ	52	284	5,273
,, quercus	133	542	4,634
,, taraxaci	42	1,023	4,144
Elemi	20	155	5,434
Emplastrum calefaciens	382	841	4,403
,, ferri	284	651	4,694
,, galbani	61	430	5,118
,, hydrargyri	330	1,477	3,802
,, opii	366	1,088	4,155
,, plumbi iodidi	107	716	4,783
Extractum aconiti	91	454	5,081
,, anthemidis	75	333	5,201
,, belæ liquidum	222	784	4,603
,, calumbæ	104	482	5,023
,, cimicifugæ liquidum	102	332	5,115
,, conii	354	1,389	3,856
,, hæmatoxyli	262	944	4,453
,, jalapæ	78	338	5,193
,, lactucæ	57	527	5,025
,, lupuli	94	665	4,850
,, mezerei æthereum	8	77	5,524
,, papaveris	95	310	5,195
,, pareiræ	68	249	5,292
,, quassiæ	82	288	5,239
,, rhamni frangulæ	34	163	5,412
,, ,, liquidum	158	388	5,063
Ferri sulphas exsiccata	1,234	1,575	2,800
,, sulphas granulata	439	702	4,448
Infusum anthemidis	209	538	4,862
,, catechu	175	446	4,988
,, cuspariæ	54	345	5,210
,, maticæ	49	470	5,130
,, serpentariæ	223	636	4,750
,, valerianæ	267	489	4,853
Lactuca	18	151	5,440
Liquor acidi chromici (as distinct from chromic acid)	59	163	5,376
Liquor ammonii acetatis	3,899	426	1,287
,, ,, fortior	2,855	563	2,231
,, ,, citratis	507	885	4,217
,, ,, fortior	226	384	4,992
,, calcii chloridi (as distinct from solid)	230	769	4,670
,, chlori (as prepared in the *Pharmacopœia*)	114	619	4,876
,, ferri acetatis	277	632	4,700
,, iodi	446	769	4,394
,, morphinæ bimeconatis	424	1,003	4,184
,, sodæ	96	382	5,151
,, sodii ethylatis	246	1,016	4,347
Lupulinum	39	286	5,284
Matricariæ folia	67	550	4,992
Mistura creasoti	227	1,093	4,288
,, ammoniaci	219	1,097	4,393
,, ferri aromatica	281	977	4,351
,, guaiaci	460	1,359	3,819
,, scammonii	32	227	5,450
Oleo-resina cubebæ	117	551	4,941
Oleum anthemidis	32	258	5,319
,, menthæ viridis	264	713	4,632
,, pimentæ	114	488	4,907
,, phosphoratum	30	275	5,304
,, rutæ	28	299	5,282
,, sabinæ	41	442	5,126
Pilula aloes barbadensis	592	1,283	3,754
,, ,, et myrrhæ	1,812	2,017	1,780
,, ,, socotrinæ	507	1,092	4,010
,, cambogiæ composita	148	895	4,566
,, conii composita	218	701	4,692
,, ferri carbonatis	1,049	955	3,605
,, ferri iodidi	265	838	4,476
Pilula hydrargyri subchloridi composita	940	1,788	2,871
,, ,, phosphori	347	1,276	3,996
Plumbi carbonas	77	598	5,174
,, nitras	80	442	5,087
Potassa sulphurata	23	826	4,675
Pulvis antimonialis	495	1,542	3,602
,, cretaceus compositus	122	1,052	4,415
Pyrethri radix	17	219	5,378
Spiritus ætheris compositus, Hoffmann's anodyne (as distinguished from spiritus ætheris)	1,658	1,195	3,856
Spiritus armoraciæ compositus	247	881	4,481
,, cajuputi	199	856	4,554
Suppositoria acidi carbolici c. sapone	57	316	5,256
,, ,, ,, tannici	418	1,518	3,672
Syrupus hemidesmi	93	282	5,257
,, morii	166	620	4,753
,, papaveris	1,053	1,459	3,067
Tinctura aurantii recentis	1,221	932	3,456
,, cimicifugæ	545	753	4,311
,, croci	100	388	5,111
,, ergotæ	348	498	4,763
,, ferri acetatis	240	558	4,811
,, gallæ	91	292	5,346
,, guaiaci ammoniata	852	1,775	2,982
,, jalapæ	193	626	4,810
,, laricis	117	408	5,084
,, lupuli	468	1,212	3,929
,, pyrethri	61	356	5,192
,, sabinæ	18	116	5,475
,, serpentariæ	202	622	4,785
,, zingiberis fortior (*syn.* essent. zingiberis)	1,652	1,574	2,385
Trochisci ferri redacti	102	373	5,134
,, opii	87	270	5,272
Unguentum antimonii tartarati	65	670	4,874
,, atropinæ	257	1,014	4,358
,, creasoti	125	923	4,583
,, elemi	98	348	5,183
,, potassæ sulphuratæ	50	360	5,190
,, terebinthinæ	87	342	5,120
,, veratrinæ	83	524	4,942
Vinum aloes	126	484	5,018
,, rhei	147	769	4,732

The data thus collected have been placed at the service of the General Medical Council. Numerous letters and suggestions have also been received, giving valuable information with regard to the apparent requirements of the profession.

From the above tables it would appear that there are 54 drugs and preparations in this list which are never used by over 5,000 practitioners, out of the 5,609 who have sent replies.

It may further be pointed out that the word "rarely" has been sometimes understood to mean that these substances have been employed at some time or other, even though not now in use. Although the frequency of employment of a drug is to some extent a guide to the need of its retention, the Committee is of opinion that the ascertained pharmacological actions and therapeutic uses of any drug or preparation in the *British Pharmacopœia* should also receive due consideration before deciding upon its retention.

With regard to Galenical preparations it may be pointed out that the *Pharmacopœia* cannot constitute a guide to the methods of using drugs, and it seems desirable to follow the example of the Swiss, German, and American *Pharmacopœias*, and exclude the cataplasmata, enemata, and vapores which are only introduced to show the way in which drugs may be employed. It is no more the duty of the *Pharmacopœia* to give instruction in the way of making a linseed poultice or an iodine inhalation, than it is to furnish information as to the method of giving a calomel fumigation or an alkalin bath.

(2) Exclusion of Methods of Preparation.

In a large number of cases the *Pharmacopœia* gives the method of preparation of substances met with in commerce, and never prepared by the pharmacist. Some of the methods given are not in all their details applicable when the substances are prepared on a large scale; and there is reason to believe that in such cases the pharmacopœial processes are not adhered to.

In the *Pharmacopœias* most recently published—for example, the Swiss, German, and American—methods of making chemicals used medicinally are almost entirely omitted. It would certainly be desirable in the forthcoming *Pharmacopœia* that the methods of preparing such substances as citric acid,

tutaric acid, hydrochloric acid, phosphoric acid, and similar chemicals should be omitted.

(3) Omission of Unnecessary Details.

The *Pharmacopœia* contains certain lists—for example, acetates, chlorides, etc.—which seem of no service either to those who prescribe or those who prepare medicines. These might well be omitted.

II.—Alterations.

Origin and Source of Drugs.—It is desirable not only that the origin, source, and general characters of drugs should be accurately described, but that in many instances the description should include their histological characters.

The Mode of Production of nearly every preparation in the *Pharmacopœia* should be carefully considered in order that preparations of the greatest pharmacological activity may be employed.

The methods of making some of the extracts might be improved.

It would be well that notice should be taken of the changes which have occurred with regard to the use of infusions and decoctions. A large number of the former and some of the latter are not now usually made according to the processes of the *Pharmacopœia*. The concentrated infusions and decoctions are employed alike by chemists and medical men. These concentrated compounds somewhat resemble the liquid extracts, and their value should be determined with a view of ascertaining whether it is desirable to introduce them into the *Pharmacopœia*. It would save much trouble if a general formula were given for the preparation both of decoctions and infusions.

The hypodermic injections require special consideration both with regard to their strength and composition.

The pill masses of the *Pharmacopœia* should be less bulky than they are; the same amount of active material might in many instances be combined with a smaller bulk of excipient.

The tinctures might be made more active and reliable by a careful determination of the menstrua in which the active principles of drugs are most soluble, and a careful examination should be made to see how far a standardisation of certain tinctures can be carried out.

The formulæ for many of the lozenges require reconsideration.

Many of the ointments are unsatisfactory. It seems probable that two or three bases for ointments might be introduced suitable for various purposes according to their melting point. If this were done several of the present ointments might be omitted.

Tests for Purity.—The tests for the recognition of the purity of drugs in the *Pharmacopœia* are in need of complete revision. Chemistry has made considerable advances since some of them were introduced, and it is desirable that they should be replaced by others in accordance with present chemical knowledge.

Dosage.—The doses in the *Pharmacopœia* are in many cases unsatisfactory, and require careful supervision. It is very necessary that they should be revised by therapeutic experts.

Weights and Measures.—The metric system of weights and measures should be introduced, the equivalent in avoirdupois weight and Imperial measure being added as alternatives. In the *Pharmacopœia* for 1885 a great advance was made by the parts, and fluid parts of the materials used in Galenical compounds being given in many instances, as well as the weights and measures, in grains and ounces. The principle then adopted might be still further extended. The general employment of the cubic centimetre for liquids and the gramme for solids, as in the American *Pharmacopœia*, might with advantage be adopted.

III.—Additions.

Alternatives for the Use of Colonies and Dependencies.—It is doubtless desirable that information concerning the use of drugs in the colonies and dependencies should be obtained, but the Committee suggests that it is unadvisable to delay the publication of a new *Pharmacopœia* on that account. The alternatives to be employed might be issued at a later date as an appendix.

New Preparations of Old Drugs now Official.—Whilst it may be necessary to adopt some of the new preparations now in general use, care should be taken to incorporate only those for the admission of which some definite pharmaceutical or therapeutic reason exists.

In one or two directions it is manifest additions must be made to the preparations in the *Pharmacopœia*. For example, it contains an abundance of colouring syrups, but comparatively few compounds for giving pleasant flavour to medicines. It will probably be necessary, too, to make official some of the more convenient and portable forms of medicine which are now commonly used by the profession. The large five-grain pills of the *Pharmacopœia* have been, to a great extent, superseded practically by the small pilule and granule, and medical men now often carry with them medicines in these portable forms.

New Drugs.—Much difficulty will be found in deciding on the claims of the large number of new agents recently brought before the notice of the medical public. They can scarcely be decided upon the extent to which these various new remedies have been employed, since this is to some extent determined by the energy with which they have been advertised.

Before deciding on the introduction of new remedial agents, it would seem very desirable that special information concerning their actions, uses, and doses, should be obtained from those accustomed to pharmacological and therapeutic investigations.

Note on Proprietary Articles.—In previous editions proprietary substances have been introduced under a new name, for example, phenazone (antipyrin); at times, also, imitations of proprietary articles that have attained celebrity have been inserted into the *Pharmacopœia* under the same or another name. Both courses are open to grave objections. If a proprietary preparation be adopted, it seems hardly worth while to change its name. The introduction of imitations is attended with two difficulties; if the process given follow closely that which is used for making the proprietary article, a patent may be infringed.

On the other hand, if the process employed differ from that by which the proprietary article is obtained, the pharmacopœial product may be inferior, and the proprietary preparation may continue to be used. It must be confessed that the question of the proprietary compounds is full of difficulties which can only be solved by seeking the aid of experts.

The Committee also feel that as few new synonyms as possible should be introduced into the *Pharmacopœia*.

In the opinion of the Committee it is highly desirable that there should be a Medical Editor in addition to the Pharmaceutical Editor, and that there should be associated with them a Committee of those having special knowledge of pharmacology and therapeutics.

IRISH MEDICAL ASSOCIATION.

The annual meeting of the Irish Medical Association was held at the Royal College of Surgeons of Ireland on June 3rd, when Sir William Stokes succeeded the outgoing President, Dr. Hercules McDonnell, of Dundalk, and took the chair.

The report stated that the Poor Law Superannuation Bill was introduced by Mr. T. W. Russell, who undertook the duty when all efforts to induce the Nationalist members to do so had failed. The Bill was, however, blocked by Mr. Vesey Knox and other members of the same party. "Under these circumstances your delegates regret to report that they can entertain no hope that the Bill will ever pass, except after discussion as an opposed measure; and, to submit it to that discussion, it will be necessary that the Government holding office at the time shall be willing to grant an opportunity for debate. For a long series of years it has been quite impossible to get such an opportunity, owing to the peculiar relation of political parties, but your delegates regret to believe that no further move can now be made to promote the passing of the Poor Law Officers Superannuation Bill until such time as the exigencies of public business allow of the due consideration of it and other measures of domestic legislation of this class." It was then decided, after consult-

ing the Poor-law medical officers, to endeavour to have the operations of the English Bill introduced this session extended to Ireland.

The report was adopted, and resolutions were passed again declaring the need of superannuation and the reform of the many abuses of the Poor-law medical relief system.

The speakers were Dr. McDONNELL, Mr. CROLY, Dr. TRUELL, Dr. LAFFAN, Tara; Dr. DILLON KELLY, Dr. THOMAS KELLY, Dr. BRADLEY, Dr. JACOB, and Dr. JAGGART.

Dr. NINIAN FALKINER moved:

That the condition of the union infirmaries throughout Ireland, as reported to the Council by Dr. Moorhead, calls, in most instances, for earnest attention and speedy reform, the condition of affairs therein being, in some of the cases reported, disgraceful to any service. That the Council be requested to bring the subject under the notice of the Local Government Board, the Boards of Guardians, and the press, with a view to the reorganisation of these infirmaries for the benefit of the sick poor.

Dr. MOORHEAD (Cootehill) seconded the motion, and said, after a recent letter of his, the Local Government Board wrote, asking him for the names of the seventy-nine workhouses in which the abuses he complained of existed. He would not tell them, but he was sure that if they wrote to all the medical officers of unions, these gentlemen would gladly give them every information, provided they were not exposed to the hatred and ill-will of their respective Boards of Guardians.

The resolution was adopted.

Resolutions were also adopted in favour of a regular holiday, the substitute to be paid by the guardians; and declaring that if the verdict in Mason *v.* Hadden should be confirmed, it would be necessary to obtain an amendment of the Act, for the protection of the public and the profession.

Amongst the speakers were Dr. DELAHOYDE, Dr. MAYNE, Dr. MAGUIRE, Dr. HEPBURN, and Dr. OULTON.

The annual dinner took place in the evening at the College of Surgeons, under the presidency of Sir WILLIAM STOKES.

MEERWALD V. JOLLY.

WE have received the following communication:

We the undersigned medical practitioners in practice at Acton wish to express our sympathy with Dr. Jolly in his recent trial, and think that, with the assistance of your powerful organ, the profession may be appealed to to assist him in clearing off the heavy expenses to which he has been subjected.

THOS. FRANCIS,	ROWLAND POLLOCK,
HENRY B. LINGHAM,	L.R.C.P.I., etc.,
H. J. THORNTON, L.R.C.P. Lond., M.R.C.S.Eng.,	W. A. RUDD, M.D., etc.,
G. A. GARRY SIMPSON, M.R.C.S.,	JOHN GARRETT,
W.A.F.TWEMLOW,M.R.C.S., L.R.C.P.,	DUNCAN M'D. L. CAMPBELL, M.R.C.S.

*** The case (which was an action to recover damages for alleged slander) was fully reported in the *Times* of January 26th and 29th, 1895. The jury at once found a verdict for the defendant with costs. Dr. Jolly, however, informs us that Mr. Meerwald has not paid the costs, and it may be taken as practically certain that they will not be paid by him. The expenses entailed on Dr. Jolly by his defence amounted to about £300, a disbursement which, unless he is assisted by his professional brethren, will seriously inconvenience him for a long time. At a meeting held on February 7th, the London and Counties Medical Protection Society passed a resolution of sympathy and support with Dr. Jolly; and at a further meeting on May 9th voted him a sum of £50 towards his law costs in defending the action. A committee has been formed to collect subscriptions for the same purpose. It is composed of the following members of the profession: H. Bailey Lingham, L.R.C.P., M.R.C.S., Springfield Park, Acton, W.; Thos. Francis, L.R.C.P., M.R.C.S., Monkton House, Acton, W.; C. Bell Keetley, F.R.C.S., 56, Grosvenor Street. W. Garry Simpson, M.R.C.S., East Acton, W., has consented to act as treasurer.

PAYMENT FOR POLICE CALLS.

THE following correspondence has been sent us for publication:

"129, Dulwich Grove, S.E., May 27th, 1895.

"SIR,—In January last, as one of a deputation of police surgeons who waited on you at the Home Office, I had the honour to bring under your notice the fact that medical men called in by the police in places where there is no police surgeon frequently have difficulty in getting any remuneration for their trouble, and the enclosed letter, which has been forwarded to me by the Editor of the BRITISH MEDICAL JOURNAL, affords a striking example of this.

"Dr. Bowden, of Ramsgate, as you will see, was called three miles into the country to see a man in charge of the police, who had been run over, and whom the policeman would not allow his friends to remove to hospital until he had been seen by a medical man, but on making application for the very moderate fee of half a guinea Dr. Bowden was told that the police were not responsible.

"It seems to our Association not very creditable to the police service that well-founded complaints of this kind should be appearing from time to time, as they do, in the medical journals, or that the usual answer given by those in authority should be similar to that quoted in Dr. Bowden's letter. The same thing could not happen, we believe, within the Metropolitan Police district without a distinct breach of their regulations *re* medical and sick sanctioned by the Secretary of State, and there seems to us no apparent reason why it should be permitted elsewhere. We do not forget what you stated to our deputation as to the very slight influence or control exercised by the Home Office over outside police authorities, and we can only suggest that it may, perhaps, be possible to include in the promised circular letter to those authorities some reference to the above point, and a copy of the Metropolitan regulations bearing on it.—I have, etc.,

"(Signed) H. NELSON HARDY, F.R.C.S.Edin.,
"Treasurer United Kingdom Police Surgeons' Association.

"The Right Hon. H. H. Asquith, M.P., Home Office, Whitehall, S.W."

"Whitehall, May 31st, 1895.

"Sir,—With reference to your letter of the 27th instant, respecting the case of Dr. Bowden, of Ramsgate, who was summoned by direction of the police to attend to an injured man, and was subsequently unable to recover his fee from the police, I am directed by the Secretary of State to inform you that he is afraid that he cannot engage to take any steps for throwing generally on county and borough police funds expenses caused by accidents of the kind described.—I am, etc.,

"(Signed) KENELM E. DIGBY.

"Dr. H. Nelson Hardy."

CORK SOCIETIES MEDICAL OFFICERS' INDEMNITY FUND.

THE following additional subscriptions are acknowledged by Dr. Denis Dempsey Donovan, King Street, Cork, Treasurer to this fund:

	£	s.	d.
Dorset and West Hants Branch	3	3	0
South Wales and Monmouthshire Branch... ...	5	0	0

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS, ENGLAND, AND THE COUNCIL OF THE COLLEGE.

THE Committee of the Association of Fellows applied a short time ago to the Committee of the Council of the College appointed to discuss with the Fellows the proposed changes in the charters to receive a deputation. The President of the College has appointed June 10th, at 4 P.M. The Committee of the Council over which he presides consists of Mr. R. Harrison and Mr. A. Willett, Vice-Presidents; Mr. T. Bryant, Mr. H. G. Howse, Mr. W. Rivington, Mr. J. Tweedy, and Mr. H. Morris. The following are the alterations and additions in the charters which the Association of Fellows will advocate:

1. That it shall be lawful for the Fellows in meeting assembled to ap-

point an annual committee, or other committees, to consider and report on subjects referred to them, and to confer when necessary with the Council of the College.

2. That the President of the College shall be elected by the Fellows from among the past or present members of the Council at the meeting in July.

3. That no alteration in the constitution and external relations of the College shall be effected without the consent of the body corporate, convened to discuss such alterations.

4. That the system of substitute members be abolished.

5. That members of Council shall not be eligible for re-election after serving for two consecutive periods.

6. That the Council shall have power to increase the number of members of the Court of Examiners from ten, as now limited, to any number not exceeding twenty.

7. That the meetings of the Fellows, the election of the President by the Fellows, the limitation of the term of eligibility to office of the members of Council to two consecutive periods, and the annual meeting of Fellows and Members for the reception and discussion of the report of the Council, shall be provided for in a new charter, and the conduct of the meetings and other matters referred to in the above clauses shall be regulated by by-law.

8. That members of the Court of Examiners of the Royal College of Surgeons of England shall be elected annually, and that no member of the Court shall hold office for more than five consecutive years, and at the expiration of this term he shall not be again eligible till after a period of two years have elapsed.

Thus it will be seen that in this programme of suggested changes certain radical measures are recommended, and it remains to be seen to what extent they will meet with the approval of the Council of the College.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ACCRINGTON MEDICAL DISPENSARY.

We have received an account, extracted from the *Accrington Gazette*, of a dispute which has occurred at the above institution, and which has led to the resignation of its medical officer, secretary, and president, and its entire reconstruction on a new basis. The dispensary is not one which we should reckon as a "provident dispensary," but is rather of the nature of a sick club. Its members combine, on a certain subscription, to procure for themselves a doctor, who engages to attend them on the terms of receiving 95 per cent. of the subscription, leaving the odd 5 per cent. for printing and other small expenses; of course the doctor finds the drugs and surgery.

This strikes us as a purely private arrangement. The doctor has the same right to make his own terms with this body of patients as he would have to make similar terms with any one of them. If those terms are disgracefully low, he is "underselling" his fellows, exactly in the same way as the men who keep 6d. "dispensaries" which they call "provident," and which do so much harm to the genuine provicent movement. But the whole arrangement neither is nor professes to be in the nature of charity. The doctors, therefore, have clearly the right to state their own terms, and to decline the business if those terms are refused.

The point on which this dispensary has broken up is that the gentleman who has been medical officer, and who is also in private practice, declines to continue unless a wage limit of 30s. a week (which, if we understand right, is at present in force) is strictly adhered to, and all persons whose wages exceed this limit excluded from the dispensary. The institution is, therefore, now to be reformed, a doctor is to be appointed or hired who is not to be allowed private practice, and the club is to rent its own premises, and, we presume, find its own drugs. Of course, if the subscription is sufficient to afford the doctor the means of decent living, no one can have a word to say against it, but we can hardly see how this can be, for the statement of the old institution's business gives only £25 paid to the medical officer, of which the drugs cost within a few pence of £100, and as the new institution has to find premises, the salary to the new medical officer must be still lower. Now, if a man contracts to do duties for less than the fair remuneration, everyone must see that some underhand dealing will be resorted to in compensation.

We confess that we look on this reformed, or transformed, institution with grave suspicion. The "sweating system," bad as it is when used for procuring anything less necessary for life, is trebly bad when applied to medical attendance, with which life itself is involved. Medical clubs are far better advised in paying adequate fees to doctors of established reputation than in trying for how little they can procure the services of anybody that may come to hand, with no guarantee for character, experience, or sagacity.

In saying this we do not offer any opinion on the proposed wage limit, as we have no knowledge of the local circumstances.

INDIRECT ADVERTISEMENT.

Mr. Robert W. Doyne, F.R.C.S. (Oxford) sends us a letter on this subject, in the course of which he states that he received recently a circular appeal for funds, apparently issued far and wide, on behalf of the Samaritan Hospital. It drew attention to the great success of the staff in dealing with ovarian and other tumours, and all diseases peculiar to the sex, and accompanying this was a leaflet giving the names of the staff. "I do," he adds, "not for a moment suppose they were in any way directly concerned in the drafting of the circular, but they cannot escape from a large measure of indirect responsibility for permitting its issue." He also refers to the practice indulged in occasionally by medical men, but especially by specialists, of writing letters on technical subjects to the daily press. He mentions also the puffing of a particular medical man by a lay paper, and observes that even *Punch* is a gross offender, "the repetition of the offence," he thinks, "going a long way to prove that there has been no protest on the part of the medical man concerned." He mentions also the question of medical bulletins, as to which we published a carefully considered opinion on January 6th, 1894, p. 26. He thinks that where such announcements are deemed necessary they should be made by the family of the sick person.

COMPETITION AND FAIR PLAY.

Fair Play.—Misleading to the visitors and unfair to his brother practitioners, as, under the circumstances stated, we cannot but hold A.'s alleged conduct in relation to his outdoor assistant to be, we know no effective remedy therefor other than an appeal to his sense of fair play; for any invidious appeal to the licensing bodies (as hinted) for an enforcement of their disciplinary laws for the correction of a moral wrong, would be rightly rejected.

We would note, moreover, that if the list of medical men (including the assistant in question), with their degrees and titles appended, is inserted in the local newspapers, at the request or with the assent of the practitioners themselves, such would constitute a grave deviation from professional etiquette, and subject them to criticism for unprofessional advertising.

MIDWIFERY ENGAGEMENTS.

Rusticus.—That the patient in question had a right to cancel her obstetric engagement with our correspondent, by whom intimation of such intention was received, we entertain no doubt. Any attempt to enforce payment of the midwifery fee would be probably unsuccessful, and tend moreover to endanger him professionally.

MAGISTRATES AND THE LUNACY LAW.

A. I., M.D., writes: A few days ago I was sent for to London to see a relative who was suffering from acute mania. The doctor who was attending her considered it necessary that she should be placed in a home for the treatment of mental diseases, and at his suggestion the second certificate was signed by a medical man who had previously attended the lady.

As under the new Lunacy Act I was compelled to seek the assistance of a magistrate I applied to one living in the neighbourhood in which my relative resided. After I had explained the case the magistrate told me that he only filled in these orders after the cases had been seen and certified to by his own medical attendant. This, I told him, I did not think necessary as the patient had been seen and certified to by two well known practitioners in London, and I did not see the necessity for putting the patient to extra expense, and also I considered that it would be discourteous to the two medical gentlemen who had already seen the case to call in a third opinion. The magistrate said he was not compelled to fill up the papers, and as he made it conditional on his own medical attendant seeing the patient I left, and applied to another magistrate, who signed the order without making any stipulation.

I should like to have your views, firstly, as to whether you consider a magistrate is justified in refusing to fill up the papers as required by the new Lunacy Act, unless he can show that there is irregularity or a want of compliance with the law? And, secondly, whether it is not somewhat irregular and going beyond the requirements of the Act for a magistrate to insist upon a third opinion, that opinion being given by his own medical attendant?

*** The magistrate was clearly going beyond the Act in insisting that his own medical man should see the case. Unfortunately the magistrate can refuse to sign the order even though his conduct may not be justifiable. The case is only one among many others of magistrates shirking their duty.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.

Infant Life Protection.—The Earl of Onslow presented a Bill to amend the Infant Life Protection Act.—The Bill was read a first time.

HOUSE OF COMMONS.

The Importation of Adulterated Butter.—Sir R. Paget asked the President of the Board of Agriculture whether his attention had been called to the case of Hawkins *v.* Williams, reported in the *Times* of May 21st, whether the charge failed in consequence of the retail vendor claiming the protection of Section 25 of the Food and Drugs Act, 1875, and proving that the adulterated butter sold by him had been purchased with a written warranty of quality, the invoice sent by the importer bearing the words "guaranteed pure;" and whether he would, with a view of protecting the public, insure that examination should be made at the Custom House of all butter imported, in the same manner that examination was now carried on at the Custom House in the case of tea?—Mr. Gardner said he had read the *Times* report of the case referred to. With reference to the suggestion made in the concluding paragraph of the question, he might say that arrangements had been made by which samples of butter would be taken at the ports of importation and analysed by the principal chemist of the Government laboratories. A certain number of samples had, in fact, already been taken, and he was in communication with the Treasury and the Board of Customs with a view to the settlement of the course to be be pursued in the event of its being found that any offences under the Sale of Food and Drugs Act, and Margarine Act, and the Merchandise Marks Acts, had been, or were likely to be, committed.

Public Health Acts Amendment Bill.—This Bill was withdrawn.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 8TH, 1895.

COMPULSORY REGISTRATION OF MIDWIVES.

As all our readers are probably aware, a Bill has been brought before Parliament to be intituled An Act for the Compulsory Registration of Midwives. The subject is one of considerable interest to all medical practitioners. We do not propose, however, in this instance to discuss the question of the necessity or expediency of the measure, or the reasons which have led to its promotion.

This is a matter which has provoked much controversy, and we do not hesitate to say that there is but little present hope of any unanimous feeling on the subject. But it appears very desirable that the provisions of the Bill should be examined carefully with the view of considering its general scope in the event of its being passed into an Act. We have therefore obtained the views of a lawyer of great experience in all legal matters touching medical interests. He writes in the following terms :—

By the Bill, which it may be noted is not intended to apply to Scotland or Ireland, it is proposed to establish a compulsory registration of midwives (the term "midwife" being defined to mean a woman who undertakes to attend cases of natural labour without the direct supervision of a medical practitioner) also a register of such "midwives" and a "Midwives Board" for the purpose of carrying out the provisions of the Act subject to the General Medical Council. There are clauses prohibiting the unqualified assumption of the title of "midwife" by any unregistered person, under a penalty not exceeding £5 on summary conviction. In this respect it will be seen that the proposed Bill follows the provisions of the Medical Acts by prescribing a penalty against the unqualified assumption of title, while it imposes no penalty on unqualified practice as such.

This being so, there would seem to be nothing to prevent a person calling herself a "monthly nurse" undertaking the duties which are proposed to be conferred upon midwives, so long as she kept herself within the pale of the law as it at present exists—that is practically to say, so long as such person is not found to have failed in the duty which she had undertaken to perform or is not proved to have shown a gross want of care or a gross and culpable want of skill. There is nothing to prohibit the unqualified practice of midwifery by any person according to the English law, except that no fees can be recovered, and except that injury must not arise from gross neglect or want of care or skill. It may be doubtful whether any such provisions for the prevention of the unqualified practice of midwifery would be sanctioned by the Legislature; but it must be borne in mind that the Bill is practically creating a separate licence for the exercise of a branch of medicine hitherto confined to medical practitioners, which may give rise to an increase of unqualified midwifery practice, having regard to the fact that there will be very many persons who will not be able to detect the technical difference between a qualified and an unqualified midwife.

The privileges of a woman registered under the Act are, shortly, to enable her to act as a midwife in England or Wales, and to recover fees therefor. The certificate of registration will enable her to act as a midwife in cases of natural labour only, and will not qualify her to grant a certificate of death or of stillbirth. What will result in a case of stillbirth with natural labour it is difficult to determine.

What seems to be an omission in the Bill is the fact that if a certificated midwife exceeds the powers with which she is invested, she is not made subject to any penalty except, perhaps, the removal of her name from the register. The Act provides a saving clause for existing midwives, that is, any person who is in *bonâ fide* practice as a midwife at the passing of the Act, or has obtained a certificate in midwifery from some hospital or workhouse infirmary, or from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be approved by the General Medical Council. This provision needs very careful consideration and perhaps revision in order to prevent the registration of any person who may be without any qualification or sufficient qualification.

It will be observed that certificates which may hitherto in some cases, have been granted without express statutory authority will be duly confirmed.

The Midwives Board is to consist of twelve medical practitioners, three appointed by the Royal College of Physicians of London, three by the Royal College of Surgeons of England, three by the Society of Apothecaries, and three by the Incorporated Midwives Institute, and among other powers to be vested in the Board is a power to frame for approval of the General Medical Council rules regulating the admission to the register midwives already in practice, and for regulating the practice of midwives, and deciding upon the removal from the register of any midwife "for cause shown."

The offences for which the name of a midwife may be removed should be defined. The clause as it stands seems vague and uncertain in its meaning.

The Midwives Board is also to frame the rules for examinations subject to the approval of the General Medical Council, including the course of study and the general standard to be attained, and provision is made in case the General Medical Council shall decline to act. Then follow the provisions relative to the establishment of a register of midwives and its publication; then a somewhat extraordinary provision, imposing upon the medical officer of health or other registered medical practitioner appointed by the local authority the obligation to supervise the midwives in his district, and to report to the Board any cases of malpraxis, negligence, or misconduct on the part of a midwife which should come to his knowledge. For these services, however, he is to be remunerated by the Midwives Board

as the Board shall determine. This clause also seems to require grave consideration, as it will impose on the medical officer of health a somewhat invidious duty, and one which he might find very detrimental to his interests to be compelled to exercise. Any offence under the Act is punishable on summary conviction, and a prosecution is not to be instituted by a private person except with the consent of the Attorney-General, but may be instituted by a county council or council of a municipal borough, and an appeal from any order by a person aggrieved is provided for.

Great doubt must be felt as to whether prosecutions against midwives under the Act would be very extensively resorted to. The proceedings are similar to those provided by the Medical Act, 1858, in the case of unqualified assumption of medical titles, and we all know the difficulties attending such proceedings and the reluctance to prosecute, and although in the present instance a prosecution may be undertaken by a specially nominated public body, there might be reasons for such body not incurring any great expense in these prosecutions. It seems that prosecutions should be instituted by the Midwives Board, who should be authorised and required to prosecute on any *primâ facie* evidence of an offence under the Act being shown to have been committed, even if not in case of any unqualified practice of midwifery.

The provision requiring the consent of the Attorney-General to any prosecution by a private person would probably be an effectual deterrent against any private person ever commencing a prosecution. It appears also that the scope of offences should be enlarged so as to include the imposition of a penalty on any registered midwife who has exhibited a gross want of skill or care (and where injury has resulted to the patient or the child), or who has acted without medical supervision in cases where such medical supervision is clearly indicated as being requisite, or who has granted a certificate of death or of stillbirth, or who has assumed a title implying that she is qualified to practise medicine or surgery.

A subcommittee of the Parliamentary Bills Committee is now engaged in examining the Bill closely, and a report upon it will be presented as soon as possible. Meanwhile, the subcommittee, of which Mr. Victor Horsley is chairman, invite communications from individual members of the Association dealing with various points in the Bill.

SPECIALISM IN ART CRITICISM.

Specialism has become an admitted necessity of our time. While we require broad and comprehensive minds who will co-ordinate scattered strands of knowledge into one consistent whole, progress goes along definite lines of individual research, each one of which demands lifelong devotion. Even every disease must have its family microbe, which breeds and works true, and contracts no matrimonial alliance with its rivals. And the general public are now so used to this principle of exclusive dealing, that they decline to deposit their guineas in Harley Street or Brook Street unless they are well assured that Mr. or Dr. So-and-so is the best man for "my particular complaint."

This, however, is the merest commonplace, and must serve as the introduction to a plea for more specialism in a department which may at first sight seem to have only a remote connection with our own.

We mean that of art, and little reflection can be needed to show how close and intimate is the connection between painting and sculpture and those branches of professional work which are usually recorded in our columns. Anatomy, physiology, and medicine touch them at every point, and our object in these observations is to ask for light and leading from authoritative sources on this undoubted but usually overlooked connection. The days of the ordinary art critic will soon be numbered. The conscientious Royal Academy tourist is beginning to have his own ideas about artistic merit, and resents as much as artists have always done the superficial dogmatism of purely literary men, who claim to instruct them on art matters, for it is not unnatural that practical experts should hold in slender esteem the opinions of mere theorists whose want of technical familiarity with the mysteries of painting is barely concealed by a dexterous manipulation of a few cant phrases picked up in Paris studios. When "they talked of their Raphaels, Correggios, and stuff," the great Sir Joshua "shifted his trumpet and only took snuff," but Apelles listened with respect to the opinion of the "sutor" on the set of his shoe lace, and we therefore hope that someone may take up the running at the point where we leave it and give us some good practical special "tips" on the technical lines which bind art to science. Probably our readers may remember an article by Frank Buckland in the early days of *Land and Water* where he reviewed the Royal Academy from the naturalist's standpoint, and more especially commented on the absurdly insufficient size of the "pigeon's wings," which were expected to sustain various mythological personages in their flights above mother earth.

Ruskin, again, used to dwell with enthusiastic admiration on the geological knowledge shown by Cooke, and by Dyce in his "Pegwell Bay," and he also draws special attention to the slip-slop disregard of natural form as shown by the older landscape painters as compared with the careful study of botany and tree form which characterises the works of their modern rivals. We suggest to our anatomical friends that they should go round the Royal Academy rooms arm-in-arm with some experienced artists, and combine with them to give us a judicious mixture or blend of the two qualities. The field is composed of almost virgin soil, for the already existing literature is both scattered and unattractive. Marshall's excellent book is too dry for outsiders, and Sir Charles Bell merely touches, though with suggestive and capable hand, the fringe of the subject. We should probably get most nourishment out of Haydon's lectures, which, admirably illustrated as they are with the broad and rapid strokes which he used to reproduce in coloured chalk on the blackboard, are full of ideas and suggestive reflection. As material for future thought we would start this as a preliminary point. In how far is it desirable or even necessary that artists should be familiarised with the structure of the human body by actual dissection? Is it really advisable that they should peep through the skin or the coat in order to follow the origin and insertion of muscles, or track out where they go and what they do? Is it not sufficient that they should learn to draw and be able to reproduce what they actually see before them; and is it ot

the case that the use of the scalpel predisposes to an ostentatious and exaggerated display of muscular action which often seems overdone and out of place?

The Greeks can hardly have had an opportunity for dissection, and yet no one has equalled or approached the learned, reticent, yet at all times amply sufficient display of muscular action which their statues afford. On the other hand, Michael Angelo, as we are told by Vasari, had been given by the Prior "a room wherein he dissected many dead bodies, and zealously studying anatomy, began to give evidence of that perfection to which he afterwards brought his design;" and what was the result? In some of his principal statues, the figures are so overladen with oppressive and superfluous flesh that unless some of its solidity could be induced to melt, unaided locomotion would seem to be well nigh impossible.

Between these two extremes we find many gradations, and we may congratulate some modern sculptors, and more especially Messrs. Onslow Ford and Thornycroft, on their graphic, yet judicious, appreciation of anatomical landmarks. The latter has shown great skill in his representation of active movement in the "Joy of Life"—although an irreverent mind might ask whether the sudden diving grasp at the hem of her skirt does not suggest the accentuation of her own appreciation of the pleasure of life by abruptly terminating that of a flea.

One or two anatomical points are worthy of special mention. The sterno-mastoid is usually much in evidence, and its over accentuation rather spoils what in other respects is the best lady's portrait in the Royal Academy—Miss Pember, by Shannon. The flexors and extensors of the forearm and the gastrocnemius and deltoid are dear to the artist's soul, and if anyone wishes to see and to study a really admirable display of muscular action on an elaborate scale, he may be advised to visit the Guildhall and look at Poynter's Catapult. Perhaps in return for this recommendation the accomplished Director of the National Gallery will tell us whether he has ever dissected the human body, or whether he has merely gone skin deep, or barely that, in his investigation of the motor forces which he has so effectively portrayed. And this brings us to another interesting and insufficiently-considered point—the rarity of sound and healthy flesh tints in modern art. Nor, as a general rule, have we much to learn from the ancients. Some of the greatest among them suggest in their rendering of an ordinary complexion anything from Dutch cheese to jaundice and Addison's disease. And as Jupiter sometimes nods, we occasionally marvel at rather than admire the sickly green of incipient decomposition occasionally affected by Watts, and the combination of wax and dough and paint and enamel which ornaments the canvas of the routine portrait painter. Broad flat washes of various conventional tints too often do duty for the infinite variety of colour and modelling which go to make up an average face, and the result is monotonous in the extreme. Some of the canvases hung in the Academy might serve to advertise the latest soap speciality; others suggest aloes and iron, and we leave to our obstetric colleagues the congenial task of prescribing the appropriate remedies for the vague, weary, and unsatisfied yearnings of Burne Jones's maidens, who with depressed noses and spirits make their sad procession along his canvas.

As an illustration of what we mean by physiological flesh painting, go to the Guildhall and look at Rembrandt's "Mother," and compare the subtile and complex modelling and the elaborate network of creases and wrinkles with the flat coppery wash which has this year, and we hope not for longer, replaced Fildes's old beautiful colouring. But Ouless in his "J. Watson" can hold his own in any company. Whether we stand back as far as the crowd will allow us or examine this picture closely all seems right and true and in its place. There is here no decorative flatness, but we can trace out the little artistic dabs of yellow and the clusters of dilated capillaries and the shaved blueness of the cheeks, and the rolling throat imperfectly attacked by the razor, and the difficult bit of country between the lower lip and the chin, where shaving is often difficult, and seems, on this occasion, to have been impossible. All these things, to our mind, combine to make up true physiological art, and we have here the living, and almost moving and breathing, presentment of a sound and healthy human being, who uses, but not abuses, life and its good things, and slips smoothly along the pathway of life undisturbed by cranks or fads.

In sharp contrast to this is Holman Hunt's solitary contribution to the New Gallery, where the cyanotic hue irresistibly suggests an open foramen ovale, and Watts's "Jonah," which is evidently an object lesson after the manner of Alexis St. Martin, so dear to the old-fashioned physiological student's heart. The effect of the gastric juice of the whale on the human tissues is given with startling fidelity, and the partially-corroded face and distorted arms give terrible evidence of the strength of the digestive fluids in a creature whose mammalian origin used to puzzle natural historians of less scientific days. Watts, in his "Charity" in the New Gallery, gives us a well painted goître. There is a capital example of rickets in one member of a family group in the Royal Academy.

One more suggestion before we conclude. Why should not some clever artist do for pathology and medicine with the brush the same service as Conan Doyle in his *Red Lamp* with the pen? Each of these stories might be a clinical lecture; and following Sir Charles Bell and Carswell and others, why should we not have graphic and dramatic pictures, say, of the exanthemata and some leading types of nervous disease? We have heard that the late Pellegrini once began to make studies in this direction, but was deterred by the depressing nature of the work, and we only get an occasional bedside glimpse, as in Fildes's "Doctor" and Henriette Brown's "Sick Child;" and the contrast so freely used by the older-fashioned subject painters of a consumptive girl sitting mournfully in a chair with the exuberant life of her companions.

MR. HERBERT SPENCER ON THE EVOLUTION OF THE MEDICAL PROFESSION.

Continuing his studies of professional institutions in the *Contemporary Review*, Mr. Herbert Spencer this month traces the evolution of the physician and surgeon. He points out that in early societies the two functions of priest and doctor are normally united in the same person, the origin of the union lying in the fact that the primitive priest and the primitive medicine man both deal with supposed supernatural beings. Diseases are believed to be caused by

indwelling demons who have either to be driven out by making the body, figuratively speaking, too hot to hold them, or to be ejected by superior spirits whose aid is invoked. Mr. Spencer finds survivals of this primitive etiology in the verdict "Died by the visitation of God," and in the offering of prayers for the sick. In connection with this subject he takes occasion to recall the fact that when, some years ago, it was proposed to divide hospital patients into two groups, for one of which prayers were to be offered, and for the other not, the proposal was "resented with indignation," and he asserts that the refusal to accept this challenge was due to the fear of bringing the belief in the "curative effect of prayer" to the test of facts. Sir Henry Thompson, if we remember aright, offered to try the experiment in his wards. Mr. Spencer apparently sees nothing offensive to the religious mind in such a proposal, but he would probably "resent with indignation" an invitation to discuss the nature of the Unconditioned with a Sunday orator in Hyde Park. Moreover, even a philosopher, if he had the saving sense of humour, would admit that hospital authorities might not unreasonably object to the institution for which they are responsible being made the scene of an experiment calculated to give the greatest offence to many of their subscribers. Mr. Spencer traces the idea, which still prevails among the uncultured, that a medicine is efficacious in proportion to its nastiness, to the belief in the diabolical theory of disease causation, and the methods used by the priestly mediciners to drive forth the fiend responsible for the trouble.

The separation of the medical from the sacerdotal function was gradually effected by the growth of civilisation. The practice of medicine, however, continued to be largely in the hands of ecclesiastics till the fifteenth century, both in France and in England. It was only when a papal Bull, promulgated in 1452, gave the physicians of the University of Paris permission to marry that the clerical practice of medicine began to decline.

In this country the practice of medicine was still to some extent in the hands of the clergy in 1456. Mr. Spencer adds that "it is alleged that down to the early part of our own century there remained with the Archbishop of Canterbury a latent power of granting medical diplomas," evidently being unaware that the power in question was only taken from the Archbishop by the Medical Act, and that a holder of the Lambeth M.D. died only a few months ago.

The division of professors of the healing art into physicians and surgeons Mr. Spencer holds to be not the result of differentiation, but the maintenance of a distinction which asserted itself at the outset; the physician's province was the cure of evils inflicted by supernatural power, while the surgeon had to deal with injuries caused by human beings, by beasts, and by inanimate things.

The separation between the two branches was accentuated in Christian times by the canon law forbidding ecclesiastics to shed blood; hence clerical practitioners of medicine had to call in the aid of secular hands to perform any operations which were necessary. It was further increased—though this point seems to have escaped Mr. Spencer—by the feudal notion as to the degrading nature of anything savouring of handicraft; hence physicians claimed to be beings of a superior order to surgeons, whom they affected to look upon as mere artisans. The supposed greater dignity of the physician was for centuries more or less meekly accepted by the surgeons as well as by the public, and it can hardly be said to be altogether extinct even now. At the funeral of the Duke of Wellington, in 1852, physicians were admitted to St. Paul's, but surgeons were excluded. Of differentiation within the profession itself, Mr. Spencer of course finds abundant evidence in the specialisation which had already reached a high degree among the ancients, and which now threatens to end in a portioning out of the body into minute allotments, each with its own cultivators.

In conformity with the normal order of evolution, integration has accompanied these differentiations. Schools are established, unions and associations are formed, and medical journals are founded—all to safeguard the rights and promote the interests of the profession. From incorporation of authorised practitioners springs jealousy of the unincorporated. "Like the religious priesthood, the priesthood of medicine persecutes heretics and those who are without diplomas." Such a sentence, especially taken in conjunction with another passage in which he implies that the success of bonesetters is often greater than that of qualified surgeons, might lead a hasty reader to suppose that Mr. Spencer has a certain sympathy with quacks. The truth is simply that he looks both at licensed and unlicensed practitioners with the impartiality and detachment of the philosopher.

Her Royal Highness the Princess Christian has graciously consented to become President of the Ladies' Committee at the forthcoming annual meeting of the British Medical Association in London.

THE ALLEGED CASE OF CHOLERA IN LONDON.

With reference to the alleged case of cholera which was reported to have occurred at Hoxton last week, and on which an inquest was held by Dr. Wynn Westcott on June 4th, Dr. Klein informs us that neither in pathological nor in bacterioscopic respects was there any evidence of the case being Asiatic cholera.

IMMUNITY TO SNAKE BITE.

At the meeting of the Edinburgh Royal Society on Tuesday last, under the presidency of Lord Maclaren, Professor Fraser, Edinburgh, made a communication of the greatest importance on the rendering of animals immune against the venom of the cobra and other snakes, and on the antidotal properties of blood serum of immunised animals. Professor Fraser has been working at this subject since 1889.

PORTRAITS OF THE HUNTERS.

The portrait of John Hunter, by Home, and that of William Hunter, by Pine, which have lately come into the possession of the Royal College of Surgeons from the family of the late Mr. W. Hunter Baillie, have been thoroughly cleaned and reframed. The pictures now hang in the entrance hall, and make a valuable addition to the collection of paintings at the College. The picture of John Hunter, senior, which was lent by Mr. Hunter Baillie to the Hunterian Exhibition is also now the property of the College: this has also been repaired and suitably framed.

PLAGUE IN HONG KONG.

Our Hong Kong correspondent writes, under date May 1st: Four cases of bubonic plague were found in one house, in the heart of the city, on April 28th, 1895. The date of the reappearance of plague is, almost to a day, twelve months after the original outbreak in 1894. The disease has been

reported from all the surrounding towns and villages on the mainland: in no case is it said to be epidemic, but here and there a whole household is swept off. On board several ships carrying Chinese emigrants two or three cases of plague have occurred during the month of April. Of the four cases met with in Hong Kong, three were immigrants. There is no scare or alarm, the general belief is that a few cases will occur here and there but an epidemic is not anticipated.

THE HEALTH OF OSCAR WILDE.

MANY rumours have been spread abroad in regard to the health and treatment of Oscar Wilde, now confined in Pentonville Prison. They are, however, absolutely without foundation. Notwithstanding all that has been said, it is the fact that Oscar Wilde is in good health, and is not in the infirmary. It is impossible to avoid a feeling of indignation at the reckless diffusion of such unfounded stories as have been lately current. When once the prison doors close on a prisoner he is cut off from the world, and nothing that can be said can either aggravate or lighten his punishment. It is otherwise, however, in regard to his perfectly innocent relatives. For three months they are absolutely debarred from all communication with him, if they write their letters are returned, and he is not allowed to send a message or word of any sort. Under these circumstances it is hard that the feelings of relatives should be so gratuitously harrowed by an irresponsible press.

ANTHRAX IN LONDON HORSES.

IN the current number of the *Journal of Comparative Pathology*, Professor Penberthy, of the Royal Veterinary College, contributes a short article drawing attention to the occurrence of several fatal cases of intestinal anthrax in horses in London during the present year. Of the domesticated animals in Great Britain this disease most commonly affects cattle, and is usually regarded as belonging to country districts, where it is often enzoötic. We believe this to be the first published record of anthrax in the horse in London. The returns under the Contagious Diseases (Animals) Act make no mention of such, though the writer of the article states that he has long held the opinion that some of the rapidly fatal bowel affections of horses were anthrax, and that since 1889 he has often verified its correctness by microscopic examination of lesions submitted to him, and further this experience supports the conviction that lately the disease has been on the increase. The lesions in the eight cases cited were intestinal and similar, indicating that the affection is induced by ingestion of spores of the anthrax bacillus. In half the cases it was ascertained that the horses were fed on imported fodder, or bedded on foreign litter, which have lately been in great demand on account of the scarcity of home produce. The majority of cases of anthrax in man in London are associated with the manufacture of hides, but in occasional instances no such connection can be traced. Anthrax in men employed as horse slaughterers in London is not unknown, and a recognition of the occurrence of the disease in London horses is important, and may account for some human victims in whom the source of infection has been obscure.

THE ALDERSHOT SEWAGE MARSH.

THE answer of the Secretary of State for War in the House of Commons on May 30th admits that without any doubt sickness has been caused by the sewage farm at Aldershot; but he says that "it is not known that any case of death can be attributed" to it. In view of this it may well be asked: If enteric fever is acknowledged, why not the fatal termination in any case? If the existence of the sewage farm "contaminates the earth, the air, and the water," as has been officially notified by one medical officer of health, while another of distinguished ability has pronounced it "noxious," and has expressed "astonishment that the War Office permits it to exist close to the camp," the time has arrived when *pourparlers* should cease and the hands of the War Office be forced to remove immediately a danger to public health, in both a military and civil sense. With reference to Mr. A. C. Morton's further inquiry as to the friends of officers ill with enteric fever defraying the expenses of medical attendance and nursing, and requesting a refund from the War Office, we are in a position to state that the facts are absolutely correct, and apply to the cases of officers taken ill in the officers' quarters, Marlboro' Lines, North Camp, within a few yards of the sewage farm; and further, that the refund was refused, although precedents existed in the Irish Command, where officers recovered the expenses attending illness solely attributable to insanitary conditions of the barracks occupied or the surroundings of these barracks, under War Office control. It is most regrettable that, in face of the repeated comments we have made for some time past on this dangerous nuisance, its removal is made subservient to "negotiations" which "are proceeding."

SHELL FISH AND ENTERIC FEVER.

DR. NEWSHOLME'S annual report for 1894 contains some interesting information as to the incidence and causation of enteric fever in Brighton last year. He shows that this disease has steadily declined in prevalence during the last twenty-five years. During 1894 83 patients were notified as having enteric fever. Of these, 15 were subsequently found by their medical attendants not to have this disease, and 15 others were imported into the town. This leaves the origin of 53 cases to be accounted for. Dr. Newsholme goes on to remark that a careful and exhaustive inquiry into the circumstances attending the onset of these 53 cases led him to the conclusion that 15 of them were caused by sewage-contaminated oysters, and that 6 cases were ascribable to other contaminated shell fish eaten in an uncooked condition. Of the latter, 1 was caused by clams, 1 by cockles, and 2 by mussels, which in each case were eaten raw. There still remain 32 cases to be accounted for. Of these, in 7 no definite history was obtainable, and in 25 shell fish as a cause was excluded. Summing up the general result of his inquiries, Dr. Newsholme states that at least 40 per cent. of the cases of enteric fever originating in Brighton during 1894 were ascribable to sewage-contaminated shell fish; and he warns the public of Brighton of the practical bearings of this serious statement. We may quote the further remarks made by the health officer for Brighton: "Since my investigation of the majority of the cases above alluded to, the question of the transmission of enteric fever through the medium of sewage-contaminated shell fish has received a large amount of notice both in the medical and lay press. A special inquiry into the subject has been instituted by the Local Government Board, and it is sincerely to be hoped that it will result in legislation which will enable local authorities to cope with the evil."

NURSING OF THE OUTDOOR PAUPER.

THE medical officers of the workhouses in various parts of the country are urging upon the guardians the importance of the efficient nursing of the sick and infirm in their own homes, and suggest the appointment of district nurses for that purpose. We have constantly urged this course, agreeing with the late Dr. Joseph Rogers that the generous administration of medical relief leads to the reduction of pauperism, and we have a vision of the time when the country workhouse shall be the centre of the medical service for the poor, properly equipped with its staff of nurses, means of itinerating among the outlying villages, and its well-appointed ambulance for removals to the workhouse infirmary. In the towns we have the same vision of the district nurses, attached to the union and working in each district under the medical officer. The work of the medical staff is incomplete until it is supplemented by the services

of the district nurse; indeed it is reckless waste of time and drugs to send the doctor to the patient without ensuring that the treatment he prescribes shall be carried out under skilled supervision. The aim of all Poor-law officials is to keep the poor from becoming paupers, and the most frequent cause of coming on the rates is sickness, drifting from acute to chronic, because there was no one at hand to nurse and carry out the doctor's orders. Rural sick nursing is a problem, but this plan has always appeared to us as offering a solution of the problem.

THE SICK POOR IN PROVINCIAL WORKHOUSES: WEST DERBY UNION, LIVERPOOL.

Our Commissioner lately visited two of the three buildings in which the sick poor of this union are nursed, and a detailed report will be found in another column. At the Belmont Road Test House such cases of infirmity and illness as occur among the aged and able-bodied inmates of the workhouse—and among the tramps—are treated in two blocks attached to the main building, while the Mill Road Infirmary is purely a hospital as that term is generally understood; and as a hospital it is appointed and nursed. There are a few details in which, says our Commissioner, the trail of the workhouse is still visible, but, as they are not specified, it is clear that they do not affect the general excellence of the whole administration, and may safely be left to be successively amended by an enlightened Board. The Belmont Road buildings, being partly given up to the able-bodied and the vagrants, the hospital blocks are rather more affected by workhouse traditions; there is pauper attendance, though under trained supervision. Here, too, the trained nurses work under an untrained matron. However, the sanitary appliances, sick comforts, etc., are up to the hospital standard. We congratulate the guardians on the excellent example they are setting in the matter of the treatment of the sick pauper.

THE KEG-MEG BUTCHER AND THE PUBLIC ABBATTOIR.

In the advertisement columns of a provincial newspaper the attention of "farmers and others" is directed to the announcement of a certain "dealer in live and dead cattle," who slaughters cattle on the premises, removes them at the shortest notice, and "takes all risk and responsibility of all cattle entrusted to him." The practice of the "keg-meg" butcher so desirous of taking all risk and responsibility is well known to the initiated. He exists, and sometimes appears to flourish, in almost every district in the kingdom. Without him it would be most difficult to dispose of the carcasses of diseased animals "killed to save their lives," while with his help it is sometimes possible for an unscrupulous owner to get into the market meat of animals whose death was not due to human interference. The occasional heavy fines imposed appear to have little terror for him, at least not enough to deter him from plying his nefarious trade. The boldness indicated by such advertisements as the above may be taken as some measure of the elasticity of his conscience. While such establishments are allowed to exist, and attention so attracted to them, flesh consumers in large towns must be content to run the risk of feasting off carcasses of animals dying of, or slaughtered while suffering from, disease. In country districts the opportunities afforded to men of this class are by no means uncommon. Carcasses of questionable character are usually consigned to large centres, and once in our markets, after the manipulations in which these men are experts, with our present system of inspection the chances are in favour of the flesh passing to the consumer, who has no means of detecting the dangers to which he is exposed. If all slaughterhouses were under proper control, and all meat and viscera of animals providing it subjected to competent inspection, the practice would cease and the danger be averted. It is a reflection on our sanitary system, and little short of a public scandal that, with a population pre-eminently flesh-eating, there is practically no systematic effort made to ensure the purity of our meat supply. Some of the more wealthy or progressive corporations have acquired special powers and adopted admirable measures, but in order to afford anything like security the inspection must be national. The principle has been accepted by the Legislature granting these powers. Surely if it be right and good that the health of the population of large towns, which have the means to procure the powers, should be thus protected, it is unfair to withhold the same protection from the country at large. The abolition of private slaughterhouses and the establishment of public abattoirs in country districts may present many difficulties, but though the latter are to be desired where practicable, they are not essential in order that every carcass may be inspected. With a disposition to utilise the material which physiological and pathological science provides, there would be few obstacles to overcome in devising means of action. Reference to the recent report of the Commission on Tuberculosis will show how impossible it would be to utilise our knowledge for the public good without a national system of meat inspection.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

There is, we believe, every likelihood of a very keen contest in July, as there are about ten candidates for the five vacancies, and by next Monday, the last day for the return of applications to the Secretary, there may be more. On the other hand, some of the candidates may withdraw. It is to be hoped that neither the medical schools nor the provincial Fellows will encourage too large a number of candidates, or their respective causes will inevitably be compromised. Next week, when the time for application will be past, and the applications all sent in after due deliberation on the part of the candidates, we shall be in a better position to review the state of things.

THE CASE OF DR. LIONEL SMITH.

The great hardship which has been inflicted on Dr. Lionel Smith compels us to recur to his case, which was briefly mentioned last week. His arbitrary dismissal from an acting medical office in Western Australia upon a charge of gross professional misconduct has now been proved before a jury to be wholly unfounded. In February we ventured to call Lord Ripon's attention to the serious position in which the matter has been left by the final decision of the Judicial Committee of the Privy Council. That high tribunal, without in any way weakening the effect of the verdict, which acquitted Dr. Smith of all personal blame, has declared the law to be that, however unjust and iniquitous a civil servant's dismissal may be, he is entitled to absolutely no redress. The result is that the verdict for £200 damages and costs which Dr. Lionel Smith obtained against the Colonial Government from a Colonial jury is of no avail to him. In other words, he has been iniquitously deprived of an office under the Crown, and he has had the satisfaction of clearing his character from a very monstrous charge at a cost of several hundreds of pounds paid out of his own pocket, and he is to be content to go without any compensation. We have now before us the comments of the Colonial press, and we note that the *Australian Advertiser*, writing on March 29th, declared that they considered it would only be an act of justice if Dr. Smith were paid the damages and costs to which he was entitled by the verdict given in his favour, and commented at the same time upon the autocratic conduct which appears to have been habitual with the Governor who ordered the original dismissal. The Parliamentary Bills Committee of the Association has already invited Lord Ripon's attention to the very serious questions that arise by reason of the extraordinary insecurity of tenure

which is thus declared to attach to medical and all other offices in the colonies. We venture to repeat that it is very desirable that, by the Colonial Office regulations or otherwise, some guarantee shall be given that if the dismissal is proved to be wrongful, compensation in some form shall be allowed. To a professional man, whose character as well as his living is at stake, such an amendment of the existing conditions is so vital that we fancy the Colonial Office and the Colonial Governments generally will find it very difficult to get medical men of standing and repute to take up the service of the empire upon the terms now declared. Even, however, if this be conceded as regards appointments and dismissals in the future, there remains the very flagrant personal injustice which has been done to Dr. Smith, and we hope it is not too late to induce the Colonial Office to afford him some sort of reparation. No doubt the Colonial Government, which has by this time become independent of Downing Street, would declare that it would be *ultra vires* on its part to pay the damages awarded, now that the point of law has been decided in its favour. If it does, however, this will only throw the responsibility back upon the Colonial Office, which deliberately endorsed Governor Broome's wrongful action, and it is for it to find a solution for what, as it stands at the present, is a scandal to the public service.

THE BEDFORD BOARD OF GUARDIANS.

FROM the account of the last meeting of the Board we gather that there is a tendency on the part of some of the guardians to hush up the matters that had been dealt with by the Committee of Investigation. We shall deal more fully with this question later on; but it appears that the Board is now in an awkward position. The clerk has the sealed report of the evidence in his possession, and the Board dreads to open that sealed packet, and would, but dares not, destroy it. It committed the grave mistake of receiving a quasi-apology from the master before the report from the Committee of Investigation had been laid before them. We would warn them of the consequences of suppressing that evidence.

THE REVISION OF THE "BRITISH PHARMACOPŒIA."

Dr. TIRARD has, we hear, been invited, and has consented, to act as secretary to the Pharmacopœia Committee of the General Medical Council, and to render assistance to the President in matters relating to the preparation of the new edition of the *Pharmacopœia*. Dr. Tirard has done excellent work as honorary secretary of the Therapeutic Committee of the British Medical Association and in conducting the inquiry of that Committee into the relative frequency of employment of certain drugs and preparations. During the last ten years he has filled the office of Professor of Materia Medica and Therapeutics at King's College, and he has also acted as examiner in those subjects at the University of London and the Conjoint Board. The appointment, therefore, is in every way a good one.

PAYMENT FOR POLICE CALLS.

ON this subject a correspondent writes from Cornwall that a short time ago he was called at 1 A.M. by the police inspector of his district to visit a tramp in an outhouse four and a-half miles from his house. This he did, getting home again about 4.30 A.M., having driven nine miles and supplied advice and medicine. On sending in an account for 10s. 6d. the chief constable refused to pay, and our correspondent has not received, and never expects to receive, anything whatever for his journey and trouble. The correspondence which we publish in another column will show that this subject has been brought under the notice of the Home Secretary, and the injustice pointed out of the police authorities outside the metropolitan district being permitted to act unfairly to medical men in direct opposition to the rules which, within the metropolitan district, have been sanctioned by the Secretary of State himself. As Mr. Asquith, while not denying the facts of the case as set forth in the temperate letter of the treasurer to the Police Surgeons' Association, declines to take any steps for throwing generally on county and borough police funds expenses caused by accidents of the kind described, it becomes necessary to continue to expose in the public press the petty dishonesty of which those who ought themselves to be the guardians of the public morals are guilty when they send for a doctor without intending to pay him. *Quis custodiet ipsos custodes?* is an ancient question to which the Home Office at present supplies no answer.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of the Fellows, held on June 3rd, for the election of President, Vice-President, Secretary, and Council of the College for the ensuing year, the following gentlemen were elected:—*President:* William Thornley Stoker (second year. *Vice-President:* William Thomson (second year). *Secretary:* Sir Charles A. Cameron. *Council:* Sir George Porter, Bart., Archibald H. Jacob, Edward Hallaran Bennett, Henry Gray Croly, Sir Philip Crampton Smyly, Robert Lafayette Swan, Henry Rosborough Swanzy, William Stoker, William Ireland Wheeler, Austin Meldon, William Carte, Sir Charles A. Cameron, Frederick Alcock Nixon, Kendal Franks, Richard D. Purefoy, Charles Bent Ball, Henry Fitzgibbon, Arthur Henry Benson, Francis T. Heuston. Mr. Croly and Mr. A. Benson fill the two vacancies. Mr. Broomfield and Mr. Lentaigne lose their seats and Mr. W. Stoker and Dr. Purefoy are elected in their room. The President (Mr. Thornley Stoker) was entertained at dinner by the Vice-President and Council on Thursday last.

THE DISTRIBUTION OF METROPOLITAN HOSPITALS.

A VERY interesting suggestion to give practical effect to one of the proposals made to the House of Lords Committee on Metropolitan Hospitals has been made with a certain appearance of authority by a writer in the *Times*. As is well known, and as the report of this Committee stated specifically, by far the greater number of institutions for medical relief in the metropolis are within an area of two square miles. The Committee advised "that more hospital accommodation should be provided south of the Thames," and added that "were it possible to find the site, and were philanthropic endeavours to be made for further accommodation for the sick in London, a large general hospital, say in the densely crowded district of Camberwell, would be no doubt of extreme value." The suggestion had been made to the Committee that the difficulty on the one hand of the overcrowding of hospitals in the central districts, and on the other of deficiency in the outer zone, might be met by transplanting some one or more of the existing institutions to parts of the metropolis which at present are at long distances from any such institutions. The Committee rejected this suggestion on the ground that they could not regard it as practical. It is this scheme which it is now proposed to apply to Charing Cross Hospital. The advantages which it is claimed would flow from the translation are, first, that a large general hospital is needed urgently in the Camberwell district; secondly, that it would be to the advantage of Charing Cross Hospital, which stands at present on a very cramped site, and, owing to the competition of other similar institutions in proximity to it, has great difficulty in obtaining the necessary pecuniary support from the public, to remove to a district where it might hope to have more scope, a freer site, and a stronger local backing; and, thirdly, that it would benefit the medical profession in both districts if the out-patient department were organised on a system which would prevent the abuse of hospital relief by persons able to pay medical fees. We cannot ascertain that the proposal has been made with any authority from the present executive of the hospital, though we

believe that the matter has gone so far that it will be formally brought under the notice of the medical staff. As the Board of Management has just issued an urgent appeal for funds to carry on the work of the hospital on its present site, it is not difficult to imagine that the suggestion may not appear to them particularly opportune. But apart from any local or temporary inconvenience of this kind which may be produced, we cannot regret that the question has been raised in a concrete shape, and trust that it may be discussed fully on its merits. It would have been better, perhaps, if it could have been raised without reference to any particular institution, but having been raised it ought not to be allowed to drop until the *pros* and *cons* have been thoroughly threshed out. To the *pros* we have referred already: as to the *cons* the only two upon which any stress has hitherto been laid in the correspondence to which we refer are the inconvenience to the medical and surgical staff, the latter especially of having to proceed so far a-field for their hospital work, and that it will be more difficult to obtain efficient lay members of the Board of Management. The first is no doubt a real difficulty, but one which could and would be surmounted if it were made clear that it was to the advantage of the hospital as a medical charity and medical school that it should be transplanted. As to the second objection, Mr. Burdett, in his evidence before the Lords' Committee, laid special stress on the difficulty of obtaining capable men for hospital Boards, and the Committee endorsed this view to some extent. A third objection, the introduction of a new element of competition with ordinary medical practice in the South of London, is one which will require the most thorough consideration, and unless the out-patient department were guarded by careful regulations and provided with a reasonable guarantee that they should be loyally enforced, it cannot be expected that the members of the medical profession in London south of the Thames are likely to hail the scheme with much enthusiasm. A hospital conducted on sound principles is a boon to the medical practitioners in any town, and especially in poor neighbourhoods; but when not surrounded by adequate safeguards against abuse, it is a great evil, encouraging pauperism, and, to quote the phrase of the Committee's report, "annihilating private medical practice in the district."

THE SEMICIRCULAR CANALS.

In the Robert Boyle Lecture, delivered before the Oxford University Junior Scientific Club, Professor Crum Brown took as his subject the relationship between the movements of the eyes and those of the head and the action of the semicircular canals as a special hydrodynamical mechanism for regulating the movements of the body. He demonstrates the action of the eyes during their own movements and those of the head by means of the persistence of the images thrown upon the retina by a bright light, such as the incandescent electric lamp. By this means he shows that in the apparent smooth movements of the eyes in passing over a distant landscape the motion is not uniform, but is carried on in a series of small jerks with pauses between them. When the head is moved rapidly in one direction the eyes have to move to a corresponding extent; this movement is also carried on by a series of small jerks with pauses between them. The same phenomena are produced when the head is rotated on an antero-posterior axis. This compensatory movement of the eyes is not wholly produced by the effort of looking at things, it happens when looking at a clear cloudless sky, it happens also with the eyes shut; when the head or body is turned round the movement of the cornea can be felt by placing the finger lightly on the closed lids. In seeking for the cause of this compensatory action of the eyes Professor Crum Brown comes to the conclusion that we have in the semicircular canals a perfectly definite sense organ which acts by the increase of pressure induced by movement of the head in the membranous ampullæ; the stretching of the ampullary walls by the fluid irritates the nerve endings in the crista acustica. This theory is based on the result of experiments on ourselves, on anatomical measurements, and on observations of the effect of injuries to the labyrinth of the internal ear.

REFORMATORY AND INDUSTRIAL SCHOOLS.

THE Home Secretary has appointed a Departmental Committee to inquire as to various matters concerning reformatory and industrial schools, including rules and their application to particular schools, classification and transfer of inmates, and to report what administrative changes or amendments in the law are expedient in order to render these institutions more efficient for the object for which they were established. Such inquiry is very important and much needed, as some of the schools are punitive, and detention in them compulsory. The children sent to these schools have mostly either shown proclivity to crime, or been associated therewith by inheritance or in their early surroundings. As they are dependent, though parents may be required to contribute towards their support, they must be provided for by the State, while many of these schools are under private management, being certified and inspected by the Home Office. It was shown in a report prepared by a Committee of the British Medical Association and presented to the Local Government Board, 1891, and since published by the American Government, that the children detained in these schools present a much larger proportion of defective cases than the public elementary day schools. An account is there given of 2,000 children seen in certified industrial schools, of which number 590 presented some abnormality in body or brain condition; 6 were feeble-minded, 7 crippled, 74 had defect or disease of eyes, 270 were dull and backward, and 30 were so far deficient in bodily or mental status as to require special care and training, which, however, is not at present provided for them. Such children need rather the care of an educational infirmary than military drill, hours of silence, and corporal punishment. To the proper working of these institutions it is most important that not only should care be taken as to the sanitary arrangements, but also that no child is detained under the conditions mentioned who is mentally deficient or likely to receive harm from the disciplinary methods adopted. To subject defective and crippled children to severe discipline is folly and a gross form of cruelty. On these grounds it is obviously desirable that a report should be made upon every child ordered to be sent to a punitive institution or truant school previous to his commitment. We shall be interested to see the evidence given before this Committee, which it is to be hoped will clear up some of the doubts entertained as to the conduct and rules of these schools and the kind of children detained in them. In all the boarded or resident schools of the State a report should be made annually by an independent authority to those who stand *in loco parentis* upon each individual child; such report would afford a basis, where necessary, for sanctioning a relaxation of punitive discipline, or if desirable removing a child in order that due classification may be made for the purposes of beneficial education. Considering the difficulties experienced by the Government departments in dealing with the children under their charge, it is surprising that they do not obtain the services of some scientific expert to advise as to methods of classification where mental deficiencies or irregularities are a source of trouble in the schools under the Local Government Board and the Home Office.

MR. CECIL RHODES recently presented to Cape Town a statue of Van Riebeek, the first Commander of the Cape for the Dutch East Indian Company. Van Riebeek was a Dutch surgeon, and his ships "got sight, God be praised! of the Cabo de Boa Esperanza" on April 5th, 1652.

SIXTY-THIRD ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION IN LONDON, 1895.

THE MEDICAL INSTITUTIONS OF LONDON.

(Continued from page 1216.)

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

By JAMES BLAKE BAILEY, B.A.,
Librarian of the Royal College of Surgeons.

"THE CORPORATION OF SURGEONS."

In the year 1745, the Barbers and Surgeons who from 1540 until that date had formed one company, separated, and the latter were incorporated under the title of "The Masters, Governors, and Commonalty of the Art and Science of Surgery." The new company at first met at Stationers' Hall, but in 1751 moved to premises of their own in the Old Bailey. In 1796 this company came to an end through an improperly constituted court having been held. An endeavour was made to put matters right by a Bill in Parliament; this passed the Commons, but was defeated in the Lords. The loss of the Bill was due in a great measure to the opposition of those who were practising without the diploma of the Corporation.

"THE ROYAL COLLEGE OF SURGEONS."

After much negotiation it was agreed to petition for a charter from the Crown to establish a Royal College of Surgeons in London. This was successfully carried out in 1800, and, the Corporation having disposed of their Old Bailey property, the College took possession of a house in Lincoln's Inn Fields on the site of part of the present building. An additional charter was received in 1821, and by a further one in 1843 the name was changed to that which the College now bears—the Royal College of Surgeons of England. Another supplemental charter was obtained in 1888.

THE MUSEUMS.

John Hunter died in 1793; by his will he left the whole of his museum in trust to Matthew Baillie and Everard Home, with instructions that the collection as a whole should be offered to the Government of Great Britain, or, failing that, to any other foreign Government or State. After some delay and difficulty Parliament in 1799 voted £15,000 for the purchase of the museum; its custody was offered to the Corporation of Surgeons, and was by them accepted on the terms proposed by the Government.

As explained above the Corporation was succeeded by the Royal College of Surgeons, and to the latter body fell the custody of Hunter's Museum. In 1806 Parliament voted £15,000 for building a museum on the College site in Lincoln's Inn Fields; a second vote of £12,500 was subsequently passed, and the College found upwards of £21,000 towards providing a place for the proper display of the collection. This first museum was opened in the year 1813. The drawings of the interior of it, from which the illustrations of this paper have been taken, have recently come into the possession of the College from the family of the late Sir Richard Owen. The rapid increase of the museum and library soon made this building inadequate, and in 1835-36 the College was practically rebuilt by Sir Charles Barry.



Fig. 1.—Pillars of portico, from a water colour sketch preserved in the Library of the College, made by Scharf during the rebuilding; showing that the pillars were not taken down but were refluted in place.

In 1847 the College purchased the premises of Mr. Alderman Copeland in Portugal Street, and in 1852 erected thereon the Eastern Museum. The warehouse belonging to Copeland's premises was originally the Duke's Theatre. In 1888 it was decided again materially to enlarge the College premises. Two new museums were added, and the house occupied by the Conservator on the eastern side of the College was pulled down, and a considerable addition to the library built on its site. The Council were able to make these last improvements mainly through the princely bequest of the late Sir Erasmus Wilson.

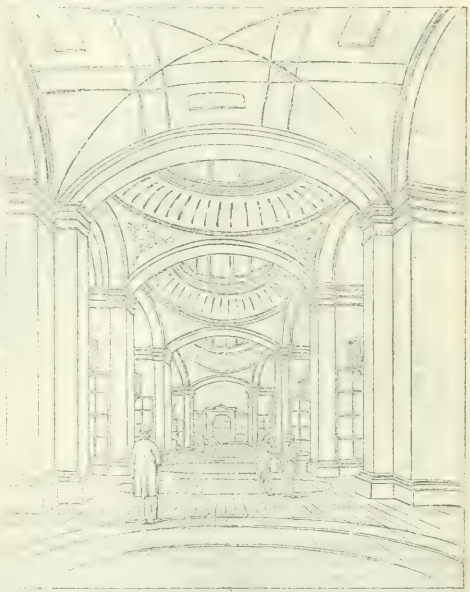


Fig. 2.—Interior of Old Museum showing its general appearance; from a water colour sketch by William Clift.

The College has a good collection of paintings and busts of deceased surgeons of distinction. First of all is the magnificent portrait of John Hunter by Reynolds, which hangs over the President's chair in the Council Room. Amongst the other portraits may be mentioned Wiseman by Sir B. Gerbier, William Hunter by Zoffani, Cheselden by Richardson, Sir A. Carlisle by Sir Martin Shee, Sir Astley Cooper by Sir T. Lawrence, Sir W. Blizard by John Opie, Percivall Pott by Romney, and Sir W. Fergusson by Lehmann. This collection has recently been enriched by the presentation of the portrait of John Hunter, senr., John Hunter, by Home, and William Hunter by Pine; these have been presented to the College by the family of the late Mr. Hunter Baillie. On the main staircase hangs the preliminary design for Holbein's picture of Henry VIII and the Barber Surgeons. Until recent years the picture was supposed to be that of Henry VIII delivering the Charter to the Barbers and Surgeons, but Mr. Sidney Young has shown that dates are strongly against this; he suggests that it is the union of the Barbers' Company with the Guild of Surgeons, accomplished by Act of Parliament in 1540 which is commemorated. In the outer hall is a painting by Brooks of the Council of the College in 1884. On the main staircase is arranged a splendid series of busts including Hunter, Pott, Liston, Cline, Astley Cooper, Abernethy, Home, Dalrymple, Blizard, Charles Bell, Brodie, Lawrence, Green, Travers, Guthrie, Cæsar Hawkins, Simon, Paget, and Marshall.

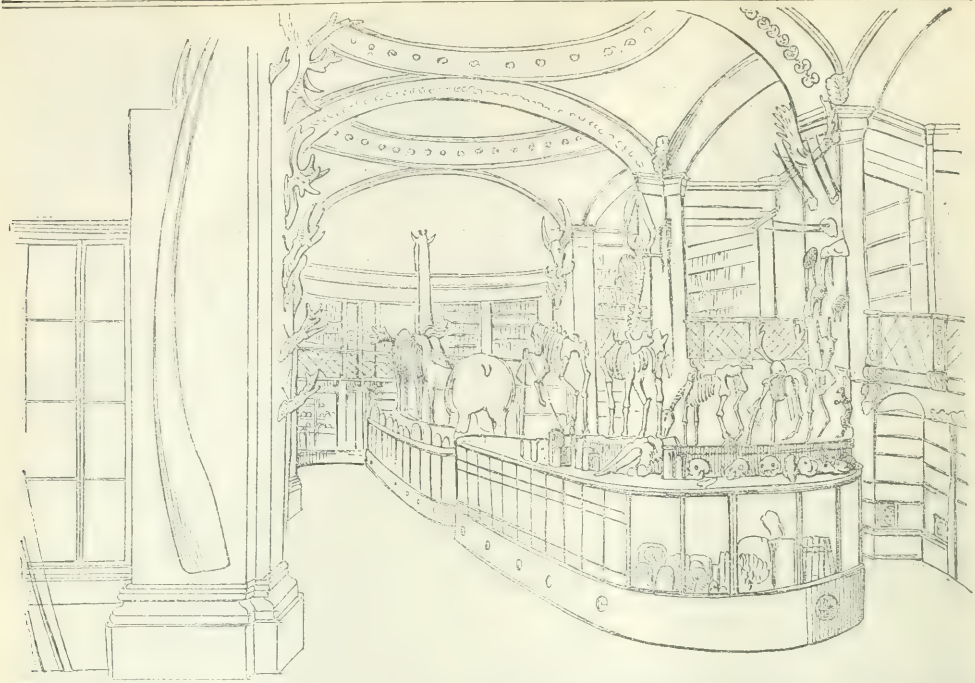


Fig. 3.—*Facsimile* (reduced) of a pencil sketch by the late Sir Richard Owen, made while he was curator, showing the arrangement of objects in the main corridor of the Museum at that time (before the rebuilding).

The collections are at the present time arranged in five museums. In the large New Museum on the ground floor are eight tables containing specimens of Normal Human Anatomy; these are continued on the four tables in the wall cases of the small New Museum. The Anthropological collection is displayed in the large and small New Museums, and also occupies a little more than half of the Western Museum. The first gallery of the Small New Museum is devoted to Teratology and Parasites, and the upper one to the display of drawings and to the extension of the Dermatological series. The Pathological specimens occupy the galleries of the Western and the New Large Museums. In the Western, the six tables nearest the entrance are devoted to the external forms of the Invertebrata, with a few specimens showing their general anatomy; the four following tables are occupied by preparations illustrating the Development of the Human Skeleton. On the eastern side is the series of Comparative Osteology; this is continued in similar cases in the Middle and Eastern Museums. From this series special parts have been selected for more ready comparison; these are displayed in upright cases in the Eastern Museum. In the galleries of the Eastern and Middle Museums the Physiological series will be found. There is a small room in the annexe devoted to the collection of Surgical Instruments belonging to the College.

The Library.

At the present day the College possesses a good professional library. It was not until some years after the foundation of the College that any real steps were taken to put together a library in any way worthy of the institution. The old Corporation of Surgeons had intended to form a library but had never carried their intention into effect. In 1786 John Hunter addressed a letter to the Corporation in which he states that the fact of their not being possessed of a public surgical library is "a circumstance so extraordinary that foreigners can hardly believe it." He suggests that all members should send copies of their own works to the Corporation Library, and to give practical effect to his proposal he presented the books he himself had published. This produced little or no effect, and in 1790 we find Mr. Gunning, the retiring Master, complaining of the conduct of the Court in not taking steps to form a library. Even Master Gunning was very modest in his idea of what the library should be, as he suggested that the sum of £80 a year would be sufficient for the purpose. After the establishment of the College, very little more was done in the way of starting a library than had been accomplished by the old Corporation. The first grant, made in 1800, was a sum not exceeding £50; for many years the annual cost was less than the modest £80 suggested by Mr. Gunning. Sir Charles Blicke, in 1816, invested the sum of £300, the interest of which was to be spent on the library; in addition to this he was a liberal donor of books. It was not until the year 1827 that any real effort was made to form a library worthy of the College. In the years 1827-29 the sum of £5 269 was spent on the purchase of books, and in the last-named year Dr. Willis was appointed librarian. In rebuilding the College in 1835-36 the library department was well provided for; the increase of books in recent years had, however, made this accommodation very inadequate, and in 1888 the Council made very considerable alterations by which the comfort of readers was greatly increased and much additional book space was given. The whole of the library was redecorated and the electric light was installed throughout. In the library there is a large collection of engraved portraits. The nucleus of this was the Young and Wadd collections; the latter was originally put together by Fauntleroy, the banker,

who was hanged for forgery. The collection has gone on gradually increasing by purchase and donation. In 1893 it received a very considerable addition by the presentation by Mr. T. Madden Stone of his extensive and valuable series of portraits and autographs. Recently the College has had presented to it by the family of the late Mr. W. Hunter Baillie a very interesting series of letters, containing communications from Boerhaave, John and William Hunter, Dr. Arbuthnot, Joanna Baillie, and many other celebrities not connected with the profession.

The Constitution of the College.

By the Charter of 1800 the government of the Royal College of Surgeons in London was vested in the Court of Assistants, which consisted of twenty-one members, one of whom was styled Master and two others Governors. Eighteen of the members of the first Court of Assistants were nominated in the Charter, the remaining three were ordered to be filled up by the Court at its first meeting. The Charter of 1822 changed the names of Master and Governors to those of President and Vice-Presidents, and the Court of Assistants was in future to be called the Council. In 1843 a further change was made in the name of the College: the Charter obtained in that year orders that in future the title shall be "The Royal College of Surgeons of England;" by this same Charter the Fellowship was established. The Council was bound to elect not fewer than 250 and not more than 300 Members to the Fellowship within three months of the granting the Charter. Accordingly, on December 11th, 1843, 300 Members were appointed Fellows by one diploma, and on August 26th, 1844, 242 were elected. The number of members of Council was increased to twenty-four, and it was enacted that in future three members should retire annually, an exception being made in favour of those who were on the Council at the time the Charter was granted. These were to hold office for life, as heretofore. The Council was no longer to be a self elected body, the Charter declaring that, in future, the election shall be in the hands of the Fellows. It was also decided that the Court of Examiners should no longer be restricted to members of Council, but that any Fellow, whether on the Council or not, might be elected an examiner. Further alterations were made by the Charter of 1852: by this power was given to the Council to confer the Fellowship, without examination, on Members who were of fifteen years' standing in September, 1843, the date of the previous Charter. The Council was also authorised to admit each year to the Fellowship two Members of twenty years' standing, and power was given to grant the Fellowship to Fellows, Members, and Licentiates of other Colleges.

Examinations.

Up to 1884 the examinations for the Fellowship and Membership were conducted by the Court of Examiners in the College building. In that year the two Royal Colleges co-operated to form a common Board for granting their diplomas in Medicine and Surgery. The Fellowship examination remains as before, but the Membership of the College of Surgeons is not now granted apart from the licence of the College of Physicians, except to students who commenced their professional studies prior to October 1st, 1884. By the Charter of 1859 a diploma in dental surgery was instituted, the qualification being registrable under the Dentists Act of 1878. The examinations are now held in the Examination Hall on the Embankment. The foundation stone of this building was laid by Her Majesty the Queen in 1886, and the cost of the erection was borne jointly by the two Colleges.

Pictures for Infirmaries.—We gladly give publicity to a request from a lady guardian for pictures for the Wandsworth and Clapham Union Infirmary. This is a step in the right direction. The poor are very fond of putting up pictures in their cottages, and must often long to see some pictures on the bare brick walls of the infirmary; it is as good as a book to those who cannot read. Mrs. Jenkinson wants 1,000 pictures for the 40 large wards. Her address is 17, Christ Church Road, Streatham Hill, S.W.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1895.

Sir Richard Quain, Bart., President, in the Chair.

Thursday, May 30th.

Sir Richard Quain, Bart., in the Chair.

On the Council resuming, the first hour was spent in private consultation with the legal advisers.

Case of Mr. Robert Fitzroy Benham and the Jubilee Hospital.

Mr. Robert Fitzroy Benham, M.R.C.S.Eng., 1881, appeared with counsel to answer certain charges and allegations formulated against him by the Council's solicitor, on the complaint of the Medical Defence Union, as follows:

"The infamous conduct charged is in relation to the Queen's Jubilee Hospital, Richmond Road, Earl's Court, Kensington, carried on and conducted by Mr. Benham, and represented by him as a *bonâ fide* public charitable institution, and it is alleged that:

"(1) The hospital is in no sense a *bonâ fide* charitable institution, but was and is a private professional and commercial speculation of Mr. Benham's own.

"(2) He had knowingly, and for the purpose of deceiving the public, published inaccurate and misleading accounts of the hospital, and inaccurate and misleading statements as to its conduct and management.

"(3) The hospital banking account had been used by him for his own purposes, the hospital moneys and his own moneys being mixed in such account.

"(4) The hospital accounts had been manipulated by him or with his knowledge, so as to make it appear as if he personally had advanced and afterwards given to the said hospital a sum amounting to £3,200, whereas no such sum was so advanced or given by him.

"(5) There was and is no duly qualified resident medical officer or house-surgeon attached to the said hospital, and that cases requiring the attendance of a qualified practitioner had been attended by a person or persons who was or were unqualified, and that such unqualified persons were covered in their attendances and practice by him or practitioners on the medical staff of the said hospital at his instance, and that the patients who were treated at the said hospital were thereby deceived and defrauded."

Mr. Benham attended in answer to his summons, accompanied by Mr. Bucknill, Q.C., Mr. G. Spencer Bowen, and Mr. Garland as his counsel, and his solicitor, Mr. J. Keeble.

Dr. Bateman, the Secretary of the Medical Defence Union, said that the changes arose out of an investigation following on the issue of a report on this hospital by the Charity Organisation Society. Dr. Bateman was about to read certain articles which had been published in *Truth*, when

Mr. Bucknill protested, and asked that it should be ruled that these articles were not evidence.

Mr. Muir Mackenzie, Legal Assessor to the Council, advised that Mr. Bucknill's objections should be sustained, but added, in reply to Dr. Bateman, that if the facts were conveniently stated in the articles, and he was prepared to support the statements by evidence, the Council would not object to hear extracts.

Dr. Bateman then called Mr. Horace Voules, editor of *Truth*, who detailed the correspondence which he had had with the authorities of the hospital.

Mr. Bucknill objected to the reading of the report of the Charity Organisation Society unless evidence was called in in support of its allegations.

In cross-examination, Mr. Voules stated his belief that the institution had been much indebted to Mr. Benham from the beginning, but doubted whether Mr. Benham was in a position to make the advances alleged.

Mr. Paternoster, a member of the staff of *Truth*, gave evidence as to the condition of the books of the institution, and

Dr. Bateman read the auditors' report for 1894, which contained a statement "that although they were unable to certify that the sum due to Dr. Benham was £3,207 3s. 4d., they were of opinion that he was a creditor for a considerable sum advanced by him for the purposes of the hospital."

Mr. Bucknill, in addressing the Council for Mr. Benham, contended that there was no case to answer on the first charge. This point was reserved. Passing to the second

count, he said that there was not a word of evidence that Mr. Benham had knowingly, which could only mean for the purpose of deceiving the public, published inaccurate accounts, or indeed that he had prepared or issued the accounts. The Charity Organisation Society had not tendered any evidence. Their report at the worst only showed a mixing up of the private account of Mr. Benham with the account of the institution. He relied upon the statement of the auditors put in by Mr. Benham to show that there was no evidence of fraud. As to the third count, the fact was that cheques and moneys received by Mr. Benham from private patients had been lent to meet the necessities of the institution. As to the charge of manipulating the hospital accounts, not a word had been given in evidence. As to the last charge, that Mr. Benham had covered unqualified persons, there was equally no evidence. Mr. Bucknill again asked the Council to consider whether there was any evidence to justify them in calling on Mr. Benham to answer the charges on the paper which were not supported by the evidence of any person.

The Council then adjourned.

Friday, May 31st.

Sir Richard Quain, Bart, in the Chair.

The Case of Mr. R. F. Benham and the Jubilee Hospital.

At the commencement of business, Mr. Bucknill was informed that the Council considered that there was a case to go on with.

Mr. Bucknill pressed upon the Council the right he had to ask that the complainers should be made to withdraw all those charges against which they had given not one scintilla evidence. He referred to Charges 1, 2, and 5. He would not place Mr. Benham in the box to be cross-examined on charges upon which no evidence had been given. If the charges were confined to the evidence laid before the Council he should not go into the box.

Dr. Bateman said he had a representative of the Charity Organisation Society present and also a medical practitioner from the neighbourhood to offer as evidence.

Mr. Bucknill urged that this was an irregular and improper proceeding.

Mr. Muir Mackenzie said that the question of unqualified practice was serious. As the inquiry was into professional conduct he was prepared to advise the Council to hear evidence on this point.

Dr. R. M. Low gave evidence that he had been called to attend a case of opium poisoning at the hospital, and had found the commissionaire and clerk giving mustard and water. He could not obtain either a stomach pump or apomorphine.

In reply to Mr. Bucknill, he said that the incident had occurred two years ago. He had been sent for by the officials at the hospital. The case was not a serious one, and the patient recovered.

Mr. Bucknill contended that this was not evidence that the patients had been attended by unqualified persons. He would, however, now advise Mr. Benham to give evidence.

Mr. Benham went into the witness box and categorically denied that there was any truth in any of the allegations made against him. It was true that he had advanced sums of money amounting to £3,200 to the hospital. There was not a resident medical officer, but there was a qualified matron and a nursing staff. In reference to the charges, he submitted himself to the cross-examination of the advocate of the Medical Defence Union.

By Dr. Bateman: He was the founder of the hospital. He got medical men to join with him, and with a properly organised Committee they started the institution. The Committee's minute books were shown. The medical and surgical staff were at first appointed by the Committee. When new vacancies occurred they were advertised in the medical journals. He had never had anything to do with the books, but was legally responsible for all the debts, in accordance with Rule 17 of the hospital. No trustees were appointed because there was no money in hand. Hospital subscriptions were paid to the hospital banking account. He often paid cheques which he had received from his own patients into the account. The Committee knew that he sometimes drew on this account for his own private purposes. He had no private banking account. If he required to pay a bill by cheque he got one from his friends. The vouchers were open to inspection, showing hospital debts, donations, subscriptions, and payments. He had often been summoned for hospital debts. The Committee knew that he was liable. If he had wanted to recover the money he had advanced to the hospital he did not know whom he would sue. He had been practically treasurer, but had had nothing to do with the accounts. There was always a member of the medical staff within call, although the institution had not a resident medical officer. It was nonsense to say that the officials attended cases. Dr. Low had just said that they sent for a qualified medical man in urgency cases. There was no such thing as covering in connection with the institution.

By Mr. Bucknill: He had never taken upon himself to act in opposition to the Committee in matters connected with the hospital. He submitted the minute book for the examination of the Council. The hospital had been complained of as a nuisance on the ground that it was a public institution, and he had on that occasion been put to great legal expenses. He submitted the hospital bank books to the Council. Whenever the hospital was in difficulty he gave the money which he received from his own patients, and these cheques were placed upon the hospital account, and would be used to pay that particular debt. At the end of the year the total amount of donations, subscriptions, etc., was calculated, and was placed against the indebtedness of the hospital, the balance representing the amount which he had placed at the disposal of the hospital. There were many hospitals throughout the country which had no resident medical officer. At this hospital patients were treated entirely free of charge. At one time some patients put a shilling into the donation box to get prior attendance from the doctor, but that ceased two years ago.

After some questions by the members of the Council the witness retired.

Dr. Walker and Mr. Bokenham having made corroborative statements,

Dr. Thudichum stated that he had been chairman of the Committee till quite recently. The hospital did a great deal of useful work. The institution could not have continued if it had not been for the most generous conduct of Mr. Benham.

By Dr. Glover: He did not approve of the system of book-keeping, and that was his reason for resigning the chairmanship of the Committee last year.

The Rev. Mr. A. B. Mowll, vicar of Christchurch, Brixton, had been chairman of the hospital for about eighteen months. He had desired to have the question of these advances by Mr. Benham gone into, and the matter was put into the hands of accountants through the hospital solicitors, and from the report they were satisfied that he was creditor for a large sum. The release Mr. Benham had executed was straightforward in every way.

Captain James Ed. Hunter, R.N., gave similar testimony, and the accountant was examined as to the accounts.

This closed the case.

After deliberation in private,

The President, addressing Mr. Benham, said: The Council have resolved that you have not been guilty of the infamous conduct charged against you.

This finished the business, and the Council adjourned.

Saturday, June 1st.

Cost of Last Case.

On resuming, the President informed the Council that the cost to the Council of hearing the charges connected with the last case amounted to some £600.

Case of George Francis McCarthy.

This case was brought before the Council at the instance of Mr. Braxton Hicks, Coroner for the South Division of London. The charge against Mr. McCarthy was: "That he systematically acted as cover to an unqualified person named Francis Morley Coppin, and by acting as cover to him, and by allowing him to use his (McCarthy's) name and qualifications, and by his presence and assistance, enabled the said Francis Morley Coppin to practise and attend patients as if he were a duly qualified registered practitioner."

The defendant appeared, with Mr. Schultess Young as counsel.

Mr. BRAXTON HICKS alleged that Mr. McCarthy had acted as cover to the person named in the charge, and that this person had in his absence on two occasions affixed Mr. McCarthy's name to certificates of death. These certificates were produced.

After hearing the evidence the Council deliberated *in camerâ*, and, on strangers being readmitted,

The PRESIDENT said that, in the opinion of the Council, the offence charged had been committed; but that the Council had postponed proceeding further in the matter. The defendant would be liable to be called upon by the Council at their meeting in November, and to produce evidence as to the manner in which his professional duties had been conducted in the interval.

Monday, June 3rd.

Sir RICHARD QUAIN, Bart., in the Chair.

THE CASE OF SAMUEL FREDERICK MURPHY.

THE Council proceeded to the adjourned discussion of this case, adjourned from Saturday, in the absence of Mr. Murphy who did not appear.

The charge was "that he had acted and did act as cover to an unqualified person named Thomas Millerchip, who resided and carried on a medical practice at 4, Swanswell Place, Coventry, and by his presence and the aid of his name and professional qualifications enabled the said unqualified person to carry on, and assisted him in carrying on, a medical practice as if he were duly qualified."

After hearing Dr. BATEMAN'S statement the Council, after deliberating in private, decided to instruct the Registrar to erase Mr. Murphy's name from the *Medical Register*.

THE CASE OF CHARLES FARRAR.

This gentleman had been summoned to answer a charge of covering, but had been informed on Friday last that his case had been withdrawn. Dr. BATEMAN now told the Council that the persons who had made affidavits concerning this charge had subsequently entirely contradicted them, and after a consultation with the Council's solicitor, he had decided to withdraw the case.

After some conversation, in the course of which Sir W. TURNER and Sir WALTER FOSTER commented on the expense which the Council had incurred in printing the documents in this case, and Dr. BATEMAN, in reply, had pointed out that the summons had been issued by the Council's solicitor, who should not have done so if he had not considered the evidence sufficient; the Council adopted the following resolution:

Dr. Bateman having declined to proceed further with his complaint, on which the summons to Dr. Farrar was issued, the Council does not think fit to proceed further with the case at this session.

QUALIFICATIONS ERASED FROM THE REGISTER.

Dr. BATTY TUKE asked whether the solicitor had taken proceedings against persons assuming qualifications of which they had been deprived by the licensing authorities, and whose names had been erased by the Council from the *Medical Register*.

[The PRESIDENT answered the question in private.]

DUTCH RECIPROCITY.

In reply to a communication from the Privy Council Office respecting the recognition of Dutch degrees in this country, the Education Committee reported that the provisions of Section 17 (1) of the Medical Act, 1886, contemplated the case of a foreign country which afforded to the registered medical practitioners of the United Kingdom "privileges of practising" in the said foreign country. It did not appear to the Education Committee that such privileges were as yet afforded by the new decree of the Netherlands.

CASE OF JOHN EUSTACE DENNAN.

The Council next proceeded with the case of John Eustace Dennan, who was convicted at the Central Criminal Court on January 7th, 1895, of obtaining money by false pretences and sentenced to ten years' penal servitude. They directed the Registrar to erase the name from the *Dentists' Register*.

PENAL EXPENSES.

The PRESIDENT informed the Council that the expenses connected with the penal cases they had heard amounted to £700. The question in his mind was whether this preposterous expense could not be diminished. Could not the penal cases be taken at the end of other business, so that the members who desired to go might leave, provided a quorum of the Council could be obtained. This he thought might be a means of reducing the Council's expenses.

The further consideration of this subject was conducted in private.

REPORT FROM MIDWIVES REGISTRATION COMMITTEE.

In presenting this report Sir WILLIAM TURNER (Chairman of the Committee) said the Committee had met three times, and had gone carefully into the question practically incorporated in the second clause of the Bill, which proposes that the term "midwife" should mean "a woman who undertakes to attend cases of natural labour without the direct supervision of a medical practitioner;" that a register of midwives should be kept in pursuance of the Act; and that a "Midwives Board" be constituted under the Act for the purpose of carrying out its provisions, subject to the approval of the General Medical Council. In connection with these important proposals the Committee had brought together and submitted to the Council a summary of the opinions expressed from time to time by the Council in connection with the education and registration of midwives. To begin with, the term midwife was now to be defined by Act of Parliament, and the midwife was to be allowed admission to a register under certain conditions, which were to be defined by a Midwives Board subject to the approval of the General Medical Council. If it became law this Bill would give to midwives a legal status which they had not hitherto possessed. The register was to be the official means of their recognition, and a Midwives Board was to lay down certain conditions of examination. In fact, a statutory Board would in future attest a midwife's qualification to act as such, and not voluntary associations or individuals as was the case at the present time. The Bill was, therefore, one of great moment, requiring careful consideration by this Council. The general attitude of the Council as embodied by former resolutions indicated that the Council had on more than one occasion expressed the opinion that it would be desirable to provide by legislation for giving certificates to competent midwives; that the lives of women in labour should, as far as practicable, be protected from the incompetent; and that whilst the Council did not approve of the institution of a central register for midwives, it was of opinion that there should be local registers under the charge of the local governing authorities; that the Council would be willing to advise as to general rules of education, examination, and discipline, but would not undertake any duties of detail as to the registration of midwives, or as to the local arrangements for licensing and controlling them. The Committee had gone into each of the clauses of the Bill and they had offered amendments on some of them. As to the title of the Bill, which he thought was a vital question, the Committee recommended by a majority of one "That the word 'midwives' should be struck out of the title of the Bill and out of the several clauses, and that the term 'midwifery nurses' be substituted for it." He moved that suggestion of the Committee, reserving the right to himself of voting against it.

Sir WALTER FOSTER seconded the motion. He pressed upon the members of the Council the extreme gravity of the question as it affected general practice. While on a former occasion he had held in this Council that poor women should have competent treatment on the part of women who attend them in their confinements, he did not think this would be facilitated by the Bill. More serious dangers might await them if this Bill became law in the shape in which it had now been presented to Parliament. Therefore he thought that the words "midwifery nurse" should be substituted for the word midwife. In his former motion, which was seconded by Dr. Glover, he had especially dwelt upon the fact that the absence of public provision for the education and supervision of midwives was productive of a large amount of suffering and fatal disease. He was actuated by a desire to prevent this. Since then a large amount of evidence had been submitted to them in connection with diplomas and certificates granted to persons attending poor women, showing that puerperal fever

had been disseminated by them, and that practices had been carried on by some of them, which were not at all desirable in the interests of the community should receive even their quasi-sanction. This Bill would give to those who were in no sense competent to undertake the sole charge of these cases a quasi-legal sanction to become practitioners of midwifery. He had no objection to women practising midwifery on the same conditions as men, or they might be midwifery nurses. But to perform the duties which were declared on the part of men to require, in addition to midwifery, a knowledge of medicine and surgery, they should require a similar knowledge on the part of women. He thought that [the Council should be extremely jealous of opening any back door by which any person after a small training should go before the public and say that she was by the law of the land registered to undertake the treatment of any woman who might apply to her to attend her in labour. To state on paper that she was merely to attend natural labour was not a guarantee that she would not take other cases. They should not sanction any Bill which would introduce to the practice of midwifery women on conditions less important than those attaching to men. Throughout the country there were unqualified men who were skilful medical practitioners, and if the employment of one of them was illegal and practically infamous practice in the eyes of the Council, they could not consistently or logically sanction a Bill which would put a woman in the position of being legally qualified to attend midwifery after three months' training in a hospital, even without any training as nurses, and with no knowledge of medicine or surgery, and whose sole qualification was that she possessed a certificate as her credentials for obtaining admission to the register. The Council should proceed with extreme caution before sanctioning any Bill which would place a new class of practitioners on the register, and give to these women—many of them worthy, but many imperfectly educated—a legal status for the practice of midwifery.

Mr. Wheelhouse, in supporting the motion, observed that midwives would exist as long as the world lasted, but that was no reason for making them able to come to the front with a legal stamp as practitioners of midwifery. They were not now so necessary as in former times, as there were few districts now where it was not possible to obtain fully qualified medical assistance. The law had made it necessary that anyone wishing to practise any one branch of the medical profession should be instructed in all. During the past few years the whole art of nursing had undergone entire change, not from legal necessity, but simply as a matter of social necessity. Seeing that they had surgical and medical nurses so well trained, why should there not be trained obstetric nurses similarly acting under medical supervision? He did not know why midwifery nurses should be allowed to practise the whole art of midwifery. It should be known that they were not licensed to practise unless under supervision of medical practitioners, and that they were only entitled to act as obstetric nurses, and should be trained and examined as such.

Mr. Pridgin Teale thought that the Council had not been asked to sanction or approve of a Bill for the creation of a new order. This was a Bill to improve the condition of things which had existed for a number of years, and about which the Council had pronounced opinions over and over again in favour of regulation and education, and the only way of bringing this about was by registration. They would be placed in a more serious position than they ever had been before. But the Council could not get out of it. It had been demanded by the public for a long time, and supported by many authoritative persons in the medical profession, by the Obstetrical Society, and its principle had been assented to by this Council. There was a feeling of danger expressed in admitting these persons to be a new order of practitioners. It had to be faced, and they had to consider how it could be guarded in a proper way. Could they not be placed under the supervision of some medical man in the district? Registration would render them amenable to the law. It would be a mistake to change the old name of "midwives" into this new one which no one understood.

Dr. MacAlister said Sir Walter Foster had made a very sharp turn in asking this Council to ignore his own resolution of 1889 and so to change the whole course of its previous procedure. The first ten and a half pages of the Committee's report would be rendered useless. Nothing could be gathered from them which would lead anyone to suppose that the first recommendation would be the substitution of "midwifery nurses" for midwives. Nowhere in the report was any reason given for making this sudden change. Mr. Wheelhouse had put dots to Sir Walter Foster's i's, and appeared to claim the total abolition of midwives for the benefit of certain medical practitioners. That seemed to be a futile thing to ask the Government to do. They would at once be charged with thinking of their own interests and not of those of the public. To leave out the word "midwife" was to change the whole character of the Bill. The question was whether they should abolish midwives altogether or by placing them on the register ultimately succeed in weeding out the dangerous ones. Mr. Wheelhouse had made the common mistake of saying that no man was allowed to practise medicine, surgery, or midwifery until he had passed an examination in all three subjects. There was nothing in the Medical Act to support anything of the kind. It only prevented men from getting on to the *Medical Register*. If there were no Midwives Act any woman could practise midwifery whatever the opinion of the Council might be. Surely the Council was not going to recede from its constant position in response to a fictitious agitation. It had been constantly in the minds of the Council in their previous resolutions that women might now legally help women in their labour and even sue for fees. So far as practice was concerned they were recognised by the law, and the question was should they be supervised also. The only method of supervising them was to register them. That implied raising their status, the very thing the Council wished to do. It was only in 1889 that the Council, moved by Sir John Simon, with the support of Sir Walter Foster, said "that the Council regards with much regret the absence of proper public provision for the certification of competent midwives." The Council then thought this was a thing to be publicly provided for, and urged it upon Her Majesty's Government. It seemed, therefore, that they dared not present their present suggestion to the Government without stultifying all their recommendations. He would be sorry if all the former resolutions on the subject were not sent to the Government. If the abrupt change in their line of action were discovered by the Lord President, he would not thank them for their opinion on any future occasion. Very strong reasons ought to be given for making the change. The Council had no reason to offer but that they had had many communications from Dr. Rentoul, and had heard a deputation representing a committee of the Lancashire and Cheshire Branch of the British Medical Association, subject to a protest from many of the most weighty and experienced members of that Branch as to the competency of the deputation to appear at all. The effect of these speeches must have been to increase their conviction that public supervision was absolutely necessary. If these abuses could exist in the present state of the law, to ask that no law should be passed to remedy them was to stultify their own arguments; he strongly objected to the change of title, which meant changing the whole purport of the Bill.

Dr. Bruce did not think it was fair to some of the Council to say they did not approve of any Bill because they did not approve of this one. He distinctly approved of midwifery nurses, and he felt as had just been expressed that there was great need for reform and supervision. But the Bill was going to admit women not one bit improved except in status. It was not merely being on the register. This implied something to the public—that was the whole purport of having a register. As to a medical officer of health being the supervisor, he thought there might be difficulties, and for himself, as a medical officer, he was not prepared to accept such an onus. He thought there were sufficient educated women in the country to manage the matter for themselves.

Dr. Wilks said midwife and midwifery were not the same thing. The word midwifery was avoided in the Bill. If Sir Walter Foster's motion were adopted they would be going back to it again. These poor people would prefer to have men, but could not afford it, and they were obliged to have "midwives." It had been so from time immemorial. The term was well known and it was a simple word. A nurse was a person who acted on the initiative of others, a midwife had to act frequently upon her own.

Dr. McVail, referring to what fell from Dr. MacAlister regarding the Council's former recommendations, saw no inconsistency whatever. The resolutions were resolutions approving of the registration of midwives. He was sure no one objected to that. Before 1886 there was no legal definition of midwifery; it became in 1886 one of the three standard branches of the profession, on the ground that it would not be safe to license anyone to practice midwifery without a thorough knowledge of surgery and medicine. The Bill defined a midwife to be "a woman who undertakes to attend cases of natural labour without the direct supervision of a medical practitioner." What was meant by "direct" supervision? Did it mean that the woman could not attend a case without giving some medical man notice that he might be called upon if she thought necessary? That could not be the meaning, because the Bill proposed to give this indirect supervision to the medical officer of health in the district. A man in busy practice could certainly not supervise them. The meaning of it was that a new class of medical practitioners was to be created, and that "midwife" was to mean something that it never meant before. This was not the Lord President's Bill; he only wanted the opinion of the Council about it. Was the Council prepared, under the conditions of education and indirect supervision laid down in this Bill, to advise the Lord President that he might safely get the Government to support it? Would any member of the Council undertake to define "natural labour?" The Bill left its definition to the midwife, and in the case where assistance was required the Bill only provided her with the medical officer of health. Where was she to get help, and was she in the exigencies of the case to use forceps or turning or to perform craniotomy? Of course, it would not be natural labour then. It was unfortunately true that many cases were attended by midwives having little or no education, but this smattering would be sufficient to give access to the register and give her the authority which an Act of Parliament could do. If the Bill undertook to place these women under the "direct" supervision of a qualified medical man, whose business it would be to give her assistance whenever she called him, he would at once give his support to the Bill.

Dr. Glover said he could not give a decided vote upon the question before them, but he would propose as an amendment to the motion: "That the term 'midwifery nurse' should be struck out of the motion, and that the term 'nurse midwife' should be substituted for it." Having regard to the history of the word, and its hold upon the people, he did not think it would be right to part with it, but he wished to fasten upon these nurses a very distinct limitation of functions. He wished it to be clearly understood that she was a midwife and a nurse, and thus differentiated from a doctor; that her value consisted not only in delivering a woman, but in acting as her nurse for several days afterwards. It was impossible for the Council to ignore its own history in this matter, or fail to recognise the strength of reason in the speech of Dr. MacAlister. He could not disassociate himself from the eminent men who had supported the idea of registration of midwives. In 1889 he only played second fiddle in Sir Walter Foster's motion, stating that the Council regarded the absence of public provision for the education and supervision of midwives as productive of a large amount of grave suffering, and urging the Government to pass into law "some measure for the education and registration of midwives." Whatever might be attempted in politics, it would be a fatal day for a deliberative body like the Council to take such sharp turns as this upon questions affecting the widest interests of people who were not in a position to provide medical men or trained nurses. Great changes had doubtless been made in nursing since 1886; but the misery and risk of childbirth had not abated since then. He denied that the Act of 1886 had anything to do with this question. Mr. Wheelhouse ordered the poor to have a "trained nurse." He might as well prescribe a carriage and pair. The idea was simply impracticable. The proposal to give midwives three years' training as nurses would lead to the extermination of medical practitioners in this country so far as midwifery was concerned.

After some remarks from Mr. Bryant, Dr. Atthill, and Dr. Leech,

Dr. Gairdner said the Bill was evidently intended to make and to legalise a new class of women independent of the medical profession.

On the vote being taken, Dr. Glover's amendment was lost.

Sir William Turner's motion, when the vote was taken, was also lost, the figures being 14 against and 12 for. The effect of this maintained the title of the Bill as it now stands.

The Council then adjourned.

Tuesday, June 4th.

Sir Richard Quain, Bart., in the Chair.

The Midwives Registration Bill.

The Council resumed in Committee the consideration of the Midwives Registration Bill, which had been forwarded to it by the Lord President of the Privy Council for the Council's opinion thereon.

The General Question.

Sir Walter Foster moved to make the definition of the term "midwife" mean "a person" who undertakes to attend cases of natural labour. He moved this simply to call the attention of the Council to the position in which this Bill placed them. He had all along been anxious that women should have a fair field and no favour in the practice of the profession, and the Council had shown a laudable desire to remove all restrictions preventing women from entering into the medical profession. This Bill went a step further, and gave women privileges over and above those accorded to men in a branch of practice that had hitherto been occupied by men as well as by women. The one thing occurring to medical men in general practice was the difficulty of attending their midwifery cases. In olden times medical men could meet that difficulty by their pupils who were able to attend cases of natural labour for them. The natural evolution of medicine had destroyed the system of pupilage. The practitioner had then to fall back upon assistants or students, who afterwards came to be called unqualified practitioners. These did nearly all the midwifery, but the system became an abuse which this Council was obliged to step in and correct. It led to the opening of branch practices by practitioners in different localities. That was the position of the Council at present. He asked the Council whether it was fair to the male sex or to the profession if in future these duties were to be discharged by midwives. The consequence would be that there would grow up under this Bill a condition of things in which all the resolutions of the Council in regard to covering would practically be set aside. A medical man, instead of employing a man as an unqualified assistant, would employ two or three of these women in different localities to receive orders and to call in the doctor when he was wanted for a complicated case, and to transfer to him all the general practice arising out of this case of midwifery. If this class of midwifery practitioners was to be instituted it was only fair to the male sex that they should be enabled as well as women to act as midwives. If the Council wished to afford a cheap means of access to the profession the road should be open both to men and women. They did not want to raise a class of persons whom they did not think worthy to be placed on a register as practitioners of midwifery. They did not want to abolish midwives for a moment, but to get them as good as possible for the benefit of the community, but in doing that he did not want to open a door for easy access to practice which would become a great difficulty in the Council.

Mr. Wheelhouse, in seconding, did not see how they could take away from a man privileges he had had for many years and hand them over to women.

Mr. Teale: Nobody understood that "midwife" meant practitioner of midwifery. This was merely a bogus motion set up in order to make it more difficult for the Council to consider the Bill.

Dr. MacAlister said that Sir Walter Foster wished the Council to execute a complicated "figure-of-eight" this time. If the Council accepted this motion, every unqualified assistant whose practice was now such as to bring his principal under the censure of the Council would immediately register under

this Bill on the ground that he had been practising midwifery. It was quite clear that this motion was an ingenious move to destroy the Bill, but it was not worthy of this Council.

Dr. Glover agreed that Sir Walter Foster wanted to make the Bill look ridiculous. Sir Walter was in the position of having asked the Government of this country to pass a Bill for the regulation of midwives' practice, and he now asked them to alter this Bill so as to include not only midwives, but all persons. If Sir Walter Foster held a brief for the unqualified assistants of this country, he should tell the Council so, but that he should ask this body to pass a resolution which would give them a standing in the profession which would immensely increase the competition which he feared from this Bill, he was asking them to believe either in their simplicity or in his own. In the interest of the profession, he refused to open any door which would let in wholesale uneducated men on a footing with the humble women contemplated to practise midwifery in this Bill. The necessity for this legislation arose distinctly from the tragedies which happen in the practice of these uneducated women—ignorant, perhaps intemperate, and essentially dirty. These were the evils they were trying to remove by this Bill, for which Sir Walter Foster remained in the history of the Council as having asked the Government.

Dr. McVail intended to vote for Sir Walter Foster's amendment. Nothing could have convinced him more that it was necessary than the speech of Dr. Glover. He had spoken of the fearful tragedies that took place in the practice of these ignorant women. This Bill proposed to get rid of this scandal by licensing a certain number of women after going through some short course of study and undergoing some slight examination. If this were made to apply to men it would overturn the whole work of the Council in regard to covering, and all the evils that Sir Walter Foster and Dr. MacAlister had pointed out from unqualified practice would follow at once. By this Bill, however, it would not be men who were doing the mischief but women. Who were the unqualified assistants of the present day? What had been stated in reference to a case of covering they had before them the other day. The man covered had had very considerable opportunities for acquiring a knowledge of practice, and was certified as having a very competent knowledge of midwifery. Now, in this Bill a woman from a low class of society would be registered as capable of doing what this man could not do. Any medical man who wanted to carry on a large unqualified system of practice would be able to do it through these women. They were to attend midwifery, and it is said they were to do nursing in addition. That was not said in the Bill, and this Council threw out the very words that would have made them nurses, and Dr. Glover refused to vote that the words should be kept in. This Bill would secure that these women were to be midwives in the sense of the Act of 1886. They were not nurses, for the word "nurse" was not in the Bill. They were not bound to nurse. The woman was to act just as a doctor would do. The Council had cleared the ground so far as nursing was concerned. But women were now admitted to the profession by certain corporations and universities, and here a new order of practitioners was to be established for women only. A medical student who had studied anatomy, physiology, and the fundamental sciences of medicine in a way in which these women would never study them, although coming up to the examination instituted under this Bill, would be turned away. It was not knowledge that was to admit but sex only—a preposterous position to take up. This Council was coolly told that they were not to give this midwifery diploma to men because that would be opening a door to unqualified practice. This door would be opened equally whether for men or for women. Was such a woman to be precluded from doing anything whatever that might arise in the course of treatment? They could not stop simply at the delivery of the afterbirth and the putting on of the bandage. There was the after-treatment, which really belonged to the Bill, although it was not expressed in it. He entirely agreed that the resolution knocked the Bill to pieces, and showed the absurdity of attempting to set up a new class of practitioners under the conditions which it contained. If the Bill had contained provision for the supervision of these women by medical men he would have given it his support, but as the Bill stood at present he must vote for the resolution.

Dr. Bruce wished he could rid his mind of the feeling he had that there was danger in the Bill, and that there could be a middle course. He felt strongly the necessity there existed for improving the kind of article they had had to deal with in the course of practice. He wanted a better trained set of midwives, with some control over them. He condemned the Bill as a bad one, and he would not be sorry to see the bottom knocked out of it.

The President then put the motion, in Clause 2 "To leave out the word woman and insert the word person." There voted for the motion 7, and 21 voted against it.

On the names being taken, Sir Walter Foster and Mr. Wheelhouse voted for the motion, Dr. Glover voted against it, and Dr. Bruce did not vote.

Some Restrictions in Clause 2.

Sir William Turner then moved, on behalf of the Committee, to make the clause read:

That the term midwife means a woman who undertakes to attend cases of natural labour, but not to discharge any other duties than those of a midwifery nurse.

Mr. Brudenell Carter thought the wording led to absurdity, and should be remodelled.

Dr. Atthill said it was intended to be a restriction, and to draw a line which would make it illegal for midwives to overstep their duties.

This proposal was rejected by the Council.

Is a Midwife a Lying-in Nurse?

Dr. Heron Watson proposed to make the term midwife mean a lying-in nurse who undertakes to attend cases of "natural labour."

On the vote being taken 11 voted for and 10 against the proposal.

Dr. MacAlister suggested to make it the midwife "a woman who undertakes to attend cases of natural labour and to nurse lying-in women," but this also was negatived by 14 to 10.

Limitation of Function.

Mr. Teale proposed to add the words "subject to restrictions and regulations made by the Board provided for under Clause 6 of this Act."

Sir William Turner, however, pointed out that it followed naturally that midwives must be subjected to the provisions of this Act.

Mr. Teale did not press his motion.

A further restriction was put forward by Dr. Kidd, who proposed that "for the purpose of this Act the term natural labour means labour completed within twenty-four hours from the commencement."

No one voted for this proposition.

Medical Supervision.

Dr. McVail then moved to insert after the words "natural labour," the words "under the supervision of a registered medical practitioner."

This was seconded by Dr. Heron Watson.

Dr. Glover wanted to know if Dr. McVail wished the Council to understand that the medical practitioner was to be present in every case.

Dr. McVail only meant what the words said. He did not mean personal supervision. What he meant to provide for was that while they were discussing this clause, to prepare the way for coming to Clause 6 for laying down such conditions as might be necessary. He wished to provide that the midwife should have some medical practitioner to fall back upon. The words were purposely elastic so that the Council could afterwards deal with them as it pleased.

On the vote being taken, 9 voted for the motion and 14 against.

What is a Midwife?

Dr. MacAlister proposed to stop at the words "natural labour."

This was seconded by Dr. Glover, and this was approved by the Council.

Dr. McVail stated that everything had been voted out which put the nurse under the care or jurisdiction of a

medical practitioner. The clause now read that the term midwife means "a woman who undertakes to attend natural labour." The Council could not define what the term "natural labour" meant. The only gentleman who had attempted to define it was Mr. Brudenell Carter, who remembered something which he had read in Ramsbotham many years ago. Was the Council going to advise the Lord President to introduce a Bill into the House saying that a midwife was to attend "natural labour" when they could not define what natural labour was? Parliament might say that the woman was quite capable of defining natural labour, just as everybody was supposed to know the whole law of the land. It would lead to endless trouble, and the clause as it stood was an absurdity.

Dr. BRUCE doubted if the term natural labour was understood at all outside, and did not think it would be safe to allow it to pass without restriction.

Dr. MACALISTER said the clause as it now stood would extend the net of the law as widely as possible, and include all women who undertook under any conditions this kind of practice. "Natural labour" might from time to time be defined in the rules of practice.

Dr. MacAlister's proposal was carried, and on being put as the substantive motion was carried by 20 to 5 votes.

THE PRIVILEGES OF REGISTRATION.

Clause 4 of the Bill dealing with this subject reads as follows:

A woman registered under this Act shall be entitled to act as a midwife in England and Wales. From and after the first day of January one thousand eight hundred and ninety-six no woman shall be entitled to recover any fee or charge in any court for attendance on or service rendered as a midwife unless such woman be registered under this Act, and the certificate of registration under this Act shall be a certificate entitling a woman to act as a midwife in cases of natural labour only, in accordance with the prescribed regulations made in pursuance of the terms of this Act. A certificate under this Act shall not confer upon any woman any right or title to be registered under the Medical Act, 1858, or the Acts amending the same, in respect of such certificate, or to assume any name, title, or designation implying that she is by law recognised as a licentiate or practitioner in medicine or surgery, or that she is qualified to grant a certificate of death.

The Committee proposed to add "or midwifery" after the words "medicine and surgery;" and to add to the end of the clause the words "if any such name, title, or designation is assumed, or if any certificate of death be granted, the midwifery nurse, on conviction, should be subjected to a fine not exceeding....."

PROVISIONS FOR EXISTING MIDWIVES.

The Committee, in dealing with Clause 5 of the Bill, saw strong objections to the wide powers given under this clause of the Bill for the registration of midwives who may represent themselves as at present engaged in *bonâ fide* practice. They considered that the conditions under which the registration of these persons should be permitted ought to be made much more stringent, or the register would be flooded with ill-educated persons. It was, in their opinion, important that certificates of character and of competency, as well as proof of occupation as a midwife, should be furnished by each candidate for registration under this clause.

The Council adopted this view.

THE MIDWIVES BOARD.

The Council adopted a motion by Dr. Atthill constructing the Board of three representatives from the Royal College of Physicians, three from the Royal College of Surgeons, three from the Society of Apothecaries, and a President to be elected by the Crown. The representatives of the Incorporated Midwives Institute, the body with whom the Bill originated, were not included.

THE FEES.

The Council, after considering the question of the fees and expenses, thought the sum of two guineas mentioned in the Bill would not be adequate for the purposes of the working of the Act.

The Council then adjourned.

Wednesday, June 5th.

SIR RICHARD QUAIN, BART, President, in the Chair.

THE MIDWIVES REGISTRATION BILL.

THE Council resumed the adjourned consideration of this Bill.

THE FEES.

The Council adopted the following recommendation: "The Council should suggest to the Lord President that the fees to be paid to the Midwives Board should not be fixed under the Act. It seemed desirable that the Midwives Board should be authorised to fix the fees subject to the approval of the Privy Council. It should also be pointed out that the General Medical Council as a supervising authority over the Midwives Board, would require to devote each session a portion of the sittings to the business of that Board, and would incur expenses in connection therewith. As the funds of the Council consist solely of the fees paid by medical practitioners for admission to the *Medical Register*, it did not seem to be equitable that they should be expended upon work imposed upon the Council in connection with the Midwives Board. Further, the practitioners of Scotland and Ireland would be contributing to pay the expenses of an Act extending only to England and Wales. The Council would point out that as the Bill has been introduced in the interests of the public, and as the midwives are not in a position to pay large fees for the purpose of registration, a grant should be made by the Treasury to meet the expenses of the Midwives Board, and the additional charges imposed upon the General Medical Council."

QUALIFYING TRAINING.

Dr. KIDD moved: "(*a*) To omit the words in Clause 5, line 23, 'Some hospital or workhouse infirmary or from,' and to insert in line 24 after the words 'or from' the words 'a chartered lying-in hospital.'" The clause would then read as follows: "Any woman who at the passing of this Act is in *bonâ fide* practice as a midwife, or has obtained a certificate in midwifery from the Royal College of Physicians in Ireland, or from a chartered lying-in hospital, or from the Obstetrical Society of London, or such other certificate as may be approved by the General Medical Council, and claims to be registered," and so on.

Dr. MACALISTER said that all reference to bodies of any kind should be left out, as well as references to particular sorts of certificates. Both of these should be subject to the Midwives Board, with the approval of the Council. He proposed that Clause 5 should read: "Any woman who at the passing of this Act is in *bonâ fide* practice as a midwife, or has obtained a certificate in midwifery approved by the Midwives Board, and claims to be registered before the expiration of two years from the passing of this Act, and produces the prescribed evidence of her title to be so registered (such title to be determined by the General Medical Council), shall be entered on the midwives register at such reduced fee as the Midwives Board shall prescribe." This was agreed to.

INSTITUTE OF MIDWIVES REPRESENTATION.

On the motion of Dr. WILKS, supported by Dr. THORNE THORNE, it was agreed to leave the representatives from this institute upon the Midwives Board.

The PRESIDENT said this institute were the authors and originators of the Bill. To leave out the authors would be to leave out the part of Hamlet.

THE MEDICAL OFFICER OF HEALTH.

On the motion of Dr. THORNE THORNE this clause was altered to read as follows: "Each medical officer of health throughout England and Wales shall be supplied with a copy of the register from year to year, and he shall keep this register accessible at all reasonable times for public inspection. Such medical officer of health, or in case either he decline office or the local authority shall otherwise determine, such other local registered medical practitioner as the local authority may appoint, shall be the local supervising authority over midwives in his district. It shall be his duty to report to the Midwives Board any case of malpraxis, negligence, or misconduct on the part of a midwife in his district which has come to his knowledge. For his services he shall receive such fees as the Midwives Board shall determine. No midwife shall commence practice in any district until she has first produced her certificates to the medical officer of health for the district in which she purposes to practice."

PENAL CLAUSES.

In relation to Clause 16, relating to prosecution of offences, the Committee ask the Council to point out to the Lord

President that no similar provision exists in the Medical Acts for the prosecution of offences, and they venture to suggest that, if such provision is considered necessary, the consenting authority should be either the registrar of the Midwives Board, or the local supervising authority referred to in Clause 12.

The Reply to the Privy Council.

On the Council resuming on the subject of the Midwives Bill

Sir Wm. Turner moved:

That the answer to the Lord President in reply to his desire for the opinion and observations on the subject of this Bill should consist of two parts: (1) The report of the Committee omitting their specific recommendations; (2) the resolutions now adopted by the Council.

Sir Walter Foster moved:

That the answer to the Lord President should be that this Council, while desiring to improve the education, training, and control of midwifery nurses, cannot support the Bill for the Registration of Midwives now before Parliament, inasmuch as that Bill would give a legal status to women who are not properly qualified to take sole charge of midwifery cases.

He thought that the preamble saying that the Council did not approve of the Bill was necessary not only for the honour and reputation of the Council, but also for the safety of the public and in the interests of the medical profession. The Council was in a difficult position. It would be known in both Houses of Parliament, and with the authority of both, that this Council had been engaged for two days or more in discussing the provisions of a Bill which practically had no authority. It was the Bill of a private member of the Upper House, and the product of a small and somewhat obscure body called the Incorporated Midwives Institute. The Bill had not been brought there by any of the great bodies with which the Council was associated, and it was opposed by a large number of the members of the medical profession on whose behalf he had the honour to address the Council. This Bill became a very serious matter when it receives directly or indirectly the sanction of this Council. It would put the Government in the position to say that this was no longer the Bill of Lord Balfour, but one which had been amended in very important particulars by the General Medical Council, and had been in that form sent back to the Lord President of the Council for him to proceed with on behalf of the Government. It would receive a sanction and authority it never had received before. The Council should be careful before sending in an unqualified opinion upon it without prefacing it with a statement as to its general character and principle. The Bill was bad because it gave persons who were not properly qualified the power to undertake the sole charge of midwifery cases. That was not the case by law in this country at the present time. There was a class of midwives in this country under the sanction of the Local Government Board, which was so careful of the poor women who were paupers that they did not allow the medical man to get rid of his own responsibility by the employment of a midwife, and the consequence was the supervision of the parochial medical officer of the district, and that was the latest opinion of the Local Government Board on this matter. But this Bill in the very first paragraph proposes that the Council should legalise the practice of these women among the poor without the supervision of any medical man at all. It opens a new principle, and creates a new class of practitioners in one department of the profession. The Council were actually going to give them a State licence, and to have a Midwifery Board appointed by this Bill, presided over by an important person appointed by the Crown. This is to issue certificates which would practically be diplomas to those women, which would have the additional advantage of being sanctioned by a State Board. In order to be worthy of this they should be adequately trained and educated. But they had practically no control of the education of these women, because some thousands would be put on the register on producing diplomas which the Council had already regarded as colourable imitations of medical diplomas, and under cover of which very unfortunate practices had been going on in various parts of the country, so much so that their form had recently been altered by the Council. The Council had shown that this concession to the female sex was so serious that it dared not support a similar proposal on behalf of the male sex for fear of creating an inferior class of practitioners. What was good enough for women ought to be quite good enough for men. The Council was under the impression that it would be able to control a good deal the action of this Midwives Board by its amendments. That was a delusion and a snare. The Council had only the Bill before them in an extremely early stage; there would be no opportunity of seeing the Bill later should they be set aside, and yet by acceding to the principle of the Bill, and when it became law the Council would be in the position of having practically no control. The Council at the end of the process of legislation would be in an extremely difficult position. If their opinion had been asked on a complete Bill the matter would have been different. The Bill was a danger in making unqualified practice dangerous by placing those on the register in a position to become unqualified practitioners; there was danger as to discipline and danger to the public, inasmuch as these women—qualified as they would be by virtue of the diploma—would be able to carry on the same kind of work as they had done in the past. The Bill gave them the sanction in the eyes of the public to practise a branch of the medical art, a position denied to medical men. The position would lead to much danger in general practice, and be injurious to public health. He did not wish to interfere with the better training and education of midwifery nurses. This was the only civilised country in which midwives were not legalised. In all countries where they are legalised the puerperal mortality was greater than in England, as shown by Parliamentary returns. There was no reason to find fault with the puerperal mortality in this country. The Council had recently had many instances of the dissemination of puerperal fever among the poor by holders of these certificates. He appealed to the Council to qualify its approval of this Bill by passing the resolution which he had proposed in order not to mislead the Government or the House of Commons by giving approval to a Bill dangerous to the public health, injurious to the medical profession, and not conducive to the morality and well-being of the public.

Mr. Wheelhouse briefly seconded the motion.

Dr. MacAlister said the mover had stated that the Council was placed in a position of great gravity in relation to this matter, inasmuch as they were asked to give approval to the principle of a Bill whose details may be afterwards altered in Parliament, and they would have no voice as to whether these alterations were good or bad. The Council's position was very much graver in another direction. They had had sent down a Bill by the Lord President of the Privy Council, asking for their observations upon it, that was to say, the Council was entrusted by the official representative of the Government with the privilege of discussing and remarking upon the provisions of the Bill which had come officially before him. That he took to be a considerable compliment paid to the Council by the Government, and one which it would ill become the Council to decline or to treat in any way cavalierly. He ventured to think that if they returned the answer which Sir Walter Foster proposed that they should return the Council need never expect to have any Bill on any subject whatever sent to them again. The Bill had been sent to the Council because it was thought that the Council would be able to give an opinion of some value: the Lord President presumed that the Council was capable of taking a grave and judicial view of the matter. The reason which moved the Lord President to take this step was to be found in the history of the Council itself. From 1877 onwards the Council had given a consistent voice on the subject of the registration of midwives—not of midwifery nurses. Midwifery nurses had come up for the first time this session, and from the mouth of Sir Walter Foster.

Mr. Wheelhouse: No, no; it has been discussed here before.

Dr. MacAlister: It was not found on the minutes of the Council or in the report. He should like to point out that no complaint of abuses arising from the practice of midwifery nurses had come before the profession or Parliament. No one had said that these nurses required control, or supervision or registration in that sense of the word. The whole question had arisen because it appeared from successive

reports of Committees of Parliament, from inquiries made by medical men, from inquiries instituted under the authority of this Council, that the practice of midwives in the ordinary sense was subject to abuse, and that the practice required close supervision and control. To return an answer of the kind proposed by Sir Walter Foster would be to stultify the Council, and make it appear that the Council's opinion, when the Government wanted it at a pinch, was not to be depended upon. The gravity of the situation was extreme. They had to consider whether or not this Council was one capable of giving judicious, wise, and serious advice to the Government upon a question when the Government asks for it. He trusted they would stick to the motion which Sir Walter Foster carried in 1889:

That this Council regards the absence of public provision for the education and supervision of midwives as productive of a large amount of grave suffering and fatal disease among the poorer classes, and urges upon the Government the importance of passing into law some measure for the education and registration of midwives.

The Government had received that resolution, and took the first opportunity of asking the Council's opinion of this particular measure. Their answer to that ought to be carefully weighed and not be evasive, as it would be if the Council were to return the answer that had now been proposed by Sir Walter Foster.

Dr. GLOVER said the difference which had arisen on the part of his colleagues representing the profession was on their part and not on his. He wanted the Council to remember that the great object of such legislation had been conveyed in words which would remain historical, uttered by one of the most influential members this Council had ever possessed, unfortunately now no longer with them, "the protection of women from the incompetent." That was the object of the Bill. The Bill did not aim at providing the attendance of Sir John Williams on the poor, or the general practitioners of this country, or anything else which was impracticable. Sir Walter Foster had told them that there was no urgency at all about this matter, that the mortality of the country was quite satisfactory. That was strangely inconsistent with what the recent deputation had told them, that from 4,000 to 5,000 died annually, many of them at the hands of untrained nurses. Mr. Wheelhouse said there was no longer the same necessity for them. Could he tell the number of women who were delivered living with their families in one room in any of the large towns? There was no evidence that the position of women had been altered either socially or monetarily so as to enable them to employ a medical man. All the evidence was the other way. They had positive evidence that between 40 and 50 per cent. of women were attended by midwives because they could not afford doctors. That fact was not denied. They were told that a little knowledge was dangerous, but it was in this instance better than none at all. A question had been asked, disrespectful to one's intelligence, whether members would like their own wives or daughters to be attended by such women. If he had to choose he would, without the slightest doubt, prefer the registered midwife to the unregistered, dirty, untrained, and intemperate woman. Women with the training contemplated in this measure were safe practitioners in ordinary cases. In a lying-in hospital attended by these midwives they had 1,600 women delivered with only 2 deaths. Any medical man would be proud of such a record. A tolerable education could be had in six months, and the midwives were to be subject to the rules and regulations of the Midwives Board. The constant contact with medical men would make midwives more amenable to reason than they would be if left alone. Sir Walter Foster evidently wished for no legislation at all on this subject.

Sir WALTER FOSTER said that statement was incorrect. He was prepared to accept the Bill if it was to apply to "midwifery nurses." This Bill gave midwives sole charge of the case.

Dr. GLOVER, continuing, said nobody proposed that they were to take sole charge. He believed a majority of the profession thought with them on this matter. The case was tragic and the position of the Council so grave that there was not the least excuse for delay. Was that Council to go on for twenty years more demanding that some Bill shall pass, and demurring to each Bill in turn? If the Council followed Sir Walter Foster's instigation it would be discredited as an advising body and unfit for guiding the medical profession. If anything convinced him of the necessity for legislation and that the credit of the Council was concerned it was the appalling nature of the alternatives of the legislation they were asked to wait for. Were they to wait for a Bill demanding three years' training from these nurses? That was impracticable, and would be highly injurious to the medical profession in this country. It might ultimately take the whole of the midwifery practice of this country out of the hands of general practitioners. He thought the proposal to give every man the right to enter the lying-in chamber ill became a statesman like Sir Walter Foster.

Dr. MCVAIL said he represented, as a Crown member, an independent position in this matter, and looking to the public interest he emphatically supported Sir Walter Forster's resolution. He regretted it was not stronger. Dr. Glover told them that it was impossible to provide a medical practitioner for the poor woman in her most trying moments. If a child were ill of measles or if a person suffered from rheumatism the country would provide a medical practitioner. The country would not allow a child to be vaccinated by a non-registered person, and yet this Council was to permit this class of practitioners to conduct this medical work of enormous seriousness without medical supervision. Had this Council amended the Bill and put them under the supervision of medical men of competence to attend in times of difficulty he would have allowed the Bill to pass without opposition. But the Council, for reasons known best to itself and to its different members, had objected to any such addition being made to the Bill. To him the Bill was so utterly and entirely bad that he had no help whatever but to support the resolution.

Dr. BATTY TUKE thought the Council had almost a right to expect from Sir Walter Foster some explanation of his action in previous years. Surely he had some views of his own regarding a midwives registration Bill, but he had not communicated them to the Council.

Sir WALTER FOSTER said he had fully explained his position two days ago, but possibly the explanation had not satisfied Dr. Tuke. That, however, was not his fault.

Dr. BATTY TUKE thought they ought to have further reasons. He believed the attempt to kill this Bill indicated Sir Walter Foster's determination to treat all such Bills in the same way, which dealt with the women who suffered in the manner described in his own resolution of 1889, in the interests of a small and inconsiderable part of the medical profession.

Mr. BRUDENELL CARTER told the Council that the history they had had before them of the measure was evidence that the Council had been conscious that necessity existed for legislation of this kind. Dr. McVail appeared to be oblivious of the fact that attendance on measles or pneumonia differed from midwifery practice. In the former case, the visit occupied only a few minutes, whereas attendance on a case of midwifery implied attendance for some hours. In 99 cases out of 100, labour was strictly a physiological process, and the chief requirement seemed to be that it should be under the supervision of someone sufficiently skilled to know when pathological symptoms were making their appearance. This Bill was the beginning of improved education, and he would not regret it if women could undertake the whole of this kind of medical practice. He trusted Sir Walter Foster's resolution would be rejected by a sufficient majority of the Council to show that it was fully alive to the grave responsibility cast upon it.

The PRESIDENT said he would just add a few words. The Council must either let the condition of matters go on as at present or amend it. They could not allow those horrors to continue at the hands of ignorant uneducated women. Since 1872 the Council had desired powers to make rules for the education of women in this branch of midwifery. The question had been before the Council for twenty-three years. Two years ago it had been raised by Sir Walter Foster again. He did not see any answer they could send to the President better than Sir Walter Foster's original resolution. He could not understand why he had changed so entirely his views on this matter.

Sir WALTER FOSTER: Is it not possible for a man to grow wiser?

The Rev. Dr. HAUGHTON: Quite possible, but very rare.

The PRESIDENT sincerely hoped, for the credit of the Council, that they would adopt the recommendations of the Committee as amended by the General Council.

There voted for Sir Walter Foster's motion 7, and against it 16. The 7 were Mr. Wheelhouse, Dr. Gairdner, Dr. Heron Watson, Dr. McVail, Dr. Philipson, Dr. William Moore and Sir Walter Foster. Dr. William Bruce was absent when the vote was taken. Dr. Atthill, Sir Philip Smyly, Dr. Haughton, and Dr. Charles Moore, did not vote.

On the first part of Sir William Turner's motion being put to the Council, 23 voted for the motion and 6 against it. The second part was agreed to *nem. con.*

FURTHER BUSINESS.

The Council postponed the consideration of the communication from the Apothecaries' Hall of Ireland, asking power to conduct in future examinations independently; and to ask the Council to appoint examiners. The Council adopted at the November session the following resolution:

That as regards the communications from the Apothecaries' Hall of Ireland of July 9th and November 23rd, 1894, the Council cannot take the questions raised into consideration until after it has received from the Examination Committee the report on the Conjoint Examination of the Royal College of Surgeons and Apothecaries' Hall of Ireland, recently visited.

This report was now completed, and the Council would proceed subsequently to the consideration of this subject. After appointing committees the Council adjourned.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 10th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June 6th, 1895.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, May 8th, 1895.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of this Branch will be held on Tuesday, June 11th, at 5.15 P.M., at the Royal Forest Hotel, Chingford.—ANDREW CLARK and ISAMBARD OWEN, Honorary Secretaries.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will take place on June 13th, at 3.30 P.M., in the Medical Institute, when, after the transaction of formal business, the President-elect, Dr. A. H. Carter, F.R.C.P., will deliver an address. The annual dinner will be held the same day, at the Great Western Hotel, at 6.30 P.M. Gentlemen desirous of attending should send their names to GILBERT BARLING, Honorary Secretary, 83, Edmund Street, Birmingham.

MIDLAND BRANCH.—The annual meeting will be held at the Royal Infirmary, Derby, on Thursday, June 13th, at 2 P.M. After the transaction of the usual business, the following papers will be read and discussed: Mr. C. J. Bond: Remarks on a case of Splenectomy, with observations on the Condition of the Blood. Dr. Pope: Case of Post-diphtheritic Paralysis; Feeding under Chloroform for Ten Days; Recovery. Mr. J. P. Greenwood: (1) Fractured Pelvis in Man; (2) Torn Urethra; (3) Perineal Section following upon Suprapubic Opening of Bladder; Recovery. Dr. J. H. Neale: Some Remarks on Enteric Fever and its Treatment. Dr. Sympson: A case of Primary Cancer of the Pancreas. Mr. C. H. Hough: Bovine Tuberculosis: its Relation to Milk as Human Food. Dr. W. Benthall: A case of Friedreich's Disease, with notes. Luncheon will be provided by the President-elect at the Midland Hotel at 12.45 P.M., and the dinner will take place at the same place at 5.30 P.M.; tickets 7s. 6d., exclusive of wine.—W. A. CARLINE, M.D., Honorary Secretary and Treasurer, Lincoln.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at The Castle, Framlingham, on Thursday, June 13th, Mr. A. C. Mayo (Great Yarmouth) President. Programme:—11.30 A.M. Meeting of the Council of the Branch. 12 noon. Meeting of the Branch for business. 1.30 P.M. Luncheon in the Castle by invitation of Mr. G. E. Jeaffreson, President-elect. 2.30 P.M. Introduction of new President by retiring President. Short address by the President. Consideration of a communication from the Parliamentary Bills Committee *re* Midwives Registration Bill; discussion to be opened by Dr. A. R. Manby. Dr. J. C. Thresh: The Bacteriological Diagnosis of Diphtheria, with exhibitions of cultures and culture outfit. Mr. H. Cooper-Pattin: On Notified Diarrhœa in Norwich, 1894. Mr. W. M. Crowfoot: Case of Vaginal Hysterectomy, with specimen. Mr. W. W. Sinclair: Intraocular Sarcoma, with specimens. There will be an exhibition of surgical instruments and appliances by Messrs. Down Brothers, of London, and of pharmaceutical novelties by Messrs Burroughs, Wellcome and Co. By the courtesy of the Rev. J. Holme Pilkington, afternoon tea will be provided in the rectory grounds.—EDGAR G. BARNES, M.D., Eye; MICHAEL BEVERLEY, M.D., Norwich; THOMAS CARR, M.D., Braintree, Honorary Secretaries.

CAMBRIDGE AND HUNTINGDON BRANCH.—The annual meeting of this Branch of the Association will be held at Bishop's Stortford on Friday, June 14th, Dr. Morris, the President elect, in the chair.—JOSEPH GRIFFITHS, 4, King's Parade, Cambridge, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The twenty-fifth annual meeting will be held at the Hospital, Swansea, on Thursday, June 27th. Members desirous of reading papers, etc., should send titles to Dr. Sheen by June 12th.—A. SHEEN and D. A. DAVIES, Cardiff, Honorary Secretaries.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the Sheffield School of Medicine on Wednesday, June 26th, at 3 P.M., when the usual business will be transacted and the alteration of a rule proposed. Members intending to read papers are requested to communicate with ARTHUR JACKSON, Sheffield, Honorary Secretary.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The summer meeting of the Branch will be held at Keith on Thursday, June 20th. There will be a drive to Gordon Castle, and an opportunity will be given of inspecting the castle and grounds. A light luncheon will be provided, and a dinner will be held at Keith. Full particulars as to the fares and prices will be intimated to members by circular.—C. THISELTON URQUHART and J. SCOTT RIDDELL, Aberdeen, Joint Honorary Secretaries.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at the Town Hall, Hastings, on Wednesday, June 12th, at 1.45 P.M., Dr. B. H. Allen, President-elect, in the chair. The President-elect invites members and their friends to luncheon at the Town Hall from 12.30 to 2 P.M. Dinner at the Palace Hotel at 5.15 P.M.—T. JENNER VERRALL, Honorary Secretary, 87, Montpellier Road, Brighton.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The annual meeting will be held in the Gordon Arms Hotel, Elgin, on Thursday, June 20th, at 12 noon. Members desirous of making any communication, or members of the profession within the district who may wish to become connected with the Branch, will oblige by communicating with the Honorary Secretary not later than June 12th.—J. W. NORRIS MACKAY, Honorary Secretary, Elgin.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Liverpool on Wednesday, June 19th. Gentlemen wishing to read papers, give demonstrations, or make any communication to the meeting, are requested to communicate as soon as possible with Dr. JAMES BARR, Honorary Secretary, 72, Rodney Street, Liverpool.

SOUTH MIDLAND BRANCH.—The fortieth annual meeting of this Branch will be held at the General Infirmary, Northampton, on Thursday, June 27th, at 2.30. Gentlemen wishing to enrol themselves as members of the Association or Branch, and members desirous of bringing forward communications at the meeting are requested to inform the Secretary of their intention without delay. The following papers and cases have been promised:—Mr. W. G. Nash (Bedford): Adenoids, their Diagnosis and Treatment. Dr. W. Harding (Berry Wood, Northampton): Some Practical Points in the Management of the Acutely Insane in Private Houses. Mr. R. A. Milligan (Northampton): Two cases of Recurrent Appendicitis successfully treated by Resection of the Vermiform Appendix.—C. J. EVANS, Honorary Secretary, Northampton

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—An ordinary meeting will be held on Tuesday, June 11th, at the Medical Library, 5, Pembroke Road, Portsmouth, at 9 P.M. C. C. CLAREMONT, Honorary Secretary, 57, Elm Grove, Southsea.

NORTH OF ENGLAND BRANCH.

THE spring meeting of this Branch was held at the Royal Infirmary, Newcastle-on-Tyne, on May 30th, Dr. OLIVER, President, in the chair.

New Members.—Drs. Calthrop, Robinson, and Meadowfield were elected members of the Branch.

Communications.—Dr. ROBERTSON showed a well-marked case of Acromegaly.—Dr. GOWANS brought forward a patient who had recovered from Fracture of the Skull, with Laceration of the Brain; and he also showed specimens from three cases of operation for Extrauterine Pregnancy.—Dr. MURPHY and Dr. CRISP showed specimens from cases of Extrauterine Pregnancy.—Dr. AINSLEY showed a Suppurating Kidney removed by Abdominal Section, and some Ovaries and Tubes.—Dr. MURPHY read notes of a series of cases of so called Puerperal Fever treated by Abdominal Section, and another series treated by Curetting and Drainage.—Dr. HUME brought forward a series of cases of Gangrene.

Dinner.—The dinner after the meeting took place at the Douglas Hotel.

SPECIAL CORRESPONDENCE.

PARIS.

The Proposed New Lunatic Asylum at Ville Evrard.—Unwholesome Veal.—Suicide in France.—Cremation.—Revaccination.—General News.

THE Conseil Général de la Seine will soon be convened to decide on the organisation of the new Ville Evrard Asylum. It is expected that the debate will be animated. Some of the members of the Council sitting on the Commission are partisans of the views of M. Marandon de Montyel, who holds that the patients should lead the lives of artisans, agricultural labourers, etc., living under conditions which shall as far as possible realise the idea of a home. M. Marandon de Montyel's supporters have announced their intention of fighting strenuously in order to have them put in force. On the other hand, a majority of the Council, from a false idea of economy, are in favour of an asylum of the prison or barrack order.

M. Vallin has studied the phenomena of poisoning that follow the eating of the flesh of calves killed too young or which have been ill. It is a generally accepted fact that young veal causes diarrhœa. M. Vallin states that very young calves are killed only when they are seriously ill. The septic diseases to which bovine animals are chiefly liable are septic pyæmia, acute or chronic, following an umbilical phlebitis, and septic diarrhœa or infectious pneumo-enteritis. M. Vallin urges that these diseases should be added to those which render meat unfit for sale as human food, arguing that if an animal is killed one or two hours before a natural death would have resulted from septic pyæmia or septic diarrhœa, its flesh is as dangerous as an article of food as if it had been left to die without intervention. The Academy of Medicine will study the question.

Suicides in France were less frequent in 1889 and in 1890 than in previous years. Subsequently they increased from 6 638 to 8.884 in 1891, and 9.285 in 1892. In 1892 there were 87 suicides committed by children under 16 years of age; in 1880, 55; and 80 in 1890. From the age of 16 to 20, there were 267 suicides in 1880: 358 in 1890; and in 1892, 457.

The *François Quotidien*, an excellent daily paper, which is more careful in its statements than the generality of French journals, declares that cremation is making headway in France. It attributes this progress to the influence of fear of being buried alive suggested by recent sensational accounts of people narrowly escaping this terrible fate.

The French prefects are about to issue a circular directing medical men to revaccinate children over 10 years of age, and especially those in public schools. Animal vaccine is to be used fresh from the heifer. Arm-to-arm vaccination is forbidden.

Fourteen snakes were recently sent to the Natural History Museum for the purpose of making experiments on the virus. So anxious was the care taken to prevent them from suffering from the cold, that when they arrived at their destination it was found that they had died of suffocation.

The Paris Academy of Science has elected M. Van Beneden, the Belgian chemist, and Professor Frankland, F.R.S., as foreign associates.

The sum of 4,000 francs bequeathed by Dr. G. Philippart to the Medical Faculty of Lille will be used to found a Philippart prize, enabling the winner to travel or to carry on laboratory or chemical studies.

The French Congress of Mental and Nervous Diseases will be held at Bordeaux on August 1st.

BERLIN.

Laboratory Infection and Accident Assurance.—Prince Bismarck's Head.

A SHORT time ago Dr. Oergel, one of the assistants of the Hamburg Bacteriological Institute, died of an attack of cholera, which it is thought he contracted through working with the bacilli. He was insured against death from accident, and his widow claimed the insurance money on the plea that the cholera attack in question could not be classed amongst infectious diseases, but was an accident that had occurred in the exercise of his profession. The company refused payment, the widow sued them and lost her case, the court deciding that cholera was an infectious disease, such as typhoid, influenza, or tuberculosis, and did not fall under the head of accidents; and, further, that the plaintiff's plea that the deceased had contracted the illness in the exercise of his profession was quite irrelevant, as the insurance held good for all accidents where or howsoever they occurred.

Prince Bismarck is still alive and bears his head erect on his shoulders. That head has been photographed, painted, and modelled innumerable times; no head—it may be safely asserted—is more universally known, and one hardly understands how its shape can furnish matter for controversy. Yet so it is. The anthropologists got hold of it and are at sixes and sevens about it. Herr Ammon, of Carlsruhe, pronounced Bismarck to be "longheaded." Virchow inclined to think him mesocephalous. Measurements in support of both opinions were produced, and curiously enough they come from one and the same source, namely, Professor Schaper, the sculptor of a celebrated Bismarck bust. The solution of the apparent discrepancy is simple enough. The one set of measurements was made above the hair, of which Bismarck has still a respectable fringe on each side of his head, and the other on the skull below the hair. Whatever anthropometry may say, the plain man will probably continue to believe that Prince Bismarck is decidedly "longheaded."

CORRESPONDENCE.

MIDWIVES' REGISTRATION AND THE MIDWIVES BILL.

SIR,—I can assure Mr. Horsley that nothing was further from my intention than opening a "battery" on him. I merely asked him to define the term "midwifery nurse" which he used and which I did not understand. I have read his somewhat lengthy explanation very carefully and I am sorry to say I am not much "forrarder." So far as I can make out by a "midwifery nurse" he means a woman who shall be:

1. Educated and registered.
2. Capable of attending a normal labour.
3. Incapable of attending any labour which is not normal and obliged in all such cases to call in a registered medical practitioner.
4. In no sense a registered "fully qualified obstetrical practitioner."

That is precisely what I mean by a "registered midwife." So that happily Mr. Horsley and I are thoroughly at one. You may call such a woman a "midwifery nurse," or, for the matter of that, you may call her a "horse chestnut," but a midwife she will certainly be, and I fancy the majority of your readers will prefer a good old Saxon word, thoroughly understanded of the people, to a complex and cumbrous designa-

tion which remains unintelligible even after Mr. Horsley's explanation.

That any supporter of the Midwives Bill contemplates for a moment the registration of a class of women who shall be "fully qualified obstetrical practitioners" is an invention of the enemy which has been exposed so often that it is surely needless to deny it again.—I am, etc.,

George Street, W., June 1st. W. S. PLAYFAIR.

SIR,—In the BRITISH MEDICAL JOURNAL of May 18th, 1895, you publish a letter under the above heading, signed by Dr. Rentoul. May I, in the first place, point out the great injustice which is being done to the Bill now before Parliament by confusing together the two separate questions (as pointed out by the President of the General Medical Council) of the certificates granted midwives by the Obstetrical Society and other bodies, and that of the education, etc., of midwives included under the term "registration." The two things have only this in common—that some of the certificates, if not all of them, will disappear with the passing of the Act.

I will first comment upon some misquotations with which Dr. Rentoul, according to his custom, fortifies his case.

Dr. Rentoul argues "that it is not really meant to enforce any penalties, because no prosecution shall be instituted by a private person;" and he goes on to prove this by "the Medical Act, the Dentist Act, and the Pharmacy Act (S. 17) provide that 'any person' can institute proceedings, but the criminal midwife is to go free." What these Acts really state about the prosecution of a person registered under one of them is:—Medical Acts, 1858 to 1886: absolutely nothing. Dentist Act, 1878: "A prosecution for any of the offences above in this Act mentioned shall not be instituted by a private person, except with the consent of the General Medical Council or of a Branch Council, but may be instituted by the General Medical Council, by a Branch Council, or by a medical authority, if such Council or authority think fit." This applies to a person falsely using a dental qualification which he does not possess. Otherwise there is nothing said about "any person instituting proceedings." Doubtless the Pharmacy Act would show a similar misstatement of its provisions.

Another remark he makes is: "I cannot discover in this Bill any clause which distinctly empowers the Midwives' Board to remove the name of a midwife from their register;" and he quotes Clause 6 (*f*) in respect to the framing of its rules. Clause 6 (*g*) gives the required authority; it must therefore be presumed that Dr. Rentoul has overlooked this.

Dr. Rentoul enumerates a long list of minor operations which he would wish to see a midwife forbidden to perform by provisions in the Bill. Since any person can now perform any operation whatsoever upon any other person who is silly enough to allow him, why does Dr. Rentoul restrict his objection to the few he mentions? Surely he would not allow the midwife to amputate an extremity, or perform abdominal section, or any of the other operations included under the head of surgery? Yet if the ones he mentions were to be put into an Act he would, reasonably enough, argue that she was only forbidden these special ones and that she might do any other she pleased.

He objected in a previous Bill to the mere mention of the word "operation;" now he not only wishes it put in, but to put it in in such a manner as to appear to give a right to perform more serious operations than the ones he mentions.

For practical purposes it will be sufficient for most persons that a midwife whose name is on the register of midwives will practise under rules approved by the General Medical Council, and that her name can be removed from the register of midwives for infraction of them.

As to the granting of certificates of stillbirth and of death by midwives, it is evidently highly improper that unqualified persons should give certificates of this nature; but various Acts of Parliament tend to block the way towards absolute prohibition. It is hoped that the difficulties may be overcome and the granting of such certificates by midwives prohibited under the Bill.

As to midwives in Scotland and Ireland who are not at present to be included in the register of midwives, it is evident that an Act of Parliament cannot impose a maximum of knowledge. A minimum of knowledge is imposed under the present Bill, and there will, undoubtedly, be no difficulty as to the admission of future midwives who shall have passed an examination above the required standard to the midwives register. Clause 6 (*b*) and (*c*) allow the Board not only to appoint the examiners and assistant examiners but to say when and where the examinations shall be held. It is not forbidden to hold examinations in either Scotland or Ireland, nor is it intended to interfere in any way with Irish or Scottish midwives.—I am, etc., F. ROWLAND HUMPHREYS.

Fellows Road, South Hampstead, N.W., May 23rd.

SIR,—May I be permitted to point out that the resolution passed by the Shropshire and Mid-Wales Branch was as follows:

"That in the opinion of the Branch the present system of allowing any woman, even without the slightest training or fitness, to practise as a midwife, and under no control, is unsatisfactory."

This resolution was passed on June 26th, 1894, *nem. con.* By it the Branch wished to express its strong dissatisfaction with the present system (or rather want of system); but it refrained from passing any opinion on the different remedies which had at that time been proposed.

Dr. C. G. Havell is therefore not quite accurate in his statement that a resolution was passed in favour of registration of midwives. This Branch is still free to discuss, and to give an opinion upon, any scheme for ameliorating the present state of things which may be placed before it.—I am, etc.,

H. WILLOUGHBY GARDNER,
Hon. Secretary Shropshire and Mid-Wales Branch.

Shrewsbury, June 5th.

NAVAL AND MILITARY MEDICAL SERVICES.

SURGEON-CAPTAIN WHITCHURCH.

THE correspondent of the *Times* with the Chitral expedition, in a letter written immediately after a visit to the fort, states that the manner in which Surgeon-Captain Whitchurch carried Captain Baird into the fort was, in the opinion of all the officers of the garrison, one of the most gallant feats ever performed. He gives the following more precise details which he had from the lips of officers who actually witnessed the occurrence. Captain Baird had been sent with a small party to ascend a hill about a mile and a-half from the fort, and attack a body of the enemy stationed on it. In doing this he received the wound from which he died; the attack failed and his men had to retire. The attack which was being made on a village by the main body lower down having also failed, the whole body had to retire, and when they arrived within the walls of the fort they found Captain Baird and Surgeon-Captain Whitchurch missing. But presently the latter was seen staggering along towards the gate bearing Baird on his back, and his story was this: That finding Baird wounded with only two or three men by him, the rest of the party being engaged in the fight, he collected together half a dozen others, and then, supporting Baird, had made his way towards the fort. But now the troops were retreating and the enemy were on every side, firing from behind walls and houses, and madly excited at their success. Fortunately, however, darkness was setting in, and under cover of this Whitchurch made his way by a circuitous route, not under three miles in length, back to the fort. Once he had to set Baird down and lead his little guard to clear a way at the point of the bayonet. How he got through at all is a marvel; and just before reaching the fort poor Baird was hit again in the face. But he escaped himself unscathed and brought his comrade in, only, it is true, to die the following morning; but to die among his brother officers, to hear their praises of his gallantry, and to have the opportunity of sending through them one last message to his far-off home in England. We regret to note that Surgeon-Captain Whitchurch is proceeding to India, *viâ* Gilgit, on sick leave, having been suffering from repeated attacks of fever.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

M.B. PASS EXAMINATION, May, 1895.—PASS LIST.

First Division.—J. O. Harvey, St. Bartholomew's Hospital; J. R. Hickinbotham, Mason College, and General Hospital, Birmingham; W. H. Pollard, St. Bartholomew's Hospital; H. M. Rigby, London Hospital; A. Tait, Yorkshire College, and General Infirmary, Leeds; W. Turner, King's College; and J. E. Waite, University College.

Second Division.—G. J. Branson, B.A., Mason College; F. M. Burnett, St. Bartholomew's Hospital; A. W. R. Cochrane, St. Bartholomew's Hospital; W. H. W. Elliott, Guy's Hospital; P. C. Fenwick, St. Thomas's Hospital; G. W. Gostling, University College; W. E. L. Horner, University College; S. P. James, St. Mary's Hospital; R. L. Jones, University College; Harriet Edith Florence Knight, London School of Medicine, and Royal Free Hospital; J. Mace, Yorkshire College, and General Infirmary, Leeds; H. F. Mantell, St. Mary's Hospital; A. A. Martin, St. Mary's Hospital; L. J. Miskin, St. Thomas's Hospital; R. H. Norman, Westminster Hospital; C. Oldfield, Yorkshire College; B. A. Richmond, B.Sc., Guy's

Hospital; C. D. D. Roberts, Mason College, and General Hospital, Birmingham; G. N. O. Slater, St. Bartholomew's Hospital; E. Sly, King's College; T. A. Starkey, University College; J. R. Steinhaeuser, Guy's Hospital; and Helen Swatman, London School of Medicine and Royal Free Hospital.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,432 births and 3,529 deaths were registered during the week ending Saturday, May 25th. The annual rate of mortality in these towns, which had been 17.7 and 17.6 per 1,000 in the two preceding weeks, further declined to 17.4 last week. The rates in the several towns ranged from 9.5 in Croydon, 10.1 in Portsmouth, and 11.8 in Leicester to 25.1 in Burnley, 26.0 in Manchester, and 27.3 in Liverpool. In the thirty-two provincial towns the mean death-rate was 18 2 per 1,000, and exceeded by 1.9 the rate recorded in London, which was only 16.3 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.7 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, and was highest in Liverpool, West Ham, and Bolton. Measles caused a death-rate of 1.3 in Cardiff, 1.5 in Newcastle-upon-Tyne, 2.3 in West Ham, and 4.8 in Bolton; and whooping-cough of 1.3 in Bolton, 1.5 in Salford, and 1.8 in Plymouth. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 65 deaths from diphtheria in the thirty-three towns included 37 in London, 5 in West Ham, 4 in Wolverhampton, 3 in Birmingham, and 3 in Liverpool. No fatal case of small-pox was registered either in London or in any of the thirty-two large provincial towns. There were 29 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, May 25th, against 34, 33, and 27 at the end of the three preceding weeks; 7 new cases were admitted during the week, against 8, 6, and 4 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,413, 1,438, and 1,446 at the end of the three preceding weeks, had further risen to 1,503 on Saturday last, May 26th; 214 new cases were admitted during the week, against 107, 179, and 185 in the three preceding weeks.

In thirty-three of the largest English towns, including London, 6,369 births and 3,492 deaths were registered during the week ending Saturday, June 1st. The annual rate of mortality in these towns, which had declined from 17.7 to 17.4 per 1,000 in the three preceding weeks, further fell to 17.2 last week. The rates in the several towns ranged from 9.9 in Croydon, 11.4 in Cardiff, and 12.3 in Hull to 23.8 in Manchester, 27.6 in Liverpool, and 28.0 in Wolverhampton. In the thirty-two provincial towns the mean death rate was 18 4 per 1,000, and exceeded by 2 9 the rate recorded in London, which was only 15.5 per 1,000. The zymotic death rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.9 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, and was highest in Bolton, Plymouth, and Wolverhampton. Measles caused a death-rate of 1.2 in Newcastle-upon-Tyne, 1.7 in Bolton, and 2.3 in Plymouth; scarlet fever of 1 0 in Burnley; whooping-cough of 1 2 in Wolverhampton and in Blackburn, and 1 6 in Gateshead; and "fever" of 1.0 in Derby. The 69 deaths from diphtheria in the thirty-three towns included 41 in London, 5 in Wolverhampton, 4 in West Ham, and 3 in Leeds. No fatal case of small-pox was registered either in London or in any of the thirty-two provincial towns. There were 20 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, June 1st, against 33, 27, and 29 at the end of the three preceding weeks; 1 new case was admitted during the week, against 6, 4, and 7 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,438, 1,446, and 1,503 at the end of the three preceding weeks, had further risen to 1,524 on Saturday last, June 1st; 187 new cases were admitted during the week, against 179, 185, and 214 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, May 25th, 898 births and 584 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.7 and 21.9 per 1,000 in the two preceding weeks, declined again to 20.2 last week, but exceeded by 2.8 per 1,000 the mean rate during the same period in the large English towns. Among these Scotch towns the death-rates ranged from 14.5 in Paisley to 23.3 in Aberdeen. The zymotic death-rate in these towns averaged 2 2 per 1,000, the highest rates being recorded in Dundee and Perth. The 309 deaths registered in Glasgow included 12 from whooping-cough, 3 from diphtheria, 3 from measles, and 2 from scarlet fever; and 4 fatal cases of measles occurred in Aberdeen.

During the week ending Saturday, June 1st, 936 births and 617 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.1 and 20.2 per 1,000 in the two preceding weeks, rose again to 21.4 last week, and exceeded by 4.2 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 14.9 in Leith to 26.0 in Dundee. The zymotic death-rate in these towns averaged 2 1 per 1,000, the highest rates being recorded in Dundee and Perth. The 294 deaths registered in Glasgow included 16 from whooping-cough, 5 from diphtheria, and 3 from "fever." Five fatal cases of measles and 2 of diphtheria were recorded in Edinburgh.

ALTERATION OF MEDICAL DISTRICT.

A POOR LAW MEDICAL OFFICER writes to say that in consequence of the county council having altered the boundary of the union, which has caused an addition to his area, and this at a distance of some miles from him, only a small additional salary of four guineas a year has been awarded for his increased duties. He considers this should be £20, which the guardians refuse; they also refuse to make a separate medical district of the area in question, and to give this appointment to another practitioner. He asks: 1. Can he refuse to undertake the care of the additional district and retain his former appointment? 2. Can he refuse the nominal payment offered and ask the Local Government Board to fix a suitable salary? 3. Would the Local Government Board allow him to decline the work unless a suitable salary be paid?

*** This case well illustrates the fact that the term "life appointment" as applied to a Poor-law district is altogether a misnomer, as by Article 5, Consolidated Order, May 25th, 1857, the guardians have power under certain circumstances to determine an appointment, and this without any compensation whatever. The article is as follows:

"When a change in the extent of the district of a medical officer shall be deemed necessary for the more convenient supply of medical relief or otherwise for the general benefit of the union, and he shall decline to acquiesce therein, the guardians may, with the consent of the Poor-law Board, but not otherwise, and after six months' notice in writing given to such medical officer, determine his office."

It is evident from the above that our correspondent must be prepared to undertake the work of the newly-formed district, and, if he declines to do this on the terms proposed, the guardians will have power to offer the same to anyone else, or to advertise the appointment as vacant. We think it very questionable whether the Local Government Board would insist on a higher salary being fixed than that already offered by the guardians.

OBITUARY.

JOHN NOTTINGHAM, F.R.C.S., M.R.C.P.,
Liverpool.

DR. JOHN NOTTINGHAM came from Yorkshire and was apprenticed to the father of Mr. C. G. Wheelhouse. He studied medicine at Guy's Hospital, and in Paris, where he followed the clinics of Dupuytren and Velpeau. About the year 1837 he was appointed House-Surgeon to the Liverpool Infirmary, as it was then called—now the Royal Infirmary. While there he was noted for the eagerness with which he pursued his clinical and pathological studies, and a contemporary friend who survives him recalls occasions on which they made *post-mortem* examinations together in the early morning, a time of day in which Dr. Nottingham was actively at work during a good portion of his long life.

He was a comparative recluse, but visited a good deal in a somewhat select circle of friends, among whom was the late Sir Joshua Walmsley, a former Mayor of Liverpool, with whom Nottingham travelled in Spain and frequently went on shooting expeditions in England.

He had an immense library, comprising medical, surgical, and other literature, dictionaries and encyclopædias, in most of the European languages, arranged on the walls of four spacious rooms, where also he had in many cabinets an extensive museum of surgical instruments of domestic and foreign make. He was a great student, an omnivorous reader, and when not reading hard himself he employed a polyglot reader who lived in his house and arranged and managed his books. He was an accomplished linguist, and had a most retentive memory. A mind thus well stocked from many literary and scientific sources, great conversational power, and quiet affable manner rendered him a most charming companion.

He began general practice (without midwifery) in the centre of Liverpool about the year 1840, and quickly succeeded in getting plenty of work of all kinds, especially surgical. In a very few years, at the death of Mr. Wainwright, who had a large fashionable practice in the then charming and wealthy suburb of Everton, Dr. Nottingham settled in the neighbourhood. Here he lived for many years, in fact till he retired from practice altogether a year or two before 1880. Long before this time the street in which he lived had become a veritable slum.

In conjunction with the late Mr. J. Penn Harris and other friends, Dr. Nottingham founded the St. Anne's Dispensary, an institution which quickly attracted notice and popularity. Here Dr. Nottingham devoted himself to the study of eye and ear diseases, upon which he published several works, and soon made a reputation. Later the St. Anne's Dispensary became merged in the Liverpool Dispensaries, and is now known as the East Dispensary. About 1850 Dr. Nottingham was appointed surgeon to the Southern Hospital, where

his general surgical work was characterised by caution, ingenuity, and much operative address. During his period of office, in 1872, this hospital was rebuilt on a larger scale, on a new site, and reopened as the Royal Southern Hospital.

Soon after his retirement from hospital practice he became affected with double cataract, and passed a couple of years in a state of practical blindness. This affliction he bore with examplary patience, and left Liverpool for his country retreat at Whitchurch, Salop, where he remained secluded from all but a few intimate friends until relieved by the extraction of his cataracts in 1880 and 1881. His sight became and continued useful for years, and he lived at Whitchurch for the rest of his life. Just before Christmas, 1887, an acute inflammation of one eye took place after slight exposure on a cold night, and a few days later he submitted to extirpation of the globe, which was followed by rapid healing and recovery. For the last twenty years he was invalided, first by blindness, then by bronchitis, and only quite latterly by senile decay. He was apparently merely worn out, and died quietly on May 7th, 1895, at the age of 84½.

He married Miss Sarah Worthington, of Whitchurch, Salop, who survives him, and to whose unremitting care and devoted attention he owed the comfort of his declining years.

HUGH FRANCIS CLARKE CLEGHORN, M.D., LL.D., F.R.S.E., F.L.S., Etc.

We regret to announce the death of Dr. Cleghorn at Stravithie, his Fifeshire estate, on May 16th, at the age of 75. Born at Madras on August 9th, 1820, brought up at Stravithie, where he acquired his affection for botany, educated at the High School of Edinburgh and University of St. Andrews, he was in 1837 apprenticed for five years to Professor Syme, and in the last of these years he was one of the house-surgeons in the old Edinburgh Royal Infirmary. In 1841 he graduated (M.D.) in medicine at Edinburgh University, went to Madras, first to the General Hospital, and later moving here and there in India, where he continued and developed his love for botany. In 1848 he was home on sick leave, in 1851 he was at work in the great exhibition of that year. On his return to India he was appointed Professor of Botany at Madras, and later organised the great Forest Department of India. In 1861, while in this country, he married. Later he was Joint Commissioner for the Conservancy of Forests in India, in 1867 Inspector-General of Forests. In 1869 he retired from the Indian Service, his work in which was fitly recognised in a Government minute.

At home he acted temporarily as Professor of Botany at Glasgow, he was a member of the Edinburgh Botanical Society, the Royal Scottish Arboricultural Society, and in many other ways evinced his interest in botany and forestry. He was Examiner in Botany for the first professional medical examinations in the University of Edinburgh during the Professorship of Dr. Dickson. The foundation of the Forestry Lectureship in the same University was mainly due to his exertions. The University of St. Andrews gave him the degree of LL.D. in 1885.

In private life Dr. Cleghorn was one of the most charming of men; nothing could be more delightful than an evening with him, talking over his wide experiences in many lands, and his keen love of plants and trees. It was a still rarer treat to be beside two such kindred spirits as the late Alexander Dickson and now the late Hugh Cleghorn.

ROBERT K. JOHNSTON, M.D.,

Dublin.

We very much regret to report the death of this young ophthalmic surgeon, which took place at Dublin on May 29th. He had a distinguished university career, obtaining the Gold Medal and the Senior Moderatorship in Experimental Physics. He was educated at Trinity College at the Richmond Hospital, and was soon after graduation appointed Assistant Surgeon to the National Eye and Ear Infirmary, and Ophthalmic Surgeon to Steevens's Hospital. Later on he developed tuberculosis, which in the end extended to the kidneys.

He took several sea voyages, and came back to work much improved. Only a few weeks ago he was appointed Secretary to the Dublin Branch of the British Medical Association, but he was almost immediately afterwards struck down by fatal illness. Dr. Johnston was a surgeon of the highest promise, and his premature death is greatly regretted by the profession in Dublin.

MEDICAL NEWS.

Influenza has not entirely left Edinburgh even yet. The return of intensely cold weather or the changes of temperature may have been helpful in leading to this. Anyhow several cases of genuine influenza have occurred during the last ten days.

Their Graces the Lord High Commissioner to the General Assembly of the Church of Scotland and the Marchioness of Breadalbane visited the Victoria Hospital for Consumption, Edinburgh, on Monday last; the Gilmerton Convalescent Homes and the Royal Infirmary on Tuesday; the Church of Scotland Deaconess Hospital, the Longmore Hospital, and the Royal Edinburgh Hospital for Sick Children on Wednesday.

Birmingham Medical Benevolent Society.—The seventy-first annual meeting of this Society was held on May 31st at the Grand Hotel, Birmingham, under the presidency of Mr. Priestley Smith. The annual report presented stated that the directors were able to speak with satisfaction of the work done by the Society during the past year. The annual value of the grants ranged from £20 to £40, and the sum expended in this way had been £520. In addition to this, the directors had given a donation of £10 to the daughter of a deceased annuitant, and one of £20 to the widow of a deceased member. The total number of benefit members of the Society at the end of the year was 336. The invested funds now amount to £11,996 14s. 6d.

The Oral Method of Teaching the Deaf.—At the annual meeting of the Society for Training Teachers of the Deaf and Diffusion of the "German" System, held at Fulham Palace, Mr. B. St. John Ackers, who presided, said that until the Government of itself, or by insisting on action by local school authorities, raised the salaries of teachers of the deaf to a sum commensurate with the extra training and ability required, we should never equal other countries in our teaching of defective children. The Rev. W. C. Muriel moved the adoption of the report, which said that a "poor school" was now the most pressing need urging itself upon the Society. The income for the year consisted of £1,217 in payments for scholars, and £217 in voluntary contributions; and there was a small balance in hand. The report was adopted. The Rev. John Sinclair having spoken, Mrs. Symes Thompson stated that they had always more applications for governesses trained to teach the dumb than the Society could supply. Miss Hewitt and Miss Bateman then gave a demonstration of the lip system used, a number of children who would formerly have been called "deaf and dumb" conversing in a plainly audible manner.

The nineteenth annual meeting of the British Medical Temperance Association was held on May 28th, Sir B. W. Richardson presiding. Dr. Ridge (Enfield) the Hon. Secretary, read the annual report, which stated that 29 new members had been admitted during the year, and three student associates. There were now 411 members, 55 student associates, and 3 associates, all being total abstainers. Dr. Barlow had examined the essays sent in by medical students in their third year, on the arguments derivable from physiology for total abstinence from intoxicating liquors, and had awarded the first prize of £5 to Miss M. Stewart of the London School of Medicine for Women; no essay had been deemed worthy of the second and third prizes. More than 15 000 copies of the organ of the Association, the *Medical Pioneer*, had been sent gratuitously to medical men, hospitals, etc. A rule was passed to admit student associates without payment of subscriptions. After the meeting several members and friends dined together at the Holborn Restaurant.

The Pasteur Institute.—The Annales de l'Institut Pasteur report six deaths from hydrophobia as having occurred since the month of August, 1894, among the patients who have been under treatment at the Institute. The first was

that of Louise Saussol, aged 33, who was bitten at Cessenon, in the department of the Hérault, on July 5th, and died on August 15th, after having been at the Institute from July 10th to July 27th. The second case was that of Achille Megnadier, aged 39, who was bitten at Sidi-bel-Abbès, Algeria, on August 11th, and who died on October 12th, after having been treated at the Pasteur Institute from August 19th to September 2nd. The third case was that of Joseph Prevost, aged 58, who was bitten at Issy, a suburb of Paris, on July 30th, and died on November 22nd, after having been treated at the Pasteur Institute from August 4th to August 18th. The fourth case was that of Séveria Barray, aged 62, who was bitten at Vattotot, in the Seine Inférieure on December 7th, and died on January 3rd, after having been treated at the Pasteur Institute from December 22nd to December 27th. The fifth case was that of Julien Rio, aged 7, who was bitten at Missilac in the Loire Inférieure on December 20th, and died on January 22nd, 1895, after having been treated at the Pasteur Institute from December 23rd to January 12th. The sixth case was that of Elizabeth Garrigues, aged 29, who was bitten at Castlesarrasin, in the Tarn-et-Garonne, on January 15th, and died on February 14th, after having been treated at the Pasteur Institute from January 18th to February 2nd. In five of the six cases the animal which inflicted the bites was certified by veterinary certificates to be mad, while in the sixth the dog was a stray one and could not be found.

MEDICAL VACANCIES.

The following vacancies are announced:

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Board, residence, and allowance for washing provided. Appointment for six months. Applications to the Secretary at the office, 24, Finsbury Circus, E.C., by June 13th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Dental Surgeons. Candidates must be Licentiates of Dental Surgery of one of the licensing bodies recognised by the General Medical Council. Applications and testimonials to J. Francis Pink, Secretary, by June 10th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Senior and Junior Resident Medical Officers. Salaries, £70 and £50 per annum respectively. Applications to the Committee of Management by June 15th.

FLINTSHIRE DISPENSARY.—Resident House-Surgeon. Salary, £120 a year, with furnished house, rent, and taxes free, also coal, light, water, and cleaning, or in lieu thereof the sum of £20 per annum. A knowledge of Welsh is desirable. Application to Thos. Thomas, Secretary, Board Room, Bagillt Street, Holywell, North Wales, by July 17th.

GLAMORGAN AND MONMOUTHSHIRE INFIRMARY, Cardiff.—Assistant Resident Medical Officer; doubly qualified. Appointment for six months. No salary, but board, washing, and apartments provided. Applications to Geo. T. Coleman, Secretary, by June 9th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—House-Surgeon to the Out-patients. Appointment for six months, but eligible for re-election for a further six months. Salary, 25 guineas. Applications to the Secretary by June 18th.

KENSINGTON DISPENSARY.—Resident Medical Officer; unmarried, under 35 years of age, and doubly qualified. Salary, £125 per annum, with furnished apartments, coals, gas, and attendance. Applications to the Honorary Secretary, Mr. Frederick Leach, 7, Stanford Road, Kensington Square, by June 12th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 a year, with furnished quarters, attendance, coal, gas, garden produce, and washing. Appointment for two years. Applications to F. Pritchard Davis, Superintendent, by June 18th.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD DISPENSARY.—Vacancy on the Honorary Medical Board. Applications to the Secretary, 13, Kilburn Park Road, N.W., by June 10th.

LEICESTER INFIRMARY.—House Physician. Salary, £80 per annum, with board, apartments, and washing. Appointment for one year but eligible for re-election. Assistant House-Surgeon; board, residence, and washing provided. Appointment for six months but eligible for re-election. Applications to the Secretary at his offices, 24, Friar Lane, Leicester, by June 10th.

LONDON COUNTY COUNCIL.—Pathologist to the London County Asylums. Salary, £700 per annum, and travelling expenses. Applications (on forms provided), endorsed "Applications for Pathologist," to R. W. Partridge, Clerk of the Asylums Committee, 21, Whitehall Place, S.W., by June 17th.

LONDON HOSPITAL, Whitechapel, E.—Medical Electrician. Applications to the House Governor by June 29th.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End.—Senior Demonstrator of Anatomy. Salary payable by a percentage of fees. Applications to Munro Scott, Warden, by July 8th.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer; not under 25 years of age, unmarried, and doubly qualified. Appointment for one year, but eligible for re-election. Salary, £150 per annum, with board and residence. Applications to the Chairman of the Board by June 22nd.

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney Road, Shoreditch, N.E.—House-Physician. Appointment for six months, and after the expiration of this term the House-Physician will be required, if eligible, to serve as House-Surgeon for a further period of six months. Must possess a medical and surgical qualification. Salary as House-Physician at the rate of £50 per annum, and as House-Surgeon at the rate of £80 per annum. Applications and testimonials to T. Glenton-Kerr, Secretary, City Office, 27, Clement's Lane, Lombard Street, E.C., by June 11th.

NORTH-EASTERN HOSPITAL FOR CHILDREN.—Junior House-Physician; doubly qualified. Appointment for six months. No salary, but board and lodging (including washing) provided. Applications to the Secretary at 27, Clement's Lane, E.C., by June 21st.

PARISH OF LAMBETH.—Medical Officer for the Workhouses and Infirmary; doubly qualified; must devote his whole time to the duties of the office. Salary, £300 per annum, with furnished house, and allowance of coals, gas, and water. Applications to W. B. Wilmot Clerk, Guardians' Board Room and Offices, Brook Street, Kennington, S.E., by June 17th.

RADCLIFFE INFIRMARY, Oxford.—House-Physician. Appointment for six months. Salary at the rate of £80 per annum, with board and lodging. Applications, on printed forms provided, to be sent to the Secretary before June 19th.

ROYAL BERKS HOSPITAL, Reading.—Assistant Medical Officer. Board and lodging provided; no salary. Appointment for six months. Applications to the Secretary before June 15th.

ST. GEORGE'S UNION.—Medical Officer for the No. 2 Relief District; doubly qualified, and must reside within the district. Salary, £100 per annum, with usual extra fees. Applications to Thomas Worlock, Clerk, Clerk's Office, Vestry Hall, Mount Street, W., by June 11th.

ST. PANCRAS AND NORTHERN DISPENSARY, 125, Euston Road, N.W. Resident Medical Officer; doubly qualified. Salary, £105 per annum, with residence and attendance. Applications to the Honorary Secretary, H. P. Bodkin, 23, Gordon Street, Gordon Square, W.C., by June 15th.

TRINITY COLLEGE, Dublin.—Lecturer in Pathology. Applications to the Registrar of the University by June 15th.

VESTRY OF LAMBETH.—Medical Officer of Health; not less than 25 or more than 45 years of age. Salary, £700 per annum, such salary to include the cost of a carriage to be provided by the officer. Applications, endorsed "Application for Appointment of Medical Officer," to Henry J. Smith, Clerk to the Vestry, Vestry Hall, Lambeth, by June 11th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodgings provided. Applications to R. J. Gilbert, Secretary-Superintendent, by June 19th.

MEDICAL APPOINTMENTS.

BLAKE, W. H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the West Wickham District of the Beckenham Union.

COOKE, F. H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Sixth District of the Lexden and Winstree Union.

COWAN, J. J., M.B., C.M.Edin., reappointed Medical Officer for the Knightwick District of the Martley Union.

DOVE, Roland A., M.B., C.M.Edin., reappointed Medical Officer for the Brigg West District of the Brigg Union.

EDWARDS, W. Lloyd, L.R.C.P.Lond., M.R.C.S., reappointed Medical Officer to the *employés* of the Barry Graving Dock and Engineering Works.

GLADSTONE, Howard B., M.B., C.M.Edin., appointed House-Physician to the Royal Hospital for Diseases of the Chest, City Road, E.C.

HARRIS, John Wm., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer for the Frittenden District of the Cranbrook Union.

HOUGHTON, Leonard, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Looe District of the Liskeard Union.

HYSLOP, T. Bulkeley, M.D.Edin., appointed Lecturer on Mental Diseases in St. Mary's Hospital Medical School.

MARTIN, Arthur W., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Gorton District Council.

MILLER, J., M.B., C.M., D.P.H., appointed Medical Officer of Health for the Burgh of Largs, *vice* John Moyes, M.D.

RIDING, Edwin, M.R.C.S.Eng. and L.S.A., appointed Medical Officer of Health to the Repton Rural District Council.

ROBINSON, William, M.D., M.S.Durh., F.R.C.S.Eng., appointed Honorary Surgeon to the Sunderland and North Durham Eye Infirmary, *vice* P. Blumer, F.R.C.S.Ed., resigned.

SCRATCHLEY, H. W., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Fifth Districts of the Poole Union.

SMITH, Robert B., L.R.C.P.Edin., L.R.C.S.I., appointed Medical Officer for the Wigston Parva District of the the Hinckley Union.

THOMAS, Dr., appointed Medical Officer for the Polperro District of the Liskeard Union.

THOMPSON, J. H., L.R.C.P.I., L.R.C.S.Edin., appointed Medical Officer for the Mytholmroyd District of the Todmorden Union.

WEEKS, McCourtenay C., appointed Medical Officer for the Pinchbeck District of the Spalding Union.

WELLS, A. Primrose, B.A.Cantab., L.R.C.P.Edin., appointed Medical Officer and Public Vaccinator for the Beckenham District of the Beckenham Union.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Lang: Corneal Affections. London Throat Hospital, Great Portland Street, 8 P.M.—Dr. Edward Woakes: Ear Diseases in Infancy and Childhood.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 40, Leicester Square, W.C., 8 P.M.—Mr. George Cunningham: The Immediate Treatment of Irregular Teeth. Casual communications by Mr. Sidney Spokes and Mr. L. Matheson.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Hyslop: General Paralysis of the Insane.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M. — Dr. F. H. Champneys and Mr. A. A. Bowlby: Further Observations on the Development of Mammary Functions by the Skin of Lying-in Women. Mr. W. J. Walsham: A Case of Intraperitoneal Rupture of the Bladder; Suture; Recovery; with remarks on the Inflation Rest; with a Table of Cases of Rupture of the Bladder treated by Suture since 1888, by Mr. W. Ernest Miles.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Prurigo and Pruritus. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Stanford Morton: Ocular Paralyses.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL, 5 P.M.—Mr. T. Holmes: On the Experience of the Hospital in Abdominal Surgery (gynæcological operations apart) during the years 1884-1894 inclusive. Hunterian Lecture III.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Beevor.

THURSDAY.

LONDON POST-GRADUATE COURSE, Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Gowers: Clinical Lecture. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—The Medical Registrar: Pathological Demonstration. Central London Sick Asylum, Cleveland Street, 5.30 P.M.—Mr. W. Watson Cheyne: Cases in the Wards.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—Card Specimens at 8 P.M. by Mr. H. Secker Walker, Mr. Devereux Marshall, Mr. Morton, and Messrs. Mott and Treacher Collins. Papers:—Mr. J. B. Lawford: Ophthalmia Nodosa. Mr. Simeon Snell: Nine Cases of Chancre of the Eyelids and Conjunctiva.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: Typhoid Fever and Diphtheria. Practical work: Staining Sections and Cultivations.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 9 P.M.—The Bowman Lecture, by Dr. W. R. Gowers: Subjective Visual Sensations.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital 11 A.M.—Dr. Craig: General Paralysis of the Insane.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

DAYUS.—On May 31st, at Hutton-le-Hole, co. Durham, the wife of Frederick H. Dayus, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

FRASER.—At Bellfield, Bridge of Allan, on May 29th, the wife of John Hosack Fraser, M.B., M.R.C.P.Ed., of a daughter.

PARE.—On May 21st, the wife of J. W. Pare, M.D., C.M.Edin., and L.D.S. Eng., of 18, Portland Place, W., of a son.

STILES.—At 5, Castle Terrace, Edinburgh, on June 2nd, the wife of Harold Jalland Stiles, M.B., F.R.C.S.Ed., of a daughter.

MARRIAGES.

HAWKE—PARK.—June 1st, at St. Peter's, Belsize Square, by the Rev. J. J. Glendinning Nash, Incumbent of Christ Church, Woburn Square, Edward Drummond Hay Hawke, L.R.C.P.Lond., M.R.C.S., of Shortlands, son of the late Edward Henry Hawke, of Tolgulla, Scorrier, Cornwall, to Dora Annie, fourth daughter of Charles Park, of Holmefield, Haverstock Hill, and Wingham Lodge, Minster, Kent.

REYNOLDS—COBBOLD.—June 1st, at the Church of the Holy Trinity, Worthing, Francis Mortimer Reynolds, M.B., C.M., of Ottery St. Mary, Devon, to Mary, daughter of the late Spencer Cobbold, M.D., F.R.S.

VISSER—HALSALL.—At the Cathedral at Cape Town, Cape Colony, on April 17th, 1895, Thomas Christoffel Visser, M.B., B.S., Medical Officer of Health, Johannesburg, Transvaal, South Africa, to Christine Halsall, daughter of Mr. J. C. Halsall, of Birkenhead, England.

DEATH.

WALES.—At Oundle, Northampton, on May 26th, Herbert J. L. Wales, M.R.C.S., L.R.C.P.Lond., L.S.A. eldest son of Brigade-Surgeon J. Wales, of Priestfield, Mowbray Road, Upper Norwood, aged 27.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

H. W. asks: Can any of your readers inform me of any station at home or abroad where calf vaccine lymph is supplied wholesale?

MEMBER would be glad to receive any suggestion as to the treatment of a case of masturbation of three years' standing in an intelligent, healthy girl, 10 years old.

M.D. would be glad to know of any institution either in the colonies or on the Continent where a girl, aged 22, may be trained as a nurse with little or no expense.

R. E. H. writes: Will some member kindly let me know of the best way to destroy the contagion in towels, sheets, etc., of the discharge in granular ophthalmia? I fear simple boiling and washing with soap is not sufficient. Is there any solution such as that of hyd. perchlor. which would be effectual; if so, what are the proportions, how used, and is it safe? A sterilising chamber is not available.

AJAX asks (1) if there is any small book published on the properties of the waters at the various spas? (2) If there is any book published relating to the duties of workhouse medical officers?

*** (1) *The Baths and Wells of Europe*, by Dr. John Macpherson; London: Edward Stanford. *The Curative Effects of Baths and Waters*, by Dr. Julius Braun; London: Smith, Elder and Co. (2) *The Workhouse and its Medical Officer*, by Dr. A. Sheen: London: Simpkin, Marshall, Hamilton, Kent and Co.

LEUCODERMA.

M.R.C.S. asks for suggestions as to the treatment of leucoderma, chiefly affecting the hands and face, and not yielding to his treatment.

PRACTICE IN AMERICA.

H. S. J. desires to know what the examination is like that British diplomates have to pass in New York to enable them to practise in that State, or how he can obtain such information.

ANSWERS.

REGISTRAR.—Valueless.

M.B., C.M.GLASG. should select one for himself, or he might communicate with Dr. Fletcher Little, 32, Harley Street, the Secretary of the London Post-Graduate Course.

CITY LEADER.—The information desired can best be obtained on application to Dr. Vivian Poore, 30, Wimpole Street, W., inspector under the Act, or to Mr. Stephen Paget, 57, Wimpole Street, W.

DR. HORDER.—The matter has already been taken in hand by the Metropolitan Reception Committee, and whatever results are attained will be duly announced. It is doubtful, however, whether any reduction of fares will be granted.

ALERT.—By "gross profits," as applied to a medical practice, would probably be implied "gross receipts," which is the more usual term—that is, the total receipts from every source of professional income during the year. This is to be contrasted with "nett profits" or "nett receipts," where the working expenses have been deducted from the "gross receipts."

FIXED OR STIFF TOE-JOINTS.

A MEMBER writes: The stiff condition of the toe-joints described by "Pes" could easily be cured by careful scientific massage and passive exercises, but no good will result from the "rubbing" by persons ignorant of anatomy, which is the usual kind of massage practised in this country, and is the true cause of the bad reputation that this valuable remedy has suffered in England.

CERTIFICATES FOR ASSURANCE COMPANIES.

M.B.EDIN.—We believe that it is the invariable custom of all assurance companies to require that certificates of death and all other particulars necessary to substantiate a claim under a policy must be procured by the representative of the deceased, free of cost to the company. Most companies have a special clause to this effect.

FEES FOR LIFE INSURANCE EXAMINATIONS.

S. B. M.—We advise our correspondent to adhere to his refusal. It cannot be to the credit and dignity of the profession that any member of it should undertake to make an examination for life assurance for the sum of eighteen pence.

TREATMENT OF SOFT CORNS.

MR. PHILIP MIALL (Consulting Surgeon to the Bradford Infirmary) writes: A concentrated solution of tannin, made by dissolving an ounce of perfectly freshly made tannin in 6 drachms of water with the aid of gentle heat, gives immediate relief to soft corns if applied once or twice a day between the toes after washing. Tannin in powder is not quite so effectual.

NOTES, LETTERS, Etc.

THE CASE OF MR. C. BRYAN TOWNSHEND.

THE following additional subscriptions have been received, and are hereby thankfully acknowledged:

	£	s.	d.
Dr. Jno. F. Churchill, Chesham	1	1	0
The British Benevolent Medical Fund	15	0	0
Mr. T. C. Leeds (second donation)	0	5	0
Dr. Robert E. Hadden, co. Cork	1	1	0
Dr. Thos Windsor, Ardwick	5	0	0
Dr. Geo. Gwynne Bird, Edgware Road	2	2	0
Dr. J. C. Worthington, Lowestoft	1	1	0
Dr. J. T. Windle, Halifax	0	10	0
Dr. J. H. Wood, Ledbury	0	10	0
Dr. Walker, Peterboro'	2	2	0
Dr. A. F. Codd, Bromley, Kent...	2	2	0
Sir Hugh R. Beevor, M.D.	0	10	0
Dr. S. Wyborn, Windsor	0	10	0
Dr. C. A. Wright, Manchester	1	1	0
Dr. Robert L. Bowers, Brook Street	1	1	0
Dr. J. Anderson, Harley Street			

Further subscriptions will be thankfully acknowledged by the Rev. H. Townshend, 41, King Henry's Road, South Hampstead, N.W.

HYDROPHOBIA ALLEGED TO FOLLOW THE BITE OF A HEALTHY DOG.

DR. JOHN HADDON (Hawick, N.B.) writes: In the BRITISH MEDICAL JOURNAL of May 25th, under the above heading, a paragraph appeared animadverting upon the practitioner at Cheadle who had given a juror to understand that hydrophobia might be caused by the bite of a healthy dog. The writer considers that such a statement shows a distressing lack of the "commonest known facts about rabies."

Now, there is a good deal to be said for the Cheadle practitioner's opinion that something depends upon the constitution of the patient as well as upon the state of the dog, in support of which I would like to point out that:

1. Only about 10 per cent. of those bitten by dogs known to be rabid take hydrophobia.

2. I was asked to see a case of undoubted hydrophobia, which followed the bite of a dog, the patient's companion, which was not rabid, or rather, perhaps, I should say, which was not known to be rabid at the time it bit its master, or three weeks afterwards, when it was destroyed because it was supposed to have caused its master's illness.

3. I had a patient, a boy, bitten by a dog not supposed to be mad, but in perfect health, as it continued to be, who six weeks after the bite suffered pain in the part bitten, and caused no small anxiety to me as well as to his friends. The pain, however, passed off without any other symptoms.

However much our knowledge of rabies and hydrophobia may have advanced within recent years, few will believe that it is yet perfect, or that there are not facts which our present theory will not explain.

*** Dr. Haddon, in furnishing support "to the Cheadle practitioner's opinion," offers three points for consideration in connection with the above-mentioned "opinion" that hydrophobia might follow the bite of a healthy dog. The first point consists of an erroneous estimate of the percentage of deaths among those bitten by undoubtedly rabid dogs. The real figure—namely, 15 per cent.—however has equally no bearing on the question. As to his second point, it is clear that the patient was not infected by the bite from his own dog, as that would make the incubation period for subcutaneous infection less than three weeks, whereas five to six weeks is the shortest yet recorded. This case, therefore, has no weight in the present issue. Dr. Haddon's third point is vitiated by the fact that the boy bitten had no hydrophobia at all, no more in fact than his dog. Under these circumstances it appears to be useless to discuss the matter further.

A LARGE AND LONG-LIVED FAMILY.

A CORRESPONDENT writes: There has just died the last of a large family of fourteen—eight sons and six daughters. They all grew up. The youngest died at 26½ years, the oldest at 87½. The total age of the fourteen was 866 years, the average being 61¾ years. The eight sons averaged 63 years, the six daughters 60½ years. Ten out of the fourteen lived 50 years and upwards, and their average was 73¾. The respective ages attained were 26½, 27, 34, 44½, 50, 53, 67½, 71¾, 78½, 79¾, 79¾, 84, 84½, 87½. It takes a large and long-lived family to cover a century. The father of this family was married April 3rd, 1795, and the last of his offspring died May 17th, 1895.

THE APPLICATION OF SOLUTIONS TO THE CONJUNCTIVA.

DR. F. HYDE MABERLY (Eversley, Hants) writes: I am informed by Mr. Sydney Stephenson, of 33, Welbeck Street, that the method of applying solution to the conjunctiva, which I mentioned in the BRITISH MEDICAL JOURNAL of May 18th, had been previously described by him in a book called *Ophthalmic Nursing*. Of this at the time of writing I was unaware.

INTERVIEWS AND REPORTERS.

DR. CHARLES LLOYD TUCKEY (Green Street, Park Lane) writes: My attention has been called to an article in the *Star* of Saturday, May 18th, purporting to describe an interview with me on the subject of hypnotism. I beg to say that the remarks are a grotesque parody on what I did say, and that the use made of my name is perfectly unwarranted. Someone from the paper called on me and asked me if I would take part in some experiments with a view to exposing the imposture practised on the Aquarium audiences. In declining to have anything to do with it I allowed myself to make a few remarks on the dangers of hypnotism as practised by uneducated and untrained persons, and on the need there was for confining its employment to medical men. I regret now having had any communication with the reporter on the subject, and I shall be careful of my reception of these gentlemen in future.

THE APPOINTMENT OF MEDICAL OFFICER OF HEALTH TO THE CAPE COLONY.

DR. C. E. SHELLY (Hertford) writes: Your correspondent "D.P.H.," who stated in the BRITISH MEDICAL JOURNAL of June 1st that this post had been filled up by a local man, has been misinformed. The gentleman appointed is Dr. George Turner, of Broxbourne, whose able and valuable work as a sanitarian, especially in connection with the problems attending obscure outbreaks of epidemic disease in various parts of the country, is well known. Speaking with a personal knowledge of the Colony, and after more than a dozen years' intimate acquaintance with Dr. Turner, both as an official and a private friend, I am well assured that the Cape Government could scarcely have made a wiser choice.

MR. W. G. GRACE, M.R.C.S., ETC.

SURGEON-MAJOR RAGLAN W. BARNES (Barracks, Hounslow), writes: I notice on all hands the compliments and honours bestowed on the greatest cricketer the world has ever seen; but, alas! not a sign of recognition from the members of his own profession. It seems to me that now, at the zenith of his wonderful career, is an appropriate time for the medical profession to show that they are not oblivious to the fact that they number amongst their ranks one who has done so much for England's noblest game, and who has from the commencement of his long career made his name respected throughout the world wherever the game of cricket is played. I leave it to more able pens than mine to suggest what form the compliment should take, but I am sure that during the approaching meeting of the British Medical Association in London an opportunity might be taken to give expression to the feelings of his medical brethren—say, at a banquet.

BRITISH HEALTH RESORTS.

MR. THOMAS WILSON, M.R.C.S.Eng. (Wallsend) writes to draw attention to the benefit derivable from a "course" of Harrogate waters and baths. To this (he adds) I can testify, from recent as well as previous experience, having been a frequent sufferer from uric acidæmia and its attendant neuralgic disorders. The Harrogate Corporation have presented the whole medical profession with the "freedom," so far as cost is concerned, of the Harrogate waters and baths, and I strongly recommend those who unfortunately suffer like myself, to accept the invitation and pay a visit to this important watering place without delay.

They will afterwards hesitate before inflicting upon patients the cruelty of Continental travelling to Aix-les-Bains, or Aix-la-Chapelle, when it will be found that the celebrated "Aix Douche" is now given as well, if not even by an improved method, at Harrogate. It is very opportune that I observe the Royal Medical and Chirurgical Society of London is about to issue a report on the climate and facilities of our home health resorts—Harrogate amongst the number—and I trust that much valuable information thereon may be laid before the profession.

A SIMPLE TEST FOR MARGARINE IN BUTTER.

JAM writes: The following observation appears to be of sufficient interest to be recorded in the BRITISH MEDICAL JOURNAL. Possibly it is already known. Noticing that a lump of margarine, left by accident in a ward full of sulphur fumes, assumed a pink colour, I exposed specimens under a bell glass containing burning sulphur, and found that all the margarine became pink, while butter, exposed under the same glass, remained unaltered. It would be interesting to know whether all margarines are thus changed in colour, and what the explanation may be.

As a small piece of brimstone and an ordinary tumbler are the only things necessary for the test—if one may so call it—the hint may be of use to amateur analysts, and in the home circle.

THE MEDICAL ELECTRICAL INSTITUTE (LIMITED).

FROM the observations of the Senior Official Receiver, Mr. C. J. Stewart, issued under a winding-up order recently made in this case, it appears that this company was registered on October 16th, 1894, and was formed for the purpose of acquiring the business hitherto carried on by the Medical Battery Company (Limited), for the sale of medical and electrical appliances, etc. An order of court had been made on November 22nd, 1893, for the winding up of the old company; meetings were subsequently held of the creditors and shareholders of that company, which unanimously approved of a scheme of reconstruction, and on July 25th, 1894, the Court sanctioned the scheme, of which the Medical Electrical Institute is the outcome. The registered capital of the new company was £75,000, of which £50,000 ordinary shares were to be issued as fully paid to the shareholders of the old company, while £25,000 preference shares, or such portion of them as might be required, were to be issued to the unsecured creditors of the old company, in accordance with the admission of the proof of such creditors by the Official Receiver. On October 17th, 1894, Mr. C. B. Harness, who had previously

been the managing director of the old company, was appointed manager of the new company at a salary of £900 a year. It subsequently became apparent that the new company was not in a position to carry out the terms of the scheme of reconstruction, and in January last a receiver was appointed by the Court for debenture holders, and is understood to have since that date been in possession of all the company's assets. Upon commencement of business by the new company advertisements seem to have been inserted in various newspapers upon a considerable scale, in the hope that as a result the demand by the public for the medical and electrical appliances sold by the company would greatly increase, it appearing that the former prosperity of the old company was in a large measure due to a system of extensive advertising. In this hope, however, the Board were disappointed, and the Secretary states that the advertisements did not produce sufficient business to pay expenses. The official receiver observes that it will be seen from the accounts that, after paying the costs of liquidation, the margin of cash left for working capital was only about £1,000. The statement of affairs shows liabilities £11,614, of which £5,472 are unsecured, with net assets *nil*. The failure of the company is attributed to loss on the trading and to the want of funds to carry on the advertising for such a length of time as might possibly have rehabilitated the business.

THE SUPPLY OF CAMPHOR

PARTLY as a consequence of the war between China and Japan, and partly as the result of speculative trade operations, the price of camphor has been considerably increased within the last few weeks, and it is probable that it may be raised to more than double the usual amount. A writer in the *St. James's Gazette* dilates upon this matter in a somewhat sensational fashion, and if his statements were accepted as correct, they might have the effect of promoting the plans of a syndicate which is reported to have been active in creating the excitement which prevails in connection with the supply of camphor. The fact that the manufacturers of refined camphor in this country have only gradually increased their price for the article may, however, be taken as indicating that there is but little danger of a "camphor famine" such as the *St. James's Gazette* predicts.

BRITICISMS AND AMERICANISMS.

BRITISHER writes: While we amuse ourselves with the detection of peculiarities of speech among our American friends, they no less take unto themselves comfort, and feel superior, when they detect in us such departures from the narrow path of dictionary English as we may find convenient for the short expression of ideas, and these developments of language they call "Briticisms." The plans of Agate Matthews having, as it seems, collected a few recent developments in this direction, Mr. Andrew Lang has taken up the cudgels on behalf of England's right to modify the English tongue. Some of the new phrases he defends on the ground of their inherent usefulness; some, he suggests, are really of American origin; while some, being only culled from advertisements, he dismisses from consideration; and then, on the *tu quoque* principle, he dies off as a parting shot into the cultured specimen of an Americanism, freshly gathered from the *New York Herald*. Here it is: "Mrs. —— has been successfully confined." Now, I venture to doubt whether this is really an Americanism; in any case it is a necessary and perfectly correct form of speech. To be confined means to be shut up, and as applied to a pregnant woman means to be shut up for purposes of childbirth. If, then, she has been safely delivered of a living child, the object for which she has been shut up has been successfully accomplished, and she has been successfully confined. To say that she has been successfully delivered would be quite another matter. A woman may be successfully delivered of a dead child, or after she had been quite successfully delivered of the child the afterbirth may remain, or even she herself may die, but in neither of these cases is she successfully confined; this covers the whole process for the sake of accomplishing which she went into confinement. Certainly if the Americans devised the phrase, they deserve credit for their invention; but I doubt its Transatlantic origin.

*** Possibly Mr. Andrew Lang was perturbed by the position of the adverb before the verb.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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BOOKS, ETC., RECEIVED.

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ON

THE RENDERING OF ANIMALS IMMUNE AGAINST THE VENOM OF THE COBRA AND OTHER SERPENTS:

AND

ON THE ANTIDOTAL PROPERTIES OF THE BLOOD SERUM OF THE IMMUNISED ANIMALS.

Communicated to the Royal Society of Edinburgh, June 3rd, 1895.

BY THOMAS R. FRASER, M.D., LL.D., F.R.S.,

Professor of Materia Medica and Clinical Medicine in the University of Edinburgh.

(Abstract.)

TRADITIONS AS TO IMMUNITY.

ONE of the most striking and interesting of the many traditions and current beliefs regarding venomous serpents is that a power may be acquired of freely handling them without injury, and even of successfully resisting the poisonous effect of their bites. The Psylli of Africa, the Marsi of Italy, the Gouni of India, and other ancient tribes and sects, were stated to have been immune against serpents' bites, and to have been able to exercise a remarkable influence over even the most venomous of these animals; and those attributes have been explained on the supposition that serpents' blood was present in the veins of the members of these tribes and sects. In more modern times, and, indeed, at the present day, the same belief is stated in the writings of travellers; and it has been expressed by poets and novelists, and among the latter, with a half admitted conviction of its reality, by Wendell Holmes in his *Romance of Destiny*.

It may be instructive to associate with this belief in the possession, under certain conditions, by human beings of a power successfully to resist the poisonous effects of serpents' venom, and with the evidences in its support, the further belief that venomous serpents are themselves protected against the effects of bites inflicted upon them by individuals both of their own and of other species. On mere anatomical grounds it is difficult to understand how serpents could escape the absorption of their own venom through mucous surfaces, even admitting that absorption of venom does not occur in normal conditions of these surfaces. Venom must, however, be so frequently introduced into their bodies, in situations where absorption could not fail to occur, by the bites inflicted upon them by other serpents, that the conclusion seems inevitable that they possess some protective quality, without which, probably, no venomous serpents would now be in existence. Not only have many general observations been made in support of this belief, but it has been proved to be correct by direct experiments, such as those made by Fontana of Tuscany more than a century ago, by Guyon, Lacerda, Waddell, Kaufmann, and Sir Joseph Fayrer.

SOURCES OF SUPPLY.

India.—I received my first supply of cobra venom in 1889, from Surgeon-Colonel Moir, lately of Meerut, and soon afterwards—also in small quantities—from the late Dr. Shortt, and from Sir Joseph Fayrer, the Thakore of Gondal, and Dr. Phillips. Larger quantities were subsequently obtained from Surgeon-Captain French, and through the kind efforts of Sir William Mackinnon, Director-General of the Army Medical Department, from each of the presidencies of India; and they had so far increased my stock as to enable me to begin experimental work towards the end of last year. Early in this year a large additional supply was received from Surgeon-Colonel Cunningham, of Calcutta, and this gentleman has quite recently sent a further large quantity of several grammes of dry venom.

America.—Besides these specimens of the venom of the cobra of India, I have also been fortunate in obtaining specimens of venoms from other parts of the world. From America, Dr. Weir Mitchell, of Philadelphia—whose work on the chemistry and physiology of serpents' venom constitutes the great advance of the century on the venom of viperine serpents—has supplied me with the venom of three species of rattlesnakes; namely *Crotalus horridus*, *C. adamanteus*, and *C. durissus*, and also with a specimen of the venom of the copper head (*Trigonocephalus contortrix*).

Australia.—Dr. Thomas Bancroft, of Brisbane, has at various times sent specimens of the venoms of the black snake (*Pseudechis porphyriacus*), the brown snake (*Diemenia superciliosa*), and of a large unidentified snake of the Diamantina district of South Australia (probably a new species of *Diemenia*).

Africa.—The kindness of Mr. William Smith, a distinguished naturalist of Cape Town, of Dr. Brook, of the Orange Free States, and of Dr. John Murray and Mr. Van Putten, of Cape Colony, has placed at my disposal small quantities of the venom of the puff adder (*Vipera arietans*), the night adder (*Aspidelaps lubricus*), the yellow cobra (*Naja haje*), and the "Ring Hals Slang" or "Rinkas" (*Sepedon hæmachates*); and Dr. John Anderson, formerly Professor of Natural History at Calcutta, has only last week forwarded to me living specimens of the *Vipera cerastes*, to be followed by living specimens of the cobra, which his present connection with the zoology of Egypt has given him peculiar facilities to obtain.

In the meantime, however, further evidence has been obtained in support of the reality of the probabilities to which I have referred. Sewall, using the venom of the rattlesnake, Kanthack that of the cobra, and Kaufmann and Phisalix and Bertrand that of the viper, obtained experimental evidence of the possibility of producing by "inoculation" a certain slight degree of resistance against the toxic effects of these venoms. The relationship of such observations to the recent discoveries in connection with the toxins of tetanus, diphtheria, and other diseases could not long remain unrecognised. Dr. Bancroft and others have recently suggested "that the blood of animals rendered immune to snake venom might be found of service as a remedy in snake-bite." Within the last few months Phisalix and Bertrand have obtained experimental indications of the antidotal power of the blood serum of animals immunised, but only to a low degree, against the venom of vipers; while Calmette, working in the Pasteur Institute of Paris, after several unsuccessful endeavours had led him to express the opinion that immunity against snake venom could not be produced, afterwards succeeded in obtaining evidence of its production, and of the power of the blood serum to counteract the effects of venom.

VARIETIES OF VENOM USED.

In this the first portion of the investigation the venoms that have been used are only four in number—those, namely, of the cobra of India (*Naja tripudians*), of the *Crotalus horridus* of America, of a large colubrine snake, probably a species of *Diemenia*, from South Australia, and of the *Sepedon hæmachates* of Africa. The venoms are therefore those of the most deadly of the poisonous serpents of Asia, America, Australia, and Africa respectively; and, further, they are representative of the chief differences that occur in the composition and action of venoms, for they are derived from members of the two great groups of the colubrine and viperine serpents.[1]

An essential preliminary to exact investigations with active substances must always be the determination of the activity of the substances. The only convenient method for doing this is to define the smallest dose capable of producing death for any given weight of animal—that is, the minimum lethal dose. The venoms in their natural state are inconstant in activity, mainly because of variations in the quantity of the water which they contain. The cobra venom has, however, nearly always been received in the form of a dry solid, but when this was not so it has been dried *in vacuo* over sulphuric acid.

Outside of India there are few persons skilled in the hazardous task of taking venom directly from living serpents. Accordingly, with few exceptions, the other venoms were not received in a pure form but in the form of the dried venom glands. From these glands, however, the poisonous constituents may easily be extracted with water, and on evaporating the solution over sulphuric acid an active dry venom was obtained, containing, however, other substances besides those which are active. I am not in a position, therefore, to make any statement in regard to the relative activity of the different venoms. For the objects in view what only is necessary is that the exact minimum lethal dose of each venom used should be known, whether it be pure or diluted with a certain small amount of inert matter. Each of the four venoms was, however, found to be very active, but the cobra venom especially so.

LETHAL DOSES.

Experiments were made with it on several animals—as the guinea-pig, rabbit, white rat, cat, and the innocuous grass snake of Italy (*Tropedonotus natrix*). Very considerable differences were found to occur in the minimum lethal dose for

[1] My supply of cobra venom being much larger than that of any of the others, this venom was chiefly used in the experiments; and in all of those to be referred to the administration was effected by subcutaneous injection

each of these animals. For the guinea-pig the minimum lethal dose per kilogramme was 0.00018 g.; for the rabbit, 0.000245 g.; for the white rat, 0.00025 g.; for the cat somewhat less than 0.005 g.; for the kitten (6 weeks old), 0.002 g.; and for the grass snake the relatively larger dose of 0.03 g. Cobra venom thus takes a position among the most active of known substances, rivalling in its lethal power the most potent of the vegetable active principles, such as aconitine, strophanthin, or acokantherin.

These facts having been ascertained, attempts were next made to render animals proof against lethal doses by administering to them a succession of gradually increasing non-lethal doses. These were, for the first few doses, in some of the experiments, one-tenth of the minimum lethal; in others one-fifth, in others one-half of the minimum lethal; and in others almost as great as the minimum lethal. At varying intervals the doses were repeated, and by-and-by gradually increased, until the actual minimum lethal dose had been attained. The subsequent doses, by gradual increments, exceeded the minimum lethal, and after five or six times the minimum lethal had been reached, it was found that the increments could be increased, so that each became twice, four times, and latterly even five times the minimum lethal, and still the animal suffered little and, in many cases, no appreciable injury.

Many failures occurred before experience indicated the precautions and conditions that are necessary for success. Serpents' venom exerts what may broadly be described as a duplex action. It produces unseen functional disturbances, and it also produces visible changes. The latter are of a highly irritative character, causing intense congestion in the lungs, kidneys, and other organs, and, when given by subcutaneous injection, on all the structures of the skin and subjacent parts. There are apparently also some definite changes produced in the blood, with regard to which several important facts have been discovered by Dr. Martin, of the University of Sydney. Irritative effects are obviously produced by cobra venom, even in non-lethal doses, and with greatly increased virulence by doses that exceed the minimum lethal; but, in respect to this action, the other three venoms used are greatly more active than the venom of the cobra. Evidence was obtained to indicate that in the process of immunisation a diminution occurs in the intensity of these local actions; but this diminution does not proceed so rapidly as that in the unseen functional or other changes which are the more direct causes of death; and, further, the local irritative changes, after having been produced, are slower to disappear than the unseen functional disturbances. Until these facts had been appreciated, and, indeed, even with the adoption of precautions suggested by them, frequent failures occurred. The apparently contradictory results accordingly were obtained of the production, by gradually increasing doses, on the one hand, of a protection against quantities much above the minimum lethal, so perfect that no apparent injury was caused; and, on the other hand, of an intolerance so decided that death was produced by the last of a succession of gradually increasing doses, no one of which was so great as the minimum lethal. The latter unfortunate event was frequently displayed in guinea-pigs, and attempts to carry immunisation in them to a high point were found to be extremely difficult.

ARTIFICIAL IMMUNITY.

Notwithstanding these difficulties, however, such gratifying results have been obtained as that rabbits could at last receive by subcutaneous injection so much as ten, twenty, thirty, and even the remarkable quantity of fifty times the minimum lethal dose without manifesting any obvious symptoms of poisoning.

Almost the only observable phenomena were a rise in the body temperature, which continued for a few hours after the injection, and which contrasts with the fall that occurs after the administration of even non-lethal doses in non-protected animals, and a loss of appetite which usually, though not invariably, occurred, and was probably the cause of a temporary fall in weight during the day or two days succeeding each injection. On the other hand, during the process of successful immunisation the animals increased in weight, they fed well, and appeared to acquire increased vigour and liveliness. This has been frequently exemplified in the smaller animals, such as rabbits; and also, very conspicuously, in an aged and previously sedate horse, which in the process of immunisation has now received ten times the estimated minimum lethal dose.

It is marvellous to observe these evidences of the absence of injurious effects, and even of the production of benefit in an animal which, for instance, has received in one single dose a quantity of venom sufficient to kill, in less than two hours, fifty animals of the same weight, and in the course of five or six months a total quantity of venom sufficient to destroy the lives of 370 animals of the same species and weight.

With the cobra venom I have also immunised cats, both by subcutaneous and by stomach administration; but the significance of the latter method of administration must be reserved for a future communication. As I have stated, a horse is also being immunised; and I have to express my obligations to Principal Williams for granting me the accommodation of his establishment, and to Professor Davis, also of the New Veterinary College, for much valuable assistance.

Following the same plan of research with the three other venoms, it was found that the minimum lethal dose per kilogramme for rabbits of the diamantina venom is 0.0015 g.; of the venom of *Sepedon hæmachates*, 0.0025 g.; and of the venom of crotalus 0.004 g.[2] The crotalus venom is, in its purity, altogether comparable with the cobra venom; and the determinations, therefore, show that cobra venom is sixteen times more powerful than crotalus or rattlesnake venom. This venom, as well as the two others, however, much exceed cobra venom in the intensity of their local action. When death is produced by crotalus venom, the subcutaneous tissues became extensively infiltrated with a large quantity of blood and of blood-stained serum, the underlying muscles are reduced to an almost pulpy blood-stained substance, and *post-mortem* decomposition occurs very soon after death. Similar changes in the subcutaneous tissues, but to a rather less degree, are caused by the diamantina venom, and in addition hæmaturia, or more probably hæmoglobinuria, was invariably produced by lethal and even by large non-lethal doses. I mention these circumstances to indicate the perfection of the protection which is produced by the administration of successive gradually-increasing doses; for they can be so adjusted that a dose of each venom, even three times larger than the minimum lethal, may be administered without producing more than an inconsiderable and even scarcely observable degree of local destructive effect.

In the meantime, the process of protection with these latter venoms has not advanced further than three times the minimum lethal dose. This, however, has been sufficient to allow experiments to be made by which it has been demonstrated that when an animal has acquired a resistant power over the minimum lethal dose of one venom, that animal is also able successfully to resist the lethal action of a dose above the minimum lethal of other venoms. To a rabbit immunised by cobra venom, a dose above the minimum lethal of sepedon venom has been administered; to rabbits immunised with crotalus venom, doses above the minimum lethal of diamantina and of cobra venoms have been given; to animals immunised above the minimum lethal with the diamantina venom, doses above the minimum lethal of crotalus and sepedon venom have been given; and in each case the animal has recovered, and but few symptoms of injury were produced. At the same time, in other experiments, indications were obtained that animals immunised with a given venom are capable of resisting the toxic effect of that venom more effectually than the toxic effects of other venoms.

DURATION OF IMMUNITY.

My experiments have not yet proceeded sufficiently far to show for what length of time the protection conferred by any final lethal dose may last. I propose to make some experiments which will give definite information in regard to this point, which may possibly lead to practical applications. It has incidentally been discovered, however, that protection lasts for at least a considerable period of time, even when the last protective dose has not been a large one. For

[2] Diamantina venom, 1½ mg.; *Sepedon hæmachates*, 2½ mg.; *Crotalus horridus*, 4 mg.

example, to a rabbit which had last received twice the minimum lethal dose of crotalus venom, the same dose was administered twenty days subsequently, and it altogether failed to produce any toxic symptoms.

As yet no sufficient data have been obtained for affording an explanation of these remarkable facts. It is obvious that the blood of protected animals must contain some substance or substances which are not present in the non-protected animals, by which the lethal and toxic effects of venoms are prevented. When the blood serum of protected animals is added to a solution of venom a distinctly observable reaction occurs, and this reaction may be of significance when considered along with circumstances which will be stated in the remaining part of this communication, and especially with the circumstance that the blood serum is itself almost destitute of physiological activity. This protective substance may be produced in the body by the influence of the venom, but it is also conceivable that the substance is actually a part of the venom itself, which gradually accumulates under repeated administrations, whereas the lethal and toxic constituents of the venom are more rapidly destroyed or eliminated.

The Blood Serum of Immunised Animals: Antivenene.

Having thus succeeded in producing a high degree of protection in animals against the toxic effects of serpents' venom, the blood serum of these animals was, in the next place, collected for the purpose of testing its antidotal properties. A few preliminary experiments were, however, early made with the serum of animals in whom the protection had not been carried to a high degree, and they were sufficient to show that antidotal properties are possessed even by this serum. It soon became apparent that, in order to obtain some reasonable approximation to constancy in the conditions of the experiments, it was necessary that the serum should be in such a state that it would remain unchanged during at least several weeks. It was found that this could be ensured without any appreciable loss of antidotal power by drying the freshly-separated serum in the receiver of an air pump over sulphuric acid, after it had been passed through a Chamberland's filter. A perfectly dry and easily pulverisable solid was thus obtained, which could be kept unchanged for probably an indefinite time, and from which a normal serum could easily be prepared as required by merely dissolving a definite quantity of the dry serum in a definite quantity of water. To this serum, whether in the dry form or in solution, it would be convenient to apply the name "*antivenene*."

The greater number of the experiments now to be described were made with antivenene derived from the mixed serum of three rabbits, which had last received a dose of cobra venom equivalent to thirty times the minimum lethal. I avoid the expression "immunised against" thirty times the minimum lethal dose, for, as a matter of fact, an animal is always protected or immunised against a dose considerably above the last which it had received.

The experiments were so planned as to obtain in three or four different conditions as exact a definition as possible of the antidotal power of the antivenene. Four series of experiments have been undertaken on rabbits; but all the experiments required to complete two of these series have not yet been made. In one series the venom was mixed outside of the body with the antivenene, and immediately thereafter the mixture was injected under the skin of the animal; in the second series the venom and antivenene were almost simultaneously injected into opposite sides of the body; in the third series the antivenene was injected some considerable time before the venom; and in the fourth series the venom was first injected, and thirty minutes afterwards the antivenene.

All, or nearly all, the experiments required to define the exact quantity of antivenene that is sufficient to prevent death from different lethal doses of venom have been as yet made only in the first and fourth of these series. They are, however, in some respects the most important of the series, as the conditions for exactitude in simultaneous administration are perfectly obtained in the first series, and it therefore should constitute the basis for comparison between antivenenes derived from different sources; and as upon the results of the fourth series must depend the actual practical application of antivenene in the treatment of poisoning by serpents' bites.

In the experiments of the first series the doses of cobra venom administered were the minimum lethal, twice the minimum lethal, and thrice the minimum lethal. In the case of each dose experiments were made with different quantities of antivenene so as to determine the quantity required to prevent death. In order to render it certain that a lethal dose was always administered in the experiments with the so-called minimum lethal, the minimum lethal indicated by the previous experiments was not used, but instead a slightly larger dose (0.00026 instead of 0.000245 g. per kilogramme).

When this certainly lethal dose, capable of causing death in five or six hours, was mixed with antivenene and the mixture then injected under the skin, it was found that so small quantities of antivenene were sufficient to prevent death as 0.5 c.cm., 0.25, 0.1, 0.05, 0.02, 0.01, 0.005, 0.004 c.cm. ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{10}$, $\frac{1}{20}$, $\frac{1}{50}$, $\frac{1}{100}$, $\frac{1}{200}$, $\frac{1}{250}$ of a c.cm.) for each kilogramme of the weight of the animal. With 0.0025 c.cm. ($\frac{1}{400}$), however, the animal died. The antivenene was therefore found to be so powerful as an antidote in the conditions of these experiments, that even the $\frac{1}{250}$ part of a cubic centimetre, equivalent to about $\frac{1}{7}$ part of a minim, acted as an efficient antidote. Even with the smaller of these doses of antivenene there was almost no symptom of poisoning produced. In the experiments of this series with twice the minimum lethal dose recovery occurred when the doses of antivenene were 0.75 c.cm., 0.7 c.cm., and 0.6 c.cm. per kilogramme, but 0.5 c.cm. per kilogramme failed to prevent death. In the experiments with thrice the minimum lethal dose of venom (a dose capable of producing death in less than two hours) recovery occurred when the doses of antivenene were 1.5 c.cm. and 1 c.cm., but death occurred with 0.8 c.cm., and even the enormous dose of four times the minimum lethal failed to produce death, or, indeed, any observable disturbance, when it had previously been mixed with 2 c.cm. per kilogramme of antivenene.

In the *second* series experiments have been made only with twice the minimum lethal dose of venom. When this dose was injected into the subcutaneous tissue of one side of the body, and immediately thereafter a dose of antivenene, it was found that doses of 1 c.cm., 2 c.cm., and 3 c.cm. per kilogramme failed to prevent death, but that 2.5 c.cm. and 3 c.cm. per kilogramme were able to do so.

In the *third* series the experiments have as yet been made with only the minimum lethal of cobra venom, and they show that 4 c.cm. per kilogramme of this antivenene is able to prevent death when given thirty minutes before the venom.

In the *fourth* series, where the results are likely to give the clearest indications of the antidotal value of antivenene, it was found that recovery occurred in the experiments in which 1.5 c.cm., 1 c.cm., and 0.8 c.cm. per kilogramme of antivenene were injected *thirty minutes after a certain* minimum lethal dose of venom; but that the antivenene was insufficient in quantity to prevent death when 0.75 c.cm. per kilogramme or less was administered. In this series, further, it was found that 5 c.cm. per kilogramme of antivenene was a sufficient dose to prevent death after twice the minimum lethal dose of venom, but that 2 c.cm., 2.5 c.cm., and 3 c.cm. per kilogramme were insufficient.

The experiments of this series are especially interesting, as nearly all the animals showed symptoms of poisoning before the antivenene had been administered. In each of the fatal experiments the duration of life was greatly prolonged by the administration of antivenene; and it is probable that in many instances a second injection of antivenene, made half an hour or an hour after the first, would have prevented death.

It has thus been established, on the clearest evidence, that the blood serum (antivenene) of animals protected against large lethal doses of venom is able, in varying conditions of administration, perfectly to prevent lethal doses of the venom of the most poisonous of serpents from producing death in non-protected animals.

In order to obtain some evidence bearing on the question as to whether the more powerful antivenene is produced by the long continued administration of small non-lethal doses of

venom, or by the administration of doses gradually increasing until a large lethal dose is reached, a few experiments were made with the serum of a rabbit which had received one-tenth of the minimum lethal dose nearly every two days during a period of three months and one week, and also of one which had received the one-fourth part of the minimum lethal dose nearly every four days during a period of three months and three weeks. I did not find that the antidotal power of the antivenenes obtained from these animals was great, or nearly so effective as the antivenenes obtained from animals which had finally received a dose much in excess of the minimum lethal. When mixed with venom and then injected, 3 c.cm. per kilogramme of these antivenenes was insufficient to prevent death from somewhat more than the minimum lethal dose of venom, but 5 c.cm. per kilogramme were sufficient to do so.

I have also administered 1.5 c.cm. per kilogramme of cobra antivenene thirty minutes after a dose one-twelfth larger than the minimum lethal dose of the venoms, respectively, of the *Sepedon hæmachates*, the *Crotalus horridus*, and the *Diementina* serpent, and the rabbits experimented on have recovered. This successful result is all the more remarkable when the intensely destructive local effects of each, but especially of two, of these venoms is recollected.

The experiments establishing, and to some extent defining, the antidotal power of cobra venom, further, have been made on animals peculiarly susceptible to the poisonous action of serpents' venom, a circumstance of importance in considering the probable value of the antivenene when used as an antidote in the treatment of animals of less susceptibility, among whom there appears to be sufficient evidence to place human beings. The minimum lethal dose for man probably approximates that of the cat, rather than that of vegetable feeders, such as the rabbit, guinea-pig, and white rat.

It is also to be remembered that, so far, the experiments have been restricted to a definition of the antidotal power in certain conditions which were not always the most favourable for the mere prevention of death. Indications have indeed been obtained which render it highly probable that death may be prevented from occurring more certainly by several administrations rather than by one administration of antivenene, and also by the introduction of the antivenene into the same parts as the venom rather than into distant parts.

It would be important also to increase the number of the experiments with the larger of the lethal doses of venom as yet administered, and it may be to employ still larger doses: although, for practical application, the larger of the doses that have already been used, as they produce death in about an hour, need not be increased. To these purposes I hope to apply the antivenene soon to be prepared from the rabbits which have already received fifty times the minimum lethal dose of venom.

ANTIVENENE IN THE TREATMENT OF SNAKE BITE IN MAN.

For the actual application of the antivenene to the treatment of snake poisoning in man, an endeavour is being made to obtain the large quantity that is requisite from a horse now receiving considerable lethal doses of cobra venom. From this source, also, it is hoped that a sufficient quantity will be obtained to allow of the examination of the chemical properties of the antivenene to be continued, with the object of discovering the constituent or constituents by which the antidotal effects are produced. If the isolation of the antidotal constituent or constituents can be effected, an antivenene of greatly increased power will be obtained and the range of efficient application will be increased. For these objects, however, it will be necessary to administer to the horse much larger doses than it has yet received; and the chief difficulty in doing this is to obtain a sufficient supply of cobra venom. By the great kindness of Surgeon-Colonel Cunningham 9 g. of dry venom have already been obtained, but in order to carry the protection to fifty times the minimum lethal dose other 30 g. would be required. I have reason to hope that the India Office will succeed in making arrangements for procuring even this large quantity.

The subject is one of practical importance to India, where the destruction of human life by venomous serpents is represented by an annual mortality of 20,000, and where the failure of all methods of treatment[3] has led to the introduction of a system of extermination of venomous serpents—apparently futile in its results—in the carrying out of which large sums of money have been expended.

In considering the probabilities of success by antivenene treatment it is also to be recollected that antivenene can be obtained even more powerful than that which was used in the experiments which have been described, and that, judging from the statistics of Fayrer and Wall, in 75 per cent. of fatal cases in man death does not occur until from three to twenty-four hours after the infliction of the bite. This latter fact appears to indicate that in the great majority of the fatal cases the dose of venom does not much exceed the actual minimum lethal, and, therefore, is not so large as the doses whose lethal action has been prevented from occurring in the experiments that have been described, in which, further, the conditions of success in preventing death were not the most favourable that could have been adopted.

It appears to me, however, that an interest and importance as great as that which can be derived from this practical application of the facts is to be found in their relation to the cause and treatment of many of the most fatal diseases—those, namely, which are produced by organisms that have found their way into the body. The evidence in favour of the curative value of the antitoxins derived from animals immunised against the toxins of these diseases seems to receive an additional confirmation from these facts. They also bring distinctly before us the circumstance that there are limits to this curative power dependent on the dose of the toxin to be counteracted, on the special antidotal activity of the antitoxin that is used, and on the duration of the time during which the toxin has had an opportunity of exerting its poisonous action before the antitoxin is administered. If these and other conditions interfering with successful treatment are not determined and recognised, unmerited discredit is likely to be attached to remedies which alone of all remedies may be capable of preventing death in these diseases, by counteracting the effects of minimum lethal and larger doses of the toxin.

THE INGLEBY LECTURES
ON
PERFORATION OF GASTRIC ULCER.

Delivered at Mason College, Birmingham.

BY GILBERT BARLING, M.B., F.R.C.S.,
Professor of Surgery, Mason College.

LECTURE III.

[THE lecturer first discussed the anatomy and relations of the stomach, laying stress upon the oblique and almost vertical position of the stomach with the lesser curvature facing almost to the right, and upon the relations of the left subphrenic space. He condemned the proposal to excise gastric ulcer which had not perforated, but thought the operation practised by Kuster was a distinct advance in the surgery of the stomach. This surgeon had operated upon two patients suffering from hæmatemesis and dilatation of the stomach. He opened the anterior wall of the stomach, applied the actual cautery to the ulcer, and then performed gastro-enterostomy, both of the patients recovering.]

The lecturer then said: Before dealing with the occurrence of perforation it is necessary to make a few general observations on the position of gastric ulcer and the liability to perforation in particular localities. A large majority of these ulcers occur on the posterior surface and the lesser curvature, a few occupy the region of the pylorus, and a still smaller number involve the anterior surface of the stomach. The incidence of perforation does not, however, in the least degree correspond to the incidence of locality; ulcers on the anterior surface perforate with great frequency, those on the

[3] "After long and repeated observation in India and subsequently in England I am forced to the conclusion that all the remedies hitherto regarded as antidotes are absolutely without any specific effect on the condition produced by the poison."—Sir Joseph Fayrer on the *Nature of Snake Poison*.

posterior surface rarely in proportion to their actual number, whilst those on the lesser curvature perforate comparatively often. The explanation of this varying tendency to perforation is found mainly in the relations of the stomach. The posterior surface, and to a less degree the smaller curvature, tend, with the advance of the ulcer to the surface, to become adherent to adjacent parts. The anterior surface on the contrary, owing chiefly to mobility, rarely becomes adherent. Apart from the existence of protecting adhesions, I think another influence may have something to do with the frequency of anterior perforation. The symptoms of ulcer on the anterior wall are apt to be less marked than those on other parts of the stomach, and they are occasionally quite wanting. Hence the subjects of them are probably more careless as to the quality and quantity of their diet, and the ulcers are more subject to undue stretching and to traumatism, which are the final causes usually of perforation. In my table of cases operated on for perforation, 22 out of 31 patients are described as suffering from anterior perforation, though it is evident that the lesion in several cases might quite as correctly have been described as being on the lesser curvature. The tendency is also towards the cardiac end rather than the pyloric, and it is only about half the anterior perforations that are so situated as to be accessible with moderate ease. In 5 of the 31 cases the perforation is described as posterior, and here again the tendency is to involve the lesser curvature. In two patients the perforation is ascribed to the lesser curvature.

The liability to perforation is greatest in young women, especially between the ages of 17 and 25. There is also a certain liability though nothing like so great in males, and in them the incidence is chiefly between the years of 40 and 50.

In discussing the treatment of perforation it will be demonstrated how extremely important it is that as brief a time as possible shall elapse between the occurrence of the accident and the operation for its relief. This is indeed the key to the whole position when the perforation takes place freely into the belly cavity. It is therefore necessary to study carefully the symptoms and signs of perforation of the stomach, especially in the early stages, so that hesitation and doubt in diagnosis, with delay in operation, may give place to certain recognition of the condition and speedy treatment.

It may be taken as a rule that the patients will have suffered from symptoms which, if not typical of gastric ulcer, point to the stomach as the seat of some lesion. This was the case in 23 of the 31 patients in the table of operations, in 1 no history could be obtained as he was unable to speak English, in 4 the previous history is not recorded, and in 3 others, including one of my own cases, the ulcer may be spoken of as "latent," there being not even a history of indigestion to suggest its presence. The value of the previous history is then very great as indicating the stomach as the organ from which the mischief arises. Other points which should be inquired into are the time at which the last meal was taken, the position occupied and the particular act engaged in at the time of the acute onset. Perforation almost always occurs when the stomach is full or partly so, commonly when the patient is in a more or less vertical position, and frequently from some particular act or exertion such as stooping to pick up something, sneezing, or lifting a heavy weight. The details of sex, age, digestive history, the state of repletion of the stomach, the action of the patient should be carefully inquired into when gastric perforation is suspected.

The moment at which perforation occurs is almost invariably marked by sudden acute abdominal pain, often so intense as to produce faintness, and it may be great collapse. Death has been thus immediately induced. The pain is variously described as burning or scalding, and is localised generally in the first instance above the umbilicus in the epigastrium, the left hypochondrium, or it may be in the lower part of the thorax. The feeling of faintness speedily follows, and as this passes off one or two vomits may take place, though this is perhaps hardly the rule. The abdominal wall will now be found to be retracted and the muscles rigid, as though by packing the viscera together they were endeavouring to limit extravasation. Respiration is usually entirely thoracic, quick and shallow, the temperature is subnormal, the pulse quick and feeble. What course the symptoms will now take depends upon the position of the ulcer, the amount of distension of the stomach, and the position the patient occupies. The extravasating material may spread widely into the peritoneal cavity, it may remain for a time localised between the liver and stomach, eventually escaping from there into the general cavity, or it may remain localised under the diaphragm, and produce subphrenic abscess. The first or acute development appears to be the most common result, and the symptoms are those of an intense and rapidly spreading peritonitis; how rapid may be judged when I tell you that within six hours of perforation I have evacuated 2 to 3 pints of semipurulent fluid from the abdomen. Marking the onset and advance of peritonitis, pain, which I have described as first localised, now spreads over the whole abdomen. Retraction steadily gives way to distension, from intestinal paralysis and from free fluid, and perhaps free gas in the peritoneal cavity. Varying resonance and dulness may be found in different parts of the abdomen, but it is only in the region of the liver that this has distinct clinical value. Diminished liver dulness may be explained by more than one condition. Absence of liver dulness is almost certainly due to free gas in the peritoneal cavity derived from a perforation. If this symptom be present it is valuable, but its absence does not negative the existence of perforation. As collapse passes off, the temperature begins to rise and generally runs up to 101° or 102°, the respiration still remains quick and thoracic, the pulse becomes fuller and quicker. With the advance of peritonitis vomiting generally occurs, the abdomen becomes tender everywhere, the lower extremities are flexed, the face becomes pinched and sunken. In this, the most acute result of perforation, death follows in from twenty-four to seventy-two hours, though occasionally the fatality may be somewhat longer delayed. If rapid extravasation does not occur, but the escaping stomach contents are for a time circumscribed between the liver and stomach, the symptoms are modified, and we have the subacute development. The pain and collapse of the first leakage and the associated symptoms may be just as marked, but as the patient rallies from the collapse, rapid peritonitis does not follow. Rigidity and tenderness to some extent remain at the upper part of the abdomen, the temperature runs up somewhat, the pulse remains unduly quick, but the patient improves so much that doubt is not unnaturally cast upon the diagnosis of perforation. Some hours later, it may be not for a day or two, a further leakage takes place, which again may be marked by the acute pain and collapse of the onset. With this further leakage, and sometimes without its intervention, wider extravasation of stomach contents takes place, and general peritonitis is established, running the course sketched out above. This is induced often by incautious movements of the patient or by the administration of food, medicines, or stimulants by the mouth.

So far I have been speaking of the acute and of the subacute results of perforation; in the first, acute general peritonitis follows immediately upon the symptoms which mark the perforation, in the second there is a distinct interval between the two. I have now to describe a third possible result, namely, localised abscess formation, which by contrast with those previously described may be regarded as the chronic result. The abscess is usually, though not necessarily, subphrenic, and is generally under the left arch of the diaphragm, though it may be under the right. Abscess formation is not so common as the two other and more acute results of perforation, and I have only found records of six operations performed for this condition. Left subphrenic abscess being the common condition resulting, what I have to say is based mainly on that condition. Perforation of gastric ulcer as a cause of abscess under the diaphragm has been long recognised, but I do not think it is as familiar to the profession as it should be, and I should like, therefore, to refer to two excellent papers on the subject, one by Penrose and Dickinson,[1] the other by Ewart.[2] In this chronic result of perforation the onset symptoms of localised pain and faintness are just as marked as in those cases with a more acute development. Following this there may be an interval of some hours, or even

[1] *Trans. Clin. Soc.*, v. 26.
[2] *Clin. Journ.*, July 25th, 1894.

a day or two, in which symptoms of any kind are very little marked. It is, however, more common to find tenderness and rigidity at the left hypochondrium and epigastrium, some fixity of the abdomen, and quickened respiration. Then with greater or less rapidity evidence arises of suppuration, the temperature runs up and often varies rapidly, the patient sweats a good deal, one or more rigors may occur, the pulse is quick, the patient looks ill but has not the Hippocratic face of advancing peritonitis. With the general evidence of pus formation local signs present themselves pointing to a gas-containing cavity, which tends to infect the pleura and lung of the same side. A swelling, or at all events a fulness, presents in the epigastrium.

The physical signs are those of pneumothorax, but they are in a position different from that which pneumothorax occupies. There is hyper-resonance at the upper part of the abdomen, extending somewhat up the thorax but not to its summit, where normal phenomena are to be found. The tympanitic resonance may extend upwards behind the sternum to a remarkable degree, perhaps into the axilla and posteriorly also. With this resonance there may be amphoric breathing, and a bell sound may be obtainable. The heart undergoes displacement to some extent, but not to the degree that it does in pneumothorax. With this tympanitic resonance in front evidence arises of pleurisy or of lung consolidation. Such are the signs of subphrenic abscess, in which we have generally a collection of pus and gas, limited above by the left arch of the diaphragm, to the right by the falciform ligament of the liver, below by the left lobe of the liver and the stomach, to the left by the spleen, and in front by the anterior abdominal wall. This is very likely to set up pleurisy, empyema, pneumonia, or lung abscess, or a combination of these, and death is usually brought about by one of these complications. Although it might be anticipated that general peritonitis would eventually result by extension, this appears to occur only exceptionally, certainly not in half the cases. The progress of localised suppuration to a fatal termination is less rapid than in the more acute conditions I have previously spoken of. I find that eight cases lived an average of more than twenty days each, the shortest time being six days and the longest fifty. It might be inferred from this that the mortality is not so severe as it is after the acute developments of perforation, but unhappily I am unable to confirm this. So far spontaneous recovery, or recovery after operation, has been rare.

Whilst subphrenic abscess on the left side is the rule, the collection may form under the right arch of the diaphragm and be associated with similar auscultatory phenomena to those which occur on the left side and give rise to implication of the right side of the chest. In my own case of abscess following gastric perforation, it is difficult to say where the pus was localised; it was not so high as a subphrenic collection, and it seemed too distinctly left-sided and limited to have occupied the sac of the great omentum, though this is undoubtedly one of the cavities which may be implicated.

Let me recapitulate the essential points in the diagnosis of the perforation of gastric ulcer. The patient is generally a young woman, or rarely a middle-aged male, with a history of gastric ulcer or of stomach indigestion, though occasionally the ulcer is "latent." The moment of perforation is marked by extreme pain, in the left upper part of the abdomen as a rule, with collapse. This is followed speedily by rigidity of the abdomen, thoracic respiration, and a subnormal temperature. So far the history of all cases is pretty much the same, but now we have a varying course which separates cases into three groups (1) the acute, (2) the subacute, (3) the chronic.

In the acute the onset symptoms are followed by the rapid development of general peritonitis which, without surgical relief, ends in death in from twelve to forty-eight hours.

In the subacute, after the shock of perforation has passed off, the symptoms are not marked for some hours or a day or two. Then, owing to further leakage from the stomach, or by the advance of what has for a time been a distinctly localised peritonitis, general septic peritonitis is set up, and without surgical relief death follows in four or five days from the first seizure.

In the chronic, after the shock of perforation has passed off, as in the subacute cases, there is a period more or less prolonged in which symptoms are slight, and doubt may arise in diagnosis. Then follow the general symptoms of pus formation, and the local signs indicating a gas-containing cavity beneath the diaphragm. Following on these are indications of septic invasion of the thorax, pleurisy, empyema, pneumonia, or lung abscess.

Without relief by operation what is the prospect of recovery after perforation? Undoubtedly slight, almost hopeless, but not quite. There are cases recorded, the proof of which is complete; others in which, without absolute certainty, it is highly probable that gastric perforation has been followed by recovery. This fortunate result has been due in great measure to the fact that the stomach has been practically empty, food not having been taken for some time. In some cases the symptoms have pointed to a widespread peritonitis, through which the patients have struggled. In others the stomach contents have been localised and abscess set up, which has eventually found its way into stomach or bowel, and so been evacuated, the patient emerging through a perilous illness and a long convalescence to recovery. A case of this kind I saw in consultation with Dr. Pickup and Dr. Haig, of Coventry, in 1893. A young lady had symptoms which pointed to possible leakage from a gastric ulcer. A localised swelling formed in the left hypochondrium, with fever. A large quantity of pus was partly vomited up and partly passed *per anum* almost simultaneously, and the swelling disappeared. Pleurisy developed on the left side, and some clear fluid was aspirated. The fever continued, the patient emaciated, and I was asked to see her to determine if any operative means were available for her relief. There was at this time no local focus to be felt in the abdomen, and no further collection in the chest, and a roving commission to explore the abdomen seemed more likely to do harm than good, so it was decided to leave the patient alone. Very slowly she began to improve, her temperature did not become normal until many months later, and convalescence was only complete at the end of eighteen months.

If cases of gastric perforation are left to medical treatment it is probably no exaggeration to say that 95 per cent. die. What chance does surgery offer the patient? It is yet too early to speak of in percentages, but that it is better than can be obtained by medical means admits of no doubt, and I look confidently to still better results in the future. My tables contain all the cases of operation I have been able to collect. The total number of operations is 37, with 13 recoveries. I do not think that so far one-third of the cases operated on have recovered, because doubtless unsuccessful cases have not been recorded, but these 13 recoveries were so many patients almost certainly snatched from death, and give us every encouragement for the future.

A diagnosis of perforation of the stomach having been made, immediately after the accident a certain line of treatment must be followed whether it is proposed to resort to operation or not. The collapse may be so intense as to cause death, and instances are on record of perforation of the stomach having been found to explain cases of sudden death. Collapse must be met by external warmth and by enemata of warm fluids and stimulants. Nothing should be given by the mouth if it can possibly be avoided, as it may lead to further extravasation, or may cause vomiting, which in its turn squeezes the stomach contents through the perforation. The severe pain calls for morphine, which should be given hypodermically rather than by the mouth. The patient should be kept in the horizontal position as completely as possible to prevent extravasated materials spreading widely from the point of perforation, where they may soon become localised by adhesions. If operation is declined, or for any reason is not deemed advisable, the patient should be kept rigidly in the horizontal position, and food by the mouth withheld for several days unless the patient's general condition imperatively demands it. Morphine should be given from time to time, to keep the patient quiet and free from pain, and to lessen peristaltic movements of the intestine. Examination of records of cases recovering without operation gives emphatic evidence of the value of absolute rectal feeding, morphine, and recumbency. Several cases could be recited in which relaxation of these precautions,

owing to the patient's improved condition a day or two after perforation, has been followed by disaster.

If the diagnosis of perforation is clear and operation has been determined upon, sufficient delay to allow of recovery from collapse is not only justifiable, but is called for in face of the fact that the operation may be prolonged, and therefore severe. From an hour to an hour and a-half has been frequently occupied in discovering and closing the perforation and in cleansing the peritoneal cavity, and in a very difficult, but successful, operation by Kriege the duration of the operation was two and a-half hours. With the varying conditions which may be found, it is evident that operation will not always proceed on the same lines.

If operation is undertaken soon after perforation, a vertical incision about 4 inches long commencing a little way from the ribs either in the middle line or somewhat to the left of it, should first be made; the operator should not attempt to deal with the condition through a small opening, which will only embarrass him and delay progress. Through the incision the parts should be carefully examined to determine the amount of extravasation and the leaking point. It may at once be evident that the stomach contents, gas and semi-digested food, have been widely disseminated, and that general peritonitis already exists. On the contrary, only healthy tissues may be seen, and after careful sponge packing the fingers pass upwards between the stomach and the liver to the common position for perforation, the anterior surface of the stomach. Here the material escaping from the stomach will generally be found, and before any search is made for the perforation this material should be carefully cleaned away with sponges, not by irrigation. The presence of perforation having now been determined, if its position makes access to it difficult, there should be no hesitation in making a transverse incision to the left, to facilitate further manipulations. Or the same course may be taken to assist in finding the point of leakage. In seeking the hole in the stomach the finger tip may at once easily detect it; if not, an indurated area must be felt for, the base of the ulcer, and this is especially useful if the ulcer is on the posterior surface of the stomach when its thickened base may be felt through the anterior wall. If in neither of these ways can the perforation be found, an assistant should hold up the margin of the thorax with the liver, and by the aid of a good light the opening in the stomach looked for, when it may be recognised by fluid or bubbles of gas escaping from it. If the ulcer is felt on the posterior surface, it may be approached either through the gastro-hepatic, or through the great omentum, by carefully tearing through its tissue, avoiding the anastomosing vessels on either curvature of the stomach.

So far the perforation has been sought, the extravasated material removed, and its diffusion prevented by sponge packing. The next step is to empty the stomach of its contents, which may be food, or a large quantity of gastric secretion; either of these left in the stomach causes embarrassment during the closure of the perforation, and may give rise to distension of the organ and vomiting subsequently. It was possible in one of my cases to empty the fluid out by a tube passed into the perforation, but if this cannot be done the œsophageal tube must be employed.

The closure of the perforation next engages attention, and upon this point the chief difference of opinion has risen between operators. The question at issue is whether the ulcer or the edge of the perforation should be formally excised, or whether it is sufficient, after infolding the edges, to close the hole by sutures. Turning to the record of operations in acute or subacute cases, of the 11 recoveries, in 8 the ulcer was not excised, but the edges were infolded and sutures on Lembert's method applied; and in 2 successful cases more or less complete excision of the ulcer was performed; it is evident therefore that excision is not a necessity for success. This is supported by the fact that healing of the perforation has taken place, and the ulcer has cicatrised in several cases, mostly those of subphrenic abscess, in which either no attempt has been made at the time of operation to find the ulcer, or in which no operation has been performed. Again, in several cases in which suture alone has been done and death has subsequently occurred, the perforation has been found to be securely closed, death being caused by peritonitis which pre-existed before the time of operation. Apart from the evidence gained by the experience just recited, it is clear from general considerations that mere closure should be given the preference over excision, unless some very special condition is found calling for the latter. In some cases the ulcer is so difficult of access that its excision and suture would be impossible. This is so when the stomach is involved high up and near the lesser curvature, whether on the anterior or the posterior surface. Even if accessible, excision of the ulcer is a serious addition, it may be a very serious one, to the operation, performed on patients ill able to bear prolonged exposure on the operating table. The time consumed condemns the procedure, but there is further the very considerable loss of blood, which has evidently occurred in more than one case. Finally, a gap of large extent may be left, which in one case required fourteen and in another thirty stitches for its closure.

Suture by Lembert's method without excision should therefore be adopted, and from one to half-a-dozen stitches may be required. In some cases these have been found to cut out rather easily, but, as the edge and base of the ulcer are often much thickened, the sutures should be buried deeply in the outer coats of the stomach and at a distance of as much as half an inch from the margin of the perforation if the tissues here seem firmer. All the stitches should be applied before any of them are tied, and they should be carried on each end well beyond the hole. By then drawing them all together the strain is somewhat diminished on each of the earlier ones as they are tied, and as they are being secured the edges should be carefully infolded by forceps or director. If it seems desirable, the first line of suturing may be reinforced by a second, and although this will still further encroach upon the stomach, in an organ of its capacity no harm is likely to result, unless the ulcer were situated at a narrow part, like the pylorus. It goes without saying that if these manipulations can be performed outside the abdomen by withdrawing a portion of the stomach through the wound this would facilitate matters greatly. Unfortunately this is generally not possible, and the operator has to rely upon the aid of assistants to retract widely the abdominal incision and to keep the liver raised up out of his way. If sutures will not hold or the induration of the ulcer is so dense and widespread as to prevent closure by this means, excision may then be required. The vessels should be temporarily secured by forceps, as they are divided and the larger ones subsequently ligatured. One or more rows of Lembert's sutures are then required to securely close the gap produced. It has been found occasionally that neither closure by suture nor excision has been possible, and the perforation has been stitched to the abdominal incision forming a gastric fistula. Under these circumstances it is a question whether it would not be better to put a drainage tube tightly fitting the perforation into the stomach to carry off any gastric secretion and trust to gauze packing around to prevent further leaking into the peritoneal cavity.

Important as is the question of closing the perforation, that of irrigating the abdominal cavity is hardly second to it. Irrigation is a weapon powerful for harm as well as good. Whether it should be adopted must depend upon the extent to which the extravasated stomach contents have spread over the abdominal cavity. If they are well localised and it is evident that general peritonitis does not exist, irrigation may carry infection where it did not previously exist, and it should not be employed. In two successful cases, one by Kriege and the other by Bennett, irrigation was not used and sponges or gauze mops were used for purposes of cleansing. On the other hand, if, as is generally the case, extravasation is widespread or general peritonitis exists, then upon the efficiency of the irrigation depends mainly the patient's chance of recovery. This should be carried out systematically and very thoroughly with plenty of fluid. One of the operator's hands should separate the coils of intestine to empty the pockets between them, the lumbar spaces should also receive attention, and finally the pelvis. It is most difficult to get rid of all particles of food which lurk in these localities, and thorough irrigation is facilitated by a second opening above the pubes, so that a through flushing may be obtained. Drainage has been generally adopted in the successful cases, though not in all. In my opinion a drain

leading down to the seat of perforation should always be used; the risk of any harm it may do as a channel of subsequent infection from outside is slight as compared with the disaster which may occur from any further leakage at the point of suture or from any inflammatory collection in the neighbourhood. I believe it would also give an additional chance of success if, after general irrigation, a second drain were inserted above the pubes where fluid has such a great tendency to gravitate. The neglect of this precaution had, I think, something to do with the fatal result in one of my cases, in which a quantity of turbid fluid was found *post mortem* in the pelvis.

In all these manipulations, which require some time for their performance, the effect on the patient's strength must be carefully watched, for it is obviously no good to perform an ideal operation, to leave the perforation secure and the abdomen clean, if the patient is to be removed from the operating table moribund. On the other hand, a hasty scrambling operation, leaving food lying about in the belly cavity and pockets of sero-purulent fluid unemptied, is certain to end in disaster, and tends to discredit operative interference. It should be the operator's business to secure efficient assistance and to see that all he may require in the way of instruments, sutures, etc., is ready beforehand, so that no time may be wasted after the patient is anæsthetised. This is the more important, as many operations for gastric perforation, if they are to have a chance of success, will have to be performed outside hospitals, sometimes because these are not available and at others because transporting the patients from one place to another adds to their danger.

So far I have only discussed operation immediately after perforation, before any localised abscess has had time to develop. When there is a localised abscess, whether subphrenic or elsewhere, the course to be pursued is different from that already described. A question here arises whether after the diagnosis of perforation operation should follow as soon as the patient's condition permits in all cases, or whether delay is sometimes advisable in the hope that localised suppuration may form rather than immediate general peritonitis. In answering this question, we must remember that we are perfectly in the dark as to where the point of perforation is located, and to what extent extravasation has occurred. Also that free extravasation of stomach contents is more common than localisation, and that the fate of patients with free extravasation depends upon the brevity of the time which intervenes between perforation and operation. With these facts before us there can only be agreement that delay in operation, with the hope of localised formation of matter, is not to be entertained.

If, however, abscess has formed, how is it to be approached? The point of greatest importance is that it shall be opened by an incision as directly on to it as possibe, so that no risk may be run of getting outside its boundaries and infecting the peritoneum. The incision should be made over the most prominent part of the presenting swelling, whether this be in the left or in the right hypochondrium or elsewhere. Foul pus and gas—with, it may be, stomach contents—will be evacuated. Some of the tissues forming the abscess wall may be recognisable but others will not. This is not a matter of importance, as no search should be made for the perforation in the stomach. It probably would not be discovered; even if it were its closure could not be effected, and, most important of all, the search for it might break through the limiting adhesions and give rise to general peritonitis. The abscess having been emptied, nothing more will be required in some cases than drainage. If, however, an extensive subphrenic collection exists, as is commonly the case, it is doubtful whether so simple a procedure is sufficient. A study of these abscesses shows that they prove very fatal from septicæmia, almost always after infecting the pleura and lung of the same side. This is so even when the abscess has been drained from the front. Some additional measure is required then to save the patient. If empyema or abscess of the lung coexists, there should be no hesitation in adopting the course presently to be laid down. If these complications are not present, such steps involve greater responsibility, but in the interests of the patient may be called for. To get at the most dependent part of these collections and drain them efficiently an opening is required through the wall of the thorax. This is best made in the mid-axillary line on the left side, and two to three inches of the eighth rib should be removed. The lung retracts out of the way and the diaphragm is exposed. Higher up or more posterior than this it is not safe to go. If empyema exists or lung abscess, these can be now dealt with as seems best. If they are not present, the diaphragm should be stitched with a ring of sutures to the edges of the wound in the parietal pleura, and either opened at once or, perhaps better still, packed and left until the next day to secure adhesions between the pleural surfaces. On making an opening in the diaphragm, the finger passes into the left subphrenic space, just in front of the anterior margin and to the left of the spleen, and a drain should be placed *in situ*. A finger passed into the abdominal incision should guide the operator as to the place at which the opening in the diaphragm should be made so as to get as completely as possible to the bottom of the collection and yet with safety to the spleen.

It may be urged that this procedure incurs risk of inducing the very thing we wish to avoid, namely, infection of the thorax. But a study of subphrenic abscess shows that the opening of the abscess from the front is not sufficient for its cure, and that, despite the evacuation by abdominal incision, the pleura or lung nearly always become involved.

The record of operations contained in the tables I have collected shows 13 recoveries. It will not unnaturally be asked, What is the value of these lives? Have they temporarily recovered to become victims to a later perforation; or if still living, are they well enough to lead useful lives? I have inquired of the various operators, and have to thank them for their courteous replies. The record is, I think you will agree with me, a very satisfactory one. Of 10 recoveries of which I have been able to obtain recent news, all remained well at intervals of from six weeks to three years after operation, and at least as well able to work as they were before operation, and some of them much better able to do so.

In concluding my lecture on this subject, I wish to urge upon the profession the necessity for early diagnosis and treatment of this terribly fatal accident, gastric perforation. The influence of early operation is shown by the following figures: In 9 operations performed with success, the average time which intervened between perforation and operation was 7⅓ hours, the longest being 10 hours and the shortest 3 hours. In 15 unsuccessful operations, the average time intervening between perforation and operation was 27 hours; the shortest was 4 hours and the longest 70 hours. The time of operation is really the dominant factor of success. Unless surgery has an opportunity within the first six or nine hours after perforation, the mortality must remain great. Given the opportunity for intervention as soon as the primary collapse has passed off, I believe the results will improve very much. If my lecture assists in enforcing the lesson, it will not have been given in vain.

THE PHYSICAL CULTURE OF YOUTH.[1]

By NOBLE SMITH, F.R.C.S.Edin.,

Surgeon to the City Orthopædic Hospital, and Surgeon to the All Saints Children's Hospital.

Two things are essential to the healthy growth and development of the young: 1. The adoption of natural methods to train the muscles. 2. The avoidance or removal of counteracting influences. When, as the result of the neglect of one or both of these rules, deformity results, much good may be effected by judicious treatment, even when the bones had become altered in shape. It is therefore important to recognise deformities at an early stage.

The deformities in ligament and bones are not as a rule produced by the occasional indulgence by the patient in very unnatural and unsymmetrical positions, but by the long continuance of positions of body and limbs both at rest and during exercise, which are faulty to so slight an extent only that they are frequently overlooked or disregarded. The continuance, and not the extent, of the unnatural position is the determining factor in the result. In fact, in childhood, no

[1] Read before the Gloucestershire Branch of the British Medical Association.

position, however unnatural, does harm, provided the indulgence in it be occasional and not continuous. Of the various factors which by their continuous application give rise to deformities, none are so potent and yet prove so unsuspected as clothing. Especially is this the case amongst girls. From a hygienic standpoint, 90 per cent. of modern clothing is faulty and even harmful.

Nowadays people object to belts and garters, and the objection when made to such articles tightly applied is rational. But the result of the sensible objection to tight belts and garters has been a recoil to the other extreme, a discarding altogether of belts and garters, with the result that modern clothing is suspended entirely from the shoulders, and not only from the shoulders, which is bad enough, but from the extreme acromial ends, which makes matters worse. The hips, not the shoulders, should support the nether garments, a fact which every sailor and stableman knows from practical experience. Garters, if not overtight, are harmless, even in childhood, and suspenders are only justifiable if supported from the hips. Tight garments across the chest, a fault in construction almost universal with children's clothing, must also be avoided.

After clothing, the next most important factor is food. A constant source of juvenile debility, with its resultant changes in bone and ligament, is bad or insufficient food. The nitrogenous element especially is frequently deficient. The food is either insufficient in quantity, indifferent in quality, or badly cooked. All three conditions are very common in public schools, and yet no remedy is suggested because of the mistaken idea that the complaints of schoolboys and schoolgirls against their food should never be listened to.

The bony and ligamentous tissues thus weakened by imperfect feeding and displaced by irregular pressure, increasing in directions where the steady continuance of pressure should have prevented such increase, and remaining stationary from pressure which should not have existed, obviously must result in deformity; but a deformity of such insidious origin and of so slow a growth that it becomes evident only after years of progress. With these changes and alterations in the bones and ligaments there is necessarily concomitant muscle weakness, but a weakness easily remedied and of trifling importance to the patient compared with the other changes. Now the law which brought about so great a change by the continuity of action of a factor but slight in itself can be pressed into the service of the surgeon, and the result reversed by changing the factors but making them act in the same continuous way. Just as a deformity is effected by unnatural conditions and positions acting for a long time, so cure will be effected by natural conditions and positions being restored and retained through months and even years. From the consideration of this law it becomes self-evident that it is far more important to have prolonged rest in good positions than to have frequent (but necessarily occasional) drilling. By "rest" he did not mean recumbency, but merely the avoidance of exercises that produce fatigue, such as, for instance, long walks. It is very wrong to enforce, even in the most healthy, long races and paper chases and any other exercises which cause severe prolonged strain to the heart. Such prolonged over-exertion causes impaired nutrition, which necessarily results in atrophy and weakness. He had for years insisted upon the value of intermittent exercise such as games rather than continuous exercise such as long walks, and lately Dr. Lauder Brunton in his Harveian Oration has pointed out that the spontaneous exercise of a child was that of a butterfly, not of a bee. With the same object in view a colt was allowed to gambol and never put into harness whilst young.

If children were only allowed to rest their backs when they sat down, as by leaning them against the back of a chair, there would (*cæteris paribus*) be few weak backs. It is very important that their spines, when not in action, should be kept in a natural symmetrical position; a position absolutely unattainable, for more than a very brief period, by muscular action alone. The effort to keep the spine straight when sitting on a seat with no back support is never effectual, and though the order to "sit up" produces a temporary straightening of the spine, yet relaxation slowly but surely follows, and each reapplication of the stimulating word of command produces a less and less lasting effect.

This power of the muscles to straighten the spine temporarily, and sometimes to conceal a somewhat extensive curvature must be taken into account in making a diagnosis. In examining a child, therefore, for curvature of the spine, he should be kept sitting for an appreciable time. At first he may hold himself straight, but very soon fatigue sets in, and gradually the curves appear.

From the consideration of these facts, it is obvious that the rational treatment for spinal curvature is to give plenty of light, easy, and continually-changing exercise, and yet to enable the spine to rest completely the moment the muscles relax and their supporting influence ceases. This end can be effected by fitting to the child a strong light apparatus, which differs entirely from the ordinary spinal support, and is so arranged that whilst it gives free movement in almost every direction to the chest and arms—so that a boy can, for instance, play cricket—it yet gives the spine complete support, not when the muscles are acting, but when they begin to relax and the ligaments begin to be strained by the unnatural positions into which the bones fall.

[Mr. Noble Smith then showed a young boy with spinal curvature, who before treatment had not been able to walk more than a hundred yards or engage in any games with his companions, but who, immediately after commencing to wear such an apparatus as that described, had been enabled both to take fairly long walks without fatigue and even to engage in a game of cricket, and whose spinal curvature at the time of showing—several months after the commencement of treatment—had most distinctly diminished.

This patient had been sent to Mr. Noble Smith by Mr. Cox, of Winchcombe, and Mr. Cox, who was present, spoke to the great improvement which had taken place in the lad.]

A METHOD OF TREATING INVERSION OF THE LIMB SUBSEQUENT TO THE CURE OF EQUINO-VARUS.

By R. L. SWAN, F.R.C.S.I.,

Surgeon to Dr. Steevens's Hospital and the Orthopædic Hospital, Dublin.

When an aggravated equino-varus is so far cured that the sole of the foot rests on the ground in walking the surgeon usually desists from treatment and formulates a routine to be adopted by the nurse or mother calculated to prevent collapse and to further a degree of progressive improvement by the combined influences of development and education. It will be found, however, that in the great majority of instances conditions remain which exert a distorting influence, and notwithstanding the time, trouble, and perhaps outlay which have been expended the patient may be still recognised as the victim of malformation. The conditions referred to are:

(1) *Knock Knee.*—This is seen in cases of aggravated equino-varus which has been untreated until walking has been for some time indulged in. The point of incidence of the axis of weight is internal to the contact of the outer edge of the tarsus or the adventitious bursa to the ground. This, in conjunction with the fact that there is a disproportionate relation between the body weight and the functional development of the lower limbs will favour its production. This distortion may be dealt with by any one of the ordinary methods of treatment, and with this brief notice may be dismissed.

(2) *Rotation Inward of the Leg.*—This will be found as a constant distorting element, and betrays its existence when the rectification of the equino-varus has been effected. Even when the foot has been rendered completely plantigrade the inversion of the limb will be (apart from cosmetic reasons) of great detriment to the individual. He cannot walk without tripping. The outer edge of the advancing foot strikes the back of the tendo Achillis or the dorsum of the tarsus of the stationary limb. If the surface be irregular, or unless he steps with great care, he is apt to tilt over and fall, being deprived of the support of the toes and anterior segment of the foot, which if in their normal position bear the momentum created by his weight and progress. After a time he adopts a winding method of progression, which becomes a permanent

habit, so that the removal of the major deformity has not resulted in a perfect restoration of functional usefulness, to the dissatisfaction both of the surgeon and the patient's friends.

If a careful study of a limb in the above category be made, it will at first sight appear that the entire extremity is inverted. If, however (as was pointed out to me by my friend and colleague Mr. Chance), the patella be placed in its normal position, looking directly forwards, it will be seen that the inversion wholly results from conditions existing below the knee. It may furthermore be added from abnormal relations of the skeleton at the lower third of the leg. To briefly define this abnormality: The post-axial line does not occupy its ordinary position in human anatomy, but the fibula is distinctly projected to a point anterior to its usual situation. The external malleolus is on a plane far anterior to the internal in the plantigrade position of the foot. This, then, must be regarded as the factor in the production of inversion of the lower third of the leg itself, and, as a consequence, of the foot.

Two theories may be held as to the causation of this abnormality: First, that the extremity of the fibula is tilted forwards by the traction exerted by the peronei tendons in their overstrained state. Secondly, that it may be explained by developmental arrest. If we examine the arrangement of the skeleton in the lower extremities of the higher anthropoids, an equino-varus is the normal arrangement; and if the sole be approximated to the ground, the external malleolus is very much anterior in its relative position to the internal—to that which is seen in man. This was pointed out to me very clearly by my friend Professor Frazer, R.C.S.I., in the dissection of the lower extremity of a chimpanzee. I would regard the condition, then, rather as an indication of reversion of type, and as in its essential explanation identical with equino-varus itself, and not the production of any concomitant accidental cause.

Regarding the practical management of this element of deformity, its importance has been fully recognised by orthopædic surgeons, and many appliances have been devised for its removal. Dr. L. Sayre used a spiral spring for everting the entire limb. The same object may be obtained by adapting steels to a pelvic band, which are inserted into the boots by slots set at a suitable angle. Other contrivances have been resorted to for the same object, which it is unnecessary to enumerate. A good deal of reliance has also been placed on the voluntary power which education will cause the child to exert in the production of eversion of the limb; but if we investigate the result of the adaptation of any one of those means, we will see that the apparent correction of the deformity is produced by the creation of another. The femur is rotated unnaturally, so that the patella, instead of looking forwards in walking, will present its anterior surface outwards. Even if voluntary effort be successful in concealing the deformity, it means the imposition of a strained and unnatural method of progression, which violates the law regulating the economy of force.

For the rectification of this condition I have concluded that a section of the tibia at the junction of its middle and lower thirds, with rotation outward of the lower fragment of the bone on its own axis, is perfectly efficient. The external malleolus is thrown backwards, carrying with it the foot, which remains in a normal position. When the osteotomy has healed, I have applied this operation to a number of cases within the last six months with uniform satisfaction, and I am convinced that it is the proper corrective, being safe, easy to perform, and followed by perfectly good results.

Royal Medical Benevolent Fund of Ireland.—The annual meeting of this Society was held in the College of Surgeons, Dublin, on Monday, June 3rd, Mr. Thornley Stoker, President of the College, in the chair. The report stated that 75 applications for aid had been considered. The Society's stock amounted to £22,777. The speakers were Dr. W. G. Smith (President of the College of Physicians), Dr. Truell, Dr. Jaggart, Dr. Moorhead (Cootehill), Dr. Little, Sir Wm. Stokes, Professor Bennett, Mr. Croly, Brigade-Surgeon Potter, Dr. Jacob, Dr. Newell, Dr. R. Moore, and Deputy-Surgeon-General Beaumont.

CASE OF INJURY TO THE FOREHEAD FOLLOWED BY APHASIA, PARTIAL PARALYSIS OF RIGHT ARM, AND CONVULSIONS:

TREPHINING AND EVACUATION OF CLOT: RECOVERY.

By J. C. RUSSEL, M.D., and C. PINKERTON, M.D., C.M.

History of the Case: By Dr. Russel.

On March 3rd, 1894, J. H., a healthy and wiry man, aged 67, was thrown from his tricycle. His forehead struck the ground, and was cut, as was also his little finger. The wounds, which bled freely, were dressed at a neighbouring surgery. He was not stunned, but could not afterwards recollect how he got home.

I saw him for the first time on March 4th. He complained of feeling shaken, and of pain in the right arm and shoulder. Since the fall he had vomited everything he had taken. There was no other special symptom. The cut was about an inch and a-half long, situated above the outer half of the left eyebrow. No fracture or depression of bone could be found about it.

On March 5th no more vomiting had occurred, but it was observed that he was unable to speak properly. He left his sentences unfinished, seemed at a loss for words, and used wrong and meaningless words. He did not spontaneously use his right hand, though he could move it when told, and could grasp feebly. No paralysis of the face was observable. On the following day the aphasia was more complete. At 11 P.M. he had a sudden attack of convulsion; and on March 7th a second attack at 1 A.M., and a third at 9 A.M. These attacks were said to be all similar. They came on suddenly, lasted for two or three minutes, affected the whole body rather violently, and were accompanied by loud stertorous breathing. Those who witnessed them, not being skilled observers, could give no further particulars.

The occurrence of convulsions with aphasia and partial paralysis of the right arm following injury led to the diagnosis of effusion of blood on the surface of the brain causing pressure in the region of the speech centre and its neighbourhood. The friends of the patient were advised that trephining, in the expectation of finding and removing blood clots, was the proper treatment, and Dr. Pinkerton was invited to examine the case with a view to operating if he deemed it expedient. The consultation was held in the afternoon, and as there had been no convulsions since morning and the patient's condition seemed improved, it was decided to refrain from operation and await further developments.

On March 8th and 9th the general condition was improved. He was conscious, and spoke volubly but quite unintelligibly. During March 10th, 11th, and 12th he became worse. On the last named day he was lethargic and restless, he frequently moaned and raised his left hand to his head, he took no food, and towards night became quite comatose. The pulse was under 60, and full. On the morning of March 13th his condition was much the same, and the operation was performed in the forenoon.

The Operation: By Dr. C. Pinkerton.

We first localised the fissure of Rolando, as follows. A point on the crown of the head, half an inch behind the middle of a line drawn from the root of the nose to the external occipital protuberance was taken as indicating the upper extremity of the fissure. A second line was then drawn, perpendicular to the first, so as to pass immediately in front of the meatus, and a point on this line two inches above the level of the centre of the meatus was supposed to indicate the lower extremity of the fissure. It appears from the result that the location of the fissure by this very simple method was substantially correct.

No shaving was required, owing to the baldness of the patient, but the integuments were rendered antiseptic. The incision at first was crucial, but was afterwards enlarged in an anterior direction, so as to convert it into an irregular crescent. A 1-inch trephine was then applied over what was supposed to be the spot for the arm and speech centres, but on reflecting the bone nothing abnormal was discovered. Having enlarged the scalp wound, the trephine was again applied immediately in front of and slightly below the first opening. The bone

here was much thinner and less dense, and this disc was soon cut through. On reflecting the bone it was first noted that a considerable branch of the middle meningeal artery ran across the upper third of the opening. At first the dura mater seemed normal here also, but on feeling it carefully all over with the finger, a point "of increased resistance," to use Dr. Russel's phrase, was detected in the lower third. The dura was here incised, and immediately black clotted blood began to exude with each pulsation.

The clot was gently broken up, the cavity syringed and dried very carefully, and, a drainage tube having been inserted, the wound was sewn up and dressed. It may be remarked that the edges of the wound in the dura approximated closely, and so they were not sewn together.

The operation lasted ninety minutes, and immediately afterwards he moved his right arm a little. He swallowed much better that afternoon, and was able to make signs when he wished to pass urine. The wound healed by first intention, except where the tube emerged, and the temperature did not rise above 99°, except early in the morning of the 17th, when it rose to 101.6°, owing to blocking of the tube.

At our morning visit on that day we found the temperature normal, and the tube, together with a quantity of bloody serum, expelled. After this the temperature did not rise above normal, and the wound was firmly healed fourteen days after the operation, and he now has a cicatrix which shows no sign of bulging.

On measuring his head on May 4th I found that the first trephine hole was further back than had been intended, owing to the liability to err when the flaps are reflected. The convolution laid bare by the dural incision ran horizontally backward, and was presumably the third frontal.

In conclusion, I wish to say that Dr. Russel was strongly in favour of the operation from the morning of March 6th, and I have to thank Mr. Popert for his valuable assistance during the operation.

As regards the aphasia, improvement was noticed on the fifth day after the operation; it slowly advanced till the eleventh day, and then rapidly, so that by the twenty-fifth day, when he went to the country, he could speak fairly well, but still used many wrong and altered words and was at a loss for the names of places and things.

When seen on June 6th he was not entirely free from aphasia, but had no practical difficulty in expressing himself. His intellect had not apparently suffered. The movements of the right arm were free, but he could not use it behind his back. The pupils were so contracted that we were never able to get a view of the fundus oculi.

THE TREATMENT OF FRACTURES.

BY EDWARD DEANESLY, M.D., B.Sc.LOND., F.R.C.S.ENG.,

Honorary Casualty Surgeon, Wolverhampton General Hospital.

WHILE agreeing entirely with Mr. Arbuthnot Lane's views on the importance of preserving the correspondence of the axes of the fragments, and on the fallacy of the vertical foot-piece in the treatment of fractures of the lower limb, I deny that the results obtainable by the ordinary methods of treatment are so imperfect as he represents. Mr. Lane has asserted that the average financial depreciation of the labourer as a machine after such an injury as an oblique fracture of the tibia and fibula sustained after middle life amounts to nearly 70 per cent. I do not know on how many cases this generalisation is based, but that it represents the average result of the ordinary treatment of this injury is entirely opposed to my own experience as House Surgeon and Honorary Casualty Surgeon to the Wolverhampton General Hospital, where between sixty and seventy cases of fracture of the leg are admitted every year. The necessity of obtaining club certificates kept the great majority of these cases under my observation until they were able to return to work, and I cannot recall a single case that was unable to return to the same employment as before on account of imperfect recovery from the effects of the injury.

Neither does my experience bear out Mr. Lane's condemnation of the use of plaster-of-paris. During the two years that I occupied the post of house-surgeon every case of simple fracture of the leg was treated by the application of a plaster case within a few hours of admission—generally within an hour or two. This was applied with the patient lying on his back with the knee and hip flexed to a right angle, while an assistant maintained traction on the foot; the vertical position of the thigh was maintained by a padded sling attached to the head of the bedstead, and serving as a counter-extension. In this way the most oblique fracture usually falls into position without difficulty, and by placing the sound limb in a corresponding position it is easy to satisfy oneself by comparison that the foot is in proper position as regards rotation. The plaster having set, the limb was kept in the same position in a sling-cradle until the fourth or fifth day, when, the swelling having subsided, the leg was allowed to lie in any position on the bed for another week or ten days, when the patient was allowed to go about with crutches. In cases in which the fracture was at or above the middle of the leg, the plaster was continued a little above the knee as soon as the limb was allowed to lie straight on the bed.

That this method is capable of giving perfect results even in very oblique fractures of the tibia and fibula I have often proved, so that only very exceptional reasons would induce me to adopt the exposure and screwing together of the fragments recommended by Mr. Lane. Quite apart from the risk of wound infection, which varies with the personal equation of the surgeon but can never be entirely eliminated, Mr. Lane does not conceal the mechanical difficulties of the procedure, and any surgeon who has attempted to do it (as I have done in a case of compound fracture) will admit that it is most difficult to wire or screw the fragments sufficiently firmly to resist the powerful displacing forces at work in a recent fracture. I am quite sure that any surgeon who is skilful enough to perform the operation recommended by Mr. Lane could obtain an equally good result by less risky means.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A CASE OF DIPHTHERIA TREATED BY ANTITOXIN SERUM.

ON March 30th, 1895, I was sent for 13 miles up country. I found two children—a girl, aged 4, and a boy, aged 2½—with well marked diphtheria; the cervical glands were slightly swollen, and the tonsils of both children were covered with membrane. They were ordered $\frac{1}{75}$ gr. of iodide of mercury every three hours. On April 1st the girl seemed slightly better; the boy had then nasal diphtheria, a profuse discharge issuing from both nostrils. On April 4th, at 3 P.M., the girl was quite well, the membrane quite gone from the tonsils, and the glands quite reduced. The boy, however, was very ill and exhausted; the pulse was rapid and very weak, the breathing loudly stridulous, the lips cyanotic, the face of an ashy grey colour, there was recession of the chest walls and epigastrium. Seeing that the child was practically *in extremis*, and having heard the day before that the Government had just landed some antitoxin, I drove hurriedly back, and telephoned to the Wellington Hospital. Dr. Ewart promptly sent me a tube out by train, and I drove back to my patient, and at 9 P.M. injected about a drachm into the skin of the abdomen, using a new Koch's tuberculin syringe—the only one I had handy. I had intended to inject 3 drachms altogether. Unfortunately the child struggled a great deal, and as the father, who helped to hold it, was very nervous I had to desist after the first syringeful. I saw the child again at 10 A.M. on April 5th. It was a little better, though still very ill; the pulse was still rapid and weak, the breathing still markedly stridulous. I now injected 2 drachms, using with antiseptic precautions an ordinary new 20 minim hypodermic syringe.

On April 6th, at 11 A.M., I saw the child again; it was decidedly better, the face of a fair colour, the breathing not

stridulous, and the recession of chest wall gone; it was still voiceless. The tonsils were still covered with membrane, though not to such a marked extent, and it seemed in a crumbling disorganised state. An emetic of ipecacuanha wine was given, and the child vomited a quantity of membrane.

On April 8th the membrane had quite gone from the throat, the nasal discharge had ceased, and the child was practically quite well, up, and playing. The temperature was not taken, owing to the struggling of the child. No urine could be obtained. Diphtheria had been raging in the immediate neighbourhood for the previous six weeks. I had seen eleven cases, all of which recovered under iodide of mercury, one of them only developing paralytic symptoms; the disease, however, never passed the tonsillar stage. There had, however, been two deaths, one of them on March 24th, in a house about a hundred yards from the case in question. Both children died from croupous diphtheria, and were not seen until too late.

JAMES R PURDY, M.B., C.M.

Lower Hutt, New Zealand.

RHEUMATIC APPENDICITIS.

DR. BRAZIL, in the BRITISH MEDICAL JOURNAL for May 25th, records two interesting cases of rheumatic appendicitis. These cases are not, in my experience, as rare as is generally supposed.

A few years ago, when acting as house-physician for Dr. Haig, the probability of the occurrence of typhlitis (as I prefer to call it) depending on uratic deposition was made evident to me. Since then I have been looking out for these cases, and have seen a fairly large number. I have not, it is true, seen articular rheumatism as a complication, as in Dr. Brazil's first case, but this no doubt is due to the fact that the patients were treated with salicylate of sodium from the first. They all presented symptoms more or less similar. A temperature of 101° to 102°, vomiting, pain, and tenderness in the right iliac region, at or near McBurney's point, and pain on raising the thigh, with resistance on palpation in the fossa. Constipation was not a constant symptom, nor do I remember seeing œdema of the limb. The effect of salicylate of sodium was, as Dr. Brazil says, "magical."

Dr. Brazil's first case has a peculiar interest for those who are conversant with Dr. Haig's view in regard to the excretion and retention of uric acid. The use of morphine is strongly contra-indicated in the treatment of these cases; it hinders excretion of urates, and can only be of use secondarily through the prostration that follows when it is left off. I have thought sometimes that the use of morphine may be responsible for some of the graver forms of this disease, as by its use in a "rheumatic" case the inflammatory condition is kept up, and in a short time an infective process is added to a primarily simple one.

Tonsillitis and pains in various parts of the body are not uncommon in these subjects, but definite articular affection is, in my experience, very rare, as I have already remarked: in Dr. Brazil's case it seems as if it might have been indirectly due to the administration of morphine.

If a case is treated according to Dr. Haig's views, there does not seem to be any objection to using saline aperients, as Professor White recommends, and morphine if necessary, provided that salicylate of sodium is given at the same time in sufficient doses.

Ventnor. J. ERNEST FRAZER.

REDUCTION OF DISLOCATIONS OF THE LOWER JAW.

As all the authorities I have studied direct the manipulations essential to reduce this luxation to be carried on within the cavity of the mouth I beg to bring before your readers a method I have found very much simpler.

The hands have free play outside the cheeks, which act as a pad. The forefingers rest in the hollow at either side on the anterior border below the coronoid process of the ascending ramus, the middle fingers on the external border of the angle below the ear allowing firm gentle pressure backward and downwards to antagonise the tension of the muscles whilst the other fingers are brought under the horizontal rami of the jaw with the thumbs on either side the symphysis, so giving the counter action. Anterior, posterior, or lateral force can be so commanded as to allow the parts by combined gentle manipulation to glide gradually into apposition.

No inconvenience as to snap need take place, as in the ordinary method, and that I recommend takes less time, is unattended with any risk to patient or operator, and is certainly much more delicate, as no undue force need be exerted and success is attained with perfect ease.

Longton, Staffordshire. G. T. MOCKETT.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

LEICESTER INFIRMARY.

A CASE OF DIPHTHERIAL PARALYSIS: FORCED FEEDING UNDER CHLOROFORM FOR TEN DAYS: RECOVERY.[1]

(By F. M. POPE, M.B.Cantab., M.R.C.P.L.)

A. S., aged 6 years, was admitted on March 27th, 1895. She had had diphtheria eight weeks earlier, which lasted about three weeks. Food was regurgitated through the nose at that time. For the last six days she had been unable to retain either liquid or solid food.

On admission she appeared very emaciated; she lay flat on her back, was fretful and groaning, and was unable to move any limb. The diaphragm did not act, and the abdomen was retracted during inspiration. The respirations were 14. The muscles of the neck were quite paralysed. The knee-jerks could not be obtained, but the superficial reflexes were exaggerated. Soft palate was motionless. Pupils were dilated, reacting neither to light nor accommodation so far as could be made out. There was no strabismus. The voice was nasal or twangy in character, and very faint. The pulse was 120, small and regular. The temperature was 96°. The urine, which was passed in fair quantity, did not contain albumen.

For the first night, as no food could be swallowed, but returned immediately, she had nutrient enemata, and milk and beef tea peptonised (℥ij), with brandy (℥ij) every three hours. These were not well retained.

On March 28th she was feebler, and looked worse in every way. An attempt was made to feed her with a soft tube; ℥viij of fluid nourishment were introduced into the stomach without difficulty, but immediately after the tube was withdrawn the fluid returned, and overflowed into the air passages. The patient choked, became blue, and finally pulseless. Two minims of liquor strychninæ and half a drachm of ether were injected hypodermically, and artificial respiration carried on for half an hour, when she rallied slowly. The enemata were continued, and liquor strychninæ ♏j hypodermically ordered every four hours.

On March 29th, the patient being very feeble and collapsed, another attempt was made to feed with the tube, but with the same results as on the first occasion.

Though somewhat alarmed as to the possible effects on the heart of the anæsthetic, I resolved to try to feed the patient under chloroform. She was anæsthetised, the tube passed, and the following food given: beef-tea ℥iij, milk ℥iv (peptonised), port ℥j, and half the yolk of an egg. This was retained no bad symptoms occurred, and she had ♏jss of liquor strychninæ hypodermically at the same time.

For the next nine days she was fed three times in the twenty-four hours—namely, at 9 A.M., 4 P.M., and 12 midnight—under chloroform. The amount of food was shortly increased to ℥xij, and nutrient enemata were given at night, liquor strychninæ as before. The tube (a No. 12 gum elastic catheter) was more difficult to introduce under the anæsthetic as the œsophagus was baggy and limp, and some care was necessary to avoid the insensitive glottis. No bad symptoms due to the chloroform occurred. The pulse improved during the administration. If regurgitation seemed to be likely as the patient was coming round, a few extra whiffs of the anæsthe-

[1] Read before the Midland Branch of the British Medical Association, June 13th, 1895.

tic were sufficient to prevent it. The child began to improve almost at once.

On April 2nd the pupils reacted to light, and she could move her legs slightly. The respirations were 16, the pulse 108 and of better volume.

On April 5th she was improving. A little soft food was given by the mouth; it was swallowed, but immediately regurgitated.

On April 7th the palate moved, and she swallowed ℥ij of water.

On April 8th she took ℥ss feeds regularly; only two feeds were given under chloroform. The diaphragm was acting. The child was much brighter. The temperature was normal and she slept well.

From this time the improvement became uninterrupted, and the child is now (May 24th) convalescent.

REMARKS.—The complication of vomiting or regurgitation of food is not, so far as I know, mentioned by writers on this disease. Feeding by the stomach tube is mentioned by Leraton,[2] Caiger,[3] Gowers, and Henoch.[4] Gowers lays stress on the importance of feeding not less often than every twelve hours. It was with considerable misgiving that it was decided to give chloroform in this case, but I am confident that there was no other means of getting sufficient nutriment retained, and I should have no hesitation in repeating the procedure in a similar case.

I must express my thanks to Mr. M. B. Foster for his great care of the case and for the notes from which this account has been compiled.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

Tuesday, June 11th, 1895.

MR. J. WARRINGTON HAWARD was unanimously elected to the office of honorary treasurer, rendered vacant by the death of Surgeon-General J. A. Bostock, C.B.

FURTHER OBSERVATIONS ON THE DEVELOPMENT OF MAMMARY FUNCTIONS BY THE SKIN OF LYING-IN WOMEN.

DR. F. H. CHAMPNEYS and Mr. A. A. BOWLBY read this paper. Reference was made to the previous paper[1], containing a record of thirty cases. The description of the lumps there given was quoted. The opinion there expressed was that the lumps were developed from the sebaceous follicles of the skin. Three sets of specimens had since been obtained, and subjected to microscopical examination. They were seen to consist of: (1) A covering of normal skin: (2) loose subcutaneous tissue and fat; (3) aggregation of glands. The glands were situated deeply, in the situation of sweat glands, and much more deeply than the sebaceous glands, which were unaltered. The glands were of the tubular type, the deeper parts much convoluted, the terminal ducts nearly straight, and opening through interpapillary processes. The cells of the deeper parts appeared to be columnar, those of the ducts were polyhedral, in two or three layers. The glands, in short, were like sweat glands, but extended more deeply; were more regular, both in structure and extent, than those in normal skin, and were interpenetrated by plentiful unstriated muscular fibres; they formed the lumps in question. There was no appearance of mammary tissue or any other tissue, except that described. They agreed in microscopical appearance with the skin glands in the human axilla described by Dr. Creighton[2]. The conclusions drawn were: (1) That the lumps consist of modified sweat glands; (2) the fact that various mammary secretions are produced by modified sweat glands seems to show either that mammary tissue is not necessarily a direct modification of sebaceous gland tissue, or that similar secretions can be produced by more than one variety of skin gland. In this connection it may be remembered that the ceruminous glands of the ear which secrete "wax" are coiled-tubular, and not acinous in structure.

THE PRESIDENT complimented the authors on the detailed work which had settled an important histological question. Multiple abscesses in the axilla occurred almost exclusively in women, and to him had always seemed to be probably connected with the presence of sebaceous glands. This, however, was by the light of the author's researches shown not to be the case.

MR. R. J. GODLEE had found glands similar to those described by the authors in the skin of a patient with mammary carcinoma; at first he had thought they might have some connection with the growth, but he subsequently found them in the skin of the axilla of healthy persons. He inquired in what particulars these glands differed from those occurring normally in the skin.

DR. J. MITCHELL BRUCE referred to the analogy between the mammary and the other skin glands as illustrated by the way in which these organs reacted to atropine and pilocarpin.

MR. A. A. BOWLBY described the sections of the "lumps" showed under the microscope, and figured in the Society's *Transactions*. There was no essential difference between the glands found in the "lumps" and those normally met with in the skin of the axilla. In the lumps there was an exaggeration of the normal condition.

DR. CHAMPNEYS mentioned that he had seen these lumps as large as hels' eggs; the specimens from which the microscopic sections were obtained were, however, comparatively small.

INTRAPERITONEAL RUPTURE OF THE BLADDER: SUTURE: RECOVERY: WITH REMARKS ON THE INFLATION TEST.

MR. W. J. WALSHAM read this paper, and presented a table of cases of rupture of the bladder treated by suture since 1888, drawn up by Mr. W. Ernest Miles, F.R.C.S. In 1888 Mr. Walsham read before the Society a case of intraperitoneal rupture of the bladder successfully treated by suture, supplementing the paper with a table of eleven cases, all he could find published, of that injury treated in like manner. He now related a second successful case, and Mr. Miles, late house-surgeon to the Metropolitan Hospital and Radcliffe Infirmary, Oxford, had collected seventeen additional cases in which suture was employed, making altogether twenty-eight published cases of intraperitoneal rupture of the bladder treated by suture. The patient, aged 42, was admitted into the Metropolitan Hospital, March 8th, 1895, with an intraperitoneal rupture of the bladder. The diagnosis was established by inflating the bladder with a few cubic ounces of air, forced in by two or three compressions of the rubber ball of an ether-freezing microtome. The abdomen at once became tympanitic and the liver dulness effaced. The rent was closed by fourteen silk Lembert sutures, the pelvic cavity irrigated with perchloride of mercury and boracic lotion, and the abdominal wound sewn up after the bladder had been proved competent by injection with milk. An uninterrupted recovery took place. The value of the inflation and injection tests for ruptured bladder were discussed. The present appeared to be the first case in which the inflation test had actually been put into practice. The conclusions drawn from a single experience were: (1) That the amount of air to be introduced need only be very small, not more than 3 or 4 cubic inches; (2) that only very moderate pressure is required for the inflation; (3) that the presence of quite a small amount of free gas in the abdominal cavity is sufficient to establish the diagnosis beyond a doubt; and (4) that the introduction of gas into the abdominal cavity, even in small quantity, is attended by a profound disturbance in the patient's general condition. The disturbance, which followed in this case, at once passed off on opening the abdomen and allowing the free air to escape. It was suggested, therefore, that the test in future should not be applied till the patient was on the operating table, so that should the collapse threaten life the abdomen could be opened at once. In the after-treatment of the case it was contended that a catheter should not be left in the bladder—first, because it was not necessary; and, secondly, because of the risk of cystitis and septic infection. Of the 28 cases included in the two tables, 11 recovered and 17 died. In the 11 that recovered, in only 1 was peritonitis present at the time of

[2] *Gaz. des Hôpitaux*, No. 103.
[3] *Lancet*, ii, 1889, p. 1222.
[4] *Diseases of Children*, New Sydenham Society, art. Diphtheria.
[1] *Med. Chir. Trans.*, vol. lxix, p. 419.
[2] *Med. Chir. Trans.*, vol. lxv.

operation; whilst conversely in the 17 that died, in 8, and probably in 9, peritonitis had already set in. The cause of death in the 8 cases in which there was no peritonitis at the time of operation was in 5 shock or hæmorrhage or the two combined, and in 3 peritonitis, the peritonitis in 2 out of the 3 being due to leakage of the rent or giving way of a suture. In no fewer than 4 out of the 28 cases was the bladder found, at the *post-mortem* examination, to leak. The importance of testing the competency of the bladder by injecting milk or other bland and easily detectable fluid could not, therefore, be too strongly urged.

The President commented on the successful diagnosis and on the satisfactory treatment of the case. An important point in the paper was the detail with which the steps in the operation were recorded; success might in future be obtained by using the special needle employed in this case. Suture of ruptured bladder was one of the triumphs of modern surgery, and was in no small degree due to Mr. Walsham's efforts. He had seen remarkable instances of the tolerance of the peritoneum to healthy urine.

Mr. Barker inquired whether there was any cause for the alarming symptoms which followed the operation of inflation other than the entrance of a small quantity of air into the peritoneal cavity. He thought it improbable such severe symptoms would be due to the introduction of air into the peritoneal cavity. The intra-abdominal pressure was constantly varying in health without any such result. He did not consider the injection of milk a harmless proceeding; he had seen severe cystitis follow the introduction of milk into the bladder, and would prefer some carefully sterilised fluid.

Mr. F. C. Wallis had seen the author's case on admission, and could testify how satisfactorily inflation settled the question of rupture of the bladder, which at first, owing to somewhat indefinite symptoms, appeared a very open one. He thought the distension of the abdomen accounted for the symptoms following inflation, and suggested that it might be well to perform inflation under an anæsthetic, so as to minimise bad results. He had often used milk in cases of recto-vesical fistula, but never with any evil consequences.

Mr. A. M. Sheild referred to one of the earliest cases of suture of ruptured bladder performed by Mr. T. Holmes with complete success. The most difficult cases to diagnose were those in which the rupture was small; when the rupture was large there was not so much doubt. In some cases the mucosa of the bladder might be damaged and give rise to hæmaturia without rupture occurring; in illustration of this a case of abdominal injury and suspected rupture of the bladder was quoted, in which water was injected into the bladder and distended it. On this ground rupture was negatived, no operation was performed, and the patient recovered. He thought, on the whole, injection with water was the best method of diagnosis. He mentioned Senn's method of injecting hydrogen into the intestine in cases of suspected perforation, and suggested that possibly hydrogen was better than air. He asked the author whether the sutures passed through the whole thickness of the vesical wall. In cases where the sutures passed through the mucous coat calculi might form.

Mr. A. A. Bowlby thought escape of air into the peritoneal cavity quite a sufficient cause for the symptoms following inflation, a similar result occurred in intestinal perforation. A very small quantity of free gas was sufficient to cause disappearance of the hepatic dulness, probably because this was the highest part of the abdominal cavity. He had several times seen a calculous deposit form on sutures which had penetrated the mucous membrane of the bladder.

Mr. Walsham, in reply, said that the alarming symptoms were due to the introduction of air into the peritoneal cavity because (1) they came on directly the inflation was performed, the patient having been up to that moment calm and in good condition; and (2) they passed off when the abdomen was opened and the air let out. Theoretically there might be a better fluid than milk for injection, but practically he had found it did not lead to any untoward results. He thought the inflation test might be especially useful in cases where the rupture was very small and where the intestine might block the opening and so prevent the water test from acting. He had taken care not to pass the sutures through the mucous coat.

OBSTETRICAL SOCIETY OF LONDON.

F. H. Champneys, M.A., M.D., President, in the Chair.

Wednesday, June 5th, 1895.

Specimens.

The following specimens were shown:—Dr. W. Duncan: (1) Large Gangrenous Myoma removed by hysterectomy; (2) Early Embryo in Amnionic Sac, which had been retained *in utero* eight months; (3) Tubal Mole Pregnancy removed by abdominal section; (4) (for Mr. G. H. Jones) Double Monster (Thoracopagus).—Dr. Playfair: (1) Ovum in a Sarcomatous Uterus, which had been extirpated *per vaginam*; (2) Sarcoma of Uterus extirpated *per vaginam*.—Mr. O'Callaghan: Myoma of Uterus removed by hysterectomy.—Dr. Lewers: Six specimens of Cancer of the Cervix Uteri removed by supravaginal amputation, in which eight years, seven years, five years, five years, two years, and two years respectively had elapsed without recurrence.—Dr. Addinsell: Deformed Fœtus.

The Development and Normal Structure of the Human Placenta.

Dr. Eden read this paper, which was an abstract of a communication about to be published in the *Journal of Pathology*. He said the placenta consisted of two series of structures: one developed from the ovum—the fœtal placenta; the other developed from the uterus—the maternal placenta. The fœtal placenta was developed from the external fœtal envelope or chorion. At the end of the second week the chorion was covered with villi, the reflexa had closed over the ovum, and the tips of the villi were loosely embedded in it. The fœtal and maternal vessels were thus brought into close relation, and the general arrangement represented a simple type of diffused placenta. The development of the discoidal placenta merely consisted in the specialisation of a part of the chorion. The placental chorion consisted of three sets of structures: (1) A covering of epithelium; (2) a connective tissue stroma; (3) blood vessels. The chorionic epithelium consisted of two layers; the superficial layer or trophoblast represented the fœtal epiblast, and was the more important of the two. By a process of proliferation buds were formed from the trophoblast, which developed into new villi; and the steps of the process were described. The stroma consisted of a delicate reticulum of branching connective tissue corpuscles, with numerous leucocytes. The meshes of the stroma formed a system of lymphatic channels which were in communication with the capillaries. The vessels of the villi were very large and numerous, and ran, for the most part, immediately beneath the epithelium; this was an arrangement favourable to osmosis. The lymphatic system of the stroma could be injected artificially from the capillaries. In uninjected placentæ blood was often found in the stroma, so that the villi appeared to be soaked with blood like a sponge. The maternal placenta was developed from the uterine mucosa. The earliest changes were a continuation of those found in menstruation, for the fertilised ovum was engrafted on the mucosa in its active phrase. The development of the decidua consisted of three stages. In the first stage extensive hæmorrhages occurred in the decidua, and decidual cells were formed in large numbers from the connective tissue corpuscles. These changes were preparatory, and could be found in all parts of the decidua during the first month. In the second stage the chorionic villi invaded the serotina, and the maternal vessels were opened up, thus establishing a circulation through the intervillous spaces. The invasion of the serotina appeared to be the result of the great activity of the trophoblast layer, and the steps of the process were described. The decidual cells also showed great activity in the absorption of blood effusion into the serotina. Large lacunæ were formed by opening up of neighbouring vascular and glandular changes. The changes characteristic of this stage were found at the growing margin of the placenta up to the last weeks of gestation. The third stage represented the adult stage of the serotina. All active processes had then ceased, and the serotina had undergone some amount of consolidation and repair. The course of the maternal vessels through the serotina and their openings into the intervillous spaces were described in detail. The intervillous spaces were, according to the writer, made up: (1) Of the

space existing primarily between the decidua and the chorion: (2) of spaces formed by destruction of decidual tissue; (3) of glandular and vascular channels opened up in the same way. The circulation through the intervillous spaces was not rapid, the outflow being chiefly promoted by the intermittent contractions of the uterus. The giant cells so often described in the serotina were really embedded trophoblastic buds. The fœtal and maternal structures of the placenta were firmly bound together by the attachment of numerous villi to the serotina; the changes occurring at the site of attachment were described. Owing to this firm union separation of the placenta during labour occurred, not between the fœtal and maternal layers, but through the loose cavernous layer of the serotina. The paper was illustrated by a large number of lantern slides (photomicrographs) in which the processes described by the author were depicted.

PLACENTAL POLYPUS.

Mr. ALBAN DOBAN showed a lantern slide (photomicrograph) of a section of placental polypus. He proposed to deal with the subject of placental polypi and their relation to malignant disease in a paper.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Friday, May 10th, 1895.

R. D. PUREFOY, F.R.C.S.I., President, in the Chair.

SPECIMENS.

DR. W. J. SMYLY exhibited: (1) Ovaries and Tubes, removed for chronic suppuration; the patient made a good recovery. (2) A small Ovarian Tumour, removed from a patient aged 70; hysteropexy was also performed for prolapse; the operation was a simple one, but though pulse and temperature continued normal, no flatus was passed; other symptoms of ileus supervened, and, it being found impossible to relieve the obstruction, the abdomen was again opened, but the cause of obstruction not being easily found, an artificial anus was established, but the patient died: at the necropsy a coil of small intestine was found to have become strangulated in Douglas's pouch. (3) A Uterus removed two days previously for sarcoma of the cervix: the patient was going on satisfactorily. (4) A Ruptured Tubal Pregnancy operated upon that morning: the ovum had developed in the left tube, and had reached the second month. Dr. SMITH said that some years ago he showed at this Section of the Academy a specimen where a loop of intestine had passed through an opening in the broad ligament, and had become strangulated. It was discovered *post-mortem*. It showed how strangulation could occur in the posterior *cul-de-sac* without any bands of peritoneum being present.—Dr. ALFRED SMITH showed an Ovarian Cystoma, which he removed from a married woman aged 29. The recovery was rapid. There was no evidence of peritonitis, except that there was a fair amount of ascites present.—Dr. GLENN exhibited, for Dr. ATHILL, a Uterus removed by vaginal hysterectomy for epithelioma of cavity. Dr. SMYLY thought that in cases of cancer of the body, not involving the cervix, removal by ligature was the best method, as the uterus had not then to be opened. The uterus might, however, be too large to remove entire.—Dr. F. W. KIDD exhibited Submucous Fibroid, removed by enucleation from a woman aged 43; married thirteen years, six children; last pregnancy four years ago. The cavity of the uterus was packed with iodoform gauze. When this was removed the cavity was irrigated by Bozeman's catheter. Temperature rose to 103° next day, but quickly fell to normal, and had remained so since.—Dr. M'WEENEY read a report on Dr. A. J. Smith's specimen (cystic ovaries).

IMPERFORATE ANUS ENTAILING COLOTOMY, WITH FROZEN SECTION.

Dr. KIDD, having gone into the statistics of the frequency of the occurrence of this deformity, quoted from Professor Macalister, Dr. Ball, and Drs. Cooper and Edwards to explain the different theories put forward to explain this abnormal condition, and gave details of a case undoubtedly belonging to Class IV in Bodenhamer's classification—namely, to those in which the "anus is normal, rectum, at variable distance, either obstructed by membrane or occluded for a greater or less distance. Attempts to reach the *cul-de-sac* from the bowel failed. It was then determined to try a left inguinal colotomy. This was done successfully, but the child only survived 6 days, dying when it was 10 days old. The colotomy relieved it, but it sank from exhaustion. At the *post-mortem* there was no evidence of peritonitis. The points of interest were: (1) The extreme beauty of the specimen, showing clearly as it did the exact relation of all the parts, notably, the height to which the empty bladder extended above the level of the uterus. This section was prepared by Dr Dixon, of the Trinity College School of Anatomy. (2) The absence of any cord-like structure that would act as a guide to the termination of the rectal *cul-de-sac*. (3) The very small amount of oozing from the anal wound, after two attempts had been made to reach the bowel. (4) Absence of any evidence of peritonitis after death. (5) Although the tip of the little finger could be got within one-sixteenth of an inch of the rectal *cul-de-sac*, there was no evidence from bulging or from any impulse conveyed by the child crying that the bowel was so close. (6) Considering the distance of the bowel from the anus, could the rectum have been successfully freed and drawn down so as to stitch it to the anus?

Dr. GLENN said that in two cases he had seen operated on in the Rotunda one had recovered, but in the other the rectum could not be found. He would remove the coccyx if he had a case similar to that of Dr. Kidd's. He would prefer a Littre's operation to a loin operation. The advantage of a Littre's operation was that after the bowel was opened you could wait till the child got stronger, and then, by passing down a bougie it could be cut on through the anus. If the rectum was brought down and stitched to the anus there was great trouble in keeping it dilated afterwards. In this case he thought everything was done that could have been done.

Dr. SMITH, when Assistant-Master at the Rotunda, had operated on a case, and had succeeded in opening into the rectum. He stitched the rectum to the anus. The child only lived a few days. Except when there was only a simple membrane between the rectum and anus he had not seen any cases operated on which had recovered.

Dr. KIDD had not intended the colotomy to be a permanent operation. If the child had recovered at all he intended exploring farther from the false anus. But the child gradually sank after the operation.

SECTION OF SURGERY.

W. THORNLEY STOKER, P.R.C.S.I., President, in the Chair.

Friday, May 24th, 1895.

EXCISION OF LARYNX FOR CARCINOMA.

IN reference to a case of a man, exhibited by Dr. WOODS, from whom the right half of the larynx was excised for carcinoma,

Mr. WHEELER asked whether the full extent of the disease was diagnosed before the operation. He also wished to know whether he had any difficulty in feeding the patient after the operation, and whether there was any difficulty in severing the thyroid cartilage.

Mr. WOODS said that nothing was found after the operation that was not recognised before. He had torn away a portion of the growth, which Dr. Earl examined, and said it was a carcinoma. At the conclusion of the operation a stomach tube was passed in through the mesial wound, and carried to the stomach. It was stitched to the skin to prevent it slipping. On the third day, as the tube irritated the stomach, it was withdrawn. There was no difficulty in introducing it again. The patient was fed with it till the twenty-eighth day, when he found he could do without it. He was now able to swallow bread and milk, but still had difficulty in swallowing fluids alone. The hypoglossal nerve on the right side was injured. The great cornu of the hyoid bone had to be removed, as it was implicated in the growth. The thyroid cartilage was to a certain extent calcified, but he had no difficulty in dividing it with strong scissors.

INJURIES INVOLVING THE ARTICULATIONS OF THE METACARPAL BONE OF THE THUMB.

Dr. E. H. BENNETT, having read the introductory pages of

his paper, asked the permission of the meeting that the remainder of the paper might be taken as read, while he demonstrated with the lantern the details of the specimens and drawings by which it was illustrated. He discussed the views of M. Farabœuf, published in the *Bulletins et Mémoires de la Société de Chirurgie de Paris*, vol. ii, 1876, on the cause of the frequent occurrence of irreducibility of the dorsal dislocation of the metacarpo-phalangeal articulation, and tested their accuracy by the examination of three specimens of unreduced dislocation. Passing to the subject of dislocation of the phalanx forwards, he exhibited the photographs of a recent specimen of unreduced dislocation, and of casts of several others, the histories of which proved that this dislocation frequently remained irreducible, even while still recent—a fact the cause of which was as yet not ascertained. He next projected on the screen the representations of the lateral dislocation of the metacarpo-phalangeal articulation outwards, published by Bessel Hagen, which was the only example of this lesion recorded. He next exhibited photographs of a lateral dislocation of the joint inward, taken from the cast of the limb previous to dissection, and the details of the dissection. This was the first record of the internal dislocation of the joint. In this hand the metacarpal bone of the thumb was at its base completely dislocated backward, presenting a deformity which Dr. Bennett contrasted with the deformity produced by fracture of the base of the metacarpal bone of the thumb, of which he exhibited a large number of photographs, in proof of his assertion that this fracture was a very common injury.

Remarks were made by the PRESIDENT, Mr. MYLES, Mr. CROLY, Mr. BARTON, Mr. WOODS, Mr. HEUSTON, Mr. LENTAIGNE; and Mr. BENNETT replied.

HERNIOTOMY AND TAXIS.

Mr. HENRY GRAY CROLY read a paper on this subject. A long list of interesting and instructive cases were detailed; several of the cases occurred during the present session, and were exhibited before the meeting. Several drawings were shown. He exhibited hernia knives on a reduced scale, and advocated the use of Dupuytren's knife, which cuts on its convex edge. He condemned in very strong terms "forcible taxis," and said he abolished taxis in all acute cases, believing that early herniotomy was the proper surgery. He fed his patients after herniotomy by the rectum for at least three days; gave ice to relieve thirst, and had given up the use of opium before operation, and rarely employed it at all.

Mr. WHEELER agreed with Mr. CROLY that taxis was often abused. He thought the words "traction and compression" described the manipulation of returning a hernia better than the word "taxis." In his practice he had given up giving an anæsthetic before performing taxis. It only rendered the patient insensible. He did not use any kind of opium. The earlier the operation was performed the better was the chance of recovery.

Mr. F. NIXON said that he agreed with Mr. Croly as regards the constricting bands formed by the superficial expansion of the falciform process described by Colles. Gimbernat's ligament only infrequently caused constriction. Hey's ligament was a much more common cause. He thought the division of Poupart's ligament objectionable, as it weakened the abdominal parietes, and there was also danger of wounding the spermatic cord. In many cases of hernia the opening of pair of forceps would often stretch the constricting bands. He did not agree with Mr. Wheeler about not using an anæsthetic, as it produced muscular relaxation, and greatly facilitated the return of the hernia.

Mr. CROLY, replying, said that he had done close on 150 operations for strangulated hernia, and never had any hæmorrhage resulting. He considered inversion of the patient in the case of strangulated hernia a very dangerous practice.

SOUTHAMPTON MEDICAL SOCIETY.—The monthly meeting of this Society was held on Tuesday, June 4th. The PRESIDENT (Dr. SHETTLE) was in the chair.—Dr. PURVIS, on behalf of Dr. WADE (who was unable to attend), read notes of a case of Hernia of the Ovary, which was under the care of Dr. Wade at the Royal South Hants Infirmary. An operation was performed, and it was found necessary to remove the organ, on account of its diseased condition. The patient made an excellent recovery.—Dr. R. D. H. GWILLIM showed a female patient suffering from Addison's Keloid, whom he had had under observation for some months. The disease was slowly improving.—Mr. BULLAR showed two Eyeballs removed from patients at the Southampton Free Eye Hospital. One specimen showed Sarcoma of the Choroid; the other a Foreign Body in the Posterior Chamber.—The PRESIDENT showed a Stone removed from the kidney of a patient in the Royal South Hants Infirmary, and gave a short account of the case. The patient made a good recovery, with absolute relief from his symptoms.

REVIEWS.

TRAITEMENT DES FRACTURES PAR LE MASSAGE ET LA MOBILISATION. [Treatment of Fractures by Massage and Movement.] Par le Dr. JUST LUCAS-CHAMPIONNIÈRE, Chirurgien de l'Hôpital Beaujon, Membre de l'Académie de Médecine, Président de la Société de Chirurgie. Paris: Rueff et Cie. 1895. (Demy 4to, pp. 584, 66 Illustrations. Fr. 18.)

THE able and well-known French surgeon, who is the author of this book, has for many years advocated the practice of massage in cases of fracture, and may indeed be regarded as the inventor of this novel and apparently paradoxical method of treatment. He is decidedly an enthusiast on this subject, and has spared no trouble to bring it under the favourable notice of the profession. Although the principles which he teaches and the practice based on those principles are on almost every side contrary to the generally accepted ideas and the teaching of regular surgery, he has long persevered in his support of the massage treatment, and carefully studied and recorded its results. The details of such treatment and its indications and contraindications in the various forms of fracture are given in this volume, the *technique* in each instance being shown by clear and excellent illustrations.

In the first chapter M. LUCAS-CHAMPIONNIÈRE questions the utility of the usual method of treating fracture by splints, and by keeping at rest the injured limb. There can be little doubt, we believe, that the results of such treatment are not universally regarded as satisfactory. In most cases of fracture the bone is probably distorted, and the function of the limb permanently impaired in some degree. A recent proposal to fix together the fragments by a cutting operation, and the inclusion within the limb of a foreign body, is a proof that even in so common an injury as fracture of the leg, the usual method of treatment leaves much to be desired. Whether the method advocated by the author is capable of producing better results in general practice remains to be proved. It is shown in this work that mobilisation and massage are beneficial, and do no harm in the hands of its author, but equally good results may be wanting in the practice of others who, from failure of faith and patience, may be unable to practise the necessary manipulations. It is certain that in cases of fracture in which there is but little displacement of the fragments a suitable and persevering treatment by massage will accelerate complete cure by restoring at an early date the full play and function of the injured muscles.

M. Lucas-Championnière is not an exclusive advocate of massage in every case of fracture, and would resort in instances of fractured patella with wide separation, to exposure of the seat of injury and wiring of the fragments.

Notwithstanding the formidable proportions of this book, we can commend it to the notice of surgeons as an able exposition of a novel method based on approved scientific principles.

DISSECTIONS ILLUSTRATED. By C. GORDON BRODIE, F.R.C.S. With Plates drawn and lithographed by PERCY HIGHLEY. London and New York: Whittaker and Co. 1895. (Imp. 8vo, 73 plates, 37 diagrams, with letterpress. 42s.)

To all students in the first year of their anatomical work the advantages of possessing a reliable pictorial as well as a descriptive guide are sufficiently obvious. Hitherto the material available in this direction, notably the magnificent

plates of Professor Ellis, have been rather large for convenient use, and to get over this difficulty MR. BRODIE has produced the present volume. The plates, instead of being life size, are reduced to one-third, thus making a convenient and portable book; the price, moreover, will bring them within the reach of most students.

A picture or diagram of anatomy is far more useful in fixing in the mind the position of parts than a mere written description; and although the latter is necessary to draw attention to the less obvious relations, yet the former is a better means of learning the general relations of the different structures, and so impressing them on the memory, that they can be easily recalled when later the student is engaged in surgical or medical work—for in most of us our pictorial is more reliable than our word memory.

The work consists of a series of illustrations of very beautiful dissections made by the author, and drawn in colours by Mr. HIGHLEY. Each plate is accompanied by a short descriptive letterpress, in which the comprehension of the plate is in many cases assisted by outline diagrams.

A conspicuous merit in the work is the fact that not only have the drawings been made from actual and careful dissections, but the successive illustrations are for the most part representations of the continuous dissection of the same subject, an advantage to the student which is obvious. Great care has obviously been given to the execution of the plates, which, although in all cases accurate, are not burdened with excessive detail, and wisely so, for there is always the danger of such a volume as this tending to replace much work that should actually be done in the dissecting-room on the subject by the student himself. Anatomical drawing of great beauty and exactness must always be a temptation to relax that thoroughness of dissection which is so necessary to a lasting and accurate knowledge. For this reason if for none other, therefore, the drawings in this work are well adapted to the class of students for whom they are intended; and we congratulate both artist and author on the successful way in which they have carried out their task, and produced a book which will certainly make its influence felt in the teaching of anatomy in this country.

DIE URSACHE DER MULTIPARITÄT DER UNIPAREN TIERE UEBERHAUPT UND DER ZWILLINGSSCHWANGERSCHAFT BEIM MENSCHEN INBESONDERE [The Cause of Multiparity in Uniparous Animals in General, and of Twin Pregnancy in Man in Particular.] By Dr. DIONYS HELLIN. Munich: Seitz and Schauer. 1895. (Roy. 8vo., pp. 70, 2 lithographic plates. M. 4.)

DR. HELLIN'S pamphlet is of some importance. He bases his work on personal observations of the human ovary as compared with the same organ in the higher mammalia. He has also consulted a large number of clinical and statistical records of multiparous families. As proof of his industry we may note that 194 different works are tabulated in the list of authorities quoted in this work. In his microscopical drawings he demonstrates that in the ovary of a multiparous woman who bore two-yelk twins the ova were much more numerous than in the ovary of uniparæ. In this respect the former resemble animals, which, as a rule, bear more than one fœtus at a birth. The ovary of the adult twin-bearer, in fact, resembles a normal human fœtal ovary where ova always abound. No ova appear to originate after birth, and a vast number break down, or ripen yet miss impregnation. Hence many ova in the adult mean that the ovary contained many from the first. The ova are in such cases closely packed. The one-yelk twins represent a condition not directly associated with Dr. Hellin's subject, and not a necessary sign of multiparity from abundance of ova in one ovary. It is a condition which explains monstrosities of many kinds, but is not specially associated with fertility. On the other hand two-yelk twins are, so to speak, the key of Dr. Hellin's position. Unlike one-yelk twins they are not necessarily of the same sex, and statistics show that they are usually borne by multiparous women. They are also associated with hereditary tendencies, whilst the one-yelk twin seems to be, as it were, an isolated accident.

Dr. Hellin concludes that multiple pregnancies in uniparæ depend, as a rule, on simultaneous bursting of several ripe follicles, the result of a relative or absolute abundance of ova in the ovary. This dependence of twin pregnancy on an unusual abundance of ova explains why the mothers of twins are, as a rule, also very fertile. Great multiparity and twin bearing are only varieties of the same condition, and heredity and other influences are found to apply as much to the former as to the latter.

MEDICAL HANDBOOK OF LIFE ASSURANCE. By JAMES EDWARD POLLOCK, M.D., F.R.C.P., and JAMES CHISHOLM, Fellow of the Institute of Actuaries, London, and of the Faculty of Actuaries, Scotland. New and Revised Edition. London: Cassell and Co. 1895. (Demy 8vo, p. 214. 7s. 6d.)

WE gave[1] a full notice of the first edition of this book, and expressed the opinion that, "with a judicious amount of pruning and the addition of several important subjects which have been omitted, the *Handbook* would come much nearer the ideal we have pictured to ourselves than any existing treatise on life assurance." We pointed out some of the subjects which had been omitted and suggested various corrections. We are glad to find that the authors have accepted our recommendations in nearly every instance, so that the volume before us is much more complete than the first edition. There are, however, still some omissions. Among others, nothing is said as to the influence of blindness in regard to life assurance; and yet we hold that an addition is required if the applicant be blind, if only on account of his increased liability to accident. A contracted state of the pupils, as pointing to tabes, certainly deserves mention.

The views expressed in relation to the eligibility of cases of valvular disease of the heart for assurance may be thought to require some modification. The statement, for instance, that the murmur of mitral stenosis is generally less rasping than the regurgitant murmur will not meet with general acceptance. It would have been well if the medical author had directed attention to the great liability of patients who have suffered from what was apparently a simple pleural effusion to succumb to phthisis.

In speaking of height it might have been pointed out that individuals of unusual stature are not desirable from a life assurance point of view. For assurance purposes, the picric acid, carbolic acid, and rectified alcohol tests for urine are generally considered unnecessary. On the other hand, the importance of testing the reaction of the urine before boiling and, if necessary, acidulating with dilute acetic acid should have been insisted on; for to omit to see whether the urine is acid before boiling is the commonest cause of failure to detect the presence of albumen.

Much of the space devoted to the description of the physical signs of phthisis might be curtailed with advantage, as the medical examiner should be presumed to know the difference between the signs of the various stages of phthisis. The same remark applies to the description of cardiac murmurs.

The chapter on extra charges and the series of a hundred typical cases will be of especial value to the medical examiner of limited experience.

From careful perusal we can confidently recommend this book to our readers: it is by far the best book on the subject, and, without being too voluminous, it contains nearly everything required in life assurance.

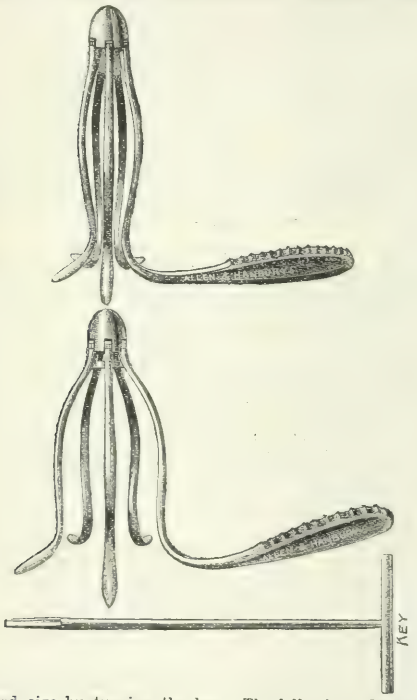
[1] BRITISH MEDICAL JOURNAL, 1889, vol. ii, p. 879.

THE SERUM TREATMENT OF DIPHTHERIA IN SPAIN.—The *Siglo Medico* publishes the following results of the serum treatment of diphtheria at Valencia:—Between February 22nd and May 20th, the serum (Roux's) was used in 157 cases; of these, 128 were proved by microscopic examination to be true diphtheria, and 29 were shown not to be so. Of the 128 cases of true diphtheria, 96 were cured and 32 died, a mortality of 25 per cent. Among the 128, there were 85 of diphtheritic angina, 71 of which were cured and 14 died, a mortality of 16.47 per cent.; and 43 of "croup," of which 25 were cured and 18 died, a mortality of 41.86 per cent. Tracheotomy was performed in 9 cases of which 4 died.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A RECTAL SPECULUM.

Mr. Edward Canny Ryall, M R.C.S. (Gower Street, W.C.), sends us a description of a rectal speculum made for him by Messrs. Allen and Hanburys (48, Wigmore Street, Cavendish Square). As shown in the drawing, it consists of two parts, the speculum proper and a key. The speculum has five blades with movable joints, and can be expanded to the required size by turning the key. The following advantages are claimed for this speculum: (1) It keeps the rectal wall well stretched, and so prevents the mucous coat from falling between the blades of the speculum; (2) it presents a good field for inspection; (3) it allows a large surface for the application of the cautery or other reagents; (4) it can be readily dilated to any extent required, and easily kept clean.



AIR-TIGHT COVERS.

We have been shown some specimens of an extremely simple and ingenious air-tight cover for closing easily and quickly the top of a glass cup or gallipot. It consists of a disc of thin india-rubber tissue fixed on a rim of white metal. The discs are made in various sizes: one is selected a little larger than the vessel which is to be covered and placed over the top of the vessel; gentle pressure is then made on the india-rubber tissue, whice is depressed about half an inch. A portion of the air in the vessel is thus expressed, and a partial vacuum produced, so that when the pressure is removed the disc remains firmly adherent to the rim of the vessel which is hermetically closed. It can easily be removed when desired by depressing the india-rubber a little more, when air enters at the edge and the cover can be removed. The covers ought to be very useful in the sick room, as they afford a means of sealing temporarily any glass or cup brought into the room. If the india rubber could be replaced by some material less liable to deteriorate in hot climates, the covers would be of the greatest use in the tropics, where insect life is so prolific and intrusive. The covers are made by Messrs. Day and Co., Paragon Road, Weston-super Mare. The size suitable for a tumbler is sold at 9s. a dozen.



DR. WILLIAM GILBERT GRACE,
THE CHAMPION CRICKETER OF THE WORLD.

A Proposal to Join in the Shilling Testimonial Subscription.

Our contemporary the *Daily Telegraph* has, with characteristic energy and skill in gauging the force of public enthusiasm and in seizing the opportunity of utilising it, made a proposal for enabling everyone of all classes and ranks to testify to the overflow of national pride and pleasure which Englishmen of all classes take in the surprising feats of skill, endurance, pluck, and energy which place our distinguished fellow-practitioner, Dr. W. G. Grace, at the head of the cricketing world, in that favourite branch of athletics which constitutes one of the chief exercises and sports of our countrymen. Every medical man must feel a certain added glow of enthusiasm at these feats, and almost a personal pride in the reflection that Dr. Grace is a working member of our profession, and has shown that medical studies and practice are not incompatible with the highest development of athletic skill and pluck. The shilling subscription started by the *Daily Telegraph* has been welcomed on all sides and throughout the country as a convenient and immediate means of enabling everyone to take part in a great national testimonial.

We feel that members of the medical profession will, perhaps above most others, take pleasure in joining in this movement, and we shall have great pleasure in taking charge of any subscriptions forwarded for that purpose, and adding them to the fund of the *Daily Telegraph*. Communications should be marked on the envelope "Grace Testimonial."

The following subscriptions have been contributed:

	Shillings.
Mr. Ernest Hart	100
Dr. Bridgwater	20
Dr. Isambard Owen	20
Dr. Dawson Williams	20
Mr. Francis Fowke	20
Mr. Burr	20
The Compositors at the British Medical Journal	14
The Clerks at the British Medical Journal Office	10
Nemo	10

GENERAL COUNCIL

OF

MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1895.

Thursday, June 6th.

SIR RICHARD QUAIN, Bart., in the Chair.

THE MIDWIVES REGISTRATION BILL.

THE Council's resolution regarding the Midwives Institute was adopted.

Sir WILLIAM TURNER wished to make it clear that the representatives of the Institute on the Midwives Board should be required to retire periodically in a manner similar to that of the other representatives on the Board.

REPORT OF PHARMACOPŒIA COMMITTEE.

This Committee reported that applications for information bearing on the production of the new edition of the *British Pharmacopœia* had been sent to twenty medical authorities, and that from sixteen of these communications of great value had been received. The Therapeutic Committee of the British Medical Association had sent in a memorandum which furnished important information as to the frequency with which a considerable number of official drugs and preparations are used by the members of that Association. The Pharmaceutical Society had supplied the Committee with an instructive report and statistics, and Mr. Martindale had forwarded a pamphlet in which the number of times certain drugs and preparations appear in 12 000 prescriptions was stated. Information of value had likewise been received from other persons on various subjects. Professor Attfield had summarised the communications from the medical and pharmaceutical authorities in the Colonies and in India. He had likewise made for the use of the Pharmacopœia Committee a summary of the suggestions of the various medical authorities. Dr. Tirard had consented to act as Secretary to the Pharmacopœia Committee and to render assistance to the President in matters relating to the preparation of the new edition of the *Pharmacopœia*. The Pharmacopœia Committee deemed it desirable to obtain the services of scientific referees in chemistry and botany, to whom points of difficulty in connection with these sciences may be submitted, and, subject to the consent of the Council, propose to invite Mr. Thiselton Dyer, C.M.G., F.R.S., and Mr. Holmes to act as referees in botany. They also proposed to ask Dr. Thorpe, F.R.S., to act as referee in chemistry, or Dr. Russell, F.R.S., if Dr. Thorpe were unable to accept the invitation of the Committee. The Pharmaceutical Society of Great Britain had, at the request of the General Medical Council, appointed a Committee of Pharmacists to assist the Pharmacopœia Committee in the work of revision. A list of questions bearing on pharmacy had been drawn up by the Pharmacopœia Committee for reference to the Council of the Pharmaceutical Society. The Pharmacopœia Committee likewise deemed it desirable to obtain the services of recognised authorities in pharmacology and therapeutics, to whom points of difficulty in connection with the properties of particular drugs and preparations should be referred, and proposed that Dr. Lauder Brunton, Professor Fraser, and Professor Walter Smith should be requested to act as referees for this purpose. The Pharmacopœia Committee had already held three meetings during the present session of the Council, and, in order to deal adequately with the materials before them, and to consider the preparation of the first draft of the new *Pharmacopœia*, the Committee proposed to hold a meeting in London towards the end of July. Professor Attfield had submitted his ninth annual report on the "Progress of Pharmacy during 1894," and the Committee had directed that it be printed, and that an index to the whole series be prepared.

This report was received and entered on the minutes.

In reply to Dr. HERON WATSON, the PRESIDENT said that the communications referred to in the report would be printed and that copies would be forwarded to the bodies indicated as well as to the members of the Council. It had not been thought necessary to make any supplementary report as to finance. The precedent of former cases when sums of money were given by the Council to the Pharmacopœia Committee to use at their discretion had been followed. They could not determine the exact expenditure until they knew the amount of work to be done by each of those who had been asked to assist the Committee.

Dr. HERON WATSON did not mean to express any want of confidence either in the President or the Committee. When the Council recommitted the report for reconsideration what was mentioned was that the Council was asked to assent to the sum of £1,250 being assigned to Professor Attfield for his services as editor of the *Pharmacopœia*, £300 of which was to be paid to him at once; but after the discussion it was understood that they were to receive from the Committee a further report in regard to the remaining portion of the sum.

Dr. LEECH moved that the report be adopted. Great progress had been made within the last three months with regard to the *Pharmacopœia*, and a large amount of information had been furnished. The payments made must depend upon the work to be done.

The report was then adopted.

At a later stage Dr. MACALISTER moved that a sum not exceeding £2,000 should be placed at the disposal of the Committee for the purpose of preparing the new edition of the *Pharmacopœia*.

Dr. HERON WATSON said that sum appeared to him to be too small. His impression was that it would take £3,000. The motion was thereupon amended to £3,000, and agreed to by the Council.

THE CONJOINT BOARD OF THE ROYAL COLLEGE OF SURGEONS OF IRELAND AND THE APOTHECARIES' HALL, DUBLIN.

Communications had been received from the Deputy Governor and Court of the Apothecaries' Hall, Dublin, and from the President, Vice-President, and Council of the Royal College of Surgeons in Ireland, notifying to the Council their intention of withdrawing from their combination. A letter had been received from the Secretary of the Apothecaries' Hall, Ireland, stating that on November 23rd, 1894, the Governor and Court of Directors had resolved to petition the General Medical Council to appoint two Examiners in Surgery under the provisions of the Medical Act, 1886, as their conjunction with the Royal College of Surgeons would cease in July, 1895.

At the last meeting it was agreed to postpone action until the report of the visitor and inspector had been received, and until the body in question had been communicated with. The Examination Committee had again reported adversely on the examinations conducted by this Board, especially the qualifying examination in medicine.

The following indicates the nature of the report of Mr. C. G. Wheelhouse, visitor, and Dr. George F. Duffey, inspector:

We report that the First, Second, and Third Professional Examinations of this Conjoint Board are "sufficient." The Final Examination has been improved in many ways. The examination in medicine was a most careful one, and, we believe, was conscientiously conducted. Holding this opinion honestly, and feeling with the examiners that the candidate they examined had a good theoretical knowledge of medicine, we greatly regret we cannot agree with their judgment in passing him on his clinical examination. In it he showed (1) that he could not ascertain with any degree of accuracy the conditions that presented themselves in a well-marked case of unilateral pleural effusion; that (2) he was unable to recognise the presence of albumen in large quantities in a specimen of urine; and (3) that he could not examine urine for sugar. This proved, in our opinion, that the candidate did not possess "the requisite knowledge and skill for the efficient practice of his profession" (Medical Act, 1858, Sec. XX). Excellence in the written or oral examination should not be allowed to compensate for failure in the clinical. For these reasons, although we have no fault to find with the actual examination itself, the fact that a candidate was passed who exhibited gross ignorance of clinical medicine compels us to report that in medicine the examination was not "sufficient." In the other subjects we report that the Final Examination was "sufficient."

Sir DYCE DUCKWORTH, Chairman of the Examination Committee, moved:

That it appears to this Council that the standard of proficiency in the subject of medicine required from candidates at the qualifying examinations held by the Conjoint Board of the Royal College of Surgeons of Ireland and the Apothecaries' Hall of Dublin, after three special visitations, has been found insufficient.

He said that this was the first occasion upon which any business of the sort had been before the Council since the passing of the Act of 1886. The Conjoint Board had now been inspected four times, and on two occasions the

whole of the professional examinations had been examined by the inspector, accompanied by Mr. Wheelhouse as visitor. The Committee had examined the inspector's report, and had received an official letter from the Conjoint Board authorising the Council to consider this report, because the Conjoint Board had no reply to make to the observations of the inspector and visitor. The Examination Committee reported:

That having discussed the report of the visitor and the inspector on the fourth inspection of the entire professional examination of the Conjoint Board of the Royal College of Surgeons of Ireland and the Apothecaries' Hall, Dublin, and having been officially informed by the representatives of these two bodies that they had no remarks to offer upon this inspection, the Committee finds that the examination is declared to be insufficient within the meaning of the Medical Act of 1886 in respect of the subject of medicine, although generally sufficient, and in some respects excellent, in surgery. The Examination Committee have to report to the Council that this conjoint examination was insufficient in one of its statutory departments, and the Committee recommends the Council to represent the same to Her Majesty's Most Honourable Privy Council.

On two former occasions when the Examination Committee thought itself justified in recommending that the state of matters should be brought to the notice of the Privy Council, a merciful view had prevailed, and it was thought that another inspection should be made and more time given in order to see if amendment were possible. Twelve months more had been allowed, and two more inspections made under the authority of this Council.

Mr. Bryant seconded the proposal. He had visited the examination with the inspector on two occasions, when they reported that the examination in forensic medicine and hygiene could not be regarded as sufficient. On the third and fourth visits other representatives had come to a similar conclusion. The Council would fail in its duty if it did not represent to the Privy Council these very serious facts. Although some parts of the examination were particularly good, very creditable, and excellent, it was to be regretted that the other portion, notably medicine, was not so satisfactory. The College of Surgeons was conjointly responsible with the Hall. The whole examination was conducted under the guidance of a Conjoint Committee of Management, with representatives from both bodies. This Committee of Management had evidently failed to carry out their duties in an efficient way, although they had been warned on three different occasions. Under these circumstances they could not divide the responsibility. It was the fault of the Committee of Management.

Mr. Wheelhouse had visited the last two examinations of this Board, and had found that great improvement had been made, and that the Third Examination was more perfect than the First. Efforts had been made to improve it. With the exception of medicine they were tolerably satisfied with the examination. The examination was well conducted, but the candidate to whom they took exception, although well versed in theory, knew nothing whatever about practice, and he was now passed as a qualified man. He showed a glib knowledge of book learning, but the inspectors were entirely dissatisfied with his knowledge of practical clinical medicine, and he questioned whether he should have been passed. Had it not been for that they would have pronounced the examination sufficient.

Sir Philip Smyly called attention to the following section of the Medical Act:

Inspectors of examinations appointed under that section shall not interfere with the conduct of any examination, but it shall be their duty to report to the General Medical Council their opinion as to the sufficiency or insufficiency of that examination which they attend, and any other matters in relation to the examination which the General Medical Council may require them to report; and the General Medical Council shall forward a copy of every such report to the body or such of the bodies which hold the examination in respect of which such report was made, and shall also forward a copy of such report, together with any observations thereon, to the Privy Council.

This evidently applied to all reports of inspectors and had been held as a penalty over the Conjoint Board in Ireland. The Apothecaries' Hall had in every way endeavoured to meet the wishes of the Council just as the Royal College of Surgeons had done. The Committee had found fault with the examination in medicine. That was practically the fault of the Royal College of Physicians. The difficulties lay in getting examiners, which, in his mind, was to be accounted for by a systematic boycotting instituted by the College of Physicians.

Dr. Atthill protested against the use of the word "boycott."

Sir Philip Smyly said that the College of Physicians in Ireland had applied for an injunction from the Court of Chancery, seeking to prevent the Conjoint Board from holding any examinations at all. That shot, fortunately, missed. Charges of irregularity were brought against the Conjoint Board before this Council, and had in a measure also fallen to the ground. The Council recommended upon that that there should be a disunion, and the recommendation had been acted upon. This report of the Examination Committee was hardly fair. The inspectors had used the words "sufficient" and "insufficient" as enjoined by the Medical Act. The College of Surgeons had not been implicated by the report at all, and had been advised by this Council to determine their connection with a Board whose proceedings could be described as insufficient. Of the First Examination the inspector remarked that it was "a satisfactory test;" of the Third Professional, "the examination was a most satisfactory and a searching one;" in medicine, "the examination a most satisfactory one and the marks awarded were strictly equitable." Of another examination the report states: "All the candidates at the First Professional Examination passed in the subjects for which they were entered, and they were entitled to do so." Of the Third, "we can speak of in terms of commendation." The remarks on the Fourth Examination could only be attributable to the examiners, many of whom were new to the work. In another place the report speaks of the Final Examination "as being much improved, but the examination in medicine, forensic medicine, and hygiene could not be regarded as sufficient." The Council should remember that the portion of the examination conducted by the Royal College of Surgeons had not been such as to require this Council to report the examination as insufficient, but that any representation to the Privy Council would inflict an injury to the reputation and prestige of one of the oldest Colleges of Surgeons in the empire.

Dr. Charles Moore, representative of the Apothecaries' Hall in Dublin, said that repeated instances had occurred of gentlemen who had been asked to carry out the examinations of the Conjoint Board in Ireland declining the duties for fear of the adverse criticism of a certain section of the Royal College of Physicians in Ireland. Their examinations had been called piecemeal examinations. The same method was adopted in many other qualifying examinations. He did not think that the Committee should have brought up this matter again after having condoned the same in other cases. The Council should know that the inspector had cross-examined not only the candidate but also the patient, and this might in some way explain the nervousness of the candidate. Since this system of boycotting began every means had been tried to abolish and discountenance and discredit the Apothecaries' Hall in Dublin, one of the oldest institutions in the country, with a body of 900 members who were scattered all over the country. The licence was sought for by many men going into general practice both in Great Britain and in Ireland. It was enough to frighten any student to have five gentlemen standing around him and cross-questioning him on a difficult case. No doubt he had mixed up certain distinguishing marks of a pleuritic effusion. The case turned out to be an abscess of the lung. When difficulties like that arose, they could not blame a student for not being able to define the exact limit of a pleuritic effusion. He believed that a great deal of the failure in this particular instance arose from nervousness. The inspector had declared that the pharmacy examinations ought not to be carried out, and objected to the practical examination in pharmacy. That was not right, for bodies should be permitted to carry on an examination as they thought best, so long as it was in accordance with the regulations of the Council, which it had always been their desire to follow to the letter. He assured the Council that the body he represented would not fail in their duty of laying open the whole sore, and trying to heal it. They begged the Council to appoint two additional examiners to examine in surgery.

Mr. Wheelhouse at this point said that Dr. Duffey apparently had been charged with interfering with the examination and of having constituted himself a subsidiary examiner. He entirely denied that Dr. Duffey had done anything whatever beyond what it was his duty to do. After the candidate who was being examined had left the bed, and was engaged on another case, Dr. Duffey then did ask the examiner what the case was upon which the student was

being examined, and did examine the case himself in order that he might be able to form an opinion on the case upon which the marks had been given. That occurred only on two occasions. He was prepared to deny that Dr. Duffey took any part whatever in trying or examining the candidate.

Mr. BRYANT added that, as regards Dr. Duffey having interfered with the examination, what happened was this: A student had been for a long time at the bedside of the patient upon whose case he had been asked to report before the examiner came. The examiner put the student's written report in his pocket, and went on examining him on his case. He had asked the student a good many questions, and it was impossible for Dr. Duffey or himself to know how the answers corresponded with the facts of the case. When the student had been put to do something else, Mr. Bryant asked the examiner, "What is this case?" The examiner replied, "I know nothing about it." Dr. Duffey having examined the case, found that the replies which had been given in no way tallied with the results of the examination of the patient.

Dr. THORNE THORNE added his testimony to Dr. Duffey as an honourable, courteous, and impartial inspector.

Sir PHILIP SMYLY said that no remarks he had made at all reflected on Dr. Duffey, and he endorsed every word which Dr. Thorne Thorne had said of him.

Dr. ATTHILL asked Sir Philip Smyly whether he had heard from the mouth of any one of the Fellows of the Royal College of Physicians of Ireland that that body had prevented the Fellows from acting as examiners to the Hall. He put the same question to Dr. Charles Moore.

Dr. CHARLES MOORE: Yes: several of the men told me they could not belong to the Hall. If they did so, it would prevent them from obtaining examinerships afterwards at the Royal College of Physicians.

Dr. ATTHILL said these statements were made, and the names of the persons said to have made them were withheld. With regard to the legal proceedings, when the conjoint scheme was proposed by the Medical Act of 1886 each College reserved to itself the right to grant its diplomas to every registered practitioner. If a registered licentiate of Edinburgh wished to obtain the diploma of the Royal College of Physicians of Ireland, that College examined them in the final subjects alone. In regard to the College of Surgeons, they had not contemplated for a moment that the instant they had completed the agreement with the College of Physicians, that College would go and make an agreement with the Apothecaries' Hall. This action tested the right of the Apothecaries' Hall to be a licensing body, and the decision was given against the College of Physicians. Their counsel had advised them to appeal, but so long as they kept up a fair standard of examination, his body had decided to take no further action. The charges of irregularity which the College of Physicians had brought forward had been investigated by the Council. There was then no examination in mental diseases, physics, biology, or ophthalmology. Dr. Batty Tuke, as Chairman of the Education Committee, had come to the conclusion that the examination was not in accordance with the regulations of the General Medical Council.

Dr. CHARLES MOORE said Dr. Atthill was giving publicity to a prospectus which had been sent on by error on the part of the College of Surgeons, and which was immediately withdrawn. He hoped that the Council would bear him out in saying that since then there had been a careful examination in ophthalmology.

Dr. ATTHILL said a Committee had been appointed to arrange these matters, and broke up with a positive refusal on the part of the Royal College of Surgeons to put these subjects into their examination.

Dr. KIDD said the Council had been engaged for the last hour and a-half debating the question as to whether or not this Council should report to the Privy Council whether or not the examinations held by certain bodies were sufficient, the fact being that that defective body would within three weeks cease to exist in consequence of the action of one of its own members. This discussion appeared to him to be a waste of time.

Sir DYCE DUCKWORTH said that personally he thought this a most instructive and useful debate. The Council wanted to know what was going on, and they should hear it out.

Dr. ATTHILL pointed out that what was going on at the Hall was notorious. There was a system there by which a person could proceed to the next examination without having ever passed in physiology. He could give many instances of that. Candidates came there and passed after having been rejected three times at the Hall in London. It was the duty of the College of Physicians, knowing these things, to make representations to this Council. They could not keep quiet and allow a system to go on which was a disgrace to Ireland and to this Council. Those who came to the Hall were the refuse of the medical schools of Great Britain and Ireland. The last charge of boycotting against the College of Physicians was that it had prevented its Fellows from acting as examiners. Dr. Atthill read letters from persons who had been asked to accept these examinerships in which they disclaimed having declined the appointments through any such reason as that which had been alleged. If the Council believed after that that there had been any attempt made to boycott this body, he could only say he regretted it. He offered documentary evidence as against hearsay evidence, and he himself had never, directly or indirectly, heard of any instance to bear out the allegations which had been made.

Dr. CHARLES MOORE had documentary evidence on the other side, but it would be unhandsome on his part to divulge the name of the person. It was not an infrequent occurrence that men had come before the Conjoint Board examiners, and, after having been rejected, were within a very short period allowed to pass by the Royal College of Physicians.

Dr. MACALISTER pointed out that the Medical Act gave them no option in the matter of referring or not referring the state of affairs to the Privy Council. The Act said if it appears to the Council that any portion of any examination is insufficient the General Medical Council *shall* make representation to that effect to the Privy Council. The fact that the body was shortly to be allowed to expire did not alter the duty of the Council in the slightest. He thought they should take the statutory course. If not, the next step would be the appointments of examiners in surgery to the Apothecaries' Hall.

Sir JOHN BANKS said it would be found that the examination in most of its parts had been praised by the inspector and by the visitor. He believed that if they had an opportunity they would in time make their examination a good one.

Dr. HAUGHTON, as a Fellow of the College of Physicians of Ireland, would not go so far as to use the word "boycotting" regarding the College of Physicians, but there existed between the two bodies what he must call not a friendly feeling. He wished to dissociate himself entirely from that unfriendly feeling.

The Council then voted on Sir Dyce Duckworth's motion. There voted for the motion 17, and against the motion 4.

The motion was agreed to.

Sir DYCE DUCKWORTH next moved:

That in accordance with Section iv (1) of the Medical Act, 1886, the General Medical Council do now make a representation to that effect to the Privy Council.

Dr. KIDD moved and Sir PHILIP SMYLY seconded:

That the Conjoint Body between the College of Surgeons and the Apothecaries' Hall being now practically defunct it was unnecessary for the Council to proceed to the Privy Council.

Mr. TEALE thought the resolution just passed had cleared the Council. Nothing would follow their bringing this matter before the Privy Council in reference to a body which was becoming defunct.

Dr. MACALISTER thought the Council were bound by law to proceed in the matter. It would be open to any person to obtain an injunction against this Council to compel it to report to the Privy Council. The public scandal would thereby be much greater.

Sir PHILIP SMYLY said there was good precedent for refraining from making this representation in the Council's former action, when by a vote of 20 to 8 they determined "that this reference to the Privy Council should not be proceeded with."

Dr. MACALISTER said the Committee had consulted Mr. Muir Mackenzie and he had said the word "shall" meant that the Council could choose its own time for reporting, but to say they should never do it was a different thing.

Sir DYCE DUCKWORTH said the Council had last year shown extraordinary forbearance in holding its hand and extreme

tenderness in giving this body another year to show that it possessed the capacity for conducting a qualifying examination. They had failed. A good deal was said about an expiring body. What was there to prevent these bodies joining together again next August and beginning anew?

Dr. Thorne Thorne would not like to shirk his vote. It seemed to him they had no discretion whatever in the matter.

Sir Wm. Turner pointed out that the Council had discretion as to the time of reporting. They might defer making the report, but for his part however disagreeable it might be he felt the Council was bound to comply now with the injunction in Section iv of the Medical Act.

After some further conversation, the President put the motion, which was carried by 20 to 4.

Sir Dyce Duckworth moved, and Mr. Bryant seconded:

That, pending the consideration of the Privy Council of this representation, the General Medical Council come to no decision on the application by the Apothecaries' Hall of Dublin, of November 23rd, 1894, to appoint two Examiners in Surgery under the provisions of the Medical Act (1886).

Dr. MacAlister called attention to the fact that on the minutes there stood an application from the Apothecaries' Hall for the Council to appoint two Examiners in Surgery.

Sir Walter Foster said he had the authority of Dr. Moore for saying that the Hall would not press for the appointment of examiners pending the decision of the Privy Council.

Sir William Turner suggested that the entry on the minutes should be that Dr. Moore requests leave to withdraw for the present the application from the Apothecaries' Hall, contained in his letter of November 23rd, 1895. If it were withdrawn there would be no use for the motion.

The Council gave leave to withdraw, and Sir Dyce Duckworth's motion dropped.

The Report of the Examination Committee.

Sir Dyce Duckworth presented the report of the Examination Committee on the visitation and inspection of the final qualifying examinations of the universities and licensing bodies of the United Kingdom. The Committee, by way of summary, asked the Council to emphasise the desirability of all the examining bodies observing certain points.

Several members protested against the discussion of a subject of so much importance at the fag end of a session.

Dr. MacAlister moved that the Examination Committee be instructed to prepare for the consideration of the Council at its next session a series of specific recommendations embodying the results set forth in the summary of their report.

Finally this motion, after some further discussion, was adopted.

After receiving other reports and appointing committees, the Council concluded the business of the session, a hearty vote of thanks to the President for his conduct in the chair having first been carried by acclamation.

Medico-Psychological Association of Great Britain and Ireland.—A general meeting of the Association was held at 11, Chandos Street, Cavendish Square, on May 16th, under the presidency of Dr. Conolly Norman, who proposed a resolution expressing a deep sense of the loss which the Association had sustained in the death of Dr. Daniel Hack Tuke. This was seconded by Dr. Blandford, supported by Dr. Rayner, and carried unanimously.—Dr. Mercier then read a paper on Collective Investigation. He referred to the Collective Investigation Committee of the British Medical Association, and said that although the results of its labours did not equal the sanguine anticipations of its promoters, yet they were by no means fruitless or unimportant. The Medico-Psychological Association had great opportunities for collective investigation, since its members had their patients under constant observation and regulated their whole life. He took as an example the subject of epilepsy, and gave a number of instances of questions that were waiting solution, and claimed that they could be solved by the method of collective investigation and by that method only. He concluded by moving that a committee should be appointed to deal with the matter, and that members should be invited to co-operate. After the meeting the members dined together at the Café Royal.

WATERBORNE TYPHOID:

A HISTORIC SUMMARY OF LOCAL OUTBREAKS IN GREAT BRITAIN AND IRELAND, 1858-1893.

A Report Prepared for the Parliamentary Bills Committee of the British Medical Association.

By ERNEST HART, D.C.L.,
Chairman of the Committee.

Introduction.

It is now some sixteen years since any summary report was made on the relation of typhoid fever to water. In the report which I then made regard was had mainly to nineteen separate outbreaks of the disease which had been ascribed, and indeed traced, to the consumption of specifically polluted water.[1] These outbreaks covered a period of time commencing with 1867, and ending with 1879. The outbreaks of typhoid fever, which were set out in full in a summary table appended thereto, giving the chief facts which had led to the inculpation of drinking water as their cause, were all of them such as had been investigated by inspectors of the Medical Department of the Local Government Board, or its predecessor, the Privy Council Office. This plan suggested itself on account of the fact that the major part of the larger outbreaks had been investigated by the Government Department. In great degree this is true of the numerous outbreaks which have manifested themselves since that report was written. Nevertheless, there have still been many that have had ample investigation at the hands of local health officers and others; and which are deserving of a place in any comprehensive list of waterborne typhoid fever prevalences.

In accordance with a numerously expressed wish that there should be placed on record a historical summary of the waterborne typhoid outbreaks of the last quarter of a century, in so far as the British Isles at least have been concerned, I have attempted this and something more, since I have gone as far back as 1858. My chief reason for going back to that date has been that the reports of the Medical Officer to the Privy Council, and later to the Local Government Board, begin with that year, and have been since continued in unbroken sequence; and, since I foresaw that I should have much recourse to this very numerous and valuable series of annual volumes, it seemed a suitable date from which to begin the compilation of the summary.

I have been the more willing to undertake the present task since I have long felt, that the history of waterborne typhoid deserves to be writ exceeding large. In entering upon this laborious piece of work I have not been without misgiving as to the difficulty of accomplishing it; and so it will be well that I should here say that I by no means lay claim to have made a summary of each and every waterborne typhoid outbreak that has occurred during the thirty-six years 1858-93. Such a feat would be well-nigh impossible of accomplishment, since accounts of many outbreaks never reach beyond the confines of the locality in which the disease manifests itself. But if I must needs concede thus much there is at least the satisfaction of knowing that the outbreaks which I have succeeded in summarising are an extremely large percentage of those which have been placed on public record.

Not least difficult to hear of have been some of those which have been the subject of inquiry by the State, since I cannot find that all the reports which have been made as a consequence have been printed or in other ways made public. To this extent, then, my record will be imperfect, as well as in regard to those reports which, having been considered of local moment only, have not been publicly noticed. That there are others, again, that do not find place in my appended

[1] Memorandum of Recent Epidemics produced by Polluted Water Supply; Conference on National Water Supply, Sewage, and Health at the Society of Arts, May 16th, 1879.

summary I am confident; but all that I could do to make the summary as complete as possible has been done. In this work I have had the great advantage of the able assistance and laborious co-operation of Mr. W. H. Huddart. And as a result I have confidence that it will fulfil every purpose for which it is intended so far as completeness of record goes. That it does not profess to be quite complete need not detract from its utility, but should rather lend added significance to the data given as being, if anything, an understatement of fact.

METHOD OF PROCEDURE.

The plan adopted in preparing my summary has been to arrange the notes in tabular fashion, giving in regard of each separate outbreak, so far as obtainable, facts as to (1) date of occurrence, (2) locality, (3) name of reporter, (4) number of cases, (5) number of deaths, (6) population of invaded locality, (7) population using the implicated water, (8) number of cases among consumers of the water, (9) percentage of such cases to the total number, (10) the exciting cause of the outbreak, (11) the circumstances implicating the water, (12) general observations, and (13) a reference to the report dealt with. In this way I think I have covered all the ground necessary to an understanding of each occurrence. And here I would express my indebtedness to those health officers and others who have kindly helped this inquiry in regard of those outbreaks concerning which neither I nor Mr. Huddart had all the facts in our possession. I am, of course, indebted in very large degree to the reports of our Department of Public Health for my facts, next to them to the pages of the BRITISH MEDICAL JOURNAL and also to not a few annual and special reports of local health officers.

MORTALITY FROM TYPHOID FEVER.

Pausing for a moment to consider the broad question of fatality of the disease, I would especially draw attention to the fact that though we can only by the medium of mortality measure the extent of misery caused by this most preventable of diseases, yet the data thus acquired enable us to see something of the enormous amount of physical suffering and disablement, to say nothing of the burden to the rates, which spring from the continued existence of a malady which is a blot on the sanitary escutcheon of our empire. Speaking of preventable sickness in 1873, Mr. (now Sir John) Simon said that the deaths annually registered in this country were (out of some half million) fully 125,000 more numerous "than they would be if existing knowledge of the chief causes of diseases, as affecting masses of population, were reasonably well applied throughout England."

England and Wales.				England and Wales.			
Year.	Total Deaths.	Death-rate per million Living.	Average Annual Death-rate per million Living for each Quinquennial Period.	Year.	Total Deaths.	Death-rate per million Living.	Average Annual Death-rate per million Living for each Quinquennial Period.
1871	8,461	371		1881	5,529	212	
1872	8,741	377		1882	6,036	229	
1873	8,793	376	374	1883	6,078	228	216
1874	8,861	374		1884	6,380	236	
1875	8,843	371		1885	4,765	175	
1876	7,550	309		1886	5,061	184	
1877	6,879	279		1887	5,155	185	
1878	7,652	306	277	1888	4,848	172	179
1879	5,860	231		1889	5,011	176	
1880	6,710	261		1890	5,146	179	

The preceding table shows for four quinquennial periods, from 1871 to 1890, the total deaths from typhoid fever in England and Wales in each year and the death-rate per million living for each year, and also the average annual death-rate per million for each quinquennial period. In 1870 the actual deaths from typhoid were 8,731, in 1880 they had fallen by 2,000, and in 1890 they had fallen other 1,600. The average annual rates per million were in the successive quinquennia 374, 277, 216, and 179. Dr, Thorne Thorne, in his report to the President of the Local Government Board for 1892-93, in dealing with this same matter says: "Since 1869 differentiation has been made in the returns of the Registrar-General between typhus, enteric fever, and 'simple and ill-defined fever,' the latter term being one the use of which has been rapidly diminishing; and if enteric fever be grouped with simple and ill-defined fever, we find that whereas the mean annual death-rate per million living from those two diseases was 567 in the five years 1869-73, it was only 179 in the five years 1888-92. If during this latter quinquennium people had died from these fevers at the rate at which they died in the former five-year period, there would have been during 1888-92 no fewer than 55,808 more deaths from 'fever' than actually occurred. And had the same mortality from enteric and ill-defined fever obtained during 1892 which prevailed in 1869, no fewer than 14 232 persons who at the end of 1892 had escaped death from such fever would have died during that year. In short, if cholera had recurred in England and Wales between 1867 and 1892—a period during which that disease was practically absent from our midst—on the same scale as between 1849 and 1866, we should still be the gainers by several hundreds of thousands of lives. And our gain in this respect is largely due to the incentive given by reason of cholera prospects, and of the knowledge that the disease would have to be met by improved sanitary administration." Thus this disease is showing rapid decline under a system of ever-improving sanitary administration, and we may look forward confidently to a much greater diminution of our fever mortality as the community become educated to a due sense of the vast importance of wholesome surroundings; and when they come to recognise that the truest measure of economy is to expend their rates in the obtaining of that perfect degree of cleanliness without which there can be no absolute exemption from preventable disease, then, and not till then, can England expect to see enteric fever banished from her midst. Where dirt is there will disease be also. In illustration of the notable results accruing from the execution of efficient sanitary works in a district, I will quote only a few examples. In the case of Merthyr Tydfil, comparison between the enteric fever annual death-rate per 10,000 people living during periods after the completion of such works with that obtaining in periods preceding such works has resulted in showing a fall from 21¼ to 8⅞; at Croydon the fall shown was from 15 to 5½; at Ely from 10⅞ to 4⅓; at Penrith from 10 to 4½, and this despite the conditions of water supply, concerning which I shall have something to say at a later stage; and at Stratford from 12½ to 4. These will doubtless serve to illustrate my point. To what large extent the lessons to be derived from these instructive data have still to be learned the following pages will bear witness.

FATALITY OF TYPHOID FEVER.

The late Dr. Murchison found that 5,988 cases and 1,034 deaths from typhoid fever distributed themselves on the sexes as follows: males, 3,001 cases, 504 deaths, a per-case mortality of 16 79 per cent.; females, 2,987 cases, 530 deaths, or 17.74 per cent., against a per case mortality of 17.26 per cent. for the whole number. The excess on females was greater during the first fifteen years of life than in the next thirty years as regarded death by typhoid fever. As regards attack, the Registrar-General has given it as his opinion, after study of the facts shown by the admissions to the Metropolitan Asylums Board Hospitals, that more males than females are attacked between the ages of 5 and 20 years. This being so, then since more females than males die during the years in question, the fatality among females must be much greater from the 5th to the 20th year than it is among males.

SEASONAL PREVALENCE.

There is no doubt that the months of autumn are the seasons during which, under normal conditions, typhoid fever manifests itself in an epidemic form. Dr. Murchison says on this point that: "Not only does enteric fever increase in autumn, but it has been found to be unusually prevalent after summers remarkable for their dryness and high temperature, and to be unusually rare in summers and autumns which are cold and wet.....Mere dryness of the atmosphere, however, is not conducive to an increase of

enteric fever. On the contrary, warm damp weather, when drains are not offensive, is often followed by an outbreak of the disease. An increased rainfall, however, sweeps away those impurities to which the origin and spread of the disease are in drained towns mainly due; but in undrained places it may conduce to an outbreak of the disease by washing those impurities into water used for drinking purposes, as happened at Festiniog in 1883, and in Dundee in 1864."

Waterborne Disease.

The relation of water and disease is no new discovery. The doctrine of the relation of the use of the one in a polluted state and the manifestation of the other has had universal medical consent in its favour, so Sir John Simon tells us. He says that "during long ages of history, the common instincts of mankind were even surer and stronger than undeveloped science could be in revolting against the use of unwholesome waters. For instance, among the lessons which survive in modern times from the wonderful intellect and vigour of ancient Rome, the frequent far-reaching aqueducts, which record an unbounded care for the provision of proper urban water supplies, are monuments kindred in spirit, and second only in dignity, to the consummate system of jurisprudence of the same singularly organising people." The time is not long since, however, in which much scepticism existed in this country as to the bad effect on health of even considerable amount of organic impurity; but in the interval the theory previously held by the majority of medical sanitarians has received the added weight of exact experimental research and proof. It no longer remains a mere theory but is now an accepted fact, the remaining difficulty being to make people see that the existence of disease provoking properties in their neighbourhood in relation to their drinking water are such as need removal, when such removal entails expenditure of money.

Typhoid Fever Outbreaks of Doubtful Causation.

Before proceeding to discuss the data in the tabular statement to be published later, it will be well to say a few words concerning some outbreaks which do not figure there. I have been at pains to exclude from the summary any outbreaks as to which there could be any reasonable doubt that water had been the medium of spreading the disease. Needless to say, this process of exclusion has entailed a vast amount of careful reading, and a consideration of the niceties which have in not a few cases had to be balanced in order to arrive at the right conclusion. I have no doubt in my own mind that I have in this way excluded from my summary instances of waterborne typhoid fever, but in my desire to be judicial I shall not mind if I have thus erred in a few cases. Sufficient for all practical purposes are the numerous outbreaks which find place hereafter. The following are some of the omitted cases in point:

Ecton.—A report by Dr. (the late Sir George) Buchanan in 1872 showed that of ten persons working in a meadow alongside the Ecton brook, almost all became sick with symptoms of fever and diarrhœa caused by drinking the water of the brook which contained sewage from the Northampton sewage farm. The disease was thus carried into the village, where it spread owing to the prevalence of conditions favourable to its dissemination.

Doncaster.—From the autumn of 1872 to the spring of 1873 there was persistence of typhoid. The town derived its public supply of drinking water from a branch of the river Don, which river was polluted, the soil from which the town also drew water, by way of some 200 wells, being grossly polluted. Evidence was forthcoming in the report made by Dr. Thorne Thorne in favour of the spread of fever by polluted water both from the river which received the sewage of towns higher up the stream, and in which typhoid is generally prevalent, especially such towns as Sheffield, and also by water polluted excrementally, and drawn from wells sunk in a thoroughly polluted soil.

Pemberton and Orrell.—In the case of these districts there was grave suspicion that water had much to do with the outbreak of typhoid in the later months of 1880. The local health officer was of opinion that polluted drinking water had led to epidemic extension of the disease. There was distinct evidence of overflow into a well largely implicated from a sewage-polluted brook. There were difficulties in the way of acceptance of the water theory owing to the area covered by the disease; but the question arose whether a rainstorm just prior to the epidemic outburst might not have led to contamination of the wells and springs by washing into the soil and thence into the waters the liquid filth of privies and the leakage of defective sewers. The main difficulty in the way of acceptance of this explanation lay in the wide extent of the water stratum supposed to be infected and the brief space of time after the storm within which the supposed infection of this water stratum must have taken place.

Longton.—The elucidation of the fever outbreak at Longton, as of that just named, fell to the lot of the late Mr. John Spear. In the case of Longton the implicated water from a particular well was supplied either habitually or periodically to parts of no fewer than seven sanitary districts. Analysis proved the water to be polluted by sewage, and the surroundings of the well were not by any means such as to be desired. So complicated were the interlacings of the water services that Mr. Spear was unable to disentangle them for the purposes of determining their exact relation to the fever incidence. But he held that "while the extension of the disease around various foci of infection was probably due to the existence of a barbarous system of excrement disposal, as regards the medium by which these several scattered and apparently independent foci of infection were set up, the water supply was not free from suspicion."

Chester.—Dr. Ballard, in reporting on the continuance of typhoid fever in Chester in the early part of 1890, was unable to state the exact influence which the water supply, drawn from the river Dee, might have had upon the spread of the disease. But he found that part of the city's sewage was discharged in a crude state into the river in such position as necessarily to be washed, at certain seasons, up to and beyond the intake; and it was absolutely certain that whenever typhoid prevailed in the city such sewage would be specifically polluted. The Dee is, moreover, grossly polluted by the discharge of crude sewage from many places above Chester. Dr. Ballard significantly added that, whereas in 1873 Dr. Frankland was unable to find evidence of previous sewage contamination in samples of Chester drinking water, he was able to do so in 1889, no matter where the sample was taken and irrespective of the time of taking it.

Malton.—The town derives its water supply from a well 196 feet distant from the River Derwent and four miles from the junction of the Rye. The well water is subject to discoloration in times of flood, and expert engineers have been of opinion that the river water gains access to the well by way of underground channels. Dr. Bruce Low has set out the full facts in his report of 1893 to the Local Government Board on enteric fever in the valley of the Rye. Concerning the relation of water supply and disease as cause and effect, Dr. Low states that during the last twenty years enteric fever and diarrhœa have persisted in the town, there having been several sharp epidemics, as in 1873, 1878, and 1890. Moreover, the incidence of these diseases was noticed to be greatest immediately after flood times and after the water had been served in a turbid state. Recent diminution in the amount of these maladies is to be thought of as resulting from the action of the engineer in ceasing to pump from the well during times of flood, this fact appearing to strengthen the case against the water as a cause of those diseases. The interchange of water between the sewage-polluted river and the well seemed to admit of no doubt.

Penrith.—Dr. Bruce Low, in reporting to the Local Government Board on the general sanitary condition of Penrith in 1893, made reference to reports by Dr. Robertson, the local health officer, and by Mr. T. W. Thompson—Dr. Low's colleague of the Medical Department at Whitehall—concerning an outbreak of typhoid fever in 1891, affecting the town of Penrith and a portion of the adjoining rural district of the same name. All the cases occurring up to August of that year—some 40, with 4 deaths—were in persons who were consumers of water from the town service drawn from the River Gramont or from the Stainton Beck, above the intake of the borough supply. Dr. Robertson held that atmospheric conditions were intimately related to the fever prevalence; but Mr. Thompson, after full consideration given to the matter, inclined to the belief that the consumption of water from the

sewage-polluted beck and river was the chief cause of the disease. I will not here speak of the gross pollutions to which these waterways were found to be subjected—excrementally and otherwise—since I shall have occasion to refer to the case of Penrith in a later portion of this report, where the facts will be found set out fully.

St. Luke, Middlesex (County of London).—Dr. Yarrow, in his annual report for 1893, relates the circumstances attending the occurrence of cases of typhoid fever in relation to the use of well water. The well in question has, some 20 feet distant, three watercloseets, a large urinal, and, nearer still, another watercloset, the only convenience for 67 persons in an adjacent works. The well serves a total of 84 persons. Professor Stokes was of opinion, after an analysis, that the water was polluted by surface drainage. Five cases in all arose in persons drinking of the water of the well, and having apparently no condition in common save drinking water; 4 of the patients were employed in the works just referred to. There would seem to be several wells in this parish, in situations not by any means such as to lend security to consumers of their contents.

The foregoing, then, are samples of the outbreaks which find no place in my appended summary. Not that I throw any doubt on the contention in the cases of these occurrences that they had causal relation with polluted water. But only that I have regard to the fact that the relationship has not seemed to have been made out with the same amount of convincing force as in other cases. It will, however, have served a useful purpose to have here reviewed the general outlines of reports illustrating the class of outbreaks which are excluded.

TABULATED SUMMARY.

The outbreaks included in the appended summary tables[1] number no fewer than 206, ranging from the year 1863 to the end of 1893. The outbreaks are very unevenly distributed in point of time, differing years showing vastly different numbers of separate epidemics caused by polluted water. I have already stated that I have taken the year 1858 as my period of commencement, but there is no evidence of any outbreak thenceforward that I have come across in which water was the means by which typhoid was originated earlier than the year 1863. This is not to be understood as conveying my impression that no such occurrences happened; far from it; but only that they have not come within my cognisance. An analysis of the tables shows that in the 18 years 1871-76, 1879-84, and 1888-93, there occurred no fewer than 166 outbreaks out of the total noted; 69 in the first period, 58 in the second, and 39 in the third period. In these 18 years, then, 80 per cent. of the total number happened, the percentages in the respective subperiods being 33, 28, and 19 respectively. The entire period covered by the tables is 31 years. I have already explained my reason for drawing an arbitrary line at 1858, which has in reality become 1863, and with a view of illustrating the care taken to settle the then too little thought of matter of the origin of the spread of disease by the medium of polluted water I here give two instances prior to that year in which, without doubt, drinking water played the leading part. The first I quote from the late Dr. Murchison's work on *Continued Fevers:*

"Richmond Terrace, Clifton, was a crescent composed of 34 houses. In 1847 the inhabitants of 13 of these houses drew their drinking water from a well at one end of the crescent. The remaining houses were supplied with water from another source. At the end of September it became evident, from the taste and smell of the water from the pump, that it was tainted with sewage. Early in October 'intestinal fever' broke out nearly at once in all the 13 houses in which the tainted water had been drunk, but did not make its appearance in any of the other houses. In almost every one of the 13 houses 2 or 3 persons were laid up, and in some a much larger number. The houses in which the fever broke out were far apart in the terrace, and there was little or no intercourse between their inmates. The water from the well was the sole connecting link."

The second has reference to an outbreak reported by Dr. (now Sir Anthony) Home for the Privy Council Office, some years after its occurrence. The outbreak took place at Whitwick, in Leicestershire, in 1856, and occasioned 13 deaths. Only one street was invaded, all the residents drinking the water from one well which, on being opened, gave evidence, by a layer of soapsuds on the top, of leakage from an adjacent drain. The people were found to be literally "drinking fever;" and we are told that "the use of this water being interdicted, the fever disappeared."

[1] These tables will be printed as an appendix to this report.

CONSIDERATION OF TABULATED OUTBREAKS.

In proceeding to treat of the several different, and indeed numerous, methods by which water has become the source and cause of spread of typhoid fever, it will be best to deal with typical instances of those methods. To this end the outbreaks are grouped under various headings, according as they were related to one or another class of cause. It may not be unwise to begin with a class all too common in rural districts, namely, polluted wells. The outbreaks due to these death-dealing iniquities are neither few nor far between. Here are some typical examples.

WELLBORNE OUTBREAKS.

Shallow Wells near Dwellings.—A most clear case of waterborne typhoid was that of Page Green, Tottenham (No. 4), the water supply being, for some 30 houses, from shallow wells, sunk in a porous gravelly soil; the water in one well smelling distinctly of carbolic acid which had been poured down a yard sink. At Winterton (No. 7), the shallow wells were situate in the midst of all kinds of abominations, privies, ashpits, cesspools, and wells being in close proximity. "It is hardly possible," says Dr. Thorne Thorne, "to conceive conditions more favourable for its spread"—speaking of typhoid—"than those existing at Winterton." One can scarcely imagine a worse case than that of Stamford in 1868 (No. 10), where wells were sunk in a strata honeycombed with cesspools; "a subsoil in which the ordure of generations has been carefully stored up beneath the dwelling houses." A long-continued outbreak was clearly traced to the consumption of the polluted contents of these filth traps. Perhaps one of the most glaring instances of persistent refusal to deal with a crying evil is that of the Rotherham Corporation in the matter of the Wellgate spring, situate as it is in the midst of the population of the borough. As long ago as 1863 the report of the Medical Officer to the Privy Council drew attention to the spring. In 1872 (No. 51) Dr. Ballard had to report an outbreak of typhoid in which this same spring played a part in disseminating the disease; whilst Dr. Theodore Thomson's report to the Local Government Board on the outbreak in the autumn of 1892 (No. 190) has called very special attention to this well. The water had been the subject of several analyses from 1886 to 1892. Every one gave indication of serious contamination; one at least pointed to "pollution by urine, cesspool drainage, or similar impurity," and this of a spring "in the centre of the borough," a town of 40,000 inhabitants. Towards the close of 1893 Dr. Klein made bacteriological examination of a sample of water from this well, and found the bacillus coli in abundance, as also a bacillus morphologically and culturally difficult to differentiate from the typhoid bacillus. Dr. Klein considered the spring open to excremental pollution; and the Corporation issued a warning that the water should be boiled before use. But what a pitiable spectacle does this case afford of local administration? Of the remaining sources of supply to Rotherham we shall have occasion to speak later. In the case of Worthing in 1880 (No. 124), we have an instance of a polluted well preferred to a public supply actually laid on to the house, and that house, moreover, a dairyman's premises. That the water became specifically contaminated by the discharges of a typhoid patient there can be little doubt. The excreta were thrown down the drains of a house from which soakage was finding its way to the well. Dr. Ballard paints a miserable picture of rural life in Newlyn in 1880 (No. 118), where the conditions as to excrement disposal and removal were disgraceful. On opening up the town well he found the level of the water therein and in the adjacent drain to be identical, whilst it was obvious that a free interchange of their contents had been for some time going on.

Dr. W. Brown, the health officer of Stapleton, mentions an interesting instance of well closure, the first in his district. He connected 9 cases of typhoid with use of the water,

and Mr. Stoddart, the analyst, found in the water and succeeded in separating organisms which behaved almost precisely like the typhoid bacillus, though they were not typically morphological of that bacillus. Dr. Harrison, the health officer of the Lincoln rural district, in his annual report for 1893, says that of 78 samples of drinking water collected in the year, chiefly from wells, no fewer than 62 were polluted, whilst of 18 samples from one village not one was satisfactory. Dr. Kirkham, the health officer of the Downham rural district, in his report for 1893, says that it is next to impossible to insure purity of well water in the more thickly populated villages while the pernicious midden system is in vogue. He speaks of these abominations as at times capacious holes dug in the back gardens, within a few yards of the well, and lined with loose brickwork.

Communicating Wells.—The danger of spread of typhoid by means of wells is seen to have a special significance where the local conditions are such that, given one polluted well, it follows as a matter of course that the specific particulate matter finds its way into other wells in the vicinity. That the danger is not purely imaginary may be seen from several instances in the appended tables; for example, at Sutton-in-Ashfield in 1872 (No. 42) typhoid was spread by means of pollution of tanks and wells situate at the higher end of the town; at Newark in 1884 (No. 153) the disease drew attention to the fact that those wells nearer the river were the more largely polluted; whilst at Greasbrough in 1893 (No. 203) the disease followed the line of the ground under conditions which pointed to primary contamination of the highest surface well, and certainly all the wells communicated.

Local Wells under Differing Circumstances.—That wells need not necessarily be the cause of fever spread even when situate in insanitary places is evident from the experience of many localities. It is the manner of treating the actual structure and its immediate surroundings that in large measure determines the results of use of the water. For instance, at Donnington in 1871 (No. 26), wells, privies, pigsties, and manure heaps were closely interrelated, and fever, introduced in 1868, remained an unwelcome visitor for some three years. But while fever attacked houses having wells so circumstanced and subject to no special care in the matter of protection from the entry of polluting media, houses adjacent to those invaded entirely escaped, owing to the careful manner in which their wells had been guarded from all possibility of contamination. An instance of the nastiness which some people will permit to find entry to their drinking water if they can, is that of a well at Bedale (No. 97) associated with an epidemic of typhoid in 1877. In the trough of the pump were washed all kinds of foul apparatus, including tools and barrows used in the emptying of middens, with resulting pollution of the well water, owing to stoppage of the slop drain of the pump.

Wells as Sources of Supply.—It will now, I think, have become evident that wells, as they are too frequently found in this country, are not by any means generally desirable as sources of drinking water; but there are wells and wells, and I would not be thought of as condemning all such sources. By no means; rather I have an opinion that wells properly situate and cared for and guarded form of all sources of water the best and most trustworthy. It is the hideous intermingling of excrement and water so often met with that is the chief ground of objection to these disease-disseminating holes. When the local conditions obtaining are such that they must needs cause excremental pollution of the ground around houses, then it is high time to close all wells sunk in the neighbourhood of the pollutions; and, indeed, not rarely will it be found expedient to do away with all wells for some distance around when the geological formation of the locality is such as to leave doubt as to the continuing safety of well waters. One can hardly pick up a report on the sanitary state of a rural district without reading of wells subject to pollution of one or another sort; or if by chance a district here and there is so fortunate as to have no wells liable to contamination, then it is generally one which, by reason of past suffering through the consumption of polluted well water, has had the lesson of associated filth and disease so brought home as to have led to the adoption of measures of well-guarding as a sanitary necessity. Professor R. Koch, of Berlin, has given much care and thought to this important matter of wells in relation to their surroundings, and in his paper on "Water Filtration and Cholera," has indicated a way whereby wells may be so treated as to relieve a district from the necessity of doing away with these handy and, if properly constructed, preferable sources of water supply. His remarks on the subject are so pertinent, that I offer no apology for fully quoting him here.

"It will certainly not be easy to arrange that wells already in existence, even if badly constructed and dangerously situated, should be given up; but that is not always necessary. It will be comparatively easy in most cases so to alter the construction of the well as to remove all danger of contamination from above. It is only necessary to give to the well the same protection, or approximately the same protection, against contaminating percolations by means of filtering layers of soil such as exist in the case of a simple pump. To achieve this, one should proceed by filling the well up to the highest water point with gravel, and over the gravel with sand up to the very top. Here it is of course assumed that the well is already provided with an iron pipe, or, if this is not the case, that it will be provided with one before the gravel and sand are put in. In this way the well is turned into a pump, with the advantage over other ordinary pumps that its lower end dips into a layer which gives no resistance to the subsoil water. If it is proposed to keep the water supply of the well quantitatively intact, in order that, for instance, for purposes of extinguishing fires, a certain quantity of water should be at hand; there should then be erected above the highest point reached by the well water a construction of masonry or of iron capable of lifting the protecting sand covering; but the last should never be less than 2 metres deep. It is also to be recommended that the pump should not be erected immediately over the well, but some distance from it, and that it should be put into communication with the well by a lead pipe. This would prevent the water of the well, which when used for washing and other domestic purposes becomes foul, from leaking into the soil around. Wells protected in this or similar methods, by good filtering layers, give the same protection against the infection of water as is given by the sand filtration of the great waterworks. In fact, they really give a greater protection, for they are not exposed to the many disturbances in the process of filtration.....and are also not affected by frost. So much attention is now being given to perfecting as much as possible the water supply of the great waterworks that it is important not to lose sight of the domestic water supply by pumps and wells. By improving the wells in the manner explained above, the spread of cholera, in so far as it is due to water, can be restricted to a great extent. It is just in this respect that a great deal can yet be done."

How far the advice here given can or should be followed I do not pretend to say. But it accords with the current belief that iron tubing of a depth sufficient to have insured its having passed through an impermeable layer into sand or gravel water-bearing strata will at any rate be a means of raising a water free from impurity at its source, since there is no system of filtration equal to that which is natural, and any resulting iron in the water so raised can soon be eliminated by a ready process of exposure and filtration.

I feel that having said so much I may now leave this matter of shallow wells and pass on to consider other ways by which water has played a part in the dissemination of typhoid fever. It will be, I think, convenient here to refer to the important feature of fissures as leading to water pollution.

Fissures and Typhoid Fever.

The existence of fissures is to be accounted for in many ways, as, for example, cracking of the ground by reason of excessive drought, subsidences, and the like. It will probably suffice if we give three instances in which fissures have seemed to have occasioned outbreaks of fever.

One is the case of New Herrington (No. 176), in 1889, where the connection of the fissure with pollution was quite accidental. The outbreak formed the subject of a report by the late Dr. David Page to the Local Government Board. Searching for any possible source of pollution of the well with which the disease had been associated, he found that owing to subsidences caused by colliery workings some fissures ex-

tended to the surface near a farmhouse about three-quarters of a mile distant from the well in question. He next found by an experiment carried out by means of a large quantity of salt that the fissures had connection with a staple feeding the well.

Thus he established the direct connection of the well and a farmhouse, though he could not demonstrate from what source the water derived its specific quality of infectiveness. But the existence of an underground "feeder" of the well was a revelation to the local authority.

Another notable instance of a fissure, this time in the Chalk, leading to a widespread dissemination of typhoid, was that of Worthing, in 1893 (No. 198 *a*) where a well boring having been begun the attempt to get a supply to supplement the general service had to be abandoned on account of a large quantity of water met with at but a short distance from the surface, and issuing from a fissure under circumstances such as appeared to point to the undesirability of using the water. Nevertheless, in 1893 the Town Council drove an adit from one of their wells, and, oddly enough, met with the same stream of water at a depth of 72 feet, the inrush of water being so great that the men in the workings had to leave their tools and fly for their lives. Experiment with salt solution proved that the water thus struck was surface water, and that in its near vicinity there were leaky sewers which had been conveying the excreta of typhoid patients. The connection of the epidemic of typhoid with the water so obtained was established by Dr. Theodore Thomson in his elaborate report to the Local Government Board. I shall have to refer thereto at a later stage. A glaring instance of the potency of fissures for harm is that of Stamford in 1868 69 (No. 10), where cesspools were pouring their contents by way of fissures into wells situate at a lower level. The late Mr. Netten Radcliffe spoke in no measured terms of the state of the supply, but said that the town had a subsoil "in which the ordure of generations has been carefully stored up beneath the dwelling houses." Every well in the town was placed in dangerous proximity to sources of pollution. One can hardly credit the existence even a quarter of a century back of such a condition of things as that people should be found content to drink what was but a slightly diluted form of their own excrement. But although I have only thus lightly touched on the ability of fissures to cause pollution, it is not to be thought that I think lightly of their importance; rather I have a very clear conviction that they have a most significant bearing on the whole question of waterborne typhoid. One has but to look over the records of the tabular matter to get the impression that the relations of fissures and porosity of soil are together responsible for much disease dissemination. But I must leave the matter.

Adits in Relation to Typhoid Fever.

I may, however, perhaps very conveniently here refer to the closely related question of the influence of adits in spreading typhoid. These adjuncts to water service have been by no means free from blame in the history of waterborne fever, and it will be well to show, by a few references, in what way they have operated. In the case of Gunnislake (No. 82), in 1875, all the local conditions requisite to the spread of typhoid seem to have been present. The adit feeding a reservoir was driven in porous soil, and the ground had a steep gradient; added to these points was the fact of the occurrence of two cases of typhoid, the evacuations from which were thrown on a dust heap, the rain being excessive just prior to the general outburst; the water having undoubtedly become specifically fouled by these patients' excreta. Our second instance is somewhat out of the common, being the now historic case of Caterham (No. 102), where in 1879 a large epidemic was caused by specific contamination of the water service by reason of the purging in an adit of a workman who was suffering from typhoid fever. His motions are known to have been copious and frequent. A third case to which we may refer is that of Worthing (No. 198 *a*), just mentioned in relation to its fissure. There was an adit that had been receiving the surface water and the contents of leaky sewers, and had not the Town Council driven the extra adit of 1893 in the very direction in which the well of 1885 had been dug with unsatisfactory results, the town would no doubt have been spared the loss of many lives and the expenditure of £10,000 towards the extinction of the typhoid epidemic of 1,400 cases. These instances suffice to direct attention to the importance of looking to it that adits are not driven indiscriminately and without having regard to the conformation of the ground above them. In future it is to be hoped that when any sudden rush of water is experienced in the course of driving an adit the source of the incoming water will be traced with exactitude, and that in every instance the geological circumstances of the locality will be minutely studied beforehand. In any case it is sincerely to be hoped that adits will never be made in the vicinity of any system of sewers. The case of Worthing illustrates the extreme danger of well water derived from a district on which are situate any aggregation of houses. Especially will this danger arise where the geological conditions are such that fissures are liable or likely to occur; as for instance on the Chalk formation.

[*To be continued.*]

THE PROGRESS OF BIOLOGY.

Professor E. Ray Lankester concluded on June 4th a series of four interesting and important lectures at the Royal Institution on Thirty Years' Progress in Biological Science. In the previous lecture he dealt with the foundation and development of bacteriology, and in this one he took up the subject of bacteria as a cause of putrefaction and disease. He said that much had lately been said about bacteria as the cause of diseases. That bacteria were so had been definitely ascertained in certain cases. Other diseases were suspected but not proved to be due to bacteria, though an influenza bacillus was described it had not been proved to cause influenza. Among the diseases proved to be caused by bacteria was anthrax. Another disorder which had been known to be bacterial for a long time was relapsing fever. Another was phthisis. Leprosy was caused by a bacterium of a very similar sort. Glanders, which was common in the horse, and could pass from the horse to man, was also due to bacteria. Asiatic cholera had been shown by Dr. Koch, of Berlin, to be due to a spirillum which, as it broke up into segments of a comma shape, had received the name of the comma bacillus. It could be made to produce the disease by subcutaneous injection into the abdomen. The bacteria of typhoid fever could be made to produce the disease similarly. The tetanus bacillus was found in earth, and furnished the arrow poison with which the South Sea Islanders poisoned their weapons. The arrow heads were dipped in mud from the holes frequented by land crabs. There was also the diphtheria bacillus, and that of erysipelas, altogether the list was a formidable one.

Many ways of resisting the attacks of these bacteria had been attempted. One way had been by studying the modes of life of these bodies. By the knowledge they thus acquired they were able to arrive at a conclusion as to the best means of destroying them both outside and inside the human body. One mode of attacking them was to destroy them in the articles in use for food by human beings. Water was a great source of the introduction of bacteria into the human body, but, so far as known, there were not many kinds carried by water; but the typhoid bacteria and the cholera spirillum were two. The lecturer gave some interesting facts about these. The typhoid and cholera organisms would live in very pure water; even in distilled water the typhoid bacterium would live for three or four weeks and multiply, although there was no food for it in the water. The bacillus itself carried a certain amount of food stored in granules within it. A very curious thing was that the ordinary non-poisonous bacteria which live in natural water, and never enter the human body, were very active and vigorous organisms, and very hostile to the typhoid bacteria. If they introduced the bacterium of typhoid into ordinary river water, it was destroyed very quickly, whereas it would live in distilled water. It had been proved by experiment that the ordinary putrefactive bacteria produced a poison which killed the typhoid bacillus. Were it not so, there was no doubt that typhoid and other attacks on the animal body would be far more frequent and serious than they are.

If the poison due to the past presence in water of ordinary

bacteria were fatal to the typhoid bacilli, they might strain river water so as to rid it of the actual bacteria, but the poison they had left in the water would be fatal to typhoid bacilli. That was a fact of very great practical importance, and left them a good deal of hope in dealing with typhoid bacteria. It seemed to show that such water as river water was healthier than that taken from a pure spring or lake—water in which the typhoid bacteria could flourish. Thames water, for instance, was full of organisms which destroyed the typhoid bacillus. That also had to do with the question of filtering. The great filter beds by which the large water companies filtered their water did not act merely as mechanical filters, as was supposed, by reason of the minute spaces between the particles of sand. At such places as the beds at Hampton the bacteria are arrested in the sand, and grow so as to form a jelly, which, spreading in the sand, caused the efficiency of the filter to be immensely increased. The water had not only to go through the sand, but through the jelly, so could carry no solid particles with it. Not only that, but the poisonous germs of typhoid were very rapidly killed by these arrested bacteria. Many of the other bacteria were very destructive of organic matters, producing oxidation, so that the filter bed of a properly-conducted water company was not merely a filter, but a destroyer of bacteria. It was not so with the domestic filter. In nearly every one he had examined it was a means, not of stopping, but of communicating them to water. A domestic filter in use for a week became loaded with bacteria, and he had found that when pure water, absolutely free from bacteria, was passed through such a filter as many as 200,000 to the cubic centimetre could be found in that water after it had passed through the filter. Every domestic filter, which consisted of the same filtering material, being used over and over again, should be boiled and sterilised every twenty-four hours. Those who had not done so, but had taken the trouble to filter their water during the last few years, had been adding at least a hundredfold to the bacteria in the water. Typhoid germs, however, would not, as a rule, get through, because the ordinary bacteria would kill them.

There were cases in which one bacterium was the forerunner of another bacterium—a mutual assistance being rendered. He instanced the tetanus bacillus, which in a pure state was harmless, but when it was introduced in company with putrefactive bacteria, tetanus was set up. That fact had lately led Metchnikoff to investigate whether the cholera organism did not require that there should have been some other bacterium present previously, to give, in the familiar phrase, a predisposition to the disease, and as it were manure the soil for it. The cholera spirillum was found in water near large towns, but did not produce cholera. It had been found possible to cultivate it and swallow it in teaspoonfuls, as had been done by several bacteriologists, without harm resulting. But if the alimentary canal was out of order, cholera might result. It had been found that certain other kinds of bacteria common to overripe fruit and poor food would produce the result. Such a predisposing bacterium was that known as sarcina ventriculi, and these had been tried on guinea-pigs and even on human beings who had consented to the experiment.

There was, again, a resistance in the organism to the poison of the bacteria. There were different ways in which this was done which were not known twelve years ago, and he discussed Metchnikoff's discoveries of the action of the colourless corpuscles in the blood and tissues, which, when they find bacteria in the organism absorb and digest them. These phagocytes, or cells of naked protoplasm, acted both by intracellular digestion and by cavitary digestion in various forms of life. These amœboid cells had a certain directive action and were carried to whatever bacteria were present. They might, however, be overcome by bacteria of great virulence but could be strengthened to overcome the attacks by being gradually accustomed to the poison of the bacteria. What had been further demonstrated was that the cells produced a chemical substance which was capable of neutralising the action of some of the substances produced by the bacteria. He instanced the case of snake bites and the antitoxic treatment of diphtheria.

He especially described the discoveries of Dr. Calmette made in Roux's laboratory at the Institut Pasteur and published in May, 1894, and April, 1895. Calmette had found that by using gradually increasing doses a rabbit may in time be made to tolerate a dose of cobra poison large enough to kill five big dogs. The important fact beyond and above this is that the rabbit is enabled to tolerate the snake poison in virtue of the production by its tissues (? phagocytes) of a substance which counteracts the snake poison. This antitoxin accumulates in the blood and can be removed with the blood and made use of as an antidote to snake bite. If the serum of such antitoxinised blood is mixed with snake poison in a glass tube, the mixture is innocuous when injected into an unprepared animal. But if the mixture be heated to 68° C. the antitoxin is destroyed and the snake poison remains active and deadly in its effect. This proves that the antitoxic serum does not destroy the snake poison, but acts physiologically on the animal into which it is injected as an antagonist of the snake poison.

He concluded with a brief reference to the discoveries which had been made in the action of the thyroid gland, and pointed out that in that direction would probably be many curative discoveries of the future.

LITERARY NOTES.

We have received the first part of the *Zeitschrift für Sociale Medicin*, which is described on its title page as an "organ for the representation and furtherance of the collective interests of the medical profession." It is edited by Dr. A. Ollendorff, of Berlin, and will deal with such subjects as medical education, hospitals, the social position and rights of medical practitioners, etc. The number before us contains, among other interesting articles, one on Physician and Patient by Professor Koenig, of Goettingen; and another, The Position of Doctors in the United States, by Professor George H. Rohé, of Baltimore, together with a large amount of miscellaneous news and correspondence.

Dr. Hameau, of Arcachon, has reprinted a small work entitled *Etude sur les Virus* (Paris: Masson), written by his father, the late Dr. Jean Hameau, of La Teste, and published in the *Revue Médicale* during 1847. The book is introduced to the medical world by a preface from the pen of Professor Grancher, who points out that Dr. Hameau, senior, who was simply a country doctor, had anticipated the essence of modern teaching as to the etiology of infectious diseases. According to M. Grancher, he maintains the doctrine of living and transmissible germs, of varieties of virus reproducing themselves by incubation in a suitable soil, and thus acquiring powers to engender in men and in animals diseases of which they are the etiological factors. Speaking of the nature of these viruses, Hameau compares human diseases to epidemics which he had observed in plants attacked by parasites. He had convinced himself that there was the closest likeness between viruses and parasites which infest living bodies, and he came to the conclusion that virulent matters must have a principle of life, since they act just like parasitic insects.

In the *Progrès Médical* of June 1st, Dr. F. Poncet gives an account (with illustrations) of a statuette recently found at Susa, the ancient Hadrumetum, a seaport of Tunis, which, in the opinion of experts like MM. Maspero, Henzey, and Saglio, represents the god Bes, a deity of the second order in the Egyptian mythology. It was found in the course of some excavations in a cemetery near the Phœnician acropolis and enclosure. Its date is believed to be about 900 B.C., in the time of the Phœnicians. The special interest of the figure for medical men is that the god is represented as wearing an apparatus, which there can be little doubt is a double inguinal truss consisting of two belts, with a broad band of some thinner and apparently softer material between them. The upper belt is fitted with a metal pad of oval shape accurately closing the external ring, and ending at its lower part in a fine stem, which is directed upwards to the pubes, where it meets its fellow from the other side, the two being fastened to the upper belt by a bow knot. The figure shows besides two well-marked femoral and two large scrotal ruptures, the penis being buried in the mass, and being represented only by a tiny urinary meatus. M. Poncet thinks the truss not only well constructed mechanically, but surgically more satisfactory in several respects than any made at the present day.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 15TH, 1895.

THE REVISION OF THE *BRITISH PHARMACOPŒIA*.

A SATISFACTORY advance has been made by the General Medical Council in the arrangements for the revision of the *Pharmacopœia*. It will be seen from the report which we publish to-day that it has been decided to invite Mr. Thiselton Dyer and Mr. Holmes to act as referees in botany, whilst Dr. Thorpe has been requested to accept the office of referee in chemistry. It has also been determined to invite Dr. Lauder Brunton, Professor Fraser, and Professor Walter Smith to act as referees in pharmacology and therapeutics. No men could be found more capable of giving the Pharmacopœia Committee valuable aid in the work of revision, and their selection will meet with general approbation.

The appointment of Dr. Tirard to act as Secretary of the Pharmacopœia Committee, which we announced last week, seems in every respect advantageous, and will remove to a considerable extent one of the objections raised at a previous meeting of the General Medical Council to the arrangements then proposed for the production of a new edition of the *Pharmacopœia*.

The Pharmacopœia Committee will have to digest before meeting in July a large amount of information which has been put at their disposal by the medical authorities and other bodies, and we believe that the series of articles which have been published during the last few months in the BRITISH MEDICAL JOURNAL will be found of great value as an indication of the direction in which the necessary changes may be most advantageously carried out.

The extent to which deletions of drugs and preparations are called for will perhaps be one of the most difficult points the Committee will have to settle. There is, as might be expected, a considerable difference of opinion amongst medical men as to the drugs which should be selected for dismissal. Dr. Whitla, for example, very ably contends for the exclusion of whole classes of substances, cataplasmata, vapores, enemata, etc., as well as for the omission of a large number of individual preparations. Dr. Yeo, on the other hand, would retain certain members of all these classes, though he is in accord with Dr. Whitla with regard to the exclusion of many individual substances.

The decision of the Committee as to the omissions will no doubt be founded on several considerations, one of the most important being the frequency with which drugs and preparations are used. The valuable Memorandum drawn up by the Therapeutic Committee, and published in the BRITISH MEDICAL JOURNAL of June 8th, will furnish the Pharmacopœia Committee with reliable information as to the comparative frequency with which a considerable number of the least used drugs in the *Pharmacopœia* are employed by practitioners. From the statistics there given it appears that out of the 135 drugs concerning which inquiries were made, 49 were often employed by under 100 practitioners, whilst above 5,500 never used them. The propriety of retaining substances used regularly by less than 2 per cent. of the medical profession may well be doubted; indeed, the employment of drugs by even a much larger percentage can hardly be regarded by itself as a sufficient reason for their retention. Pharmacological action and therapeutic utility should be taken into account in deciding on the omissions which are called for.

As pointed out in the Memorandum "the omission of a drug from the *Pharmacopœia* in no way prevents a practitioner from ordering and obtaining the drug for his patient." But whatever is found in the *Pharmacopœia* is understood by the profession to be recognised as useful by the highest authorities. Hence it behoves the General Medical Council to take care lest by retaining inert and valueless substances in the list of official remedies, they inflict grave evils both on the profession and on the public. The advice of the referees in pharmacology and therapeutics will doubtless be of great value to the Committee in this matter.

The selection of new remedies for admission will also require much care. Year by year the number of substances introduced as curative agents increases, and testimony to their utility is never wanting. Most of them are eventually found to be devoid of real value, but often a long time elapses before their uselessness is demonstrated. Professor Cash, in his paper on the "Criteria for the Admission of New Remedies," has well set forth the principles on which their selection should be grounded. Before a new remedy is made official, its pharmacological activity and therapeutic value require to be carefully verified; extensive usage alone should not suffice for its adoption.

Dr. Brunton, in the first article of the series, very clearly pointed out that much additional information of great value to the profession might be introduced into the *Pharmacopœia* without adding to its bulk, and many of the important suggestions he makes will doubtless find place in the new edition. The older methods of administering drugs have been to some extent superseded by others which are pleasanter, and if the new edition of the *Pharmacopœia* is to be largely used by the profession the changes which have occurred in the medical practice must receive due consideration.

The employment of active principles instead of galenical preparations, to which Dr. Stockman has called attention, will require, as he has pointed out, to be viewed from two sides. For accuracy of dosage and certainty of results active principles are better than galenical preparations. In some instances, however, it is the combined effect of several active substances in one drug on which we have to rely, and the introduction of all of them into the *Pharmacopœia* might not enable us to obtain the good effects which are derived from the drug itself. Still, the Pharmacopœia Committee may well take into consideration the desirability of making

official some active principles, as, for example, those of digitalis and of certain atropaceous plants which are now largely used.

The desirability of omitting details of the method of preparation of chemical drugs found in commerce to which Mr. Howard has called attention is now generally acknowledged, and there can be but little doubt that in the next edition such details will be entirely omitted or much curtailed. Room will thus be gained for many additions which are called for by the advance of botanical and chemical knowlege. Dr. Green, in his interesting paper on the botany of the *Pharmacopœia*, has drawn attention to the necessity not only of revising the botanical nomenclature, but of introducing details with regard to microscopic structure which are essential for the identification of drugs and the detection of impurities.

It is in connection with the tests of purity, however, that additions and alterations in the text of the *Pharmacopœia* will be most abundant. Dr. Dunstan has well shown how radically defective many of these tests are, and the omission of the methods of preparation will necessitate greater care and completeness than has been hitherto thought necessary.

The numerous errors connected with dosage contained in the *Pharmacopœia* have been pointed out by Dr. Whitla in a very forcible manner, and the necessity for a very complete revision of the dosage is insisted upon by many other writers. There seems to be a general consensus of opinion that the maximum of daily doses as well as the maximum of single doses should be given in the *Pharmacopœia*, at least in the case of powerful remedies.

The introduction of the metric system, which cannot now longer be delayed, will add to the duties devolving on the Pharmacopœia Committee. It will require an attention to detail which, as Mr. Kirkby clearly shows, has not been always given in former editions. It is manifest indeed that to bring the *Pharmacopœia* up to the required standard, not only will large alterations and additions be necessary, but also a revision of the most searching description, and the Pharmacopœia Committee have an arduous task before them.

The utility of the present edition of the *Pharmacopœia* is largely due to the aid which was afforded in its compilation by a Committee of the Pharmaceutical Society, and we are glad to see that, at the request of the Chairman of the General Medical Council, a committee of able and experienced pharmacists has been appointed by the Society, to aid in the production of the forthcoming edition. Professor Attfield, too, who is thoroughly versed in *Pharmacopœia* work has, in his capacity of Editor, been long occupied in making preliminary observations and inquiries bearing on the revision of the *Pharmacopœia*, and the Committee will have the advantage of the invaluable experience and wide knowledge of Sir Richard Quain to aid them.

The organisation for the production of the new edition is now on right lines, on those which, as Dr. Leech has indicated, have been in recent times followed by all other nations, and we doubt not the able staff concerned in the work will bring forth a *Pharmacopœia* second to none in accuracy and utility.

COMPULSORY REGISTRATION OF MIDWIVES.

II.

Since the article on this subject in the British Medical Journal of June 8th was written the General Medical Council has had the Bill now before Parliament under discussion; and we find that many of the suggestions which were made in the article for the amendment of the Bill have already been independently recommended by the Council. We invite our readers' attentive perusal of the report of the discussion on the provisions of the Bill by the General Medical Council, contained on page 1293 and subsequent pages of the Journal of June 8th. The very considerable difficulties which arise in connection with what there can be no doubt is a measure of great moment, not only in the interests of the public, but also in that of general medical practitioners, are well brought out. While on the one hand it may be desirable or even necessary to confer a recognised status on midwives, it is on the other hand essential that every person registered as such should be proved by education, training, and knowledge to be competent to undertake the duties which she is to be legally entitled to perform.

At the same time complete safeguards should be provided to insure that the practice of a midwife is confined within its proper limits; in other words, that the practice by midwives should not be made the means of affording a cover for unqualified practice of medicine or surgery or midwifery in its wider signification.

In the exercise of her calling the midwife would have unusual facilities for prescribing medical treatment, and the difficulties of suppressing unqualified practice of this kind under the existing law might be largely increased.

With these preliminary observations we should like to proceed to consider in detail some of the amendments suggested in the Bill by the General Medical Council. It will be observed on referring to the report of the meeting that the Council recommends that the title of the Bill be amended, and that it should be called "A Bill to Promote the Better Training of Women as Midwives and Midwifery Nurses, and for the compulsory registration of them as such"; and that in the definitions the term "midwife" should be defined to mean "a woman who undertakes to attend cases of natural labour," the words previously included in the definition "without the direct supervision of a medical practitioner" being struck out. The suggested amendment of the title, coupled with the proposed general amendments of the Bill, will obviously be more in accordance with the scheme proposed to be enacted. The description "midwifery nurse" remains without any definition, and we are therefore uncertain whether it is the intention of the Council that any legal status should be conferred upon a midwifery nurse, or whether the words are merely introduced into the title to limit theoretically the intended operation of the Bill.

The next proposed amendment of substance is that in Clause 4, where the restrictions on the privileges of registration are set forth and (among other things) defined as not conferring the right to assume any "name, title, or designation implying that she is by law recognised as a practitioner of medicine, surgery, or midwifery entitled to be registered under the Medical Acts, or that she is legally qualified by the Medical Acts to grant any medical certificate or any certificate of the cause of death." This last probably refers to Clause xxxvii of the Act of 1858, but the words "or other-

wise" might be properly inserted after the words "qualified by the Medical Acts." It will be noticed that the restriction formerly negatived the power to give a certificate of still-birth.

The succeeding amendment relates to the provision in favour of existing midwives. This clause has been amended by the Council so as to read as follows: "Any woman who at the passing of this Act is in *bonâ-fide* practice as a midwife, or has obtained a certificate in midwifery approved by the Midwives Board, and claims to be registered before the expiration of two years from the passing of this Act, and produces the prescribed evidence of her title to be so registered (such title to be determined by the General Medical Council) shall be entered on the midwives register at such reduced fee as the Midwives Board shall prescribe." If this clause be enacted in its amended form there will, it appears, be no obligation on the part of the Midwives Board to recognise or confirm the certificates hitherto granted by any particular hospital, college, or body. It would also be desirable in this direction to confer on the Midwives Board an express power to exclude from the operation of the provision, or require to be examined, any person who, although at the passing of the Act may be exercising the calling of a midwife, is not competent by knowledge and experience to perform the duties of a midwife within the meaning of the Bill, or not of good character, and we observe that the Council express themselves very forcibly on this point.

We propose to consider the further amendments suggested by the Council in an early number.

THE PRODUCTION OF IMMUNITY AGAINST SNAKE POISON.

THE important communication presented by Professor Fraser to the Royal Society of Edinburgh on June 3rd encourages us to hope that an efficient means of protection against the poison of snakes will shortly be discovered. The matter is of the greatest practical importance to a nation which has made itself responsible for the welfare of a country in which 20,000 human beings lose their lives every year by the bites of venomous serpents. We trust, therefore, that the Government will give him the facilities and the material which he requires to complete his researches. Professor Fraser's experiments are also of the highest scientific interest as affording strong confirmatory evidence of the curative value of the antitoxins derived from animals immunised against the toxins of diseases produced by organisms that have found their way into the body. It would be premature to discuss Professor Fraser's results at present; we therefore refer readers to his paper, a full abstract of which is published at p. 1309.

It may be interesting to compare his methods and results with those of Dr. Calmette, the well-known head of the bacteriological station at Saigon, Cochin China, who has been working much on the same lines. We therefore subjoin a summary of a paper by him on this subject, which was published in the *Annales de l'Institut Pasteur* for April, 1895. He used in his experiments the fresh venom of a variety of *Naja tripudians* (cobra di capello), peculiar to Cochin China; *Crotalus durissus*, of America (rattlesnake); *Bothrops lanceolatus*, of Martinique (fer-de-lance); *Naja haje* (the asp of Cleopatra); *Cerastes*, of Egypt; and the dried venom of the *Pseudechis porphyriacus*, of Australia (blacksnake); *Hoplocephalus curtus* (tiger snake); *Hoplocephalus variegatus* (broad-headed snake), *Acanthophis antarctica* (death adder), and *Trimeresurus viridis* (trigonocephalus), of Cochin China.

Calmette describes how, by repeated vaccination, he is able to render animals immune to poisonous doses of venom. He shows that the poison of the various snakes as well as scorpions acts always in the same manner, and differs merely in intensity. To render the serum of rabbits not merely preventive, but even curative, of the bite of a snake, it is necessary to inoculate these animals every two or three days (during at least four or five weeks), commencing with about the twentieth to a tenth part of a mortal dose, at the same time watching their weight, and, as soon as any sign of loss of weight appears, suspending the inoculation for a short time. By this method it is possible to immunise rabbits against a quantity of poison, even to a dose that is capable of killing eighty rabbits or five dogs. Five drops of such serum perfectly neutralises the toxicity of one milligramme of venom *in vitro*. This immunised serum can be used therapeutically, for if one inoculates an animal with the venom, and in less than a few hours inoculates the antitoxic serum, as a rule the animal recovers.

It appears that in a vaccinated animal the injection of the poison is accompanied by a marked hyperleucocytosis, while in those animals which are not vaccinated the same poison causes hypoleucocytosis.

Calmette further shows that snake poison is rendered inoffensive by mixing it with a weak solution of hypochloride of lime or gold chloride. He proposes, therefore, in cases of snake bites immediately to wash the wound with a solution of hypochloride, to apply a ligature round the limb so as to hinder the circulation for a short time, and to inject in eight or ten places round the wound hypochloride in 1 c.cm. doses. One can also, after removing the ligature, by means of a little massage cause the diffusion of the inoculated fluid. If one has any antivenomous serum 20 to 30 c.cm. should be inoculated into the subcutaneous tissues of the abdomen. He also investigated the immunity supposed to be possessed by the ichneumon, pig, etc. As regards serum he could find no marked effect; while the serum of the ichneumon is slightly antitoxic *in vitro*, its preventive power is insufficient to be a certain factor. The animals themselves are able to withstand a very large dose of the poison, and their power of killing snakes is due partly to their remarkable agility, and partly to their partial natural immunity. He investigated the action of the serum of various other animals, as the horse, calf, ox, rabbit, guinea-pig, pig, and dog, and found them all inactive except in two out of five cases of dogs; and he considers that these two dogs have probably suffered previously from some disease which rendered the serum antitoxic. He further shows that the normal serum of man is sometimes antitoxic against that of diphtheria, and that many of the serums of immunised animals are rendered immune against other toxins than those for which they have been immunised. Thus a rabbit vaccinated against snake venom is rendered resistant against poisoning by abrine, and those vaccinated against abrine may acquire a certain degree of immunity against snake poisoning, diphtheria, ricine, and

even against anthrax. It is thus that animals vaccinated against erysipelas or rabies have a serum so active against snake poison that it may in certain cases become even preventative.

All these experiments show that the serum of animals immunised against a certain poison or virus may be capable of causing an immunity against another poison or virus; they further show that the degree of resistance of an animal is not always correlative to the antitoxic power of its serum against a virus or poison for which it was immunised. He states that the question whether we are close upon the day when we may conclude that an antitoxic serum has no real specific action, and when we may hope to discover an ideal serum which will be active against all microbial poisons, although a most seductive hypothesis, does not seem admissible. We know of no serum which is capable of neutralising with equal energy various toxins; for example, the antivenomous serum is much more active in snake poison than any other antitoxic serum, and we see that the same holds good with antitoxins of diphtheria, tetanus, etc.

Sir William Mac Cormac was at the meeting of the Société Belge de Chirurgie, held on April 27th, elected an honorary member of that body, in virtue of the service he has rendered to surgical science.

We have received an advance copy of the volume of the Minutes of the General Medical Council and of its Committees and Branch Councils from January 1st to June 8th, 1895, which has been prepared with commendable promptitude by the Registrar, Mr. W. J. C. Miller, B.A. The volume, which is numbered XXXII, will shortly be published for the Council by Messrs. Spottiswoode.

We are informed that the Court of Assistants of the Grocers' Company on June 5th re-elected Mr. Leonard Hill to one of their research scholarships, and elected Dr. John Haldane and Professor Waymouth Reid to succeed Dr. Vaughan Harley and Dr. Ernest Starling, who had each held their scholarship three years. These scholarships are of the annual value of £250.

SURGEON-CAPTAIN WHITCHURCH.

By an unfortunate mischance our intended tribute to the gallantry of Surgeon-Captain Whitchurch, the rescuer of Captain Baird, in an editorial article on "Death the Enemy," in the British Medical Journal of June 1st, was diverted by the insertion of the name of a no less distinguished man—Surgeon-Major Robertson, Her Majesty's agent, in place of his own. The brilliant exploits of both these gallant public servants will long be remembered in the brave story of the Chitral Expedition.

TEMPERANCE AND PURE BEER.

"Why is the publichouse an evil? Because the liquor retailed therein is bad, because the 'four arf' is a chemical compound as often as not, and the stout receives the rinsings of glasses and other vicious adulterants. Compel the publican to sell pure and light beer and the temperance problem is solved." So says the *Pall Mall Gazette*. But will it be good enough to produce its facts. We unhesitatingly and wholly deny the statement. It has been made by the Bishop of Chester, who made no attempt to support it when challenged; by the Bishop of London, who promised to furnish an authority when he had time, but that is a year ago, and he has not yet had time. Now it is repeated as though an accepted fact by that very able journal the *Pall Mall Gazette*. It is a pure fabrication of the drinking party. We repeat that people get drunk because they drink, and not by reason of the badness or the adulteration of their drink. There is little or no adulteration of spirits or beer. None, anyhow, which can be considered harmful or which produces intoxication. They are now and again watered, but it is not the water which intoxicates. We repeat, will the *Pall Mall* furnish its evidence?

COVENTRY PUBLIC MEDICAL SERVICE.

The report presented to the second annual meeting of the Committee of Management of this institution stated that the membership had been raised during the year, by an accession of 1,904 members, to a total of about 5,000. The medical staff consists of ten gentlemen in practice in Coventry, and prescriptions are made up by chemists carrying on business in the town. The report stated further that a certificated midwife had been appointed. Patients are at liberty to choose their own medical adviser and to select a chemist from the list published. There is a wage limit of £2, and an entrance fee for immediate benefit of 10s. 6d. No canvassing is permitted. At the conclusion of the meeting the following officers were elected for the ensuing year:—*Chairman:* Dr. Iliffe. *Treasurer:* Dr. Haig. *Honorary Secretary:* Dr. Soden.

THE NEW INEBRIATES BILL.

The Bill introduced into the House of Lords by the Lord Chancellor on behalf of the Government concedes the leading proposals which the British Medical Association has urged for nearly thirty years for the treatment of habitual drunkenness. Power is given to the High Court and to county courts to commit to a licensed retreat an habitual drunkard for from six months to two years on application of a relative or friend supported by evidence on oath. Power is given to county councils to establish and maintain retreats. The expression "habitual drunkard" is extended to include any person who is rendered dangerous to himself or others, or incapable of managing himself or his affairs, through habitual use of opium or any other drug. Thus the Association's demand for compulsion, provision for the poor, and for every form of habitual drunkenness, has been endorsed by the Government. Voluntary applicants are to be at liberty to appear before one justice instead of two as at present.

GRIMSBY CHILDREN.

The Local Government Board have written to the Grimsby Board of Guardians on their treatment of the pauper children under their care. The letter is characterised by the official mildness peculiar to that department; and, as usual, the delinquent officers are left unpunished. Two boys—Lowe and Carpenter—having been castigated so that they were "found to be severely bruised on the back and other parts of the body," absconded. On being brought back by the police they were placed in separate vagrant cells by the porter, who did not inform the master of the fact. When it is added that the cells were unwarmed, and that the incident took place in the bitter weather of February last, we confess that we should have liked that official to have been awarded something more personally important to himself than the information that the Local Government Board considered him "guilty of most reprehensible conduct." It is this laxity which allows the spirit of cruelty to permeate an institution until a Nurse Gillespie is discovered, and then everyone is shocked and horrified. We note, and we regret to have to note, that, as at Hackney, the medical officer had made his examination of the lads so cursorily and rarely that he had not discovered the bruises on their bodies; bruises caused, we understand, partly by the severe caning of the lad Carpenter by the master, but principally by the cruel treatment he had received from some of the bigger boys. So long as the Local Government Board are content with writing a mild reproof on the discovery of such a

scandal, so long will the Poor-law institutions be carelessly, if not criminally, managed. Human brutes who can ill-use helpless and dependent children are worthy of punishment, and that they be punished is what the public conscience and public voice should demand. It evidently does not fall within the jurisdiction of the Local Government Board to take action to insure punishment. It might, therefore, reasonably be considered by the National Society for the Prevention of Cruelty to Children whether they should not make a special appeal and public effort to protect the children under the care of the State from cruel ill-usage and barbarous treatment.

PAYMENT FOR POLICE CALLS.

A MEDICAL man residing at Southborough, Tunbridge Wells, sends his experience as follows. On Easter Monday he went with a medical friend to Eridge races, and while there several cases calling for professional attendance occurred, which were attended to by his friend gratuitously. His friend was next requested by the police to go to Eridge railway station to see a man lying dangerously ill, if not dead, but stated that if he did so he should expect a fee. At his friend's request our correspondent accompanied the police to the station, where in the waiting room he found the dead body of a young man who had fallen down the staircase. Having examined the body, our correspondent was told that the coroner would be communicated with, but from that day to this he has heard nothing from that official, nor has he been able to get any fee from the police. It is certainly wrong that this sort of thing should be allowed to go on, and we hope that the continual exposure of such cases in our columns will in the end lead to amendment.

THE WORKHOUSES OF IRELAND.

THE condition of the unfortunate poor in the Irish workhouses is attracting the attention of the medical profession. In a letter dated from the Royal College of Surgeons and bearing the honoured signatures of Sir Philip Smyly and Mr. William J. Hepburn, public sympathy is enlisted in the work of reform of the conditions of the workhouse system in Ireland. A circular has been addressed to the medical officers of these institutions asking for definite information as to the condition and wants of the inmates; seventy-nine answers have been received, and from them we gather that nursing is insufficient and inefficient, that sanitary arrangements are very bad, that such ordinary necessaries as plates and knives and forks are conspicuous by their absence, and that the wards are destitute of comforts. We are sure that in the hands of such influential members of our profession the matter will not be allowed to sleep and that the attention of the public having been drawn to the necessity of urgent and immediate reform, steps to ameliorate the condition of these hapless inmates will soon be taken. It is becoming increasingly evident that the workhouse is the only refuge left to many of the respectable poor; the social conditions are against the average working man, as the state of the labour market precludes him earning such wages as will enable him to make provision for his old age; thus he has no resource but to come on the rates when past work. Under these circumstances the old traditions that regarded poverty and idleness as synonymous terms must give way to a more enlightened and considerate treatment of the victims of our present civilisation.

A HOSPITAL IN THE HOME.

A SUBJECT to which we referred some time ago has again been touched upon, apparently independently, by Dr. Samuel Potter, who, speaking at the annual Sanitary Convention of the State of California, drew attention to the great advantages which would accrue were every house provided with a room, or a suite of rooms, especially arranged for the treatment of the sick. The programme he laid down was an ambitious one, and aimed at the construction of a true home hospital, or sanatorium as it is now commonly called when built in connection with schools and suchlike institutions. Evidently he had in his mind the dwellings of the very rich, who, as they can afford it, would certainly be well advised to supply such sanitary adjuncts to their mansions. He pointed out, however—and in this he was strongly supported in the discussion which followed—that while in the houses of the wealthy such an addition was a luxury, it became almost a necessity in the case of boarding houses and hotels. America seems to be a land of boarding houses, "rooming" houses, and hotels, and "when sickness comes on in one of those places the effort on the part of the proprietor is to get that case out of the house just as quickly as he can," often, it is to be feared, greatly to the patient's detriment. There can be no doubt of the great advantage which the dwellers in a hotel or large boarding house would derive from the possession of such a sanatorium, and we must look forward to the time when hotel proprietors will be as ostentatious in showing the perfection of their home hospital as they now are in displaying the brass work of their fire-extinguishing appliances. In London and most large towns the question of rent intrudes itself so much into every problem that we hardly expect to see rooms set absolutely aside for purposes of sickness in middle-class houses; but in almost every house of moderate dimensions it ought to be possible at least to arrange one room so that it might be reasonably suitable for a sick room in case of need. It should be free from pictures and woollen hangings: the floor should either be of waxed hard wood, or be painted or varnished; the walls should be either distempered or covered with a cheap washing paper; its furniture should be so light as to be capable of being carried out at a moment's notice; and if possible it should be near a w.c., which could for a time be appropriated to it. By a little forethought most householders could make some such provision for illness, which on the doctrine of chances is almost sure to come, and so save themselves much trouble, discomfort, and even danger when the time arrives. In all new houses architects should certainly make arrangements for a sick room.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THERE are nine candidates for the five vacancies on the Council. Mr. Willett will, as already announced, offer himself for re-election. The order of the remaining eight is as follows: Dr. J. Ward Cousins, Fellow 1860, Member 1856; Mr. A. Trehern Norton, F. 1867, M. 1862; Mr. W. F. Anderson, F. 1869, M. 1867; Mr. Alfred Cooper, F. (June) 1870, M. 1861; Mr. Davies Colley, F. (June) 1870, M. 1868; Mr. H. T. Butlin, F. (June) 1870, M. 1867; Mr. Herbert W. Page, F. 1871, M. 1869; and Mr. Frederick Treves, F. 1878, M. 1875. The claims of the President of the Council of the British Medical Association (Dr. Ward Cousins) are too well known to need to be insisted on; the Treasurer (Mr. Butlin) has reconsidered his decision, and, on the representation of numerous friends, has decided to become a candidate. Two, if not more, of his colleagues at St. Bartholomew's Hospital have retired in his favour. Mr. Norton is a consistent advocate of reform, and has the support of the Association of Fellows—his medical school is unrepresented on the Council; and Mr. Anderson—well-known outside the profession as Professor of Anatomy to the Royal Academy of Arts—belongs to St. Thomas's Hospital, a great institution with only one representative at present on the Council. Mr. Alfred Cooper, also well known to the public, is a distinguished specialist, Mr. Davies-Colley and Mr. Page are eminent hospital surgeons, the first representing one of the largest schools, whilst Mr. Page, like Mr. Norton, belongs to a hospital which has no member of its staff at present on the Council of the College. The contest bids fair to be very interesting. The questions at present under consideration are well known. The rule about substitute

members displeases many Fellows of the College. No doubt it is rather hard that by mere chance one successful candidate can only hold his seat for two or three years, whilst another, who has not been put to greater inconvenience during his candidature, sits for the full term of eight years. Two winners of seats will, at the next election, find themselves in this predicament. The Association of Fellows view the present regulation as an evil. On the other hand it must not be forgotten that the first thing to consider is the good of the College and its Fellows, and the second thing the convenient working of the Council as a Committee charged with important and complicated duties, whilst the individual members of that Council must subordinate their convenience to the common good.

THE EVOLUTION OF THE MEDICAL PROFESSION.

A correspondent writes: In a leading article which appeared in the British Medical Journal of June 8th, headed "Mr. Herbert Spencer on the Evolution of the Medical Profession," the subject of the "curative effect of prayer" for the sick is referred to. In connection therewith the following words were employed: "Sir Henry Thompson, if we remember aright, offered to try the experiment in his wards." This is not the case. On referring to Sir Henry Thompson's very carefully written article in the *Contemporary Review* of July, 1872, he is very far from making such an offer. He points out the practical difficulties in the way, but intimates reverently that by common consent a *bonâ-fide* inquiry ought to test the value of prayer for the sick, and that it was a duty on the part of believers in its value, no less than on that of the open-minded inquirer, to seek a solution.

THE ABUSE OF CLUBS.

The Portsmouth Medical Union, to the promotion of which we referred briefly a short time ago, was formally constituted and the rules adopted at a meeting of the medical profession in Portsmouth on June 6th. The objects of the Union are stated to be generally to encourage cordial relations among the medical men in the district, to obtain combined action upon points of difficulty, and to give opportunities for discussion on the business side of medical practice. With regard to friendly societies, the object in view is to obtain the united action of members to enforce a wage limit and with regard to the admission of females to the societies; to enforce medical examination of new members and an examining fee; to raise the rate of subscription for juveniles; to alter the tenure of office to a suggested three months' notice on either side; and to enforce payment for certificates for other than club purposes. Dr. F. Lord was elected President, and Dr. Frederick Pearse, Honorary Secretary. The present address of the Union is 5, Pembroke Road, Portsmouth. Every registered medical practitioner is eligible for membership, and it is proposed to establish, maintain, and circulate among members of the union, "a patients' black list."

ALCOHOL IN WORKHOUSES.

We publish in another column a short note from Dr. Dolan on this subject. He argues that the workhouses and their infirmaries treat a large amount of sickness of the same type as is usually treated in general hospitals, and that if alcohol is permissible in the latter case so it is in the former. While ready to admit the virtue of this, we would point out that it does not lessen the force of our advice that it should be prescribed with a due sense of responsibility and in defined doses. This surely applies to hospitals also. Taking the very case mentioned by Dr. Dolan, we find that in 1893 the average number of beds occupied in the Halifax Infirmary was 91, and the amount spent on alcohol for patients was £27 12s., which works out to 6s. for each occupied bed yearly. Now, taking the mean number of inmates of workhouses not able-bodied in 1893 as 94,066, not including children or insane, but of course including the aged, the sick, and the infirm (a rough estimate obtained by taking the mean of numbers in the workhouse on July 1st, 1893, and January 1st, 1894), and dividing among them the £32,911 spent in alcohol in workhouses in 1893, we arrive at a sum of 7s. 2d. per head. It seems clear, then, that either alcohol is being given to the able-bodied in workhouses, which we have no hesitation in saying is wrong, or the not able-bodied, including a large number of aged who are in good health, are taking alcohol in larger proportion than is being prescribed in a general hospital which is so actively occupied in the treatment of serious cases that it keeps an average of 91 beds full out of the 100 beds that it possesses. We feel, then, that we are fully justified in urging upon medical officers of workhouses that they should "prescribe intoxicant beverages with a deep sense of the responsibility of such a prescription."

THE AMERICAN MEDICAL ASSOCIATION.

The forty-sixth annual meeting of the American Medical Association was held at Baltimore on May 7th and three following days, under the presidency of Dr. Donald Maclean, of Detroit. The President delivered an inaugural address on A Few Living Issues Affecting the History of Medicine and what Became of Them. Referring to the introduction of chloroform by Sir James Simpson, he took occasion to pay a graceful compliment to Queen Victoria, who had had the courage to submit herself to the action of a new and almost untried remedy in the face of strong opposition and even religious prejudice, and had thus contributed most powerfully to the solution of an important question. What reason and argument and strong contention wellnigh failed to accomplish, the brave action of a confiding and gentle woman made easy and certain. The President went on to speak of the influence on medical thought of Darwin's work and Weismann's theory of heredity. The development of the healing art under the influence of the discoveries of Pasteur, Tyndall, and Lister was briefly sketched, and expression was given to the hope that in all the so-called zymotic diseases it may eventually be possible to produce immunity. A number of interesting communications were presented in the various Sections; abstracts of the more important of these will appear in due course in the Epitome. The report of the trustees stated that the receipts from all sources during the past eleven months had been 36,245 08 dollars, while the expenditure had amounted to 30,884.82 dollars, leaving a balance in hand of 5,361 08 dollars (about £1,072). The receipts of the *Journal of the American Medical Association* had been: From advertisements, 12,545.91 dollars (about £2,509); from subscriptions, 1,569.75 dollars (about £316); from reprints, 1,674.67 dollars (about £336); from cash sales, 203 21 dollars (about £40); from insurance on account of fire, 579 dollars, making a total of 16,572.54 dollars (about £3,315). The expenditure amounted to 29,344.97 dollars, so that the cost of the *Journal* to the Association was 12,772.43 dollars (about £2,554); of this amount, 6,291.24 dollars was expended for new machinery. The *Journal of the American Medical Association* now possesses a plant worth 10,000 dollars (£2,000).

THE ALDERSHOT SEWAGE FARM.

Mr. Morton renewed his questions to the Secretary of State for War regarding sickness caused by the sewage marsh, and Mr. Campbell-Bannerman cannot be congratulated on his replies. It is absolutely necessary that the Secretary of State for War should be called on to state what was the exact condition discovered when the officers' quarters, Marlborough Lines (where two cases of enteric fever occurred) were completely vacated and overhauled. We have reason to believe that the gravest sanitary defects were revealed on dismantling the drains, etc. The water supply was poisoned beyond doubt by sewage; but further than this defects of drainage and escape of sewer air were superadded. The condition of

the water closets was most unsatisfactory. If the Secretary of State for War feels himself in a strong position on these points, he should not object to give publicity to "the truth, the whole truth, and nothing but the truth" connected with the sanitation of Aldershot Barracks. It is now reported in the *Aldershot News* that the drainage question has reached an acute stage, as an ultimatum from the Thames Conservators has been referred to the Farnborough Parish Council, to the effect that, "if after the expiration of three months any contaminating matter was allowed to run into the river Blackwater from the sewage farm proceedings would be taken." A letter was also presented to the Council, stating that Mr. Groves, the analyst of the Thames Conservators, had reported on a sample of the effluent taken at the point of discharge into the river that it was "not satisfactory." The Thames Conservators are a powerful body, says the *Aldershot News*, and they appear to have made up their minds that Farnborough sewage farm pollutes the Blackwater. Consequently, they have delivered what may well be termed an ultimatum.

NURSING IN WORKHOUSE HOSPITALS.

An answer given by the President of the Local Government Board to a question put to him in the House of Commons recently by Mr. Talbot appears to have escaped the attention of the reporters of the daily newspapers. Mr. Talbot's question had reference to the deaths of two workhouse inmates, the one in the Weobley Union, subject to epilepsy, who fell into the fire; and the other in the Atherstone Union, the subject of softening of the brain, who had been drowned. Mr. Talbot inquired whether, in both these cases, the provision for nursing was not inadequate, and whether the Board would issue an order requiring a due supply of trained nurses for all workhouse infirmaries, and prohibiting the employment of pauper nurses. Mr. Shaw Lefevre, in reply, expressed doubt as to whether, in either of the two cases mentioned, death was due to an insufficient staff of nurses. As regards the general question, however, he added that the Local Government Board was fully impressed with the importance of securing efficient nursing in workhouses by an adequate staff, and had recently addressed a communication to all Boards of Guardians, bringing this matter specially under their attention. They at the same time stated that whilst they were not prepared to lay down as a rule that in no case should pauper inmates act as attendants in sick wards, as clearly distinguished from nurses, they considered that their services should be used only with the approval of the medical officer, and under the closest supervision at all times of paid officers.

ST. BARTHOLOMEW'S RECREATION GROUND.

The new recreation ground which has been obtained for the use of the united clubs connected with St. Bartholomew's Hospital was opened on June 8th, by Sir Trevor Lawrence, who, in his remarks, expressed the hope that it would not only conduce greatly to the health of the students, who, more than many other classes, required facilities for obtaining a proper amount of exercise and fresh air, but that the fellowship engendered by its common use would tend to bind them together in that corporate life which was so advantageous to bodies of young men engaged in similar studies. The ground is admirably situated near Winchmore Hill, half an hour's run from Farringdon Street Station; it covers a space of ten acres, has been carefully laid out for cricket, football, tennis, and similar games, and is provided with a capital pavilion, in which are to be found a club or refreshment room, a room for lockers, a drying room, ample lavatory accommodation with bath and showers, dressing rooms, etc. The opening was attended by many members of the hospital staff and a large number of ladies and visitors. There can be very little doubt that the possession of such an admirable ground will be found of great benefit not only to the individual students, but to the school itself, and one cannot but feel that one great advantage will be the providing of a centre round which students may congregate during that not inconsiderable portion of their career when frequent attendance at the hospital is neither necessary nor useful. During the first two years of study, to live in the country, with beautiful grounds like these always available, would be far better for young students than to live in London with no resources except billiard rooms and music halls.

A GREAT FRENCH SURGEON.

We regret to have to announce the death of M. Verneuil, the *doyen* of French surgeons. M. Verneuil, who has passed away in ripe old age, full of honours and surrounded by troops of admiring friends, has filled all the higher offices of his profession in Paris, as Professor of the Faculty, surgeon of the hospitals, member of the French Academy, President of the Surgical Society. He was able, originative, and eloquent, a great clinician, an eminent orator, a fairly good operator, and well versed in English as well as French literature, which is more than can be said of most of his contemporaries. After floundering for a quarter of a century in the quagmire of the dirty and fatal methods of French surgery, favoured by his contemporaries, Velpeau, Chassaignac, Maisonneuve, with the terrible results which brought the French surgical school of the Empire to so low a repute, he found salvation in the doctrines and practice of Listerism, which, however, he vainly sought to modify and partly succeeded in spoiling. With many weaknesses, including that of a childish and misplaced Chauvinism, he succeeded in raising the French surgery of his period from absolute ignominy, and by his profuse eloquence maintained the character of his school for interesting powers of exposition.

THE ROYAL SOCIETY SOIRÉE: THE EXHIBITS: COLOUR PHOTOGRAPHY.

The rooms of the Royal Society at Burlington House were thronged on Wednesday evening with a brilliant crowd of men and women, more or less distinguished in science, art, and literature. The guests were received by Lord and Lady Kelvin. The June *soirée* is the ladies' night, and the exhibits are consequently selected in a great measure with a view to their popularity and picturesqueness. In a dark room Professor Austen Roberts fused metals in an electrical furnace, and threw a picture of the tinted vapours on a screen; Dr. Gladstone showed photographs of the beautiful curvilinear forms of frost crystals on a window pane. Mr. Gowland exhibited a fine collection of ancient Japanese kakemonos, and demonstrated that the pigments used had withstood the effects of age in a remarkable manner. These pigments are mostly mineral, green being the hydrated carbonate of copper or malachite; blue, the mineral lapis lazuli; vermilion, sulphate of mercury; white, levigated oyster shells. Mr. Galton showed enlarged photographs of the markings of finger tips, and insisted on their exceptional trustworthiness in determining questions of identity. Professor Boys showed in a striking manner the production of ripples by tuning forks. The ripples were illuminated and thrown on a screen, and beautiful combinations of rhythmic moving lines were obtained by the use of "scale lines." The phenomena of cloud formation were demonstrated by Mr. W. N. Shaw; and Professor Ramsay exhibited the spectra of argon and of helion mixed with argon. The exhibit which excited, however, the most lively interest was that of photographs in natural colours, exhibited by Dr. Joly, F.R.S. The photographs shown, and which late in the evening were thrown on a screen with the oxhydrogen lamp, were of figures gaily dressed, of bright-coloured flowers, and of a red house standing amidst trees; they were transparencies, and the colours were full, rich, and well toned. The method adopted by Dr. Joly is a modi-

fication of that known as composite heliochromy, and is briefly as follows: To the sensitive surface of a specially prepared photographic plate a glass screen is placed, on which have been ruled parallel lines in tints orange, green-yellow, and blue-violet; these tints follow in regular sequence, and the lines meet in close contact. The ruled surface of the "taking screen" is in contact with the photographic plate during exposure. The developed negative is colourless, but shows a ribbed or linear appearance, which is due to the fact that the coloured lines through which the sensitive plate has been affected have exercised a selective influence in a similar way as the nerve ends exercise a selective influence on the retina in producing a colour impression, and thus there is in the negative a perfect and permanent record of the colours of the object photographed. The negative is then printed on glass and a "transparency" is produced. To make visible the invisible colour record in the negative all that is necessary is to place over the positive a glass screen called the "viewing screen;" on this are ruled parallel lines of the same dimensions as those in the "taking screen," but which are alternately deep red, bright green, and blue-violet. On accurate juxtaposition, line over line of the positive and the "viewing screen," the coloured picture flashes into view. The same "taking screen" can be used to take photographs repeatedly, and also the same "viewing screen" to materialise the invisible colour record, but, if it is desired to keep a permanent colour photograph, the "viewing screen" must be attached to the positive. The expensive nature of the ruled coloured screen must be an insuperable bar to Dr. Joly's method of colour photography becoming popular; but if, pursuing the same line of research, he can discover how to print on sensitive paper in colours, an immense advance will have been made in the art of photography, and not only a new pleasure given to life, but a means of accurate colour records given to science. Professor Marshall showed a series of cultures of bacteria obtained from the Upper Thames, near Staines. Sir David Salamons had a most interesting display of electrical objects, and exhibited a magnet so powerful that guests wearing watches were warned not too approach too near. The most practical illustration, however, of the advance of science and of its adaptation to the daily needs of life was shown by the perfect telephonic connection with Glasgow, Edinburgh, Belfast, and other great cities in the United Kingdom. This communication was only completed the day of the *soirée*, but the guests had in the evening the satisfaction of speaking direct to the cities of the North, and hearing the clearest replies in return, and even a song, which was carried along the telephonic wires so perfectly that the finest gradations of tone of a sweet tenor voice were plainly heard.

THE SUMMER ASSEMBLY OF THE NATIONAL HOME READING UNION.

Dr. Alex Hill, the Master of Downing College, Cambridge, has, with the co-operation of Dr. Thursfield, Mayor of Leamington, arranged that the summer assembly of the National Home Reading Union should be held this year at Leamington. The object of the Union is to render study attractive; it endeavours to interest people in reading for the sake of information and mental culture, as distinct from bread-winning or mere pastime. Among the various methods adopted for the furtherance of this end none has proved more successful than the attempt to interest Englishmen in the history and literature, the physical geography, and the natural history of their own country by summer assemblies in localities specially adapted to afford illustrations of the epochs selected for study. Previous assemblies have been held at Buxton and Salisbury. This year the period selected comprises the fourteenth, fifteenth, and sixteenth centuries, and Leamington has been chosen because this neighbourhood is richer than any other part of England in memorials of this time. The assembly will take place during the first week in July, and some idea of the general scope of the programme may be gathered from the general plan upon which the lectures and excursions have been arranged. Major Leonard Darwin, M.P., Chairman of the Executive Committee of the forthcoming Congress of Geographers, will lecture on the National and International Advantages of the Study of Geography; Professor Sir Robert Ball on Comets; Principal Rendall on the Last of the Stoics; Professor Bridge on Shakespeare and Music; Dr. Lawrence and Mr. Tanner will give a course of lectures on History; Mr. Marr four lectures on the Geology, and Mr. Scott Elliott four lectures on the Botany, of the District; Dr. Braunholtz will lecture on the French Stage in Shakespeare's Time and Guy of Warwick in Early French Romances; while Mr. Yule Oldham will lay before the meeting the remarkable results of his investigations into the History of the Discovery of America. Excursions will be made to Stratford-on-Avon, Warwick, Guy's Cliff, Kenilworth and Stoneleigh Abbey, Wroxall Abbey and Baddesley Clinton, Coventry and Compton Wyniates, under the guidance of gentlemen who will expound the history, archæology, geology, and botany of the places visited. The Vice-Chancellor of the University of Oxford, the Bishop of Hereford, Principal Heath, and others will also take part in the week's proceedings, which include also many social entertainments. Dr. Thursfield will receive the members of the Assembly at the Town Hall, the Earl, who is also Mayor, of Warwick, and the Countess will receive them at the Castle, and the Headmaster of Leamington College will give a reception at the College; while concerts and other entertainments will be provided in the Pump Room and the Jephson Gardens. The Summer Assembly is arranged for those who are not experts in the subjects which its programme includes, and they are open to anyone who pays the small fee of 7s. The Secretary of the N.H.R.U., Surrey House, Victoria Embankment, London, will be glad to send the programme to any who write for it.

REMUNERATION OF POOR-LAW MEDICAL OFFICERS.

We are glad to see that the non-medical press is at last attempting to draw the attention of the public to the unsatisfactory remuneration generally awarded to Poor-law medical officers. The Axminster Board of Guardians appears to have made itself notorious by an attempt to reduce the salary of one of its oldest officials, and this because the rateable value of the property in the district has become reduced. We should have thought that this condition would have been a strong reason for increasing the remuneration rather than lessening it, as we do not gather that the population has decreased. Birkenhead is also attracting attention, and well it may, as the salary paid for medical attendance on the 570 inmates of its workhouse is stated to be £40 a year. The present system of allowing Boards of Guardians to fix the remuneration of their medical officers has now been in operation for about sixty years. It has been the exception for the Boards to pay fair remuneration for the work and responsibility undertaken. The time has surely arrived for the Local Government Board to exert its power to alter this, and to see that all officers whose appointments they confirm are fairly and equitably remunerated for the work they undertake and the responsibilities they incur.

We may remind officers interested that the Army Medical Staff Annual Dinner will be held in the Whitehall Rooms, Hôtel Métropole, on Monday, June 17th, at 7.30 P.M.

The Cavendish Lecture of the West London Medico-Chirurgical Society will be delivered by Sir James Crichton Browne on Thursday, June 20th, at 8.30 P.M., at the Vestry Hall, Hammersmith. The subject of the lecture will be "Dreamy Mental States."

THE APPROACHING REVISION OF *THE BRITISH PHARMACOPŒIA*

THE WEIGHTS AND MEASURES OF THE *BRITISH PHARMACOPŒIA*.

By WILLIAM KIRKBY,
Pharmaceutical Chemist; Lecturer on Pharmacognosy in the Owens College.

THE BEGINNING OF THE CONFUSION.

IT is now over thirty years since the first edition of the *British Pharmacopœia* was published, in which the imperial pound and ounce were made official for the compounding of medicines. Previous to that time it was customary to use the apothecaries' ounce for this purpose. As the latter contained 480 standard grains and the former 437·5, the change was not only a very considerable one, but a very confusing one, because the imperial ounce cannot be divided into aliquot parts containing an integral number of grains. In consequence of this difficulty the editors recommended that prescribers and dispensers should discontinue the use of the drachm and scruple—in other words, that all quantities less than an ounce should be expressed in grains. Imperial measures were likewise adopted for denominations of one ounce and upwards, but for lesser denominations the old apothecaries' measures were retained, notwithstanding that the unit of measure—the minim—bears no simple relation to the unit of weight—the grain.

In the next edition, published in 1867, the same systems were directed to be used for the preparation of medicines; but instead of reaffirming the desirability of prescribers abandoning the drachm and scruple weights, the use of them was made optional. In deference to the general custom of using metrical weights and measures for chemical analysis, the metric system was introduced as an alternative in the processes for the volumetric estimations in this edition. After a lapse of eighteen years the present edition appeared. As I intend to consider with some little detail the weights and measures specified for use in compounding its formulæ, I venture to quote at length the short paragraph of the preface which deals with this matter:

"An attempt has been made to introduce a method of setting out the relative quantities of ingredients used in some of the processes by supplementing the respective weights and measures by proportional parts. It was at first proposed that the use of parts should altogether supersede that of weights and measures, but it was thought better, at least for the present, merely to supplement weights and measures by parts when the context permits, and where this can be made more clearly to show the proportion which the several parts bear to each other. Wherever this method is employed the term 'parts' signifies parts by weight, and the term 'fluid parts' signifies the volume of an equal number of parts of water."

AMBIGUITY.

Although the editors appear to have fully recognised the difficulties incident to the use of the imperial ounce of 437·5 grains, it is extremely disappointing to find such frequent evidence of their indecision as to the value in grains of the eighth part and the half of an ounce. From the lists setting forth the strengths of the Galenical preparations it appears that sometimes the eighth of an ounce is 54½ grains (tinct. sumbul, etc.), and sometimes 55 grains (infus. gentian. comp.). The same lack of decision is shown in the various ways the same fact is expressed. Thus the infusions of valerian, rhubarb, and roses are all directed to be made with a quarter of an ounce of the drug to 10 ounces of water. In the lists of preparations given under the respective drugs, three different ways of expressing the strength are made use of: infusion of valerian is 220 grains to a pint, infusion of rhubarb 11 grains to an ounce, and infusion of roses half an ounce to a pint. In the case of tinctures sometimes the strength is given as 2½ ounces to one pint, and sometimes as 54½ grains to one ounce. Instead of forming a useful feature of the *Pharmacopœia* the lists of preparations given under the drugs and chemicals are liable to give rise to considerable confusion. Ambiguity is not confined to the expression of the quantities, but is imported into the inoffensive little prepositions "in" and "to." In common speech and in pharmaceutical terminology they have meanings which are certainly not identical, but in the *Pharmacopœia* they are frequently used in precisely the same sense. Under extract of socotrine aloes it is stated that the compound decoction of aloes contains "4.3 grains *in* one fluid ounce," and under myrrh it is said that there are "2·2 grains *to* one fluid ounce" of the compound decoction. The same mistake is made with regard to linimentum sinapis compositum, which contains one fluid drachm of castor oil *to* one fluid ounce, and 8 grains of the ethereal extract of mezereon *in* one fluid ounce. "To" connotes the idea of addition, an idea which is foreign to both the examples mentioned.

The principal difficulty in the use of the weights and measures adopted by the *Pharmacopœia* authorities lies in the fact of the ounce of water having a weight of 437.5 grains and a measure of 480 minims. The result of this is that a solution containing 1 part of a solid in 10 parts, if compounded in weights and measures of denominations above an ounce, will not contain 1 grain in 10 minims, but 1 grain in 11 minims, and 10 minims will only contain 0.91 grain.

A TRANSITIONAL PERIOD.

Although the paragraph quoted from the preface of the *Pharmacopœia* does not contain a definite statement of the reasons which led to the adoption of the system of proportional parts, there can be but little doubt that it was because the editors felt the great need there was for a system of weights and measures which would permit of centesimal calculations, and they did not see their way to the introduction of the metric system without first establishing a period of transition. The intention was decidedly good, especially as provision was made for the measuring of liquids in accordance with English practice, and not for the weighing of them according to Continental custom. According to what rules it has been applied in the formulæ of the *Pharmacopœia* I cannot discover. The preface says that it has been employed "when the context permits, and where this can be made more clearly to show the proportion which the several parts bear to each other." This can scarcely have been the only cause for the erratic manner, from the point of view of the preface, in which "parts" formulæ are distributed throughout the *Pharmacopœia*. All the ointments have alternative "parts" formulæ, whereas only one tincture is so treated. The uniform application of this system to the ointments cannot be for the reason given in the preface, because in some cases nothing whatever is gained in clearness. For example, the ointment of oleate of zinc, in which 1 ounce of each of the two ingredients is directed to be taken, what help is rendered by giving as an alternative the directions for 1 part of each?

Some inexplicable inconsistencies are to be found among the ointments in the relation the two sets of formulæ bear to each other. Unguentum belladonnæ and unguentum hydrarg. ammon. are directed to be made with 1 part of the active ingredient and 9 parts of the base; but in the former ointment 1 part equals 50 grains, and 9 parts equal 1 ounce (437.5 grains), and in the latter 1 part equals 50 grains, and 9 parts equal 450 grains. It were a waste of time and space to speculate upon the reasons for such anomalous statements. I shall therefore content myself with giving a few more instances to show what a hopeless muddle has been made of what might have been a real stepping-stone to a metric system of weights and measures suited to British requirements. The one tincture favoured with a formula in "parts" is tinctura podophylli; it is given as resin of podophyllum 1 part, rectified spirit 54·68 fluid parts. One cannot help wondering how this quantity is to be measured without first making an elaborate calculation. Tinctura quininæ has precisely the same strength, but no alternative "parts" formula is given; vinum ferri citratis has also the same strength and a "parts" formula, but instead of agreeing with that of tinctura podophylli it appears as 1 part of the active ingredient and "55 fluid parts nearly" of the vehicle. Surely the editors must have unbounded confidence in the skill of the men who compound the recipes of the *Pharmacopœia*,

otherwise they would hardly expect them to successfully measure "55 fluid parts *nearly*." This cannot be seriously intended for a working formula; it is merely a display of the variety of ways in which the same statement may be expressed. The fear of being monotonous has been a bogey—haunting the compilers with a tiresome persistence. As in the imperial weights and measures, so in the "parts" dull uniformity has been most successfully avoided. Unguent. gallæ, ung. hydrarg. subchlorid., and ung. zinci all have a strength of 80 grains to 1 ounce of base; in equivalent parts it is given in the first as 1 part and 5.5 parts, in the second as 1 part and 5 47 parts, and in the third as 2 parts and 11 parts. It is true that these whimsicalities do not interfere with the production of reliable preparations by the discreet pharmacist, but they do detract very considerably from the value of the *Pharmacopœia* as a standard work of reference.

Inaccuracies.

The formulæ of some of the Galenical preparations are open to a much greater objection than those already noticed. They either do not yield preparations of the strength they are stated to have, or the two alternative formulæ give different results. The compound rhubarb pill is directed to contain 90 minims of oil of peppermint in the Pharmacopœial quantity of mass, but according to the "parts" formulæ it will only contain 80 minims. Many instances of errors of this kind are found among the so-called percentage solutions of alkaloids and other poisonous substances. Attention has been so frequently called to these errors that it may seem superfluous to do more than mention them. But at the risk of being considered prolix I venture to particularise a few of the more apparent discrepancies. Liquor arsenicalis should contain 87.5 grains instead of 87 grains of arsenious acid to carry out the intention of the editors. In Donovan's solution the proportion of the active ingredients is given as 90 grains to the pint instead of 87 5. It would seem the easiest thing in the world to make such simple solutions as liquor atropinæ sulph. and liquor sodii arseniatis to at least correspond with one another, and they are both stated to have a strength of 1 in 100. Yet the former has 9 grains dissolved in 16½ drachms of camphor water (1 in 101 fluid grains) and the latter 9 grains in 2 fluid ounces (1 in 98 2 fluid grains).

The greatest deviation from the percentage ideal occurs in the liquor strychninæ hydrochl., in which no allowance has been made for the condensation of the mixture of rectified spirit and water; accordingly the first formula results in a strength of 1 grain in 96.7 fluid grains, and the second in a strength of 1 grain in 97 fluid grains. In these alkaloidal solutions a deliberate attempt was made to approach true percentage solutions as understood by pure chemists. The effort has been anything but successful. Even if it had been successful, I fail to see of what service it would have been either to the medical man or the pharmacist. In devising formulæ for liquid medicines there are two considerations which should be kept in view: first, the convenience of the prescriber in ordering with certainty and ease the exact quantity of a medicament in any proportion he may desire, and in remembering the exact strength of all galenical preparations; secondly, the welfare of the patient in being able to measure exactly the prescribed quantity of a medicament when exhibited in the liquid form. Supposing these alkaloidal solutions do contain 1 grain in 100 fluid grains, the prescriber, if he desires to order a quarter of a grain, must direct the pharmacist to use 27½ minims, because the fluid grain is not a legalised measure. There at once arises the difficulty of measuring the exact quantity, and the prescriber is required not only to remember that these are so-called percentage solutions, but he must also remember the relation of fluid grains to minims. The medical man's difficulty creates that of the patient, who very rarely, if ever, gets in a dose an aliquot part of a grain of these strong remedies. These solutions are not true percentage solutions because the specific gravity of them is altogether ignored. They are, therefore, neither scientifically correct nor practically useful.

The End to be Sought.

As the measuring of liquid medicines by patients is so convenient and so desirable for the ensuring of accuracy of dosage, it cannot be denied that the only practically useful system for formulæ for liquid preparations is to have the medicament expressed in terms of weight which are integral parts of the terms of measure. All Galenical preparations, standardised or not standardised, should conform to this rule.

In the forthcoming *Pharmacopœia*, the simplest way out of the difficulty with regard to percentage preparations would be to adopt the metric system, but modified according to the American plan by measuring instead of weighing all liquids. The non-legalisation of the metric weights and measures for purposes of trade in this country is, however, a great difficulty, but it may possibly be overcome ere the publication of the next *Pharmacopœia*. If it should only be used in alternative formulæ, confusion and inexactness will be again introduced into all the preparations which are prescribed and dispensed in minim quantities. These articles ought to be compounded and prescribed in terms of the metric system only; but if the imperial weights and measures are used, then they ought to contain an integral number of grains in an integral number of minims.

The charming diversity in expressing the strengths of preparations in the present *Pharmacopœia* has very serious drawbacks which do not even need to be mentioned. In future a uniform system of expressing them should be adopted, and I would suggest that the centesimal proportions should be used—so many units of weight in 100 units of volume. To ensure accuracy, liquid preparations should be made up, after the lapse of an adequate period of time to allow of condensation or cooling, to a given volume with a suitable liquid at a given temperature.

Analytical operations are very rarely carried out with grains and fluid grains, the metric system being almost universally adopted in laboratories. For this reason, if for no other, it is extremely desirable that the quantitative tests of the *Pharmacopœia* should be set forth in terms of the metric system, and that the results should be given as percentages.

THE PUBLIC HEALTH OF LONDON.[1]

The second annual report presented by Mr. Shirley Murphy to the London County Council is even more full of interesting and important matter than its predecessors, and is accompanied by five appendices consisting of reports, etc., in connection with the public health work of the Council.

The annual report itself extends to 67 foolscap pages, and is illustrated by 17 diagrams; it is divided, as the report of last year was, into a portion dealing with statistics and a portion dealing with administrative work. The former relates to the vital statistics of the population of the administrative County of London for the year 1893, and the well executed diagrams graphically depict the variations in the birth-rate, marriage-rate, and death-rate of that population during a period of years, and show the extent to which zymotic disease has prevailed in recent times in the large metropolitan community. The excess and defect above and below the mean death-rate in the case of the principal infectious diseases as manifested in London present themselves clearly to the eye, and suggest the comparison that has been made between these manifestations and those of the rhythmical rise and fall of "waves on the enridged sea."

A table is given in the present report showing the marriages of minors in London registration divisions during the years 1885 to 1892, while another new table deals with the proportion of legitimate and illegitimate births in those divisions. The method employed by the Registrar-General with respect to the thirty-three large towns of England and Wales has been applied for the purposes of correcting for differences of age and sex distribution the death-rates of the forty-one London sanitary districts, and the comparative mortality figures for each of these districts are given (London as a whole being taken as a standard at 1,000). This method of comparison shows how favourably Hampstead, with a comparative mortality figure of 673, and Lewisham with 704, compare with such districts as St. Luke (1,498) and the Strand (1,592). It is clear that the eulogiums which have lately been passed, in connection with the recent weekly returns of

[1] Annual Report of the Medical Officer of Health of the Administrative County of London for the year 1893. Sold by Edward Stanford, Cockspur Street, Charing Cross. 2s. 10d.

the Registrar-General, upon "London as a Health Resort," have been somewhat indiscriminately applied, and that while the metropolis contains some districts which are particularly healthy, it also contains others which are much the reverse of this.

The report includes a piece of work that will be studied with much interest—a London life table. This table has been worked on Dr. Farr's short method, and is based on the statistics of the decennium 1881-90. The results of a comparison of this table with the similar table given by the Registrar-General relating to the decennium 1861-70 show a highly satisfactory improvement in the health conditions of the metropolis. "While in 1861-70 of a million children born 305,518 deaths occurred in the first five years of life, leaving only 694,482 survivors at age 5, in 1881-90 scarcely more deaths occurred in the first twenty years of life, the deaths in the twenty years being 309,495 per million born, and the survivors at age 20 as many as 691,505." Comparison is also made with the life tables published by the medical officers of Brighton, Manchester, and Glasgow. "It is interesting to note that at each age and for each sex the expectation of life in London exceeds that in Manchester and Glasgow, but is less than that of Brighton."

An important table is that showing the number of children appearing in the vaccination returns of metropolitan unions as "not finally accounted for." The high proportions which obtain in some instances are noteworthy. The figures show that in Hackney the proportion of children "not finally accounted for" has almost uninterruptedly risen from 4.6 in 1881 to 52.8 in 1893, while in Bethnal Green the corresponding figures are 5.5 in 1881 and 54.8 for 1893.

In connection with scarlet fever and diphtheria some highly important subject matter is introduced. An analysis of the excess and defect in the number of notified cases of scarlet fever above the mean for succeeding weeks of the year 1893, shows that the prevailing autumnal increase in the number of cases notified is broken by a marked depression occurring in the month of August. On examining the extent to which this diminution in the number of cases of scarlet fever notified affected different age groups, it is found that the "August depression" is much accentuated in the curve relating to children from the age of 3 to 13 years of age. Mr. Shirley Murphy remarks: "This striking diminution of scarlet fever in the month of August, occurring especially among children at the school-age period of life, necessarily raises the question whether the disease had been spreading in schools, and whether the summer holiday has arrested the spread of disease due to this cause." The possible effect of the migration of children from London, coincident with the closing of schools, is alluded to, but this circumstance is held not to afford in itself sufficient explanation. The extent to which the closing and reopening of schools correspond in point of time with the falling off in the number of cases is then tested by reference to the operations of the schools of the London School Board, in the case of which the dates are readily obtainable. The figures work out in very striking manner. When time is allowed for the period of incubation and a little delay in notification, the "August depression" is found to precisely correspond with those weeks which it would be expected to affect, on the hypothesis that school closure was concerned with the diminution in the number of cases notified.

In the case of diphtheria the occurrence of similar phenomena is noted and discussed in detail. These observations of Mr. Shirley Murphy will no doubt be carefully studied in connection with the "Preliminary Memorandum on the Increase of Diphtheria in London," prepared by him last year, and now printed as Appendix I of the present report.

It is impossible to do more than allude to the account given of the behaviour of typhus fever in London in the year 1893, and to the history of cholera during that year. The detailed statement with regard to suspected cases of cholera presented to the Council in 1894 appears as Appendix II of this report.

The portion of the report devoted to an account of the Council's administrative work in public health matters contains much valuable information with regard to offensive trades, nuisances, procedure under Housing of the Working Classes Act, workshops, and bakehouses. The action taken by the Council with respect to the Regent's and Grand Junction Canals is set out in detail, and there is a full discussion of the character of the provision which has been made in London sanitary districts for disinfection of infected articles, and for the shelter of persons who have been compelled to leave their dwellings for the purpose of enabling such dwellings to be disinfected by the sanitary authority. Reference is made to two "Special Inquiries" undertaken with regard to the sanitary condition and administration of the parishes of Rotherhithe and St. Saviour Southwark. The report upon the latter parish prepared by Mr. Shirley Murphy forms Appendix IV.

The report also contains a discussion of London water supply, and this question forms the subject of Appendix V, which is the report prepared by Mr. Shirley Murphy on the report of the Royal Commission on the Metropolitan Water Supply, 1892-93.

It is impossible in a notice of this kind to do more than indicate the chief subjects of importance dealt with in this elaborate and carefully-considered annual report. Students of London health problems cannot afford to neglect to undertake a careful perusal of it; and the topics discussed open up questions of great interest and of importance throughout the country generally.

THE ASSOCIATION OF FELLOWS AND THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

THE Committee of the Council of the Royal College of Surgeons, England, appointed to confer with the Fellows upon the subject of the proposed alterations in the charters, received a deputation of the Association of Fellows at the College on June 10th, at 4 P.M. The names of those forming the Committee were published in our last issue, and all the members were present save Mr. Bryant. Those who formed the deputation were Mr. George Pollock, President of the Association, Mr. R. T. Norton, Mr. Victor Horsley, Mr. Herbert Allingham, Mr. Vincent Bell (Rochester), and Mr. Percy Dunn (Honorary Secretary).

Mr. GEORGE POLLOCK said that he had to express their regret at the unavoidable absence of Mr. Holmes. Mr. Holmes had placed in his hands a detailed statement of what it had been his intention to bring forward. Mr. Holmes pointed out that the poll lately taken at the suggestion of the Association of Fellows showed that the majority of the Fellows were dissatisfied with the present method of election of the President, and wished that he should be elected by the Fellows. This change would by itself require a new charter before it could be adopted, and was of itself of sufficient importance to require the deliberation by a Committee formed by representatives of the Council and the general body of Fellows. Certain alterations or "concessions," as they were called, had been made by the Council in deference to the wishes of the Fellows. The Association thought that in this, as in all other public business, arrangements of this description should be enacted in due form; and it was for a committee such as that proposed to consider which of them should be enacted in the charters, and which as by-laws or regulations. Then there was the question of enlarging the powers of the Council to deal with offenders, on which the Council lately approached the Home Secretary, and were refused by him because the Members' Association had opposed the granting of fresh powers, so long as the charters continued in their present, to them, unsatisfactory form. There were also various other points all of which required mature consideration by some body representative both of the Council and the Fellows. Mr. Holmes added that he felt most strongly in regard to the proposal that no organic change should be made in the constitution or external relations of the College without the sanction of the general body of Fellows. But all of the suggestions were important, and all should be very fully considered before any application were made for a new charter. Mr. Holmes expressed his opinion in favour of the Annual Committee comprising Members as well as Fellows; but this was only a personal opinion, with which the Association might not agree.

Mr. NORTON said that the first important suggestion contained in the schedule was that the Fellows should be able

to appoint an annual committee or other committees. No body of men ever met together without the capability of appointing a committee to elaborate and to summarise subjects. The real business was not done by great meetings, but by means of committees appointed for the purpose. A majority approaching two-thirds of those who replied to the circular recently issued at the instigation of the Association of Fellows were in favour of some change being made in the mode of election of the President. Mr. Norton, speaking as the mouthpiece of the Association of Fellows, pointed out that the Association had not pledged itself to any definite scheme; but, in view of the recent voting, it was clearly due to the Fellows that the Council should take this matter into careful consideration. The third suggestion made by the Association was that no alteration in the constitution and external relations of the College should be effected without the consent of the body corporate. This had always been a cardinal feature of the programme of the Association. The Council, who were elected by the Fellows, and were supposed to be the actual representatives of the Fellows, could not virtually be considered as such throughout the period of eight years for which each was elected. Views changed, new circumstances arose, in consequence of which it must be evident that the views of the body corporate should be ascertained from time to time, and, indeed, their sanction obtained for any such radical change such as was referred to in the clause under consideration. With regard to the suggestion of the abolition of substitute members, he referred to the inconvenience suffered by those members of the Council who were elected as substitutes for deceased members of the Council, perhaps for one year only. It was the opinion of the Association that a member once elected should go through the full period of office. Respecting the clause limiting the term of office of members of Council to two periods, it was held by the Association that so long a period as sixteen years was quite ample. But of course any member of Council even after this prolonged service should remain eligible for election as President. While applying for a new charter a clause should be inserted giving the Council power to increase the number of examiners if they so desired, but not compelling them so to do. Finally, the Association was very desirous that all these suggestions together with all the recent concessions granted by the Council to the Fellows should be incorporated in a new charter. Although he believed that none of the present Council would think of withdrawing any of those concessions, yet it was always open for them or for any future Council by a majority at a single small meeting to rescind any one or all of those concessions made. Such a state of things should no longer be allowed to exist and could only be overcome by incorporating them in the new charter.

Mr. Vincent Bell then made some remarks upon the question of the organisation of the Annual Committee. It would be to the advantage of the provincial Fellows that such a committee should be formed.

Mr. Howse regretted that the deputation had not entered more fully into the detail of forming the Annual Committee. Personally, he quite agreed with the suggestion, but he did not see his way very clearly to carrying it out. At the request of the President he explained the working of the Annual Committee of the University of London.

After some remarks from Mr. Morris, Mr. Rivington, Mr. Tweedy, and Mr. Victor Horsley,

The President summed up on the main issues raised, and asked the Honorary Secretary of the Association of Fellows to bring before the Committee of the Association the advisability of formulating a specific and definite scheme under which an Annual Committee as suggested could be formed. The deputation had not made clear the lines upon which such an Annual Committee should be framed, and an explicit statement in connection therewith would certainly be of use.

The Medical Profession in Belgium.—The total number of qualified medical practitioners in Belgium is 2,950. Of these, 884 dispense their own medicines. The proportion of doctors to population is 1 in 2,122. The number of practitioners in Brussels is 558, being in the proportion of 1 to 1,370 inhabitants. The proportion at Liége is 1 to 1,771; at Ghent, 1 to 2,186; and at Antwerp, 1 to 2,251. There are in Belgium 2,372 midwives, or 1 to every 2,640 of population.

SIR JOSEPH FAYRER.

Sir Joseph Fayrer retires from the India Office, after forty-six years' service, with testimonies to the value of his services such as fall to the lot of few men. The Secretary of State for India took the opportunity of placing on record his high appreciation of those services during a long and distinguished career. The letter from the India Office runs as follows:

Mr. Fowler need not recapitulate your services to the State in India, notably during the memorable siege of Lucknow; they have been recognised by the Government of India, and by the honours conferred on you by Her Majesty the Queen. These services, as well as those which you have rendered to science, are well known, and reflect honour not only on yourself, but also on the profession and service to which you belong.

In leaving India in 1874, you were appointed President of the Medical Board of this Office, and the Secretary of State for India in Council now desires me to convey to you his cordial acknowledgments for the admirable manner in which you have discharged the duties of that post during the past twenty years.

On your retirement you will carry with you the regard and esteem of the Secretary of State and his Council, and of all with whom you have had official relations during your tenure of office.

The resolution of the Senate of the Army Medical School was not less flattering and complimentary. The following is an extract from Senate minutes of January 6th, 1895:

Sir Joseph Fayrer's Retirement.—The Director-General said that, "as this was the last occasion upon which Sir Joseph Fayrer would be present as a member of the Senate, he took this opportunity to express on behalf of himself and his colleagues the very great regret with which they contemplated his retirement. The great interest which Sir Joseph Fayrer has always taken in the work and welfare of the Army Medical School, and his ever anxious desire to promote its interest and power for good for the Medical Services of both the British and Indian armies, render his withdrawal from the meetings of the Senate a very great loss to the School and Netley. His intimate knowledge of the work done there, and his constant visits during nearly every session often at personal inconvenience, made him an invaluable adviser of the professors and an ever sympathetic friend to those passing through the School. In conclusion, the Director-General felt that he was only expressing the feelings of the other members of the Senate and of the past and present members of the Army and Indian Medical Services, when he said they felt deeply the loss of Sir Joseph's advice; probably no servant of the Crown had deserved a well earned rest more than he, and, in saying good-bye to him officially, he trusted that Sir Joseph might be spared many years yet to take the same interest in the work of the School at Netley as he has always hitherto done."

The other members of the Senate concurred in what the Director-General said, and hoped that he would convey officially to Sir Joseph this expression of their unanimous opinion.

The minute of proceedings of the Army Sanitary Committee of the meeting of May 9th contain the following:

Surgeon-Colonel W. R. Hooper, M.D., took his seat as a member of the Army Sanitary Committee, in the place of Surgeon-General Sir Joseph Fayrer, K.C.S.I., who has retired after twenty years' service on the Committee, during which time his knowledge and varied experience generally, but more especially in regard to questions of Indian hygiene and public health, have been of great value and assistance to the Committee in discussing the various sanitary questions that have been referred for their consideration and opinion.

With all these testimonies of a brilliant and quite exceptional services Sir Joseph Fayrer must be highly gratified; there is, however, one palpable omission which his friends cannot but feel all the more marked through the records of these unanimous and strongly worded testimonies. Under the circumstances stated it would appear to be a matter of course that Sir Joseph Fayrer should have received some public recognition and mark of distinction. It is indeed very generally understood that he had from many highly influential quarters been recommended for such a mark of distinction from the Crown, and it is to be regretted that it has been postponed, for it would have been graceful and timely as coinciding with the date of his retirement. We may, however, probably conclude that it is only postponed for reasons which we are unable to gather. That postponement, it may be hoped, will not be much prolonged, as for obvious reasons at the close of so long a career such honours gain greatly by the promptness with which they are offered.

THE CAMBRIDGE SUMMER SCHOOL OF MEDICINE.

The following is the programme of work in connection with the Cambridge Summer School of Medicine during the first week in July. It will be noticed that the subjects of demonstration are not given, nor are those of the cliniques at the hospital, but special notices of these will be issued later.

Time.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
8.30 A.M.	—	Breakfast in Hall.	Breakfast in Hall.	Breakfast in Hall.	Breakfast in Hall.	Breakfast in Hall.
10.15 A.M.	—	Addenbrooke's Hospital Cliniques. Medical, Prof. Bradbury. Surgical, Mr. Deighton.	Addenbrooke's Hospital Cliniques, Medical, Dr L. Humphry. Surgical, Dr. Griffiths.	Addenbrooke's Hospital Cliniques, Medical, Prof. Bradbury. Surgical, Mr. Wherry.	Physiological Laboratory, Mr. Marshall Pharmacological Demonstration, Action of Drugs on Blood Vessels.	Anatomical School, Prof. Macalister, Cranial Topography.
11.30 A.M.	—	Physiological Laboratory, experiments and demonstrations.	Pathological Laboratory, bacteriological demonstrations, etc.	Physiological Laboratory, experiments and demonstrations.	Pathological Laboratory, bacteriological demonstrations, etc.	Physiological Laboratory, experiments and demonstrations.
1.15 P.M.	—	Luncheon in Hall.	Luncheon in Hall.	Luncheon in Hall.	Luncheon in Hall.	Luncheon in Hall.
3 P.M.	—	Anatomical School, Prof. A. Macalister, Cranial Topography.	Anatomical School, Dr. Joseph Griffiths, Enlargement of the Prostate.	Anatomical School, Sir G. M. Humphry, Urinary Calculi.	Medical School, Dr. Anningson, The Evolution of Human Communities in Relation to the Propagation and Incidence of Disease. Mr. Douty, Obstetrical Instruments.	and Gynæcological
5 P.M.	—	Garden party in King's College Gardens.	Parties to visit Colleges.	Parties to visit Colleges.	Organ Recital in King's College Chapel, Dr. Mann.	—
7 P.M.	Dinner in Hall.	Dinner in Hall.	Dinner in Hall.	Dinner in Hall.	Dinner in Hall.	—
8.30 P.M.	*Conversazione*, Physiological Laboratory, short address by Sir G. M. Humphry.	Anatomical Theatre, Prof. Clifford Allbutt, Some Factors of the Arterial Circulation.	Anatomical Theatre, Prof. Foster.	—	King's College Hall Smoking Concert.	—

BRITISH MEDICAL ASSOCIATION.

SIXTY-THIRD ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION IN LONDON, 1895.

THE MEDICAL INSTITUTIONS OF LONDON.

(Continued from page 1291.)

THE SOCIETY OF APOTHECARIES OF LONDON.

By D'ARCY POWER, M.A., F.R.C.S.Eng.,
Demonstrator of Surgery at St. Bartholomew's Hospital; and Surgeon to the Victoria Hospital for Children.

THE Apothecaries' Society is in many respects a unique foundation. It is a mystery or guild which has retained its original function of a trading corporation, whilst at the same time it is entrusted by Act of Parliament with the duty of examining and licensing candidates for the medical profession. The Society originated as an offshoot from the Grocers' Company, itself descended from the Pepperers and the Spicers, who amalgamated in 1345 under the name of the Fraternity of St. Anthony. The Grocers' Company is one of the most powerful and wealthy of the twelve great Livery Companies of London. It boasts that more than a hundred Lord Mayors have been selected from amongst its members, and it has lately done the greatest service to science in England by establishing and maintaining scholarships for the endowment of research.

The impending separation of the Grocers' Company is first indicated in a charter granted April 9th, 1606, in which the Company is explicitly reincorporated as "the Freemen of the Misteries of Grocers and Apothecaries of London." King James I appears to have personally interested himself in the separation of the two bodies about the year 1614, and the disunion was soon afterwards accomplished in spite of the opposition of the Grocers' Company. A charter was granted on December 6th, 1617, making the Apothecaries a distinct mystery under the title of the "Society of Apothecaries," with a master, wardens, and assistants to the number of twenty-one persons to preside over it. This charter restrained the Grocers and all other persons from keeping an apothecary's shop in or near London; it confirmed to them a right, which had been inherent in the Grocers' Company, of paying domiciliary visits to search for, seize, and destroy bad drugs and medicines. This inquisitorial power, at first limited to London and seven miles round, was afterwards extended to all parts of England and Wales. The duty was an extremely invidious one, and eventually degenerating into little more than a farce, it was discontinued some time after the year 1833. The charter also allowed the Company to fine its members, and they acquired the power of summary committal to the City Compters, a right which they shared with many of the other companies, though incarceration in Newgate could only be effected by an order from the Mayor or Court of Aldermen.

The Company being fairly launched, under the sanction of James I, and with the assistance of Drs. Theodore Mayerne and Henry Atkins, His Majesty's physicians, it became necessary to provide it with a local habitation. The original charter gave the Society power to have a hall or council house. In 1618 Gideon Delaune, chief apothecary to Anne of Denmark, and one of the retinue sent to attend her from Norway when she became the wife of James I, was instrumental in acquiring a building for the purpose in Blackfriars. This building was purchased by the Society in 1633. It then consisted of a house and grounds known as Cobham House, in Water Lane, Blackfriars, immediately behind what is now Ludgate Hill Station. It was then an open space leading down to the water gate on the west side of Baynard's Castle. The first hall was destroyed by the Great Fire of London in 1666, and its site lay vacant for ten years before it was rebuilt. The second hall was enlarged and improved in 1786, and it still stands.

The Apothecaries from an early period devoted their energies to the preparation and sale of pure drugs, and when their property was destroyed by the Great Fire they set to work to build laboratories long before any attempt was made to provide themselves with a new hall. The preparation of pure drugs was expensive and not very remunerative, at a time when the most ordinary chemical processes were hardly understood. Some members of the Society, therefore, felt themselves compelled to subsidise this side of the Company's work. In 1670 the laboratory was first established, and a number of the members of the Society formed a kind of joint stock in order to procure chemicals soley for their own use. For many years the sale was confined to these subscribing members; but a degree of reputation attaching to this establishment, other persons began to buy, and the premises had to be enlarged. In the reign of Queen Anne, Prince George of Denmark, who was then Lord High Admiral, applied to the Society to know if they would undertake the service of the navy, which was then very badly supplied with drugs. The Society agreed to do so, and were thereby drawn into a long series of quarrels with the College of Physicians, whose Members thought that it was the duty of an apothecary "to remember his office is only to be the physician's cooke." The stock was amalgamated in 1823, and was finally dissolved in 1880, when the Corporation determined to carry on the business in the name of the Court of Assistants.

A knowledge of simples was of necessity a matter of importance to a compounder of medicines at a time when infusions, tinctures, distillates, and the crude herbs were the

chief forms in which remedies were administered. Herborizings or botanical excursions soon formed a prominent feature in the Society. The numerous gardens in the immediate neighbourhood of the hall were at first sufficient for the purposes of economic botany, but in a few years the Society found it expedient to rent a physic garden, and in 1673 the Botanic Garden at Chelsea was leased to the Apothecaries for a term of sixty-one years, by Charles Cheyne, Esq., lord of the manor. In 1731 Sir Hans Sloane (the new lord) gave the ground to the Society for ever, on condition that it should annually present to the Royal Society fifty well-cured specimens of plants, the produce of the said garden, until the preparations reached the number of 2,000. The Society made excellent use of this gift, and for many years it maintained the teaching of systematic botany in London at a very high level of excellence.

The power of the Apothecaries to license medical practitioners appears to have been obtained by a gradual process of evolution. Its members were originally divided like those of all city companies into a Master and Wardens, with a Court of Assistants, who formed the governing body; a livery, or main body, possessing the franchise; and the freemen, or yeomanry, constituting a subordinate body, from which the livery was selected in the same manner as the livery itself recruited the Court of Assistants, from whom alone the Master and Wardens were chosen. Every freeman of the Society could take so many apprentices as he could *bonâ fide* employ in and about his own proper business during the whole term of apprenticeship, and he received a premium with each to compensate him for the expense of board and lodging. It was necessary, however, that each apprentice should be presented to the Court of Assistants to be examined as to his proficiency in the Latin tongue before he was bound by indentures to serve his term of seven, or in later times of five, years.

The custom of examination thus grew up within the Society and was gradually extended, for it next became necessary to ascertain whether the apprentices could decipher the very illegible handwriting in which the physicians wrote their prescriptions or "bills." The Apothecaries soon ceased to become druggists, and in process of time formed a subordinate class of practitioners who attended an individual afflicted with some internal disease not requiring external or manual aid, and who prescribed for the cure of such complaint and supplied the medicine. He was paid for the medicine which he supplied and so did not encroach ostensibly upon the province of the physician, who was remunerated for his advice and who did not provide medicine. The practice of the apothecary, however, was always a thorn in the side of the College of Physicians, and led to the celebrated dispensary campaign, in which the poets Garth and Pope took an active part. The Apothecaries triumphed in the end, for the public required a class of general practitioners and neither of the great Colleges would supply their want.

A tax was put upon glass in 1812, and this, by increasing the price of bottles, pressed with great severity upon the Apothecaries, paid as they were by the amount of draughts and potions which they could induce their patients to swallow. A meeting was held on July 3rd, 1812, and in the following year representations were made as to the necessity then existing of placing the apothecary, the surgeon-apothecary, and the practitioner in midwifery under the direction of a proper controlling body.

A Society of Associated Apothecaries and Surgeon-Apothecaries was formed, with Dr. Mann Burrows as the moving spirit. An attempt was made to establish an independent examining body, but the opposition of the two Colleges and of the Apothecaries' Society prevented the Bill from passing in Parliament. Much correspondence ensued, and the Society of Apothecaries ultimately agreed to introduce a new Bill into Parliament, amended by the College of Physicians. This Act passed the Legislature on January 10th, 1815, and was amended in 1874. The character of the examination conducted by the Society of Apothecaries has steadily improved. Candidates could not at first be examined in midwifery, though the Society fully recognised the importance of the subject for general practitioners. Certificates of their having attended courses of midwifery were demanded by the students, and they were examined upon the diseases of women and children, and up to the very point of labour; but there the examiners were obliged to stop, for it had been decided by Scarlett and Sugden, when they were respectively Attorney and Solicitor General, that the delivery of a woman is a surgical operation. The licence granted by the Society soon became a favourite one with students, and after suffering a partial eclipse when the regulations of the Royal Colleges of Physicians and Surgeons modified their requirements, it has recently, under an extended system, more than regained its popularity, for it is now a complete qualification in medicine, surgery, and midwifery.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 10th day of July next, at o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June 6th, 1895.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, May 8th, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 10th and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 20th and October 2nd, 1895

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTHERN BRANCH.—The twenty-second annual meeting will be held at the County Hotel, Salisbury, on Thursday, June 27th. The general meeting will be held at 1.30 P.M. Luncheon will be provided by the members of the South Wilts District between 1 and 3. In accordance with the by-laws, two gentlemen will be elected at this meeting as representatives of the Branch on the Council of the Association for the en-

suing year. The address will be delivered by the President-elect at 2.30. Members desirous of reading papers are requested to forward at once the titles to the Honorary Secretary. During the afternoon the members are invited to visit Longford Castle and Salisbury Cathedral. The dinner will take place at the County Hotel, Salisbury, at 6 P.M. Tickets 6s. each, excluding wine. Gentlemen who intend to be present at the dinner will oblige by sending their names to Mr. H. J. Manning, Laverstock, Salisbury, on or before the 25th instant.—T. W. TREND, Southampton, Honorary Secretary and Treasurer.

SOUTH MIDLAND BRANCH.—The fortieth annual meeting of this Branch will be held at the General Infirmary, Northampton, on Thursday, June 27th, at 2.30. Gentlemen wishing to enrol themselves as members of the Association or Branch, and members desirous of bringing forward communications at the meeting are requested to inform the Secretary of their intention without delay. The following papers and cases have been promised:—Mr. W. G. Nash (Bedford): Adenoids, their Diagnosis and Treatment. Dr. W. Harding (Berry Wood, Northampton): Some Practical Points in the Management of the Acutely Insane in Private Houses. Mr. R. A. Milligan (Northampton): Two cases of Recurrent Appendicitis successfully treated by Resection of the Vermiform Appendix. Mr. R. H. Kinsey (Bedford): Remarks on Medical Abuses, especially with reference to Medical Aid Associations.—C. J. EVANS, Honorary Secretary, Northampton.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The summer meeting of the Branch will be held in the Royal Hotel, Keith, on Thursday, June 20th, at 5 P.M. Business: 1. Minutes, etc. 2. Ballot. 3. Election of representative to the General Council. The dinner will be held in the Royal Hotel after the meeting. Tickets 3s. 6d. each, exclusive of wine, but including attendance. There will be an excursion to Gordon Castle *viâ* Fochabers, in the forenoon, starting from Keith Station at 11.10, on the arrival of the train from Aberdeen. Fare for the excursion, including a light luncheon, 3s. 6d. each. A saloon carriage for the use of members will be attached to the train leaving Aberdeen at 9.30 A.M., and to the train leaving Keith at 7.30 P.M. Fare for the double journey, first class, 8s. 11d. each. Members are invited to bring medical friends, and to intimate their intention to be present to the Secretaries at once.—C. THIRSLTON URQUHART and J. SCOTT RIDDELL, Aberdeen, Joint Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—*Annual Meeting.*—The fifty-ninth annual meeting of this Branch will be held in University College, Liverpool on Wednesday, June 19th, at 2 P.M. *Agenda.*—Inaugural Address by the President (Mr. W. Mitchell Banks, F.R.C.S.), On Overcrowding in the Medical Profession and its Remedy. Report of Council and financial statement. Election of office bearers, etc. It will be moved by R. R. Rentoul and seconded by Colin Campbell: "That each representative of this Branch on the Parliamentary Bills Committee of the Association, when attending either a committee or subcommittee meeting of the Parliamentary Bills Committee, be paid by the Honorary Secretary, out of the funds of the Branch, first-class return travelling expenses for every meeting attended (such payments to be made until the Association agree to extend the present system of payment of travelling expenses of members attending meetings of the Council of the Association, to members of the Parliamentary Bills Committee) Provided also that not more than two of the Branch representatives on the Council of the Association shall at the same time be representatives of the Branch on the Parliamentary Bills Committee, and that, in this latter case, when any committee or subcommittee meeting takes place on any day in which a Council meeting is not held, the travelling expenses as aforesaid shall also be paid by the Branch to these two members." Medical and surgical communications: Dr. Wm. Armstrong: The "Nauheim" Bath, and Exercises in Cardiac and Allied Diseases. Mr. Colin Campbell: On the Range of Utility of Intrapulmonary Medication (demonstration). G. G. Stopford Taylor, M.D., will show Cases, Water-colour Drawings, and Photographs of Rare Skin Diseases. Frank Barendt, M.D., will show Cases of Rare Skin Diseases. Professor Boyce will give a Pathological Demonstration. Mr. Rushton Parker: Torn Semilunar Cartilage of Knee, cured by Operation; two patients. Mr. Damer Harrisson: Five Patients Illustrating Brain and Nerve Surgery. Dr. E. Shaunore Bishop: Version in Cases of Vagino fixation of the Uterus. Mr. W. Roger Williams: On the Increase of Cancer. Mr. W. Mitchell Banks will show Patients on whom Various Intestinal Operations have been performed. Mr. F. T. Paul: Case of Tendon-grafting. Mr. G. Gibson Hamilton: Two Specimens of Colectomy in which Murphy's Buttons were used. James Barr, M.D.: The Treatment of Meningitis. The Engineering, Chemical, and Pathological Laboratories of University College will be open for the inspection of members. The Superintendent of the Royal Infirmary will be pleased to show members that institution from 4.30 to 5.15 P.M. Exhibition of drugs and surgical appliances. A luncheon, provided by the President and members of the Branch in Liverpool, will be served at University College, from 1 to 2 P.M. Arrangements have been made for a dinner at the Adelphi Hotel, at 5.30 P.M. Tickets (wine not included) 5s. each.—JAMES BARR, M.D., Honorary Secretary, 72, Rodney Street, Liverpool.

EDINBURGH (LOTHIAN AND FIFE) BRANCH.—The annual meeting of this Branch will take place in the Royal College of Physicians, Edinburgh, on Thursday, June 27th, at 4 P.M. All communications regarding business should be addressed one week previously to the Honorary Secretary, Dr. R. W. PHILIP, 4, Melville Crescent, Edinburgh.

EDINBURGH, GLASGOW, AND STIRLING BRANCHES.—A conjoint meeting of these Branches will be held in Stirling on Tuesday, July 2nd, and it is hoped that members of the Perth and Dundee Branches may also be present. It is proposed to spend an hour after the meeting in visiting places of interest in the neighbourhood, and thereafter the members will dine together in the Station Hotel. Full details will be given in a circular to be issued next week.—C. J. LEWIS, Honorary Secretary, Stirling Branch.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting will be held at the Worcester Infirmary on Tuesday, June 18th, at 3.30. Dinner at the Star Hotel at 6, if a sufficient number of members notify their intention to dine not later than Saturday, June 15th. Business: To elect officers and Council for the ensuing year. Discussion on the proposed Bill for the compulsory registration of midwives. Discussion on the abuse of medical charities. Mr. Turner: 1. On the Best Method of Reducing Dislocation of the Hip. 2. A Case of Scirrhus, Encephaloid, and Colloid Cancer in the Same Patient.—GEO. W. CROWE, Honorary Secretary, Worcester.

BATH AND BRISTOL BRANCH.—The annual meeting of this Branch will be held on Wednesday, June 26th, 1895, at the Royal Mineral Water Hospital, Bath, at 4.30 P.M., when Mr. Nelson C. Dobson, will resign the chair to Dr. Carey Coombs, President elect, who will deliver the Presidential Address. Business: To receive the report of the Council, to elect the officers of the Branch, to transact the necessary business, and to discuss such subjects connected with the interest of the Branch and of the profession as may be brought before it. Members having any communications for the meeting are requested to give notice to the Secretaries not later than June 22nd. Members who have not paid their subscriptions are requested to do so immediately to the local Secretaries. The Bath Secretary particularly requests that members will inform him by Monday, June 24th, whether it is their intention to be present at the dinner. By so doing they will greatly facilitate the satisfactory completion of the necessary arrangements.—W. M. BEAUMONT, Honorary Secretary of the Bath District, 4, Gay Street, Bath; E. MARKHAM SKERRITT, Honorary Secretary of the Bristol District, Edgecumbe House, Richmond Hill, Clifton.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The twenty-fifth annual meeting will be held at the Hospital, Swansea, on Friday, June 28th. Members desirous of reading papers, etc., should send titles to Dr. Sheen. —A. SHEEN and D. A. DAVIES, Cardiff, Honorary Secretaries.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the Sheffield School of Medicine on Wednesday, June 26th, at 3 P.M., when the usual business will be transacted and the alteration of a rule proposed. Members intending to read papers are requested to communicate with ARTHUR JACKSON, Sheffield, Honorary Secretary.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The annual meeting will be held in the Gordon Arms Hotel, Elgin, on Thursday, June 20th, at 12 noon. Members desirous of making any communication, or members of the profession within the district who may wish to become connected with the Branch, will oblige by communicating with the Honorary Secretary.—J. W. NORRIS MACKAY, Honorary Secretary, Elgin.

BATH AND BRISTOL BRANCH.

THE seventh ordinary meeting of the session was held at Bristol, on May 29th, NELSON C. DOBSON, F.R.C.S., President, in the chair. There were also present 39 members and 3 visitors.

Communications. — The following communications were made: Dr. J. G. SWAYNE read a paper on Cases of Induced Premature Labour for Diseases of Mother not causing Obstruction to Delivery, upon which Dr. AUST-LAWRENCE made some comments.—Mr. J. FREEMAN read a paper on the Administration of Ether as an Anæsthetic. The following gentlemen took part in the discussion which followed: Dr. SWAYNE, Messrs. GREIG SMITH, HARSANT, BUSH, Dr. FISHER, Mr. LOWE, Dr. MICHELL CLARK, Messrs. GIBBS and LACE, Drs. MARKHAM SKERRITT and COOMBS, and the PRESIDENT. —Dr. WATSON WILLIAMS showed a specimen of Cardio-vascular Hypertrophy in Chronic Granular Kidney; upon which Drs. FISHER, SHINGLETON SMITH, and MARKHAM SKERRITT made some remarks.—Dr. MICHELL CLARKE demonstrated Urobilin and Methæmoglobin from Urine of a Case of Pernicious Anæmia with Paroxysmal Methæmoglobinuria; and Eosinophilous Cells in Blood from a Case of Leucocythæmia.—Dr. WALDO exhibited a case of Myxœdema; upon which Dr. WATSON WILLIAMS commented.

BORDER COUNTIES BRANCH.

THE spring meeting of this Branch was held at Penrith on May 31st. Dr. CONNEL, of Peebles, presided, and there were eighteen members and visitors present.

New Members.—The following gentlemen were elected members of the Branch: Drs. Dixon and Bannerman, of Hawick; Drs. Gibson and Walker, of Kirkby Stephen; Drs. Wilson Morland and Biden, of Penrith.

Registration of Midwives.—Dr. THOMSON moved and Dr. BOWSER seconded the following resolution:

That in the opinion of the Branch the Midwives Registration Bill as introduced into the House of Lords is opposed to the best interests of the general public and the medical profession.

In the discussion which followed it was clearly understood that the question to be voted upon concerned this particular Bill, and not the general question of the advisability of some registration of midwives. Thirteen voted for the resolution, one against; the rest abstained from voting. A resolution to petition against the Bill was lost by eight votes to six.

Abuse of Medical Charities.—On the question of abuse of medical charities, the Secretary was directed to write to members resident in places where hospitals existed for their opinion. Members from Hawick and Galashiels present at the meeting reported that no abuse existed in their districts.

Amendment of the Medical Acts.—The Draft Bill for an Act to amend the law with regard to unqualified persons was considered, and it was unanimously resolved:

That this Branch approves of the attempt to strengthen the medical Acts on the lines of the Bill.

The Death of Dr. Crerar.—The PRESIDENT in appropriate terms alluded to the death of Dr. Crerar, and moved the following resolution:

That this meeting desires to record its sense of the loss which the profession in the Border Counties has sustained by the death of Dr. Crerar, of Maryport, who was from the origin of the Branch one of its most active and useful members, and who filled with great distinction the office of President four years ago.

Dr. BARNES and Dr. MACDONALD testified to the esteem in which Dr. Crerar was held, and the motion was unanimously adopted.—The President was requested to convey to Mrs. Crerar and family the sympathy of the members of the Branch in their bereavement.

Melancholia.—Dr. FARQUHARSON (Carlisle) read a paper on melancholia, with special reference to its characteristics in Cumberland and Westmorland. At the Carlisle Asylum 70 per cent. of the cases of melancholia were delusional; the remaining 30 per cent. showed simple depression. The suicidal impulse was present in over 65 per cent. of the cases. Cumberland had a very high suicide rate compared with the rest of England. There was distinct organic bodily disease present in 29 per cent. of the cases, phthisis pulmonalis being the most frequent concomitant. The most important etiological factor was hereditary predisposition, ascertained in 38 per cent. of the cases, but probably present in a much larger proportion; intermarriage in the Fell districts and the racial characteristics of the Cumbrians fostered the prevalence of melancholia. Fifty-eight per cent. of the cases recovered; most of these were discharged after a few months' treatment, but some got well after attacks lasting for years. Of the unrecovered cases some remained in a chronic melancholic condition, some became maniacal; only a small proportion became completely demented. Twenty per cent. of the cases died; the most frequent cause of death was phthisis, the next most frequent being exhaustion from melancholia. Six deaths resulted from suicide. Twenty-two per cent. of the cases had had one or more previous attacks of insanity. The prognosis was on the whole favourable; the recovery rate was 4 per cent. higher than that of the cases of mania. The following factors were of importance: age, sex, hereditary predisposition, cause of the attack, mode of onset, duration of attack before commencement of treatment, and severity of the attack. The treatment was directed towards improving the bodily condition, and making the surroundings of the patient healthy and cheerful; tonics and stimulants were employed; hypnotics were often necessary, and in excited cases sedatives by day. Suicide had to be guarded against by constant watchfulness. Children with hereditary tendency to the disease needed careful upbringing, and persons who had already had an attack required to lead well-regulated lives.

Miscellaneous Communications.—Dr. BOWSER (Penrith) showed three Photographs of Tumours in the Region of the Embryonic Branchial Clefts, and read a paper on the Artificial Feeding of Infants and the Treatment of some Forms of Infantile Diarrhœa.

An adjournment was then made for dinner, and afterwards Dr. GRAHAM (Carlisle) read notes of a case of Pyonephrosis.—Dr. THOMSON (Penrith) read a paper on the Complications and Sequelæ of Epidemic Influenza, with their treatment.—Dr. BIDEN (Penrith) read notes of a case of Puerperal Fever, with unusual nervous symptoms.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of this District was held at Tunbridge Wells on May 28th; Mr. JAMES BISSHOPP, of Tunbridge Wells, in the chair.

Communications.—The following papers were read:—Dr. ADENEY: On Heart Disease occurring in Old People.—Dr. F. BISSHOPP: On a Case of Morvan's Disease, with exhibition of patient.—Dr. STARLING read notes on the Selection of an Anæsthetic.—Dr. VISE: Notes of a case of Scurvy Rickets.—Mr. FOOTNER showed photographs of a case of Fibrocystic Tumour of the Breast, which, on removal, weighed 6 lbs. There was no recurrence after twelve months.

DUNDEE AND DISTRICT BRANCH.

THE annual meeting of this Branch was held in University College, Dundee, on May 29th; Dr. SINCLAIR (President) in the chair.

Election of Officers.—The following office-bearers were elected for the year 1896:—*President:* D. MacEwan, M.D., Dundee. *President-Elect:* J. Stewart, L.R.C.S.Edin., Newport. *Vice-Presidents:* G. P. Alexander, F.R.C.S.Edin., Forfar; D. Steele Moon, L.R.C.S.Edin., Dundee. *Representative on Council:* J. W. Miller, M.D., Dundee. *Representative on Parliamentary Bills Committee:* J. W. Miller, M.D. *Council:* J. Keith Anderson, M.D., Arbroath; G. C. Dickson, M.D., Carnoustie; A. M. Anderson, M.D., Dundee; A. M. Stalker, M.D., Dundee; C. S. Young, M.R.C.S., Dundee; J. F. Sturrock, M.B., Broughty Ferry. *Treasurer:* D. M. Greig, F.R.C.S.Edin., Dundee. *Secretary:* R. C. Buist, M.D., Dundee.

Midwives Registration Bill.—The Midwives Registration Bill was remitted to the Council with powers.

President's Address.—Dr. SINCLAIR, in his presidential address, said one of their earliest duties of the year was to memorialise the Secretary for Scotland and a number of leading Scottish members of Parliament regarding the Local Government (Scotland) Bill, 1894—now become law—chiefly in reference to the powers of the central authority in public health matters. He need hardly say that they spoke of the negligence and inaction of the Leith authorities in allowing their port to become a centre for the spread of small-pox with all the candour which the occasion demanded. The Branch had lost its first Secretary (Professor Paterson) through his well-merited promotion to the Derby Chair of Anatomy in University College, Liverpool, and the members had recorded an indebtedness for his great services. Dr. Buist now worthily reigned in his stead. The Branch had also tackled the question of midwives' registration, and after a long and interesting discussion approval had been expressed of the principle that midwives should be properly trained, examined, and registered, and then kept in the place which Nature and a paternal legislation had set apart for them. Referring to the Bill to secure the proper education of midwives, which had been introduced in the House of Lords by Lord Balfour of Burleigh, Dr. Sinclair said if it were passed into law it would place this country abreast of other European nations which had already legislated in this direction. The Bill had now been sent to the Branches for discussion. To Dr. Buist they were indebted for suggesting and organising an outdoor maternity charity, under which Dundee was divided into six districts, with gratuitous medical supervision for necessitous cases. Their old friend the habitual offender did not escape notice, the Royal Commission on that subject being furnished with information and recommendations. For ten years the medical profession of Dundee and the surrounding towns had given their services freely and without fee or reward in lecturing to classes in first aid and sick nursing under the auspices of the St. John Ambulance Association, and some months ago their application to the Lord Provost's Committee of the Town Council resulted in a donation from the local taxation grant, which enabled the Association to give a fee of £5 5s. for each course of lectures. The quacks outside the profession also received a share of the members' attention, and a resolution had been passed and sent to the proper quarter approving of a Bill to render it punishable to mislead the public by pretending to the possession of medical titles or colourable imitations of

them. In conclusion, Dr. Sinclair commended the aims and objects of the Association to the support and sympathy of the members.

ABERDEEN, BANFF, AND KINCARDINE, EDINBURGH, (FIFE AND LOTHIANS), DUNDEE AND DISTRICT, PERTHSHIRE, AND STIRLING, KINROSS AND CLACKMANNAN BRANCHES.

CONJOINT MEETING.

AFTER the business meeting of the Dundee Branch was concluded, a conjoint meeting of these Branches was held; Dr. SINCLAIR presided. There were about 130 members present.

Clinical Demonstrations. — Clinical demonstrations were given in the Chemical Lecture Theatre as follows: Dr. MACEWAN: (1) Foreign Body from the Male Bladder; (2) Operation Cases from the Dundee Royal Infirmary.—Dr. KYNOCH: (1) Case of Congenital Dislocation of the Hip.—Dr. M'GILLIVRAY: (1) Cases of Mules's Operation with Artificial Eye; (2) Three Cases of Retinitis Pigmentosa in one Family; (3) Hereditary Nystagmus traceable for six generations.—Dr. GRAHAM CAMPBELL: (1) Artificial Velum in Case of Cleft Palate; (2) Upper Denture replacing Tissues destroyed by Lupus.—Dr. GREIG: Two Cases of Unilateral Hypertrophy of the Face.—Dr. STEWART (Newport): Case of Aneurysm of over twenty years' duration.—Dr. R. W. PHILIP (Edinburgh): Case of Cured Laryngeal and Pulmonary Tuberculosis.—Dr. LENNOX: Case of Stenosis of the Large Bronchi.—Dr. LOCKHART GILLESPIE (Edinburgh): Demonstration of a Rapid Method of Testing for Acids in the Gastric Juice.—Dr. STALKER: (1) Two Cases of Intractable Ulcer of the Foot; (2) Case of Acroparæsthesia.— Dr. BUIST (for Dr. MACKIE WHITE): Brother and two Sisters with Friedreich's Ataxia.—Dr. CROLL: Case of Progressive Muscular Atrophy, with Epileptiform Convulsions.—Dr. C. S. YOUNG and Dr. BYROM BRAMWELL: Case of Tetany under Thyroid Treatment.

Medical Defence Union.—Dr. SINCLAIR moved:

That this conjoint Branch meeting of the British Medical Association cordially approves of the objects and methods of the Medical Defence Union, and recommends members to give it their personal support; and further approves of the proposal to devote a part of the surplus revenue of the Association to promote the work of the Medical Defence Union.

This was agreed to *nem. con.*

Cork Medical Aid Clubs Indemnity Fund.—In accordance with a resolution of Council a subscription sheet was circulated and Dr. J. W. Miller (Dundee) received subscriptions.

Museum.—An exhibition of specimens, casts, photographs, etc., was held in the General Chemical Laboratory. This exhibition included casts by Dr. C. W. CATHCART illustrating Venereal Disease; a series of Brains from Dundee Royal Asylum, exhibited by Dr. ROBIE; a series of casts by Dr. BERRY HART illustrating Operations on the Female Perineum; and a series of photographs and microscopic sections illustrating Skin Diseases by Dr. NORMAN WALKER (Edinburgh).

Dinner.—The annual dinner was held in the Queen's Hotel. Dr. SINCLAIR presided, and 67 gentlemen took part. Among the visitors present were Lord Provost Low, Principal Peterson, Mr. A. H. Foggie, Chairman of Dundee Royal Infirmary; Dr. Sharples, H.M.S. *Unicorn*; Dr. J. C. McVail, Glasgow; Drs. Byrom Bramwell, Berry Hart, R. W. Philip, W. Allan Jamieson, C. W. Cathcart, Norman Walker, Lockhart, Gillespie and Brewis, Edinburgh; Ogilvie Will, Aberdeen; A. R. Urquhart and Leigh Hunt, Perth; Niven, Newburgh; Keith Anderson, Arbroath; G. M. Robertson, Murthly; Douglas and Macdonald, Cupar; and Dr. Geisse, Ems. After the loyal toasts Dr. SINCLAIR proposed "The British Medical Association," which was acknowledged by Dr. R. W. PHILIP, Secretary of the Edinburgh Branch. Dr. BUIST proposed "Our Universities and Medical Schools," to which Principal PETERSON and Dr. BERRY HART replied. Dr. J. W. MILLER gave "Neighbouring Branches," and Dr. URQUHART (Perth) responded. Dr. J. C. McVAIL submitted the toast of "Our Hospitals and Asylums," Mr. A. H. FOGGIE replying. The toast of "Our Guests" was proposed by Dr. MACEWAN. Lord Provost Low, in replying, said he looked forward to welcoming the British Medical Association to Dundee at no distant date. He referred to the success which had attended the visit of the British Association to Dundee in 1869, and said that if the British Medical Association were to meet here, he had no doubt their meetings would be equally successful. The medical profession in Dundee had always acted along with the municipal authorities in the promotion of public health. In this connection he adverted to the completion of the two hospitals for small-pox and cholera, and said he was hopeful that henceforth there would be no epidemics in the city. Other toasts followed.

SPECIAL CORRESPONDENCE.

PARIS.

Alcoholism in France.—The Stenches of Paris.—Tinned Meat for the French Army.—Proposed University of Provence.—General News.

PROFESSEUR LANNELONGUE stated in the Chamber of Deputies, in the course of the recent debate on hygienic drinks, that the increase of alcoholism and the adulteration of alcoholic drinks threaten to be serious dangers. "The integrity of the human species is at stake," said M. Lannelongue, and this takes precedence of any financial consideration. The name of "hygienic drinks" should be reserved for beverages that are not made unwholesome by adulteration and "doctoring." When *eau de vie* was largely consumed acute alcoholism was the principal form met with. Death speedily overtook the drunkard; such cases were rare. Occasionally cerebral trouble occurred. In 1855 the supply of pure alcohol was inadequate to the demand; the products of beetroot and starch replaced it; the consumption of so-called alcoholic drinks reached the proportion of 4 litres a day a head. Suicide and madness increased in the same proportion. One-fourth of the patients in hospitals and two-fifths of those confined in lunatic asylums are victims to alcoholism.

The stenches of Paris are again attracting attention; the origin of them is a subject of dispute. At the Seine prefecture the sewers are believed to be the cause; at the police prefecture, nuisances tolerated in the outskirts of Paris are incriminated. The police prefect has decided to have an inspection made of all houses and factories, etc., classed under the heading "unhealthy." The inspectors are directed to ascertain the particular factories, houses, etc., which are the principal cause of the nuisance. M. Max Nausonty, an authority on these questions, declares that the stenches of Paris come from many sources; sewers, factories, dust heaps, and cemeteries, all contribute. The regulation chimney prescribed by the Sanitary Council is a sham. The principle is to get rid of what is troublesome, but the smoke is carried only 25 metres up into the air, and the bad smells do not cease. The manufacturers should be obliged to condense their gases, to consume the gaseous residues, and to utilise the chimney only for carrying away inodorous gases. This will compel manufacturers to spend money, but M. Nausonty declares that personal sacrifices are not to be considered when the public welfare is at stake. The modern sewers M. Nausonty describes as "drawing rooms," but he considers the old ones to be deplorable. He would like to see the "dangerous" *débris* burned. The dustheaps in the outskirts of Paris he declares to be veritable hot beds of infection. M. Livache states that the offensive factories in Paris are not more than sixty in number. It would be easy, therefore, to deal with the nuisance: what is wanted is a firm hand.

The preserved meat for the army is to be made in France, and with indigenous cattle. The Appert process is to be used; the meat is to be sterilised in an *autoclave*; the preserved meat is to be enclosed in new tin boxes containing only an infinitesimal proportion of lead. The war administration reserves the right of superintending the preparation of the meat. Officers, medical men, and veterinary inspectors are authorised to visit the factory any hour of the night or day they may think fit.

The General Council of the Bouches du Rhône, after a hot discussion, have decided by 12 votes against 11 that a Provence university ought to be created, with a medical faculty at Marseilles. The general councillors of Marseilles protest against the decision of the Bouches du Rhône coun-

cillors who respect the rights of the faculties of law and letters; they consider that those "dying" faculties should be allowed to disappear.

Mlle. Léontine Nicolle, formerly directress of the School of Idiot and Epileptic Girls attached to the Salpêtrière, died recently at the age of 72. In 1850 she undertook the education and care of the idiot and epileptic children at the Salpêtrière Hospital; by her care a great many recovered their health. The French Academy had awarded to Mlle. Nicolle the Montyon prize and the "Palmes Académiques." President Carnot, December, 1887, presented to her personally in the presence of the Salpêtrière staff the Cross of the Legion of Honour.

At the Lille University *fêtes* the city of Lille was invaded by Parisian and Belgian medical notabilities. The hotels were overcrowded. For the first time in French history visitors were hospitably received by private families to whom they were personal strangers. This "new departure," admitted to be common abroad, is greatly lauded by the medical press.

The War Minister has decided that the Madagascar military service is to be provided with glycerinated vaccine in the place of dried vaccine powder.

BERLIN.

The Mariaberg Asylum Scandal.

TERRIBLE abuses have come to light in the Roman Catholic convent "Mariaberg," near Aix-la-Chapelle, a home for invalid priests and asylum for lunatics, epileptics, and dipsomaniacs, conducted and managed by lay brothers. Some time ago a pamphlet was published by a certain Herr Mellage, accusing the lay brothers of gross cruelties to their patients and the inmates of their home, asserting that the medical treatment and supervision in the asylum was practically *nil*, and drawing special attention to the case of Father Forbes, a priest, who had been sent to Mariaberg by his bishop ostensibly for his health, but in reality because his strongly democratic views had made him obnoxious to his superiors. Forbes (the pamphlet said) had entered Mariaberg as a voluntary inmate at the bishop's wish, but soon—on a hint from the bishop—he was declared insane, deprived of his freedom, and shockingly ill-treated by the brothers. The bishop, it was further said, had charged himself with the yearly sum for Forbes's maintenance.

The pamphlet caused a great stir, and an action for libel was brought against Mellage, the author, which has just now ended in a full acquittal, Mellage's charges having been found true in every particular.

Many witnesses were examined in the course of the law suit, and the horrors brought to light were such that—in the words of Professor Finkelburg, of Bonn, one of the experts called by the court—words can hardly be found to qualify such a state of things, a state of things that would have been thought impossible in Germany or any other civilised country.

A few facts will suffice. The asylum contains 660 patients; its medical staff consists of two doctors, who do not live in the convent, who have their own private practice, and give a hour and a-half each daily to their work in Mariaberg. The lay brothers, who manage the establishment, are by no means educated men. In their previous state of existence they were shoemakers, tailors, bakers, etc. They treat their patients with the most disgusting cruelty; kicking them downstairs or stunning them by blows on the head with a heavy bunch of keys are common occurrences; but they have a few modes of punishment for them that can be compared only to mediæval tortures. One of these is called "the douche," a strong jet of cold water from a hose, that causes the poor wretches to whom it is applied to dance about in agony. Another is "the tub" (*Bottich*) a large bath of cold water, into which the "patient"—his arms and legs tied—is plunged headforemost and held down, his feet only projecting, until close upon suffocation, when he is dragged out by the heels, allowed to breathe a few times, and is then replunged, this hideous proceeding being repeated ten to twelve times. One of the wards of the asylum goes by the name of "Schmutzige Station" (dirty ward); its horrors and the helpless lunatics who people it may be imagined. A favourite threat and punishment of the brothers is tranference to this ward. The strait waistcoat is also in common use as a punishment.

It seems almost incredible that these atrocities should not have been discovered at the periodical examinations by Government medical officers. Yet so it is. Several witnesses declared that the brothers had ways and means of knowing beforehand the day on which the inspection would take place, and that they cleaned and washed their wretched charges and got everything smooth and tidy ready to time; that, further, the inspection was a mere farce, as in every case the brothers' account was believed. The truth of these allegations will be tested at the approaching Government inquiry, but it cannot be disguised that culpable negligence has been proved already. Geheimrath Kribben, one of the examining physicians, acknowledged in Court that he had certified Forbes's insanity, and when asked his reasons for so doing could only say that he had seen Forbes drunk and very excited, and that Forbes's bishop had declared him to be a dipsomaniac and his condition to be hereditary. When asked how he had been informed of the bishop's opinion, his answer was that "Brother Henrich (one of the Mariaberg lay brothers) had told him so."

MELBOURNE.

The Court Martial on Surgeon F. J. Lea.

A VERY remarkable court martial has recently been held in Sydney. Francis James Lea, Surgeon to H.M.S. *Ringarooma*, was charged with insubordination and contempt of his superior officer, Captain Johnson. A sentence adverse to him has been recorded, and he has been dismissed from Her Majesty's service.

The charges were that on April 17th Dr. Lea behaved with contempt to Captain Johnson, his superior officer; that he disobeyed the lawful commands of the captain by refusing to go below when arrested; and also that he declined to sign an entry in the log to the effect that he had been placed under arrest. Captain Graham, of H.M.S. *Orlando*, acted as President of the Court, which consisted also of Commanders Douglas, of the *Royalist*; Carter, of the *Orlando*; and Cust, of the *Dart*.

Captain Johnson stated that he asked the accused as to the arrangements made for the care of the wounded in action, and Dr. Lea stated to him that everything was right save the table for sliding the wounded below, which was not in its place. Witness told the doctor that it was part of his duty to see to it; but Dr. Lea denied that it was, and said that he would write a letter to that effect. Witness then went below to inspect and found nothing to remark on. After awhile he was informed that accused intended to sick-list him. Directly afterwards Dr. Lea came up to him and ordered him to go below, as he had placed him on the sick list. He refused, whereupon Dr. Lea became excited, and told him that he did not consider that he was in command of the ship as he was on the sick list. He then ordered Dr. Lea to go below under arrest; but that officer refused to do so, and when he (Captain Johnson) ordered his boat to be manned, the accused protested against his doing so as he had been listed. On his return, Dr. Lea refused to sign the log entry that he had been placed under arrest, and then the witness, fearing that he would repeat his former conduct, placed him under close arrest. In cross-examination the captain acknowledged that it was the carpenter's work to see to the table, but said it was the duty of the accused to superintend the work.

Dr. Lea then attempted to cross-examine the captain on some points concerning his general health; but the court ruled that the subject had nothing to do with the specific charges tabled, so refused to allow the questions. The doctor asked if it was not a fact that a brother of Captain Johnson was at present in a lunatic asylum?

The statements of the captain were to a great extent corroborated by some of the other officers.

Dr. Lea's version of the affair was to the effect that on April 17th he respectfully informed Captain Johnson that everything was complete for the care of the wounded with the exception of the table, and that at once the captain became violently excited; his eyeballs protruded, the pupils became dilated, and his lips quivered. On telling the captain that it

was not his duty to see that the table was properly placed, the latter became still more excited and trembled with suppressed rage. The order that Dr. Lea should place the table he refused to put in writing. The doctor considered the captain unfit to command the ship, and looked upon it as his duty to place him on the sick list. He politely requested him to go below for further observation. Captain Johnson however replied that he would do nothing of the sort, and then placed the doctor under arrest. Captain Johnson, he further stated, had exhibited symptoms of a curious temperament, and appeared to suffer from morbid states of depression. At a party given in Brisbane he saw the captain suddenly jump up from his seat in the drawing room, wave his arms, and shout, "I must go." He got the captain away and placed him in a cab. The captain very often played an imaginary game of golf on the vessel's deck. He would make an imaginary stroke, and then look as if to observe the effect of it, and then another would follow. At the New Hebrides, when the ship went on a reef, the captain's manner was very eccentric; he started fishing out of one of the portholes. He was quite sure that the captain suffered mentally, and he could bring other surgeons to prove it, and as the ship was going to sea the next day he thought that, no matter how painful it was, it was his duty to act as he did. The court refused to allow witnesses to be called as to the captain's health, and found the accused guilty.

Great indignation is felt throughout the fleet at the decision of the court martial, and an appeal will be lodged by Dr. Lea against it. All the Sydney papers condemn the finding. A verbatim report of the whole case will be placed in the hands of the Lords of the Admiralty, members of the English Ministry, and members of the House of Commons. Steps will also be taken to induce the Premiers of the Colonial Governments to make such representations to the Imperial authorities as may appear necessary. The Colonial Governments contribute to the maintenance of the fleet in these waters £125,000 a year, and are therefore entitled to some consideration. Had Dr. Lea remained three months longer in the service he would have been privileged to a retiring allowance of £1,200, which he now loses. There is a rumour of an attempt being made to raise this sum by public subscription. The court made no effort to show that Dr. Lea's reasons for his action were inadequate, and, on the other hand, Dr. Lea should have reported to the staff-surgeon before then what his suspicions of the captain's state of mind were. The great question as to whether the captain should have been, or should not have been, placed on the sick list still remains undecided, the court having declared that there was nothing of a medical nature in the case at all. It certainly seems absurd that the court deliberately eliminated from its investigation the only possible justification for Dr. Lea's action.

ST. PETERSBURG.

Report of the Russian Leprosy Commission.—Statistics of the Antitoxin Treatment of Diphtheria in Russian Hospitals.

AT the end of 1894 the Russian Medical Council appointed a Commission of specialists to inquire into the prevalence of leprosy in Russia, and to report upon the measures advisable for its control or extinction. The report of the Commission has recently been published in full in the *Journal of General Hygiene*, the organ of the Medical Department of the Ministry of the Interior. The necessity for some inquiry was clear from the fact that leprosy was present in 50 of the 90 provinces or so of the empire; nor can the disease be said to be declining, for the occurrence of 2 cases in the Government of Kursk, which had hitherto been free from leprosy, had just been reported. The Commissioners hold that leprosy is a contagious disorder; they formed this conclusion mainly upon the evidence of Professor Minch with regard to the disease in the Terek province of the Caucasus, and upon the experience of the Norwegian Government. Professor Minch was able to demonstrate that the opening of a sufficient number of "leprosoria" in the Terek province was followed by a marked diminution in the number of new cases of the disease. The report therefore recommends, as the sole measure necessary, the construction of an adequate number of such institutions. The province of Yakutsk, and the North of Siberia generally, are stated to be now sufficiently provided for in this respect. It is proposed that seven new leper houses be at once established in the following positions: in the Governments of Kherson and Astrakhan, the provinces of Kuban, Terek, Daghestan, and the Don Cossacks, and in one central government of European Russia. These institutions should consist of a hospital for those disabled by leprosy, and of a "colony" for those who are able to work. The "colony" should take the form of a Russian village, with separate houses for separate families, each with its *ogorod* or vegetable garden, and a field for cultivation. It is suggested that all persons showing clear signs of leprosy, especially if there be ulceration of the skin or mucous membranes, should be compelled to enter such an institution, unless complete isolation can be carried out at home. The report insists upon the necessity of carefully registering all the lepers in the empire.

Reports showing results obtained by the antitoxin treatment of diphtheria are beginning to appear more frequently in the Russian medical press. Dr. Tchausof, of Warsaw, has treated 34 cases by the new method, with only 2 deaths. During the same period he had treated 4 cases by the older methods, with 1 death. Professor Kazem-Bek, of Kazan University, has employed the serum in 17 cases of true diphtheria with only 1 death. Dr. Rojanski reports 68 cases treated by the serum in the children's clinic of the Moscow University; 13 of these cases died, giving a mortality rate of 19.4 per cent. Under the older methods of treatment the mortality rate from diphtheria had always been from 46 to 48 per cent. He had also employed the serum as a prophylactic in 100 pupils of the Moscow Synodal Choral School, where some cases of diphtheria had occurred. One of the pupils so inoculated had a mild attack of diphtheria on the fifth day after the injection of the antitoxin. The rest remained well.

LEEDS.

A Case of Hydrophobia.—Strengthening of the Muzzling Order.—The Water Supply.

A REMARKABLE case of hydrophobia came before the City Coroner recently, when an inquest was held touching the death of Mr. Thomas Nunneley, 44, engineer, who died at the infirmary on May 26th. The evidence given by Mr. J. A. Nunneley, Senior Honorary Ophthalmic Surgeon to the General Infirmary, and brother of the deceased, showed that towards the end of December last the deceased had been scratched by a dog, but the skin was not broken, and the deceased made no complaint in regard to it. Early in January the dog became ill, and although there was no sign of rabies it was deemed advisable to destroy it. In March deceased inflicted on himself a jagged wound with a piece of glass, which was a long time in healing, and for the last week or two he had complained of pain in the scar. On May 25th he felt rather poorly, and had a slight difficulty in breathing and swallowing. On the following day he became considerably worse, and was removed to the infirmary, where he died on the evening of the 26th. The medical staff were all satisfied that death was due to hydrophobia. The *post-mortem* examination of the carcass of the dog revealed no symptoms of rabies, but the dog was savage and would not allow itself to be touched. The jury returned a verdict of "Death from hydrophobia."

The question of the more rigid enforcement of the muzzling order came before the City Council on May 24th, when it was decided that the present regulations should be strengthened. It has been no uncommon thing to see dogs with a single strap round the jaws, capable of opening their mouths several inches, and the committee decided that in future no muzzle should be considered sufficient unless it contained cross straps and completely encaged the animal's jaws, whilst still allowing it to lap water and to loll its tongue.

It is proposed to increase the supply of water to Leeds by the construction of a high-level reservoir situated somewhere in the Washburn Valley, and during the past week the Waterworks Committee have visited various proposed sites in that valley. Though the reservoir will not be needed for ten years, it was thought advisable to proceed to obtain the necessary parliamentary powers, and to negotiate for the purchase of the land, etc.

BIRMINGHAM.

A New Sanatorium.—Hospital Saturday.

THE Committee of the Birmingham and Midland Counties Sanatorium have just had a most munificent offer made them of a new sanatorium at Sutton Coldfield. Colonel J. H. Wilkinson, the Treasurer of the Institution, has offered to present to it the Royal Hotel, Sutton Coldfield, with its outbuildings and some five and a-half acres of adjoining land. The hotel, which is a red brick building in the Italian style, stands on a hill commanding extensive views of Sutton Park. The dryness of the soil and the bracing air render it peculiarly suited for the purpose for which it is intended. At present the Sanatorium Committee has a single institution at Blackwell, which, with its nine acres of land, provides accommodation yearly for some 1,200 patients. Colonel Wilkinson's object in making this offer is to provide separate accommodation for men and women. There can be no doubt the Committee will accept his offer, and some very slight alterations will speedily convert the present hotel building into a sanatorium capable of holding some eighty men patients, leaving the existing building at Blackwell for the use of women.

May 25th was Hospital Saturday, and, as in former years, the city everywhere showed evidences of it. A special *matinée* was given at the Theatre Royal, and in the evening there was a concert in the town hall, in aid of the fund. Great efforts are being made to surpass last year's total of £12,500, and reach if possible £13,000, in order to hand over to the various medical charities of the city the sum of £10,000, and have a sufficient surplus to support the two convalescent homes in North Wales, Tyn-y-Coed, and Marle Hall, which belong to the fund. The total amount handed in on Saturday evening was £9,545, which compares favourably with last year's total of £9,022 at the same period.

NEWCASTLE-ON-TYNE.

The Need for a New Infirmary.—Scholarships at the School of Medicine.—Enlargement of the Children's Hospital.

THE question of a site for a new infirmary has been before the Council of the City, who were asked to grant a site of eight acres on the Town Moor. The Council declined, by a considerable majority, to grant the request. The Town Moor is an open space of about 1,000 acres, round which on three sides the town has been built. Few cities can boast of such a magnificent natural playground. It is controlled by two authorities: the freemen, who have the right of the herbage, and the Corporation, who have the right of the subsoil. The consent of both these bodies is needed before any transfer of this ground can take place. The freemen were willing to assist the scheme in every way, but the City Council declined. A new infirmary is urgently needed; the population of the districts from which the present institution draws its patients has increased enormously, and in consequence the present hospital cannot meet the demands made upon it. The site of the present building is an admirable one, but is so cramped that in order to rebuild another infirmary here the present one would have to be pulled down, and the city would thus be without a hospital during the building of the new one. It is to be hoped that the Corporation may be able to find a way out of the difficulty by providing a suitable site in some position acceptable to the Infirmary Committee.

Two very valuable scholarships are to be awarded at the College of Medicine; the "Stephen Scott" scholarship and the "Heath Surgical" scholarship. The "Scott" scholarship is the interest of £1,000 awarded each year to the author of the best thesis on Hernia and its Allied Subjects. The author must be a graduate of Durham University, and under 30 years of age. The thesis must be printed or typewritten, accompanied with drawings, specimens, etc., and must be sent in not later than July 31st each year. The "Heath Surgical" scholarship, founded by Geo. Yeoman Heath, F.R.C.S., late President of the College and Professor of Surgery, is of the value of £200, awarded every second year. The subject of the first scholarship is the Surgical Diseases of the Jaws. This is open to graduates of the University of Durham. Essays must be printed or typewritten, and accompanied by specimens, casts, microscopical sections, and must be sent in by March 31st, 1896.

A new block of buildings for use of the Children's Hospital out-patient department is now being erected in an open and central part of the city. The out-patient work has been carried on in what was, prior to the building of the new hospital by Mr. John Fleming, the old hospital; this was hidden in an out-of-the-way corner not very easy of access. The old building is to be altered and converted into business premises. Through the kindness of Lord Armstrong, to whom the old hospital belonged, a new site has been obtained, and the new building will be larger, more conveniently placed for the people who use it, and much better adapted for the use of the staff. There will be four consulting rooms, large waiting rooms, dispensary, committee rooms, and residence for caretaker.

CORRESPONDENCE.

THE LANCASHIRE AND CHESHIRE BRANCH AND THE MIDWIVES BILL.

SIR,—In the report of the proceedings of the General Medical Council, which appeared in the BRITISH MEDICAL JOURNAL of June 1st, the text is given of a petition which is said to be "the petition of the Lancashire and Cheshire Branch of the British Medical Association."

I read this with surprise, as I was unaware that any such petition had been agreed upon at a meeting of the Branch. Thinking, however, that I might have been absent from the particular meeting at which it was considered and adopted, I have made very diligent inquiries during the week, but have not succeeded in finding a single member who has any more knowledge than myself of its having ever been submitted to, and adopted by, the Branch.

Coupling this negative fact with the positive one that it is signed by gentlemen who are not officers of the Branch, I cannot but think that it must have been erroneously designated. It is probably only a petition of a Committee, and the Branch certainly cannot be held responsible for the terms of a petition which it has never considered, and which is not signed by its President and Secretary, the only officers legally entitled to sign on its behalf.—I am, etc.,

Liverpool, June 10th. WILLIAM CARTER.

MIDWIVES' REGISTRATION AND THE MIDWIVES BILL.

SIR,—I was much amused at a statement by Dr. Havell in the BRITISH MEDICAL JOURNAL of June 1st, to the effect that "Mrs. Brown, Midwife," after the passing of the Midwives Bill, "becomes more capable of recognising danger," etc. Of course, in discussing the value of registration I omit miraculous results of this kind. The registration of medical men has some effect in distinguishing them from quacks, chiefly owing to the restricting of the giving of regular death certificates to those on the *Register*. The mere granting of the monopoly of a title or titles is of little or no value, as is shown by the fact that our leading surgeons adopt only the title of "Mr." on their doorplates, just as do the many quacks who with impunity infest the consultants' quarters in West London.

The Apothecaries Acts are of far more value than registration to the medical profession. The little value which registration possesses appears much more clearly when we come to the *Dentists' Register*, although the Dental Acts are better than the Medical Acts. At present I have no hesitation in saying that the greater part of the dental work in London is done by men not on the *Dental Register*, the public not knowing or caring whether they are registered or not. As to protecting the title "midwife," it is a title which "monthly nurses" indignantly repudiate if they are so styled, because those who work under the supervision of a doctor are always better paid, better trained, and more respectable than the few who profess to take sole care of confinements.

It is perfectly certain that the majority of women engaged in midwifery will never be on the midwives' register, even after it is permanently established; and, considering the class of women who will, if they like, be entered by thousands on the proposed register at its commencement, it is very pro-

bable that respectable women will shrink from putting their names on such a list. Very few people, indeed, ever see a copy of the *Dental Register*, even among members of the medical profession, and the proposed midwives' register would hardly make its existence known to the general public at all.

But, while I believe that it requires an imaginative temperament to see any practical benefit likely to arise from instituting a midwives' register, it seems quite clear that, just as the Dentists Acts have removed dentistry from the position of a clinical branch of surgical practice, so the Midwives Bill would, unless it proves a failure, separate obstetrics from medical practice. A surgeon is entitled to practise dentistry, but he is not regarded as a dentist. So, under the Midwives Bill, a doctor would be permitted to practise midwifery, but he would not be regarded as a midwife or obstetric practitioner. The registered midwives would be the obstetric practitioners, recognised by law as such. Doctors would be excused if they practised midwifery, just as they are if they act as dentists.

Dr. W. S. Playfair says: "That any supporter of the Midwives Bill contemplates for a moment the registration of a class of women who shall be 'fully qualified obstetrical practitioners' is an invention of the enemy which has been exposed so often that it is surely needless to deny it again." Dr. Playfair is entitled to know what he and his friends "contemplate," but whether they contemplate it or not that is exactly what the Bill would effect. The Midwives Bill creates a legally-recognised profession of midwives or female obstetric practitioners, just as much as the Dental Acts created a profession of dentists. If this is intended it ought to be openly admitted. If it is not intended I would ask the supporters of the Bill, if they do not understand the legal purport of the Bill, to receive information in a friendly spirit and not to regard it as "an invention of the enemy." Of the facts of the case there can be but one enlightened opinion, namely, that the Bill means what it says. It is in the hands of the profession.—I am, etc.,

Highgate, N., June 8th. HUGH WOODS.

SIR,—I shall feel very much obliged if you will allow me to say in the BRITISH MEDICAL JOURNAL that if I had not been unavoidably absent on Wednesday of last week I should have voted against Sir Walter Foster's motion. I still look upon the Midwives Bill with a considerable amount of suspicion, and I still think that the whole question of the certification and registration of nurses should have been raised at once, instead of piecemeal. But I felt the force of Dr. MacAlister's able argument against delay, and I am satisfied in my own mind that Dr. Atthill's ingenious and proper amendment, together with others, will go a long way to safeguard the privileges granted by the Bill against abuse. On the other hand, the evils of the present system are terrible, and the need for reform urgent.

Apologising for intruding on your space and the special attention of your readers, I am, etc.,

WILLIAM BRUCE.
Representative on the General Medical Council of the Medical Practitioners of Scotland.

Dingwall, June 10th.

SIR,—I wish to correct a false impression that Dr. Havell's letter is likely to create regarding the opinion of the South Wales Branch on the subject of midwives' registration. A special meeting was called, in part, to consider this subject, and a motion in favour of midwives registration was proposed. It was successfully opposed and fell through for want of support. It was fully acknowledged that the Bill was cordially disliked by many members of the profession. My impression is that the meeting was held in March, but I have not been able to find any report of it in the BRITISH MEDICAL JOURNAL, and was surprised at the time. If there is any such report I should be glad to have it pointed out.—I am, etc.,

Cardiff, June 3rd. ALEX. P. FIDDIAN.

*** We have made inquiries, and it would seem that our correspondent is under some misapprehension. We are informed that at the meeting of February 28th, 1895, the scheme for the registration of midwives, submitted by the Midwives Association, was allowed to lie on the table. The matter has not since been discussed, so that the resolution passed by 2 to 1 on April 26th, 1894, is the only one on the minutes of the Branch. The special meeting to which Dr. Fiddian refers must have been a meeting of some other body, and not of the South Wales Branch of the British Medical Association.

THE PRELIMINARY EXAMINATION OF THE SCOTTISH UNIVERSITIES.

SIR,—In an article in the BRITISH MEDICAL JOURNAL of June 8th, headed "The Scottish Universities," embodying a comparative statement of the passes and failures in the Medical Preliminary Examination of the four Scottish Universities, the following sentence occurs: "These figures may be taken to mean that in Aberdeen either the preliminary education of the candidates is of a higher order, or that the test is not so severe."

I have been requested to point out that, as a matter of fact, the preliminary examination papers in the four universities are identical, and that the candidates' answers, after being examined and marked by the examiners of the respective universities, are sent up to a Joint Board of Examiners composed of representatives from each university, who revise the results arrived at by the examiners of the several universities, and reduce them to a single uniform standard. In this way uniformity of test is attained, in so far as this is possible.—I am, etc.,

Aberdeen, June 11th. DONALDSON ROSE THOM, Secretary of the Medical Faculty.

HYDROPHOBIA ALLEGED TO FOLLOW THE BITE OF A HEALTHY DOG.

SIR,—In the BRITISH MEDICAL JOURNAL of May 25th you comment most severely on the evidence I am alleged by the local press to have given at an inquest recently held at Cheadle in the case of a child which died of hydrophobia. Before you wrote on the subject "in an *ex cathedrâ* manner," I think you ought first to have ascertained from me, which you might easily have done, whether I was correctly reported—it is well known that the lay press is particularly liable to error when reporting on medical subjects. In this case the reporter has merely put the answer given to one question as that given to another. To put the matter as briefly as possible, the questions, the full bearing of which could only be understood by those acquainted with local feeling in the matter, were:

Question 1: There is in Cheadle Heath an opinion that this dog was not mad. Would hydrophobia follow from a bite of a sane dog?—Answer: This case (if the dog was not mad) might seem to show that it can.

Question 2: Are all deaths from hydrophobia due to bites from rabid dogs?—Answer: All deaths from hydrophobia are not due to bites from rabid dogs.

Question 3: Does hydrophobia necessarily follow on a bite of any rabid dog?—Answer: It depends on the constitution of the patient; it does not necessarily follow.

The local reporter has made the mistake of assigning my answer to Question No. 3 as the answer to Question No. 1. In fairness to me I request that you give my contradiction to the report in the local press as prominent a place in the next issue of the BRITISH MEDICAL JOURNAL as you have done your comments upon it.—I am, etc.,

Cheadle, near Manchester, May 26th. JOHN H. GODSON.

*** Mr. Godson admits that it was in his mind that a healthy dog could give hydrophobia by his bite. It was the whole of our contention that this was not the case and that there is no evidence of its possibility. We recognise that the reporter of the paper from which we quoted confused some of Mr. Godson's replies together, but the account given of his opinions was sufficiently clear to justify our criticism of an erroneous view of the well-known pathology of rabies and a view which can only cause great and needless anxiety.

ALCOHOL IN WORKHOUSES.

SIR,—I thoroughly agree with those who advocate the entire abolition of alcohol in any form in workhouses. The workhouse should be what its name implies. The infirmary should be an independent institution, having no connection with the workhouse. I absolutely disagree with those who

advocate—as the BRITISH MEDICAL JOURNAL appears to do—the disuse of alcohol in the treatment of sickness in our Poor-law infirmaries.

The principle we should go on is simple. If alcohol serves us in our daily routine of work, in private practice, in hospital work, then why should it be refused to the sick man or woman in our union infirmaries?

A few years ago a few ladies—well intentioned, no doubt—waited on me to impress the importance of my using alcohol with care in my union work. I asked them, "Have you been to the Halifax Infirmary to see Dr. Solomon Charles Smith, and to impress on him the same advice you are anxious to give me?" No, the ladies had not; it was quite different.

That is the mistake these ladies made, and the one that you seem inclined to make. There is no difference between sickness in a union infirmary and sickness in a general hospital. Phthisis is the same in both, pneumonia is the same in both, exhausting abscesses are the same in both; and if alcohol, as beer, porter, etc., are required in one institution, they are equally demanded in the other. The Poor-law medical officer is worried by the rabid teetotallers over this alcohol question. The statistics you publish are worthless as to the value of alcohol in the class of practice we are dealing with. What is the consumption of alcohol in all the general hospitals throughout England? How does it compare with the statistics you have given?

I enclose a short paper of mine on this subject, and hope that the views therein expressed may be criticised by you. The conclusions appear to me to be beyond dispute.—I am, etc.,

Halifax, May 27th. T. M. DOLAN, M.D., J.P.

SANITARY PIONEERS IN INDIA.

SIR,—With reference to your article in the BRITISH MEDICAL JOURNAL of May 25th, p. 1171, you say Dr. De Renzy, "in his report on the sanitary administration of the Punjab for 1867," etc. Dr. De Renzy was not appointed Sanitary Commissioner until March, 1868, and the report to which you refer on the Kalka and Simla supply of drinking water was dated Lahore, August, 1869; it reached the Government on October 27th, and was replied to by them in November, and issued in the early part of 1870. It is desirable to be accurate in dates if possible. You further remark in the article above referred to that "to us in England who date our certain knowledge of the water carriage of cholera from Snow's researches many years before the acceptance of such doctrines in 1868 (in India) may seem only natural." Dr. Gairdner, of Glasgow, makes a similar statement in his introduction to the English translations of Koch's admirable report on the late epidemic of cholera in Germany.

I would, however, beg to remind you that the Royal College of Physicians, in their report of 1854 on the epidemic cholera in England in 1848 and 1849, state "that it is not probable that in the case of cholera the influence of water will ever be shown to consist in its serving as a vehicle for the poison generated in the bodies of those who had suffered from the disease." This remark was made with special reference to the Broad Street case and Dr. Snow's views on the subject. Twelve years after this opinion (Drs. Baly and W. G. Gull) had been endorsed by the College of Physicians, Dr. Richard Quain (now Sir Richard) ventured to support Dr. Snow's doctrine as to the propagation of cholera by water, and in an editorial article which appeared in the JOURNAL on September 15th, 1866, p. 309, the then Editor remarked: "We object to his (Dr. Quain's) assuming as a fact that the river Lee was last year poisoned by the evacuations of cholera patients at Epping. We must be excused for saying that such a statement is contrary to all *a priori* medical reasoning and is completely unproved by fact. We do not believe a single case on record either proves or justifies the fact that cholera poison has passed bodily as such with water into a man's stomach and then and there produced cholera in him." This expression of opinion was quite in accord with the views held on this subject by Dr. Parkes[1] and the leading medical authorities of the day. The *Indian Medical Gazette* was first published in 1866, and has from the first held to the view expressed by its editor, that "cholera may be carried from one place to another by means of contaminated clothing, but an epidemic outburst of the disease can only occur through the drinking water of the place being contaminated with cholera excreta; without the specific cholera-infecting matter no combination of causes can produce an outbreak of Asiatic cholera."[2] Dr. John Murray retired as Director-General of the Indian Medical Service in 1869, and for years he had preached, in season and out of season, the specific nature of the germs of cholera.[3] John Murray was one of the foremost men of the Indian Medical Service—a man who did a vast amount of work and of great observation, but his services, so far as I know, remain unrecognised by Government; his views were certainly not acceptable in official circles as regards cholera, and he was in the habit of saying and writing what he believed to be true.

Mr. John Strachey (now Sir John), member of Council of the Secretary of State for India, was appointed the head of a committee to examine into the circumstances of the outbreak of cholera at Meean Meer in 1861, the first part of the report on this epidemic had to be withdrawn, as it contained statements of a personal nature reflecting on the character of individual officers; and of the committee Dr. Linton, the head of the British medical service, and Colonel Gawler, of the Royal Engineers, declined to sign the revised report. All this excited great ill-feeling at the time; the committee started with the opinion "that the mere contamination of the drinking water may cause disease, but it will not cause cholera." Mr. Strachey was soon afterwards appointed Sanitary Commissioner with the Government of India; subsequently he became a member of the Governor-General's Council, and then of the Council in London, so that he has held a commanding influence on the sanitary affairs of India for some thirty-four years. Although the doctrine as to the propagation of cholera by drinking water was for many years denied, and that in the most aggressive manner, after the style of the Meean Meer report by the Sanitary Commissioner with the Government of India, I do not for an instant believe that it influenced the practice of the Government; a vast deal has been done, and every effort is still made to procure a pure supply of drinking water for our troops in India. The subject of sanitation for the natives requires the greatest care; religious and other prejudices have to be carefully considered, but the Government are doing something in this direction, and I think might do more by inculcating elementary sanitary principles into the course of education to be followed among the pupils in the Government colleges and schools throughout India.—I am, etc.,

Grosvenor Street, W., May 27th. N. C. MACNAMARA.

[1] See his first edition on *Hygiene*.

[2] *Treatise on Asiatic Cholera*, published in London, 1869.

[3] See *Indian Medical Gazette* for 1869, pp. 166 and 171.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL A. H. ANTHONISZ, M.B., is promoted to be Brigade-Surgeon-Lieutenant-Colonel, *vice* P. L. Kilroy, who has quitted the service on retired pay, May 15th. Brigade-Surgeon-Lieutenant-Colonel Anthonisz was appointed Assistant-Surgeon, April 1st, 1871; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; and Surgeon-Lieutenant-Colonel, April 1st, 1891. He served in the Egyptian war in 1882, receiving the medal and the Khedive's bronze star, and in the Soudan campaign in 1885, for which he received an additional clasp.

Surgeon-Major W. J. BAKER, who was placed on half pay on account of ill-health on August 7th, 1894, is restored to the establishment, *vice* G. Laffan, M.D., deceased, May 20th.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN CHARLES S. SMITH is promoted to be Surgeon-Major, June 5th.

Surgeon-Lieutenant J. P. ATKINSON, M.D., 3rd Volunteer Battalion the Suffolk Regiment, is appointed Surgeon-Captain, June 12th.

THE VOLUNTEERS.

MR. CHARLES MACDONELL ANDERSON, M.B., is appointed Surgeon-Lieutenant in the 1st Kent Artillery (Eastern Division Royal Artillery, May 29th.

Surgeon-Captain T. K. DALZIEL, M.B., Clyde Division Submarine Miners, Royal Engineers, has resigned his commission, May 29th.

Mr. DAVID DUKE MONRO, M.B., is appointed Surgeon-Lieutenant to the Galloway Rifles, May 29th.

Surgeon-Lieutenant H. MARRIOTT, M.B., 4th Volunteer Battalion the Cheshire Regiment, is promoted to be Surgeon-Captain, May 29th.

Surgeon-Captain G. A. EDSELL, 2nd Volunteer Battalion the Oxfordshire Light Infantry, has resigned his commission, May 29th.

Surgeon-Lieutenant H. J. MACKAY, M.B., 2nd Volunteer Battalion the Duke of Edinburgh's Wiltshire Regiment, is promoted to be Surgeon-Captain, May 29th.

Surgeon-Captain J. MALPAS, 2nd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment, is appointed Second Lieutenant in the same corps, June 5th.

Surgeon Lieutenant-Colonel J. G. HALL, 3rd Glamorgan Rifles, has resigned his commission, with permission to retain his rank and uniform, June 5th.

Surgeon-Lieutenant C. H. POWERS, 1st Cumberland Artillery, has resigned his commission, June 12th.

Mr. GEORGE LYON, M.B., is appointed Surgeon-Lieutenant to the 6th Volunteer Battalion the Gordon Highlanders, June 12th.

Surgeon-Lieutenant-Colonel J. K. ANDERSON, M.D., 2nd Volunteer Battalion the Royal Highlanders, is appointed Brigade-Surgeon-Lieutenant Colonel Tay Brigade Volunteer Infantry.

THE QUEEN AND THE VOLUNTEER MEDICAL STAFF CORPS.

HER Majesty the Queen paid a visit to the Aberdeen Company of the Volunteer Medical Staff Corps, who are at present undergoing their annual training under canvas on a spot beside the Muick on Her Majesty's estate of Birkhall.

CHANGES OF STATION.

THE following changes of Station amongst the officers of the Army Medical Staff have been officially notified to have taken place during the past month:

		From	To
Brig.-Surg.-Lt.-Col.	N. B. Major	Aldershot	Strts. Settlmnts.
Surg.-Major	J. J. Morris, M.D.	—	Alderney.
,,	P. Mulvany	Jamaica	Dublin.
,,	J. O. G. Sandiford, M.D.	Waterford	Glenbeigh.
,,	W. B. Thomson	—	York.
Surg.-Capt.	A. Dodd	Woolwich	T.Sch.,Aldersht.
,,	J. R. Barefoot	Portsmouth	Trowbridge.
,,	J. R. Forrest	Exeter	Waterford.
,,	G. E. Hale, D.S.O.	Beaumaris	Manchester.
,,	S. Hickson, M.B.	Dublin	C. of G. Hope.
,,	H. J. Fletcher, M.B.	Burnley	Altcar.
,,	A. P. H. Griffiths	Chester	Wrexham.
,,	F. T. Skerrett	Carnarvon	Lowther Dock.
,,	F. W. G. Hall, M.B.	Woolwich	W. Africa.
,,	H. H. Brown, M.B.	Barry Links	Lanarkmuir.
,,	J. S. Davidson, M.B.	Devonport	Brecon.
,,	J. Will, M.B.	Edinburgh	Barry Links.
,,	C. J. MacDonald, M.B.	Cork	Kilkenny.
,,	T. H. F. Clarkson	Dover	Aldershot.
,,	J. Keatly	Bengal	Longford.
,,	D. M. Saunders, M.D.	Manchester	Chipping.
,,	H. A. Cummins, M.D.	Fermoy	Clonmel.
,,	J. F. Donegan	Cork	Madras.
,,	E. S. Marder	Devonport	Okhmptn. Cmp.
,,	T. Browning	Limerick	Nenagh.
,,	G. F. H. Marks, M.D.	Dover	N. Romney Cmp.
,,	R. Holyoake	Colchester	Tower of Londn.
,,	S. Macdonald, M.D.	—	Portsmouth.
,,	E. Corcoran	—	Gt. Yarmouth.
,,	J. C. Weir, M.B.	Bengal	Dublin.
,,	C. W. Duggan, M.B.	W. Africa	Woolwich.
,,	G. E. Hughes	Madras	Dublin.
Surg.-Lieut.	G. S. Walker, M.B.	—	Kinsale.
,,	J. H. Rivers	Pembroke Dock	Devonport.
,,	A. E. C. Keble	Preston	Brackember Mr.
,,	G. Dansey-Browning	Maryhill	Ayr.
,,	A. E. Milner,	Alderney	Portsmouth.
,,	W. S. Harrison, M.B.	Chester	Burnley.
,,	H. E. Staddon	Cork	Limerick.
,,	L. P. Tomlinson	Dover	Lydd.
Quartermaster	W. J. Blackman	London	C. of G. Hope.
,,	H. G. Hasell	—	Netley.
,,	D. Dallas	—	Devonport.

FURLOUGH 1868.—The number and date of the general order promulgating in India the first publication of the furlough rules of 1868 are Number 613, and date June 19th, 1868, taking effect from July 1st, 1868.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

LONG VACATION COURSES.—Lectures and practical courses in Osteology, Chemistry, Physics, and Medicine are announced for the ensuing Long Vacation. They will begin on or about July 6th.

DEGREES.—At the congregation on May 30th the following medical and surgical degrees were conferred: *M.D.*—A. G. Phear, B.A., of Trinity College; and F. M. Turner, B.A., of Trinity College. *M.B. and B.C.*—J. W. Cornwall, B.A., Trinity; L. Powell, B.A., Trinity; G. H. Field, B.A., Clare; E. T. Fison, B.A., Corpus; L. C. Burrell, B.A., Caius; J. N. Dobbie, B.A., Caius; R. F. Smallwood, Caius; H. F. R. Williams, B.A., Caius; C. E. Hedges, B.A., Sidney Sussex. At the congregation on June 6th the following degrees were conferred: *M.D.*—F. C. Martley, Trinity; C. Wyman, Trinity. *M.B. and B.C.*—E. W. Ormerod, Trinity; E. Ransome, Clare.

VICE-CHANCELLOR.—Mr. Charles Smith, Master of Sidney Sussex College, and Alex. Hill, M.D., Master of Downing College, were on May 31st nominated by the Council for the office of Vice-Chancellor in the next academical year, and on June 1st Mr. Smith was duly elected.

EXAMINERS.—Dr. W. H. Dickinson, Dr. J. K. Fowler, Dr. L. Humphry, and Dr. Sidney Martin have been appointed Examiners in Medicine; Dr. Walter Griffith and Dr. J. Phillips Examiners in Midwifery; and Mr. F. Treves, Mr. H. Clutton, Mr. Howard Marsh, and Mr. W. H. Bennett, Examiners in Surgery.

MEDICO-LEGAL AND MEDICO-ETHICAL.

"WORKING UP A PRACTICE."

TWENTY-SIX.—Not only would the suggested *locum tenencies* for the purpose indicated be a breach of medical etiquette, but in direct contravention of the moral law, and should not for a moment be entertained—even were it practicable—which it can scarcely be, in view of the general rule of exacting a penalising bond not to practise within a specified radius of the locality.

EMERGENCY CALLS.

TROJAN.—If our correspondent had, instead of seeking to disprove the allegation referred to by a series of questions put hypothetically, explicitly denied the imputation that, when remonstrated with, he expressed the opinion that "in cases of accident it was first come first served," we should have been in a position to comment thereon.

M.D.BRUX.

A. W. H. writes that he has just taken the title of "M.D.Brussels," and desires to be informed if there is any objection to his putting "M.D." after his name on his doorplate, or whether any legal steps could be taken against him for doing so; also whether there is any objection to placing "M.D.Brux." after his name.

*** There can, we think, be no objection to the latter course, but placing the letters "M.D." alone might be held to imply the possession of a registrable degree, and we cannot say that legal proceedings could not be taken.

THE CIRCULATION OF REPRINTS.

A CORRESPONDENT in the North of England writes to express the distaste with which he receives reprints, in pamphlet form, of papers published in the medical journals from the authors. He encloses a specimen received recently from a surgeon practising in a town in the North of England. He adds: "I would never send a patient to such a person."

*** If our correspondent has not the personal acquaintance of the author of the paper, and if he be not known to take a special interest in the subject of the paper, we should be disposed to agree with him in thinking that a mistake has been made. The custom of circulating broadcast such reprints is open to abuse.

CO-OPERATIVE ADVERTISEMENT.

GRIMSBY.—A correspondent in this town has sent us two handbills which have been recently issued by a dentist resident there. On the one side is an advertisement of "Prize Medal Artificial Teeth," and a portrait of a grinning patient "before" and "after" visiting the dentist. The astonishing part about the handbill is the reverse, which consists of a flaming testimonial to the skill, etc., of the dentist. This testimonial purports to be signed by "George Gresswell, M.A., Oxford and Cape, L.R.C.P. and S.E., L.F.P.S.G., late Lecturer in Physical Science under the Government of the Cape of Good Hope, author of various works." The testimonial is headed by the address of Mr. Gresswell in Grimsby, and it is difficult to understand how such a flagrant breach of professional custom with regard to the avoidance of advertising can have been perpetrated with his knowledge, but equally difficult to understand how it can have escaped his observation.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 5,435 births and 3,139 deaths were registered during the week ending Saturday, June 8th. The annual rate of mortality in these towns, which had declined from 17.7 to 17.2 per 1,000 in the four preceding weeks, further fell last week to 16.5. The rates in the several towns ranged from 10.4 in Portsmouth, 11.3 in Croydon, and 11.4 in Derby to 20.9 in Liverpool, 21.4 in Bolton, and 25.7 in Burnley. In the thirty-two provincial towns the mean death rate was 15.9 per 1,000, and exceeded by 1.1 the rate recorded in London, which was only 14.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.4 per 1,000; in London the rate was equal to 1.6 per 1,000, while it averaged only 1.3 in the thirty-two provincial towns, and was highest in Plymouth, Salford, and Bolton. Measles caused a death rate of 1.0 in West Ham 2.3 in Plymouth, and 3.5 in Bolton; whooping-cough of 1.1 in Gateshead; and "fever" of 1.0 in Burnley. The mortality from scarlet fever showed no marked excess in any of the large towns. The 51 deaths from diphtheria in the thirty-three towns included 33 in London, 4 in Birmingham, 3 in West Ham, and 3 in Wolverhampton. One fatal case of small-pox was registered in Bolton and 1 in Oldham, but not one in London or in any other of the thirty-three towns. There were 23 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, June 8th, against 27, 29, and 22 at the end of the three

preceding weeks; 5 new cases were admitted during the week, against 4, 7, and 1 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,446, 1,503, and 1,524 at the end of the three preceding weeks, had further risen to 1,588 on Saturday last, June 8th; 179 new cases were admitted during the week, against 185, 214, and 187 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, June 8th, 915 births and 567 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.2 and 21.4 per 1,000 in the two preceding weeks, declined again to 19.7 last week, but exceeded by 4.4 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 15.7 in Leith to 16.3 in Aberdeen. The zymotic death-rate in these towns averaged 2.0 per 1,000, the highest rates being recorded in Paisley and Perth. The 277 deaths registered in Glasgow included 4 from measles, 3 from scarlet fever, and 6 from whooping-cough.

THE SALE OF UNSOUND MEAT IN THE HOLBORN DISTRICT.

We have lately had brought under our notice how the most systematic inspection of meat may be rendered useless by the action, or rather inaction, of a neighbouring district. The Smithfield Market is under the Corporation, and the control of the meat trade is administered by the Commissioners of Sewers, who employ well paid and experienced inspectors to patrol the market. Just outside the market, in the neighbouring streets, are rows of retail butchers' shops, where, it is stated, meat that could not pass the market inspectors is unblushingly offered for sale, the dealers knowing that the chances of detection are few. This area is under the sanitary control of the Holborn Board of Works, which employs an inspector for two hours daily to examine the meat. This is manifestly insufficient; it is the easiest thing in the world to dodge the inspector, and, moreover, the employment of an inspector for two hours daily is not sufficient. We are therefore not speaking too strongly when we say that the Holborn Board offers facilities for the sale of unsound meat. This question is one of vital importance to the public health, and we trust that the Holborn Board will see its way to devising a more efficient system of inspection. We understand that there is a conjoint scheme suggested by Dr. Sedgwick Saunders, the Medical Officer of Health for the City, by which the Holborn Board could join forces with the Commissioners of Sewers; this scheme is at present under the consideration of the Board, but, by whatever means the end is reached, we are sure that the Holborn Board will hasten to shake off the odious reproach of being participators in this evil trade.

EXTRA FEE FOR MIDWIFERY.

J. H. writes: I was called to see a patient who had given birth to a child a few hours previously. The midwife in attendance had broken the funis and had failed to remove the placenta, which I found to be adherent, and this I removed in the usual way. The relieving officer gave an order which he marked "Attendance after childbirth." Can I claim an extra fee for this case, and, if so, how much?

*** It has been been decided by the Local Government Board that the removal of an adherent placenta constitutes a claim for the extra fee of £2.

COMPULSORY REMOVAL TO HOSPITAL.

Deltoid asks whether a medical officer of health has power to remove a child suffering from an infectious disease to the local hospital, forcibly and against the will of its parents, who are well-to-do and who would prefer to have the child treated at home by their usual medical attendant.

*** If the consent of the parents be refused, the medical officer of health might apply to a magistrate for an order, but would have to satisfy him that the patient was without proper lodging and accommodation. Short of such an order, there is no power of compulsory removal under circumstances at all approaching those described by "Deltoid."

IRISH WORKHOUSE MEDICAL OFFICERS AND CORONERS' FEES.

W. R. D. writes: Will you kindly say if it is your opinion that workhouse medical officers in Ireland are on the same footing as those in England with regard to the question of inquest fees; and, if so, could you quote me any cases which might serve as precedents? Some time ago I consulted a solicitor about this, but he did not give me any encouragement, quoting some cases where judges had refused to give fees.

*** The proceedings of the coroner's court in Ireland are governed by the 9 and 10 Vict., cap. 37, and 44 and 45 Vict., c. 35 (1881). Our correspondent will find all information in Kinkead's *Irish Practitioner's Guide* (Dublin, John Falconer). It is there laid down that no medical officer of any public hospital or infirmary, whether supported by endowments or subscriptions, is entitled to fees or remuneration for attendance at an inquest if it was his duty to attend the deceased person as a medical officer of such institution. It has been contended, however, that a workhouse is not an infirmary, the latter being merely wards in an institution for destitute poor; and Mr. Beetham, Q.C., of Gray's Inn, has advised that, in his opinion, the section does not apply to workhouse infirmaries. We do not know of any case in which the question has been decided.

DUTIES OF M.O.H. UNDER THE NOTIFICATION ACT.

M.D.—It is scarcely necessary to repeat that it is no part of the duty of the medical officer of health to verify notified diagnoses under ordinary circumstances. Assuming that direct communication with the medical officer of health has failed to bring about a satisfactory adjustment, the best course would seem to be a temperate letter to the district council or to the Local Government Board explaining briefly the grievance, and asking for the recognition of the principle stated above as a guide to the medical officer of health in future cases.

OBITUARY.

KARL THIERSCH, M.D.,

Professor of Surgery in the University of Leipzig.

Professor Thiersch, the eminent surgeon of Leipzig, who died on April 28th at the age of 73, was the son of the great philologist Friedrich Thiersch, and was born at Munich in 1822. He studied medicine in the University of his native city, and afterwards at Berlin, Vienna, and Paris. In 1848 he was appointed Prosector of Morbid Anatomy at Munich. He was a most dexterous microscopist in the days when section cutting and staining were in their infancy, and we are informed that five and-thirty years ago he was introduced to Messrs. Smith and Beck, of Cornhill, and supplied them for some years with marvellous slides of injected and stained specimens, both of healthy and diseased structures. Any of our readers who happen to possess these beautiful slides may like to know who was their author.

In 1854 Thiersch was appointed to the Chair of Surgery in the University of Erlangen. He did splendid service in the Schleswig-Holstein war, where he worked under Stromeyer, earning the warmest commendation from that distinguished military surgeon. In 1867 he was called to the Chair of Surgery at Leipzig, which he continued to occupy till his death. During the Franco-Prussian war he was attached as Senior Surgeon to the 12th Army Corps. His name is identified with several improvements in the art of surgery, notably with the healing of extensive wounds by transplantation of epidermis. He was throughout his career a pathologist as well as a surgeon, and his work on the pathology of cancer, *Der Epithelial-Krebs, namentlich der Haut*, Leipzig, 1865, laid the foundation of much of our present knowledge on the subject. He also contributed largely to surgical literature in other directions—for example, on phosphorus necrosis, the antiseptic treatment of wounds, etc. He suggested the use of salicylic acid as less dangerous than carbolic acid, and he obtained excellent results by treating operative and other surgical cases in open tents.

We regret to have to record the death of Mr. George Ernest Alford, of Weston-super-Mare. The deceased, who was born at Tewkesbury in January, 1853, was educated at Clifton College, at the Bristol Medical School, and at University College, London. He took the diplomas of M.R.C.S. Eng. in 1875, L.R.C.P.Edin. and L.M.K.Q.C.P.I. in 1878. In 1875 he was House-Surgeon at the Royal Westminster Ophthalmic Hospital, and subsequently he was Surgeon to the Union Steamship Company's ss. *Syria*. In 1876 he was appointed House-Surgeon to the Weston-super-Mare Hospital, of which institution he was one of the honorary surgeons at the time of his death. The funeral took place on June 1st.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. G. Coppola, Professor of Medical Pathology in the Medical Faculty of Palermo; Dr. S. Fernandez de la Vega, formerly Professor of Anatomy in the Medical Faculty of Saragossa; Dr. J. Godoy y Rico, Professor of Operative Surgery in the University of Granada; Dr. A. Maklakoff, Professor of Ophthalmology in the University of Moscow; Dr. Reich, one of the oldest and most esteemed practitioners of Berlin, aged 88; Dr. Morris H. Henry, a prominent member of the profession in New York, and formerly editor of the (now defunct) American *Journal of Syphilography and Dermatology*; Dr. Bernhard Wölfler, Imperial Councillor and Director of the Rothschild Hospital for Jews in Vienna, aged 79; Dr. Ottomar Reich, the oldest practitioner in Berlin, and a former assistant of Dieffenbach's, aged 88; Dr. A. Brun, General Treasurer of the French Medical Association; and Dr. Jean Champouillon, some time Professor in the Val-de-Grâce Military Medical School, aged 85.

MEDICAL NEWS.

Her Majesty the Queen has graciously become patron of the Grand Bazaar in aid of St. Mary's Hospital, which is to be held at Portman Rooms on June 27th, 28th, and 29th, which the Princess of Wales will open, and at which the Duke and Duchess of York will be present.

Presentation.—At a meeting of the general committee of the General Hospital, Birmingham, held on June 7th, a silver tea tray and a cheque were presented to Dr. Willoughby F. Wade, in recognition of the valued services rendered by him for many years as physician. The tea tray has the following inscription upon it: "Presented, with a cheque for £196 11s. 6d., to Willoughby Francis Wade, M.B., F.R.C.P., on his retiring from the office of Physician to the Birmingham General Hospital, which he had filled for twenty-seven years, as a token of appreciation of his valued services to the institution. The cheque was generously given by Dr. Wade to the building fund of the New General Hospital. 7 June, 1895."

At the recent meeting of the London School Board, some discussion took place about the appointment of six doctors in the West Lambeth division to examine cases of non-attendance at school in which the medical certificate produced is considered to be doubtful. Numerous cases have occurred in which non-qualified and qualified medical men have given certificates where children were not ill at all. The proposal to appoint medical referees has already been carried into effect in the Tower Hamlets division with excellent results; but Mr. Athelstan Riley moved an amendment to restrict the supervision to the cases of certificates given by non-medical men. The motion of the School Attendance Committee to appoint the doctors was eventually carried by 26 votes to 18.

Cottage Nurses.—The second annual conference of the Affiliated Benefit Nursing Associations was held on June 6th at the house of Lord Egerton of Tatton. The annual report was read by Miss Broadwood, who stated that through the office and registry (12, Buckingham Palace Road) 68 cottage nurses had been trained, 31 of them at Plaistow, and 10 nurses, not specially trained for cottage work, had been placed in permanent posts. At the present time 70 associations in various parts of Great Britain were working on the Holt-Ockley system started in 1883, and of these 53 were affiliated with the Association. The Medical Advisory Committee, after investigation, were satisfied that these cottage nurses did not make a common practice of acting in maternity cases without doctors, and the Association, while averse to supplying midwives, except with the assent of local practitioners, required their cottage nurses to know how to act if medical assistance failed to arrive in time. Dr. Holman, who was in the chair, congratulated the Association on their flourishing state. He thought it desirable that cottage nurses should be trained to be useful in midwifery cases. Dr. Robert Boxall spoke of the benefits which the Association conferred upon the poorer classes in country districts. There was, he said, a great difference between the duties of a nurse and of a midwife; the latter attended without direct medical control, but the nurse should be capable of recognising the signs of difficulty and danger. It would place the Association in a false position if they allowed nurses to attend cases in which neither a doctor nor a midwife was engaged, but they should have enough knowledge to act in an emergency. Subsequent speakers bore testimony to the good work done in various districts with which they were familiar.

MEDICAL VACANCIES,

The following vacancies are announced:

BRADFORD INFIRMARY AND DISPENSARY.—Honorary Physician and Honorary Assistant Medical Officer. Applications to the Secretary for the former appointment by July 22nd, and for the latter, June 24th.

CORK DISTRICT LUNATIC ASYLUM.—Two Assistant Medical Officers, unmarried, and not more than 30 years of age, doubly qualified. Salaries, £100 per annum, with furnished apartments, rations, washing, fuel, light, and attendance. Applications to the Resident Medical Superintendent by June 29th.

COUNTY LUNATIC ASYLUM, Lancaster.—Assistant Medical Officer. Salary, commencing £100 per annum, with board, etc. Applications to the Medical Superintendent.

DISTRICT INFIRMARY, Ashton-under-Lyne.—House-Surgeon, doubly qualified. Salary, £90 per annum, with board and lodging. Applications marked "Application for the Office of House-Surgeon" to William Bottomley, Honorary Secretary, 120, Stamford Street, Ashton-under-Lyne, by June 25th.

FLINTSHIRE DISPENSARY.—Resident House Surgeon. Salary, £120 a year, with furnished house, rent, and taxes free, also coal, lights water, and cleaning, or in lieu thereof the sum of £20 per annum. A knowledge of Welsh is desirable. Application to Thos. Thomas, Secretary, Board Room, Bagillt Street, Holywell, North Wales, by July 17th.

GREAT NORTHERN CENTRAL HOSPITAL.—Senior House-Surgeon. Appointment for six months. Salary at the rate of £60 per annum, with board, lodging, and laundry in the hospital. Applications on forms to be obtained from the Secretary to Lewis H. Glenton Kerr, Secretary, by June 24th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Bloomsbury, W.C.—House-Surgeon to the Out-patients. Appointment for six months, but eligible for re-election for a further six months. Salary, 25 guineas. Applications to the Secretary by June 18th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 a year, with furnished quarters, attendance, coal, gas, garden produce, and washing. Appointment for two years. Applications to F. Pritchard Davis, Superintendent, by June 18th.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD DISPENSARY.—Vacancy on the Honorary Medical Board. Applications to the Secretary, 13, Kilburn Park Road, N.W., by June 19th.

LONDON COUNTY COUNCIL.—Pathologist to the London County Asylums. Salary, £700 per annum, and travelling expenses. Applications (on forms provided), endorsed "Applications for Pathologist," to R. W. Partridge, Clerk of the Asylums Committee, 21, Whitehall Place, S.W., by June 17th.

LONDON HOSPITAL, Whitechapel, E.—Medical Electrician. Applications to the House Governor by June 29th.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End.—Senior Demonstrator of Anatomy. Salary payable by a percentage of fees. Applications to Munro Scott, Warden, by July 8th.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer; not under 25 years of age, unmarried, and doubly qualified. Appointment for one year, but eligible for re-election. Salary, £150 per annum, with board and residence. Applications to the Chairman of the Board by June 22nd.

NORTH-EASTERN HOSPITAL FOR CHILDREN.—Junior House-Physician; doubly qualified. Appointment for six months. No salary, but board and lodging (including washing) provided. Applications to the Secretary at 27, Clement's Lane, E.C., by June 21st.

PARISH OF LAMBETH.—Medical Officer for the Workhouses and Infirmary; doubly qualified; must devote his whole time to the duties of the office. Salary, £300 per annum, with furnished house, and allowance of coals, gas, and water. Applications to W. B. Wilmot Clerk, Guardians' Board Room and Offices, Brook Street, Kennington, S.E., by June 17th.

POPLAR AND STEPNEY ASYLUM DISTRICT.—Medical Superintendent for the Asylum at Bromley. Salary, £350 per annum, with rations, furnished apartments, washing, and service. Applications on forms provided to Robert Foskett, Clerk to the Managers, by June 21st.

RADCLIFFE INFIRMARY, Oxford.—House-Physician. Appointment for six months. Salary at the rate of £60 per annum, with board and lodging. Applications, on printed forms provided, to be sent to the Secretary before June 19th.

ROYAL GENERAL DISPENSARY, 25 and 28, Bartholomew Close, E.C.—Physician. Must be Fellow or Member of the Royal College of Physicians of London. Applications to John Faulkner, Secretary.

ROYAL HOSPITAL FOR WOMEN AND CHILDREN, Waterloo Bridge Road, S.E.—Clinical Assistant and Anæsthetist for six months, doubly qualified. Salary at the rate of £20 per annum. Applications to E. Garrard Kestin, Secretary, by June 24th.

ST. LUKE'S HOSPITAL, E.C.—Clinical Assistant. Appointment for six months, with board and residence. Applications to Percy De Bathe, M.A., Secretary.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square. Honorary Dental Surgeon. Applications to the Secretary by July 1st.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston Road, N.W. Resident Medical Officer; doubly qualified. Salary, £105 per annum, with residence and attendance. Applications to the Honorary Secretary, H. P. Bodkin, 23, Gordon Street, Gordon Square, W.C., by June 18th.

SHEFFIELD GENERAL DISPENSARY.—House-Surgeon and Senior Assistant House-Surgeon, doubly qualified. Salary for the former, £120 per annum, with a prospective advance of £10 per year for the second and third years; and for the latter £30 per annum, with board, lodging, and washing. Applications to the "Medical Staff of the Sheffield General Infirmary, to the care of the Secretary," by July 13th.

SIR PATRICK DUN'S HOSPITAL, Dublin.—Assistant-Surgeon to have charge of the Out-patient Department. No salary. Applications to Dr. Ball, Secretary of the Medical Board, by June 22nd.

STOCKTON UNION.—Medical Officer and Public Vaccinator for the Stockton District and the Workhouse. Salary, £170 per annum for the duties of Medical Officer for the Stockton District, £130 per annum for the duties of Medical Officer to the Workhouse and usual fees for vaccination; must reside within the borough. Applications to James Robinson, Clerk to the Guardians, Union Offices, Stockton-on-Tees, by 10 A.M. on June 17th.

UNIVERSITY OF ABERDEEN.—Eleven Examiners. Appointment for one year. The Examiners in Medicine and Surgery will receive grants of £50, and the other nine Examiners £40. Applications to Robert Walker, Secretary to the University Court, by July 3rd.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Physician to the In-patients. Honorarium, £50 per annum, with board and lodging in the hospital. Applications to the Secretary by June 29th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Board and lodgings provided. Applications to R. J. Gilbert, Secretary-Superintendent, by June 19th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant. Appointment for six months. Board, lodging, and washing provided. Applications inscribed "Application for Resident Assistant" to the Secretary of the Medical Committee by June 24th.

MEDICAL APPOINTMENTS.

ACLAND, Theodore Dyke, M.A., M.D.Oxon, F.R.C.P.Lond., appointed Physician to the Hospital for Consumption, Brompton.

AMBLER, Dr., appointed Resident Medical Officer to the Birkenhead Workhouse.

BISS, Cecil Yates, B.A.Cantab., M.D., F.R.C.P.Lond., appointed Physician to the Hospital for Consumption, Brompton.

BOWHAY, Albert, D.P.H.Camb., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Calstock Rural District Council.

BUTLER, Dr. P., appointed Medical Officer for the Chiddingfold District of the Hambledon Union.

CHRISTMAS, C. Denn, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Streatham District of the Clapham Union, *vice* W. J. T. Barker, L.R.C.P.Lond., M.R.C.S.

DAVIDSON, J., M.B.Lond., M.R.C.S., appointed Medical Officer to the Uxbridge Joint Hospital.

DIXON, Walter, M.B., C.M.Edin., reappointed Medical Officer for the Second Hougham District of the Dover Union.

GARDNER, Harold Bellamy, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Anæsthetist to Charing Cross Hospital.

GARDENER, H. R., M.B., M.S.Aberd., appointed Second Assistant Medical Officer to the Waterloo Road Workhouse of the Bethnal Green Union.

GILLAM, T. H., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Sapey Pitchard District of the Martley Union.

HARPER, J. R., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer for the No. 2 District of the Barnstaple Union.

LOCKWOOD, B. S., L.R.C.P., L.R.C.S.Edin., appointed Assistant Medical Officer to the Leeds Union Workhouse.

LONG, Arthur, M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the First and Second Districts of the Dover Union.

MCKEITH, Mr, appointed Medical Officer for the Ilfracombe District of the Barnstaple Union.

MARTIN, A. J., M.B., M.R.C.S., appointed Medical Officer for the Bloxwich District of the Walsall Union.

MARTIN, J. T., L.R.C.P., L.R.C.S.I., appointed Medical Officer of the Catholic training ship [illegible].

MORRIS, Frederic Hy., M.D.St.And., M.R.C.S.Eng., reappointed Medical Officer of Health to the Wellingborough Rural District Council.

O'CONNOR, C. J., L.R.C.P.I., F.R.C.S.I., appointed Dispensary Medical Officer for the Celbridge District.

RISELEY, Stanley, M.D.Edin., appointed House-Surgeon to the Rotherham Hospital and Dispensary.

RUDD, C. F., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Stalham District of the Smallburgh Union.

SCHORSTEIN, Gustave, M.A.Oxon., M.B., M.R.C.P.Lond., appointed Assistant Physician to the Hospital for Consumption, Brompton.

SEDDON, H. B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Honorary Outpatient Surgeon to the Newport and Monmouthshire Infirmary.

STANSFIELD, G. S., L.R.C.P., M.R.C.S., appointed Non-resident Medical Officer to the Birkenhead Workhouse.

STEELE, Jonathan, L.R.C.P.&S.Edin., reappointed Medical Officer of Health to the Kidsgrove Urban District Council.

THOMPSON, Reginald E., M.D.Cantab., F.R.C.P.Lond., appointed Consulting Physician to the Hospital for Consumption, Brompton.

WEBB, A. Lisle, M.R.C.S., M.R.C.P., appointed Resident Medical Officer to the National Hospital for Diseases of the Heart and Paralysis, Soho Square, *vice* T. W. Goldney, resigned.

WEBBER, H. W., M.D., M.S.Lond., appointed a Divisional Surgeon to the Herts County Police.

WETHERED, Frank J., M.D.Lond., M.R.C.P.Lond., appointed Assistant Physician to the Hospital for Consumption, Brompton.

WILCOX, E., M.D., appointed Medical Officer for the Ashburton District of the Newton Abbott Union.

WILLIAMS, Theodore, M.A.Oxon., M.D., F.R.C.P.Lond., appointed Consulting Physician to the Hospital for Consumption, Brompton.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. R. Marcus Gunn: Cataract. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. G. C. Wilkin: Nasal Polypi.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Percy Smith: Insanity with Syphilis; Insanity with Organic Brain Disease.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. Mareet: The Croonian Lectures. A Contribution to the History of the Respiration of Man. Lecture I.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Syphilitic Affections of the Skin. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. A. Quarry Silcock: Secondary Glaucoma, with Illustrative Cases.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL, 5 P.M.—Dr. W. H. Dickinson: On some Recent Observations relating to the Cardio-vascular Change of Renal Disease. Baillie Lecture I.

ROYAL METEOROLOGICAL SOCIETY, 12, Great George Street, Westminster, 7.30 P.M.

NORTH-WEST LONDON CLINICAL SOCIETY.—Clinical Meeting, 8.30 P.M.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Gowers.

THURSDAY.

LONDON POST-GRADUATE COURSE, Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Dr. Tooth: Diseases of Cranial Nerves. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Dr. D. B. Lees: Cases from the Medical Wards. Central London Sick Asylum, Cleveland Street, 5.30 P.M. Dr. Frederick Taylor: Cases in the Wards.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. Marcet: The Croonian Lectures. A Contribution to the History of the Respiration of Man. Lecture II.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, Vestry Hall, The Broadway, Hammersmith, W., 8.30 P.M.—Sir J. Crichton Browne, M.D., F.R.S.: The Cavendish Lecture—On Dreamy Mental States. A *conversazione* will be held after the lecture.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: Erysipelas and suppuration. Practical work: Cultivations of Streptococci.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital 11 A.M.—Dr. Hyslop: Insanity with Cardiac Disease, Gout, Phthisis, etc.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

FOSTER.—May 26th, at Bath Lodge, Reading, the wife of W. J. Foster, F.R.C.S., L.R.C.P., of a daughter.

GRAY.—On June 4th, at Nantwich Road, Crewe, the wife of Edward Gray, L.R.C.P.&S.Edin., of a daughter.

MANSELL.—June 7th, at 44, Wellington Square, Hastings, the wife of E. R. Mansell, of a daughter.

MARRIAGES.

HARVEY—WALLACE.—On the 5th instant, at the Parish Church, Childwall, by the Rev. Canon Warr, M.A., Vicar of Childwall, Dr. Henry Harvey, of Wavertree, Liverpool, to Edith, youngest daughter of the late James Wallace, of Liverpool.

HOPKINS—GARDNER.—June 11th, at St. Seriol's Church, Penmaenmawr, by the Rev. William Flory, incumbent of Holy Trinity, Leamington, uncle of the bride, assisted by the Rev. David Jones, Vicar, Thomas Hopkins, B.A., M.B., of Chester, to Ethel Alice, second daughter of W. A. Gardner, Redland House, Chester.

MCKERRON — BRUCE. — On June 11th, at Dingwall, Robert Gordon McKerron, 143, Union Street, Aberdeen, to Agnes Mary, second daughter of William Bruce, M.A., M.D., LL.D., The Castle, Dingwall.

SHEPHEARD—OWEN.—June 6th, at North Walsham Church, by the Rev. Canon Owen, LL.D., Vicar of the parish, Rural Dean, and father of the bride, assisted by the Rev. H. Wimble, M.A., Head Master of the Paston Grammar School, and the Rev. Walter Clements, B.A., Curate of the parish, John Shepheard, B.A., M.R.C.S., L.R.C.P., North Walsham, eldest son of the late John Shepheard, Esq., M.R.C.S., L.S.A., etc., J.P., of North Walsham, to Rose Annie, second daughter of the Rev. Canon Owen.

SMITH—KIRK.—June 11th, at Yarm, Alex. H. Smith, M.B., C.M.Edin., of Yarm, to Charlotte, daughter of Thomas Kirk, of Preston-on-Tees.

DEATHS.

PERKINS-CASE.—June 11th, at Wilton Lodge, Croydon, of pneumonia, P. W. Perkins-Case, M.D., aged 41.

THOMAS.—On May 23rd, at the Grange, Coventry Road, Birmingham, Hugh Thomas, M.R.C.S.Eng., L.S.A., aged 45.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR. T. GARRETT HORDER (Cardiff) desires to ask if any member has a copy of the following French work, which he is desirous of consulting: *Rapport sur la Vaccine* (1889), Dr. A. Proust.

DR. R. STEELE (Hemel Hempstead) asks where he could place a gentleman who is afflicted with Addison's disease? The patient has, unfortunately, very little to live upon and the terms must be moderate.

SURGEON-MAJOR asks to be recommended a home for a respectable female, aged 32 years, who is at times eccentric in manner. She requires kind and firm treatment; 10s. weekly can be paid towards her maintenance; she is fit for light work.

H. M. asks for advice in the treatment for a thickening of the tendo Achillis of a year's standing, attributable to playing lawn tennis. It causes considerable pain after exertion. Scott's dressing under plaster-of-paris splint, painting with iodine, and bandaging have all been tried without success, besides a course of Buxton waters in case it should be gouty.

AUTOVACCINATION.

SUSSEX asks: (1) An infant appears for inspection on the eighth day after vaccination with calf lymph; it exhibits only one vesicle. Is it proper to revaccinate the child from its own vesicle? (2) After such revaccination are not the new vesicles produced very rapidly, so that in a very short time they arrive at the same condition as the primary one, and the infant's convalescence is not retarded? (3) Can you give me any references applying to above?

*** It is not certain whether autovaccination done on the eighth day is of any value; probably it is not, and as a matter of fact we believe Dr. Cory (a leading authority) now recommends revaccination at the end of two years, when such an unfortunate event has taken place. The vesicles put on after the first all arrive at maturity together, and convalescence is not retarded. Dr. Cory kindly furnishes us with references to Bryce in his work on *Practical Observations on the Inoculation of Cow-Pox*, published in 1809, p. 160, etc. There is also a paper by Dr. Cory in vol. xv of *St. Thomas's Hospital Reports*, 1885.

CLUB FEES.

SCOTUS writes: A co-operative society in this town wishes me to become their doctor. What should be charged per member per week to include ordinary medical attendance on wife and family, confinements and vaccination extra, medicine to be supplied by the patients themselves?

*** It is impossible to advise as to the charges for attendance on the members of such a co-operative society; local knowledge, such as only our correspondent is likely to have, being indispensable. A few ordinary rules might be recapitulated, namely, (1) there ought to be a strict wage limit; (2) the age of the members should be carefully considered, and as far as possible none should be admitted without a careful medical examination: (3) no members should be taken on during sickness, even on payment of increased premium; (4) the subscription for women and children ought to be fully as much as for men, and rules will have to be very carefully framed as to attendance on diseases incident to pregnancy where attendance on confinements is expected.

ANSWERS.

C. H. S. will find some particulars as to the M.D.Brux. in the Educational Number of the BRITISH MEDICAL JOURNAL published on September 1st, 1894, p. 501, and Dr. Major Greenwood, the Honorary Secretary of the Brussels Medical Graduates' Association, 243, Hackney Road, London, N.E., would doubtless be ready to answer further inquiries. The whole examination may, we are informed, be got through in a week.

LONDON AND MANCHESTER INDUSTRIAL ASSURANCE COMPANY.

WE have frequently commented in the BRITISH MEDICAL JOURNAL on the advertising methods of this and like companies. The General Medical Council appears to have no statutory power to interfere.

"A SPA FOR SCIATICA."

DR. B. ADDY (Southport) writes: I can strongly advise "A. B." to try the hot baths at Bath, with nozzle douche applied along the sciatic nerve. I had a severe attack of sciatica (gouty) last year and obtained complete relief, treating the gout at the same time medicinally.

COTTAGE HOSPITALS.

MR. BLAIR.—A third edition of Burdett's *Cottage Hospitals* is, we believe, now in preparation, and will shortly be published by the Scientific Press, 428, Strand, W.C. Particulars of existing cottage hospitals will be found in Burdett's *Hospital and Charities Annual*, 1895, just issued by the same publishers.

INCOME-TAX.

MALTO-CARNIS is entitled to deduct drugs, rent of surgery and consulting room. He need not make a statement, as, whether he make it or not, he will be assessed on his predecessor's average. In Chapman's *Income-Tax*, to be obtained from the Income-Tax Repayment Agency, 6, Chichester Road, Paddington, W., there is a section devoted to doctors' assessments, with allowable deductions. The Agency also have special balance-sheets for the use of medical men.

BRITISH PRACTITIONERS IN THE UNITED STATES.

M. W. Z.—The regulations as to the practice of medicine in the United States may be found in the Students' number of the BRITISH MEDICAL JOURNAL, September 1st, 1894, p. 501. They vary very greatly in different States. Thus British and other foreign doctors may practise freely in Connecticut, Maine, Massachusetts, Rhode Island, and some other States. In certain others, such as Georgia, Michigan, Arkansas, etc., the diplomas must be registered with State or county officials; in others, such as California, Colorado, Maryland, Alabama, etc, the applicant is examined by a board of medical examiners.

BARIUM BATHS.

MR. WALTER C. BLAKER, M.R.C.S., L.S.A. (Bognor), writes: I shall be pleased to give "J. J." any information he may require respecting the barium baths at Llangammarch (not Llandrindod) in Central Wales. I have recently had a course of treatment for gout and rheumatism, and derived more benefit from the eight days I was there than I did from six weeks at Buxton last year, followed up by a course of vapour and electric baths for six months. I am practically free from my old troubles, and shall certainly go back for another course of treatment to Llangammarch should I get a return of my old symptoms. I can highly recommend the place in every way.

CONCERNING QUALIFICATIONS.

DUBITATOR.—1. A university degree is of distinct advantage in these days. 2. We are not aware that there is anything in the Irish licences of exceptional value as compared with corresponding qualifications in Great Britain. For practice in England at least the English licences would probably be found more useful in some ways. 3. We should say decidedly that there is no solid foundation for the opinion which, according to our correspondent, "one hears occasionally expressed in Ireland that Scotch degrees are not on the same level with corresponding Irish degrees, or even with Irish licences." 4. The M.D. of Aberdeen is a degree of good repute, and was held, among other men of light and leading in the profession, by the late Sir Andrew Clark. It may be added that it was held by the famous Dr. John Arbuthnot, physician to Queen Anne, and the friend of Pope, Swift, and other wits of that time. 5. As to the legal right of the holder of the Dublin licences to the title of "Dr.," for an answer to this question our correspondent had better apply to the bodies granting these licences.

NOTES, LETTERS, Etc.

DR. W. BARRON.—The printed document in question from Dr. R. R. Rentoul, which does not at all correspond with the description at the head of it, has been placed in the hands of the subcommittee of the Parliamentary Bills Committee on the Midwives Registration Bill, of which Professor Victor Horsley is chairman, and is receiving careful attention.

KISSING THE BIBLE.

AN enactment has been passed by the Pennsylvania State Legislature abolishing the practice of kissing the Bible by witnesses on being sworn before a court of law. The witness is to take the oath with his hand placed on the open book.

"CONGRATULATIONS TO THE BRITISH MEDICAL JOURNAL."

"WE have," says the *Star* of June 8th, "our differences with the BRITISH MEDICAL JOURNAL, but we cannot refrain from acknowledging the immense public service now being rendered by our contemporary in investigating the nursing and administration of Provincial Workhouses and Infirmaries. The special Commission of the JOURNAL is doing its work with splendid thoroughness, and the reports are a contribution of exceptional value to our knowledge of the working of these institutions."

THE VALUE OF ICE IN A CASE OF CONGENITAL HERNIA.

BRIGHTON writes: I was called on the evening of June 6th to a boy, aged 1 year 8 months, and found him suffering from a right inguinal hernia, which had occurred about two hours and a half previously. It was the size of a hen's egg, and very tense. The child was screaming and straining violently, and kept pulling at his penis. He had vomited once. After having tried manipulation gently for half an hour without success, I determined to try the effect of ice before giving chloroform. This was constantly applied for two hours, and when I revisited the child at the end of that time I found him sleeping peacefully, and the tumour completely gone. This is the second case of the kind in which ice has done me good service.

CANADIAN MEDICAL OPINION ON TEMPERANCE.

SOME interesting facts are embraced in a minority report by the Rev. Dr. McLeod, one of the Royal Commissioners on the liquor trade in the Dominion of Canada. To the query, "Is total abstinence in your opinion compatible with the fullest degree of physical health?" submitted to 207 medical men in Toronto, 92 replies were received. There was an affirmative response from 83 practitioners, and of the remaining 9 only 3 expressed a definite opinion that abstinence was not safe for most people. In reply to questions from the Commission, out of 1,355 Canadians 1,068 held that the general health would be improved by abstinence. Among 1,340 giving an opinion on limited alcoholic use, 901 thought that moderate drinking was injurious to bodily and mental activity. According to the Hon. G. E. Foster in 1885 there were 3,000 deaths due to liquor in Canada.

SPONTANEOUS (?) LACERATION OF STOMACH.

DR. D. TOLMIE MASSON, M.A. (Edinburgh) writes: The case reported under this heading in the BRITISH MEDICAL JOURNAL of May 25th, p. 1145, suggests to me the possibility, if not the probability, of a form of internal injury which, so far as I know, "is not in the books." The case is that of a woman, aged 37, well nourished and well developed, though a prisoner and slightly dyspeptic, who died very suddenly, and soon after what would seem to have been a full meal. About an hour after dinner she had "an attack of retching," and "vomited a small quantity of blood." The only *post-mortem* lesion observed, and the obvious cause of death, was "a distinct rent about three-quarters of an inch long in the anterior wall, at the cardiac extremity" of a "much distended" stomach, whose walls were "thick and strong," and uniformly healthy. Then follows the most suggestive fact in the case: The rent was about a quarter of an inch wider in the serous coat, that is, outside the stomach, than inside the organ. One may conclude, therefore, that the cause of the injury operated from without inwards. But it could not have acted from without the body, for the abdominal wall showed no sign of wound, blow, or any kind of violence. The "rent" or wound must thus have been caused by something inside the abdominal wall, but outside the stomach. Is there anything that could so act? I think there is. With a distended stomach pushing up or aside the left lobe of the liver, an incurved ensiform cartilage would, I think, in certain favouring circumstances easily compatible with this case, be amply sufficient to produce exactly the kind of injury which is here described. It is true that the direction of the wound was "downwards and to the right," whereas in an experiment on the dead body we might expect the direction to be horizontal. But in the actualities of life such an objection does not count for much. The stomach is very movable; the ensiform, besides being often much incurved, is sometimes deflected to right or left. How this poor woman, in her cell, carried herself in the agony so soon culminating in death—whether and how she lay, or leaned, or fell, or rolled about—no one can tell. The oblique direction of the wound that killed her does not, therefore, materially militate against the theory which I thus venture to submit.

I may add that, to my knowledge, aggravated incurvation of the ensiform cartilage is a very common and a most hurtful deformity in our day. It is well known in the Folk Medicine of the Celtic races. In a lecture on that subject, published some ten years ago, and in a shorter paper read at the Glasgow meeting of the British Medical Association, I described an ancient form of massage still practised in the Highlands for the prevention of this form of chest deformity. How best to treat an aggravated case when the deformity is established it were hard to say. Excision may seem a simple operation, but the ensiform is so concerned with the attachments of the diaphragm and abdominal wall that its excision might possibly prove more dangerous than one would at first suppose. It is, however, a question well deserving to be seriously considered by the profession.

HABITUAL DRUNKARDS IN CANADA.

IN the report of the Royal Commission on the Liquor Traffic in Canada the treatment of habitual drunkards is stated to be a subject requiring "careful and anxious consideration," the "best remedial measures" of reclamation being too important to be neglected from "financial considerations." The existing imprisonment of such offenders is strongly condemned as neither deterrent nor elevating. The Commissioners recommend the establishment of places to which habitual inebriates could be committed "for such time as might be desirable," and such treatment of those so restrained as might be fitting and calculated to lead to their reformation.

BIRTH OF TWINS; ONE WITHOUT RUPTURE OF MEMBRANES.

MR. H. C. EVISON, M.B., C.M.Ed., L.R.C.P. and S.Ed. (Salford) writes: Mrs. B. had engaged me to attend her in her confinement. The pains began suddenly, and in half an hour the first child was expelled on the floor, together with the placenta and membranes, the latter being intact. When I arrived about half an hour after its birth I immediately ruptured the membranes and separated the child, but life was extinct. A neighbour was present when the child was born, but did not know what to do, or the child's life might have been saved. It was a healthy male child, weighing 6 lbs. The second was an arm presentation. The uterus being large, during an interval between the pains the arm was gently and easily returned, and by a little manipulation the vertex presented. The forceps were applied, and a male child weighing 4 lbs. was delivered. The testicles had not descended into the scrotum. The second placenta was easily expressed. The mother made a good recovery, but the second child died. I consider this a good example of superfœtation.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) N. E. Bridge, M.B., Southampton; Dr. A. G. Auld, Glasgow; A. A., Dr. G. [illegible]ni, Montreal; Mr. L. Alwyn, Hampton; Acetone; Sir H. W. Acland, Bart., Oxford; Dr. B. Addy, Southpo[illegible]; Aberdeen Graduate.

(B) M. W. L. H. Blenkarne, Leicester Brighton; Dr. C. B. Ball, [illegible]; Dr. L. Bu[illegible]kell Chichester; Mr. A. E. Barker, London; J. W. Batterham, M.B., St. Leonard's; Mr. A. Bowhay, Tavistock; Mr. W. C. Blaker, Bognor; Dr. J. Barr, Liverpool; Mr. W. G. Black, Edinburgh; B.A.; Dr. G. B. Barron, Southport; Dr. W. Bruce, Dingwall; Miss Broadwood, London; Dr. F. Beach, London; Sir W. H. Broadbent, Bart, London.

(C) Dr. D. Campbell, Calne; C. W. Cathcart, M.B., Edinburgh; Mr. A. Coleman, London; Dr. J. Cagney, London; Mr. A. Clarkson, Edinburgh; Dr. C. C. Claremont, Southsea; Dr. C. E. Cormack, Vichy; Dr. G. W. Crowe. Worcester; C. H. S.; Dr. W. Carter, Liverpool; Dr. J. B. Coumbe, Clevedon.

(D) Dr. J. T. R. Davison, Buenos Aires; Mr. A. J. Dalton, Wantage; Mr. P. Dunn, London; Disgusted; Mr. M. G. Dundas, Litcham; J. Davidson, M.B., Uxbridge; Mr. J. K. Denham, Dublin.

(E) H. C. Evison, M.B., Salford; Mr. W. L. Edwards, Barry Dock; Mr. J. M. Evans, Llandrindod Wells.

(F) Mr. F. W. Fish, Southport; Mr. H. W. Fagge, Lutterworth; Dr. T. R. Fraser, Edinburgh; Professor E. Fawcett, Bristol; Mr. S. Forrest, Tunbridge Wells; F.R.C.S., D.P.H., and C.M.

(G) J. H. Godson, M.B., Cheadle; Mr. C. A. Griffiths, Cardiff; Mr. H. B. Gardner, London; Dr. J. Griffiths, Cambridge; Dr. H. W. Gardner, Shrewsbury; H. B. Gladstone, M.B., London; Mr. R. Gillbard, London; W. H. Gregory, M.B., Beverley; G. F. W.

(H) H. M.; Mr. R. J. Heatby. London; H. Harvey, M.B., Liverpool; Mr. F. Horner, Norwich; Dr. V. D. Harris, London; Dr. J. Haddon, Hawick; Mr. J. Hammon, Bedford; H. R. Hunt, M.B., Christchurch; Dr. T. G. Horder, Cardiff; Mr. J. Holden, Preston.

(J) Dr. Jones, Leigh; Justicia.

(L) Dr. A. E. Lloyd, Rhyl; Mr. C. H. Leet, Liverpool; Dr. C. J. Lewis, Stirling; Mr. A. J. Lewis, London; Dr. D. J. Leech, Manchester.

(M) A. J. McClosky, M.B., Singapore; Sir W. Mac Cormac, London; Mr. M. Margrave, Newton Abbot; Member; Mr. G. T. Mockett, Longton; Dr. H. C. Major, Bradford; M.D.; Mr. E. J. Mansfield, London; Mr. J. T. R. Miller, Malton.

(P) Dr. R. W. Philip, Edinburgh; Dr. T. F. Pearse, Southsea; Dr. W. E. Porter, London; Dr. R. Pratt, Leicester; Mr. J. W. Planton, London.

(Q) Query.

(R) Mr. G. Q. Roberts, London; Dr. S. Riseley, Rotherham; Dr. W. B. Ransom, Nottingham; J. Ritchie, M.B., Oxford; Dr. R. R. Rentoul, Liverpool.

(S) Dr. E. M. Sympson, Lincoln; Dr. F. F. Schacht, London; Mr. R. V. Somers-Smith, London; Dr. W. R. Smith, London; Mr. H. Simms, Birmingham; Mr. H. B. Seddon, Newport; Dr. J. B. Spence, Burntwood; Mr. A. Sutcliffe, Burnley; W. R. Smith, M.B., Rhyl; Mr. R. L. Swan, Dublin; Suffolk; Surgeon-Major; Dr. J. S. Scriven, London; Dr. A. Stewart, Manchester.

(T) Mr. F. H. Tinker, Hyde; Dr. N. Tirard, London; E. O. Turner, M.B., Gorey; Twenty Six; Mr. D. R. Thom, Aberdeen; Dr. T. W. Trend, Southampton.

(U) Dr. C. T. Urquhart, Aberdeen.

(V) Mr. A. E. Vaughan, Crewe; Mr. H. B. Vincent, East Dereham; Væ Victis.

(W) Dr. H. Woods, London; G. Wilson, M.B., Edinburgh; Mr. N. O. Wilson, Kenley; E. D. Williams, M.B., High Wycombe; Dr. F. J. Waldo, London; Dr. H. W. Webber, Rickmansworth; Mr. J. Williams, Mozambique; etc.

BOOKS, ETC., RECEIVED.

The Eye in its Relation to Health. By Dr. C. Prentice. Bristol: John Wright and Co. 1895. 6s. 6d.

Burdett's Hospital and Charities Annual and Yearbook of Philanthropy for 1895. Edited by H. C. Burdett. London: The Scientific Press. 1895. 5s.

System of Surgery. Edited by Dr. F. S. Dennis, assisted by Dr. J. S. Billings. Vol. I. Edinburgh and London: Young J. Pentland. 1895.

Diseases of the Ear. By Dr. E. B. Dench. London: Hirschfeld Bros. 1895. 21s.

Hong Kong; the Epidemic of Bubonic Plague in 1894. Medical Report by J. A. Lowson, M.B. Hong Kong: Noronha and Co. 1895.

King's College, London, Physiological Laboratory; Collected Papers. No. II. Edited by Dr. W. D. Halliburton and Dr. T. G. Brodie. 1895.

La Tuberculose et son Bacille. Par Professor J. Straus. Paris: Rueff et Cie. 1895.

*** In forwarding books the publishers are requested to state the selling prices.

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THE CROONIAN LECTURES.

CONTRIBUTION TO THE HISTORY OF THE RESPIRATION OF MAN.

Delivered before the Royal College of Physicians of London.

BY W. MARCET, M.D., F.R.S.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—Allow me to begin by returning my best thanks for the honour of being called upon by this College to deliver the Croonian Lectures for the present year. In these four lectures I propose to draw your attention to certain phenomena of human respiration. As far back as 1876 I was led, while mountaineering in the high Alps, to inquire into the influence of altitude on respiration; this work was continued every summer till 1880. The inquiry showed clearly that there was a great deal more to be done on the subject of human respiration: and through the kindness of Professor Schäfer, a laboratory having been placed at my disposal at University College, the work commenced in the high Alps was continued in London, with the aid of assistants, from the year 1883 to the present time.

I propose in this first lecture to treat of the relations of the oxygen breathed with the life of the tissues; the second lecture will be devoted to the various forms of respiration in man; the third to the influence of volition on respiration, and the fourth to respiration carried on under exceptional circumstances, concluding with remarks of a more strictly medical character.

THE VITAL ENERGY AND CHEMICAL ACTION WITHIN THE LIVING BODY.

Vital energy, vital force, or vitality, the cellular life of Virchow, may be defined as power or energy existing in the cell and radiating from it: this cell has oxygen as part of its molecular constitution, and with the aid of this oxygen is constantly undergoing change or metabolism with more or less energy according to age, health, etc.

It might be considered at first sight as if the test of vitality is the degree of power with which life clings to living organisms, such for example as seeds.

Reliable information on this subject is to be found in *Nature Notes* for 1895, where it is stated by Dr. Carruthers that forty years ago Robert Brown succeeded in obtaining the germination of seeds of the Nelumbium water lily, which had been preserved in boxes for fifty years in Sir Hans Sloan's collection, and another 100 years in the herbarium of the British Museum. I am much indebted to Dr. Carruthers's kindness in showing me those seeds preserved in acid, which had sprouted to the height of several inches.

Dr. Peter, of Goettingen, has succeeded in obtaining the growth of seeds from the soil of a dense wood with trees 100 or 150 years old; he has also shown that the seeds of many field plants retain their vitality considerably more than half a century. The vital resistance of seeds is moreover illustrated by the fact that they have been exposed to the greatest degree of cold obtainable by artificial means without losing their power of growth. These remarkable phenomena might possibly find an explanation in the following considerations: Life is a contest between vital energy and that other energy known as chemical decomposition. The instant an animal dies chemical decomposition comes into play, and the first change to take place is a combination of the oxygen, which is part and parcel of the molecular tissue. Once that oxygen is gone, recovery of life is impossible.

It has been observed that in the case of animals, one of the first decompositions to set in, has for its result an acid state of the muscles, this acid being looked upon by Catherine Schipiloff from her experiment as the cause of rigor mortis.

If we now return to seed life we shall find that it may be protracted as it were indefinitely under conditions which entirely check decomposition. The seeds of the Nelumbium speciosum preserved for 150 years, had dried up and undergone no fermentation, and those cultivated by Dr. Peter had clearly found in the soil some preserving or sterilising material.

It is but natural to conclude that a molecule of wheat, or of any other seed under such conditions, would retain its oxygen, though without being able to make use of it, because of the absence of moisture, and probably also of certain bacilli which have been found necessary to vegetable growth; hence the seed was not dead, but its life remained in a potential form, or under the form of vibrations too weak to produce any other effect than maintain themselves. So long as oxygen is present as a molecular constituent these vibrations will continue, but they will cease the instant this oxygen has disappeared. It cannot be said that the vitality of seeds is great, but only that seeds under certain atmospheric conditions are not acted upon by those chemical forces known to decompose vegetable tissues. Given an animal suddenly placed in a state resembling death, but in which it could retain its combined oxygen, would it not be possible to maintain its life in abeyance, and ready to be restored on a return to favourable circumstances?

The experiments of Raoul Pictet, the physicist who was the first to liquefy air, appear to give an affirmative reply to this question. In his experiments on fishes he has rapidly frozen them so hard that, according to his statement, they were in a state allowing of their being snapped asunder like a stick, and yet they have recovered life when very gradually thawed. It will be seen in the course of this lecture that when fish are frozen up and completely embedded in the ice during a winter's frost they cannot be brought to life again; hence it appears that the essential condition for the preservation of life is that the fish shall be frozen so rapidly that decomposition cannot possibly commence.

Indeed it is reasonable to conclude that in Pictet's experiments the molecules of tissue were frozen with their oxygen before they had time to dispose of it, and that this oxygen reacting on the molecule of tissue under favourable circumstances brought the fish to life, exactly as it happened that the reaction of oxygen in the seed brought the seed to life after life had been quiescent for fifty or perhaps hundreds of years.

As already stated, no phenomena of metabolism can take place without the interference of oxygen or atmospheric air. The amount of air or of atmospheric pressure required may certainly vary within wide limits, and we all know that with training and slow transition from the seaside to lofty mountain stations a considerable state of adaptation may be obtained. The action of oxygen in the living body, though so far very obscure, is a most interesting study, and first I shall hope to be able to show in a conclusive manner that it is not the oxygen in the atmosphere which by offering itself to the tissues brings about the tissue changes, but because the tissues are undergoing change they require and resort to the oxygen of the atmosphere; hence the more active the change the more oxygen required, and *vice versâ*. It is often thought that more carbonic acid is formed when an increased volume of air is voluntarily breathed. This is not so, the excess of carbonic acid given out from the lungs being due to the emission of some of the carbonic acid normally present in the blood, and not to increased combustion, except a very small amount for the extra muscular work of forced breathing.

One of the several objects of oxygen is to produce heat; some of this heat, being transformed into motion, is not perceptible by the thermometer, while another portion manifests itself as heat, and can be directly observed. In cold-blooded animals the heat produced is entirely transformed into motion; this is not the case with warm-blooded animals, which have an excess of heat ready for use; the latter find, therefore, in their bodies a large supply of power wanting in the former.

If the production of heat is so intimately connected with life, that life cannot exist in an active form without it, what is the essential nature of heat? Physicists regard this condition of matter as the result of a vibratory motion of its ultimate molecules, very feeble but very rapid, which is transmitted through the intermolecular and interplanetary spaces by the æther of space. From this view the warmest bodies will be those whose molecules vibrate with the greatest

speed, and amplitude—bodies as they become warm or cold, merely gain or lose motion.

Since in the living body heat is continually produced, the molecular vibrations producing it are ever at work; this formation of heat, which is due to the reaction of oxygen or organised matter, may therefore be looked upon as the very fundamental condition of life.

If oxygen is thus indispensable to life, it must be within easy reach of the living tissues, including protoplasm, and there is no doubt that it is carried through tissues and protoplasm, which seize upon it in accordance with their requirements.

Ludimar Hermann[1] has caused muscles to contract *in vacuo*, and obtained measurable quantities of carbonic acid; obviously in these experiments the oxygen required was contained in the muscles themselves, this oxygen, through certain chemical changes, producing sufficient heat for the contraction. Therefore it cannot be doubted that at all events in muscles, if not in all tissues, oxygen enters into their molecular constitution, and it has been suggested that the molecules of muscular fibre are surrounded by a layer of oxygen available for immediate use, the molecule seizing on more oxygen from the blood as fast as its own store is used up.

The admission of this view of the constitution of muscular molecules will help to explain the immediate response of muscles to the action of the will. If after sitting quiet we suddenly raise a heavy weight or deliver a blow, the oxygen is there to do the work. A salmon will leap a weir several feet in height with a single stroke of its tail. How is the heat for that leap produced if not from the oxygen in the molecular structure of the muscles themselves? It is not looked upon as due to any direct oxidation, but appears to result from some power of an explosive nature with which oxygen would be concerned. Hermann observes that we have not a single example of sudden oxidation in the body.

My remarks so far are only concerned with an attempt to explain how heat is produced in the body, and do not suggest a cause; it is here we have to stop short and assert our ignorance. There must be, however, a cause, a power producing these heat vibrations, a power which reacts against cold and generates heat where according to physical laws the body ought to cool, a power which builds up tissues and destroys them, which may produce for muscular exercise an amount of heat four times as great as in a state of rest. That power, whatever it be, must reside in the ultimate molecules of tissue, or perhaps it is the vibration of some intermolecular matter, and that power is intimately connected with heat vibrations, and cannot be exerted without the presence of oxygen gas.

An apparently available means of judging of the primary cause of the formation of heat in warm-blooded animals would be to inquire into the reasons of the increase or decrease in the generation of their heat.

A common cause of the production of an increase of heat in health is an accession of cold, as shown by the excess of carbonic acid expired, this increase being sufficient to counterbalance exactly the extra heat withdrawn, so that the body retains its normal temperature. The only explanation I can suggest is that cold increases the vibrations we regard as the essence of life, and these vibrations are communicated as heat vibrations to the living molecules, when a greater development of chemical action ensues. To give an idea of the effect of cold in promoting the formation of heat in the body, I beg to quote the following experiment, made in the winter of 1891-92, to which my assistant, Mr. B. F. Davis, B.Sc., aged 21, kindly submitted. The volume of air and carbonic acid expired in a given time was determined indoors at a temperature of 53° F.; we then adjourned to the open grounds of University College, where a cold north wind was blowing and the temperature registered 36° F. After walking for a quarter of an hour and then remaining at rest for twenty minutes, the air expired by Mr. Davis was again collected and analysed, with the following results:

	Litres.
Volume of air expired per minute at 36° F., reduced to freezing temperature and seaside pressure	4.858
Volume of air expired at 53° F.	3.455
Increase in the cold	1.403

[1] Stoffwechsel der Muskeln.

	Cubic Centimetres.
Carbonic acid expired per minute at 36° F.	284
" " " " 53° F.	217
Increase in the cold	67

equal to an increase of 30.9 per cent. for a difference of from 53° to 36°.

Another experiment in which the external temperature was 26° F. gave, after fifteen minutes' exposure to the cold, a volume of air expired per minute of 4.530 litres. The volume of air expired in the warm laboratory before going out was 4.0 litres per minute. After a further ten minutes the volume per minute had increased to 4.726 litres, and a few minutes later to 5.305 litres, showing the necessity of increased respiration towards the resistance of the body to the gradually intensified action of the cold. The object of taking a cold bath in the morning is clearly to excite the energy for the day's work, and the practice is undoubtedly beneficial, so long as health and age do not interfere with the reaction or with the increased formation of carbonic acid.

The application of cold to even a limited surface of the body is sufficient to produce an increase of combustion and therefore of energy, as shown by the following experiment: Having determined the volume of air and of carbonic acid given out in a certain time before the experiment, the left hand was plunged into a bucket of water at 51.8° F., when the volume of air expired rose from 4.224 litres per minute before the immersion, to 4.795, and the carbonic acid produced from 181.6 c.cm. per minute to 204.7 c.cm.

Though an increase of vital energy is produced by a moderate degree of cold, the reverse obtains when the cold is excessive or continued too long, the vibrations of living matter being apparently weakened. This probably means that while more intermolecular oxygen is wanted and absorbed under the influence of a moderate degree of cold, less is required and taken in when the cold is excessive, and when it passes a certain limit death must follow.

Cold lowers the vital energy more powerfully the lighter the air, especially when applied to persons untrained to low barometric pressures, as training has an undoubted influence on the power of resisting cold.

I might recall an illustration of the depressing action of cold on myself and a young friend. In July, 1880, we spent three days on the summit of the Col du Géant, 11,000 feet above the sea level. In the valley at Courmayeur, before ascending the pass, the temperature of the air was 71°, and barometer 29.948 inches; a number of determinations of the amount of carbonic acid expired were made at that station. At the summit of the pass, where the experiments were repeated, the temperature was about 43° during the day, and much lower at night; barometer 20.09 inches.

Instead of expiring more carbonic acid, as might have been expected, to make up for a fall of temperature of about 30° F., we both expired less by 12 per cent. in my own case, and 16 per cent. in that of my young companion; we always felt cold and our appetite fell off during our stay on the pass. Thus the united action of cold and diminished pressure had failed to excite our vitality, and had, indeed, brought about the opposite result; had we been in better training this probably would not have happened. Not only may the intensity of the cold produce a depressing effect, but long exposure to cold is liable to act in a similar manner.

The depressing effects of long-continued intense cold on Arctic explorers can hardly be doubted, though difficult to prove. In Dr. Kane's interesting account of his Arctic explorations he states that the health of the expedition suffered considerably the second winter, but as his ship was totally unprepared for two winters' stay in those regions it is in this case hardly possible to estimate the influence of the continued cold on the health of the explorers. The morbid effects produced in healthy persons by long exposure to low temperatures are often, apparently, of an inflammatory nature. The monks of the Great St. Bernard, who live in a cold and damp climate at an altitude of 8,115 feet, though all young men and selected for their fitness to stand rough and cold weather, generally contract rheumatism or some gastric affection after a year or two, and have to leave the spot; though liable to bronchitis, few of them become consumptive. The prolonged cold of this last winter has exhibited its baneful effects in a striking manner, the

average death-rate for several consecutive weeks being 9.5 per 1,000 higher than the mean rate for the corresponding periods during the last ten years. It is, of course, impossible to say how far the increased mortality resulted from the long-continued action of the cold on healthy people, but it produced a decidedly lowering effect on persons weak or in ill health.

As stated at the commencement of this lecture, the physical effects of cold on animals have received much attention lately from Raoul Pictet. This gentleman has shown that very low temperatures put an end to all chemical and physical forces. Hydrochloric acid at −130° F. is entirely unattacked by metallic sodium, while at ordinary temperatures they react with explosive violence. In his experiments on animals the temperature of the vessel in which they were placed was gradually lowered from 98.6° to −351°. Pictet concludes from these experiments that warm-blooded animals resist for a considerable time the excessive action of cold, but when their power is on the wane death takes place in a few minutes, the temperature in the centre of the body remaining nearly constant to the end of the struggle for life.

Fishes, frogs, batrachians, and ophidians resist freezing at temperatures varying from 4° to −22° F.; they usually die at a lower temperature. The length of time the animals were exposed to the cold is not stated, and this must be an important factor. Pictet, in one of his lectures, exhibited to his audience a number of gold fish, pike, and frogs frozen, and in the following lecture these same fishes, having been slowly thawed, were shown living and well.

In the *Pall Mall Gazette* for March 23rd, 1891, an apparently authenticated case is quoted of a small fish which had survived six or seven months' enclosure in ice stored in an icehouse at Godalming. I have myself had an opportunity this last winter of observing gold fish which had been caught in the ice. In every case in which the fish was completely embedded in the ice it showed no signs of life on thawing. One of the fish was only partly encased in ice, and had a small quantity of water left round it; when examined it appeared lifeless, but after a time it recovered perfectly. On another similar occasion the fish showed signs of life, but failed to recover. These observations apparently show that, if not absolutely embedded in the ice, the life of fishes can be held in abeyance for a time at a temperature close to freezing, but for how long I cannot tell.

Following up my contention in this first address, these experiments show that the maintenance of the molecular vibration or motion of life requires very little heat in cold-blooded animals, and it may be concluded that at such low temperature as −4° F. the heat is just sufficient to keep up life in the feeblest possible way. If the return of life movements be disturbed by too great an accession of heat, the vibration is immediately arrested, and a most careful handling is required to restore life to its full activity.

At the beginning of this address I remarked as a proposition to be proved that it is not oxygen which by offering itself to the tissues brings about tissue change, but that the tissues make a call—a demand—on the atmospheric oxygen. In favour of this view the influence of cold on vitality was considered, and it was shown that cold up to a certain limit increased the vitality, but beyond that limit produced an opposite effect.

We have now to consider a state of life which to my mind bears some relation to the increased production of carbonic acid in the body from an accession of cold—I mean muscular exercise. The successive phenomena in muscular contraction are as follows: First, volition towards exercise produces an increase in the volume of air breathed, which occurs immediately before contraction or simultaneously with its commencement. At the same time, as will be shown in my third lecture, a certain amount of oxygen is absorbed in the motor centres of the brain corresponding to that muscular exercise. An excess of carbonic acid is now expired, which at first obtains its oxygen from that contained within the muscles, and in proportion as this is used up the oxygen required is taken from the air breathed, the muscles at the same time charging themselves afresh with oxygen from the atmosphere. A number of experiments I made confirm this view. I must also state that we do not know by what process the carbonic acid is formed.

The mode of exercise adopted in my experiment was raising the feet alternately 66 times per minute to a height of about 4 inches, in keeping with the striking of a metronome. The air expired was collected during successive periods and analysed. In the first period of three minutes the oxygen consumed amounted to 719 c.cm. per minute (the second period of three minutes was lost). The third period of three minutes gave 770 c.cm. of oxygen consumed per minute; the fourth, 834 c.cm.; the fifth, 799 c.cm.; and the sixth period of three minutes, 775 c.cm.; this amounting to an exercise of eighteen minutes.

From these figures it will be seen that during the first three minutes of exercise the oxygen consumed was only 719 c.cm. per minute, although the heat required was the same as after six minutes or nine minutes, when much more oxygen was consumed from the air; hence it cannot be doubted that the muscles drew upon their molecular oxygen to a marked extent.

These experiments were made on a former assistant. A series of experiments on myself, and another on my present assistant (Mr. Floris), gave corresponding results.

The connection of exercise with respiration will be more fully inquired into later; in the meantime if, as I contend, the amount of carbonic acid emitted in breathing, or, it might perhaps be more correct to say, the amount of oxygen consumed by the body, is a measure of the vital energy of tissue, then exercise will be a means of keeping up and exciting the life of tissues, and thereby giving them additional power to resist any abnormal change constituting disease. The overdoing of exercise is baneful in a great measure because of the difficulty the body will experience in obtaining from the air sufficient oxygen for the work, but perhaps as much also on account of the trouble required to rid the blood of the excess of carbonic acid formed which accumulates in the circulation.

Muscular exercise is generally looked upon as raising the temperature, although it may also be attended with a cooling effect; and this leads me to consider the question of the body temperature in the act of ascending; but before entering on this subject allow me to offer a few remarks on the methods in use of testing the temperature of the body.

In 1888 I had occasion to enter into a controversy with a Swiss gentleman, Dr. Vernet, who published results he had obtained from taking his temperature while engaged in mountaineering. He maintained that the only correct method of estimating animal heat was by means of a thermometer introduced into the rectum. Being in the habit of taking temperatures under the tongue, a method in general use clinically, I was anxious to ascertain the accuracy of Dr. Vernet's assertion. We accordingly together ascended the Dole, one of the highest points of the Jura, and on nearing the summit, about 4 000 feet in height, we found that with both of us there was a distinct rise of the rectal temperature. This experiment was not, in my opinion, conclusive, as in the act of climbing the blood, from the effect of gravity, must accumulate in the hæmorrhoidal vessels, leading to a state of congestion, and thus to a rise of temperature. The question, however, could only be settled experimentally.

Five simultaneous observations of rectal and sublingual temperatures on different days while resting quiet in bed gave a mean excess of 0.3° F. in favour of the rectal temperature, while very moderate exercise, such as slowly walking about my room, produced a rise of the rectal temperature decidedly in excess of that observed under the tongue. Three experiments gave differences 1.3°, 0.9°, and 0.8°, or a mean difference of 1.0° excess for the rectal temperature, and this was merely from moderate walking exercise in the room, and could not have been due to a general increase of temperature throughout the body; hence it appears that though there may be a very slight increase of the rectal over the sublingual temperature, when taken under circumstances affecting the temperature in both regions equally, still the moment a person is standing or walking the rectal temperature is increased notably beyond the sublingual, which is simply due to a state of congestion produced by gravity.

There remains the possibility of the cold in high altitudes acting through the submaxillary regions, and thus reaching the under surface of the tongue. To clear

up this point I applied pieces of ice under the chin while the bulb of the thermometer was maintained under the tongue. On two occasions there was a perceptible rise in the temperature the moment the ice was applied, a phenomenon also observed by Raoul Pictet in his experiments on the application of cold to animals, and this was followed by a slight fall; the fall in three experiments amounted to 0.2°, 0.6°, and 0.5° in the course of from thirty to forty-eight minutes; therefore the application of ice to the submaxillary region affected but very slightly the sublingual temperature.

The temperature of the body while ascending has been for a long time past subject to discussion. In 1865, Professor Marc Dufour, in his inaugural dissertation to the medical faculty of Zurich, stated from experiments made on himself that in the act of ascending the temperature of the body falls rapidly by about 0.4° F. Another gentleman, Professor Fick, has observed the same phenomenon; many observers find that the body temperature is slightly increased by muscular exercise.

In 1869 I began to give attention to this subject, and invariably found that my temperature fell while ascending; the extent of the cooling being dependent chiefly on the time which had elapsed since the last meal was taken, and to a less extent on altitude and atmospheric temperature. In general the fall of temperature was most rapid when ascending quickly, while fasting and perspiring freely. These inquiries were followed closely by those of Professor Lortet, of Lyons, who obtained similar results.

The observations of Dr. Clifford Allbutt, F.R.S., with three exceptions, gave results opposed to ours.

Many other reliable observations have been published which seem to contradict one another. Thus Professor F. A. Forel, of Lausanne, found that the muscular work of ascending raised the body temperature: Mr. Gay, of Strassburg, observed a decrease of temperature on ascending, and the same phenomenon was observed by Professor Ray Lankester. Hence it must be concluded that the influence of climbing on the temperature of the body varies with different persons. Some in thorough training, young, perspiring but little, and producing as a rule a large amount of carbonic acid, or developing much heat under ordinary circumstances, will observe their temperature to rise in the act of ascending; others, who generally produce less carbonic acid, and therefore develop less heat, will generate just the amount of heat they require for the exercise, but the cold air and perspiration cooling the body, its temperature will fall below the normal.

ON THE RELATION OF RETINITIS ALBUMINURICA TO THE INDUCTION OF PREMATURE LABOUR.[1]

By SIMEON SNELL, F.R.C.S.Edin.,
Ophthalmic Surgeon to the Sheffield General Infirmary.

The subject of this short paper is of interest to the obstetrician as well as to the ophthalmic surgeon, and my object in bringing it under the notice of this Society is to discuss with those engaged in obstetric practice the lines to be pursued in dealing with the class of cases to be mentioned.

Not very infrequently cases present themselves in which it is thought advisable to suggest or sanction the termination of pregnancy, but the question has arisen in my mind, especially recently, not so much as to the correctness of that advice but as to the frequency with which the practice may be resorted to in the same patient. It is a moral as well as a medical question.

Albuminuria is one of the serious complications of the puerperal state, and according to different observers is found prevalent in a percentage of 2 to 6, some giving a less proportion than others. Dr. Parvin[2] had the urine examined of all the puerperal patients admitted into the Philadelphia Hospital, and found that albumen was not present in more than 6 per cent.

From the obstetric side the importance of the renal complication is, I presume, associated chiefly with the liability of such cases to eclampsia[3] and its too frequent bad results. It will, however, hardly be deemed necessary to follow the course suggested by an American oculist "for all physicians to caution mothers to have their daughters' urine examined before they contemplate matrimony."[4]

The seriousness of the renal complication is increased by the sight failure, which is present in a certain number of cases. I have shown elsewhere,[5] as others have done, that the association of retinitis with Bright's disease is indicative of a very limited period of life, frequently only months. With the albuminuria of pregnancy the retinitis is of less grave import in this respect, but, as far as vision is concerned, it is attended with very serious results. Dr. Culbertson[6] has collected the cases of albuminuric retinitis which have been recorded, and finds that 23.33 per cent. have terminated in blindness; 58.25 have resulted in only partial recovery of sight, and but 18.54 have recovered sight. Silex,[7] who has followed 26 patients for a long period, gave the following results: Eleven recovered vision above ½, 10 below this, and 5 were nearly blind, this being due to optic atrophy, choroido-retinitis, and detached retina which showed itself late in two cases.

The retinal affection may show itself at almost any period of pregnancy, and infrequently during the first three months. The appearances in the fundus are generally well pronounced. The margins of the optic discs may be hazy and ill-defined; numerous white patches in the macular region with some hæmorrhages may all be observed. In other cases blindness or great impairment of sight may be present, with an absence of ophthalmoscopic signs. In a case recently which Mr. Richard Favell kindly allowed me to examine, and in which labour was induced for eclampsia at term or nearly so, the young woman was apparently quite blind, but yet there was an absence of ophthalmoscopic signs. On the other hand, the gravity of the retinal affection, as shown by the changes in the fundus, is not always commensurate with the defective vision complained of by the patient, and for this reason it is desirable that pregnant women with albumen in their urine should at intervals undergo ophthalmoscopic examination. It is hardly necessary to enter more fully into this part of the question. The gravity of the complication has been sufficiently dealt with.

Now, it has frequently been found that when labour terminates improvement in sight is apparent, and in this way the induction of abortion came to be advocated. Excellent results have followed its adoption. It has been called for occasionally in my own practice. Mr. R. Favell some time ago undertook in the Jessop Hospital the treatment of such a case for me. But another shortly afterwards, who was to have been similarly treated by Dr. Martin, died in convulsions before arrangements for her removal to the hospital were completed.

The following case is a typical one in many respects:

Mrs. S., aged 21, came first to me at the Sheffield General Infirmary on December 19th, 1893. She complained of her sight having failed for the last six weeks, and in each eye vision was very defective; Left V=$\frac{1}{36}$, Right, barely fingers. In both eyes there was retinitis of an extreme degree. The optic discs were hidden by effusion, and there were numerous white patches and a few hæmorrhages. She had been married twelve months, and was now six months pregnant; there had been no previous pregnancy. She only passed a small quantity of water.

The case was recognised as one of albuminuric retinitis, and of such gravity that if the pregnancy was allowed to continue blindness would most certainly result. My colleague, Dr. Dyson, chanced to be present at the infirmary, and he saw the case with me. We agreed that it was one in which the induction of premature labour was urgently called for, not only on account of the eyesight, but also the danger there was to life in allowing gestation to continue. She had not recently been under treatment, but her medical attendant was Dr. R. M. Clark, of Harthill, and I accordingly wrote giving him the opinion just expressed. I am indebted to his assistant Dr. Baker for the particulars of her case which now follow:

"Mrs. S., aged 21, married at 20 years of age. She suffered from scarlet fever as a child. At the age of 17 she became anæmic, and has remained so ever since. Family history good.

[1] Read before the North of England Obstetrical and Gynæcological Society at Sheffield, March 15th, 1895.

[2] *Science and Art of Obstetrics.*

[3] "Out of the number of pregnant women suffering from albuminuria about a quarter are attacked by eclampsia.....Death occurs in 30 per cent. of these cases (eclampsia)." (Rosenstein), *Diseases of Kidney*, by Fürbringer, translated by Gilbert, p. 56.

[4] Culbertson, *Amer. Jour. Ophth.*, 1894, p. 137.

[5] *Trans. Ophth.*, Vol. viii, p. 144.

[6] *American Journal of Ophthalmology*, 1894, p. 137.

[7] *Annales d'Oculistique*, February, 1895.

"As soon as she became pregnant she became sick, not only in the morning, but very often all day, vomiting everything she took. She also began to suffer from breathlessness and palpitation. During the second month of pregnancy she began to complain of her eyes; they seemed to have something before them; she tried to rub it off, but it always remained the same.

"From the second month onwards she gradually became worse, with no additional symptoms until the fourth month.

"At this period she occasionally complained of peculiar numb feelings in her fingers, which passed up her arm (right). These feelings came over her twice and sometimes three times a day, and remained for a quarter of an hour at first, but were more severe and remained longer as time went on. She compared the sensation to a feeling of lightness coming over her arm, followed by a heavy one.

"About the fifth month the sensations went to the left arm. By this time her eyesight became so bad that she had to be led about, and she could distinguish little more than light and dark. She first consulted me at the fifth month, when I found the urine loaded with albumen. Her feet and hands were very cold and swollen. I recommended her to go into the Sheffield General Infirmary at once. At the sixth month she had what appeared like a paralytic stroke; she lost the feeling and power of her right side and could not speak. This lasted half an hour. The same day week she had a similar attack. In the interval there were still the minor attacks in the right arm. She now suffered very much from palpitation and breathlessness; her pulse was 140 and breathing 36. On the third day after the stroke she became so bad that I induced labour by dilating the os and puncturing the membranes. At this time she was quite blind. The third day after labour her eyesight began to return. On the fifth day she took pneumonia, which retarded her recovery for some weeks."

It will have been noticed from Dr. Baker's account that, during the short interval that elapsed from the time of my seeing her in December to the induction of labour that vision had become materially worse, and the gratifying fact will have been observed that from the third day after the labour her eyesight began to improve.

She did not come to see me again until February 27th, when there was a small quantity of albumen still present; specific gravity 1010. The condition of the fundi was distinctly improved and the patches were clearing.

March 13th. Still further clearing, leaving the discs white. Vision in the left eye $\frac{6}{9}$ and right $\frac{6}{36}$.

September 14th. Left $\frac{6}{9}$, right $\frac{6}{6}$.

The urine never became free from albumen. It was examined on November 23rd; specific gravity 1010; albumen present.

On January 5th of the present year she informed me she was again pregnant, and had missed two periods. She was anxious to know if abortion should not be induced. Dr. Baker at the same time wrote asking me if it should not be done, and if so whether the present was not a favourable time. There was no further deterioration of vision, but, as had been previously mentioned, the albumen had never been absent from the urine. I saw no reason why Dr. Baker should not act upon his suggestion, which he accordingly did; and he reported as follows:—

"Last November (1894) she became pregnant again. The former symptoms began to return. The eyesight was getting worse, so I thought it advisable to produce abortion.

"At the second month I introduced a sound into the uterus, and rotated it freely but gently. Two days after the operation she aborted, and since then she had been improving.

"Five days after the abortion she had the peculiar sensation in her right arm which she had experienced in her first pregnancy."

A few days ago I examined Mrs. S. again. Vision remained the same as at the last entry. The optic discs are white, and vessels attenuated; there is pigmentation and development of connective tissue round the papillæ. Albumen is still present, but no casts were found.

I do not think there can be much question as to the propriety of inducing labour in such a case as this. To have permitted gestation to continue to the normal period would have been fraught with considerable danger to life, and with more certainty it may be asserted that blindness would have resulted. The second pregnancy was treated early. A recurrence of the retinitis would have destroyed in all probability the vision preserved from the previous pregnancy.

A matter of consideration in these, as in all cases in which induction of labour is indicated, is the desire for a living child, but is it not often or generally the case that even if gestation proceeds the fœtus perishes?

It seems to me that in these cases we may draw a distinction between those in which the retinal affection shows itself in the early months, and those in which it only appears towards the end of pregnancy. In the latter case the period during which the affection would become worse is more limited, and as a rule it is probably true that vision is less seriously injured than in those in which the retinitis has appeared early. I would therefore say:

1. For retinitis appearing before or about the sixth month induction of labour should be recommended.

2. That when it shows itself only in the last few weeks it may often be unnecessary, but that each case must be judged by the severity of the affection.

3. That a case in which retinitis has shown itself in one pregnancy should be carefully watched both as to the presence of albumen in the urine and as to the eye affection, and treatment adopted accordingly.

The importance of this is often demonstrated. An instance of a lady occurs to me as I write, whom I saw after confinement at term with a medical friend, and who recovered then from retinitis with fair vision, but in a subsequent pregnancy, eighteen months after this one, going on to full time, and attended with eclampsia, absolute blindness resulted. This very day also a woman presented herself with total blindness. Partial recovery had occurred after confinement fifteen months ago, but another pregnancy twelve months later (three months since) had led to the result mentioned.

Whilst then recognising fully the advisability and propriety of induction of labour in these cases, a further question presents itself—How often is it justifiable to recommend hastening of labour in these cases?

The woman whose case has been related has required it twice in scarcely over twelve months. She is only 21, and in the natural course of events other pregnancies will occur, and the question of inducing labour, as it was recently, will again be presented by the patient or her friends.[1] On the one side it is clear that, should a return of the retinitis take place, which in her case it would appear specially prone to do owing to the albumen having never disappeared, blindness would result, and this quite apart from the danger to life from the kidney affection. On the other side is the disagreeable position of the medical man being again and again called upon to interfere with the natural course of gestation.

Should such a case be treated in a more radical manner by the removal of the ovaries, and would the condition of such a patient be sufficiently favourable to allow of such a proceeding being recommended?

THE NEW ANTIDOTE FOR OPIUM POISONING.

By WILLIAM MOOR, M.D.,
New York, U.S.A.

THE number of deaths caused annually by opium poisoning is so great that the knowledge of a prompt, efficient, and safe antidote to opium is a matter of importance. Special studies and experiments extending over a period of two years have convinced me that permanganate of potassium is the true antidote to opium and its alkaloids, especially morphine. While it was known long ago that morphine is readily oxidised by this salt of potassium, the latter being reduced to hydrated manganese dioxide, yet it has not been shown that the oxidisation of morphine renders it perfectly innocuous, entirely void of any toxic properties. Furthermore, it may have been thought that the contents of the stomach would reduce the permanganate so quickly as to render the latter useless for antidotal purposes. I have shown[2] that a solution of permanganate of potassium will decompose sulphate of morphine infinitely more rapidly than it would decompose albuminous matter. A striking demonstration of the astonishing selective faculty of permanganate of potassium for morphine can be shown by mixing 250 grains of the white of an egg with 1 ounce of water, dissolving in this mixture 1 grain of sulphate of morphine, and adding rapidly to the whole just 1 grain of the permanganate dissolved in 1 ounce of water. After thoroughly mixing, not a trace of morphine can be detected, which conclusively proves that the molecules of the antidote instantaneously selected the molecules of morphine without being interfered with by albumen, though the quantity of the latter so greatly exceeded the quantity of morphine. I should state here that 1 grain of permanganate oxidises exactly 1 grain of morphine.

My experiments with the new antidote were made chiefly upon myself. This should not be deemed an unnecessary procedure when we consider how unsatisfactory is experimentation on animals with opium or morphine. It is well known what enormous quantities of this poison the lower animals can ingest with impunity. H. C. Wood and David Cerna have given to a dog, weighing 15½ kilogrammes, 2.4 grammes (37 grains) of morphine; yet at the end of the experiment the air movement and the rate of respiration were practically what they had been in the beginning.[3]

[1] The patient fell down dead on June 8th.
[2] New York *Medical Record*, February 17th, 1894.
[3] See *Journal of Physiology*, Cambridge, England, page 870, 1892.

Caldwell gave in one experiment 1.11 gramme (17 grains) to a dog without producing any serious symptoms. To a number of other dogs 0.78 gramme (12 grains) were given hypodermically with no ill effects.[4] Another disadvantage of experimenting on dogs with morphine, given by the mouth, is that these animals generally vomit after ingestion of the poison. In rabbits I have noticed the peculiar fact that doses of morphine which when given hypodermically will cause profound narcosis have no effect whatsoever if administered by the mouth. In one instance I gave a rabbit 5 grains of the sulphate of morphine by the mouth without noticing the slightest effect. On the other hand, 1 grain of the alkaloid administered hypodermically invariably caused pronounced narcosis. The foregoing proves that the antidotal virtues of a therapeutic agent in regard to opium can be demonstrated satisfactorily only on man, especially if the alkaloid is taken by the mouth.

Being extremely susceptible to the action of narcotics, I consider myself a fair subject for such experiments. I was able to take in one instance (January 9th, 1894), three hours after a light supper, in the presence of several well-known physicians of this city, 3 grains of sulphate of morphine, followed in about thirty seconds by 4 grains of potassium permanganate—for safety's sake 1 grain more than necessary—both in aqueous solution. I was perfectly confident that the antidote possessed such a wonderful affinity for the morphine that it would instantaneously select it from among the contents of the stomach, and thus render harmless what might have easily been a fatal quantity to one so susceptible as I am to even very small doses of this alkaloid. Had only one eighth of a grain of morphine been absorbed into the circulation I should have felt it undoubtedly. Only a few weeks ago (January 20th) I took, about two hours after breakfast, 5 grains of sulphate of morphine in 1 ounce of water, followed in a few seconds by 8 grains of the antidote dissolved in 8 ounces of water, without experiencing any effect whatsoever from the narcotic.

In cases of poisoning by any of the salts of morphine 8 or 10 grains (0.5 to 0.6 grammes) of the antidote, dissolved in one pint (500 c.cm.) of water, should be administered at once, and repeated at intervals of thirty minutes, once or twice. In case of poisoning by the alkaloid morphine itself (not its salts), or by opium and its preparations, it is advisable to acidulate the antidotal solution with one or two teaspoonsful of diluted sulphuric acid or white vinegar (not red vinegar) by which the insoluble morphine will be at once converted into the soluble sulphate or acetate. Of course the amount of the antidote to be given depends on the amount of the poison ingested. If, for instance, 2 or 3 grains of morphine were taken it is sufficient to give 3 or 4 grains of the antidote in solution by the mouth. In case the patient is unable to swallow I would suggest, in order not to increase by the use of a stomach tube the cerebral congestion already present, to introduce into the patient's œsophagus, through the nose, a hard rubber catheter, which is attached by means of a piece of soft rubber tubing to the end of a glass funnel, and pour into the latter the antidotal solution. This simple method proved very feasible in a case of opium poisoning which occurred in my practice.

A weak solution of the antidote, say 1 grain to a tumblerful of water, should be administered by the mouth from time to time, even after all the opium or morphine in the stomach is supposed to have been rendered inert. I state this for the following reason:

It is now a well-established fact that morphine which is injected subcutaneously is excreted by the mucous membrane of the stomach. Hitzig, of Halle,[5] by washing out the stomachs of animals that had received morphine subcutaneously succeeded in obtaining fully one half of the injected amount during the first hour after the injection. It is a logical necessity that an antidote which acts instantaneously must destroy in the stomach a certain amount of poison that got into the circulation either through hypodermic injection or through absorption by the stomach, for it is evident that the same circulation which conveys the poison from the peripheral parts of the body to the stomach must also bring back to the latter a part of the poison which previously was absorbed by it. In connection with this it is of interest to cite a case mentioned in the *American Journal of Medical Sciences*, January, 1895, which, verbatim, is as follows:

Mr. L. P. Hamburger cites the case of a Chinaman who had taken the estimated quantity of 150 grains of opium at 10 A.M. At 5.30 P.M. the stomach was repeatedly washed out until there was reason to believe that there was no longer any opium contained therein. A second lavage was made at 8 P.M. and a third at 11.30 P.M., a quarter of an hour before his death. The second washing came out colourless, although it gave fine alkaloidal reactions, but did not respond to the test for meconic acid; the third, also colourless, gave good reactions. The first washing removed the ingested but unabsorbed opium, but the alkaloids found in the others could only have been detected through their excretion by the gastric mucous membrane. Repeated washings, then, to remove the alkaloids as fast as they are eliminated by the gastric mucous membrane must certainly be a life-saving process, whether the poison has been taken by the mouth or hypodermically.

Thus we see that thirteen hours after the opium was taken its alkaloids could be washed out from the stomach. It seems to me much simpler to give a weak solution of the permanganate from time to time, which is sure to annihilate all the morphine which is excreted by the stomach. That the mucous membrane of the stomach takes part in the excretion of alkaloids and other chemical bodies has also been shown by Kandidoff,[6] who experimented on young persons with different drugs and found that iodide of potash, bromide of potassium, hydrochlorate of quinine, salicylate of soda, arsenic, and antipyrin introduced into the rectum are discharged by the mucous membrane of the stomach.

I have found that the hypodermic administration of permanganate of potash is of benefit also in cases of opium poisoning. While a part of the potash salt is reduced by the subcutaneous tissues, yet enough remains to find its way to the circulation to select the morphine out of the albuminous constituents of the blood.

Rabbits which had received morphine by hypodermic injection were greatly improved by the hypodermic administration of the antidote.[7] Several cases of opium poisoning were reported to me in which the subcutaneous injection of the antidote was of unmistakable efficacy. Up to this date to my knowledge about 35 cases[8] of opium poisoning have been successfully treated by permanganate of potash.[9] In many cases the antidote was given by the mouth and hypodermically, in some cases only by the mouth, and in others only subcutaneously. In many instances several hours had elapsed before the antidote was administered.

As regards other alkaloids and inorganic poisons, I have found that permanganate of potassium, even after contact of several hours' duration, has no oxidising effect upon atropin, hyoscyamin, hyoscin, cocain, aconitin, veratrin, pilocarpin, muscarin, caffein, and phosphorus.[10] Furthermore, it will give up its oxygen much more quickly to albuminous matter than to strychnine, oxalic acid, colchicum preparations, and hydrocyanic acid.[11] The first condition for permanganate of potassium to act as an antidote to any toxic substance is that it shall act instantaneously upon the poison by oxidising it, else it would be unreasonable to administer it not knowing the amount of organic matter present in the patient's stomach at a given moment. This condition is met with morphine and eserine, the permanganate being capable of selecting instantaneously these two alkaloids amongst other organic matter, like albumen and peptone, which happen to be present in the stomach, and, therefore, the remarkable salt of permanganic acid is a positive antidote to opium and calabar bean.

I conclude by expressing the earnest hope that these lines will aid in diminishing the number of serious and fatal accidents due to opium poison.

[4] *North American Practitioner*, November, 1892.
[5] *Berliner klinische Wochenschrift*, No. 49, 1892.
[6] *Vratch* (St. Petersburg), No. 13.
[7] New York *Medical Record*, March 2nd, 1895.
[8] *Medical News*, April 7th, 1894; May 5th, May 12th, June 23rd, 1894, Philadelphia. *Medical World*, March, 1894, Philadelphia. *Medical Record*, New York, September 15th, 1894, November 3rd, 1894, March 2nd, 1895, March 9th, 1895. *Texas Courier Record of Medicine*, July, 1894. *Railway Surgeon*, Chicago, August 28th, 1894.
[9] It is fair to assume that many other cases were not reported, or else that I am not cognisant of them.
[10] *New York Medical Journal*, February 2nd, 1895.
[11] While there is hardly any reaction at all between prussic acid and the permanganate, yet the latter at once decomposes cyanide of potassium.

Mrs. Morton, formerly of Bolton, has bequeathed £32,000 to the Bolton Infirmary.

REMARKS ON THE TREATMENT OF FŒTID EXPECTORATION BY THE VAPOUR OF COAL TAR CREASOTE.[1]

BY ARNOLD CHAPLIN, M.D., M.R.C.P.,
Assistant Physician to the City of London Hospital for Diseases of the Chest, and to the East London Hospital for Children.

FŒTID expectoration, though not very common, is yet, when present, such a persistent and distressing symptom, that any method of treatment likely to be beneficial, merits earnest consideration. It had always seemed most rational to treat fœtid expectoration by means of antiseptic remedies, which, in the form of inhalations acted directly on the seat of the disease. The main objection to be urged against this form of treatment is its insufficiency. The mere inhalation of some antiseptic vapour from a suitable inhaler is nearly impotent to render the expectoration free from odour, and still less likely to cause the expulsion of the long-retained, fœtid contents of the bronchial tubes. When the inhalation is discontinued, the fœtor is as bad as before.

To obviate these drawbacks, the attempt was made to treat patients with fœtid expectoration, by placing them for a certain time each day in an atmosphere of a highly-antiseptic, deodorant, and penetrating vapour, so that there could be no doubt that the medication employed reached the seat of the disease, and by its irritating properties caused the expulsion of the retained phlegm. After several trials, the vapour found suited best to these conditions was that of the common commercial coal tar creasote; and it is to the result of the treatment of fœtid expectoration by this drug that this paper refers.

BRONCHIECTASIS THE MAIN CAUSE OF FŒTID EXPECTORATION.

For all practical purposes the causes of this condition are three, namely, bronchiectasis, gangrene of the lung, and putrid empyema finding exit through the bronchi. Fœtid expectoration arising from gangrene of the lung and putrid empyema need not detain us, for the former is, as a rule, such a rapidly fatal complaint, and attended with such profound constitutional disturbance and depression, that patients affected with it are rarely in a position to undergo any energetic treatment for the removal of the fœtor; while the only rational treatment for putrid empyema making exit through the lung is clearly external drainage by means of an incision through the chest wall.

The cases, therefore, most suitable for treatment by means of creasote vapour are narrowed to those arising from dilatation of the bronchial tubes. Bronchiectasis may give rise to fœtid expectoration in two ways: (1) by the dilated tubes becoming so large, or so numerous that sputum is retained a sufficient length of time to allow of decomposition; (2) by ulceration of the wall of the tube, and subsequent necrosis of the lung substance. When either of these conditions supervenes upon bronchiectasis, grave symptoms appear. The phlegm, which before had been simply profuse and expelled in paroxysms, now becomes horribly foul. Each fit of coughing brings with it an odour so objectionable, that it is impossible to remain near the patient. Not only during coughing, but at all times the breath has the characteristic foul-smelling scent which was likened by the late Professor Laycock to the odour of the mayflower with an *arrière-goût* of fæces. The patient on account of this distressing condition becomes unfitted for all social duties. But in the wake of the onset of fœtid expectoration come symptoms of the gravest import. From a state of comparative health and strength (if we except the profuse expectoration, the cough, and the dyspnœa) the patient lapses into a condition of failing bodily power; the appetite fails, the temperature becomes hectic, and little attacks of fever make their appearance, which are only ended for the time by the expulsion of a large quantity of fœtid phlegm. Sweating diarrhœa and emaciation come on. The patient wears the aspect of one suffering from septic absorption, and such really is the case. A septic form of pneumonia may develop and carry off the victim; or, what is more common, he sinks gradually and slowly under the influence of asthenia, which his condition begets. In not a few cases the beginning of the end of bronchiectasis is marked by the advent of fœtid expectoration. From what has just been stated, it will be easily conceivable that bronchiectasis with fœtid expectoration is much more serious than when simple.

TREATMENT BY INTERNAL MEDICATION, INHALATION, AND INJECTION.

The catalogue of the various ways of treating this complaint is long, and of all it may safely be said that, if they do not altogether fail, they at least leave much to be desired. Innumerable drugs have been employed, either internally or as inhalation, most of which have a known power of correcting fœtor, and promoting asepsis; among them may be mentioned creasote, iodine, carbolic acid, eucalyptus, turpentine, and the balsams. The disease has also been attacked by means of inhalations of these drugs, with conflicting and varying result. Emetics to empty the bronchiectasis of their contents have too been in use. Quite recently Sir T. Grainger Stewart has recommended the plan of intralaryngeal injection, and with apparently good effect. Experience shows that internal remedies are useless, and the inhalation of the various antiseptics only of the most fleeting benefit. Indeed, the only method that has been attended with any measure of success is that of intralaryngeal injection; but from this treatment lasting good has not come, and the application of the remedy is by no means as easy as is supposed.

SURGICAL TREATMENT.

All surgeons will probably agree that the cases in which good comes of operative procedure are very few. Could the surgeon drain all the dilated bronchi, untold benefit would result, but since he can only effectually deal with some of them, permanent and lasting improvement cannot be expected. Of course where the bronchiectasis is single, much good results from operation. During the past few years, at my suggestion, surgical interference has frequently been resorted to, but so unsatisfactory, and even disastrous, have been the results, that I could wish I had never proposed such a course, and I feel very certain that I shall never do so again.

MODE OF USING COAL TAR CREASOTE VAPOUR.

Believing that the successful treatment of this complaint is to be found in some form of inhalation, a search was made for a drug, the vapour of which, while possessing strong antiseptic and deodorant properties, was yet of such a nature that it would penetrate to the bronchi, and thus attack the seat of the disease. If such a drug could be found it would be likely to have the double effect of reducing the unpleasant smell, and the undoubted danger of the complaint.

Through the courtesy of Messrs. Burt, Boulton, and Haywood, a visit was paid to their creasote and timber works at Silvertown. While looking over the factory and questioning the *employés* about their previous health, the fact became evident that those who worked in the fumes of the creasote were, notwithstanding the strong and acrid vapour, peculiarly free from any chest complaint. It was also learnt that there was a tradition among the workmen that working in the fumes of the creasote was very helpful in cleaning the chest of phlegm, and rendering those who were employed free from "asthma" and consumption.

The creasote manufactured at the works is that commercial variety known as coal tar creasote, and is used principally for seasoning railway sleepers and telegraph poles. It is obtained from the distillation of coal tar. Its chief constituents are phenates and acridin and pyridene bases, all of which are of high antiseptic value. When heated to near boiling point this creasote gives off a dense, pungent, irritating vapour, which strongly stimulates the sensory filaments of the fifth nerve, evidenced by running from the eyes and nose. At the same time a smarting sensation is felt down the trachea and bronchi. As the inhaled vapour gains access to that part of the respiratory tract, coughing comes on, and whatever there may be of phlegm in the bronchial tubes is expelled. After inhaling this vapour the breath distinctly smells of it for some hours after.

Here, then, is a substance which contains properties well suited to the treatment of fœtid expectoration: (1) The vapour is penetrating and capable of reaching the dilated

[1] Read before the Hunterian Society.

bronchus; (2) it is irritating, and thereby able to cause, by inducing cough, expulsion of the retained and decomposed matter; (3) it is antiseptic, and may be expected to do something towards rendering the bronchiectasis, which it reaches, free from the putrefactive germs which cause the fœtor.

At this time there was, at the Victoria Park Chest Hospital, a case of bronchiectasis with fœtid expectoration, which had hitherto resisted all treatment. The drug was accordingly tried on this patient, and the method of application was as follows:

A small chamber about 7 feet square by 8 feet high was set apart at the hospital for this purpose. It was excellently situated, being an outhouse connected by a porch with the main building of the hospital.

This chamber was made as airtight as possible, all chinks and holes in the walls being stopped up with cotton wool. It could thus be easily filled with the creasote vapour. In the centre of the room, on a pedestal, a spirit lamp was placed, and over the lamp a flat open dish, into which was poured the creasote. The lamp was lighted and the room very soon became filled with the characteristic pungent fumes. The patient sat in the chamber and inhaled the vapour, at first with only a gentle heat applied. But as time went on the patient was able to stand the inhalation with impunity, sitting with her head over the dish, with the chamber so filled with the vapour that it was difficult to distinguish objects. A few minor, but not unimportant, details should receive attention. Thus it was found that patients, until accustomed to the vapour of the creasote, complained of the irritating and smarting effect it had upon the eyes and nose. To obviate this the simple expedient was adopted of protecting the eyes by a pair of watch glasses framed in sticking plaster; thus effectually preventing the ingress of the fumes. The nostrils were also plugged with cotton wool. By attention to this small matter of detail the most unpleasant concomitant of the treatment is removed, and by this simple plan many patients were enabled to obtain the full benefit of the vapour, who, without it, would scarcely have been able to stand the treatment for any length of time. Then, again, it was found that the hair and clothing, especially if the patient were a woman, retained the scent of the creasote. To prevent this a towel pinned over the head and a loose dressing gown were used with complete success.

The patient first subjected to this treatment began with an inhalation lasting half an hour, and after two days was able to endure it without trouble for an hour, or an hour and a-half. In this way the treatment was proceeded with every day for six weeks.

The Effect of the Inhalation.

First, as to the cough. As is well known, bronchiectasis gives rise to periodic fits of coughing, which come on with violence, and end by the expulsion of large quantities of phlegm, then all is quiet for some time until the dilated tubes become full again. Now if, after one of these coughing fits (when it may be presumed that the tubes are empty), the patient be subjected to the inhalation, one is astonished to find that by the irritation of the fumes a large quantity of phlegm is expelled in coughing. The patients themselves have often been known to express wonderment that so much phlegm is ejected, when from experience they believed that all expectoration had been got rid of by the ordinary fit of coughing. This residual phlegm, as it may be termed, is generally horribly foul, and continues to be expelled during the sitting. The action of the inhalation in bringing about the discharge of expectoration, which under ordinary circumstances would have remained decomposing in the dilated tubes, may be regarded as one of the most important features in the treatment.

The inhalations have also a marked effect upon the character and amount of the expectoration. At the first two or three sittings the phlegm is profuse and fœtid, but as the treatment proceeds it becomes smaller in amount and less foul, until after a certain time, varying from one to four weeks, the odour has much diminished, and the expectoration is only trifling in amount. Towards the end of the treatment the amount of expectoration not uncommonly sinks to almost zero, and the fœtor quite disappears.

Another effect which patients often insist on, is that, after each inhalation and the accompanying expulsion of phlegm, the chest feels freer and less clogged. They often speak of a feeling as if more air could be drawn into the lungs. The dyspnœa is so much improved that staircases which before had been unclimbable are now mounted with ease; but next to the disappearance of the fœtor, by far the most important effect of the inhalation is the great improvement in the general condition of the patient. The appetite improves, the tongue becomes cleaner, and the strength increases. The temperature too exhibits a change: after undergoing the treatment the temperature curve ceases to be hectic. In many cases it falls to normal, and in all is much lower than before. The attacks above-mentioned are not so prolonged, and in time cease altogether. The pulse becomes less frequent, and the evidence of septic absorption taking place becomes slender or altogether wanting.

Lastly, if the chest of a patient who has undergone this treatment be examined, it will be found that where before there was only occasional evidence of a bronchiectasis, owing to the retained phlegm filling up the cavity, there is now to be heard, almost continually, hollow breath sound, with but few bubbling *râles*.

Cases Treated.

During the first year in all 6 cases were treated, whilst a seventh has been under treatment only a month. In all cases the mode of application of the remedy has been such as is described above. Each patient began with an inhalation lasting half an hour, which in a day or two was increased to one hour daily. The course of treatment lasted from six to twelve weeks. All the cases had been under treatment of various kinds many times previously, but with scarcely any benefit. All of them expressed themselves as receiving more benefit from this treatment than from any other, and this was patent to those watching the cases. Of the 6 cases treated, in 2 the fœtor of the phlegm was entirely removed after the treatment, and had not returned two months after the inhalations were discontinued. In 2 other cases the fœtor returned in a very slight degree if the treatment was left off for a week or ten days; but it was entirely kept under by having recourse to one inhalation a week. In the remaining 2 cases the treatment has only just been completed, and although of these it may be said that the fœtor has disappeared, and that they are greatly improved, yet it is too early to say how long the expectoration will remain free from odour without the aid of the creasote. Of all of them it may be stated that the general condition, so far as regards cough, amount of phlegm, dyspnœa, hectic, and bodily strength, has manifestly improved. The seventh case now undergoing treatment is the worst that could be imagined, but even in this case there are decided signs of amendment, the fœtor having almost entirely disappeared, and the temperature having become normal.

Some of the six cases that have been treated may be conveniently epitomised:

Case I.—A girl, aged 16, had been bringing up fœtid expectoration for three years, from a bronchiectasis at the base of the right lung. On two previous occasions she had been in the Victoria Park Chest Hospital, but with no appreciable improvement. She underwent the treatment, receiving in all fifty-six inhalations. At the end of that time all the fœtor had disappeared, the expectoration was insignificant in amount, the temperature normal, and the patient was generally improved. Two months afterwards she was in the same excellent condition.

Case II.—A young woman, aged 24, who had been ill with fœtid expectoration for a year, was admitted to the hospital, and after being treated for some time with but little benefit, consented to make trial of the treatment. After undergoing thirty-six inhalations the fœtor had diminished until it was only trifling, and since then, by means of two inhalations a week, she has been quite able to prevent it from becoming worse. In fact, when she came to the hospital she had been discharged from her occupation on account of the unpleasantness of her complaint, but since then she has been able to resume it.

Case III was also that of a woman who had been operated upon for bronchiectasis on two occasions, but without benefit. After forty inhalations the fœtor disappeared, only being noticeable when violent cough came on.

Another of the cases was a young butcher, who until he took a course of the treatment was unable to follow his occupation, on account of the danger of driving away customers.

The practical bearings of this paper may be thus summed up:

1. The usual treatment of fœtid expectoration is unsatisfactory, and as a rule leads to but little permanent benefit.

2. The onset of fœtor of the phlegm is sufficiently grave to demand a trial of any new method of treatment.

3. The form of treatment upon which this paper is based

offers a prospect of amelioration, or even cure, to the victim of this complaint, such as will favourably compare with other ways of dealing with it.

Lastly, the application of the method is easy, attended with no danger, and cheap, half a gallon of creasote costing only 4d.

THE ETHICAL ASPECTS OF THE PHARMACY OF TO-DAY.[1]

BY WILLIAM STEPHENSON, M.D.,
Professor of Midwifery, University of Aberdeen.

UNDER the prospect of a new edition of the *British Pharmacopœia*, the professional mind is at present being directed to pharmacy. There are some aspects of the subject which, although connected only indirectly with the *Pharmacopœia*, are yet well worthy of consideration. Recent developments are tending not only to modify the methods of prescribing, but also to affect the ethical relations of medical men to the pharmaceutical world.

Pharmacy, though now regulated by a distinct Corporation, with its own organisation, protected by Acts of Parliament, is still a branch of the healing art. Home Rule has been granted, but not independence. Between prescriber and dispenser there is a mutual dependence and mutual obligations over which an ethical, if not legislative, power should preside.

Though now distinct from medicine as a profession, pharmacy has developed a professional status for itself, safeguarded by examinations that demand considerable scientific education and practical training. This position, however, requires strengthening and purification. As a profession pharmacy has, in its business relations, to contend with gross influences, which, for the sake of gain, are engendering practices inconsistent with all professional character. A keen commercial and speculative spirit is becoming rampant; it threatens to degrade pharmacy, and is affecting seriously the interests of those who are devoting themselves to the work in a proper professional spirit.

The enterprise shown of late by pharmaceutical chemists is to be commended so long as its aim is the improvement of pharmacy by scientific and professional means. When, however, it becomes associated with the craving for gain, and endeavours to satisfy it by the introduction of novelties that are turned into proprietary interests, when it is promoted by self-laudation and misleading statements in persistent and obtrusive advertisements, then the professional spirit is crushed. Under such circumstances it behoves medical men to be on guard, lest they are enticed into abetting actions that are opposed to the treasured principles and traditions of their profession.

One marked feature of the present day is the invasion by wholesale houses of the province of the dispensing chemists. Machinery is displacing hand labour, wholesale manufacture the home-made article. From the wholesale manufacturer the druggist must obtain much of his stock materials, and on his knowledge, experience, and character we must rely for the selection as to quality: but in dispensing, the preference should always be given to the freshly home-made article over the factory compounds turned out in hundreds of gross, and that may be months and years old before they are used. In the movement the spirit of personal aggrandisement can be readily detected. By a mere coating of varnish, or the use of a registered name, it is turning even the formulæ of the *Pharmacopœia* into proprietary preparations. If we prescribe for a patient any of the pills of the *British Pharmacopœia*, or of a well-known formula, have we any right, is it becoming, that we should require that they be those of one particular maker? Yet this is what the wholesale houses ask us to do, and is done by many practitioners. Would it not be more reasonable to require that the ingredients be those of certain makers than that the desired peculiarity should consist solely in the excipient or the coating of the pill? Chemists are now often compelled to keep in stock some half-dozen makes of an article which they themselves could freshly and as skilfully compound—all to suit varying whims and bring grist to particular mills. There are many remedies where it may be desirable to name the maker preferred, but then only as a recommendation. These are the proper factory or laboratory preparations demanding special skill and facilities; but when the prescription is of the nature of a pill, a syrup, or a mixture that, the formula being known, can be compounded by any qualified druggist, it is unbecoming to restrict the dispensing in any way.

In the present day the art of combining remedies and of prescription writing is imperfectly acquired and little studied. Ignorance is the fruitful soil of gullibility; hence the large crop of non-official compounds of remedies, combined in unrevealed proportions and by secret processes.

The objectionable character of proprietary articles is not removed by a professed publication of the formula. Any value they possess must either be a secret, or if the claim be skill and facilities in compounding, in most cases it is unsupported by such intrinsic value as to merit "exclusive dealing."

The Pharmacopœia Committee will have some difficulty in preparing the new edition. Can it be expected to keep pace with the "new pharmacy" with its tablets, tabloids, tabellæ, cachets, capsules, jelloids, hypoderms, perles, parvules, palatinoids, bipalatinoids, and soloids? There is good in the "new pharmacy," but this fresh development is showing a redundancy of action, and is invaded by and proving to be a favourable medium for the cultivation of the germs of pure personal aggrandisement. There are many instances where the capsule or the tabloid is a well adapted form for the administration of a remedy, but there is a danger, under the continuous pressure of puff and samples, of the system being carried too far. The disciples of the "new pharmacy are shouting "Eureka!" and are discarding draught and mixture.

An important question, however, has been raised, whether many drugs will act as efficiently when given in the dry and concentrated as in the fluid form, especially when freshly prepared. It may be difficult to prove the point as regards many medicines, but the special form in which a remedy is administered is not unimportant. It is known that the infusion of digitalis is at times more serviceable than the tincture; caffeine does not give the same results as freshly prepared coffee; and no one surely would prefer a tea tabloid to a cup of that beverage. For convenience sake, or to make the dose more palatable, we are to discard as of no importance the corrective and the adjuvant in our prescriptions.

Another marked feature of the pharmaceutical world of to-day is the extensive use of advertisements. In business this custom is legitimate and beneficial to the public, so long as it is conducted in a fair, truthful, and businesslike manner. But it is reprehensible and unbecoming when it assumes the aggressive form against rivals, and makes use of unwarranted statements dressed up in quasi-scientific garb, the truth that is half untruth—all calculated, if not intended, to deceive the public. It is to be regretted that pharmaceutical chemists are degenerating in the style of their advertisements.

The evil effect of the keen commercial speculation can be readily traced in the changes which the advertising mania is producing in infant and invalid feeding. Articles such as condensed milk, infants' food, essences and extracts of meat, all useful in their proper place, have been seized upon and made to serve the purposes of the insatiable greed of gain. Their proper use does not create sufficient demand to meet the excessive production arising out of the large sums invested in their manufacture. Hence that demand must be artificially increased. The speculative spirit conjures with the latest scientific terms and ideas, it seeks favour by fallacious quotations of chemical analysis and physiological experiment, and makes unwarranted assertions as to medical experience and opinions. Malt has "come as a boon and a blessing," not to babes alone, but to speculators too. Of the making of meat extracts there is no end. The fresh milk of the cow is discredited in every way. It must be sterilised, peptonised, "humanised," before it is fit for use. Freshly-prepared home-made articles are useless; invalids should be fed on factory-prepared meats and peptones, months and years old; and are not medical men all the country over aiding in the production of the artificial demand necessary to earn dividends to the joint stock companies limited, ac-

[1] Abstract of a paper read before the Aberdeen, Banff, and Kincardine Branch of the British Medical Association.

cepting chemical analysis as a test of digestibility, and thoroughly trusting in the permanency of the artificially-peptonised state of foods and the nutritive quality of desiccated and pulverised albumen and fibrin?

It is evident that there is much in the ethical aspects of the pharmacy of to-day that concerns medical men and has important bearings on the practice of medicine. Pharmacy is undergoing considerable change, but in the midst of the healthy development there is a growth which, in excessive production and the tendency to invade all surrounding interests, is verily of the nature of a cancer. It is destroying the professional spirit in pharmacy. By means savouring of chicanery and advertisements emulating in a refined manner the example of quacks, it is deceiving the public, and it has the effrontery to solicit the aid of medical men by asking them to be the touting agents for its goods.

A CASE OF LYMPHATIC FISTULA FOLLOWING EXCISION OF TUBERCULOUS LYMPHATIC GLANDS: CURE.

By H. MARTYN JORDAN, F.R.C.S.Eng.,
Hyderabad, Deccan.

W. G., aged 32, an officer in the P. and O. Company, a strongly-built, ruddy-faced, healthy man, had a slight family history of phthisis. He had no cough nor sweating at night, but was of a very nervous temperament. He had contracted syphilis six years earlier, but had had no venereal disease for many months before he came under treatment. There were numerous varicose veins on both legs, chiefly the left, and some œdema of the ankles, which had been present, on and off, for the last six years. Heart, lungs, and kidneys sound. The cause of varicose veins and œdema I believed to be obstinate constipation, from which he had been suffering for years, aided on the left side by the pressure of enlarged glands on the long saphena.

He first noticed a swelling in the left groin on November 3rd, 1893, about four weeks previously to coming to me; he attributed this to a strain he received while on duty in his ship during a heavy gale. About a fortnight after the commencement of the swelling he was seen by three doctors in consultation; they administered chloroform and incised the tumour but found no pus; the capsules of three enlarged glands were opened, but no pus being found the patient was sent back to bed.

From November 3rd till his admission his temperature had varied from normal to 100° in the morning, and from 100° to 102·4° in the evening. After the incision on November 17th his temperature was higher than at any other period of his illness.

He came under my care on December 1st, 1893. There was an oval tumour occupying the left groin—5 inches long, 3¼ inches broad; its greatest diameter was parallel with Poupart's ligament. The skin over it was of normal colour and freely movable, except at the margins of the incision, which was open and discharging a little thin watery pus. The tumour itself was only slightly movable over the deeper structures. The surface of the tumour was nodulated. No true fluctuation was obtainable. There was no sore on the buttocks, anus, perineum, scrotum, penis, thighs, or hypogastric region. The tumour had increased in size since the incision.

Dr. McLeod, of Shanghai, administered chloroform and assisted me during the operation on December 2nd. An incision about 4 inches long was made, parallel with Poupart's ligament and including in its centre the former incision (the edges of which were pared). The tumour, when exposed, was found to consist chiefly of a mass of granulation tissue, which was scraped away with a Volkmann's spoon. A number of enlarged glands then came into view, and were dissected out, many small vessels supplying these glands were ligatured and divided. There was a chain of enlarged lymphatics leading down to and through the saphenous opening. All the diseased tissue was dissected away until the fascia lata was laid bare. In dissecting away the last of the disease a small anterior saphenous vein was, unfortunately, divided close to its entry into the long saphena. Very free hæmorrhage resulted, and after several attempts to ligature the proximal end—which was almost flush with the wall of the long saphena—had failed, the ligature slipping every time the wall of the saphena was picked up and tied, I ligatured the long saphena above and below. On removing the forceps profuse bleeding again ensued. The long saphena was dissected out and a large posterior saphena was found entering exactly opposite the divided anterior branch, and therefore between the two ligatures on the long saphena. This branch was ligatured, and the hæmorrhage at once ceased. The long saphenous vein was then divided between the two ligatures. The cavity was washed out with 1 in 20 carbolic lotion, then filled with iodoform and glycerine. Nine sutures brought the edges nicely together. A small drainage tube was inserted in the outer angle. The wound was dressed with a plentiful supply of iodoform gauze. The diseased tissue removed would have filled two ordinary-sized tumblers. On section the glands showed numerous yellow tubercles, and in several places points of caseation and suppuration.

The patient passed a very bad night owing to severe chloroform sickness. In the evening of December 3rd the dressings were changed as the discharge had come through.

On December 4th, 5th, 6th, and 7th, the dressings, which consisted of several layers of iodoform gauze covered by nearly a pound of absorbent salicylate wool, had to be changed daily owing to the discharge of a thin, clear, albuminous fluid, two to three pints of which were in the dressings daily.

On December 8th all the stitches were removed, the wound had healed by primary union except ½ inch at the outer angle, where the drainage tube had been; but there was a large cavity under the skin from which could be pressed a quantity of the clear albuminous fluid which coagulated on standing.

The patient then passed out of my hands for a week, during which the dressings were very loosely applied and had to be changed two or three times a day; roughly, four to five pints of lymph flowed into the dressings during the twenty-four hours.

On December 15th I was able to resume charge of the case. The wound was firmly united, but the cavity still existed and the discharge "poured" out of the opening at the outer angle of the incision. At no time during the course of the case was even a drop of pus seen. Two doctors saw him in consultation with me, and advised opening up the whole wound. I feared, however, that it would be impossible to pick up the weeping lymphatics. As by this time the wound was firmly enough united to stand pressure, tight bandaging over a large pad of lint was employed in the hope of getting union by apposition. The pad was the size of an ordinary man's fist, it was placed over the incision, and over this about half a pound of absorbent cotton wool: the bandage was applied as tightly as the patient could bear.

Next evening, December 16th, the discharge had come through, and the case was dressed; there was about one pint and a half of discharge in the dressings. A pad of lint was reapplied, and bandaged as tightly as possible. The dressings were renewed on December 18th (when they contained about two pints of discharge); and on December 21st and 25th, when there was much less discharge (about one pint and a half in the four days). At the next dressing, December 28th, there was approximately half a pint of lymph in the dressings. On January 2nd about 2 ounces; on January 5th about 1 ounce; and on January 8th the wound was perfectly healed, and there was no discharge in the dressings.

The patient was kept under observation until January 27th. On first attempting to walk, on January 14th, there was some pain in the groin, and much œdema of the left leg in the evening. This excessive œdema persisted for some time, but was benefited by an elastic bandage applied from the toes to the thigh when walking. A year after the operation he was walking about quite freely, feeling no pain. Œdema of the ankles, equal on both sides, was present after a long day's standing. The varicose veins on the left side were smaller.

Remarks.—An instance of "lymphatic fistula" following the excision of lymphatic glands[1] not having hitherto come

[1] Fistula following a wound of the thoracic duct is, of course, quite different.

within my experience or reading, I detail it hoping that it may be of use in the event of such an alarming complication being again met with. In this case the whole, or at any rate the greater, part of the lymph from a large surface of the body was discharged through the sinus. As day after day passed without improvement I became extremely anxious regarding this huge drain on the strength of my patient, also as to the effect on the tissues from whence it came, and, consequently, as to the termination of the case. During the first week after the operation the dressings were applied with but moderate tension, as the wound was not firm enough to stand much pressure. The next week they were, in my absence, very loosely applied, and a great increase in the quantity of the discharge resulted. The effect of the subsequent tight bandaging was almost immediate and very marked. A deduction from this case appears to be that where the whole of the lymphatic glands have to be excised, it would be better to tie all the vessels going to them before removal.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

HYPERPYREXIA FOLLOWING THE USE OF ATROPINE.

This is an example of idiosyncrasy in a baby, 1 month old, suffering from opacity of the cornea, and into whose left eye I had been dropping twice daily for a week a sulphate of atropine 4 grains to the ounce solution. On May 24th I used the atropine at 9 P.M. At 11 P.M. the nurse noticed the child to be very restless, dry in the mouth, and feverish. On being sent for at 1 A.M. next morning I found the temperature to be 107.2° F. I reduced this temperature to normal by means of the cold bath. At 9 A.M. on May 25th the temperature was 101°, and in the evening it was normal. On May 26th, at 12.30 P.M., the temperature was quite normal, and I again used the atropine drops. At 1.30 P.M. the temperature was 104.5°, but was reduced by means of an antipyretic. The temperature was normal on May 27th, and has continued so ever since, the use of the atropine drops being discontinued. The child is a very healthy one, and, beyond the corneal opacity due to injury during labour, has nothing whatever the matter with it.

W. F. Dearden, L.R.C.P.Lond., M.R.C.S.Eng.,
Crumpsall, Manchester. D.San.Sci.Vict.

ACUTE BRONCHOCELE FOLLOWING INFLUENZA.

The account in the British Medical Journal of May 4th of a case of acute thyroiditis occurring as a complication of influenza reminds me of a very similar case which I had under my care in December, 1894. Mrs. C., married, aged 42, had been suffering from influenza from December 2nd to the 13th. On December 21st she had pains all over her, and a temperature of 103°, and complained of pain in the region of the thyroid, which was not enlarged then but very tender. Six hours after having first seen her I was again sent for, and found her in great pain, and with considerable enlargement of the thyroid, and intense pricking pain in the gland and up the sides of the neck. I applied hot fomentations, which relieved the pain, and gave a mixture containing iodide of potassium every four hours, and 3 grains of sulphate of quinine in a tea cup full of milk every two hours. The next morning the gland was further enlarged, and the skin very tense and shiny over it. The temperature was 102°. There was great difficulty in swallowing, and the breathing was laboured. I painted the surface of the gland and the sides of the neck with belladonna and glycerine, and put a good thick covering of cotton wool over it. On the evening of December 23rd, about fifty-two hours after she first felt any pain in the neck, the pain suddenly left her, and she slept for the first time since its onset. The gland rapidly decreased in size for four days, but did not regain its original proportions, and is still somewhat enlarged. The patient had another attack of influenza in March last, and although she was very ill for nearly three weeks there was no pain in or enlargement of the thyroid at all. Beyond the fact of its being a comparatively rare complication of influenza, it was interesting to note the very rapid subsidence of the inflammation, sudden cessation of pain, and the fact that in another attack this spring there was no return of thyroiditis.

John Kiffin, M.R.C.S.Eng., L.R.C.P.Lond.
Forton, Gosport.

DRAINAGE IN SUPPURATIVE CONDITIONS OF THE ABDOMINAL CAVITY.

The remarks of Mr. Arthur E. Barker in the British Medical Journal of May 25th are borne out very strikingly by a case that I have recently had under my charge.

A man, aged 50, was admitted to the Auckland Workhouse in the afternoon of February 15th. I saw him in the evening, and found him suffering great pain, a good deal collapsed, and with the abdomen much distended. I ordered alcohol to be given frequently during the night, and next morning opened the abdomen to the right of the middle line. Over two quarts of stinking pus escaped. After well washing the cavity I found the appendix much enlarged, and bound by firm bands both to the intestine and the abdominal wall. As the cæcum had a most unhealthy appearance, I decided not to remove the appendix, but placed a drainage tube in the lowest part of the incision, suturing the rest of wound in the usual manner. The tube was removed at the end of forty-eight hours. For the next ten days there was a slight discharge of healthy pus from the opening. On the eleventh day there was a free discharge of fæcal matter, which continued in decreasing amount for a week. From that time the wound gradually closed without any bad symptom. The man was well and walking about on March 20th, four weeks and three days after the operation, and went out of the workhouse to resume his occupation at the end of ten weeks.

In this case drainage was of course a necessity owing to the condition of the appendix and cæcum, but the point that I wish to emphasise is that the short time for which the drainage tube remained was amply sufficient to leave a safety valve for the discharge of both the appendix and fæcal matter until the fistulous opening in the cæcum was healed, the whole process being unaccompanied by any constitutional disturbance whatever.

Bishop Auckland. Mark Wardle, L.R.C.P.

INFLUENZA AS A SPECIFIC NERVOUS FEVER.

It has been pointed out that influenza in many instances appears to fall with severity on the nervous system. After a fairly large experience of the complaint I should be prepared to argue that it is a specific nervous fever. My reasons for calling influenza a specific nervous fever would be :

1. Like cerebro-spinal fever, it is infectious and accompanied by most of the symptoms and liable to many of the sequelæ of that complaint.

2. The catarrhal symptoms are in most cases trivial.

3. The backache is spinal, and is not affected by posture or ordinary movement in the same way as lumbago. The pain in the limbs ranges from severe neuralgia to mere nerve fatigue or exhaustion.

4. The headache, delirium, tinnitus, etc., are due to implication of the cranial nerves.

5. The vomiting and diarrhœa are probably reflex.

6. The complications are mainly nervous—(*a*) temporary blindness from optic neuritis; (*b*) suspension of the sense of smell, taste, and hearing; (*c*) menorrhagia in females, vasomotor disturbance.

With the most fatal complication—pneumonia—there may be more connection traceable when we know more about pneumonia itself. At present, to bear out my argument, I would only say that pneumonia is a recognised complication of any exhausting disease.

I think we may take it that considering the enormous number attacked the increased mortality from pneumonia is no more than *pro ratâ*.

The sequelæ are mostly nervous: Insomnia, neuralgias (supraorbital especially), temporary inco-ordination, paresis (from peripheral neuritis) down to simple pricking or numbness in the fingers and toes, loss of memory, impotence,

various forms of mental aberration and insanity, and in females menorrhagia and angioneurosis.

Finally, my contention as to its being a disease of the nervous system seems to be borne out by the treatment most successful up to now. The drugs one hears most about are antipyrin and its allies, bromides, quinine in various forms, and the like, nerve sedatives and nerve tonics. Every fresh epidemic further convinces me that the whole train of symptoms may be traced to the toxic effect of the influenza poison or microbe on the whole nervous system, central and peripheral.

Armley, Leeds. HENRY WAITE.

CEREBRAL MENINGITIS FOLLOWING INFLUENZA.

On April 14th I was called to see a girl, aged 15 years, who had been ill for some days. I was informed that almost all the family had been suffering from influenza, which was prevalent in the neighbourhood. The history of the onset corresponded with the symptoms of the invasion of influenza. The patient had an irritable expression and was restless; the temperature was 103°; there was moaning constantly, the tongue was furred, the lips dry; there was anorexia, thirst, and constipation, and there had been vomiting before my arrival; the pulse was 80, full, and regular; the lungs were apparently healthy but respiration was somewhat irregular. The skin was hot and moist; she complained of pains all over, but worst in the head. The pupils, equal and somewhat dilated, acted well; there was no strabismus; she recognised all who attended upon her. Castor oil had been administered before I arrived. As the headache appeared to distress her most I administered antipyrin grs. v. a saline mixture, and lemon drinks. My diagnosis was influenza with gastric irritability occurring in a girl of nervous temperament. The next day she was reported to be better, the bowels had acted, vomiting had not been so frequent, and she was taking nourishment well.

On April 18th I was informed that she had been delirious the night before, complaining of intense pain in the head, vomiting occasionally, and constantly tossing her head and limbs about. I found her dull and apathetic, moaning occasionally. When I attempted to examine her she screamed, ground her teeth, and jactitations commenced which continued without interruption during my visit. The temperature was 102 4° and the bowels constipated: there was difficulty in eliciting answers, and she only occasionally recognised her attendants. The abdomen was more retracted than on my previous visit; the pulse was 95, the respiration regular, the pupils were equal, somewhat dilated, and responded well to light. I had little doubt that the complication was meningitis. I prescribed calomel grs. iv, and a mixture containing bromide of potassium applied cold to the head.

When I saw the patient again she had relapsed into a comatose condition. There was paresis of the muscles of the left leg and internal strabismus; the pupils were equal but only responded sluggishly to light; the abdomen was much retracted. I saw the patient again the day before the fatal termination, which took place on May 4th. The pupils were dilated and insensible to light, and there was an ulcer on the cornea; the abdomen had become distended with gas.

AUGUSTUS W. TABUTEAU, L.R.C.S. & P.I.

Dunfanaghy, co. Donegal.

SECOND INTERNATIONAL CONGRESS OF OBSTETRICS AND GYNÆCOLOGY.—The second session of the International Congress of Obstetrics and Gynæcology will take place at Geneva during the first fortnight of September, 1896. Several papers have announced by mistake that it will take place in 1895. The following subjects are announced for discussion:—In Obstetrics: (*a*) The Relative Frequency and the most Frequently Observed Forms of Contraction of the Pelvis in Different Countries; (*b*) The Treatment of Eclampsia. In Gynæcology: (*a*) The Operative Treatment of Uterine Retrodeviations; (*b*) Pelvic Suppuration and its Treatment; (*c*) Methods of Suture of the Abdominal Walls—best means of avoiding abscess, prolapse, hernia, etc. An exhibition of obstetrical and gynæcological appliances and instruments will be held at the same time.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

COVENTRY AND WARWICKSHIRE HOSPITAL.

A CASE OF FLOATING KIDNEY.

(Under the care of F. FAULDER WHITE, F.R.C.S., Surgeon to the Hospital.)

[From notes by Mr. BANKES PRICE, House-Surgeon.]

MRS. C. P., aged 48, was admitted on November 29th, 1894, complaining of weakness and indefinite abdominal pains. She was a worn, emaciated woman, whose skin was somewhat yellow.

She had had good health down to the occurrence of a bad miscarriage eight years before admission, since which she had gradually been getting weaker. For two years she had been confined to her room, and latterly to her bed. She had had pains all over her, which were worst over the stomach; the legs swelled towards night; sickness was frequent at intervals of a few days; the bowels were confined; headache was troublesome, and there were occasional attacks of jaundice.

On admission the pulse was 90, the temperature 98.4°, and the respirations 20. Examination of the heart and lungs revealed nothing abnormal; there was some œdema of the legs; the urine, of specific gravity 1022, was apparently healthy; the abdominal walls were very flaccid but somewhat fallen in. Light palpation gave no pain, but deep pressure in the epigastrium was not well borne; the area of stomach resonance was rather large; the liver dulness was of normal extent. A freely movable rounded mass could be felt in the right hypochondriac and lumbar regions, which slipped away from under the fingers. This was not observed till several days after admission. After a fortnight the patient was no better; she still had occasional attacks of jaundice and sickness, and complained of pains in the right hypochondrium shooting to the back; she could not sit up without feeling sick.

On December 27th the patient seemed weaker and more apathetic; she sometimes lost control over the sphincters.

On January 3rd the cheeks and eyelids were swollen, and a little red. There was no pyrexia; the pulse was feeble. There had been incontinence of fæces and urine during the past few days. There was no loss of power in the legs. She complained of pain going right round the body below the ribs.

During the remainder of January she was in a very feeble state, but gradually recovered power over the bladder and rectum. Pain continued in the right hypochondrium, and the movable swelling remained the same. During the greater part of February there was little change to note, but the pain continued and the tendency to sickness on any movement of the patient. On February 23rd, the patient having been three months in hospital, it was decided to examine the movable organ.

Operation.—An incision, 3 inches long, was made in the right semilunar line over the tumour. The gall bladder was carefully examined, and pronounced normal. The movable organ was found to be the right kidney. The anterior wound having been closed, the patient was turned over on her side, and the right kidney was exposed by the usual lumbar incision. It was then stitched to the neighbouring parietes by several buried sutures, and one stout ligature was passed through the skin on either side of the wound, securing the kidney by a temporary stitch. A small drainage tube was placed in the angle of the wound, and the parts brought together as usual. Antiseptic precautions were taken throughout. The patient made an uninterrupted recovery. The wounds healed at once, and there was from the first great relief from the old pain.

REMARKS.—Since the operation there has been no return of sickness and no pain to speak of. The patient began to pick up at once, and is now apparently a different woman.

She is able to walk out in the hospital garden. She has gained a deal of flesh, and is beginning to look robust. In the middle of May she left the hospital, having been provided with an abdominal belt. She is quite well. It has been said by one of our most successful operators that he has never met with a floating kidney requiring operation. I do not myself know whether pressure and support by pads would have been sufficient to relieve my patient. The diagnosis was only completed on exploration. But I do not think any artificial support could have controlled the organ in question. The interest of the case lies in the fact that a most dangerous state of debility appears to have been brought about by the reflex influences of a moving kidney, notably the reflex vomiting. It may be mentioned that during her long confinement to bed, lasting for years, various remedies had been tried for the vomiting and debility. Improvement commenced for the first time on the kidney being secured in its proper place.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

D. ARGYLL ROBERTSON, M.D., F.R.S.E., President, in the Chair.

Thursday, June 13th, 1895.

OPHTHALMIA NODOSA.

THIS paper was read by Mr. LAWFORD. The disease was one to which the name ophthalmia nodosa was applied by Sœmisch, and results from the penetration of the tissues of the eye by the hairs of certain caterpillars. Mr. Lawford's case occurred in a lad, into whose right eye the foxmoth caterpillar (*Bombyx rubi*) had been thrown; this was followed by severe and protracted inflammation, which lasted with intermissions and remissions for six months, and ultimately subsided, leaving the eye little, if any, the worse. Two hairs were removed from the lower part of the conjunctiva, but none were discovered in the deeper tissues. The previously recorded instances of this disease, some eight or nine in number, had all occurred in Germany, and in those cases in which it was possible to determine the kind of caterpillar, the larva of the pinemoth (*Bombyx pini*) or of the foxmoth (*Bombyx rubi*) was the one which had caused the ocular lesions. In most cases the caterpillar had been thrown at the patient by a playmate or companion. The clinical features of the disease were inflammation of the conjunctiva, infiltration of the cornea, and generally severe iritis or iridocyclitis, with opacities in the vitreous. The development of small firm grey nodules in the conjunctiva, episcleral tissue, or iris had been noted in every case, and examination of these nodules microscopically revealed a structure very closely resembling tubercle, with numerous giant cells, and in the centre a section of a hair. In several cases sight had been seriously and permanently damaged, generally by blocking of the pupil, but in no instance had total blindness resulted. The disease had always occurred in country folk and usually in children. One case was reported to have commenced in June, all the others in August, September, or October. Mr. Lawford described the varieties of caterpillar which were known to have given rise to this disease, and discussed the methods in which the lesions might be produced, expressing the opinion that the affection was probably toxic in origin, the poison being contained in the hairs, which in some caterpillars were connected at their bases with glands.

Mr. HARTRIDGE suggested that the prolonged irritation might more probably be due to the migration of the buried caterpillar hairs than to the introduction of a poison at the time of the initial lesion.

Mr. DONALD GUNN referred to a report, for the truth of which he could not personally vouch, that our troops in India were liable to inflammation of the eyes supposed to be due to the smooth-skinned green caterpillar crawling over the surface of the eyeballs while the men were asleep.

In reply, Mr. LAWFORD said that migration of the caterpillar hairs was supposed to take place only for a short time; the hairs then became encapsuled, and remained stationary until disintegrated. Moreover, the inflammatory symptoms were referable chiefly to the iris and ciliary body, even though there was usually no evidence to show that these structures had been penetrated by the hairs. As to the disease referred to among the troops in India, it must be of a nature quite different from ophthalmia nodosa, as the latter only occurred after forcible penetration of the hairs.

NINE CASES OF CHANCRE OF THE EYELIDS AND CONJUNCTIVA.

Notes of these cases were read by Mr. SNELL. The situations of the chancres were as follows: Two at the internal canthus, one at the external canthus, three on the upper eyelid, one on the lower eyelid, one on the ocular and one on the palpebral conjunctiva. Three of the patients were as young as 2½, 4, and 11, and the others were aged 20, 21, 28, 29, 30, and 55. The number of chancres on the eyelids or conjunctiva recorded in the *Transactions* of the Society were so few that it appeared as if his experience was altogether exceptional. He thought, however, it was possible that the true nature had not, perhaps always been suspected. Balkley gave the proportion to all extragenital chancres as 4 per cent. Generally the diagnosis was not difficult. In all his cases induration of the preauricular gland was present, and in some cases of the submaxillary glands also. The induration of these glands should suggest the specific character of the lesion. There was difficulty, as was usual in such cases, in ascertaining the exact mode of infection. One was assumed to have been occasioned by a scratch from a syphilitic infant the girl was nursing; in another the mother and her baby were syphilitic, whilst in a third both father and mother were so affected. Two were playmates, one of them coming under treatment shortly after the other; another was an inmate of a lodging house where four towels sufficed for eighty people.

Mr. MARSHALL had watched a case at Moorfields somewhat resembling Mr. Snell's. The patient was a man, aged 20, who had an ulcer which did not yield to treatment till antisyphilitic remedies were used.

Mr. HILL GRIFFITH thought the chief interest of this class of case lay in the diagnosis; until the secondary eruption appeared it was difficult to make a positive diagnosis. The two things with which it was likely to be confounded were: (1) A vaccine pustule, which occurred accidentally more often than was supposed; and (2) a tuberculous ulcer. He thought that the local inflammation resulting from vaccine pustule was usually more intense than that following chancre of the lid.

Dr. BRONNER had seen eight or ten of these cases. He suspected that they were not so rare as was supposed; the subjective symptoms were often slight, and patients did not come to the hospital for advice till it was too late to recognise the true nature of the sore.

CARD SPECIMENS.

The following were the card specimens:—Mr. H. SECKER WALKER: (1) Sarcoma of the Iris; (2) Epithelioma of the Cornea and Conjunctiva; (3) Coloboma of the Iris and Choroid.—Mr. DEVEREUX MARSHALL: Cystic Sarcoma of the Ciliary Body.—Mr. MORTON: Microscopical Sections of Tumour of the Face.—Mr. J. B. LAWFORD: Peculiar Coloured Deposits in Crystalline Lenses.—Mr. H. WORK DODD; Congenital Pigmentation of Retina.—Mr. SILCOCK: (1) Congenital Anterior Synechia; (2) Tuberculosis of Eyeball Recovering.—Mr. NETTLESHIP: Case of Retinitis Proliferans.—Mr. DOYNE: (1) Case of Acromegaly; (2) Degeneration of Retinal Arteries.—Dr. BEEVOR: Case of Ophthalmoplegia Externa.

Friday, June 14th.

THE BOWMAN LECTURE ON SUBJECTIVE VISUAL SENSATIONS. DR. W. R. GOWERS delivered the Bowman Lecture, in the course of which he observed that the extremely varied subjective sensations which precede epileptic fits and the headache of migraine present one aspect of special importance—their relation to the cerebral visual centres. The hypothesis of a higher as well as a lower (half vision) centre in each hemisphere is compulsory. The facts of hysterical amblyopia, supported by some facts of organic disease and by the facts of cerebral hemianopia, show a remarkable

interdependence of function in the two higher centres. Peripheral vision of each eye is dependent on the associated action of the two higher centres, while central vision can be subserved in both eyes by one centre. This unique blending of function is strongly supported by many facts of visual spectra. The varied visual spectra of epilepsy present differences of elaboration, and the relation of these and of the spectra to inhibition were mentioned. Colour is frequent, and one fact of these coloured spectra is important. The colour vision extends to or occurs in the periphery of the field. This—though not at all new—is anomalous according to the central limitation of colour vision commonly given. Investigation shows that the field for each colour is almost the same as for white, that for red extending outwards to 90°, and of green certainly to 80°. It is simply a question of the area of the colour. Diagrams were shown of the fields for various areas of the red, green, etc. An area of red 6 centimetres square is always distinct at 90°. The relation of the colour vision in the combined fields is also considered and shown in diagrams, and its curious bearing on the conjoined action of the higher centres is discussed. When both eyes are open the sensitiveness to red is increased beyond the overlapping fields. Where the field is single, red can be seen, in each area, 10° further if both eyes are open. The relation of the epileptic spectrum to the motion of the head and eyes towards one side is another important illustration of the connection between the two visual centres and of them to the motor centre and the fact of motion (to fix an object appearing on one side) being succeeded by the opposite motion to follow it, and these by the convulsive deviation in the direction of the first movement, are considered in their relation to objective and subjective vertigo. The chief forms of the migrainous spectra were described, and the sources of the illustrative drawings and diagrams mentioned (unpublished drawings by Dr. Hubert Airey; a series by an accomplished artist, himself the subject of the sensations, and also a curious series by a comparatively uneducated mechanical draughtsman), from all of which diagrams were exhibited. The motion of the angled sphere, the facts of the expanding angled spectrum, of the progressive angled spectrum, were considered in their dim suggestiveness as to the action of the visual centres of the brain. Last the phenomena of inhibition, initial and final, in connection with this spectra, were considered and doubt thrown on the occurrence of true hemianopia as a functional state.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

R. BANNING, M.D., President, in the Chair.

Friday, June 7th, 1895.

THE TREATMENT OF FRACTURE.

DR. ALDERSON related two cases of fracture of the extremities in old people. The first was a fracture of the neck of the humerus in a lady, aged 75, in which good union resulted at the end of seven weeks. In the other case a lady, aged 67, sustained a fracture of the neck of the femur, and recovered perfect use of her leg without any lameness. She had been treated by a long outside splint combined with weight extension, but convalescence was retarded by the formation of a bedsore. Dr. Alderson also showed a boy, aged 18, who one year previously had sustained a T-shaped fracture of the lower end of his left humerus. The patient had been treated by wooden splints, and suffered from some stiffness of the elbow-joint after the splints were removed. After passive movements under gas, however, he had regained almost perfect movement in his elbow.

MR. LUNN referred to several cases of extra-capsular fracture of the neck of the femur in old people due to indirect violence, and showed two specimens. He advocated the treatment of such cases by plaster-of-paris splints, which allowed of the patient getting up on crutches at the end of a week or two.

MR. BIDWELL also urged the treatment of fractures of the femur by the immediate application of plaster-of-paris splints. He also recommended that T-shaped fracture of the lower end of the humerus should be treated by a well-fitting plaster splint, which ought to be kept on for a month. If the fracture had been kept completely immobilised, the movements of the elbow quickly returned without much trouble.

MR. YEARSLEY also mentioned some cases of T-shaped fracture of the lower end of the humerus, which had been treated by plaster-of-paris splints, in all of which the subsequent movements of the elbow were excellent.

INTRACRANIAL TUMOUR.

MR. JULER read the notes of two cases of suspected intracranial tumour, one of which was demonstrated to the Society. Both the patients were women, of the ages of 18 and 38 respectively, and had come under observation on account of severe double optic neuritis. In one case the swelling of the papilla had subsided into post-neurotic atrophy, with improvement of vision: in the other a severe choked disc existed, with complete blindness. Vomiting and severe headache had existed at different times in each case. These two symptoms, however, were almost invariable accompaniments of any severe optic neuritis. Mr. Juler was of opinion that, few as the symptoms were which pointed to intracranial mischief, they were sufficient to guide to a diagnosis, for in one case fits, failure of memory, and weakening of the lower extremities existed, while in the other periodical attacks of unconsciousness occurred. He considered that both cases belonged to that class which Dr. Hughlings Jackson had called optic neuritis with non-localising symptoms.

MR. LUNN mentioned a case of double optic neuritis in which a cerebellar tumour was found and successfully removed. He also referred to a case of cerebral tumour, which proved fatal after operation.

TREATMENT OF HALLUX RIGIDUS.

MR. MAYO COLLIER showed a boy, aged 17, on whom he had operated for hallux rigidus. Treatment by rest, tonics, and frictions was tried first without producing any effect, so the head of the metatarsal bone of the great toe was excised. The usual pressure caries was present on the under surface, between the sesamoid bones and the head of the metatarsal bone. Locomotion was now completely restored without any change in the functions or appearance of the foot.

MR. BIDWELL considered that most of the cases of hallux rigidus could be relieved by forced extension under chloroform, after which the toe should be kept in a state of over-extension by means of a plaster-of-paris splint for fourteen days.

MR. YEARSLEY remarked on the combination of this condition with flat foot.

TRIGEMINAL NEURALGIA.

MR. COLLIER also showed a man, aged 32, who had been the victim of severe trigeminal neuralgia for over four years. On examination of the nose, several mucous polypi, together with a piece of dead bone, were discovered; these were removed, and the patient had not suffered any more from his neuralgia. Mr. Collier pointed out that since the whole of the interior of the nasal cavities was supplied by nerve branches springing from the nasal ganglion of the second division of the fifth nerve, irritation of the nose was almost the most frequent cause of trigeminal neuralgia.

MR. LAKE drew attention to the more common situation of neuralgia in nasal cases, and said that he was interested in the question of necrosis without even a suspicion of specific history.

COMPOUND FRACTURE OF TIBIA AND FIBULA.

MR. KEETLEY showed two cases of compound comminuted fracture of the tibia and fibula, which had been treated by pegging and wiring the fragments. He insisted on the necessity of keeping all the fragments, even if several pieces of wire had to be inserted.

RODENT ULCER.

MR. BIDWELL showed a man, aged 74, suffering from a rodent ulcer on the outer side of the left thigh. It had existed four years, and was the size of a teacup. A portion had been removed for microscopic examination, and was found to be typical of rodent ulcer. Mr. Bidwell recommended free excision combined with immediate Thiersch's grafting.

SUBMAXILLARY GROWTH.

MR. BIDWELL also showed a boy, aged 17, who suffered from a warty growth below the jaw. This had arisen round the

sinus formed from a carious tooth, which had existed five years. He considered that the warty growth was due to the continual irritation of the purulent discharge.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

T. S. CLOUSTON, M.D., President, in the Chair.

Wednesday, June 5th, 1895.

CASES AND SPECIMENS.

DR. R. C. LEITH showed (1) part of a Skeleton showing Double Congenital Dislocation at the Hip joint, combined with rickety curvatures in the vertebral column and tibiæ from a girl aged 8; (2) Stricture of the Urethra, Dilatation and Hypertrophy of the Bladder, Left Hydronephrosis, and Abscesses in the Left Kidney, from a man aged 56, who died of urethral fever; (3) Great Dilatation of the Bladder, marked Left Hydronephrosis, and Hypertrophy of the Right Kidney from a case of Diabetes Mellitus; (4) Cystic Kidneys from a man aged 63.—DR. ELDER showed a Brain with a large Hæmorrhage in the posterior part of Broca's convolution. The clinical symptoms had essentially resembled those of bulbar paralysis.—DR. W. ALLAN JAMIESON showed a case of Psoriasis with a peculiar arrangement of the scales on the forearms.—DR. NORMAN WALKER showed (1) a case of Chloasma, and (2) a case of Lupus Erythematosus.—Professor T. R. FRASER showed two Rabbits that had been subjected to injections of the Cobra Poison with a view to rendering them immune. (An abstract of a paper on this subject, presented by Professor Fraser to the Royal Society of Edinburgh, was published in the BRITISH MEDICAL JOURNAL of June 15th.)

TUBERCULOUS PLEURISY.

Dr. JAMES read a paper on this subject. There were, he said, two varieties: (1) Pleurisy set up by matter carried from infected foci in the lung. (2) That in which the pleurisy preceded any appreciable tuberculous process in the lung. As an example of the latter, he gave details of a case. A blacksmith, of 50, had been ill for two months and a-half, with no history of tuberculosis. The illness began with a defined rigor, and right pleural pain, in the evening; later, effusion took place; still later, a chronic pleurisy. There was no evidence of tubercle in the lungs. The temperature varied from 97° to 100.5°. He was admitted to the Royal Infirmary on November 24th, 1894. At the end of three weeks the amount of fluid remained the same. Aspiration was done ten times between December and February, and 130 ounces of fluid in all drawn off. The temperature now varied from 98° to 101°; the weight kept uniform. On February 15th he complained of pain in the left side, the temperature was rising, there were fine crepitations, and impairment of the percussion note, then fluid again. Dyspnœa set in. On April 15th again there was a rising temperature, with again an accumulation of fluid. The chest wall was now incised, and a drainage tube put in. The patient continued to lose strength and died six days later. On *post-mortem* examination it was found that there were adhesions between the left pleural surfaces, on the right side a very thick pleural membrane, and again adhesions. In the lungs miliary tuberculous nodules. The liver and kidneys showed the same miliary tubercles. Such cases appeared to occur in men about or over 50, and they tended to a fatal result. Probably a false membrane on the pleural surface was formed, and it was of very slight absorptive power. Dr. James believed this case was not truly tuberculous. The points against the tuberculous theory were the family history, and the condition of the lungs. The sputum was almost *nil*, and showed no tubercle bacillus, nor did the effused fluid. At the necropsy there was no sign of old-standing lung disease. He believed, therefore, that the tubercle bacillus found in the man's weak state a suitable nidus, that this infection was quite a late event, an accident, and had nothing to do etiologically with the case. Dr. James then gave notes of a second case, that of a man, aged 47, with no tuberculous family history, ill of pleurisy 1½ month before admission to the hospital. Temperature 98° to 101°; pulse generally about 104; very poor appetite. There was effusion on the right side, which was aspirated once. Then pleurisy of the left side came on. Several aspirations were done during the next few weeks. A rigor occurred; there were signs of pneumonia, rusty sputum, etc. In all, he had been six months ill. On *post-mortem* examination, the lungs were in their upper part found adherent to the chest wall, and collapsed below. There was catarrhal pneumonia of both bases. Dr. James believed he was justified in saying that there was not tuberculous disease to begin with. As to treatment of such cases, he believed that free incision and drainage were the proper lines. Then in such severe measures were not at first thought necessary, the pleural space might be aspirated, and an aseptic fluid let flow in. Water with a little saline fluid would do.

Dr. AFFLECK said he more and more regarded pleurisy as a symptom, just as one did in the case of peritonitis (at least in the large majority of cases), of mischief either in the lungs or the constitution. Lesions in the lungs or bronchi especially were pre-existent to pleural changes. A very large number of cases of pleurisy were tuberculous, and a simple pleurisy might become tuberculous. Sometimes general tuberculosis first showed itself as a pleurisy. All cases of pleurisy occurring in young people should be looked on with suspicion. He had at least ten cases of tuberculous disease of the peritoneum treated surgically with recoveries, the simple cases with abundant fluid being the best for operation. Why did they not pursue the analogy further? In some cases of pleurisy the ailment was primarily tuberculous, and these often recovered if there were no tuberculous disease elsewhere. He thought if they got rid of peritoneal fluid by free drainage, there was no reason why the pleural spaces should not be similarly treated. He agreed with Dr. James as to the progress of those cases of men in middle life.

Dr. PHILIP had never yet seen in *post-mortem* examination a case of chronic pleurisy that was not somewhere tuberculous. Excluding specific infection, cardiac disease, renal disease, and malignant changes, on what hypothesis other than tuberculous could such cases of chronic pleurisy be explained? He believed the treatment depended on the stage at which you began. If a beginning was made early then aspiration, but if it had lasted for months then he agreed with Dr. James in suggesting the major operation.

Dr. LEITH held that tuberculous disease never spread from the lung outwards.

Dr. STILES spoke of tuberculous disease in joints. Bone disease of a tuberculous nature was often followed by similar disease in the synovial membranes. He did not see why the same thing should not occur in the case of the lungs and pleura, and he took exception to Dr. Leith's sweeping statement.

Dr. JAMES RITCHIE and Mr. C. CATHCART also spoke; and Dr. JAMES replied.

WIGAN MEDICAL SOCIETY.—At an ordinary meeting held on June 13th, the PRESIDENT (Mr. W. Mitchell Roocroft) in the chair, Mr. BRADY showed a case of Compound Fracture of the Lower End of the Femur, which he had treated on a MacIntyre splint, in a poor cottage, with a very good result. —A paper on Alcoholic Insanity was read by Dr. STREET, Medical Superintendent of Haydock Lodge Retreat. The subject was dealt with in an exhaustive and interesting manner. A discussion followed when Messrs. JONES, BLAIR, BRADY, REES, LOWE MOLYNEUX, BENSON, and the PRESIDENT took part; the PRESIDENT dealing with the treatment of inebriates in licensed houses, and pointing out that the previous Acts require amending very considerably before the subjects can be efficiently dealt with.—A hearty vote of thanks was accorded Dr. Street for his paper.

THE GERMAN GYNÆCOLOGICAL CONGRESS.—The sixth Congress of the German Gynæcological Society was opened in Vienna on June 5th, with an inaugural address by Professor Chrobak. The Congress was attended by all the principal gynæcologists and obstetricians of Austria, Hungary, and Germany, and other countries—especially Russia and Switzerland—were well represented. A notable feature of the meeting was the presence as a member of the Baroness Gabrielle von Possanner. Between sixty and seventy communications were presented. It was decided that the next Congress should be held in Leipzig in 1897, under the presidency of Professor Zweifel. The subjects proposed for discussion are (1) The Treatment of Retroflexion; (2) Placenta Prævia.

REVIEWS.

A MANUAL OF GYNÆCOLOGICAL PRACTICE FOR STUDENTS AND PRACTITIONERS. By Dr. A. DÜHRSSEN, Privat-docent in Midwifery and Gynæcology in the University of Berlin. Translated and Edited from the Fourth German Edition by JOHN W. TAYLOR, F.R.C.S., Surgeon to the Birmingham and Midland Hospital for Women; and FREDERICK EDGE, M.D.Lond., Surgeon to the Wolverhampton and District Hospital for Women. London: H. K. Lewis. 1895. (Crown 8vo, pp. 260, 120 illustrations. 6s.)

MR. TAYLOR and Dr. EDGE have done good service in rendering into English a characteristic German manual of the best type. Dr. DÜHRSSEN does not swamp his text in references nor waste time in depreciating the work of others. He speaks strongly on that in which he is most experienced. Above all he writes in a clear style, unlike that of too many of his countrymen. Unfortunately the *Manual* displays all the disadvantages of extreme condensation. Hence by itself it is not likely to prove a trustworthy guide to "students and practitioners," though it will undoubtedly be of the highest value to surgeons and gynæcologists who desire to learn what is going on in foreign practice. "Big" surgery and new operations are made too prominent; in a manual they should be placed in the background, and to the learner it should be carefully explained how far any one operation is justifiable. Thus no doubt "vaginal cœliotomy," as the author terms it, may be an excellent operation when performed by a specialist as experienced as Dr. Dührssen. But the beginner had better remove ovarian tumours through an abdominal incision. The author writes: "It is only applicable in those cases where the cervix can be drawn down to the vaginal entrance. Myomata should not be larger than the fist." This opinion cannot be misunderstood by an experienced gynæcologist, but it will give the student the impression that myomata smaller than the fist require operation. It were better to teach him that small myomata are best left alone.

The general observations about exploring and using the sound and the passages on minor operations are admirable. Indeed, the management of "small" or "ordinary" matters as understood by an experienced authority is excellently set forth. Real "minor gynæcology," an important theme which must be mastered, is understood by the author, and he rejects all that sham gynæcology which savours of quackery. Let the beginner study the author's introductory remarks, down to page 53, with the greatest care, but let him beware of the chapters on new operations.

THERAPEUTICS: ITS PRINCIPLES AND PRACTICE. By H. C. WOOD, M.D., LL.D. A Work on Medical Agencies, Drugs, and Poisons, with special reference to the Relations between Physiology and Clinical Medicine. The ninth edition of A Treatise on Therapeutics, thoroughly revised. London: Smith, Elder, and Co. 1894. (Demy 8vo, pp. 1,020. 18s.)

IN reviewing Dr. WOOD's invaluable work it is scarcely necessary to do more than draw attention to the fact that a new edition, thoroughly revised by the author, has appeared. The seventh edition was to a large extent remodelled, and the arrangement then adopted has been adhered to practically in its entirety. The work is divided into two chief parts, the first dealing with remedial agents and measures other than drugs; this section includes massage, feeding of the sick, electricity, heat and cold—all of which are considered shortly and without detail, but quite satisfactorily as regards general principles. Pharmacy and prescribing are also briefly but sufficiently considered, and there is a useful therapeutical index.

It is, however, in the discussion of the physiological action of individual remedies and the relationship between this and their therapeutical applications that Dr. Wood's treatise stands out so pre-eminently. The author is himself an able and unwearying original investigator, and has in addition an accurate and wide knowledge of the most important literature of his subject; consequently one gets in a comparatively small compass a reliable and critical abstract of the best and most recent acquirements in the domain of pharmacology and therapeutics. The book has already made for itself and its author such a reputation that further recommendation of it can only be regarded as superfluous.

MECHANOTHERAPIE; EIN HANDBUCH DER ORTHOPAEDIE, GYMNASTIK, UND MASSAGE. [Mechano-therapeutics; a Handbook of Orthopædics, Gymnastics, and Massage.] In Verbindung mit Fachmännern herausgegeben von Prof. Dr. A. LANDERER, in Stuttgart. Leipzig: Vogel. 1894. (8vo, pp. 476, 193 Illustrations. M. 10.)

THIS work is what it professes to be—a full account of massage and gymnastics for the rectification of deformities. The illustrations are good, and give an excellent idea of the various exercises through which the author puts his patients. Many of them will be familiar, but the perusal of the book gives rise to a certain feeling of disappointment. Too much is claimed for massage. What gain, for instance, can reasonably be expected from massage in Bright's disease or in hernia? It is only fair to add that the writer looks to the future to yield better results with hernia than it has yielded in the past. It is easy to conceive of the prevention of the muscular weakness which predisposes to hernia by means of muscular exercise and gymnastics, but further than this one cannot go, and Professor LANDERER does not help us.

The methods described of massage of the male and female generative organs will, as we have frequently taken occasion to point out, hardly commend themselves to English readers, and Professor Landerer practically admits the justice of one of the objections felt when with unconscious humour he states that in virgins massage must be effected *per rectum*, care having previously been taken that it has been well washed out.

The surgical side of the treatment of deformities has received but scant attention. The account of the washing out of tuberculous abscesses and their healing by first intention, largely practised as it is on the Continent, is conspicuous by its absence, as also is all detail in connection with tenotomy and other well recognised treatments for the various forms of club foot. Up to a certain point mechanical treatment is undoubtedly excellent, and should always be given a trial, but in case of its failure there is a higher court of appeal, to which none is here made.

With all its defects the book has its good points, which we have already referred to, and few will read it without finding plenty of mechanical food for reflection.

ON THE GEOGRAPHICAL DISTRIBUTION OF TROPICAL DISEASES IN AFRICA. With an Appendix on a New Method of Illustrating the Geographical Distribution of Disease. By R. W. FELKIN, M.D., F.R.E., F.R.G.S. Edinburgh: William F. Clay. 1895. (Demy 8vo, pp. 84. 3s. 6d.)

DR. FELKIN gives a short, but in many particulars admirable, account of the climatology of Africa, and of the physical conditions on which its peculiarities depend. His sketches of the diseases of Africa are not so happy, and contain very many statements not quite in harmony with modern views, and the evidence for which, in not a few instances, is insufficient. At page 34, for example, he appears to speak of "remittent malarial fever, including bilious remittent fever, blackwater fever, hæmoglobinuric fever, and endemic hæmaturia," as among the diseases caused by Laveran's hæmatozoon. Blackwater fever and hæmoglobinuric fever have generally been regarded as identical, and endemic hæmaturia is the name usually given to the principal symptom caused by the bilharzia. At p. 42 he says he regards sleeping sickness as a form of beri-beri. Most other authorities take a different view. Beri-beri, he says, is caused by drinking water impregnated with saline matter! With regard to endemic hæmaturia, he writes at page 52: "This disease is caused by the ingestion of water"; but in the following paragraph he advances the extraordinary suggestion that "some

minute leechlike animal fixes itself on the skin of the bather, and by means of an ovipositor implants the ova in some superficial vein, and then the free embryos might be carried by the circulation from the ankle or leg to the pelvis." A treatment he recommends for endemic hæmaturia—the injection of potassium iodide solution into the bladder—is not to be relied on, and may even have injurious results. Again, in the treatment of anchylostomiasis, he recommends that the thymol should be dissolved in brandy. But as the drug is directed against the parasite, an alcoholic solvent, as Sonsino has so carefully pointed out, is to be avoided.

We have noted only a few of what we cannot but regard as serious blemishes in an otherwise useful work. The map illustrating the geographical distribution of disease in Africa is ingenious.

ALLGEMEINE PHYSIOLOGIE [General Physiology.] Von Dr. MAX VERWORN. Jena: Gustav Fischer. 1895. (Roy. 8vo, pp. 596, 270 illustrations. M.15.)

THIS is a very noteworthy book. The title alone does not indicate its scope, for it is not merely a textbook of physiology, a more or less excellent addition to the already numerous physiological manuals. It is a treatise on physiology written by a biologist, a psychologist, and a thinker, whose philosophical tendencies have already been shown in his previous writings.

In the work before us, Dr. MAX VERWORN seeks to solve the deepest of the ultimate questions which appeal to all philosophers. His sound anatomical knowledge gives him a firmer basis than is to be found in the writings of many philosophers, so-called, for the investigation of such questions as the meaning of life, the differences between life and death, and the existence of a special vital force. Dr. Verworn discusses all these and similar questions in a very interesting way, drawing his instances from all parts of the animal world, and from the vegetable kingdom also. The supreme importance of the cell is very strongly insisted upon, and, therefore, the unicellular organism has a special attraction for the author. He has no sympathy with vitalism either of the older school or of the new school. Bunge's vitalism he calls "subjective idealism." He however dedicates his book to Johannes Müller, who, though in his way a vitalist, is regarded as the founder of modern physiology. His master appears to be Haeckel, whose monistic views of the organism and the universe he strongly upholds. Add to this that he regards both the living organism and the outer world as expressions of that organism's consciousness, and one gets a glimpse of the highly philosophical way in which physiological problems are treated. It need hardly be added that Dr. Verworn is an evolutionist, though he does not pronounce any definite opinion on the questions included under the term "Weismannism." Bütschli's theories and observations on the structure of protoplasm are very fully discussed, and meet with his general approval.

We have sufficiently indicated the nature of this most interesting work. It is written in a lucid style; it is embellished with numerous excellent illustrations. The historical references, moreover, show that the author is a student of the views that others have held in the past. Altogether it is a book which would well bear translation into English, as we have no work which covers the same ground, and the original thinking of Dr. Verworn would thus become known to a wider circle of readers.

NOTES ON BOOKS.

Burdett's Hospital and Charities Annual: 1895. By HENRY C. BURDETT. (London: The Scientific Press. Pp. 834. 5s.)—This well-known annual continues to give a large amount of information regarding hospitals, being in fact a form of hospital directory preceded by chapters on finance, management, construction, and kindred subjects. The various tables as to income, expenditure, etc., will doubtless be found useful by hospital managers.

Aids to Surgical Anatomy. By EUGENE S. YONGE. (London: Baillière, Tindall, and Cox. 1895. Fcp. 8vo, pp. 160. 2s. 6d.)—There is too great a tendency at the present day for the student of medicine to cram up a subject from a small epitome immediately before presenting himself for an examination. This is especially the case with anatomy and a qualifying examination in surgery. In the present volume the author has attempted to condense and present in a small book the chief facts in anatomy and surgery. If the student has mastered his subject and wishes to revise it quickly before going up for an examination he may find the book useful, especially if he has not been in the habit of making notes and abstracts from his textbooks and lectures. If, however, this is not the case the book cannot be recommended, as it is too condensed and assumes too great a knowledge of the subjects of which it treats. We have noticed several small errors, notably on page 143, where the peronei muscles are called "flexors longus and brevis."

A New Method of Inhalation for the Treatment of Diseases of the Lungs. By W. H. SPENCER, M.A., M.D.Cantab, M.R.C.P. Lond. (London: The Scientific Press, Limited. 1895. Cr.8vo, pp. 54, 1s. 6d.)—We fail to discover what there is that can justly be termed "new" in the method here described. It is certainly not "new" for inventors to endeavour to discredit methods that are generally employed other than their own, and the author has not escaped this vice. His knowledge of the literature of the subject would seem to be limited to one work only, the methods and conclusions of which have justly fallen into discredit, and chiefly through the careful experiments of DR. COGHILL. Of these and the writings of Oertel, Solis Cohen, Sir Wm. Roberts, Wilson Fox, Burney Yeo, and others the author seems to be ignorant.

A Handbook of Diseases of the Eye, and their Treatment. By HENRY R. SWANZY, A.M., M.B. Fifth Edition. (London: H. K. Lewis. 1895. Cr. 8vo, pp. 600. 10s. 6d.)—The appearance of the fifth edition of this excellent handbook so shortly after the issue of the fourth edition speaks for the position it has gained among textbooks of moderate size. The author's wide acquaintance with the work of foreign ophthalmologists renders it especially valuable to English students. The present edition is larger by 44 pages. Among the additions are: Descriptions of the astigmometer and its use; of the effects of electric light on the eyes; of scintillating scotoma; of ophthalmia nodosa; and of exophthalmos. The articles on tubercle of the iris and tumours of the optic nerve have been rewritten; the diseases of the retina have been arranged in more systematic order; while the account of the visual centres and path has been revised; and, where necessary, the book has been brought up to date by references to the most recent work by both English and foreign observers. The parts dealing with the localising value of affections of the eye are especially good. The appendix contains the regulations concerning eyesight for candidates for admission into the public services. It fully maintains its reputation as a textbook for the student and practitioner.

Diseases of the Eye. By CECIL EDWARD SHAW, M.A., M.D., M.Ch. (London: J. and A. Churchill. 1895. Cr. 8vo, pp. 106. 3s. 6d.)—The preface states that the aim of this little book is to give the general practitioner and student a brief account of the principal affections of the eye and their treatment. Anatomy, physiology, and the optics of the eye have been omitted, also directions for the use of the ophthalmoscope. For these subjects and for operations on the eye the reader is referred to other books. There remain brief accounts of the commoner affections of the eye, and a special chapter on affections of the organ in relation to other diseases. With such a short space available, these brief accounts in many cases resolve themselves into a recital of the bare features of the typical forms of the diseases. We cannot help thinking that there is no room for a book of this kind; it cannot be regarded as a sufficient textbook for the student, and it is certainly not one to which the practitioner would refer in a case of difficulty.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

HEMATINIC PELLETS.

FERRUM redactum, in consequence of its fine state of division, is very soluble in the fluids of the alimentary canal. It has no inky flavour, is not astringent, and does not blacken the teeth. The value of this preparation is estimated by the amount of metallic iron present. The *British Pharmacopœia* requires a minimum standard of 50 per cent., but as there is no difficulty in obtaining over 90 per cent., the official standard might be conveniently raised.

Messrs. Wyley, Limited, Wholesale and Manufacturing Chemists, Coventry, make, in the form of compressed pellets, a specially prepared ferrum redactum, combined with a small quantity of phosphate of manganese, and a chocolate basis. In this compressed form the iron is protected from oxidation, and it is at the same time a portable and palatable mode of administration.

FERROPYRIN.

WE have received from Mr. B. Kühn, 36, St. Mary-at-Hill, Eastcheap, E.C., a sample of ferropyrin, manufactured by the firm of Knoll and Co., Ludwigshafen on Rhine. This substance is a compound of one molecule of ferric chloride with three molecules of antipyrin. It occurs in the form of a dark-red crystalline powder, soluble in five parts of cold water, forming a solution of a dark blood-red colour, possessing a slightly astringent taste. Ferropyrin appears to have given very good results in the treatment of chlorotic and anæmic conditions.

PULVIS MAGNES. BORO-CITR. COMP.

THIS preparation is essentially a combination of boric and citric acids with magnesium. The compound has a very agreeable acid taste, and is soluble in water. It has been in use for some years, and is recommended as a remedy for gout, etc. The manufacturers are Messrs. Clay and Abraham, 87, Bold Street, Liverpool.

KARSWOOD CREASOTE.

KARSWOOD Creasote is an aromatic solution of creasote prepared by Mr. E. G. Hughes, Chemist, Victoria Street, Manchester. The solution is contained in a screw-capped bottle, so that it can be readily sprinkled upon a pocket handkerchief, and thus inhaled. This preparation forms a convenient and agreeable way of inhaling creasote.

TYNE PORT SANITARY ADMINISTRATION.

THE sanitary administration of the river Tyne Port District has come to be looked upon as a sort of model for others to follow, and so when questions of public censure of officials of the authority having jurisdiction on the river come up more than usual interest attaches thereto. The local papers circulating in Newcastle-upon-Tyne have given much space recently to some petty squabbles which have exercised the port sanitary body and their health officer, Dr. Armstrong, arising out of the arrival in Dr. Armstrong's absence of a small pox infected vessel in the river, and suspected negligence in the matter of proper dealing with the vessel and her crew and belongings, small-pox cases in South Shields being thought of as having connection with disease spread from the ship. It now seems that Dr. Armstrong was, at the time of the ship's arrival, in London on business connected with his official duties, and that whatever may have been the method in which the vessel was dealt with, he had no personal concern in the matter, seeing that he had left his accredited deputy to fill his post in his absence. The authority have very wisely accepted his statement of fact, and the matter has been settled, but not without much unnecessary and unseemly irritation on the part of the authority, including a request for Governmental interference in the shape of a local inquiry into the matter. It seems difficult to conceive of anything so childish having been mooted, and we are glad to learn that the request was refused, and Dr. Armstrong's position thus in a measure upheld. We congratulate the authority, equally with Dr. Armstrong, on their pacific settlement of an attempt to call in question the administration of the port on what seems to have been a wholly indefensible assertion of negligence.

WATERBORNE TYPHOID:

A HISTORIC SUMMARY OF LOCAL OUTBREAKS IN GREAT BRITAIN AND IRELAND, 1858-1893.

A Report Prepared for the Parliamentary Bills Committee of the British Medical Association.

BY ERNEST HART, D.C.L.,
Chairman of the Committee.

(Continued from page 1325.)

LABOURBORNE TYPHOID FEVER.

THE instances in which the carelessness of workmen has led to serious spread of typhoid fever are by no means rare, and they may be considered as cases in which the disease as a waterborne fever should never have been heard of. I may quote two instances in which outbreaks have undoubtedly been caused by the medium of workmen, and one in which suspicion attached to this means as a method of spread. The first is the case of Eagley and Bolton in 1876 (No. 85), where fouling of a brook used for dairy purposes at a milk farm was brought about by the evacuations of workmen, there being abundant evidence of the use of the banks and bed of the brook for purposes of defæcation by individuals who had suffered from diarrhœal disorder suspicious of typhoid; this latter disease being subsequently spread by the milk from the dairy in question. The second instance is that of Caterham, previously mentioned, in the early part of 1879 (No. 102), where a workman in the workings fell ill of enteric fever whilst employed in an adit between two deep wells, and who specifically contaminated the workings by his frequent and copious evacuations. Upwards of 300 cases resulted, with 21 deaths. In the third instance, that of Worthing in 1893, and already referred to (No. 198*a*), the health officer of the borough (Dr. Kelly) had in his possession evidence of the fouling of a new heading at the waterworks, and intimately connected with the epidemic, by workmen. Such excremental pollution as he knows to have taken place was regarded by him as perhaps accounting for the early manifestation of the disease, but no evidence was forthcoming as to any typhoidal illness among the workmen, though the entire absence of all mild attacks among them cannot, of course, be completely vouched for. But however this may have been, enough has doubtless been said to show what a serious matter it is to be depending on the good health and good conduct of men employed in workings having relation to water services. That the chance illness of one man can have as its consequence the amount of suffering and death which were caused in the first two instances referred to above is not a pleasant thought, and the difficulty of guarding against recurrences of a like sort is not the least unpleasant part about the matter. The past occurrences of this kind seem to call for serious notice at the hands of employers of labour in such undertakings as waterworks, with a view to the issuing of stringent instructions to the men that the calls of Nature are on no account to be obeyed except in places set apart for the purpose, and it should be the business of some sanitary official to see to it that such places are provided.

WATER CONTAMINATION BY LEAKY SEWERS.

The importance of having a sewerage system that shall be free from all defects of construction cannot be overestimated. The evil consequences attending the use of sewers that have been found on examination to be leaky have been on only too many occasions sadly evident. As illustrating this point I may refer to five instances shown in the tables to be published later. The cases quoted cover a large period of time, thus giving the idea that the dangers are potent to-day no less than a quarter of a century ago. At Guildford, in 1867 (No. 8), no condition other than water supply could be found which could be made to fit the circumstances of a fever prevalence which in its earlier manifestations attacked only those persons consuming water from one particular service. The curious part of the matter was that the houses affected were supplied for only one single day with the implicated water, that, namely, from a high-standing reservoir previously filled

with water from a new well. This well was sunk through a porous stratum of Chalk in close proximity to various sewers one of which was found to leak in several places, almost certainly polluting the well. The second instance was no less curious than that just named. At Bramham College, near Tadcaster, in March, 1869 (No. 12), a large number of typhoid cases broke out simultaneously, most of them in abstainers. Inquiry as to the cause led to discovery that a drain that had carried the excreta of two imported cases of fever passed over a soft water tank, and that at this point it was throwing off its contents by way of a rat-hole, the contaminated water of the tank in turn leaking over on to the stonework of the adjacent well, which furnished the supply of drinking water to the College. An instance of a disgusting character was that of the Newlyn outbreak in 1880 (No. 118), where all the early cases were in consumers of the water of the "town well," no other condition in common being discoverable. Between this well and a contiguous and solitary main drain there was free interchange of contents. Another circumstance that dubs this case as a bad one is the fact that the outbreak was kept from the knowledge of the community by order of the sanitary authority. A flagrant instance of gross insanitary conditions was that of Fareham, in 1885 (No. 162), where in connection with a smart outbreak, numbering some 150 cases of typhoid, it was discovered that water mains and sewers were actually in direct relationship, whilst there was also equally unpardonable continuity existing between service pipes and watercloset pans; moreover, the water supply was intermittent. I shall in this place only give one more reference to the terrible results following upon the retention of leaky sewers, this last one being still fresh in the minds of most people. I refer to the epidemic at Worthing in 1893 (No. 198*a*). Here, as has been already shown, the epidemic had close relation with a fissure in the Chalk, the fissure leading right down to a heading of water which had become specifically polluted, and had in turn contaminated the whole supply with which it was connected. The causal relationship of leaky sewers to the epidemic is most marked, seeing that the sudden multiplication of cases in early July is to be attributed with much probability to the pollution of the heading in question by the excreta of typhoid patients carried by defective and leaking drains on either side of the fissure. The cases in April, May, and June, the excreta from which would pass along these sewers, were by no means few in number, and the probability becomes almost certainty when we consider the circumstances around the rent in the Chalk into which these specifically contaminated sewers were able to disgorge parts of their contents in such a position as to render the pollution of the water much more than likely. The circumstances of this most unhappy outbreak are rendered the more regrettable when we remember that the retention in their place of old leaky, disused sewers played no unimportant part in the pollution of the ground around the fissured water-bearing strata in which the heading of 1893 was driven immediately below the spot where former attempts had demonstrated the presence of doubtful water.

Thus it is seen how great is the causal relationship of leaky sewers and waterborne typhoid. The lesson has been dearly taught that the utmost care is called for in the laying of sewers in the vicinity of either waterbearing soil or water mains. Not only, however, should care be exercised in the laying of sewers and drains, but where there is the slightest chance of the leakage of their contents finding a way to the water service, more than usual attention should be bestowed on those sections of the system. I shall have occasion to speak on this subject in connection with other outbreaks of a character not far removed from those of which I have been here treating, and where the sewerage has had much to do with fever prevalences.

BALL HYDRANTS.

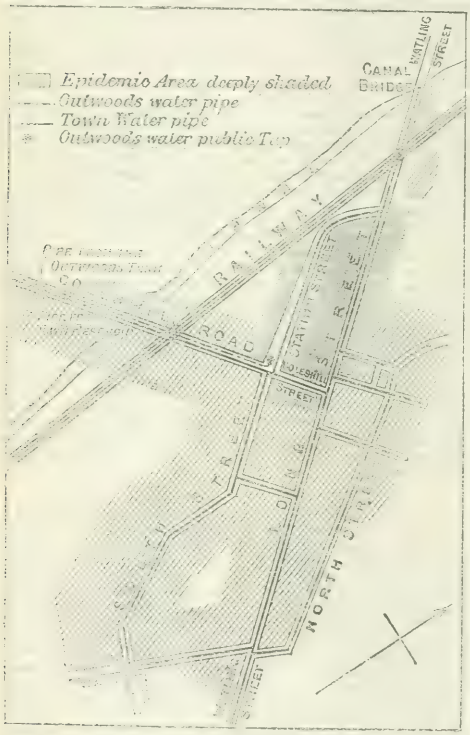
The use of these contrivances has more than once been deemed a likely means of disseminating disease, since in certain circumstances they allow free ingress to water mains of detritus from roadways. Indeed any filth in the vicinity can gain access to the hydrant box, and, during periods of intermission of water service (when the ball would naturally fall), finds its way within the hydrant, to be sucked thence into the mains at the first opportunity. Dr. Franklin Parsons, of the Local Government Board, has discussed the theory of infection of water pipes which have been fitted with ball hydrants in his report on enteric fever which occurred in Cowpen in 1886-87, the report, however, only being made after the lapse of some four years, in 1890. He shows that there may well be danger in the use of such hydrants, as they are so arranged that with any loss of pressure in the main the ball must of necessity fall, when no obstacle remains to the ingress of either air or liquid into the pipes. The hydrant is a vertical branch pipe, containing a gutta-percha ball, which under ordinary circumstances is kept pressed by the water against an orifice surrounded with an india-rubber seating, so that no water can escape nor air or water enter the pipes. In these conditions it is not to be wondered at that the lowering of that pressure on which depends the retention of the ball in its proper position should be a distinct danger. At Cowpen it seems not to have been a rare sight to witness the contents of ashpits—including night soil—standing over the iron boxes of the hydrants during periods of emptying these receptacles. Where the mains were laid with steep gradients there would be the greater danger of insuction of air and filth, the hydrants at the upper end of the main being in a position such as would favour the entry of liquid, etc., especially where, as in Cowpen, there was frequent lack of pressure of water service on account of shortness of supply. Dr. Parsons could not but think the danger a real one, and this had evidently been the thought of the local authority, since they had brought in the practice of sending round a man to see that all the hydrant boxes of any section to be turned off were clean. I have not included an account of this experience at Cowpen in my appended summary, as there was difference of opinion as to the exact cause of the outbreak. But I may well refer to the theory put forward in the case of the Worthing epidemic of 1893 (No. 198*b*), where the action of ball hydrants was called in question as possibly elucidating the mystery attending the outburst of typhoid at West Worthing and West Tarring, where ball hydrants were in use on falling mains. Dr. Theodore Thomson, in his report, says that the boxes were often the receptacles of filth, which had gained access by way of the keyhole in the box. And he, by actual inspection, found that when the engines had for some hours ceased pumping, the majority of the balls had fallen, thus permitting the ingress of infective material from the roadways. But no positive evidence that contamination of water mains had thus been brought about could be found. Nevertheless, the danger is sufficiently appreciable to make it a point of insistance that no mains should be permitted to have affixed to them these undesirable apparatus. Worthing itself had retained them, notwithstanding that the health officer (Dr. Kelly) had in 1892 attributed a localised outbreak of typhoid to infection of mains in the same vicinity as was in question in 1893, through the instrumentality of these ball hydrants.

WATER-MAIN LEVELS AND TYPHOID FEVER.

One can readily conceive that there are circumstances in which the question of levels of water mains would have a very important bearing on the incidence of fever distribution in a district which had been invaded by waterborne typhoid. This point has been already referred to in commenting on the outbreak at Worthing of 1893 (No. 198*b*), where the disease in its incidence on West Worthing and West Tarring fastened on those portions which laid low in relation to the water mains. The theory held there, and generally in respect of localised outbreaks of a like nature, is that any material gaining access to the uncharged water mains would, as a matter of course, gravitate to their lower levels. That this theory is a tenable one no one would care to deny. But there is another way in which the levels of waterpipes are seen to have a probable causal relationship with typhoid, and that is that only one section of a water service may be polluted, and that this particular section may, on account of the level of the distributing reservoir, be capable of distribution in only a circumscribed area of the district served by it and other sources of water. That the case here supposed is not a mere hypothesis is seen from a consideration of the circumstances attending the outbreak of typhoid at Atherstone in 1893 (No. 199), where the disease was related

to the contamination of one section only of the public water service. That the outbreak was one of a waterborne character leaves no opportunity for question if the data be looked to, and that one portion of the service was implicated is also amply demonstrated by the figures which Dr. Wheaton, of the Local Government Board, is able to adduce in favour of this thesis. Of the circumstances leading to contamination of the particular water I shall have to speak in other connection, suffice it here that the contamination was fully made out and that we have now merely to consider the part played by the means of distribution of the water.

Looking to the interest attaching to this outbreak I have introduced a reduced plan of the district affected from Dr. Wheaton's report, with a view of leading to a better understanding of the bearing of the levels of the epidemic area to the outbreak. The portion of the plan shaded most deeply constitutes the "epidemic area," and lies at the lowest levels. The implicated ("Outwoods") water ran in the pipe terminating at the Greek cross at the junction of South Street and Station Street. During the time of chief epidemic manifestation of the disease this water was nightly turned into the mains by being joined to the remaining pipe in the Coleshill Road, the other "town" water service being nightly turned



ROUGH PLAN OF THE TOWN OF ATHERSTONE SHOWING THE MAIN STREETS AND WATER MAINS.

off on account of fear of water famine if it were allowed to be constantly flowing to the distributing mains. In these circumstances and in view of the large amount of water used by the residents of this portion of the town, there would be almost no water in the mains when the implicated "Outwoods" water was turned into the pipes each evening.

Now the levels of the district are such that this "Outwoods" water on admission to the mains would flow first of all to the district north of the Greek cross, namely, down Station Street, under the railway to a dead end at the foot of the canal bridge at Watling Street and along the northern half of Long Street back to Coleshill Street and thence to its original starting place. The levels respectively of the Atherstone mains and of the source of the Outwoods water were such that little if any of the water thus admitted from Outwoods could, having regard to the pressure, reach the district south of Coleshill Street. In respect of these two districts thus naturally formed for purposes of water distribution Dr. Wheaton says that the difference of level between the dead ends of the two was seven feet.

"Water could therefore circulate round the northern loop when the pressure would not suffice to enable it to circulate round the southern loop.....If the whole system of mains were supposed to be completely emptied, and a small body of water then turned at low pressure into the main leading from the reservoir, the water would fill the whole of the northern loop, including the long main ending in a 'dead end,' before any of it would pass into the southern loop." The local surveyor was of opinion that the pressure was never such as to carry the Outwoods water into the mains in the south-western portion of the district. The locality, being inhabited by people who in the nature of their occupation had to rise early, was one in which they would, in drawing off water at an early hour, be more likely to draw off the Outwoods water than persons residing in other parts of the town. And in addition, as in some way perhaps showing cause for undue prevalence of typhoid in this locality, the residents had the fountain at the Greek cross to which to resort for this same Outwoods water. The season during which this water was nightly turned into the mains was but a short one, but while it lasted no less than 93 per cent. of the numerous cases arising occurred within this epidemic area; in the next four weeks as many as 83 per cent. so occurred. There was a special incidence on adult males. The evidence here given seems to me to be pretty conclusive of the potency for harm, within the special area of epidemicity, of the contents of the low-lying water mains, whilst the configuration of the ground saved the closely adjacent streets from sharing the same fate. But yet another factor in the continuance of the fever in this same northern low-lying section of the town has to be considered. It is that the specific poison having been admitted to the mains may have become multiplied in the long pipe ending in a "dead end" at the canal bridge. At a point where the dip of the pipe takes it under the railway the depression is such that the accumulated water is perhaps never wholly drawn off, the germ of the disease increasing in the stagnant water, to be distributed every time the water newly admitted into the main came in contact with the stagnating contents, constant mixing of the waters at this point leading to contamination equally constant. Here, indeed, we learn that the water from the main was entirely disused on account of its having a nasty taste, so that any direct evidence as to this theory cannot be found. But it is a feasible one.

It is easily to be conceived that when water was rapidly drawn from the mains, some of the stagnant water from this depression could be in this way drawn into the loop supplying the epidemic area and consumed there. That the circumstances of this most interesting occurrence of typhoid fever at Atherstone afford indication of a special danger attaching to low lying localities, at the periphery of a water source, when specifically contaminated water is distributed thereto, admits to my mind of no doubt. The incidence of fever on low-lying streets thus circumstanced both in this case and that of West Worthing and West Tarring having been so ably described by Drs. Wheaton and Thomson, should lead sanitary officers, when incidence of a like nature comes within their ken, to ascertain whether water may not be concerned as a medium of cause and spread, and whether the local conditions are such as to have led either to gravitation, with chance of subsequent stagnation, of infective material to the lower levels of the distributing mains, or to the gravitation of water already possessed of infective quality to the low level terminal pipes, and to these alone. The matter will arise in the next heading treated.

INSUCTION OF AIR, ETC., INTO WATER MAINS.

There can be no question of the vast amount of harm to health caused in time past by the action of imperfect water mains and pipes in admitting morbific material both during intermissions of water service and when running "full." The possibility of the entry of such material when intermission of water was known to have occurred was never much doubted, if indeed it ever was doubted; but the theory that mains running full could also act as means for conducting outside material by lateral insuction has not been held as proven for very long. It is the knowledge of the now well-established fact that pipes incur this danger even when the normal water pressure is maintained that gives especial significance to the operation of such a subtle foe to the health and life of man. We now know that when water is passing through a pipe with great velocity, where there is greatest velocity there will be a partial vacuum; and if the pipe chance to be placed in communication with the outer air—whether by accident or otherwise—there will ensue strong insuction; the greater the flow of water the greater being the power of insuction. Sir George Buchanan has well set forth the aspects of the case in its relation to disease causation in the following words: Speaking of indraught of material having occurred through apertures in the sides of pipes running full, he said: "(1) The lateral incurrent is freely produced when the water pipe is descending, and when the pipe below the hole is unobstructed; (2) if the force of waterflow in a descending pipe be moderate, a moderate degree of obstruction below the hole does not prevent the incurrent; (3) in horizontal pipes of uniform calibre, when the flow is strong, or the pipe beyond the hole is long, or when the end of the pipe is at all turned upwards, the incurrent does not take place; but (4) momentary interference with flow, *a tergo*, or momentary reduction of obstruction, *a fronte*, allows a momentary incurrent through the hole; (5) incurrent through a lateral hole takes place with incomparably greater ease when the hole is made at a point of constriction of the water pipe."

I have now to refer to some of the principal instances in which the insuction of morbific material into water pipes has been found to have direct causal relationship with outbreaks of typhoid fever. The case to which I would first direct attention is that of the historic outbreak at Sherborne in early 1873 (No. 55), investigated by Dr. Blaxall on behalf of the Local Government Board. Here it was found, after careful study of the facts, that the disease had been caused by insuction of air into the service pipes from closet pans during intermissions of water supply, typhoid fever being present already in the town. There was sudden appearance of the fever, after a nightly intermission of the service in the month preceding this epidemic manifestation. During the whole prevalence the ratio of attack on houses on the particular water service was 29 per cent., as compared with only 7 on the other services. The lesson taught by this invasion of the town was not learned in vain, as the sanitary authority set to work to repair the defects brought to light, and the direct communication between water pipes and closets was generally cut off. But that the work had not been thorough was unfortunately shown by the occurrence of cases of typhoid under identical conditions in 1882 (No. 135). That this later manifestation was limited as it was may fairly be referred to the activity of the sanitary authority in the matter in the intervening years. The outbreak was confined to four houses, or rather three of four houses, having one condition in common, namely, direct connection of closet pans and water pipes. Now the sewers of Sherborne had been already open to infection by the excreta of antecedent typhoid cases. The direct connections in these houses seemed the only ones remaining in the town so far as I can gather. There were ten attacks in the three (school) houses invaded, the fourth, escaping, house being inhabited by adults only, and these non-water drinkers, all those attacked being, on the other hand, water drinkers.

My next illustration is that of Hull in 1874 (No. 73), when and where a very large number of typhoid cases arose in circumstances which led to confident assumption of drain air as the cause of the epidemic. Dr. King, the investigator, had his attention drawn to the vast amount of air expelled from the waterpipes on the opening of some of the taps, this air at times smelling offensively. The smell of the water was also complained of as it left the mains. This air was, Dr. King felt convinced, drawn into the mains in their course along the streets in close proximity to the sewers. He had every reason to believe that both foul air and foul matters had ample facility of entry to the pipes and mains. The water service was especially intermittent about the time of the epidemic. In the case of Over Darwen in the same year, 1874 (No. 75), there was widespread disaster through the faulty construction of a water conduit. Upwards of 2,000 attacks were heard of, all classes being affected. The particular way in which contamination of water was brought about was by entrance to a water conduit, having imperfectly secured joints, of the contents of a watercloset drain of defective construction and choked condition, such contents consisting partly of excreta from an imported case of typhoid. The suddenness and universality of the epidemic is shown by the fact that some 1,500 cases came under treatment within a space of three weeks. At Tideswell, in Derbyshire, in 1876, Dr. Thorne Thorne chronicles a small outbreak (No. 86), caused by insuction of specifically fouled air into a small water main by means of an open tap leading from a closet pan in which the excreta of two typhoid patients had been cast. The last illustration which I need give in this connection is that of the well known epidemic at Mountain Ash in 1887 (No. 165), and which was so fully investigated by the late Mr. John Spear. From July to October 518 cases were recorded, 31 proving fatal, and 88 per cent. of the attacks being among consumers of the public water supply. Of 391 houses supplied from a particular main below a defective joint, to be referred to later on, 57 per cent. were invaded. In the "epidemic area" drawing water from this main, 88 per cent. of cases occurred, against 12 per cent. in adjacent localities. Moreover, there were many who, having suffered outside the epidemic area, nevertheless contracted the disease within that area. The evidence which Mr. Spear brings forward in support of his contention that the epidemic was due to contamination of water mains is both strong and plentiful. I need not here follow every step of the way by which he ultimately arrived at the conclusion that the mischief must lie within a very narrow compass; nor need I reproduce all the data which go to fortify his thesis. Suffice it that by very careful inquiry and logical reasoning Mr. Spear eliminated all known causes of typhoid other than water; and by close study of the facts as they were seen to arise in relation to water and fever as cause and effect, he soon saw that the "epidemic area" was limited to a most circumscribed portion of the district. Having found that the area was thus limited, he set to work to discover the particular factor acting as the *verâ causa* of the epidemic. Mr. Spear established the point that the factor in question was a polluted water main—the Oxford Street main—and further that the commencement of the second 160 yards of this main was the place at which fever infection, gaining access to the water, would avail to produce an incidence of fever upon houses such as actually showed itself. "It was almost permissible to hope," says Mr. Spear, in view of the evidence adduced, "that one could have foretold the very spot at which to find a defect in the Oxford Street main permitting the entry of specific contamination." There were, however, difficulties in the way of such precision. The Oxford Street main was relaid in 1885, in a very careless manner: mostly at night, and by private contract. "Accordingly the main was carried, without any special precaution, immediately above, alongside, and even through, old rubble drains; and when, in the course of the trenching, pipe drains were cut through, no trouble appears to have been taken to replace them." In this main, and that of Henry Street adjoining, leakage was discovered at ten different places. As one result of the careless laying of the Oxford Street main, it was at different points from time to time bathed in refuse matters; and habitually, at certain points, in sewage-contaminated air. For the rest, I quote further from Mr. Spear's report:

"At any time of intermission it is plain that the leaky water pipes were at liberty to discharge their contents through any opening at a lower level, and that they would convey, not only such water as remained in them, but those matters also which entered at the points of leakage. In

short, the leaky pipes would act as so many means of draining the ground in which they were placed. Passing through or alongside old rubble culverts they would take up foul air and liquid from these culverts and from the soil around, and would deliver these matters at low levels (if not during intermission, on the first renewal of supply) for consumption as 'drinking water.' Intermission of water current, however, is not by any means essential to the introduction of foreign matters into water pipes. Under various physical conditions very powerful insuction of external matters into a full flowing water pipe can take place. Some of these conditions were considered in a departmental report on Croydon in 1875. But the fact of this lateral insuction into water pipes 'running full' is not universally known, and certainly is not known as it ought to be to many of the engineers who undertake the responsible business of laying water mains and other water pipes. The circumstances of the Oxford Street main are such as would appear to well fulfil a number of the conditions productive of lateral incurrents during the continuance of general water flow. It is a descending pipe from its commencement to some 120 yards below Oxford Street; there it is carried in, in full diameter, to large colliery workings, where for the purpose of supplying boilers, locomotives, etc., it has been the custom to take from time to time very large draughts of water. Again, at the commencement of the main, a twin branch (6 inch) from Pryce Street is given off to join the system on the other side of the river. Usually, I am assured, no flow of water occurs through this pipe, but under circumstances leading to diminished supply or larger consumption on the Caegarrow side, it would be, perhaps, suddenly fully drawn upon. It results from the foregoing observations that during intermissions of the service, large contamination of the water of the Oxford Street and Henry Street mains must have occurred, and that contamination, although on a comparatively minute scale, during continuance of supply is probable. Chemical analysis of the water, and still more microscopical examination, afford important confirmatory results. Dr. Dupré, to whom samples were sent for analysis, reports that water taken from a house tap in Henry Street, before the nightly intermission of service, was pure, while that from the same tap after intermission gives evidence of animal contamination and of the appearance of low forms of life. Water from a tap in Victoria Street (Miskin) showed similardeterioration both in the night and morning supplies."

Cesspool Polluted Water.

One might be quite sure that such abominations as cesspools would not be without evidence as being the means of causing pollution of water and consequent disease. If I quote only one instance it is not because there are none other that I could refer to, but only that the example is one of far-reaching harm wrought by one leaky cesspool. That cesspools, of whatever construction, should be allowed to persist is bad enough, but that leaky contrivances, whose chief aim seems to be to rid themselves of their contents, should be permitted to be made is a blot on our sanitary escutcheon. I am well aware, of course, that the question may be asked, What is to be done where sewers are not available, and where houses are not aggregated together in any number? I would make answer, At the worst construct a cesspool that is watertight, and such that its contents shall be easily capable of being emptied at short intervals. But in the case of the outbreak of typhoid at Tolcarne, near Newquay, Cornwall, in 1879 (No. 104), a cesspool had been built in a loose soil, and not only so, but was in a leaky and altogether ill constructed condition. So situate was the well that served the terrace of houses making use of this cesspool that the contents of the latter soaked into the well; the residents were therefore virtually drinking their excrement in a diluted form! In this outbreak 18 cases occurred in three houses, 12 out of 18 persons being attacked in one house. It is no wonder that the model by-laws of the Local Government Board which have relation to the construction of cesspools should be of their present strict nature; and it will be well when those authorities who feel unable altogether to discard cesspools shall have not only adopted such by-laws, but determine to enforce them.

Frost and Thaw in Relation to Typhoid Fever.

That such factors as frost and thaw should have any direct bearing on waterborne typhoid seems, perhaps, at first sight unlikely; but a closer study of the subject will soon show that these are very important factors in the spread of fever. I can best demonstrate this by reference to instances in which they have seemed to play a part. The first case to which I make reference is Malpas (No. 27), where in February of 1871 a case of typhoid fever proved fatal while a hard frost was prevailing. So severe was the frost that no water could be obtained from the works. But soon after a thaw set in "the sewage-irrigated surface of the fields was thawed, and the inhabitants began to drink water just adulterated with the pent up sewage of weeks," probably infected by human excrement. A month after the first fatal case the disease suddenly broke out in all parts of the village. Only those, however, obtaining water from the lower portion of the village were attacked, their supply being taken after it had been conducted through sewage-polluted meadows. School children from outside who were attacked were both consumers of the implicated water and users of the infected school privy. A very remarkable outbreak was that at Crosshill, in 1875, the village of Eaglesham also being involved (No. 76), and one in which a hard frost and subsequent thaw both had part—the first as a retarder of the prevalence and the latter as the means of rapid spread of the fever. The facts are as follow:

Typhoid attacked the inmates of a farm in November during hard frost which lasted some five weeks. The stools of at least twenty patients from adjacent houses invaded a month later were cast into privies which drained—as did also a dung-stead in the farmyard—towards a streamlet forming the water supply of another dairy. The houses just mentioned got their fever undoubtedly from use of water from two wells which caught the soakage of the infected dungstead at the farm first invaded. Whilst the privies thus infected by the typhoid excreta remained frost-bound no harm followed this disposal of the dejecta; but when the frost broke and the accumulated privy contents were swept into the streamlet, then fever began to quickly assume ugly proportions in the consumers of the milk of the dairy making use of this specifically poisoned water. Of 262 families using the implicated milk of two farms which had a polluted water supply, no fewer than 94 were invaded, against only 18 of 242 other families, and of these 18 no fewer than 10 occasionally partook of the milk in question. The area covered by the outbreak was somewhat wide.

Much later we have the case of the fever outbreak at King's Lynn (No. 189), to which I shall have occasion to refer again in other connection, and where typhoid excreta from a series of patients were cast during frost upon a garden, and were carried down by heavy rainfall and melting snow to the river Gaywood which flowed at the bottom of the garden in question. The water supply is drawn from the river, which thus received the specific poison of typhoid. The outbreak was of vast proportions, and was preceded by much diarrhœa, the data leaving no doubt as to the epidemic being of waterborne origin.

The lesson to be taught by these occurrences is that, though frost may seem to make safe action which would be considered unsafe in ordinary times—such as the throwing of excreta on privies and the like—yet that the germs of typhoid are as actively potent for harm after endurance through a time of exposure to the agency of frost as though they had been newly cast on the receptacles, from which they have to be ejected later by the action of heavy rains and the accompanying thaw. The further lesson should be learned that all excreta should be properly treated ere they are disposed of anywhere. Only as lately as 1893 Dr. Bruce Low, investigating an outbreak of typhoid fever in the urban district of Shildon and East Thickley, in co. Durham, had occasion to refer to the practice of throwing the dejecta of patients on to privy middens in an untreated form, as having contributed to the spread of the disease. And, apart from the action of thaw following frost in regard of privy middens thus specifically infected, there is the further danger of the poisoning of food supplies in adjacent larders and living rooms by the effluvia from these filth receptacles; one instance of milk infection, with consequent spread of typhoid among the

customers of the dairy, being much commented on by Dr. Bruce Low in the very report to which I have just alluded.

RAIN STORMS IN RELATION TO TYPHOID FEVER.

Near akin to the matter just left is this of rain storms, since it frequently happens that a thaw is accompanied by rains, helping the more quickly to cause the germs of disease to travel over the ground in the direction of water supplies. That rain storms have been very potent factors in the spread of typhoid I shall be able to show by a few references to outbreaks which have resulted as a corollary of their occurrence. At Nunney, in Somersetshire (No. 43), Dr. Ballard made inquiry into an outbreak of typhoid in 1872, which was the result of carelessly deposited excreta from an imported case, and from others which followed in the house. Heavy rains came which had as their consequence the washing into a brook of the excreta in question, the brook forming the source of water supply. Actual excrement from patients was finding its way into the brook for several months half a mile above the village. With the carting of good water to the village the disease soon disappeared. At Armley, in 1872 (No. 44), a well used by a dairy was sunk in a porous soil, and so as to favour pollution by sewage matter. Evacuations from a case of typhoid at the farm were thrown on to the dung heap; and after copious rains, such as would render easy the percolation of infective material to the water, the fever began to operate, ceasing, so far as customers of the dairy were concerned, a fortnight after the pump handle was chained up. In the same year, at Hucknall Torkard, where typhoid was endemic (No. 45), the disease became suddenly epidemic after rain storms which washed the contents of privies and middens into the wells and streams whence the water supply was drawn. True the people were also breathing impure air and living in damp houses. My last reference has to do with an outbreak seven years later in Alcester (No. 105), investigated by Dr. G. H. Fosbroke, the health officer. In August heavy floods caused washing of foul matters from privies and the like into the already polluted subsoil wells. Indeed, the privies and wells were alike overflowed by rains. Consumers of the public water service escaped, all the cases being in well users. The danger to shallow wells here depicted must ever remain while methods of excrement such as have been described are permitted to obtain. Whilst people harbour filth in the near vicinity of dwellings and at the same time draw water from surface wells quite closely adjacent to the filth receptacles referred to, the resulting intermingling of contents must ever be a factor to be considered in tracing out the cause of disease prevalences in places thus circumstanced. People must not expect to utilise two neighbouring holes, the one as a cesspool and the other as a well, with impunity, or without sooner or later having to pay a heavy price for the uncleanly proceeding.

SEWAGE DISPOSAL IN RELATION TO TYPHOID FEVER.

The problem of how to dispose of sewage in such manner that it shall not cause nuisance or pollute waterways has long been a difficult one for sanitary authorities successfully to solve. More especially does the question abound with difficulties in places far removed from tidal waterways. As a rule, sea-coast towns have little trouble as to how to get rid of their liquid sewage, since tides favour the means of innocuous disposal of the sewer contents. Time and again has the disposal of sewage in situations dangerous to water supplies been the cause of typhoid outbreaks.

As instancing the way in which sewage effluent has led to the spread of enteric fever, I refer to the cases of Lewes and Beverley. In the first-named place, Lewes (No. 71), Dr. Thorne Thorne made inquiry on behalf of the Local Government Board into an outbreak, comprising 486 cases, which had several features of importance. First of all the prevalence was the indirect result of the accidental action of some children in leaving open the tidal valve of an inlet pipe under circumstances now to be described. The sewage of Lewes was poured into the river Ouse. This river, polluted as it thus was, had tidal relations with a stream which was at times used as a supplementary source of water supply for the town. Now the inlet pipe to which was affixed the valve, which had been playfully left open, was that which admitted water from this Ouse-polluted stream, and the time at which the valve had thus been left unprotected was one of such tidal conditions as allowed of free ingress of water from this stream. A fortnight later typhoid suddenly broke out in consumers of the public water service, and despite other causes of spread when the disease had fastened on the town, there were no less than 80 per cent. of attacks in consumers of this water from August to October. And it seems certain that other sufferers, who habitually drank well water, also at some time before the attack, partook of the public service.

The second instance, that of Beverley, was of a different class, having reference to the disposal of the sewage of an institution on land not far from the town well (No. 152). The sewage was disposed of by irrigation at irregular intervals, the field thus treated being contiguous to both well and reservoir. Cases of typhoid had occurred in the institution, and it is held that the specific poison of the disease had been carried with the sewage over the field and thus into the well. The evacuations of the patients were thrown untreated down the waterclosets draining to the field in question. The outbreak in the town was both sudden and widespread, 66 of the first 68 persons attacked being consumers of the water from the well near the sewage field. The evidence against the well water was most conclusive, and the means by which it acquired its poisonous quality admit of but little doubt.

Here, then, in these two instances of differing methods of sewage disposal we have examples of the way in which dangerous conditions may arise through the water carriage system in our towns. The whole subject of sewage disposal is much too large to be discussed here, but it may be laid down as a rule which should never be departed from that all sewage disposal works should be so far away as to render them absolutely harmless to any water supply that may be in their neighbourhood, gathering grounds being specially held in mind in determining upon the spot at which the disposal shall take place. The law, indeed, in this respect seems to be open to much improvement, since as matters stand it appears to be within the province of a sanitary authority to carry out works of sewage disposal on the gathering grounds of adjacent districts and to do such things with their sewage as may distinctly endanger the contents of reservoirs and the like. This power should be removed and that speedily.

POLLUTED SUBSOIL WATER.

That water levels in the subsoils have had much to do with pollution of water services there is ample evidence to demonstrably show. On looking through my tables I have had little trouble in picking out excellent examples of the results of the action of these underground waters having found their way into wells and such like sources of domestic supply, carrying with them that which has set typhoid going in a district by the score of cases and with many deaths. I here give reference to some half-dozen outbreaks related to subsoil waters, dealing with them in chronological order.

At Terling, in Essex (No. 9), typhoid lasted from December, 1867, to March, 1868, 300 attacks taking place, with 41 deaths. The village was one of which Dr. Thorne Thorne had to report that much diluted foul material had evidently long been washing into wells, which were everywhere of a shallow nature and subject to contamination. Typhoid was endemic in the place. A drought had lowered the water levels; but only to be followed by a sudden great rise in the levels as the result of melting snow and the like after heavy frost, Terling being the only village in the neighbourhood with such a sudden rise, and the only village invaded by typhoid. The rise showed that the wells had become the receptacles of the washings of the filth-sodden soil. Equally as sudden as the rise of the subsoil water was the increase of fever, and the relation of well water and the disease as cause and effect was strongly marked. The grouping of cases around certain wells was a feature in the epidemic. Sir George Buchanan has told how, in the village of Wicken Bonant, also in Essex (No. 15), there was relation of well and brook in the matter of water levels and turbidity, with chance of specific pollution of the well by way of the brook owing to the disposal in a privy close to its waters of the untreated evacuations of an imported typhoid case only some 30 yards above the well, the water in the well and brook, moreover, rising and falling

together in times of flood and drought. That the epidemic which followed this imported case was one caused by the water of the public well thus exposed to pollution is amply demonstrated by the data which are to be given in the appendix, where this outbreak finds mention.

At Hugglescote and Donnington, in 1871 (No. 26), a prevalence was caused by the pollution of wells sunk in a sandy loam largely mixed with gravel. The disease was introduced in May, 1868, and had ever since been endemic, there having, however, been intervals of freedom. The disease was always set agoing by the inter-relations of excrement disposal and wells. Dr. Home, reporting on the occurrence for the Privy Council Office, thought of the intervals of freedom as probably having relation with the dilution by rainfall of the infective material which would under other conditions have caused epidemic spread of typhoid. Lowness of wells, coupled with intense heat, seemed most favourable to spread of the disease. Ten years later an outbreak at Dartford, in Kent (No. 127), has much interest for us in regard to water levels. The soil in which the local wells were sunk was excrementally polluted, and pumping operations undertaken in 1880 in connection with sewer laying in the lower portions of the district had resulted in lowering the subsoil water, and in draining away the liquid contents of cesspools which abounded. As a further result, wells became contaminated by the entrance of fresh water through the soil thus fouled by the escaped contents of the filthy cesspools, disturbed by the pumping in question. The original case of typhoid led to specific fouling of one of the local wells. The outbreak which followed on the pumping was almost confined to the district thus disturbed. The last case to which I refer in this connection is that of the Hants County Lunatic Asylum at Fareham, in 1888 (No. 171), the institution having a model sewerage system and its own water service. The well from which the water is drawn had in its near vicinity some leaky drains, and the pumping for purposes of drawing water influenced the level of the underground water far beyond the polluting media of the neighbouring cemetery and sewage farm, from the direction of which the subsoil water comes. Here, then, in these five samples of the relation of subsoil water and typhoid fever we have evidence of the potency of such water for harm. Where, as in too many places is still the case the wells and cesspools remain in close proximity, the movements of subsoil water are an important feature in the sanitary condition of the locality. In soils which readily permit of soakage, the intermingling of the contents of the wells and cesspools will not long be a matter of uncertainty. Such intermingling of filth and water cannot be continued without grave risk of definite disease becoming endemic, if not at times epidemic. We have seen that intervals may occur in which water-spread disease seems to have been eradicated, but only to break out afresh at a later stage, and, it may well be, with renewed virulence. Only too many of our towns are built on sites which have been subject to excremental pollution for very many years, and which, having to act at once as excremental- and water-bearing strata, are well situated as disease disseminators. It will be well when people cease to draw water from the near vicinity of aggregated dwellings, especially when a water-carriage system of sewage disposal is wanting. Diluted excrement may be drunk without the consequence of specific disease only so long as specific poison of the subsoil and the water it carries is not brought about. But the penalty of living amid filthy surroundings must be paid sooner or later.

(To be continued.)

CONGRESS OF THE FRENCH SURGICAL ASSOCIATION.—The ninth Congress of the French Surgical Association will open on Monday, October 21st, in the buildings of the Paris Faculty of Medicine, under the presidency of Dr. Eugène Bœckel. The subjects proposed for discussion are: (1) The Surgery of the Lung (excluding the pleura), to be opened by M. Reclus; (2) Surgical Intervention, early or late, in solutions of Continuity in Bones, excluding those of the skull and vertebral column.

SUCCESSFUL VACCINATION.—Mr. J. T. Roger Miller, Public Vaccinator of the Leavening District of the Malton Union, has for the second time received the grant from the Local Government Board for successful vaccination.

BRITISH MEDICAL ASSOCIATION.

SIXTY-THIRD ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION IN LONDON, 1895.

THE MEDICAL INSTITUTIONS OF LONDON.

(Continued from page 1350.)

THE RISE AND FALL OF THE PRIVATE MEDICAL SCHOOLS IN LONDON.

By D'ARCY POWER, M.A., F.R.C.S.Eng.,

Demonstrator of Surgery at St. Bartholomew's Hospital; and Surgeon to the Victoria Hospital for Children.

I.—THE GREAT WINDMILL STREET SCHOOL.

THERE could be no private medical teaching in London so long as the Company of Barbers and Surgeons chose to enforce its monopoly of teaching anatomy and surgery, a monopoly conferred upon them by the Act of Parliament 32 Hen. VIII, cap. 42, passed on July 24th, 1540. This Act recites that "The maysters or governours of the mistery and comminaltie of barbours and surgeons of London, and their successours yerely for ever at their free liberte and pleasure shal and may have and take without contradiction foure persons condempned, adjudged, and put to deathe for feloni by the due order of the kynges lawe of thys realme for anatomies without any further sute or labour to be made to the kyngs highnes his heyres or successours for the same. And to make incision of the same deade bodies or otherwyse to order the same after their said discrecions ..... for their further and better knowlage, instruction, insight, learnyng and experience in the said scyence or facultie of surgery." The right was so jealously guarded that in 1714, Cheselden, the surgeon to St. Thomas's Hospital, who began to lecture in 1711, was summoned before the Company for that "he did frequently procure the Dead bodies of Malefactors from the place of execution and did dissect the same at his own house." He promised amendment, "and was excused what had passed with a reproof for the same pronounced by the Master at the desire of the Court."

A less influential man than Cheselden would probably have been fined. His lectures, however, bore good fruit, for about 1730 Ed. Nourse, Surgeon to St. Bartholomew's Hospital, delivered anatomical lectures at London House, in Aldersgate Street, where he then lived, and he employed Percivall Pott, his apprentice, to act as his prosector. Pott, copying his master's example, began to deliver lectures upon surgery at his house in Watling Street, about 1747, soon after the disruption of the Barber-Surgeons Company and the foundation of an independent Corporation of Surgeons. This course of lectures, at first private, was intended solely for the students who followed the surgical practice of Pott at the neighbouring hospital. It was given at first with hesitation and reserve, but as the lecturer gained confidence his style improved, and the course became so celebrated that all the most distinguished English practitioners, and many foreign ones, boasted that they had attended it. John Hunter himself was an auditor in 1751. What Nourse and Pott were doing privately at St. Bartholomew's Hospital, Sharp, Bromfield, and Frank Nicholls were carrying out more publicly elsewhere. In 1746 Sharp relinquished his course of lectures on anatomy and surgery in favour of William Hunter.

The advertisement announcing this course of lectures is still extant in the newspapers of 1746, where it may be read that "On Monday, the 1st of February, at Five in the Afternoon, will begin A course of Anatomical Lectures. To which will be added, the Operations of Surgery, with the Application of Bandages, by William Hunter, Surgeon. Gentlemen may have an opportunity of learning the Art of Dissecting, during the whole winter season, in the same manner as at Paris." The lectures were a continuation of those given by Sharp to a "Society of Navy Surgeons," and they were delivered at the house of Dr. James Douglas, in the Piazza, Covent Garden. They resulted in a gain to Hunter of seventy guineas for the first course. The lectures were not very

successful, however, but they are of interest as they proved to be the germ from which the Great Windmill Street School of Medicine developed.

William Hunter continued to teach, and removed first to Litchfield Street, Soho, and afterwards to Jermyn Street. Here in 1755 John Hunter began to take a share in the Anatomical School. The task of lecturing, however, was never a congenial one, for he had an awkward delivery, and was so extremely nervous that to the end of his life he never gave the first lecture of his course without drinking 30 drops of laudanum to take off the effects of his uneasiness. In 1760, being in weak health, he applied for an appointment in the army, and was detailed for service with the expedition to Belle Isle, Hewson taking his place in the Anatomical School. In 1765 William Hunter applied to the Government for a grant of part of the ground now occupied by the National Gallery for the purpose of building a School of Anatomy. The proposal was declined, and he thereupon commenced to build a house, with a lecture theatre, dissecting rooms, and a museum, in Great Windmill Street, close to what is now Piccadilly Circus. He removed into this house in 1768, and, his connection with Hewson being severed, he was first assisted by Cruikshank.

William Hunter died in 1783, and in the following year Cruikshank attached to himself Mathew Baillie, son of Dorothy, the Hunters' youngest sister. Cruikshank and Baillie took James Wilson as a demonstrator in 1785, and when Baillie quitted the school and received £4.000 for his share in it, Wilson became associated with Cruikshank as Joint Anatomical Lecturer until Cruikshank's death in 1800. In 1807 Wilson bought the freehold of the premises in Great Windmill Street, and he was assisted first by Honoratus Leigh Thomas and afterwards by Benjamin Brodie. Until the advent of Brodie the main work of the school devolved upon Wilson, for Thomas was not fond of his vocation, and was led to play truant a good deal. The work was so far from exhausting Wilson's energies, however, that he delivered lectures on surgery at his private residence in Great Queen Street, Lincoln's Inn Fields, and afterwards in Argyle Street, and he had also pupils living in his house, for Mr. Samuel Lane, the founder of the Grosvenor Place School of Medicine, was one of them.

Sir Benjamin Brodie, who was connected by marriage with the Hunter family (for Dr. Baillie had married one of his first cousins) began to lecture on surgery in Great Windmill Street in 1808, after having acted as a demonstrator since 1805, and he continued in the school until 1812. Wilson was at this time anxious to sell the school, and after offering it to Brodie, who had not means enough to buy it, it was purchased by (Sir) Charles Bell, whilst Brodie took another house in Great Windmill Street, and continued his lectures on surgery. Bell soon appointed his brother-in-law, John Shaw, to superintend the dissecting room, and when Wilson retired Shaw continued to act until he died in 1827, when his place was taken by his brother, afterwards surgeon to the Middlesex Hospital.

Wilson's death in 1821 threw the entire responsibility upon Bell, and at the same time brought the school into close relationship with the Middlesex Hospital, to which Bell was then attached. The foundation of the London University, now University College, soon broke up the school. In 1828 Bell was placed at the head of its medical department. He delivered the general opening lecture in physiology, and followed it up by a course of characteristic lectures.

The Windmill Street School lingered a few years longer. In 1826 Herbert Mayo and Cæsar Hawkins purchased Bell's interest in the school, and carried it on, with the assistance of Mr. Babington, until 1830, when Hawkins went to St. George's Hospital, whilst in 1831 Mayo migrated to King's College. Mr. Gregory Smith and Mr. Bushell delivered lectures for a short time longer, but the school was afterwards removed to Little Windmill Street, the old premises were sold, and the way was left clear for the success of Lane's School and Dermott's School, of which we shall treat in a later article.

There were many subordinate actors in the Hunterian School, for in this short sketch we have only treated of the leading characters. Dr. John Cooke and Dr. Roget, who founded the medical school at Manchester; Mr. Brande, the younger son of the Apothecary to the Royal Household, and Pearson, all took part in the work of this great school, and much might be written of them did space permit. Dr. Fordyce, the Lecturer on Medicine in 1800, was perhaps more remarkable for his eccentricity than for his knowledge, great as it undoubtedly was. He was often known to lecture for three consecutive hours in the morning without having undressed himself the preceding night. He had satisfied himself that man eats far oftener than Nature requires, and for many years he took but one meal in the twenty-four hours. He dined daily for more than twenty years at Dolly's chop-house in Paternoster Row, close to St. Paul's Cathedral. The doctor took his seat as the clock struck four at a table always reserved for him. A silver tankard of strong ale, a bottle of port wine, and a measure containing a quarter of a pint of brandy were in waiting for him upon the table. The moment the waiter announced him the cook put a pound and a half of rumpsteak upon the gridiron, and immediately sent to his table some delicate trifle to serve as a *bonne bouche* until the steak should be ready. This was sometimes half a boiled chicken, sometimes a plate of fish; and when he had eaten it he took one glass of brandy, and then proceeded to devour the steak. His meal being ended, he drank the remainder of the brandy, having during dinner consumed the tankard of ale, and he then finished the bottle of port. He thus spent an hour and a half of his time, and then returned to his house in Essex Street. He made no other meal until his return to Dolly's next day at 4 o'clock. He eventually died of gout.

II.—The Webb Street School.

Medical education in England received a great impetus at the beginning of the present century. The charter granted to the College of Surgeons materially improved the position of that body, whilst the Apothecaries Act of 1815 ensured that the students received a systematic education by establishing a suitable examination before they were admitted to the practice of their profession. The immediate effect of this Act was to improve materially the quality of medical teaching in London. New schools arose which were strictly personal to the founder, and usually died with him. Of these some were established purely from a mercenary standpoint, whilst some originated in more or less direct opposition to the medical school attached to one or other of the hospitals. It has happened from time to time in the large metropolitan schools, when the staff has been unusually weak, that the best man has not been selected on the occurrence of a vacancy, either from jealousy of his superior attainments, or because a single strong mind has over-ridden the better judgment of its associates. This took place in the case of Edward Grainger, who established the Webb Street School, and again in the case of Samuel Lane, the founder of the Grosvenor Place School of Medicine, and in each instance the erring medical school bitterly repented its lack of judgment, and was made to pay dearly for its fault.

Edward Grainger, the son of an apothecary in Birmingham, was born in 1797, and entered the combined Borough hospitals of St. Thomas and Guy's in 1816 to dress under Sir Astley Cooper. He worked hard, and became so excellent an anatomist that Sir Astley recommended him to go home and open an anatomical school in his native town. He was admitted a Member of the College of Surgeons on January 17th, 1817, and applied for the post of demonstrator of anatomy (rendered vacant by the promotion of Joseph Henry Green), which he desired to hold jointly with Aston Key. The office, however, was refused him on the ground that he had no right to it as he had never paid the large fee then necessary to entitle a student to become a surgeon's pupil. Grainger was looked upon as hardly used, and when he proposed to give a course of dissections in the summer of 1819, he received the support of thirty or forty students to whom his teaching capacity was well known. He therefore hired a large attic in the house of a tailor who lived in the churchyard of St. Saviour's, Southwark. His course was so successful that in the autumn of 1819 he felt himself sufficiently strong to open an anatomical school upon his own account. He rented a building in Webb Street, Snow's Fields, close to the hospitals. This building had been a

Roman Catholic chapel which had failed for want of funds. It reverted to its original use for a short time when the school was closed, and it was eventually pulled down to make room for the terminus of the London Bridge railways.

Grainger taught with such conspicuous success that he and his school interfered for many years with the material prosperity of the medical schools attached to St. Thomas's, to Guy's, and even to St. Bartholomew's Hospitals, for at the time of his death he had nearly three hundred pupils in attendance upon his classes. His success was at first largely due to the fact that he made better bargains with the resurrection men than the anatomical teachers in the recognised schools could afford to do, and he thus obtained a practical monopoly of the bodies required for dissection. The body-snatchers who supplied the London schools at this time worked in gangs of four or five, and at the beginning of each season they came to terms with the teachers, usually obtaining a lump sum of forty or fifty pounds, with a promise of four guineas a subject or as much more as they could extort. Their principal source of supply was the London churchyards and some of the cheap private burial grounds in the poorer parts of London, whose sextons were generally in the pay of the robbers.

The excellence of Grainger's teaching soon put him above such methods of obtaining pupils, and in 1820 he built a theatre—which he had to enlarge in 1823—established a more extensive system of teaching, and associated with himself Dr. Armstrong as a lecturer on medicine, Dr. Richard Phillips for chemistry and Dr. Davis for midwifery. Dr. Elliotson lectured in 1823 for a short time upon forensic medicine.

Grainger's incessant work soon told upon his health, and he died of phthisis on January 13th, 1824, at the early age of 27, having passed the most active years of his life in teaching. There is a good bust of him, executed by Peter Hollings, in the Library-Committee Room of the Royal College of Surgeons of England.

The school was too good a property to abandon, and for a year or two before his death Edward made it over to his brother Richard Dugard Grainger, who, being intended for the army, had been partially educated at Woolwich Academy, though he afterwards qualified as a surgeon. Richard Grainger associated with himself Mr. Pilcher to lecture upon anatomy, physiology, and surgery, with Mr. Millard as demonstrator. Dr. Whiting lectured upon the practice of physic and on materia medica, being assisted by Mr. Everett. Dr. Lee was lecturer on midwifery till he was appointed the professor of his art in the University of Glasgow, when Dr. Ramsbotham succeeded him. Dr. Dickson lectured upon chemistry, and Dr. Southwood Smith and Mr. Cooper conjointly upon jurisprudence.

Richard Grainger was not so decided a character as his brother, and the Webb Street School began to decline. Overtures were made to him in 1842 to undertake the physiological part of the Anatomical Lectures at St. Thomas's Hospital. He consented, closed the school, and continued to lecture until 1860, when he resigned in favour of his junior colleague Dr. Brinton. He continued to act as an Inspector under the Burial Board until his death, which occurred on February 1st, 1865. He published in 1829 rather a good textbook on the *Elements of General Anatomy*, in which he acknowledges his indebtedness to the writings of Bichat, Béclard, and Meckel.

Dr. Armstrong next to the founder was the right-hand man of the Webb Street School of Medicine, and his life was written by Dr. Boott. Born on May 8th, 1784, of very humble parentage, for his father superintended the glass works at Ayres Quay, near Bishopwearmouth, he had a defective early education. In spite of this, he graduated at Edinburgh, and after successfully establishing himself in his native town in the county of Durham he moved to London in 1817, and there made a reputation by bleeding and adopting an antiphlogistic treatment in typhus fever, then epidemic in England. He presented himself for examination before the Royal College of Physicians, and much to his own surprise was rejected. He posed as a martyr, and was elected a physician to the Fever Hospital in St. Pancras, after which he rapidly attained to a large and fashionable practice. He continued to lecture at the Webb Street School even after he had joined Mr. Bennett in 1826 in founding another school in Little Dean Street, Soho. He died of phthisis in December, 1829.

III.—Carpue's, or the Dean Street, School.

Joseph Constantine Carpue descended from a Spanish Catholic family, was born near London in 1764, and was educated at Douay. He was intended for the priesthood, but changed his mind, and after making some attempts to become a bookseller, a barrister, and an actor, he finally fixed on surgery as a profession. He resided for some time in Paris during the French Revolution, and afterwards studied at St. George's Hospital. He was an enthusiast from the beginning, for quite early in his career he carried out, at the wish of the artists West, Banks, and Cosway, an experiment as to how a recently dead body would hang upon a cross. An opportunity occurred in 1800, when a murderer named Legg, who had just been executed, was nailed to a cross which had previously been erected in a building near the place of execution, and when cool a cast was made of the corpse. His vocation as a teacher appears to have been accidentally discovered, for in 1800 a Mr. Norman happened to say to him: "I wish I knew anatomy as well as you do." Carpue replied: "If you desire it, I will teach you." They set to work diligently, and the result was so satisfactory to the pupil that he insisted on the acceptance of 20 guineas by his teacher. This circumstance suggested to Carpue the first idea of becoming an anatomical teacher, and the sum thus received fixed the amount which he afterwards charged each pupil, and which, to the end of his career, he never altered. He said at first that he would be content if he could obtain only six pupils, but his success was so great that he soon opened a school in Dean Street, Soho, on the site which is now occupied by the Royalty Theatre. Here he taught anatomy and the operative part of surgery for nearly thirty years. He delivered three courses of lectures daily throughout the year, and, with the exception of a few days in the summer, without intermission. Twice in the week in the evening he also gave lectures on surgery. His plan of teaching anatomy was peculiar to himself, for his aim was to make every student in his class a demonstrator. For this purpose he first stood before his pupils, and illustrated the points of study by an extemporaneous diagram; and, as often happened when subjects were scarce, he trusted to his practical descriptions and piece of chalk alone, so that he was known familiarly by his pupils as the "chalk lecturer." When he had described the different parts of a bone, he would call upon a student by name, and request him to demonstrate the bone to the others. When this student had finished, it was given to a third, and this process would be repeated fourteen or fifteen times in succession. It is recorded that he had a temporal bone minus the styloid process, and that, after enumerating the other processes, he would say, "the styloid process broken off." One of his pupils on presenting himself for examination at the College of Surgeons was asked to describe the temporal bone, which he did after the manner of Carpue, much to the amusement of the Court of Examiners. "The styloid process broken off!" said old Sir William Blizard in astonishment; and when the student explained, the veteran surgeon laughed heartily at the joke. Another peculiarity of Carpue's teaching was that all the bones, skulls, and skeletons which he used in demonstrating seemed to have belonged to personal friends. "That skeleton," he would say, "is the skeleton of one of the prettiest girls I ever saw." With all his foibles, however, he was a most successful teacher, and his reputation was so great that he had the honour of being selected to teach the rudiments of medicine and physiology to George IV when Prince Regent; and he succeeded in infusing some of his own enthusiasm for science into his illustrious pupil. His method of teaching prevented him from taking a large class, but we have it upon his own authority that he sometimes had a larger number of students than he desired. Tom Hood alludes to him in his "Pathetic Ballad of Mary's Ghost":

> I can't tell where my head is gone,
> But Dr. Carpue can;
> As for my head it's all packed up,
> To go by Pickford's van.

The regulations of the Royal College of Surgeons introduced in 1824 by which summer courses of anatomy were no longer recognised practically ruined Carpue's school, though he kept it open until 1830 or 1831. He continued to lecture for some years after the closure of his school, and filled up

such spare time as he had with politics, for he was an ardent Liberal.

Carpue was connected for many years with the York Hospital at Chelsea, and gained no mean reputation as a surgeon, for he reintroduced into this country the Indian operation of rhinoplasty, and he endeavoured to bring into repute the operation of suprapubic lithotomy. He was elected a Fellow of the Royal Society, and he laboured hard to diffuse a knowledge of Jenner's method of vaccination against small-pox. He acted in his later years as a surgeon to the National Vaccine Institute, a position which he retained until his death. He married a lady of his own religion, and by her he had a large family of daughters, who were distinguished for their musical talents. He died January 30th, 1846, and his portrait and a marble bust were presented to St. George's Hospital by his daughter, Miss Emma Carpue, who bequeathed to the hospital no less than £6,500.

[*To be continued.*]

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary Council was held at the College on June 13th. Mr. Heath, President, was in the chair. The minutes of the last meeting were read and confirmed.

The following report from the Committee of Management was approved and adopted:

1. That the course of Clinical Instruction on Diseases of Women at the Southern Hospital, Manchester, given by Dr. W. J. Sinclair, be recognised as fulfilling the requirements of Clause (*d*) Paragraph 7, Section I of the Regulations, so long as he shall hold the Professorship of Obstetrics and Gynæcology at Owens College, Manchester.
2. That on the application of the Dean of Charing Cross Hospital Medical School, the course of Clinical Demonstrations in Lunacy, given by Dr. Percy Smith at Bethlem Hospital, be recognised so long as he shall hold the Lectureship in Psychological Medicine at Charing Cross Hospital Medical School.

A report was received from the Laboratories Committee, giving an account of the work in diphtheria for the Metropolitan Asylums Board in reference to the examination of material for diagnosis.

Since March 11th 2,180 specimens have been examined and reported upon.

The Metropolitan Asylums Board have requested the Committee to continue the work for the further period of six months, and the Committee have agreed to do so subject to a slightly increased payment by the Asylums Board for the extra work involved by the number of cases per day being in excess of the estimate.

It was anticipated that the daily average number of cases would not exceed twenty, whereas the cases examined are rarely below and very frequently greatly in excess of that number.

The Director has undertaken, in conjunction with the medical superintendents of the hospitals, to report fully to the Metropolitan Asylums Board on the cases examined.

The Council determined that the bust of the late Sir Richard Owen, K.C.B., should be executed in bronze by Mr. Alfred Gilbert, R.A.

The new by-laws, as approved by the Home Secretary, have been ordained by the Council, and will be duly forwarded to the proper authorities for signature. Section XVI of the By-laws will now read as follows:

Section XVI.—*Misconduct of Fellows and Members.*

1. If any Fellow or Member of the College shall after due inquiry be judged by the Council to have been guilty of disgraceful conduct in any professional respect, he shall be liable to removal by resolution of the Council from being a Fellow and Member or Member of the College.
2. Should any Fellow or Member of the College be convicted of any criminal offence, or have his name removed from the *Medical Register* by the General Medical Council under Section XXIX of the Medical Act of 1858, the Council of the College may, if they should consider the offence of which he shall have been so convicted, or for which his name shall have been so removed, to be of such a nature as to render him unfit to remain a Fellow and Member or a Member of the College, remove such Fellow or Member by resolution to that effect, from being a Fellow and Member or a Member of the College.
3. Any Fellow or Member who shall have been removed by resolution of the Council as aforesaid shall thereby forfeit all his rights and privileges as a Fellow and Member or a Member of the College and his diplomas or diploma shall thereupon be void and shall become the property of the College, and be delivered up by such Fellow or Member to the College on demand, provided that if at any subsequent time the Council of the College by resolution, and subject to such conditions as they may think proper, rescind any resolution which may have been passed under any of the preceding by-laws for removing any person from being a Fellow and Member or Member of the College, such rescinding of the former resolution shall have the effect of restoring such person to the Fellowship or Membership of the College, and such person shall, notwithstanding such removal or forfeiture as aforesaid, but subject to such conditions as the Council may in the particular case see fit to impose, be restored to his rights and privileges as a Fellow and Member or a Member of the College.

Section XXV.—*Dental Surgery.*

8. The fee for the certificate of fitness to practise as a dentist shall be twenty guineas over and above any stamp duty. Provided always that, in the case of any person being at the date of the coming into force of this by-law registered by the General Medical Council as a dental student and becoming prior to January 1st, 1900, entitled in other respects to receive such certificate, the fee shall be ten guineas over and above any stamp duty.

The Council resolved that Section XVI of the By-laws as approved by the Home Secretary should be read to the meeting of Fellows on July 4th, and that inasmuch as the by-laws have now been sanctioned, the correspondence of the "Society of Members" and of the Council with the Home Secretary on the subject should not be reported to the meeting.

The resignation by Mr. C. S. Tomes of his examinership was accepted.

Two vacancies on the Board of Examiners in Dental Surgery will be filled up at the quarterly meeting on July 11th.

Mr. Bryant reported the proceedings of the General Medical Council at their late session, and received the best thanks of the Council for his services as the representative of the College on the General Medical Council.

A resolution adopted by the College of Physicians was read, inviting the College of Surgeons to appoint four delegates to confer with a like number of the College of Physicians as to what points should be urged or suggestions made before the proposed Statutory Commission for giving effect to the report of the Gresham University Commission, and to prepare a joint report to the two Colleges. The College of Physicians have appointed the President, the Registrar, Dr. Norman Moore, and Dr. Allchin as delegates; the Council appointed the President and Messrs. Howse, Rivington, and Morris as delegates from the College of Surgeons.

The following is a list of Examiners for the ensuing year:

Elementary Anatomy.—*J. Hutchinson, jun., W. H. H. Jessop, *E. W. Roughton, A. F. Waterhouse.
Elementary Physiology.—J. R. Bradford.
Elementary Biology.—*G. A. Buckmaster, A. P. Dean.

First Fellowship Examination:

Anatomy.—W. F. Haslam, W. H. A. Jacobson, C. B. Lockwood, *J. B. Sutton.
Physiology.—B. T. Lowne, *E. A. Schäfer, *E. H. Starling, W. Stirling.

Second Conjoint Examination:

Anatomy.—R. C. Lucas, G. H. Makins, W. J. Walsham, A. H. Young.
Physiology.—W. D. Halliburton, D'Arcy Power, W. G. Spencer.

Final Conjoint Examination:

Midwifery.—W. Duncan, M. Handfield-Jones, G. E. Herman, A. Routh.

Diploma in Public Health:

Part I.—G. Turner.
Part II.—E. Seaton.

*New Examiners.

VACCINATION AND SMALL-POX IN 1894.

XVII.—Birmingham.

Dr. Hill's report on the small-pox epidemic of 1894 in Birmingham shows conclusively, like reports on all similar occurrences, that vaccinated persons have had indisputable advantage over their unvaccinated fellows in respect of fatality of small-pox attack.

Birmingham has not been by any means free from small-pox during the past twenty years, as since and including 1872 there have been eight epidemic visitations of the disease, namely, 1872, 1,977 cases, 299 deaths (case mortality, 15 per cent.); 1873, 794 cases, 122 deaths (15 per cent.); 1874, 3,791 cases, 637 deaths (17 per cent.); 1875, 824 cases, 173 deaths (21 per cent); 1883, 1,202 cases, 110 deaths (10 per cent.); 1884, 471 cases, 64 deaths (14 per cent.); 1893, 979 cases, 70 deaths (7 per cent.); and last year. Not that each of these years saw a distinct outbreak, for that beginning in 1872, for example, seems to have been maintained until the autumn of 1875. And again, the epidemic prevalence of 1893 was maintained last year. Quarter by quarter last year the data were:

First quarter	717 cases	66 deaths	= 9.2 per cent.	
Second "	651 "	54 "	= 8.3 "	
Third "	305 "	20 "	= 6.6 "	
Fourth "	401 "	31 "	= 7.7 "	
Year	2,074 "	171 "	= 8.2 "	

Dr. Hill regards the deaths amongst the notified cases of the year as 165, the per case mortality thus being just 8 per cent. of all classes. But the difference between vaccinated and unvaccinated is very striking, namely:

	Cases.	Deaths.	Mortality per cent.
Vaccinated ...	1,769	77	4.4
Unvaccinated ...	224	75	33.5
Doubtful ...	81	13	16.0

Stated in other words, the above means that if all the cases had been in vaccinated persons the deaths would have been (not 171) but only 91: and had all the sufferers been unvaccinated (not 171) but as many as 694. Thus universal vaccination, supposing that so many persons had been attacked, would have saved in Birmingham last year upwards of 500 lives.

The following table sets out the facts as to mortality at several age-periods in the three classes into which Dr. Hill has divided the attacks.

Ages.	Vaccinated.			Unvaccinated.			Doubtful.		
	Cases.	Deaths.	Mortality %.	Cases.	Deaths.	Mortality %.	Cases.	Deaths.	Mortality %.
Under 1 year	0	0	—	41	32	78.0	0	0	—
Between 1 and 5 years	5	0	0.0	38	13	64.0	6	0	0.0
" 5 " 15 "	296	1	0.0	73	6	8.0	14	1	7.0
" 15 " 25 "	757	13	2.0	38	8	21.0	19	1	5.0
" 25 " 45 "	689	52	8.0	25	12	48.0	28	8	29.0
" 45 " 65 "	119	9	8.0	7	2	32.0	12	2	17.0
65 and upwards	13	2	15.0	2	2	100.0	2	1	50.0
All ages	1,769	77	4.4	224	75	33.5	81	13	16.0

The data are terribly significant as to the protective power of infantile vaccination during the first 15 years of life, not one death occurring among 241 cases in vaccinated persons under that age, from small-pox alone, the single death in the table being in a boy who was at the time suffering also from scarlet fever. Among the unvaccinated 78 per cent. of infants attacked under 1 year of age succumbed to the disease, and over one-third of those during the next four years of life, the case mortality getting high again after 15 years, and remaining so during life. It is only in the aged that deaths among the vaccinated reached 15 per cent., and then it is to be remembered that the table is dumb as to revaccination, and primary vaccination cannot be held to retain its full protective power for very many years. As to primary vaccination, the table tells us that in the first 15 years of life this prophylactic measure, no matter how it may have been carried out, gave a chance of recovery from small-pox attack in children and young persons 66 times that of individuals passing through small pox without it. We could have wished that the facts as to revaccination and quality of vaccination scars had been forthcoming, and also that some detailed account of the influence of the small-pox hospital on the neighbourhood surrounding it had been submitted. As to the latter, however, Dr. Hill very significantly remarks that "in fact the disease was almost confined in its epidemic character to the north-west corner of the city, the neighbourhood in which the small-pox hospital is situated." Whilst the case rate for the city as a whole was 4.2 per 1,000 inhabitants, that for All Saints Ward (containing the hospital) was as high as 14.5 per 1,000 inhabitants, more than 25 per cent. of the total cases arising in this one of the eighteen wards of Birmingham.

THE bazaar to be held in aid of the funds of St. Mary's Hospital will be opened at 1 P.M. on June 27th by the Princess of Wales. Mr. George Alexander and Mr. Yorke Stephens have arranged to give a series of dramatic entertainments, and Mr. Wilhelm Ganz an afternoon concert on June 29th.

CHEESE AND BUTTER AS POSSIBLE CARRIERS OF TYPHOID AND CHOLERA INFECTION.

By SIDNEY D. ROWLAND, B.A.,
Late Scholar of Downing College, Cambridge.

THIS investigation was undertaken at the suggestion of Mr. Ernest Hart, and carried out under the surveillance of Dr. Klein, and by his kind permission, in his laboratory.

Objects.—The inquiry arose from the consideration of a recorded observation of Hankin[1] that typhoid bacilli had been found alive and flourishing in Indian *dahi*—a milk product prepared by the *halwais* from the residue of the day's milk. Hankin is of opinion that its presence in this food product may have important relation to typhoid outbreaks in India, and it was thought that perhaps the similar English products, cheese and butter, might stand on a corresponding footing.

Methods.—Selected samples of cheese and butter were accordingly obtained and impregnated with the microbes of typhoid and cholera, and then kept for a period of nine months, with the object of ascertaining, first, if the bacilli could survive in such a medium; and, secondly, how long they could continue to do so. Specimens of cheese and butter were accordingly procured from a shop in the ordinary manner. They included four samples of cheese (Cheddar, Dutch, American, and double Gloucester), and four of butter (fresh, salt, Dorset, and Brittany). From the centre of these samples small cubical blocks were cut with a sterilised knife, and immediately transferred to deep glass dishes with overlapping covers, somewhat resembling deep Petre's dishes. In this way it was found they could be preserved quite fresh for an indefinite period. Two of the dishes, however, succumbed to attacks of mould (the fresh butter and one of the cheeses); the rest are still (after nine months) apparently in the same condition as when first prepared.

Cultures.—The cholera germs were obtained from a case of cholera at Gravesend last year, and the typhoid from the spleen of a patient who had died from that disease. They were grown on gelatine in the usual way; also in milk, in the hopes that such a nidus might prepare them in some way for their subsequent life in the milk products. Tubes were also prepared and sterilised, and a quantity of cheese or butter introduced into each. They were then steamed in a steamer till quite melted, and allowed to set, so as to afford a sloped surface of the usual description. In this way the exclusion of mould and absolute sterility could be ensured.

Inoculation.—On to the surface of the cheese and butter blocks, a portion of the culture was transferred by a sterilised capillary pipette, and lodged in a small depression made by a platinum loop. The sloped tubes were inoculated in the usual manner. After the first few days, subcultures were made in gelatine from the inoculated samples, and afterwards were made at longer intervals extending over nine months. In no case could any growth be obtained either from the blocks or the tubes. In addition, microscopical examination failed to discover any signs of living bacilli. A few dead ones were found at first, but never did any sign of growth appear, either on the samples or on the gelatine.

It thus appears that the samples examined did not afford a suitable nidus for the growth of the bacilli inoculated, and, what is of more importance, did not allow the microbes even to continue alive. Of course these results must not be extended to any but the particular varieties of cheese and butter examined, but as far as they go they are reassuring, and we have the satisfaction of at least knowing that there is not much danger of typhoid or choleraic infection being conveyed by such extremely common articles of diet.

It may be said by some that this result is in some measure surprising, seeing how readily both these organisms grow in milk; it is, however, none the less to be depreciated on this account, seeing how little we really know of the essential biology of our secret friends and foes.

[1] BRITISH MEDICAL JOURNAL, September 15th, 1894, p. 613; and *Indian Medical Gazette*, No. 8, August, 1894.

PROFESSOR MIKULICZ, of Bonn, has been appointed to the Chair of Surgery in the University of Bonn, vacated by Professor Trendelenburg's translation to Leipzig.

PROPOSED HOSPITAL FOR BATTERSEA.

EARL SPENCER, who is Lord of the Manor of Battersea, presided on June 15th at a public meeting held in the Battersea Town Hall, with the object of furthering a scheme for the transformation of Bolingbroke House, Wandsworth Common, into a local hospital. Bolingbroke House was founded fifteen years ago by Canon Clarke, as "A Home in Sickness." It was now proposed to establish the place as a hospital, with accommodation for the reception, treatment, and care of patients suffering from disease or injury who are able and willing to pay; for the treatment of in patients unable to pay; and to train nurses in hospital work.

Lord SPENCER, who was cordially received, expressed his pleasure at being able to forward any good work for Battersea. He understood that what was desired was to put on a permanent and independent footing the hospital which, thanks to the wisdom and liberality of Canon Clarke, had been in existence for some fifteen years. The population of Battersea had increased fourfold during the the last thirty years, and he could imagine nothing more beneficial than the establishment of such an institution as that proposed.

The first resolution was proposed by Mr. JOHN BURNS, M.P., and declared:

> That since Bolingbroke Hospital has received accident cases it has become conclusively evident that a local Accident Hospital is urgently needed, and should be permanently established in the neighbourhood.

In advocating the necessity of a local hospital, he mentioned that last year, in St. Thomas's Hospital alone, 3,255 cases from Battersea had been dealt with, of which 387 were in-patients and 97 serious accidents.

An amendment was proposed, omitting the word "accident" and substituting the word "free," so that the institution should be a general free hospital. After some discussion this amendment was agreed to by a majority of 114 to 63.

It was further agreed that Bolingbroke Hospital should be permanently established with a view to meet the requirements of the neighbourhood, and that the Committee should make arrangements for the election of a new body which should be representative of the subscribers and other friends of the institution.

It was also agreed to urge upon the Board of Trade the importance of the hospital being established as a corporation under the regulations. Pending the establishment of a free hospital efforts will be made to utilise Bolingbroke House.

A vote of thanks to Lord Spencer terminated the proceedings.

DEATHS UNDER ANÆSTHETICS.

CHLOROFORM.

WE have received from Dr. James Ritchie the following account of a death under chloroform which occurred at the Sarah Acland Home on May 17th:

The patient was a strong man of 28 suffering from the so-called lipoma nasi. He had always enjoyed good health, excepting that on two occasions, once ten years ago and once two years ago, he had had what he described as an epileptic fit. He was prepared for an anæsthetic as usual, and on careful examination of the heart nothing amiss could be detected with that organ. In consequence of the size of the nose the largest sized mask of a Clover's apparatus could not be adapted to the face and, therefore, chloroform was chosen as the anæsthetic. It was given in the usual Edinburgh fashion. The administration went on normally for four or five minutes when the patient became excited and commenced to struggle. He, however, obeyed when told to keep still. Subsequently he became tonically convulsed, ceased breathing, and grew intensely livid. The tongue was pulled out and artificial respiration commenced at once, but no measures were of avail to restore vitality. The opinion of the surgeons present was that the patient had a fit during the administration of the anæsthetic and died from the consequent engorgement of the heart.

LITERARY NOTES.

Max Nordau has made "degeneration" fashionable, and "degenerate" as a term of abuse will no doubt soon pass from the language of literary criticism to political debate, and may thence percolate down to the lowest social strata, where it may perhaps in time replace the truculent epithet which at present forms the chief part of the coster's vocabulary. As things now are, the presumption in the case of any given man of genius is that he is a "degenerate;" whether he is a mystic, a diabolist, an egomaniac, a graphomaniac, or a megalomaniac is a matter of detail as to which the prophets of the new creed would doubtless differ—as other doctors had been known to do. We shall probably soon have all our men of genius, dead as well as living, overhauled from the medico-psychological standpoint. Here, for instance, in the last number of the *Rivista Sperimentale di Freniatria* (April 25th) we find Dr. Giovanni Mingazzini, *docente* of clinical psychiatry in the University of Rome, examining into the state of Lord Byron's mind with all the care and diligence demanded by a writ *de lunatico inquirendo*. The evidence against the poet is painfully cogent. Coming of a drunken, "impulsive," suicidal, hysterical stock, he had, in addition to "degenerative bodily stigmata" (in his deformed feet), most of the signs of mental degeneracy. In his childhood he manifested a "morbid sentimentalism;" at Cambridge he showed signs of "moral depravity;" he gambled "madly," and indulged excessively in alcoholic drinks, tobacco, laudanum and other narcotics; he married and in less than a year quarrelled with his wife. We know from Byron himself that his wife tried hard to get him declared insane, one of the grounds being that he did not like to see her eat (Byron himself explained this weakness by his partiality for the liver wing of fowls, a dainty of which he had to deprive himself when there was a lady at the table). Matthew Baillie (of whom Dr. Mingazzini does not appear to have heard) failed to find sufficient evidence of insanity to justify what is euphemistically termed "therapeutic seclusion." Byron's execrable handwriting, and even the biscuit-and-soda-water diet, with which he combated an unromantic tendency to fatness, are used as evidence against him. Dr. Mingazzini, however, does not go the length of pronouncing Byron to have been mad; he considers him to have been a *diséquilibré* whose mental instability (called by Byron himself "mobility") was aggravated by chronic poisoning by alcohol and opium. It is only fair to add that he makes out a very good case for his view, and whether we agree with him or not, his paper is decidedly interesting.

But if Byron was only "to madness near allied," there is no doubt that Torquato Tasso, one of the great poets of the world, was quite mad—at least in the later years of his life. Indeed, some of his countrymen seem to think he was mad all through the time of his earthly pilgrimage. At a meeting of the Royal Academy of Medicine of Turin, at which the chair was appropriately occupied by Professor Lombroso, Dr. Roncoroni read a paper in which he described the author of *Jerusalem Delivered* as one of the worst types of lunatic. The madness of Tasso, he said, was not an acquired form due to intellectual overstrain, or to mental suffering, or to disease arising in adult age, but congenital. It showed itself in youth by various eccentricities, and in age by acute outbreaks. The unfortunate poet, according to Dr. Roncoroni, manifested discontent, suspicion, delirium of persecution, superstition, fear of devils, etc. In Tasso, he holds, genius and degenerative paranoia were closely united, and probably rested on an epileptoid foundation. Professor Lombroso expressed his agreement with the author's views, and added that it was surprising that even distinguished critics persisted in regarding Tasso's madness as merely incidental. Lombroso, on the other hand, sees nothing but madness in all his acts, and especially in his poetry, which he hints was written during exacerbations of his mental disease. We cannot, however, altogether accept the doctrine, implied rather than definitely taught by Professor Lombroso, that the composition of an epic poem is a symptom of acute mania, though we are prepared to admit that a good deal of what passes for poetry at the present day might well be taken as *primâ facie* evidence of insanity.

Dr. Leonardo Vallardi, the well-known medical publisher

of Milan, who has already published translations of Dr. Gowers's *Manual of Medical Ophthalmoscopy* (by Drs. G. E. Curatolo and A. Romano-Catania), and *Diagnosis of Diseases of the Brain* (by Dr. R. Brugia), has in the press a translation of the same author's *Manual of Diseases of the Nervous System* (by Dr. Cirillo Tamburini). Signor Vallardi announces that he intends to publish translations of all the English neurologist's works, under the general heading of *Biblioteca Gowers*.

Some time ago we gave an extract from a French novel in which there was a description of a duel fought on strict antiseptic principles. In this flight of fancy, however, the writer of fiction had, as so often happens, been anticipated by fact, or at any rate by a suggestion which appears in all seriousness to have been intended to be translated into fact, as the interesting "document" here appended will show. The *Union Médicale* some years ago published a letter, of which the following is a translation:

July 26th, 1885.

My dear Richelot.—Thoreus has told us of the fatal consequences of a duel at which he was present. The wound set up a pleurisy which resulted in empyema; this ended in death. Would it not be well to recommend surgeons who are present at duels in a professional capacity to insist on some precautions such as one is bound to take at every operation? We should require that the swords be sterilised by flame or steeped in carbolic acid, and also that the combatants should wash their hands in carbolised water, as surgeons do. The doctors must have at hand a supply of carbolised water to be applied immediately to a wound. We would like to see the pistols and the bullets subjected to a like disinfection. Duels are sometimes fought for reasons that so little concern honour that it is but right that the precautions considered necessary for the smallest operation should be taken. Care is taken to see that the swords have an edge; we ask that they should be clean in the medical sense.—Yours, P. Durozisz.

The *New Age* of May 23rd contains a report of an interesting interview with Max Nordau, the author of that wholesome counterblast against quackery and disease in literature and art. Though it is only three months since the English translation appeared, it is already in its fifth edition. The author is a member of our profession, who was born at Buda-Pesth in 1849, and took his doctor's degree in 1873. After some years he settled in Paris, where he devoted himself chiefly to literature, acting as correspondent to the *Frankfurter Zeitung* and other German papers, and writing books on the *Conventionalities of our Civilisation*, on French literature, and other subjects. He also, as appears from the interview in the *New Age*, continues to some extent to practise his original profession, especially among his poorer neighbours. To the question whether he was likely to publish another book on "Degeneration" with new matter superadded, Max Nordau replied with a decided negative. He pointed out how his diagnosis of the mental condition of some of the artists and poets, whom he had characterised as "degenerates" had been confirmed by subsequent events, instancing in particular one of the decadent *Chat Noir* group who has recently had to be placed in an asylum. As regards the future, it is reassuring to find that Max Nordau is less pessimistic than he has been taken to be by hasty readers of his book. He says that the signs are hopeful, and that the crazes of the present day will not last. In the meantime, the mental degeneracy now so prevalent must be combated by "counter-suggestion." No mercy must be shown to the pornographist or the purposely lascivious beast of prey, and the criticism of false and morbid art must be unsparing. A true ethical system must be arranged on the lines of not clutching at spurious phantasies of happiness. "The men and women who hold fast to what is wholesome without reference to excessive lucre or debased passions are environed by a halo of serene joy unknown to the victims of 'egomania.'"

A new edition of *Green's Pathology* has just appeared (H. Renshaw). It is edited by Dr. Montague Murray. The book, which is issued in a larger form and printed in new type, contains more than sixty fresh woodcuts and a coloured frontispiece.

The London School of Medicine for Women has followed the lead of Guy's, "Bart's," and St. Mary's by starting a magazine of its own. The first number is now before us, and we congratulate all concerned in its production on the result. The contents, which are of the usual character, are well arranged and blend *utile* with *dulce* in a satisfactory manner. Miss Dora Caine, M.B. (who is, we believe, a daughter of Mr. W. S. Caine, M.P.) contributes a piece of quietly humorous verse entitled "The Sins of the Fathers, or the Blackbird's Ghost: a Legend of the Royal Free Hospital." The magazine is to appear thrice a year—in May, October, and January.

A very interesting and appreciative memoir of the late Carl Ludwig, from the pen of one of his most distinguished pupils, Professor Stirling, of Manchester, appears in the *Medical Chronicle* for June. In addition to his splendid intellectual endowment, Ludwig had in the highest degree the power of kindling enthusiasm for research and stimulating the scientific spirit in others. He was not only a discoverer of new truths, but in an eminent degree a trainer of teachers of the science which he loved so well. Dr. Stirling says:

On reviewing Ludwig's work one sees in it not only the directing hand, but also how it was planned by a master mind, so that pupil after pupil amplified and extended the work of his predecessors, and thus secured that continuity of investigation which has produced such prolific results.

The *Medical Magazine* for June contains an interesting article by Dr. E. T. Withington on "Uroscopy," the ancient practice of diagnosing and treating disease by mere inspection of the urine. All readers of Shakespeare must remember the carefully-guarded opinion given by Falstaff's doctor after examination of the fat knight's water. Dr. Withington says that it would seem to have been a favourite amusement of mediæval patients to test their physician's skill by sending him decoctions of nettles or figs, beer and water, the urine of animals or a mixture of several urines, with a request for a diagnosis, while, as might be expected, they especially delighted in asking him to decide the question of pregnancy from a man's water. Books were written expressly to enable the doctor to guard himself against falling into any of these traps. Uroscopy naturally offered a fine field for quackery, and some amusing instances are given by Dr. Withington. Uroscopy gradually died out as medicine became more and more animated by the scientific spirit, and the *Dissertatio de Urinis* of Thomas Willis (1658) is the last medical work in which it is treated as a heresy worthy of serious refutation. The belief, however, lingered in the public mind long after the seventeenth century; one of Gavarni's drawings—in the late thirties or early forties of the present century—is entitled "His First Diagnosis," and represents a medical student holding some urine up to the light, while a young woman looks on with an anxious expression on her face. Uroscopy is not altogether dead even yet, for Dr. Withington tells us of a species of quacks in Styria who treat those who apply to them after inspection of their urine.

It may be remembered that a few weeks ago we referred to a slight etymological backsliding on the part of Dr. Dana in connection with the word "acromegaly," for which he was somewhat unkindly taken to task by Mr. Andrew Lang. Mr. J. Foster Palmer has come forward to champion the American physician against his "belletristic" (the epithet has been applied to himself by Mr. Lang) assailant. "Dr. Dana's derivation," writes Mr. Foster Palmer, "is logically wrong no doubt, but philologically it is certainly defensible. Although uncommon, *ἄκρον*, as the neuter of *ἄκρος*, was sometimes used adverbially in the same sense as the regular adverb *ἄκρως*, thus meaning 'in the highest degree.' *Μεγάλος* I also find in my lexicon as an occasional form of *μέγας*, occurring in Æschylus and Herodotus, but only in the vocative singular and accusative plural. The words, therefore, are archaic, and not, as Mr. Lang suggests, of Transatlantic origin." Mr. Foster Palmer's advocacy of the cause of the (philologically) weak against the strong is certainly chivalrous. We submit, however, that the question is hardly one of archaic forms or what the grammarians call *ἅπαξ λεγόμενα*, but of the ordinary principles of etymology. Any position can, with a little ingenuity, be defended, and in this sense Dr. Dana's derivation is "defensible." It will not however, we imagine, be accepted by scholars any more than the Rev. Joseph Cook's famous derivation of *Bathybius* "from *βαθύς*, deep; and *βίος*, the sea."

The Education of Deaf Mutes.—On the initiative of Dr. Th. S. Flatau, an association for the establishment of Kindergartens for deaf and dumb children was formed in Berlin. The first Kindergarten was opened on April 1st, 1894, and the report of its first year's work has just been issued. The number of children under training was 14, and the results are considered satisfactory.

OBITUARY.

SIR GEORGE HORNIDGE PORTER, Bart., M.Ch., LL.D., F.R.C.S.I.,

Regius Professor of Surgery in the University of Dublin; Surgeon in Ordinary to the Queen in Ireland.

A notable figure in the profession in Ireland, Sir George H. Porter, Bart., has just passed away, and this announcement will cause much regret to large numbers of his old pupils and to those who enjoyed his friendship. He had for many years occupied a leading position in Dublin, and his reputation as an operator secured for him a very large and lucrative practice.

Sir George Porter was born in Dublin in 1822. His father was Mr. W. H. Porter, professor of surgery in the College of Surgeons. Having been apprenticed to the late Mr. Smyly, he became a Licentiate of the College in 1844, a Fellow in the same year, and in later years President. He also graduated in Trinity College, taking the degree of M.B. in 1848, and of M.D. in 1865. In 1891, on the death of Mr. W. Colles, he was appointed Regius Professor of Surgery in the University of Dublin. His honorary distinctions were numerous. In 1869 he became one of the surgeons to the Queen in Ireland. In 1883 Her Majesty conferred knighthood upon him, and in 1889 he became a baronet of the United Kingdom. He also held the degrees of Master in Surgery (*hon. caus.*) from the University of Dublin, and of LL.D., from the University of Glasgow. He was Surgeon to the Meath Hospital for 45 years, and he was consulting surgeon to several other hospitals in Dublin.

Sir George Porter attained a very great success as a surgeon. When he started there was practically little opposition. A race of great men had just died out, and he found a field in which there were few to contend with him. His rise was rapid, and brought with it very substantial rewards. In his early days he contributed many papers on operative surgery to the journals, and at the time they attracted a good deal of attention; but of late years he had not taken part in the discussions upon surgical subjects either in the journals or at the societies. He was a popular man, and his manner was genial and kind-hearted. He was a very true and reliable friend, and he deemed no trouble too great to serve the interests of those whom he liked. His tenacity of purpose was great. When he wished to attain an object even at a distance of years he steadfastly worked in that direction, and he was almost uniformly successful. He had a high estimate of his own profession, and he made no secret of his views that the honours bestowed upon it were most inadequate. His professional career had many characteristics of high quality, and his death is a distinct loss to the profession in Ireland.

Sir George Porter had been in failing health for about a year. It was evident that he was suffering from a grave cardiac complaint, which was accompanied by distressing attacks of dyspnœa. He went to Torquay about a month ago, and he only returned to Dublin some ten days since. There he continued to fail, and death came on the night of June 15th.

SURGEON-MAJOR HENRY JOHN CARTER, F.R.S.

The death is announced of Henry John Carter, who was born on August 18th, 1813. At 16 years of age the deceased entered the Devon and Exeter Hospital as indoor pupil. In 1835 he entered University College, gaining in 1837 a silver medal and second certificate in comparative anatomy, and in the year following a silver medal and second certificate on human anatomy. He passed the College of Surgeons in 1838, and the following year was appointed House Surgeon to University College Hospital. His health failing, he was appointed Conservator of University College Museum. In 1840 he visited Paris, and studied at the École de Médecine, and in 1841 was appointed Surgeon in the Army of the East India Company. The deceased landed in Bombay on February 12th, 1842, and was deputed on medical duty to Calcutta *viâ* Madras, and returned *viâ* Mauritius the same year. Dr. Carter was now attached to the Artillery in Fort George Barracks. He suffered from fever, but was ordered to proceed in medical charge of battery of artillery to Scinde, with only twelve hours' notice. He was present at the battle of Hyderabad on March 24th, 1843, for which he received a medal and share of prize money, and he was the same year placed in medical charge of a detachment of troops for the appalling march through the desert to Omercote, at nearly the hottest season of the year. The deceased was next gazetted to the medical charge of Her Majesty's 21st Foot, sent in pursuit of Sher Muhamid to Nasirpur in the desert. Great sickness attended this duty. In 1844 he was appointed medical officer to the surveying brig *Palinurus*, sent to survey the south-east coast of Arabia, where he remained two years, and in July, 1846, was appointed Assistant Civil Surgeon in Bombay as well as Surgeon to the Coroner and Surgeon to the Byculla Schools, and the same year he was nominated Honorary Secretary of the Medical and Physical Society. After resigning this post, he was appointed Honorary Secretary of the Bombay Branch of the Royal Asiatic Society, 1847, of which he was made a Fellow. He was elected a Fellow of the Royal Society, and the same year was elected President of the Economic Museums Committee, Fellow of the Bombay University, President of the Medical and Physical Society, and Justice of the Peace.

On his return to England in 1862 the Bombay Branch of the Royal Asiatic Society voted him £100 with which to purchase a microscope in recognition of his eminent services to science and for having served the Society as secretary for fifteen years. On his retirement he settled in his native place, Budleigh Salterton, and in 1864 married an Irish lady, by whom he had one child, a daughter, who, with her mother, survives him.

In 1872 he received the Royal medal from the Royal Society. On October 4th, 1888, he had a paralytic attack chiefly manifested by impaired powers of speech and vision, from the effects of which he gradually rallied but never thoroughly recovered.

His interment in the churchyard of East Budleigh took place on May 10th in the presence of a select circle of friends. Dr. Carter's contributions to our geological knowledge of India embrace the country between Hyderabad and the mouth of the Indus (1848), the south-east coast of Arabia (1857), the Island of Bombay (1857), and Scinde, Western India, and Beloochistan (1861); his summary of the *Geology of India* being the work with which his name will be mainly associated (1857). Dr. Carter's scientific writings were numerous and varied.

Details concerning the life and work of Dr. W. Affleck Scott, who died at Blantyre, on March 21st last, are given in the latest tidings from Nyassaland. Having volunteered as surgeon to accompany the expedition so successfully organised by Commissioner Sharpe against the slave-trading chief Kawinga, he never recovered his health after his return from the assault on Mount Chikala. During the expedition the party were for three days constantly drenched by a persistent downpour of rain, and more than once had to ford flooded rivers. Dr. Scott returned to Blantyre much reduced and suffering from fever, which told on a frame already reduced by long strain and acts of great physical exertion, and brought about his death. He had spent several years in Central Africa, in the service of the Church of Scotland, and was utterly unsparing of himself. He used to sit up night after night nursing an anxious case of sickness, and yet was always fresh for his native patients at the dispensary in the morning. All were treated alike—European and native—with the same carefulness and unselfish attention. Although his time for furlough was long overdue, he refused to leave till a successor should come to take his place; but relief did not come, and the travellers, the planters, the officials, the missionaries, and natives of Central Africa, are deprived of services of inestimable value.

The death is reported of Dr. Alfred Swann, Medical Officer of Health for Batley. He attended on May 31st at the House of Lords to give evidence in connection with the Barnsley water scheme, and shortly after his arrival home he had an apoplectic seizure, and died on June 6th at the early age of 44. Dr. Swann was well known in connection with his researches and writings upon lead poisoning, to which disease his attention was particularly turned by observing the solvent

effects of the soft drinking water of Batley upon the lead service pipes. Dr. Swann held the appointments of Certifying Factory Surgeon, Surgeon to the Local Volunteer Corps, to the Police, and to the Great Northern Railway Company.

WE regret to have to record the death of Mr. HUGH THOMAS, M.R.C.S.Eng., L.S.A., of Small Heath, Birmingham. When returning home in the evening he was knocked down and run over by a vehicle, causing an extensive laceration of the liver. As a student at Queen's College, Birmingham, Mr. Thomas had a distinguished career, and obtained medals in Midwifery, Forensic Medicine, and Toxicology, and honours in Materia Medica, and was first Senior Prizeman in Clinical Medicine and Midwifery. He qualified as L.S.A. in 1876, and in 1877 took the M.R.C.S.Eng., when he obtained the appointment of House-Surgeon to the Queen's Hospital. He subsequently started in practice in Small Heath, where he soon acquired a large practice. He took a great interest in political and local affairs, and had been since 1877 a member of the city council.

WE regret to announce the death of Dr. WILHELM MEYER, of Copenhagen, at the age of 71. Dr. Meyer was the discoverer of adenoid vegetations of the naso-pharynx, which he first described in the Copenhagen *Hospitals Tidende* for 1868, and afterwards in a paper which was communicated to the Royal Medical and Chirurgical Society by the late Mr. John Marshall in 1870. The importance of these growths as regards both the mental and the physical development of children is now well recognised by the profession at large; but even ten or twelve years after the presentation of Meyer's paper their very existence was denied by leading authorities in general medicine, and even by some specialists. Dr. Meyer died at Venice of typhoid fever. He was a man of the most amiable and unassuming character, and made little use of his discovery to advertise himself.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.

Dogs Bill.—Lord CARRINGTON moved the second reading of this Bill, which, he said, was a non-contentious measure, intended to consolidate nine Acts of Parliament passed from 1839 up to 1871. The Bill was required on account of the increase of rabies in some portions of England. There were 96 cases last year, and the cases had increased this year to 150.—After some discussion, in which the DUKE OF ARGYLL and Lord ASHBOURNE took part, the Bill was read a second time.

Midwives Registration Bill.—This Bill passed through Committee, and subsequently, on the motion of Lord BALFOUR, was recommitted to a Committee of the whole House for the consideration of amendments.

HOUSE OF COMMONS.

The Sale of Unwholesome Meat in London.—Mr. HAZELL asked the President of the Local Government Board whether his attention had been called to the systematic sale of large quantities of unwholesome meat just beyond the area supervised by the Commissioners of Sewers of the City of London; whether he had considered the letter of Dr. Sedgwick Saunders, food analyst to the Commissioners, on the subject; and whether, in view of the fact that this meat was distributed over the metropolis, he would use his influence with the Holborn Board of Works, in whose district the market was situated, to ensure efficient inspection of all the meat sold within their area.—Mr. SHAW LEFEVRE: I have no direct information on this subject, and the letter of Dr. Saunders has not been communicated to me. I have, however, been informed by the Holborn District Board that on every occasion when complaints have been made to them by inspectors under the Commissioners of Sewers of the nature referred to, they have done their best to investigate them, and have called for evidence to substantiate the charge, but that on no one occasion has evidence worthy of the name been put forward.

It is reported that some of the Radicals intend to raise a comprehensive discussion on the Home Office Vote on the question of Vivisection. Mr. A. C. MORTON has given notice to move the reduction of the vote, and Sir J. STANSFELD and others will take part in the debate.

Irish Workhouse Infirmaries.—Mr. M'CARTAN asked the Chief Secretary for Ireland whether his attention had been called to a letter headed "Misery in Workhouses," signed by Sir Philip C. Smyly, M.D., Chairman of the Irish Medical Association, with regard to the nursing in Irish workhouse infirmaries; and whether, in the circumstances, he would consider the desirability of having a public inquiry into the condition, working, and general system of workhouses in Ireland.—Mr. J. MORLEY said he had read the letter to which reference was made, and which contained the statements set forth in the question. The Local Government Board informed him that they did not consider that the letter fairly represented the actual condition of workhouses in Ireland. The statements that there were forty-three workhouses in which the nursing was entirely in the hands of pauper women was, the Board pointed out, absolutely without foundation, as there was no workhouse infirmary which was not in charge of a responsible and paid officer. There were 641 paid nurses in the 159 unions in Ireland who had no duties to perform other than the nursing of the sick. Nor did the Board think that in any case patients suffered from want of proper food, as a medical officer was entitled to order any description of food he thought fit for patients under his care. With regard to sanitation, ventilation, etc., medical officers were bound by the regulations to report any defects in such matters to the guardians, and when they did this it was the Board's invariable practice to support their recommendations. Much had been done in recent years in this direction, and doubtless much still remained to be done. The Local Government Board would welcome the efforts of any organisation working with the same object, and they only regretted that the Irish Medical Association had not seen their way to supply them with specific information upon this subject. The Board, however, had brought under the notice of their inspectors the alleged defects which would be made the subject of detailed inquiry by them.—Mr. T. W. RUSSELL asked whether the attention of the right hon. gentleman had been directed to the recent inquiry under the Local Government Board into the case of the Athlone Workhouse, where the very worst system of nursing was pursued and the most serious results had accrued; and whether the right hon. gentleman would consider the appeal which had been made to him by the hon. member opposite, and would order some kind of public inquiry, either by Royal Commission or by a Departmental Committee, to investigate these matters independently altogether of the Local Government Board.—Mr. J. MORLEY said that his attention had been drawn to the state of things in the Athlone Workhouse. He had watched the state of things in the Irish workhouses with much care since he had been in office, and he confessed that in some instances he had found grave reasons for dissatisfaction; but the Local Government Board was constantly drawing the attention of the Boards of Guardians to their duty in this respect, though it was not a very light matter to overrule the Boards of Guardians. He, however, could assure the hon. gentleman that the matter was engaging his serious attention. The subject called for revision, but what particular form that revision should take he could not say at present.—Mr. T. W. RUSSELL said that, in order that the right hon. gentleman might not be taken by surprise, he begged to give notice that he should call attention to the subject of workhouse treatment in Ireland on the vote for the Irish Local Government Board.

INDIA AND THE COLONIES.

INDIA.

THE KASHMIR MEDICAL MISSION AND LEPER HOSPITAL.—The report of the Kashmir Medical Mission for 1894 is as usual a record of excellent medical work done by or under the direction of the two mission surgeons, Mr. Arthur Neve and Dr. Ernest Neve, who are both Fellows of the Royal College of Surgeons of Edinburgh. The work of reconstructing the hospital in Kashmir has now been completed after being in hand for six years. The report gives a plan of the building as it now exists in use. From it we learn that the hospital consists of separate blocks united by covered corridors; there are 46 beds for male and 18 for female patients, besides isolation wards and an out-patient department. Special attention has, we are informed, been given to the sanitary arrangements, and many will be disposed to envy the Messrs. Neve their opportunity of doing so much good work under such favourable circumstances and in a country blessed with some of the most beautiful scenery and one of the most delightful climates in the world. One of the chief drawbacks to surgical success appears to be the uncleanly habits of the Kashmiri patients, but some improvement, it is stated, has taken place in this respect. Four years ago the Maharajah granted a site for a State Leper Asylum, and this has been in full operation for three years. The asylum now has an average of 30 inmates supported by the State, but the total number of leper patients is 89. Of these, 45 belong to the Kashmir valley, and of the remainder all but 2, who are Hindus, come from other parts of the Maharajah's dominions. The asylum is designed to serve the double purpose of affording the lepers good treatment and a last refuge if they have reached the final stages of the disease, and also of segregating the diseased. Their residence in the asylum is, however, voluntary, and it is found that the sufferers will remain only if their health shows signs of improvement and if they find their surroundings agreeable. The site of the asylum is described as very healthy, on a projecting tongue of higher land running into the city lake. The land has been planted with young fruit trees, and wheat is also raised, the lepers being employed in grass cutting and other light work. It is stated that most of the patients have improved under treatment here, and a few "seem almost cured." Although there is no compulsory segregation, it is found that the patients show yearly less tendency to leave after they have once enjoyed the advantages of the asylum, and it was necessary during 1894 to add to the accommodation.

NEW SOUTH WALES.

ON March 22nd the second reading of the Medical Practitioners Bill was carried in the Assembly by 52 votes to 14, the minority consisting mostly of labour members. During the debate Sir George Dibbs stated that one of the many irregular practitioners in Sydney, who had been a boatswain, boasted to him that he had made a fortune of £150,000 by the practice of medicine, and that it had cost him from £1,700 to £2,000 a year in fighting the Bill.

THE HON. DR. MACLAURIN, M.L.C., of Sydney, has been elected Vice-Chancellor of the Sydney University.

ST. GEORGE'S HOSPITAL benefits to the extent of £20,000 by the will of Mrs. Anne Towey Hall, of Lowndes Square. The bequest is in memory of Mrs. Hall's husband, Major Charles Hall.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 22ND, 1895.

PROFESSOR PROUST ON THE MECCA PILGRIMAGE.

I.

THE *Revue des Deux Mondes* for May 15th contains a paper on the Mecca Pilgrimage and the Propagation of Epidemics, from the pen of Professor A. Proust; and apart from the general interest which attaches to the article, any contribution on this subject from so able a contributor is certain to attract attention and to carry weight. Professor Proust's description of the circumstances under which the pilgrimage is carried out reminds us of the works published on this subject by Burton and others, but it has the additional advantage of bringing out some of the salient features of that most remarkable and terribly fatal of modern pilgrimages, namely that of 1893. In the story told the pilgrim is first landed at Djeddah, and there he is subjected to every form of extortion, he has to pay someone at every turn, and if he should be impoverished at the very onset he consoles himself with the fact that Allah is generous and that the title of Hadji can hardly be bought at too great a price.

The supply of water at Djeddah is, perhaps, the most salient sanitary difficulty. Means for bringing in a wholesome service were contrived some years ago, but the carriers of the former filthy supplies objected to being deprived of their livelihood and hence the duct leading water from the mountains was destroyed. This very difficulty has again led to riot and murder during the pilgrimage of the present summer. Rainfall and dogs are relied on as the principal scavengers, cesspits lie close to the water tanks, and even at starting the sick and the dead lie in the streets and around the city. The dead are spoiled of all their papers and their money, and both at this and the terminal stage of the pilgrimage the sick are watched by officials, some at least of whom only wait the right moment to rob them.

We pass on to the arrival at Mecca, a city which Professor Proust describes as containing a normal population of some 60,000. It is, under ordinary circumstances, not an unhealthy place. Its climate is hot: the streets, though unpaved and terribly dusty, are fairly wide; the water supply comes from good source, but there is no means of sewerage. When the pilgrimage suddenly raises the population by the addition of from 100,000 to 300,000 strangers matters are different. The crowding is terrible, the circumstances of the pilgrimage are exhausting in the extreme, and both sickness and death reign everywhere. Perhaps the worst feature lies in the sacrificial rites in the valley of Mouna, where in 1893 over 120,000 sheep were slain. This valley is narrow, there is no water in it, the heat is tropical, and the superficial burial of the carcasses turns the charnel house into a putrefying scene of desolation.

There is no need to follow Professor Proust through the various religious observances, including the use of the Zemzem water. They were described by Mr. Ernest Hart in the BRITISH MEDICAL JOURNAL of February 24th, 1894, and they were graphically illustrated by means of woodcuts. The real points of interest for us lie in the attitude which Professor Proust adopts towards this subject generally, and in his counsel as to the future of these pilgrimages, for it is well known that M. Proust is the leading adviser of the French Government in this matter.

We are, therefore, more than pleased to find Professor Proust laying it down as a first principle that the more that is done in connection with the pilgrimage to promote that which he refers to as the private hygiene of the individual, the less need will there be for regulating that which may be termed public and international hygiene. That is a position which every Englishman will understand. It has been the rule of our progress in matters relating to health, and it is the one that we so earnestly desire to see extended elsewhere, however difficult may be the task. Indeed, no other is of any permanent value, and even a temporary benefit may often be too dearly bought at a sacrifice of principle. Private hygiene and the health of the individual mean—in the case of cholera—wholesome water, pure air, and a cleaner soil; and this is the direction in which progress is needed, whether at Mecca, in India, in Europe, or elsewhere. The absence of such provision led to the death of some 35,000 pilgrims in 1893, and whether Mecca or Djeddah are considered, the conditions that formerly prevailed remain practically unchanged, and this notwithstanding the promise of the Turkish Government, during the sittings of the Paris Conference, to send out both men and money to carry out the necessary works. Men and some money were sent out, so also were materials, but most of the latter lie about unused to this day. In short, the Sultan sought to do just enough to prevent outside interference, and having done this, the principal end of the Turk is achieved for the moment. But what is to be done as regards the future? Professor Proust admits that whether the matter be considered from a political or a practical point of view, the pilgrimage cannot be stopped; and he therefore calls upon the interested Powers to be watchful with a view of securing that the pilgrims shall be able to travel to and from the holy places under the best procurable sanitary conditions. And in this connection Professor Proust lays down another axiom. In quoting this, which only admits of somewhat clumsy translation, we italicise the essential words of his pithy but golden rule; "Plus on fera *pour* le pélerin, et moins on aura à faire *contre* lui."

Thus far we are in entire accord with Professor Proust, but it is impossible to do otherwise than to read his extremely interesting article in connection with his recent official utterances. In these latter he has made it evident that the British Government is, in his opinion, the great obstruction to the needed reform. This is a position which we cannot accept; it is one which is, as we hold, based on a misconception of the real issues, and it is of sufficient importance to call for a separate consideration.

THE POVERTY OF OUR HOSPITALS.

IT has lately been said, with regard to the poverty of the London hospitals (and in an evening paper which is the organ of Mr. Passmore Edwards, a generous donor to hospitals) that one reason is "the gradually growing unpopularity of hospitals in reference to the inhuman practices of vivisection carried on, or sanctioned by, hospital authorities, and also on account of the using of hospitals for experimental purposes by medical graduates." It may be worth our while to examine this statement. What is meant by "the growing unpopularity" of our hospitals? Every day, and all day long, they are besieged by crowds of patients, many of whom ought to be ashamed of seeking their charity. Overworked and overcrowded, our hospitals are under heavy and ever-increasing pressure. Their strength is strained almost past endurance; they are indeed so popular that a slight loss of popularity, if such a thing were possible, would come as a blessed relief to their officers, nurses, and servants.

Why, then, are they left so ill-supported, and poorer than the poor? It is not because this or that member of the staff of a great hospital makes experiments on animals. Among those people who have money to spare, the antivivisectionists have so disgraced themselves and their cause that a few hundred pounds a year would probably cover the loss to our hospitals on this score. Moreover, the money would then flow in streams to those few hospitals which have not on their staffs a single physician or surgeon with a mind for experimental work; but it does nothing of the kind.

Again: those who do not refuse to consult or be attended by a physician or a surgeon who has made experiments on animals can hardly be so mean as to refuse to help their poorer brethren to obtain the same advantage.

Among the well-to-do, we said, the cause of the antivivisectionists is a disgrace. How do they stand with the poor and the ignorant? Of the real interests that are at stake, and of the relation of science to practice, our hospital patients know little, and care less. But some of them do still believe that aged falsehood, that hospital patients are used for experiment. Every hospital surgeon knows the heartache that comes when a patient refuses operation: the helpless arguments, the patient statement of his case, the appeal to his duty to his wife and children. But the patient will not be persuaded; "he does not want to be cut about"; and he goes home to experiment on himself with quack medicines till he is past cure. It is a weariness of the spirit for his surgeon; but the hospital does not lose a penny by it.

Why are the hospitals so poor? It is very simple. They only share the poverty of their patients. The times are bad; the appeals for charity are tenfold what they were; and those who do not help the poor will not help the servants of the poor. Those who buy cheap goods made in a sweater's den, who overwork their subordinates, or adulterate and puff their own wares, or sell drink to a man who can hardly stand, or make money anyhow and anywhere, are not likely to help them; they do not help our poor. These old sins are still flourishing; and so long as the majority aims at living in houses built of cedar, the ark of God will be behind curtains. The deliverance of our hospitals may come with Socialism and State aid, or with increase of sympathy with the poor, or with some national crisis that shall break down the barriers between one class and another; but till people give away more money, or are content to make less, things will remain much as they are at present. But experiments on animals have nothing to do with it either one way or the other.

COMPULSORY REGISTRATION OF MIDWIVES.

III.

THE General Medical Council suggests that the Midwives Board should (in addition to the twelve persons to be nominated by the various bodies specified in Clause 6) include a chairman, to be appointed by the Lord President of the Privy Council or by the President of the Local Government Board.

The provision as to the eligibility of members for re-election is omitted; and one-third (instead of one-fourth) of the members elected by the medical corporations are to retire annually.

An additional clause as to supplying casual vacancies is recommended, and we think the words "or deceased" after retiring member should be added to this clause. The Council also recommends that provisions should be explicitly introduced into the Bill providing for the punishment by removal from the register, or otherwise, of midwives who are guilty of offences in regard to the illegal assumption of titles, the improper granting of certificates, and the infringement of the rules of practice approved by the General Medical Council. This, it will be seen, is in accord with the suggestion made in the JOURNAL of June 8th on this subject, and we think it will be extremely desirable that the provision in question should not be lost sight of; and it should be quite clear that any unqualified practice of medicine or surgery would be deemed to be an offence.

In Clause 7 of the Bill (which relates to the rules to be prescribed for the examination of midwives) the Council have introduced words which indicate that a course of "training" as well as "study" will have to be pursued previous to examination, and that the form of certificate to be granted will be the subject of special consideration by the Midwives Board. Then follow certain recommendations of the Council with regard to the question of the fees payable for examination and registration, and the suggestion is made of a grant by the Treasury to meet the expenses of the Midwives Board and the additional charges imposed on the General Medical Council. The provision relative to the supervision of midwives by the medical officer of health of each district is amended in point of form, but not, we think, much in point of substance, by the Council; and we would invite medical officers of health, whom this provision will particularly affect, to communicate their views on the provisions of this clause to the Subcommittee of the Parliamentary Bills Committee which has this Bill under consideration.

With regard to the prosecution of offences the Council point out to the Lord President that no similar provision exists in the Medical Acts for the prosecution of offences, and they suggest that if such provision is considered necessary the consenting authority should be either the registrar of the Midwives Board, or the local supervising authority, namely, the medical officer of health (or other officer appointed) referred to in Clause 12.

While we concur in the suggestion that it would probably

be preferable, from the point of view of facility in enforcing the penal provisions of the measure, that the consenting authority should be that indicated rather than of the Attorney-General, we cannot quite follow the Council in the view that no similar provision exists in the Medical Acts for the prosecution of offences, unless we have misunderstood the recommendations of the Council in this respect.

Proceedings are prescribed by the Medical Act, 1858, for the recovery of penalties for the unqualified assumption of medical titles, and these proceedings are similar to those prescribed by the Midwives Bill, with the exception that in the former case no consent to the institution of such proceedings is required—and no consent, we venture to think, is necessary in the present instance. Certainly prosecutions under Section 40 of the Medical Act, 1858, have not been so numerous as to indicate the necessity for such a restriction. Provision should be made for payment to the General Medical Council or the Midwives Board of any penalty recovered, and to prevent any such penalty being taken possession of by the police authorities.

It will be seen that no attempt is made to define "natural labour.' No doubt to do this would be a real difficulty; and perhaps any attempt might provoke controversy without being productive of material advantage. What is to happen in a case of stillbirth with natural labour also remains uncertain.

Great care will evidently be required in order to secure such a measure as will prove beneficial to the community in the results which are aimed at, and not be instrumental in bringing into existence a new field for the exercise of unqualified practice in medicine or surgery, or the establishment of homes for "lying-in women" as a commercial speculation, which might develop into other serious evils.

The registration of existing midwives should be fenced round with every precaution; provisions for ensuring a proper standard of qualification as regards character, training, and study should be carefully considered: and clauses to restrict the practice of midwives to prescribed limits should, as far as possible, be made an indispensable condition to the passing of the Bill.

The facility which may be afforded by the Bill for the establishment of "lying-in" homes as a commercial speculation or otherwise does not come within the scope of our present article, but it is a point of great practical importance, and is entitled to grave consideration.

DR. LINDSAY STEVEN and Dr. J. H. Pringle have been appointed respectively physician and surgeon in the Glasgow Royal Infirmary in room of Drs. Wallace Anderson and Fleming, whose term of office by the rules of the institution ends in October.

THE Laryngological Society of London has arranged to give a *conversazione* at the Salle Erard, Great Marlborough Street, at 10 P.M. on Monday, July 29th, to the foreign and provincial visitors taking part in the work of the Section of Laryngology at the annual meeting of the British Medical Association. All such who have not already intimated to the honorary secretaries of the Section their intention of being present are cordially invited to do so.

HIS ROYAL HIGHNESS THE PRINCE OF WALES, Grand Master (President of St. Bartholomew's Hospital) has been graciously pleased to signify his intention of being present at the consecration of the Rahere Lodge of Freemasons, No. 2,546, at St. Bartholomew's Hospital, on the afternoon of Saturday, June 29th. Freemasons who are or who have been connected with the hospital, and who desire to be present at the ceremony, are requested to communicate at once with Dr. T. G. A. Burns, the Secretary, 25, Welbeck Street, W., or with Mr. D'Arcy Power, the Treasurer-designate, 26, Bloomsbury Square, W.C. Every application should state the name and number of the member's lodge, as well as his standing in the craft. The number of tickets is necessarily limited to the accommodation of the Great Hall of the hospital.

MEASLES PREVALENCE IN EAST LONDON.

AT the Whitechapel Coroner's court last week, Mr. Wynne Baxter commented upon the extent to which measles was prevalent in the East End of London, and more especially in Poplar; and at a recent meeting of the Limehouse district Board the medical officer of health, Dr. Rogers, reported that a number of cases had occurred in Limehouse. At one Board school, the Gill Street School, 170 children were stated to be absent from school from this cause. Measles, it will be remembered, as manifested in London, usually presents two annual maximum periods of prevalence—one in the early winter, and one in June. The present diffusion of cases of the disease is no doubt rendered more noticeable by the fact that London has during the last few weeks (save for an outbreak of enteric fever at Plumstead) been comparatively free from attacks of zymotic disease.

PROFESSOR HUXLEY.

WE deeply regret to hear that Professor Huxley, just as it was hoped he was entering on the stage of convalescence from the very trying series of complications which has attended his severe and protracted visitation of influenza, has been attacked by a further complication in the shape of acute congestive nephritis. Sir William Roberts and Dr. Burney Yeo visited him on Sunday last in consultation with Mr. Farnell, of Eastbourne, and their report was to the effect that his condition was one of great gravity. We are glad to learn that since then there has been a slight amelioration of the symptoms. On Thursday morning Professor Huxley was less drowsy and his strength had improved, but no alteration had taken place in the symptoms due to inflammation of the kidneys.

CATERPILLAR OPHTHALMIA.

AT the last meeting of the Ophthalmological Society, a case of the so-called ophthalmia nodosa was brought forward. The hairs of certain kinds of caterpillars, when made to penetrate the conjunctiva, set up a long-standing inflammation in the tissues of the eye, which may result in a considerable impairment of vision. At this season of the year, when caterpillars abound, it should be remembered that they may prove dangerous if used as missiles; if the eye has been injured in such a way, the conjunctiva should be examined by a magnifying lens, and the extremely fine hairs removed.

PHILANTHROPIC SHELTERS.

THE establishment of shelters for the class of poor wanderers in the metropolis is in itself praiseworthy. It is better for such people to be collected under a roof than to sleep in the parks, in waste places, by the borders of the canals, in the ever open doorways of artisans dwellings, or on doorsteps. At the same time it is obvious that there is both a moral and a legal duty upon the keepers of shelters to see that they are not overcrowded. Dr. Waldo, in a recent report, states that a Salvation Army shelter in his district gives when full only 6 superficial and 90 cubic feet a head. Mr. Wynter Blyth has reported on the Shaftesbury Shelter, which has become somewhat notorious from evidence given

at an inquest. Since there was no legal power of entry during the hours when the shelter was in use, Mr. Wynter Blyth stationed two of his inspectors at a window opposite the door of the shelter; from 5 A.M. to 9 A.M. no fewer than 93 adults and 10 children issued forth, the shelter properly accommodating only 68 adults. Since it has been shown that neither the Common Lodging House Act nor the Public Health Acts give power to regulate shelters specially, it is high time that a statute should be framed enabling local authorities to inspect shelters during the time they are in use, to regulate the numbers, and to control them more effectually in other ways.

IMMUNITY AGAINST SNAKE POISON.

We understand that Professor Fraser will probably make a further communication to the Royal Society of Edinburgh at its next meeting with regard to the production of immunity against snake poison. Since the presentation of the paper, an abstract of which was published in the British Medical Journal of June 15th, Professor Fraser has obtained, we are informed, definite proof of the antidotal properties of the blood serum of venomous serpents. This result was not unanticipated, as will have been gathered from the statements already published, but its establishment is a matter of great interest and, perhaps, of some practical importance, since never before probably have the bane and the antidote been brought so near together.

ARE PAUPERS PERSONS?

That the pauper is not treated as an individual is the accusation made against the Poor-law system by both philanthropist and pauper, but we hardly remember a more illustrative instance of the justice of the accusation than has recently been brought to light in Stepney. It seems that a Mrs. Adams had to send her little boy into the Poplar Sick Asylum. There it was averred he died, but the mother on being shown the body declared that the corpse was not the remains of her child. The Stepney Guardians, however, asserted that this was the case, and compelled the woman to bury the child. Now it is discovered that a mistake has been made. Willie Adams is not dead. His description had been placed over the bed of another child, who had died. The Stepney Guardians have acknowledged their error by remitting to the bereaved mother the sum drawn from the insurance society, but there they assert their responsibility ends. A charitable society in Limehouse holds, however, a contrary opinion, contending that the pain and trouble that have been given to the mother call for some form of compensation, and there will be others who agree with them in thinking that an institution which is managed in so lax a manner as to permit the occurrence of such mistakes is not an unfit subject for the inquiries of the Local Government Board. The matter of the treatment of the sick children in the infirmaries is one, however, that has doubtless engaged the attention of the Poor-law Schools Departmental Committee, and on which we may expect both information and advice when that body issues its report.

"MODEL DWELLINGS" ON A BAD MODEL.

In Redcross Street, Southwark, will be seen numbers of blocks of lofty artisans' dwellings, so crowded on the area on which they stand as mutually to shadow one another, and prevent due access of air and sunlight. One of the blocks has been attacked successfully by the St. Saviour's District Board of Works. The medical officer of health, Dr. Herron, asked for a closing order. He described the premises as badly lighted, the darkness of the passages being such as to prevent at all times of the day the numbers being read on the doors. A dust shoot, with openings imperfectly closed by valves, delivered foul air on every landing. The closets were always foul, and of a bad type. The premises insufficiently clean, and not well looked after. The population of the dwellings was 700, the average death-rate 32·8; deaths from respiratory affections 14·2, deaths under one year 238 per 1,000. The drainage, although well designed, yet allowed free access of sewer gas, because the caps were either not cemented to the clearing arms of the siphons or left off. Mr. Wynter Blyth, the Medical Officer of Health for St. Marylebone, and Dr. Wylde, the Medical Officer of Health for Croydon, generally corroborated Dr. Herron. Various witnesses were called for the defence, among whom was Dr. Corfield, who interpreted the statistics somewhat more favourably, and did not disapprove of the arrangement of the dust shoots and the construction of the closets. The magistrate took some time to consider the question, but ultimately convicted the defendants of nuisance under the Public Health Act, 1891, and inflicted a penalty. The feature of this case is that the prosecution was mainly based upon errors of original design and construction, and we can quite understand the owners thinking that it is a considerable grievance to be allowed to construct buildings according to a plan originally deposited at the Metropolitan Board of Works, and which received the sanction of the superintending architect, and then some years afterwards for the premises to be condemned. This is undoubtedly a grievance. As the law stands, it would appear that a person may go to the expense of putting up a large building, and then when it is occupied have the structure condemned *in toto* by the medical officer of health and sanitary authorities. The remedy is obvious. Without a shadow of doubt, all new buildings of the type of artisans' dwellings should in the first instance, before being built, be brought under the cognisance of the health officer. The plans should in every instance be submitted to him, and he should be given the opportunity of signifying his approval or disapproval. Until this is the law, owners and builders will be put to expense which might easily be avoided.

THE WAR OFFICE AND ALDERSHOT.

The *Aldershot News and Military Gazette* says that the War Office authorities have again refused the application of the council for the grant of a site for the erection of an infectious diseases hospital near the lock hospital. There is a growing feeling that the Government, as the largest owners of land in the district, are avoiding their responsibility to assist the local authorities, and that pressure will have to be brought to bear on the department to lead to a more favourable consideration of reasonable and necessary requests.

HOSPITAL SUNDAY AND THE MEDICAL PROFESSION.

While pleading the cause of London hospitals on Sunday in Westminster Abbey, the Rev. Canon Wilberforce did not omit to speak in words of high commendation of the fidelity and ability of the medical profession. Not only was allusion made to Sir Andrew Clark and others of our civil brethren, but a touching reference was also given to the noble services of an army medical officer, Surgeon Langdon, at the action on Majuba Hill, who, when seriously and afterwards fatally wounded, rendered aid to those requiring assistance. The medical profession owes a debt to Canon Wilberforce for bearing testimony to their thoughtfulness and self-denial under trying circumstances.

THE VALUE OF A HOLBEIN.

A public movement is on foot to secure from the Worshipful Company of Barbers the famous historical painting by Hans Holbein, which represents the ceremony of the incorporation of the Company of Barbers with the Guild of Surgeons in 1540. The painting is well known to everyone, as it has been lent several times to public exhibitions. Its great historical and intrinsic value, combined with its great weight—for it is painted on an oak panel—have long rendered it an object of solicitude to its original owners. The Company have more than once been frightened by the occurrence of

fires in the immediate neighbourhood of their hall. They have no adequate means of ensuring the safety of so precious a treasure, and it is too heavy to move without special appliances. They are willing, therefore, that the picture should become the property of the City of London, and should be placed in the Permanent Art Gallery at the Guildhall, where it could then be seen to the best advantage. If this scheme could be realised, they are willing to take £15,000 for it, instead of £25 000, the price at which they value it. Sir Joseph Dimsdale is acting as honorary treasurer to the fund, and subscriptions may be addressed to him at 50, Cornhill. The Company of Barbers is not wealthy, and the money thus obtained would no doubt be of service to them, and would be well bestowed in the cause of charity. The loss of their picture, however, would be a sorrowful landmark in their annals, for it has never left them. It has an unbroken history from the time of Holbein to our own day, and it is one of the very few works of art in the City of London which, escaping the Great Fire of London, are still in the possession of their original owners.

EPSOM COLLEGE.

THE PRINCE OF WALES has consented to lay the foundation stone of the new Lower School at Epsom College on the afternoon of Tuesday, July 9th. The detailed arrangements and the hour of the ceremonial will be announced shortly. It is an interesting circumstance to recall that some forty years ago the Prince accompanied his father, the late Prince Consort, at the opening ceremony when the College was first formed. The continuous interest thus shown in the welfare of this great school, so closely associated with the medical profession, will doubtless cause a very large gathering of medical men to welcome the Prince of Wales next month.

THE DISTRIBUTION OF METROPOLITAN HOSPITALS.

THE Council of Charing Cross Hospital has by a formal resolution repudiated the suggestion that the hospital should be removed to Camberwell. The resolution adopted was of the most uncompromising description, and was passed unanimously. It is in the following terms:

> That the Council emphatically declares that the removal of the Charing Cross Hospital from its present site is unnecessary, inexpedient, and impracticable.

The Council in coming to this decision appear to have been moved chiefly by the consideration that Charing Cross is the most central position in London, and, therefore, "the best for a general hospital." Upon this statement, or rather upon this deduction, there is, of course, a good deal to be said, as we pointed out a fortnight ago, on the other side. As a matter of fact, the apparent deficiency of South London in hospital accommodation has so far impressed two separate bodies concerned in hospital administration that we are shortly to see two hospitals established in Battersea. The Bolingbroke House Home Hospital, hitherto limited to paying patients, is to be converted into a free general hospital, and the Belgrave Hospital for Children is to be transferred as a going concern from Pimlico to Battersea.

THE REALITY OF APPARENT DEATH.

FROM time to time the public mind is aroused, or rather perhaps we should say attempts are made to arouse the public mind, by the assertion that cases of premature interment are by no means infrequent. Our attention has been called to a letter in an evening contemporary in which the writer, who, by the way, does not give his name or address, states that a case of supposed premature burial having occurred in his own family has given him a painful interest in the subject, and he is of opinion that such cases are of far more frequent occurrence than is generally admitted. We confess we do not quite know what is meant by this last sentence; we entirely agree with the late Dr. Tidy, when he said: "Whatever *may* have happened, modern stories of premature burial in England belong to the domain of the novelist rather than of the scientist." The writer of the letter above alluded to says that medical journals rarely take cognisance of reported cases, with a view probably of maintaining the infallibility of medical death certificates, and preserving professional reputations. In this view we can assure him he is absolutely mistaken, and if we do not often take notice of these alleged occurrences it is either because the circumstances under which the story is told are not such as to entitle it to belief, or because no particulars are given enabling us to inquire into the facts for ourselves. We are, however, always open to conviction, and if the correspondent will furnish us with the name of the doctor who certified the death that he mentions as having occurred in his own family, we will do our best to ascertain the truth, for if these cases of premature interment really do occur even occasionally in this country, then the sooner we revise our beliefs as to the signs of death the better. But until we have had the opportunity of investigating one of these cases we shall continue to maintain our attitude of disbelief. The writer incidentally mentions that decomposition is the only reliable sign of death, but if coldness and *rigor mortis* do not satisfy him, we are surprised that he should accept anything short of actual disintegration of the body as convincing proof of death. Of course the one crucial early sign of death is the entire and continuous cessation of the heart's action; all other signs are of quite minor importance in comparison with this, for no matter what they may tell us, so long as any trace of movement of the heart can be made out the subject is still living; and, on the other hand, in the words of the leading authority on forensic medicine, it is impossible to admit that the heart can remain for even half an hour in a state of absolute inaction in a human being, and then spontaneously recover its activity.

"BRAVE CIVILIANS."

A CORRESPONDENT suggests that the best way to respond to the petty jealousy which prompts such speeches as the one containing the above epithet, is to take a leaf out of the book of our military heroes who have their brave deeds commemorated on canvas by some distinguished artist. As subjects for the treatment of "brave civilians" in action, he suggests: Surgeon-Major Robertson and Surgeon-Captain Whitchurch at Chitral; Surgeon Langdon, with his spine broken by a rifle bullet, at Majuba, propped up and still giving directions for the alleviation of the sufferings of the wounded around him; the brave corporal of the Medical Staff Corps who, with both arms broken, still held up the Red Cross flag to protect the wounded; Surgeon Cornish, who was killed helping a wounded soldier off Majuba's fatal hill; perhaps even a very good subject would be Assistant-Surgeon Wilson saving the Duke of Cambridge's life at Inkerman!

MIDWIVES REGISTRATION BILL.

THE reports of what, on June 18th, occurred in the House of Lords in regard to the Midwives Registration Bill are very meagre. We understand that what happened was this: In the conferences which Lord Balfour of Burleigh, who is in charge of the Bill, had with the representatives of the Privy Council it was found that, while there were a few points of really substantive difference, which must be discussed in Committee of the whole House, there were, in addition, a large number of amendments in matter of form which the Privy Council desire. Many of these are little more than details of drafting, but others amount to a recasting of one or two of the clauses of the Bill, though perhaps even in that process the clauses are not much changed in substance. The amendments, however, although very numerous, being on points on which there was no likelihood of controversy, it was agreed that a form of procedure—quite

well known in the House of Lords to meet such cases—should be adopted. The Bill passed through Committee *pro formâ*, the amendments referred to were inserted, the Bill will be reprinted as amended, and at the next stage (which will be Committee on recommitment, and will be taken on Friday, June 28th), the substantive amendments will be discussed without the discussion being encumbered with a mass of detail on which there is no controversy.

CLINICAL PHOTOGRAPHY.

The increased use during the last few years of photography for obtaining records of clinical conditions is a real advance in clinical methods. In many cases no verbal description can surpass a good photograph of the patient, and the value of the preservations of such photographs for comparison with the condition presented by the patient at a later date can hardly be exaggerated. To take an example, photographs of patients suffering from myxœdema, before and after treatment with thyroid extract, present the results of this mode of treatment in a manner more striking and convincing than any description in words could be. Further, the preservation of such portraits and their comparison with the condition of the patients at later dates will often give valuable assistance in determining whether the treatment should be modified or resumed. In the same way photographs of diseased or injured portions of the body will often be of the greatest service, not only as contributing by their accuracy to the advance of medicine, but also in the interests of the individual patient. We believe that these opinions are those held generally by the medical profession, both at home and abroad, and we therefore hear with some regret that certain of the managers of one of the metropolitan infirmaries have raised objections to this improvement in our method of keeping clinical records of patients coming under treatment. Judging from the fact that a resolution was adopted to the effect that photographs should not be taken of patients of weak intellect, we presume that the objection is mainly founded upon the feeling that such photographs should not be taken without the permission of the patient. In persons who are not of weak intellect we believe that permission is invariably sought, and we have never heard that any objection has been raised. On the contrary, most patients appear to appreciate fully the advantage in their own cases of obtaining such records. In the case of patients of weak intellect we should have assumed that the permission of the friends would have been an ample safeguard were any such required, which we do not believe to be the case, and we trust that some member of the Board of Guardians to which we refer may take steps to have its recent action, which seems to have been taken rather hastily, reconsidered.

COUNTY SANITARY ADMINISTRATION.

The *County Council Times* of June 7th has a leading article on the subject of the duties of county councils with regard to the public health, and warmly advocates the formation of county sanitary committees. The question arises more particularly in connection with Kent, where the conditions are probably not very different from those of larger and smaller counties, as far as the need for supervision is concerned. In one respect the local sanitary authorities of Kent have shown conspicuous wisdom. A very large part of the county area is covered by the two extensive combined districts of East and West Kent. Dr. M. K. Robinson is the medical officer of health for the former, and Mr. Harris Butterfield had the like charge in the latter, until his death a few weeks ago. It may be conceded that with health officers of this calibre, holding independent positions and devoting their whole energies to public health work, local authorities are less likely to be allowed to fall into arrears; but whatever may be the outcome of Kentish experience, it must be strangely different from that of less favoured parts of the kingdom if, among the annual reports which the Local Government Act of 1888 requires to be showered upon the county council (whether destined for proper study or for waste paper purposes), there are not many which tell of duties neglected, of polluted water supplies, of undrained villages, of inattention to reported sources of danger to the public health. The county council can, if they choose to do so, put an end to this neglect, and if they do not so choose, they share in the responsibility of the more local defaulting authority, For there is a country sanitary authority in existence in every part of England, whether it elects to do its work or to shirk it; and it is armed with large and increasing statutory powers and duties, and still larger opportunities for valuable uncovenanted work, as the pioneer counties have shown clearly enough. We shall hope to hear before long that the Kent County Council have at length awakened to their responsibility in this matter, and have taken the first step in the right direction by appointing a strong sanitary committee. Such a committee will have no sinecure, even in the "Garden of England."

PAYMENT FOR POLICE CALLS.

We are glad this week to record an instance in which the police authorities fairly remunerated a medical man under circumstances not differing essentially from others in which payment has been refused. Mr. Stracey Forrest, formerly of St. Leonards, but now of Southborough, Tunbridge Wells, was called in January of this year to the mortuary at St. Leonards, where he found the body of a man who had inflicted frightful gunshot injuries on his head. The police asked Mr. Forrest if he was a medical man, and on telling them he was they asked him to examine the body. He did so, and subsequently made a necropsy and gave evidence at the inquest. He did not until recently send in any claim to the police, but when he did so it was at once politely acknowledged by the head constable, and in due course a cheque for 10s. 6d. was sent by the borough accountant. This is as it should be, and affords an excellent example for other police authorities.

AN ENGLISH EVICTION.

The story of an eviction, unparalleled probably in this country within the memory of the present generation, is told in a recent issue of the *Leeds Mercury*. It would appear from this that for some time the relations between Sir William Worsley, the squire of Hovingham, and Dr. Watt, the resident medical practitioner there, have been strained. How long the griefs date back we are not told, but according to the statements in our contemporary, Dr. Watt had incurred the displeasure of the Squire by the independent course he took to obtain the enforcement of the provision of the public health laws, and crowned his independent career by consenting to come forward as a candidate for the county council in opposition to Sir William Worsley. Dr. Watt had been for twenty-four years the tenant of a house belonging to the Squire, who seems to have determined by hook or by crook to evict his tenant. No grounds which would bear investigation could, it would appear, be found for such a high-handed procedure, at least Sir William Worsley does not seem to have stated any. He simply gave his tenant notice to quit, without assigning any reason. Dr. Watt found that the law was on the side of his landlord, but he declined to go of his own free will. The law accordingly was set in motion, and on June 6th, according to the report from which we quote, the sheriff's officers removed Dr. Watt's furniture, and piled it upon the village green, and subsequently went through the form of expelling Dr. Watt, who merely offered a formal protest, from the house in which he had lived and practised for nearly a quarter of a century. Our contemporary concludes a delicately-satirical article by the remark "that the action of Sir William Worsley in evicting a tenant of long standing without giving any reason gives a handle to land reformers which we may be

sure they will not be slow to grasp." Upon this aspect of the question we are not, perhaps, called upon to comment, but we must point out the grave injury which has thus been inflicted upon Dr. Watt. The esteem in which he is held by those among whom his lot as a medical practitioner has been cast is shown sufficiently by two circumstances—the one that a memorial, signed by about 1,000 residents in Hovingham and the surrounding villages ("professional men, patients, and well-wishers of Dr. Watt"), was sent to Sir William Worsley, requesting him to reconsider and withdraw the notice served on Dr. Watt to quit his house "without any reason being assigned or any charge made against his personal or professional character;" the other is that Miss Worsley (the sister of the Squire) immediately offered to Dr. Watt the hospitality of her house.

THE CONSTRUCTION OF ISOLATION HOSPITALS.

A SUBJECT of no little interest to the medical profession came under consideration at a recent meeting of the Royal Institute of British Architects. Mr. T. W. Aldwinckle read a most valuable, thorough, and well-timed paper upon fever hospitals, in which he passed in review the leading principles, and many of the details also, to be observed in the construction and arrangements of modern hospitals for the isolation of infectious diseases. An animated discussion followed, in which experts of both of the professions concerned took part, Dr. Downes, Dr. McCombie, and Dr. Goodall being among the medical members of Mr. Aldwinckle's audience. The debate turned largely upon the *pros* and *cons* of corridors connecting the administrative with the wards, upon the width of wards, and upon the necessity for separate entrances to the grounds for patients and visitors. The reader of the paper advocated a width not less than 26 feet, and preferred 28 feet or even more, a claim which will meet with sympathy from those who have had opportunity of experiencing the freedom of passage along the centre which wide wards permit. He thought that even in large wards the height need not exceed 13 feet, and adopted the view of the Metropolitan Asylums Board that the maximum number of beds in a ward should be 20 for scarlet fever and 12 for diphtheria and enteric fever. It was held that with regard to the two last-named diseases, the minimum air space should be 2,500 cubic feet a head, and wall space 15 lineal feet, instead of the usual 2,000 and 12 feet standards. Terrazzo floors were, he urged, better than wood, and the difficulty of coldness to the feet could be got over. Corridors, according to Mr. Aldwinckle's contention, were unnecessary, and this view was upheld by Dr. Downes and Mr. Gordon Smith, but was vigorously attacked by Dr. Goodall and Dr. McCombie, who spoke from personal experience as superintendents of large hospitals.

COMPULSORY NOTIFICATION QUESTIONS.

WE have before us two local papers of recent issue, the one circulating in the Midlands and the other in the Eastern Counties, each of them containing items concerning the Infectious Disease (Notification) Act, yet widely divergent in character. The latter gives voice to the opinion that the time has now come when the system of compulsory notification should be made common in every sanitary district, in accordance with the resolution passed at the meeting of the County Councils Association, presided over by Sir John Hibbert last week. The data supplied at the meeting went to show that the Act has been adopted by districts inhabited by 26,810,000 persons, leaving 2,192,000 still outside the scope of its clauses. The absence of statutory powers of enforcement of the system upon this minority has surely no reason to excuse it that can for one moment stand against the many cogent reasons for the promulgation of such a statute. We have long ago and constantly advised its enactment. It is to be hoped that the Government will take up the matter, and no longer allow districts which have so numerously adopted the system to be handicapped by neighbours who have still to learn the wisdom of a like adoption. The other paper to which we have referred makes the astounding statement that because the Act has not checked the spread of infectious diseases, "especially fevers," to the extent anticipated, the Local Government Board "are showing a readiness to restrict the operation of the Act to fewer diseases." This is news to us, but the baldness of the assertion is considerably modified by the qualification that seems to have been the chief occasion of its utterance, namely, that the Town Council of Kidderminster, after repeated attempts, have succeeded in obtaining the sanction of the Central Board to the removal of measles from the schedule of notifiable diseases in their borough. We can find in this action no "restriction" of the Act, since it is well known that in the matter of measles notification the opinions of those best qualified to judge are of widely different sort, and in the present uncertainty as to the benefits to be derived from knowledge of cases of this pre-eruptive infectious disease there must needs be much local opposition to the expense entailed in the circumstances of epidemic measles when no corresponding advantages are apparent, and expense seems to be the one bar to more widespread adoption of measles notification. The BRITISH MEDICAL JOURNAL of May 25th testified to the views of Dr. Marsden, of Birkenhead, as to the utility of the inclusion of measles under the operation of the Act. Jarrow, on the other hand, has given up the system after long experience; many midland towns have done likewise; other places are still continuing the notification of the disease, and still others are adding measles to the list. Where, therefore, the restriction of the Act to fewer diseases is to be found does not appear. Measles, it must be remembered, was not scheduled in the first place on account of the doubt existing as to the desirability of so doing, and action, which Parliament has hesitated to take, local bodies may well reconsider, and this the more after actual experiment which has no seemed to justify itself.

THE EDUCATION AND REGISTRATION OF PLUMBERS.

AN article in the *Westminster Review* by Dr. Steeves calls attention to the want of all restrictions on the exercise of the art of plumbing. In the medical profession sanitation is becoming a speciality, and this specialisation has already received official sanction, in that no man, however highly qualified, can be appointed medical officer of health to a town of more than 50,000 inhabitants unless he possesses a diploma in public health or has already acted as medical officer of health to a district of no fewer than 20 000 inhabitants for a term of years previous to 1892. But when we turn to the executive, to the men who have to carry out the directions of sanitary authorities, the plumbers who have to execute the sanitary works and create the sanitary appliances on which medical officers depend for the proper working of their schemes, we find no regulations in force, no qualifications required, no education demanded. All is left to competition in the open market, and although, by dint of voluntary agencies, the plumbers are being provided with good opportunities for obtaining that complete technical education which is so necessary for the due performance of their widening duties, there is no agency at work by which they can either be compelled to avail themselves of these advantages or by which those who do really take the trouble to qualify themselves for their responsible position can be protected in any way from the competition of the most ignorant and careless man whom any jerry builder may choose to recognise as a plumber. This Dr. Steeves not unjustly describes as an anomaly in our sanitation, and he asks for legislative recognition of the plumber, so that "the unqualified would no longer be permitted to represent himself as qualified." Perhaps those who have the registration of the plumber at heart might learn a lesson from the history of the Medical Acts as to the small effect which registration, even of the most

stringent character, has in preventing practice by those who are unqualified. It is not sufficient to render the assumption of a title illegal; to be of any real use the practice of the art except by qualified persons must be rendered illegal also. In this matter human nature was understood better five hundred years ago than we seem to do at the present time. Here is a translation from the Norman French out of the first ordinances of the Plumbers' Company, in the reign of King Edward III in 1365: "In the first place, no one of the trade of plumbers of the City of London shall meddle with such trade within the said City, except by the assent of the best and most skilled men of the said trade testifying that he knows how well and lawfully to work and to do his work, so that the trade may not be scandalised or the Commonalty damaged and deceived by folks who do not know their trade." Truly even the great body of general practitioners of medicine might almost be thankful to allow themselves to be considered members of a trade if thereby they could obtain such protection that no unqualified person should be permitted to "meddle with such trade," and that they should "not be scandalised or the Commonalty damaged and deceived by folks who do not know their trade." We all know, however, by sad experience, that mere registration and protection of the title will not give this degree of safety either to ourselves or to the public.

SCHOOLBOY'S MEALS.

At the last meeting of the Association of Medical Officers of Schools, Dr. Horace Savory, medical officer to Haileybury College, read a paper on Meals of Food for the Schoolboy. The first question that arose, he said, was, How many meals are necessary or advisable, and when should they be taken? He thought there was a general agreement that the main meal should be at mid-day, from 1 to 1.30, and not in the evening. But did not this cause interference both with work and play? What time ought to elapse before either was undertaken? Was an hour sufficient? Masters often complained that the work done after dinner was not of much use; but he had never known any harm ensue to a boy from playing football an hour after dinner, though it was true that some boys, when they were going to play, ate sparingly at dinner for fear of spoiling their wind. It was unfortunate that we could not give the schoolboy a half-holiday every day to digest his dinner. When lessons had to be done before breakfast, it was most essential that some food should be given before the lessons were commenced. It was a meal that was unpopular both with masters and boys, and at his own school not more than 25 per cent. of the boys took it; but in his opinion it ought to be made compulsory, and not left as at present as a voluntary meal. For children under 12 no work should be allowed before breakfast, and it was quite an open question whether it would not always be better to commence the day with the main breakfast, say at 7 or 7.30 A.M.; boys should not be allowed to miss this meal, and there should be responsible people to see that each boy ate it, and an interval of at least half an hour after it should be allowed. The evening meal should be a substantial tea not later than 7.30; anything like a "sit down" supper was to be avoided, as also any articles of diet likely to cause a disturbed digestion or a loaded bladder in the early hours of the morning. As a rule there should be no feeding at other times, but if a boy was for any reason unable to take his tea he might have some bread and butter and cocoa or milk at night, and of course allowance might always be made by the medical officer for delicate children. The early meal should consist of cocoa, with plenty of milk and bread and butter. Breakfast proper was the meal which most needed improvement; fish, eggs, ham, or bacon were most appetising, and much preferable to cold meat; porridge was an excellent thing, and might be given three or more times a week with plenty of milk and sugar, but it should be given at the end of the meal and not at the beginning, as it was bulky in comparison with its nutritive value and might interfere with a substantial meal being made if taken first. Dinner was of much the same type at all schools: a great difficulty was the supply of green vegetables all the year round and then getting the boys to eat them when they had been provided. At his own school recently soup had been started with satisfactory results, and the cost, with good management, was practically *nil*. Puddings were always a difficulty, the number of interesting inexpensive varieties being limited, and sometimes the most wholesome was unpopular. He would allow a glass of mild beer, though he did not consider it of any value in the dietary of the healthy schoolboy; he found that about one boy in four drank two glasses of it in summer; it would be unwise to forbid alcohol, as a boy always craved for that which is forbidden. Tea should be mainly farinaceous, tea, bread and butter, and jam being the chief ingredients; meat, cheese, or beer were most inexpedient. He found that a liberal allowance of sugar was very beneficial, and it was also a good plan to have as great a variety in the bread as possible, and not only in the kind, but a variety in the shape would also tempt boys to eat, and he did not object to the occasional supply of new bread if the loaves were made small so that there should be a large proportion of crust. Dr. Savory then went into the scientific aspects of the question in some detail, inquiring what amount of mechanical work represented in foot pounds would be done by the average school-boy at different ages, and, further, whether the diet ordained was capable of supplying the necessary potential energy, this part of his paper being illustrated with tables compiled from various sources. The paper concluded with some practical suggestions as to the causes of healthy appetite or the want of it in schoolboys. In the discussion which followed, in which several members took part, a feeling, though not unanimous, was expressed that the evening meal might be made more substantial.

PLAGUE SPOTS IN LONDON.

Under this heading an article recently appeared in the *Standard*, in which reference was made to the spotted maps which accompany the report for the year 1894 of the Statistical Committee of the Metropolitan Asylums Board. In these maps the places from which cases of infectious disease have been notified are indicated by dots and crosses, and the writer of the article draws attention to the "pre-eminent degree" in which the attacks of the disease occur in certain localities. There is doubtless some truth in the thesis which is put forward, but some of the arguments used will not bear detailed examination. The question of density of population is of course in this connection of paramount importance. It is noted in the article referred to that, according to the appearance of the map, London south of the Thames was less severely visited by disease than those parts lying to the north of the river, but it is pointed out that this has to be qualified by the circumstance that the population south of the Thames, although sufficiently crowded in some parts, is, on the whole, less densely massed than on the northern shore. Indeed, it turns out that the highest ratio of cases in all London was in Rotherhithe. Again, it is stated that Lee presents very few cases, and the southern part of Hammersmith has many. It might have been added that Lee is not a densely-populated district, and that the exemption of the northern part of Hammersmith as compared with the southern is no doubt attributable to the fact that the former is largely made up of open space. The City, we are told, is "comparatively free;" but it must be remembered that the City does not contain a large population at the ages most susceptible to attack. Again, it must be remembered that infection communicated by a milk supply, or by spread from some place of meeting in which infected persons are collected together, would lead to an

accumulation of dots in a particular locality, and yet that locality could scarcely be denominated a plague spot. While drawing attention to some few of the numerous sources of fallacy which appear to be to some extent ignored by the writer of the article, it must be admitted that there is an association in some cases between unhealthy areas and the presence of zymotic disease; but the connection is by no means so direct as to render the Metropolitan Asylums Board spot maps an unfailing index to the "plague spots in London."

FURTHER DEVELOPMENTS OF THE "SURPRISE VISIT" SYSTEM.

ATTENTION has been drawn on more than one occasion to the proposal adopted by the Vestry of St. George Southwark, that its medical officer of health should pay "surprise visits" to vestry *employés* with a view to the detection of malingering. The medical officer of health having stated that he could only visit *employés* with the knowledge of the practitioner in attendance upon them, the matter was referred to the Local Government Board for decision. It now appears that the Newington Vestry, at its last meeting, adopted a resolution similar to that previously adopted by the St. George's Vestry. The idea seems to have originally been conceived in connection with medical certificates presented by parents to the school board authorities with a view to excusing the attendance of children at school. A system of verification of the correctness of such medical certificates in cases where there was reason to doubt their being genuine was adopted in the Tower Hamlets and East Lambeth divisions of the School Board in 1893; a proposal to extend the system to the West Lambeth division was carried by the Board at its last meeting. The School Board scheme provides for medical inspection in cases where the divisional superintendents regard the medical certificate produced as unsatisfactory; an amendment limiting the duty of judging upon certificates to those which are not signed by a properly qualified medical man was lost by a few votes. It is a pity the Board did not adopt the amendment in preference to the original resolution. The case of the School Board certificates, however, differs materially from that of the vestry *employés* in an important respect. While the School Board proposes to appoint medical men for the special performance of the new duty the Vestries of St. George Southwark and Newington would lay the burden of carrying out the work upon their respective medical officers of health. This is an altogether objectionable proposal and one which if carried into execution will materially embarrass the performance by the medical officer of health of his ordinary duties. It is to be hoped that in any case the folly of associating the medical officer of health with such a system will be appreciated.

VARIETY IN DIET.

A NUMBER of facts conspire to throw a somewhat new light on questions of dietetics, or at least to show that these problems are more complex than they have been by some supposed. It has been usual to speak of a "mixed diet," meaning thereby one composed in part of animal and in part of vegetable food, one containing proteids, fats, and carbohydrates, approximately in such proportion as they are required by the organism; but when we see the effect upon disease produced by very small quantities of certain selected portions of animals commonly used as food, such as thyroid gland, suprarenal gland, and bone marrow, the suspicion arises that these are but the more pronounced expressions of a widespread principle, and that such marked differences in therapeutic effect between certain organs may be associated with similar differences in nutritional value between the various portions and kinds of meat which we consume. We may surmise too that the modes of preparation may have a considerable influence, and that while good cooking may be, as it should be, a preparation for and an aid to digestion, certain processes in cooking may do much more harm to the nutritional value of our food than is explained by the mere change in its physical properties, the hardness, toughness, etc., which they produce. The destruction of the antiscorbutic properties of milk by condensing, overcooking, and sterilisation, is a case in point, and we commend to the British farmer the interesting question whether and how far the prolonged freezing of meat may interfere with its finer nutritional value. Healthy men, who have a great reserve of digestive power, can derive nutriment from almost any food, but for people of feebler frame a mixed diet must mean one in which variety of substances exists of whose nature and of whose differences *inter se* we as yet know nothing. The healthy man, by taking plenty, finds among it what he wants, but until we know much more than we do of the varied value of different foods and different modes of cooking, we must at least afford variety to our invalids, and protect them from a monotony in diet which may perchance be debarring them from the one thing needful for their nutrition.

THE RELATIONS OF HEALTH OFFICERS TO SCHOOL-SPREAD DIPHTHERIA.

THE attention paid by medical officers of health to the actual condition of individual school children during the prevalence of infectious disease is becoming more and more marked as time goes on; and in several annual reports in respect of 1894 which have lately come under our notice there is evidence of personal action on the part of health officers. Thus, to take only a couple of examples, the one concerning future proposed action, and the second an instance of measures already adopted, we may refer to the districts of Finchley and Woking. In the former, Dr. Kenwood has had such acquaintance with diphtheria as to have led him to say that during any future prevalence he will at weekly intervals himself examine the throats of all children in those public elementary schools to which permission to enter for the purpose is granted him, while he recommends that private medical practitioners be asked to do the same by private schools. But Dr. Wellington Lake, the Health Officer of the Woking urban and Guildford rural districts, has gone considerably beyond this prospective action, by having during the past year actually made personal examination of the throats of as many school children as possible, either at school or at their homes, when sore throats had prevailed among the households, the examination being made just after the reassembly at the conclusion of holidays. Taking all precaution in examining the separate children to avoid carrying infection from one to another, he proceeded to exclude every child having any suspicion of sore throat until the throat became normal. This process of exclusion will have an unfavourable influence upon the school grant, but the Education Code expressly provides for such contingencies. And while health officers are beginning thus to safeguard their districts against the inroads of diphtheria, despite the attitude of some school boards towards what they term undue interference on the part of sanitary officials, it is not without interest to remember that the same sort of action has been taken by medical inspectors of the Local Government Board. A report just issued by Dr. Wheaton upon a renewed visit to the Hinckley urban and rural districts gives evidence of like personal examination by him. His former report, a year previously, gave in some detail the condition of things found to exist in the schools, pointing to the necessity of the step which he took. His present report, moreover, testifies to the good results of his precautionary visits to the schools, though he does not go so far as to recommend similar action by the local sanitary officials.

THE next meeting of the American Medical Association will be held at Atlanta, Georgia, under the presidency of Professor Osler, of Baltimore.

THE "BRITISH MEDICAL JOURNAL" COMMISSION INTO THE MILK SUPPLY OF LONDON.

In the first number of the new volume, July 6th, we shall commence a series of articles setting out some results of an exhaustive Inquiry which is now being instituted by our Special Analytical and Biological Commissioners on the present state of the milk supply of London. When we first undertook a similar Inquiry twenty years ago a very alarming state of things was disclosed, showing almost universal adulteration of milk with water. The result of this Inquiry and Report was to effect a revolution in the milk trade of London, which did not stop at a general quickening up and increased severity of analytical examination, but extended to a complete reconstruction of the sanitary condition of large dairies and farms, which was based upon a new model then adopted by one large company, and which is now pretty general in large dairy establishments throughout the country. An immense improvement followed, not only in the purity and quality of the milk supply of London and other great cities, but also in the precautions adopted to safeguard it from the admission of contagious matter either aërial or aqueous. This improvement has steadily gone on; meantime, however, a new state of things has arisen which urgently demands exposure, investigation, and remedy. By the introduction of mechanical separators, the cream supplies have been greatly increased, and an enormous quantity of separated milk has been thrown upon the market at low, nominal prices. Milk is not now largely adulterated with water, but extensively reduced in quality and feeding value to the great detriment of the consumer, and especially of the infant population. New standards and methods are called for to reduce and minimise these dangers and public mischief. Moreover, it has become evident to us, from the bacteriological investigations of milks otherwise apparently innocuous, that the infection of milk publicly sold, owing to its irregular and imperfect storage and exposure to poisoned air, has become a serious concern and public danger.

A further branch of this Inquiry is involved in the great extent to which a large proportion of the Condensed Milks of well-known brands now sold are deprived of their cream, and are, in fact, *pro tanto* unfit for the purpose for which they are intended—that of the nutrition of young children. We shall be very glad to receive information and assistance from public analysts and medical officers of health under these heads of inquiry in aid of the independent investigations which are being carried on by our Commissioners.

At the Annual United Hospitals Athletic Meeting on June 19th Guy's regained the championship from St. Bartholomew's. H. A. Munro won the One Mile and the Three Miles Challenge Cups for Guy's, and E. N. Scott took the prize for Throwing the Hammer also for Guy's. A. G. Butler won the Half-mile and Quarter-mile Challenge Cup for St. Mary's, and C. E. H. Leggatt the Long Jump for the same school. For St. Bartholomew's W. F. Bennett won Putting the Shot, and J. Johnston tied with J. Coltart, of the Westminster School, in the 120 Yards Hurdle Race. There was also a tie for the High Jump between H. T. Bell, of Guy's, and C. B. Adams, of Middlesex. H. C. Woodyatt took the 100 Yards and the 220 Yards Challenge Cups for University College.

Professor Behring has had the Cross of an officer of the the French Legion of Honour conferred upon him.

DR. WILLIAM GILBERT GRACE,

THE CHAMPION CRICKETER OF THE WORLD.

A Proposal to Join in the Shilling Testimonial Subscription.

Our contemporary the *Daily Telegraph* has, with characteristic energy and skill in gauging the force of public enthusiasm and in seizing the opportunity of utilising it, made a proposal for enabling persons of all classes and ranks to testify to the overflow of national pride and pleasure which Englishmen of all classes take in the surprising feats of skill, endurance, pluck, and energy which place our distinguished fellow-practitioner, Dr. W. G. Grace, at the head of the cricketing world, in that favourite branch of athletics which constitutes one of the chief exercises and sports of our countrymen. Every medical man must feel a certain added glow of enthusiasm at these feats, and almost a personal pride in the reflection that Dr. Grace is a working member of our profession, and has shown that medical studies and practice are not incompatible with the highest development of athletic skill and pluck. The shilling subscription started by the *Daily Telegraph* has been welcomed on all sides and throughout the country as a convenient and immediate means of enabling everyone to take part in a great national testimonial.

We feel that members of the medical profession will, perhaps above most others, take pleasure in joining in this movement, and we shall have great pleasure in taking charge of any subscriptions forwarded for that purpose, and adding them to the fund of the *Daily Telegraph*. Communications should be marked on the envelope "Grace Testimonial."

The following subscriptions have been contributed:

	Shillings.
Mr. Ernest Hart	100
Dr. Bridgwater	20
Dr. Isambard Owen	20
Dr. Dawson Williams	20
Mr. Francis Fowke	20
Mr. Burr	20
Sir T. Spencer Wells	20
The Compositors at the BRITISH MEDICAL JOURNAL	14
The Clerks at the BRITISH MEDICAL JOURNAL Office...	10
Nemo	10
Dr. R. Temple Wright (Jersey) ...	5
W. E. Soffe (East Harling)	5
Mr. H. Langley Brown (West Bromwich)	21
Mr. E. G. Archer (Brandon)	1
Dr. J. H. Ashworth (Halstead) ...	1
Two Shrewsbury "Medicals"	2
Dr. R. Shingleton Smith (Bristol) ...	21
Dr. Harry P. Major (Hungerford) ...	1
Mr. Frank G. Layton (Norwood) ...	1

THE ASSOCIATION OF FELLOWS AND THE ELECTION OF MEMBERS TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following is a copy of a circular letter which is about to be issued to each Fellow of the Royal College of Surgeons of England, in respect to the election of members of Council on July 4th next:

From the Association of Fellows of the Royal College of Surgeons of England.
54, Wimpole Street, Cavendish Square, W.,
June 20th, 1895.

Sir,—In view of the approaching election of members of Council of the Royal College of Surgeons of England, on which occasion there will be no less than five vacancies, we think it opportune and even necessary to invite you to give careful consideration to what the Association of Fellows has done during the eleven years of its existence, and what it is still endeavouring to carry out by formulating reforms in the interests of the Fellows and of the College itself, and by supporting those candidates at the election of members of Council whose views are known to be favourable to such reforms.

The following concessions have been obtained from the Council by the direct action of the Association.

1. The appointment of scrutineers to take the ballot at the election to the Council.

2. The discontinuance of the payment of a fee at election by members of the Council, and by members of the Court of Examiners.

3. The appointment of a treasurer and the auditing of the accounts by a professional auditor.

4. The holding of an annual general meeting of Fellows and Members, at which a report upon the Council should be presented and discussed.

5. The suspension of the confirmed minutes in the hall of the College for the inspection of Fellows and Members.

6. Meetings to be held by direction of the President or Council, or on a requisition signed by thirty Fellows or Members.

7. Reduction of the number of signatures required for nomination of candidates for the Council from six to three.

8. A common room for the use of the Fellows and Members.

9. Regularly conducted meetings of the Fellows twice a year separately from the Members.

10. *The distribution of voting papers to every Fellow without personal application, an improvement which will be carried out for the first time at the coming election.*

The above concessions have been obtained by repeated applications and deputations to the Council.

The following are some of the recommendations which the Association has advocated and is still pressing upon the Council, a deputation from the Association having had a conference with a Committee of the Council for this purpose as recently as the loth of the present month.[1]

1. That it be lawful for the Fellows in meeting assembled to appoint an annual committee or other committees to consider and report on subjects referred to them, and to confer when necessary with the Council of the College.

2. That some change be made in the mode of election of the President of the College in accordance with the vote recently given by the Fellows.

3. That no alteration in the constitution or external relations of the College shall be effected without the consent of the Fellows convened to discuss such alteration.

4. That the system of substitute members be abolished.

5. That members of the Council shall not be eligible for re-election after serving for two full consecutive periods of eight years.

6. That the Council shall have power to increase the number of the members of the Court of Examiners from ten (as now limited) to any number not exceeding twenty.

7. That the meetings of the Fellows, the change in the mode of election of the President, the limitation of the terms of office of members of Council, the annual meeting of the Fellows and Members for the reception of the report of the Council shall be provided for in a new charter, and that the conduct of the meetings at the College and other matters referred to shall be regulated by by-laws.

8. That members of the Court of Examiners of the Royal College of Surgeons of England shall be elected annually, and that no member of the Court shall hold office for more than five consecutive years, and that at the expiration of this term he shall not be again eligible until after a period of two years has elapsed.

The Association of Fellows has thus paved the way for securing for the Fellows that substantive position to which they are as much entitled as the Fellows of the other colleges in the United Kingdom, and it rests with the Fellows themselves to complete the work which the Association has been carrying on by the election into the Council of candidates who are favourable to the policy here indicated. The candidates specially representing the views of the Association are Mr. A. T. Norton and Dr. Ward Cousins. The re-election of Mr. Willett is also being supported by the Association.—We are, Sir, your obedient servants,

GEORGE POLLOCK, President,
TIMOTHY HOLMES, Vice-President,
H. PERCY DUNN, Honorary Secretary.

P.S.—Fellows of the College who do not already belong to the Association, and who are in sympathy with the objects set forth in this circular, are invited to communicate with the Honorary Secretary, Mr. Percy Dunn, 54, Wimpole Street, Cavendish Square, W., and to allow themselves to be proposed as members of the Association. The annual subscription is 2s. 6d., or a composition sum of 10s.

POOR-LAW MIDWIVES.

THE matter of the refusal of the Local Government Board to sanction the appointment by the Leicester Board of Guardians of a midwife to attend Poor-law cases was again under consideration at a recent meeting. A report presented by a committee of ladies appointed to consider the matter stated that the midwife nominated had been strictly enjoined to call in the aid of the medical man in every case when necessary so as to avoid risk. In view of the help given by the midwife to the patients—help which could not be given by any doctor—the hope was expressed in the report that the Local Government Board would reconsider the matter and confirm the appointment. During the course of the discussion which followed, Dr. R. Broadbent objected that the report gave no reasons for the recommendation made, and also that it left it to the midwife's discretion to determine when a medical man should be called in. He contested the opinion that the proposed appointment would effect an economy, and argued that the services of a duly-qualified medical man should be ensured. Eventually the report of the committee was adopted.

SCARLET FEVER IN A WORKHOUSE.

A WEEK or two back we drew the attention of our readers to the fact that the Wandsworth and Clapham guardians were issuing an appeal for 1,000 pictures with which to decorate their wards. So far so good, but in our opinion it is even more important for the paupers to obtain adequate cubic space between their walls than to have them decorated ever so æsthetically. We have it on the authority of one of the Clapham and Wandsworth guardians that there are twenty-six children and five mothers crowded into one small room. The subject arose for discussion at the Board meeting on a letter from the managers of the North Surrey School District in which they refer to the development of scarlet fever in certain cases recently transferred to the school from the workhouse. As the Anerley schools contain something like 850 children, it is of the utmost importance to ward off every approach of infectious or contagious disease, for which there is a carefully prepared soil in the low vitality that uniformly exists among aggregated children, who if they are of the pauper class have also the disadvantages of unequal and ignorantly organised diet when within their homes, and an inelastic and monotonous method of feeding when under the care of the State. For these reasons, as well as for those which more directly affect the ratepayers' purses, we trust that what the Chairman characterised as the "dangerous and sweeping statement" of one of the guardians on the conditions of overcrowding within the workhouse can be refuted. The public are not unnaturally suspicious of a system of local management which produces so rich and varied a crop of abuses as our pages chronicle.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street) London, on Wednesday, the 10th day of July next, at o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June 6th, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 10th and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The annual meeting of the Branch will be held at The Gables, Stoke-under-Ham, the residence of the President-Elect (Mr. Walter W. Walters), on Thursday, July 4th, at 3.7 P.M., after luncheon. Mr. Walter W. Walter kindly invites the members of the Branch to lunch with him at 2 o'clock. Agenda: (1) Minutes. (2) Report of Council; (3) Treasurer's Accounts; (4) Election of Officers for the ensuing year; 5 Settle as to Place of Meeting and President-Elect for 1896; (6) President's Address; (7) Papers or Communications; (8) Consideration of the Midwives Registration Bill, which is printed in the BRITISH MEDICAL JOURNAL of May 11th at page 1055. The President's address will be on his Personal Experience of the Practice of Medicine, Surgery, and Midwifery during the last fifty years. Members wishing to read a paper or make any communication to the meeting are requested to send early notice of its title. At the conclusion of the business it is proposed that an excursion shall be made to Ham Hill. Mr. Walter W. Walter's museum, which contains a large collection of most interesting objects, will also be open for the inspection of members.—W. M. KELLY, M.D., Honorary Secretary, Taunton.

OXFORD AND DISTRICT AND GLOUCESTERSHIRE BRANCHES.—A combined meeting of these Branches will be held at the Randolph Hotel, Oxford, on Friday, July 5th, at 2 P.M. Mr. Horatio P. Symonds (President-Elect

[1] *Vide* BRITISH MEDICAL JOURNAL, June 15th, 1895, p. 1317.

of the Oxfordshire Branch) kindly invites the members of the two Branches to luncheon at the Randolph Hotel, Oxford, at 2 P.M. A meeting of the Oxford and District Branch will be held previously (at 1.30) in the Randolph Hotel, for the transaction of some formal business.—W. Lewis Morgan, Honorary Secretary, Oxford and District Branch, 37, Broad Street, Oxford.

Southern Branch.—The twenty-second annual meeting will be held at the County Hotel, Salisbury, on Thursday, June 27th. The general meeting will be held at 1.30 P.M. Luncheon will be provided by the members of the South Wilts District between 1 and 3. In accordance with the by laws, two gentlemen will be elected at this meeting as representatives of the Branch on the Council of the Association for the ensuing year. The address will be delivered by the President-elect at 2.30. The following papers will be read:—Mr. Henry Browne, L.R.C.P.Lond. (Amesbury, Wilts): Severe Headache following Influenza. Mr. F. Fawson Lee, M.B.Lond., F.R.C.S.Eng. (Salisbury); Notes of a Case of Punctured Fracture of the Temporal Bone, Trephining, Recovery. Members desirous of reading papers are requested to forward at once the titles to the Honorary Secretary. During the afternoon the members are invited to visit Longford Castle and Salisbury Cathedral. The dinner will take place at the County Hotel, Salisbury, at 6 P.M. Tickets 6s. each, excluding wine. Gentlemen who intend to be present at the dinner will oblige by sending their names to Mr. H. J. Manning, Laverstock, Salisbury, on or before the 26th instant.—T. W. Trend, Southampton, Honorary Secretary and Treasurer.

South Midland Branch.—The fortieth annual meeting of this Branch will be held at the General Infirmary, Northampton, on Thursday, June 27th, at 2.30. Gentlemen wishing to enrol themselves as members of the Association or Branch, and members desirous of bringing forward communications at the meeting are requested to inform the Secretary of their intention without delay. The following papers and cases have been promised:—Mr. W. G. Nash (Bedford): Adenoids, their Diagnosis and Treatment. Dr. W. Harding (Berry Wood, Northampton): Some Practical Points in the Management of the Acutely Insane in Private Houses. Mr. R. A. Milligan (Northampton): Two cases of Recurrent Appendicitis successfully treated by Resection of the Vermiform Appendix. Mr. R. H. Kinsey (Bedford): Remarks on Medical Abuses, especially with reference to Medical Aid Associations.—C. J. Evans, Honorary Secretary, Northampton.

Edinburgh (Lothian and Fife) Branch.—The annual meeting of this Branch will take place in the Royal College of Physicians, Edinburgh, on Thursday, June 27th, at 4 P.M. All communications regarding business should be addressed one week previously to the Honorary Secretary, Dr. R. W. Philip, 4, Melville Crescent, Edinburgh.

Edinburgh, Glasgow, and Stirling Branches.—A conjoint meeting of these Branches will be held in Stirling on Tuesday, July 2nd, and it is hoped that members of the Perth and Dundee Branches may also be present. It is proposed to spend an hour after the meeting in visiting places of interest in the neighbourhood, and thereafter the members will dine together in the Station Hotel. Full details will be given in a circular to be issued next week.—C. J. Lewis, Honorary Secretary, Stirling Branch.

Bath and Bristol Branch.—The annual meeting of this Branch will be held on Wednesday, June 26th, 1895, at the Royal Mineral Water Hospital, Bath, at 4.30 P.M., when Mr. Nelson C. Dobson, will resign the chair to Dr. Carey Coombs, President-elect, who will deliver the Presidential Address. Business: To receive the report of the Council, to elect the officers of the Branch, to transact the necessary business, and to discuss such subjects connected with the interest of the Branch and of the profession as may be brought before it. Members having any communications for the meeting are requested to give notice to the Secretaries not later than June 22nd. Members who have not paid their subscriptions are requested to do so immediately to the local Secretaries. The Bath Secretary particularly requests that members will inform him by Monday, June 24th, whether it is their intention to be present at the dinner. By so doing they will greatly facilitate the satisfactory completion of the necessary arrangements.—W. M. Beaumont, Honorary secretary of the Bath District, 4, Gay Street, Bath; E. Markham Skerritt, Honorary Secretary of the Bristol District, Edgecumbe House, Richmond Hill, Clifton.

South Wales and Monmouthshire Branch.—The twenty-fifth annual meeting will be held at the Hospital, Swansea, on Friday, June 28th. Members desirous of reading papers, etc., should send titles to Dr. Sheen.—A. Sheen and D. A. Davies, Cardiff, Honorary Secretaries.

Yorkshire Branch.—The annual meeting of this Branch will be held at the Sheffield School of Medicine on Wednesday, June 26th, at 3 P.M., when the usual business will be transacted and the alteration of a rule proposed. Members intending to read papers are requested to communicate with Arthur Jackson, Sheffield, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.

The forty-third annual meeting of this Branch was held at the Royal Forest Hotel, Chingford, on Tuesday, June 11th, Dr. Leonard Sedgwick, the President, in the chair.

Confirmation of Minutes.—The minutes were read and confirmed.

Report of Council.—The report of Council announced a substantial increase in the members of the Branch, there being now a total of 1,255 members, so that the Branch was entitled to an additional seat on the Council of the Association and on its Parliamentary Bills Committee. During the year 18 members had been lost by death and 8 had resigned. No general meeting of the Branch had been held during the year on account of the work necessarily entailed on it by preparation for the annual meeting; but two important matters had been under the consideration of the Council—namely, the proposed Bill for the amendment of the law relating to unqualified persons practising medicine and surgery, and the question of paying wards in London general hospitals. With regard to the latter the Council had come to the conclusion that the paying system was not likely to extend very largely, and was, indeed, the outcome of conditions probably temporary in their nature, and that no present steps need be taken in the matter.—The adoption of the report was moved by Dr. Lionel Beale, seconded by Dr. Cooper Rose, and carried unanimously.

Treasurer's Report.—Mr. Eastes, the Treasurer, presented a financial report, which showed a balance in hand of £360 2s. 10d. He stated that the sum of 300 guineas had been voted by the Council towards the fund being raised for the purpose of conducting the annual meeting of the Association. The vote was approved by the Branch. It was resolved on the motion of Mr. Walsham, seconded by Dr. Althaus:

That the Treasurer's report be received, adopted, and entered on the minutes, and that the best thanks of the Branch be given to Mr. Eastes for the able and efficient manner in which he has discharged the duties of Treasurer during the past year.

Election of Officers.—The President announced the result of the ballot for officers and Council. He stated that 142 voting papers had been returned, and that the following officers had been duly elected for the ensuing year: *President:* Sir W. O. Priestley, M.D., LL.D. *President-elect* (to enter on office as President of the Branch at the annual general meeting of 1896—Law 8): Henry Trentham Butlin, D.C.L. *Vice-Presidents:* *Henry Power, M.B.; Leonard W. Sedgwick, M.D.; Sir Wm. Roberts, M.D., F.R.S.; Joseph W. Hunt, M.D. *Treasurer:* *George Eastes, M.B. *Hon. Secretaries:* *Andrew Clark, *Isambard Owen, M.D. *Council:* Dudley W. Buxton, M.D.; *George Brown, *Sidney Coupland, M.D.; *C. J. Cullingworth, M.D.; *Frederic Durham, *Reginald Harrison, G. E. Herman, M.D.; *J. Brindley James, *Hugh R. Ker, *Norman Kerr, M.D.; Victor Horsley, F.R.S.; S. J. Hutchinson, *Brigade-Surgeon-Lieutenant-Colonel Myers. G. N. Pitt, M.D.; St. Clair B. Shadwell, *W. J. Walsham, *Dawson Williams, M.D.; *C. H. Wise, M.D. *Representatives of the Branch in the Council of the Association:* *Andrew Clark (Senior Honorary Secretary), *H. Radcliffe Crocker, M.D.; *George Eastes, M.B.; J. W. J. Oswald, M.D.; Henry Power, *Noble Smith, *Frederick Wallace. *Representatives of the Branch on the Parliamentary Bills Committee:* George Brown, *W. F. Cleveland, M.D.; *Ernest Hart, D.C.L.; *Victor Horsley, F.R.S.; *Isambard Owen, M.D. Those marked with an asterisk filled the same office during the past year.

Installation of New President.—The President then yielded the chair to his successor, Sir William O. Priestley. It was unanimously resolved on the motion of Dr. Daly, seconded by Dr. Cleveland,

That the best thanks of the Branch are given to Dr. Leonard Sedgwick for his able and courteous conduct as President during the past year, and for the deep interest he has shown in its prosperity, and in the discussion of matters brought before it.

On the motion of Mr. Noble Smith, seconded by Dr. de Havilland Hall, a vote of thanks was given to the retiring vice-presidents and council.

President's Address.—Sir Wm. Priestley delivered his presidential address, taking as his subject the Scope and Value of the Medical Art. On the motion of Dr. Clifford Allbutt, seconded by Dr. Bridgwater, a unanimous vote of thanks was accorded to Sir Wm. Priestley.

Dinner.—The meeting then adjourned, and the dinner of the Branch was held under Sir Wm. Priestley's presidency. It was held in connection with the annual dinner of the East London District, and 71 guests sat down, the President of the Council (Dr. Ward Cousins), Professor Clifford Allbutt, Mr. C. Heath (President of the Royal College of Surgeons), and Mr. Francis Fowke being present by invitation.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE forty-first annual meeting of this Branch was held on June 13th, Mr. H. LANGLEY BROWN, President, in the chair. Forty-seven other members were present.

Installation of New President.—The PRESIDENT having introduced his successor, Dr. A. H. Carter, vacated the chair.

New Member.—Mr. Walter Chapman, M.R.C.S., the Queen's Hospital, was elected a member of the Branch.

Report of Council.—The report of Council stated that six ordinary meetings and one special meeting of the Branch had been held, at which the average attendance had been 49, showing that the work of the session had proved attractive to the members. At the special meeting, reports were received from two committees of the Branch: one on the draft Bill to amend the Medical Act, the other on the various schemes proposed in connection with the registration of midwives. The former report, which expressed a general approval of the Bill, and suggested certain alterations of detail, was adopted with the recommendation that steps should also be taken to strengthen the law against unqualified practice. The report on the registration of midwives, which recommended that arrangements should be made for the training, examination, and registration of midwifery nurses, was rejected, as also was an amendment hostile to the principle of the scheme. The numerical strength of the Branch was steadily increasing. Since the last annual report 25 members had joined, and the list of members now stood at 469.

Report of the Pathological and Clinical Section.—The report stated that six meetings had been held during the session, and interesting and important cases and specimens had been shown. The average attendance of members had been 17, as compared with 16 for last session. Dr. William Thomas had been elected Chairman, and Mr. J. T. J. Morrison and Dr. J. W. Russell, Honorary Secretaries of the section for the session 1895-96.

These reports and that of the Treasurer were adopted.

Votes of Thanks.—Votes of thanks were passed to the retiring President, the Treasurer, the Honorary Secretaries, the members of Council, the officers of the Pathological and Clinical Section, and the representatives of the Branch in the Council of the Association and on the Parliamentary Bills Committee for their services during the past year.

The following were elected office-bearers for the ensuing year:—*President-Elect:* M. A. Messiter, M.R.C.S. *Treasurer:* F. W. Underhill, F.R.C.S.Edin. *Honorary Secretaries:* Frank Marsh, F.R.C.S., and W. F. Haslam, M.R.C.S. *Representatives in the Council of the Association:* *Langley Browne, F.R.C.S.Edin.; *Jordan Lloyd, F.R.C.S.; *Robert Saundby, M.D.Edin. *Representative on the Parliamentary Bills Committee:* S. H. Agar, L.K.Q.C.P.I. *Council:* Country—*W. Douglas, M.D. R.U.I.; *Vincent Jackson, F.R.C.S.Edin.; J. Holmes Joy, M.D.Dub.; J. M. McCarthy, M.R.C.S.; H. Malet, M.D.Dub.; *E. N. Nason, M.B.Cantab.; *T. W. Thursfield, M.D.Aberd.; *T. E. Underhill, M.D.Edin. Town—Gilbert Barling, F.R.C.S.; *H. Eales, M.R.C.S.; *W. A. Foxwell, M.D.Cantab.; D. C. Lloyd Owen, F.R.C.S.I.; E. Rickards, M.B.Oxon.; *Thomas Savage, F.R.C.S.; *Priestley Smith, M.R.C.S.; and J. W. Taylor, F.R.C.S. *Held office 1894-95.

President's Address.—The PRESIDENT (Dr. Carter) then gave a most able and interesting address on Rationalism in Medicine. A cordial vote of thanks was accorded to him for it.

Dinner.—In the evening about fifty members and guests dined at the Great Western Hotel, under the presidency of Dr. CARTER. There were present as guests the Mayor of Birmingham, Mr. C. E. Mathews, the Rev. Canon Strange, the Rev. A. R. Vardy, the Rev. Canon Greany, Dr. Dawson Williams, Professor Windle, and others. The dinner was in all respects a great success. The chief toast, "The British Medical Association and the Birmingham and Midland Counties Branch," was proposed by Mr. C. E. MATHEWS in a very happy and interesting speech, which was replied to by the PRESIDENT and Dr. DAWSON WILLIAMS.

MIDLAND BRANCH.

THE annual meeting of this Branch was held at Derby on June 13th, under the presidency of Dr. MOXON. Over forty members were present.

Payment of Railway Fares of Representative on Parliamentary Bills Committee.—The Branch Council having recommended that the first class railway fare of this representative be paid out of the Branch funds, a resolution was passed to that effect.

Officers and Council.—The following were elected office-bearers for 1895-96: *Representatives of the Branch on the Council of the Association*: Drs. Handford and Pope. *Parliamentry Bills Committee*: Dr. Carline. *Vice-President for Leicestershire*: Dr. Meadows. *Vice-President for Lincolnshire*: Mr. Pilcher. *Branch Council*: Mr. Hough and Dr. Laurie, Derbyshire; Mr. Cant and Dr. Newman, Lincolnshire; Dr. Neale and Dr. Moore, Leicestershire; Dr. Mutch and Mr. Appleby, Nottinghamshire. *District Secretary for Nottinghamshire*: Mr. J. P. Gray was elected in place of Dr. Kingdon, resigned. *President-Elect*: Dr. Handford, Nottingham.

President's Address.—Dr. MOXON delivered an address dealing with the various abuses from which the medical profession suffered.

Communications.—The following communications were presented: Mr. BOND, Remarks on a case of Splenectomy with observations on the condition of the blood.—Dr. POPE, case of Post-diphtheritic Paralysis; feeding under chloroform ten days; recovery.—Mr. GREENWOOD: Fractured Pelvis in Man; Torn Urethra; perineal section following upon suprapubic opening of bladder; recovery.—Dr. NEALE: Some Remarks on Enteric Fever and its Treatment.—Dr. SYMPSON: A case of Primary Cancer of the Pancreas. Dr. Sympson also showed an improved Artery Forceps.

Luncheon and Dinner.—The PRESIDENT entertained the members at luncheon at the Midland Hotel, and after the meeting the dinner was held at the same place, when thirty-seven members were present.

New Members.—At the meeting of the Branch Council held on the same day the following were elected members of the Branch: Mr. Wm. Armstrong, Dr. E. C. Palmer, Dr. Galletley, Mr. Burdwood, Dr. Sheilds, Dr. Stanwell, Mr. Francis, Dr. Bryson, Mr. J. L. Wright, Dr. R. M. Wilson, Mr. Riding, Dr. Cronk, Dr. Wingfield-Roll, Mr. King, Mr. Fagge, Dr. Still, Dr. Ramage, Mr. T. N. Thomas, Mr. Tuckett, Mr. Orford, and Dr. Stewart. The following were elected members of the Association and Branch: Mr. L. B. Todd, Mr. H. G. P. Le Fanu, and Dr. R. Legge.

EAST ANGLIAN BRANCH.

THE annual general meeting of this Branch was held at Framlingham, on June 13th, Mr. A. C. MAYO, President, in the chair.

New Members.—The following gentlemen were elected members of Association and of Branch: George Robert Adcock, Framlingham; Alban Butler, Walsham-le-Willows; Percy Coleman, M.B., Colchester; William Annesley Eden, Foulsham; George E. Gillett, Brooke; Sidney Hillier, M.D., Stowmarket; Augustine Marshall, M.D., Lowestoft; Wallsee Petherick, Hopton; William Pechey Smart, Fressingfield; Alfred Ernest Taylor, M.D., Gislingham. The following members of the Association were elected members of the Branch: Brigade-Surgeon John Adcock, M.D., Great Yarmouth; Charles Horace Andrews, Norwich; William Edward Ransom, Needham Market; Raymond Shaw, M.B., Great Yarmouth; Walter William Sinclair, M.B., Ipswich.

Report of Council.—The report stated that since the last annual meeting twenty-three new members had joined the Branch. The total number of members was now 280. Amongst the losses by death that of Mr. J. C. Smith, of Great Yarmouth, was especially noticed. He was one of the six original members who remained to us at the Jubilee of the Branch, and was President at the meeting at Great Yarmouth in 1873. The annual meeting was held at Great Yarmouth, under the presidency of Mr. Mayo; it was a large and successful gathering, and the best thanks of the Branch were given to Mr. and Mrs. Mayo for their hospitality on that occasion. An autumnal meeting, at which twenty members were present, was held at Harwich; Messrs. Evans, Gurney, and Stuart kindly provided afternoon tea for those present. A special meeting was held at Norwich at the request of the Parliamentary Bills Committee of the Association, to consider a draft Bill to amend the Medical Acts, and the more important recommendations made to the Branch had been adopted

in the amended Bill. The Council recommend that an autumnal meeting should be held at Thetford during September, on a date to be fixed by the President. The code of by-laws passed by the meeting at Great Yarmouth had been confirmed by the Council of the Association, and was now in force, and the officers for the ensuing year had been elected in accordance therewith. The Council recommend that the Cambridge and Huntingdon Branch be invited to hold a conjoint meeting with us next year, under the Presidency of Dr. Manby.

Treasurer's Report.—The Treasurer's report showed that the balance in favour of the Branch amounted to £59 19s. 6d.

Election of Officers.—The following were elected officers for the year 1895-6:—*President-elect:* A. R. Manby, M.D., East Rudham. *General Secretary for Branch:* E. G. Barnes, M.D., Eye. *Honorary Secretaries:* Norfolk: M. Beverley, M.D., Norwich; Suffolk: E. G. Barnes, M.D., Eye; Essex: Thos. Carr, M.D., Braintree. *Representative on Council of Association:* M. Beverley, M.D., Norwich; W. A. Elliston, M.D., Ipswich. *Representative on Parliamentary Bills Committee:* A. R. Manby, M.D., East Rudham. *Seven Elected Members of Council:* C. E. Addison, Colchester; S. Barton, M.D., Norwich; G. C. Edwards, Felixstowe; R. V. Gorham, Yoxford; J. W. Harper, Stowmarket; M. E. Ling, Saxmundham; H. B. Vincent, East Dereham.

Luncheon.—The members present and ladies accompanying them were entertained at luncheon by the President-elect, Mr. G. E. Jeaffreson. About 90 were present at the luncheon.

New President.—Mr. A. C. MAYO, the retiring President, introduced Mr. G. E. Jeaffreson as the President for the ensuing year.

President's Address.—The PRESIDENT gave a short address, speaking of the first successful operation of ovariotomy in England done in 1836 by his father, a former President of the Branch, showing the cyst removed and the instruments with which it was accomplished, contrasting them with the modern instruments for the same purpose. He also showed other early instruments, notably a lithotrite, the inner blade of which was moved by percussion with a steel mallet, thus crushing the stone; early stethoscopes and an early clinical thermometer nearly 2 feet long; the first vaginal speculum made of turned wood; Neil Arnott's "boot," and an apparatus for the application of remedies to various parts of the body by burning them with the aid of bellows, and bearing the name "antineuralgicum." He also showed an apparatus of his own invention for supporting fractures of the cervical vertebræ, and made some valuable remarks on the dangers of admitting air into the bladder during catheterism by suction by omitting to close the end of the catheter immediately the flow of urine ceases and before the pressure on the abdomen above the pubes is relaxed.

Votes of Thanks.—The thanks of the Branch were cordially given to the President for his interesting address, and to the retiring President (Mr. Mayo), for the able manner in which he had presided over the Branch during the past year.

Midwives Registration Bill.—In the absence of Dr. Manby, Dr. BARNES moved a resolution condemnatory of the Midwives Registration Bill. This provoked considerable discussion, and in the end an amendment moved by Dr. ELLISTON, and seconded by Mr. BURTON, was carried by a majority of two votes in the following terms:

That the question of registration of midwives be referred to a small committee, consisting of Dr. Manby, Dr. Barnes, and Mr. Mayo, to report to the autumnal meeting.

Anderson Appeal Fund.—This subject was brought forward by Dr. Carr, and further sums were contributed at the meeting, making the total amount collected by the Branch £7 15s.

Communications.—Dr. FRASER (for Dr. THRESH) read a paper on the Bacteriological Diagnosis of Diphtheria, and showed apparatus and methods of culture.—Dr. CROWFOOT read a paper on a Case of Vaginal Hysterectomy, with Specimen. Mr. MAYO and Mr. MOXON also recorded cases.—Dr. COOPER PATTIN read a paper on Notified Diarrhœa in Norwich, 1894.—Mr. SMITH (Beccles) showed an ingenious improvement to an ordinary Peg-leg for use after Amputation, whereby by means of springs the effects of concussions and pressure on the stump are obviated. This invention met with general approval from the meeting.—Dr. SINCLAIR read a paper on Intraocular Sarcoma, with specimens and drawings.

Exhibition of Instruments.—There was an exhibition of surgical instruments and appliances by Messrs. Down Brothers, of London, and of pharmaceutical novelties by Messrs. Burroughs, Wellcome and Co.

Tea.—By the courtesy of the Rev. J. Holme Pilkington, afternoon tea was provided in the Rectory grounds.

SOUTH-EASTERN BRANCH.

THE fifty-first annual meeting of the Branch was held at Hastings on June 12th.

Luncheon.—The President-elect (Dr. ALLEN) entertained members and their friends at the Town Hall, where also the meeting took place.

President's Address.—Dr. ALLEN took as his theme the "Trials which beset the General Practitioner of Medicine." He instanced the difficulty in busy practice of keeping abreast of scientific progress, and then laid stress on various troubles in the social side of our work, as the overcrowding of the profession with its consequent unhealthy competition and the formation of medical aid associations. To combat this evil combination was the only course which promised success. Allusion was made to irregular practitioners, and more stringent dealing with those advocated. After dwelling on the dangers from blackmailing and bogus lawsuits, the author concluded by enumerating shortly some of the compensating advantages and pleasures which the profession offered.

Votes of Thanks.—On the motion of Mr. E. H. GALTON, seconded by Dr. HAYMAN, a cordial vote of thanks was accorded to the President for his address. Votes of thanks were also passed for the work of the retiring president and vice-presidents, of the Council for the past year, and of the auditors and scrutineers.

Report of Council.—The report expressed satisfaction at the interest which members took in the work of the Branch, as shown by the vigorous discussion at the last annual meeting on the question of extending the powers of the Association to protect the practitioner and check unqualified practice. Reference was made to the great loss in all that concerned the wellbeing of the Association caused by the death of Dr. Withers Moore. After allusion to the work of the Parliamentary Bills Committee in inquiring into the possible abuse of medical charities and to the drawing up of the proposed Bill to amend the Medical Acts; the report passed on to notice the resignation of one of the District Secretaries, namely, Dr. Gabb, who had acted for West Surrey during six years. The Council wished to give their approval to a resolution to be proposed at the annual meeting requiring fuller notice of matter to be discussed by the Branch. In conclusion, attention was drawn to the contest waging in Cork between the medical men and the various benefit clubs and aid associations, and an opinion expressed that the fund to help the sufferers by this contest was worthy the support of the Branch and its members.

Financial Report.—The financial report showed a balance of £191 7s. 0½d.

Officers and Council for 1895-96.—The following were elected: *Representatives on the Association Council:* Dr. Parsons, Dr. Galton, and Mr. Verrall. *Branch Council:* Dr. Adeney, Tunbridge Wells; Dr. Allfrey, St. Leonards; Dr. Bagshawe, St. Leonards; Dr. Bowles, London; Dr. Buchanan, Chatham, Mr. C. W. Chaldecott, Dorking; Dr. Eastes, Folkestone; Mr. E. H. Galton, Brixton; Dr. Hayman, Eastbourne; Dr. Holman, London; Mr. F. B. Hallowes, Redhill; Mr. A. H. Hallowes, Maidstone; Dr. Hoar, Maidstone; Surgeon-General Jeffcoat, Surbiton; Mr. E. Kaye-Smith, St. Leonards; Dr. Oldman, Blechingley; Mr. J. Rand, Lordship's Lane; Mr. E. N. Ray, Dulwich; Mr. T. Whitehead Reid, Canterbury; Dr. Starling, Tunbridge Wells; Dr. Stowers, London; Mr. W. K. Treves, Margate; Dr. Sidney Turner, Norwood; Dr. Tyson, Folkestone; Dr. Waring, Brighton. *Representatives on the Parliamentary Bills Committee.*—Mr. E. H. Galton and Mr. T. Jenner Verrall. *Hon. Secretary and Treasurer.*—Mr. T. Jenner Verrall.

Next Annual Meeting.—It was decided that the next annual meeting should be held at Maidstone, with Dr. Hoar as President.

Votes of Money.—Twenty guineas were voted to Epsom Medical College and to the British Medical Benevolent Fund, and the following resolution was also carried:

That a grant of £10 be made to the fund for the relief of the medical men in Cork who are suffering from their efforts to prevent the admission of improper persons to medical clubs and societies.

Notice of Matter for Discussion at the Annual Meeting.—The resolution on this point was carried unanimously.

Abuse of Medical Charities.—The Subcommittee on the Possible Abuse of Medical Charities had drawn up a report which was read to the meeting before being forwarded for the information of the central committee on the same subject.

Registration of Midwives.—After some remarks from the PRESIDENT on the division of this question into the general principle and the particular Bill, the following resolution was moved by Dr. BATTERHAM seconded by Mr. C. B. GABB, and carried by a large majority:

That this meeting, while desiring to improve the education, training, and control of midwifery nurses, cannot support the Bill for the Registration of Midwives now before Parliament, inasmuch as that Bill would give a legal status to women who are not properly qualified to take sole charge of midwifery cases.[1]

Dinner.—About forty members and guests dined under the presidency of Dr. ALLEN. Among the guests were the Mayor of Hastings (Major Weston), Canon Jones, and General Sheard.

STAFFORDSHIRE BRANCH.

THE third general meeting of the present session was held at the Bell Medical Library, Wolverhampton, on May 30th, Dr. W. G LOWE in the chair, in the absence of Dr. Charlesworth, the President.

Abuse of Medical Charities.—A communication from the General Secretary on the subject of the abuse of medical charities was read, and after some discussion the matter was referred to the Council of the Branch for consideration and report upon the first available opportunity.

Midwives Registration Bill.—Mr. SPANTON, at the request of the Parliamentary Bills Committee of the Association, submitted the Midwives Registration Bill to the meeting. It was decided not to discuss the Bill on this occasion as the matter had been so fully discussed at previous meetings, and it was left to Mr. Spanton to act as he thought best, knowing the feelings of the Branch with reference to the matter.

Specimens and Cases.—Dr. DEANESLY showed (1) a Kidney with advanced Tuberculous Disease which he had removed by a lumbar incision nine days previously from a woman aged 38. The patient, who was still in the Wolverhampton General Hospital, was making good progress towards recovery. (2) A man, aged 32, from whose right kidney he had removed a Uric Acid Stone two years ago. (3) Three cases of Simple Transverse Fracture of the Patella treated by suturing, two by himself seven weeks ago, and the third by Mr. Cholmeley fifteen weeks ago. These cases illustrated the open and the subcutaneous methods of suturing. The first case, an old woman of 67, was sutured with stout silk through an open wound after clearing the joint of clot. The result was a strong and perfectly movable joint in less than two months from the time of the accident. The other two cases had been treated by the subcutaneous method of suturing introduced by Mr. Barker. Both had resulted in firm union of the fracture, but in neither was the joint yet as strong or as movable as in the case treated by the open method. In expressing his preference for the latter, Dr. Deanesly contended that the appearance of greater safety in the subcutaneous method was delusive, for it was quite as liable to produce suppuration as the open method if proper precautions were not observed.—Dr. LOWE showed an Acephalic Monster. The trunk and lower extremities were fairly developed. There was a rudimentary right arm, a penis, but no scrotum. The head and face were absent. The monster was a twin. The umbilical cord was inserted into a common placenta.—Dr. EDGE showed (1) a Myoma of the Uterus removed successfully, the pedicle in the abdominal incision being fixed with a wire clamp; (2) a Dermoid Cyst of the Ovary, successfully removed; (3) the Appendages of the Uterus from a successful case of operation for gonorrhœal tubo-ovarian abscess; (4) a woman, aged 37, married fourteen years, no children, with a semi-solid Tumour on the left of the uterus continued paravaginally as a thick cylindrical band to the left natal region, where it again expanded into a fist-size tumour, interfering with sitting. An attempt was made to dissect out the lower mass, but it was only partially successful. The structure was found, microscopically, to be like a fibromyoma. The appendages were removed later, and the tumour has since that time markedly shrunk, and become softer in all its three divisions; probably a fibrocystic tumour of broad ligament involving developmental structures.—Dr. MALET showed, for Dr. CODD, a baby 10 months old, treated, when *in extremis*, from Diphtheria (laryngeal obstruction almost complete), by Intubation and Antitoxin.

Papers.—Mr. SPANTON read an exhaustive paper on Some Practical Points in connection with Rupture of the Female Perineum.—Dr. EDGE read a paper on Vaginal Fixation of the Uterus for Retroflexion, in which, after giving a summary of the operation, he summed up the advantages as follows: (1) No tendency to hernia; (2) shorter convalescence; (3) no abdominal belt required; (4) cystocele cured at the same time; and (5) utero-sacral ligaments again made the chief supports of the uterus.

[1] Sir W. Foster, General Medical Council, June 5th, 1895.

EAST YORK AND NORTH LINCOLN BRANCH.

THE thirty-ninth annual meeting of this Branch was held at the Hull Royal Infirmary, on May 29th, Dr. J. WRIGHT MASON, President, in the chair.

Election of Council.—The Council were then elected, Dr. Lowson being appointed President-elect, and Dr. J. B. Close, Secretary.

Poor-law Officers Superannuation Bill.—On the motion of Dr. MILBURN, seconded by Dr. MERSON, it was resolved:

That this Branch requests the Secretary to communicate with the local members of Parliament, asking them to use their influence in passing the Bill through Parliament.

Suppression of Unqualified Practice.—On the motion of Mr. MILBURN, seconded by Mr. SISSONS, it was resolved:

That the members of this Branch consider that it would be to the advantage, both of the medical profession and the public, if the Council of the British Medical Association were to take power and authority to proceed against unqualified practice, and in other ways to protect the interests of the medical profession.

President's Address.—Dr. MASON delivered an address on The Influence of Climate on Vitality and Mortality.

Cases.—Several interesting clinical cases were then brought forward by Dr. E. O. DALY, Dr. MORLEY, Dr. LOWSON, Dr. LEITH WATERS, Dr. MILBURN, and Mr. THOMPSON.

Dinner.—Thirty-five members subsequently dined together at the Station Hotel.

TRINIDAD AND TOBAGO BRANCH.

THIS Branch, which for some time had been in a state of suspended animation, due mainly to the repeated illnesses of the Secretary, Dr. Damian, held a general meeting at the Victoria Institute on May 16th.

Election of Officers.—The election of officers for the ensuing year resulted as follows:—*President:* Hon. J. A. de Wolf, M.D., Acting Surgeon-General. *Vice-Presidents:* Dr. C. F. Knox, Dr. H. M. Alston. *Honorary Secretary:* Dr. E. Prada. *Honorary Treasurer:* Dr. Eakin. *Council:* Dr. R. H. E. Knaggs, Dr. W. V. M. Koch, Dr. E. J. Read, Dr. S. M. Lawrence.

New Member.—Dr. C. F. Lassalle was elected member of the Association and of the Branch.

Retirement of Honorary Secretary.—Dr. EAKIN moved a vote of thanks to the retiring secretary, Dr. Damian, for the untiring energy he had shown in starting the Branch, and wished him great success in his new home (England).—Dr. KNOX seconded, and Dr. DAMIAN replied in suitable terms to the unanimous vote of thanks.

BEQUESTS TO HOSPITALS.—Mr. Edward Pembury Parry, of Gorsefields, Birkdale, Lancashire, and of Victoria Street, Liverpool, sugar broker, who died on March 11th, has bequeathed to the Liverpool Royal Southern Hospital, and the Liverpool Northern Hospital, £1,000; to the Liverpool Royal Infirmary, and the Liverpool Infirmary for Children, for their convalescent funds, £1,000 each.

BRITISH MEDICAL ASSOCIATION.

SIXTY-THIRD ANNUAL MEETING.

THE sixty-third Annual Meeting of the British Medical Association will be held in London on Tuesday, Wednesday, Thursday, and Friday, July 30th, 31st, August 1st and 2nd, 1895.

President: E. LONG FOX, M.D.Oxon., F.R.C.P., Consulting Physician to the Bristol Royal Infirmary.

President-Elect: Sir J. RUSSELL REYNOLDS, Bart., M.D., F.R.C.P., F.R.S., President of the Royal College of Physicians.

President of the Council: J. WARD COUSINS, M.D.Lond., F.R.C.S., Senior Surgeon to the Royal Portsmouth Hospital.

Treasurer: HENRY TRENTHAM BUTLIN, F.R.C.S., D.C.L., Surgeon to St. Bartholomew's Hospital, E.C.

An Address in Medicine will be delivered by Sir WILLIAM BROADBENT, Bart., M.D., F.R.C.P., Physician-in-Ordinary to H.R.H. the Prince of Wales.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.S., F.R.C.S., Consulting Surgeon to the London Hospital.

An Address in Physiology will be delivered by EDWARD ALBERT SCHÄFER, F.R.S., Jodrell Professor of Physiology, University College.

The Scientific Business of the Meeting will be conducted in Fifteen Sections, as follows, namely:

A. MEDICINE.

Lecture Theatre—Conjoint Examination Hall.

President: F. W. PAVY, M.D., F.R.S. *Vice-Presidents:* Sir FREDERIC BATEMAN, M.D.; D. W. FINLAY, M.D.; W. S. CHURCH, M.D.; J. W. MOORE, M.D.; STEPHEN MACKENZIE, M.D.; E. MARKHAM SKERRITT, M.D. *Honorary Secretaries:* WILLIAM COLLIER, M.D., St. Mary's Entry, High Street, Oxford; W. P. HERRINGHAM, M.D., 13, Upper Wimpole Street, W.; Sir HUGH R. BEEVOR, M.D., 18, Serjeant's Inn, Fleet Street, E.C.

The following subjects have been selected for discussion:—

Wednesday, July 31st.—I. Discussion on Diphtheria and its Treatment by the Antitoxin (embracing the following points: (1) Pathology of Diphtheria and its Sequelæ; (2) Symptoms and Progress; (3) Statistics of Mortality under the Antitoxin Treatment and under other Treatment; (4) Effect of the Antitoxin Treatment upon the Local Affection, upon the General Condition, and upon the Sequelæ; (5) Effects that may arise from the Antitoxin Treatment). Introduced by Sidney H. C. Martin, M.D. The following also intend to join in the discussion: G. Sims Woodhead, M.D.; E. W. Goodall, M.D.; Claude Muirhead, M.D. (if possible); Alex. Johnston, M.D.

Thursday, August 1st.—II. Discussion on Acute Lobar or Croupous Pneumonia, its Etiology, Pathology, and Treatment. Introduced by Douglas Powell, M.D. The following have announced their intention of taking part in this discussion: Professor Clifford Allbutt; Samuel Barton, M.D.; Sidney Coupland, M.D.; Samuel Gee, M.D.; G. A. Gibson, M.D.; James E. Pollock, M.D.; Walter G. Smith, M.D.; Sir T. Grainger Stewart; T. Henry Green, M.D.; W. R. Thomas, M.D.; G. W. Balfour, M.D.; David Finlay, M.D.; Arthur Foxwell, M.D.; J. Dreschfeld, M.D.; Alfred Barrs, M.D.; A. G. Auld, M.D.; J. Sinclair Coghill, M.D.; F. M. Pope, M.D.; Lovell Drage, M.D.; Samuel West, M.D.

Friday, August 2nd.—III. Discussion on the Causes of Acute Rheumatism and its Relation to other Affections. Introduced by W. B. Cheadle, M.D. The following will join in the discussion: Archibald Garrod, M.D.; J. F. Goodhart, M.D.; Alfred Mantle, M.D.; J. Maclagan, M.D.; A. Newsholme, M.D.; P. G. Latham, M.D.; H. Handford, M.D.; Sir Dyce Duckworth, M.D.; A. Haig, M.D.; T. Churton, M.D.; H. Lane, M.D.; M. K. Hargreaves, M.D.; H. A. Caley, M.D.; M. Charteris, M.D.; Samuel West, M.D.

The following also hope to take part in these discussions: J. Magee Finny, M.D.; C. F. Nixon, M.D.; Alfred Parsons, M.D.; M. A. Boyd, M.D.; J. O. Carroll, M.D.; Richard A. Hayes, M.D.; H. C. Tweedy, M.D.; J. A. Lindsay, M.D.; C. Y. Pearson, M.D.; R. J. Kinkead, M.D.; Walter Bernard, M.D.

The following papers have been announced:

ALDERSON, F. H., M.D. Latent Ulcer of the Stomach.
CAMPBELL, Colin, L.R.C.P. On Intratracheal Treatment.
CHAPLIN, Arnold, M.D. Phthisis in Relation to Heart Disease.
COGHILL, J. Sinclair, M.D. The Hypodermic Use of Guaiacol in Acute Pulmonary Tuberculosis.
DAVIS, Arthur, M.D. An Account of Fourteen Cases of Myxœdema.
DRESCHFELD, Julius, M.D. On Ataxic Paraplegia.
FOXWELL, Arthur, M.D. Hypertrophic Cirrhosis of the Liver.
GILLIES, H. Cameron, M.D. The Natural History of Pain.
JONES, E. Lloyd, M.D. Chlorosis.
LANE, Hugh, L.R.C.P. Chronic Rheumatic Arthritis: further points in differentiation from Chronic Rheumatoid Arthritis.
LONGHURST, Arthur E., M.D. The Use of Alcoholic Stimulants and their Relation to True Physiological Health.
MORISON, Alexander, M.D. The Treatment of Aortic Valvular Disease.
OGILVIE, G., M.B. The Exceptions to Colles's Law and their Practical Teaching.
PARSONS, Alfred, M.D. Arsenical Multiple Neuritis following the Application of a Cancer Cure.
REYNOLDS, E. S., M.D. A Point in the Diagnosis between Chronic Rheumatism and Chronic Gout.
SEDGWICK, William, M.R.C.S. Notes on the Influence of Heredity in Disease.
SEMMOLA, Professor. Sur la Toxicité des urines dans son degré et dans son nosographisme comme élément de diagnostic et de prognostic dans les maladies en général, et surtout dans les maladies aiguës infectieuses.
SMITH, Wilberforce, M.D. The Weighing Machine in Diagnosis and Treatment.
SQUIRE, J. E., M.D. Influence of the Bacillary Theory of Tuberculosis on the Treatment of Phthisis.
TAYLOR, Seymour, M.D. On the Connection between Chlorosis and Gastric Ulcer.
THURSFIELD, T. W., M.D. Goitrous Dyspnœa.
WASHBOURN, J. W., M.D. On the Pathology and Treatment of Pneumonia.
WEST, Samuel, M.D. On the Treatment of Diabetes Mellitus by Uranium Nitrate.

B. SURGERY.

Central Room, Second Floor—Conjoint Examination Hall.

President: Sir WM. MAC CORMAC, F.R.C.S. *Vice-Presidents:* T. BRYANT, F.R.C.S.; C. N. MACNAMARA, F.R.C.S.; REGINALD HARRISON, F.R.C.S.; A. WILLETT, F.R.C.S.; Sir W. STOKES, M.D.; MAYO ROBSON, F.R.C.S. *Honorary Secretaries:* J. D. HARRIS, M.R.C.S., 45, Southernhay, Exeter; J. BLAND SUTTON, F.R.C.S., 48, Queen Anne Street, W.; A. MARMADUKE SHEILD, F.R.C.S., 4, Cavendish Place, Cavendish Square, W.

The President will make some introductory remarks, in which he will refer to the Effects produced by Modern Rifle Bullets on the Human Body.

The following subjects have been selected for discussion:

1. The Diagnosis and Treatment of Fractures of the Upper Third of the Femur, including the Neck. To be introduced by Sir William Stokes, M.D. The following gentlemen have intimated their intention of taking part in the discussion: Professor E. H. Bennett, M.D. (Dublin); Thomas Bryant, F.R.C.S. (London); Professor Chiene, M.D. (Edinburgh); H. H. Clutton, F.R.C.S. (London); J. Ward Cousins, M.D., F.R.C.S. (Portsmouth); Davies-Colley, F.R.C.S. (London); Damer Harrisson, F.R.C.S. (Liverpool); Sir George Murray Humphry, M.D., F.R.S. (Cambridge); Mansell Moullin, F.R.C.S. (London); Howard Marsh, F.R.C.S. (London); Professor Macewen, M.D., F.R.S. (Glasgow); Rushton Parker, F.R.C.S. (Liverpool); Mayo Robson, F.R.C.S. (Leeds); Thos. Sinclair, M.D. (Belfast); F. A. Southam, F.R.C.S. (Manchester); Greig Smith, M.B. (Bristol); A. Willett, F.R.C.S. (London).

2. The Surgical Treatment of Cysts, Tumours, and Carcinoma of the Thyroid Gland and Accessory Thyroids. To be introduced by H. Trentham Butlin, F.R.C.S. (London). The following gentlemen have intimated their intention of taking part in the discussion: Professor Annandale, F.R.C.S. (Edinburgh); James Berry, F.R.C.S. (London); Thos. F. Chavasse, M.D. (Birmingham); Kendal Franks, M.D. (Dublin); Damer Harrisson, F.R.C.S. (Liverpool); Victor Horsley, F.R.S. (London); Bowreman Jessett, F.R.C.S. (London); C. B. Keetley, F.R.C.S. (London); Professor Kocher (Berne); Dr. Kummer (Geneva); Professor W. Macewen, M.D. (Glasgow); Rutherford Morison, F.R.C.S. (Newcastle-on-Tyne); James Murphy, M.D. (Sunderland); Mayo Robson, F.R.C.S. (Leeds); W. G. Spencer, F.R.C.S. (London); Sir William Stokes, M.D. (Dublin); Charters Symonds, M.D. (London).

The following papers have been announced:

ANDERSON, William, F.R.C.S. Three Cases of Sacless Hernie of the Sigmoid Flexure through the Left Inguinal Canal, with Anatomical Specimen.

BROWNE, G. Buckston, M.R.C.S. A Hitherto Undescribed Locality in the Male Urinary Bladder where a Stone may lie and elude contact with any Instrument introduced through the Urethra.

CHAVASSE, Thos. F., M.D. A Successful Case of Removal of the Entire Upper Extremity for Injury by Berger's Method.

CHEYNE, Watson, F.R.C.S. On Operations for Malignant Disease of the Pharynx and Naso-pharynx, with Cases.

FRANKS, Kendal, M.D. On Movable Kidney.

HORSLEY, Victor, F.R.S. The Results of Operative Treatment of Injury or Disease of the Cervical Vertebræ.

KEEGAN, Brigade-Surgeon-Lieutenant-Colonel D. F., M.D. Rhinoplasty in India (Lantern Demonstration).

KETTLEY, C. B., F.R.C.S. On Thirty Cases of Osteotomy of the Hip, with Cases.

LOCKWOOD, C. B., F.R.C.S. On the Treatment of Hydrocele by Incision.

MARSH, Howard, F.R.C.S. The Pathology and Clinical History of some Rare Forms of Bony Ankylosis.

MURPHY, J. B., M.D. (Chicago). Peritonitis.

MURPHY, James, M.D. On the Importance of Operating Early where an Operation is required in Abdominal Disease.

PAGET, Stephen, F.R.C.S. Two Cases of Suppurating Hydatid of the Liver drained through the Chest Wall.

ROBSON, A. W. Mayo, F.R.C.S. A Series of Cases of Colectomy.

C. OBSTETRICS AND GYNÆCOLOGY.

Large Theatre—King's College.

President: Sir WM. PRIESTLEY, M.D. *Vice-Presidents:* A. R. SIMPSON, M.D.; J. WATT BLACK, M.D.; Sir FRANCIS LAKING, M.D.; J. KNOWSLEY THORNTON, M.B.; W. J. SINCLAIR, M.D.; M. HANDFIELD-JONES, M.D. *Honorary Secretaries:* W. S. A. GRIFFITH, M.D., 114, Harley Street, W.; A. H. F. BARBOUR, M.D., 4, Charlotte Square, Edinburgh; W. R. DAKIN, M.D., 57, Welbeck Street, W.

The following subjects have been selected for discussion:

Wednesday, July 31st.—The Aseptic and Antiseptic Precautions to be Observed in Private Midwifery Practice, to be introduced by G. E. Herman, F.R.C.P.

Friday, August 2nd.—The Early Diagnosis of Malignant Disease of the Uterus, and the Treatment by Partial or Total Excision, to be introduced by J. Knowsley Thornton, M.B.

D. PUBLIC MEDICINE.

Lower Hall—Exeter Hall.

President: ERNEST HART, D.C.L. *Vice-Presidents:* J. SPOTTISWOODE CAMERON, M.D.; C. H. W. PARKINSON, M.R.C.S.; WM. COLLINGRIDGE, M.D.; LOUIS C. PARKES, M.D.; P. BOOBBYER, M.D.; JOHN C. THRESH, M.D. *Honorary Secretaries:* C. E. PAGET, M.R.C.S., Town Hall, Salford; REGINALD DUDFIELD, M.B., Sanitary Department, Vestry Hall, Harrow Road, Paddington, W.; F. W. CLARK, M.B., Lowestoft.

The work of the Section will be inaugurated by an address from the President on Waterborne Diseases.

The regular business of the Section will commence each day with a formal discussion by gentlemen who have been invited to open the debates. The subjects selected are as follows:—

Wednesday, July 31st.—The Regulation of the Slaughter of Animals for Human Food and the Inspection of Animals before and during Slaughter. Opener: T. M. Legge, M.D.

Thursday, August 1st.—Hospital Isolation, House Quarantine, and Disinfection. Opener: P. Boobbyer, M.D.

Friday, August 2nd.—The Insecurity of Tenure of Extra-Metropolitan Medical Officers of Health under the Public Health Act, 1875. Opener: B. A. Whitelegge, M.D.

At the conclusion of the discussion of each day papers will be read, selected from the following, as time and opportunity may allow: On the Diagnosis of Doubtful Cases of Diphtheria and the Use of Bacteriology for that Purpose; On the Ventilation of Sewers; The Destruction of Town Refuse by Heat; The Overcrowding of Houses on Land; The Extension and Limitation of the Schedule of Diseases for Notification; Enteric Fever as an Infectious Disease; The Prevention of Milk Epidemics; Hospital Accommodation by the Use of Ships; Meteorology in Relation to Disease; The Desirability of Appointing Medical Men as Registrars of Births and Deaths. Some of the preceding titles are tentative, as the authors have not as yet definitively decided thereon.

Endeavours are being made to arrange excursions to various places likely to interest those engaged in sanitary work. An offer has been received to practically demonstrate the method of rendering horses immune to diphtheria.

Further details, with full information as to titles of papers, names of speakers, etc., will be announced later. All communications on the business of the Section should be addressed to Mr. Reginald Dudfield, M.A., M.B., 19, Blomfield Road, Maida Vale, W.

E. PSYCHOLOGY.

East Wing Room, Second Floor—Conjoint Examination Hall.

President: W. J. MICKLE, M.D. *Vice-Presidents:* G. H. SAVAGE, M.D.; T. CLAYE SHAW, M.D.; D. NICOLSON, M.D.; HENRY RAYNER, M.D.; J. G. MCDOWALL, M.D.; LIONEL A. WEATHERLY, M.D. *Honorary Secretaries:* JAMES CHAMBERS, M.D., 99, Harley Street, W.; T. SEYMOUR TUKE, M.B., 37, Albemarle Street, W.; JAMES TAYLOR, M.D., 34, Welbeck Street, W.

The President will open the Section with an Address on the Brain, on Wednesday, at 10 A.M.

A discussion has been arranged to take place on each day, namely:

Wednesday, July 31st.—On the Treatment of Melancholia, introduced by Henry Rayner, M.D.

Thursday, August 1st.—On Insanity, in Relation to Criminal Responsibility, introduced by H. Maudsley, M.D.

Friday, August 2nd.—On Epilepsy, and its Relation to Insanity, introduced by W. R. Gowers, M.D.

The following papers have been announced:

BOND, C. H., M.B. The Relation of Diabetes to Insanity.

CAMPBELL, A. W., M.D. A Comparison of the Breaking Strain of Ribs in the Sane and Insane.

HEAD, H., M.D. Mental Symptoms in Relation to Bodily Diseases in the Sane.

MAUDE, A., L.R.C.P. Mental Symptoms in Relation to Exophthalmic Goitre.

REYNOLDS, E. S., M.D. Mental Symptoms of Bodily Diseases.

SAVAGE, G. H., M.D. Insanity in Conduct.

SHAW, James, M.D. The Early Symptoms of Insanity.

SHUTTLEWORTH, G. E., M.D. Operative Treatment of Idiocy.

SMITH, Percy, M.D. Voluntary Boarders in Asylums.

WEATHERLY, L.A., M.D. The Law in Relation to Single Patients.

F. PHYSIOLOGY.

Physiological Laboratory—King's College.

President: DAVID FERRIER, M.D., F.R.S. *Vice-Presidents:* F. E. KLEIN, M.D., F.R.S.; WM. STIRLING, M.D.; DE BURGH BIRCH, M.D.; J. BERRY HAYCRAFT, M.D. *Honorary Secretaries:* C. S. SHERRINGTON, M.D., F.R.S., Brown Institution, Wandsworth Road, S.W.; E. H. STARLING, M.D., 14, Grosvenor Road, S.W.

A discussion on the Mechanics of the Cardiac Cycle will be introduced by Professor Haycraft.

The following papers have been announced:

CAMPBELL, Harry, M.D. The Resistance which the Capillaries offer to the Blood-flow.

ECCLES, Symons, M.B. The Incidence of Leucomaines in the Urine in Health and Disease.

EDRIDGE-GREEN, F. W., M.D. On the Perception of Luminosity at Different Parts of the Retina.

TURNER, W. Aldren, M.D. (1) The Results of Lesions of the Tuberculum Rolandi. (2) The Results of Section of the Trigeminal Nerve and the Consequent Degenerations.

G. ANATOMY AND HISTOLOGY.

Chemical Theatre—King's College.

President: HENRY MORRIS, F.R.C.S. *Vice-Presidents:* A. MACALISTER, M.D., F.R.S.; W. J. WALSHAM, F.R.C.S.; A. H. YOUNG, F.R.C.S.; B. C. A. WINDLE, M.D.; G. H. MAKINS, F.R.C.S.; A. W. HUGHES, F.R.C.S. *Honorary Secretaries:* F. G. PARSONS, F.R.C.S., St. Thomas's Hospital, S.E.; C. B. LOCKWOOD, F.R.C.S., 19, Upper Berkeley Street, W.

The following subjects have been selected for discussion:—

Wednesday, July 31st.—Art in its Relation to Anatomy, to be opened by Professor William Anderson, F.R.C.S., Joint Lecturer on Anatomy at St. Thomas's Hospital, Professor of Anatomy in the Royal Academy of Arts.

Thursday, August 1st.—The Development and Structure of the Placenta, to be opened by Professor A. H. Young, M.B., F.R.C.S., Professor of Anatomy at Owens College, Manchester.

Friday, August 2nd.—The Topographical Anatomy of the

Abdomen, to be opened by Professor A. Thomson, M.A., Professor of Anatomy at Oxford University.

The following papers have been announced:—

Keith, A., M.D. On Synostosis of the Mesosternum to the Præsternum in Man and Anthropoids, considered as to its Prevalence among them and its Value as Evidence of their Genetic Relationship.
Higgins, H., M.R.C.S. On the Mechanism of the Knee.
Paterson, Professor A. M., M.D. On the Position of the Kidneys.
Robinson, Arthur, M.D. (Title of paper not received.)

H. Pathology and Bacteriology.

South Room, Ground Floor—Conjoint Examination Hall.

President: Samuel Wilks, M.D., F.R.S. *Vice-Presidents:* J. M. Purser, M.D.; J. F. Goodhart, M.D.; Sidney Coupland, M.D.; R. Saundby, M.D.; W. Watson Cheyne, F.R.C.S.; Anthony A. Bowlby, F.R.C.S. *Honorary Secretaries:* S. G. Shattock, F.R.C.S., St. Thomas's Hospital, S.E.; H. D. Rolleston, M.D., 13, Upper Wimpole Street, W.

The work of the Section has been arranged as follows:

Wednesday, July 31st.

10 A.M.—Introductory Remarks by the President.

10 30 A.M.—Demonstration of the Malaria Parasite by P. Manson, M.D. (Illustrated by Lantern Slides.) A discussion will follow, in which it is hoped the following will take part: Professor Crookshank; A. A. Kanthack, M.D.; G. Thin, M.D.

11.15 A.M.—A. Foxwell, M.D., on Exophthalmic Goître; G. R. Murray, M.D., Some Results of Thyroidectomy.

12 30 P.M.—Papers on Cancer and other New Growths: R. Hewlett, M.D., On the Chemistry of Carcinoma and Sarcoma; D'Arcy Power, F.R.C.S.; H. Snow, M.D., The Insidious Marrow Infection of Breast Carcinoma; G. Thin, M.D.; W. Roger Williams, F.R.C.S., On Uterine Neoplasms and their relative frequency.

1.45 P.M.—A. R. Parsons, M.B., Specimen of Larynx from case of Typhoid Fever.

Thursday, August 1st.

10 A.M.—Discussion on Neuritis. Introduced by S. J. Sharkey, M.D. The following have promised to read papers or to join in the discussion: W. Gordon, M.D.; F. W. Mott, M.D.; W. M. Ord, M.D.; Professor Trevelyan, M.D.; Russell Wells, M.B.; W. H. Wilson, M.B.

11 30 A.M.—Discussion on Vaccinia and Variola. Introduced by S. A. M. Copeman, M.D. It is hoped that T. D. Acland, M.D.; S. Coupland, M.D.; Professor Crookshank, M.B., and others will take part in the discussion.

12 30 P.M.—Discussion on Pernicious Anæmia. Paper by W. B. Ransom, M.D. S. A. M. Copeman, M.D., and W. Hunter, M.D., will speak.

1.15 P.M.—Paper by Professor Adami: The Effect of the Reactions of Media upon the Pathogenic Properties of Bacteria.

1.40 P.M.—Paper by A. G. Auld, M.D., on Hæmatogenous Jaundice.

Friday, August 2nd.

10 A.M.—Discussions on Lymphadenoma. Introduced by W. G. Spencer, F.R.C.S. The following have intimated their intention to take part in the discussion: W. J. Fenton, M.B.; H. Morley Fletcher, M.D.; R. M. Leslie, M.B.; A. A. Kanthack, M.D.; C. A. Morton, F.R.C.S.; G. N. Pitt, M.D.; D'Arcy Power, F.R.C.S.; H. Snow, M.D.; G. Thin, M.D.; Claud Wilson, M.D.

11.30 A.M.—Papers on Leprosy. By P. Abraham, M.D.; G. Thin, M.D.

12 NOON.—Professor Babes.

12.15 P.M.—Professor Crookshank on Actinomycosis.

12 30 P.M.—R. Hewlett, M.D.—(1) The Diazo Reaction in Typhoid Fever, (2) On Experimental Tetanus; R. Hewlett, M.D., and St. Clair Thomson, M.D.—On the Fate of Micro-organisms in Inspired Air.

1 30 P.M.—F. R. Walters, M.D.—Pulmonary Hypertrophic Osteo-arthropathy.

A. McFadyean, M.D., and R. Hewlett, M.D., will exhibit Cultures and Bacteriological Specimens.

The Secretaries venture to ask gentlemen who intend to show microscopic specimens to let them know the number of microscopes (and the powers) necessary to illustrate their papers, as this will be limited; and also to state whether the use of a lantern is required.

A separate room will be provided for the exhibition of microscopical and other specimens; lantern demonstrations will be given in the meeting-room.

I. Ophthalmology.

Large Committee Room, Ground Floor—Conjoint Examination Hall.

President: H. Power, F.R.C.S. *Vice-Presidents*: D. Argyll Robertson, M.D.; W. A. Brailey, M.D.; G. Anderson Critchett, M.A., F.R.C.S.Edin.; W. Adams Frost, F.R.C.S.; A. Emrys Jones, M.D.; A. H. Benson, M.B. *Honorary Secretaries*: R. W. Doyne, F.R.C.S., Kilverne, Oxford; E. Treacher Collins, F.R.C.S., 84, Wimpole Street, W.; W. T. Holmes Spicer, F.R.C.S., 47, Welbeck Street, W.

The following subjects have been selected for discussion:

1. On Certain Rare Cases of Recurrent Ophthalmia. Opened by E. Fuchs (Vienna). The affection occurs in adults; it begins with conjunctival and ciliary injection, general or limited, myosis, slight transient myopia, with œdema of the lids in some cases, and occasionally vesicles on the cornea. The duration varies from twenty-four hours to a few days, and recurrence takes place at varying intervals. It is probably angeo-neurotic in its orgin.

2. On the Diagnosis of Orbital Growths. Opened by H. R. Swanzy, F.R.C.S. (Dublin), and Panas (Paris).

3. On the Question of Operating in Chronic Glaucoma. Opened by E. Nettleship, F.R.C.S.

The following gentlemen will take part in the discussions: Messrs. Fuchs, Panas, Swanzy, Nettleship, Galezowski, Hirschberg, Gayet, Meyer, Juler, Lawford, Spencer Watson, Drake-Brockman, Glascott, Mackinlay, Little, Snell, Adams Frost, Critchett, Berry, Griffith, Hartridge.

The following papers have been announced:

Beaumont, W. H. On the Question of Latent Hypermetropia in the usual Examination of Candidates for the Public Services.
Benson, A. H. Acromegaly with Ocular Complications.
Berry, G. A. On Injection of Chlorine Water into the Vitreous.
Fuchs, Professor. A New Theory of Erythropsia.
Griffith, John (Title not yet received).
Hartridge, G. Concomitant Strabismus.
Lee, Charles. Cases of Pemphigus and Essential Shrinking of the Conjunctiva.

Papers have also been promised by Messrs. McGillivray, Snell, Edridge-Green, and Juler.

There have also been promises of Specimens for the Museum.

J.—Diseases of Children.

Theological Class Room—King's College.

President: John H. Morgan, F.R.C.S. *Vice-Presidents:* W. B. Cheadle, M.D., F.R.C.P.; F. A. Southam, F.R.C.S.; H. Handford, M.D.; W. Arbuthnot Lane, M.S., F.R.C.S.; A. Foxwell, M.D., F.R.C.P.; D'Arcy Power, F.R.C.S. *Secretaries:* Dawson Williams, M.D., F.R.C.P., 25, Old Burlington Street, London, W.; Hugh R. Jones, M.D., 53A, Grove Street, Liverpool; Herbert F. Waterhouse, F.R.C.S., 81, Wimpole Street, London, W.

The following discussions have been arranged:

A. Congenital Syphilitic Manifestations in Bones and Joints, to be opened by the President of the Section, John H. Morgan, F.R.C.S. Howard Marsh, F.R.C.S., H. H. Clutton, F.R.C.S., Anthony Bowlby, F.R.C.S., Robert Jones, F.R.C.S. (Liverpool), H. B. Robinson, M.D., and Leopold Hudson, F.R.C.S., intend to take part in the discussion, and C. A. Ballance, F.R.C.S., and H. Stansfield Collier, F.R.C.S., will contribute a series of cases.

B. On the Nervous Sequelæ of Acute Infectious Diseases in Children, which will be introduced by H. Handford, M.D. (Nottingham), and discussed by W. R. Gowers, M.D., F.R.S., Thomas Barlow, M.D., W. B. Cheadle, M.D., Jules Comby, M.D., (Paris), Professor v. Ranke (Munich), R. Robertson, M.D. (Liverpool), James Taylor, M.D., William Hunter, M.D., H. B. Donkin, M.D., T. More Madden, M.D. (Dublin), Fletcher Beach, M.B., F. W. Mott, M.D., Montagu Murray, M.D., W. S. Colman, M.D., and Dawson Williams, M.D.

C. On the Treatment of Hernia in Children, to be introduced by Rushton Parker, F.R.C.S. (Liverpool). Sir William Stokes, M.D., Ward Cousins, M.D. F.R.C.S. (President of Council), Professor William Macewen, F.R.S. (Glasgow), Professor Chiene (Edinburgh), Mitchell Banks, F.R.C.S. (Liverpool), W. Alexander, F.R.C.S. (Liverpool), F. A. Southam, F.R.C.S. (Manchester), D'Arcy Power, F.R.C.S., W. Arbuthnot Lane,

M.S., F.R.C.S., C. B. Lockwood, F.R.C.S., H. P. Symonds, F.R.C.S. (Oxford), Herbert Waterhouse, F.R.C.S., George Heaton, M.D. (Birmingham), Damer Harrison, F.R.C.S. (London), W. G. Black, F.R.C.S. (Newcastle), and Reginald H. Lucy, F.R.C.S. (Plymouth), intend to take part in this discussion.

D. Doses of Various Remedies suitable for Children at the Several Ages, to be introduced by J. Kingston Barton, M.R.C.P., D. J. Leech, M.D. (Manchester) J. Mitchell Bruce, M.D., H. B. Donkin, M.D., A. Foxwell, M.D. (Birmingham), N. J. Tirard, M.D., Neville Wood, M.R.C.P. (London), and T. More Madden, M.D. (Dublin), intend to take part in this discussion.

The following papers have been announced:

BALLANTYNE, J. W., M.D. (Edinburgh). The Relation of Certain Diseases of Infancy to Antenatal Anatomy and Physiology.
BARTON, J. Kingston, M.R.C.P. (London). The Relation between the Foods of Early Life and the Condition of the Teeth in Youth and Early Adolescence.
CAUTLEY, Edmund, M.D. On the Value of Trephining in Tuberculous Meningitis.
COMBY, Dr J. (Paris). The Non-pathogenic Streptococci and Staphylococci of the Throat in Children.
GARROD, Archibald E., M.D., F.R.C.P., and FLETCHER, Morley, M.D. On the Maternal Factors in the Causation of Rickets.
GIBBONS, R. A., M.D. On Renal Colic in Infants.
GRATTAN, Nicholas, F.R.C.S.I. (Cork). Demonstration of Osteoclasis
HANDFORD, Henry, M.D. (Nottingham). A Case of Erb's Paralysis following Enteric Fever.
LOCKWOOD, C. B., F.R.C.S. Hernia of the Ovary in an Infant with Torsion of the Pedicle.
LUCY, Reginald H., F.R.C.S. (Plymouth). The Causes of Hernia in Children.
TELFORD-SMITH, Telford, M.D. (Royal Albert Asylum, Lancaster). The After-History of Two Cases of Craniectomy.

It is proposed also to arrange for the demonstration of cases of interest; among these will be:

CLARKE, J. Jackson, M.B. (London). Congenital Syphilis with Ulceration of Tongue.
MORGAN, J. H., F.R.C.S. (President). A Series of Cases of Excision and Erasion of the Knee-joint.

K. OTOLOGY.

Room 22—King's College.

President: Sir W. DALBY, F.R.C.S. *Vice-Presidents:* CHARLES WARDEN, M.D.; G. P. FIELD, M.R.C.S.; E. CRESSWELL BABER, M.B.; J. DUNDAS GRANT, M.D.; EDWARD LAW, M.D.; C. A. BALLANCE, F.R.C.S. *Honorary Secretaries:* C. E. L. B. HUDSON, F.R.C.S., 16, Harley Street, W.; G. C. WILKIN, L.R.C.P., 39, Weymouth Street, W.

Thursday, August 1st.—Discussion on Cerebral Complications in relation to Middle Ear Disease. Opened by Professor Macewen, M.D., C.M., F.R.S., LL.D., Regius Professor of Surgery, University of Glasgow.

The Section has also arranged to hold a discussion on the the Treatment of Nerve Deafness. Particulars of this will be announced later.

Papers will be contributed and Specimens exhibited by the following amongst others:

COUSINS, J. Ward, M.D., F.R.C.S. On the Use of Artificial Tympanic Membranes.
JONES, Carmalt, F.R.C.S. On Turbinotomy in Cases of Deafness and Tinnitus Aurium.
LAKE, Richard, F.R.C.S. On the Anatomical Connections of the Tympanic Membrane, with a few Remarks on their Pathological Importance. Specimens will be exhibited to illustrate this paper.
SCATLIFF, J. M. B. On the Use of the Pneumatic Speculum in the Treatment of Diseases of the Ear.

L. PHARMACOLOGY AND THERAPEUTICS.

East Wing Room, Ground Floor—Conjoint Examination Hall.

President: Sir WILLIAM ROBERTS, M.D., F.R.S. *Vice-Presidents:* J. TALFOURD JONES, M.B.; T. LAUDER BRUNTON, M.D., F.R.S.; J. MITCHELL BRUCE, M.B.; W. HALE WHITE, M.D.; DONALD MACALISTER, M.D.; M. MCHUGH, M.B. *Honorary Secretaries:* VAUGHAN HARLEY, M.D., 25, Harley Street, W.; W. SOLTAU FENWICK, M.D., 10, Devonshire Street, W.

The following subjects have been selected for discussion:

Wednesday, July 31st.—Discussion upon Serum-therapeutics. Drs. Klein and Washbourn, Professor Fraser, Drs. Charteris, Tirard, Sidney Phillips, Gayton Caiger, Bokenham, Goodall, Bruce, MacCombie, R. T. Hewlett, have promised to speak.

Thursday, August 1st.—Discussion upon the Requirements of the Profession with reference to the Revision of the *British Pharmacopœia*. Dr. Leech, Professors Fraser, Donald MacAlister, and Bradbury, Drs. Page, Spender, Hale White, Talfourd Jones, Charteris, W. Carter, C. Pearson, Tirard, Neville Wood, James Oliver, H. G. Lys, Kinsey-Morgan, W. Armstrong, and Ralph Stockman have promised to speak.

The following papers have been announced:

APOSTOLI, Professor. Use of Alternating Currents of High Frequency.
ARMSTRONG, W., M.R.C.S. The Therapeutics of Rheumatoid Arthritis.
BOKENHAM, T. J., M.R.C.S. Erysipelas Antitoxin.
CAUTLEY, E., M.D. Therapeutic Action of Foods in Diseases of Children.
CUFFE, Robert, M.R.C.S. The Waters of Woodhall Spa.
DUTTON, Thomas, M.D. Dietetic Treatment of Disease.
EARDLEY-WILMOT, R., M.B. The Waters of Leamington.
FENWICK, W. Soltau, M.D. Intestinal Antisepsis.
FOX, Fortescue, M.D. The Waters of Strathpeffer Spa.
HARLEY, Vaughan, M.D. (Title of paper not received.)
HARRIS, Vincent, M.D. Creasote in Pulmonary Disease.
HYDE, Samuel, M.D. The Waters of Buxton.
MYRTLE, A. S., M.D. The Harrogate Waters.
OLIVER, George, M.D. Therapeutic Uses of Suprarenal Capsules.
OVEREND, Walker, M.B. Therapeutic Value of Arsenic and Belladonna in Chorea.
SHARP, Gordon, M.B. The Mydriatic Group.
SNOW, Herbert, M.D. Loretin.
SPENDER, J. Kent, M.B. The Waters of Bath.
TIRARD, Nestor, M.D. Treatment of Uræmic Dyspepsia.
WELSFORD, A. G., M.D. Artificial Foods.
WILSON, E. T., M.B. The Waters of Cheltenham.

M. LARYNGOLOGY.

North Room, Ground Floor—Conjoint Examination Hall.

President: FELIX SEMON, M.D. *Vice-Presidents:* Sir PHILIP SMYLY, M.D.; W. MACNEILL WHISTLER, M.D.; F. DE HAVILLAND HALL, M.D.; GREVILLE MACDONALD, M.D.; SCANES SPICER, M.D.; A. W. SANDFORD, M.D. *Honorary Secretaries:* J. MIDDLEMASS HUNT, M.B., 55, Rodney Street, Liverpool; ST. CLAIR THOMSON, M.D., 28, Queen Anne Street, W.; E. B. WAGGETT, M.B., 66, Park Street, Grosvenor Square, W.

The following subjects have been selected for discussion:

Wednesday, July 31st.—The Etiology of Mucous Polypi of the Nose, introduced by Professor Guye (Amsterdam), Dr. Luc (Paris), and Dr. McBride (Edinburgh).

Thursday, August 1st.—The Infectious Nature of Lacunar Tonsillitis, introduced by Professor B. Fraenkel (Berlin), and Dr. J. Macintyre (Glasgow).

Friday, August 2nd.—The Indications for Early Radical Operation in Malignant Disease of the Larynx, introduced by Dr. Bryson Delavan (New York), and Mr. H. T. Butlin (London).

The following members have expressed their intention of joining in the discussions:

T. Mark Hovell, F.R.C.S.Ed., R. Lake, F.R.C.S., L. H. Pegler, M.D., A. Hodgkinson, M.D. (Manchester), W. Milligan, M.D. (Manchester), and Charles Warden, M.D. (Birmingham), on July 31st. T. Mark Hovell, F.R.C.S.Ed., A. Hodgkinson, M.D., Charles Warden, M.D., and Watson Williams, M.D. (Bristol), on August 1st. Philip de Santi, F.R.C.S., A. Hodgkinson, M.D., and Charles Warden, M.D., on August 2nd.

The following papers have been announced:

DE SANTI, Philip, F.R.C.S. The Operation of Thyrotomy, with a short account of the cases in which it has been performed at St. Bartholomew's Hospital during the last fifteen years.
HODGKINSON, Alexander, M.D. (Manchester). (1) A new form of Magnifying Laryngscope; (2) On the Vibrations of the Vocal Cord; (3) On Chordittis Tuberosa; (4) On the Function of the Laryngeal Ventricle.
MILLIGAN, William, M.D. (Manchester). Vocal Defects among School Board Teachers, with special reference to the occurrence of teachers' nodes.
SMYLY, Sir Philip. A Case of Non-Diphtheritic Diphtheria.

The following gentlemen purpose being present and taking part in the work of the Section: Professor Fraenkel, Professor Guye, Dr. Luc, Dr. Bryson Delavan, Professor Moritz Schmidt (Frankfort), Dr. Walker Downie (Glasgow), and Dr. Hillis (Dublin).

N. DERMATOLOGY.

West Wing Room, Second Floor—Conjoint Examination Hall.

President: H. RADCLIFFE CROCKER, M.D. *Vice-Presidents:* MCCALL ANDERSON, M.D.; MALCOLM MORRIS, F.R.C.S. Edin.; J. J. PRINGLE, M.B.; WM. ANDERSON, F.R.C.S.; H. A. G. BROOKE, M.B. *Honorary Secretaries:* J. HERBERT STOWERS, M.D., 41, Finsbury Square, E.C.; JONATHAN HUTCHINSON, Jun., F.R.C.S., 15, Cavendish Square, W.

Wednesday, July 31st, 10 A.M., President's Address.

The following subjects have been selected for discussion in the Section:

The Pathology and Treatment of Pruritus, introduced by McCall Anderson, M.D., of Glasgow, and H. A. G. Brooke, M.B., of Manchester.

Diet in the Etiology and Treatment of the Diseases of the Skin, introduced by W. Allan Jamieson, M.D., of Edinburgh, and Walter G. Smith, M.D., of Dublin.

The following papers have been announced:

COTTERELL, Edward, F.R.C.S. The Treatment of Syphilis by Injections of Syphilitic Antitoxin.
GALLOWAY, James, M.D. Certain Nervous Lesions of the Skin.
HARRISON, A. J., M.B. On Two Cases of Unusual Verruca Necrogenica (with Photographs).
PYE-SMITH, P. H., M.D., F.R.S. Affections of the Skin occurring in the Course of Bright's Disease.
ROBERTS, Leslie, M.D. Treatment and Prognosis of Trichophytosis based on the Physiology of the Trichophytons.
STOWERS, J. Herbert, M.D. On a Case of Dermatitis Repens (with Coloured Drawings).

O. ETHICS.

Room B—King's College.

President: W. F. CLEVELAND, M.D. *Vice-Presidents:* THOMAS BRIDGWATER, M.B.; J. HUGHES HEMMING, M.R.C.S.; D. B. BALDING, F.R.C.S.; C. PARSONS, M.D.; W. H. AXFORD, M.B.; A. DEMPSEY, M.D. *Honorary Secretaries:* MAJOR GREENWOOD, M.D., LL.B., 243, Hackney Road, N.E.; T. F. PEARSE, M.D., 12, Norfolk Street, Southsea; HUGH WOODS, M.D., 11, Archway Road, Highgate, N.

Wednesday, July 31st.—General Address by the President. Subjects concerning more particularly the relations of medical men with each other:

1. Intraprofessional Etiquette, introduced by Thomas Garrett Horder, L.R.C.P.

2. Advertising, introduced by George Wm. Potter, M.D.

3. Unqualified Assistants, introduced by George Brown, M.R.C.S., and continued by J. Brindley James, L.R.C.P.

Thursday, August 1st.—The Ethics of Gratuitous and Cheap Contract Practice.

1. Clubs, Medical Aid Societies, and Contract Practice; introduced by R. W. Doyne, F.R.C.S. The discussion will be continued by Hughes Hemming, M.R.C.S., W. Gosse, L.R.C.P., W. A. Elliston, M.D., and others.

2. Hospitals and Dispensaries, introduced by Hugh Woods, M.D.

The Secretaries will be glad to hear from members willing to join in the above discussions.

Friday, August 2nd.—1. Any subject, the discussion of which has not been completed on the two previous days. 2. The reading of any selected papers which do not come under the above heads.

The following papers have been announced:

DICKINSON, D. G., L.R.C.P. Provident Principle in Sickness Attendance.
RICE, William Richardson, M.D. The Public Medical Service in its Relation to Medical Ethics.
SIBLEY, Knowsley, M.D. State Aided *v.* Voluntary Hospitals.
WILLIAMS, A. D., M.D. Changing Relations of the Profession and the Public.

Honorary Local Secretaries:
ANDREW CLARK, F.R.C.S., 71, Harley Street, W.
ISAMBARD OWEN, M.D., 40, Curzon Street, W.

Honorary Local Treasurer:
GEORGE EASTES, M.B., F.R.C.S., 35, Gloucester Terrace, Hyde Park, W.

PROGRAMME OF PROCEEDINGS.

TUESDAY, JULY 30TH, 1895.

9.30 A.M.—Meeting of 1894-95 Council. Council Room, Exeter Hall.
11.30 A.M.—Special Service at St. Paul's Cathedral. Sermon by the Most Rev. His Grace the Lord Archbishop of Canterbury.
2.30 P.M.—First General Meeting. Report of Council. Reports of Committees; and other business. Exeter Hall.
9.0 P.M.—Adjourned General Meeting from 2.30 P.M. President's Address, and Reception by Metropolitan Members, Imperial Institute.

WEDNESDAY, JULY 31ST, 1895.

9.30 A.M.—Meeting of 1895-96 Council. Council Room, Exeter Hall.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine. Any business adjourned from First General Meeting at 2.30 previous day, Exeter Hall.

THURSDAY, AUGUST 1ST, 1895.

9.30 A.M.—Meeting of Council. Council Room, Exeter Hall.
10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery. Exeter Hall.
7.30 P.M.—Dinner of the Association at Queen's Hall, Langham Place.

FRIDAY, AUGUST 2ND, 1895.

10 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Concluding General Meeting. Address in Physiology. Exeter Hall.

RECEPTION ROOM.

The large hall at King's College will be opened at 12 o'clock noon on Monday, July 29th, and on Tuesday, July 30th, and the following days at 9 o'clock, for the issue of tickets to members and for supplying all necessary information. A reception room for invited foreign guests will be provided next to the large hall. It is particularly requested that members on their arrival will at once proceed to the reception room, enter their names and addresses, and obtain their tickets and Daily Journals containing programme, inquire for letters and telegrams, consult the list of lodgings, hotels, etc.

None but members of the British Medical Association and invited foreign guests will be allowed to attend the general meetings or the sectional meetings. Every member will be required to show his member's card, which must be obtained and signed for at the Reception Room. Upon entrance to any of the general meetings or sectional meetings invited foreign guests will be required to show their invitation cards. Members and foreign guests are therefore earnestly enjoined to take care of their cards of admission, and to note that they are not transferable, and if lost cannot be renewed. Each member or foreign guest can be allowed to bring only one lady with him to any of the entertainments.

The dinner of the Association can only be attended by members and officially invited guests. The Reception Rooms will be opened on Monday, July 29th, at 12 o'clock noon, but tickets for the dinner and excursions will not be issued until Tuesday morning, and in applying for these tickets members will be required to produce their members' cards of admission in order that they may be stamped as the various tickets are received.

June, 1895. FRANCIS FOWKE, *General Secretary.*

SPECIAL CORRESPONDENCE.

PARIS.

Tobacco for the Sick and Indigent.—A Statue for A. Guérin.—Death of Professor Verneuil.—General News.

THE Minister of Finance has signed a decree which defines the rules to be observed for providing the poor and sick in the State hospitals and asylums with tobacco; those of the departments and communes are also included. On the 6th, 16th, and 26th of every month, the directors of the hospitals and establishments mentioned in the decree are to send in their applications for tobacco to the director of the indirect contributions of the department after having submitted it for approval at the prefecture.

The friends and admirers of Alphonse Guérin wish to erect a statue to his memory at Ploërmel, his birthplace. Two committees are organised to collect subscriptions—a medical one, presided over by Professor Guyon; the other a Brittany one, organised by the Association des Bretons de Paris, of which Alphonse Guérin was the President.

The well-known surgeon, Professor Aristide Verneuil has died from an attack of broncho-pneumonia, at the age of 72. He was received *professeur agrégé* of the Paris Medical Faculty in 1853, and hospital surgeon in 1856. As Clinical Professor he rapidly gained a reputation, and was elected Professor of Surgery at the Paris Medical School in 1868. In 1872 he filled the post of Clinical Professor at the Pitié Hospital, and in 1889 he left the Pitié for the Hôtel Dieu. His principal works are his *Chirurgie Réparatrice* and *Mémoires de Chirurgie*. In 1877 he founded the *Revue de Médecine et de Chirurgie*, which in 1880 became two distinct reviews, one of medicine, another of surgery; he also founded the *Revue de la Tuberculose*. Professor Verneuil took an active part in the organisation of the Cancer and Tuberculosis Leagues. His crusade against the "operating mania" will be remembered. The

late Professor was Commander of the Legion d'Honneur, and member of the Paris Academy of Sciences.

La Société de Médecine Publique et Hygiène Professionnelle offers prizes for the three best essays on avoidable diseases and the means of avoiding them and preventing their diffusion. The competition is open to all nations, but the essays must be written in French, and must be sent in before October 10th, 1895, to M. Cheysson, 115, Boulevard St. Germain, Paris. The first prize amounts to £48, the second to £32, the third £20. Further particulars may be obtained on application at the Hôtel des Sociétés Savantes, 28 Rue Serpente.

The Paris Municipal Council has decided that the statue of Broca on the Boulevard St. Germain, facing the Paris Medical School is to be removed to the Rue Antoine Dubois.

The Paris Municipal Council has voted £48 a year to enable Dr. Lancereaux to organise a laboratory where he can carry on the researches he had commenced before retiring from hospital practice.

L'Association Française pour l'Avancement des Sciences will hold its next Congress at Bordeaux from August 4th to 9th.

BERLIN.

The German Red Cross Society and the Kiel Festivities.—Proposed New Pharmaceutical Institute.—The Pharmaceutical Society.

The Empress of Germany has directed the Central Committee of the German Red Cross Societies to put up a temporary barrack field hospital close to Holtenau, where the festivities are to take place on the opening of the new ship canal. The hospital is to be arranged for the reception of about forty patients. There is to be a staff of nurses, of stretcher bearers, etc. Dr. Müller, of the Berlin Charité Hospital, is to be there to attend to surgical cases, and Dr. Pannwitz, of the Imperial Board of Health, is to be director.

There is some talk of a new Pharmaceutical Institute at the Berlin University, but the plan has not got beyond *pourparlers* between the University and the Prussian Board of Education, and will, in the most favourable circumstances, take years to find concrete embodiment in brick and mortar. In the meantime a chemical laboratory of sixty places is to be set apart for pharmaceutical work only, and Dr. Thoms, University Lecturer on Pharmaceutical Chemistry, is to take charge of it and superintend the work.

Another sign that increased attention is being given to pharmaceutics just now is the fact that the Pharmaceutical Society of Berlin has decided to establish a journal, with up-to-date accounts from all parts of the world of all botanical, chemical, or pharmacological research on the subject of medicinal and poisonous plants.

CORRESPONDENCE.

MIDWIVES REGISTRATION AND THE MIDWIVES BILL.

Sir,—As Master of the Rotunda Hospital I have been asked by so many to give my opinion upon the "Midwives Act" that I think it advisable to do so through the British Medical Journal.

I am of opinion that midwives should be registered, and that only properly trained women should be admitted to the register, but the definition of a midwife as "a woman who undertakes to attend cases of natural labour without the direct supervision of a medical practitioner" is most objectionable. It places those women who prefer to attend without medical supervision in a superior position to those, often better informed, who prefer to attend if possible with a practitioner, and throws the midwife into antagonism with the medical profession, which cannot fail to do harm, and in this the Midwives' Institute are in the wrong, since they seek to accentuate the difference between a midwife and a monthly nurse. In a large proportion of cases a monthly nurse must act as a midwife, and she should therefore be a trained midwife. In abnormal cases, on the other hand, the midwife should send for a medical practitioner, and should, acting as a nurse, give him every assistance in her power. Many midwives, however, will not do this, but, on the contrary, when the practitioner arrives the midwife departs. In Ireland a midwife is also a nurse; our certificates state that "—— has been trained as a nursetender (or midwife)," and the result is that in this country there is little or no friction between medical practitioners and midwives. I object, therefore, to this Bill as giving a legal position and prestige to woman who prefer to act without medical supervision above those who prefer such supervision; because it does not sufficiently provide against their undertaking cases other than normal; because it centralises all authority in London, which is unfair to other teaching centres; and because, being limited to England and Wales, it would prevent our midwives practising in those countries, which would practically extinguish Dublin as a training school for English midwives.—I am, etc.,

W. J. Smyly.

Dublin, June 18th.

Sir,—In the British Medical Journal of June 15th, commenting on the above subject, you call attention to the fact that the General Medical Council recommends that the title of the Bill, recently under its consideration, should be "A Bill to Promote the Better Training of Women as Midwives and Midwifery Nurses," and for "the compulsory registration of them as such," adding "that the description 'midwifery nurse' remains without any definition, and we are therefore uncertain whether it is the intention of the Council that any legal status should be conferred upon a midwifery nurse," etc. As it was upon my motion that the Council adopted the foregoing recommendation, will you allow me to state that my intention in doing so was, as I explained to the Council, to convey to the public distinctly that these women, while termed "midwives," should be, and actually were, nurses, and who should be specially trained to nurse a lying-in woman subsequent to delivery, as well as be permitted to take charge of them during parturition?

In my opinion it is of more importance that the "midwives" who are to be recognised by the Bill should be carefully trained as "midwifery nurses" than as "midwives," understanding by the latter term "a woman who undertakes to attend cases of natural labour." A "natural labour" should invariably terminate favourably, and must do so unless their be some serious error committed during or subsequent to parturition; yet it is well known that the mortality amongst the poor subsequently to parturition is considerable, and is almost invariably due to preventable causes, of which septicæmia is the chief, induced as often by carelessness or ignorance on the part of the nurse after delivery, as by infection introduced during labour. All these "midwives" subsequently act the part of "nurse," and it is the duty of the Legislature, if they sanction by legal enactment a class of "midwives," to see that they be also trained for the quite as important duty of being efficient nurses, a duty they always must undertake. A "midwife," in point of fact, is at best a trained "midwifery nurse," analogous to a trained "surgical nurse;" the latter is trained to be competent to afford "first aid" in cases of accident, to check hæmorrhage, to dress a wound, or a burn, etc., but her main function is as a "nurse." So the "midwife" should know what to do if hæmorrhage, convulsions, etc., occur till aid be obtained, but the "accidents," if I may use the term, occurring during labour are the cause of death in but a few cases compared with the mortality the result of septicæmia introduced by ignorant or careless nurses into the patient's system.

Now, as far as I can ascertain, the women who are to be registered as "midwives" receive little if any training in the duties of a midwifery nurse during their brief period of probation, which generally is but of three months' duration. It is occupied necessarily in obtaining such a rudimentary knowledge of the mechanism and theory of parturition as is possible in the time. A medical or surgical nurse will not be granted a certificate, under a year, generally two years', training. Are the duties of a "midwife," who must also be a "midwifery nurse," less important?

The Incorporated Institute of Midwives, who are the real authors of this Bill, disclaim any intention of creating a class of imperfectly educated midwifery practitioners; their wish is, they state, to improve the class of woman who now attend

the poor during parturition. I entirely approve of this latter object, but how can the public, especially the uneducated public, discriminate between a person legally authorised to attend cases of labour as a "midwife," and a "midwifery practitioner"? Yet the one has merely had a few months' training; the other has studied for five years, and is qualified in medicine, surgery, and midwifery. For the protection of the public, no less than as an act of justice to medical men and medical women, there should be some prefix or addendum to the word "midwife." It was also the object of my amendment to effect this, and the Council has endorsed it by "recommending" that the women to be registered under the Bill shall be so "as midwives and midwifery nurses," not as midwives nor as nurses, but as both. If the advocates of the Bill oppose this very moderate recommendation of the Council, it will be difficult to believe that they do not desire to institute a class of competent midwifery practitioners.

There is precedent for this use of the term "nurse" added to the term "midwife"; the Royal College of Physicians of Ireland grants under its charter a certificate to midwives, and the certificate contains the words "midwife and nurse-tender." The Rotunda Hospital has for 150 years granted under its charter similar certificates; there, too, the words "midwife and nurse-tender" occur. "Nurse-tender" is used in Ireland as the synomym of "monthly nurse," or of "lying-in nurse" used in Scotland. "Midwifery nurse" has been suggested as a better term than either of these three; for that I am not responsible, but if introduced into the Act it would speedily be adopted.

I regret to have trespassed so largely on your space, but the bearing of the recommendation of the General Medical Council on the title of Bill has not, I think, been generally understood.—I am, etc.,

LOMBE ATTHILL, M.B.
Dublin, June 17th. Ex-Master Rotunda Hospital.

SIR,—Mr. Peake, in his letter published in the BRITISH MEDICAL JOURNAL of May 25th, supports the Leicester Board of Guardians in their action in appointing a certificated midwife, and hints that I was not correct in my letter to you on the subject; he sums up the difference between us when he says, "I am told on high authority that the question of expense in the choice between doctors and midwife never entered into the question at all." Well, sir, I am told, on what I am sure is equally good authority, that it did; and that some severe remarks were made on the exorbitant fees that the doctors were asking, and my informant protested against this. Again, if it was not to compare the relative expense of the two systems, why were the doctors asked to tender at all? But we need not each depend upon our anonymous "high authority" to settle the difference between us, as one of our lady guardians, in defending the appointment, said, "that what the committee (of ladies) had considered was the help they could give the poor, and the cheapest way of doing it."[1] So that expense did enter into the question.

I also objected to the appointment because it would prevent the best thing being done, namely, employing the doctors to attend at the confinement and afterwards in the usual way, the nursing to be done by a trained monthly nurse; this, in my opinion, is the ideal way of dealing with these cases, and this appointment of a midwife is the chief obstacle to its realisation.

There is another reason why midwives should not be employed by Boards of Guardians; look at it from the poor woman's point of view. She applies to the guardians for a doctor in her confinement; she is told "No, you shall not have a doctor, but we will send a woman who knows something about the subject, and who, moreover, can wash and dress the baby for you, but you shall not have a doctor until either your or your child's life is in danger, then you shall have one as soon as he can be found." Such treatment of the poor is mean; it would not be tolerated if the case were one of pneumonia or typhoid, and it ought not to be done with lying-in women, who are especially subject to very sudden and dangerous complications.—I am, etc.,

Leicester, June 2nd. REGINALD PRATT. M.D.

[1] *Leicester Daily Post*, May 11th.

SIR,—I wish to point out that although this Bill is intitled "An Act for the Compulsory Registration of Midwives," it does not make it an offence if a certificated midwife refuse to register. Indeed, in so far as I can see, any certificated midwife will be very stupid to register. By not doing so she will be in no way under the control of the Midwives Board, and so this proposed Board could not touch her.

Another point is that this Bill does not make it an offence if a registered midwife (midwifery practitioner) employ either male or female unqualified assistants. Here is a large opening for illicit work.

In one city the practitioners connected with a lying-in hospital have been put into a flutter because it is reported that the matron and some nurses of this lying-in hospital have said that if this Bill pass they intend to resign, to start a training college, and to grant diplomas in midwifery. Clause 5 of the Bill lends force to this statement, as it provides that "any woman" who obtains a certificate two years after this Bill becomes law can be registered. I have also been informed by some medical men that if this Bill gives other practitioners power to grant diplomas in midwifery, they are fully determined to lecture and grant diplomas in medicine, surgery, dentistry, and pharmacy to all comers.

Here are some advertisements from the *Hospital* of June 1st, which show us what is going on:

Belgrave Midwifery Classes.—Ladies thoroughly and quickly trained for L.O.S., monthly nursing, etc. Lecturer, Dr. Gotla, assisted by two qualified lady demonstrators. A very large maternity attached. A coaching class for July L.O.S. will soon begin.

Macdonald, L.O.S., R.M.S. (late Head Midwife of Queen Charlotte Hospital), trains ladies, all passed L.O.S. Exam.

Maternity Charity and District Nurses Home.—Pupils received for training in Midwifery and district work. L.O.S. Exam.

This shows us what these Fellows of the Colleges of Physicians and Surgeons on the General Medical Council evidently approve of, and how they propose to prostitute our profession, to degrade the practice of midwifery, and to establish an inferior order of midwifery practitioners for the "benefit" of poor women, but whom they will take good care never to employ for their wives or friends.—I am, etc.,

Liverpool, June 9th. ROBT. R. RENTOUL.

SIR,—May I be permitted to ask Dr. Bruce the grounds upon which he makes the statement, "on the other hand, the evils of the present system are terrible, and the need for reform urgent"? This sort of wild statements have been so frequently made, that I presume the authors have some special information.

Now, I propose to take one of the large urban districts, one with nearly the highest total death-rate for 1894—namely, Salford—and I will give a few facts recorded by the medical officer of health:

Population, 205,828.
Number of births, 7,041.
Total death-rate, 20·9 per 1,000.
The mean density of the borough is equal to 39.8 persons per acre.
Proportion of deaths under 1 year of age per 1,000 births:
The thirty three great towns ... 152
Salford 174

Puerperal Fever.—There were 21 cases of puerperal fever, and 11 proved fatal. There was one death from puerperal convulsions, 3 from placenta prævia, and 26 from other accidents of childbirth. We can thus arrive at the following rates:

Death-rate from puerperal fever per 1,000 births ... 1.5
" " accidents of childbirth 4.2

Now, the death rate from puerperal fever per 1,000 births living and dead in Prussian towns for the ten years 1881 90 was 2.7. For purposes of comparison with the foreign figures I have purposely taken a town in which it was probable that the death-rate would work out high.

With such facts as these before us, it seems incredible that anyone in Dr. Bruce's position should advance such statements. With regard to the Bill itself, I will merely state that it is generally considered necessary to first catch the hare before cooking it.

The Bill provides for some sort of cookery, no doubt, but it does not provide for the capture of the woman aimed at. It provides the opportunity for registering, and in return for registration it gives the right to the title of midwife. It does not prevent the practice of anyone, so long as they call themselves monthly nurses or midwifery nurses, or nothing at all. Anyone who registers will be bound down by all sorts of rules and regulations; anyone who does not will be free.

Under these circumstances it is difficult to understand why the woman aimed at should wish for registration at all. In the absence of popular demand for the article, it is idle to suppose that the Bill will do anything but a great deal of harm.

To attempt to introduce the Continental system by artificial stimulation, in view of Continental results, seems to me, to say the least of it, bad policy.—I am, etc.,

Hatfield, June 17th. LOVELL DRAGE.

SIR,—May I commend to Dr. Alex P. Fiddian the wisdom of verifying his references before venturing to "correct" one of your correspondents? If he will turn to the BRITISH MEDICAL JOURNAL of May 5th, 1894, he will find that at the spring meeting of the South Wales Branch, held on April 26th, a resolution emphatically approving the registration, proper education, and medical supervision of midwives, was proposed by Mr. J. A. Rawlings, seconded by Dr. Sheen, and carried *nem. con.* This is exactly what I stated in my letter of May 27th.

Dr. Hugh Woods is quite entitled to extract as much amusement as he can from my letter. I think, however, that when he goes on to point out the passages which amused him, he would have given your readers a better opportunity of participating in his mirth, and shown more fairness to myself, if he had refrained from misquoting and misrepresenting them.

The precise period when dentistry occupied the position of a "special branch of surgical practice" I do not know. I presume when apprentices drew teeth in their masters' surgeries at a shilling apiece. And whether the public have derived any benefit from the supersession of this "branch of surgical practice"—which occurred, according to Dr. Woods, when the Dental Acts were passed—I can safely leave them to say. But I am sure that Dr. Woods could not have chosen an illustration more damaging to his cause, and that the most fervid supporter of the registration of midwives has never claimed for it the probability of a greater advance in the practice of midwives than has resulted to dentistry since the passage of the Dental Acts.—I am, etc.,

Felixstowe, June 18th. C. G. HAVELL.

SIR,—The principal argument in favour of the Midwives Registration Bill seems to run as follows: There are at present midwives practising, women will have them so there must be midwives, therefore let us have an examination for them, take their fee, put them on a register, and give them a legal status and professional dignity.

To me the case of the bonesetter seems pretty much on all fours with that of the midwife. The supporters of the Midwives Bill will probably not complain if the case is put thus. Bonesetters here are a recognised institution; people will have them, so there must be bonesetters; therefore let us examine them—for a consideration—register them, and welcome them to the fold as a sort of professional (half) brother. —I am, etc.,

Gateshead-on-Tyne, May 23rd. ALFRED COX, M.B.

SIR,—Would not the issues in dispute on this subject become more distinct if the duties of an attendant at a natural labour were stated clearly on paper? The following list includes the main duties: 1. To discover the position of the child. 2. To discover any abnormality of the pelvis. 3. To regulate the arrangement of bed and clothing of patient. 4. To guide the posture of the patient. 5. To observe the character of the pains. 6. To guard the perineum. 7. To clear the child's throat and eyes. 8. To attend the child's navel. 9. To watch the detachment and expulsion of the after-birth. 10. To examine the placental membranes as to completeness. 11. To see to the child. 12. To see to the mother. 13. To exclude infection. 14. To know when the process of labour should become abnormal. 15. To do what is necessary in emergencies, such as flooding, collapse, or fits in the mother, or asphyxia in the child. 16. To discover any fever, pain, offensive discharge, or the like in the puerperium. If this list or one somewhat similar were adopted, and the points discussed *seriatim* by the advocates and opponents of registration, it would, I think, clear the air, and enable many to form a definite opinion in the matter who at present recognising that the issues will depend not on the interests or emoluments of the medical profession, but on the possibility of satisfactory service to the public, are left in doubt.—I am, etc.,

R.

May 28th.

SIR,—As a general practitioner may I, through the medium of your columns, be permitted to endorse Dr. Woodcock's objections to the registration of midwives, in his letter to the BRITISH MEDICAL JOURNAL of May 25th? I venture to say if the eminent authorities who advocate the principles of this Bill had some experience of the routine of a country practice it would be brought home more forcibly to their minds the great injustice the Bill will produce. It is not on the grounds that it will deprive many of us of a certain source of income I plead against it, but the protection of mothers and infants from unskilful treatment at the hands of thousands of so-called midwives scattered throughout the kingdom who will claim to be registered under the proposed Act. Mothers will place implicit faith in them as the ignorant classes do in quack bonesetters, especially when they are aware the law recognises them as fully competent to attend cases. Undoubtedly this power will be much abused; the certificated midwife will eventually become so independent that she will ignore the services of a medical man (especially if he be a young practitioner), unless the patient or her friends will occasionally insist upon it, when possibly it is too late—the mother's life sacrificed may be, owing to instrumental aid or skilled assistance not being close at hand in time. This fact has been the experience of many owing to the persistence of the midwife asserting that she was perfectly capable of attending the case without the interference of a surgeon. I do not hesitate to predict disastrous results; but, of course, the law will step in to suit the convenience of the accoucheuse should such be the case, and protect her on the strength of having obtained a certificate from some obscure institution, and that she did her duty to the best of her ability.

Dr. Flemming states in his letter of the same date that few of the diplomates of the Obstetrical Society are found practising except as the *employées* of institutions, and that the receipts from the pure midwifery practice would not suffice to support a woman with the necessary training required of her to obtain a certificate. I beg to differ from him, for if greater power is extended to them as the Bill enacts, many will migrate to different districts and thus deceive the ignorant as being experts. In some localities almost one-third of a medical man's income is derived from his midwifery practice. Surely, with the yearly influx into our ranks there is no need of this legislation, when already almost every village can claim a resident surgeon. No doubt I am expressing the sentiments of more than nine-tenths of the profession, and especially as regards Wales, where the feeling is universally against the Bill, and yet the large majority are expected to fall in with the opinions of a few well-known advocates who want to thrust a dangerous injustice upon the British public.—I am, etc.,

JOHN ROBERT WILLIAMS, M.B.

Penmaenmawr, N. Wales, May 28th.

SIR,—I should like to call special attention to the gross inconsistency of one section of the Midwives Registration Bill. The Bill is promoted because of the insufficient qualification and "Sarah Gamp" character of many of those at present practising as midwives. Some of us who are by no means unfavourable to the general purpose of the Bill cannot sufficiently express our detestation of the clause which allows those at present practising as midwives to so continue after the passing of the Bill, provided their claim be satisfactory to the General Medical Council. Is the General Medical Council so omniscient a body that there is any likelihood of their being able to determine without examination the claim of every "Sarah" that at present disports her dingy signboard in a back street?—I am, etc.,

Colne, Lancs., May 28th. J. H. KEAY, M.D.

SIR,—The motives of the opponents of this Bill I should hope are not so pitifully and shamefully sordid as Dr. Havell so uncharitably supposes. The opponents of this Bill, I take it, contend that the wage-earning classes do not require a new order of legally protected practitioners created for their special benefit. The supporters of it say there is such an amount of neglect of the poor parturient as to be inimical to the public health. Supposing the latter statement to be correct, do the supporters flatter themselves that this Bill can cure or even alleviate the evil? The opponents say No, they believe that the new midwife will shirk attendance on the poor and will cater for those who can pay, namely, the regular wage-earning classes, small tradespeople, and the middle classes.

The creation of a new order of midwives cannot supply the poor parturient with clean sheets, a change of clean body linen, suitable and properly prepared food, or attendance on the temporarily neglected older children. The really needy parturient will not benefit (and she represents the only urgent part of this midwifery nightmare).—I am, etc.,

Shrewsbury, June 3rd. WM. HARPER WIGHAM.

SIR,—Dr. Havell asks, in the BRITISH MEDICAL JOURNAL of June 1st, on what principles the opposition to the Midwives Bill is founded. Speaking for myself, I object to it because I believe it is opposed to the best interests of the public and the profession. Already I have discovered an enterprising medical man who has established a branch surgery, with a midwife in charge, two miles away from his own house.—I am, etc.,

Preston, June 11th. JOHN HOLDEN.

THE LANCASHIRE AND CHESHIRE BRANCH AND MIDWIVES REGISTRATION.

SIR,—When Dr. Carter, in well-affected surprise, informs your readers that the petition of the Lancashire and Cheshire Branch has not been approved of at a Branch meeting, he omits to mention the all-important fact that the Branch had, in special general meeting, already appointed a Committee to oppose the registration of "midwives," and specially empowered it (*inter alia*) "To circulate information among members of both Houses of Parliament by deputation, petition, or otherwise, and other public representative bodies, etc." As he himself proposed a contrary motion at the meeting (Medical Institute, Liverpool, May 11th, 1894), he can hardly have forgotten the circumstances.

In accordance with the directions of the Branch, the Committee presented a petition to the General Medical Council at its session, May, 1894, and in the petition presented to the Council at its last session the Branch Committee have exactly followed the precedent thus set.

Dr. Carter's "negative fact" is therefore a most misleading "half truth." His "positive fact" is even more remarkable. He asserts that the petition "is not signed by its" (Branch's) "president and secretary, the only officers legally entitled to sign on its behalf." As a matter of fact it is signed by Dr. James Taylor, Vice-president of the Branch (in absence of the President), and by Dr. James Barr, the General Secretary.[1] We submit that such inaccuracies in dealing with an important public question are inexcusable.—We are, etc.,

WM. HUGH HUGHES,
Chairman,
COLIN CAMPBELL,
Honorary Secretary,
Lancashire and Cheshire Branch Committee.

Manchester, June 17th.

SEWAGE EMANATIONS AND ENTERIC FEVER.

SIR,—Although it is a generally accepted fact that sewage emanations may give rise to enteric fever, it is comparatively seldom that one has such positive evidence of the direct relationship between the two as the following case affords:

In the Finchley district, about eight weeks ago, a house in a good sanitary condition, and showing from my register a "clean bill" so far as any previous visitation of zymotic disease among any of its occupants was concerned, became insanitary by reason of a sudden stoppage of the drain and the consequent bursting of the joint with the soil-pipe. The result was that every time the upstairs watercloset was used the excremental matter escaped at this leak, accumulated under the "footings," and after a time appeared above the cellar floor, where it was discovered standing to a height of about an inch. Before the condition could be rectified the odour was more especially complained of by one of the occupants of the house who occupied a bedroom situated over the escape, and in this particular room the odour of the sewage made itself very manifest, more especially at night-time. The individual had previously enjoyed immunity from those conditions that have ever been shown to have their origin in such emanations, but in eighteen days he was laid up with enteric fever. My letter would be too long if I went into the grounds that I have for believing that it is highly improbable that the patient contracted the disease away from the house.—I am, etc.,

HENRY KENWOOD,
Medical Officer of Health for Stoke Newington and for the Finchley District.

May 29th.

VACANT APPOINTMENTS AND CANVASSING.

SIR,—I wish to concur with "D.P.H." in his protest against public authorities inviting competition for virtually filled appointments, quoted in the BRITISH MEDICAL JOURNAL of June 1st. In the same paper there is advertised a public health appointment at Lambeth, for which direct or indirect canvassing is (on paper) very properly prohibited; but, unless my information is at fault this appointment has been already very strenuously canvassed for by and for the medical officer of health of a northern borough, how successfully the result of the election will no doubt show.—I am, etc.,

June 2nd. ANOTHER D.P.H.

DIET IN EPILEPSY.

SIR,—With reference to the interesting communication by Dr. T. Sydney Short in the BRITISH MEDICAL JOURNAL of May 18th, entitled "Observations on the Treatment of Epilepsy," Dr. Short will not, I feel sure, take it amiss if I bring to his notice the valuable paper by Dr. John Merson on the Influence of Diet in Epilepsy, published so long ago as 1875 in the *West Riding Asylum Reports*, vol. v. Reference to that article will show that very similar results to those now recorded by Dr. Short, as to the influence of nitrogenous and farinaceous diet respectively upon the occurrence of fits in epileptics, were obtained by Dr. Merson as the outcome of his carefully-conducted inquiry.—I am, etc.,

June 5th. H. C. M.

THE THYROID TREATMENT OF TETANY.

SIR,—Since my communication on this subject was published in the BRITISH MEDICAL JOURNAL of June 1st Dr. Turney has kindly directed my attention to the fact that Dr. Gottstein has quite recently published a case of idiopathic tetany treated by thyroid grafting and the internal administration of thyroid extract. The thyroid grafting produced some temporary benefit, while the internal administration of the remedy was followed by most marked improvement. The patient was an adult female who had suffered from the disease for many years.

In this important paper Dr. Gottstein refers in detail to the occurrence of tetany after total extirpation of the thyroid gland; and, like myself, draws an analogy between operative and idiopathic myxœdema on the one hand and operative and idiopathic tetany on the other.

Further, Dr. John Thomson tells me that the advisability of employing the thyroid extract in cases of idiopathic tetany had not only occurred to him, but that he had actually tried the remedy (with little or no apparent success) in a case of infantile idiopathic tetany.

It would thus appear that at least three independent observers have for the same reasons been led to administer the thyroid extract in cases of idiopathic tetany. In all probability the same plan of treatment has also occurred to othe physicians, for the reasoning seems so clear and obvious, that it is difficult to see how the conclusion to which it points should have escaped attention.

From this statement it will be seen that the credit of having first employed thyroid extract in the treatment of tetany is due to Dr. Gottstein, although Dr. John Thomson and myself had independently come to the same conclusion with regard to its probable beneficial effects as he had done. In Dr. Gottstein's case thyroid grafting was first performed in

[1] See Minutes General Medical Council, June 29th, 1895.

March, 1892, and thyroid feeding was commenced in March, 1894, a year prior to the commencement of the treatment in my case. Dr. Gottstein's paper is published in the March number of the *Deutsche Zeitschrift für Nervenheilkunde*, issued in Leipzig on March 15th, 1895. The coincidence is sufficiently striking to suggest, perhaps, to some minds that I may have seen Gottstein's paper, and based my recommendation without acknowledgment on his results. I need hardly say that such was not the case. When I wrote to Dr. Young I had no knowledge that Gottstein or anyone else had employed the remedy, or suggested that it should be employed, in cases of idiopathic tetany; and I was unacquainted with Gottstein's paper till Dr. Turney directed my attention to it a few days ago. I do not know when copies of the March number of the *Deutsche Zeitschrift für Nervenheilkunde* were received in this country, for I do not myself subscribe to the journal, but I find that the copy belonging to the Royal College of Physicians, Edinburgh, was placed in the library on March 26th.

I refer to these facts in detail with the purpose of showing how easily coincidences of this kind may give rise to doubt and suspicion, and how careful one should consequently be in suspecting bad faith and plagiarism unless the facts and details are fully known and confirmed. When many men are working at and thinking about the same problems, the same ideas must necessarily every now and again occur to more than one mind.—I am, etc.,

Edinburgh, June 17th. BYROM BRAMWELL.

AN ANNUAL DINNER IN LONDON FOR THE INDIAN MEDICAL SERVICE.

SIR,—I beg to suggest that it is advisable, for social as for other reasons, that the Bengal, Madras, and Bombay Medical Services combine and hold an Indian Medical Service dinner in London in the season yearly. The many retired officers settled in and about London, and the officers home on furlough from India are, in my opinion, ample to form an effective gathering. A small permanent committee is needed in London to give the proposal consideration. A fund subscribed to by the officers in India would be advisable.—I am, etc.,

N. D. F.,
B.S.L.C.

June, 1895.

THE REVISION OF THE *BRITISH PHARMACOPŒIA*.

SIR,—As there is a possibility of a new *Pharmacopœia* being published at no very distant date, I should like to make a suggestion with regard to the colouring of pills. At present some firms make their strychnine pills pink, whilst others use the same colour for other and less dangerous kinds. What I would suggest is that in the new *British Pharmacopœia* a definite colour be laid down for each variety of pills—say, pink for strychnine and other more or less poisonous kinds, blue for the various kinds of purgative pills, etc.; a special colour for opium would be most convenient, etc.

I think that there would be no difficulty in getting the various firms to make the pills in this way; in fact, one or two whom I have communicated with on the subject expressed a desire for some definite rule.—I am, etc.,

ARTHUR TODD-WHITE.

The Infirmary, Lancaster, June 13th.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty:—MORRIS C. LANGFORD, Surgeon, to the *Orlando*, June 13th; ALEXANDER MACLEAN, Surgeon, to the *Pembroke*, June 13th; JOHN A. L. CAMPBELL, Surgeon, to the *Sharpshooter*, June 14th; EDWARD C. CRIDLAND, Surgeon, to the *Vivid*, additional, June 21st; EDWARD CUFFEY, Surgeon, to the *Victory*, July 1st; ALFRED H. JEREMY, Surgeon, to the *Rambler*, June 14th.

ARMY MEDICAL STAFF.

SURGEON-CAPTAIN M. T. YARR, attached to the Coldstream Guards, has been appointed Physician to the Crown Prince of Siam, and will be seconded in the army for five years from the date of taking up the post.

Surgeon-Captain G. DODD has assumed the command of B. Company, and to be Assistant Instructor at the Training School, Aldershot, *vice* Surgeon-Captain G. Cree.

Surgeon-Major HORATIO SCOTT, M.D., died suddenly at his residence, Basingbourne, Fleet, on May 30th, aged 61 years. He was appointed Assistant-Surgeon, June 22nd, 1858; Surgeon, March 1st, 1873; and Surgeon-Major, April 1st, 1873. He quitted the service on retired pay, July 4th, 1883.

Surgeon-Captain GEORGE NELIS died at Bombay on June 9th from enteric fever. He was appointed to the Medical Staff August 4th, 1883.

INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON-LIEUTENANT-COLONEL P. R. MARTIN, M.B., Madras Establishment, has retired from the service from May 16th. He was appointed Assistant-Surgeon, April 1st, 1868, and became Brigade-Surgeon-Lieutenant-Colonel, May 7th, 1891. He was with the Burmese Expedition in 1886-88, and has received the Frontier medal with two clasps.

THE VOLUNTEERS.

SURGEON-LIEUTENANT W. L. STEWART, M.D., 1st Banff Artillery, is promoted to be Surgeon-Captain, June 19th.

Surgeon-Captain H. S. STONE, 2nd Volunteer Battalion the Queen's Royal West Surrey Regiment, has resigned his commission, June 19th.

Surgeon-Lieutenant-Colonel E. LIDDON, M.D., 2nd Volunteer Battalion the Prince Albert's Somerset Light Infantry, has resigned his commission, retaining his rank and uniform, June 19th.

Messrs. JOSEPH EDWARD JAMES SODEN and ARTHUR LLOYD JONES are appointed Surgeon-Lieutenants in the 3rd Glamorgan Rifles, June 19th.

Surgeon-Major J. O'C. HYNES, 1st Nottinghamshire (Robin Hood) Rifles, is promoted to be Surgeon-Lieutenant-Colonel, June 19th.

THE CHITRAL EXPEDITION.

THE *Gazette of India*, received by mail on Monday last, contains the despatches concerning this expedition. The Viceroy of India in Council expresses his heartfelt congratulations to Surgeon-Major Robertson, to Captain Townshend, commanding the troops, and to the whole garrison on their gallant defence of the position entrusted to them. Special mention is also made of Surgeon-Captain Whitchurch, the conspicuous bravery shown by this officer on the occasion of Captain Baird's death having already been reported in a separate communication. Colonel Kelly, in his covering despatch, says: "I have under a separate cover forwarded a recommendation for the bestowal of the Victoria Cross upon Surgeon-Captain Whitchurch." Captain Townshend, in his report of the siege of Chitral Fort, says: "The official report of the siege should what Surgeon-Captain Whitchurch's work has been. He has been recommended for the Victoria Cross. His care and skilful attention to the wounded, his alacrity in undertaking all duties, are the admiration of all who have served with him."

THE WAZIRISTAN EXPEDITION.

THE despatches of Sir William Lockhart, the General in command of the Waziristan Field Force during the recent expedition, have been published. In reference to the medical officers serving under him, he says: "Surgeon-Colonel L. D. Spencer, M.D., has most ably administered his department in the field, and I commend the excellent work done by himself and by his officers and other subordinates for very favourable consideration. He has been well supported by all, but I wish to give special prominence to the valuable services of Surgeon-Lieutenant-Colonel J. T. B. Bookey and Surgeon-Major Johnston Shearer."

Despatches respecting the field operations received from Brigadier-General Turner, dated November 16th and 29th last, are published in the *London Gazette* of June 14th. After detailing the operations, and mentioning that Surgeon-Major P. de H. Haig, of the Bengal Establishment, was severely wounded at the attack on the camp at Wano on the morning of November 3rd, General Turner, in enumerating the services of individual officers, says: "Brigade-Surgeon-Lieutenant-Colonel G. McB. Davis, Indian Medical Service, Principal Medical Officer with the Escort, possesses thoroughly good administrative abilities and sound common sense, under him the department has been distinguished by smooth working."

THE PAY OF SURGEON-MAJOR-GENERALS IN INDIA.

THE answer of Mr. George Russell to Mr. Hanbury that the reason for reducing the pay of surgeon-major-generals in India was that under the new arrangements, the number of these officers had been increased from three to five, and their responsibilities correspondingly decreased, has given rise to strong and adverse comment from several correspondents. The sense of decreased pay with diminished responsibility, put into the mouth of the Under-Secretary, will not hold water when looked into. The reduction in full of a surgeon-colonel and the docking of the surgeon-major-generals was simply made to balance the necessary increase in the numbers of the latter under the new Army Corps organisation; that is the true explanation. Pay is according to rank, and not according to the constantly varying and shifting responsibilities attaching to appointments.

RANK AND TITLES.

SURGEON-GENERAL (RETIRED) sends us a clear but lengthy recapitulation of why army surgeons want military and not departmental rank and titles, of which the following is a summary. Relative rank having been abolished, there is nothing left or recognised but military rank. All officers except the medical, veterinary, and chaplains, including pay, ordnance, barrack, stores, transport, and supply, have now military rank and titles. The veterinary and chaplains do not exercise command, while the medical officers do over a large and important body of men—the Medical Staff Corps. The medical share in the dangers of the battle field and fighting line, are killed and wounded in action, and not infrequently receive the Victoria Cross for conspicuous bravery. The want of army rank and titles places them in an inferior position, and so lessens the efficiency of the service both in peace and war. Their military responsibilities entitle them to the same military recognition as any other body of officers. Lord Wolseley stated at the Camperdown Commission that "the fact of belonging to the Army Medical Department gave the medical officer no military position." The

best men in the profession cannot be expected to accept such an ambiguous position. Medical officers claim full army rank and title, and will not rest content with anything less.

MEDICO-LEGAL AND MEDICO-ETHICAL.

AN ENTERPRISING DENTIST.

A REGISTERED dentist practising in North London (Mr. J. S. Armitage, 1, Colva Street, Dartmouth Park) was on May 23rd mulcted in two penalties of £5 each at the Bloomsbury County Court at the instance of the Pharmaceutical Society for the sale of poisons, information having been given to the Pharmaceutical Society by the London and Counties Medical Protection Society. The dentist in question, besides keeping an open chemist's shop, has also been practising as a doctor in the neighbourhood. It is hoped that the exacting of the above penalties will induce him to limit himself to his dental practice.

ANOTHER GRATEFUL PARENT.

THE practice of inserting in a local paper an expression of thanks by a parent for the medical services rendered to a child appears to be growing. It is no doubt extremely disagreeable to the medical men whose skill and kindness are thus vaunted, and we cannot help suggesting to the proprietors of country papers to consider whether they are justified in inserting such advertisements without the direct permission of the medical men whose names are given such curious publicity. It should be understood both by the patients and by newspaper proprietors that such puffs are quite contrary to the usage of the medical profession, and cause much pain to the medical men whose names are thus advertised. A correspondent has sent us a particularly glaring example, cut, as he informs us, from a recent issue (May 31st) of *The Mexborough and Swinton Times*, and we have within the last few months seen several other similar specimens from other parts of the country.

UNPROFESSIONAL COMPETITION BETWEEN MEDICAL PRACTITIONERS.

A CORRESPONDENT writes: A., B., C., and D. are neighbouring practitioners in the same town. A. has been for five years a "works" doctor, and has held this appointment to the apparent satisfaction of the men, there having never been any complaint against him. He is then informed by the governing body of the works that it has been decided to make his appointment an annual one, and notice is accordingly given him of the termination of his present engagement at an early date. Deputations of the men also call upon B., C., and D., asking them whether, if elected, they will take A.'s appointment. A. expostulates with B, C, and D. as to their opposing him in the impending election, on the ground that it is unprofessional to do so. D. admits A.'s arguments, and withdraws his name, and declines to have anything to do with the election, but B. and C. decline to admit A.'s contention, claiming a right to compete with him for this appointment, as there is a legitimate vacancy. At the election A. was re-elected by a large majority. It is asked:

1. Whether B. and C. were acting justly towards A., and in accordance with the ethical rules of the profession.

2. Whether, in view of the fact that A. had not been dismissed for neglect of duty, but solely to carry out the intention of having an annual election, B. and C. were acting in a kindly spirit towards A., who is a friend of both.

3. It would appear that before the men determined on an annual election of their surgeon, they had held a meeting with the object of extorting from him further advantages for themselves. In answer to this, many of the resident medical men of the town, including A. and B., signed an agreement by which they bound themselves to have nothing to do with any club which any of their number might have lost through refusing to accede to such demands.

*** On the above statements it may be remarked that:

1. Strictly speaking, and apart from the signed agreement, B. and C.'s conduct would be justifiable, for it would appear that there was here an appointment thrown open to the profession at large, but in our opinion D.'s conduct was much to be preferred.

2. It must certainly be answered that B. and C. were not acting in a kindly spirit towards A., even if they might claim to have been acting according to their strict technical rights.

3. When the agreement is considered we are of opinion that B. was altogether wrong, for although the annual election was not instituted avowedly with the object of gaining greater advantages for the men at the expense of the surgeon there can be little doubt that this was its real object; as therefore the agreement was expressly signed to meet such a contingency B.'s action in opposing A. was practically a violation of its terms, and we fail to see how B. could possibly defend his conduct, being one of its signatories.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

FIRST M.B. EXAMINATION.

Chemistry and Physics.—Almond, Emm.; Attlee, Joh.; R. L. Bell, B.A., Pet.; Bemrose, Joh.; Boulton, Trin. Brchaut, H. Selw.; Carey, Gonv and Cai.; Carroll, Trin; E. R. Clarke, Joh; Coare, King's; Cooper, Trin.; Crimp, Gonv. and Cai.; Crompton, Gonv. and Cai.; Dunne, Queens'; Ede, King's; S. H. Gibson, Jes.; Gordon-Smith, Trin.; Greig, B.A., Jes.; Hadfield, Trin.; Hill, Emm.; Holmes, Gonv. and Cai.; C. R. Howard, Pemb.; H. T. James, Trin.; Larner, M.A., Pemb.; Leech, Christ's; Levy, Joh.; Maclaren, Trin; Malim, Christ's; Manser, Pet; J. C. Matthews, Joh.; A. Mellor, King's; Miller, Trin; Mummery, Gonv. and Cai; J. C. Newman, B.A., Trin. Newton, Pemb.; Perkins, H. Aye, Roberts, Christ's; H. J. Robinson, Joh; E. A. Ross, Trin.; Sanger, Joh.; C. A St J. Scott, Trin.; Scott, Christ's; Spanton, Trin.; Spens, Trin.; Stirling-Hamilton, Jes.; Thornton, Trin.; Upward, Christ's; R. H. Urwick, Trin.; W. D. Ward, Joh; Warren, Joh.; Weir, Trin.; Whimore, Gonv and Cai.; Wilgress, H. Selw.; H. M. Wilkinson, Joh.; J. A. Wilkinson, Gonv. and Cai.; R F Williams, Gonv. and Chi.; W. H. O. Woods, H. Selw.; Wright, Christ's.

Elementary Biology.—Ainsworth, B.A., Pemb.; Atkinson, Gonv. and Cai.; Attlee, Joh.; Badcock, B.A., Cath.; Barnett, Joh.; Bate, King's; Beckett, H. Selw.; Bentley, Emm.; Bigge, Trin; Boulton, Trin.; Bousfield, Pemb.; Brchaut, H. Selw.; Brydone, Jes; Buckle, Gonv. and Cai; Buttar, Pemb.; Carey, Gonv. and Cai.; Causton, Emm.; Cave-Moyles, Gonv. and Cai.; Child, Pemb.; E. M. Clark, Trin.; H. Clarke, Trin.; E. R. Clarke, Joh.; Coare, King's; Colver, M.A., Cath; Crimp, Gonv. and Cai.; Crompton, Gonv. and Cai.; Dunlop, Sid. Suss.; Eastwood, Joh.; Edwards, Down; Elliston, H. Aye; Emerson, Gonv. and Cai.; Falkner, Pet.; Fehrsen, Gonv. and Cai.; Geoghegan, Gonv. and Cai.; S. H. Gibson, Jes.; Gilbart-Smith, Trin.; Gordon-Smith, Trin.; Graham-Smith, Pemb.; Greene, Corp. Chr.; Greig, B.A., Jes.; D. G. Hall, Emm.; Hawker, Gonv. and Cai.; Heffer, Sid. Suss.; Hill, Emm.; Hindle, Corp. Chr.; C. R. Howard, Pemb.; H. L. S. Hulbert, B.A., Trin.; N. H. Illingworth, Cla.; Ingram, Trin.; Kelsey, Pemb.; Knobel, Trin; Larner, M.A., Pemb.; Leech, Christ's; Levy, Joh.; Linnell, H. Selw.; Maclaren, Trin.; Malim, Christ's; H. N. Matthews, Joh.; J. C. Matthews, Joh.; Mellor, King's; Murray, Joh.; Neatby, M.A., Joh.; J. C. Newman, B.A., Trin.; Pitkin, H. Aye; L. Reynolds, Trin.; Richmond, Cla.; Roper, B.A., Non Coll.; Scott, Christ's; Shipman, Trin.; Shipway, Christ's; T. D. Smith, Jes.; Spanton, Trin.; Spurrier, Gonv. and Cai.; Tillard, Pemb; Trigg, Christ's; R. H. Urwick, Trin.; Wacher, Joh.; Warren, Emm.; Weatherhead, Joh.; Weir, Trin; Whitmore, Gonv. and Cai; H. M. Wilkinson, Joh.; J. A. Wilkinson, Gonv. and Cai; Willan, Emm.; R. F. Williams, Gonv. and Cai.; W. H. O. Woods, H. Selw.; Wright, Christ's.

SECOND M.B. EXAMINATION.

Pharmaceutical Chemistry.—Arkle, B.A., Trin; W. P. S. Branson, Trin.; Burfield, Emm.; Carver, B.A., Cla.; Cheadle, Gonv. and Cai.; J. S. Clark, Gonv. and Cai.; Cole, B.A., Corp. Chr.; Coleman, Trin.; Curl, Down.; Dale, Trin; Flook, Trin.; Fuge, B.A. H Selw.; Gaitskell, B.A., Cla; Gillespie, Joh.; Glenn, Pemb.; Glover, Joh; Harman, Non Coll.; Howitt, Joh.; G H. Hunt, B.A., Cla; J. Johnston, Trin.; Kellie, Gonv. and Cai.; Killick, Trin; J. L. Lock, Gonv. and Cai.; Martineau, Emm.; G. Micklethwait, Trin; Paterson, Gonv. and Cai; Pearson, Emm.; Plachecki, Christ's.; Roderick, B.A., Emm.; Sellon, Gonv. and Cai.; Style, Emm.; Susmann, Gonv. and Cai.; T. P. Thomas, Gonv. and Cai; Topham, Christ's; Trevor, B.A., Cla.; R. F. C. Ward, Joh.; Watts-Sylvester, B.A., Gonv. and Cai; West, Christ's; T. Wood, Gonv. and Cai.

Human Anatomy and Physiology.—Allan, B.A., Gonv. and Cai.; Ambrose, B.A., Cla; Barnes, Christ's; Bassano, B.A., Trin; S. S. F. Blackman, B.A., Joh.; W. D. Chapman, B.A., Corp. Chr.; Corner, B.A., Sid. Suss; Denyer, B.A., Queens'; A. H. Donaldson, B.A., Gonv. and Cai.; Dore, B.A., Joh.; Fawcett, M.A., Pet.; Forbes, B.A., Christ's; Gilmore, B.A., Christ's; Grosvenor, B.A., Trin.; Hart-Smith, Gonv. and Cai.; Kemp, Cla; Lindsay, B.A., Sid. Suss.; MacCallan, B.A., Christ's; H. D. O'Sullivan, Emm.; S. P. Pollard, B.A., Gonv. and Cai.; Prest, Joh.; P. B. Reckitt, B.A., King's; Reissmann, Joh.; Rigby, Gonv. and Cai.; Scowcroft, B.A., Gonv. and Cai.; Shewell, B.A., Trin.; Shrubsall, Cla.; F. W. Sumner, Joh.; Talbot, B.A., King's; Tallent, Joh.; W. K. Wills, B.A., Joh.; W. R. Wilson, B.A., Corp. Chr.; Winkfield, B.A., King's.

DEGREES.—At the Congregation on June 13th the following medical and surgical degrees were conferred: *M.D.*: F. J. Allen, M.A., M.B., Professor of Physiology at the Mason College, Birmingham. *M.B. and B.C.*: H. J. Davis, B.A., Trinity; A. W. G. Bagshawe, B.A., Caius; W. J. McCardie, B.A., Caius; L. C. P. Phillips, B.A., Caius; F. B. Norris, B.A., Christ's; B. W. M. Aston-Key, B.A., Emmanuel; J. H. Pead, B.A., Downing.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen, having passed the necessary examinations, and having conformed to the by-laws and regulations, have been admitted Fellows of the College:

Rowell, G., M.D. Durh.
Green, C. R. M., L.R.C.P. Lond.
Bennett, W. E., L.R.C.P. Lond.
Stevens, T. G., M.D. Lond., L.R.C.P. Lond.
Levick, H. D., M.B. Lond., L.R.C.P. Lond.
Ingall, F. E., L.R.C.P. Lond.
MacLeod, C. E. A., L.R.C.P. Lond.
Warner, T., L.R.C.P. Lond.
Spencer, C. G., Surg.-Lieut. A.M.S., M.B. Lond., L.R.C.P. Lond.
Farnivall, P., L.R.C.P. Lond.
Marson, F. H., M.B. Durh., L.R.C.P. Lond.
Webb, J. R., M.B., B.S. Melb.
Wightman, C. F., L.R.C.P. Lond.
Harris, W. J., M.B. Cantab., L.R.C.P. Lond.
Sloane, J. S., M.B. Lond., L.R.C.P. Lond.
Walton, H. J., L.R.C.P. Lond.
Cooper, P. R., M.B., Ch.B. Vict., L.R.C.P. Lond.
Cuff, A. W., M.B., B.C. Cantab., L.R.C.P. Lond.
Shillitoe, A., M.B., B.C. Cantab., L.R.C.P. Lond.
Gordon, J., M.B., M.S. Melb., L.R.C.P. Lond.
Lister, W. T., M.B., B.C. Cantab., L.R.C.P. Lond.
Lockett, G. V., M.B. Edin., L.R.C.P. Lond.
Michell, R. W., M.B., B.C. Cantab.

Three other gentlemen passed the examination, and will be admitted Fellows at future meetings of the Council on attaining the legal age of 25 years. Sixteen were referred for six months, and four for one year.

The following gentlemen, having passed the necessary examinations were admitted Licentiates in Dental Surgery—namely:

Atkinson, F. G., Charing Cross and the Dental Hospital of London
Bateman, J. B., Charing Cross and the Dental Hospital of London
Bates, G. L., Charing Cross and the Dental Hospital of London
Bellaby, F. M. F. W., Owens College, Dental Department, and Victoria Dental Hospital, Manchester
Bennett, J. H., Charing Cross Hospital and the Dental Hospital of London
Bettridge, A. E., Charing Cross Hospital and the Dental Hospital of London
Booth, G. H., Owens College Dental Department and Victoria Dental Hospital, Manchester
Bowtell, S. R., Charing Cross and the Dental Hospital of London
Bowden, G. H., Guy's Hospital
Burton, P., Middlesex Hospital and the Dental Hospital of London
Cahill, A., Guy's Hospital
Cannell, E. K., Charing Cross and the Dental Hospital of London
Cardwell, E. E., Charing Cross and the Dental Hospital of London
Collett, A. J., Guy's Hospital
Cook, H., Guy's Hospital
Dalton, J. W., Charing Cross and the Dental Hospital of London
Day, E. F., Charing Cross and the Dental Hospital of London
Gosschalk, M., Charing Cross and the Dental Hospital of London
Jenkin, T. G., Middlesex and the National Dental Hospital
Johnston, W., Charing Cross and the Dental Hospital of London
Keall, C. A. H., Guy's Hospital
Little, F., University College and Dental Department, Royal Infirmary, Bristol
Lean, N. H., Middlesex and the Dental Hospital of London
Mackley, H. E., Middlesex and the Dental Hospital of London
Masters, E. C. P., Middlesex and the National Dental Hospital
Mathews, J. H., Charing Cross and the Dental Hospital of London
Morgan, E., Guy's Hospital
Mountford, E. H., Charing Cross and the Dental Hospital of London
Muhlenkamp, F. H. A., Guy's Hospital
Nowell, W. S., Middlesex and the Dental Hospital of London
Pearse, C. G., Charing Cross and the Dental Hospital of London
Pedler, W. F., M.R.C.S.Eng., St. Bartholomew's and the National Dental Hospital
Price, G. H., Charing Cross and the Dental Hospital of London
Quinby, A. H., Liverpool Dental Hospital and Liverpool Royal Infirmary School of Medicine Dental Department
Shield, J. L., Liverpool Dental Hospital and Liverpool Royal Infirmary School of Medicine Dental Department
Stevens, D. S., Guy's Hospital
Strand, A. C., M.R.C.S.Eng., Middlesex and the Dental Hospital of London
Sugden, T. E., Middlesex and the National Dental Hospital
Taylor, H. P., Guy's Hospital
Theakstone, J., Owen's College, Dental Department and Victoria Hospital, Manchester
Tice, H. W., Middlesex and the National Dental Hospital
Tindal, J., Charing Cross and the Dental Hospital of London
Trick, W. H., Guy's Hospital
Wallace, J. S., B.Sc., M.D., C.M. Edin., Glasgow Dental Hospital, the Dental Hospital of London, and the National Dental Hospital
Wallis, H., Guy's Hospital
Williams, C. H. H., Charing Cross and the Dental Hospital of London

Fifteen gentlemen were referred back to their professional studies. All candidates referred at this examination will be required to produce, before admission to re-examination, a certificate of three months' additional study at a General Hospital and a Special Dental Hospital, the precise attendances required at each hospital being left to the discretion of the respective hospital authorities.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,861 births and 3,130 deaths were registered during the week ending Saturday, June 15th. The annual rate of mortality in these towns, which had declined from 17·7 to 15·5 per 1,000 in the five preceding weeks, further fell last week to 15·4. The rates in the several towns ranged from 10·5 in Burnley, 10·7 in Portsmouth, and 10·9 in Croydon to 21·3 in Manchester, 23·6 in Bolton, and 23·8 in Liverpool. In the thirty-two provincial towns the mean death rate was 16·1 per 1,000, and exceeded by 1·7 the rate recorded in London, which was only 14·4 per 1,000. The zymotic death rate in the thirty-three towns averaged 2·0 per 1,000; in London the rate was equal to 2·1 per 1,000, while it averaged 1·9 in the thirty-two provincial towns, and was highest in Manchester, West Ham and Plymouth. Measles caused a death rate of 1·5 in Manchester, 2·3 in Plymouth, and 2·9 in West Ham; whooping-cough of 1·0 in Birkenhead and in Huddersfield; and "fever" of 1·0 in Norwich. The mortality from scarlet fever showed no marked excess in any of the large towns. The 73 deaths from diphtheria in the thirty-three towns included 45 in London, 6 in Liverpool, 4 in Birmingham, 3 in West Ham, 3 in Manchester, and 3 in Hull. Three fatal cases of small-pox were registered in Derby, 1 in London, and 1 in Oldham, but not one in any other of the thirty-three towns. There were 19 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, June 15th, against 20, 22 and 23 at the end of the three preceding weeks; 2 new cases were admitted during the week, against 7, 1, and 5 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,503, 1,524, and 1,589 at the end of the three preceding weeks, had further risen to 1,637 on Saturday last, June 15th; 199 new cases were admitted during the week, against 214, 187, and 179 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 15th, 894 births and 492 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21·4 and 19·7 per 1,000 in the two preceding weeks, further declined to 17·1 last week, but exceeded by 1·7 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 14·2 in Leith to 30·9 in Perth. The zymotic death-rate in these towns averaged 2·0 per 1,000, the highest rates being recorded in Greenock and Paisley. The 231 deaths registered in Glasgow included 11 from diarrhœa, 6 from whooping-cough, 5 from measles, and 2 from scarlet fever. Two fatal cases of diphtheria were recorded in Edinburgh.

TYPHOID FEVER AT WOOLWICH.

AT the recent meeting of the Woolwich Local Board an outbreak of typhoid fever was reported. The medical officer of health informs us that up to June 6th there had been nineteen cases in the Woolwich district. In ten of these cases the milk was supplied from the same dairy, and the others from various sources. In four cases the milk supply was from Princes Road, Plumstead, Dairy, where the epidemic first broke out; this dairy has been closed by the Plumstead authorities.

HONITON BOARD AND THE APPOINTMENT OF NURSE.

WE read with some surprise in *Pulman's Weekly News* that this Board at the last meeting, when they had before them the applications for the vacant post of nurse to the infirmary, took the retrograde step of appointing a woman who had had no previous experience in nursing. According to the report she had, until the present time, been in service as a house and parlour maid. It may be remembered that the nurse who, until recently, held the post was superannuated, and those who wished well to the pleasant union in the old Devonshire town were watching with interest the choice of her successor. There had been no trained nursing in the infirmary, and a suitable opportunity has now occurred to remedy that defect. This action on the part of the Board is very disappointing, and we trust that the Local Government Board will not sanction the appointment.

THE BATH INFIRMARY.

WE are gratified to hear through a correspondent that this infirmary has now a trained superintendent nurse and some trained nurses, and that the infirmary is on the ascending scale of improvement. Our readers will remember how earnestly we strove in the cause of the helpless poor in this infirmary, and will share in our pleasure in the knowledge that our efforts on their behalf have borne some fruit.

THE NOTIFICATION OF INFECTIOUS DISEASES.

DR. GEORGE THOMSON was summoned recently at the instance of the Oldham sanitary authority for having neglected to report three cases of enteric fever. After hearing a considerable amount of evidence the case was dismissed, the Chairman saying that the magistrates were unanimously of opinion that Dr. Thomson had not wilfully and without reasonable cause offended against the section of the Act in question. The interest lies in the fact that Dr. Thomson admitted in writing that he had diagnosed the disease on May 14th but had postponed reporting until he had verified his diagnosis. He had not, in fact, yet reported the cases on May 21st, when he met the medical officer of health and explained that there had been a difficulty in diagnosis, that influenza was prevalent, and that one case which had begun in the same way as the others had become convalescent in a few days. The whole case hinged upon whether the admission that he had diagnosed the case on May 14th, although he waited later to verify his diagnosis, could be taken to mean that on May 14th he was in the wording of the Act "aware" that the patient was suffering from an infectious disease, it being maintained on the one hand that a diagnosis meant knowledge, on the other that it meant suspicion.

POPULATION OF AND SALARY FOR A MEDICAL DISTRICT.

W. W. writes to ask the following questions:

1. What is the limit of population allowed under one district medical officer?
2. By whom and on what system is the salary for a district fixed?
3. What would be a proper salary for a rather wide district, containfrom 7,000 to 8 000 population?

*** 1. For England the population of a medical district is not to exceed 15,000.

2. The salary for a district is generally fixed by the guardians and sanctioned by the Local Government Board, but on what basis we cannot say.

3. We cannot think that less than £200 per annum can be a proper salary for such a district, but we doubt whether any Board of Guardians would offer as much as this.

VACCINATION GRANTS.

PUBLIC VACCINATOR writes, asking the reason why grants for successful vaccination are not forthcoming. He has secured the grant on two previous occasions, and was given to understand that his work was considered satisfactory; at least no fault was found with it. It is now over six months since the inspection took place. He looks to the grant to recuperate him slightly for the cases he loses yearly through complying with Local Government Board instructions.

*** Assuming that the public vaccinator was recommended for award, it is not easy to say with whom the delay rests. The Local Government Board no longer issue these awards; they only certify to the county councils concerned as to the amounts which should go to the several public vaccinators, and it rests with the county council to issue the grant. Inquiry either of the Local Government Board or of the clerk to the county council would doubtless elicit the fact as to whether the needed certificate has been issued by the central authority.

MEDICAL NEWS.

Dr. Thorne Thorne, C.B., F.R.S., has been elected a foreign member of the Société Française d'Hygiène.

The Worshipful the Master of the Salters' Company will distribute the medals and prizes to the students of Guy's Hospital on Wednesday, July 3rd, at 3 P.M.

Dr. Pringle has resigned the appointment of Assistant Physician to the Middlesex Hospital, but will retain that of Physician in charge of the Skin Department.

Presentation.—Dr. W. Wollaston Groome, on the occasion of his leaving Stowmarket, where he has practised for many years, was recently presented with an address signed by a large number of residents in the neighbourhood, accompanied by a two-handled silver loving cup and cover, as a token of of affection and esteem. Mrs. Groome at the same time received a gift of plate.

The triennial festival dinner in aid of the funds of the Royal Maternal Charity, of which the Queen is patron and the Duke of Argyll president, took place on June 12th at the Albion, Aldersgate Street. Dr. Robert Barnes presided. The Queen sent a contribution of £50. During the evening the Secretary reported that donations and subscriptions had been received amounting to about £800.

Wood Green Cottage Hospital.—A cottage hospital, which has been erected at Wood Green at the expense of Mr. Passmore Edwards, was opened on June 15th by Mrs. Passmore Edwards in the presence of a large assembly. The new hospital, which has been built from the designs of Mr. Charles Bell, at a cost of £2 000, provides accommodation for eight patients, with rooms for the matron and staff.

Male Nurses Co-operation.—We are informed that the Male Nurses Temperance Co-operation, of 8, Great Marylebone Street, Portland Place, W., is making satisfactory progress. It started with 6 men in March, 1894; it has now over 30 male nurses, and the demands upon it are more numerous than can be met. The main object of the association is to improve the class and condition of male nurses, and it has at the same time conferred great benefits upon the public and on the medical profession. The nurses are total abstainers, a guarantee which it was considered necessary to enforce owing to the unfortunate circumstances connected with male nursing in the past.

The Antitoxin Treatment of Diphtheria in America.—Statistics of diphtheria in Connecticut show that in 87 per cent. of the cases in which antitoxin has been used the patients have recovered. Since January 1st there have occurred 288 cases of diphtheria in the city of Newark. Of these 90 were treated with antitoxin and 198 were not so treated. Of the 90 cases, 23 died; of the 198, 60; the percentage in the former case being 24·4 against 31·4 in the latter. The American Pediatric Society, at a recent meeting held at Hot Springs, passed a resolution to the effect that the evidence thus far produced regarding the effects of diphtheria antitoxin justifies its further and more extensive trial.

Sir George Buchanan, M.D., of 27, Woburn Square, Medical Officer to the Local Government Board, who died on May 5th last, aged 64 years, left personalty to the gross amount of £7,739. He bequeathed 100 guineas to his friend, Mr. Power, of Greenhithe, Assistant Medical Officer to the Local Government Board, and one of the executors of his will, desiring that such physician as Mr. Power should designate should be invited to make an examination of the testator's body. Sir George bequeathed £600 to be applied during six years for the maintenance and education of his son, Robert James, who is entered for the Navy, and he bequeathed to his wife, Dame Alice Mary Asmar Buchanan, £250, his household effects, and the income during her widowhood of his residuary estate, which, subject to her interest therein, is to be in trust in equal shares for all his children.

Sanitary Improvements at Rhyl.—The Rhyl Urban District Council celebrated on June 3rd the completion of the new sewerage scheme which they have had carried out under the supervision of Mr. Baldwin Latham. The large storage reservoir, which is unique in construction, can contain 382 000 gallons, nearly treble the maximum amount ever likely to be collected, and discharges twice a day within about an hour of the first ebb tide, by an 18 inch iron pipe carried three-quarters of a mile into the sea, and bent towards its outer end, so as to suit the tidal current. The engine house contains six gas engines, two smaller engines being used for ordinary pumping, two larger being used in dealing with storm water, and the remaining two small engines being employed in working a screening apparatus. All the engines are in duplicate, and each is complete in itself and entirely independent of the others. An automatic gearing apparatus controls the action of the pumps, so that while the engine works uninterruptedly, the pumping goes on only when there is material to be removed from the discharging end of the sewers. The town sewers have all been reconstructed of new materials laid down on concrete foundations.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; doubly qualified. Salary, £150 per annum, with an allowance of £30 per annum for cab hire, furnished rooms, fire, lights, and attendance. Applications to Alex. Forrest, Secretary, by July 15th.

BRADFORD INFIRMARY AND DISPENSARY.—Honorary Physician and Honorary Assistant Medical Officer. Applications to the Secretary for the former appointment by July 22nd, and for the latter, June 24th.

CARDIFF UNION.—Medical Officer for the Grangetown District. Salary, £50 per annum; no extra fees, except lunacy, but medicines and medical appliances provided by the Guardians Appointment for one year. Applications to Arthur J. Harris, Clerk, Queen's Chambers, Cardiff, by July 5th.

CITY OF LONDON UNION INFIRMARY, Bow Road, E.—Resident Medical Officer; doubly qualified. Applications, on forms provided, to F. W. Crane, Clerk, Guardians' Offices, 61, Bartholomew Close, by July 2nd.

CORK DISTRICT LUNATIC ASYLUM.—Two Assistant Medical Officers, unmarried, and not more than 30 years of age, doubly qualified. Salaries, £100 per annum, with furnished apartments, rations, washing, fuel, light, and attendance. Applications to the Resident Medical Superintendent by June 29th.

COUNTY LUNATIC ASYLUM, Lancaster.—Assistant Medical Officer. Commencing salary, £100 per annum, with board, etc. Applications to the Medical Superintendent.

CROYDON HOSPITAL.—Medical Officer for the No. 4 District; must reside within the District. Salary, £120 per annum, with the usual extra medical fees prescribed by the order of the Local Government Board. Applications, on forms provided for the purpose, to Harry List, Clerk to the Guardians, Union Offices, Mayday Road, Thornton Heath, Surrey, by June 27th.

DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Two Assistant Dental Surgeons. Applications to J. Francis Pink, Secretary, by July 8th.

DISTRICT INFIRMARY, Ashton-under-Lyne.—House-Surgeon, doubly qualified. Salary, £90 per annum, with board and lodging. Applications marked "Application for the Office of House-Surgeon" to William Bottomley, Honorary Secretary, 120, Stamford Street, Ashton-under-Lyne, by June 25th.

GREAT NORTHERN CENTRAL HOSPITAL.—Senior House-Surgeon. Appointment for six months. Salary at the rate of £60 per annum, with board, lodging, and laundry in the hospital. Applications on forms to be obtained from the Secretary to Lewis H. Glenton Kerr, Secretary, by June 24th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer. Salary, £200 per annum, with board and residence. Must be doubly qualified, single, and not more than 25 years of age. Applications to the Secretary by July 3rd.

LONDON HOSPITAL, Whitechapel, E.—Medical Electrician. Applications to the House Governor by June 29th.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End.—Senior Demonstrator of Anatomy. Salary payable by a percentage of fees. Applications to Munro Scott, Warden, by July 8th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Must be doubly qualified. Board, washing, and residence in the hospital provided, and an honorarium of 5 guineas at the expiration of the term. Applications to A. W. Bodger, Secretary.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Two fully qualified Female Clinical Assistants for the Out-patient Department. Applications to the Secretary by June 26th.

NORTH STAFFORDSHIRE INFIRMARY AND EYE INFIRMARY, Hartshill, Stoke-on-Trent.—Assistant House-Surgeon for six months. Applications to the Secretary by July 1st.

ROYAL CORNWALL INFIRMARY, Truro.—House-Surgeon; unmarried; doubly qualified. Salary for the first year, £120, increasing by £10 a year to £150, with furnished apartments, fire, light, and attendance Applications to the Secretary before July 1st.

ROYAL HOSPITAL FOR WOMEN AND CHILDREN, Waterloo Bridge Road, S.E.—Clinical Assistant and Anæsthetist for six months, doubly qualified. Salary at the rate of £30 per annum. Applications to E. Garrard Kestin, Secretary, by June 24th.

ROYAL VICTORIA HOSPITAL, Bournemouth.—House-Surgeon and Secretary. Salary, £100 per annum, with board. Appointment for two years. Applications to the Chairman of the Committee by July 17th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square. Honorary Dental Surgeon. Applications to the Secretary by July 1st.

SHEFFIELD GENERAL DISPENSARY. — House-Surgeon and Senior Assistant House-Surgeon, doubly qualified. Salary for the former £120 per annum, with a prospective advance of £10 per year for the second and third years; and for the latter £80 per annum, with board, lodging, and washing. Applications to the "Medical Staff of the Sheffield General Infirmary, to the care of the Secretary," by July 13th. The election will take place on July 26th.

UNIVERSITY OF ABERDEEN.—Eleven Examiners. Appointment for one year. The Examiners in Medicine and Surgery will receive grants of £50, and the other nine Examiners £40. Applications to Robert Walker, Secretary to the University Court, by July 3rd.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Physician to the In-patients. Honorarium, £50 per annum, with board and lodging in the hospital. Applications to the Secretary by June 29th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant. Appointment for six months. Board, lodging, and washing provided. Applications inscribed "Application for Resident Assistant" to the Secretary of the Medical Committee by June 24th.

WREXHAM INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £80 per annum, with furnished rooms, board, gas, coal, and attendance. Applications, on forms to be obtained of the Secretary, to Mr. George Whitehouse, 27, Regent Street, Wrexham, by June 29th.

MEDICAL APPOINTMENTS.

BRADFORD, John Rose, M.D., D.Sc.Lond., M.R.C.S., appointed Examiner in Elementary Anatomy for the First Examination of the Royal College of Surgeons of England.

BUCKMASTER, George Alfred, M.A., M.D.Oxon., M.R.C.S.Eng., appointed Examiner in Elementary Biology for the First Examination of the Royal College of Surgeons of England.

CALWELL, W., M.A., M.D., Registrar of the Royal Hospital, Belfast, appointed Physician to the Consumptive Department, Throne Hospital, Belfast, *vice* Strafford Smith, M.D., resigned.

COOPER, Alfred J. S., appointed Medical Officer to the Workhouse of the Aston Union.

CRAWFORD, Douglas, M.B., F.R.C.S., appointed Honorary Assistant Surgeon to Stanley Hospital, Liverpool, *vice* S. Kellet-Smith, F.R.C.S., resigned.

DAVOREN, John, L.R.C.P., L.R.C.S.I., appointed Medical Officer of the Holborn Union Schools.

DEAN, Henry Percy, M.D.Lond., F.R.C.S.Eng., appointed Examiner in Elementary Biology for the First Examination of the Royal College of Surgeons of England.

DUNCAN, William, M.D.Brux., F.R.C.S.Eng., M.R.C.P.Lond., appointed Examiner in Midwifery for the Final Examination of the Royal College of Surgeons of England.

FAGGE, Robert Hilton, M.R.C.S., L.R.C.P., appointed House-Physician to Leicester Infirmary.

FOSTER, Michael B., M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Leicester Infirmary, *vice* G. Winfield-Roll, M.B. Cantab., resigned.

GILPIN, R. H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health to the Pebworth Rural District Council.

HALLIBURTON, W. D., B.Sc.Lond., M.R.C.S., appointed Examiner in Anatomy for the Second Examination of the Royal College of Surgeons in England.

HANDFIELD-JONES, Montagu, M.D.Lond., M.R.C.P., M.R.C.S.Eng., appointed Examiner in Midwifery for the Final Examination of the Royal College of Surgeons of England.

HARRIS, Wilfred J., B.A., M.B., B.C.Cantab., appointed Junior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* Dr. Warrington, resigned.

HASLAM, William Frederick, F.R.C.S.Eng., appointed Examiner in Anatomy for the First Professional Examination for the Fellowship of the Royal College of Surgeons of England.

HERMAN, George Ernest, M.B., F.R.C.P.Lond., F.R.C.S.Eng., appointed Examiner in Midwifery for the Final Examination of the Royal College of Surgeons of England.

HIND, Albert, L.R.C.S.Edin., L.S.A., reappointed Medical Officer of Health to the Southampton Town Council.

HUTCHINSON, Jonathan, jun., F.R.C.S.Eng., appointed Examiner in Elementary Anatomy for the First Examination of the Royal College of Surgeons of England.

JACOBSON, Walter H. A., M.B., M.Ch.Oxon., F.R.C.S.Eng., appointed Examiner in Anatomy for the First Professional Examination for the Fellowship of the Royal College of Surgeons of England.

JESSOP, Walter H. H., M.A., M.B.Cantab., F.R.C.S.Eng., appointed Examiner in Elementary Anatomy for the First Examination of the Royal College of Surgeons of England.

LOCKWOOD, C. B., F.R.C.S., appointed Examiner in Anatomy for the First Professional Examination for the Fellowship of the Royal College of Surgeons of England.

LOWNE, Benjamin S., F.R.C.S Eng., appointed Examiner in Physiology for the First Professional Examination for the Fellowship of the Royal College of Surgeons of England.

LUCAS, R. Clement, M.B., B.S.Lond., F.R.C.S., appointed Examiner in Anatomy for the Second Examination of the Royal College of Surgeons of England.

MCDONNELL, Thomas F., L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Fifth District and of the Workhouse of the Hailsham Union.

MAKINS, George H., F.R.C.S.Eng., appointed Examiner in Anatomy for the Second Examination of the Royal College of Surgeons of England.

MAXWELL, J. C., M.A., M.B., C.M.Edin., appointed Senior House-Surgeon to the Halifax Infirmary.

POWER, D'Arcy, M.A., M.B.Oxon., F.R.C.S Eng., appointed Examiner in Anatomy for the Second Examination of the Royal College of Surgeons of England.

ROBERTS, F. T., M.D.Lond., F.R.C.P., appointed to the Chair of Principles and Practice of Medicine at the University College, London.

ROUGHTON, Edmund W., F.R.C.S.Eng., appointed Examiner in Elementary Anatomy for the First Examination of the Royal College of Surgeons of England.

ROUTH, A. J. M'C., M.D., B.S Lond., M.R.C.S.Eng., appointed Examiner in Midwifery for the Final Examination of the Royal College of Surgeons of England.

SCHÄFER, E. A., M.R.C.S.Eng., F.R.S., appointed Examiner in Physiology for the First Professional Examination for the Fellowship of the Royal College of Surgeons of England.

SEATON, Edward, M.D., F.R.C.P.Lond., M.R.C.S., appointed Examiner in Part II for the Diploma in Public Health of the Royal College of Surgeons of England.

SENIOR, Arthur, M.B., C.M.Glasg., appointed Medical Officer of Health to the Kingston and The Dittons Urban District Council.

SPENCER, Walter G., M.B., F.R.C.S.Eng., appointed Examiner in Anatomy for the Second Examination of the Royal College of Surgeons of England.

STARLING, Ernest H., M.D., B.S.Lond., M.R.C.S.Eng., appointed Examiner in Physiology for the First Professional Examination for the Fellowship of the Royal College of Surgeons of England.

STIRLING, William, M.D., C.M Edin., F.R.S., appointed Examiner in Physiology for the First Professional Examination for the Fellowship of the Royal College of Surgeons of England.

STODDART, W. H. B., M.B., B.S.Lond., appointed Senior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* Dr. Whiting, appointed Registrar.

STORR, F. A., B.A.Oxon., L.S.A., appointed Junior House-Surgeon to the Halifax Infirmary.

SUTTON, J. Bland, F.R.C.S., appointed Examiner in Anatomy for the First Professional Examination for the Fellowship of the Royal College of Surgeons of England.

TODD, H. B., M.R.C.S., L.R.C.P.Lond., reappointed Medical Officer of Health to the Charlton King's District Council.

TURNER, George, M.B., D.P.H.Cantab., M.R.C.S.Eng., appointed Examiner in Part I for the Diploma in Public Health of the College of Surgeons of England.

WALSHAM, George H., F.R.C.S.Eng., appointed Examiner in Anatomy for the Second Examination of the Royal College of Surgeons of England.

WATERHOUSE, Herbert F., M.D.Edin., F.R.C.S.Eng., appointed Examiner in Elementary Anatomy for the First Examination of the Royal College of Surgeons of England.

WEEKS, Dr. C. C., appointed Medical Officer for the Pinchbeck District of the Spalding Union, *vice* Dr. Swann.

YOUNG, Alfred Harry, M.B.Edin., F.R.C.S.Eng., appointed Examiner in Anatomy for the Second Examination of the Royal College of Surgeons of England.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. A. Stanford Morton: Ocular Injuries. London Throat Hospital, Great Portland Street, 8 P.M.—Mr. George Stoker: Impaired Movements of the Vocal Cords.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Impulsive, Homicidal, and Moral Insanity.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. Marcet: The Croonian Lectures. A Contribution to the History of the Respiration of Man. Lecture III.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 1 P.M.—Dr. Payne: Affections of the Skin produced by Animal Parasites. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. W. Lang: Iritis.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL, 5 P.M.—Dr. W. H. Dickinson: On some Points Touching Disease of the Heart. Baillie Lecture II.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Beevor.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND, 5 P.M.—Dr. Shephard T. Taylor: Notes of cases of Abnormal Growth of Fingernail. Cases will be shown by Mr. Bidwell, Dr. Stowers, and others.

THURSDAY.

LONDON POST-GRADUATE COURSE, Hospital for the Paralysed and Epileptic, Queen Square, 2 P.M.—Mr. Charles A. Ballance: Diagnosis of Brain Abscess following Ear Disease. Hospital for Sick Children, Great Ormond Street, 3.30 P.M.—Mr. Edmund Owen: Cases from the Surgical Wards. Central London Sick Asylum, Cleveland Street, 5.30 P.M. Mr. John Hopkins: Cases in the Wards.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. Marcet: The Croonian Lectures. A Contribution to the History of the Respiration of Man. Lecture IV.

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 to 5 P.M.—Professor Crookshank: Lecture: Tetanus, Rabies, and Cholera. Practical work: Examination of Comma Bacilli, Chemical and other Tests.

SATURDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital 11 A.M.—Dr. Percy Smith: Lunacy Law.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

BAIN.—On June 5th, at Thornfield, Heaton, Mersey (the residence of her mother), the wife of W. Bain, F.R.C.S.Edin., of Heaton Chapel, Manchester, of a son.

CAIRD.—On June 5th, at 21, Rutland Street, Edinburgh, the wife of F. M. Caird, M.B., F.R.C.S.Edin., of a son.

REDFERN.—On June 13th, at Croindene, Wellesley Road, Croydon, the wife of John J. Redfern, M.A., M.D., M.Ch., M.A.O., of a son.

MARRIAGES.

BOGLE—MOORE.—On June 12th, at Hampstead Parish Church, by the Rev. T. W. M Lund, Chaplain to the School for the Blind, Liverpool, and the Rev. J. A. Lindam, Vicar of Dillon Priors, Shropshire. James Linton Bogle, M.D., of New Ferry Park, Cheshire, to Agnes Elizabeth Collingham, elder daughter of Henry Moore, Esq., R.A., R.W.S., of Collingham, Maresfield Gardens, Hampstead, N.W.

ECCLES—ANSTIE.—On June 12th, at the Baptist Chapel, Devizes, by the Rev. J. F. T. Hallowes, M.A., of Birmingham, William Meadows Eccles, M.S.Lond., F.R.C.S.Eng., of Harley Street, W., son of W. Soltau Eccles, Esq., of Upper Nowood, to Anna Coralie, second daughter of Edward B. Anstie, Esq., of Devizes.

HILL—PEARCE.—On June 12th, at the Parish Church, Beer Ferris, South Devon, Rowland Hill, M.R.C.S.Eng., to Adeline Bertha, daughter of M. W. Pearce, of Dalymount, Beer Alston, Devon.

HILLABY—CROWTHER.—On June 12th, at the Parish Church, Castleford, by the Rev. Gardner Smith, Rector of Castleford, assisted by the Rev. J. J. Christie, M.A., Rural Dean and Vicar of Pontefract, Arthur Hillaby, M.R.C.S.Eng., L.R.C.P.Lond., son of John Hillaby, J.P. of Pontefract, to Mary, youngest daughter of the late Joseph Crowther, of Weetworth, Glass Houghton. No cards. At home July 23rd, 24th and 25th.

MCCORMACK—PERRIN.—On June 19th, at St. George's, Kiddermiuster, Henry James McCormack, L.R.C.P.I., L.R.C.S.I. & L.M., son of Henry Hugh McCormack, of Bhownugger, Katywar, India, to Lucy Gertrude, fourth daughter of the late Edward Perrin, of Glenelg Villa, Kiddermiuster.

MARSH—HARDIE.—On June 12th, at Darenham Church, by the Rev. R. Marsh, father of the bridegroom, assisted by the Rev. R. M. P. Butler, M.A., Alfred Herbert Marsh, Surgeon-Captain 3rd Volunteer Battalion Cheshire Regiment, Northwich, to Annie, second daughter of William Hardie, Esq., The Elms, Leftwich, Northwich. No cards.

MARTIN—BLACKBURN.—On June 6th, at Wesley Chapel, Birkenhead, by the Rev. Thomas Hind, M.A., Arthur James Martin, M.D.Lond., of Bloxwich, eldest son of Alfred Martin, Esq., Birmingham, to Beatrice, third daughter of Edwin Blackburn, Esq., C.E., of Birkenhead.

MURDOCH—SIMPSON.—On June 18th, at St. James's, Tunbridge Wells, by the Rev. A. T. Scott, Vicar, assisted by the Rev. R. E. V. Hanson, Alan Murdoch, M.R.C.S., L.R.C.P., eldest son of H. H. Murdoch, of Calverley Lodge, Tunbridge Wells, and late of Calcutta, to Eva Maria, daughter of the late Thomas Fox Simpson, of Clyde House, Tunbridge Wells.

POLLARD—GRAHAM.—On Wednesday, June 12th, at The Oratory, South Kensington, by the Rev. Sebastian Bowden, Reginald Pollard, M.B., M.R.C.S., of Southlands, Torquay, to Beatrix Lucy Stewart Graham, second daughter of Major-General G. F. J. Graham, of 4, Buckingham Palace Mansions, London.

WHITE—FITZ GERALD.—On June 18th, at Framingham Pigot, by the Rev. E. Kinder, assisted by the Rev. R. H. Prowse, Rector of the parish, Richard Wentworth White, M.R.C.S., etc., 26, St. Giles's Street, and Chester House, Norwich, eldest son of the late Richard White, of that city, to Ethel, daughter of Major Fitz Gerald, of Framingham Hall.

DEATHS.

HADDEN.—On the 6th instant, at St. Thomas's Hospital, London, John Hadden, M.D., of White Hall, Hampton Court, aged 53, for 25 years practising at Hornsea, Lincolnshire, and lately at Wilton Lodge, Norbiton, Kingston-on-Thames.

JAMES.—On June 17th, at Barton under Needwood, James Prytherch James, of Eastleigh, of heart disease after influenza, aged 41.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

M.D. MEMBER wishes to know the composition of a proprietary medicine —Gibson's Mixture—used in gout and rheumatism.

G. F. G. would be glad to hear of any institution where a little girl, aged 5, who is suffering from cretinism and is unable to talk or walk, could be taken in, either for slight payment or by a letter of recommendation?

M.D. wishes to know what is the best book on Sicily, and which is the best winter station on the island. He has heard favourable mention of Palermo, Aci Reale, Catania, Taormina.

*** M.D. will find the information he requires in Ball's *Mediterranean Winter Resorts*. Palermo is the most popular winter resort in Sicily.

ALBUMINURIA.

SPES asks for a sufficiently delicate test for albumen in urine not discoverable by heat or nitric acid?

*** The tests for albumen are innumerable. We may mention picric acid, potassio-mercuric iodide, and ferrocyanide of potassium. Reference may be made to Finlayson's *Clinical Manual*, Ralfe on *Diseases of the Kidneys*, or *Clinical Diagnosis*, by von Jaksch, translated by Cagney. In life insurance examinations it is customary, we believe, to rely on the tests by nitric acid and by boiling.

VENTILATION.

DR. T. D. COOK (Torquay) asks to be referred to books giving the various methods of ventilating public buildings and dwelling houses?

*** Our correspondent might consult: Billings: *Ventilation and Heating*. New York: *Engineering Record* Office. 1893.—A. Buchan: *Ventilation and the Art of Ventilating Buildings*. London: Crosby, Lockwood, and Co. 1891.—Sir D. Galton: *Healthy Hospitals, etc., and Healthy Dwellings*. 1893. *Construction of Healthy Dwellings*. 1880. Oxford: Clarendon Press.—R. H. Read: *Original Investigations on the Art of Ventilating School Buildings*. Washington: 1891. Chicago: *Journal* of the American Medical Association.—Stevenson and Murphy: *Hygiene*. London: J. and A. Churchill. Vol. 1. 1892.

ANSWERS.

UNCAS, if he feels it to be essential to his happiness to be tattooed, should consult his medical adviser as to the use of cocaine.

VARIOLA.—We fear that no action will lie against the bonesetter. The slander is only implied, not direct.

DR. CLIBBORN'S letter has been forwarded to the Secretary of the Museum Committee.

CARCINOMA.—Our correspondent might apply to Professor Dr. E. Emmerich, University of Munich; or to M. le Professeur Charles Richet, 15, Rue de l'Université, Paris.

F. D.—Bona, Algiers, would not be a pleasant place for Europeans to reside in all the year round, but as an important seaport it, of course, has many French residents. "F. D." should consult Harris's *Practical Guide to Algiers*, price 3s. 6d.

ACETONE.—Full particulars concerning the Fellowship and *Journal* of the Chemical Society can be obtained from the Secretary of that Society, Burlington House, Piccadilly, London, W. The most recent views concerning acetonuria, with references, will be found in v. Jaksch's *Clinical Diagnosis*, translated by Cagney.

R.T.K.—It is, we believe, the rule to advertise vacancies on the medical or surgical staff of a hospital in the medical papers, but every institution is in this matter governed by its by-laws, which usually prescribe the mode in which vacancies are to be made public.

THE INJECTION OF HYDROPHOBIA.

G. F. W.—All evidence at present shows that if the virus of hydrophobia be dried it quickly loses its virulence. With regard to the case of the soil of a kennel the infected woodwork should be burnt and the soil similarly treated by a fire lighted on it. No evidence is at present available to answer the query in the last sentence.

EFFECTS OF ARTIFICIAL RESPIRATION IN STILLBORN INFANTS.

SUFFOLK.—It is very difficult to get air into the lungs of a newborn infant that has never breathed by the ordinary method of artificial respiration, and it may be regarded as certain that lungs cannot be fully inflated in this way. On *post-mortem* examination the lungs should present the appearance of lungs in which respiration has taken place very imperfectly; it is exceedingly improbable that such a lung would float; if it did, the air could easily be expelled from it by compression, causing it to sink.

VACCINATION AND PREVENTIVE INOCULATION.

T.S.—M. Pasteur, in his address to the International Medical Congress in London in 1881, extended the use of the term vaccination to preventive inoculation against anthrax. He did this as a compliment to Jenner, and the term has since been applied to preventive inoculations of all kinds, especially by French writers. This use of the term, as our correspondent points out, is no doubt a source of some ambiguity, but no other alternative for "preventive inoculation" has, so far as we are aware, been suggested.

THE SCOTCH UNIVERSITIES.

ABERDEEN GRADUATE, before rashly making a charge of "unpardonable ignorance," ought to have made quite certain of his own facts. The same papers are set at each of the four universities but the examiners are different. Each university appoints its own set of examiners, who examine the papers of their own university only. The joint board certainly exercises control over the examiners, but anyone not wholly ignorant of examination work knows that a very slight diminution in the degree of severity in the marking of the papers could account for a material rise in the percentage of passes.

DEATH CERTIFICATES FOR INSURANCE SOCIETIES.

N. A. P. S.—It is perfectly legal for a medical practitioner to grant a death certificate in any case where he has attended the patient during his or her last illness, that is to say, he could not be liable to any penalty for so doing. In the case, however, of insurance societies, such a certificate would be useless to obtain the insurance money, for it has been enacted that before this can be legally paid a certificate of death from the registrar of the district must be produced by the applicant, which will be in fact a copy of the register, and contain in it the medical certificate. If the insurance society be registered under the Friendly Societies' Act, a charge of 1s. only can be made by the registrar for this certificate; but if the Society be unregistered, the charge will be 3s. 6d.

EDUCATION OF THE DUMB.

R.A.S.—Since the passing of the Blind and Deaf Children Education Act the education of children belonging to these two classes is compulsory. Dr Stainer has classes for the education of deaf and dumb children in London. He has also homes for the reception of children of this class who belong to the country. By this Act the guardians of any union are empowered to pay for the education of blind and deaf children at an institution. It must be understood, therefore, that in this case the guardians should make application to Dr. stainer, whose address is Paddington Green, to receive the child into one of his homes so that the little girl may be educated. The guardians can arrange with him the sum they are to pay. In case Dr. Stainer's homes should all be full he would, no doubt, be able to inform the guardians when he would be likely to have a vacancy or would inform the guardians of the name of some other institution where the education could be given.

CAMBERWELL PROVIDENT DISPENSARY.

MUNICEPS.—Our correspondent draws attention to a recent report of the above dispensary in the columns of the *Leisure Hour*. From this it appears there are nearly 14,000 members of the dispensary, and that the number of attendances for advice last year was 96,394, of which 23,000 were visits at the patients' homes. The payments of the members amounted to £1,437, which was divided among nine or ten qualified men, so that on an average each benefit member paid a little over 2s. a year. If there are ten medical officers, each received £143 14s. 7d. for 2,300 visits and 7,536 consultations, being an average payment of 3½d. for each.

Our correspondent asks whether this is not "sweating" the profession? There can be little doubt that it is a form of "sweating," and one that is terribly prevalent at the present time; the contributions paid towards the medical fund by the members of nearly all clubs and friendly societies are the merest pittances, and ought to be far higher. The fact that these contributions are no more, nay, in some cases are even less, than thirty years ago, is a sufficient condemnation of the present system.

NOTES, LETTERS, Etc.

A PARLIAMENTARY OBSESSION.

SOME amusement has been caused in Parliamentary circles in Australia by a sentence in a recently issued report of the New South Wales Lunacy Commission. Describing the symptoms of a lunatic in one of the asylums, the Commissioners wrote: "The first sign of his insanity was that he neglected his business and desired to become a member of Parliament."

THE CASE OF MR. C. B. TOWNSHEND.

THE following additional subscriptions have been received, and are hereby gratefully acknowledged:

	£	s.	d.
Dr. John P. Henry, Lewisham	0	10	0
Dr. J. Willoughby Cole, Bolsover	0	10	0
Dr. W. Clark, Norwood	1	0	0
Dr. E. C. Greenwood, St. John's Wood	5	5	0
Dr. Strangman Grubb, Ealing	1	1	0
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Dr. R. E. Foott, Wood Green	0	10	6
Dr. Garrod Thomas, Newport, Mon.	3	0	0
Dr. H. Buss, Ealing	0	10	0
Dr. Charles Gage Brown, Sloane Street	1	1	0

Further subscriptions are earnestly requested, and will be received and acknowledged by the Rev. H. Townshend, 41, King Henry's Road, N.W.

HYDROPHOBIA ALLEGED TO FOLLOW THE BITE OF A HEALTHY DOG.

BRIGADE-SURGEON-LIEUTENANT-COLONEL EDWARD NICHOLSON (Seaforth Barracks, Liverpool), writes: In your remarks on Dr. J. H. Godson's evidence, you state that there is no evidence of the probability of a healthy dog being able to give hydrophobia by his bite. May I offer a few recorded instances which I collected many years ago, when studying the action of other venomous saliva, that of certain kinds of snakes?

1. A medical practitioner in Jamaica died of hydrophobia contracted by the bite of a pet dog, in perfect health at the time of the death.[1]

2. A soldier died of hydrophobia from the bite of a dog which was in perfect health at the time of the death.[2]

3. Case of dog A biting dog B, which afterwards bit dog C. The dogs B and C both died of dumb rabies, A remaining well. Incubation of both cases 14 to 20 days[3].

4. A man died January 22nd, 1876, from a dog bite received December 16th, 1875, bitten on arm, leg, and face. Dog produced and found healthy.[4]

5. A boy died of hydrophobia one month after being bitten by a dog, which was well at the time of death. Under care of S. Pratt, M.D., Maidstone.[5]

6. A child of 5 years died at Stockport seven weeks after being bitten by a dog, which was well at the time of the inquest.[6]

The above must be but a few out of the many similar cases which have probably been recorded in the past twenty years or so. They are very inconvenient cases, and may therefore be condemned *tant pis pour les faits*. I think, however, that it would be wiser to look at them boldly and investigate them, modifying as required the theories which they weaken.

*** Brigade-Surgeon-Lieutenant-Colonel Nicholson omits an essential fact in the description of the cases he quotes, without which the cases are worthless. The essential fact wanting is proof that the persons in question were never bitten by other dogs, the rabidity of which caused the fatal infection. No "case" can, in a scientific sense, be inconvenient, but undoubtedly the cases referred to by Dr. Nicholson lack that full investigation he alludes to as so desirable.

DR. JOHN HADDON (Hawick, N.B.) writes: It seems necessary for several reasons that I should notice the criticism of my letter on hydrophobia, which appears in the BRITISH MEDICAL JOURNAL of June 8th.

The writer, in commenting on my second point, in which, from personal knowledge, I report a case of hydrophobia occurring three weeks after the bite of a healthy dog, says "it is clear that the patient was not infected by the bite from his own dog, as that would make the incubation period for subcutaneous infection less than three weeks, whereas five to six is the shortest yet recorded." That is hardly correct, seeing that he has my case (where the incubation was three weeks) under consideration, and there may be many similar cases which have not been recorded. Again, if the writer denies that that bite, the only one the patient had had, did not cause the hydrophobia, then we are forced to conclude that hydrophobia may occur without a bite, which I fancy the writer himself will deny. Under these circumstances, far from appearing useless, it appears necessary to discuss the matter further.

LOCAL CANDIDATES AND THE PUBLIC ADVERTISEMENT OF VACANCIES.

ANOTHER D.P.H CAMB. writes: I thoroughly endorse all that "D.P.H." writes in regard to the above subject. It seems a scandalous thing that authorities should make a pretence of inviting candidates to apply for an appointment which, as "D.P.H." very justly remarks, has been virtually given to a local candidate. Apart from the trouble, expense, and anxiety caused to candidates at a distance, the procedure is absolutely illogical and inane, and deserves the most severe censure. Such conduct can only tend to make well qualified and experienced candidates chary of wasting their time and money in answering these bogus advertisements, and in future authorities who stoop to such devices will only have themselves to blame if they are obliged to fall back on "Hobson's choice." It is to be hoped that intending candidates will take this lesson to heart.

DEFECTIVE EYESIGHT IN THE MERCANTILE MARINE.

MR. C. H. LEET, F.R.C.S., late Surgeon-Major A.M.S. (Waterloo, Liverpool) writes: I beg leave to thank you on behalf of the travelling public and medical department of the mercantile marine for publishing in the BRITISH MEDICAL JOURNAL of May 18th Mr. Bickerton's invaluable evidence on this subject given to the President of the Board of Trade last February.

In this seafaring community the subject has been keenly discussed,

[1] *Lancet*, March 29th, 1873.
[2] *Madras Medical Journal*, March, 1872.
[3] *Veterinary Journal*, 1876.
[4] *Ibid*
[5] *Ibid*, 1877.
[6] *Ibid*, 1878.

and another practical fact, not included in Mr. Bickerton's evidence, has startled the relatives of all those who go down to the sea in ships, namely, that a comparatively small amount of myopia in officers and seamen in twilight and deficient illumination generally causes almost complete blindness, and that snow, rain and fog will produce the same effect; that the glare and strain of tropical voyaging upon the officer's and seaman's eyesight may be temporarily relieved by proper spectacles to correct the myopia, but in damp weather the spectacles get clouded over by atmospheric moisture and cannot be considered reliable, or even seamanlike, on duty on the bridge. Why has nothing been done these four months to obtain from Parliament the necessary powers for the Board of Trade to establish efficient regulations to prevent incompetent officers and seamen from being able to endanger lives and property through their incompetence?

In reply to my circular letter No. 17 on Marine Sanitation, forwarded to all nautical and medical papers, to Dr. Caldwell, the ex-Cunard Surgeon, Mr Bickerton (Liverpool), and army and navy medical authorities, all were in favour of my recommendation that the Marine Department of the Board of Trade should have a medical adviser at head quarters, analogous to the Director-General of the Army and Navy Medical Departments, with whom should be in touch the medical surveyors and medical emigration inspectors at our large ports, and who should ensure the *bonâ-fide* carrying out of the new regulations re vision tests, and receive complaints from mercantile marine medical officers of evasions of the sanitary requirements of the Board of Trade, such evasions having been practised for years and reported by me, without any amendment, because there is no medical adviser at the Marine Department, Board of Trade.

Where's the "Tuppence"?

Dr. B. Jones (Leigh) writes: Many years ago a certain man went from Jerusalem to Jericho, and happened with disasters that are, I hope, well known to all of us, and certain religious professors who found him half dead on the road passed by on the other side. But one good Samaritan took him to an inn and paid the charges of the landlord for looking after him—in advance.

Nowadays the Priest and the Levite would have run, if convenient, to the nearest doctor and requested him to be the Good Samaritan, and would probably vilify him, either publicly or privately, or both, if he did not at once drive off to the accident, whatever other claims he might have upon him at the time. The greater the profession of benevolence, the greater the horror at the request of the doctor for that "tuppence."

I doubt not that most members of our profession, indeed all, do their neighbourly duty as well and as frequently as any other member of the community. The rub comes in where we are expected to act vicariously for anyone who chooses to call upon us for this purpose. To such we may very well say, "Where is your twopence?" I make it a rule never to pay any attention to casual messages or urgency calls unless to my own patients, or when given by some one who is prepared to pay my fee.

If we would only assert ourselves a little more, and let people understand that we must be paid for our services the same as any other profession, the less difficulty there would be in obtaining our rights. We have done so much gratuitously in the past, that people forget we have our bills, rent, rates, and taxes to meet the same as others. In cases of emergency, calls by police or anyone else, a good working policy is to ask, "Where is the tuppence?"

Poisonous Ticks.

Dr. G. T. Mockett (Dresden, Longton, Staffs) writes: The information given in the British Medical Journal of June 1st may mislead readers unacquainted with this insect. With fifteen years' knowledge of them—resident amongst Portuguese—I never found or heard any poisonous properties about carapatoes. The whole matter rests with the extraction of the pantellum, or if any portion of the head remains under the skin it becomes a question of a foreign body, and thus remains to undergo absorption, sets up local irritation and phlegmon. The object is to extract the insect in its entirety, when no harm will result. In Brazil there is also a smaller species known, which one gets when coming in contact with brushwood during the dry season. The remedy for these is a bath containing the rum of the country, to eradicate them from the body, whilst placing the clothes over the *fogao*, or wood fire, to smoke them. I never saw any ill effects when these precautions were properly carried out.

Practice in Queensland.

Member B.M.A. (Queensland) writes: As a warning to medical men who intend emigrating to Queensland, I may point out that 63 applications were received for the position of surgeon to the Winton Hospital, North-West Queensland. Winton is 316 miles from the coast, and about 1,200 miles from Brisbane by steamer, train, and coach; the nearest medical man is 150 miles off, and living is very expensive. The salary is about £350 a year, and a practice of, say, £400 to be picked up in addition. The general tenure of the place is from one to two years, as that is enough to satisfy anybody. The appointment was given to a man who had been in North Queensland for the last fourteen years.

Slates and Disease.

F.R.C.S., D.P.H.Edin. writes: On page 1269 of the British Medical Journal of June 8th, "Slate Cleaner," it would appear as if Dr. Ferguson, Perth, were credited with being the first to call attention to slates being a possible source of the spread of infectious disease. About two years ago, on account of an outbreak of diphtheria amongst school children in West Fife, Dr. Nasmyth, medical officer of health of the county, ordered that all the slates in a particular school be washed antiseptically.

Letters, Communications, Etc., have been received from:

(A) Dr. L. Atthill, Dublin; F. S. Arnold, M.B, Manchester; Dr. J. H. Ashworth, Halstead; Another D.P.H.; Mr. E. G. Archer, Brandon. (B) Mr. H. W. L. Browne, West Bromwich; H. G. Barling, M.B., Birmingham; Dr. B. Bramwell, Edinburgh; Dr. E. G. Barnes, Eye; Mr. W. L'H. Blenkarne, Leicester; Sir H. R. Beevor, Bart., London; Dr. R. J. A. Berry, Edinburgh; Mr. W. Berry, Wigan; Dr. R. Bowles, London; Mr. L. A. Bidwell, London; Mr. W. M. Beaumont, Bath; Mr. S. Bennett, London. (C) Dr. W. A. Carline, Lincoln; Mr. T. Courtney, London; Mr. F. W. Collingwood, Devonport; Dr. W. Clibborn, Bridport; D. Crawford, M.B., Liverpool; Dr. R. W. Carter, Weymouth; Mr. S. Craddock, Bath; Mr. W. E. Chapman, London; Mr. W. Campbell, Hastings; T. D. Cook, M.B., Torquay; Carcinoma. (D) Mr. G. H. Day, Sheffield; Dr. L. Drage, Hatfield; F. Dendle, M.B., Lochgelly; Devon; Mr. E. Davies, Swansea; Mr. D. Drew, London. (E) Enquirens; J. R. Earle, M.B., Bridgwater; Enquirer. (F) Funeral Reform Association, The Secretary of the, London; Mr. E. L. Freer, Birmingham; Mr. H. W. Fagge, Lutterworth; Professor E. Fawcett, Bristol; Sir J. Fayrer, London; Fairplay; Dr. R. F. Fox, Strathpeffer Spa; Mr. S. Forrest, Tunbridge Wells; Dr. T. R. Fraser, Edinburgh. (G) G. F. G. J. H Godson, M.B., Cheadle; Graduate in Medicine M.B. M.A. for twenty years; G. E. (H) E. W. Haydon, M.B., Leicester; Mr. C. G. Havell, Felixstowe; J. Hector, M.B., London; Mr. W. H. Hughes, Ashton-under-Lyne; Dr. C. Holman, London; Mr. W. Harris, Cranbrook; Mr. J. Hammon, Bedford; Mr. B. Hunter, Bristol; Mr. J. Hutchinson, Rugby. (I) Messrs. Ingram and Royle, Limited, London. (K) Dr. W. H. Kelly, Taunton; Mr. R. T. Kent, Glasgow; Dr. L. Kidd, Enniskillen; Mr. H. M. Knowles, London. (L) Lord Mayor of London; L.R.C.S.Edin.; Dr. T. Luson, Norbiton; Mr. R. Lake, London. (M) Member of the Committee; A. V. MacGregor, M.B., Hartlepool; J. C. McClew, M.B., Leek; Mr. J. Murphy, Thyra, Turkey; Mr. W. L. Morgan, Oxford; M.; Mr. E. J. Morris Patricroft; Mr. G. B. Murray, Plymouth; J. C. Maxwell, M.B., Halifax; M B. M.A. Queensland; Dr. J. A. Matson, London; M.D. Mr. J. H. McGee, London. (N) Mr. N. H. Nixon, London; N. D. F.; Mr. E. Nicholson, Liverpool; Dr. H. A. Nicholls, Dominica, West Indies. (O) Dr. L. H. Ormsby, Dublin; Mr. D. Owen, Manchester. (P) Dr. R. Pratt, Leicester; Public Vaccinator; Dr. W. R. Parker, Kendal. (R) Dr. E. Rayner, Stockport; Mr. W. Rennie, Oldham; Mr. A. Roberts, London; Rustic; Mr. T. Ryan, London. (S) Shrewsbury Medical; Mr. W. E. Soffe, Harling; Sanitas Company, London; Dr. T. W. Shortridge, Honiton; Senex; Dr. S. Spicer, London; Dr. A. Sheen, Cardiff; Dr. R. Steele, Hemel Hempstead; Dr. E. M. Skerritt, Bristol. (T) Dr. G. Thomson, Oldham; Mr. F. G. Thompson, London. T. S. Dr. T. W. Trend, Southampton; Mr. A. Todd-White, Lancaster; Mr. J. W. Taylor, Bristol. (U) Uncas. (V) Volunteer; Mr. T. J. Verrall, Brighton; Variola. (W) Mr. W. H. B. Winchester, London; Mr. H. H. Wright, London; R. H. Woods, M.B., Dublin; Dr. T. Whitelaw, Portobello; Wage Limit and Unity; Dr. F. J. Waldo, London; Dr. H. W. Webber, Rickmansworth; Mr. T. M. Watt, Hovingham; Dr. W. White, Hadfield; Mr. A. W. Wight, Trinidad. (X) X. (Z) Z.; etc.

Books, Etc., Received.

The Hunterian Oration: Royal College of Surgeons of England, February 14th, 1895. By J. W. Hulke, F.R.S. London: Taylor and Francis. 1895.

How to Take the Waters, Strathpeffer Spa: Notes for Drinkers at the Wells. By J. F. Fox. Dingwall: Lewis Munro. 1895. 6d.

Laboratory Analysis of Water, Milk, Bread, etc. By George Bidie. London: Henry Kimpton. 1895. 2s.

Diagnostic et Traitement des Tumeurs de l'Abdomen et du Bassin. Par J. Péan. Tome Troisième. Paris: G. Masson. 1895. Fr. 15.

Die Praxis des Chemikers. Von Dr F. Elsner Lieferungs 7, 8, 9, und 10 Hamburg: Leopold Voss. 1895.

The Mercantile Speller. London: R. J. Bush. 1895. 8s.

*** In forwarding books the publishers are requested to state the selling prices.

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A CLINICAL LECTURE
ON
AORTIC ANEURYSM;
WITH SPECIAL REFERENCE TO SENSITIVE AREAS ON THE SKIN.

Delivered at the Edinburgh Royal Infirmary

BY ALEX. JAMES, M.D.,
Physician to the Infirmary.

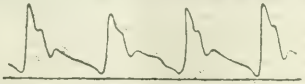
HISTORY AND DESCRIPTION OF A CASE.

D. R., aged 64, a joiner, formerly a soldier, was admitted to Ward 30 in the Royal Infirmary on March 9th, 1895, complaining of pains in the chest and back.

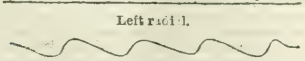
His family history was fairly good, and indicated no tendency to any particular disease. In early life he had been a soldier, and he had gone through all the hardships of the Crimean war; in later life he had been a joiner and had had occasional heavy lifts. With the exception of specific disease in his soldier days, he had had no previous illness. He had always been very temperate, well fed, and well housed. His present illness began about eighteen months ago, when he noticed that he was subject to a dull aching pain in the back of his neck. About six months ago he noticed also a pain in his chest. Those pains were of a dull boring character, and were always brought on by exertion. Recently he had also noticed some loss of power in the right arm. In spite of these pains the patient had been able to continue his work till a week ago, when they became very severe. Applying for relief to a medical man, aortic aneurysm was diagnosed, and he was recommended for admission to the Royal Infirmary.

His height is 5 feet 6 inches, his weight 10 stone 7 lbs., but he states that he used to weigh over 11 stone. His development and muscularity are fairly good for his age, and, with the exception of slight œdema of both ankles and of the right wrist, there are no very obvious morbid appearances. His appetite is good, and he states that he has no difficulty in swallowing. His digestion is also good, but, when the chest pain is severe he states that he is troubled with flatulence. On physical examination his digestive organs appear normal, except that the liver is slightly enlarged.

He makes no complaint of dyspnœa, but states that he has slight palpitation now and again. He has pain over the precordia and in the upper part of the chest generally, specially on the right side. He has also some pain in the back. As already stated, these pains are all apt to be brought on by exertion. On physical examination the heart is found to be enlarged, its impulse beat being in the sixth interspace, three-quarters of an inch external to the nipple line. Over the manubrium sterni and over the first interspace on either side of it, but more especially on the right side, pulsation can be made out. On palpation over this area the pulsation is recognised as expansile, and very heaving and powerful. Each beat directly follows that of the heart, and a distinct diastolic impulse can be made out. Percussion reveals great enlargement of the heart and marked dulness over the manubrium and parts adjoining, where, as already stated, pulsation can be seen. On auscultation over the base of the heart and over the pulsating area a slight systolic murmur is heard, and the second sound is pump-valve in character. The pulse, about 70 a minute, varies in character in the two radials, as seen in the tracings. It



Left radial.



Right radial.

Fig. 1.—Sphygmographic tracing from case of D. R.

is noted that the right carotid is also weaker than the left.

The breathing, 22 a minute, is costo-abdominal in type. There is no cough, no hoarseness of voice, no stridor. Physical examination of the lungs reveals nothing abnormal, but "tracheal tugging" is very well marked, and careful examination shows slight displacement of the trachea towards the right side.

The integumentary and urinary systems are normal. As regards the nervous system and special senses, all that need be said here is that the right pupil is much larger than the left. Both pupils, however, react readily to light and accommodation.

In this case we had no difficulty in diagnosing aneurysm of the aorta, with enlargement of the heart, especially of the left ventricle. Any valvular disease we believed, if present, to be very slight. The aneurysm seemed to involve mainly the ascending and transverse parts of the arch. Although pulsation and dulness were present to the left of the sternum, we did not believe that the descending part of the arch was involved to any extent, because there was no dulness in the left interscapular region. The enlargement of the heart we associated with the aneurysm. We could not ascribe it to any aortic valvular disease, as the pump-valve second sound negatived regurgitation, and the absence of any marked systolic murmur, and the well filled arteries of the left side negatived obstruction. Some authorities hold that aneurysm *per se* entails extra work upon the heart, and so causes hypertrophy, others deny this, but whether or not we may be sure that the conditions which lead to aneurysm, namely, atheroma, strain, etc., lead also to cardiac enlargement. You all know that in a case of difficulty of diagnosis between aneurysm and mediastinal tumour, an enlarged heart is a point strongly in favour of the former.

As to pressure symptoms, we believed in the first place that there was no pressure upon the gullet. The slight œdema of the legs, the enlargement of the liver, and the slight œdema of the right arm, might be ascribed to pressure on the vena cava and the right innominate vein, but the absence of distinct venous dilatation anywhere precluded the idea of the existence of any marked pressure here. As regards the trachea, we believed that the fact that it was slightly pushed towards the right, and the marked "tracheal tugging" indicated that it was involved, but in the absence of stridor, etc., we thought that it itself was not to any extent compressed. There were, however, in the smallness of the right radial, brachial, and carotid pulses distinct indications of involvment, and in connection also with the nervous system, there was distinct evidence of pressure. To these I wish now to refer in some detail.

THE DIFFERENCE IN THE PULSES.

The small pulses of the right side might be due to the innominate artery either being pressed upon by the aneurysm, or to its being partially closed by a clot at its origin from the aorta. The more sloping upstroke, curved summit, and gradual downstroke, shown by the sphygmographic tracing, with the almost complete disappearance of the predicrotic and dicrotic notches, could be explained on the theory that the dilated and expansile aneurysmal sac acted like the elastic india-rubber bag of a spray producer.

But, you will ask, if the ascending and transverse portions of the arch in this patient were dilated and formed a large elastic sac like the bag of a spray producer, why did not the tracing from the left radial show similar appearances? At the time I thought that this might be explained by supposing that the aneurysm sprang from the arch at a part close to the origin of the innominate artery, and that the greater part of the transverse portion of the arch was not dilated. But a *post-mortem* examination (the man died from slow rupture into the pericardial sac three days after his admission) showed that the whole of the ascending part of the arch outside the pericardium and the whole of the transverse portion were involved, and that the left subclavian arose from a part as dilated as was that from which the innominate arose. Hence the marked difference in the character of the tracings from the right and left radials is to be ascribed to the opening of the innominate being narrowed by a clot, and that of the left subclavian being perfectly free.

The Nervous Symptoms.

As regards nerve structures involved, we have seen that in this patient the right pupil was dilated, indicating pressure upon the sympathetic on the right side, and irritation of the fibres which pass up to the pupil from the cilio-spinal region. There were no indications of involvement of either of the recurrent laryngeals, there was no hoarseness, and the vocal cords moved freely. But I wish specially to refer to the parts where pain, numbness, or other disturbances of nerve function were felt.

As you are aware, the pains about the chest, down the arms, etc., which are so often complained of in aneurysm are usually ascribed to pressure of the aneurysm upon branches of the brachial plexus and intercostal nerves, but they are much more appropriately to be referred, as Mackenzie,[1] and notably Head,[2] have shown, to peripheral irritation of the various segments of the spinal cord.

In this patient we had hardly time, owing to his rather sudden demise, to mark out the painful and sensitive areas sufficiently carefully, but we have two other patients with aortic aneurysm in the ward, and in them we have done so. I shall first, therefore, refer to them, and postpone alluding to this case till afterwards.

Thus Fig. 2 represents a patient D., at present in the ward.

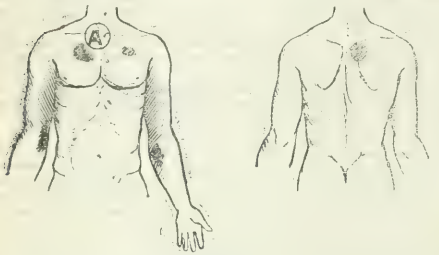


Fig. 2.

The area A represents the position of his aneurysm as demonstrated by percussion. The shaded areas represent the parts where pain is specially felt, and where the skin can be shown to be specially sensitive to the prick of a needle. In this case we believe that the painful areas in the front of the chest, and the specially sensitive spots at the elbows, correspond to irritation of the first dorsal segment; that the painful areas along the inner aspects of the upper arms correspond to irritation of the second dorsal segment, whilst that the painful spot in the right interscapular region posteriorly corresponds to irritation of the third dorsal segment. In this case the aneurysm mainly involves the ascending arch and innominate, and, as seen, the tender areas are on both sides anteriorly.

In the second case, R., Fig. 3, in whom the aneurysm

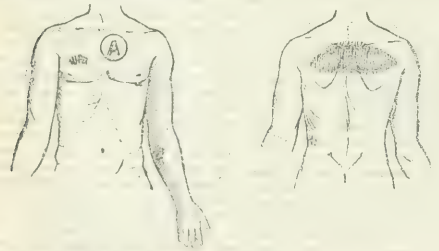


Fig. 3.

seems to involve mainly the transverse part of the arch, the painful chest area is anteriorly on the right side alone, and seems to correspond with the third dorsal segment. But the left arm shows, in addition to the specially sensitive spot at the bend of the elbow, an area of tenderness along its entire inner aspect. This extends right down to the fingers, where it corresponds to the distribution of the ulnar nerve, and indicates irritation of both first and second dorsal segments. Posteriorly there is a large area, symmetrical on either side. It is specially painful and sensitive, and seems to correspond with the second, third, and fourth dorsal segments.

In the patient D. R., the subject of this lecture, we had not, as already stated, time to mark out those areas carefully. It was noted, however, that, in addition to painful areas on the anterior and posterior aspect of the thorax, in addition to complaints of pain down his arms, and of occasional loss of power in his right arm, he complained of a painful spot at the back of his neck, about the vertebra prominens. This seemed to correspond with the posterior distribution of nerves from the first dorsal segment. In studying those areas in all those cases we endeavoured to discover if any precise connection existed between the locality of the aneurysm on the arch and the painful or sensitive areas. We could not, however, come to any more definite conclusion on this matter.

Treatment.

Our cases of aneurysm are being treated by absolute rest, low diet, and large doses of iodide of potassium, with the addition of a little chloral if iodism tends to show itself. As regards the mode of action of the iodide of potassium in such cases there is great difference of opinion. According to some it acts by lowering the blood pressure; according to others by increasing the secretions, inspissating the blood, and so promoting clot formation; whilst a third view is that it acts by causing thickening and contraction of the sac. As to its power of lowering the blood pressure, all our observations negative this. With the sphygmomanometer we have found that no marked lowering of the pressure occurs as the result of the use of large doses of iodide of potassium, and you will remember the case of the man X. (specific disease), in whom we gradually increased the dose of the iodide till he was taking between 2 and 3 drachms a day, and in whom careful sphygmomanometric examination showed no lowering of the blood pressure.

The view that iodide of potassium causes inspissation of the blood we also do not feel inclined to accept, for in several of the patients in our ward who are taking iodide of potassium we have tested this, and we found that the specific gravity of the blood was not increased. Whether or not, however, the iodide has a special effect in causing the blood to clot more rapidly we are unable to say.

Lastly, as regards the view that the benefit of the iodide is to be ascribed to its affecting the wall of the aneurysmal sac. It is evident that as the main effect of the drug is supposed to be to promote absorption, any beneficial effect which it exercises in aneurysm must be the result of its tending to remove whatever causes the sac wall to yield, and not of its tending to increase what might cause the sac wall to contract. Hence some hold that the iodide is useful only in specific aneurysms, but on this point we cannot speak with any certainty.

[1] *Medical Chronicle*, August, 1892.
[2] *Brain*, vol. xvi, 1893.

Droitwich as a Health Resort.—A park has just been laid out near the middle of this town. Mr. Corbett, to whose munificence Droitwich owes this addition to its attractions, was fortunate enough to be able to use for the purpose a large orchard; then by skilful levelling, felling, laying out of paths, and planting, an excellent effect has been obtained. The rapidly growing popularity of the place has made it necessary to enlarge the brine baths. The Raven Hotel has again been enlarged; while the Worcestershire Hotel, which in the late summer of 1890, when a large party of medical men visited the town in connection with the British Medical Association meeting at Birmingham that year, was hardly half built, is now finished, and provides accommodation for 100 persons. Altogether, Droitwich is being rapidly transformed into a first-class health resort, especially for sufferers from rheumatism, gout, and kindred ailments. The number of visitors this year is much larger than in any former year.

THE CROONIAN LECTURES.

CONTRIBUTION TO THE HISTORY OF THE RESPIRATION OF MAN.

Delivered before the Royal College of Physicians of London.

BY W. MARCET, M.D., F.R.S.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—Before entering on the subject proper of this lecture I must beg leave to glance at a few of the prominent contributions to our knowledge of the phenomena of human respiration.

In 1849 Regnault and Reiset, from experiments on animals, observed that a marked volume of oxygen was taken in at the lungs which failed to reappear as carbonic acid in the expired air, and they established a relation between the oxygen consumed and the carbonic acid produced. These experiments were confirmed in 1891 by Messrs. Chapman and Brubecker, of Philadelphia.

Dr. Edward Smith, in a paper published in 1859, divides foods into two classes, according to their action on respiration—the excito-respiratory, which increase the production of carbonic acid, and the non-excitants, which have a contrary effect. In the former class he includes, tea, sugar, coffee, rum, milk, cocoa, etc; also gelatine and albumen, though their effect is less marked. Rum and milk have a very pronounced and persistent action. Two results are prominent in this paper: first, that fats, oils (cod-liver oil), and starch diminish the carbonic acid expired; secondly, that although the ingestion of pure alcohol and rum act as respiratory excitants, still, drinking brandy, whisky, and gin is attended with a diminution of the carbonic acid expired. The elaborate chamber, constructed by Pettenkofer, of Munich, in 1863, and his important inquiries with Professor Voit into the respiration of man should be placed here on record.

In 1874 C. Speck published important papers on respiration. He observed, as will be confirmed in the present lecture, that on returning to natural respiration after forced breathing, and therefore in consequence of increased ventilation of the blood, much less air is expired for a short time than in ordinary breathing in repose; and also that the amount of carbonic acid expired in the after-effect of forced breathing falls considerably below the normal. The oxygen taken from the air is also momentarily reduced.

In 1878 Paul Bert's remarkable book on *The Effects of Barometric Pressure on Respiration* was published, and in it he states that animals dying in closed vessels, and consequently in their own carbonic acid, exhibit precisely the same symptoms as if they had perished under diminished atmospheric pressure, from which he concludes that carbonic acid is absolutely innocuous, and that in such cases death is due to want of oxygen.

In more recent years, Dr. George v. Liebig, of Munich; Messrs. Jolyet, Bergonié, and Sigalas; and MM. Henriod and Richet, have contributed a number of important and elaborate papers on respiration.

Finally, Dr. Haldane, of Oxford, who has been engaged for some years with inquiries on the respiration of man and animals, has shown that while 5 per cent. of carbonic oxide in atmospheric air is fatal to mice, in an atmosphere of oxygen the proportion of carbonic oxide can be increased to 5 or 10 per cent. without fatal results; and if the pressure of the oxygen be raised by one atmosphere, the two atmospheres of oxygen may be mixed with an additional atmosphere of carbonic oxide without harming the animal.

The phenomena of respiration, simple as they appear at first sight, lead on a closer inspection into details many in number and increasing in complexity the further the study is carried. In addition, these phenomena are not precisely the same for everybody; I have therefore repeated the experiments on as many different persons as possible.

The methods adopted in the above-mentioned investigations were very various. Edward Smith inspired through one gas meter and expired through another; while C. Speck inhaled air under atmospheric pressure from a bell jar suspended over water, and collected the air he expired in a similar receiver, the change of direction in the respiratory current being effected by delicate valves.

Dr. G. v. Liebig, in his experiments, instead of directly measuring the volume of air inspired, obtained it by calculation from the nitrogen found in the air expired, assuming that nitrogen was neither absorbed in the body nor given out of it in the process of respiration.

After the expenditure of much time and labour in the endeavour to obtain the most accurate results by means as simple as possible, and objecting to the use of gas meters on the ground that none could be found sufficiently delicate to allow of the passage of air to and from the lungs without offering any resistance, while valves and absorbing media were open to the same objection, I finally adopted the following method: A cylindrical bell jar of sheet iron, holding about 40 litres, or 1.4 cubic foot, furnished with a scale divided into litres and fractions of a litre, was suspended in water over a pulley, working on friction wheels, and accurately balanced by a counterpoise. To the pulley was fixed a cycloid or lever carrying a weight, the cycloid being so constructed that the effective arm lengthened as the bell jar rose, this arrangement maintaining the receiver under atmospheric pressure at every position in its course. A thermometer and pressure gauge showed the tension of the air inside the receiver. The person under experiment inspired fresh air through the nose, and expired through the mouth into a tube connected with the bell jar—a process which, with a little practice soon became quite natural.

In the later experiments a small additional weight was added to the counterpoise, which gave a very slight ascending motion to the bell jar, and thus did away with the feeble effort necessary to raise it when under atmospheric pressure only.

By means of an uniformly rotating drum and a horizontal style fixed to the top of one of the three bell jars employed, expiratory tracings were obtained on skeleton charts; the abscissæ engraved on the chart measured the number of litres expired, and the ordinates recorded the minutes through which the experiment was continued.

The air collected in the bell jar was analysed for the determination of its carbonic acid or carbonic acid and oxygen, the amount of the former being determined by Pettenkofer's method, and the oxygen in an endiometer of my own construction.

As already stated, the volume of air inspired can be determined by calculation from the volume of nitrogen expired, assuming that the nitrogen in the expired air represents exactly the nitrogen inhaled. To find out experimentally if this assumption was correct, a measured volume of air saturated with moisture was inhaled from one bell jar and exhaled into another, thus showing in a direct manner the volumes of air inspired and expired; at the same time the volume of nitrogen in the expired air was obtained by analysis, and from it the volume of air inspired was calculated. The mean of ten experiments gave a volume of air inspired, as determined by direct observation, almost identical with that obtained by calculation from the volume of nitrogen in the expired air; thus showing conclusively that no appreciable amount of nitrogen is either absorbed or given out from the blood in the phenomenon of respiration, and also justifying the method employed.

If a person, while resting in a recumbent posture in an arm chair and breathing quite naturally, should measure the volume of air he expires, this volume will be found invariably smaller than the corresponding volume of air inspired. A certain volume of oxygen has remained in the body. What has become of it? Formerly this absorbed oxygen was looked upon by some authors as combining with hydrogen to form water, but of this there is no proof. Its amount is subject to great variations even in the same person, while these oscillations appear greater in young people with active tissue change than in elderly persons with a slow and regular metabolism, young people as a rule absorbing more oxygen in a given time than persons of mature age. I have also observed, as will be shown in my next lecture, that absorbed oxygen is intimately connected with the mental process of volition.

The period of the maximum absorption of oxygen is, undoubtedly, within the first hour after a midday meal. This is a time when the carbonic acid expired is low; but the body has to prepare for the forthcoming increased assimilation and tissue change under the influence of digestion, hence, apparently, there is a demand of oxygen by the tissues to be stored up towards these phenomena.

From the following table, giving results of experiments on myself, it will be seen that for a person aged 63 the mean volume of oxygen he absorbed per minute while fasting was practically the same as under the influence of food, being 35.3 c.cm. fasting and 34.6 c cm. while under the influence of food.

Oxygen Absorbed per Minute (Author under Experiment).

Fasting:
Year 1891 (6 experiments), from 25.7 c.cm. to 42 8 c.cm.; mean, 35.3 c.cm.
Mean time of 2½ hours after full meal:
Year 1891 (6 experiments), from 21.3 c.cm. to 36.7 c.cm.; mean, 30.2 c.cm.
Year 1892 (10 experiments), from 20.4 c.cm. to 46.1 c.cm.; mean, 36.7 c.cm.
Year 1894 (21 experiments), from 27.7 c.cm. to 45.0 c.cm.; mean, 37.0 c.cm.

In the case of three young men who submitted to experiment—all of them from 21 to 23 years of age, strong and in good health—the following results were obtained:

Oxygen Absorbed per Minute.

Fasting.	Nearly 2 hours after Lunch.	Increase after Lunch.
c.cm.	c.cm.	
No. 1 (6 experiments), 33.3	(6 experiments), 37.5	12.6 per cent.
No. 2 (3 ,,), 34.1	(7 ,,), 50.0	46.6 ,,
No. 3 (6 ,,), 31 4	(12 ,,), 40.5	17.4 ,,

It will be seen from this table that distinctly more oxygen was absorbed about two hours after a full meal than when fasting; hence it appears that in the case of young people there is a decided increase of the oxygen absorbed at a time when the carbonic acid produced is not far from its maximum. This is, however, not the occasion of the maximum absorption of oxygen which, as stated above, occurs in the course of the first hour after a full midday meal, this is shown by the following figures for that period:

The author (4 experiments), 47.9 cc.m. to 58.3 c.cm.; general mean, 34 0c.cm
Assistant (7 ,,), 58 4c cm. to 81.6c.cm.; ,, ,, 37.4c.cm.

The oxygen absorbed added to the carbonic acid produced will indicate the total amount of oxygen taken from the atmosphere, or oxygen consumed. The relation between the oxygen consumed and the carbonic acid produced has been called by Regnault and Reiset the "respiratory ratio," and is expressed by the ratio $\frac{CO_2 \text{ produced}}{\text{oxygen consumed}}$. Now, the value of this fraction varies considerably at all times of the day, under the influence of food, and from other causes, but when calculated for the mean volumes of oxygen consumed and carbonic acid produced in the daytime in a state of rest, it appears to be nearly the same for different people. Thus the mean obtained by Messrs. Jolyet, Bergonié, and Sigalas was 0.864; that obtained on myself was the same, 0.864; the corresponding figure as a mean of 27 experiments was 0.862 for one of my assistants, and 0.878 for another from 20 experiments. The subject, however, requires further investigation, on account of the number of circumstances controlling this ratio, and I have found exceptions to this mean figure into which I am not yet prepared to enter.

There is no direct connection between the CO_2 produced and oxygen consumed, and there is no meaning in the respiratory ratio, unless given as a mean for the whole day in the state of rest, and even this mean is subject to exceptions. I am anxious to make this statement lest I should be misunderstood. It is impossible to trace the history of oxygen taken from the atmosphere of the lungs by the blood corpuscles. This oxygen is carried into the tissues and there detained and stored up according to their requirements. The great increase of oxygen taken in, and the low volume of carbonic acid expired within an hour after a meal, certainly appears to show that on this occasion the tissues store up within themselves a considerable amount of oxygen in readiness to take part in the increased assimilation and tissue change resulting from the digestion of food. The reverse would take place from a sudden accession of cold when the carbonic acid expired has been found—at all events in my case—greatly in excess of the ordinary proportion of oxygen absorbed. On this occasion it appears as if carbonic acid is formed at the expense of the oxygen stored up in the tissues. This view, arrived at after mature consideration of Hermann's results, does not, I am afraid, agree with that I expressed on a former occasion.

THE DIFFERENT FORMS OF RESPIRATION.

On taking a general view of human respiration, it is found that this function may assume four distinctly different forms, which include the endless varieties of breathing.

The first is automatic breathing in a state of repose.

The second is forced or laboured breathing while the body is in a state of rest.

The third is breathing while under muscular exercise.

The fourth is breathing while the body is in a perfect state of repose, with the mind or imagination actively at work towards the exercise of volition.

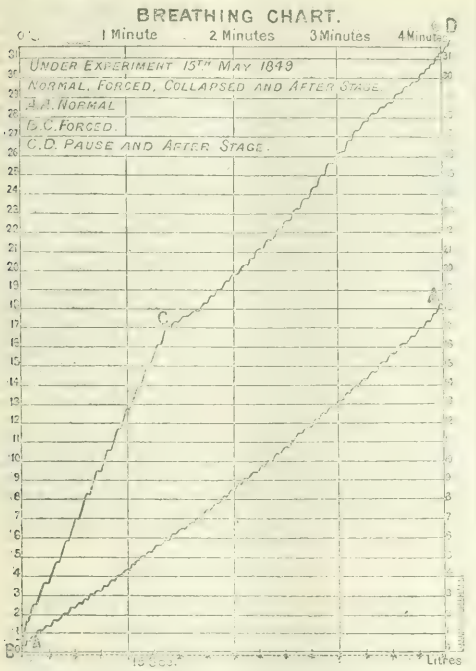
I shall make no further remark on the first form, but pass on at once to forced respiration.

If a person, while sitting with his muscles fully supported, should take a series of gasps or forced inspirations, he not only exercises his ordinary muscles of respiration, but brings into play other muscles not usually concerned in breathing in a state of repose, thus increasing the muscular labour, for which an extra amount of heat is required.

The increase of labour is obvious from the fatigue experienced if the forced breathing be continued for three or four minutes in succession, and when lasting for twelve or fifteen minutes the impression is very marked. Now, although as large a volume of air is often breathed under muscular exercise as in forced breathing, no fatigue whatever of the muscles of respiration is produced. The muscles directly concerned in the exercise may show signs of fatigue, but not the muscles of respiration, which have acted a secondary part in conjunction and harmony with the exercise.

The experiment for forced breathing is conducted as follows: The person under experiment breathes automatically into the bell jar connected with the recording drum, and obtains a tracing of his normal breathing in repose; he then takes a succession of deep gasps for one, two, or three minutes, the recording apparatus being kept at work; after that time he relapses into normal automatic breathing while the tracing is continued on the chart for two or three minutes longer. This tracing of forced breathing is characteristic. First, the inclination of the line is considerably steeper than for normal breathing, corresponding to the expiration of a much greater volume of air in a given time; next, on relapsing into ordinary automatic breathing, the line will exhibit a tendency towards the horizontal direction for a few seconds, showing a pause in the respiration, a state of apnœa after which the inclination of the line again rises somewhat beyond the normal, owing to another increase in the volume of air breathed. This second increased expiration, though always present, is, however, but slight; the tracing then returns parallel to that for normal respiration, the physical effects of forced breathing being now over.

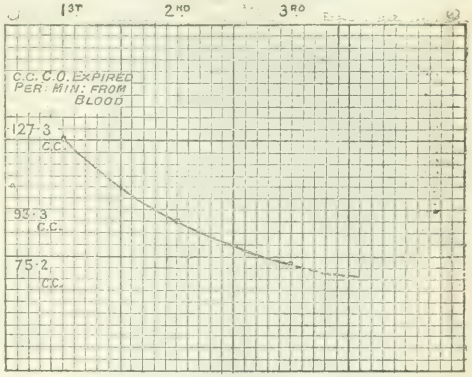
A consideration of this curve shows that first of all an increased volume of air is taken into the lungs; this is laborious, and attended, on that account, with increased combustion, resulting in the production of a slight excess of carbonic acid; this is found experimentally to be actually the case. Next, a certain proportion of the carbonic acid stored up in the blood is displaced by the increased volume of air breathed. This phenomenon is also demonstrated by analysis. On returning to natural automatic breathing there is, as stated above, a pause or state of apnœa, due either to an accumulation of oxygen in the muscles of respiration or to the fact that some of the carbonic acid stored up in the blood having been given out, a quiescent state of the breathing is necessary to allow the blood to charge itself afresh with that gas, and the body containing at the same time, an excess of oxygen absorbed, there is no feeling of want of air.



The next phenomenon observed after the pause is a slight increase in the air breathed beyond the normal. This increased ventilation of the lungs is clearly due to a want of oxygen in the blood, the oxygen present having been to a great extent used up during the pause; a fact showing that such is the case is that this increased breathing is more or less marked according as the pause has been long or short. Thus far the physical character of forced breathing has been described; a few remarks have to be added on its chemical aspect. The phenomena of forced breathing are illustrated by the following diagram:



Let the line A A represent normal or natural respiration in a state of repose. The curve A B C with the sign + will stand for forced breathing, the curve C D E with the sign — for the reaction or after stage following forced breathing; the pause in the respiration will take place while the breathing is going through the curve C D E. The slight curve E F G represents the increase in the respiration beyond the normal after repose. During the forced respiration corresponding to A B C, a certain amount of carbonic acid in excess of normal is exhaled from the blood, and at the same time the quantity of oxygen absorbed is increased. A very small portion of this excess carbonic acid is the result of combustion due to the extra muscular work, the greater part being displaced from the blood. Obviously if such is the case, on filling several bell jars in succession with air expired in forced breathing, the second bell jar will contain a smaller excess of carbonic acid than the first, and the third smaller than the second, less and less carbonic acid being left in the blood as the experiment proceeds. The analyses in four experiments on myself and three on my assistant confirmed this view. The figures obtained in one experiment for carbonic acid emitted from the blood, when disposed on a chart yielded the following curve of a parabolic form. Sneezing, sighing, yawning, and



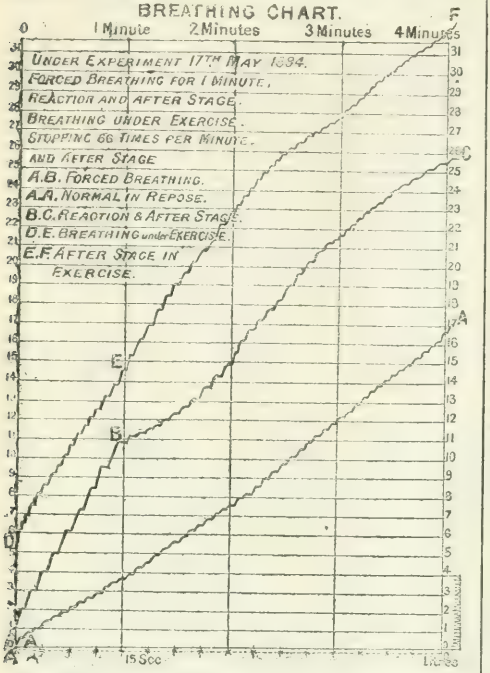
sobbing come under the head of forced breathing. In sneezing, for instance, a deep inspiration is first taken followed by a sudden expiration, which carries out with it a certain volume of carbonic acid from the blood. Immediately afterwards a pause is observed because there is in the blood an excess of oxygen and a deficiency of carbonic acid. From the pause time is given for the excess of oxygen to be used up, and for the carbonic acid in the blood to be increased to the normal.

The third form of breathing is under muscular exercise. In both its physical and chemical aspects it differs greatly from the first and second form. The moment muscular exercise of any kind is taken, the volume of tidal air breathed in a given time is increased; this phenomenon is absolutely automatic and unattended with fatigue. In my experiments the exercise taken consisted of stepping 66 or 67 times per minute, the heels being raised to a height of about 4 inches, when the direction of the line of breathing on the chart gave a fairly straight diagonal, with a much steeper rise than in ordinary breathing in repose. After the exercise had lasted for two or three minutes, the person under experiment assumed the recumbent posture in the armchair, breathing perfectly automatically; the tracing on the chart was now observed to continue in the same direction for a length of time in a great measure proportional to that during which the exercise had been taken; then the inclination of the line became less and less steep till it gradually returned parallel to the normal. The tracing therefore exhibited no pause, as occurred in forced respiration. Forced breathing, immediately following exercise, shortens the period of breathlessness on resuming the state of repose, and it is possible to regulate forced breathing in such a way that after two or three gasps normal respiration follows immediately.

These remarks have a practical bearing; they show that a person much out of breath from muscular exercise, on assuming the state of repose would experience immediate relief from a few deep gasps, and also that a long breath now and then with a short rest, in the course of protracted exercise, would be of help to respiration.

Let us now inquire into the different stages of respiration under exercise. First of all more oxygen is wanted from the air for the heat required for the muscular work, hence a larger volume of air is breathed; at the same time an increased amount of carbonic acid is expired, but this emission of carbonic acid cannot take place at a speed proportional to the rate of its production, and it therefore accumulates in the blood. On arresting the exercise and assuming the state of repose, the excess carbonic acid is given out, and with that

object the lungs have to be freely ventilated; hence the state of breathlessness or dyspnœa after such exercise as running or walking.



Chemical analysis shows that a large excess of carbonic acid is given out on sitting down after exercise, which carbonic acid must have been produced by muscular contraction, as there can be no excess of combustion in a state of repose, for if there were, the temperature of the body would be raised, as the heat produced could not be disposed of in any other way but by radiation, a consideration which led to the following experiment:

Two clinical thermometers were maintained under the tongue while stepping and left there long enough to be certain of the sublingual temperature, then one of the thermometers was removed, while at the same time the person under experiment assumed the state of repose. After about ten minutes the second thermometer was withdrawn, when both were found to give the same reading; hence there is no excess of carbonic acid formed on resting after exercise beyond a small quantity corresponding to the work done to rid the blood of the carbonic acid with which it is charged.

The dyspnœa after exercise recalls an interesting experiment of Claude Bernard who injected sulphuretted hydrogen into the circulation of a dog, and after each injection the animal drew a succession of deep breaths, thus getting rid of the gas injected by an increased pulmonary ventilation. The sulphuretted hydrogen could be clearly detected by the odour of the animal's breath and its action on paper moistened with lead acetate. Reading, talking, singing, screaming coughing, all belong to the form of respiration under exercise. Screaming shows from its tracings that in some cases it is breathing under exercise, in others forced breathing. In the case of singing the records point out that on singing in the sitting posture there may be forced breathing, though not in the standing position; hence the importance of singing standing. In reading, talking, and singing the tracing of the "after stage" is at once parallel with the normal, showing that in these instances there is no breathlessness produced, and no excess of carbonic acid retained in the blood.

I shall beg to conclude this lecture with a few remarks on the exhalation of water from the lungs at different altitudes. The amount of this evaporation must be controlled by three different causes—the atmospheric temperature, humidity, and pressure. Given temperatures and humidity approximately equal, an elevation above the sea level will increase the evaporation together with the lowering of pressure.

When on the peak of Teneriffe in 1878 I selected four stations for experiment—one at the seaside, another at an altitude of 7,090 feet, the next at 10 700 feet, and the fourth inside the shallow crater, at the very summit of the peak, at an altitude of nearly 12,200 feet. The weather was very fine, and the atmospheric humidity exhibited no great variations at the different stations, except at the seaside, where it was decidedly higher. The air expired was breathed through absorption tubes filled with calcium chloride into a bag of known capacity, the time of breathing being also observed. The humidity of the atmosphere was determined with wet and dry bulb thermometers, and the weight of moisture contained in the volume of air inspired was subtracted from the total moisture expired, thus the weight of the water evaporated from the lungs was obtained.

It was found that as the altitude increased more and more water was evaporated from the lungs within a given time, although the amount of this increase was not quite proportional to the increase of altitude, clearly because the loss of water from the blood at increasing altitudes left less to be evaporated, the blood retaining necessarily a minimum quantity of water. We shall return to the subject of respiration at high altitudes in the fourth lecture.

MORPHŒA HERPETIFORMIS:

A NEUROLOGICAL STUDY.

By JONATHAN HUTCHINSON, F.R.S., LL.D.,
President of the Royal Medical and Chirurgical Society.

(*Continued from page 1196.*)

TOPOGRAPHICAL GROUPS.

THE following groups are suggested for temporary use only, and in order merely to facilitate the comparison of cases. They are in the main based on topographical distribution only. Morphœa herpetiformis is the same malady whether it affect only a single twig of nerve or almost the entire body. It is convenient, however, in the course of our inquiry to see how far its examples permit of being arranged in reference to the different nerves affected and to afford some material for estimate of the relative frequency of each. It is to be understood that many of the cases, inasmuch as various nerve territories were involved at the same time, come into more than one of the following groups.

As all the cases which I shall quote have already been published elsewhere in detail, I shall not, with few exceptions, trouble the reader with anything more than a very brief statement of the principal facts. Those interested in the subject must refer to the original narratives.

I.—SINGLE BRANCHES OF THE FIFTH NERVE OR OF THE CERVICAL PLEXUS.

GROUP 1.—In this group may be placed examples of morphœa changes occurring in connection with single nerves on the face, head, or neck. Thus streaks of ivory white may occur on the forehead in connection with the supraorbital or other branches of the first division of the fifth nerve, or they may be seen about the eyelids or behind the ear, and on the neck; more rarely on the cheeks, chin, and nose. These all have, of course, their exact parallels in herpes zoster. I do not know of any form of morphœa of the lips which can be compared with herpes labialis. In this connection it may be remarked that it is with zoster only that morphœa is to be compared as to the laws of its distribution, and not with

labial or symptomatic herpes. The following are illustrations of this group.

I possess a portrait showing an ivory patch on the left lower eyelid of a child. It began at the age of a year and a-half, and no patches appeared elsewhere.[4] Mr. Waren Tay showed me in 1870 a little girl, aged 10, who had a patch in the middle of her right cheek.

Morphœa Herpetiformis located by the Frontal Branches of the Fifth Nerve.—A case in which the changes of morphœa were restricted to the territory of the upper division of the fifth nerve came under my notice in the person of a middle-aged gentleman who had brought his nephew as a patient. I could not help noticing the peculiarity of his forehead, for a line ran vertically up from the root of his nose into the hair. On the right side of this line the skin was shrivelled and tight, whilst on the other it was soft and healthy. Although the whole of the right forehead was involved, the shrivelling became less conspicuous on approaching the temple. There were no changes in the cheek, nose, or lower part of face. On my asking for particulars as to the development of this condition, Mr. L. told me that it had been present from childhood, and that he had always supposed that it had been caused by some knock or fall. Many medical men had, he said, taken notice of his forehead.

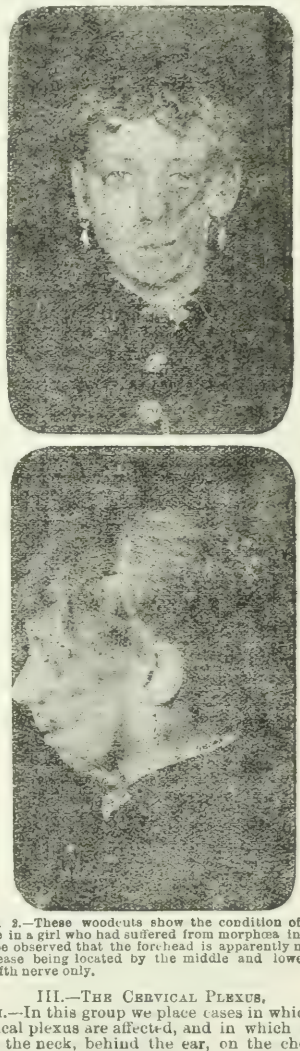
In the following case the facial branch of the great auricular with the humeral of the first dorsal were affected, together with other nerves:

Case.—A young lady[5] had patches of morphœa on her right limbs, right side of abdomen, and in the middle of her right cheek; there were also some brawny patches over the left scapula and in the intercosto-humeral district of the left upper arm. The conditions had been present three years, having commenced at the age of 8. Her mother believed that an interval had occurred between the development of the patches on the abdomen and those on the limbs.

II.—The whole of One Fifth Nerve (Hemiatrophy of Face).

Group II.—In this group are to be placed cases in which the whole, or almost the whole, of the fifth nerve, is involved. It is to the results of this affection—to cases in which the whole of one half of the face is more or less shrunken, a vertical line passing down the forehead, nose, and chin—that the term "facial hemiatrophy" is often given. Many examples of this type are on record. They may vary very much in severity, that is, in the degree of the shrinking of the affected parts; but they are much alike as to distribution. In the great majority the whole of one half of the face is affected. Now it may be admitted that herpes zoster very rarely affects the whole of the fifth nerve territory at one and the same time. Herpes frontalis is tolerably common. Herpes ophthalmicus, in which the eye also is involved, is not very rare; but it is very seldom that the second and third divisions are involved, and exceedingly so to see all three suffer. Of the latter event I do not know that I can recall a single instance, yet it appears to be almost the rule in the case of morphœa, and I have seen more examples of the affection of all three branches together than of any one alone or of isolated twigs. There may be something to be learnt from this difference. Certainly it is only a part of a general tendency in morphœa, for on other parts of the body this disease shows a great tendency to affect large nerve territories or those of several or even many different nerves at the same time. It is much more prone to become in a certain sense generalised than is herpes zoster. Morphœa affecting the whole of the fifth nerve is, it may be suspected, a disease exclusively of childhood. I do not know where to find a single conclusive example of it which began in adult life nor do I know of a single case in which both nerves were involved.

I need not quote many illustrative cases in connection with this group, but may ask attention to a portrait which is accessible to most members of the profession. The portrait published by the New Sydenham Society represents the face of a woman, aged nearly 40, in whom the disease had commenced at 14 years of age. It was very extensive, involving the trunk and all the limbs, but not symmetrically. One-half of the face is seen in the portrait to be atrophied, and her left lower limb had been amputated on account of the contraction which had resulted from the disease. There were patches on her shoulders and on her trunk, partly arranged in zones and partly non-symmetrical. The subjoined woodcuts represent an exceptional case in which apparently the first division of the nerve escaped.



Figs. 1 and 2.—These woodcuts show the condition of atrophy of the face in a girl who had suffered from morphœa in childhood. It will be observed that the forehead is apparently not affected, the disease being located by the middle and lower divisions of the fifth nerve only.

III.—The Cervical Plexus.

Group III.—In this group we place cases in which branches of the cervical plexus are affected, and in which the patches are seen on the neck, behind the ear, on the cheek, just in front of the ear, or on the shoulders. These regions are not infrequently affected, and the disease, when occurring on them, is usually very definite. Young adults, or even those past middle life, may every now and then show us good examples of morphœa of recent development in

[4] See Clinical Lectures, vol. i, p. 345.
[5] *Archives*, vol. iii, p. 33.

these regions. I may note that the clavicular region is one that is not infrequently affected without any patches on other parts.

IV.—Branches of the Brachial Plexus.

Group iv.—This group may conveniently take cases in which the upper extremities are involved. They are probably less common than those of the lower. As in the case of the lower extremity, it is seldom that the arm suffers alone; almost always parts of the face, or trunk, or other limbs are involved. It is in connection with the upper extremity that some of the chief difficulties in diagnosis arise. The hand is the part which most conspicuously suffers in what has been called diffuse morphœa, and for which I now propose the term "acroteric."[6] These cases are to be carefully discriminated from the herpetiform ones, and are usually quite distinct, although sometimes the two are met with in the same patient. With the wooden fingers which characterise this disease goes a board-like condition of face and a liability to Raynaud's phenomena, and to symmetrical gangrene, which features easily establish the diagnosis. Herpetiform morphœa rarely affects the hand itself, and almost never the fingers, conforming in this respect to its type, common herpes. We encounter it as ivory streaks along the course of humeral branch of the intercosto-humeral nerve, or in streaks or patches or groups of spots on any part of the upper or forearm. The hand of the latter is not infrequently affected, and here it may involve the flexor muscles, and cause contraction of the fingers. The upper extremity is very rarely affected alone; almost always there are patches at the same time on some part of the trunk, neck, or face. Still more rarely are the two upper extremities affected with symmetry.

There are certain very curious cases which involve the upper extremities chiefly, which are neither acroteric nor herpetiform, the hand itself being exempt, whilst the forearm is involved in an ill-defined hide-bound condition. Of these I do not wish to speak in detail at present. They are very rare.

There is also a very important group in which both upper extremities, and the whole neck, face, and upper part of bust are involved, the rest of the trunk being exempt, and the feet little, if at all affected. These are allied to the acroteric type.

V.—The Dorsal Nerves on One Side Only.

Group v.—Here we place all cases in which the dorsal nerves are involved on only one side of the the trunk, and these present some of the most close analogies to zoster. In a great many cases, however, the dorsal nerves are affected on both sides, and in company with branches of the lumbar and sacral plexuses. It may be convenient, therefore, at this point to leave the precise anatomical grouping, and to arrange our cases more according to their clinical peculiarities. These bilateral cases will form the material of our next group. The following may be briefly quoted as illustrating the one-sided class.

Case.—A group of lardaceous spots,[7] arranged, like zoster, on one side of the abdomen. The spots were arranged in the form of a belt over the side and front of the abdomen, ending just below the umbilicus and just passing the middle line.

Case.—The patch was of an oval shape, and was situated on the right side of the trunk, just below the border of the ribs.[8]

Case.—A case, which I have recorded in my lectures on rare skin diseases, p. 329, had a patch on the left side of the abdomen, which was placed exactly like the usual distribution of herpes zoster.

Case.—Single patch of ivory morphœa, 3 inches long by 2 in width on the left side of the abdomen of an adult man. Numerous nodules of scar-keloid on the arms and chest.[9]

Case.—Single coalesced group of morphœa spots under the breast of a young woman, of two years' duration. Miss P.[10] (Portrait kept.)

Case.—A single long oval patch under the left breast of a woman, aged 45. Almost entire disappearance in two years.[11]

Case.—Single oval patch on the left shoulder, beginning at the age of 6. Slow disappearance. A second similar but smaller patch, a little lower, at the age of 18.[12]

VI.—Bilateral Patches arranged in Zones.

In Group vi I place cases in which the trunk is affected in zones. For these herpes zoster presents us the fewest possible parallels, yet each half of the zone in morphœa resembles in its curve and general arrangement the one-sided panicle of zoster. The difference is that there is clearly a tendency in morphœa for the corresponding nerves in the two sides of the trunk to be affected simultaneously. This tendency in the instance of the face is never witnessed. I have never seen bilateral herpetiform morphœa of the face or bilateral atrophy as its consequence. The morphœa, which occurs in zones on the trunk, is not usually accompanied by affection of the limbs. It may pass down on to the buttocks or upper parts of the thighs, or upon the shoulders; but it rarely, I think, goes further.[13] The following cases may be adduced as illustrations of this group:

Case.—Large ivory patches on the front of the right forearm; symmetrical patches curving forward like shingles on the abdomen. Dr. Bathurst Woodman's case.[14]

Case.—Symmetrical ivory patches arranged like herpes on the side of the abdomen just above the navel; another zone just under the breasts, one in the fold of the neck on the left side and others on the crests of both hips; one on the outer side of the left thigh.

Case.—The patient was a stout woman, aged 50. This case, I believe, is the first in which the arrangement of morphœa in symmetrical zones has been described. It will be seen, however, that there were marked deviations from symmetry on some regions.[15]

Case.—Morphœa occurring in large patches on both sides of the body, and arranged almost symmetrically:[16] some peculiarities in the location of the patches, which it was difficult to explain: possible influence of irritation from the clothes. The changes in the skin occupied the trunk, upper arms, and thighs, extending but slightly to the forearms and legs, and entirely avoiding the face, neck, forearms, and feet.

Case.—A remarkable example of morphœa of the trunk and upper parts of limbs, arranged almost symmetrically but in zones, occurred in the person of a man, aged 66, who was brought to me by Dr. George Hastings. His case is fully recorded at page 224 of *Archives*, vol. ii. In this instance the hands, feet, and face, together with the scrotum, penis, and pubic region, wholly escaped. There was also a zone on the man's abdomen which was almost circular, and corresponded with a flannel belt which he wore.

Case.—Case of morphœa in which ivory patches were arranged in zones, in bilateral symmetry, on shoulders and hips; symmetry not complete; much pigment deposit.[17]

Case.—Morphœa in zones; extremities also affected; patient a girl; bilateral symmetry almost but not quite exact.[18]

Case.—Dr. Perry showed a most interesting example of this form of sclerodermia at a meeting of the Dermatological Society, in October, 1884. The patient was a tall thin man, in good health, of about 26. The conditions had been present less than a year, and had first been noticed on the right thigh and groin.

At first sight the sclerodermic areas might have been supposed to be symmetrical, but on careful inspection very marked deviations from symmetry (as definite as those of herpes zoster) were discoverable. Down the inner aspects of both thighs, large broad bands passed to the knee (circumflex nerves). Both legs and the insteps of both feet were involved, but not quite equally. The penis and scrotum were wholly exempt, and so also the greater part of the buttocks and the anal region. The outer sides of the buttocks were

[6] Acroteri[on], Hippocratic term for the extremities of the body—the head hands, and feet. See New Sydenham Society's *Lexicon*.

[7] *Archives*, vol. ii, p. 239.

[8] *Archives*, vol. ii, p. 231.

[9] Clinical Lectures, p. 329.

[10] Clinical Lectures, p. 327.

[11] Clinical Lectures, p. 335.

[12] Clinical Lectures, p. 333, and *Archives*, vol. ii, 234.

[13] As examples of morphœa in a single zone may be mentioned a case recorded by Sir Erasmus Wilson, in which the patient had a large patch under each mamma.

[14] Clinical Lectures, p. 335.

[15] Clinical Lectures, p. 337.

[16] *Archives*, vol. ii, p. 225.

[17] *Archives*, vol. v, p. 62.

[18] *Archives*, vol. v, p. 65, Dr. Mackenzie's case

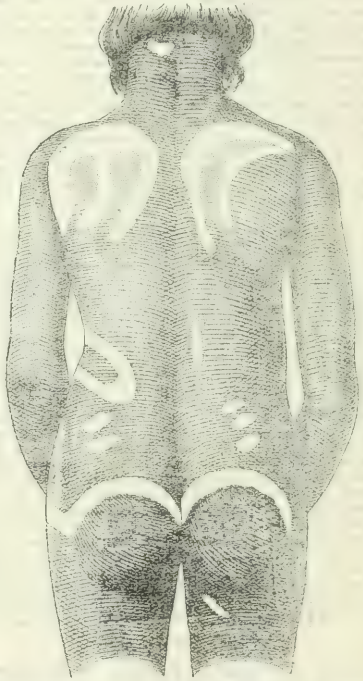
brawny. On his back two large broad zones of induration, almost exactly symmetrical, and divided by a handsbreadth of healthy skin on each side curved forward to the abdomen, most of which was affected.

A marked deviation from symmetry occurred on his chest where a broad band of ivory spots, like zoster in arrangement, curved forwards on the level of left nipple. It had no representative on the other side whatever. A curious point about these groups of spots was that in coming forward on the chest, they passed a little upwards instead of downwards.

There was an ivory patch on the left temple which had no fellow on the other side.

I could mention many other examples of herpetiform morphœa arranged in zones, but the above may suffice. The appended woodcut taken from one of them will convey a good idea of what is meant.





Figs. 3 and 4.—These cuts must be regarded as maps rather than portraits, for the outlines are far too strong. They show the position occupied by belts and patches of ivory morphœa in a young girl. On the nape of the neck there is a patch on the left side but none on the right, and on the front of the right shoulder there is a patch which has none to correspond with it on the other side. On the scapular regions the patches are almost symmetrical, and are located by the posterior branches of the intercostal nerves, which latter curve round under the mammæ on both sides, and produce a broad symmetrical belt. Beneath this belt are two symmetrical patches. Concerning the rest it may be said that the patches are located in some parts with symmetry, and in some with obvious deviations from it.

VII.—BRANCHES OF THE LUMBAR AND SACRAL PLEXUSES.

GROUP VII.—Cases in which the lower limbs are severely affected. In these cases it is very common to find patches elsewhere. One side of the face may be affected, as in the celebrated case published by Dr. Addison, and subsequently by the New Sydenham Society, in which a patient who had hemiatrophy of the face had one lower limb amputated on account of the deformity induced by morphœa. It is for the most part fairly easy to trace the distribution of special nerves when the lower limbs are affected, but this is not always so.

When morphœa affects the lower extremity, so far as my experience goes, it is always the front of the limb. I have only once or twice known the sole of the foot affected, nor in any case has the back of the limb suffered exclusively. In some cases the back of the calf has been more or less affected as well as the front, but never alone. Almost always the front of the instep and ankle is severely implicated, and although the disease may pass to the cleft between the toes it scarcely ever involves the toes themselves.

The following must suffice as examples:

Case.—Morphœa in a boy[19] in whom the diseased tracts were arranged almost symmetrically: proof of bilateral nerve distribution: the lower extremities almost disabled. The parts affected were the legs, upper abdomen, and right forearm.

Case.—Morphœa herpetiformis in a young woman; many patches in bilateral but not symmetrical arrangement (J. H., aged 23, Dr. Port's case). There were patches on each cheek in front of the ear, on the left shoulders, on the right arm, and on the right thigh and leg. Patches on cheeks located by the branches of the great auricular and not by the fifth.[20]

Case.—Morphœa Patches on the Two Lower Extremities.—The following are the notes describing the location in some detail. The patches are arranged almost symmetrically on the two lower extremities and the haunches. The symmetry is not exact, but is fairly close. The two most conspicuous patches occur on the abdomen, on the level of the iliac crests, and a little in front of the anterior superior spines. Both of

[19] *Archives*, vol. ii, p. 227.
[20] *Archives*, vol. ii, p. 229.

these curve forwards and downwards in the manner of herpes, but they neither begin on the back nor are they continued forward to the middle line in front. They are very irregular in shape, and quite island-like in abruptness of definition, about as large as an outspread child's hand. These, as well as the others, present the ordinary condition of the smooth ivory patch with a border of congestion. The next patches are seen over the great trochanters, and from these a number pass downwards on the outer sides of the thighs, being here for the most part rounded and about the size of halfpence. Indistinct patches, definite but so slightly marked that they might easily have been overlooked, occur on both sides of the leg from the knee to within a handsbreadth of the ankles. The uppermost patches—that is, those on the sides of the abdomen and over the trochanters are much thicker, more indurated, and more yellow than the others. On the lower parts of the thighs and on the legs the tint is a dead white without any mixture of yellow, and there is so little of thickening that they are not easily distinguished by the finger. The smoothness of the skin, however, is quite evident in certain lights. There is a somewhat doubtful yellow discoloration just below the groin on each side, possibly due to the wearing of a truss. There is one white patch exactly under the truss on the back, but this is the only one which would suggest that pressure has had anything to do with locating the disease. Our patient is a man of 68 in excellent health; he says that he thinks he should never have discovered the patches but for seeing them, as they were at first unaccompanied by tingling, etc. He says that they have somewhat increased in size since he first noticed them.

VIII.—HERPETIFORM AND ACROTERIC MORPHŒA TOGETHER.

GROUP VIII.—Another important clinical group consists of cases in which localised or herpetiform morphœa occurs in connection with diffuse or acrosclerodermia. In most cases these two diseases are met with quite independently of each other, but in a few they are combined. In the case of a man of middle age, who was sent to me by Mr. Joseph White, of Nottingham,[21] the patient exhibited large symmetrically-placed ivory patches on both sides of the abdomen, together with diffuse sclerodermia of both hands and forearms and of the cheeks. It was the sides of the cheeks only which were affected, the nose, lips, and middle parts having wholly escaped. The disease had not been preceded by any symptoms of feeble circulation, but had set in rather suddenly about a year before I saw him. In estimating the relationship between Raynaud's phenomena and diffuse morphœa or acrosclerodermia, an inquiry must always be made as to the occurrence of paroxysmal duskiness—the "asphyxia" of Raynaud—and the development of the hidebound condition. In sclerodermia there is, I think, always a tendency to paroxysmal aggravations, attended by pallor and risk of gangrene; but it may be doubted whether the venous turgescence, which is the prominent feature of asphyxia, ever occurs, and the most marked examples of the latter (that is, the most typical instances of true Raynaud) may go on for years without the slightest tendency to the sclerodermic condition.

[21] *Archives*, vol. iii, p. .

A MODE OF MORE EASILY AND RAPIDLY DILATING THE CERVIX OF THE UNIMPREGNATED UTERUS.

By JAMES BRAITHWAITE, M.D.Lond.,
Obstetric Physician and Surgeon to the Leeds General Infirmary.

DILATATION of the unimpregnated uterus is necessary chiefly for two purposes, namely, for the treatment of certain cases of dysmenorrhœa, and in order to examine the uterine cavity with the finger for diagnostic purposes. The object of the following short paper is not to estimate the value or utility of dilatation, or to consider in what cases it should be done, but to point out that when it is done for either of the above reasons, the time chosen should be the last day of the menstrual period, just when the discharge is ceasing or has ceased. The directions given as to the best time for dilatation in textbooks, if any are given (and usually there are none) are to dilate between the periods, and this I believe is the universal practice, and it is the one I myself always at one time followed. I have generally dilated with smaller-sized Hegar's dilators until some resistance is met with, which usually occurs when Nos. 9 or 10 are reached. Then a large laminaria tent is introduced, or possibly two or even three smaller ones. On the next day the dilatation is completed by the larger-sized Hegar's, and if a most unyielding os internum is met with, Reid's screw dilators are employed. I believe, however, that this plan is a mistake as to the time chosen, and as a sequence of this a mistake as to the mode of operating.

The os internum between the periods firmly resists dilatation, and only yields to considerable force. All who have tried the use of laminaria tents must be familiar with their appearance when withdrawn, showing a narrow ring corresponding to the tight undilated os internum, all the rest of the tent being fully expanded. Moreover, as stated, it takes two sittings on consecutive days to dilate with tents and dilators, and even then it is often very imperfectly accomplished. Not infrequently a rise of temperature and rigor will follow the introduction of a tent, and the continuance of these symptoms with pain may necessitate its early removal.

Rapid dilatation without tents in the intermenstrual interval must necessarily be imperfect, for if done by Hegar's, or Galabin's, or Duncan's dilators, great upward pressure is required to introduce them when the larger sizes are passed, and this pressure may be, and frequently is, so great as to cause the vulsellum or hook used to steady the anterior lip of the uterus to lacerate it, and possibly tear out. If the dilatation is begun with Hegar's dilators and continued with Reid's screw dilators the power is so great that the narrow parts must yield; this, however, cannot be called dilatation, but stretching, and is probably accompanied by minute lacerations of tissue. Unless the dilatation, in whatever way it is done, is thorough, a permanent cure does not result in dysmenorrhœa, and is insufficient to admit the finger if diagnosis is the object.

Many years ago I found out accidentally that if the dilatation is done on the last day of the period, just when the discharge has ceased, the parts are perfectly elastic and soft, and have very little resisting power. Hegar's dilators can in many cases be passed in, one after the other, until No. 17 is reached. This admits of the passage of a medium-sized index finger. An anæsthetic is necessary, as the patient would not remain sufficiently quiet. Two Sims's hooks close together, so that the handles are held as one, are better than a vulsellum. They hold better, and are less likely to scratch the operator's finger. The process should be done leisurely, but it does not take above twenty minutes. The smaller sizes of the dilators should have the terminal inch a little curved forwards and less in size, so as to enter more readily.

This plan opens up quite a vista of utility in other cases than those of dysmenorrhœa; for instance, it is often next to impossible to examine with the finger the interior of the uterus of a sterile woman over 40. The parts absolutely refuse to dilate sufficiently. But by dilating on the last day of the period it can be done very easily. Every uterus does not yield so readily as described, and, indeed, now and then a tough cartilaginous os internum is met with which almost refuses to yield at all, but even this is more dilatable than it would be in the intermenstrual interval.

A very interesting case of menorrhagia was recorded some years ago which had been under two of the most eminent men in the country, and in which subsequently the womb was removed entire on the Continent. It was then found that the cause of the hæmorrhage had been a small fibroid not as large as a boy's marble. This had never been diagnosed.

Another case was read before one of the London Societies, in which vaginal hysterectomy was performed in consequence of incurable hæmorrhage. It was thought to be cancer of the uterine cavity; but on examination of the uterus after removal, the cause was found to be a small fibroid polypus projecting into the cavity near one cornu. In these cases, if the finger could have been inserted for examination no doubt it would have been.

By adopting the plan recommended such examinations

become easier, although such small fibroids and so situated as in these two cases must always be very difficult to diagnose. Much assistance is given by curving the intra-uterine finger well forwards and pressing the fundus down upon it by the right hand outside. For this purpose the patient should lie on her left side, as the recti muscles are thereby relaxed. It might be supposed that the anæsthetic would cause sufficient relaxation; but it often does not.

In conclusion, the advantages of the plan recommended are:

1. Danger from sepsis by the use of tents is avoided.
2. Inflammation, if rise of temperature with rigors and much pain indicate it—traumatic rather than septic—is also avoided.
3. The process, both to patient and operator, is more easy, and is incomparably quicker.
4. Less structural injury is done to the parts, as they dilate more kindly and without much resistance.
5. The dilatation is more complete and perfect, so that if used for dysmenorrhœa a permanent cure is more likely to result, and if for diagnostic purposes, examination is possible in cases in which otherwise it would have been impossible.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A STONE EMBEDDED IN THE ARM FOR SEVEN YEARS.

RECENTLY a man came to me complaining of most severe pain in his forearm. On examination I found the anterior aspect of the forearm to be very much swollen, livid, and indurated over a great area, at the centre of which was a small opening the size of a pin's head, about 4 inches from the bend of the elbow. He had met with a somewhat trivial accident some seven years previously: a fall while trying to escape from a shot about to be fired down a coal mine.

The result was a small wound on the posterior aspect of his forearm, which bled profusely at the time. He immediately proceeded to the colliery surgeon, who dressed the wound, which healed in the course of a few days. After that he returned to his work. In about two years he complained of pain at the seat of the old injury, and becoming unable to work, he again visited the surgeon, who painted the painful spot with various lotions and liniments, but without success. The patient, however, managed to go to work, off and on, until September, 1894, when he was forced to give up, owing to the most excruciating pain, sleeplessness, and anxiety.

He consulted various medical men, who advised rest and poulticing, but without success. When he came to my surgery I probed the pin head opening to the depth of 3 inches, and there detected a foreign body. I had to coax him for a long time before I could get consent to make an incision. After great deliberation he gave in, and the result was that I extracted, with a slight twist of the dressing forceps, an irregular piece of rock, which had become rooted in the depths of the forearm; it weighed 11½ grains, was half an inch long, and three-eighths of an inch broad in its widest dimensions.

I dressed the wound with antiseptic dressings for five weeks, when it healed up well. The man has since resumed his duties with no ill effects, except that he has had a very slight tingling sensation in his little finger and half the next finger, the area which is controlled by the ulnar nerve. I attribute the tingling sensation to a slight twig of that nerve becoming attached to a little puckering at the corner of the wound.

I think the foregoing case deserves mention for the following reasons: First, that the patient was able to work off and on for years; and, secondly, that the removal of the fragment of rock should occur at the end of the seventh year.

W. OWEN EVANS, L.R.C.S.,
L.R.C.P., L.M.Edin., L.F.P.S.Glasg.

Buckley, near Chester.

THE ADJUSTMENT OF AN ARTIFICIAL NOSE.

THE case described by Mr. Arthur S. Underwood, in the BRITISH MEDICAL JOURNAL of June 1st is very similar to one I undertook many years ago, at the request of Mr. Skey. The disease had been the same, only more severe, as the whole of the nose had been lost with some portion of the face as well. The patient, also a female, came to me wearing an artificial nose constructed of very thin metal, and retained in the usual manner by spectacles. The pressure of the latter caused soreness and at times ulceration of the skin. My method of procedure was somewhat different from that adopted by Mr. Underwood. I constructed a model of the parts, to which I adapted a cast of a nose from the human face, and thus obtained a vulcanite representative which adapted itself accurately to the face and caused no inconvenient pressure whatever.

There was an element of the comic in my case. First, the patient insisted on having a nose of the perfect Grecian type, though I felt confident that hers, like her twin sister's, had been decidedly *retroussé*; however, I was able to accommodate her. The colouring of the appliance was kindly undertaken for me by a friend, a portrait painter of some eminence, who told me it was the most difficult nose he had ever attempted to paint. He succeeded admirably; but still there was this defect: If the lady, as she often did, became flushed, the nose appeared distressingly anæmie; on the other hand, if she became pallid, the nose then looked—well, almost suspicious! However, I think I may say that both Mr. Skey and the patient were fairly well satisfied.

Streatham. ALFRED COLEMAN, F.R.C.S.Eng.

A NOTE ON THE ETIOLOGY OF APPENDICITIS.

AMONGST the numerous causes which have been given as directly or indirectly leading to inflammation of the vermiform appendix no decided question of heredity has arisen. Yet if the large amount of lymphoid tissue in the appendix predisposes to inflammation of its lining membrane, knowing the hereditary tendency of lymphoid tissue to become inflamed, heredity may play a not unimportant part in appendicitis. There is, moreover, I believe, much truth in the idea which regards persons liable to sore throat, and overgrowth of lymphoid tissue there, as liable to appendicular mischief, and tendencies to throat affections of this nature are certainly hereditary.

The following cases, occurring in one family in my practice, are in this connection worthy of note. The father, whose family history was good, died from diabetes mellitus when the youngest patient was 14, and suffered for many years from repeated attacks of what was apparently appendicular colic, but no *post mortem* examination was allowed. The mother is a healthy woman, but one of her sisters and one of her brothers died from phthisis and a child from tuberculous meningitis. The three patients now to be mentioned were fairly strong adolescents, without any rheumatic tendencies, living in a large house in comparative luxury.

C. Y., an athletic young man, aged 24, frequently has had simple pharyngitis; a severe attack of appendicitis, followed by slow convalescence, occurred in October, 1892.

P. Y., brother to the above, aged 21, also liable to pharyngeal catarrh. A moderately severe attack of appendicitis occurred in July, 1893.

M. Y., sister to the above, aged 21, has enlarged tonsils, and frequently has pharyngitis. Is now convalescing from a comparatively mild appendicitis.

Newcastle-on-Tyne. G. ARMSTRONG ATKINSON, M.D.

"HERNIOTOMY UNDER DIFFICULTIES."[1]

ON September 16th, 1894, last, when visiting a patient some dozen miles by train, I was asked to see "another case" about a mile distant in a very remote country spot. I found the patient, a widow, aged 62, suffering from symptoms of intestinal obstruction. The vomiting, which was almost incessant, set in on the evening of September 12th, and for the same period (96 hours) the bowels had been absolutely constipated.

In searching for a cause I found (for it was not visible) a left femoral hernia about the size of a bantam's egg, and

[1] Read before the South Wales and Monmouthshire Branch of the British Medical Association.

presenting the usual signs of strangulation. The line of treatment was clear and delay meant death; skilled help was out of the question. Fortunately I had a fairly well furnished bag with me, and, having obtained the patient's consent, prepared to operate. The habitation was a dark thatched cottage, and, twilight coming on, the open air was chosen for place. My first difficulty was with the table, the top of which had to be taken off in order to get it outside. A small quantity of 1 in 20 carbolic which I had with me allowed the adoption of some antiseptic precautions.

The line of incision was frozen with chloride of ethyl, and so complete was the anæsthesia thus produced that after the skin incision had been made the patient complained that I had not begun. The various coverings were got through more by tearing with fingers and forceps than by cutting. Now, the one instrument was wanting—the herniotome. As a substitute I used the larger blade of my pocket knife. The edge and point of this were so blunt that, while it easily divided the thin rigid edge of Gimbernat's ligament the soft structures were not endangered.

The small knuckle of bowel was enveloped in such a thick layer of omentum that I decided not to waste time in exposing it, but it easily slipped back from beneath my fingers, and the omentum readily followed. No vessel required a ligature. The wound, after being mopped out with dry absorbent wool, was closed by a continuous suture to save time, dry lint dressing, and a pad and spica, completed the whole proceeding, which occupied a very few minutes only. For two or three days there was a good deal of vomiting, but it had not the character of the vomiting of obstruction, but was simply eructations of mucus without much effort, probably due to gastric catarrh set up by the foul matters which had been regurgitated from the bowels. The wound healed by first intention, and there was at no time elevation of temperature nor acceleration of pulse. In a couple of weeks the patient was wearing a truss, and in her usual health.

Llandrindod Wells. J. Morgan Evans.

TATTOOING FOLLOWED BY ACUTE RHEUMATISM.

In the British Medical Journal of June 1st appeared an interesting article on the inoculation of tuberculosis by tattooing, and in that connection the following case of rheumatic fever is perhaps worthy of record.

It presents three points of interest: First, the origin of the rheumatic attack in a septic inflammation the result of tattooing; secondly, the complications which arose; and thirdly, the question whether, in the experience of others, acute rheumatism has followed tattooing, and, if so, whether in such cases complications are relatively frequent. H. W., a militiaman, aged 17, was tattooed extensively on the left forearm; three days afterwards he complained of pain, swelling, and tenderness in the left wrist. The appearance of the joint and the recent marks of tattooing led to a diagnosis of inflammation due to septic absorption. On the fourth day he was taken with an acute left-sided pneumonia, and was removed to the Wycombe Cottage Hospital. The pneumonic inflammation rapidly subsided, and inflammation attacking in quick succession the left shoulder, knee, and ankle, with the detection of a cardiac *bruit*, rendered the rheumatic nature of the case evident. Chorea now complicated the case; limited for a time to the left side, it shortly spread to the right, where rheumatic inflammation was attacking the joints, the combination of the two being especially distressing to the patient. The joint inflammation, however, quickly subsided, leaving a general though mild chorea and a permanently damaged heart.

High Wycombe. E. D. Williams, M.B.Edin.

Proposed Congress of Surgery at Brussels.—There is some talk of organising an International Congress of Surgery, to be held in Brussels in 1897 coincidentally with the International Exhibition, which is to take place there that year. The proposal was discussed at a recent meeting of the Société Belge de Chirurgie, when an objection was made by some members that the International Medical Congress at Moscow fixed for the same date would interfere with the success of any similar meeting at Brussels. The matter has been referred to a committee.

REPORTS
ON
MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

HARTLEPOOLS HOSPITAL.

SUPPURATING KIDNEY REMOVED BY ABDOMINAL SECTION; RECOVERY.

(Under the care of T. G. Ainsley, M.D., M.R.C.S., Surgeon to the Hospital.)

[Notes by A. V. MacGregor, M.B., C.M., House-Surgeon.]

E. P., aged 24 years, mother of four children, was admitted into Hartlepools Hospital on March 10th, under the care of Dr. Ainsley, complaining of pain in her right side.

History.—Seven weeks after her last confinement—that is, six months ago, she felt a pain in her right side of a dull, heavy dragging character, without exacerbations or paroxysmal attacks. The pain has never been absent a whole day, and is worse at night after her day's work, but subsided after a little rest, and her sleep was undisturbed. She has had profuse sweatings at night, and at the commencement of her illness she had an attack of sickness, and vomited almost everything she took for a fortnight. She has been gradually losing flesh and strength. At first the patient had to get out of bed once or twice at night to micturate. She has noticed that her urine is scanty and thicker than normal, but has not observed any blood nor any alteration in colour or smell. Three months ago she felt a rounded swelling in the upper part of the abdomen, at the right side, which has been getting larger. She has had slight cough and expectoration. There is no history of phthisis or other special diathesis.

State on Admission.—Face rather expressionless and somewhat emaciated; no evidence of dropsy or jaundice; skin feels damp and emanates an offensive odour, which persists even after baths; temperature 99°. Abdomen: A bulging forward to be observed in the right side below the liver. Palpation: A well-defined rounded tumour, tender to touch, extending from liver to 1 inch below umbilicus, outer border undefined and extending inwards to the middle line; it is slightly movable, no sense of fluctuation except in lower part, where it has a semifluctuating feel. The ascending colon can be detected passing up over the tumour, and from its lower border a thickened cord is felt in the line of ureter. Urine: Quantity per day varied from 30 to 40 oz., specific gravity 1025 to 1030, acid, contains a large quantity of pus and some albumen, no blood, examination for tubercle bacillus gave negative results. The alimentary, respiratory, circulatory, and reproductive systems gave no evidence of disease.

Diagnosis.—Pyonephrosis, probably tuberculous.

Operation.—An incision 4 inches long was made through the right semilunaris, and the peritoneum opened. The left kidney was examined, and the intestines packed away by a large sponge. The incision was now found to be much too small for the removal of the tumour; another was therefore made at right angles to the former, 5 inches in length, passing down into the flank. The posterior peritoneum was then divided on the outside of the colon, and separation from the front of the tumour commenced. This separation was tedious and difficult, as the peritoneum and colon were intimately adherent to the capsule, and the capsule to the kidney. By perseverance this was effected, not without in one or two places opening into the abscesses, but by sponge pressure I think pus was prevented entering the peritoneal cavity. Separation from the loin was easily accomplished; here the thickened ureter came into view; it was at once seized by two pairs of forceps, divided between, and the cut ends disinfected by the thermo-cautery. The distal end was brought out at the lower angle of the longitudinal wound, where it was fixed by a safety pin. The thick pedicle was then treated by passing a pair of Wells's forceps between the renal artery and vein, drawing through the ligature, and tying first the posterior then the anterior parts. The tumour was then removed, peritoneum flushed out with warm boracic solution, and dried with sponges. A glass drainage tube was placed in the abdomen, and a rubber one passed through the loin.

Deep and superficial sutures were inserted. The patient was put to bed at 12 noon in a collapsed condition, and suffered from severe and prolonged shock. 2 P.M., ½ oz. bloody fluid drawn off; temperature 101.4°, pulse 120. 10 P.M., temperature 102.4°, pulse 135, no sickness; ℥ ij urine drawn off containing pus; injection of brandy. Second day: Slept very little during night, skin acting freely; ℥ ij bloody fluid drawn off; face looks pinched and lips cyanosed; strychnine gr. 1/30 injected; pulse 136, temperature 100°. Third day: temperature 100°, pulse 120; slept well after 2 A.M.; glass tube taken out. From this time recovery took place without a symptom causing anxiety. The pus gradually disappeared from the urine, and patient was sent to a convalescent home six weeks after the operation. She is now in good health, passing full quantity of healthy urine. The tumour weighed 4½ lbs. It consisted of increased renal tissue and eight abscesses, each one separated from the other. In the pelvis a mulberry calculus was found.

Remarks by Dr. Ainsley.—The case presented no symptoms by which a calculous pyonephrosis could have been diagnosed, and this is probably well for the patient. Examination of the kidney after removal showed that a nephrotomy would have been useless. The abdominal operation was chosen from the large size of the tumour and its mobility, and also because I wished to examine the other kidney before proceeding further. The result to the patient justifies the course adopted, and I think to some extent modifies the rule laid down by most books of renal surgery, that calculous pyonephrosis should be treated by nephrotomy.

REPORTS OF SOCIETIES.

The Dermatological Society of Great Britain and Ireland.—The annual general meeting and congress was held on May 30th, Dr. Pye-Smith, F.R.S., President, in the chair. After the presidential address, Dr. Stowers (the Secretary), and Mr. Alfred Cooper (Treasurer), read reports, which showed the increasing prosperity of the Society, and its satisfactory financial condition. It was unanimously resolved that in future the meetings be held on the fourth Wednesday in the month, instead of the second Thursday as heretofore.—Dr. H. Radcliffe Crocker read a paper entitled the Internal Therapeutics of Psoriasis and some other Diseases of the Skin, which was followed by a discussion, in which the President, Dr. Liveing, Dr. S. Mackenzie, Dr. Bowles, Dr. Payne, Mr. Wm. Anderson, Dr. Brooke (Manchester), Dr. Abraham, Dr. Walsh, Dr. Harrison (Clifton), and Dr. Mackey (Brighton) took part. The following cases were shown: The President: Melasma (Suprarenal).—Dr. Harrison (Clifton): Rodent Ulcer (photographs).—Dr. Cagney: Telangiectasis of the Face.—Dr. Abraham: (1) Pityriasis Rubra Pilaris of Devergie. (2) Morphœa. (3) Pemphigus. (4) Disease of Scalp.—Dr. Eddowes: (1) Disease of Nails. (2) Dermatitis Hiemalis. (3) Molluscum Contagiosum (Suppurating). (4) Microscopic Specimens.—Dr. Waldo (Clifton): Case for Diagnosis.—Dr. Stowers: (1) Lupus of Wrists. (2) Lichen Scrofulosorum. The following were elected office-bearers for 1895-6:—*President:* Philip H. Pye-Smith, M.D., F.R.S. *Vice-Presidents:* McCall Anderson, M.D.; J. Hughlings Jackson, M.D.; F.R.S.; Robert Liveing, M.D.; Samuel Wilks, M.D., F.R.S. *Treasurer:* Alfred Cooper, F.R.C.S. *Hon. Secretaries:* Jas. Herbert Stowers, M.D.; Leonard A. Bidwell, F.R.C.S. *Council:* Wm. Anderson, F.R.C.S.; Robert L. Bowles, M.D.; P. S. Abraham, M.D.; A. J. Harrison, M.B., J.P.; Jonathan Hutchinson, F.R.S.; W. Allan Jamieson, M.D.; Stephen Mackenzie, M.D.; J. F. Payne, M.D.; Buxton Shillitoe, F.R.C.S.; Walter G. Smith, M.D.; Waren Tay, F.R.C.S.; Frederick Taylor, M.D.

An International Congress of Railway Surgeons.—It is proposed to hold an international congress of railway and ship surgeons in Amsterdam on the occasion of the forthcoming Universal Exhibition in that city. The President of the Congress will be Professor H. Snellen, of Utrecht.

The trustees of the Smith's (Kensington Estate) Charity have granted a donation of £500 to the special fund for opening the closed wards at St. Thomas's Hospital.

REVIEWS.

Abdominal Tumours and Abdominal Dropsy in Women. By James Oliver, M.D., F.R.S.Ed., Physician to the Hospital for Women, London, etc. London: J. and A. Churchill. 1895. (Cr. 8vo, pp. 300. 7s. 6d.)

This work is mainly clinical, different types of tumour forming the subject of separate chapters, each type being illustrated by records of a few cases. Since the author is an obstetrician, the first chapter, which deals of the pregnant uterus as an abdominal tumour, will be the most instructive to young readers and the most interesting to men of experience. The mistaking of a pregnant uterus for a tumour is a frequent accident amongst beginners who have not had the advantage of a good clinical training in obstetrics. The same error, under certain circumstances, is occasionally made by obstetricians of experience, and by surgeons accustomed to treat abdominal tumours. Hence Dr. Oliver's cases of pregnancy where diagnosis was confused by menstrual irregularities or masked by other conditions are profitable study for everybody.

The chapters on cystic and solid ovarian tumours deserve perusal, but the subject is very well known, and is more fully treated in several current works by accepted authorities. Much more stress should have been laid on the nature of the fluid contents of cysts and the distinctive characters of peritoneal effusions, even if only for the negative object of warning the learner against tapping. Such fluids differ greatly in nature, some being practically inert (the contents of a parovarian cyst, for instance), most being irritating, and not a few actually septic. Again, the following passage is misleading: "In the majority of cases of primary cancer of the peritoneum the omentum becomes, as we would naturally expect, sooner or later more or less extensively diseased." The very existence of primary cancer of the peritoneum is disputed, and, if it ever occurs, the omentum would appear to be its site. It is fair, however, that we should point out that Dr. Oliver's observations on ascites in connection with malignant abdominal tumours are worthy of study, and the illustrative cases are judiciously selected. The book should have been called Clinical Observations on Abdominal Tumours and Dropsy in Women, as there is little or nothing said about pathology, surgery, or therapeutics.

Die Vergiftungen durch Schlangen [On Poisoning by Snakes]. By Dr. M. Brenning. Stuttgart: Ferdinand Enke. 1895. (Demy 8vo, pp. 184.)

Dr. Brenning's book contains a preface by Professor L. Lewin, and gives in a small compass a very complete summary of the entire subject of snake poisoning. Dr. Brenning begins by describing the characteristic appearances of the various poisonous snakes, and then goes on to discuss the nature of the poison. He shows that the venom of both the European as well as the foreign snakes owes its toxic action to certain active principles belonging to the group of proteids. The changes in the blood are not the cause of the poisoning symptoms, for in frogs whose blood has been replaced by a 0.7 per cent. solution of sodium chloride the same series of symptoms can then be produced. Cobra poison acts directly on the nervous system, causing, after a short period of irritation, paralysis of the respiratory centre. The principal cause of death after snake bites is paralysis of the heart or respiratory centre. He regards the white cells found in the blood by Professor Halford after snake poisoning as merely altered leucocytes.

Dr. Brenning then enters more fully into the various surgical and medical methods employed in the treatment of people bitten by snakes, and gives a long list of the plants used by different nations.

The last chapter contains an account of various native means employed for inoculation against snake bites in countries where they are common, and the author shows how, mixed up with superstition, there lies a method of procuring immunity. In the near future we shall in all probability have an antitoxin against this scourge.

According to Dr. Brenning at present we must guard against snake bite by properly covering the feet and legs, and as far as possible exterminating snakes in those countries where they abound. When one has actually been bitten, the administration of ammonia and stimulants may aid in warding off death, but the principal treatment should be surgical. If feasible a ligature should be applied above the bite, and the wound either cut out, sucked, or cauterised.

The book can be highly recommended to all interested in this subject as one containing in a small space most of our present knowledge. Its value would have been enhanced as a reference book if the literature had been given more fully, and a complete index of its contents placed at the end.

Public Treatment of Pauperism: Series of Papers Read at the International Congress of Charities at Chicago, June, 1893. London: The Scientific Press. 1894. (Roy. 8vo, pp. 319. 6s.)

In these papers are laid before us the opinions of experts of divers nationalities on the various phases of the question of pauperism. The papers differ in value and are not confined to the administration of State relief, but discuss and criticise the various agencies for the distribution of private charity. In reading them we gather that there is a consensus of opinion on two points: the first that outdoor relief cultivates pauperism; the second, that discriminating and effective charity can only be attained by individual contact with the poor. In other words, the remedy for poverty lies not so much in the dole of money as in the creation of opportunities for the development of self-help. A valuable contribution towards arriving at the first opinion is found in a paper from the pen of Mr. Vallance, clerk to the Whitechapel Union, relating the experience of his Board in reducing the pauperism in the locality by the gradual elimination of the outdoor paupers. Statistics dealing with a period of twenty years support the argument.

The medical relief of the pauper has been touched on only incidentally, and we note this admission with regret, as the question of poor relief, apart from its medical aspect, deals with but one side of the problem; holding, as we do, that the efficient medical relief of the poor is an important factor in the reduction of pauperism. The principle of the English Poor Law is affirmed over and over again as being the only statesmanlike way of treating the pauper, namely, "the condition of the pauper ought to be, on the whole, less eligible than that of the independent labourer." Our space does not admit of quotations, but we refer those interested in the subject to a remarkable extract from the writings of Professor F. H. Giddings on page 50, and to the system of classification in practice in Austria. The papers present many interesting points to the student of the problems of pauperism.

Über Appendicitis nebst einem Bericht über 68 Fälle, aus der Chirurgischen Klinik zu Upsala [Remarks on Appendicitis, with a Record of 68 Cases Treated in the Surgical Clinic at Upsala.] Von Prof. Dr. K. G. Lennander. Wien und Leipzig: Wilhelm Braumüller. 1895. (Royal 8vo, pp. 156.)

This, though but a pamphlet, and made up for the most part of reports of cases, will be found an instructive addition to the abundant literature on the subject with which it deals. The author describes the many pathological forms of the morbid condition now known as appendicitis, and points out the method of surgical treatment indicated for each. His experience of this affection confirms that of most surgical practitioners, that though hardly recognised in the early days of many now living, appendicitis is one of relatively frequent occurrence. Here we find a record of no fewer than 68 cases treated by operation in the course of five years at the small University town of Upsala. In his views as to treatment, Dr. Lennander agrees in most respects with English surgeons, and is opposed to the very indiscriminate resort to operative interference which has of late been advocated in the United States. By rest, a much restricted diet, and opium, the severity of appendicitis may, it is stated, be often diminished, and a complete cure may sometimes result. He would recommend operative treatment in severe cases in which diffuse peritonitis is threatened, and in apparently mild cases in which the symptoms do not yield to medicinal and expectant treatment. He is also an advocate for interference in cases of relapsing appendicitis, and his indications for such treatment agree very much with those that have been laid down in this country by Mr. Treves.

Geburtshülfe und Gynäkologie. [Obstetrics and Gynæcology.] II Band der Arbeiten aus der königlichen Frauenklinik in Dresden. Von Professor Dr. G. Leopold. Leipzig: S. Hirzel. 1895. (Roy. 8vo, pp. 400. Mks.24.)

This volume is a record of work done at the Royal Clinic for Diseases of Women in Dresden, of which Professor Leopold is the head. It contains monographs of great interest and value, as well as a description of the mode in which the work of the institution is done, and a statistical account of the operations. Among the former we may mention a paper on Labour with Narrow Pelvis, by Dr. Franke; an Analysis of the Temperature Curves of the Lying-in Period, by Professor Leopold; an Essay on Sudden Death from Pulmonary Thrombosis and Embolism, by Dr. Mahler, in which the subject is thoroughly discussed both from a pathological and clinical point of view. Dr. Karl Jude contributes a Study of the Vital Processes of Premature Children. There is a lecture by Professor Leopold on the Mode of Ascertaining the Seat of the Placenta before Opening the Uterus in Cæsarean Section; he says this can be inferred from observing the course of the Fallopian tubes; and one on Injury to the Umbilical Cord and Death of the Fœtus in Natural Labour. The gynæcological section of the book contains an article by Dr. Leopold, on Total Extirpation of the Uterus for Cancer, containing an analysis of 164 cases, some of them watched as long as 8 years. This paper is important, for in this country much smaller groups, or even single cases, are thought important enough for discussion at our societies. Dr. Berner writes on Leopold's method of Removing the Uterus for Fibroids by the Vagina. Leopold writes also on the Vaginal Extirpation of the Uterus and its Appendages for Severe Chronic Inflammation of the latter, an operation recently largely practised and brought to the attention of the profession by Landau, of Berlin, but which Leopold claims to have practised at an earlier date than either Landau, or the French surgeons Péan and Segond, who have recommended removal of the uterus for chronic inflammation of its appendages. Dr. Wolff writes on Removal of the Uterus for Prolapse; we cannot say his paper makes us anxious to recommend this. Leopold and Wehle write an elaborate monograph on Perineorrhaphy. Fearne describes a case of Primary Cancer of the Fallopian Tube, a rare condition, an example of which was recently shown to the Obstetrical Society by Dr. Cullingworth. Fearne has collected all the published cases of the kind.

NOTES ON BOOKS.

The Leeward Islands Medical Journal. Vol. 4. Editors, Dr. George E. Pierez and Dr. Freeland J. Freeland. (Edinburgh: Oliver and Boyd. 1894. Demy 8vo, pp. 90. 3s.)—Besides the President's very entertaining address the present issue of the *Journal* of the Leeward Islands Branch of the Association contains several good papers. That on typhoid establishes once more the fact of the existence of this fever in the West Indies. An excellent paper by Dr. J. Numa Rat, whose researches on yaws have already made his name familiar to dermatologists, on anomalous tropical fevers is of great interest; its value is much enhanced by the temperature charts appended. It is evident that the West Indian practitioner is as much puzzled to classify the fevers he encounters from time to time as his brother in the East Indies. Dr. Rat, though attaching importance to the quinine test of fever has not made use apparently of Laveran's parasite as an additional and more reliable guide. Dr. Nicholl's fatal case of jaundice appears to us to have been an example of malarial hæmoglobinuric fever—a disease we already know from French and other sources to be endemic in parts of the

West Indies. Some memoranda by Dr. Mapleton on the decomposition of chloroform and on free salicylic acid in salicylate of bismuth are a useful contribution to practical pharmacology, and conclude an interesting number of this enterprising and highly commendable *Journal*.

Materia Medica and Therapeutics. By John B. Biddle, M.D. Thirteenth Edition, revised, rearranged, and enlarged by Clement Biddle, M.D. With numerous Illustrations. (Philadelphia: P. Blakiston, Son, and Co. 1895. Demy 8vo, pp. 714. 4 dollars.)—This is a systematic treatise on materia medica and therapeutics, written in a pleasant and agreeable style, without any attempt at elaboration of details or discussion of disputed points and theories. It is arranged according to what has now come to be recognised as the classical form for such works. The author first considers those therapeutic agents which are not drugs, and under this heading gives a very short description of the therapeutical uses of heat and cold, light, electricity, etc. He also describes various surgical procedures such as aspiration, acupuncture, setons, and bandaging, among which there is included an account of the stomach pump, an instrument which is surely a little out of date since the introduction of the stomach tube. Pharmacy, pharmaceutical chemistry, prescription-writing, and the methods of administering drugs are next methodically considered, these being followed by the strictly pharmacological portion of the work, which forms the bulk of the volume. In arranging this, the author adopts a therapeutical classification of remedies, which is hardly satisfactory. Thus under Narcotics are enumerated such differently acting remedies as opium, belladonna, and chloroform; under the heading "Local Anæsthesia," carbon disulphide is considered, while cocaine has to be sought for among Antispasmodics; among Sedatives are reckoned aconite and vegetable acids, and among Spinants we find strychnine, digitalis, and amyl nitrite, drugs which have certainly little in common. The individual drugs are carefully and accurately described from the standpoint of pharmacognosy, pharmacology, and therapeutics, but in every case more or less briefly, many substances being mentioned which are practically unknown in this country. In an appendix are included a list of Latin abbreviations used in prescribing, tables of doses, and other useful information, while the whole is finished off by an excellent therapeutical and general index.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

COCOA PREPARATIONS.

The samples of "cocoa essence" and "soluble cocoa" submitted to us have had a large proportion of the fat naturally present in the bean removed, and when prepared as directed they give beverages of excellent quality. The analyses show:

	Cocoa Essence. Per Cent.	Soluble Cocoa. Per Cent.
Fatty matter	25.7 ...	32.0
Ash	5.3 ...	7.0

Both the samples examined are free from added starch and added sugar. The infusion of the "soluble cocoa" is slightly alkaline, and the ash in the sample shows that the cocoa has been prepared so as to render it more easily diffusible in water and more pleasant as a beverage. The sample of chocolate is of excellent flavour and is guaranteed to be prepared from pure cocoa and sugar. They can be had from Ph. Suchard, Neuchatel, and 38, Holborn Viaduct, E.C.

SCOTCH WHISKY.

We have received from Messrs. John Robertson and Son, 4, Great Tower Street, E.C., and Dundee, a sample of "Fine Old Scotch Whisky." Analysis proves it to be of excellent quality and of full alcoholic strength. It is also free from the noxious constituents peculiar to unmatured whisky. The specific gravity is 943, and it contains spirit equivalent to 13.6 per cent. under proof, with 0.10 per cent. solid matter and 0.02 per cent. free acid, expressed as acetic.

COGNAC BRANDY.

We have analysed a sample of Messrs. Gautier Frère's cognac brandy, which is described as very old liqueur brandy, and is recommended for invalids for whom brandy is ordered. From the analytical results we have obtained we are able to state that the sample consisted of brandy of genuine composition and good quality, and of fair strength. It contained 82.59 per cent. of brandy of proof strength, and was 17.41 under proof. The claim that it had been properly produced from good materials is justifiable, and we have pleasure in recommending the brandy to the notice of the profession. The agents are Messrs. Fox and Beames, of 59, Mark Lane, E.C.

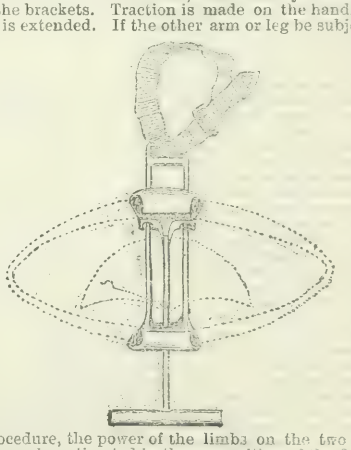
AN OPHTHALMIC DROP BOTTLE.

Mr. C. G. Russ Wood, Ophthalmic Surgeon to the North of England Sanatorium for Children, Southport, has designed a drop bottle for ophthalmic practice, which he finds after constant use for fifteen months to meet all requirements. As shown in the accompanying drawing, it consists entirely of glass, and is shaped to the form of the hollow of the hand, so that the drops may be easily expelled by its warmth. As there is no india-rubber or cork to perish, it is likely to be especially convenient to those who have occasion to use eye drops only at long or irregular intervals. Since it is made entirely of glass, it is easily cleaned, and can be boiled for sterilisation. The bottle is made by Messrs. Down Brothers, St. Thomas's Street, London.



AN IMPROVED DYNAMOMETER.

Dr. J. H. McGee, Caroline Street, Bedford Square, London, W.C., sends us the accompanying drawing to illustrate a method of applying the dynamometer to the flexors and extensors of the limbs. The position of the dynamometer is shown by the dotted lines. The strap is placed round the wrist or ankle of the flexed limb, while the dynamometer is held by the brackets. Traction is made on the handle until the limb is extended. If the other arm or leg be subjected to



a like procedure, the power of the limbs on the two sides of the body can be estimated in the case either of the flexors or extensors of the wrist or ankle. He adds that an ordinary spring weighing machine may be used to get a numerical expression of the muscular power instead of the apparatus illustrated. Either means must, he thinks, be better than the present crude methods of gauging the progress of recovery after the loss of muscular power.

WATERBORNE TYPHOID:

A HISTORIC SUMMARY OF LOCAL OUTBREAKS IN GREAT BRITAIN AND IRELAND, 1858-1893.

A Report Prepared for the Parliamentary Bills Committee of the British Medical Association.

BY ERNEST HART, D.C.L.,
Chairman of the Committee.

(Continued from page 1388.)

DRAINAGE FROM FARMSTEADS AND MANURED FIELDS.

It is nearly thirty years since the eyes of sanitarians began to open to the fact that danger to the public health was arising by reason of the drainage of manured fields being carried into town water supplies. The use of night soil for manurial purposes was just then coming into more general use, and the consequences of this agricultural proceeding were also becoming apparent in the nature of waterborne outbreaks of typhoid. In 1865, 20 deaths from this disease occurred in a rural parish near St. Neots, Hunts (No. 6), through which parish ran a brook, the water of which was used for drinking purposes. Within the space of three miles of its course this brook received the drainage of three farmsteads and that of manured fields. The majority of attacks originated in cottages making use of the brook for domestic water supply.

Another instance in which the drainage of manured fields did much to spread typhoid was that of Hebden Bridge in 1881 (No. 155), the water system there having become polluted by such drainage from fields overspread by excreta of human and animal origin. A heavy rainfall just antecedent to the outbreak assisted in carrying with it a large amount of filth to the cisterns situate at various heights on the slope of a valley, and fed by springs in the hill above. At a higher part of the hillside, but near the springs and channels leading to the cisterns, were not only manured meadows, but also privy pits and manure heaps, showing drainage towards the water troughs. The water sources here in question were found fault with a few years later by the late Dr. David Page, when inquiring into a prevalence of enteric fever in the village of Mytholmroyd in the neighbourhood, the Hebden Bridge and Midgley divisions of this then (sanitarily speaking) much-divided village being principally referred to in this connection. I quote from his report.

"Small streams descending the hillsides are the chief local sources of water supply. None of these can be said to be safe from contamination by washings from meadows and manured lands, and of some there is manifest exposure to gross pollution by excremental filth. This is notably the case of the chief local supply on the north side of the village in Hebden Bridge and Midgley divisions. The water is conveyed in pipes from a so-called spring on the hillside, issuing from beneath the meadow land of a farm at a higher level. At this farm a strong flow of water issuing from underneath the manure heap and receiving its drainage was, at the time of my visit, irrigating the meadows in question, upon the surface of which it ultimately disappeared. The farmer pointed out that occasionally the flow of water was diverted and turned through the farm buildings and a common privy for the purpose of washing out their contents upon the meadows, and he explained that by diverting it altogether from the field, the volume of water at the spring below became seriously diminished. Another local source is a spout in a yard adjoining the White Lion Inn in Midgley division. Its gathering ground is in meadow land on the other side of Rochdale Canal, under which it is conveyed in a conduit of unknown material to the spout. It was formerly exposed to pollution from a midden privy said to have been placed on the line of pipe, and at the present time there is a midden privy within 6 feet of it. An analysis made in January last warrants the analyst in describing a particular sample of this water as having the characteristics of a good and pure drinking water."

A very flagrant case of the use of water exposed to manurial drainage came to light so recently as 1886, having been discovered by Dr. Franklin Parsons, of the Local Government Board, when inspecting the urban district of Ashton-in-Makerfield. Despite his warning to the sanitary authority, Dr. Wheaton, visiting the same district in 1893 in relation to a prevalence of enteric fever, had occasion to report as follows:

"The water is derived entirely from the surface drainage of cultivated land. In 1886 Dr. Parsons, one of the Board's Medical Inspectors, found that parts of the gathering ground were manured with the contents of the privies and middens of the district, and drew the attention of the sanitary authority to the dangers arising from this practice. Incredible as it may seem, the practice of manuring parts of the gathering ground with privy manure from the district was continued, and this material had been applied to the land, even in the immediate neighbourhood of the reservoir, up to the middle of 1892; so that there could be no doubt that surface water from fields manured in this way obtained entry to the reservoir. Since the onset of the fever, however, the use of manure of any sort on the land in the neighbourhood of the reservoir has been discontinued and none has been disposed of in this way since July, 1892."

But the fact remains that a practice so foul and dangerous as is here reported on was allowed to persist with the full knowledge and consent of the so-called local "health authority."

But this part of my report would not be complete if I did not advert to the still more flagrant instance, if possible, of the town of Penrith, reported on by Dr. Bruce Low for the same Board in 1893, in connection with an outbreak of typhoid fever, most probably waterborne, in 1891, and to which I have already made passing reference in my short account of outbreaks of doubtful causation. From this town a petition had reached the Local Government Board in which some 200 residents complained of the defective state of the water supply, and not without cause. Time and again the matter had been brought before the sanitary authority, but with little avail. I cannot do better than quote what was said on the subject of Dr. Low's report in the BRITISH MEDICAL JOURNAL at the time of issue of the document. The JOURNAL of May 12th, 1894, in commenting on the report, said: "The supply is taken from the river Eamont, about three-quarters of a mile from the town, and within the borough itself. It is pumped without filtration to the town, first passing down the village street to the pumping station in pipes through the village, laid in duplicate and extremely defective and leaky, having in their near neighbourhood eleven privies, slop water pipes, dung heaps, etc., the subsoil, moreover, being of a porous gravelly nature. And we read that when the intake pipe is closed there can still be pumped a considerable quantity of water, pointing to insuction of the contaminated subsoil water. The river is subjected to many and gross pollutions in its course of five miles from the lake of Ulleswater, for we read of the discharge of crude sewage from the villages of Pooley Bridge, Yanwath, Dacre, Stainton, and others; whilst scattered houses and heavily manured fields add their quota. But perhaps the most revolting instance is that of a farm on the fields of which is spread at times the sludge from the settling tanks of the Penrith sewage outfall works. This sludge consists largely of human excrement, which in times of flood or heavy thaw can be washed into the drinking water, and thus furnish an instance of the economy of Nature which the people of Penrith never, we are sure, had in contemplation." Dr. Low goes on to state that, notwithstanding this disgraceful condition of affairs, the sanitary authority were content to go on patching up this dangerous river supply instead of going in for an extraneous service safe from the risks to which the present supply must ever expose the town. The consequences of the importation of cholera into Penrith, and the discharge into the sewers and thence into the settling tanks of the evacuations of cholera patients, are not pleasant to dwell upon. Sludge spread on the drainage areas of the river under such circumstances would endanger the whole place, and might not unlikely lead to widespread infection, for the land on which sludge has hitherto been spread is only a mile above the intake, and specific pollution of the town supply is to be thought of as more than probable granted the presence of the germs of Asiatic cholera in the sludge in ques-

tion. Here, then, is a town situate in the heart of England's choicest scenery, happy in possessing a water supply which would be condemned in any dirty Continental town. Not deeming it sufficient to draw its water from a river exposed to numerous kinds of pollution more or less outside the jurisdiction of the sanitary body charged with safeguarding the public health, the people, or most of them, have been satisfied to drink water which has, it may be, at times been no other than a weak solution of their own excrement.

These and many other like instances to which I might refer only give prominence to the idea which I have long put forward that county councils should have very full and definite powers in respect of water supplies. That water should be allowed to be served to a community from a source obviously in danger of contamination is monstrous, and should not for one moment be tolerated. Yet the matter is of only too common occurrence. Every year but adds to the already long list of epidemics of preventable disease caused by the agency of water supplies open to the polluting media of manured fields, sewage-fed streams, etc. The history of waterborne typhoid, as detailed in the appended tabular statement, is largely a record of extreme neglect on the part of health bodies here, there, and everywhere. If local interests are not sufficiently strong to prevent the continuous running after the cheap and nasty insanitary "sanitation"—so-called—then it is high time that some other authority were empowered to step in and take the reins of sanitary government. I do not limit myself to the matter of water supplies in this way; but I must not further digress from my subject. I have, I trust, shown the extreme necessity of careful attention to the mode of disposal of sewage and town refuse in relation to water services, and the harm that has accrued in the past for want of such attention.

Diluted Excreta as Water Supplies.

I have in the last heading covered much of the ground to be examined in connection with the subject of the influence of diluted excrement in spreading typhoid. Thus I have referred to Penrith, just dealt with, and to the glaring instance of Ashton-in-Makerfield. But there remain other cases to which I would like to invite closer attention than is given by mere mention in the appendix. At Annesley, for example, where 100 cases arose in 1870 (No. 19), Sir George Buchanan has told us in so many words that the people "drink their own excrement," there being a row of 40 privies kept dry by soakage of contents, and in the porous soil a well sunk beneath them from which the houses chiefly affected procured their water. The further distant the houses from the privies, and having other wells, the less did they suffer. Again, at Basingstoke, where there was an epidemic in 1871 (No. 30), Dr. Ballard tells us that excrement and water supply were so intimately associated that "throughout the town people are unwittingly drinking their own excrement." Wells were sunk in a cesspool-riddled soil with surface water seen at times standing in the cesspits. Wells supplying the village of Burton Latimer (No 41), in 1872, were so circumstanced that non-pollution would have been little short of a miracle; and the first of some 250 cases of typhoid which occurred was on premises where the well was within 20 feet of a hole into which slops were thrown. In the case of the Bristol Lunatic Asylum (No. 66), diluted sewage had for years been used with impunity in the absence of specific poison; but with the advent of fever attacks the water thus sewage-laden acquired a new property and typhoid ensued. In the instance of an outbreak at the Glasgow Hospitals in 1884 (No. 154), evidence was forthcoming to the effect that cattle had been rendered ill by the consumption of water which contained sewage products in a large degree. It was milk from these cattle that had seemed to give rise to the disease, typhoid fever, which occurred in the hospitals to the number of 104 cases.

Moreover, the epidemic at the villages at which the cattle drank of the polluted water is regarded by Dr. Milroy, of Kilwinning, as the result of contamination of the pump well by manure from Glasgow itself, such manure being thought of as likely to have contained the germs of typhoid. Temporary disuse of the pump water led to cessation of the fever; but its re-use was followed by an epidemic manifestation of the disease, 10 per cent. of the 1,000 residents suffering fever in two years. It certainly is a disgrace to our country that such conditions have been found to persist at quite recent date: the like having been made matter of comment many years back, and under circumstances which one would have thought would have led to State action of a sort to prevent recurrence of filthinesses so disgusting as those referred to in the excellent series of reports of Sir John Simon to the Privy Council, and especially that for the year 1873 (ii) in connection with the subject of filth diseases. Were England administered from a sanitary point of view in the manner in which her position in the world of sanitarians demands, there would be a speedy weeding out of authorities whose chief aim in their corporate existence seems to be to see how little they can possible spend on matters of public benefit from a health standpoint. That such bodies should be permitted to live is a mistake; nothing quickens a lax authority so much as being threatened with annihilation, and nothing is to be though of as so calculated to arouse some of our recalcitrant authorities to sanitary activity as the knowledge that continued inaction will bring about their dissolution. Excrement is a matter with which every sanitary body will have to do, and the sooner the community learn that the safe disposal of this commodity is one of vital moment for the sake of the public health, the sooner will the ever-recurring instances of epidemic spread of disease on account of pollution of drinking water by inattention to this question cease to be heard of. And the community must be taught ere they can learn; and they can only be taught by those who have been themselves imbued with the notions which it is desirable thus to inculcate in others. So here, again, I would see drastic action taken where the elementary principles of cause and effect are neglected, and where the persistent bringing into close association of the disease-provoking excrement and the domestic water supply is regarded with equanimity bordering on criminal negligence.

Riverborne Typhoid Fever.

The part played by rivers in the dissemination of typhoid fever has been increasingly frequent in the mind of sanitarians of late years. The matter of water supplies as derived from English rivers is one of very great importance, seeing how many of our towns are dependent on the water ways for their domestic supplies. The subject is one to which I must give some little amount of space, having regard to the fact that it is and has been a bone of contention as to whether rivers can give rise to typhoid epidemics in the way with which they have been credited by some experts in sanitary circles. Leaving the contentious portion of the subject to a later page, let us here first of all look at the evidence forthcoming from a perusal of the appended tabular statement on the general question of river pollution in relation to typhoid outbreaks, in so far as localised occurrences seem to be in the position of effect from such pollution. Passing in review some of the cases of this sort, I shall leave for further and more detailed discussion the historic Tees Valley epidemics of 1890-91. The first case to which I refer is that of the outbreaks of 1882-83, as Hitchin (No. 145), which Mr. W. H. Power investigated for the Local Government Board, and which had as cause the pollution of the river Hiz, so-called by courtesy more than right, since it is described as "hardly more than a ditch." The pumping station had as a defect the means whereby backflow of water could at times take place from the river, the latter receiving the excremental refuse from houses on its banks. There was precedent to each of the outbursts a flood, with consequent opportunity for the backflow of river water into the contents of the pumping station. All causes other than water could be excluded, and only those persons consuming the public supply suffered under the disease, well water drinkers escaping, except in a few instances where opportunity had been given for partial use of the implicated service. I may conveniently speak of the next two instances at once in view of the fact that they were both of them outbreaks related to use of the same river, namely, the Trent. They are the cases of the Gainsborough rural district (No. 174), and of the town of Newark (No. 180), the disease in the first named having lingered at least during the period January, 1889, to June, 1893, and in the latter from January, 1890, to June, 1893; these periods being those for which it was possible to obtain accurate details of the attacks occurring. The river Trent is subject to such gross pollution

that I really think I may be pardoned if I quote from the report on the outbreaks which was made by Dr. Bruce Low for the Local Government Board, where he especially refers to the condition of the river. He says:

"Almost from its source the Trent becomes polluted with sewage. The river and several of its tributaries constitute the natural drainage of nearly the whole of Staffordshire. In its passage through the densely-populated Pottery district the Trent is admittedly polluted, and lower down the crude sewage of many places, as well as the effluents from sewage farms, mingle with the waters of the Trent and its tributaries. Taking two tributaries as samples of the others, the Tame—which receives sewage from Birmingham, more especially at times of heavy rainfall, and from the Black Country—is highly polluted; and lower down, the Derwent, which flows through the centre of Derbyshire to the Trent, receives the crude sewage of such places as Bakewell, Matlock Bridge, Matlock Bath, Belper, Derby, Alvaston and Boulton, having a combined population of nearly 120,000. The sewage of Nottingham is disposed of upon land adjoining the Trent at Burton Joyce, about five miles from the town and about eighteen miles above Newark. The effluent, owing to the care which has been and is being taken with the preparation of the land used as a sewage farm, is, under ordinary circumstances, clear and free from objectionable smell. But in times of heavy rainfall it is found necessary to turn the contents of the flooded sewers of Nottingham direct into the Trent. In this and other ways much untreated sewage at times reaches the river. Still lower down the crude sewage of Newark passes directly into the Trent, and farther down still the town of Gainsborough discharges its sewage into the river. In addition to the towns last mentioned, the whole of the intervening places on the river drain into the Trent without any attempt at purification of their sewage. Into the lower section of the river, with which this report is more especially concerned, there is drained a considerable area of heavily-manured land; so that after heavy rains the river is contaminated by the washing into it of more or less towns' manure and night soil imported from large urban districts. The town of Nottingham, for example, where the pail system is still in use, has to dispose of more than 1,000 tons of night soil every week. Much of it is taken by boats to neighbouring districts, the natural drainage of which is to the river. Such manure would be liable at any time to contain the bowel discharges of enteric fever patients and of persons suffering from diarrhœa."

This short statement very succinctly lays before the reader the gross state of this river, and will lead him to be less sceptical, even if previously disposed so to be, as to the relations of the waterway with disease in those persons compelled to drink of its waters. Not, however, that compulsion has entered solely into the matter, since Dr. Low tells us of a sneaking affection for the river water on the part of riverside dwellers. He relates how one "enthusiastic admirer of Trent water in a riverside village after drawing a pailful of water from the river to fill his teakettle.....found solid fæces in the pail." I need hardly say that the disuse of the river followed as a matter of course. For the rest I quote from a notice of the report in the JOURNAL of March 10th, 1894:

"On the subject of fever prevalence in association with Trent water, Dr. Low's facts, briefly stated, are as follows: In the Gainsborough rural sanitary district in the four years and a-half ended June, 1893, there were 192 known cases of fever, of which 167 occurred in 10 villages, with 5,700 inhabitants, using mainly water from the Trent or Chesterfield canal, the latter being also grossly polluted. There were only 25 cases in 51 villages, with over 13,000 people, using well water. The respective attack rates were 29 and 2 per 1,000 living. Of the 25 cases, 4 may be deducted as imported, and other 2 as probable users of Trent water. In Newark, of 53 cases of fever in 1890, 73 per cent. used the public water services; of 125 cases in 1891, the percentage was 91; of 69 cases in 1892, it was 68; and of 50 cases in the first half of 1893, 82 per cent. used the public supply; the percentage of sufferers doing so being 78.5 in the whole period of 3½ years. The public service here in question was from wells and culverts on the banks of the Trent subject to admixture by the river water. All other probable causes of fever could be eliminated."

An instance of more gross pollution can scarcely be imagined. The data above given are to my mind convincing that here we have to deal with a riverborne disease, and be it kept in mind that the locality—the Trent valley—in which these conditions have been found to be prevailing is one inhabited by half a million souls. The matter is worse when we learn, as we do from Dr. Low, that sand and gravel are taken from the river between Newark and Gainsborough for renewal of the filtering materials of some public water supplies. "Unless," says Dr. Low, "previous to use they are subjected to careful preparation, such materials might themselves become a source of danger." Especially does he think of danger in the not unlikely event of cholera importation into the Trent valley, previous visitations of the disease having hit the Trentsiders rather heavily. To another instance allusion has already been made in other connection—namely, that of King's Lynn (No. 189). I need not here refer to the data in support of the contention that the epidemic of typhoid from which that town suffered in 1891-92 was waterborne. Nor need I again set out the circumstances (which are detailed in the Appendix) in which the outburst of fever was brought about. Let it suffice to state that the river Gaywood was the recipient of much polluting media, and that the specific poison of enteric fever was shown to have had opportunity of ingress to the river just prior to an outbreak of diarrhœa, which was in turn rapidly succeeded by the graver malady. The great lesson to be derived from this unhappy experience of King's Lynn, after that of the folly of taking drinking water from a polluted river, is the persistence with which the town council of the borough refused to listen to competent advice to leave the river and seek otherwhere a supply free from risk of danger. It is only after this bitter demonstration of the evils of delay that the sanitary authority have seen fit to move in the matter. In all such matters delays are indeed dangerous. But the instance of riverborne typhoid round which most interest has of late centred is that of the Tees valley, to which I have recently made reference (No. 182), and which demands a full description, since so much depends on the way in which this case comes ultimately to be looked at by sanitary experts. I will therefore at the outset quote the brief summary of the case inserted in the BRITISH MEDICAL JOURNAL of November 4th, 1893, whilst I at the same time reproduce two illustrations from the report which give some idea of the state of the river banks at two places.

"Two distinct epidemic prevalences are treated, each of six weeks' duration, the first from September 7th to October 18th, 1890, the second from December 28th, 1890, to February 7th, 1891. The whole area dealt with is one of 706,020 acres, or 1,103 square miles, containing half a million people in ten registration districts, comprising thirty-two separate sanitary areas. In the two epidemics 1,463 cases of enteric fever were heard of, and 1,334, or 91 per cent., occurred among a population of just over 250,000 persons, situate in three of the ten registration districts, the rates of attack per 10,000 being 29 and 24 respectively in the two epidemics, against 3.5 and 1.5 in the remaining seven districts, with a population almost identical in point of numbers. In the matter of fever deaths this special area had rates three and five times greater than the other seven districts. In regard of sanitary areas, it was found that of the 32 only 10 had excess of attack rate, 9 of these being in the special area just referred to, 8 being urban and 2 rural districts. Of the 1,463 known attacks, 1,352, or 92 per cent., occurred in these ten districts, with rates per 10,000 of population of 31 to 3 and 26 to 1 as compared with the other 22 districts in the two epidemics. Judged either by attack- or death rates, the exceptional incidence on this special area was heaviest in the second epidemic, at a season when enteric fever is not apt to be prevalent in this country. Dr. Barry enters at great length into the statistical data here briefly summarised, and, by an excellent series of maps, follows the course of the disease, fortnight by fortnight, in the invaded district as a whole and in certain towns in particular. Dr. Barry likewise deals very fully with the sanitary circumstances of the special area, and, whilst he lays bare some glaring insanitary conditions, which call loudly for remedial action, he has been unable to find any community of sanitary circumstance other than water supply. But in

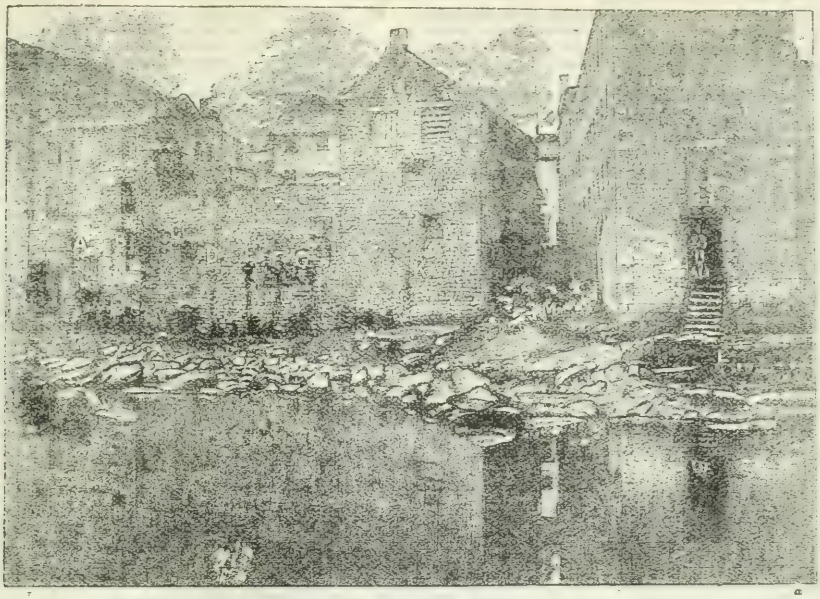


Fig. 1. View of foreshore of river Tees at the end of Kitchen's Lane, Barnard Castle. A and B, house drains; C, privy; D, E, F, G, yard drains; H, privy; K, drain from cowhouse; L, slop drain; M, tip composed of house and midden refuse.

this important element he found the ten excessively-invaded districts in common, in that all drank of Tees water distributed, after a process of sand filtration, through the works of the Darlington Corporation or the Stockton and Middlesbrough Water Board. This water was laid on to 39 566 houses (all but 447 in the special area), having 219 435 inhabitants, out of the total of 93,974 houses, with 503 646 inhabitants in the gross area. On the 219,435 persons consuming Tees water the attack-rates per 10 000 were 33 and 28 in the two epidemics, in the 284.181 persons drinking other water the rates were 3 and 1. Combining the two epidemic periods, 15 persons drinking Tees water were attacked for each unit of the remaining population. (See in this connection the accompanying chart.) It is difficult to read Dr. Barry's description of the pollutions to which the River Tees is subject above the water intakes, and to believe that people have been content to consume its waters. This portion of the report is illustrated by a series of plates consisting of reproduced photographs revealing some of the 'stinking abominations' along the banks of this 'common sewer' and 'public scavenger.' We read of some twenty villages and hamlets, and of the town of Barnard Castle, draining to the river; of washings of highly manured lands, drainage of graveyards and farmhouses, of privies, urinals, waterclosets along the foreshore; of 'loads of stinking refuse,' ashes, midden refuse gasworks refuse, and other accumulations of filth aiding the pollution of the river, especially in times of flood. So long ago as 1875 the river was known to be polluted, on the evidence of the present manager of the Water Board referred to; fifteen years later expert evidence pointed to the 'disgusting and offensive' state of the Tees; and bacteriological examinations of its waters in 1887 gave indication of 'profound sewage contamination' of this river, which had been held up to scorn as in 'a disgraceful state of pollution.'

"Looking to the amount, character, and sources of the filth finding its way to the Tees, and also to the numerous opportunities which are known to have occurred for specific contamination of the river by the poison of enteric fever, it needed only times of flood, coincident with the periods of disease prevalence, to give reasonable explanation of the two outbursts. These floods actually took place, the epidemic periods being preceded, the one by a 'much flooded' condition of the river due to excessive rainfall, and the second by 'an 8-foot flood,' due to melting snow. 'Seldom, if ever,' says Dr. Thorne Thorne, in concluding his introduction to the report, 'has a case of the fouling of water intended for human consumption, so gross or persistently maintained, come within the cognisance of the Medical Department; and seldom, if ever, has the proof of the relation of the use of water so befouled to wholesale occurrence of enteric fever been more obvious and patent.'"

Such, in the very briefest of forms, is the evidence which Dr. Barry has to show in support of his contention that the typhoid prevalences in the Tees valley were each and both caused by the consumption of water from the river. Had there been those found who were disposed to quarrel with the conclusion at which Dr. Barry arrives, I should have been astonished: my astonishment then when it became known that a Royal Commission on the subject of the water supply of London had been unable to come to any definite view in the matter can be better imagined than described. Yet such is the case, since the Royal Commission on Metropolitan Water Supply have reported themselves as not able to decide as between Dr. Barry and his official supporters, with an abundance of substantial evidence, on the one hand, and the expression of his opinions by the representative of the Stockton and Middlesbrough Water Board, who gave evidence before the Commission on behalf of his Board, on the other hand, his contention being that the disease which had prevailed in the Tees valley was not Teesborne, but was dependent on other conditions than water for its cause and spread. I make no apology for large quotations from the report of the Commission on this most important question of the relation of the Tees water to the typhoid outbreaks which called for Dr. Barry's investigation. The subject, apart from its interest in this particular instance, is one of vast concern for the public health, seeing that the inability of the Commission is not unlikely to do harm to sanitary progress by

standing in the way of securing that water supplies taken from water ways open to pollution be looked upon as distinctly dangerous to the consumers. Let us, then, turn to the report of the Commission, and see what they have to say on this Tees report.

First of all they state in regard of the "evidence of experience" that enteric fever, equally with cholera, can be communicated from person to person by the medium of drinking water. This much they admit as proven. So far good: but when they come to deal with this local case of the Tees, their unqualified statement on the matter of drinking water is found to have been considerably modified in respect of drinking water that is also river water. Here is their report on Dr. Barry's volumes:

"In 1890 a serious outbreak of enteric fever occurred in the Tees valley, and was attributed to Dr. Barry, the medical inspector, in a report published in the supplement to the Twentieth Annual Report of the Local Government Board, 1890-91, to the consumption of water taken from the Tees, and delivered after filtration by the Darlington Corporation and Stockton and Middlesbrough Water Board. This view he further upheld in a later and fuller report, which will appear in the supplement to the Twenty-first Annual Report of the Local Government Board, in continuation of the report of the medical officer for 1891, and of which we were favoured with advance copies; and in this final report he extended his inquiries to a second outbreak in the year 1891, and assigned to this an origin in the Tees water supply.

'The conclusion at which Dr. Barry arrived in regard to the 1890 outbreak, to which we have more especially directed our attention, appears to have been based on the following propositions:

(*a*) That the fever was so vastly more prevalent in the districts supplied with Tees water than the districts supplied with other sources, that it may be said to have been practically confined to them.

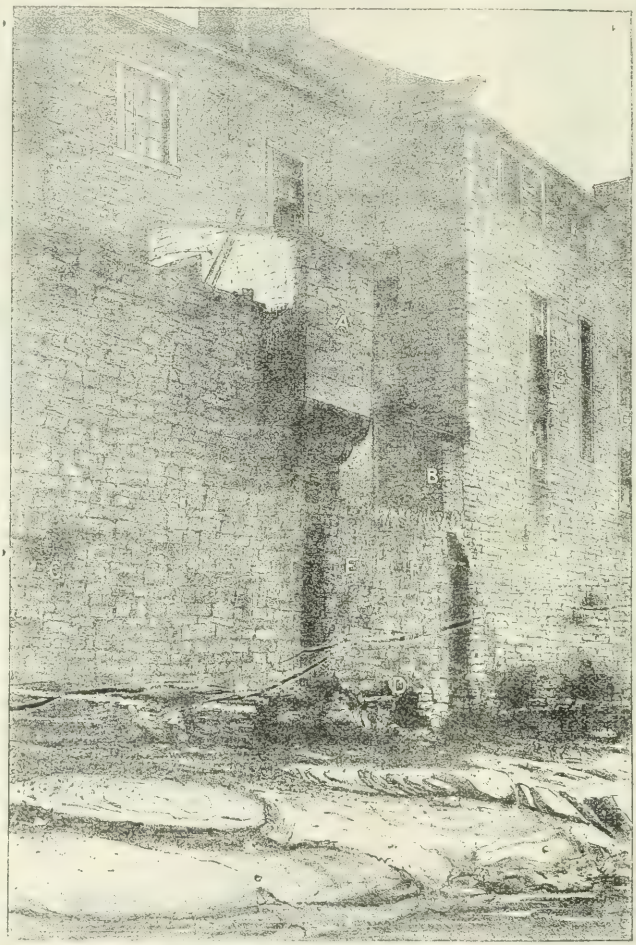


Fig. 2. View showing back of houses abutting on foreshore of river Tees north of Barnard Castle Bridge, Bridge End, Startforth. A, privy serving four houses; B, privy serving one house; C, D, E, F, yard and foundation drains G, windows through which excrement and ashes are discharged from houses unprovided with drains, privies, or ashpits.

(*b*) That the attacks were spread over all the districts supplied with Tees water with very great, though not, of course, with mathematically perfect uniformity; and that the several districts were attacked simultaneously.

(*c*) That, water supply apart, there was no other difference of any importance between the Tees-drinking and the other districts.

(*d*) That there was an accumulation of filth upon the banks of the Tees at places above the intake, and notably at Barnard Castle, and that a flood which happened on August 13th, 1890, must necessarily have washed this filth into the river; and that the time when the outbreak declared itself, after allowing for the incubation period, tallied with the view that the outbreak was caused by this pollution.

"This series of propositions doubtless constitutes a formidable indictment against the water supply. They are, however, one and all traversed by Mr. Wilson, the representative of the Stockton and Middlesbrough Water Board, and the chief objections that can be made to them severally may be stated as follows:—

As regards the proposition lettered (*a*) it is admitted speaking generally, that the fever was much more prevalent in the Tees-drinking than in the surrounding districts; but it is said that the difference in this respect between the two was very much smaller than represented by the inspector, inasmuch as notification of cases was compulsory in the former with the exception of one sanitary district out of ten, while it was voluntary in the latter, with the exception of seven sanitary districts out of twenty-two; and that in consequence of this the number of cases was largely overstated in the Tees-drinking districts, and largely understated in the other districts; and in support of this appeal is made to the respective case mortalities, as deduced from the inspector's own tables.

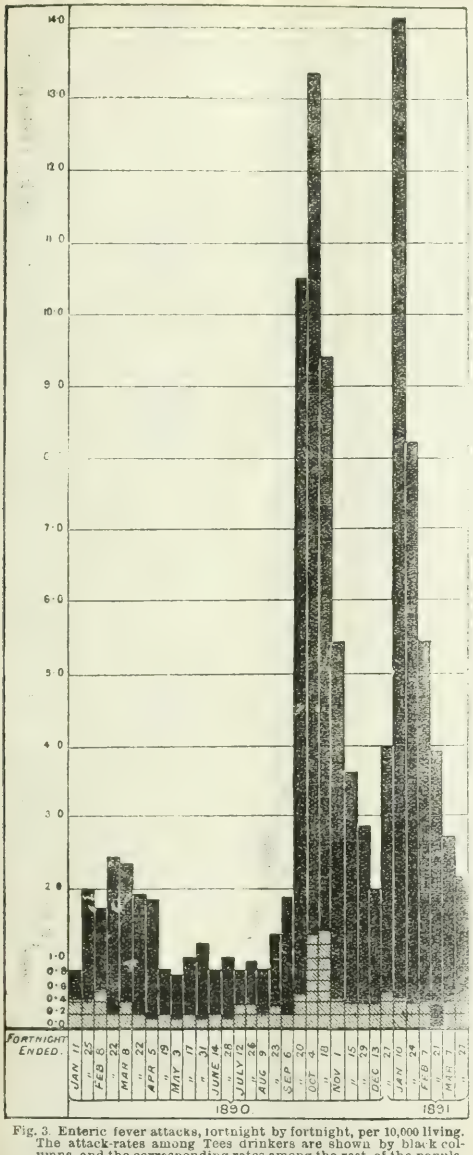


Fig. 3. Enteric fever attacks, fortnight by fortnight, per 10,000 living. The attack-rates among Tees drinkers are shown by black columns, and the corresponding rates among the rest of the population by lighter squares inserted in the former.

To the proposition lettered (*b*) it is answered that not only did numerous villages or hamlets that were supplied with Tees water altogether escape, but that, in districts which were attacked, the attacks were not spread with uniformity over the area, but occurred, either exclusively or preferentially, in certain parts, and that this distribution coincided with marked difference in the sewerage arrangements, which were so faulty that previous outbreaks of fever had been attributed to them by official inspectors, and the probability of further outbreaks asserted.

To the proposition lettered (*c*) it is answered that the water supply does not constitute the only important difference between the two sets of districts; that the Tees-drinking districts are almost exclusively urban, and the other districts almost exclusively rural; and that if the thirty two sanitary districts dealt with in Dr. Barry's report be divided into urban and rural, without regard to their water supply, it is found that the reported fever cases were four or five times as numerous in the urban as in the rural group; and that the conditions of urban life, with its common sewerage and its closer aggregation of inhabitants, are notoriously more favourable to the diffusion of disease than are the conditions of rural life.

To the proposition lettered (*d*) it is replied that, though the flood of August 13th must have washed down such filth as was on the banks, that filth can only have been such as had accumulated since the next preceding heavy flood, which was on July 1st; and that in this interval there had been no traceable case of enteric fever in the area above the intake; and that consequently the filth cannot have contained the specific poison which is essential for the production of enteric fever, and that the suggestion that there may have been cases of fever unknown to the medical men above the intake is a perfectly unsupported hypothesis.

"Dr. Barry, as we understand him, admits with some qualifications the truth of these criticisms, but maintains that, when all due allowance has been made for them, there remains a body of evidence which they are not weighty enough to counterbalance, and which, though it does not actually demonstrate, constitutes a strong presumption that the explanation of the outbreak adopted by him was the true one.

"We felt strongly that without very minute and accurate acquaintance with the locality, and without much more elaborate knowledge of the complicated circumstance of this and previous outbreaks of fever in the Tees valley than it was practically possible for us to acquire, it was out of the question that we should decide between these conflicting opinions. Although, therefore, we have printed the evidence put before us concerning this outbreak, and have attempted to sum up as fairly as we could the main arguments on either side, we refrain from expressing any judgment as to its origin. This much, however, we may say: that the pollution on a given day of a river like the Tees, with a flow in time of flood of at least 1,000,000,000 gallons in the twenty-four hours, by what must at most have been a very small amount of active enteric poison, at a point 17 miles above the intake, should so seriously affect the water that the admission of a certain limited amount of it into the reservoirs should produce, notwithstanding filtration, an extensive outbreak lasting for some six weeks, is a hypothesis so startling and so entirely unsupported by previous experience in other places, that it is fair to demand the most conclusive evidence before accepting it as proven; and, though we attach great importance to the opinion of such an experienced inspector as Dr. Barry, we cannot say that such conclusive evidence has, in our opinion, been brought before us."

In giving this lengthy extract my only regret is that I cannot reproduce both the evidence on which it is based and, as well, the full report which gave rise to the criticism. I must admit my surprise at the failure of the Commission to state clearly their opinion on the question at issue, namely, whether or not the Tees water did in fact cause the enteric fever attributed to its consumption. The columns of the BRITISH MEDICAL JOURNAL of January 20th, 1894, considered the objections of the Commission to Dr. Barry's thesis, and I cannot do better than repeat what was there said, with such slight modification of the actual text as is called for by lapse of time:

"In their summary of the Tees report the Commission omit two important points, the confirmation of the attack-rates by the mortality-rates, and the almost identical behaviour of two successive epidemics. The rest are said to have been 'traversed' by Mr. Wilson. He admits, it seems, that the fever was much more prevalent in the Tees-drinking than in the surrounding districts, but alleges that the difference has been exaggerated owing to the incomparability of attack-rates in notification and non-notification areas, and points to the unequal case mortalities in the two divisions, as shown by Dr. Barry's tables. In large water epidemics the case mortality is usually low, Caterham and Mountain Ash being notable instances, and it seems probable that Mr. Wilson is here unintentionally pointing out a circumstance tending to confirm the water hypothesis. Broadly speaking, the attack-rates were confirmed by the death-rates, and in a footnote to Dr. Thorne Thorne's introduction to the Tees Report (page 7) it is mentioned that in notification districts partially supplied with Tees water the attack-rate among 8,991 Tees-drinkers was 89 per 10 000, and among the other 14,442 inhabitants only 6 2. Mr. Wilson's next point is that some villages and hamlets supplied with Tees water escaped, and that the incidence coincided with faulty sewerage arrangements. If he is to be understood as referring merely to a few minor instances the objection has no weight, but if it is suggested that the localities stricken by the two epidemics were as clearly and uniformly marked out from the rest by exceptionally bad drainage as they were by their exceptional water supply, we have direct conflict of evidence between Dr. Barry and Mr. Wilson in a matter upon which the Commission could surely have satisfied themselves without much difficulty. In any case the neglect of drainage affords no security against water epidemics.

"The Commission represent Mr. Wilson as advancing a curious argument in his reply to proposition lettered (c). In regard of this it is difficult to conceive how the difference of nomenclature can be supposed to account for the enormous difference in incidence of fever. It is true that enteric fever in general affects town more than country, but that is not quite the same thing as affecting all urban sanitary districts more than rural sanitary districts, nor is the difference of sufficient magnitude to account for a quarter of the disparity with which we are now dealing. Dr. Barry's point is that, taking the several districts either individually or collectively, rural as well as urban, the epidemics attacked and killed a far greater proportion of the Tees-drinkers than of the rest of the population. Moreover, community of water supply is one of the conditions which occasionally contribute largely to the incidence of enteric fever upon the dwellers in towns.

"Mr. Wilson's fourth and last point is that the flood of August 13th could only wash down such filth as had accumulated since the previous flood on July 1st, and that there is no proof of any case of enteric fever having occurred above the intake in the interval. Elsewhere he has urged that in the absence of compulsory notification the records are incomplete, and the Act was not in force in the Teesdale rural or Auckland rural district, both of which are drained by the Tees above the intake. All medical men are aware that there are slight cases of enteric fever which easily escape recognition, and, indeed, some so slight as to be scarcely recognisable. It is not an uncommon experience, even in well-marked water epidemics, to find no clear trace of enteric fever among the persons who have contributed excreta to the sewage polluting the water supply. But, apart from this, the medical profession at all events has come to recognise the possibility of the poison of enteric fever living outside the human body, and even the impossible demonstration of entire absence of enteric cases from a given area could not, in the present state of knowledge, completely establish Mr. Wilson's point. This consideration adds to the difficulty of accepting, as a logical necessity, the assumption that nothing could be washed down by one flood which had not been freshly deposited since the previous flood."

There is also that which I shall have to say presently on the matter of the efficiency of one and another kind of filtration; but I would here state that that affected in the case of the Tees water was far from the standard which Professor Koch has found to be an essential for the adequate protection of the community against waterborne disease. Professor R. Koch has laid down a definite rule that no water which is intended for human consumption should be filtered at a rate exceeding 100 mm. (3.95 inches) per hour, and the rate in the case of the filtering beds of the two Water Boards having dealings with the Tees was much faster than that thus allowed by Professor Koch.

There is a further startling statement made by the Royal Commission on Metropolitan Water Supply, namely, that having reference to the amount of polluting material necessary to the infection of a river which is to be considered as capable of disseminating disease to consumers of its water. In the paragraph last quoted they make mention of their inability to admit the hypothesis as to the passage down the Tees of infective material in quantity sufficient to cause such an extensive outbreak, the more especially since the water is subjected to filtration. They also refer to the absence of like experience from other places in support of Dr. Barry's theory of river pollution as a cause of epidemic typhoid. Indeed, they state that if the Caterham outbreak of 1879 (No. 102) be taken as a type of the amount of polluting material requisite to cause an outbreak, then it would call for nearly half a million fever cases in the Thames valley above the intakes for a fortnight before the consumers of the London river service would be exposed to conditions operative for harm in the nature of a typhoid epidemic. This, they say, when the population is only about one million in the entire valley, and the water filtered, is almost impossible. Accordingly, the Commission are content to believe that the metropolis is safe against such an event as has happened in the Tees valley. True, no evidence has been published which incriminates Thames water as delivered to the London water mains of causing typhoid fever. But what I would ask is, Has it been decided how small an amount of infective material in a large volume of river water is requisite to the pollution of that water in such degree that it will still disseminate typhoid in its consumers? If it has not been decided, then what footing have the Commission when they hesitate to accept Dr. Barry's theory of Tees water and typhoid as cause and effect? Sir George Buchanan, in speaking on this matter of the amount of polluting matter necessary to the spread of typhoid, has stated as follows in his annual report for 1881 to the Local Government Board:

"I learn through the Chairman of Directors of the Caterham Waterworks Company that 1,861,000 gallons of water were pumped from the well during the fortnight. If the water had for the whole fortnight contained one grain of excremental matter per gallon, this would have meant that 19 lbs. of excrement had been added to each day's supply of water. It is, of course, out of the question that the man evacuated any such quantity; neither is there any reason to suppose that every gallon received the same amount of contaminating matter: but the story may serve to show that in speaking of one grain in the gallon we speak of a very large amount of polluting matter present in the water. It may be thought of as an amount not likely to have been exceeded in the particular samples of Caterham water that did actually produce disease in the individuals who drank it. In Dr. Cory's experiments, then, with one grain of enteric fever stool per gallon, we see a water thus largely befouled by a most dangerous material; and the indication of that befoulment, when expressed by the chemist in terms of albuminoid ammonia, is the figure 0.014 part per million parts of the water. Wherefore it is not permissible to accept the doctrines which have been formulated from the amount of albuminoid ammonia present in an otherwise unknown water. Polluting material, potent for harm, may be present in a water yielding from 0.00 up to 0.05 parts of albuminoid ammonia per million, without removing it from the rank of waters of extraordinary organic purity; and we assuredly have no evidence, in the case of an unknown water showing from 0.05 to 0.10 parts of albuminoid ammonia per million, that it is safe organically. The lesson is taught afresh and significantly by Dr. Cory's report that while we must ever be on the watch for the indications that chemistry affords of contaminating matters gaining access to our waters, we must (at any rate until other methods of recognition are discovered) go beyond the laboratory for evidence of any drinking water being free from dangerous organic pollution."

I myself strongly incline to the view that an infintesimal amount of the poison of enteric fever in drinking water is sufficient to cause the disease in those consuming the water.

Indeed we know, from eminent bacteriological research, that the bacillus of enteric fever is, when present in water, there only in proportion relatively small; and that the organism even when present in water in the bulk, may be entirely absent from the small quantity submitted for examination. And again, other microbes may be present so numerously in typhoid-polluted water as to render obscure, and even to prevent recognition of, the scantily present bacilli of typhoid fever. This was prominently brought forward in the case of the Worthing outbreak of 1893. (*See* also Appendix A.); and again finds place in the report of the Royal Commission on Metropolitan Water Supply. On the question of the amount of polluting material necessary to induce typhoid as the result of consumption of water, Professor Odling seems to regard "a very considerable dose" as essential; and others appear to hold the same view. But Dr. Sims Woodhead admits that in respect of typhoid, knowledge on this point is not definite. He even says that the entry into a domestic cistern of one single specimen of the bacillus of typhoid might, by reason of multiplication in the cistern, prove a danger to all the household consuming the water.

Coming to an actual occurrence, additional to that of Caterham, where the evacuations of a single typhoid patient may be regarded as in all probability the starting point, indeed, the *vera causa* of an alarming epidemic of the same disease, I would here like to draw special attention to the prevalence of the malady at Blackburn in 1881. The outbreak embraced in all 260 attacks in the period February to May of that year (No. 128), and Dr. Airy, in his careful and elaborate report, sets forth with great clearness the details of the occurrence. I shall have occasion at a later stage to refer at greater length to this instance of waterborne typhoid, but treating of it here from the point of view of great harm following small beginnings, I will leave for the time the general question of water consumption and fever as cause and effect.

Dr. Airy records how, in his opinion, the dejecta from a single case of typhoid at Shorrock's Row, Guide, shown in the plan given at a later stage, gave rise to the epidemic. He puts out at some little length how the drainage of the privy, into which the dejecta were cast, could have found its way into the reservoirs which supplied Blackburn. The case was one of undoubted typhoid, and the evacuations had carbolic acid cast over them by an unskilled labourer, neither the health officer or nuisance inspector proceeding to the spot, despite the fact that the town water service was palpably endangered at the place of occurrence. The attack was certified on February 22nd. A reference to the plan will show the manner in which the public supply was threatened, and when I have occasion to mention this outbreak on a later page, I shall have to point out the extreme liability of the culvert furnishing water to the borough to pollution from the row of houses in which this case was treated. I need not follow Dr. Airy through the successive paragraphs in which he seeks to prove that the Blackburn water was liable to contamination by these specific excreta; let it suffice when I state in his own words that "it appears that in the latter part of February every section of the water supply of Blackburn contained more or less of the water that had passed through the conduit under Shorrock's Row. Therefore, supposing the conduit water at that time to be the vehicle of enteric fever, we can see how a general outbreak of fever in the early part of March in different parts of the town might be accounted for." Now there were three reservoirs to which the drainings of the dejecta could have found their way—namely, Guide, with a capacity of 90,000,000 gallons; Fishmoor Lodge, 310,000,000 gallons; and Audley, 12,000,000 gallons. We are told that the second had only 50,000,000 gallons in it when Dr. Airy was there, so that there could not have been more than a total of 152,000,000 gallons at most when the inquiry was held; but how much less is not told us. Here then is an outbreak undoubtedly due to waterborne infection, and in which detailed inquiry enables only one attack to be looked upon as the origin of the large epidemic among a vast body of people drinking from three different storage reservoirs, whose relationship at a time coinciding with the alleged specific fouling of their waters by that case lends itself to corroborate the strong probability that the outbreak was in fact thus brought about.

We have seen already in milk outbreaks of typhoid how a great many of those using the infected milk escape the disease, not because they are not susceptible to the disease, but on account of the fact that the infective germs of the fever are not uniformly distributed in the milk, households thus in many instances receiving milk free from the dangerous ingredients which are contained in that supplied to, it may be, the very next house to which the milk is taken. May it not well be so with water in reference to the germs of typhoid? Professor Koch has stated that when enteric fever is found to be occurring in largely increasing quantity over an area supplied with the same water and unconnected case with case, it will be well to seek for evidence of water as the cause. In any case, pending the settlement of the vexed question of the direct relation between rivers and typhoid as cause and effect, would it not be best to take the excellent advice offered by the late Sir George Buchanan? I refer to his statement that if populations are so situate that they must needs pollute the river on whose banks they reside, the river should be frankly recognised as unclean.

"Thus," he says, "regarding rivers as sources of drinking water, one of two positions ought, I submit, to be consistently aimed at—either that, being a necessary source of domestic water supply, the river shall be absolutely protected against pollution; or else that, being (in whatever degree) used as a sewer, it shall be classed as not fit to supply drinking water."

For the rest as regards this particular instance of the Tees epidemic, I am content to know that the chief medical adviser of the State on public health matters, Dr. Thorne Thorne, has (as previously stated) said, in presenting the report which Dr. Barry made upon it, that "seldom, if ever, has a case of the fouling of water intended for human consumption, so gross or so persistently maintained, come within the cognisance of the Medical Department, and seldom, if ever, has the proof of the relation of the use of the water so befouled to wholesale occurrence of enteric fever been more obvious and patent."

[*To be continued.*]

BRITISH MEDICAL ASSOCIATION.

SIXTY-THIRD ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION IN LONDON, 1895.

THE MEDICAL INSTITUTIONS OF LONDON.

(*Continued from page 1387.*)

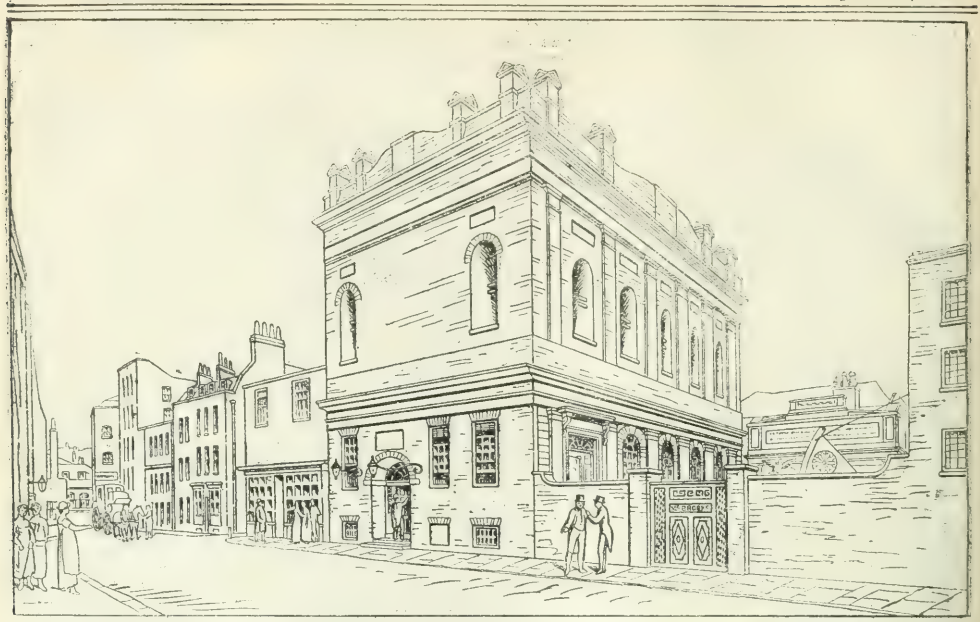
THE RISE AND FALL OF THE PRIVATE MEDICAL SCHOOLS IN LONDON.

By D'ARCY POWER, M.A., F.R.C.S.Eng.,

Demonstrator of Surgery at St. Bartholomew's Hospital; and Surgeon to the Victoria Hospital for Children.

IV.—BROOKES'S SCHOOL, OR THE BLENHEIM STREET OR GREAT MARLBOROUGH STREET SCHOOL.

BROOKES'S SCHOOL was a private speculation of Joshua Brookes, the brother of the celebrated menagerie keeper in Exeter 'Change. He was born November 24th, 1761, and was a student of the Great Windmill Street School; and he afterwards studied under Portal in Paris. His school was situated in what is now known as Ramilies Street, at the foot of Blenheim Steps in Oxford Street, and was the last building on the left beyond the Mews as one goes down the steps by the side of Buszard's shop, just before turning into Great Marlborough Street. The school was established solely to teach anatomy, and the summer course was especially well attended; for Brookes had invented a method of injecting his subjects with nitre, which fitted them for dissection in the hot weather, when there



Brookes's School (from a water-colour drawing made June, 1817, now in the possession of the Royal College of Surgeons of England).

were no regular classes in the large medical schools attached to the hospitals. For this method he was made a Fellow of the Royal Society. Mr. South says that he literally spent the whole of his day in the dissecting room, and that he taught his students entirely from dissected parts, using neither plates, diagrams, nor blackboard sketches. He worked with such assiduity that he was recognised throughout Europe as the best anatomical teacher in London. He also had the reputation of being the dirtiest professional person it was possible to conceive; his good report always preceded him, and his filthy hands begrimed his nose with continual snuff. "In his ordinary appearance I really know," says Mr. South, "no dirty thing with which he could compare; all and every part of him was dirt, and his house was no cleaner than his person; yet he sometimes came out as a pleasant gentlemanly person in black with a powdered head, cleanish hands, yet snuffy withal, and not lacking in good manners and information." It was this reputation, doubtless, which prevented him from being elected a member of the Council of the Royal College of Surgeons—a position for which he was eminently fitted by his attainments in anatomy and in the operative parts of surgery. It was his hobby to form a museum of comparative osteology; in pursuit of it—and helped by his brother, the menagerie keeper—he converted into skeletons every animal upon which he could lay his hands. The two upper storeys of his house formed his museum, and his rooms were so crammed with preparations that it was hardly possible to move in them without knocking something over.

The College of Surgeons declined to recognise a summer course of anatomical lectures after the year 1824, and from that time Brookes's school, like Carpue's, began to decline, until from a class of 120 to 150 it dwindled to a few pupils, and he was compelled to sell his museum piecemeal—a proceeding which occupied no fewer than twenty-three days, commencing on March 1st, 1830. He died in Great Portland Street on January 10th, 1833, just before the opening of the session, without a single shilling, everything having been spent in amassing his osteological collection. He was so poor, in fact, that a subscription was raised to pay his funeral expenses.

V.—Dermott's School: The Gerrard Street or Little Windmill Street School of Medicine.

This school originated directly out of Brookes's school, for Dermott had been an assistant in the Blenheim Street School for a year or two before Brookes died. This event happened in 1833, a fortnight before the session opened, and as Dermott was unable to obtain possession of the premises, he bought the lease of the house in Little Windmill Street (now Lexington Street) which stood the second or third building on the left from Brewer Street. He contracted with a builder to alter the house in fourteen days in such a way as to fit it for an anatomical school; by personal superintendence of the workmen, by having night and day shifts, and by giving them as much beer as they could drink he used to boast that the work was completed within the stipulated time, and the school was opened at the beginning of the session.

George Derby Dermott, who thus became its proprietor, was of Irish extraction—the son of a medical practitioner in Northamptonshire, who afterwards left medicine and became a Wesleyan minister—and he had acquired almost as consummate a knowledge of anatomy as Joshua Brookes himself. He was not a great physiologist, and of practical surgery he knew nothing. He died of renal disease, aged 45, on September 12th, 1847. The late Mr. J. F. Clarke, in his autobiographical sketches, gives an interesting and amusing account of Dermott's peculiarities. He was very unpunctual as to the time of beginning his lectures. His afternoon discourse usually occupied two hours, and if he observed symptoms of weariness in his audience, he would say, "Gentlemen, you are fatigued with your labours; let us have a little interlude to revive you." He would leave off demonstrating the muscles of the thigh for a few minutes, and give us the soliloquy of Hamlet or the death scene in Richard III, amidst the enthusiastic applause of his audience. He would then finish his demonstration. He was convivial to a fault, and took great delight in inviting his class to his house on certain evenings to "drink punch and smoke." He generally accompanied his invitation to these meetings with some remarks on the advantages of keeping within

reasonable bounds with respect to the quantity of punch his guests were to imbibe. "But," he would observe, "I do not wish to be inhospitable; I wish every man to enjoy himself under my roof. And, gentlemen, if any of you or all of you after leaving my residence has or have the misfortune to be intercepted on the way to your lodging, send for me and I will bail you. I make it a point not to go to bed early on these evenings in order that I should be forthcoming to relieve you in any difficulty in which you may be placed." Unfortunately this promise often required to be acted upon, and it is to the honour of Dermott that he never failed to fulfil it.

Dermott was in every respect a thoroughly honest, straightforward, and painstaking man. Independent by nature, he rarely squared himself by the opinions and feelings of others, and his rapidly-formed convictions were based as much upon feeling as upon reasoning. He took an active part in the foundation of "The Medical Protection Assembly," which was formed in 1843 after the new charter had been granted to the Royal College of Surgeons of England, and it was the anxiety attending his relations with this Assembly which undoubtedly hastened his end.

Dermott's school was modelled more upon the Great Windmill Street or Webb Street Schools than upon Carpue's or Brookes's, for it aimed at giving a complete medical education. The fee for perpetual attendance on the course of lectures was £22, and the entries were so numerous that Mr. Clarke says that when he joined the school its alumni numbered nearly 300. It suffered many migrations in the course of Dermott's life. The school was founded in Little Windmill Street; it was transferred after a time to Chapel Street, Wardour Street, and thence into a house in Great Pulteney Street. It was held for a time in the Westminster Dispensary, in Gerrard Street, Soho, and later in Charlotte Street, Bloomsbury. This house was required by the Commissioners of Metropolitan Improvements in 1845, and Dermott was compelled to surrender his lease. He then moved into Bedford Square, where he died two years afterwards.

Dr. Ryan lectured in the original school for some time upon medicine. He was one of the physicians to the Western Dispensary in Charles Street, Westminster, where most of the students of the school attended as his pupils, for at this time the Apothecaries' Company received the certificate of fifteen months' attendance at a recognised dispensary as evidence that a candidate for its licence had passed through a sufficient course of practical medicine. Ryan was editor of the *London Medical and Surgical Journal*, but he eventually became involved in pecuniary difficulties, and died at a comparatively early age.

John Epps, M.D., of the London University, lectured upon materia medica, chemistry, and botany. He was the eldest son of a noted ham and beef shopkeeper in London, and when the school broke up he took to the practice of homœopathy.

In later years Tuson, Guthrie, Jewell, and Sigmond lectured, and more than maintained the reputation of the Little Windmill Street School.

THE MANCHESTER MEDICAL SCHOOL.

DR. F. W. JORDAN (Heaton Chapel, Stockport) writes: With reference to your interesting article in the BRITISH MEDICAL JOURNAL of June 22nd on the Medical School's of London, you refer, on page 1359, 1st line, to "Dr. John Coode and Dr. Roget, who founded the Medical School at Manchester." This is a mistake. The Manchester Royal School of Medicine was founded by Mr. Joseph Jordan first in Marsden Street and then in Chatham Street; it then amalgamated with one that had been established in Pine Street. This last had been founded as the result of a split or quarrel, I believe. Mr. Joseph Jordan was licensed by the College of Surgeons to deliver lectures on Anatomy at his own house in Bridge Street, which was fitted up with dissecting room and museum.

THE Medical Faculty of Cracow has proposed the name of Dr. Galezowski, the well known ophthalmic surgeon of Paris, for the Chair of Ophthalmology in that University.

THE Society of German Scientists and Physicians will hold its annual meeting this year at Lübeck. The Society has now a membership of 1,105. The Presidents for 1895 are Professors Wislicenus of Leipzig, von Ziemssen, of Munich, and Victor von Lang, of Vienna.

THE TEACHINGS OF PROFESSOR E. FRANKLAND'S REPORT ON METROPOLITAN WATER SUPPLY, 1894.

By CHARLES PORTER, M.D.IREL., D.P.H.CAMB., M.R.C.S.ENG.,
Medical Officer of Health for Stockport.

THE latest addition to Professor E. Frankland's familiar series of annual reports to the Registrar General on the quality of the water supplied by the metropolitan water companies presents features of special interest and suggestiveness.

By graphic representations of the monthly fluctuations of contained organic matter, Professor Frankland demonstrates the marked inferiority, in regard to chemical purity, of the raw river waters utilised in 1894 as compared with those used in 1893, and once more alludes to (*a*) the chemical superiority of the Lee over the Thames as a raw material, especially in times of flood; and (*b*) the greater chemical purity of the Lee in its upper as compared with its lower reaches.

A second diagram contrasts the organic purity of the raw Thames water at Hampton with that of the average filtered water as delivered in London, and in this connection attention is again directed to the fact that water impounded in times of severe floods may most seriously affect the quality of the "supply as delivered" in the following month, even to the extent of making it during that month of worse quality from a chemical point of view than the raw river water passing the companies' works at the same time. Commenting upon this remarkable state of things, Dr. Frankland, in his 1893 report, recommended the provision either of (*a*) some means of substituting the river for stored water, whenever the chemical quality of the former is better than that of the latter, as roughly estimated by observations of the colour in a two-foot tube; or of (*b*) sufficient storage to tide over the longest floods. This, it will be remembered, was one of the two conditions (the other being efficient filtration) with which the late Royal Commission safeguarded their opinion that no danger exists of the spread of disease by the use of drinking water derived from the Thames and Lee. Large though insufficient storage capacity appears, however, in this particular (chemical) respect, to be distinctly more disadvantageous than a relatively small amount, for certain companies who possessed comparatively little provision of this kind were actually enabled just after the floods of June and December, 1894, to deliver water of better quality than that supplied by the Chelsea Company; who, notwithstanding their much greater storage capacity, had obviously been unable to entirely exclude flood water, and had been compelled to use it afterwards. On the other hand, as regards bacterial purity, the deliveries of the companies possessing least storage were, as might be expected, amongst the least satisfactory.

Judged by the relatively low proportion of carbon to nitrogen, the organic matter present in the waters was as usual found to be chiefly if not entirely of vegetable origin, the directly conflicting results in this respect formerly obtained by the water companies' chemists having proved to be due to an error in the method of analysis adopted by the latter. A further discrepancy in regard to the Chelsea Company's water is explained by the fact that the supposed samples of this water collected for the companies' chemists were really taken inadvertently from the New River Company's main.

In regard to the softening of metropolitan water—both river and well—treatment with lime is regarded as the most economical method, unless it can be shown that less than one-eightieth of the total supply is used for washing, for it entails only about one-eightieth of the expense incurred by the private consumer in the shape of additional soap.

Believing with Koch and with American observers at Lawrence, Mass., that *efficient* sand filtration is practically a perfect safeguard against the introduction of cholera and typhoid bacilli into drinking water, Professor Frankland attaches the highest hygienic importance to the bacterioscopic examination of river-derived drinking waters as the only trustworthy method by which their efficient filtration and bacterial purity can be ascertained. To facilitate such examination in the metropolis he advocates the establishment of small bacteriological laboratories at the various river-water intakes. It

is to be hoped that the time is not far distant when such provision will form part of the equipment of all filtering works, so that, as is now the case in the metropolis, the engineer in charge may at once be informed when any filter is working unsatisfactorily, for to quote Professor Koch, "It is the business of those in charge of the works to take care that the filtered water always satisfies bacteriological requirements."

The results of bacterioscopic examination of the *unfiltered* river waters used by the metropolitan companies in 1894 once more demonstrate (1) the immense destruction of bacteria which is effected by storage in subsidence reservoirs; and (2) that the bacterial quality of these waters may differ widely from their chemical qualities. Thus the water pumped from natural gravel beds near the Thames is nearly identical chemically with the Thames water itself, but the bacterial purity of the gravel water far exceeds that of the Thames water, and indeed not infrequently that of the filtered Thames water sent into London. Again, although the water of the Lee was found during the year to be chemically purer than the Thames, and also in its higher as compared with its lower reaches, yet the determinations of 1894 have demonstrated that bacterially the higher portion of the Lee is enormously inferior to the lower portion, and also to the Thames at Hampton. Dr. Frankland specially draws the attention of the Lee Conservancy Board to this unexpected condition, and one naturally recalls the strictures of the late Royal Commission on the large heaps of gas lime, manure, and town refuse which, as far at any rate as Hertford, "are places on the edges of the banks of the Lee, and within a few feet of the stream itself," and which obviously, in times of rain and flood, become a serious source of pollution.

No part of this report will be read with greater interest than the observations recorded on the causes of the great variations in the amount of microbial life in river waters during the course of the year. Changes of temperature or exposure to varied amounts of direct sunshine have hitherto been regarded as responsible for these variations, the Royal Commissioners stating in their recent report that bacterial life is injuriously affected by "even such a tempered amount of light as is present under ordinary conditions in Thames water." Professor Frankland now, however, demonstrates that the amount of rainfall—or, in other words, the volume of water flowing in the river—is the chief cause of these variations. In a series of most interesting tables and diagrams he brings the number of microbes in raw Thames water into contrast with each of these alleged causes, and his conclusion is as follows:

"That the number of microbes in Thames water is determined mainly by the rate of the flow of the river, or in other words by the rainfall, and but slightly, if at all, by either the presence or absence of sunshine or a high or low temperature. With regard to the effect of sunshine, the interesting researches of Dr. Marshall Ward leave no doubt that this agent is a powerful germicide; but it is probable that the germicidal effect is greatly diminished, if not entirely prevented, when the solar rays have to pass through a comparatively thin stratum of water before they reach the living organisms. If this be so, however, it can be no matter of surprise that the effect of sunshine upon bacterial life in the great mass of Thames water should be nearly, if not quite, imperceptible."

In regard to *filtered* water, if 100 microbes or their spores per c.cm. be taken as the permissible limit of bacterial life, the effluents of the Chelsea, the West Middlesex, the Lambeth, and the New River Companies were almost uniformly of great bacterial purity. Never once throughout the entire year did the Chelsea filtered water exceed the above limit. The West Middlesex and the Lambeth both transgressed once (in January) and the New River Company twice (January and June). Ten samples of the Grand Junction Company's effluent—4 from the Kew and 6 from the Hampton filters—exceeded the limit, the worst results (464 and 278 per c.cm.) being in January and June. Four samples of the Southwark and Vauxhall Company's effluents, taken respectively in January, February, July, and December, were also unsatisfactory. The very small storage possessed by both of the two last named companies is considered mainly responsible for these results. The East London Company's filters worked very irregularly up to, but not after, the end of July, and up to that time (except during May) there was always at least one unsatisfactory sample. Most of the foregoing abnormal results occurred when the raw river water was bacterially very impure.

The closing pages of the report are devoted to a summary of the results hitherto obtained at the Lawrence (Mass.) Experimental Filtration Station, which are briefly: (1) That within the limits of 300,000 gals. to 3,000,000 gals. per acre per day, variations in rate of filtration have practically no effect on the purity of the effluent, and that filters may be operated satisfactorily even at the rate of 5,000,000 gals. per acre per day, provided that a uniform rate is maintained. (2) That the finer the size of the sandgrains, between the limits 0.2 mm. and 0.9 mm. diam., the higher the percentage of bacteria removed. (3) That, with any moderate rate of filtration, depth of sand within the limits of 1 ft. and 5 ft. exerts but little influence upon the percentage of bacteria removed. (4) That scraping the surface of a sand filter does not interfere with bacterial efficiency provided there is no mechanical disturbance of the main body of the sand.

It is well known that Professor Koch has pointed out certain difficulties attending efficient filtration during times of frost, which he ascribes to (1) freezing of the superficial sand-layer, causing at first total arrest of filtration, and later on excessively rapid filtration through the portions of the surface which are the first to thaw and become permeable, and (2) the impossibility of cleansing the sand surface of open filtering basins which have become thickly covered over with ice. Professor Frankland, however, refers to and reserves for future report some entirely novel phenomena affecting filtration, which the recent severe weather in England has brought to light, and the publication of his observations will be awaited with much interest.

LITERARY NOTES.

A FOURTH edition of Dr. Jukes De Styrap's *Code of Medical Ethics* is now in the hands of the printers.

An index to the first fifty volumes of the Neue Folge of the *Journal für praktische Chemie* has just been issued. It has been prepared by Dr. Robert Bahrmann, and covers the years 1870-94. The index is divided into two parts, "Sach register" and "Autoren register," but is more useful than the majority of German indexes compiled on this plan, as a full reference to the title of each paper is given in the "Autoren register."

Messrs. J. and A. Churchill have nearly ready a new work for the use of physicians by Mr. Alfred H. Allen, F.C.S., entitled "The Chemistry of Urine, a Practical Guide to the Analytical Examination of Diabetic, Albuminous, and Gouty Urine." The work, which extends to about 220 octavo pages, is fully illustrated.

Medicine is the name of a new monthly journal of medicine and surgery published at Detroit under the editorship of Dr. Harold N. Mozer. Our new contemporary presents a very creditable appearance, and to judge from the first three numbers it will be a valuable addition to medical journalism. We congratulate both the editor and the publisher (Geo. S. Davis, whose name is favourably known in connection with the *Index Medicus*), on the fact that the trail of the advertiser is not over their journal as it is over so many transatlantic periodicals.

The Hunterian Oration, read on February 14th last by Mr. Thomas Bryant on behalf of Mr. J. W. Hulke, the then President of the College, has just been printed by the Council. A note is prefixed to the Oration stating the sad and exceptional circumstances which caused the Council to undertake its publication. The original dedication, as drawn by Mr. Hulke in anticipation of the usual request of the Council, that the Oration should be printed, is also printed at the beginning of the volume.

The June number of the *Phonographic Record of Clinical Teaching* contains reports of a clinical lesson by Sir T. Grainger Stewart, and of a case of temporary loss of speech from the clinic of Dr. J. S. Bury, of Manchester; and Dr. Gowers begins a series of "Problems in Practical Diagnosis." Our contemporary appears to be doing excellent service in furthering the use of shorthand among medical students and practitioners.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1895.

SUBSCRIPTIONS to the Association for 1895 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office Orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 29TH, 1895.

PROFESSOR PROUST ON THE MECCA PILGRIMAGE.

II.[1]

IN our former article we referred to the view held by Professor Proust to the effect that Great Britain is largely, if not mainly, responsible for the maintained prevalence of cholera in connection with the Mecca Pilgrimage. We do not here pretend to discuss the question as to the origin of cholera; we are content, for our present purposes, to admit of its wide distribution from time to time from the valley of the Ganges; but the point now under discussion is as to where lies the main responsibility for any conditions tending to cholera in connection with the pilgrimage, whether we have regard to circumstances attaching to the despatch of pilgrims from British-Indian ports, or to the utter sanitary neglect which prevails first at Kamaran, or to the conditions favouring that disease in or on the journey between the cities of Djeddah and Mecca.

Professor Proust, as one of the leading members of the Comité Consultatif d'Hygiène de France, stated to that body at its sitting on May 13th, that "the occurrences which were taking place at Mecca justified the opinion of the promoters of the International Sanitary Conference of Paris, 1894, as to the measures which ought to be taken in India on the occasion of the departure of pilgrim vessels," and as to the sanitation of Mecca. "It is once more," he went on to say, "pilgrim vessels which have imported cholera into Mecca;" and then he proceeds to express regret, in a sentence to which we shall again refer, as to the attitude of England in having accompanied her consent to the Paris Convention with reservations which retard the ratification of that document.

Now, the above statements, when taken together, can have but one meaning, namely, that pilgrim vessels from British India have this year again introduced cholera into Mecca. And as to this, we declare that there is not a particle of evidence; indeed, all the evidence goes just the other way. What are the facts? Even according to the records of a previous meeting of the same Comité Consultatif, it appears that the ss. *Mohammedi* which reached the quarantine island Kamaran on March 16th, did not have amongst its pilgrims until the 23rd any attack which could be presumed to be cholera; others following afterwards. It is also recorded in the proceedings of the Comité that the ss. *Zoubeida* arrived at Kamaran on March 25th, and that during the night of the 29th-30th cholera appeared amongst the pilgrims this vessel had carried. In other words, pilgrims travelling by vessels from Bombay, with no cholera history, only got their cholera after they had had plenty of time to become infected at Kamaran, a place which has been so aptly described by a French physician, Dr. Arnaud, as an "*entrepôt cholérique*," and where to this day newly-arrived pilgrims are put into filthy *arisches* which have recently been occupied by cholera patients, whether from the Yemen district or elsewhere, and where the flooring of bare earth gets ample opportunity for becoming infected. That which has happened this year is precisely that which has been proved to have happened before, when attempts had been made to saddle British-Indian ships with having imported cholera to an already cholera-infected quarantine station. Professor Proust's remedy, as formulated at Paris, is to impose a rigid quarantine on all intending pilgrims at Bombay; that is to say, on thousands of persons arriving from all parts of India, including wide tracts where there is an utter absence of cholera. These persons are to be confined at the latter port for a period of five days, not when cholera prevails from the districts from which they have come, but when it exists in the very port where they are to be detained! The British-Indian delegates contended rightly that this quarantine—under the newly-contrived name of "observation"—would be most mischievous, and that the real evil lay in Kamaran, not in Bombay. But Professor Proust, at the meeting of May 13th, went on to say, in connection with this subject, that "it is to be regretted that England should have accompanied with reservations the ratification of the resolutions voted by the Paris Conference; and that Turkey, which is so directly interested, has not given her adhesion to the Conference." We refrain altogether from identifying so courteous a representative of France as Professor Proust with the exaggerations of this statement which have been indulged in by newspaper agents, who, as Reuter has telegraphed to England, have, on the basis of this official statement, declared that the action of England is "absolutely criminal" in connection with this year's cholera at Mecca. But it is necessary thus far to refer to the matter as showing the interpretation that has been put upon the guarded official words. And we will at once admit that if Turkey is anxious to avoid compliance with the conclusions of the Conference, that country is quite likely to make use of our reservations to that end. But what we really want to know is where the responsibility for deferred action really lies? and again we answer that it does not lie with England.

We have always regretted one of England's reservations which had to do with increased space on board pilgrim vessels, a reservation which concerns Indian administration and which we feel sure would instantly have been waived if sanitary considerations had not been overborne by others. What were the other reservations? First the unqualified and retrograde system of strict quarantine of the pilgrims at Bombay, to which we have already referred. And secondly the unqualified and rigid quarantine of vessels at the head of the Persian Gulf, not because these had sickness on board, for even in the case of admittedly healthy vessels it is recommended by the Committee that all the passengers and crew should be subjected to five days' detention, to count from the date of departure from an infected port. The principle of imposing restrictions by reason of the state of the vessel and not by reason of disease in the port of

[1] Article I appeared in the JOURNAL of June 22nd, p. 1397.

departure, introduced into the Venice Convention, is thus abandoned. But this recommendation is the more curious because it follows and directly contradicts a definite opening statement that these very vessels shall have free pratique granted to them "immediately, whatever the nature of their bill of health."

Here we are reminded of the Dresden Convention, where, in similar fashion free pratique is given with the right hand and then is immediately taken away with the left hand. In that Convention the same immediate freedom from control is granted to all healthy vessels wherever they may come from and whatever the nature of their bill of health, and then comes the same recommendation as to a five days' detention of the passengers and crew of these very same vessels. On the one hand there is a bid for the anti-quarantine vote and on the other a bid for the quarantine vote, and England only gave her consent to the Convention on the distinct understanding that she would not impose the quarantine detentions recommended by the Conference even though they were for the future to be obscured under the new name of "observation."

In short, wherever England has the power she will consistently withhold her consent to quarantine restrictions. But who is it that seeks to maintain these restrictions? We have only to turn to the report for 1893 of the *Travaux du Comité Consultatif d'Hygiène Publique de France*, just issued, where in the opening sentence reference is made to the Dresden Convention in these words: "The Comité of Hygiene may claim it as its own work;" a statement which is as true of the Paris Convention as of the Dresden one. Again we ask, Who is responsible for failure to control cholera on the only right principles—namely, those to which such prominence is given in M. Proust's article in the *Revue des Deux Mondes?* We, at least, have been consistent at all the cholera conferences we have taken part in during the last twenty years. Some of these meetings have led to no result in consequence of our attitude; but the world is the gainer, for where France and other nations refused to follow at Vienna in 1874, and at Rome in 1885, they have now made great progress, so far as their home ports and territories are concerned, in the direction of the action so long adopted in this country. If, then, there should once more be further delay, we believe that in the end there will be gain, and that the prevention of cholera is more likely to be attained by adhesion to our principles than to quarantine restrictions. It is for this reason that we hold that it is not England that stands in the way of the control of that disease, whether at Mecca or elsewhere.

Unfortunately, the remedy does not lie with us. We have in the main to stand by and watch. If England were to enter cholera conferences with resolutions embodying her views already cut and dried, and demand a real and genuine abolition of quarantine restrictions, whether under one name or another, those proposals would at once be met by the statement that they were prompted by the commercial interests of a "nation of shopkeepers." It is different with France; her delegates are listened to by the majority even of those nations who have long clung to quarantine, and such able representatives of France and of the Comité d'Hygiène as Professors Brouardel and Proust and M. Monod have an influence which no others possess. If, then, leaders such as these will only advocate public health measures as the true remedy of cholera without at the same time minimising, if not destroying, this advocacy by alternative recommendations as to detentions under quarantine, "observation," etc., the end will be gained much sooner than by any other means. It is of no use to offer two schemes at the same time; but few nations will pay for public-health measures if at the same time they are told that it is desirable that they should adopt the alternative of detentions and restrictions. Herein lies the essential difference which at present separates England and France—a difference which we believe can be finally solved only in one way.

MASKS AND FACES.

IN a recent number of *Blackwood's Magazine*, Dr. Louis Robinson discusses the general principles of what may be called professional physiognomy. That certain occupations leave a more or less distinct impress on the human countenance is a fact as to which there is no dispute; and it is easily explained by the predominant influence given to one set of facial muscles over another by habitual response to stimuli of a particular kind. But this is not all: there are certain physiognomical features, independent of muscular action, which help to make up the expression of the face, as for instance the distribution and shade of the colour, the brightness or dulness of the eye, the arrangement of the adipose tissue, the looseness or firmness, smoothness or wrinkling of the skin, etc. Such changes are due to local peculiarities of nutrition which depend on the influence of the sympathetic nervous system. Deeply-felt emotion localises itself to our sensations in one or other of the great visceral plexuses of the sympathetic. The nervous commotion thus caused is reflected on the face by a corresponding vascular disturbance, and this in turn, if frequently repeated, is likely in time to bring about visible changes in the parts which are the seat of such disturbance.

Dr. Robinson thinks it exceedingly probable that just as the faint currents continually flowing along the motor nerves are to a great extent responsible for the prevailing "muscular" expression of the countenance, so also slight but continuous emotional stimulation of the sympathetic fibres which supply any part of the face may in the long run influence its growth in a marked degree. He is careful, however, to point out that passion-prints on the face are often quite useless in enabling us to form an opinion as to the moral character (as distinct from the moral tendencies) of any individual. The sympathetic system puts a false and slanderous label on the countenance, and a face on which the world, the flesh, and the devil would seem to have set their several seals may be the mask of a perfectly innocent mind. The signs generally taken to be records of the seven deadly sins may be printed accidentally from within when the influence of the sympathetic is not overshadowed by the effects of predominant activity of intellect or energy of will. At most physiognomy can only indicate natural disposition, which may be successfully resisted by moral discipline. A forerunner of Dr. Robinson in ancient Athens once pronounced Socrates, on the evidence of his physiognomy, to be a gross sensualist. This diagnosis was resented by some of the philosopher's disciples, but Socrates himself acknowledged that it was correct in the sense that he had natural tendencies to vice, which, however, he had succeeded in

keeping under control. Again a most abstemious man may be afflicted with a Bardolphian face, against which he might, as Dickens somewhere says, bring an action for libel and recover heavy damages. Science as well as charity, however, bids one in such cases remember the maxim, *Nimium ne crede colori.*

As there is a continual stream of influence passing from the brain to the muscles of expression, so, in Dr. Robinson's words, "there are also reverse currents from the organs of expression to the inner nerve centres," which may react on the mind. It is an old observation that, by imitating the play of the different passions on the face, the corresponding emotions can often be excited in the mind. Macready, when playing Shylock, used, as we learn from George Henry Lewes, to prepare for his entrance in the "Oh my daughter; Oh my ducats!" scene, by lashing himself beforehand into a fury by shaking a ladder and cursing to himself at the wings. On the other hand, many actors say they do not feel the emotions which they pourtray, and this is in accordance with the famous paradox of Diderot that real feeling means bad acting. Dr. Robinson attributes the juvenile appearance often preserved by actors till late in life to the full exercise of all the facial muscles; a balance of power is thus maintained among them, whereby the time records usually visible on the human face are partially obliterated. Thus it comes about that actresses who work hard and live under bad hygienic conditions often preserve their good looks and even a large amount of girlish freshness when the average British matron has surrendered at discretion to the conquering hand of time.

Coming now to the influence of trades on faces, which is the specific subject of Dr. Robinson's article, we cannot say that he throws any particular light on it. We are, of course, ready to admit that, to take his own illustration, there is a quality of horseyness which may show itself to a certain extent in the face, and that there are shades of the general ground tone of horseyness which differentiate a gentleman's groom from a horse dealer's groom, and "the many sections of the great tribe of Jehu" from each other. But is horseyness altogether or even principally a matter of facial expression? Dr. Robinson himself admits that circus riders do not present a marked degree of facial horseyness, nor is there any specially horsey characteristic about the average trooper or artillery driver, nor, if we may trust our recollection of Buffalo Bill's show, about the average cowboy, who, in his normal state, is almost a Centaur. We should say horseyness lies much more in the legs than in the face. Nor must the influence of clothes be overlooked. Dr. Robinson seems not to take sufficiently into account the power of the association of ideas. A certain cut of breeches and a straddling gait suggest the stable, and we then find it easy to recognise the signs of horseyness in the face. There is no more marked type of countenance than the military, yet how much a soldierly expression of face depends on what may be termed its setting will be seen on comparing the faces of the men in the British squares at Waterloo, as depicted by Miss Elizabeth Thompson, with those of the warriors of the present day, whose aggressive breadth of chest excited such Berserker fury in the breast of M. Alphonse Daudet. The *bons bourgeois bien rasés*, as they were called by a French writer, who fought so well under the Iron Duke, have little or none of the facial characteristics of the men whose *rates sacer* is Mr. Rudyard Kipling.

If the trade put its sign manual on the human face as distinctly as Dr. Robinson would have us believe, it should be legible through all the distorting media of racial peculiarity and different conditions of life, in all brethren of the same craft throughout the world. But is this the case? Does the German butcher, or the French baker, or the Italian candlestick maker bear the imprint of his trade writ large enough on his face to be read even by an expert in the physiognomics of our own industrial population? Even the French doctor or lawyer differs in facial type from his English brother, and the typical *abbé* has little physiognomical kinship with the typical parson. In short it appears that the face alone tells little; it is the whole man in his habit as he lives that tells what he is. In other words, physiognomy as the index to occupation is a cryptogram which cannot be deciphered except by mere guesswork till the association of ideas supplies the key.

EPIDEMIC SKIN DISEASE.

AN interesting report[1] on certain outbreaks of skin disease which occurred during 1893 and 1894 in some London Poor-law infirmaries has been issued by the Local Government Board. The report is signed by Dr. Monckton Copeman, and contains memoranda by Dr. F. W. Andrewes on the pathology and bacteriology of the disorder. The main features of the epidemics were sufficiently similar in various institutions and at various times, to make the assumption that they were due to a specific infectious disorder appear well-grounded. Its symptoms were described by Dr. Savill, to whose investigations and writings the interest now taken in the subject is chiefly due. From the cases observed in the Paddington Infirmary, where he recognised the disease in 1891, it occurs chiefly in warm weather, and affects, it would appear, mainly the old, the sick, and the infirm in large institutions where they are warded together in large numbers. Its most striking feature is an inflammation of the skin, which may be dry or moist, but is always attended by desquamation. The whole skin from head to foot may be attacked, and the eyes are commonly inflamed and discharging. The average duration of a case is six to eight weeks. The constitutional symptoms vary, but in fatal cases death is preceded by great weakness and drowsiness, deepening finally into coma. It appears to be the same disease as that prescribed by Leloir and Vidal under the name "Relapsing Exfoliative Dermatitis," and a tendency to relapse has been noted during the recent epidemics in this country. This character of the disease is further emphasised by the name which Dr. Henry Blanc, of New Orleans[2], applied to it, "Erythema Exfoliativum Recurrens." These terms, however, are exceedingly cumbrous, and that used in the report before us is "Epidemic Skin Disease."

Dr. Copeman's attention was directed mainly to ascertaining, so far as the circumstances allowed, the facts as to the etiology of the disease. Upon this head the evidence is not conclusive; but the broad facts as to the epidemic at the Bethnal Green Infirmary—the first studied—were that the epidemic was confined mainly to the elderly inmates in ill-health otherwise; that only those were attacked who were receiving milk in more or less considerable quantities,

[1] London: Eyre and Spottiswoode Edinburgh and Glasgow: John Menzies and Co. Dublin: Hodges, Figgis, and Co. 1895. 8s. 6d.

[2] *International Clinics*, vol. iii. 1892.

varying from half a pint to three pints; and that the inmates of the infirm ward of the workhouse proper, who were of the same class and in most respects very similarly housed and fed, except that they had very little milk, did not suffer.

Subsequently an outbreak occurred at the infirmary of St. George-in-the-East; and here again the only article of diet peculiar to the inmates of the wards affected appeared to be the milk, which, strangely enough, was supplied by the same contractors whose milk had previously come under suspicion at Bethnal Green.

Dr. Copeman thinks that all the facts cannot be explained without assuming that the milk had some causal relationship to the outbreaks of the disease, the nature of which remains, however, unexplained. As to the possibility of personal contagion from patient to patient once the disease is introduced, there seems considerable reason to believe that this may take place.

Dr. Andrewes failed to find, either in the blood or in the affected skin, any micro-organism which could be accused of producing the disease, and he appears disposed to question the communicability of the disease, and to suggest that though epidemic it is not infectious, but may depend on some chemical poison present in the food, or in some way introduced into the bodies of the inmates of certain workhouse infirmaries at certain seasons of the year. On the other hand Dr. Copeman found some indications that there was an incubation period of from two to three weeks (a few days more or less), and that in some of the infirmaries in which the outbreaks were less extensive, the probability that some of the cases were to be accounted for by personal contagion was very great.

A consideration of all the facts before us rather tends to produce the impression that, taking the whole set of cases of this class met with in infirmaries and elsewhere—for a certain number of cases which answer very well to the clinical description of the infirmary cases have been met with in general practice in London during the last few summers, especially in the East End—we have to do with a class of skin affections rather than with one specific disorder. That a specific disorder does occur must be admitted, but it does not account for all the cases of a closely allied type which are to be encountered from time to time. We hear rumours that cases described as eczema, which possibly were instances of this epidemic disorder, occurred recently in a London infirmary, and it is very much to be hoped that no opportunity of studying their etiology may be missed. Unfortunately, in the absence of any distinct guiding indications from pathology and bacteriology, it does not seem probable that the problems in dermatology which have been raised by these interesting inquiries will meet with a speedy solution.

WE are sorry to state that the condition of Professor Huxley is still extremely serious. The renal complications have not diminished in severity, though the consciousness of the distinguished patient is happily unimpaired.

THE Queen has approved the appointment of Dr. James Reid, C.B., Her Majesty's resident medical attendant, to be a Knight Commander of the Bath. Dr. Reid has been physician to the Queen for about fourteen years. He was appointed Resident Physician to Her Majesty in 1881. Six years later he became Physician Extraordinary, and in 1889, when he also received the distinction of a C.B., he was appointed Physician-in-Ordinary, the position he now holds. He has accompanied Her Majesty in her various travels. Dr. Reid was born in Aberdeen forty-six years ago, and took honours at the University of his native city, and afterwards at Vienna. He is a Fellow of the Royal College of Physicians, London. The esteem in which he is held by members of the Royal Family in Germany is shown by the fact that he holds the third class of the Red Eagle of Germany and the first class of the Saxe-Ernestine Order of Coburg Gotha.

IRISH WORKHOUSE HOSPITALS.

ON June 25th a deputation waited upon Mr. George Morris, C.B., Vice-President, and Mr. H. Robinson, Commissioner of the Local Government Board in Ireland, in reference to the subject of the management of Irish workhouse hospitals. There were present: Dr. Walter Smith, President of the Royal College of Physicians, and Dr. Horne, Vice-President; Mr. Thornley Stoker, President of the Royal College of Surgeons; Mr. William Thomson, Vice-President; Dr. James Little, President of the Royal Academy of Medicine; Dr. A. H. Jacob; Dr. Oulton, President of Committee of Council of the Irish Medical Association; Dr. Moorehead, Cootehill; Dr. Leeper, and others. The proceedings were private, but Mr. Morris expressed his pleasure at the conference, and assured the deputation that in every possible way the Board would endeavour to aid in the reforms. He, however, pointed out the great difficulties to be dealt with, and hoped that these might in time be overcome.

THE "INDEX MEDICUS."

WITH the publication of the April number this valuable journal ceased to exist. The publisher has issued a circular to subscribers in which he states that the annual loss on the publication of the *Index* has been from 500 to 1,000 dollars. In 1893 we are told the subscription list fell considerably, "owing to the hard times," and in 1894 the deficit was greater than in the preceding year. Announcement was then made to the medical profession that unless the amount of subscriptions were such as to place the journal on a paying basis, the publication of the *Index* would cease. The reply to this announcement was not encouraging, and the publisher now finds himself face to face with a probable deficit of 2,000 dollars. Under these circumstances, the decision of Mr. Davis to stop the publication is not to be wondered at. The *Index Medicus* was started in 1879, and has appeared with great regularity until the number for April of this year. Dr. J. S. Billings and Dr. Robert Fletcher have superintended the publication of the *Index* through the whole of its career. The loss to workers in medical literature will be very great if the publication is stopped permanently. It is to be hoped that the appeal from the Librarian of the Royal Medical and Chirurgical Society, which we publish in another column, may meet with an adequate response. A speedy resumption of the serial, perhaps on a co-operative basis, is much to be desired.

CATS AND DIPHTHERIA.

THE cat is acquiring a bad reputation in Brighton. Dr. Newsholme, in his recently-issued quarterly report, devotes a separate section to a description of an outbreak of suspicious illness among cats in a particular district of the town, and to a warning against keeping cats which are suffering from certain enumerated symptoms. Dr. Newsholme's attention was called to cats by the fact that in the neighbourhood between Elm Grove and Southover Street, a part of Brighton inhabited almost solely by the labouring classes, there had been notified a group of cases of diphtheria in the course of a single fortnight, which pointed distinctly to the operation of some local cause. The patients

comprised both children and adults. They did not attend any particular school; there was no community of milk supply; personal infection from case to case could not be traced; and no sanitary defects were found in the affected houses. But in each instance there was a history that the household cat had been ill, and in several families the child who was specially fond of the cat was the sole victim of diphtheria. The illness of the affected cats had not been carefully observed, but it included one or more of the following symptoms: a bad cough, difficulty in swallowing, discharge from the nose, and marked emaciation. In some of the houses, the cat had simply been observed to be wasting, and in several instances the head of the household volunteered the surmise that "the cat had been poisoned." In one house in the centre of the affected neighbourhood, nine live cats were found, and the neighbours stated that in the previous week a dead cat lay in the yard attached to this house, with discharge oozing from its nostrils. In another house a mild case of diphtheria was attributed to the smell arising from a cat which had died in a garden adjoining the house. Four of the emaciated cats referred to above were secured, and necropsy including a bacteriological examination was made, but with entirely negative results. The illness of the cats in question dated from at least a month before the opportunity for examining them arose, so that the negative result is not surprising. It will be remembered that Dr. Klein, in his investigation into cat diphtheria,[1] found that the diphtheria infection produced in the cat an acute lung inflammation, the kidneys becoming degenerated in the manner known in man as the "large white kidney." The condition of the household cat is worth inquiring into in all such local outbreaks as the one briefly described by Dr. Newsholme; and it may be well to remember that if the cat can be secured for anatomical examination, even in the acute stage of the disease, there will probably be no exudation in the throat, but only marked pneumonia and possibly also renal inflammation. The public warning given in Brighton as to cats has had the desired effect, the small outbreak having come to an abrupt termination with the destruction of suspected cats, and of many others whose career has been shortened in consequence of the publicity given to the facts of the case.

A RECOGNISED UNIFORM SIZE FOR THE REPORTS OF MEDICAL OFFICERS OF HEALTH.

FEW persons but those who have had actual experience in collecting any series of reports from various parts of the country (let the subject be what it may) are acquainted with the difficulties (through variation in size) of binding in any handy form which shall have for its chief characteristics "ease of reference" and "exclusion of dust." Literally speaking, of course, nothing is impossible in the way of binding one extreme in size with the other, if, for the purpose of classification, this be necessary. On the other hand, as the object of all such series is not only the public benefit, but the benefit of the compilers of the reports themselves, it would, we feel, be mutually advantageous in the highest sense and a great saving of valuable time in making references if some understanding could be arrived at as to the size which would be most likely to attain this end. Having had considerable experience with such reports we are fully aware of the many inconveniences which have their origin in this utter want of uniformity. Some reports are issued in the size of a postcard, 4¼ inches by 3½ inches, which have, for classification's sake, to be next in order to others 13 inches by 8 inches, and in many instances larger than this, the result frequently being that the smaller reports get mislaid or lost and the larger ones torn through, being inconveniently large, and when finally bound into volume form these latter ones require an amount of cutting down of margins (and sometimes figures as well) or of folding up to a special size that easy reference to them is, to say the least, materially hindered. Of course there may be obstacles in some instances to any alteration, but should the gentlemen who are the compilers of any of these valuable series of reports fall in with the views here expressed it may be suggested that by far the two most handy and recognised forms for any kind of official reports are the foolscap folio, 13 inches by 8 inches, and the royal octavo, 6½ inches by 10 inches. The former size is used more than any other by the House of Commons and the Local Government Board, and if a collection of all the reports issued by commercial and scientific societies could be inspected it would be found now that about 75 per cent. are issued in foolscap folio form.

[1] *Proceedings of the Royal Society*, 1890.

THE PREVENTION OF CHOLERA IN INDIA.

A CORRESPONDENT in Calcutta writes that Mr. Ernest Hart's remarks while in India have done a great deal of good. They have set the people thinking, and have stirred up those in authority from their state of lethargy regarding scientific pursuits; and Mr. Ernest Hart has thrown new light on the subject, and shown the nakedness of the land. M. Haffkine is still working away in Assam, and he is expected back in Calcutta towards the end of June. The Calcutta municipality has been asked to extend their grant for cholera inoculations for another year, so that the experiments may have a fair trial. Over 4,000 inoculations have been done in Calcutta during the year, and not one of the inoculated has been attacked with cholera, though cholera has in several instances attacked persons living in the same house as the inoculated.

PAYMENT FOR POLICE CALLS.

OUR contemporary *Truth*, in its issue of June 20th, adds another to the numerous cases which have lately been recorded in these columns, showing the need of some better arrangement for the remuneration of medical men called in to cases of emergency among the poor. A suburban doctor, it says, was just going to bed, worn out after a hard day's work, when he was called to attend a woman who had been badly injured in a fire. He went at once, spent about two hours in attendance on the woman, and used a large quantity of expensive appliances in order to completely envelop the woman in surgical dressings. The police having been in charge of the case he sent in a modest bill of 7s. 6d. to them, but they declined to pay on the ground that they had not authorised the call for the doctor. The poor woman died, her relatives were virtually paupers, and the doctor was consequently left to whistle both for his fees and his expenses out of pocket. Our contemporary only does justice to our profession when he says that while its members are not disposed to stand too much on their rights in cases of real emergency they have as much right as anybody else to decline to work without some reasonable prospect of payment; and he adds, very truly, that it is in the interest of the poor quite as much as that of the medical profession, that there should be some security for the payment of fees by public authority where the patient is impecunious. Even though the police may have been technically within their rights in refusing to pay because they had not summoned the doctor, a larger view of their responsibilities in such cases would, we feel confident, be more in accordance with the general wishes of all classes of society, for giving expression to which we feel grateful to the Editor of *Truth*.

THE DUTIES OF MEDICAL OFFICERS OF HEALTH.

ALLUSION has from time to time been made to the question raised by the Vestry of St. George's, Southwark (a question subsequently also raised by the Vestry of Newington) as to the examination of vestry *employés* with a view to the detection of malingering. The vestries mentioned desired their respective medical officers of health to undertake the performance of this duty. The medical officer of St. George's Southwark, however, pointed out that if he called upon any

employé without communicating with the medical man in attendance he would commit a breach of medical etiquette; and the vestry, on the other hand, felt that if the visit paid by their officer was not a "surprise visit," its value would be lost. Under these circumstances the matter was referred to the Local Government Board, and at a meeting of the St. George's Vestry on June 18th the reply of the Board was received and the letter was recorded on the minutes of the Vestry. The Local Government Board's letter referred to the duties of a somewhat analogous character devolving on the medical officer of health under the Infectious Diseases (Notification) Act, and pointed out that it had been laid down that even if question arose as to the good faith of a certifying medical practitioner, the medical officer of health should in making his inquiries seek the co-operation of the practitioner concerned, and should observe, as far as possible, the customs that usually govern the relations of medical practitioners to each other. On the particular case submitted the Local Government Board expressed the opinion that the medical officer of health was not under any obligation to revise either the diagnosis or the certificates granted by other medical practitioners. Here it may be anticipated the matter will rest, and the Board's decision satisfactorily disposes of the proposal to impose upon medical officers of health duties which it appears most undesirable for them to be charged with.

ANTIVIVISECTIONIST OBSTRUCTION.

Among the things that tend to harden the hearts of some antivivisectionists the chief is this, that they feel bound to be glad whenever a discovery that was made with the help of experiments on animals fails to bear first fruit in the cure of disease. Let us take the case that by means of inoculations a substance has been isolated which is likely to arrest some malady hitherto beyond our reach altogether. It is tried, and it is a failure. There is a world's tragedy in such a failure, the confirmation of a thousand death sentences, the ruin of a thousand homes; but the thorough-going antivivisectionist is bound to look pleased, and to say that he knew it would fail, and from the columns of his favourite papers comes a laugh that would sound fiendish were it not so plainly idiotic. But some of them cannot wait to enjoy their laugh, and while a great remedy is still on trial they must needs hunt up all evidence at present against it. Here or there it has failed; this or that hospital has ceased to use it; Drs. A., B., and C. have got on all right without it. "Come, there is enough for us to go upon; let us write to the papers against it." The antitoxin treatment of diphtheria has for most of us passed beyond the stage of trial. It is not only the reports of its success in our own country, not only the splendid news of the results obtained in other countries;[1] but most of us have by this time fought our own battles with its help, and many of us can tell of lives saved by it alone. If it were possible at this moment to gather together all the tales told in our villages of the "new stuff," and all the good words said for it at the end of the day, when the doctor has time to talk, we should hear a roar of applause and thanksgiving. Let us wait a few weeks: at the meeting of the Association in London the full discussion of the whole matter will be heard with the deepest interest, and will be read in every civilised country in the world. But those who oppose every discovery that depends on experiments on animals must wait too. In the twelfth and thirteenth centuries there sometimes rose a cry when typhus fell upon a town, "The Jews have poisoned the wells." To deny offhand that a great discovery has any value at all, to hunt for every hint that here and there it has failed, to rush into print and abuse it to the poor and the ignorant—this is indeed the poisoning of our wells. And to be glad if it does fail is hardly the sign of true love for one's fellow-men.

[1] See report of German Medical Congress in April last in the British Medical Journal for April 27th, p. 835.

URGENT POOR-LAW CASES.

An important question in Poor-law procedure has just been settled by the Local Government Board. Some time back the Whitechapel guardians called their attention to the many cases of death amongst the poor by reason of their being unable to pay for medical assistance and declining to come into the House. They asked whether in such cases the Local Government Board would sanction their paying the fees of medical officers who might be called in to such persons. A reply had been received from Whitehall stating that the guardians are empowered by statute to pay for medical attendance rendered to poor persons by reason of accident or sudden illness, although no order had been issued by the relieving officers. It would, therefore, be lawful for the guardians to inform medical practitioners accordingly.

CHILDREN'S COUNTRY HOLIDAYS.

Glasgow citizens have a long-established and enviable reputation for private beneficence and public-spirited philanthropy. This was never better evidenced than during the past severe winter, when distress among the poorer classes suddenly became acute. An appeal, issued by the Lord Provost, was responded to so rapidly and generously that, in less than a week, a sum of about £10,000 was put into his hands, and in fact within twenty-four hours of the need becoming apparent relief was everywhere forthcoming. The city of Glasgow then demonstrated, beyond all possibility of doubt, her willingness and more than ability to deal with the occurrence of exceptional distress within her borders by means of private generosity operating through the machinery of her municipal institutions, without need of imperial assistance or direction. This, however, was a temporary need, though a great one. But Glasgow might well be pointed to for illustrations of other schemes less ambitious but more permanent, which other large cities might well copy. One we direct attention to now because of its value to public health is the scheme which provides a fortnight's stay at coast or country for poor children. It was initiated by a comparatively few individuals in 1885, when thirty-two children were so treated at a cost of £14. It has grown, till last summer 7,282 children were so dealt with at a cost of £4,787. At first children, in twos and threes, were boarded in cottars' houses. As the numbers increased it was evident that this method was no longer applicable. To meet the new demand homes in different parts of the country, within reasonable distance of Glasgow, were presented to the managers of the scheme, and within the past few years the value of such homes has been £7,000. This week a further development of the scheme is marked by the opening of a home on the coast of the Firth of Clyde, capable of accommodating fifty children at a time. The house is surrounded by five acres of its own grounds, originally cost £3,000, and has been presented by two Glasgow ladies. It is specially meant for the more delicate of the children, and has been placed under the superintendence of a lady doctor, Dr. Lilias Cumming, one of the first two Scotch women graduates in medicine and surgery. Here also municipal institutions lend their aid, for the medical officers of health of the city make use of the machinery of their department to ensure that no infection is sent out of the city with the children.

PRESSING POOR-LAW REFORMS.

Every section of the community that takes an interest in the Poor Law and its administration is likely to become an influence towards its reform. We, therefore, welcome the fact that the Roman Catholic Guardians have conferred, under the presidency of the Bishop of Southwark, on "The Responsibilities of Catholic Guardians to the Poor." The meeting, which contained representatives from all parts of England, seemed to be fairly unanimous in recommending "boarding out" as the best

system of dealing with children, and in advocating "kindly and frequent visiting of the old and infirm in order to mitigate their loneliness," and to give "encouragement to those in need of the stimulation of hope." The guardians were recommended not to ally themselves with one political party, "otherwise their opportunities for effecting reforms would be very much limited." On this point, however, we may refer readers to Sir John Gorst's paper on the Conservative Programme of Social Reform, in the July *Nineteenth Century*. He lays down the duty of the Government, not only as regards Arbitration Boards, employment for the unemployed, and the liability of employers, but he dwells at considerable length on the relation of the Government to the children of the State, the aged and the sick. Concerning the latter he quotes extensively from the recent reports that have appeared in the BRITISH MEDICAL JOURNAL, seconding our demand for "maintaining public institutions for the sick in a state of complete efficiency." He also draws attention to the fact that there is no service of nurses recognised by the Local Government Board, whose inspectors, he contends, "having eyes see not, and having noses smell not;" for "no special qualifications for their duties being required of them, they might go on visiting infirmaries till Doomsday without discovering their defects." As a member of the Pauper Children's Inquiry Committee, he perhaps considers it unwise to speak as freely as he would do had that body issued its report, but he indicates the direction which he thinks reform should take. "Nature and experience," he says, "both declare that the proper place in which to bring up a child is a family;" and he argues that "If a child cannot be placed in a real home the next best thing is to make for it an artificial one as like a real home as can be contrived;" and on this principle he commends the Sheffield scheme of scattered cottage homes. Regarding the honoured "aged whose only fault is that they are desolate or helpless," and who are "subjected to the blasphemies and indecent language of the common pauper," Sir John Gorst speaks with feeling and force; and while condemning Mr. Chamberlain's pension scheme as Utopian because it "expects any premium which the State could offer, by augmenting the provision voluntarily made, would be sufficient to induce the young generally to embrace a system of insurance against old age," he advocates a more universal system of State pensions, which he contends might be tried. As to administration, he says, "all this inefficiency is the result of the ignorance and apathy of local authorities, seconded by the indifference and incapacity of the Local Government Board."

CHOLERA AND RAILWAYS.

APPENDED to the report of the Sanitary Commissioner with the Government of India for the year 1893 is an interesting note by Surgeon-Major J. Lewtas, M.D., statistical officer to the Government of India in the Sanitary and Medical Departments, on the Influence of Railways in the Dissemination of Cholera. Dr. Lewtas starts with the assumptions that if railways are concerned in the spread of cholera the extension of epidemics ought to be earlier and more rapid in later than in more remote times, and that places situated on or near lines of railway ought to suffer to a disproportionate extent as compared with those situated at a distance from lines and stations. He finds statistical evidence in negation of both these postulates, though the statements and figures bearing upon the latter point are somewhat confused and unintelligible. Railways, he admits, are useful in aiding the dispersion of infected mobs; but, although the cholera-stricken are carried to a distance before they succumb to the action of the poison, and sicken and die at some points far in advance of a moving epidemic, the invasion of such places by cholera may not occur at all, or may be delayed until what history has shown to be the usual time of manifestation of the disease. Dr. Lewtas's note is important as indicating that conveyance by railway is not, *per se*, a very common or potent factor in disseminating cholera, but the statistical method employed in determining the point is not capable of settling the matter one way or other. This can only be done by induction and comparison of carefully observed instances, and one positive instance of introduction by railway conveyance and subsequent spread cannot be controverted by a thousand negative cases or any amount of *a priori* statistical surmise. The fact is that the conditions which govern cholera development and dissemination are so numerous and complex and ill understood that the method of reasoning by rigid statistical postulates is unsound and unfruitful. This same report contains abundant evidence that the implantation of cholera on a place or person is compassed by so many difficulties that it is only exceptionally that either takes the disease. Thus, in the province of Assam, where it was worst in 1893, not more than 4.35 persons per 1,000 died of cholera, and only 20 per cent. of villages were attacked. The maximum mortality in any one town did not exceed 24 per 1,000. If cholera is a disease affecting filthy persons, living in filthy places, consuming filthy food and water, and breathing filthy air; and if, moreover, the filth to be effective has to be inoculated, so to speak, by a specific ferment, the contingencies of infection are probably so many and so subtle that it is not surprising that escape is the rule and seizure the exception. Railways and railway stations in India are clean places, and the conditions associated with railway travelling, as compared with other modes of movement, are evidently not favourable to cholera growth. It is curious to note that in the chart accompanying Dr. Lewtas's paper the cholera of 1892 is shown to have broken out earlier in the year than any epidemic displayed on the plan, and the cholera map attached to the Commissioner's report indicates that the tracts of country destitute of cholera in 1893 were those with fewest railways and *vice versâ*. These circumstances no doubt admit of explanation apart from the railway question; and are merely mentioned to indicate how unsafe it is to depend on superficial statistical data in the study of the cholera question.

STATE PROPHYLAXIS OF PHTHISIS.

DR. COOPER PATTIN, in his annual report on the city of Norwich for 1894, discusses the much vexed question of State remedies for the various forms of tuberculous disease. Summed up in a single sentence, his present desire is to see phthisis compulsorily notifiable, to see cattle regularly inspected by properly appointed inspectors, and to see instruction as to the infectivity of consumption given to the rising generation in public elementary schools. It is on notification that Dr. Pattin is disposed to look for the greatest good in the way of preventive measures, but he is silent in his report as to the practicable methods of carrying out the system, or to what extent it would be necessary to hedge the plan around with rules as to the exclusion of different classes of cases, and the like. Thus, for example, how about the inevitable multiplicity of notifications in what is, we suppose, pre-eminently a roving section of the population—namely, phthisical patients—who, whenever possible, move from place to place in search of that climate in which they rightly or wrongly consider the chances of prolonged life are heightened? Is a patient to be subject to notification at each place of abode? And is he to be subject to notification by each practitioner called in to treat his case, perhaps deemed curable under different advice, because of the patient's anxiety to change time and again his medical attendant. Against this system of notification is the matter of expense, since Dr. Pattin points to the upwards of 63,000 tuberculous deaths in a year, meaning some £8,000 to the public purse if only fatal cases be notified. Not that this need be any bar to notification if it were likely to be of practical value. Dr. Pattin premises that the first step to the adoption of the system would be the issue of a circular by

the Local Government Board urging it upon sanitary authorities, but he does not hint that that Board are disposed to the course. We say it subject to correction, but we do not think that the addition of phthisis has in any single instance been permitted, and it is matter of common knowledge that certain—though only a few—of the local bodies in the county of Chester were desirous some eighteen months back, on the recommendation of the County Council, of making the addition. Grave doubts must be felt as to the utility of notification as applied to phthisis. We assume that one of the main purposes for which the system is deemed desirable is the necessity for securing that the community shall look upon tuberculous diseases as dangerous to the public health, and act in accord with the fact. But will they ever do so? It may be held that consumptives in the lower walks of life do not migrate much, that the objection to multiple notification does not therefore apply very generally, and that among these poorer people lessons of carefulness may be inculcated through knowledge gained under the system. Has it been so with measles, which is so fearfully fatal among the young? And then the question arises as to the percentage of cases which would come to be heard of by way of notification. Many sanitary authorities have felt constrained to cancel the addition of measles to the schedule of notifiable diseases, seeing no results commensurate with the expense and labour; and measles is, so to speak, immediately hurtful and fatal. Not so consumption, which is distinctly a lingering complaint, and therefore the less likely to meet with much care for the carrying out of preventive measures by the community. Cannot instruction and the necessary publicity as to methods of preventing the spread of phthisis be given even in the absence of notification? Such action as sanitary bodies would take can now be taken where death occurs, with a view of impressing upon persons the lessons of the public danger of phthisis. The uncertainty as to when the disease is first present, the doubtful period when medical aid has been sought, even where it is obtained, and the opportunities which have existed for dissemination of the seeds of infection prior to knowledge being had of each individual case are also circumstances which seem to militate against the usefulness of notification.

NAPOLEON AND THE HEALTH OF TROOPS IN WAR.

The French press has poured forth during the last few years an extraordinary number of books on Napoleon. Memoirs, reminiscences, and biographies of his marshals, ministers, and aide-de-camps have followed each other with bewildering rapidity. The effect produced on the reader by all this mass of literature will vary with his predispositions. As to the character of Napoleon, and as to the causes which combined to give him his marvellous success as a commander, there will remain much room for difference of opinion, but the impartial reader cannot fail to become impressed with the belief that one source of his strength, and one cause of the personal affection which he undoubtedly inspired among the rank and file was the immense care and labour which he devoted to all questions affecting the health and comfort of his soldiers. He was sometimes reckless of human life, but it was always in the heat of battle, and he seems never to have fallen into an error of this kind without subsequently making it plain to those about him that he bitterly regretted his impetuosity. In his calmer moments, and as matter of principle, he gave unstintingly time, thought, and energy to matters of hygiene, and to the provision of appliances for the treatment of the sick and wounded. Again and again in the numerous memoirs of contemporaries published during the past few years, we find his anxieties and labours in these matters noted with a certain naïve surprise and admiration by the writers. When the purely military difficulties confronting him were the most pressing, the most calculated to absorb all his attention, his care in these matters appears to have been the greatest. So it was at the beginning of the Russian campaign; so also before Leipzig. Whether or no he ever said that Providence was on the side of the big battalions, he at any rate took the utmost pains to prevent his own battalions from being diminished by the sick list. The disasters which overtook the French arms in Spain are attributed in part, at least, by some of those who had personal experience of them to the failure of Napoleon's lieutenants to follow his example in this respect. Count de Ségur writes thus in his memoirs, entitled *Un Aide-de-Camp de Napoléon*, published a short time ago: "The ills of the battlefield are the lesser evils of war. Armies are destroyed by the privations suffered on the march and in bivouac, by failure in the regular distribution of rations, by the deficiency in medical appliances and in hospital provision. Especially did our armies suffer from these causes [in Spain] where everything was arranged hastily, without sufficient attention being given to the thousand and one details on which the soldier's health depends. At that time, although the rank of general implied the possession and exercise of administrative abilities, few of our generals knew how to administer. The horror of the spectacle afforded by the regimental hospital [at Aranda] cannot be imagined. Everything was deficient—air, drugs, and even beds—so that two and sometimes three sick or dying men lay in the same bed." This was under Murat, and General de Ségur states that of all Napoleon's chief lieutenants, but three—Davoust, Saint-Cyr, and Suchet—understood the essential importance of attention to administrative details of this nature.

THE REPRESSION OF TUBERCULOSIS IN MASSACHUSETTS.

The report of Mr. Consul Yeats-Brown to the Foreign Office on the agricultural condition of the Boston district during the past year contains some highly interesting information on the action taken in the State of Massachusetts for the extinction of tuberculosis in cattle. The Consul praises the effective measures which the authorities of the State take in this and cognate matters, and he speaks of the unstinting way in which they are proceeding in their endeavours to stamp out this cattle disease. Prior to June, 1894, the inspection of cattle for the purpose of determining whether they were tuberculous was permissive, but the enactment of that date has made it obligatory upon all cities and townships to appoint inspectors, under the control of the Board of Cattle Commissioners, to inspect cattle. The inspectors are 394 in number, and the Commissioners 5, assisted by 33 veterinary assistants. All animals are to be inspected, and the inspectors have the power of passing animals as healthy and of putting in quarantine all those beasts that are suspected of being tuberculous. These are then subjected by the Commissioners and their assistants to the "tuberculin test." The temperature before and after the injection of the tuberculin showed the soundness or diseased condition of each animal tested. The time occupied in the injection portion of the test averages twelve hours, and any animal successfully passing through it is branded as sound. All condemned as a result are examined *post mortem*, and compensation paid in full if the test proved wrong, and to the extent of one-half of the value of the animal "for food and milk purposes" if disease was confirmed. A Bill is in process of enactment for the payment of full compensation in all cases of slaughter. Payment on the half scale was made in the second six months of 1894 for 810 cattle, at an average of £3 15s. 2d. each, or some £3,050 in all. One condition for compensation is that the beast shall have been six months in the State prior to destruction. The Commissioners regulate the importation of all cattle, which must come by way of appointed quarantine stations, and must be submitted to the tuberculin test; whilst they have further ordered that all animals already in the State be tested in like manner systematically.

SANITARY ADMINISTRATION IN INDIA.

REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR THE YEAR 1893.

THIS report, as usual, presents a summary of all the vital statistics of the general population, troops, and prisoners throughout the Indian Empire during the year 1893. It is a statistical summary rather than a sanitary report. Its bulk is great, and might without sacrifice of usefulness be very materially reduced. Of the 450 large folio pages which compose it, 236 are covered by some 104 tables embodying returns relating to sickness and mortality among troops and prisoners. In addition to these, there are appended to each section of the report a number of statistical "statements," and the text of the report is very largely interspersed with tabular abstracts, and the letterpress bristles with figures, the significance of which very little effort is made to explain. A large proportion of this statistical matter is pure arithmetic, the result of a diligent use of the elementary rules of computation. Repetitions are abundant. The same fact is stated in several tables, statements, and abstracts, and again in the letterpress. The tables and their derivatives are constructed on a wrong principle. The plan of them was devised by the late Dr. Bryden, whose mind was filled with statistical abstractions. He invented a series of statistical "provinces," corresponding to no existing military or civil administrative areas, and the figures are split up into parcels and in great detail allotted to these. Will it be believed that it is impossible to ascertain the statistics of any European regiment or battery or of any military command from this report? The statistics of native troops are represented according to corps the location of which is given as a secondary item; but they are also distributed into the statistical provinces above referred to, and so are the gaols; but these are in addition summarised according to civil provincial administrations.

Too much importance is attached throughout to statistical totals, which are of secondary sanitary value; disease and mortality affect individuals in the first instance, and causes and remedies must be studied as they bear upon units—persons and communities—rather than groups. The larger these latter the more vague the views of causation and sanitation. To dissociate vital statistics from administration is, moreover, a serious error. The whole system of statistical compilation requires to be recast. The essential thing is to exhibit the morbidity and mortality of communities—regiments, gaols, etc.—in sufficient detail in the first instance. This done, theorisers can manipulate the figures to their liking. Then tables can easily be constructed to exhibit the influence of locality, season, age, length of service, and so forth, and abstracts compiled to show totals and ratios for military commands, civil administrative areas, provinces, etc., for purposes of comparison of one period or area with another, or of special diseases in different communities, times, and places. As at present displayed the statistical matter contained in this report is to a great extent redundant, bewildering, and unprofitable.

The year 1893 was remarkable for its salubrity. It was a year of low temperature, abundant rain, and high humidity. The results of death registration among the general population are still too defective to warrant their use for comparison of periods and places, but the degree of prevalence of cholera, bowel complaints, fever, small-pox, and injuries is roughly indicated. The mortality caused by cholera throughout India amounted to 218 113, against 762,695 in 1892. There was a decrease in all provinces except Assam and Hyderabad. The disease broke out severely in the Dacca division (Bengal) after the severe cyclone of May, thus repeating the terrible experience of October, 1876.

A remarkable instance of dissemination through the agency of a large fair at Pankarpur in the Bombay Presidency is related at page 125 of the report. Fewer deaths were registered from bowel complaints, fevers, and small-pox, and a slight excess under injuries and other causes, showing that the abatement under other heads was not due to fewer registrations. The statistics of troops and prisoners were very favourable. The admission-rate of the European army was 1,415, constant sick-rate 87, death-rate 12 61, and invaliding-rate 25 per 1,000. These figures compare well with those of previous years.

The most noteworthy circumstances of the year were the increasing prevalence of venereal diseases and the high mortality due to enteric fever. Venereal complaints caused 466 admissions per 1,000; that is to say, nearly half of the army passed through hospital from this cause; 2,619 men, or very nearly three regiments, remained in hospital throughout the year. Each case remained in hospital on the average for 30 days, and each man of the whole army lost about 12 days' service. The admissions for syphilis amounted to 275 per 1,000. The amount of incapacity, physical suffering, and diffusion indicated by these figures is very serious, and absolutely nothing is being done to stay the plague.

Typhoid fever is responsible for 1.41 per cent. of the sickness, and 42 per cent. of the mortality of the European army. The corresponding figures in the native army are 0 03 and 0.4, and in gaols 0.03 and 0.6. No additional light has been thrown in this report on the causation or prevention. It is unpleasant to observe that several of the hill sanitaria present very high rates of prevalence and mortality from typhoid.

There were only 16 cases and 10 deaths from cholera in 1893 in the European army of India, and 33 cases and 4 deaths from small-pox. Influenza had almost disappeared; malarial fevers and bowel complaints presented high rates; chest diseases were rather above the average; these continue to be more severe in Bengal, as is dysentery in Madras. Thirty-five per cent. of men, 40 of women, and 48 of children were located in the hills in the hot season. Venereal disease, paludism, debility, heart affections, and phthisis were the most frequent causes of invaliding. The death-rate of women was 14 04, of children 39.03, and of officers 10 67. The statistic of the native army were very favourable: 862 admissions, 32 constant sick, and 12.81 deaths per 1,000. The cholera mortality (0 20) is the lowest on record. The admissions caused by venereal disease in the native army were only 36 per 1,000, about one-thirteenth of the European army rate. There was less sickness and mortality in Indian gaols than in any of the twenty preceding years: 967 admissions, 37 constantly sick, and 25.01 deaths per 1,000. Malarial fevers, bowel complaints, abscesses and boils, and chest complaints (inflammatory and tuberculous) are the diseases of Indian prisons. Some provinces and gaols still present excessive figures, though a general tendency to improvement is manifest. The section on vaccination indicates that protection from small-pox, though increasing, is still far from being sufficient in India.

The sections devoted to military and civil sanitary work are excellent, and show that a great deal of money is being judiciously expended on sanitary work, more especially on improvement of water supply, conservancy, and drainage. Many large and important undertakings have been completed or are in process of completion or in contemplation for these cardinal purposes.

The work done in the laboratory attached to the Sanitary Commissioner's office during the year consisted mainly in testing the efficacy of reputed cures of the bites of venomous snakes, which caused in 1893 some 23,000 deaths in British India. The results were negative. The subject of "alleged" malarial parasites is to be taken in hand. The terms in which the Sanitary Commissioner refers to the initial stages of this research seem to presage negative conclusions.

POISONING BY DISEASED MEAT.

ATTENTION has been called afresh to the subject of ptomaine poisoning by two recent outbreaks probably attributable to that cause. One of these took place at Leicester, where, after partaking of tinned meat, all the members of two families, numbering 22 persons, became ill, and one of them died.

The other outbreak was reported from Larne, co. Antrim. A man purchased some veal on a Saturday, and, having shared it with two other families, all partook of it on the Sunday. On Monday morning nearly a dozen persons who had eaten of the veal became alarmingly ill. One of them died; the rest, at the time of the report, were slowly recovering.

As is now well recognised, poisoning by the ptomaines or the toxic albumoses produced in the processes of decomposition or microbial growth may occur in two forms. Food may

become infected by living micro-organisms, which, being swallowed, may then develop poisonous products within the body, or they may have already produced these products before the food has been swallowed. The results are different. In both cases toxic effects are produced, but while in the latter they occur rapidly, simulating cases of chemical poisoning, which in fact they are; in the former a more or less lengthened period of incubation is observed. It should also be observed that, while cooking is a protection from infection by microbes contained in food, it is not necessarily protective against poisoning by ptomaines already produced in food before it has been cooked.

Observations in England have mostly tended to cast the blame of these toxic effects on the surroundings amid which the meat has been kept rather than on any disease which may have existed in the animals before being slaughtered. Experience abroad has been somewhat different. Recently two papers have appeared, one read before the Académie de Médecine in Paris on May 28th by M. Vallin, the other a communication to the *Archives de Médecine et de Pharmacie Militaires* for June, by MM. Darde and Viger, which both point to the probability that, at any rate in regard to veal, the health of the animal before and at the time of slaughter may have much to do with the development of toxic symptoms in those who eat the meat. MM. Darde and Viger give details regarding three outbreaks:

1. The 1st battalion of the 72nd Regiment stationed at Abbeville, composed of three companies, celebrated the anniversary of Solferino by a banquet on June 24th, 1894. The bill of fare for the three companies was the same, the sweets and vegetables came from the same purveyor, and the bread from the contractor who supplied the whole garrison. The meat alone was supplied to each company by a separate butcher. The meat supplied to the second company was inspected by the sergeant-major, who found it of good appearance; the cook also found nothing suspicious about it, and, in fact, partook of it along with his comrades. On cutting the *roti* of veal it was evident it was not sufficiently cooked, but all found its taste good, except three men, who, not liking either its appearance or its smell, put it aside untasted. During the night ten men had a little *malaise* and diarrhœa, which, however, was so slight that none of them consulted the doctor next morning. During the afternoon, however, between 4 and 6 o'clock seventy-five were attacked with colicky pains, constant diarrhœa of a putrid odour, and many had vomiting of food, bile, and mucus. The temperature was somewhat raised and there was extreme feebleness and prostration. Altogether one hundred and thirty-five men were attacked, of whom two died. The members of the other companies were unaffected.

2. A farmer in the neighbourhood of Souchez had a calf a fortnight old, which had been ill from its birth, and had become so weak that it could scarcely stand. It had had diarrhœa and a marked swelling of the joints of the legs, due very probably to a multiple purulent arthritis. The mother of the calf had suffered during gestation, and had died a week after calving. Some of this meat was sold to the Hospice des Vieillards at Souchez. It appeared all right and free from odour to the sister in charge of the kitchen, and she had it roasted in the oven on June 21st in the morning. At noon the children partook of it and were not incommoded thereby, but on June 23rd the rest of it was served at the midday meal to sixty pensioners, who found no bad taste in it and ate it with pleasure. A few hours later several of the old people experienced some discomfort, but nothing really serious showed itself till 8 o'clock next morning, twenty hours after the meal, when they began to suffer from profuse diarrhœa, vomiting, and extreme feebleness. For two days the number of sick went on increasing, until out of the 60 people who ate the veal 56 were attacked in various degrees and 6 died.

3. A calf a month old, which had been artificially fed, had taken its food badly, and was so weak that it could scarcely stand, was killed on June 23rd. The veal was sold to various persons, and a part was reserved for the use of the household. On June 24th and 25th, several persons, among them seven servants, partook of this meat at their meals, and none of them suffered any inconvenience. On June 27th, however, the same seven servants ate of it at lunch, and sixteen hours later were all seriously affected.

The point raised in both these latter cases is that although the veal was known to be that of a diseased animal, it was shown to be innocuous until several days has elapsed after it was killed. It has been proposed by Gartner to divide toxico-infectious meat into two classes (1) healthy meat which has become dangerous by virtue of the time it has been kept and the conditions to which it has been exposed; (2) diseased meat, dangerous from the beginning; but it would seem to the authors of the paper we are now dealing with that to these should be added a third class, (3) meat of diseased animals which, although innocuous at first, develops poisonous qualities after periods varying from 24 to 72 hours.

The communication of M. Vallin to the Académie de Médecine is more especially devoted to the elucidation of the conditions affecting the calf during its lifetime which renders its flesh likely to produce toxic effects in those who eat it. He says that it is notorious that the meat of the calf when too young often causes diarrhœa, a fact which is explained by saying that such meat is indigestible, laxative, readily decomposed. These however, he says, are assertions not explanations. The animals are eaten too young because some days or some weeks after birth they have died of disease, or have been killed to escape such a death only a few hours before it would have happened to them.

The two virulent, septic maladies which kill these animals shortly after their birth are: (1) Acute or chronic septico-pyæmia, following phlebitis of the cord; and (2) septic diarrhœa, or infectious pneumo-enteritis.

1. Pyæmia resulting from phlebitis of the cord is mostly found in calves from four days to a fortnight old, and is characterised by suppurative joint disease. Generally the calves have been killed when *in extremis*, when all hope of cure had been given up, and often it will be found that the parent cow has died from a difficult labour or retained placenta. Sometimes, however, a chronic pyæmia is set up which may not cause death till several months have passed. In these more chronic cases an accumulation of ptomaines or toxalbumins may take place which the most prolonged cooking does not modify, and thus it happens that from six to twenty-four hours after eating such meat symptoms simulating those of cholera nostras are apt to appear. In cases of microbic infection the symptoms come on after a period of incubation of two or three days, and more resemble those of enteric fever.

2. Septic diarrhœa, or infectious pneumo-enteritis, is a term which possibly covers several diseases characterised by bloody and fœtid diarrhœa, lobular broncho-pneumonia, with hæmorrhagic infarcts and pleurisy, and hæmorrhages under the skin and in the various organs.

Whether it is due to one specific bacillus or no, it is communicable by inoculation; and it has been shown by van Ermengem that a culture of bacilli found in it, administered with milk to a healthy calf, produced on the third day a very serious hæmorrhagic enteritis, with such fœtid bloody evacuations that the calf had to be killed. It has also been shown that a sterilised culture of a bacillus found in such cases, introduced into the stomach of guinea-pigs, caused death in a few hours, with hæmorrhagic enteritis and pulmonary hepatisation.

Whatever its nature, however, it is stated by the veterinary surgeons of Belgium that most of the cases of poisoning by butcher's meat are caused by the meat of animals dead or ill of an ill-defined enteritis, which goes by the name of the "diarrhœa of calves," but greatly resembles that which has been observed at Moorseele (van Ermengem).

The subject is one of considerable interest in regard to food supplies, for it is to be feared that at present there is very little check placed in the way of "slink" butchers, and that in the disposal of a dead calf almost anything is possible.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

The usual monthly meeting of the Executive Committee of this Society was held at 429, Strand, on June 13th. There were present the Chairman (Dr. de Havilland Hall), the Treasurers (Dr. G. E. Herman and Mr. H. H. Clutton), Dr. James B. Ball, Dr. W. Knowsley Sibley, Dr. Alfred S. Gubb, Mr. J. Brindley James, and Mr. Edward Bartlett.

This being the last meeting of the Committee in the current financial year the accounts presented enable a fair estimate to be made of the results of the operations of the Society during the twelve months ending June 30th.

Over £4,000 has been paid to the members in respect of claims arising from sickness or accident, and in no previous year since its foundation in 1884 has the Medical Assurance Society done more useful work.

In seven cases, where there is reason to fear that the members are permanently incapacitated the sickness allowance has been paid during the whole twelve months, while nearly 300 other claims have been paid during the year, for periods varying from one week to several months. The letters received show that in many cases the sickness pay of the Medical Assurance Society is something more than a convenient help, and in not a few instances there is evidence that the prompt aid of the Society prevented serious embarrassment. The following

extract from a letter received this month gives an instance of this:

I am writing to say that I started work again on Saturday last. I feel very grateful to the Society for the money, as I could not have done without it, being a young practitioner not long in practice, with heavy expenses.

Notwithstanding the large number of claims caused by the influenza epidemic in the spring the financial result of the year's working will be found satisfactory, and the report to be issued to the members in July will show that the Society is growing in strength, and rapidly extending its sphere of usefulness.

Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Assurance Society, 33, Chancery Lane, London, W.C.

CORK SOCIETIES MEDICAL OFFICERS' INDEMNITY FUND.

THE following additional subscriptions are acknowledged by Dr. Denis Dempsey Donovan, King Street, Cork, Treasurer to this fund:

	£	s.	d.
Incorporated Medical Practitioners' Association, London	5	5	0
South Eastern Branch, B.M.A., England	10	0	0
Dundee and District Branch meeting	9	4	6
Worcestershire and Herefordshire Branch, B.M.A.	5	5	0

PROVIDENT DISPENSARIES.

[FROM A CORRESPONDENT.]

A CONFERENCE on medical providence, which practically took the form of a meeting of the Metropolitan Provident Medical Association, took place on June 21st at the house of Mr Claude Montefiore, 12, Portman Square. The chair was occupied by Mr. Gerald Balfour, M.P., and among the speakers were Lord Battersea, Mr. Lewis MacIver, M.P., Mr. Bryant, the Rev. Canon Ainger, Mr. John Holland, Mrs. Dacre-Craven, the Rev. Russell Wakefield, Mr. Bousfield, Chairman of the Association, and others. Sir Spencer Wells and Mr. Timothy Holmes were also present, and among the many letters of sympathy and apology for absence was one from Sir Russell Reynolds.

To a large extent the proceedings consisted of a series of panegyrics of thrift and of the virtue of providing beforehand for days of sickness. Most of the speeches were as applicable to sick pay societies as to medical providence, and the peculiar difficulties of the latter were but lightly touched upon.

The predominant note throughout the discussion was the reiterated assertion that the organisation was in no way a charity, and that the provident members paid for what they got. So positively was this stated, that it was rather a shock to hear later on that money was wanted, and indeed it was somewhat difficult to reconcile the assertion with the fact that the Association, besides ordinary subscriptions and donations, receives a grant of £300 from the City Parochial Charities, and also a grant from the Hospital Saturday Fund, or with the further fact that the branches receive aid both from the Association, the Hospital Sunday Fund, and from "donations, subscriptions, etc."

To understand the working of these provident dispensaries, to see the absolute necessity of a wage limit founded on the basis of the charitable nature of the scheme, and to recognise the utter hollowness of the claim that the provident members pay for what they get, it is necessary to bear in mind the large part that charity takes in this "provident" system.

The total entrance fees and subscriptions paid by the provident members in 1894 amounted to £4,064, while the donations, subscriptions, and grants from the Association and the Hospital Sunday Fund to the branches—not to the central body, the subscriptions to which have been already mentioned—amounted to £700; in other words, the subscriptions of the provident members of the branches were assisted by a bonus of nearly 20 per cent. of charitably added money.

Further, we find in the report that, "of the 12 dispensaries, 6 received grants from the council, in addition to help from other sources. Of the remaining 6, which are independent of aid from the Association, 4 had awards from the Hospital Sunday Fund or local subscriptions, and 2—Croydon and Deptford—depended solely on the contributions of their provident members." All but two were charities!

Are these dispensaries then in this parlous plight in consequence of the large payments made to medical men? Not so; for out of the total members' payments (including bottles, fines, rules, cards, etc.), amounting to £4,367, without counting the charitably added money, the medical staff, including the dentists (and in the case of five clubs including the drugs and surgery expenses, and their share of rates, taxes, etc.), came only to £2,532. If this is, as was stated, distributed among eighty doctors it would really seem that they are by their labour the true supporters of these charities. Everyone spoke well of the doctors. Mrs. Dacre-Craven was eloquent on the "beautiful lint" and the "beautiful bandages" which they used, but that they are giving to the poor by the work they do seemed to enter into the mind of no one. Lest anyone should doubt about their position, Lord Battersea spoke of them as "doctors who are the servants of the Association," and went on to describe as one of the advantages of the dispensaries to the working classes that they have a choice of doctors, "and they can employ those men in their own homes." Nothing could be neater; the position of the doctor as it appears to the layman is accurately defined: and, apparently, nothing is left but either to accept it or to raise the question whether it is right that these penny subscribers, of whose penny the doctor gets about a halfpenny, should any longer occupy the position of employers. Provident dispensaries exist and must exist; the question, however, is by whom should they be managed?

In regard to the Metropolitan Provident Medical Association, not only does it exist in our midst, but it has the active support of many members of our profession. It seems useless to protest, as some medical men appear inclined to do, against either the general principle of "providence" or the actual scale of payments arranged. So long as these payments are made applicable only to the lowest subscribing class, and are coupled with a proper wage limit, they are already accepted by the profession. It is quite open to discussion, however, whether the current methods of management are the best that are possible. It is clear that the hold which the Metropolitan Association has over its branch dispensaries is of the slightest possible character, and chiefly depends on their financial non success; and there seems but little to prevent any successful branch, when once safely on its feet, breaking away both from the Association and its traditions, throwing wage limits to the dogs, touting for patients, and becoming the happy hunting ground of some ingenious manager. So long as the management is in other than professional hands Lord Battersea is right and the medical officers are but the "servants" of the institution, and in truth there would seem but a feather edge of distinction between institutions run for the profit of the members and those other institutions run for the profit of the shareholders, which are universally condemned by the profession.

The discussions which will take place in the Ethical Section of the forthcoming annual meeting of the British Medical Association upon provident dispensaries and contract medical service will be looked forward to with much interest.

Among other papers to be read on the subject will be one by Dr. W. G. Dickinson, giving practical experience of the working of a provident medical aid society managed by medical men alone. The fees do not appear to be different from those charged by the Metropolitan Association, but there is this difference that with the exception of the expenses of collection and management, amounting perhaps to 20 per cent., the whole money collected goes to the medical officers; moreover, the conduct of the affair being in the hands of the staff, it is possible to restrict its operations to the class for whom it is intended.

The Society seems to be very successful, but any group of medical men who may wish to found a similar institution must be prepared to take a considerable amount of trouble in managing it, and to display a very conciliatory spirit towards one another. Laymen say, and not altogether without reason,

that doctors are unbusiness-like, and that doctors quarrel among each other. Either defect would wreck any institution with which they might have to do, but granting that such stumbling blocks can be avoided, there seems no reason why the benefit of the provident principle should not be extended to the poor in any district.

The ideal plan would be a sort of "club," which should be managed by the medical men themselves, and to which all those practising in the district might be attached, so long as they kept aloof from other institutions of the kind.

The report of the Metropolitan Provident Medical Association shows what great economy there is in the "club" over the "dispensary" system, an economy which will be all the more marked in an organisation managed by the doctors themselves. So long as it remains the custom for medical men to dispense their own medicine, the club system would seem the best; by it the provident members would have the advantage of being treated as private patients, except for certain regulations as to hours of attendance and times of sending messages, while the doctors would receive among them a large amount of money which otherwise would be frittered away among dispensers, rent, rates, and lay officials.

The question how best to give the poor the advantage of the provident principle of prepayment for medical attendance, and at the same time to maintain the independence and self-respect of the medical men engaged in the work, is one which may worthily occupy the attention of the profession at the coming annual meeting in London.

DEATHS UNDER ANÆSTHETICS.

Dr. W. M. Killen (Belfast) writes: Being interested in the accounts, from time to time appearing in the British Medical Journal, of deaths occurring during the administration of anæsthetics, I write to advise all those who may have the misfortune at any time to meet with threatened cardiac syncope during operation, to place their reliance on the immediate use of nitrite of amyl, combined of course with artificial respiration. I have several times seen accidents apparently averted by the use of this remedy, which has the great advantage of acting instantly and of being aided in its entrance into the system by the accompanying artificial respiration. Not long ago, I rather reluctantly administered chloroform to a young woman suffering from valvular heart disease, the result of an attack of rheumatic fever during childhood. When she was pretty well under, and the operation (the removal of a small tumour from the lower limb) commenced, I noticed the breathing suddenly become very shallow and slow, and the face dusky. On putting my finger on the pulse I found it a mere thread, although a minute before it was both strong and full. For what appeared to me a great many seconds, I could not feel it at all. The operation was stopped at once and nitrite of amyl used instantly, and as the patient was still breathing feebly, the drug entered the system and acted like magic, the pulse rapidly returning and becoming strong again. This case seems interesting from the fact that although the respiration first gave the warning of danger, it continued all through the fainting fit. Five years' experience in the giving of various anæsthetics at a local hospital has taught me to rely on two things mainly, artificial respiration and nitrite of amyl. All other methods of treatment should be secondary, and require both more time and assistance from others. The inhalation of the above mentioned drug is, I think, what one should try first in cases where cardiac failure is the most threatening symptom. Finally I may add my great preference for ether over chloroform in point of safety, although it may not be so suitable for certain cases and operations.

DR. WILLIAM GILBERT GRACE,

THE CHAMPION CRICKETER OF THE WORLD.

A Proposal to Join in the Shilling Testimonial Subscription.

Our contemporary the *Daily Telegraph* has, with characteristic energy and skill in gauging the force of public enthusiasm and in seizing the opportunity of utilising it, made a proposal for enabling persons of all classes and ranks to testify to the overflow of national pride and pleasure which Englishmen of all classes take in the surprising feats of skill, endurance, pluck, and energy which place our distinguished fellow-practitioner, Dr. W. G. Grace, at the head of the cricketing world, in that favourite branch of athletics which constitutes one of the chief exercises and sports of our countrymen. Every medical man must feel a certain added glow of enthusiasm at these feats, and almost a personal pride in the reflection that Dr. Grace is a working member of our profession, and has shown that medical studies and practice are not incompatible with the highest development of athletic skill and pluck. The shilling subscription started by the *Daily Telegraph* has been welcomed on all sides and throughout the country as a convenient and immediate means of enabling everyone to take part in a great national testimonial.

We feel that members of the medical profession will, perhaps above most others, take pleasure in joining in this movement, and we shall have great pleasure in taking charge of any subscriptions forwarded for that purpose, and adding them to the fund of the *Daily Telegraph*. Communications should be marked on the envelope "Grace Testimonial."

The following subscriptions have been contributed:

	Shillings.
Mr. Ernest Hart	100
Dr. Bridgwater	20
Dr. Isambard Owen	20
Dr. Dawson Williams	20
Mr. Francis Fowke	20
Mr. W. L. Burr	20
Sir T. Spencer Wells	20
The Compositors at the British Medical Journal	14
The Clerks at the British Medical Journal Office...	10
Nemo	10
Dr. R. Temple Wright (Jersey) ...	5
W. E. Soffe (East Harling)	5
Mr. H. Langley Brown (West Bromwich)	21
Mr. E. G. Archer (Brandon)	1
Dr. J. H. Ashworth (Halstead) ...	1
Two Shrewsbury "Medicals"	2
Dr. R. Shingleton Smith (Bristol) ...	21
Dr. Harry P. Major (Hungerford) ...	1
Mr. Frank G. Layton (Norwood) ...	1
Mr. H. T. Butlin (London)	20
Mr. G. Wilson Burn (Brixton)	1
Mr. F. Addiscott (London)	2
E. T.	1
Mr. J. H. Gilmour (Hurstbourne Tarrant)	1
Dr. E. Stephens (Ilminster)	1
Mr. A. R. F. Evershed (Penzance) ...	1
Mr. Albert Carless (London)	10
Mr. Ernest F. Smith (Lavenham) ...	1
Dr. F. Gourlay (Southend-on-Sea) ...	1
Dr. Pembroke Minns (Thetford) ...	10
Surgeon F. J. Lilly (Gosport)	3
Mr. Claude M. Vernon (Ashford) ...	1
Cardiff Medical School	11
Mr. E. Somers (Pendleton)	10
An Admirer (Manchester)	1
Dr. E. Allan Waterworth (Newport, Isle of Wight	1
Mr. J. W. Moore (London)	1
Mr. J. Normile (London)	1
Dr. H. T. Barton (Blackpool)	20
Mr. Gilbert Barling (Birmingham) ...	20
Mr. C. T. Dent (London)...	20
Surg.-Capt. S. F. Clark (Canterbury)...	1
Dr. John Ruxton (Blackpool)	5
Mr. H. D. Ellis (Taunton)	5
Dr. W. K. Sibley (London)	1
The Staff at the Out-patient Department of the Women's Hospital, Birmingham	7
Dr. C. G. Beaumont (Folkestone) ...	5
An Assistant	1

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of the Association of Fellows of the Royal College of Surgeons of England, was held at 101, Harley Street, W., on June 26th, 1895. There was a large attendance. Mr. T. HOLMES, Vice-President, occupied the chair, in the unavoidable absence of Mr. George Pollock.

The minutes of the last meeting were read and confirmed.

Mr. PERCY DUNN (the Honorary Secretary) reported that he had duly issued the circular letter addressed to the Fellows adopted at the previous meeting. He then read letters from five Fellows desirous of being elected as members of the Association. They were accordingly proposed and seconded, and unanimously elected. The Honorary Secretary next reported the proceedings at the deputation to the Committee of the Council which took place at the College on June 10th, a full report of which, he pointed out, had already appeared in the medical journals. In reference to this matter the Honorary Secretary observed that the deputation had been asked by the Committee of Council to draw up a *précis* of the arguments adduced in favour of their propositions for amending the charters and by-laws; and that the subcommittee appointed by the Committee of the Association at a recent meeting had commenced this *précis*, and now submitted it to the Committee. After some discussion the Committee approved generally of the work of the subcommittee, and requested them to complete it as soon as possible. A resolution was proposed, seconded, and unanimously carried, expressing the hope that all the members of the Association would record their votes in favour of Mr. Willett, Mr. A. T. Norton, and Dr. Ward Cousins. With respect to the annual general meeting of the Association it was decided that the date should be fixed by the Committee after the election at the College on July 4th.

This concluded the business of the meeting and the Committee adjourned.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 10th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June 6th, 1895.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

NOTICE OF QUARTERLY MEETINGS FOR 1895. ELECTION OF MEMBERS.

MEETINGS of the Council will be held on July 10th and October 23rd, 1895. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the meeting—namely, October 2nd, 1895.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The annual meeting of the Branch will be held at The Gables, Stoke-under-Ham, the residence of the President-Elect (Mr. Walter W. Walter), on Thursday, July 4th, at 3 P.M., after luncheon. Mr. Walter W. Walter kindly invites the members of the Branch to lunch with him at 2 o'clock. Agenda: (1) Minutes, (2) Report of Council; (3) Treasurer's Accounts; (4) Election of Officers for the ensuing year; (5) Settle as to Place of Meeting and President-Elect for 1896; (6) President's Address; (7) Papers or Communications; (8) Consideration of the Midwives Registration Bill, which is printed in the BRITISH MEDICAL JOURNAL of May 11th at page 1055. The President's address will be on his Personal Experience of the Practice of Medicine, Surgery, and Midwifery during the last fifty years. Members wishing to read a paper or make any communication to the meeting are requested to send early notice of its title. At the conclusion of the business it is proposed that an excursion shall be made to Ham Hill. Mr. Walter W. Walter's museum, which contains a large collection of most interesting objects, will also be open for the inspection of members.—W. M. KELLY, M.D., Honorary Secretary, Taunton.

OXFORD AND DISTRICT AND GLOUCESTERSHIRE BRANCHES.—A combined meeting of these Branches will be held at the Randolph Hotel, Oxford, on Friday, July 5th, at 2 P.M. Mr. Horatio P. Symonds (President-Elect of the Oxfordshire Branch) kindly invites the members of the two Branches to luncheon at the Randolph Hotel, Oxford, at 2 P.M. A meeting of the Oxford and District Branch will be held previously (at 1.30) in the Randolph Hotel, for the transaction of some formal business.—W. LEWIS MORGAN, Honorary Secretary, Oxford and District Branch, 37, Broad Street, Oxford.

EDINBURGH, GLASGOW, AND STIRLING BRANCHES.—A conjoint meeting of these Branches will be held in Stirling on Tuesday, July 2nd, and it is hoped that members of the Perth and Dundee Branches may also be present. It is proposed to spend an hour after the meeting in visiting places of interest in the neighbourhood, and thereafter the members will dine together in the Station Hotel. Full details will be given in a circular to be issued next week.—C. J. LEWIS, Honorary Secretary, Stirling Branch.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

THE annual meeting of this Branch was held at the Worcester Infirmary on June 18th.

Election of Officers.—The following were elected officers for the ensuing year:—*President:* Mr. H. Cecil Moore, Hereford. *President-elect:* Dr. Martyn Read, Worcester. *Representative on Council:* Dr. Crowe. *Representative on Parliamentary Bills Committee:* Dr. Crowe. *Honorary Secretaries:* Dr. Crowe and Mr. Edgar Morris.

New Members.—Mr. Edward du Buisson (Hereford) and Dr. Pollard (Worcester) were elected members of the Branch.

Midwives Bill.—A discussion on this Bill took place, and Mr. T BATES proposed and Dr. STANLEY HAYNES seconded:

That in the opinion of this Branch the compulsory registration of midwives is necessary.

Dr. CROWE proposed and Mr. EDGAR MORRIS seconded the following amendment:

That in the opinion of this meeting the compulsory registration of midwives is desirable and necessary, but that in any Bill drawn up for this purpose great care should be exercised to safeguard the interests of the medical profession as well as those of the public.

The amendment, on being put to the meeting, was declared to be carried. The following resolution, proposed by Dr. STANLEY HAYNES and seconded by Dr. PIKE was also carried:

That penal clauses should be inserted in the Bill.

Abuse of Medical Charities.—It was the opinion of the meeting that there is no great abuse of hospital charities in this district.

The British Medical Association and the Protection of Medical Interests.—A circular letter, signed by J. F. Bullar, T. F. Raven, and A. G. Welsford was read. It related to a resolution to be proposed at the annual meeting that the Council of the Association should take steps to undertake the duties of protecting the interests of the medical profession. The meeting expressed a unanimous approval of the object of the resolution.

Cork Indemnity Fund.—Dr. CROWE proposed and Mr. W. MOORE seconded:

That a donation of £5 5s. be given to the Cork Indemnity Fund.

Carried.

The British Medical Association and the Abuse of Hospitals and Provident Dispensaries.—Mr. W. MOORE proposed and Dr. HAYNES seconded the following resolution:

That in the opinion of this meeting the time has arrived when the British Medical Association should take into serious consideration the question of abuses of hospitals, provident dispensaries, clubs, medical aid associations, and such like societies, with a view to apply a remedy.

The resolution was carried unanimously.

Communications.—Mr. Turner (Hereford) read (1) Observations on the Best Method of Reducing Dislocation of the Hip; (2) Notes of a case in which Scirrhus, Encephaloid, and Colloid Cancer occurred in the same subject.

PERTHSHIRE BRANCH.

The summer meeting of this Branch was held at Newburgh on June 19th, 1895. Dr. Leigh Hunt, Vice-President, was in the chair owing to the unavoidable absence of Dr. Niven on account of illness.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the Chairman.

New Member.—Dr. Keith Campbell was duly elected a member of the Branch.

Representative of Branch on Council and Parliamentary Bills Committee.—On the motion of Dr. Ferguson, seconded by Dr. A. J. A. Campbell, Dr. Urquhart was re-elected representative member and representative on the Parliamentary Bills Committee.

Visit to Falkland Palace.—After lunching with the President, who, unfortunately, was unable to join further in the proceedings of the day, the members drove to Falkland Palace. Here Major Wood conducted the party round the interesting and picturesque buildings, and explained the thorough method of excavation and historical research that was being adopted in the work of restoration by the Marquis of Bute. Major Wood was accorded a hearty vote of thanks, and the members, after partaking of Dr. Mackay's hospitality, returned to Newburgh and dined at the Commercial Hotel.

Joint Meeting with Stirling Branch.—The invitation of the Stirling Branch to a joint meeting in July was accepted on behalf of the Branch by the members present.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

The annual meeting was held at St. Thomas's Hospital on May 30th, Dr. Hector Mackenzie, Vice-President of the District, in the chair.

Confirmation of Minutes.—The minutes were read and approved, and a statement of the year's work was given.

Election of Officers.—The following were elected officers for the ensuing year:—*Vice-President of District:* Dr. Hector Mackenzie. *Representative on Council of Association:* Dr. Percy Smith. *Honorary Secretary:* Mr. H. Betham Robinson. *Committee:* Dr. W. A. Atkinson, Mr. L. A. Dunn, Dr. H. E. Harris, Mr. Hugh Ker, Dr. Lewis Lewis, Dr. J. W. J. Oswald, Dr. Newton Pitt, Mr. R. Jocelyn Swan.

Vote of Thanks.—A vote of thanks to last year's officers was then proposed and carried.

Demonstration of Cases.—As the meeting was a clinical one the wards were now visited, and cases were demonstrated on by the following members of the staff:—Dr. Hawkins, Dr. Mackenzie, Messrs. Clutton, Makins, and Robinson.

Visit to Museum and School.—The meeting terminated by a visit to the museum and school.

SOUTH INDIAN BRANCH.

A meeting of this Branch was held in Madras on June 28th, 1894; Surgeon-Lieutenant-Colonel Browne, M.D., in the chair.

Election of President and Vice-President.—Surgeon-Major-General Sibthorpe was elected President, *vice* Surgeon-Lieutenant-Colonel Branfoot; and Brigade-Surgeon-Lieutenant-Colonel Price Vice-President, *vice* Surgeon Colonel Markey, C.B.

Communications.—Surgeon-Captain C. L. Williams related a case of Acute Intestinal Obstruction due to a Band, in a Hindu, aged 18. The abdomen was opened, and a band, the size of a large goose quill, was found in the umbilical and right hypochondriac regions. This had constricted the gut and caused the obstruction. The band was ligatured in two places and divided. The after-history was quite uneventful. The band evidently consisted of omphalo-mesenteric remains, and had it been patent at its intestinal end would have been the ordinary Meckel's diverticulum.—Surgeon-Major C. M. Thompson related a case of Pyrexia unaccompanied by any marked symptoms to account for it. The patient was a Hindu, aged 20. The only thing worthy of note appeared to be that throughout the illness there was a marked rise in the temperature in the middle of the day. From the day he came into hospital the patient never had a serious symptom of any kind. He never had the slightest sign of diarrhœa; he never was delirious, nor did he complain of headache. The pulse continued regular but rapid; throughout his illness it kept, with very little variation, at 120. Quinine was tried first in small doses, then in doses of 10 grains twice a day combined with digitalis; it never had the slightest effect on the temperature. Whenever the temperature rose to 103° F. he was sponged over with tepid water; and if it rose above 103° he was given 10 grains of phenacetin, which always had the effect of bringing it down. Salicylate of soda and bromide of potassium were tried, but apparently had no effect on the course of the fever. In the discussion which followed, the Chairman, Surgeon-Major Maitland, and Surgeon-Major Sturmer took part; the opinion was generally expressed that it was most probably a case of typhoid fever.—Surgeon-Captain C. L. Williams exhibited the following Pathological Specimens: (1) Thrombosis of both Middle Cerebral Arteries, from a male Hindu, aged 45 years; death due to cerebral softening and thrombosis. (2) Ulcerative Atheroma of Aorta with Thrombi Adherent. (3) Tuberculous Pericarditis from an old emaciated Hindu aged 50. (4) Circular Ulcers and Cicatrices of Jejunum, from a male Hindu, aged 40, who was admitted moribund to the General Hospital, Madras, with perforation of the bowels. The intestines were loaded with great masses of food, chiefly grain, hard and undigested, with ascarides lumbricoides mixed with it; in the first nine feet of the small intestine were eleven large circular healed or healing ulcers, forming cicatrices encircling the entire circumference of the bowel in the case of four of them, and causing constrictions; it was through the base of one of these that perforation had taken place. The next two feet of the intestine contained several punctate hæmorrhages, and the ankylostoma duodenale was present. It was considered probable that these most peculiar lesions were due to the bites of ankylostomata, a theory strongly supported by the punctate hæmorrhages below, which were certainly the work of that parasite, and the presence of the parasite itself. The body was not markedly anæmic. (5) A Vesical Calculus (calcium phosphate with a trace of uric acid) removed suprapubically from a male Hindu aged 16. Weight, immediately after removal, 2,507 grains, and next day dried, 2,463 grains; dimensions, $3\frac{1}{4}'' \times 2\frac{3}{4}''$.

The Honorary Secretary, for Surgeon-Major Browning, showed Specimen of Vesical Calculi from a Mohammedan girl aged 13. Lithotrity was tried, but the calculi were so hard that the greatest force with a powerful instrument failed to do more than chip off the end of one of the stones. Lithotomy was therefore performed, and the patient made an uninterrupted recovery. The calculi weighed $\frac{3}{4}$iss. Surgeon-Major Van Geyzel reported their structure to be the "usual uric acid calculi containing a small quantity of calcium and sodium probably as urates and a small quantity in combination with phosphoric acid."

A meeting was held in Madras on August 10th, 1894, Surgeon-Lieutenant-Colonel W. R. Browne, M.D., in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Communications.—The Honorary Secretary showed for Surgeon-Major Sturmer a child with a large Mole on right hand and arm.—Surgeon-Captain F. J. Crawford read notes on the Sequel to an Operation for Femoral Aneurysm. The patient was a Eurasian, aged 60, having no syphilitic history, and no recollection of severe strain. The general arterial system was degenerated and atheromatous, the arteries giving the feeling of a round, firm, solid cord. The aneurysm, fusiform in shape, was situated in Hunter's canal, and was apparently of only two months' duration. The superficial femoral was tied at the apex of Scarpa's triangle, and the immediate effect of the operation was as good as could be expected. On the seventeenth day after the operation the skin on the front and on the back of the leg

was seen to be darkened in colour. Gradually gangrene set in of the superficial structures to the extent of 3 or 4 square inches, before and behind, the two patches remaining distinct from one another. A line of demarcation formed, and the patient died of exhaustion and diarrhœa. A peculiar feature in the case was the absence of sensation and feeling of pain from the knee downwards, as the immediate result of the operation. Sensation was recovered only to a very slight extent before death.—Surgeon-Captain WILLIAMS read a paper giving the analysis of *post-mortem* examinations in the General Hospital, Madras, for the past eleven years. Surgeon-Captain Williams showed the following pathological specimens: (1) Pancreatic Apoplexy from a very fat male Hindu, aged 44 years. (2) Multiple Hydatids of Abdomen; the abdomen contained over 100 cysts; the spleen was converted into a mass of cysts, and weighed 8 lbs.; the liver contained six cysts; the omentum and pelvis contained a large number of cysts, firmly adherent. (3) Sac of a Cyst of the Abdomen, from a male Hindu aged 50. The cyst was opened during life, and gave exit to about 8 lbs. of grumous fluid, composed of blood corpuscles entire and broken down. The man died of shock.

SPECIAL CORRESPONDENCE.

PARIS.

The Stenches of Paris.—Lectures on Intemperance in Schools.—The Paris Water Supply.—French Hospital at Cairo.—General News.

WHILST the inspectors of nuisances are inquiring into the causes of the Paris stenches, the Conseil d'Hygiène practically treats nuisances as so evident that inquiry about them is not necessary. M. Nocard has been asked by the Conseil d'Hygiène to suggest a disinfectant not dear, easily applied, and free from danger, and capable of preventing the putrid decomposition of bones, broken meat, and *débris* of substances without depriving them of the properties which render them fit to be utilised for industrial purposes. After several experiments M. Nocard has decided on adopting a 2 per cent. zinc chloride solution. The disinfecting process will be carried out as follows: All butchers will be called upon to provide themselves with a large wooden vat of a capacity of 120 litres, in which will be mixed 2 litres of fluid zinc chloride at 40° with 100 litres of water. One hundred litres of this disinfectant costs only 2 francs; it does not require frequent renewal to replace that saturated with *débris*; all that is necessary is to add a sufficient quantity of a 2 per cent. solution kept ready for use. The Conseil d'Hygiène suggests that pork butchers and butchers be compelled to take these precautions.

The Minister of Public Instruction has favourably received the proposition of Dr. Roubinovitch, to organise "Conférences Scolaires" on the fatal effects of intemperance, and has authorised him to lecture at the École Normale d'Instituteurs d'Auteuil, and in the boys' superior primary schools. The first lecture will be given at the École Turgot to 280 of its pupils. The masters and the director of the school will attend the lectures.

The Chamber of Deputies has voted the law authorising the City of Paris to utilise the water springs of the Loing and Lunain valleys in the Department of the Seine and Marne for increasing the Paris water supply. The total sum expended will be one million pounds sterling, or twenty-five millions of francs. This expense will be borne by the City of Paris.

M. Cogardan, the French Minister at Cairo, is carrying on the scheme of organising a French hospital, set on foot by his predecessor the Marquis of Reverseaux, who contributed the sum resulting from a subscription to give him the Cross of a Commander of the Legion of Honour in diamonds, and added to it a personal donation. M. Hanotaux has, on the solicitation of M. Cogardan, promised to do his best to obtain for the Cairo Hospital Fund a grant from the *Pari Mutuel*.

The Minister of Public Instruction has signed the law concerning the constitution of Universities, passed in 1893. The fees resulting from the University curriculum will be utilised to defray laboratory and library expenses, and to create new chairs. The fees resulting from passing examinations and diploma fees will be paid to Government.

The Municipal Council has voted £500 for the Sanitary Exhibition of 1895, to be held at the Palais de l'Industrie. The sum will be utilised in the following manner: £200 for helping the organisation of the exhibition, £120 for the service of healthy dwellings, £64 for the Montsouris Observatory, and £60 to the Police Prefecture.

CORRESPONDENCE.

THE ABUSE OF HOSPITALS.

SIR,—The *Standard* of June 24th contains a letter from the editor of the *Hospital*, in which he states that after the most careful calculation he has found that the actual number of persons treated at the metropolitan hospitals, including Guy's, St. Thomas's, and St. Bartholomew's, in 1893, was 1,695,276, and that these figures represent patients treated, not attendances, and are as precisely accurate as it is possible to make them. In the same paper is a letter signed "A Surgeon," which speaks of these figures as representing "half the population of London," and suggests that as they cannot be all so poor as not to be able to pay their doctor, a certificate should be exacted, with the hospital letter, stating the bearer's wages.

The question has, of course, been long argued on both sides, it being urged at first that these enormous figures should be divided by at least three in order to give the number of separate persons. This is plainly wrong. The figures are, no doubt, taken out of the reports of the hospitals, and profess to give the accurate number of separate individuals; they are, however, liable to two deductions if compared with the population of London, namely: (1) That many persons go the round of several hospitals; and (2) that many come from the country. And, after all, the figures above quoted are nearer one-third than one-half of the population of London. Still there can be no doubt that they are more than the out-patient departments ought to accommodate, for as to the proportion treated as in-patients, there is no numerical excess alleged.

But it is very doubtful whether the simple production of "a certificate" relating to wages would have any effect whatever. Nor is the abuse of the out-patient department a question of wages only. That there is a certain, or rather a very uncertain, proportion of persons capable of paying fees who prefer to attend as out-patients for nothing, is extremely probable; but that it is a large proportion has never been proved, and is very improbable. The discomfort, crowd, and delay of our out-patient rooms are sufficiently deterring to most well-to-do persons. An inquiry has recently been conducted at the Royal Free Hospital by an almoner sent there by the Charity Organisation Society with the co-operation of the hospital, to see how many could afford to pay the fees of provident dispensaries—a much more promising plan than the production of a certificate—and the experiment has proved so satisfactory that we believe it will be shortly repeated, and will be adopted by other hospitals.

But besides the pecuniary aspect of the matter, there is the much more important question whether most of the cases are medically appropriate for hospital treatment. As our out-patient departments are now organised, the patients get an average of the medical officer's time which is popularly reckoned by seconds rather than minutes—at any rate, is very short. They get a bottle of physic or some lotion or ointment, but there is no possibility of hygienic treatment, and no provision of nourishment or stimulants. Now much of the sickness being due to intemperance, insufficient clothing, bad habits, bad food and poverty, is not susceptible of this rough and ready treatment, but, as far as it is within the reach of treatment at all, must be treated at home. The Poor-law dispensaries have the advantage over the out-patient departments that they give nourishment and stimulants, and there can be little doubt that a large proportion of the out-patients should go there. But there is a strong prejudice against all the institutions of the Poor Law among the working classes. Still, no reform will be efficient which does not make proper use of these dispensaries; and if provi-

dent dispensaries were set up all over London on terms satisfactory to medical practitioners and admitted to co-operation with the hospitals, another great step would have been made towards reform, meaning by "co-operation" that the hospitals would send applicants to the dispensaries, and would give advice, and if necessary treatment, to patients whom the dispensaries refer to them.

But no reform of the out-patient departments can possibly be complete which does not originate from the combined action of the whole body of the hospitals, and hence the grave importance to the cause of our metropolitan hospitals of the institution of some such consultative and regulative body as was suggested by the report of the Lords' Committee. For the successful action of such a body, it is not only not necessary that its action should be compulsory, but it is necessary that it should not be so. The free action of each member of the hospital community is essential. It is necessary, however, that there should be some means of ascertaining and of expressing the deliberate opinion of hospital managers (lay and medical) on all matters of hospital management, of which the out-patient question is confessedly the most important. When this is done public opinion may be confidently trusted to settle the question for the best in interest of the patient, the hospital, and the State.—I am, etc.,

TIMOTHY HOLMES,
Sussex Place, W., June 25th. Treasurer of St. George's Hospital.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

SIR,—At the annual general meeting of the members of the South-Eastern Branch held at Hastings on June 12th, donations of twenty guineas were voted for the Royal Medical Benevolent College and for the British Medical Benevolent Fund.

If the claims of these two great charities were brought forward at the annual general meetings of the various Branches and subscriptions, however small, then invited to be sent through the Branch secretaries or treasurers I feel persuaded most substantial support would accrue.

It is satisfactory to know that several of the Branches now make annual grants, to the great benefit both of the College and of the Fund.—I am, etc.,

June 17th. A GOVERNOR.

THE *INDEX MEDICUS*.

SIR,—Mr. George S. Davis, who, since January, 1885, has at very heavy loss maintained that most valuable aid to all working medical men, the *Index Medicus*, announces that he does not see his way any longer to continue losing 2 000 dollars a year for the sake of the profession.

It will be remembered by many that in 1893 Mr. Davis intimated that unless more subscriptions came in he would be obliged to discontinue the publication; and it was hoped that the many members of the profession in this country, who have obtained invaluable help from the *Index*, would have felt it their duty as well as their interest to have subscribed liberally enough to have enabled Mr. Davis to persevere with his great public service. This hope has not been realised.

The *Index* has become absolutely indispensable, and the loss of it means that in reference hunting we shall have to remember twenty or thirty different sources of information, and search through all of them, instead of, as hitherto, finding everything in the clearly printed pages of the monthly *Index*.

I have written to Dr. Billings, whose power for organising index work is well known, urging him to take steps to have the *Index* carried on on a non-commercial footing, and to endeavour to obtain subscriptions from scientific societies and scientific workers for its maintenance; and I should be glad to know what measure of support might be expected in this country for such a scheme. If £400 a year could be guaranteed from this country the *Index* could be continued, and I think it will be a shame to English medicine, which has derived so much benefit for the last fifteen years from this great American enterprise, if such a small sum should not be forthcoming. Every medical society should regard it as a duty to subscribe at least two guineas to maintain the *Index*, and the rest should easily be made up by the subscriptions of medical men who would be glad to have this important aid at their elbow. I should be grateful to hear from those willing to support the *Index* by an annual subscription, and will forward their offers to Dr. Billings, who, I feel sure, will not allow the *Index* to be lost without a struggle.—I am, etc.,

J. Y. W. MACALISTER,
Resident Librarian of the Royal Medical and Chirurgical Society.

Hanover Square, W., June 25th.

THE LANCASHIRE AND CHESHIRE BRANCH AND MIDWIVES REGISTRATION.

SIR,—I regret that I have not been able, by referring to any of the sources of information to which Drs. Hughes and Colin Campbell direct my attention in the BRITISH MEDICAL JOURNAL of June 22nd, to obtain evidence of the implied superior accuracy of their statements to my own concerning the petition on the midwives question submitted by them to the General Medical Council on May 29th, 1895.

They refer me, for example, to the Minutes of the General Medical Council for June 29th, 1895, for a proof that the petition was signed by the Acting President and the Honorary Secretary of the Lancashire and Cheshire Branch. Their reference to such a date is, of course, an unintentional slip; but I have referred to the reports of the Council's proceedings (as given in the BRITISH MEDICAL JOURNAL) not only for May 29th, 1895, which I thought might be intended, but for the whole of 1894 as well, and I fail to find any confirmation of their statement. Nowhere, so far as I have been able to discover, is a petition published with the names of those officers attached to it. I thought it possible that the reference, though specifically set forth as June 29th, 1895, might have been mistakenly given for June 29th, 1894, but found that the Council was not in session at that date. Such a slip as the above would not, perhaps, have been worth noticing but for the severe dictum of the gentlemen who have committed it that "such inaccuracies in dealing with an important public question are inexcusable."

But a more serious slip on their part as affecting my supposed inaccuracy as against their accuracy has to be mentioned.

I am referred by them to what took place at the Liverpool Medical Institution on May 11th, 1894, which it is presumed I "can hardly have forgotten," seeing that I "proposed a contrary motion." It is quite true that I have not forgotten what took place then, and it is simply because I have not forgotten it that I felt, and still feel, surprise at the petition which was presented. But I cannot help thinking that Drs. Hughes and Campbell must have forgotten at least a portion of the proceedings, for I will not for a moment believe that in their report of them they have intentionally stopped just short of the very words which give my objection to the petition all its force. The words which they quote are that the Committee be empowered to "petition.....other representative bodies." The words which followed, but which they do not quote, because, as I believe, notwithstanding their efforts to be accurate, they must have forgotten them, are "that such petition be signed on behalf of the Branch by the President and Honorary Secretary of the Branch and the Chairman and Honorary Secretary of your Committee."

It was the absence of the names of the President and the Honorary Secretary of the Branch from the petition—as reported in the BRITISH MEDICAL JOURNAL of June 1st—that made me feel certain that it could not be the petition sanctioned by the meeting of May 11th, 1894. The names of those officers were by the terms of the resolution made an essential condition, without which the petition could have no validity as emanating from the Branch, and, as they were not appended to the report of it—as published in the JOURNAL—only one of two conclusions seemed possible, namely, either that it had been presented to the officers in question and that they had declined to sign it, or, as I thought more probable, that it had been erroneously designated a petition of the Branch while in reality it was only a petition of a Committee of the Branch. Errors of the kind may easily be fallen into, and I thought it likely that one must unintentionally have been committed in the present instance.

If, however, the names of the acting President and the Honorary Secretary—though really appended to the petition, as I understand Drs. Hughes and Campbell to state—were

nevertheless suppressed from the published report of it, an error in supposing them not to have been appended surely cannot be chargeable on those who had no other sources of information but such as the public report supplied. for I do not suppose that it would enter into the mind of any man to conceive that the two names which alone could give the petition validity under the title assumed for it would be the only two names which the Committee would be careful not to publish. But for that unique act of modesty on the part of a public body my former letter would, of course, have been somewhat differently worded.

Much as I regret controversy, I am, however, glad that this circumstance has occurred, as it has afforded me the opportunity of expressing my very strong dissent—and I know that a great number of the members of the Branch agree with me—from the terms of a petition which desired the General Medical Council to stigmatise as guilty of infamous conduct gentlemen of the highest personal and professional character and qualifications, simply because, at great sacrifice of time and labour, they have for years done what they could to mitigate some of those "horrors" which the distinguished President of the Council spoke of as being perpetrated by "ignorant and uneducated women" who act as midwives.—I am, etc.,

Liverpool, June 22nd. WILLIAM CARTER.

MIDWIVES REGISTRATION AND THE MIDWIVES BILL.

SIR,—Dr. Havell accuses me of misrepresenting and misquoting his letter, and therein he misrepresents me. I think dentistry was, is, and always will be, a "special branch of surgical practice," and I feel sure that it would have been much better if, instead of forming a *Register* to which great numbers of utterly uneducated persons were admitted, the practice of dentistry had been restricted to qualified surgeons, with a special training in dentistry. This would have relieved the overcrowding of the medical profession, and made the dental profession far above what it is. There would have been no lack of dentists and they would have been worthy of the title of "dental surgeons."

Dr. Holden's letter touches what I am certain would be an incalculably disastrous result of the Midwives Bill if it became law. I mean the employment of midwives by medical men as their assistants or subordinates. Of late the spasmodic severity of a weak-kneed General Medical Council has done something to diminish the employment of unqualified assistants; but no objection could be made to the employment of registered midwives, and there would be no possibility of preventing their dispensing and assisting in medical and surgical work. Again; there can be no doubt that, should the Midwives Bill become law, large charitable institutions would be established in various districts of large towns, which would send out registered midwives free of charge, or for a few shillings, to anyone who wished it. These institutions would be provided with a staff of obstetric consultants, who could be called in to cases of great emergency. The medical staff would, of course, give their services gratuitously, and would be recouped by the practice which their position would bring them among the rich people in the district. There are thus two classes in the medical profession who may benefit by the proposed law, obstetric consultants and cheap dispensary doctors. The respectable general practitioners will, as usual, go to the wall. That the above is a fair statement of what would certainly result is only too manifest, and, as far as the public are concerned, this change will mean, as usual, a paltry saving of money to the loss of the medical profession, and at the cost of health and lives to the public.—I am, etc.,

Highgate, June 23rd. HUGH WOODS.

SIR,—As your readers must be suffering from a surfeit of midwifery literature, I would respectfully beg my friend Dr. Lovell Drage to apply to Dr. Helme or to study his evidence before the General Medical Council,[1] in order to be convinced "that the evils of the present system are terrible, and the need for reform urgent," which words of mine he has done me the honour to quote in his letter of last week.

[1] BRITISH MEDICAL JOURNAL, June 1st, p. 1245.

As to his comparison of the bills of mortality of different countries, in connection with the puerperium, having had to study death returns as part of my business, and knowing a good deal privately of the value of medical certificates in this connection, I can only express my astonishment that he should put any value whatsoever upon such slippery data. If I were compelled to give an opinion I would have very reluctantly to confess that the German tables were most probably a great deal more reliable than our own, and consequently the puerperal deaths, as such, more numerous. I hope you will allow me to say again, Sir, that I look with suspicion on the present Midwifery Registration Bill, and that it will not satisfy me without large and important amendments.—I am, etc.,

Dingwall, June 25th. WILLIAM BRUCE.

ERRATUM.—In Dr. Atthill's letter on Midwives Registration and the Midwives Bill in the BRITISH MEDICAL JOURNAL of June 22nd, page 1418, column 1, line 18, for "competent" read "incompetent."

PROPOSED REGISTRATION OF STILLBIRTHS.

SIR,—In the BRITISH MEDICAL JOURNAL of April 6th, 1895, in the course of a paper on the proposed registration of stillbirths, Dr. R. R. Rentoul states that "in New South Wales infants of six months' intrauterine life and upwards, when stillborn, must be inspected and registered." Dr. Rentoul is mistaken in this, as stillbirths are not registered in New South Wales at all. Nurses and others, no matter how incompetent or illiterate, are permitted to give certificates of stillbirth, but such certificates are only necessary when the body is to be interred in a cemetery, and are then demanded by the cemetery authorities only. A stillborn child may be buried in a back yard or other convenient spot, just as a dead cat or vermin may be interred, for a stillborn child is, in law, not a human being.

Not long ago a Bill was introduced in the Legislative Assembly in Sydney which provided for the registration of stillborn children but it was promptly thrown out. On this occasion a Minister of the Crown made use of the following words: "I for one would consider very seriously before I gave my consent to a proposal which apparently is intended to blast the life of any young girl who, perhaps under the promise of marriage or great temptation, happens to be placed in a position which would render her liable to such a provision as that. The hon. member proposes that although no harm is done to anybody, and there is no insinuation that the child has been got rid of, yet, if a miscarriage takes place, the unfortunate single woman shall perhaps be blasted for the rest of her life by having that episode in her life registered in the public records of the colony." I fear there is very little hope of such a measure becoming law in New South Wales.—I am, etc.,

GEORGE LANE MULLINS, M.A., M.D.Dubl., etc.

Waverley, N. S. Wales, May 15th.

CLUBS AND THE PROVIDENT PRINCIPLE.

SIR,—Had the subject of discussion between Dr. Forsyth and myself been one of less professional importance—namely, the right of our profession to manage its own affairs without the interference of commercial sweaters and speculators, whether well-intentioned or otherwise, I should certainly have treated his communication in the BRITISH MEDICAL JOURNAL of May 25th with that silence which is sometimes more eloquent than words.

The admitted loss, and a very heavy one I am sure, inflicted by the Manchester and Salford Provident Dispensary system upon the practitioners of the district cannot be made a matter of accurate computation. In stating it, directly or indirectly, at £11 000 per annum, I merely exercised the right of private judgment, and it certainly was not an ill-informed judgment.

My perfectly polite, and, so far as Dr. Forsyth is now concerned, completely justified criticism of our local provident dispensary system, Dr. Forsyth has construed into a personal attack upon himself. Having, however, no personal interest in the matter, and never having had any quarrel with Dr. Forsyth, I may be permitted to protest against so gratuitous an assumption. As for the *rôle* which I am supposed to have played, I am glad to be able to state that, at the Pendleton

Dispensary, the medical appointments are now open to all the qualified medical men residing in the district, and the admission of patients will also in future be under their control. I can assure Dr. Forsyth that I regard it as a high honour to have been permitted to assist, however remotely, in rescuing the profession there from the hand of the sweater. I am well content, therefore, to allow your readers to judge the merits of our respective *rôles*, and I shall also leave them to determine which side during this discussion has displayed "arrogance," to say nothing of ignorance.—I am, etc.,

Salford, May 26th. WM. FRASER.

THE HERO OF MAJUBA HILL.

SIR,—The owner of this proud title was Surgeon Landon (not "Langdon," as you have twice put it to-day), and a tablet is erected to his memory in St. Bartholomew's Hospital. Arthur Landon's mother and my wife's father were first cousins, and accordingly I had the privilege, which I rejoice to recall, of shaking hands with this brave young fellow just before he set out for the Cape. I believe I am right in saying that when, on the approach of the Boers, the militant representatives of this country deserted their commander and ran helter-skelter down the hill, Surgeon Landon stood calmly beside Sir George Colley. The latter was shot dead on the spot, and at the same moment a bullet crashed through Landon's spine, completely paralysing his lower extremities, but leaving him a few hours of life and consciousness. I believe it was one of the enemy, a Boer, who was, as you describe, his last patient, and that Landon was so annoyed at the bungling attempts made to inject morphine to soothe the poor Boer's agony that he exclaimed: "Here, prop me up, and let me do it." He himself, however, speedily succumbed to the effort, and before breathing his last said to one of the bystanders: "Tell those at home that I died doing my duty." His was a truly noble example, and it ill becomes his comrades in arms to be discourteous to the branch he represented.—I am, etc.,

Kingston-on-Thames, June 22nd. D. BIDDLE.

PUBLICATION IN THE LOCAL PAPERS OF THE NAMES AND QUALIFICATIONS OF HOSPITAL STAFFS.

SIR,—Although you have several times in your columns condemned the practice of the officials of provincial hospitals publishing the names of the honorary staff in the local lay papers, yet this custom still prevails at Grimsby; and each day, with the exception of Monday, we see published in one or other of our local papers the names and qualifications of two or three surgeons included in the hospital paragraph.

There are six honorary surgeons connected with the Grimsby and District Hospital, and their names appear in pairs, each pair being advertised daily, Mondays excepted, for a fortnight. I enclose a cutting, the usual announcement, from the *Grimsby News*, which illustrates the process. I don't for one moment think the medical gentlemen are responsible for the practice, but I think if you could find space for this letter, and express your opinions on the question, the matter would be brought to the notice of the hospital officials, and this objectionable custom would be put a stop to.—I am, etc.,

MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

Grimsby, May 22nd.

*** We can only reiterate the opinion that the practice is one which, in the best interests of the profession, ought not to be countenanced.

DRAINAGE IN ABDOMINAL SUPPURATION.

SIR,—In his interesting remarks on drainage in abdominal suppuration in the BRITISH MEDICAL JOURNAL of May 25th, Mr. Barker makes the following statement: "We know, for instance, that many cases in which inflammation starts in the vermiform appendix, and reaches the stage of suppuration, get well without any operation, the inflammatory products being absorbed."

Personally I am unable to accept this statement, and I believe it would add to the value of his communication if Mr. Barker would give the reasons for his conclusion. The matter is of considerable interest, as it may lead practitioners to regard operation for appendical abscess as unnecessary if many of these cases get well without interference. If Mr. Barker is wrong, the influence of his teaching may lead to disaster.—I am, etc.,

Birmingham, May 27th. GILBERT BARLING.

THE INOCULATION OF TUBERCULOSIS BY TATTOOING.

SIR,—The report of three cases in which tuberculous inoculation is supposed to have taken place from tattooing, by Drs. D. W. Collings and Murray, which appeared in the BRITISH MEDICAL JOURNAL of June 1st, is important, especially to those interested in the question of direct tuberculous inoculation. There are several points in connection with the report which appear to me more or less worthy of argument. In the first place, are we at liberty to assume that a pustular eruption, such as described by Drs. Collings and Murray, is due to tubercle bacilli without the actual demonstration of the bacilli in the pus or in the tissue obtained from the seat of the lesion? Is there any proof that living and active tubercle bacilli are active pus producers at all? Of course it is well known and has been pointed out by Koch that pure cultivations of tubercle bacilli which have been killed by heat or by certain chemicals when suspended in water and injected into animals, "are among the simplest and most certain methods of producing suppuration free from bacteria," but the question is whether living and active tubercle bacilli have a similar active pus-producing power. My own experience as regards the highly susceptible animal, the guinea-pig, leads me to think that this is not, at any rate of necessity, the case.

In the well-known and now classical case of direct tuberculous inoculation reported by Dr. Tschering,[1] in which the infection occurred through a wound made by a fragment of broken glass from a vessel which had been filled with tuberculous sputum teeming with bacilli, the author distinctly stated that the signs of commencing whitlow which followed the inoculation cleared up "without suppuration" (the wound was situated upon the palmar side of the first phalanx of the middle finger). If in the present cases it is not assumed that the suppuration was set up by tubercle bacilli, upon what does the supposition of inoculated tubercle rest? If the ordinary pus-producing organisms gave rise to the pustules, why should they not have been the cause of the other phenomena? This brings us to the second query, does the fact of the enlargement of the epicondylar and axillary glands sufficiently indicate that the infection of the skin was tuberculous? Would not the glands have become enlarged if a considerable tract of skin had been inflamed, even supposing the absence of tubercle bacilli? Thirdly, can the condition of the infected area after removal of the scabs be considered as typical of tuberculous inoculation, namely, "deep ulcers with hard, round, smooth edges and granulating bases?" Finally, as regards the presence of giant cells in the corium of a piece of skin removed from one of the patients, would this be sufficient evidence of the tuberculous process in the absence of tubercle bacilli? Failing the actual demonstration of tubercle bacilli it appears to me that the only way definitely to prove that the phenomena observed were really indications of tuberculous infection would be the after-history of the patients showing the genesis of tubercle in the body generally. It would be of considerable interest, therefore, if the authors would endeavour to follow up the cases in order to see whether or not tuberculosis is following upon the initial lesions.—I am, etc.,

VINCENT D. HARRIS, M.D., F.R.C.P.

Wimpole Street, W., June 11th.

"THE REALITY OF APPARENT DEATH."

SIR,—I have considered it always a weak point in the matter of death certification that practitioners sometimes grant certificates without having personally verified the fact of death. Of course entire and continuous cessation of the heart's action is undoubted evidence of death, but I should be much interested to know the longest period during which there may be cessation of the heart's action and yet resuscitation be possible. Is the feeling of the pulse a sufficiently

[1] *Fortschritte d. Medicin*, vol. iii, No. 3, 1885.

delicate test to denote conclusively cessation of the heart's action? In a doubtful case, say in a cat, we may experimentally test the point by means of a penholder with a needle at one end and a square of white paper at the other end, piercing the ventricle through the chest wall with the needle and watching the oscillations of the indicator, as being more delicate than the feeling of the pulse. We cannot apply such a test to the human subject. You quote a leading authority to the effect that "it is impossible to admit that the heart can remain for even half an hour in a state of absolute inaction in a human being and then spontaneously recover its activity." With this proposition I incline to agree, but, then, has any practitioner ever sat by the bedside of a dying patient with his finger on the pulse for half an hour? May pulsation cease for half an hour with the exception of some few fluttering beats at rare intervals which may be overlooked in the ordinary routine of practice? I once resuscitated a dog and kept it alive for four hours after "it was reported by one of the laboratory porters that the dog had been 'dead' for some time, probably for about fifteen minutes. The body was quite warm but respiration and circulation had certainly ceased, and the forelegs were stiff."—I am, etc.,

Seymour Street, W., June 22nd. CHARLES E. JENNINGS.

THE ETIOLOGY OF ENTERIC FEVER.

SIR,—In connection with the etiology of enteric fever in India there are two points which have lately been discussed. I shall feel grateful for a pronouncement on them.

1. Has the occurrence of cases of enteric fever ever been traced to an impure butter supply?

The evidence as regards milk being a carrier of enteric fever is now conclusive, but, as regards butter, I cannot discover that it has ever been proved responsible for an outbreak of enteric fever. I will put the case I have in my mind, as follows: A family draws its milk and butter from different sources. The milk is found to be above suspicion: the butter has been made from milk polluted by enteric fever dejecta. I have not the least doubt but that such butter would give enteric fever to those partaking of it, but I can find no evidence of an epidemic being so traced.

2. The milk-giving cattle in India are very foul feeders; it is by no means uncommon to see such cattle feeding on human dejecta.

We will suppose that such dejecta are derived from an enteric fever patient. What would the effect be on the milk of the cattle? Would their milk, however carefully drawn, be capable of originating enteric fever?—I am, etc.,

R. H. QUILL,
Surgeon-Lieutenant-Colonel, A.M.S.

Mhow, Central India, May 18th.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

EXAMINATIONS FOR MEDICAL AND SURGICAL DEGREES. EASTER TERM, 1895.—FIRST EXAMINATION:

Part I. Chemistry and Physics.—Almond, Emm.; Attlee, Joh.; R. L. Bell, B.A.; Pet.; Bemrose, Joh.; Boulton, Trin.; Bréhaut, H. Selw.; Carey, Gonv. and Cai.; Carroll, Trin.; E. R. Clarke, Joh.; Coare, King's; Cooper, Trin.; Crimp, Gonv. and Cai.; Crompton, Gonv. and Cai.; Dunne, Queens'; Ede, King's; S. H. Gibson, Jes.; Gordon-Smith, Trin.; Greig, B.A., Jes.; Hadfield, Trin.; Hill, Emm.; Holmes, Gonv. and Cai.; C. R. Howard, Pemb.; H. T. James, Trin.; Larner, M.A., Pemb.; Leech, Christ's; Levy, Joh.; Maclaren, Trin.; Malim, Christ's; Manser, Pet.; J. C. Matthews, Joh.; Mellor, King's; Miller, Trin.; Mummery, Gonv. and Cai.; J. C. Newman, B.A., Trin.; Newton, Pemb.; Perkins, H. Aye.; Roberts, Christ's; H. J. Robinson, Joh.; E. A. Ross, Trin.; Sanger, Joh.; C. A. St. J. Scott, Trin.; Scott, Christ's; Spanton, Trin.; Spens, Trin.; Stirling-Hamilton, Jes.; Thornton, Trin.; Upward, Christ's; R. H. Urwick, Trin.; W. D. Ward, Joh.; Warren, Joh.; Weir, Trin.; Whitmore, Gonv. and Cai; Wilgress, H. Selw.; H. M. Wilkinson, Joh.; J. A. Wilkinson, Gonv and Cai; R. F. Williams, Gonv. and Cai.; W. H. O. Woods, H. Selw.; Wright, Christ's.

Part II. Elementary Biology.—Ainsworth, B.A., Pemb.; Atkinson, Gonv. and Cai.; Attlee, Joh.; Badcock, B.A., Cath.; Barnett, Joh.; Bate, King's; Beckett, H. Selw.; Bentley, Emm.; Bigge, Trin.; Boulton, Trin.; Bousfield, Pemb.; Bréhaut, H. Selw.; Brydone, Jes.; Buckle, Gonv. and Cai.; Buttar, Pemb.; Carey, Gonv. and Cai.; Causton, Emm.; Cave-Moyles, Gonv. and Cai.; Child, Pemb.; E. M. Clark, Trin.; H. Clark, Trin.; E. R. Clarke, Joh.; Coare, King's; Colyer, M.A., Cath.; Crimp, Gonv. and Cai; Crompton, Gonv. and Cai.; Dunlop, Sid. Suss.; Eastwood, Joh.; Edwards, Down.; Elliston, H. Aye; Emerson, Gon. and Cai.; Falkner, Pet.; Fehrsen, Gonv. and Cai.; Geoghegan, Gonv. and Cai.; S. H. Gibson, Jes.; Gilbart-Smith, Trin.; Gordon-Smith, Trin.; Graham-Smith, Pemb.; Greene, Corp. Chri.; Greig, B.A., Jes.; D. G. Hall, Emm.; Hall-Edwards, Gonv. and Cai.; Heffer, Sid. Suss.; Hill, Emm.; Hindle, Corp. Chri.; C. R. Howard, Pemb.; H. L. S. Hulbert, B.A., Trin.; N. H. Illingworth, Cla.; Ingram, Trin.; Kelsey, Pemb.; Knobel, Trin.; Larner, M.A., Pemb.; Leech, Christ's; Levy, Joh.; Linnell, H. Selw.; Maclaren, Trin.; Malim, Christ's; H. N. Matthews, Joh.; J. C. Matthews, Joh.; Mellor, King's; Murray, Joh.; Neatby, M.A., Joh.; J. C. Newman, B.A., Trin.; Pitkin, Jes.; L. Reynolds, Trin.; Richmond, Cla.; Roper, B.A., non-coll.; Scott, Christ's; Shipman, Trin.; Shipway, Christ's; T. D. Smith, Jes.; Spanton, Trin.; Spurrier, Gonv. and Cai.; Tillard, Pemb.; Trigg, Christ's; R. H. Urwick, Trin.; Wacher, Joh.; Warren, Emm.; Weatherhead, Joh.; Weir, Trin.; Whitmore, Gonv. and Cai; H. M. Wilkinson, Joh.; J. A. Wilkinson, Gonv and Cai; Willan, Emm.; R. F. Williams, Gon. and Cai.; W. H. O. Woods, H. Selw.; Wright, Christ's.

SECOND EXAMINATION.

Part I. Pharmaceutical Chemistry.—Arkle, B.A., Trin.; W. P. S. Branson, Trin.; Burfield, Emm.; Carver, B.A., Cla.; Cheadle, Gonv. and Cai.; J. S. Clarke, Gonv. and Cai.; Cole, B.A., Corp. Chr.; Coleman, Trin.; Curl, Down.; Dale, Trin.; Flook, Trin.; Fuge, B.A., H. Selw.; Gaitskell, B.A., Cla.; Gillespie, Joh.; Glenn, Pemb.; Glover, Joh.; Harman, non-coll.; Howitt, Joh.; G. H. Hunt, B.A., Cla.; J. Johnston, Trin.; Kellie, Gonv. and Cai; Killick, Trin.; J. L. Lock, Gonv. and Cai.; Martineau, Emm.; G. Micklethwait, Trin.; Paterson, Gonv. and Cai.; Pearson, Emm.; Plachecki, Christ's.; Roderick, B.A., Emm.; Sellon, Gonv. and Cai.; Style, Emm.; Susmann, Gonv. and Cai; T. P. Thomas, Gonv. and Cai.; Topham, Christ's.; Trevor, B.A., Cla.; R. F. C. Wade, Joh.; Watts-Sibester, B.A.; Gonv. and Cai.; West, Christ's; T. Wood, Gonv. and Cai.

Part II. Human Anatomy and Physiology.—Allan, B.A., Gonv. and Cai.; Ambrose, B.A., Cla.; Barnes, Christ's; Bassano, B.A., Trin.; S. S. F. Blackman, B.A., Joh.; W. D. Chapman, B.A., Corp. Chr.; Corner, B.A., Sid. Suss.; Denyer, B.A., Queens'; A. H. Donaldson, B.A., Gonv. and Cai.; Dore, B.A., Joh.; Fawcett, M.A., Pet.; Forbes, B.A., Christ's; Gilmore, B.A., Trin.; Grosvenor, B.A., Trin.; Hart-Smith, Gonv. and Cai.; Kemp, Cla.; Lindsay, B.A., Sid. Suss.; MacCallan, B.A., Christ's; H. D. O'Sullivan, Emm.; S. P. Pollard, B.A., Gonv. and Cai.; Prest, Joh.; P. B. Reckitt, B.A., King's; Reissmann, Joh.; Rigby, Gonv. and Cai.; Scowcroft, B.A., Gonv. and Cai.; Sheweil, B.A., Trin.; Shrubsall, Cla.; F. W. Sumner, Joh.; Talbot, B.A., King's; Tallent, Joh.; W. K. Wills, B.A., Joh.; W. R. Wilson, B.A., Corp. Chr.; Winkfield, B.A., King's.

THIRD EXAMINATION.

Part I.—N. G. Bennett, B.A., Joh.; Biss, B.A., King's; Evans, B.A., Trin.; G. H. Field, B.A., Cla.; Fletcher, B.A., Gonv. and Cai.; Giles, B.A., Pet.; Guinness, B.A., Gonv. and Cai.; Hadow, M.A., Gonv. and Cai.; K. J. E. Hanson, Trin.; Hobday, B.A., Christ's; L. T. R. Hutchinson, B.A., Trin.; Key, B.A., Emm.; Lance, B.A., King's; Lawrence, B.A., King's; McCarthy, B.A., Gonv. and Cai.; H. J. May, B.A., Gonv. and Cai.; Muir, B.A., King's; P. K. Nix, B.A., Pemb.; Ormerod, B.A., Trin.; Parker, B.A., Gonv. and Cai.; Pentreath, B.A., Queen's; E. Ransome, B.A., Cla.; Ransome, B.A., Gonv. and Cai.; J. A. K. Renshaw, B.A., Trin.; A. Rotherham, B.A., Trin.; Sing, B.A., Christ's; Sladen, M.A., Gonv. and Cai.; K. S. Storrs, B.A., Emm.; Sturrock, B.A., Gonv. and Cai.; Sworder, B.A., King's; C. A. H. Thomson, B.A., Christ's; Verdon, B.A., Jes.; Watson, B.A., Trin.; Woodhouse, B.A., King's.

Part II.—A. P. Beddard, B.A., Trin.; Burrell, B.A., Gonv. and Cai.; W. G. Clark, M.A., Down.; J. W. Cornwall, B.A., Trin.; L. G. Davies, B.A., non-coll.; H. J. Davis, B.A., Trin.; Dobie, M.A., Gonv. and Cai.; Eichholz, B.A., Emm.; Garrad, B.A., Cla.; Langmore, B.A., Joh.; S. H. Long, B.A., Gonv. and Cai.; McCardie, B.A., Gonv. and Cai.; Murphy, B.A., Gonv. and Cai.; Ormerod, B.A., Trin.; W. G. Richards, B.A., Christ's; Sedgwick, B.A., Cla.; Smallwood, Gonv. and Cai; C. B. Stewart, M.A., Christ's; Tatham, B.A., Gonv. and Cai.; Trethewy, B.A., Gonv. and Cai.; J. McD. Troup, B.A., Pemb.; H. F. B. Williams, B.A., Gonv. and Cai.; G. V. Worthington, B.A., Pemb.; Wrangham, B.A., Emm.

UNIVERSITY OF EDINBURGH.

THE *University Calendar* for 1895-6 was published on June 25th. It has grown in bulk to the extent of 46 pages. The changes that bear on the medical profession will be fully set forth in the Educational Number of the BRITISH MEDICAL JOURNAL.

The written examinations for final degrees (M.B., C.M.) in medicine took place last week, and since that time the *viva voce* examinations in the various systematic courses (medicine, surgery, midwifery, gynæcology, hygiene, medical jurisprudence), as well as those in clinical surgery, have been going on. Among students there seems to have been general satisfaction with the fairness of the written papers. If an exception was made it was regarding the paper on medical jurisprudence and public health. As usual there was grumbling over the examinations in clinical medicine, one examiner being selected as the butt for most of the grumbling. This, unfortunately, is a chronic condition. How much there is in the mere mannerism of the examiner we are unable to say. So difficult, however, is examining, that one professor in the University of Edinburgh has been heard to say that men are not fit to examine, and that the angels should come down to examine for the final.

UNIVERSITY OF DURHAM.

THE new charter granted by the Privy Council to the Senate of Durham University has been issued. The principal recital empowers Convocation to grant degrees (degrees in divinity alone excepted) to women, but that no female graduate of the University shall be a member of Convocation unless and until such Convocation shall have passed a regulation that female graduates be admitted to Convocation. At the Convocation

on June 26th, when the new charter was received, the following honorary degrees were conferred: Hon. D. C. L. Sir John Stainer, Prebendary William Rogers (*in absentia*), Hon. D. Litt, John Bagnall Bury, Ingram Bywater, William John Courthope, Frank Byron Jevons, Frederick George Kenyon, and Hon. M. A. James Francis Hodgson.

THE IRISH COLLEGE OF SURGEONS AND THE APOTHECARIES.

IN view of the fact that the General Medical Council has reported the examination conducted by the Royal College of Surgeons and the Apothecaries' Hall in Ireland to the Privy Council, a letter has been addressed to the press by the heads of the former body. It is signed by the President, Mr Thornley Stoker; the Vice-President, Mr. William Thomson; and the Secretary, Mr. R. H. Woods. It points out that the College gave notice last year to terminate the union at the end of the present month. The letter states:

"The examinations have been very closely inspected and freely reported upon. The last report of the visitors (April and May, 1895) describes the first professional examinations as 'a good and satisfactory test;' in the second the examination in anatomy and materia medica and pharmacy as 'commendable;' and of the third it declares that 'no exception could be taken to any part of this examination.'

"Of the final examination the visitor and inspectors report an 'improvement generally.' At this examination the examiners in medicine are appointed by the Apothecaries' Hall and in surgery by the College of Surgeons. In all the other subjects save medicine, the visitors state that the examination was 'sufficient,' and of the examination in medicine it is right to say that the visitors differ from the examiners in one point only, and that they declare that the 'examination was a most careful one, and we believe conscientiously conducted.'

"It was upon this report that the General Medical Council agreed to bring this conjoint scheme before the Privy Council as insufficient. What we desire to show is that the work of the College of Surgeons in this connection has been properly carried out, and to make it known that the partnership is on the eve of dissolution. There is no examination in the world with which faults of different kinds may not be found by so many different visitors. For many years the examinations of this College, as of all others in the United Kingdom, have been reported on, and we have received frequent commendations. The College endeavours to maintain a high standard. In certain senses its examinations are in advance of those of other countries, and in this last report we have again obtained the approval of the visitors.

"We ought, perhaps, again to point out that the union between the College of Physicians and of the College of Surgeons continues as before and that the examinations have been declared to be, in the words of the Act, 'sufficient.'"

THE SOCIETY OF APOTHECARIES OF LONDON.

THE following changes have taken place in the staff of Examiners of the Society of Apothecaries of London: Mr. Bilton Pollard has been appointed one of the Council Examiners in Surgery, *vice* Mr. A. Clark, who retires by rotation. Mr. C. B. Lockwood has been appointed one of the Society's Examiners in Surgery, *vice* Mr. Bilton Pollard. Dr. T. D. Savill has been appointed an Examiner in Medicine, *vice* Dr. F. Warner, who retires by rotation, and Dr. Leith Napier has been appointed an Examiner in Midwifery, *vice* Dr. Lewers, who retires by rotation. Mr. Stonham has been appointed an Examiner in Anatomy, *vice* Mr. C. B. Lockwood.

PASS LIST, JUNE, 1895.—The following candidates passed in:

Surgery.—J. Blackwood, University College; F. H. Blatchford, St. Mary's Hospital; F. E. Bromley, London Hospital; B. L. Dhingra, Lahore; A. F. Eldred, St Mary's Hospital; A. H. H. Huckle, Guy's Hospital; W. B. Maurice, St. Mary's Hospital; A. H. Palmer, Birmingham and Guy's; R. G. Worger, Bristol and Guy's; A. M. St. J. Wright, Madras.

Medicine, Forensic Medicine, and Midwifery.—J. Blackwood, University College; M. A. Cooke, St. Bartholomew's Hospital; R. A. Fegan, St. Bartholomew's Hospital; A. H. Palmer, Birmingham and Guy's; C. J. Palmer, Birmingham and Liverpool.

Medicine and Midwifery.—J. W. Clegg, Manchester; R. B. Rees, Middlesex Hospital.

Medicine.—E. A. B. Poole, Birmingham.

Forensic Medicine and Midwifery.—W. A. Montgomery, St. Thomas's Hospital; C. Blue, Belfast.

Forensic Medicine.—H. G. C. Hardwick, Cambridge and St. Thomas's Hospital; J. A. Morgan, Charing Cross Hospital; R. G. Worger, Bristol and Guy's Hospital

Midwifery.—T. H. Wilkins, Charing Cross Hospital.

To Messrs. Blackwood, Cooke, Clegg, Fegan, Hardwick, Huckle, Morgan, Palmer, A. H. Rees, and Worger was granted the diploma of the Society entitling them to practise medicine, surgery, and midwifery.

At the Examination in Arts held this month 18 candidates passed, of whom one was placed in the first class. Six candidates passed in certain subjects only.

MEDICO-LEGAL AND MEDICO-ETHICAL.

AN EXCEPTIONAL CASE.

FAIRPLAY writes: A. and B. practise in a country town. Both get their practices by purchase. C. thinks there is an opening, and comes in without purchase, does cheap work, and after two years supplants A. A. gets ill, decides to leave the neighbourhood, and then sells his appointments, consisting of parish appointment, to C., the price to depend upon his getting appointed. The parish advertise. Is B. justified in applying for the appointment?

*** Under the peculiar and exceptional circumstances related, we do not see any valid objection to B. applying for the parochial appointment in question.

GLYCOSURIA AND DIABETES.

X. writes that he was called in to see A. who was suffering from loss of flesh, great thirst, and very frequent micturition. The urine (specific gravity 1033) gave a positive reaction with Fehling's solution. Dietetic and medicinal treatment were continued for two months when general improvement and gain in flesh were noted. B. called on A., and, without examining the urine, told him that he (A.) was not suffering from diabetes; B. then attended A. regularly. C., a recently qualified gentleman and son of A.'s landlord, was asked to see A. for sudden acute pain and febrile symptoms. He examined the urine along with the county analyst, and gave a final and negative opinion based on that examination. X. asks (1) whether his treatment of twelve months ago might not have caused a temporary cessation in the excretion of sugar; (2) if certain febrile conditions might not bring about a similar result; and (3) for an opinion on the conduct of B. and C.

*** It would have been desirable to know the age of the patient, the quantity of urine passed, and the number of times that X. obtained the reduction test. It would seem extremely improbable that in a genuine case of diabetes two months' dieting and treatment could have had anything to do with the absence of the glycosuria twelve months later unless the patient had continued the restricted diet, and of this X. has apparently no evidence. (2) In the event of certain febrile conditions the sugar might temporarily disappear from the urine, and thus a single examination of the urine at such a time could not be looked upon as conclusive. (3) If as stated B. called on A. and, after traversing the opinion of A.'s regular medical attendant, took on the case, he was obviously guilty of a breach of medical etiquette. The ethical conduct of C. seems to be beyond reproach. He was asked to see A. in the febrile attack, examined the urine thoroughly, and then gave his opinion. This opinion was, however, unwisely made to appear final, as it was based on evidence at once slender and negative.

FRIENDLY RIVALS.

ENQUIRENS.—Irrespective of the ethical rule which governs the case, we would counsel our correspondent—in view of the fact that he regards his professional opponent as friendly, and, moreover, that he himself will probably sooner or later need a like kindly act during absence from home—courteously but firmly to decline to accept as personal engagement to attend the patient alluded to in her approaching confinement, and also to debit his attendance on the baby to the ordinary medical adviser; far better is it to lose a would-be patient than the friendly feeling of a brother practitioner.

VETERINARY PRACTICE.

RUSTIC.—In response to our correspondent's very exceptional question, we would earnestly counsel him, in his own true interest, to dissociate himself as far as possible from the veterinary practice referred to, and especially to abstain from accepting a fee therefor, otherwise it cannot in our opinion fail sooner or later injuriously to affect his position as a medical practitioner. Our emphatic advice, however, need not deter him from suggesting remedial measures in a case of pressing necessity, but in no wise should he hold himself out as a "vet." whose services are locally available or accept continuous charge of an animal.

GRATEFUL HUSBAND AND FATHER.

A CORRESPONDENT sends us the announcement of a birth, cut, as he informs us, from the *Liverpool Daily Post* of June 22nd. The first part of the announcement is of the ordinary kind, but appended to it in brackets is the unusual addition: "Both mother and child are doing well, thanks to Dr. J. B. Edis."

*** We have described this advertisement as unusual, but we ought perhaps to have said that it was unprecedented. We can hardly suppose that Dr. Edis is in any way responsible for its appearance, but we think he would do well to remonstrate with the husband in order that it may become generally known that such announcements are contrary to professional etiquette and extremely distasteful to the medical men whose names may be mentioned in such a connection in the public press.

THE USE OF MEDICAL TITLES AFTER THEIR WITHDRAWAL.

THOMAS RICHARD ALLINSON, of Spanish Place, Manchester Square, appeared at the Marylebone Police-court in answer to summonses for using the description of L.R.C.P. and falsely using the title of licentiate in medicine. Mr. Muir Mackenzie, barrister, prosecuted; and Mr. Young, barrister, defended.

Mr. Mackenzie, according to the report in the *Times*, said that the defendant was, in 1879, registered in the *Medical Register* as L.R.C.P. Edin., and also L.R.C.S. Edin. On May 28th, 1892, his name was erased after an inquiry held under the Medical Act. He subsequently brought an action complaining of the decision of the Council, and it was dismissed in the High Court and also in the Court of Appeal. He had, however, until now held himself out as L.R.C.P. Edin., and also used the initials L.R.C.P. The defence was that there was no proof that the defendant had infringed the Act. The mere fact of the erasure of a person's name, or the loss of a degree, did not interfere with his practising as a medical man.

Mr. Bennett thought the case was a bad one, and said there would be a fine of £20, with £10 10s. costs, or in default of distress a month's imprisonment.

Mr. Young asked for a case, but Mr. Bennett refused to entertain the application.

USURPATION OF MEDICAL TITLES IN FRANCE.

Two foreign dentists practising in Paris have recently been prosecuted by the French Dentists' Syndicate for prefixing the title of "Dr." to their names It was urged in defence that while the illegal practice of medicine or any of its branches might form the ground of prosecution, the mere usurpation of a medical title could not do so. The court decided that inasmuch as the prefix "Dr." used in connection with the name of the dentist, could have no other meaning for the public than that of Doctor of Medicine, the defendant had infringed the law which forbids the use, before or after the name, of the title of "Dr." without indication of the source from which the title was obtained, and therefore inflicted the statutory fine of 100 francs (£4), in addition to 1 franc damages, the amount claimed by the prosecuting body.

MEDICAL NAMES FOR ADVERTISING PURPOSES.

WE have received a long correspondence which has taken place in the Nottingham papers regarding the actions of certain medical men in that town who are charged with allowing their names to appear in connection with a public exhibition of hypnotic trance at a waxwork exhibition. In the advertisement about this trance the following sentence appears: "The following eminent Nottingham physicians, doctors, and surgeons have issued bulletins declaring the lady to be quite insensible when entranced by Professor Brame." Then come the names of a dozen doctors, with their qualifications. We do not propose to flog over again the dead horse of hypnotism and all its impostures, but we must protest against such an advertisement. It is possible, as is stated by some of those whose names appear in it, that they did not know for what purpose their signatures were to be used; but they ought to have known. The editor of the *Nottingham Guardian* may well say, "it is singular that medical men, who are not permitted by the rules of their profession to advertise for themselves, should permit themselves in this matter to be made advertising agents for the benefit of other people."

E.W.D.—Under the circumstances related, and in view of the fact that the wife is now separated from her husband, our correspondent was, in our opinion, fully justified in withholding the information asked. Should a medical certificate be essential to justify the magistrate in deferring action in the case, it will be sufficient to testify to the fact of the patient's inability to attend the court at present.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

FLEET-SURGEON H. C. WOODS, M.D., is promoted to be Deputy-Inspector-General, May 24th. He was appointed Surgeon, December 6th, 1862; Staff Surgeon, May 15th, 1876; and Fleet Surgeon, May 22nd, 1884.

Surgeon R. T. GILMOUR has been appointed to the *Tamar*, June 20th.

ARMY MEDICAL STAFF.

BRIGADE-SURGEON R. DE LA C. CORBETT, D.S.O., who is serving in India, is appointed to officiate as Principal Medical Officer Oude and Rohilcund Districts, *vice* Surgeon-Colonel W. T. Martin, on sick leave.

An examination of candidates for thirteen commissions in the Army Medical Staff is announced to take place in London on August 2nd.

It is stated that in future the medical officers of Chelsea Hospital are to be taken from the active list, and hold office for five years.

Brigade-Surgeon I. H. C. WHIPPLE, M.D., medical officer at the Duke of York's Royal Military School, will shortly complete his tenure there, but it is stated that he is likely to obtain an extension for a further period of five years.

Surgeon-Captain M. T. YARR, F.R.C.S.I., is seconded for service under the Siamese Government, June 1st.

INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL J. O'M. MCDONNELL, M.D., Bengal Establishment, has resigned the service, from July 29th. He was appointed Assistant-surgeon April 1st, 1870, and became Surgeon-Lieutenant-Colonel twenty years thereafter.

The promotion of the undermentioned officers of the Bengal Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen: Surgeon-Colonel R. HARVEY, M.D., D.S.O., to be Surgeon-Major-General; Surgeon-Majors G. S. A. RANKING, M.D., R. D. MURRAY, D. W. D. COMINS, P. F. O'CONNOR, JAMES MORAN, M.D., W. A. SIMMONDS, RODERICK MACRAE, T. E. L. BATH, and SHIBRAM BORAH to be Surgeon-Lieutenant-Colonels; Surgeon-Captain GRANVILLE JAMESON to be Surgeon-Major.

Her Majesty has also sanctioned the promotion of Surgeon-Colonel C. E. MCVITTIE, of the Madras Establishment, to be Surgeon-Major-General, and the retirement from the service of Surgeon-Colonel J. G. PILCHER, of the Bengal Establishment, both of which have already been announced in the BRITISH MEDICAL JOURNAL.

An examination of candidates for sixteen appointments in the Indian Medical Service is to be held in London on August 2nd.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR HENRY F. HOLLAND, M.D., is promoted to be Surgeon-Lieutenant-Colonel, June 26th.

THE VOLUNTEERS.

MR. CHARLES JOHN JACOMB-HOOD is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion the Royal Sussex Regiment, June 26th.

Mr. CHARLES DORRINGTON BATT, M.B., is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Oxford Light Infantry, June 26th.

Surgeon-Lieutenant A. C. MILLER, M.D., 1st (Inverness Highland) Volunteer Battalion the Queen's Own Cameron Highlanders, is promoted to be Surgeon-Captain, June 26th.

THE COURT-MARTIAL ON SURGEON LEA, R.N.

THE case of this officer, who was recently dismissed the service for insubordination, has excited no little comment. As the proceedings of the court are under review, we trust the legality and justice of the procedure will be thoroughly investigated.

VOLUNTEER AMBULANCE CHALLENGE SHIELD.

THE competition for the Ambulance Challenge Shield of the Volunteer Medical Association took place on June 15th at Wellington Barracks, and was keenly contested. The first place was taken by the 1st Volunteer Battalion Highland Light Infantry, the second by the 2nd Royal Fusiliers, and the third by the Civil Service. Fifteen corps competed. This is, we believe, the first occasion upon which the trophy has been won by a Scottish regiment. In presenting the usual badges to each man of the three best squads, Surgeon-Major Grier, A.M.S., Instructor of the Army Medical Service Corps, Aldershot, complimented them upon the excellent way in which they stood the tests. In reply to congratulations, Surgeon-Lieutenant Swanson, who had instructed the successful squad, expressed the opinion that another year other squads from Scotland would compete.

ARMY MEDICAL STAFF DINNER.

THE annual dinner of the Army Medical Staff was held at the Hôtel Métropole on June 19th, the Director-General, Sir William Mackinnon, K.C.B. in the chair. The following is a list of the leading members present:—Surgeon-Major-Generals Sir Joseph Fayrer, K.C.S.I., C. H. Giraud, R. Harvey, D.S.O., J. Jameson, E. C. Markey, C.B., H. F. Paterson, J. B. C. Reade, J. J. Thompson, J. Warren; Surgeon-Colonels O. Codrington, W. G. Don, E. McGrath, W. S. Price, F. B. Scott, C.M.G., W. Sly, H. Veale, J. Watts; Brigade-Surgeon-Lieutenant-Colonels J. A. Anderson, A. L. Browne, J. D. Edge, E. Fairland, W. J. Fawcett, J. Hector, J. G. Leask, C. Mackinnon, W. McWatters, T. R. Mould, J. L. Notter, W. S. Pratt, A. B. Robinson, W. G. Ross, W. F. Ruttledge, W. F. Stevenson, W. Temple, V.C., E. D. Tomlinson, W. J. Wilson, T. Wright. Among the few guests present were: Mr. Christopher Heath, the President of the Royal College of Surgeons of England; Dr. Hooper, the President of the Indian Medical Board; Mr. Ernest Hart, and Mr. Vesey Holt.

RANK IN RETIREMENT.

A NAVAL medical officer, recently retired after thirteen years' service, asks us how he should indicate such service on his card. We think he is entitled to put "late Staff-Surgeon R.N." if he chooses. We know of several naval lieutenants, retired on gratuities, with the rank of commander, whose cards run, "Commander ——, R.N.," without any "late" or other indication of having left the service altogether. "What is sauce," etc.

VOLUNTEER PROMOTION.

A VOLUNTEER asks whether brigade-surgeons are appointed from surgeon-lieutenant-colonels by seniority or how they are appointed in volunteer regiments.

*** We believe they are appointed by selection. But it is always open to a superseded officer to ask why he was passed over; not, indeed that he is likely to get much satisfaction. He could make the inquiry through his immediate commanding officer to the officer commanding the brigade.

CLUB BLACKBALLING.

SURGEON-CAPTAIN A.M.R., referring to the statement that at a recent election at one of the most distinguished service clubs all the medical candidates were blackballed, while all the "combatants" were elected, suggests, as a protest against such scandalous conduct, that the medical officers of volunteers who have joined the Army Medical Reserve should resign in a body, and thinks some of the seniors should take the initiative in such a step.

*** We have heard of such conduct in three of the service clubs. The ballot in such elections is a cowardly weapon in the hands of men not ashamed to use it as such; for this reason many of the best clubs—civil and military—at home and abroad have done away with it. The resignation of medical officers of volunteers would certainly bring home to the authorities and the public the scandalous treatment often accorded to medical officers.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including **London**, 6,604 births and 3,284 deaths were registered during the week ending Saturday, June 22nd. The annual rate of mortality in these towns, which had declined from 17·1 to 15·4 per 1,000 in the six preceding weeks rose again last week to 16·2. The rates in the several towns ranged from 6·8 in Croydon, 12·3 in Blackburn, and 12·6 in Brighton to 20·4 in Manchester, 21·4 in Oldham, and 25·1 in Liverpool. In the thirty-two provincial towns the mean death rate was 16·9 per 1,000, and exceeded by 1·8 the rate recorded in London, which was 15·1 per 1,000. The zymotic death rate in the thirty-three towns averaged 2·0 per 1,000; in London the rate was equal to 2·2 per 1,000, while it averaged 1·8 in the thirty-two provincial towns, and was highest in West Ham Cardiff, and Liverpool. Measles caused a death rate of 1·4 in Manchester, 2·1 in West Ham, and 2·3 in Plymouth; whooping-cough of 2·2 in Gateshead; and diarrhœa of 1·4 in Bradford, 1·7 in Cardiff, and 2·3 in Preston. The mortality from scarlet

fever and from "fever" showed no marked excess in any of the large towns. The 67 deaths from diphtheria in the thirty-three towns included 37 in London, 5 in Liverpool, 4 in Wolverhampton, and 4 in Birmingham. One fatal case of small-pox was registered in Liverpool and 1 in Oldham, but not one in London or in any other of the thirty-three towns. There were 22 small-pox patients under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital on Saturday last, June 22nd, against 22, 23 and 19 at the end of the three preceding weeks; 8 new cases were admitted during the week, against 1, 5, and 2 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,524, 1,589, and 1,637 at the end of the three preceding weeks, had further increased to 1,732 on Saturday last, June 22nd; 251 new cases were admitted during the week, against 157, 179, and 199 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, June 22nd, 979 births and 560 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 21.4 to 17.1 per 1,000 in the three preceding weeks, rose again to 19.4 last week, and was 3.2 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 16.0 in Paisley to 24.3 in Greenock. The zymotic death-rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Perth and Greenock. The 289 deaths registered in Glasgow included 1 from small-pox, 4 from scarlet fever, 2 from diphtheria, 14 from whooping-cough, and 14 from diarrhœa. Two fatal cases of diphtheria were recorded in Edinburgh, and 4 of measles in Greenock.

THE "BRITISH MEDICAL JOURNAL" COMMISSION ON WORKHOUSE INFIRMARIES.

We see that the respective Boards of Oxehampton and Crediton Workhouses are setting to work in earnest to carry out the several improvements recommended in these columns. We do not in the least mind being called to account for "gross exaggeration and misstatements" when we see that our criticism is bearing fruit in stimulating the guardians to remove the various abuses that we have endeavoured to point out. We most sincerely hope that the Oxehampton Board will not turn back from the intention of building a small infirmary for the sick. It is urged with much force that the cost of so doing would be distributed over twenty-five or thirty years, whilst any expenditure undertaken in altering the present building must be met out of the current rates or by means of a loan for a short period.

At the meeting of the West Derby Board of Guardians, held on June 12th, the chairman drew the attention of the guardians to a report which had appeared in the BRITISH MEDICAL JOURNAL with regard to the management of the Mill Road Infirmary and the Test House in Belmont Road. He said that the criticisms, if he might so term them, were of the most favourable description, and they thoroughly complimented the guardians upon the management and arrangements. He considered that when such a journal chose to compliment they might well feel satisfied.

MEDICAL ORDERS FOR URGENT CASES.

C.L., who is a district medical officer, says he was requested by a man to visit his wife at night, four miles off. The patient was reported to be in labour, under the care of a midwife, and was supposed to be in imminent danger. Attendance was at once given, and the friends were informed that the case would be regarded as a pauper case, and that a medical order would have to be procured as early as possible the following morning. The patient was delivered by forceps, but only survived two hours. The case was reported in the ordinary way to the Board of Guardians, recognised by them as a pauper case, and this point not questioned till a claim was made for the extra fee for attendance, and the Finance Committee learned that no medical order had been given. The Board declined to pay the fee claimed.

C. L. asks: In the event of another similar case occurring, am I to wait a medical order to be procured, or what ought my procedure to be?

*** We consider that C. L. would in the future be justified in requiring a medical order to be given before attending. In such a case as that described, this could be granted either by the relieving officer or by an overseer.

OBITUARY.

PROFESSOR WILLIAM C. WILLIAMSON, F.R.S.

THE death at Clapham Common, Surrey, on June 23rd, of Professor W. C. Williamson, Emeritus Professor of Botany in Owens College, removes a notable figure from the scientific world as well as severs the last link in the chain of those professors who entered upon their offices at the foundation of Owens College, Manchester. Dr. Williamson was a native of Scarborough, where he was born in November, 1816, so that at his death he had reached the ripe age of 78.

Young Williamson from his boyhood showed a great liking for natural history in the widest sense of the term. He acquired his knowledge by actual acquaintance with Nature in the fields and lanes around his native place. He was appointed Curator of the Scarborough Museum, where there still exists a collection of the fossils of the district which he found. He devoted much time to the study of the oolitic plants of the district, and furnished a description of these plants to the *Fossil Flora* of Lindley and Hutton. In 1832 he was apprenticed to Mr. Weddell, surgeon, of Scarborough. In 1834-36-38 he contributed papers to the Geological Society on the Stratigraphical Distribution of Fossils in Yorkshire. In 1835 he was appointed Curator of the Manchester Natural History Society, where he continued to pursue his medical studies. His removal to Manchester opened up a wide field of study, and he devoted his energies to the investigation of the coal measures of the district, more especially as regards their fossil remains of fishes and plants.

After three years he resigned the curatorship of the museum in order to complete his medical studies. He attended the Pine Street Medical School in 1838-39, then he studied at University College, London, and obtained the diploma of the College of Surgeons in 1840. In the following year he settled in Manchester, and was appointed Surgeon to the Chorlton-on-Medlock Dispensary. He was also largely instrumental in founding the Ear Institution, and was one of its surgeons for many years. He soon gained a large private practice, but even while so employed all his spare time was devoted to his favourite pursuits.

In 1842, at the Liverpool meeting of the British Association, he read a paper on the Origin of Coal. His microscope was his constant companion, and the contributions which he has made to our knowledge of the minute structure of fossil plants have made his name famous. The various memoirs which he presented from time to time to the Royal Society, and many of which are published in the *Philosophical Transactions*, were always beautifully illustrated by drawings made by himself. He was an excellent draughtsman, and these papers are accepted as standard works on the subject of which they treat. He contributed a remarkable paper to the Royal Society on the scales of fishes, some of which are bony, and he there carefully studied the process of ossification. In 1854 he was elected a Fellow of the Royal Society, and for his contributions to fossil botany he was awarded a Royal Society medal in 1874. In 1851, on the foundation of Owens College, he was appointed to the Chair of Natural History. For a considerable time he was called upon to teach botany, zoology, geology, anatomy, and physiology. Then a separate Chair of Geology was instituted, to which Professor Boyd-Dawkins was appointed, and subsequently the Chair of Zoology was founded, which left him free to devote his time to botany.

During all these years he carried on his medical practice, and was largely consulted on diseases of the ear. He had studied this subject under Dr. Menière, of Paris. Afterwards he relinquished practice, and devoted all his time to the duties of his chair and to the patient and painstaking study of the plants of the coal measures. He made a remarkable collection of these fossil plants, which is preserved in the Owens College Museum. In 1892 he resigned his chair and settled near London.

Williamson was a grand type of the all-round naturalist who gained his knowledge by a close study of Nature. He was an accurate and careful observer, and worked with both enthusiasm and endurance. He was also a splendid lecturer both *ex cathedrâ* and on the platform. For many years he gave lectures for the Gilchrist Trust, and wherever he went he was sure of a large and appreciative audience, for he had the art of treating his subject in a popular and attractive manner. The Geological Society awarded him the Wollaston Gold Medal in 1890; the University of Edinburgh in 1883 conferred on him the degree of LL.D., and he was a member of several Continental scientific societies. His death will be deeply and sincerely regretted by a wide circle of friends, for he stood out as a striking and robust personality both physically and mentally.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently passed away are Dr. Jakob Schmid, of Passau, the oldest practitioner of Bavaria, aged 95; Dr. Hartwig, Director of the Hanover Provincial School for Midwives, and sometime Lecturer on Gynæcology at Goettingen; and Dr. Andreas Takacs, Physician to the Rochus and Red Cross Hospitals of Buda-Pesth, and lecturer in the University of that city, aged 47.

MEDICAL NEWS.

A PATHOLOGICAL meeting of the Neurological Society of London will be held on Thursday, July 11th.

THE Prince and Princess of Wales have consented to open the new front building of the Royal Free Hospital, Gray's Inn Road, on Monday, July 22nd.

THE Howard Medal and Prize of £20 of the Statistical Society for 1896 will be awarded for the best essay on School Hygiene in its Mental, Moral, and Physical Aspects, received on or before June 30th, 1896.

THE PLAGUE IN HONG KONG.—Sir W. Robinson, Governor of Hong Kong, in a telegram to Lord Ripon, received June 17th, states that 5 cases of plague have been found, 4 being in one house.

IT is understood that Mr. John Lentaigne and Mr. Humphrey Broomfield (Carlow) will be candidates for the vacancy on the Council of the Royal College of Surgeons in Ireland caused by Sir George Porter's death.

A COMPLIMENTARY dinner was given at the Langham Hotel, on June 25th, to Mr. Christopher Heath, who was recently elected President of the Royal College of Surgeons, by his old house-surgeons, who at the same time presented him with a piece of plate "as a token of their esteem and affection."

THE annual meeting of the Medical Mission Auxiliary of the Church Missionary Society will be held in St. James's Hall on July 3rd. Further particulars will be found in our advertisement columns. We are informed that the object of the Auxiliary is to render the Society's hospitals thoroughly efficient from a professional point of view.

ARRANGEMENTS have been made by the International Sleeping Car Company for the running on Wednesdays and Saturdays, beginning on July 6th, of a special Engadine Express in connection with the train which leaves London at 11 A.M. for Dover. The train will start from Calais at 2.45 P.M., and arrive at Coire at 10.5 A.M. the next day, that is to say, in twenty-two hours from London.

DR. STEEVES, Medical Officer of Health to the Toxteth district, presided at a conference of delegates of operative plumbers in Liverpool last week, at which the subject of Registration of Plumbers was discussed. Dr. Steeves pointed out the importance of plumbers' work in relation to the health of the community, and resolutions were passed by the meeting, which was representative of plumbers in all parts of the kingdom, authorising the Executive Council of their Association to encourage the registration system and support the Plumbers Registration Bill now before Parliament.

ACCORDING to the will of the late Mr. Charles Soames, of Blackheath, a sum of £32,000 is to be invested in the purchase of Two and a Half per cent. Bank Annuities or Two and Three Quarter per cent. Consols, and the trust fund is to be held upon trust as a perpetual fund for providing trained nurses for the benefit of the sick poor resident in their own private homes in the five parishes or ecclesiastical districts of Greenwich. The trustees may, in their discretion, apply any surplus income of the fund for the benefit in other ways of the sick poor of the five parishes.

CAIUS SETTLEMENT, BATTERSEA.—On Sunday, June 23rd, a large gathering of old Caians took place at Caius House, the headquarters of the Mission and Settlement, when the trust deed was formally handed over to the trustees by the Bishop of Southwark, who subsequently preached at a special service held in the Caius Mission Church, The President of Gonville and Caius College, the Solicitor-General, Sir A. K. Stephenson, Dr. W. H. Dickinson, and Dr. C. J. Hare were among those present A sum of over £2,000 has been expended recently on the purchase of a freehold site and on the part of the mission buildings so far erected. The honorary treasurer is Mr. E. G. Gallop, Caius College.

THE SOCIETY OF MEDICAL PHONOGRAPHERS.—This youngest of medical societies continues to prosper. The number of members (60 at its start in December) is now 150, distributed as follows: In London and district, 44; in England and Wales, 63; in Scotland, 24; in Ireland, 7; in Europe (Switzerland), 1; in Africa (South Africa, 3; Egypt, 1), 4; in America (United States), 4; in Asia (India), 3. Dr. Gowers has been elected President of the Society, and will give an address on Writing and Short Writing in Relation to Medical Work at an inaugural meeting of the Society, to be held at 20, Hanover Square, London, on Tuesday, July 30th, at 4 o'clock P.M. The meeting will be open to any member of the profession who desires to attend.

PRESENTATION.—At a well-attended meeting held June 21st at the Kensington Town Hall under the presidency of the Marquis of Lorne, Mr. John Jones Merriman, M.R.C.S., was presented with an illuminated album, together with a cheque for £1,000 and a bracelet for Mrs. Merriman on the occasion of his terminating his long connection with the parish of Kensington, where for upwards of a hundred years the succeeding generations of his family have been prominent among the local medical practitioners. The Marquis of Lorne, in making the presentation, read an address, which stated that for more than a century Mr. Merriman's family had been associated with the names of the benefactors of the parish, and prominent in many good works of philanthropy and charity. Mr. Merriman himself had won the good opinion of all, and his personal and professional friends could not allow him to leave his old home without some recognition of the real regard in which he was held. The album and cheque were then handed to Mr. Merriman and the bracelet to Mrs. Merriman. Mr. Merriman expressed his thanks to the numerous subscribers.

PROFESSOR GOTCH, the newly appointed Waynflete Professor of Physiology, was entertained at a farewell dinner by his colleagues and friends in Liverpool, at the Adelphi Hotel, on June 21st. The chair was occupied by Principal Rendell, of University College, and there were also present Sir E. R. Russell, Mr. George Holt (the founder of the Chair of Physiology), Dr. Caton, and a large gathering of professors of University College, and of members of the medical and other professions in Liverpool. Principal Rendell, in proposing the health of the guest of the evening, spoke in warm terms of appreciation of the great service Professor Gotch had rendered to the school of medicine during the four years he had been associated with it, and Professor Gotch in his reply expressed the regret he felt at severing his connection with his work and many friends in Liverpool. Towards the close of the evening a choice selection of music was rendered by Professor Kuno Meyer, Dr. Karl Grossmann, and Mr. Welsing.

A SCHOOL OF MEDICINE FOR WOMEN IN ST. PETERSBURG.—On May 4th the question of the establishment of a school of medicine for women in St. Petersburg was discussed by the Russian State Council, which decided in favour of the proposal. The want of money has hitherto been a stumbling block, but now, thanks to the liberality of private individuals, the financial difficulty no longer exists. The details of the scheme have already been arranged. The curriculum is to be in all respects the same as that in the medical faculties of the universities, and will extend over five years. Women under the age of 21 will be admitted only on the written permission of their parents or guardians; married women must produce a written permission from their husbands. No one will be admitted unless she shows evidence of knowing Latin and Greek to the extent required in the gymnasia for boys. A director of the school will be chosen by the Minister of Public Instruction from among the Professors of the University faculties. The director will be under the authority of the Council of Professors, of a School Committee nominated by the Warden of the St. Petersburg Academic District, and of an Administrative Committee appointed by the Minister. Women holding the diploma granted by the school will not be eligible for the post of director of any general hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon; doubly qualified. Salary, £150 per annum, with an allowance of £30 per annum for cab hire, furnished rooms, fire, lights, and attendance. Applications to Alex. Forrest, Secretary, by July 15th.

CARDIFF UNION.—Medical Officer for the Grangetown District. Salary, £50 per annum; no extra fees, except lunacy, but medicines and medical appliances provided by the Guardians Appointment for one year. Applications to Arthur J. Harris, Clerk, Queen's Chambers, Cardiff, by July 8th.

CITY OF LONDON UNION INFIRMARY, Bow Road, E.—Resident Medical Officer; doubly qualified. Applications, on forms provided, to F. W. Crane, Clerk, Guardians' Offices, 61, Bartholomew Close, by July 2nd.

DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Two Assistant Dental Surgeons. Applications to J. Francis Pink, Secretary, by July 8th.

FLINTSHIRE DISPENSARY.—Resident House-Surgeon. Salary, £120 a year, with furnished house, rent and taxes free, also coal, light, water, and cleaning, or in lieu thereof the sum of £20 per annum. A knowledge of Welsh desirable. Applications to Thos. Thomas, Secretary, Board Room, Bagillt Street, Holywell, N. Wales, by July 17th.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY, Cardiff.—Assistant Resident Medical Officer, doubly qualified Appointment for six months, without salary, but with board, washing, and apartments. Applications to Geo. T. Coleman, Secretary, by July 2nd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer. Salary, £200 per annum, with board and residence. Must be doubly qualified, single, and not under 25 years of age. Applications to the Secretary by July 3rd.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End.—Senior Demonstrator of Anatomy. Salary payable by a percentage of fees. Applications to Munro Scott, Warden, by July 8th.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End.—Senior and Junior Demonstrators of Physiology. Salary for the senior post, £150 a year and a proportion of the fees paid for classes, and for the junior post £50 a year. Applications to Munro Scott, Warden, by July 8th.

NEWPORT AND MONMOUTHSHIRE INFIRMARY, Newport, Mon.—House-Surgeon, doubly qualified. Salary, £100 per annum, with board and residence. (No stimulants provided.) Applications to the Secretary by July 13th.

MALLING RURAL DISTRICT COUNCIL.—Medical Officer of Health. Salary, £100 per annum, to include all office and travelling expenses. Applications to Henry D. Wildes, Clerk, West Malling, by July 1st.

MIDDLESEX HOSPITAL, W.—Assistant Physician, must be F. or M.R.C.P.Lond. Applications to F. Clare Melhado, Secretary-Superintendent, by July 8th.

MIDLOTHIAN AND PEEBLES DISTRICT ASYLUM, Rosslynlee.—Assistant Medical Officer. Salary, £100 per annum, with furnished apartments, board, and washing Applications to R. Addison Smith, Clerk and Treasurer, 19, Heriot Row, Edinburgh, by July 1st.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Resident Medical Officer. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by July 25th.

NORTH STAFFORDSHIRE INFIRMARY AND EYE INFIRMARY, Hartshill, Stoke-on-Trent.—Assistant House-Surgeon for six months. Applications to the Secretary by July 1st.

ROYAL CORNWALL INFIRMARY, Truro.—House-Surgeon; unmarried; doubly qualified. Salary for the first year, £120, increasing by £10 a year to £150, with furnished apartments, fire, light, and attendance Applications to the Secretary before July 1st.

ROYAL VICTORIA HOSPITAL, Bournemouth.—House-Surgeon and Secretary. Salary, £100 per annum, with board. Appointment for two years. Applications to the Chairman of the Committee by July 17th.

ST. COLOMB MAJOR UNION.—Medical Officer and Public Vaccinator for the Fifth District. Salary, £20 per annum, with the usual extra medical fees and vaccination fees. Applications to Geo. R. Collins, Clerk to the Guardians, by July 3rd.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square. Honorary Dental Surgeon. Applications to the Secretary by July 1st.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon and Senior Assistant House-Surgeon, doubly qualified. Salary for the former, £120 per annum, with a prospective advance of £10 per year for the second and third years; and for the latter £80 per annum, with board, lodging, and washing. Applications to the "Medical Staff of the Sheffield General Infirmary, to the care of the Secretary," by July 13th. The election will take place on July 26th.

SHEFFIELD UNION WORKHOUSE INFIRMARY.—Junior Assistant Medical Officer, doubly qualified. Furnished apartments, board, and washing provided. Appointment for six months. Applications to Joseph Spencer, Clerk to the Guardians, Union Offices, West Bar, Sheffield, by July 3rd.

STIRLING DISTRICT ASYLUM, Larbert.—Second Assistant Medical Officer. Salary, £80 per annum, with board, etc. Applications to the Medical Superintendent.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds.—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to Henry Bonner, Secretary, by July 15th.

UNIVERSITY OF ABERDEEN.—Eleven Examiners. Appointment for one year. The Examiners in Medicine and Surgery will receive grants of £50, and the other nine Examiners £40. Applications to Robert Walker, Secretary to the University Court, by July 3rd.

ERRATUM.—In the notice of the vacancy for a Resident Medical Officer at the Hospital for Consumption and Diseases of the Chest, Brompton, published last week, it should have read "not under 25 years of age," instead of not more than 25 years of age.

MEDICAL APPOINTMENTS.

BIGGAM, John, M.A., M.D.Edin., reappointed Medical Officer of Health to the Sedgley District Council.

BOND, Dr., appointed Medical Officer of Health for the Holborn District, *vice* Septimus Gibbon, M.B.Cantab., M.R.C.P.Lond., resigned.

BROWN, Wm., M.D.Glasg., M.B., C.M., reappointed Medical Officer of Health to the Stapleton District Council.

FOSBROKE, G. H., M.R.C.S.Eng., D.P.H., appointed Medical Officer for the St. Peter the Great District of the Pershore Union.

GORDON, Colin, M.B., C.M.Edin., appointed Medical Officer to the West Malvern District of the Malvern Dispensary, *vice* William Murphy, M.B., resigned.

HAMILTON, W. Crosbie, M.B., C.M.Edin., appointed Senior House-Surgeon to the Blackburn and East Lancashire Infirmary, *vice* C. E. Maude, resigned.

HUNTON, Frederick, M.D Durh., appointed Medical Officer for the Stockton District and the Workhouse of the Stockton Union.

NAPIER, Leith, M.D.Aberd., M.R.C.P.Lond., F.R.S.Edin., appointed Examiner in Midwifery to the Society of Apothecaries of London.

PALTINGTON, William, M.B., C.M.Glasg., reappointed Medical Officer of Health to the Tunstall Urban District Council.

PURDY, James R., M.B., C.M., appointed Medical Officer of Health to the Hutt County Council.

RAY, M. B., M.B.Edin., appointed Fifth Assistant Medical Officer to the South Yorkshire Asylum, Wadsley, Sheffield.

SMYTH, Mr., appointed Assistant Medical Officer at the Parish of Birmingham Infirmary.

THOMPSON, W. H., M.D.Durh., L.R.C.P., L.R.C.S.Edin., reappointed Medical Officer of Health to the Quarry Bank Urban District Council.

TURNER, J. A., M.B., C.M.Edin., D.P.H.Camb., reappointed Medical Officer of Health for Lutterworth.

WHITTINGTON, T. P., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Neath Rural District Council.

BRODIE, Thos. Grigor, M.D., L.R.C.P.Lond., appointed Lecturer on Physiology at St. Thomas's Hospital, *vice* Chas. S. Sherrington, M.A., M.D. Camb., resigned.

THOMPSON, Cuthbert, M.B., C.M.Edin., appointed Assistant to the Professor of Surgery and Clinical Surgery at the University of Louisville.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. W. Laws: Squint. London Throat Hospital, Great Portland Street, 8 P.M.—Dr. Woakes: Nasal Neuroses.

TUESDAY.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown by Mr. Doran (for Dr. Lowe and Mr. Bradbury), by Mr. Targett, and Dr. Blacker. Adjourned discussion on Dr. Eden's paper on the Development and Normal Structure of the Human Placenta. Papers:—Mr. Alban Doran: Placental Polypus. Dr. T. G. Stevens: Notes on the Variation in Height of the Fundus Uteri above the Symphysis during the Puerperium, the conditions which influence this, and the practical conclusions which may be drawn from such observations.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Gowers.

FRIDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 20, Hanover Square, 8.30 P.M.—Card specimens at 8 P.M.:—Dr. G. H. Cartwright: Modification of Thompson's Test for Colour Vision. Papers:—Mr. Walter H. Jessop: Some Cases of Graves's Disease with Destruction of Eyes. Mr. Rayner D. Batten: The Connection between Some Cases of Myopia and Disease of the Nose and Pharynx. And other papers.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

ILLINGWORTH.—At Redan Villa, Ventnor, I.W., on the 25th instant, the wife of C. R. Illingworth, M.D., of a son.

MARRIAGE.

GRIFFITHS—PAYNE.—On the 20th June, at St. George's, Hanover Square, by the Rev. W. A. Pywell, M.A., Rector of Whixoe, assisted by the Rev. A. E. Hermann, M.A., Dr. Joseph Griffiths, King's College, Cambridge, to Ethel Mary, youngest daughter of F. Payne, J.P., Water Hall, Whixoe, Suffolk.

DEATHS.

MOFFATT.—On the 25th instant, at Springhead House, Keighley, Yorks., Robert (Roy), elder son of J. Gray Moffatt, M.D., in his sixth year.

WILLIAMSON.—On the 23rd inst., at Elms Road, Clapham, Surrey, William Crawford Williamson, LL.D., F.R.S., late Professor of Botany in Owens College, Manchester, aged 78.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *duplicate copies*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

F.R.C.S. desires to hear of a home or institution where the child of an army doctor could be treated for hysteria and mental depression free, or for a small charge per week?

TUBERCLE will be glad to know if the treatment of phthisis by subcutaneous injections of yeast has been tried in England, and, if so, with what results.

G. E. would be glad to know where he can get an inexpensive weighing chair for his consulting room, or whether such an article could be got second hand.

C. S. R. W. would be glad if any member can tell him whether candidates for the navy are admitted with any defect of hearing, or if there is any work where he might find the information?

FELIX desires to hear of a home or institution where a middle-aged lady, suffering from epilepsy from childhood, could be received on payment of a moderate sum per week. The lady objects to being taken in as a pauper.

X. asks: (1) Can any reader recommend any means of extension (for walking) in a case of rheumatic arthritis, where one of the knees cannot be fully extended owing to swelling and stiffening, with much stooping to compensate for the shortened leg—some more elegant method than the old cork boot, etc.? (2) Can you also refer me to any authoritative recent literature as to the use and value of orchitic extract?

CERTIFYING FACTORY SURGEONSHIPS.

SENEX asks for information as to the method by which factory surgeonships are given away by the Home Office? In an instance recently come to his notice the office was given to a junior practitioner in less than a week after the decease of the former officer, and before some of the senior men in the neighbourhood had time to make application. There could have been no selection. There is something here which wants reforming. The appointments ought to be advertised for public competition like Local Government and Poor-law offices.

*** The appointments referred to are made by the Chief Inspector of Factories.

ANSWERS.

E. J. MCC. M.—The name of the gentleman in question has been removed from the *Medical Register*.

J. W. H.—We are informed that the corn shields mentioned by "Another Sufferer" can be obtained from Messrs. Maw, Son, and Thompson, Aldersgate Street, E.C.

AN INDIAN EXILE.—The fact that the father of the patient committed suicide at 61 does not necessarily imply a neurotic tendency, but the fact that one brother and two sisters were inmates of asylums must be taken to indicate a tendency to nervous breakdown. In this case the risk of insanity developing in a member of such a family cannot be ignored; in fact, the mental history must not be considered to be absolutely free from danger. As to the individual himself, who is reported to be 31 years of age, steady, hardworking, and industrious, with good general mental capacity, the best thing for him no doubt would be to marry suitably and to have home interests. In his case marrying a woman rather older than himself is to be encouraged, and he should communicate the facts of his family history to any lady whom he thinks of marrying. It is quite impossible nowadays to exclude all neurosis from families; and the fact that this patient has reached the age of 31 without a breakdown appears to show that the risk in his case is after all but slight.

FOREIGN DENTAL DEGREES AND DIPLOMAS.

DENTAL.—Dentists must pass a special examination held by one of the Colleges of Surgeons in Great Britain before they can practise in this country. When the diploma "Licence in Dental Surgery" (L.D.S.) is obtained, it is necessary that it should be registered in the *Dentists' Register*, which is kept by the Registrar of the General Medical Council, 299, Oxford Street, where a copy of the *Register* can be obtained. No American dental diploma is registrable in this country unless it is "recognised for the time being" by the General Medical Council, and at the present time no such foreign diploma is so recognised, the recognition formerly given to degrees of the University of Harvard and the University of Michigan having been suspended.

NOTES, LETTERS, Etc.

AN ENGLISH DOCTOR FOR THE TURKS ISLANDS.

A WELL-INFORMED contemporary writes that for the last ten years the Turks Islands have been dependent on Nova Scotia for medical practitioners, it being reported that no English doctor would go out to the islands. The reason, however, is difficult to find considering how overstocked the medical profession is in England, and that the inducements offered by the Government to a young English doctor to settle in the Turks Islands are not to be despised. The Government medical officer gets £275 a year for attending the prison, in which there are, on an average, 5 inmates, and on the paupers, who average about 15, and he has a private practice worth over £200 a year, in which he has no competitors, as the Government medical officer is the only medical man in the colony. These facts have only to be known, we think, for the Government to have many applications for the post.

THE TREATMENT OF FRACTURES.

DR. W. H. B. WINCHESTER (Blackheath, S.E.) writes: I see the treatment of fractures is again being raised. Having so fully discussed this subject in the medical periodicals—namely, the BRITISH MEDICAL JOURNAL, *Lancet*, *Medical Times and Gazette* on various occasions from 1852 to 1874, I need now only direct the serious attention of the profession to the physiological and pathological value of muscular contraction. It is an indispensable, if not altogether the chief, factor in speedy and perfect union. Until this is recognised differences of opinion are sure to arise. I have endeavoured to show how this is to be accomplished. It matters not by what means it is effected so long as the surgeon's aim is to utilise, direct, conserve, not in any way to destroy, minimise, divert, or waste its energy in order to obtain the most satisfactory results.

CREMATION IN THE UNITED STATES.

AT a meeting of the New England Cremation Society, recently held in Boston, the President (Mr. J. S. Cobb) gave a history of this method of disposing of the dead in the United States. During the ten years in which it had been in use seventeen crematories had been established. The number of bodies cremated in each of the ten years was as follows: In 1885, 36; in 1886, 119; in 1887, 125; in 1888, 199; in 1889, 262; in 1890, 362; in 1891, 464; in 1892, 576; in 1893, 677; in 1894, 876. These figures show a steady and rapid increase from 36 to 876 in ten years.

HEREDITARY RUMINATION.

DR. RUNGE, of St. Louis, U.S.A., about a year ago published an observation of rumination in man. He now writes[1] that the appearance of the account of this case led to the receipt of a communication from "a gentleman of high scientific repute," to the effect that he is in the habit of ruminating. For the last ten years at least, this gentleman states, that at varying times after a meal, usually early, but sometimes as long as five or six hours after a meal, any coarser particles return apparently by a mechanism which is to a very large extent, if not entirely, unconscious, and are chewed again. The gentleman's father was in the habit of regurgitating coarse particles which he, however, rejected. The gentleman's son, a boy aged 7 years, has developed the ruminating habit, which was observed first on a voyage across the Atlantic. There seems to be no evidence of gastric disease in any of these cases. The grandfather suffered sometimes from heartburn, but not coincidently with the rumination. The son, who relates the cases to Dr. Runge, is in perfect health, and the grandson is in perfect health. Dr. Runge argues that rumination in man (merycism) should not be looked upon as due to a pathological condition of the stomach, but as "an awakening of a tendency to revert to ancestral types."

A VERIFIED NOTIFICATION.

AMONG the usually formal correspondence under the Notification of Infectious Diseases Act, which fill the letter-box of officers of public health, the following curiosity in rhyme has come into the hands of Dr. Maxwell Ross, medical officer for Dumfriesshire:

"*Notification under the Infectious Diseases Act.*

"DEAR SIR,—

"Of our medical staff, sir, my honest belief
Is, their treatment of various ills
Is a failure complete, and gives little relief,
Except when they tender their bills;
And, then, 'tis our cash, sir, and not our complaints,
That bids us for ever adieu.
Their clauses the temper would try of the saints—
They force me to notify you
That measles have down on my progeny set,
I hereby to you do proclaim.
If I have the Act's full requirements met,
Please, sir, to acknowledge the same.
—Yours truly, A. J., Guard."

[1] *Boston Medical and Surgical Journal*, May 23rd.

SPEAKING TUBES AND INFECTION.

IT is said that one of the most trying experiences of an inventor is the discovery that his invention has already been made by others, and one can quite believe that to a maker of jokes a little knowledge of what has gone before may be equally depressing. The *Sun*, in a sprightly article, pokes fun at the doctors for finding infection in almost everything, "from the harmless and more or less (*sic*) necessary towel down to the penny toy," and yet not discovering the potentialities of the speaking tube as a means of disseminating disease. It seems a pity to disturb such complacent wit and irony by any reference to facts, but if the *Sun* will turn its effulgent rays upon the BRITISH MEDICAL JOURNAL for November 3rd, 1894, it will discover that the whole question of speaking tubes and infection was there discussed, and that reference was made to cases reported to the Hackney Vestry by Dr. Warry, in which diphtheria appeared to have been spread by their use. We fear that in jokes, as in inventions, most things have already been tried, and that the old adage remains so far true that there is nothing new under the *Sun*.

THE DENTAL PROFESSION.

MR. STORER BENNETT (F.R.C.S.Eng., L.D.S., etc., George Street, W.) writes: "With the main contentions contained in the letter of Dr. Hugh Woods, in the BRITISH MEDICAL JOURNAL of June 15th, on Midwives Registration and the Midwives Bill, I do not propose to deal; certain statements, however, occur in the letter, the accuracy of which I beg to question.

"First, the letter says: "At present I have no hesitation in saying that the greater part of the dental work in London is done by men not on the *Dentists' Register*." Now, sir, because Dr. Woods does not hesitate to make this statement it is no proof that it is true, and I think a little reflection will convince him that he cannot be in a position to form an accurate judgment on the subject, while those who are really acquainted with the facts know quite well that such a statement is absolutely unfounded.

Later on the letter says: "It seems quite clear that, just as the Dentists Acts have removed dentistry from the position of a special branch of surgical practice, so the Midwives Bill," etc. So far from this being correct, however, I think it is shown that a much closer bond of union exists between general and dental surgery at the present time than at any previous period, for the *Dentists' Register* of 1895 contains just six and a-half times as many names of gentlemen holding medical or surgical qualifications as did the *Register* of 1878, the first with which such a comparison is possible.

UNQUALIFIED PRACTICE.

MR. J. BATTEN COUMBE, F.R.C.S.Eng., L.S.A.Lond. (Clevedon), writes: Mr. Henry Owen, B.C.L.Oxon., contends that any "wise woman" has a right to render aid to any other person in time of sickness if so desired and to compel payment, just as if she had been "properly educated;" "that the case which he imagined was of set purpose an extreme one," and "the law is to be found in the interpretation of the statutes by the courts of law." Fortunately, by the 20th Section of the Apothecaries Act a penalty of £20 is imposed and can be recovered in any county court (26th Section) in England or Wales against any person who practises as an apothecary without being duly qualified, which is made an offence by the 14th Section of the Act 55 Geo. III, c. cxciv. It has been decided by Mr. Justice Cresswell that an apothecary is a person who professes to judge of internal disease and applies himself (or herself, I presume) to cure that disease by medicines, selecting and determining on which he ought to give.

THE TREATMENT OF INSECT STINGS.

DR. C. R. ILLINGWORTH (Ventnor) writes: I was called to see a little boy in the house where I am now staying who had been badly stung on the thigh by some insect. The pain made him scream, and the marks (three in number) were of a bright red colour, the size of half a crown, and rapidly spreading. I rubbed in a 1 in 500 solution of the biniodide of mercury in iodide of potash, and in one hour all the smarting and inflammation had disappeared. He was quite free from any appearance of irritation and pain the following morning, and only the punctures remained.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(A) An Admirer; Mr. E. Arnold, London; F. S. Arnold, M.B., Manchester; *Atlantic Medical Weekly*, The Editors of, Providence, R.I.; Dr. L. Atthill, Dublin; Dr. G. A. Atkinson, Newcastle-on-Tyne; A. D.; Another D.P.H.; Apollinaris Company, The Manager of, London. (B) Lord Balfour of Burleigh, London; Mr. W. L'H. Blenkarne, Leicester; H. T. Barton, M.B., Blackpool; Dr. J. Bryden, Hawick; Mr. D. Biddle, Kingston-on-Thames; H. G. Barling, M.B., Birmingham; Dr. W. Bruce, Dingwall; Dr. J. Barr, Liverpool; Dr. A. J. Boyd, Ware; Mr. G. W. Burn, London. (C) Camp Follower; Cosenor; Cymro, D.P.H.; Dr. W. Carter, Liverpool; A. Carless, M.B., London; M. Craig, M.B., London; Mr. G. Carter, Ilkley; Dr. G. W. Crowe, Worcester; Miss Clifford, Bristol; G. C. Cameron, M.B., Dewsbury; Dr. W. M. Campbell, Liverpool; A. Cameron, M.B., London; C. J. R. W.; Colony; Dr. C. J. Cullingworth, London. (D) Dr. W. Duncan, London; Messrs. Down Bros., London; Mr. D. D. Donovan, Cork; Dental; Dr. T. Dutton, London; Mr. C. T. Dent, London; Mr. E. Davies, Swansea. (E) Effect in Discipline; Dr. G. Elam, London; Enquirer; Ex-President of the Nottingham Medico-Chirurgical Society; Mr. A. R. F. Evershed, Penzance. (F) F.R.C.S.; Felix; Fair Play; F. W. Fish, M.B., Southport; Mr. W. Fearnley, London; A. P. Fiddian, M.B., Cardiff; Mr. C. M. Fegen, London; Dr. R. M. Felkin, Edinburgh; F. H. M. (G) Messrs. R. W. Greef and Co., London; Mr. W. C. Grosvenor, Manchester; C. Gordon, M.B., West Malvern; Dr. F. Gourlay, Southend-on-Sea; Dr. W. S. A. Griffith, London; Mr. J. H. Gilmour, Hurstbourne Tarrant; Dr. W. Gowans, South Shields; Dr. J. D. Grant, London. (H) Dr. J. Highet, London; W. C. Hamilton, M.B., Blackburn; Mr. W. B. L. Hopkins, London; Dr. A. J. Hubbard, Hemel Hempstead; Dr. J. B. Haycraft, Cardiff; Mr. F. R. Humphreys, London. (I) Dr. F. Isdell, London; Dr. C. R. Illingworth, Ventnor. (J) Mr. W. Jago, Brighton, Dr. C. E. Jennings, London; J. W. B.; Mr. F. W. Jordan, Stockport; Dr. G. M. Jessop, Redhill. (K) Dr. W. M. Killen, Belfast. (L) Mr. F. G. Layton, London; Mr. F. D. Lumley, Aberdeen; Mr. F. J. Lilly, Gosport; Dr. H. H. Lankester, London. (M) Mr. R. F. McArdle, Stoke-on-Trent; Dr. H. C. L. Morris, Henley-on-Thames; Dr. J. McNaught, Manchester; Dr. G. Mackay, Edinburgh; Dr. G. L. Mullins, Waverley, N.S.W.; Mr. E. D. McNicoll, Southport; Dr. P. R. Minns, Thetford; F. H. Marson, M.B., Stafford; Miles; Mr. J. Y. W. MacAlister, London; Member. (N) J. H. Neale, M.B., Leicester; Dr. J. Neil, Oxford; Dr. L. Napier, London. (O) Messrs. Oppenheimer, Son, and Co., London. (P) Dr. C. Porter, Stockport; Dr. A. Purkiss, Wolston; Public Health. (Q) Quackery. (R) R.; M. B. Ray, M.B., Harrogate; Mr. H. P. Robins, Chicago; Mr. A. Roberts, London; Dr. H. B. Robinson, London; Dr. M. K. Robinson, Dover; C. Robertson, M.B., London; Dr. J. B. Ridley, Woking; Dr. N. Raw, Dundee; Dr. B. Rice, Leamington; Dr. E. S. Reynolds, Manchester. (S) Messrs. Street Bros., London; Dr. W. J. Smyly, Dublin; Surgeon-Captain A.M.R.; Dr. R. S. Smith, Bristol; Mr. E. J. Staples, London; Mr. H. W. Scriven, London; Messrs. Salamon and Co., Rainham; Dr. H. R. Spencer, London; Dr. J. F. J. Sykes, London; Mr. E. Somers, Pendleton; Dr. J. H. Stowers, London; Surgeon-General Retired; Mr. E. F. Smith, Lavenham; Mr. H. M. Snow, London; Dr. E. Stephens, Ilminster; Mr. J. B. Smith, London. (T) Mr. C. W. Thies, London; Dr. St. Clair Thomson, London; Tubercle; C. H. Taylor, M.B., Derby; Dr. G. Thomson, Oldham. (U) Ut Prosim. (V) Mr. C. M. Vernon, Ashford. (W) Mr. J. Walker, Kirkby, Mr. F. F. White, Coventry; Dr. E. A. Waterworth, Newport, I.W.; Dr. A. W. H. Walker, Harrogate; Mr. T. M. Watt, Hovingham; Dr. F. J. Waldo, London; Mr. J. Wyeth, London; Wolfruna. (X) X.; etc.

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The (So called) Midwives Registration Bill: A Disease-producing and Death-dealing Proposal: An Insult to Poor Women. By Robert R. Rentoul. Liverpool: Meek, Thomas, and Co. 1895. 1s.

The Art of Breathing as Applied to Physical Development. By Surgeon-A. L. Hoper-Dixon. London: Gale and Polden. 2s. 6d.

Myxœdema and the Thyroid Gland. By J. D. Gimlette. London: J. and A. Churchill. 1895. 5s.

A Manual of Botany. By J. R. Green. Vol. I.: Morphology and Anatomy. London: J. and A. Churchill. 1895. 7s. 6d.

The Cell: Outlines of General Anatomy and Physiology. By Dr. O. Hertwig. Translated by M. Campbell and edited by Dr. H. J. Campbell. London, Swan Sonnenschein, and Co. 1895. 12s.

Diphtheria and its Associates. By Lennox Browne, F.R.C.S. London: Baillière, Tindall, and Cox. 1895.

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AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(1) Tuberculous Meningitis.

DENNIG (*Münch. med. Woch.*, 1894, Nos. 49 and 50, 1894) discusses the diagnosis of tuberculous meningitis. Besides the cerebral symptoms, heredity, the gradual onset of an apparently harmless indisposition which slowly but steadily increases, and the general symptoms, including rapid loss of flesh and irregular temperature, must be taken into account. Departures from the type are very common. A negative ophthalmoscopic examination does not exclude tuberculous meningitis. None of the distinctions from so-called simple meningitis are absolute. The author records an atypical case in a child aged 2½, with the necropsy. On admission there was a slight angina. The respiration pulse ratio was disturbed, and signs of pneumonia were present on the right side. Later cerebral symptoms supervened. A pneumococcus meningitis suggested itself. Quincke's lumbar puncture could not be had recourse to during life. After death, however, the fluid drawn off in this way showed, both morphologically and by experiment, numerous tubercle bacilli. Most of the organs were affected with tubercle. In both lungs there was tubercle, but in the left there was also a vicarous emphysema: hence the difference in physical signs noted during life. The absence of basic cerebral symptoms was explained by the slight involvement of the meninges at the base. The author strongly recommends the lumbar puncture and the bacteriological examination of the fluid in such cases.

(2) Typhus Fever.

DE BRUN (*Rev. de Méd.*, November, 1894) discusses a recent epidemic in Beyrouth. Of the nervous manifestations, persistent headache was constant and vertigo and insomnia frequent. Rachialgia and gastralgia were often early symptoms. Cutaneous hyperæsthesia was frequently noted. Prostration was one of the most characteristic manifestations. There was frequently difficulty in speaking. The torpor hardly had the same features as in enteric fever. Conjunctival injection was very constant. The restlessness was at times very marked, and tremor of the hands and tongue almost always present. Subsultus was more evident than in enteric fever. Delirium was frequent. Visual hallucinations and loss of memory were very often observed. The characteristic eruption appearing from the third to the fifth day was seen in three fourths of the cases. The character of the rash did not always correspond to the severity of the disease. Vomiting was frequent, and a case is recorded in which it largely contributed to the fatal issue during defervescence. Constipation was almost constant, the abdomen being painless and not distended. The author draws great attention to the myocarditis so frequently present and to the condition of the pulse. During defervescence it may render the prognosis serious. Pneumonia, lobar or catarrhal, and pleural effusion were never noted. Albuminuria was frequent but of no prognostic value. The defervescence was (1) rapid, (2) rapid with oscillations, or (3) gradual. The hearing was less often involved than in enteric fever. Complications, excepting myocarditis, were rare. One case complicated with gangrene is then recorded. The typhus poison would appear to enfeeble the malarial infection. A gradual onset was not very uncommon. The period of hypothermia after defervescence is one of anxiety. The mortality was here only 9 per cent. Typhus must be distinguished from enteric fever, variola (in early stages), dengue, and pernicious malaria. The author strongly recommends digitalis (the infusion) where myocarditis supervenes. The pyrexia never required treatment. Antisepsis of the mouth is most important. Plenty of fluid is allowed. During the period of hypothermia generous diet is given.

(3) Larval Forms of Diphtheria.

HEUBNER (*Deut. med. Woch.*, December 13th, 1894) speaks of anomalous cases of diphtheria occasionally seen in weakly and ailing children. The child does not present the ordinary manifestations of diphtheria, but symptoms referable to the respiratory or digestive organs, and a less characteristic fever. Then more or less suddenly severe laryngeal stenosis may reveal the nature of the case, but at times the disease is recognised only at the necropsy. The author records an illustrative case in an infant, 1½ year old, admitted with severe rickets and a fracture of the femur of sixteen days' standing. Some four weeks after admission the temperature rose. This was attributed to a nasal catarrh and broncho-pneumonia. The throat appeared healthy. Four days before death hoarseness supervened, and 3 days later symptoms of laryngeal obstruction, for which intubation was done. Diphtheria serum was then injected. A few hours later tracheotomy was performed, but the child died the next day. The author thinks that in all probability the diphtheria began in this case with the rise of temperature seventeen days before death. He records another atypical case. The disease was here suspected, and then bacteriologically proved. The child was treated with antitoxin, and recovered. A third case is also reported, in which the disease ran clinically an absolutely latent course. During life the symptoms pointed to a severe gastric affection. There are two facts to be remembered—(1) the condition of the child before the infection, and (2) the presence of atipycal symptoms which are likely to be put down to the original disease. In a footnote, Heubner takes the opportunity of refusing to accept any responsibility in the views put forward by Hansemann before the Berlin Medical Society (BRITISH MEDICAL JOURNAL 1894, No. 1772) concerning a case from his own clinic.

(4) Alimentary Glycosuria in Lead Colic.

BRUNELLE (*Arch. Gén de Méd.*, December, 1894) points out that the presence of modified pigments in the urine, the subicterus tint in the conjunctiva, the diminished amount of urea excreted, show that the liver is implicated in lead colic (hepatic insufficiency). The author has found that when 150 to 300 g. of syrup were taken in the day, alimentary glycosuria was present in 11 out of 21 cases of lead colic. Any question of alcohol being the cause of the glycosuria was eliminated. The quantity of sugar, always small, was greatest during the first two hours. It was the rule for the glycosuria to disappear with the colic. This glycosuria is especially frequent in those who have worked long in lead. The author believes the lead acts directly on the nutrition of the hepatic cell. The glycosuria is fleeting because the lesion to the cells is slight. That some patients with less colic do not have alimentary glycosuria must depend on individual peculiarities. The glycosuria is frequently accompanied by urobilinuria.

SURGERY.

(5) The Stomach after Gastro-Jejunostomy.

ROSENHEIM, of Senator's clinic (*Berl. klin. Woch.*, December 10th, 1894) has examined ten cases, and has nearly always found, whether the primary disease was malignant or not, delay in the passing on of the stomach contents. In a patient with pyloric carcinoma, upon whom Hahn did a gastro-jejunostomy four months previously, there was increase in weight and much improvement, but the secretory functions of the stomach diminished. Bread, meat, and especially vegetables were retained longer than usual, but in this respect improvement appeared to be taking place. The bowels acted satisfactorily. The tumour did not appear to have increased, and the author thinks that the operation tends to delay such growth. It had certainly done away with the retention of fluid in the stomach. In another case in which gastro-jejunostomy was done for carcinoma by Hahn nine months ago, the woman was so much improved that she became pregnant; abortion had to be induced. The patient was without stomach symptoms. The secretory powers were *nil*, but the motor power showed improvement. Complete restitution of the stomach mechanism has not hitherto been observed, as Mintz's case is not quite free from objection. The author then records a case of pyloric obstruction due to the cicatricial contraction of an ulcer, and in which gas-

tro-jejunostomy was also done by Hahn four months previously with the most satisfactory results. The fasting stomach was empty one hour and three-quarters after a test breakfast. The secretory and motor functions of the stomach were normal, and the patient had gained 52 lbs. in weight. The gastric hypersecretion noted before the operation was, in the author's opinion, now cured. Here the abnormality in secretion was secondary. There are undoubtedly many cases in which it is primary and the motor insufficiency secondary. The author contends that in such a case as the one above reported hypersecretion is no contra-indication to the operation.

(6) The Treatment of Ganglion.

S. Duplay (*Arch. Gén. de Méd.*, December, 1894) recommends a new and simple method. He injects from 5 to 10 drops of the tincture of iodine into the ganglion. A bandage is applied partly with the object of exercising pressure and partly of fixing the adjacent articulation. The pain is but slight, and ceases on the second or third day. The cure is usually complete in five or six days. Sometimes a second injection may be necessary on the fifth or sixth day. Recurrence has been known after all the usual methods of treatment; and in one of the author's cases the ganglion had already been twice removed.

(7) Laminectomy.

Dundore (*Medical News*, November 24th, 1894) reports three cases of laminectomy for injury performed by Biddle and himself. The author holds that, though the results of this operation for fracture and dislocation of the vertebræ are very uncertain, it is an imperative duty to practise it unless the patient is actually in a dying condition. The patient is afforded a chance for improvement, with little, if any, danger of shortening his lease of life, provided the operation be performed aseptically. The first case was one of persistent paraplegia after partial dislocation of the ninth dorsal vertebra. After an interval of five months laminectomy was performed. The cord was found to be compressed and much congested, but there was no evidence of laceration. The laminæ and spinous processes of the eighth and ninth dorsal vertebræ were cut away, and all pressure on the cord thus relieved. For the first month after the operation there was very little improvement in the condition of the lower limbs, but subsequently the paralysis gradually disappeared, and nine months later the patient, who was 21 years of age, walked very well. In the second case the operation was performed four months after a fracture of the tenth dorsal vertebra, which had resulted in complete loss of sensation and motion below the seat of injury. The cord was found to be completely severed, the divided ends being almost an inch apart. Death followed at the end of a month. The third patient was operated upon for a fracture of the ninth dorsal vertebra within twenty-four hours of the receipt of the injury. The cord was found to be severely lacerated. The laminæ and spinous processes of eighth, ninth, and tenth vertebræ were cut away. The wound had united by the twelfth day, but the patient never improved, and died three weeks after the operation.

(8) Complete Exclusion of a Portion of the Intestinal Tract.

Obatinski (*Centralbl. für Chirurgie*, No. 49, 1894), reports a case in which on removal of the cæcum for tuberculous degeneration of its coats and an external fistula, he found it impossible to bring together the divided ends of the ascending colon and the ileum. To overcome this difficulty he divided the colon at the junction of the ascending and transverse portions, closed by sutures the open ends of the ascending colon, thus shutting off this portion of intestine from the rest of the intestinal tact, and finally stitched together the open ends of the tranverse colon and the ileum. This operation, which occupied three hours, was followed by complete recovery. The patient, a female, aged 24, was discharged at the end of the second month. The stools were normal and regular, and no trouble had been caused by the presence in the abdomen of a completely closed and isolated portion of intestine.

(9) Ulnar Nerve Paralysis produced by a Cyst of that Nerve.

Zum Busch (*Arch. f. klin. Chir.*, Bd. xlix, Heft 2) gives the case of a man, aged 30, who had a movable fluctuating tumour, of the size of a walnut, situated about three finger's breadths above the internal condyle of the right arm, and feeling somewhat like an enlarged and softened lymph gland. It seemed to be close under the skin, which, however, was not adherent over it. There was evidence that the patient had had in early childhood some fracture about the elbow, possibly a T fracture of the lower end of the humerus; there was likewise a history of some injury to the elbow five weeks before. The ulnar nerve could be felt below the tumour, and seemed to pass into it. The patient complained of pain in the neighbourhood of the tumour, and there were signs of paralysis of the ulnar nerve and atrophy in the hand muscles supplied by it. An operation was performed, and the tumour was found to be a smooth-walled cyst containing a yellowish, jelly-like material resembling synovial fluid; the ulnar nerve formed an expansion around the cyst wall. The cyst wall was sponged with a solution of corrosive sublimate, and the wound healed up by first intention. The patient was treated for four weeks with electricity and massage; the atrophy disappeared, and the function of the ulnar nerve was restored, so that two months after the operation the man could resume his work as a furniture polisher. Zum Busch considers the cyst to have been of traumatic origin, but the only similar case which he could find recorded is without clinical history. When dissecting a male body, Bowlby found in the anterior branch of the ulnar nerve a cyst, which apparently communicated with the carpal joint, and in the posterior interosseous nerve of the other arm a similar, but smaller, cyst was found.

MIDWIFERY AND DISEASES OF WOMEN.

(10) Rupture of Uterus.

Albers Schönberg (*Cent. f. Gynäk.*, December 1st, 1894) reports a case of rupture of the uterus on account of congenital displacement of the kidney. The patient had had two previous labours, difficult and tedious, but terminated without instrumental assistance. In her third confinement, when she had been thirteen to fourteen hours in labour, spontaneous rupture of the uterus seems to have taken place, the rent being across the anterior wall of the uterus just above the vagina. The woman was found somewhat collapsed, but the amount of hæmorrhage was not great. The head was presenting and in the second position, but the greater part of it was projecting through the rent between the uterus and vagina. The child was delivered by version, and proved to be a dead female, weighing 3,500 grammes. The placenta was manually extracted. The absence of signs of severe internal hæmorrhage, with other considerations, encouraged the hope at first that the rent might not involve the peritoneum, and no immediate operative interference was undertaken. On the fifth day stercoraceous vomit and signs of peritonitis led to the performance of abdominal section, but the uterine rent could not be found, because (as was subsequently ascertained) the rent was occluded by coagulated blood and fragments of uterine tissue; peritonitis and adhesions were present. The abdominal incision was then closed, a loop of intestine being fixed in the wound and opened. The patient sank soon after the operation. On *post-mortem* examination a complete transverse rupture, 8 cm. long, was found in the cervix uteri anteriorly. The left kidney lay in the hollow of the sacrum, with its upper end upon the promontory, and the hilum to the right. The renal artery came off just above the bifurcation of the aorta, and the renal vein entered the vena cava at a corresponding level. The pelvis was flat, with a true conjugate of 9.5 cm. The author says that the kidney would prove a more serious obstruction to birth in the second vertex position than in the first, and that the two previous safe deliveries may perhaps have their explanation in this fact.

(11) The Curette in Puerperal Infection.

Ferré (*Nouvelles Archives d'Obstét. et de Gynéc.*, November 25th, 1894) strongly supports this practice after long experience of irrigation of the uterine cavity for puerperal infection, a procedure which lowered mortality but did not save several bad cases. At the same

time he never had recourse to the curette after labour excepting when placental relics required removal. Since using the curette six bad cases had been treated by Ferré, with only one death. The fatal case, it must be noted, was a private patient, and symptoms of infection immediately followed natural labour at term; she was left without assistance for five days, and the curette was employed as a last resource. The patient died on the seventeenth day. In a second private case the curette was used on the second day immediately after a rise of temperature with rigors. The symptoms of infection at once vanished. In a third a live child was born; a twin then presented at the shoulder. Embryotomy had to be performed. Fever set in on the same evening; next day large blunt curettes were used, without anæsthetics, the uterine cavity was swabbed with glycerine of creasote and plugged with iodoform gauze. All bad symptoms ceased at once. The three remaining cases were in the Pau Lying in Hospital, and had all the advantages of treatment in a public institution. They resembled the second above described, except that in one case parametritis set in before the curette could be used. All recovered.

(12) Calculus in the Vesico-Vaginal Cavity after Colpocleisis.

ROSENTHAL (*Gazeta Lekarska*, No. 12, 1894) writes of a woman, aged 42, who suffered damage to her bladder during labour twenty years previously. A vesico-vaginal fistula developed. When the patient was 37, colpocleisis was performed, the vagina being closed by a plastic operation below the fistula. For a year before Rosenthal saw her, she suffered from local pain and incontinence of urine. The vaginal orifice was found incompletely closed; two fistulous orifices remained. These allowed of the introduction of a sound into the united vesico-vaginal cavity. A calculus was then detected. The membrane formed by the plastic operation was simply divided and the calculus extracted.

(13) An Epidemic of Gonococcal Vulvitis: Transmission by Thermometers.

WEILL AND BARJON (*Sem. Méd.*, November 3rd, 1894) report an epidemic of vulvitis due to gonococci, which was found to be due to the rectal use of the thermometer for taking temperatures. In April a little girl was admitted who presented a discharge rich in gonococci. Contracting measles, she was isolated with another little girl, who during June was attacked with vulvitis. Both in that month recovered from measles but, still presenting a discharge, returned to the ward. Two more patients were attacked on June 18th and 20th. On July 3rd vulvitis showed itself in a typhoid fever patient. Thenceforward the epidemic spread with great rapidity. One case occurred on July 6th; 8 others from the 10th to the 15th; 3 others about the 20th; and 3 on the 28th and 29th. A searching inquiry was then held. The idea of transmission by contact was *a priori* negatived, since the disease had shown a preference for patients of tender age, namely, 2 to 7 years, and the supervision exercised had been most careful. The use of commodes common to a certain number of beds was thought a likely means of transmission; but typhoid patients had the disease also, and these used a special commode. Moreover, a patient absolutely confined to bed with tuberculous peritonitis, and who used a special bedpan, had contracted the disorder. This idea, therefore, was untenable. The bath was discussed; but the typhoid patients, several of whom had the disease, were bathed entirely in the ward, whilst the other patients used the general hospital baths in common with females from other wards which offered not a single case of the disease. Rigorous disinfection of sheets and wearing apparel led to no improvement. The irregular distribution and rapid spread, dating especially from the typhoid case, suggested the thermometer as the cause. The ward nurses, each provided with three thermometers, had taken the rectal temperatures twice a day. After each using the instrument had been rapidly dipped in carbolic solution (25 per cent.), wiped, and lubricated with boricated vaseline—a method of cleansing obviously insufficient. The rapid spread after the implication of a typhoid patient resulted from the fact that the temperatures of such patients were taken eight to sixteen times a day. New thermometers were now purchased, the old being kept for already infected cases. All, after each using, were steeped in hydrochloric acid (1 in 3), wiped with sterilised lint, and lubricated with boricated vaseline. In addition they remained all day in a 1 per cent. sublimate solution. The epidemic from this time ceased, with two or three exceptions, which were caused by a newly-introduced nurse who had not learned the fresh procedure and who had merely wiped her thermometer. The authors noted as interesting the concurrence of several non gonococcal cases at the same time—all, however, imported from without. In no case was any anal discharge or inflammation observed.

THERAPEUTICS.

(14) Some New Drugs.

VON ZIEMSSEN (*Münch. med. Woch.*, December 11th, 1894) says of lactophenin that the experiences are not yet sufficient to confirm the favourable reports of v. Jaksch and Jaquet. It is really a lactophenacetin, and the dose is the same as that of phenacetin. In the author's clinic many investigations have been made with ferratin. It was found to be a good iron preparation, easily taken and digested, but it should be given in larger doses than recommended by Schmiedeberg. The author thinks that as a substitute for digitalis, strophanthin is a more reliable preparation than the tincture of strophanthus. Digitalis should be given in the powder or infusion preferably to the uncertain tincture. Von Ziemssen discusses the use of clysters containing sodic salicylate (2 to 3 g. to 15 to 20 g. of hot water), in those unable to take the salicylates by the mouth. The absorption is nearly as efficient as by the stomach. This also applies to preparations of squills. The use of salicylates in ointment over painful joints is also recommended. Turpentine is a useful addition to such ointment. Ebstein's aleuronat bread is a valuable substitute for amylum bread in diabetes. V. Ziemssen strongly emphasises the value of freshly prepared meat juice as against some of the prepared meat juices in very general use.

(15) Trional.

VENANZIO, in a pamphlet, published in 1894, remarks that trional is in every sense a hypnotic. It has no action on the pulse, respiration, reflexes, etc. It is superior to most of the other hypnotics, even having advantages over sulphonal and tetronal, but it stands, according to the author, below chloral, which is the sovereign hypnotic. It is not to be compared, of course, with duboisin, which is a most powerful sedative rather than a hypnotic. The author gives trional in honey, mental patients taking it well in this way. He usually gives 1 g., but sometimes 1½ to 2 g. It begins to act in a few minutes, and eventually undisturbed sleep supervenes. No headache or other unpleasant symptoms are noted after it. Trional is most useful in the insomnia of neurasthenics accompanied by depression. In some cases of excitement it is also useful.

(16) Treatment of Lupus.

SCHÜTZ (*Arch. f. Dermat. u. Syph.*, xxvi, I, 1824) treats lupus vulgaris as follows: After the administration of chloroform all the friable tissue is scraped away with the sharp spoon; then the floor of the wound and the borders to a distance of 1 centimetre, are scarified. When the bleeding has been stopped the wound is dabbed over several times with a cold saturated alcoholic solution of chloride of zinc, to which a little hydrochloric acid has been added. During the ensuing six hours, sharp pain is felt, which may be mitigated by the application of iced compresses. Before twelve hours have passed, local swelling comes on, with œdema more or less pronounced, of the neighbouring parts. Compresses of boric acid disperse this œdema in thirty-six hours, and cleanse the wound. For four days afterwards a dressing of pyrogallic acid (1 in 4) in vaseline is applied three times a day. Then boric acid compresses frequently changed, are substituted for this dressing. After five days of these compresses, the dressing of pyrogallic acid in vaseline is again resorted to and continued for four days. Then boric compresses are applied again for three days; lastly, a final

application of pyrogallic acid and vaseline is made for two to three days. Cicatrisation is rapidly obtained by the use of iodoform in powder or of boracic acid in vaseline. The duration of treatment is from two and a half to three months, and an excellent looking scar is the result. Recurrence may take place at one or two points. If so the nodules must be scraped away with the sharp spoon, and chloride of zinc applied. The author claims that the results of this treatment are more satisfactory than those of any other plan known to him. The treatment is applicable to lupus of the skin; for that of mucous membranes in readily accessible situations such as the gums and the uvula Schütz recommends applications of a watery solution (20 to 30 per cent.) of chloride of zinc.

(17) "Borism"; or the Toxic Effects of Borax.

Féré (*Sem. Méd.*, November 3rd) having given borax a six years' trial, in all doses, in epilepsy, finds it far inferior to bromide of potassium in efficacy, and far more dangerous in its toxic effects. Gowers noted the diarrhœa, nausea, and vomiting caused even by small doses, and accused it of causing psoriasis. In France early attention was drawn to the digestive troubles and eczema induced by it. The intestinal toxic effects are the most frequent and the earliest. Occasionally absolute intolerance exists, nausea, and vomiting occurring after the first dose. More often, after a few doses, there are loss of appetite, sensations of weight and heat at the epigastrium, with ensuing nausea, pains in the temples, and vomiting. Administration in glycerine instead of aqueous solution or intestinal antisepsis may remove these effects. Borax determines a peculiar dryness of skin and mucous membranes. The lips and tongue are reddened and denuded of epithelium. The lips and angles of the mouth are fissured, the conjunctivæ injected. The lack of fatty matter in the skin secretion is shown by Arnozan's method. Finely powdered camphor is placed on water, into which is plunged a glass rod previously held in contact with the skin. The camphor particles cease to gyrate if fat be present. No such reaction occurs in "borism." The skin loses its fat in a determined order, naturally sebaceous parts, such as the face the alæ of the nose, being the last affected by borax. Conversely, the fat reappears first in these parts on the stoppage of the drug. The skin dryness, even without an eruption, often coincides with a dryness of the hair, which falls out. Hence an alopecia of the scalp, which is general. Sometimes even the beard, eyebrows, axillæ, and pubes are stripped. Concomitant skin rashes may be paralleled by borax, but more special to it are (1) an eczema, like seborrhœic eczema, but varied. (*a*) Papules or small circles, with red and squamous border, which, enlarging, fuse together, forming more or less extended, often symmetrical, plaques. This variety begins in least sebaceous parts, the hypogastrium, lateral regions of trunk, etc. Or (*b*) eruption of seborrhœic acne, with slight desquamation of the scalp, with or without alopecia. These forms usually improve under intes inal antisepsis or local treatment without stoppage of the drug. (*c*) Pink or red, more or less confluent, plaques, giving the skin a uniform tint, with fine desquamations, deserving the epithet "scarlatiniform." (2) Papular eruptions of variable extent, confluent or not, with pruritus, and followed sometimes by fine branny, sometimes by large flaky, desquamation. Sometimes with the papules are petechiæ. Cachexia emaciation, œdema of face and extremities, are often present with these generalised eruptions. Or there may be cachexia without cutaneous lesions, the nails being deeply furrowed transversely, as after fevers. Furuncular outbreaks may occur as accidents of cachexia. A line on the gums, similar to the lead line, is probably microbic. In two patients large, painful, symmetrical "myo-ites" of the sterno-mastoid muscles were present, with slight rise of temperature; this condition lasted fifteen to twenty days. Lastly, separate swellings of eyelids, or face, or extremities may occur without any other symptom. The urine will then be found loaded with albumen. As these manifestations may escape notice for a time, the danger is obvious. The cessation of the drug, probably owing to its tardy elimination by no means always arrests the kidney trouble, as in one case of the author's, which went on to uræmic coma and death.

PATHOLOGY.

(18) Placental Tuberculosis in Cows and Fœtal Tuberculosis.

Kockel and Lungwitz (*Beiträge zur path. Anat.*, vol. xvi. Part ii) have carefully examined the uterine contents in two tuberculous cows killed during pregnancy. The fœtus in the first case was of about the sixth month, and both macroscopical and microscopical examination gave evidence of tuberculosis in the liver, portal, and bronchial lymph glands. The mediastinal and some other lymph glands were also tuberculous, but were not examined microscopically. Some scattered grey specks were seen in the lung under the pleura, but the microscope did not show the presence of tubercle or tubercle bacilli. No evidence of tubercle was found in the other organs. The second fœtus was about 4½ months old, and evidence of tuberculosis was found in the liver, spleen, left kidney, left lung and especially in the portal, mediastinal one bronchial, and some other lymph glands. In both cases there was extensive tuberculosis of the uterine mucous membrane and in the first case tubercle bacilli were found also, though few only in the chorionic (fœtal) villi; in the second case, however, no bacilli could be found in the tissue or vessels of the chorion, though a considerable number of bacilli were seen in the epithelium, and occasionally also between the epithelium and the membrana propria of the chorion. In the epithelial cells containing tubercle bacilli the nucleus could often be seen properly stained, and this, the authors suggest, lends support to the view that this epithelium offers a barrier to the passage of the tubercle bacilli from the mother to the fœtus. Perhaps also the gelatinous tissue of the fœtal villi and chorion do not afford a good nutrient medium to the development of the bacilli. The authors also think that their observations support the view of Birch-Hirschfeld, that the mode in which the tubercle bacilli pass from the maternal to the fœtal circulation is by "growing through" the placenta, a view suggested to him by analogy from his observations on anthrax. The authors further call attention to the localisation of the fœtal tuberculosis, which was chiefly in the liver and the lymph glands, especially the portal, bronchial, and mediastinal glands.

(19) The Action of High Pressures on Microbes.

Roger (*Sem. Méd.*, December 5th, 1894) gives results of two series of experiments undertaken to ascertain the effects of high pressures on micro-organisms. Compressed gases had been found to attenuate and destroy bacteria, but the effects of simple pressure on culture liquids had not hitherto been investigated. An apparatus was first used which permitted shocks of 250 kilos. Under this pressure the staphylococcus aureus, the streptococcus of erysipelas, the coli bacillus, the anthrax bacillus, spore-bearing or not, presented no alteration after the action of five to ten successive shocks. Higher pressures were then tried. The same cultures were submitted to pressures varying from 1,000 kilos. to 3,000 kilos. per square centimetre—that is to say, from 967 to 2,900 atmospheres. Under these circumstances the staphylococcus and coli bacillus showed no modification, but the sporiferous anthrax bacillus was slightly attenuated by a pressure of 3,000 kilos. The non sporiferous anthrax bacillus supported perfectly 1,000 kilos., but pressures of 2,000 kilos., and especially of 3,000 kilos., caused a large number to perish, and those which survived caused merely a chronic affection in guinea pigs which developed in fifteen to twenty days, whereas in the control animals death ensued in three days. The streptococcus was equally altered by a pressure of 3,000 kilos; some were killed, and those which remained provoked merely a curable erysipelas, whereas before the compression they set up a fatal septicæmia. Hence there exists a very curious difference between the sensibility of bacteria to the action of compressed gases and their resistance to simple pressure, such changes of pressure as occur on our globe being powerless to modify their virulence.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(20) The Diagnosis of Diabetes and Glycosuria by Examination of the Blood.

BREMER (*Centralbl. f. d. med. Wissensch.*, December 8th, 1894) describes a modification of Ehrlich's method of staining cover-glass preparations of blood with eosin and methyl blue. By this method of staining in normal blood, the red blood corpuscles appear brownish red, but the colour varies from a clear reddish brown to a deep chestnut brown. The nuclei of the leucocytes stain blue. Bremer found that in diabetes and glycosuria the red blood corpuscles either remained completely unstained, or they were simply tinted light yellow or greenish yellow. Only occasionally a small peripheral zone of the red corpuscle was tinged slightly red. Other minor changes were found in the leucocytes. With acid fuchsine and other so-called acid dyes, the red corpuscles of diabetic blood stained just in the same manner as those of normal blood. It was only eosin which did not stain them. In order to determine whether this loss of staining affinity for eosin was due to the abnormal amount of sugar in diabetic blood, Bremer treated cover-glass preparations of normal blood with a solution of sugar. But he found that the red corpuscles still stained with eosin, as in normal blood. If, however, a cover-glass preparation of non-diabetic blood was floated for 25 to 30 minutes in a diabetic urine, the red corpuscles failed to stain brownish red with eosin; they remained unstained or were only slightly tinted yellow or greenish yellow, as in diabetic blood. But the red corpuscles in a cover-glass preparation of non-diabetic blood, treated with urine free from sugar, stained well with eosin. In glycosuria produced artificially by the administration of phloroglucin for three days, the red corpuscles failed to stain with eosin, as in diabetes.

(21) Ulcerative Endocarditis and Acute Articular Rheumatism.

LEYDEN (*Deut. med. Woch.*, December 6th, 1894) first sketches the history of the bacteriology of malignant endocarditis. The cause of rheumatic endocarditis is not yet definitely known. This endocarditis is rarely (directly) fatal, and then only in a late stage, when the presence of micro-organisms is hardly to be expected. The fatal cases of rheumatic endocarditis may also be examples of a mixed infection, which possibility must be excluded. Although acute rheumatism is looked upon as an infective disease, yet bacteriological investigation has as yet only given uncertain results. In 4 of the author's 6 cases of acute rheumatism, a diplococcus was found in the vegetations quite different from other micro-organisms such as the staphylococcus, pneumococcus, etc. Günther looked upon this micro-organism as a special one not hitherto described. Details are given of these 6 cases in which death took place somewhat early in the disease. In 2 of these cases there was ulcerative, and in 3 a vegetative or verrucous, endocarditis. In the remaining case there were extensive foci, both cellular and fibrous, in the myocardium, the valves being intact.

(22) Pyopneumothorax Subphrenicus.

THE *Norsk Magazin for Lægevidenskaben* for November, 1894, contains two contributions to this subject. Leyden was the first minutely to describe this condition fourteen years ago. Since then about fifty cases have been published. Pyothorax of abdominal origin may be of two varieties: in the one case the abscess communicates with the pleura through a natural or artificial opening; in the other there is no perforation of the diaphragm; the abscess, though inside the ribs, is under the diaphragm. Clinically these two varieties can scarcely be distinguished, as in the latter case the pus is often mixed with air from an eventually perforated intestine. Laache (*loc. cit.*) reports a case of each variety. In the one case the origin was undoubtedly a perityphlitis; the abscess had ascended to the diaphragm, forming a collection below it, but not communicating with the pleural cavity. By puncture below the angle of the right scapula pus was found, but the syringe must have entered the pleural and diaphragmatic cavities successively, as on resection the pleural cavity was found empty. A few days later, after allowing adhesions to form between the pleural surfaces, the abscess cavity was opened and found to contain a large quantity of fæcal-smelling pus mixed with air. The patient recovered. The origin of Laache's second case was the bursting of an old gastric ulcer. There was perforation of the diaphragm, and on resection a large quantity of foul-smelling pus was evacuated from the pleural cavity. The patient was left with a fistula, from which pus was discharged at regular intervals of two to three weeks; the fistula in the meantime was closed. The author believes there must have been a long and narrow fistulous communication, probably from the gastric ulcer, traversing the diaphragm, but nothing of the kind was detected at the operation. Laache believes that the recumbent position is a factor in the ascending of these abscesses.—Thue (*loc. cit.*) reports a fatal case of pyopneumothorax subphrenicus, due to the bursting of an old gastric ulcer, situated near the small curvature. The opening due to the perforation was directed obliquely upwards, and had such a shape that it allowed air to be pumped under the diaphragm with the respiratory movements. The abscess communicated with the right pleural cavity.

(23) The Compensatory Action of the Cerebral Hemispheres.

MARIE DE MANACEIN (*Neurol. Centralbl.*, November 15th, 1894) has tested this capacity by various methods. Assuming that sleep is most profound during the first two or three hours, and that the left cerebral hemisphere normally being the seat of the speech and right hand centres is more active in the working state, and therefore more exhausted and less accessible to stimuli than the right during sleep, it was found that on lightly tickling either side of the face of ordinary persons in this stage of somnolence, the sleeper made repellent movements invariably with the left hand, even when from lying on the left side it was necessary for the sleeper to withdraw the limb from beneath the body. In eight left-handed persons the right limb alone was moved. These experiments, the author maintains, are demonstrative of the compensatory or vicarious action of the one cerebral hemisphere during deep sleep. As further illustrations of the point, it is mentioned that in dogs exhausted by complete deprivation of sleep, reflex movements only occurred on one or other side, alternating periodically as if one half of the brain were temporarily asleep. In cases of left hemicrania with disturbance of speech and writing, the latter act could be accomplished with the left hand better during the attack than at other times.

SURGERY.

(24) The Operative Treatment of Gastric Ulcer.

KÜSTER (*Centralbl. f. Chir.*, No. 51, 1894) reports a second case of gastric ulcer successfully treated by incision of the stomach, thermic cauterisation, and gastro-enterostomy. The details of the former case, which was reported to the last Congress of German Surgeons, will be found in the EPITOME of September 15th, 1894, par. 206. The subject of the present record was an emaciated man, aged 42, who for six years had suffered from frequent attacks of pain in the stomach and of vomiting. In the spring of last year the vomited matter and also the stools were deeply stained with blood. The stomach for some months before the patient came under the author's notice had been much dilated. On June 27th the stomach was exposed by an incision made in the middle line of the abdominal wall above the navel. An ulcer could be felt in the posterior wall of the viscus near the pylorus. An incision having been made through the anterior wall of the much dilated stomach, parallel with the greater curvature, the cut edges were widely separated, and the thermo-cautery applied to the surface of the ulcer, which was about the size of a five-pfennig piece. Communication was next established between the stomach and the jejunum. The progress towards recovery was much disturbed by frequent distension of the stomach by abundant yellow fluid, for the removal of which it was found necessary to wash out the organ very

frequently in the course of the first five days following that of the operation. Besides this hindrance, large accumulation of blood and serum in the external wound rendered it necessary to remove some of the external sutures and to separate the edges. The patient when discharged at the end of six weeks was free from pain in the stomach, and able to take both solid and fluid food without discomfort. Two months later he was still in good health, and had increased considerably in weight.

(25) The Radical Cure of Umbilical Hernia. LUCAS-CHAMPIONNIÈRE (*Rev. de Chir.*, November, 1894) advocated at the recent French Congress of Surgery at Lyons the radical cure of umbilical and epigastric hernia. Although such treatment is not so frequently applied to these as to other forms of hernia, the indications for operation may be regarded as more urgent in the former. Umbilical hernia usually attains an enormous size, and causes much discomfort. It is never effectually retained by truss or bandage. It assists in bringing about rapid organic failure marked by diabetes, albuminuria, and premature senility, and is almost always complicated with obesity and pulmonary emphysema. When the hernia has acquired a considerable volume it is no longer amenable to operative treatment, as the swelling will very probably return through the large opening formed in the abdominal wall. In cases of small umbilical hernia, on the other hand, a solid radical cure may be effected. As umbilical hernia presents itself in many varied forms, it is impossible to state absolutely the details of the operation for its radical cure. In this, as in other forms of hernia, the main objects of such treatment are to remove the sac and to secure its pedicle, and to close the orifice in the abdominal wall by sutures arranged in rows so as to establish a firm cicatrix. In most cases in which the sac is removed it is necessary to excise the umbilicus. In operating on umbilical hernia, the author follows his usual custom in practising radical cure of removing large masses of omentum, and thus by reducing the tension of the abdominal wall, lessens the risk of relapse. The opening into the peritoneal cavity is closed by five rows of sutures—one for the peritoneum, one for the skin, and three for the different muscular layers. In cases of small umbilical hernia this operation, it is stated, has had excellent results. In large swellings, however, there is a constant tendency to relapse. The secret of the successful surgical treatment of umbilical hernia is never to allow the swelling to attain a large size. The extreme gravity of a large umbilical hernia with regard to the general health of the subject, the especial danger attending its strangulation, and the inevitable enlargement of the swelling should lead surgeons to propose an operation with a view to radical cure in every instance in which the swelling is still small and in an early stage. The author has operated on 18 cases of umbilical hernia with good results, but in some of the more severe instances he had to contend with serious symptoms of pulmonary congestion. He has operated also in 11 cases of epigastric hernia. This form of hernia, unlike umbilical protrusions, has hardly any tendency to increase in size. It is usually painful, and is often accompanied by vomiting and various intestinal troubles which cannot be easily accounted for. The palliative treatment of this form of hernia is not satisfactory, but the affection may be readily and effectually cured by operation. The hernial orifice should be freely incised, and the sac drawn forwards, opened, detached from surrounding parts, and removed, together with any omentum it may contain. The pedicle of the sac should be ligatured before division as far back as possible. The opening is then closed by three rows of sutures—one row for the skin, one for the peritoneum, and a third for the intermediate portions of the abdominal wall. In the author's practice this operation for the radical cure of epigastric hernia has never been followed by relapse.

(26) The Advantage of Internal Urethrotomy over Forcible Dilatation. CANTALUPO (*Rif. Med.*, December 17th, 1894) advocates internal urethrotomy in hard strictures where a dilator cannot be introduced, or, if introduced, cannot be opened (in which case he uses Maisonneuve's urethrotome). The wound in internal urethrotomy is much less extensive than in forcible dilatation, and the dilatability of the stricture is much greater after urethrotomy than after divulsion. The chief dangers are: (1) Hæmorrhage; this may be avoided by using small-bladed instruments—for example, Bottini's. (2) Extravasation of urine; best avoided by retaining a catheter of less calibre than the divided stricture, and using some drainage tube as a siphon. (3) Pyæmia may be excluded by antiseptic measures. (4) Fever, generally due to local retention of pus. Cantalupo finds a fresh indication for internal urethrotomy in cases of chronic gleet with stricture, where, after dilating the stricture up to a certain point, it still cannot be dilated up to the calibre of the sound part of the urethra.

(27) A Case of Strangulated Femoral Hernia during Pregnancy. GAUCHER (*Revue de Chirurgie*, October, 1894) reports a case of strangulated femoral hernia on the right side in a patient aged 40, who had reached the ninth month of pregnancy. The hernia, which had existed for six years, had previously given but little trouble, and the patient had never worn a truss. Kelotomy was performed twenty-four hours after the earliest symptoms of strangulation, and after the reduction of a loop of deeply-congested intestine, the sac was removed, and the opening closed by bringing Gimbernat's ligament into contact with the inner portion of Poupart's ligament by means of oblique metallic sutures. The patient, who was delivered of a living and full-grown child six days after the operation, made a speedy and complete recovery, and was discharged at the end of a month. The association of strangulated hernia with pregnancy must, the author states, be extremely rare, as he has been unable to find any previously recorded case; and, according to Berger, there is an incompatibility between these two conditions.

MIDWIFERY AND DISEASES OF WOMEN.

(28) The Cold Bath in Puerperal Septicæmia. MACÉ (*Archives de Tocol. et de Gynéc.*, December, 1894) strongly advocates this treatment. He has collected 74 cases. They include 7 deaths—3 from peritonitis, 1 from pyæmia, 1 from exhaustion after a long shoulder-presentation labour, and 2 from severity of the infection; the baths were given with too much timidity. The cold bath is contra-indicated when peritonitis, phlegmon of the broad ligaments, or phlegmasia dolens exists. It has proved successful when grave maladies, such as measles, erysipelas, eclampsia, or bronchitis have complicated the puerperal infection. The obstetrician must not delay treatment when high temperature and general constitutional disturbance have set in. First of all, he must make sure that the uterus is free from products of conception. Then, should the temperature rise over 101°, the bath must be used. It is often of value when the temperature is lower, the patient already suffering from headache and hot skin. The bath should be a little over 75° F., as a rule. Macé insists that it is right to leave the patient in till she shivers, especially when hyperpyrexia is the most marked symptom. In other respects the same precautions are needed as in typhoid fever. Subcutaneous injections of caffeine or sparteine should be given before the bath when the symptoms are severe, so as to counteract the tendency to syncope.

(29) Puerperal Polyneuritis. LUNZ (*Deutsche med. Wochenschr.*, November 22nd, 1894), after relating some cases, concludes that most depend directly on local infection, and consequently belong to pyæmic and septic polyneuritis. A second variety of polyneuritis may appear during pregnancy or after delivery: it comes under the cachectic type of this nerve disease, due in these cases to disturbed nutrition following uncontrollable vomiting, complete loss of appetite, or flooding. There remain instances of polyneuritis which cannot be traced to local infection or cachexia. Profound anæmia, psychical disturbance, exhaustion, all due to labour, or the overloading of the blood from the reabsorption of waste products, set up inflammations of nerves. There is no uniform type, but puerperal resembles diphtheritic polyneuritis. Just as a mild attack of diph-

theria, confined to the fauces, is sometimes followed by polyneuritis severe enough to endanger life, so slight septic infection after birth may result in an equally serious form of that nerve disease.

(30) Hydrocele Muliebris simulating Strangulated Inguinal Hernia.

LIERMANN (*Deutsche med. Wochenschrift*, November 15th, 1894) related this case, which occurred in a woman, aged 38. She had noticed for three years a swelling in the right groin. In woman, as in man, a patent condition of the processus vaginalis is most frequent on the right side. The swelling was irreducible, and she had local tenderness, vomiting, and occasional constipation for a month. Resonance was clear on percussion. On admission to hospital the bowels were opened after a dose of castor oil. The usual incision was made in the inguinal region. A swelling the size of a hen's egg was exposed; on puncture a pale yellow fluid escaped. The surgeon thought he had opened the peritoneum, but it was simply the distended inguinal canal which contained two thin-walled cysts, each of the size of a hazel nut, and fixed to the canal by a short pedicle. They communicated with each other by a short channel, through which a sound could be passed, and contained clear yellow fluid. They were excised, and the inguinal canal closed. The patient speedily recovered.

(31) Suture of Ruptured Uterus per Vaginam.

CHOLMOGOROFF (*Zeitschrift f. Geburts. u. Gynäk.*, vol. xxxi. pt. 1. 1894), in a bad case of rupture of the uterus, where the laceration was situated low down, succeeded in effecting suture from below. The breech had presented: it was drawn down, then the after-coming head had to be perforated through the hard palate. Expression proved useless for expelling the placenta: the hand was introduced into the uterus and a transverse laceration was detected, 4 inches long, an inch above the external os. The placenta was found lying amidst intestine, and was extracted. Cholmogoroff feared to perform laparotomy: the labour had not been conducted antiseptically, and he believed in Mikulicz's iodoform gauze tamponade. He washed out the peritoneal cavity by means of a long glass tube with a warm 2 per cent. solution of boracic acid. Then he steadied the cervix with four volsella forceps, and introduced sutures into the edges of the laceration. The serous coat was included. One end of the wound was left open, and the end of a long strip of iodoform gauze passed through it into the abdominal cavity. The opening was long enough to admit two fingers. The bleeding then ceased. The uterine cavity and vagina were packed with iodoform gauze, and the ends of the ten sutures wrapped in gauze. On the fourth day the tampons were removed, but the strip of gauze entering the peritoneal cavity was left alone: the vagina was again packed. The gauze was removed from the peritoneal cavity on the eighth day. On the tenth day there was a rigor due to inflammation of the left breast, an abscess formed and gave trouble. The sutures were removed, and it was found that the laceration had united by first intention. Cholmogoroff considers this practice good surgery, as the laceration is closed and antisepsis ensured by drainage. Suture of a uterine laceration is only practicable from the vaginal side when the rent lies below the contraction ring. This position is, however, the most frequent after labour.

(32) Absorptive Power of the Vagina.

COEN AND LEVI (*Collezione Ital. di Letture sulla Med.*, serie vii, No. 2) have recently made some observations on the absorptive power of the vagina under various conditions of health and disease. Iodide of potassium is easily absorbed. If a tampon soaked with a 20 per cent. solution be introduced into the vagina, iodine can be found in the urine in an hour. The excretion reaches its maximum in twenty hours and ceases in forty-eight hours. Fever and pregnancy increase the absorption. Hysterectomy makes no difference. Iodoform is absorbed slowly and in very small quantities, but more if fresh than if old. Salicylic acid is absorbed quickly, appearing in the urine in one hour and disappearing in twenty-four hours. Salol is very readily absorbed. Antipyrin is excreted in an hour and a-half and is found for forty-eight hours, but its antipyretic action is feeble as compared with administration by the stomach. In brief, the vagina has undoubted absorptive power, and this is increased in pregnancy, in the puerperal state, and in pyrexia.

THERAPEUTICS.

(33) The Antitoxin Treatment of Diphtheria.

HAGER (*Centralbl. f. inn. Med.*, December 1st, 1894) has treated 25 cases of diphtheria with antitoxin with only 1 death. The death occurred in an infant, aged 8 months, who was nearly moribund within twenty-four hours of the onset of the disease. Of the remaining 24 cases, 8 were mild, 6 of medium severity, and 10 severe or very severe: 250 immunity units were required in 1 case, 500 in 3, 600 in 6, 1,000 in 7, 1,200 in 3, and 2,500 and more in 2. Recovery followed in such a way as to leave no doubt as to the favourable action of the remedy. In 3 cases in which the process had apparently extended into the bronchi, retraction was marked in 2 and only slight in 1. In 2 cases paralysis of the palate supervened, lasting fourteen and four days respectively. In another case paralysis of accommodation appeared after the child had gone to school. Only in exceptional cases was there albuminuria. No unpleasant consequences were noted, but an urticaria-like eruption appeared in 5 cases. Of 35 children inoculated against the disease, 2 fell ill with it, but the attack was abortive. A third subsequently developed diphtheria. The diphtheria bacillus was found in most of the cases by Ackermann. — Moeller (*ibid.*) has treated 76 cases with the serum. Neither the very slight cases nor those which were moribund were injected. The mortality in his institution during the past five or six years has varied from 51 to 64 per cent., only once being 48. In the 76 above-named cases, 48 of which were tracheotomised, the mortality was 39.6 per cent. In 42 per cent., of the 76 cases albuminuria was present, and in 6 cases urticaria.

(34) The Prevention and Treatment of Diphtheria.

BABES AND TALASESCU record (*Roumanie Méd.*, No. 1, 1894) a number of experiments made in order to verify the results obtained by various observers with respect to the attenuation of the diphtheritic virus by trichloride of iodine, by heat, and by cultivation on extract of thymus. But the main object of their experiments was to render immune animals that should be able to supply vaccinal blood in large quantities. The following are the results obtained: By vaccination of animals with cultures of the diphtheria bacillus attenuated by growth in thymus bouillon, and then heated for fifteen minutes at 65° C., immunity can be produced so that the animal is able to resist an infection which would otherwise have been fatal. By heat and trichloride of iodine virulent cultures are transformed into a vaccine, but in order to obtain favourable results the inoculations ought to be continued for a long period. Sheep acquire immunity by this method in three months. At the end of this time their blood serum, by intra-abdominal injection, will protect guinea-pigs against a subsequent diphtheritic infection twice the strength of the usually fatal dose; but the blood serum has no influence on infection during treatment. The filtrate of cultures of the diphtheria bacillus, when treated with a solution of iodine and iodide of potash (solution of Lugol), in the proportion of 1 to 3, 1 to 2, and 1 to 1, and administered in doses of 1 to 5 grammes at intervals of from four to five days, protects rabbits and guinea-pigs against a diphtheritic infection twice the strength of the usually fatal dose. This method has the advantage of being constant and more rapid. The same method of treatment can be employed in the case of large animals, which, after once having acquired a high degree of immunity, are able to furnish blood which may be used clinically for the prevention and cure of diphtheria in children.

(35) Comparative Antiseptic Action of Phenyl-Substituted Fatty Acids.

KLEIN AND PARRY LAWS have shown that phenylacetic and phenylpropionic acids have a stronger antiseptic action on pure cultures of anthrax bacilli than phenol itself, the higher acid, phenylpropionic, being stronger than phenylacetic. Parry Laws (*Journal of Physiology*, December, 1894) has continued these investigations, and shown

that the next higher acid of the series, phenylbutyric, has still stronger antiseptic power than phenylpropionic. He finds that this acid restrains the growth of anthrax bacilli when present in the proportion of 1 in 2,500, and that it kills the sporeless bacilli when exposed for 30 minutes to a solution of 1 in 1,000, or for ten minutes to a solution of 1 in 700. Hence he concludes that the phenyl-substituted fatty acids increase in antiseptic power with the increase of the molecular weight of the acid.

(36) Formaldehyde.

Philipp (*Münch. med. Woch.*, November 20th, 1894) speaks of the value of this agent in disinfecting rooms and the articles contained in them. The best known disinfectant at present is chlorine, and yet this agent does not always give satisfactory results, as it acts only in the presence of moisture. The quantity of bacteria capable of development from the dust of a room was investigated. After exposure to formaldehyde vapour these steadily became fewer, and finally disappeared altogether. Other experiments showed a similar destruction of bacteria on the dust in textile materials. Cholera and typhoid germs were likewise killed in two or three days. Anthrax bacilli considerably lost their virulence. The development of anthrax spores was also arrested. Thus (according to the author) formaldehyde vapour excels all other substances as a disinfectant. By using large quantities of the vapour for long periods of time a complete sterilisation of the rooms and articles contained in them may be effected. Unlike chlorine it has no detrimental effect upon such articles.

(37) Effect of Massage on the Circulation.

Lauder Brunton and Tunnicliffe (*Journ. of Phys.*, December, 1894) record the results of some careful observations on the effects of massage on the circulation. The experiments were undertaken in order to determine (1) the changes occurring in the circulation in a given group of muscles during and after massage; (2) the effect of massage of a large muscular area on the general blood pressure. The experiments were carried out on cats, and the method used was the determination of the amount of blood passing in a given time from the efferent vein. The general results obtained are: (1) that during massage the flow of blood is increased through the muscles; (2) immediately after the cessation of massage an accumulation of blood occurs in the massaged muscles, which is followed by an increased flow through them; (3) massage of a large muscular area causes just a slight rise of blood pressure, followed by a fall which may amount to one-fifth of the initial blood pressure. Both during and after massage of muscles, a lowering of peripheral resistance in the corresponding area takes place, and hence more blood is propelled at each heart beat from arteries to veins, and a fall of arterial tension ensues. The results are carefully compared with the effects of alternate compression and release of the arteries, and also with the effects of simply firmly grasping the muscles, both of which must be factors in the general result of massage. It was found that in each of these cases a rise and fall of pressure took place, but the effect was more transient. Gentle kneading was found to have more effect in causing a fall of blood pressure than either compression and release of both external iliac arteries or of the muscles of both thighs.

(38) Guaiacol Carbonate.

Hölscher (*Berl. klin. Woch.*, December 3rd, 1894) has used this substance with good results in 100 cases of phthisis in addition to the 60 cases reported some time ago (Epitome, January 9th, 1894, par. 40). He first draws attention to the advantages of this preparation over creasote or even pure guaiacol. The digestive functions are not disturbed. The amount absorbed into the blood is small and the action therefore mild. The author thinks that the poisons circulating in the blood of the phthisical are in this way made inert. He mostly gives 2 to 3 g. in the day in two doses; in cases where no result is apparent he proceeds slowly to 6 g. He has seen striking improvement in some advanced cases of phthisis. The appetite is increased, and the assimilation of food promoted. Details are given of 6 cases, some of which were advanced when they first came under observation two to four years ago. Guaiacol carbonate is practically useless in acute miliary tuberculosis.

(39) The Treatment of Chronic Ulcers by the Electrostatic Brush Discharge.

Marquant (*Arch. d'Electr. Méd.*, August and September, 1894) sums up his experiences in twenty-two cases of chronic ulcer treated by the brush discharge as follows: The treatment greatly assists the healing of the ulcers. In young people whose general health is good the progress is rapid, the ulcers at once assuming a healthy aspect and proceeding to cicatrisation. In patients who are older, or of an unsound constitution, the improvement does not so soon become evident, but nevertheless cicatrisation is promoted. The cases, chiefly old varicose ulcers of the leg, are reported at length, and the results obtained seem to have been most striking. Treatment was repeated twice a week. The positive pole was used.

PATHOLOGY.

(40) The Specific Immunity Reaction of Typhoid Bacilli.

Pfeiffer (*Deut. med. Woch.*, November 29th, 1894) discusses this subject in a preliminary communication. His conclusions are as follows:—(1) The poison of the typhoid bacilli lies chiefly in the substance of the micro-organisms themselves. By the use of chloroform vapour, or by heating for an hour at 54° C., the bacilli may be killed and yet the unstable poison remain intact. (2) In the serum of an animal immunised by the typhoid poison, antitoxins are found having a specific bactericidal action on the typhoid bacillus, but not on closely allied bacilli. (3) By this method the presence of the true typhoid bacillus may be proved. (4) Such antitoxins are found in the blood of those convalescent from enteric fever. (5) By the proper immunisation of animals, large quantities of these antitoxins accumulate in the blood. Further investigations must show whether by means of such serum a similar bactericidal action to the above can be induced in man.

(41) Auto-Intoxication.

J. Schwalbe (*Real-Encyclopädie d. ges. Heilkunde*, Bd. iv, 1894) after referring to the investigations of v. Jaksch and Kobert states that auto-intoxication includes every poisoning of the body in which the poison as such is not introduced from without. There are retention and noso-toxicoses, the latter being subdivided, as they are, or are not, produced through microbial agency. Recently the opinion is gaining ground that the toxic effects are often due to the poisonous substances in the bacteria themselves. Among the retention toxicoses the author speaks of Bouchard's investigations into the toxic action of the urine and alludes to the view that this is due to potassium salts. The exact cause of uræmia is still unknown. The alimentary canal is a further source of retention toxicoses. Intestinal peristalsis must be interfered with, and the contents should be fluid. Catarrhal jaundice belongs to the same group. The causes of cholæmia are multiple. It may also possibly be produced by the absorption of poisonous products from the intestine. Neither experimental extirpation of the thyroid gland nor the brilliant results of thyroid feeding prove that myxœdema is necessarily a mucinæmia. Glykæmia stands in the same relation to the pancreas as mucinæmia is supposed to do to the thyroid. Gout is a toxicosis or uratæmia. Cyanosis and severe cerebral symptoms are the expression of auto-intoxication from the respiratory tract. An auto-intoxication due to suppressed insensible perspiration has not been proved to exist. The noso-toxicoses are, according to many, the auto-intoxications strictly so-called. These consist in acids, gases, ptomaines, leucomaines, tox-albumens, enzymes. The source of most poisonous metabolic products lies in albumen. (The specific products of micro-organisms are not included in this article.) Migraine and tetany probably depend on auto-intoxication from the alimentary canal. The author gives some details of ammoniæmia, hydrothionæmia, acetonæmia, and the intoxication due to the organic acids, and refers to the excretion of poisonous products by the urine in acute and chronic diseases.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(42) Infective Bronchitis.

DUFLOCQ (*Arch. Gén. de Méd.*, January, 1895) relates the following cases. (1) A patient, aged 71, after a chill presented signs of disseminated bronchitis. Later the general condition became much worse, a fatal issue being feared. The urine contained a small quantity of sugar. On the eighth day abundant pneumococci were found in the sputum. The patient eventually improved slowly, and after a long convalescence recovered. The author says that this form of bronchitis always presents the same insidious onset, the same gravity, and the same slowness of convalescence. He has also found it present along with tuberculosis. (2) A patient took cold fourteen days after a fracture of the humerus. He developed a cough, with abundant expectoration, and only a slightly elevated temperature. Four weeks later he was wasted, the cough persisted, and the expectoration was profuse and ill-smelling. No tubercle bacilli could be found at any time in the sputum, but a bacillus was present, which proved itself to be both morphologically and by culture the bacillus coli communis. The patient died some two or three weeks later. The author draws attention to the general symptoms in these cases, which somewhat resemble those of cholera. The prognosis is unfavourable. As to the cause of this localisation of the micro-organism the author points to the gastro-intestinal dyspepsia which this patient occasionally suffered from. Bacteriological examinations are necessary in these cases of bronchitis.

(43) Duodenal Stenosis.

SCHÜLE, of Erb's clinic (*Berl. klin. Woch.*, November 5th, 1894), reports a case of duodenal obstruction due to a gall stone and followed by recovery. A woman, aged 35, had suffered from slight pains in the right hypochondrium, but never had jaundice. The stomach was markedly distended, the lower limit standing at 5 cm. below the umbilicus. No tumour could be felt, and the stomach contents contained free hydrochloric acid. The liver extended three finger's breadths below the costal margin: the gall bladder could not be felt. A few days later the patient was seized with severe pain in the right hypochondrium, followed by vomiting. It was noted that immediately after washing out the stomach this organ refilled. Serious collapse supervened, which did not pass off until the following day, when coma of medium severity developed itself, and lasted for some four days. There was also slight jaundice. A gall stone was found in the stools on the fifth day, measuring 2·7 by 9 cm.; after this the patient steadily recovered. The sudden collapse was first thought to be due to perforation of an ulcer of the stomach. The constant filling of the stomach with bile pointed to obstruction of the duodenum beyond the papilla. The stone itself was not large enough to obstruct the duodenum without the presence of spasm. The coma was probably due to the absorption of toxic products from the intestine. It was accompanied by the deep breathing seen in diabetic coma. Washing out the stomach and the use of large rectal injections constituted the chief treatment. The serious condition of the patient, among other things, contra-indicated surgical procedures. As regards the diagnosis, the chief points were the flooding of the stomach with bile, the absence of fæcal contents in the stomach, and the absence of abdominal distension. The history gave evidence of previous disease of the bile passages.

(44) Fatal Diarrhœa.

RUETE AND ENOCH (*Deut. med. Woch.*, December 6th, 1894), report a case in a woman, aged 43, due to the Finkler-Prior bacillus. She was admitted with supposed puerperal fever seven days after delivery. Examination under an anæsthetic could discover no disease connected with the generative organs. She died about ten days after delivery with symptoms of diarrhœa, the stools being profuse and like rice water. At the necropsy no lesion was present in the uterus and appendages, or in other viscera. The intestinal contents were examined, and the presence of the Finkler-Prior bacillus as against the cholera vibrio was proved morphologically and bacteriologically. It could only be supposed that this micro-organism had gained access by the mouth, and so caused the patient's death by its rapid development.

(45) Adenoid Vegetations in Children.

CHAUMIER (*La Méd. Infant.*), December, 1894) insists on the importance of recognising and treating adenoid tumours of the naso-pharynx in children. In children who keep the mouth open day and night, who snore, who have high palates, prominent upper incisors irregularly placed, and prominent chests (tendency to pigeon breast); in children who are deaf, or liable to attacks of deafness, with, perhaps, earache: in children who are liable to frequent attacks of sore throat, or to attacks of coughing which the parents attribute to bronchitis: in children with night terrors, false croup, and spasm of the glottis, the physician ought to think of the probability of adenoid vegetations. Enlargement of the faucial tonsils is commonly accompanied by enlargement of the pharyngeal tonsil. Owing to its close anatomical relations with the opening of the Eustachian tube, the affection of this tonsil may be a more important lesion than the enlargement of the faucial tonsils. Treatment of the faucial tonsils will have no effect on the overgrowth of the pharyngeal tonsil. Apart from the ear affections which inflammation of the tonsils may determine, it may be the cause of ephemeral attacks of fever, which are often attributed in young children to teething, and in children a little older to "growing fever," to "ganglionic fever," or to gastric disturbance. Chaumier believes that adenoid vegetations, etc., may also be at the root of many cases of recurring tracheitis, bronchitis, and broncho-pneumonia in children. The interference with the free entrance of air favours the development of the special microbes which are the immediate causes of these affections of the lungs. The same holds good, he thinks, for pneumonia also. Chaumier believes also that adenoid vegetations are the determining causes of the deformities of the chest observed in rickets, the softness of the bones rendering the results of long continued respiratory obstruction more pronounced. The connection between night terrors and adenoid vegetations, etc., in the pharynx is shown, he says, by the fact that they are always to be found in children suffering in this way, and by the further fact that the night terrors cease or notably diminish immediately after the removal of the vegetations. To this list of troubles following on the obstructed condition of the naso-pharynx he adds incontinence of urine, and various nervous symptoms commonly attributed to hysteria. Most children with adenoids are "nervous." As to treatment he considers that medication is useless, and that surgical treatment is simple, safe, and efficacious.

SURGERY.

(46) Resection of the Stomach.

LANGENBUCH (*Deut. med. Woch.*, December 27th, 1894) relates two cases of almost complete resection of the stomach for carcinoma. (1) A woman, aged 58, much wasted, presented a kidney-shaped tumour in the hypochondrium. When the abdomen was opened the stomach was found to be very small, and the malignant disease chiefly occupied the posterior surface. There were no deposits in the liver or glands, but a few small nodules in the omentum. The stomach was drawn as much as possible out of the wound, and the operation thus done almost extraperitoneally. About seven-eighths of the stomach, as well as the above-named nodules, were removed. The two ends of the stomach were then sewn together after the necessary narrowing of the cardiac end. The stomach then had the size of a hen's egg. After a short period of some danger the patient made a good recovery, and was seen in apparently perfect health 193 days after the operation. The author says that not even the most extensive resection need be shrunk from. The suturing of the cardiac and pyloric ends was easily accomplished. (2) In the second case of a woman, aged 56, the stomach was so soft that it tore during the removal. The rent was sewn up. The patient succumbed on the sixth day, chiefly from deficient

nutrition. There was only a localised peritonitis present. In both these cases nearly the whole of the stomach was resected. The author emphasises the following points: (1) The smallest amount of anæsthetic possible should be used; in the first case it was even limited to a few drops; (2) all antiseptics should be avoided in the abdominal cavity; (3) the extraperitoneal method of resection should be adopted; the posterior part of the ring of sutures is surrounded by gauze, and the situation of the remaining sutures should be permanently extraperitoneal, the anterior wall of the stomach is covered in by a flap of skin; (4) the patient should be fed early by the mouth.

(47) Ligature of the Spermatic Cord in the Treatment of Hypertrophy of the Prostate Gland.

In a paper read before the Philadelphia Academy of Surgery in November, 1894, Ewing Mears held that to obliterate the function of the generative apparatus would be a rational method of treatment in ordinary forms of prostatic hypertrophy. Without doubt, he stated, castration would prove effectual in the production of atrophy; but to this operation patients would naturally refuse to submit unless in advanced stages of bladder disease resulting from prostatic obstruction. Ligature of the vas deferens was suggested as an operation which would probably be as efficacious as castration and be more readily acceptable. The author has seen the report of one case in which this operation had been performed with a successful result. The gradual disappearance of the sexual function, the author pointed out, would not be so liable to disturb the mental condition of the patient if the testes were preserved. In every case the patient should be informed of the character of the operation and what is intended to be accomplished by it. The author regards it as the duty of the surgeon to urge very earnestly the performance of any operation which will be efficacious in terminating the horrible sufferings of those suffering from the results of prostatic obstruction.

(48) Mammary Actinomycosis.

Müller (*Münch. med. Woch.*, December 18th, 1894) first refers to recorded cases in which the disease had begun in the chest and had implicated the mammary gland secondarily by extension. The occurrence of primary actinomycosis in the udders of swine and cows is readily understood by the contact of these organs with straw, etc. The author then records the two following cases of mammary actinomycosis, to all appearances primary in character: (1) A nodule appeared in the unused breast of a woman, aged 35, towards the end of lactation and after a blow. This was subsequently incised and pus let out. The wound healed in two months. Later the breast became hard, and eventually a sinus formed. On admission the patient looked well. There was a tumour in the breast about the size of a hen's egg, but no enlargement of glands. The sinus led into a cavity containing the characteristic granules. The whole breast was removed. The underlying pectoral muscle was healthy. The fungus was also found in sections from the breast tissue. (2) A girl, aged 25, had pain, and some months later a tumour in the breast after a blow. This was incised. The wound soon healed, but six weeks later another tumour appeared. On admission, the outer half of the left breast was very hard, with a sinus in it. The diagnosis lay between chronic mastitis with abscess and tuberculosis. The diseased tissue was excised, and sections prepared some months later revealed the ray fungus. Both patients were cured. The author found about the carious teeth of the first patient a fungus resembling in many respects the actinomyces. In the second case the origin was if anything even more obscure. In both cases there was a blow on the breast, an incision, and the application of linseed meal poultices. The second patient had a cough but had no signs of pulmonary disease. The author then refers to a case of mammary actinomycosis recently recorded by Ammentorp, in which the patient worked in the harvest fields with almost uncovered breasts.

(49) Sarcoma of the Thyroid Gland.

Sieveking (*Centralbl. f. inn. Med.*, December 29th, 1894) reports a case of general sarcomatosis, the primary focus being in the thyroid gland. A man, aged 42, was apparently well up to three months previously, when his appetite failed and he lost flesh. On admission the thyroid was moderately and uniformly enlarged, of stony hardness, and not adherent to surrounding structures. The cervical, axillary, and other glands were enlarged. There was considerable ascites and some œdema of the legs. The liver was greatly enlarged and its surface irregular. The clinical diagnosis was simple hyperplastic goitre, carcinoma of the stomach, with metastases in the liver and omentum. At the necropsy the thyroid showed on section a greyish surface, and only a few remains of gland tissue could be found by the microscope. The new growth consisted of a fine connective tissue and numerous round cells with large nuclei. There were deposits in the liver, omentum, kidney, alimentary canal, and heart. It is very exceptional for a sarcoma of the thyroid to involve the whole gland. The author has only been able to collect three such cases. Although there was great destruction of thyroid gland tissue, yet there were no signs of myxœdema or tetany. It is probable that the small microscopic remains sufficed to ward off these manifestations.

(50) Hernia in Children Treated by Injections of Artificial Serum.

Luton (*Rev. des Mal. de l'Enf.*, December, 1894) states that he has had good results in the treatment of inguinal and umbilical hernia in infants from the injection into the neighbourhood on the ring of an artificial serum. The serum he used was composed of phosphate of sodium 5 parts, sulphate of sodium 10 parts, distilled water 100 parts. He injects 1 gramme (m xv) under the skin with an ordinary hypodermic syringe. A single injection may, he states, be sufficient to effect a cure, but in most cases three or four injections at intervals of a week are necessary. During the treatment the hernia should be retained by a simple pledget of cotton-wool retained by a bandage. The only unsatisfactory result met with was that in one case the intestine was allowed to come down, and the contraction of the ring set in so rapidly after the first injection that symptoms of strangulation developed; the hernia was reduced by manipulation, and the case made a rapid recovery. He reports 7 cases: in 1, cure persisted after two and a half years; in another, after fourteen months; in another, after seven months: the other cases had been treated too recently to justify any statement as to permanency of cure. The mode in which the injections operate to bring about a closure of the orifice in the abdominal wall is not clear; in 1 case an injection into the thigh led to improvement in an umbilical hernia. A similar observation was made in the case of an old woman who was given the injections in the first place to obtain their tonic effect.

MIDWIFERY AND DISEASES OF WOMEN.

(51) Bactericidal Properties in the Vaginal Secretion of Pregnancy.

B. Kroenig (*Deutsch. med. Wochensch.*, No. 43, 1894) claims to have demonstrated that not only is the vaginal secretion in normal pregnancy free from pathological germs, but that it has a distinct germicidal power. Experiments were made in a great number of pregnant women by introducing into the vagina at a considerable period before labour different kinds of germs, and then at stated intervals withdrawing secretion for examination, taking it both from the vaginal entrance and from the fundus vaginæ. The bactericidal power of the vagina was first shown in the case of the innocuous pyocyaneus. Soon the lowest and then the highest part of the vagina were found clear. Further experiments were made with staphylococcus and streptococcus, and it was found that the secretion was equally active whether the vagina contained the "normal secretion" or the so-called pathological secretion described by Doederlein. But Kroenig rejects Doederlein's view that the vaginal secretion described by him as pathological is really so. In these experiments the streptococcus was killed first, the staphylococcus and the pyocyaneus needing almost twice as much time. The vagina was found clear in two days at longest. He further shows that syringing the vagina with antiseptic solutions has the effect of reducing

or completely destroying its germicidal powers. Syringing with simple water only slightly weakened them. Hence Kroenig concludes that prophylactic syringing should be given up. It does no good and much harm. Even in pregnancy with gonorrhœal infection it is best omitted. At the Leipzig clinic they consider that they get better results by the abandonment of syringing than by its adoption; and Kroenig advises that disinfection of the internal genital passages should be abandoned as part of the routine of antiseptic midwifery.

(52) Normal Pregnancy after Abdominal Hysteropexy.

FRAIPONT (*Ann. de la Société Médico-Chirurgicale de Liége*, 1894) reports 4 cases where pregnancy and labour were practically normal though the uterus of each patient had been fixed to the abdominal walls. In 2 of the cases the hysteropexy had been performed over five years before the pregnancy occurred, and although the bands of adhesion between the fundus and the parietes must have become very tough after so long a period, no special difficulty was encountered. In two of the cases the forceps was used, but not on account of uterine inertia; the fœtal head was voluminous, and in one of the two cases internal rotation was delayed. The placenta was always expelled easily, and no serious *post-partum* hæmorrhage occurred. Fraipont observed the progress of pregnancy in several of these cases. The uterus does not increase specially in its posterior part, but quite uniformly, so that, as might be expected, the fundus gradually detaches itself from the abdominal wound. Even if the adhesions were not broken down, they would of necessity be so stretched as to be useless for their original purpose after delivery. Bands of adhesion could not share in the process of involution. As, however, the uterus undergoes perfect involution, it is restored to its original condition before the onset of the disease which rendered hysteropexy necessary.

(53) Congenital Prolapse.

HEIL (*Archiv für Gynäk.*, vol. xlviii, pt. 1, 1894) describes a case in which a child was born with spina bifida and deformities of the lower extremities. On the day after birth a prolapse of the uterus and upper part of the vagina, easily reducible, was discovered. The cervix and lower segment of the uterus were hypertrophied. The rectum was slightly prolapsed. The infant died suddenly on the eleventh day. Quisling and Schäffer both describe cases of congenital prolapse; in both there was spina bifida and hypertrophy of the lower segment of the uterus. Heil traces the prolapse in all three cases to arrested development and nutrition due to the spina bifida. The arrested development was shown in the small amount of pelvic connective tissue, in the laxity of the uterine ligaments, and yet more evidently in the manifest smallness of the psoas major on both sides. Villaume's case of so-called congenital prolapse was, according to the evidence of that writer's original report, rather an instance of congenital inversion of the uterus. Monro describes a case of prolapse in a girl, aged 3, but it is not clear that the displacement was congenital.

(54) Menstruation, Gestation, and Small-Pox.

VOIGT (*Volkmann's Samm. klin. Vorträge*, No. 112, November, 1894) has prepared a monograph on the Influence of Variola on Menstruation, Pregnancy, Labour, and the Fœtus. Small-pox, he says, causes congestion of the endometrium, both when the fever begins and when the rash appears; in consequence, menstruation or metrorrhagia occurs in the non-pregnant subject. Half the cases of pregnancy in small-pox patients vaccinated in youth end in abortion or premature labour. The pregnant woman's condition is desperate in confluent or hæmorrhagic small-pox. These two specially severe forms are very much more frequent in pregnant than in non-pregnant women. The mortality of pregnant small-pox patients once vaccinated in youth varies between 30 and 35 per cent., but 59 per cent. of patients delivered while suffering from small-pox die. The danger of small-pox in pregnancy is found, as might be expected much worse in women who have not been vaccinated. Nearly all the infants are lost, as they are either born very weak, or contract small-pox before or after birth. When an epidemic of variola occurs, prophylactic vaccination of all pregnant women must be practised, and, should an infant be born strong and healthy, it should also be vaccinated.

(55) Macromastia: True Hypertrophy of Mammary Gland.

ZWEIFEL (*Centralbl. f. Gynäk.*, No. 52, 1894) exhibited last autumn, before the Leipzig Obstetrical Society, a very lean primipara, in the sixth month of pregnancy. She was 5 feet 2 inches in height, and 8 stone in weight. The mammæ were very small before pregnancy, even for so thin a subject. They had, when exhibited, grown to an enormous size, the left being nearly 22 inches, the right over 19 inches in circumference. It was found that the hypertrophy was limited to the glandular tissue. There was no increase in the fat, and as the glands were entirely unsupported they hung downwards. Owing to their weight the patient was obliged to support them with her hands when she walked. Colostrum issued from the nipples. The hypertrophied glands were not tender, but the patient was much depressed on account of the deformity. Only one case of true hypertrophy of the mammæ, not including the fat, has been recorded. The patient was aged 22, and in the fifth month of her first pregnancy. She died of erysipelas; the breasts were examined under the microscope, and it was found that they had undergone a neoplastic change allied to fibroma.

THERAPEUTICS.

(56) Immunity against Diphtheria.

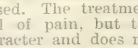
BEHRING (*Deut. med. Woch.*, November 15th, 1894), discusses the dosage of the diphtheria serum in respect to protection against the disease. At first the author, with Ehrlich, thought that one-tenth of the curative dose, corresponding to 60 normal units, would suffice, but later one-fourth of such a dose, or 150 units, were found to be desirable. In some instances the patients have already been infected with diphtheria before the serum was injected. Whether it is possible to prevent the development of the disease in such cases by larger doses of the serum than 60 units can only be ascertained by clinical investigation. The author, along with Ehrlich, found that in places where diphtheria was raging 60 units appeared to suffice for protection. Among 10,000 individuals so treated only 10 had the disease. With a virulent infection, and towards the end of the incubation period, the full curative dose of 600 units may not suffice to prevent the disease, yet such cases are rare. According to experience those who have developed diphtheria after injection with 60 units have had a mild attack. The author would, notwithstanding, recommend the use of 150 units. The question of cost also has to be considered. The protection lasts longer the larger the dose. The antitoxin is gradually excreted with the urine. When it is all excreted the immunity ceases. The immunity is more marked when several smaller doses are given at intervals in place of one large dose. The author does not at present recommend a repetition of the injection at the end of a certain period, say 10 weeks. He prefers a concentrated serum, because with larger quantities some may escape, especially with children, who may rub the site of the injection; in this way this latter might possibly be the starting point of some other infection.

(57) Parachlorphenol in Lupus.

A. ELSENBERG (*Arch. für Derm. und Syph.*, Band xxviii, Heft i, 1894), at the suggestion of Nencki has tried parachlorphenol in lupus. He states that a 2 per cent. solution of the substance is more powerful than a 5 per cent. solution of phenol and much stronger than all the remedies of the aromatic series hitherto known. Non-ulcerated surfaces he first rubs vigorously and repeatedly with cotton wool steeped in parachlorphenol. He then applies an ointment consisting of equal parts of lanolin, vaseline, starch, and parachlorphenol, often with the addition of a small quantity of carbonate of potash. This he leaves on from ten to twelve hours. After removal of the ointment with dry cotton wool he paints the diseased parts with salicylic or iodoform ointment. Two days later he uses the parachlorphenol again. After a few applications of the kind described he generally uses salicylic soap plaster or an indifferent ointment for one or two

weeks till the reaction has completely ceased. The treatment causes a good deal of pain, but this is slighter in character and does not last so long as that caused by pyrogallic acid, etc. When used on the face the remedy is apt to cause conjunctivitis and epiphora. The good effect of the remedy is generally very persistent, but it only shows itself after a time. The author divides the condition caused by the treatment into three stages: (1) After repeated application of the remedy the nodular surface of the infiltrated skin becomes smooth, covered with epithelium and shining. (2) The infiltration decreases, the skin becomes thinner: this often occurs after from ten to twelve applications. (3) The infiltration goes on decreasing, and small patches of healthy skin or cicatrix appear in the midst of the red patch; at the circumference the skin gradually regains its normal appearance, and in the worst places it assumes a cicatricial character. In ulcerated lupus the remedy destroys the edge of the ulcers, thickly beset with nodules, and the infiltrated base partly by direct action, partly indirectly by setting up a suppurative process. Whether after the use of a remedy which causes such intense reaction the remaining lupus tissue is still capable of infecting the neighbouring healthy tissue is yet uncertain, though the results of microscopic examination seem to exclude the possibility of this occurrence. The author states that, although he has used parachlorphenol in the treatment of lupus for six months, he has yet no single case of complete cure to record. The favourable effect, however, is very marked, and the improvement goes on from week to week. The remedy brings about cicatrisation of ulcers, destroys old nodules, and prevents the development of new ones. In this respect it is superior to pyrogallic acid, chloride of zinc, and other remedies previously used by the author: it causes no constitutional symptoms, and leaves no raw surfaces requiring after-treatment. The local effect is much the same as that of tuberculin, but without the dangers attending the use of that agent. A postscript is added to the effect that after several months' further experience with the remedy the author is able to report a case of "almost complete cure" of lupus.

(58) Salophen in Painful Nerve Affections. De Buck and Vanderlinden (*La Flandre Méd.*, November 29th, 1894) contribute a paper testifying to the antineuralgic and analgesic properties of salophen and its value in the treatment of neuralgias, cephalalgias, odontalgias, etc. Salophen, or salicylate of acetylparaamidophenol



contains about 51 per cent. of salicylic acid. It is a white crystalline, inodorous, tasteless powder of neutral reaction, insoluble in cold water, feebly soluble in warm water, soluble in alcohol and ether. It fuses at 187° and burns with a flame, leaving no residue. With ferric chloride it gives the same reactions as salol. Salophen passes unchanged through the stomach without producing the slightest irritation. Amid the alkaline surroundings of the bowel it undergoes hydrolysis, being divided progressively into its constituent factors, which are as quickly absorbed. The salicylic acid combines with glycocoll to be eliminated in greater part as salicyluric acid, in part as salicylate of soda; the other factor—acetylparaamidophenol—combines with radical HSO_3 and in part with glycuronic acid. The combined sulphate corresponding to the acetylparraamidophenol is almost wholly deprived of toxicity. Siebel asserts that the toxic coefficient of salophen is much less than that of salol. The authors record ten instances of its antineuralgic and analgesic powers. They conclude that the analgesic action is not thoroughly manifested till doses of 3 grains and more per diem are reached. No troublesome accessory symptoms attend its use.

(59) Adonis Vernalis and Bromide in Epilepsy. Bechterew (*Neurol. Centralbl.*, December 1st, 1894) refers to the fact that in comparatively few cases of epilepsy are the fits totally suppressed when bromides are given alone; usually the fits are merely diminished in frequency and severity. Having determined experimentally that during an epileptic fit there is active cerebral hyperæmia, he concluded that a drug possessing vasoconstrictor action might be usefully combined with the bromide. He accordingly selected adonis vernalis, preferring it to digitalis because of the cumulative property of the latter. After using the combination for several years he now states that it not infrequently at once arrests the fits; in all the cases thus treated by him he has observed beneficial effect. The addition of codeine to the above combination has proved useful in his hands. The author illustrates his paper with clinical details of two cases; in neither of them, however, is the recorded period of freedom from fits after commencement of the treatment sufficiently long to permit of very definite conclusions being drawn.

PATHOLOGY.

(60) Excretion of Toxic Products. Albu (*Berl. klin. Woch.*, November 26th, 1894) discusses this subject in acute and chronic diseases. He has found alkaloidal bodies present by means of the Stas Otto, Griffith, Luff, and Baumann methods. In the case of the urine large quantities must be used. He has found these bodies in the urine in three cases of phthisis, two of Graves's disease, one of tetany, and in 1 of pernicious anæmia. He has only twice found them in the vomit and once in the stools. By finding such a body in tetany support is given to the view that tetany is due to an auto-intoxication from the alimentary canal. The patient died later of other causes, and nothing abnormal could be found in the nervous system. The author thinks this the first satisfactory demonstration of the pathology of tetany. A suitable method of finding these poisonous products in the excretions is still wanting. Hitherto the methods have been based on the supposition that the toxic substances are alkaloids—namely, piperidin derivatives. A number of the decomposition products of albumen which pass out especially by the urine have no specific significance. Acetone is often a harmless manifestation, but at times the most serious symptoms are present. In three cases a substance presenting alkaloidal properties had no poisonous effects on rabbits or mice. A centigramme or decigramme of some of these bodies is sufficient to produce most serious symptoms. The chemical representation of these poisonous products of disease is still attended with great difficulty.

(61) The Toxic Products of Tuberculosis. Angelo Maffucci has a long and important article on the toxic products of the tubercle bacillus in *Il Policlinico*, January 1st, 1895. As the result of many and various experiments, he feels justified in affirming that in culture preparations of tubercle where the bacilli are dead, there exists a toxic substance which resists the action of time, heat, desiccation, sunlight, and gastric juice, and this substance is not a product of bacillary secretion, nor derived from the nutrient medium, but a poison contained in the substance of the bacillus itself, and due to its disintegration. Maffucci found that culture preparations 3 years old had not lost their toxic power: that fresh as well as old cultures submitted to the action of 65° to 100° C. for an hour or more, though this might destroy the vegetative power of the bacillus, had little or no effect on its toxic power, nor did desiccation for fourteen months destroy it. Sunlight from fifteen to forty-five days at 32° C., followed by exposure to heat, 100° C., and then treatment with gastric juice, had no effect on toxicity. This toxic substance is very active in its power, as an infinitesmal dose sufficed to cause marasmus; moreover, it may be transmitted by tuberculous parents to the fœtus without any transmission of the bacillus itself, causing abortion or marasmus in those fœtuses that are born alive; it may also be eliminated by the milk. The action of this toxin is to cause inflammation and necrosis of the tissues: in concentrated solutions, it causes tuberculous abscess; diluted, it produces disturbances of the circulation, catarrhal inflammation, and alteration of the red corpuscles of the blood; by passing repeatedly through the kidneys it may set up a parenchymatous nephritis, or a fatty degeneration of the renal pithelium.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(62) Hæmorrhagic Nephritis in Diphtheria.

TREYMANN (*Deut. med. Woch.*, December 20th, 1894), reports a case in a child aged 3 years, after the use of Behring's serum. Owing to the unfavourable condition of the child in the early days of the disease large doses of the serum had to be employed. About the fifteenth day albumen, blood, and casts appeared in the urine, and at the same time a measles-like eruption with high temperature. Four days later there was anuria, lasting for forty-eight hours, and œdema about the eyelids. As the hæmorrhagic nephritis appeared during convalescence, and shortly after the last dose of the serum, and disappeared in an unusually short time, the author thinks that it should be attributed to the serum. Later diphtheritic paralysis supervened in this case.—J. Schwalbe (*ibid.*) reports a case occurring before serum treatment in a child aged 10½ years. Here the hæmorrhagic nephritis appeared on the twenty-fifth day. Most of the symptoms disappeared in seven days. The author remarks that blood very rarely appears in the urine in diphtheria, thus forming a contrast to scarlet fever. He strongly maintains that the same caution exercised in attributing favourable results to the serum treatment should also be adopted in assigning to it harmful complications.

(63) Gastric Ulcer.

ROCHEMONT (*Münch. med. Woch.*, December 11th, 1894) relates the following interesting case bearing on the etiology of this disease. A woman, aged 38, was admitted with gastric carcinoma. An examination of the stomach contents showed the presence of large quantities of lactic, but only traces of hydrochloric, acid. As the patient steadily lost ground gastro-enterostomy was recommended. The operation went off successfully, but she died with signs of perforative peritonitis on the following day. On the lesser curvature and posterior wall of the stomach there was a large carcinoma, in the middle of which there was a perforation with peritonitis about it. Near the pylorus there was a funnel-shaped ulcer about the size of a 3-mark piece. It was absolutely independent of the carcinoma, as was proved microscopically and otherwise. There was sufficient evidence in the author's opinion to show that the ulcer appeared later than the carcinoma. Thus hyperacidity and increased digestive powers are not essential to the formation of a gastric ulcer: some other cause must be looked for in this case. A tolerably large and thrombosed vessel was here found near the top of the ulcer. This had produced necrobiosis. It could not be ascertained whether this thrombosis had any relation to the carcinoma—that is, whether embolism had occurred from a thrombosed vessel in the region of the carcinoma. There was considerable atheroma of the aorta, and the heart muscle showed fatty degeneration.

(64) Acute Specific Rhinitis.

BRODIE AND ROGERS (*South African Med. Journ.*, November, 1894) relate a series of cases of acute rhinitis, some of which rapidly caused death, and showed evidence, on *post-mortem* examination, of purulent meningitis or pneumonia, or both. The cases all occurred among Kaffirs employed in the mines. In all of them the one constant condition was the livid, injected, swollen state of the Schneiderian membrane and of the cells and sinuses connected therewith. The meningitis and pneumonia were evidently secondary to the condition in the nose—a condition of inflammation attended in most cases with profuse purulent discharge. The progress of the disease among those who died was extremely rapid, death occurring in several cases within twenty-four hours of their leaving off work. All the cases admitted to the hospital recovered, suggesting that the unhealthy conditions of life in the compound greatly aggravated the virulence of the disease. It is stated that the Kaffirs, when interrogated on the subject, positively declared that they knew the disease well, that it was prevalent in their kraals, that the symptoms were pain in the chest and running of matter from the nose, and that those who were attacked either died in three or four days, or lingered on for a month or two and then recovered. In the cases observed it did not seem to be contagious, neither attaching itself to particular rooms in the compound nor spreading among the patients in the same ward in the hospital.

(65) Gliomatosis of the Spinal Cord, with Recurrent Hæmorrhages.

DANA calls attention to cases of this sort, and their liability to be confounded with syringomyelia (*Jour. of Nerv. and Ment. Dis.*, September, 1894). He shows that cases of glioma of the cord occur sometimes without any cavity formation at all, and in others that the "cavity of the spinal cord is a small and secondary matter, having little to do with the production of symptoms. In all cases the primary and essential thing is the gliomatous change and infiltration produced by the new growth." Gliomatous growth or infiltration of the cord can thus be studied like syphilitic or tuberculous lesions of similar character. He gives the following case. A man, aged 35, German, free from syphilis, moderate drinker, married. Fifteen months before admission pain in right leg (along crural nerve), dull, sometimes sharp. Gradual extension of same to corresponding area of opposite leg. Latterly numbness and feeling of stiffness in both legs, and ultimately paraplegia of sudden onset: bedridden for three months. Slow and slight recovery of power, but considerable paresis of both legs continued. Diagnosis, tumour of the spinal cord. Superficial and deep reflexes exaggerated in both legs, and some anæsthesia up to level of twelfth dorsal nerve. Pupils normal. Micturition weakened, with loss of sensation of micturition. Bowels constipated. Symptoms gradually got worse; paralysis of bladder and of legs increased, and intense abdominal pain began to be experienced: occasional vomiting. Patient passed into stupor, and died, with a temperature of 101·7 F. before death. Necropsy: Spinal cord and meninges normal externally, except for a fusiform enlargement at the level of the eighth dorsal segment, the cord being swollen to about twice its size, but otherwise showing no abnormality. On section it was found to contain an elongated soft clot within, which constituted the greater mass of the swelling. Microscopic examination showed a central glioma, beginning in the ninth to tenth spinal segment, into which hæmorrhages had occurred at times, the last and most severe producing the paraplegia, which became total on recurrence of the hæmorrhage, and gave rise also to intense pain from pressure of the clot over the posterior roots. Ascending degenerations were noted in the tracts of Gowers and of Goll, and very faintly in the cerebellar tracts (dorsal and cervical), while descending degenerations occurred in the lumbar crossed pyramidal tracts.

SURGERY.

(66) Resection of the Rectum.

ZANCAROL (*Bull. et Mém. de la Soc. de Chir. de Paris*, Tome XX. 1894) has recently recorded four successful instances of Kraske's operation performed on two men with cancer of the rectum, and two female patients with cancer of both rectum and vagina. In two of these cases the peritoneal cavity was opened without any bad result. In each case the wound suppurated, and the sutures fixing the divided end of the intestine to the skin gave way. The average period within which cicatrisation was completed was one month and a half. Each of these patients increased considerably in weight after the operation, and all were discharged from the hospital in a very satisfactory state of health. Up to the date of this record no relapse had occurred after respective intervals of eighteen, six, four, and two months. None of these patients, it is particularly pointed out, suffered at the time of their discharge from fæcal incontinence, and all were able to control their evacuations. This is the more remarkable as in each case it was found necessary to remove almost the whole of the sphincters. In the discussion on this record, QUÉNU stated that after resection of the rectum there is usually incontinence for a time, but that the patient gradually regains the power of retaining the fæces. This is due not to

retention of any portion of the sphincter, but to increased activity of the special muscular fibres of the intestine, acquired function thus creating a new organ.

(67) Extirpation of the Lachrymal Sac.

Ahlström (*Eira*, August, 1894) says experience has shown that the most insignificant trauma, which would have no effect on a healthy eye, when occurring in one with an unhealthy lachrymal secretion, is often followed by serious results. The cause of this has been found to be the infection of the abrasion with the bacteria present in the secretion. The author has practised extirpation of the sac for the following conditions: (1) Tuberculosis of the sac or canals, (2) obliteration of the sac from neighbouring disease, (3) fistula lachrymalis, (4) preliminary to operations on the eyeball when there has been no time to treat the lachrymal affection. The skin incision should be made at least 3 mm. from the inner canthus to prevent wounding the angular vessels, and should be carried from the middle of the internal palpebral ligament—when made tense—downwards and somewhat outwards for about 2 cm. The sac should be dissected out intact, if possible, to prevent infection of the wound, and the dissection is simplified by first introducing a Bowman's probe. Some difficulty will be experienced in detaching the inner half of the sac, which is adherent to the nasal periosteum; this is most easily done by scissors. If the sac is too thin, and has to be removed in bits, it is important to scrape the cavity afterwards to prevent any epithelium being left behind. The bleeding is often troublesome during the operation, and is best mopped away with Péan's forceps covered with cotton wool. The author uses three rather deep sutures, and if there is any gaping adds a few superficial ones. To complete the operation both tear passages are obliterated by introducing platinum points from the galvano-cautery, which are made red hot for one moment. The scar left after the extirpation is only slight.

(68) Sarcoma Successfully Treated by Toxins.

W. B. Johnson (New York *Med. Rec.*, November 17th, 1894) reports a case of sarcoma of the palate which he has successfully treated with the toxins obtained from cultures of the micrococcus erysipelatosus and the bacillus prodigiosus. The patient was a boy, aged 16, who was said to be suffering from a sarcoma of the soft palate, which upon microscopical examination was found to be of the spindle-celled variety. The affection commenced six weeks before admission. The injections of the toxins of erysipelas were commenced on October 31st, 1893, doses of 15 minims being given daily. The dose was increased each day until it had reached 60 minims. The bacillus prodigiosus toxins were used in doses of 5 minims, and were administered along with the other toxins after the dose had reached 35 minims. The injections were given in the arm and leg, and they generally caused redness, swelling, and pain, which persisted for twelve to thirty-six hours. The treatment was continued until June, 1894, during which time there were many intermissions. The result of the treatment was a constant steady but slow improvement. The sarcomatous tissue gradually disappeared, partly by necrobiosis and partly by absorption. One year after the commencement of the treatment the patient had practically recovered, the only signs of the disease being one or two spots of ulceration upon the palate, the other affected parts having cicatrised. The uvula and a small portion of the epiglottis were destroyed by ulceration.

(69) Chylous Cyst of Mesentery: Intestinal Obstruction.

Reynier (*Gaz. des Hôp.*, January 1st, 1895) opened the colon in the left groin to relieve a woman, aged 31, who was suffering from acute intestinal obstruction. Six days later fæces passed both through the natural and the artificial anus, but the patient died suddenly on the twelfth day. The abdomen was carefully examined after death. An oval tumour was found in the right iliac fossa, looking like the cæcum loaded with soft fæces. The tumour was of the size of a fœtal head at term, oval, and with its long diameter vertical. It seemed to be attached above to the lumbar region high up by a long pedicle. This pedicle was part of the mesentery, between the folds of which the tumour had developed. Below the tumour was the cæcum, much flattened, whilst in front lay numerous strongly-adherent coils of intestine. They had prevented the tumour from being detected during life. The uterus and appendages were normal. The tumour was laid open; a white material like half solid cream and much milky fluid escaped. On analysis, the contents of the tumour were found to be chylous, as might be suspected from the naked-eye appearances.

(70) Mustard and Sugar as Antiseptics.

Roswell Park (Philadelphia *Medical News*, December 22nd, 1894) mentions the fact that essential oil of mustard has long been known as a deodorant. He has used it himself to disinfect the hands after *post-mortem* examinations, etc., and finds it very effectual. In a case of malignant diphtheria, where hydrogen dioxide and alcohol failed to remove the odour from his finger, he found ordinary flour of mustard acted perfectly. He recommends it in all cases where foul wounds or discharges may have been touched, and especially on an emergency where other disinfectants cannot be obtained. He also suggests that the preservative properties of sugar should be applied to surgery, and states that compound fractures may be treated with powdered sugar with good results. He remarks that while dilute solutions of sugar form culture media for bacteria, pathogenic forms will not grow in concentrated solutions or syrups. Hence he regards sugar as another useful antiseptic, especially when others cannot be obtained.

MIDWIFERY AND DISEASES OF WOMEN.

(71) Conception through an Accessory Ostium: Cæsarean Section.

Saenger (*Monatsschrift f. Geburtshülfe u. Gynäk.*, January, 1895) describes a remarkable case where ectopic pregnancy occurred on the right side, followed by uterine pregnancy two years later. The products of inflammation around the extrauterine sac formed a firm resisting mass so that the fœtal head was arrested, though the bony pelvis showed normal measurements. A male child was successfully delivered by Cæsarean section, and reared with the bottle. The uterine wall was closed with sutures: then the parts around it were carefully examined. The right tube ended in a mass which evidently represented the fœtal sac, the ostium was lost in old firm adhesions, and the right ovary could not be found; the mesosalpinx was buried in membranous bands. The left tube ended in a tough fibrous mass of old adhesions, which completely closed the normal ostium. The left ovary, however, was found, and close to it lay a large well-fimbriated accessory ostium. The patient made a good recovery. Saenger reasonably maintains that the normal ostia of the tubes were obliterated by the changes caused by ectopic gestation. The patent accessory ostium, however, readily allowed of the passage of ova from the left ovary into the left tube.

(72) Signs of Fœtal Maturity.

Frank (*Archiv f. Gynäk.* xlviii, part I, 1894) publishes a series of tables on the alleged proofs of full-term gestation, and the results are essentially negative, shaking many well-known opinions. The development of lanugo and the length of the nails are in themselves of little value. The temperature of the newborn child is a fallacious sign: it may be influenced by partial asphyxia during birth or other circumstances not peculiar to nine months infants. When the circumference of the head is under 32 c.cm. (12.48 inches) the child can hardly be mature, but premature children may have heads of a greater circumference. Every case must be judged on its own merits; the child's sex and the number of previous pregnancies should be taken into account. Frank warns us against supposing that a mature fœtus has necessarily been borne the full term in its mother's uterus.

(73) Pregnancy and Warts on the Vulva.

Porak (*Bulletins et Mémoires de la Société Obstét. et Gynéc. de Paris*, October, 1894) reports a case which demonstrates the necessity of removing during pregnancy warts which develop exuberantly on the vulva. The patient was 22, and in her second pregnancy. In the fourth month free discharge set in after much dysuria. In the second half of pregnancy warts

began to develop, and at delivery they were abundant, covering the outer side of the labia majora and vulvar orifice. A small male child was delivered, somewhat before term. Although the delivery was conducted with the most careful antiseptic precautions, and the child's eyes were carefully washed with a 1 in 5,000 sublimate solution, the infant was soon attacked with severe purulent ophthalmia. After daily cauterisations with nitrate of silver and frequent bathing with boracic solution, the eyes recovered. The lochia remained free for ten days, and continued purulent for a few days longer. The warts were left untouched for exactly two months, iodoform being used, and cocaine ointment applied, as there was much pain. The vagina was plugged all through this treatment. Since the growths remained unchanged, they were removed under chloroform. The end of this clinical history shows the fallacy of the idea that warts disappear spontaneously after pregnancy. The discharge was clearly gonorrhœal, as the ophthalmia in the child amply proved.

(74) Absence of Vagina: Alleged Menstruation.

MAX SIMON (*Centralbl. f. Gynäk.*, No. 51, 1894), describes at full length a remarkable case of absence of the vagina, with fair development of the ovaries. The patient was 29 years of age, and had been married six months. Her husband seems not to have been aware that the vulva was closed, but the meatus urinarius was made to supply the place of the vagina. The family doctor had expressed his belief that the hymen was tight, and required incision. The period, it was alleged, had been missed twice, so that pregnancy was suspected. On examination the meatus was found dilated, admitting the index finger, the perineum began immediately behind it. On recto-vesical exploration under chloroform, a small uterus and a distinct pair of ovaries and tubes could be felt. There was no indication of a vagina. Simon endeavoured to dissect up a canal to reach the uterus. He failed in getting to the cervix, owing to the close connection of the bladder and rectum. The artificial vagina soon closed, in spite of dilatation. On careful interrogation the patient admitted that she had never seen "show," but that ever since her nineteenth year severe colicky pains occurred every four or five weeks. Her husband had informed her that those pains were menstruation. The symptoms have grown worse, and removal of the ovaries will probably be performed.

(75) Four Laparotomies on the Same Patient.

ELISCHER (*Centralbl. f. Gynäk.*, No. 51, 1894) relates how a patient, aged 34, underwent abdominal section for gonorrhœal salpingitis on November 6th, 1890. A fortnight later the lower end of the wound yielded, and blood began to ooze from it. This continued, so that nearly six weeks after the first operation the abdominal wound was reopened. A small artery was discovered bleeding on the cut surface of the right pedicle, although the ligature still seemed firm. A part of the edge of the abdominal wound sloughed, and convalescence was protracted. In April, 1892, as a fistulous track had formed, a third laparotomy was undertaken. The end of the fistula lay in cicatricial tissue surrounding the stumps of the tubes, which had become approximated. Both stumps were resected, together with the adjacent part of the uterus. The wound closed well, no fistula remaining. Afterwards signs of intestinal obstruction slowly developed. On September 6th, 1894, the fourth operation was performed. Abundant intestinal adhesions, involving the cæcum, were discovered. They were carefully set free, and a hernial protrusion of the abdominal cicatrix was resected. The patient was discharged cured on October 20th. Elischer found that she was highly hysterical from the first, though the appearances observed at each operation signified more than a pure neurosis.

(76) Malignant Deciduoma.

HARTMANN AND TOUPET (*Bull. de la Soc. Anat. de Paris*, October, 1894) describe a very instructive case of this remarkable disease only recently discovered by pathologists. The patient was 25, married at 23; she bore a child eighteen months before admission into hospital. Menstruation occurred during the last six months of lactation. Then the period ceased for three months after a very free hæmorrhage. There was slight oozing almost continuous till at the end of six months after the beginning of the free hæmorrhage another attack set in, with rigors, and lasted a fortnight. The uterus was dilated for three days, and at the end placental relics were removed; the temperature was then over 104°. The patient went on bleeding for a month, when the uterus was found enlarged. Hysterectomy was proposed, but before it could be done the patient had another severe attack of bleeding, followed by the expulsion of a mass resembling placental tissue. The patient died. Two tuberous hemispherical masses were seen projecting from the surface of the uterus. On section through the uterine wall they were found to be continuous with two pieces of placental relics. The microscope proved that the masses in the wall were placental tissue derived from the relics and undergoing malignant degeneration.

THERAPEUTICS.

(77) Hydrotherapeutic Treatment of Neuralgia.

BUXBAUM (*Deut. med. Woch.*, December 27th, 1894) first draws attention to the physical methods of treatment. He thinks that the hydrotherapeutic treatment of neuralgia has hardly received in practice the attention which it deserves. In neuralgia of rheumatic origin it acts by inducing increased blood supply to the affected parts, and in the neuralgias following upon the infective diseases or due to intoxication by mercury or lead, it promotes the elimination of the poison. In 83 typical cases of neuralgia this treatment was unsuccessful only in 5 per cent., whereas 60 per cent. were cured, and the remainder considerably relieved. The alternate application of heat and cold is most to be recommended. The patient is exposed to high temperatures, and afterwards cold applications are made. The alternating Scotch douche is particularly of service. Recent neuralgias may often be cut short in this way. Patients with sciatica treated without effect by various therapeutic measures, even including nerve stretching, have been cured in a short time by this method. If the neuralgia persists it is nearly always due to some irremediable cause, with the exception of some few cases open to operation. If a remission occurs after the treatment is begun, it shows the neuralgia is curable, and is therefore of prognostic value. In trigeminal neuralgia hydrotherapeutic measures applied to the whole body are the most suitable. Of course other indications should be attended to, such as anæmia, malaria, etc.

(78) Treatment of Lupus.

MOREAU, of Toulouse (*Sem. Méd.*, November 22nd, 1893), has successfully treated lupus and certain other tuberculous affections of the skin by subcutaneous injections of guaiacol and thymol or guaiacol and aristol. The former was used in twenty-one cases: the latter in fourteen. The effects of both preparations are alike, but the one containing aristol causes more pain than the other. The mixture of guaiacol and thymol is, therefore to be preferred. The following is the formula: ℞ thymol. grammes ij: guaiacol and sterilised olive oil āā grammes 50. M. The injections are made twice a week, beginning with an injection of 1 gramme of the solution, and gradually increasing the dose, till after six injections a dose of 3 c.cm. is reached. These injections are followed by reaction, both general and local, the general phenomena showing themselves first. The injections cause a good deal of pain, the temperature generally rises some fractions of a degree, and the pulse is slightly accelerated. Headache and very sharp pain in the shoulder almost always shooting down the arm and causing paresis lasting a minute or two, follow the injection. In cases in which there are pulmonary lesions there is reaction in the lung, expressing itself by intense and widespread congestion: this may occur even when the lung is perfectly sound. The other organs when healthy exhibit no reaction. The urine never contains any trace of blood or albumen, and is normal in quantity. On the day of the injection the patients suffer from slight *malaise* and drowsiness. Local reaction is at first very pronounced, but after the sixth or seventh injection there is a marked

tendency to cicatrisation: the patches become pale, the nodules shrink, and the ulcerated glands heal rapidly. In carrying out the treatment care must be taken to introduce the needle first, and to fit the syringe on only after making sure that no blood is flowing through it, so as to avoid the production of fatty embolism. The condition of the lungs must also be watched on account of the congestion which the injections produce; so intense is this sometimes even in healthy lungs that in three cases Moreau was obliged to abandon the treatment. Equal care must be taken in the case of persons with heart disease, in whom the injections may bring on attacks of cardialgia and precordial oppression. It should be stated that in addition to the injections Moreau used local treatment, consisting in the application to the patches of disease of a very fine thermo-cautery point in the manner recommended by Besnier.

(79) Therapeutic Use of Extract of Bone Marrow.

J. Billings (*Bull. Johns Hopkins Hospital*, November, 1894) gives some results of his experience of the use of extract of bone marrow in the treatment of various forms of anæmia. The preparation he uses is a glycerine extract, made from chopped fragments of twelve sheep's ribs, and then rubbed in a mortar and allowed to macerate in a refrigerator for three or four days and then strained. The dose given was 1 drachm three times a day. His conclusions are that in the two cases of chlorosis he treated with bone marrow beneficial effects followed. In the two cases of pernicious anæmia it failed absolutely. He remarks that the use of bone marrow is not to be considered analogous to that of thyroid extract in myxœdema: for in the latter disease the atrophy of the thyroid gland suggests the attempt to supply artificially its defective secretion. In pernicious anæmia on the other hand there is rather hypertrophy of bone marrow, a condition more analogous to exophthalmic goitre. Moreover, the formation of red corpuscles by bone marrow is rather a process of cell multiplication than secretion. In cases reported by previous observers of pernicious anæmia said to be improved by bone marrow, he remarks that the diagnosis was not clear, and that arsenic was given with the bone marrow. With regard to chlorosis, he concludes that the marrow acts by virtue of the iron contained in it, and it is doubtful if it is of more value than the usual preparations of iron: a conclusion which appears justified by a case quoted where the improvement under Bland's pills compared favourably with that under bone marrow.

(80) Sulphonal and Trional.

Schaumann (*Therap. Monats.*, August, 1894) has investigated the action of these agents on metabolism. Morphine considerably influences metabolism and the nutrition of the patient and the evil effects of its long-continued use are in no small measure to be attributed to these facts. Chloral hydrate has much the same action on the tissues. Similar investigations made with sulphonal and trional have hitherto yielded inconclusive results. The author has made experiments upon himself. He found that trional had the more marked hypnotic effect. After putting himself on a given diet and producing nitrogenous equilibrium, he was able to show that neither trional nor sulphonal, even in large doses, has any action on metabolism. Hence the superiority of these agents over chloral hydrate, especially when it is considered that the latter also acts on the heart.

(81) Ichthyol in Urticaria.

Lanz, of Laupen, from observations on his own person (*Rev. Méd.*, October 21st, 1894) concludes that ichthyol given internally is an effectual remedy for certain forms of urticaria caused by errors of diet. Having been seized with a violent urticarial eruption, which menthol in 20-centigramme doses twice a day relieved only for the moment, it occurred to him to take a cachet containing 20 centigrammes of ichthyol; half an hour later the urticaria had completely disappeared. As a measure of precaution he took a similar dose of ichthyol on the following day after the two principal meals, and there was no recurrence of the eruption.

(82) Jaundice and the Administration of Filix Mas.

Grawitz (*Berl. klin. Woch.*, December 24th, 1894) remarks that symptoms of poisoning by male fern occur from time to time. The active principle of this agent is an acid which is absorbed with difficulty. This acid, however, when combined with fatty or ethereal oils is more readily absorbed, and thus sets up more easily symptoms of poisoning. In severe poisoning there may be cerebro-spinal paralysis, but in the milder cases, violent vomiting, abdominal pain and faintness may be noted. The slighter symptoms are more frequent, such as icterus, which is mostly absent in the more rapidly fatal cases. In the cases observed by the author, the jaundice could only occasionally be assigned to catarrh of the bile ducts. He has examined the blood in some ten cases. There was evidence of destruction of red cells, but since hæmoglobin was absent from the serum except in one case, the author concludes that this destruction does not take place in the circulating blood but in the liver itself. Four cases are then recorded in which there was cirrhosis of the liver as well as helminthiasis, and where the hepatic symptoms were much aggravated after the use of male fern. Thus this drug should be given cautiously where there is any evidence of hepatic disease, and especially in the alcoholic or syphilitic. It is also well to avoid the use of castor oil along with the extract.

PATHOLOGY.

(83) The Suprarenal Capsules.

Boinet (*Sem. Méd.*, November 3rd, 1894) gives the results of many experiments on the suprarenal capsules. Simultaneous ablation was performed forty-eight times in rats by a dorsal incision. The period of survival varied from two to thirty-eight days. When the capsules were removed successively, at an interval, longer survivals occurred: thus in one rat the survival was eighty-three and fifty-three days respectively after the operations. In another rat, still living, the right capsule had been removed and grafted into the peritoneal cavity fifty-six days previously, the left being removed four days later: hence the author does not agree with De Dominicis that total simultaneous suppression of both glands leads constantly and inevitably to the death of the animals in, at the most, two, three, or four hours. In 3 cases double grafting performed immediately after ablation did not appreciably prolong life, but the grafting of one capsule followed at some days' interval by total ablation of the other capsule, succeeded better: thus, one rat so treated lived fifty-six days. In 16 cases ligature of the pedicle with a silk thread was practised; this, whilst suppressing the function of the gland, lessens the operative traumatism. A rat in which the left capsule was so tied, and the right removed and grafted at the same time, was alive after fifty-one days. This last procedure adopted in 8 cases gave the longest survivals of all. If the second capsule be not grafted death occurs more quickly; simultaneous ligature of both capsules was more quickly fatal than double decapsulisation. After death from double ablation the most common appearances were pulmonary congestion six times, suggillations in the lungs eight, left heart hypertrophy four, thyroid enlargement nine, splenic enlargement six times. Thyroid, splenic, and glandular hypertrophies were noted in cases where long survival occurred. In forty inspections congestion of the brain was found eighteen times, of the bulb nineteen times, and fourteen times there were black pigmentary stains on the cerebral surfaces. The latter, however, are present in normal rats though more marked in decapsuled animals. The blood presented pigment granules in sixteen cases: six times in the above-mentioned stains these blacker granules lay side by side with the deep chestnut-coloured granules. Where there existed splenic and thyroid hypertrophy, leucocytosis with diminution of the red corpuscles was noted: in other 44 cases the blood was not appreciably altered. The author inclines to the opinion of Arnaud and Alezais, who have observed a systematic ascending degeneration starting from the small juxta-capsular ganglia, reaching the great splanchnic and semilunar ganglia, and thence spreading to the lateral column of the cord. Other detailed experiments are described relative to the part which intoxication plays in the mechanism of death in decapsuled rats.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(84) Chronic Polyarticular Rheumatism.

Folli (*Il Policlinico*, December, 1894) discusses the pathology of this affection (rheumatoid arthritis) in respect to the nervous theory. He reports in full three cases with the minute morbid anatomy. In two the clinical manifestations were quite typical, the hands presenting the characteristic deformity. The wrist, elbow, and shoulder-joints were also affected but in decreasing degrees. Here lesions were found in the anterior horns, atrophic in the first case, but degenerative as well as atrophic in the second. The lesion became less marked in passing down towards the periphery through anterior nerve roots, nerves, and muscles. In the third case the disease was most marked in the shoulder-joints, gradually diminishing downwards, so that the hands were but slightly affected. Here the morbid changes were but faintly marked in the nervous system, whereas the muscles and articulations were profoundly altered. The more minute lesions in the first two cases consisted in a diminution in the number of cells in the anterior horns, with a disappearance of their processes and increased deposit of pigment. There was a rarefaction of the neuroglia, more marked towards the inner parts and at the junction of the two horns. Where the neuroglia was most attenuated the alteration in the cells was greatest. The nerve roots and nerves were also atrophied. The author thinks that the lesions in the cord were in all probability primary because the changes were so pronounced there, and because disease in the cord can cause arthropathies. He gives details of a fourth case of this disease, death taking place from tuberculosis. Here cavities were present in the grey matter, and they corresponded to places where in the other cases the neuroglia was most thinned and the cells most atrophied. The author does not believe that the lesions could be attributed to disease of the limbs. He likens the lesions found in Cases 1 and 2 to the Duchenne-Aran type of progressive muscular atrophy. All cases of arthritis deformans cannot be thus explained. In Case 3 the lesions in the spinal cord were too slight to attach importance to.

(85) The Primary Lesion in Tabes Dorsalis.

Nageotte (*Bull. de la Soc. Anat.*, 1894) remarks that, according to one view, the degeneration in the posterior columns is secondary to a lesion in the posterior nerve roots. Redlich and Obersteiner have instanced disease of the pia mater as a cause of the degeneration in the nerve roots. This posterior meningitis, however, is variable. The author has sought for a lesion further towards the periphery. He has investigated 4 cases: (1) general paralysis, (2) and (3) recent tabes dorsalis complicating general paralysis, and (4) pure tabes of twenty-five years' standing. In Cases 2 and 3 there was a triangular band of sclerosis in the centre of the posterior columns. Lissauer's zones were involved and the posterior roots markedly degenerate. In Case 1 there was no trace of a lesion in the lumbar region, but the sacral roots were diseased, and there was an early sclerosis in the dorsal cord. The author found in these three cases of locomotor ataxy of different ages a meso-neuritis between the ganglion and the entry of the roots into the arachnoid sac. The lesion had begun as a round-celled infiltration, which tended to develop into fibrous tissue. The focus of transverse neuritis acts either by compression or by irritation upon the nerve fibrils traversing it. This perineuritis, intense about the posterior roots, was also found about the anterior roots, but here the nerve fibrils had escaped. The walls of the arteries were intact, but those of the veins infiltrated with round cells. The cords of general paralytics with commencing tabes are best adapted for examination, for here the lesions are early. In Case 4 the same lesions were present, but in a much more advanced degree. Here there was even a cavity in the posterior nerve root. Within the arachnoid the proliferation of the interstitial tissue ceases, but the nerve fibrils are degenerate, showing the lesion not to be primarily parenchymatous. The anterior roots appear much more resistant than the posterior. The author maintains that this perineuritic lesion is of the same order as the lesion of vascular encephalitis (Raymond) found in general paralysis, and there is no histological reason for not admitting that it is of a syphilitic nature.

(86) Congenital Hemi-hypertrophy.

Samuel S. Adams has recorded (*Arch. of Ped.*, December, 1894) a remarkable case of overgrowth of one side of the body observed in the person of a boy aged 10. He was of white parentage, and a native of Washington, U.S.A. His mother died in a confinement; his father was alive and well, but "dissipated"; his five brothers were living, without deformity; his only sister had an ankylosed hip-joint from old disease of the joint. The boy was stated to have been deformed at birth, though to a less degree. He had had none of the "diseases of childhood" and his general health had always been good. He was of average intelligence. During the five months he had been in an orphanage it was thought (by the sisters) that the disparity between the two sides of the body had increased. The description is illustrated by photographs, which show that the disparity is very striking; the weight of the body was apparently carried by the sound leg. The hypertrophy affected the face, tongue, tonsil, mamma, and scrotum, as well as the bones and soft parts of the limbs. The right lower limb, measured from the anterior superior spinous process to the external malleolus, was 4½ inches longer than the left; the difference in the circumference in the middle of the thigh was 4¾ inches. The skin on the affected side presented in many parts telangiectatic areas.

(87) Cerebral Amyotaxy.

Rossolimo (*Neurol. Centralbl.*, December 15th, 1894) applies this term to the form of hyperkinesis presented in the following case. At the time of reception into the clinic in October, 1893, the patient, a clerk aged 33, exhibited continuous spasticity and jerking movements in his right upper limb. The arm was a little abducted, the elbow flexed, and the fingers were bent into the palm, or variously flexed and extended as in athetosis. At times the contractions extended to the muscles of the neck and trunk. The hyperkinesis was aggravated by direct efforts to restrain the movements; by slight emotional disturbances; by diversion of the attention—for example, to a mathematical problem; as well as by strychnine, Indian hemp, and the early stage of chloroform narcosis. During sleep both tonic and clonic spasms disappeared. They were lessened by strong emotion, such as anger; by fixing the attention on little digital exercises that the patient had devised successfully for his relief; they were also diminished by morphine, chloral, atropine, and phenacetin. Galvanisation of the head and neck gave unfavourable results, but faradisation of the limb quickly relaxed the tense muscles. The whole musculature of this limb was hypertrophied. Voluntary movements of the right hand were much facilitated by simultaneously executing a corresponding movement with the left hand. In the muscles of the other limbs, and of the trunk and face were frequently recurring clonic contractions, involving smaller or larger fasciculi or whole muscles, and producing involuntary movements, specially noticeable in the fingers of the left hand. The patient stammered badly: attempts to speak excited disordered action in the respiratory and laryngeal muscles, as well as those of the tongue and face. This speech trouble dated from childhood; the other motor anomalies began in 1891, affecting first the digits of the right hand in a manner resembling writer's cramp, and gradually spreading therefrom. Myotatic irritability not excessive. Electrical reactions normal. Muscular sense and cutaneous sensibility unaffected. The only abnormalities in connection with the eyes were slight insufficiency of the interni, and diplopia. The latter did not appear until December, 1893, and was more pronounced whenever the movements in the right arm were most extensive. The author discusses reasons why this case cannot be classed as mogigraphia, athetosis, or under any other established nosological denomination. Taking into

account the patient's neurotic heredity (mother and two sisters hysterical, brother hypochondriacal) and stigmata of degeneracy (obsessions, etc.), he thinks that the cerebral amyotaxy must be regarded as the motor symptom of degenerate brain structure, in the same way as the imperative ideas are the psychical symptom.

SURGERY.

(88) Brain Surgery.

Nasse (*Berl. klin. Woch.*, January 21st, 1895) relates two interesting cases of perforating wounds of the skull. Case 1. A man, aged 43, was admitted twelve days after a heavy chisel had fallen upon his head. He was apathetic, and complained of headache. He was aphasic, and the lower branches of the right facial were paralysed. The fundus oculi was healthy. Later, motor weakness appeared in the right side. On trephining a small perforation was found in the dura mater through which softened brain tissue escaped. The dura mater was incised, and the contents of an abscess in the brain substance evacuated. Improvement began at once. The aphasia completely passed off in three weeks, and the lower branches of the facial improved later. The progress in the right extremities was slow, a difference in the strength of the two sides still persisting. This was an example of a subacute, subcortical traumatic abscess near the motor-speech centre. Its position exactly explained the symptoms. Case 2. A boy, aged 6, received an injury to the skull from a piece of falling wood containing a nail. On the next day he was somnolent, and vomited. On the third day there was disturbance of speech as well as clonic spasm in the cheek, extending later to the arm. On admission there were symptoms of a focal lesion. On trephining the inner table was found splintered, some of the splinters having been driven into the brain substance. These were removed. There was a focus of softening, but no abscess. The recovery was complete. Nine days later an osteoplastic operation was performed by which the defect in the skull was closed.

(89) Abdominal Surgery on the Battle-field.

Senn (reprint from *St. Louis Clinique* for June, 1894) formulates his views on the subject of military abdominal surgery in the following conclusions: (1) The treatment of dangerous internal hæmorrhage and visceral wounds of the abdominal organs by laparotomy in military practice is a justifiable and legitimate procedure which merits the earnest consideration of every military surgeon, and deserves the most serious attention of the proper military authorities of all civilised nations. (2) The first aid to those suffering from gunshot wound of the abdomen, in which life is threatened by hæmorrhage, should consist in compression over the injured part and autotransfusion by insular constriction at the base of one or more extremities. (3) Operative treatment of gunshot wounds of the abdomen should be resorted to promptly in appropriate cases, and for this purpose the wounded should be transported from the fighting line to the field hospital with great care and without delay. (4) The field hospital should be equipped with the necessary instruments and outfit for the performance of abdominal operations. (5) After median laparotomy temporary hæmostasis can be effected for the purpose of arresting dangerous arterial bleeding by digital compression of the aorta below the diaphragm, and venous or parenchymatous bleeding by sponge compression. (6) Permanent hæmostasis must be secured by ligature or aseptic tamponade. (7) Visceral wounds of the liver and pancreas are amenable to successful treatment by suturing, aseptic tamponade, or actual cautery. (8) Wounds of the spleen and kidney, if not amenable to the same treatment, may require removal of the injured organ. (9) Wounds of the stomach and intestines large enough to permit extravasation, with very few exceptions, result in death, and should therefore be subjected to direct operative treatment before serious complications set in. (10) Distension of the stomach and intestines by insufflation of air before laparotomy, and of the small intestines through one or more perforations after the abdomen has been opened, is a valuable diagnostic test. (11) Wounds of the stomach and intestines can be quickly and safely closed by one row of sero-muscular sutures, including a few fibres of the submucous fibrous coat. (12) The after-treatment should consist of such measures as will most successfully combat the symptoms of shock and secure rest for the injured organ.

(90) Traumatic Dermoid Cysts.

Le Fort (*Rev. de Chir.*, December, 1894) reports two new cases of traumatic dermoid cysts, and gives the following conclusions, based on a careful study of these growths: (1) Traumatic dermoid cysts are met with almost exclusively in the hand and the iris. (2) They are produced by the development of a fragment of skin forced into the deep tissues by some wounding agent. (3) It has been proved by experiments that the displaced fragment of skin is usually very small, and formed simply of the epidermis. (4) Consequently traumatic dermoid cyst is in most instances purely epidermic. (5) Cutaneous fragments can be detached more readily in the hand than elsewhere, hence the much greater frequency of the cysts in question in this region which, moreover, is especially liable to be injured. (6) The displaced fragment of skin may not be completely detached: it may still be connected with the skin of the hand, and may maintain its connection with the cutaneous vessels, nerves, and glands. Thus may be explained those cases of traumatic cyst, the walls of which papillæ and even hairs. (7) It is not improbable that the fragment of skin displaced and embedded by an injury may consist not merely of epidermis, but also of a more or less abundant dermic layer. (8) In every case, however, the embedded fragment forms but a part and often a small part, of the wall of the cyst, the rest of this wall being formed by the cicatrisation which starts from the margins of the deep graft. This cicatrised part of the wall is always of simple formation; it contains neither papillæ nor glands, and the epidermis is always in direct contact with the connective tissue. Hence the necessity of a very careful and thorough removal of the growth. The traumatic origin of dermoid cysts in the iris was first suspected by Huike, who pointed out, in 1869, that in 15 out of 19 recorded cases an injury had preceded the appearance of the growth.

(91) Operative Treatment of Wry Neck.

Mikulicz (*Centralbl. f. Chirur.*, No. 1, 1895) dissatisfied with the results both of subcutaneous and open division of the sterno-mastoid in cases of caput obstipum, advocates almost total removal of the contracted muscle, the posterior part of its upper extremity, where it is traversed by the spinal accessory nerve, being left. He has practised this operation in 17 cases with success, the only bad result having been disfigurement of the neck caused by the absence of the muscle. Examination of the removed muscle in these cases has convinced him that wry neck is the result of a chronic inflammatory condition—myositis fibrosa—involving the whole of the sterno-mastoid. This condition he attributes in congenital cases rather to compression of the muscle during a long and difficult labour than to laceration. The so-called hæmatoma of the sterno-mastoid sometimes observed in infants is not due, he holds, to effusion of blood, but to thickening and induration of the inflamed muscle.

MIDWIFERY AND DISEASES OF WOMEN.

(92) The Acute Infective Diseases and Abortion.

Klautsch (*Münch. med. Woch.*, December 26th, 1894) remarks that pregnancy may here be brought to an end either by the death of the fœtus or, less frequently, by premature uterine contractions. The fœtus may die owing to (1) deficiency of oxygen; (2) alteration in temperature; or (3) direct transmission of the infection. These conditions may be combined. The inconstancy of the transmission of the infection the author would explain by the circumstance that it can only occur when the normal connection between the maternal and fœtal circulation is disturbed. Premature pains may be caused by (1) increased body temperature; (2) altered blood; (3) changes in the uterine mucous membrane, as in endometritis exanthematica; or (4) toxins present in the blood. If the deficiency in oxygen occurs rapidly, the fœtus dies; if more

gradually, pains are induced. In typhoid fever abortion occurs in more than half the cases, and the fœtus is mostly born dead, the death being most often due to the transmitted infection. Cholera is not transmitted to the fœtus, the death being due to the altered blood, to an endometritis, to a diseased fœtal placenta, and to temperature variations. In measles the fœtus rarely dies. In severe malaria the fœtus is more often born alive, but soon dies of malarial cachexia. In pneumonia the death of the fœtus is not uncommon, and is due to asphyxia. Variola frequently kills the fœtus, yet many are born alive. As regards the pains, the fœtus may be expelled in variola even during the suppurative stage; in malaria after the paroxysm; in erysipelas most often when the eruption appears; in cholera during the transition stage; in influenza soon after the onset of the febrile symptoms; and in pneumonia on the third or fourth day. In typhoid fever the abortion may be accompanied by much hæmorrhage, or strong contractions and little hæmorrhage. In cholera the hæmorrhage is profuse, and the contractions violent. The fœtus is mostly much more threatened by the altered temperature, disturbed circulation, and pathological changes in the endometrium, than by the transmission of the infection.

(93) Sea Water and Menstruation.

Houzel (*Ann. de Gynéc.*, December, 1894) has published a series of statistics on menstruation in fisherwomen on the French coast. They lead a hard life, and are ill fed. They spend a great part of the year shrimping, which involves immersion for hours in sea water, often above the waist. They walk about in their wet clothes afterwards selling their shrimps. In winter they pick mussels out of rock pools at ebb tide, and return to town carrying baskets full of the molluscs, dripping over their clothes, the water sometimes freezing as it falls. All the 123 fisherwomen interrogated by Houzel insisted that the catamenia were always easier when they were actively at work at their calling. Some found that the period became painful or scanty when they led a temporarily dry life, and returned to its normal state when once more they walked in the sea to earn their bread. Puberty comes on rather earlier than in landswomen, the menopause later, and the fertility is markedly high. In short, fisherwomen are strong, and their period is maintained at a normal point more steadily than is the case with other women. Houzel, however, sees a direct relation between the immersions and the normal catamenia. He notes that lady visitors, after a few days' acclimatisation, find that sea bathing is excellent for regulating the catamenia.

(94) Fibroma of the Parietes in Women.

Lathuraz (*Lyon Médical*, November 18th, 1894) states that Pollosson recently removed a fibroma of the abdominal wall, a disease far more common in woman than in man. The patient was 36. She had been four times pregnant; the last confinement took place prematurely two years and a-half ago, but the tumour had been noticed for four years. For three years it remained no larger than a walnut, but for twelve months before operation it grew rapidly, till at length it became so large that the woman seemed as though pregnant at term. It was clearly in the walls. A median incision was made, and the tumour was found on the deeper side of the recti, to which it adhered throughout. These adhesions were easily broken down, but on the deeper side the use of pressure forceps was needed, and some of the peritoneum had to be resected. The gap was closed with sutures. The patient died on the second day after symptoms of peritonitis. The tumour weighed over six and a-half pounds.

(95) Racemose Tumour of Ovary.

Odebrecht and Runge (*Zeit. f. Geburt. u. Gynäk.*, vol. xxxi, Part 1, 1894) brought forward and discussed at recent meetings of the Berlin Obstetrical Society an alleged case of this rare disease described by Olshausen and Lawson Tait. The patient was 32; her last child was 9 years old; shortly after that confinement a fixed retroflexion was detected. She was kept more or less under treatment for over eight years. In December, 1893, a tumour seemed to have developed on the site of each uterine appendage. In the spring of 1894 the abdomen began to enlarge rapidly, cachexia accompanying this enlargement; the posterior vaginal wall became prolapsed. At the operation 17 pints of ascitic fluid escaped. Floating about in the peritoneum was a mass greatly resembling a hydatid mole. The vesicles of which it was made up ranged in size from that of a pea to that of a broad bean. They were so loosely connected that the slender pedicles were frequently torn through in attempts at extraction, and masses of the tumour substance in consequence came out separately. The tubes were obstructed and dilated. The pelvic attachments were very soft, and were torn to rags in spite of careful manipulation. They proceeded, however, from the site of the ovaries, which were absent. Some vesicles were found growing on the peritoneum in Douglas's pouch. They were excised. The patient, very cachectic, developed a bedsore in a few days, yet there was no rise of temperature, and she was quite well within six weeks after the operation. Olshausen believed that the tumour was primarily racemose. Runge, however, insisted that the free surface of each vesicle is simply connective tissue in the true racemose tumour. In Odebrecht's specimen the vesicles were lined externally with cylindrical epithelium. Hence the tumour was most probably a papilloma, developed originally in a common cyst which had ruptured and disappeared.

THERAPEUTICS.

(96) The Thyroid Treatment.

Ewald (*Berl. klin. Woch.*, January 14th and 21st, 1895) relates a case of myxœdema greatly improved by this treatment. The relative absence of effect with the thyroid extract was striking in this case, for the curative action was really only noted when thyroid tabloids were used. During a period of observation no change was found in the nitrogenous products of the urine, and the body weight also remained fairly constant during this period. Sugar appeared in the urine during the administration of the tabloids, and ceased when they were discontinued. The author remarks upon the question of exact dosage, and suggests that perhaps the active principle might be obtained by dialysis after the thyroid gland had been subjected to peptic digestion. He then refers to the use of this treatment in psoriasis, and especially in cretinism. He has treated 2 cases of Graves's disease in this way without benefit. In 3 cases of obesity no effect was noted in 1, and a loss of 3.5 kilos. in weight was registered in another, but the weight increased again eight weeks after the cessation of the treatment. The third patient lost 9.2 kilos.; here the general appearance somewhat suggested the presence of myxœdema, but the characteristic symptoms were absent. In eight cases of struma simplex treated by Kuttner in Ewald's clinic with thyroid tablets, a diminution in the size of the goitre was noted in every instance. (*See also* P. Bruns, Epitome, November 3rd, 1894, par. 344.)

(97) Treatment of Tuberculosis with Yeast Nuclein.

Victor Vaughan (Philadelphia *Med. News*, December 17th and 22nd, 1894) gives the results of his observations on the therapeutic use of the nucleins. His experiments on rabbits, etc., led to the following conclusions: (1) The nucleins and nucleinic acid are powerful germicides; (2) the germidical constituent of the serum of blood is nuclein; (3) rabbits and guinea-pigs may be protected against virulent cultures of the diplococcus of pneumonia by previous treatment with hypodermic injections of a solution of yeast nuclein; (4) the immunity thus secured is not due to the action of the nuclein as a germicide directly, but most probably depends on the stimulating effect of the nuclein on some organ whose function it is to protect the body against bacterial invasion; (5) the longer the injections are continued and the more frequently they are administered, the more complete is the immunity; (6) in order to obtain immunity, the inoculation with the germ must follow soon after the last treatment with the nuclein; (7) attempts to render guinea-pigs immune to tuberculosis show that previous treatments with nuclein retard, but in most cases do not prevent, the development of tuberculosis from subsequent inoculations; (8) attempts to arrest tuberculosis already developed in

guinea-pigs by treatment with yeast nuclein have been followed by varying results, depending on the virulence of the germs inducing the disease, the stage of disease when treatment is begun, and the susceptibility of the animal; (9) experiments on rabbits show that they may be rendered immune to tuberculosis by previous treatment with yeast nucleinic acid (1 per cent). Further, the development of tuberculosis in rabbits may be prevented when the treatment is begun within three or four days after inoculation. (This treatment consisted in injecting daily 0.5 c.cm. of a 1 per cent. solution of yeast nucleinic acid). With regard to the human subject, Vaughan has tried it in twenty-four cases with the following results: (1) In cases of pulmonary tuberculosis with cavities it does no good; (2) it may retard the progress of long-standing cases, so long as secondary infection with pyogenic germs does not occur; (3) a temporary cure (the cases have not been long enough under observation to say more), may be obtained in early cases of small area; (4) it has proved satisfactory in urinary tuberculosis. Finally, Vaughan states that the nucleins in other substances may act equally well as yeast nucleinic acid.

(98) Hæmatin-Albumin.

Finsen (*Ugeskrift for Læge*, No. 51, 1894) has succeeded in preparing a durable preparation from blood, consisting principally of dried albumins, holding a large amount of iron. It is a dark brown powder, odourless and almost tasteless. It is prepared from the blood of the ox or pig. The albumins are separated from the extractives and salts by means of Panum's method, somewhat simplified, and after many washings the uncoagulated albumins are centrifugalised and then evaporated at a low temperature (vacuum). At the preparation measures are taken to destroy any micro-organisms that may be present. About one pound of hæmatin-albumin contains the albumins of about six pounds of blood. The remedy has been tried at several hospitals in Copenhagen with satisfactory results. It is well borne and easily assimilated. It does not cause constipation, but gives a reddish colour to the motions. The dose is 1 to 2 teaspoonfuls three times a day for adults. It may be taken either pure or mixed with cocoa.

(99) Combination of Drugs.

Hildebrandt (*Centralbl. f. inn. Med.*, January 12th, 1895) draws attention to the recent researches made into the elimination of certain undesirable by-effects of certain drugs by means of combination with other drugs. Sparteine has lately been recommended before the administration of chloroform on account of its action on the heart and vagus. The intensifying action of one drug upon another has hardly been experimentally investigated. The combination of alcohol, menthol, toluol, and ferric perchloride recommended by Loeffler in the local treatment of diphtheria (Epitome, November 10th, 1894, par. 363), is an example of this intensifying action. In the treatment of neuralgia the combination of phenacetin and caffeine has been suggested. Phenacetin, salol, and caffeine have been used with success in sciatica and trigeminal neuralgia. Migranin consists of a combination of antipyrin and caffeine, a little citric acid being added. The author has made experiments to ascertain whether the value of combination lies in the increased activity of the principal drug in question. The author found by exact experiments that caffeine increases the specific action of antipyrin, but he could not prove that an entirely insufficient dose of antipyrin could be made efficient by the addition of caffeine. The action of quinine sulphate was also shown to be increased by caffeine. By adding caffeine the effect of phenacetin was increased 20 per cent. As regards the allied hypnotics, caffeine was found to delay and diminish the action of chloral, but with trional no such effect was noted. It has been said that strychnine is no antagonist to the sulphonal group as it is to chloral. The author shows that reflex action is not increased by strychnine in deep chloral narcosis as it is in trional narcosis. He has noted that usually the effect of chloral was somewhat delayed by strychnine, whereas that of trional was not inconsiderably increased and hastened. Sometimes small doses of strychnine have been known to produce a slight hypnotic action in man. The question is why this action should become combined with trional and not with chloral.

(100) Sulphuretted Hydrogen in Dilated Stomach.

Zawadzki (*Centralbl. f. inn. Med.*, December 15th, 1894) first refers to the antizymotic and antifermentative action of hydrochloric acid in the normal stomach. Recently it has been shown that fermentation may take place even in the presence of not inconsiderable quantities of free hydrochloric acid. The acid may be insufficient to prevent it in case of long delay of the food in the stomach, as in gastric dilatation. If the long delay is prevented by washing out the stomach, no fermentation takes place. The author then relates four cases of gastric dilatation, in which there was decomposition of albumen with the production of sulphuretted hydrogen. The dilatation was due to non-malignant obstruction in three cases and to gastric atony with hyperacidity in the remaining case. All four cases obtained great benefit by treatment. In all these cases there was relatively large quantities of hydrochloric acid. Yet sulphuretted hydrogen was formed in considerable amount. Thus the hydrochloric acid is not always able to prevent decomposition of albuminous matters. There were no symptoms of poisoning by the products of this decomposition, probably on account of deficient absorption. Such poisons found in the dilated stomachs have been known to produce convulsions in animals. The exact cause of the albuminous decomposition is not really known. In one of the above cases the production of sulphuretted hydrogen was so great as to necessitate the patient sleeping in a room by himself. This albuminous decomposition in the presence of hydrochloric acid can only occur in case of long retention of the stomach contents.

PATHOLOGY.

(101) Mixed Infection in Cases of Diphtheria.

F. Reiche (*Cent. f. innere Med.*, January 19th, 1895) made a bacteriological examination of the kidneys, and in some cases also of the spleen, in 42 cases of diphtheria on which a necropsy took place at the New General Hospital of Hamburg. Agar-agar tubes were inoculated with juice from the parenchyma of these organs, and placed in the incubator for twenty-four hours. In all the 42 cases Loeffler's bacillus had been found in the throat, but always associated with cocci or other bacteria. Tracheotomy had been performed in 27 of the 42 cases. In 13 cases the tubes remained sterile. In the other 29 cases colonies of bacteria developed, namely, Loeffler's bacillus alone in 2 cases, streptococci alone in 19, streptococci and staphylococci together in 7, and in the remaining case streptococci and staphylococci were found in association with a bacterium, perhaps B. coli. One of the patients in whom streptococci were found in the kidney was a 1-year-old child, who died on the second day of illness. This case and some of the other cases show how very early in the disease microbes, associated with Loeffler's bacillus in the throat, may pass beyond the protecting lymphatic glands of the neck into the general circulation, and may thus probably induce a rapidly fatal termination of the illness. Reiche points out the importance of such complications in reference to the treatment by diphtheria antitoxin, which, directed against Loeffler's bacillus, appears, however, to be powerless against secondary infections.

(102) Heat Stroke.

Laveran and Regnard (*Bull. de l'Acad. de Méd.*, December 26th, 1894), experimenting on dogs breathing hot air and doing work comparable to that of a marching soldier, never observed at death any rigidity of the heart or coagulation of the muscular fibres; hence they conclude that death by heat cannot be due to coagulation of myosin; and this is confirmed by Cyon's experiments on the frog's heart, for when the temperature is sufficiently high to stop the beating, contractions may be reinduced by cooling the heart; this could not occur if the cessation were due to myosin coagulation. Although severe exercise is not an indispensable condition in the production of heat stroke, it strongly favours its occurrence. The authors believe that heat acts directly on the nervous system, and not by inducing auto-intoxication or coagulation of muscle fibre.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(103) Acute Miliary Tuberculosis of the Pharynx.

Kiaer (*Ugeskrift for Laege*, No. 52, 1894) reports the following cases: (1) A girl, aged 6, had, six weeks previous to the observation, had an attack of double pneumonia, since which she had suffered from dyspnœa. With the exception of a bronchial character of the inspiration, no abnormality was found in the chest. The pharyngeal and laryngeal mucous membranes were swollen and injected, and the lower surfaces of the vocal cords bulged strongly forwards, causing considerable narrowing of the glottis. Tracheotomy was performed, and later intubation, which relieved the symptoms for a time. About a month after the first observation, the child complained of pain and difficulty in swallowing, and the redness and injection of the pharyngeal mucous membrane previously noticed were now more marked, and the membrane was covered with miliary tubercles. The symptoms advanced rapidly; the uvula and pillars of the fauces became hard and brawny; the patient developed rhinitis, with complete obstruction of the nose, and the glands of the neck were greatly enlarged. The child died about four months after the first appearance of the symptoms. Besides the local signs of extensive ulceration, both lungs were covered with miliary tubercles, and on section presented numerous caseous peribronchial infiltrations. The bronchial and cervical glands were caseous. (2) A man, aged 55, had always been in good health until three months previous to observation, when he noticed pain on swallowing. He had been nursing and sharing the same room with a son, who a year previously had died of pulmonary and laryngeal phthisis. The pharyngeal mucous membrane was red and swollen, and on the pillars, uvula, and naso-pharynx were numerous miliary, but also confluent, whitish infiltrations, ulcerating in part. On palpation the soft palate was hard and infiltrated. The larynx was normal, except for a slight diffuse redness and swelling. There were signs of commencing consolidation of the right apex. Before death, about six months after the commencement of the symptoms, the patient had regurgitation of fluid from the nose and extreme dysphagia, which necessitated feeding by the œsophageal tube. *Post mortem* were found extensive ulcerations of the pharynx, larynx, and trachea; the lungs were riddled with tubercles, varying in size from a pin's head to a pea; there were no signs of these breaking down. (3) A man, aged 23, had noticed pain on swallowing, two months previous to observation: he had wasted and been sweating at night, but there had been no cough. The local signs found on inspection were somewhat similar to those in the previous patient: there was extensive induration with scattered ulcerations of the pharyngeal mucous membrane. The larynx was normal. There were slight signs of commencing consolidation of the left apex, and a few crepitations were also heard under the right scapular spine. This case also progressed rapidly, and the patient died five months after the commencement of his illness. A necropsy was not allowed. Tuberculosis of the pharynx, though rare, is more common than that of the œsophagus and stomach. It is very rare in children, being most common in adult males. In none of the cases quoted above was there any evidence of the ulceration having begun on the sides of the pharynx, and from thence spread to the posterior wall and the soft palate, which is said by Mackenzie to be the usual course. The author thinks there is strong evidence in favour of all three cases being primary; the rapid and extensive local changes, compared with the comparatively recent ones found in the lungs, point to this. In the two adult cases the very first symptoms were those of dysphagia, and in the child the mucous membranes of both pharynx and larynx appeared to be simultaneously affected, although in this case the dysphagia was never so extreme as in the others.

(104) Spinal Syphilis.

Scalfati (*Rif. Med.*, January 14th, 1895) reviews recent knowledge with regard to spinal syphilis. It is generally admitted now, he says, that syphilis may produce myelitis directly as well as indirectly; it may come on six months or less after infection, or after ten or even twenty years. Of the three chief clinical types (meningitis, meningo-myelitis, and myelitis) the rarest is meningitis; it is the most favourable as far as prognosis and treatment are concerned, and is frequently characterised by a nocturnal rachialgia comparable to the nocturnal headache of syphilis. The meningo-myelitic variety presents two distinct phases: (1) prodromal or meningitic, often complicated with cerebral symptoms (headache, visual affection, paralysis of cranial nerves, etc.): (2) spinal paralysis. This type of meningitis, commencing in the brain and travelling downwards, is typical of syphilis. In a considerable number of cases, however, the meningitic symptoms are wanting or are very slight. Acute forms (with complete sphincter paralysis, profound sensory disturbance, and marked trophic affections—for example, bedsores) may occur and cause death in a month, being little influenced by treatment. Pachymeningitis, especially affecting the cervical region, may give rise to pseudo-tabetic phenomena. The myelitis of syphilitics presents in some cases anatomical characters such as to enable one to affirm that there exists a legitimate syphilitic myelitis, which may sometimes be acute. Fournier's "neurasthenia syphilitica" is probably in some cases only the prodromal stage of syphilitic myelitis. In general one may say that spinal syphilis is a serious disease; even when life is not threatened, the disease is rarely completely cured.

(105) Myasthenia Gravis Pseudo-paralytica.

Jolly (*Berl. klin. Woch.*, January 7th, 1895) relates the following case: A boy, aged 14½, first noticed a year and a-half ago a difficulty in keeping the eyes open. Later the legs became easily tired, so that he would fall after walking a short distance. A similar condition was then noted in the arms and in the muscles concerned in mastication and in speech. Not any single group was involved, but nearly all the voluntary muscles. They were capable of function after rest, but this was rapidly lost. There was no muscular atrophy or hypertrophy. The knee-jerks were present and sensation was unaffected. Considerable improvement subsequently occurred. The author discusses the behaviour of the muscles to the electric current, which he terms the myasthenic reaction. Exhaustion here occurred, just as it did when the muscles were put into action by the will. Jolly refers to a case of the same disease reported by him three years and a-half ago. Here death occurred by choking. The *post-mortem* examination was altogether negative. An abnormal exhaustion of muscles is present in this disease, to which the author has given the above-mentioned name. In Thomsen's disease the opposite condition is noted. The abnormal contraction is here also called forth both by voluntary effort and by the electric current. Among alkaloids, veratrine, etc., produces contraction in muscles analogous to that seen in Thomsen's disease, and protoveratrine (Böhm) a reaction analogous to that seen in myasthenia. In central nervous diseases muscular exhaustion has also been noted. Jolly then refers to 17 recorded cases, of which 11 were fatal, and to the changes found in the nervous system. At present it is open to question whether various pathological processes may not give rise to myasthenia, and whether there may not be one group due to diseased nuclei of origin of nerves, a second to diseased pyramidal tracts, and a third to diseased muscles. All over-exertion as well as faradism must be avoided. Whether galvanism is injurious is undetermined. The feeding of the patient must be attended to. The stomach tube should be avoided. Iron and strychnine have been recommended. Pharmacological antagonists such as veratrine, etc., might be tried, but only under strict supervision.

(106) Rhinitis Fibrinosa.

Felsenthal (*Münch. med. Woch.*, January 15th, 1895) first refers to the reported cases of this form of rhinitis in which virulent diphtheria bacilli have been present. In one of two cases of this disease the author also found the diph-

theria bacillus, but it was of slight virulence; in the other case no such bacilli could be demonstrated. In the majority of cases rhinitis fibrinosa consists of a form of diphtheria. It has been shown that even in undoubted cases of true diphtheria the bacilli have not a constant virulence. Some bacteriologists look upon the so-called pseudo-diphtheria bacillus as merely an attenuated form of Loeffler's bacillus. The bacteriological examination in nasal disease accompanied by membrane formation is most important, because if diphtheria bacilli are found the case must be isolated.

SURGERY.

(107) Bilateral Orchectomy for Chronic Hypertrophy of the Prostate.

At a meeting of the Allegheny County Medical Society J. D. Thomas (Philadelphia *Med. News*, January 5th) reported the case of a man, aged 60, who for ten years had had progressively increasing frequency of micturition, so that in urinating he was obliged to get upon his hands and knees, thus emptying his bladder by drops. The straining resulted in prolapse of the rectum. A catheter had been used, but the pain was so intense that the practice was abandoned. The urine was neutral in reaction, and contained a large amount of pus. There were 2 ounces of residual urine. A soft catheter could be introduced without much difficulty, and on rectal examination both lobes of the prostate were found to be considerably and uniformly enlarged. Bilateral orchectomy was proposed, accepted, and performed. Improvement in urination was perceptible within a few days, and continued subsequently without medicinal treatment. The urine could be retained for from two to six hours by day and for two hours at night. Micturition was attended with little pain. On rectal examination the size of the prostate gland was found to have appreciably diminished.

(108) Ankylosis of the Jaw.

Borelius (*Hygiea*, October, 1894) reports the following case. A boy, aged 10, had had scarlet fever with diphtheria at 2 years of age, and double otorrhœa. Shortly afterwards it was noticed that he could not open his mouth properly, and a year afterwards the jaw was completely fixed. The condition had been the same ever since. On inspection a peculiar birdlike condition of the face was noticed, due to the apparent absence of chin. This was found to be caused by the extreme smallness and atrophy of the inferior jaw, and not to any faulty position of that bone. On separating the lips the molar teeth of both jaws were firmly fixed together. The lower incisors were slanting backwards and the upper ones forward, leaving a space of about 2 cm. between them; through this space the child was able to feed himself. The operation was commenced on the left side: on cutting off and exarticulating the condyloid process the joint was only found to be slightly altered, showing principally some atrophy of the parts of the joint. The coronoid process was also separated from the tendon of the temporal muscle and extirpated, but the jaw was still immovable. On the right side matters were very different. The condyloid process was absent, neither could any distinct coronoid process or the semilunar notch between the two be detected. The whole of the ascending ramus was joined to the cranial bones by a bony bridge; thus there was complete osseous ankylosis, not only of the joint itself, but also of the parts in front of it; only the most anterior part of the coronoid process could be felt as distinct from the cranial bones. A bridge of bone about a finger's breadth was removed. A month after the operation the patient could open his mouth so widely that the molar teeth in either jaw could be separated 2 to 3 cm. from each other and the boy could chew both hard and soft food easily. Whether the joint had become directly infected by the scarlatinoid process, or whether it had been secondarily involved through the neighbouring inflammatory process in the ear, the author is unable to decide.

(109) Indications for Jejunostomy.

Hahn (*Deut. med. Woch.*, No. 27, 1894) reports 5 cases of jejunostomy, and suggests the following as proper indications for this operation: (1) When death is threatening in cases of severe corrosion of the stomach and œsophagus by a caustic acid or alkali; (2) in cases of carcinoma of the œsophagus and stomach in which a bougie cannot be passed and gastrostomy is contra-indicated by contraction of the stomach; (3) in cases of carcinoma of the pylorus in which the stomach is so involved that neither gastro-enterostomy nor resection can be performed.

(110) Appendicitis.

J. W. White (Reprint from the *Therapeutic Gazette*), in an address delivered before the Surgical Section of the College of Physicians of Philadelphia, reported seventeen cases of appendicitis, and in his comments on these expressed the following views: (1) The great frequency of this affection is due to the fact that the appendix is a functionless structure of low vitality, removed from the direct fæcal current; it has a scanty mesentery so attached to both cæcum and ileum that it is easily stretched or twisted when these portions of intestine become distended; it is supplied by a single blood vessel, the calibre of which is seriously interfered with or altogether occluded by anything which causes dragging upon the mesentery. Moreover, there is almost always present a micro organism—the bacterium coli commune—capable of great virulence when there is constriction of the appendix or lesions of its mucous or other coats. (2) The symptoms in a case of mild catarrhal appendicitis cannot at present with any certainty be distinguished from those marking the onset of a case of the gravest type. (3) It remains to be determined by future experience whether or not operative treatment in every case of appendicitis, as soon as the diagnosis is made, would be attended with a lower mortality than expectant treatment until definite and severe symptoms are present. At present operative interference is indicated in every case in which the onset is sudden and the symptoms decidedly acute and severe, and in every mild case in which the symptoms are unrelieved at the end of forty-eight hours, or if at that time they are getting worse. (4) It is still doubtful whether cases seen from the third to the sixth day, which present indications of commencing circumscription of the disease by adhesions, and which tend to the formation of localised suppuration, will do better with immediate operation with the risk of infecting the general peritoneal cavity, or with later operation when the circumscribing wall is stronger and less likely to be broken through. An operation is certainly indicated, the author holds, whenever a firm, slowly forming, and well-defined mass is to be felt in the right iliac fossa, or, on the other hand, when a sudden increase in the sharpness and diffusion of the pain points to perforation of the appendix or breaking down of the limiting adhesions. (5) Operative interference offers some hope of success in the beginning of general suppurative peritonitis, but is useless in the presence of general peritonitis with septic paresis of the intestines. (6) Several attacks of recurrent appendicitis of a mild type may be followed by complete and permanent recovery, but it is at present impossible to distinguish these cases from those in which the appendicitis does not tend to spontaneous cure. Operation is indicated when the attacks are very frequent. (7) Chronic relapsing appendicitis is characterised by the persistence of local symptoms during the intervals and by more or less failure of the general health. It usually indicates operation.

MIDWIFERY AND DISEASES OF WOMEN.

(111) Extension of Gonorrhœa from Vulva to Rectum.

Hartmann (*Ann. de Gynéc. et d'Obstét.*, January, 1895) states that the discharge from the vulva may undoubtedly set up gonorrhœa in the anus or rectum in careless subjects. Direct transference may occur in obvious ways: thus a constipated patient, accustomed to pass the finger into the rectum to facilitate defæcation, conveyed the gonorrhœal poison to the lower bowel. Hartmann closely watched a case of evident extension solely due to the passive flow of discharge out of the vulva on to the anus. A patient, aged 17, was admitted on March 15th, 1894, with gonorrhœa of a fortnight's duration. A large drop of muco-pus hung from the vulva. A fortnight later the patient complained of pain in the anus, which bled a little.

On April 7th a fissure had developed close to a hypertrophied fold; on the 24th the vulvo-vaginal glands were found inflamed. On May 14th there was much erythema around the anus; anteriorly a small condyloma masked a deep, wide, bleeding fissure, which gave the patient extreme pain. The secretion of the urethral canal contained gonococci. In June the pains ceased, and the patient seemed in good health. In July no more gonococci could be found in the urethral pus, but the anal pus was full of that germ. On October 15th the anal fissure remained, hidden as before by a condyloma; it was markedly indolent, and did not extend into the rectum, which was healthy. The pus on the surface of the fissure was full of gonococci.

(112) Spontaneous Inversion of Uterus from Tumours.

Gottschalk (*Archiv f. Gynäk.*, xlviii, No. 2, 1895), in a communication on the mechanism of this accident, insists that when it occurs after the menopause it is identical in mechanism with puerperal inversion. The weight of the tumour dragging on its pedicle corresponds to the manual pulling of umbilical cord fixed to an adherent placenta. In the former case though the heavy tumour cannot exert the force of a powerful hand, the uterus is weak through age as well as through being in a non-puerperal state of muscular development. Under both circumstances a sudden increase of intra-abdominal pressure may cause inversion. This fact is proved by clinical reports and by *post-mortem* examination. As the uterus in cases of tumour after the menopause is very weak in muscular power, it cannot cause its own inversion by efforts to deliver itself of its pathological contents.

(113) Lubricants in Gynæcological Practice.

E. C. Dudley (*Amer. Jour. of Obst.*, January, 1894) observes that when the vaginal secretions are profuse the lubricant is not required for the patient, whilst for evident reasons it is needed to guard the operator's finger. The infection of himself and of the next patient becomes possible. The lubricant should be aseptic and non-irritating. Olive oil and vaseline are often septic, and always hard to wash off. Soap, if strong enough to be aseptic, is apt to irritate the sensitive vulva. Glycerine is the best material; it is a deodorant; even after the digital examination of extremely fœtid cancers the foul nauseating odour, usually so persistent, may be washed off from the explorer's hand by placing it under a stream of running water, if before the examination the hand be freely lubricated with glycerine. For this purpose a superior quality of glycerine is necessary. Dudley employs a glycerine compound, kept in metallic tubes like paint. The tube is essential, as an open jar of lubricant allows the compound itself to be contaminated by the unclean finger of a careless gynæcologist. The compound consists of glycerine, starch, powdered tragacanth, boric acid, and oil of wintergreen. The finger or instrument on which this glycerine ointment is to be used should be dry, else it does not adhere well. It is a perfect lubricant, non-irritant, antiseptic, and deodorant, not greasy, and readily washed off. A great advantage of this lubricant is the fact that, by its cleansing properties and by the healing effects of the glycerine, it counteracts any tendency to chapping of the hands, a serious disadvantage in large private and out-patient practices.

(114) Symphysiotomy.

Winterberg (Philadelphia *Med. News*, January 12th, 1895), after reporting a successful case where he operated, in San Francisco, sums up previous experience, and concludes: Symphysiotomy is indicated in flat pelves with a conjugate of from 2.6 inches to 3.4 inches, in funnel-shaped pelves with a transverse diameter of pelvic outlet of 3.4 inches or less; in cases of dystocia caused by tumours in the pelvic cavity: and in cases of abnormal size of the fœtus, but with normal pelvis. It finds a useful application in the removal of tumours of the bladder and pelvis, provided the age of the patient does not present a contraindication. In those cases in which prophylactic podalic version is still possible, this ought to be preferred to symphysiotomy, even in a pelvis with a conjugate of not more than 3 inches. Symphysiotomy should replace Cæsarean section and embryotomy whenever they are indicated within the lower limit of contraction. The results are favourable to mother and child; the operation is easily performed; besides an obstetric outfit, all that is needed is a surgical pocket case. It can easily be done outside maternity hospitals. The after-treatment is attended with a little difficulty in private houses. Although comparatively safe, the operation may in inexperienced hands be followed by serious accidents, therefore it ought not to be done lightly without an imperative indication. As it is an operation of urgency, like tracheotomy, every practitioner should be able and ready to perform it.

(115) Stricture of Rectum in Disease of Uterine Appendages.

Hartmann (*Ann. de Gynéc. et d' Obstét.*, December, 1894) has clearly made out stenosis of the rectum in women subject to disease of the appendages, but the complication, as a rule, does little harm, excepting when there is constipation. In one case, however, where Terrier did an abdominal section two years previously for tuberculous peritonitis, a stricture of this kind caused death. The rectum was found posteriorly to the right closely connected with a mass of cicatricial tissue, 4½ inches above the anus, and at the level of the middle of the body of the non-pregnant uterus. The rectal coats were turned in and soldered together at the point where this cicatricial tissue had developed. The calibre of the obstructed part could hardly admit the point of the little finger. The mucous membrane covering the stricture remained healthy. There were also numerous bands of adhesion passing from the appendages to the rectum.

(116) Vaginal Hysterectomy.

Edebohls (*Amer. Journ. Med. Sci.*, January, 1895) discards both the French practice of clamping and the German serial ligation of the broad ligaments. He will never again leave a clamp in the body except in the dire necessity of being unable to secure a bleeding point by ligature or torsion. Vaginal hysterectomy by serial ligature of the broad ligaments is indicated only in cases of malignant disease in which it is necessary to give the uterus as wide a berth as possible. Ligature is required merely to check hæmorrhage, and this object can be accomplished by simply tying the bleeding vessels. All further constriction or crushing of tissues is harmful. Enucleation of the uterus, with ligature of the bleeding vessels only, is the ideal method. All Edebohls's 9 vaginal hysterectomies—the first having been undertaken in May, 1894—have recovered well from the operation.

THERAPEUTICS.

(117) Treatment of Diphtheria.

L. G. Papkoff (*Vratch*, No. 44, 1894, of the Odessa City Hospital, draws attention to a method of treatment suggested by N. S. Ignatovsky. It consists chiefly in painting diphtherial areas with a mixture of kerosene (℥j), turpentine oil (℥j), and peppermint oil (℥ij), the application being repeated every two hours, or even every hour or half hour. As adjuvants there are employed gargles of a 4 per cent. solution of boracic acid mixed with a few drops of mint tincture, sometimes steam inhalations of the same mixture, hot compresses to the neck, etc. The best results are obtained in catarrhal forms of faucial diphtheria, the percentage of recoveries amounting to 98. The deposits gradually disappear in five or six days, leaving no trace, and the general course of the disease remains mild. The method also proves "fairly successful" in gangrenous forms, though recovery takes place much more slowly. In septic forms the paintings are efficacious only in early cases—that is, when the treatment is commenced before the appearance of prostration and constitutional symptoms due to absorption of the virus. In advanced septic cases, as well as in croupous forms, the treatment fails to arrest the morbid process.

(118) Trional.

Claus (*Internat. klin. Rundschau*, 1894, No. 45) speaks of the value of trional in the sleeplessness of children. It is mostly to be avoided in the insomnia of organic nervous disease, such as me-

ningitis, etc. It is especially useful in chorea, convulsions, and the pavor nocturnus. In a case of chorea reported by the author with marked sleeplessness, it had the best effect. Pavor nocturnus is a condition in which the child suddenly wakes up terrified and often cannot sleep again. A case of this kind is related where trional was used with success. In one case the child showed some ataxia on the following morning, probably due to too large a dose of the drug. Trional is of little service when the sleeplessness is caused by pain. The doses used by the author of 0.2 to 0.4 g. for infants from 1 month to 1 year, increased up to 1.2 to 1.5 g. for children from 6 to 10 years. In the insomnia due to toxic influences chloral is more effective.

(119) Chloroform in Tetanus.

P. A. Preobrajensky (*Vratchebnyia Zapisky*, No. 7, 1894) relates four cases of acute tetanus treated by chloroform inhalations which were repeated from one to three times a day, the daily dose of the drug varying from 2 to 4 drachms. In addition, hot baths and subcutaneous injections of morphine were occasionally employed. Three of the patients recovered; one succumbed from supervening catarrhal pneumonia on the seventeenth day of the primary disease. In all the cases the inhalations induced muscular relaxation, while the breathing became deep and regular, and the pulse stronger and slower. The patients could be fed during the early stage of the narcosis, which also secured a quiet sleep of several hours' duration.

(120) Treatment of Anthrax.

A. F. Matveieff (*Khirürgitcheskaia Letopis*, December, 1894, p. 951) reports 29 cases of anthrax admitted to the Riazan Zemsky Hospital during 1890-94. Of the number, 24 were treated by Jarnvosky's method, that is, by subcutaneous injections around the pustule of a 2 or 3 per cent. carbolic acid solution —3 syringefuls (Pravaz) three times daily—with compresses soaked in the same solution. Seventeen of the patients recovered, 7 died. All the fatal cases were first seen after all symptoms of profound systemic poisoning had already developed, some of the patients being brought to the hospital moribund. The remaining 5 were treated by excision of the pustule with subsequent cauterisation with Paquelin's instrument. All of them recovered.

(121) Bromalin.

Laquer (*Neurol. Centralbl.*, January 1st, 1895) alludes to the introduction by Bardet of bromethylformine as a substitute for the inorganic bromides, the object of the substitution being to avoid the skin eruption, fetor, and other unpleasant effects so often produced by the bromine salts commonly used. He further mentions that Féré's trial of the drug in a few cases of epilepsy indicates that it may be employed in much larger doses than ordinary bromides without causing furunculosis. His own observations confirm those of Féré. One of his epileptic patients took nearly 8 grammes daily for six weeks without showing any acne, loss of appetite or other ill-effect; the fits were checked to the same extent as when 3 to 4 grammes of potassium bromide were given daily. Bromethylformine (termed bromalin by Merck, the manufacturer of the drug in Germany) is represented by the formula $(CH_3)_6N_4C_2H_5Br$; its percentage content of Br is 32.13, that of KBr being 67.2. The author finds that 2 grammes of bromalin are equal to 1 gramme of KBr in reducing the number of fits.

(122) Chloroform.

V. G. Stadnitzky (*Vratch*, No. 43, 1894), has carried out a series of elaborate experiments on seven healthy young men in order to study the influence of chloroform, when administered internally, on the gastric functions. In each instance the experiment lasted fourteen days, being divided into two equally-long stages, during the second of which the subject was given from 3 to 10 drops of the drug (with water) three times daily. The author's general conclusion is to the effect that $CHCl_3$ markedly improves all the functions of the stomach, which fact suggests that the drug might prove very valuable in the treatment of various gastric disturbances and, before all, in dyspepsia.

PATHOLOGY.

(123) The Pathological Anatomy of Atrophic Cirrhosis of the Liver.

Sieveking (*Centralbl. f. allg. Path.*, December 31st, 1894) publishes the results of the microscopical examination of the liver in 20 well-marked cases of atrophic cirrhosis (chiefly alcoholic). The object of the pathological examination was to determine (1) whether the connective tissue development in the liver is of one definite type; (2) whether the atrophy and degeneration of the liver cells appears to cause the connective tissue proliferation, or whether the latter may be regarded as the primary process; (3) whether the connective tissue proliferation occurs in the spleen as well as in the liver; and whether the increased consistence and enlargement of the spleen may be explained thereby. Sieveking found (1) that the proliferated connective tissue infiltrated the liver substance in quite an irregular manner. In some parts the newly-developed connective tissue was interacinous, in other parts intra-acinous. The tracts of connective tissue were sometimes broad, sometimes narrow. In some parts a lobule was divided by tracts of connective tissue into larger or smaller groups of liver cells; in other parts, fine fibres of connective tissue surrounded each liver cell. The variations were so numerous that no particular type of connective tissue proliferation could be recognised; (2) in no place did the liver cells show signs of atrophy or degeneration unless surrounded by tracts of connective tissue. The fine fibres of connective tissue ended freely between the normal liver cells; only when the connective tissue encircled separate cells or small groups of cells did atrophy occur; hence the author regards the proliferation of connective tissue as the primary change; (3) in the spleen, the capsule, the trabeculæ, and the sheaths of the vessels were thickened; in various parts the pulp network was widened, and lymphoid elements clustered in the same and around the vessels. These changes the author regards as the result of congestion. No proliferation of connective tissue could be detected.

(124) Hæmatoporphyrin in Normal Urine.

Hæmatoporphyrin, which is sometimes excreted in large amount in the course of some diseases, has been shown to be sometimes present in normal urine. Garrod (*Journ. of Phys.*, December, 1894) gives the results of his observations on the urine of 20 normal individuals in good health. Both acid and alkaline extracts of hæmatoporphyrin were prepared and examined by the direct vision spectroscope. The presence of the two absorption spectra under the different conditions (acid and alkaline) confirmed the presence of hæmatoporphyrin, which was found in every one of the 20 cases. Garrod concludes that this substance is present normally in urine, but that it is sometimes in such small quantity as to escape detection.

(125) A Suicide's Brain and its Morphology.

Burthilder (*Journal of Nervous and Mental Diseases*, 1894) gives an account of the *post-mortem* examination of the brain of an educated and apparently moral person who committed suicide. Dr. W. J. B., aged 35, dentist, shot himself with a pistol through the middle of the forehead, and through the right temple. The fissures and convolutions of the brain showed the following abnormalities: (*a*) excessive development of the external occipital fissure, constituting, together with the internal, a deep cleft separating the occipital lobe from the parietal. This corresponds to the *Affenspalte* of anthropoid apes, and is a stigma of defective evolution. (*b*) Duplication of both central fissures (fissure of Rolando); (*c*) in the left hemisphere these passing into and becoming confluent with the Sylvian. (A mark of abnormality which Benedikt has shown to characterise ill-balanced and criminal brains.) Other abnormalities are also shown in the left frontal lobe at its posterior part. (*d*) Further, as was pointed out by Dercean, the left parallel fissure pursued a markedly ascending course, and joined the posterior part of the Sylvian—another feature of degeneracy. Personal studies in the patient's heredity seem to have shown that suicidal and insane tendencies were present in the ancestors, thus confirming the data of brain morphology.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(126) Paralysis in Pneumonia.

Bozzolo (*Rif. Med.*, January 16th, 1895) relates the case of a man, aged 66, with slight family history of phthisis; no history of alcohol or syphilis; admitted into hospital on January 11th complaining of intermittent pain and fever on the right side for the last three months; cough, dyspnœa, and severe pain on the left side for the last two or three days. It was found that he had pleurisy with effusion (serous) on the right side; dry pleurisy on the left. The temperature was irregular and remittent but never very high. On February 18th he developed left pneumonia. On February 21st there was vomiting, deviation of the eyes, difficulty of speech, slight rigidity of neck, continuous sub-delirium; the temperature was lower at this time. On February 26th there was right hemiplegia with paralysis of the arm, leg, and seventh pair of nerves; reflexes completely abolished, sensation normal. An exploratory puncture of the meningeal spinal sac over the cauda equina gave issue to a clear limpid fluid; no evidence of meningitis or infective germs. Death occurred on March 11th. *Post-mortem* examination showed that there was double pleurisy of tuberculous origin, with recent hepatisation in the left lung; no meningitis, thrombosis, embolism, or cerebral hæmorrhage, but some slight cerebral œdema, coagula in the heart, small infarct in the kidney, and thrombi in the small pulmonary vessels. Putting aside all cases where the paralysis is found to be due to some discoverable lesion, there still remain many cases of paralysis occurring in acute infectious diseases and pneumonia, which can be explained only by supposing some grave disturbance of the cerebral circulation following alterations in the general circulation. In this category may be placed those cases of death, epileptiform convulsions, etc., occurring during or after thoracocentesis, as also the cerebral symptoms occurring in Bright's disease, where *post mortem* nothing may be found but some excess of serum or œdema in the brain.

(127) Bruit de Diable.

Verstraeten discusses (*Ann. de la Soc. de Méd. de Gand*, 1894) various murmurs heard along the course of the veins in subjects free from any cardiac complication. He does not confine himself to venous hums heard in the neck, but describes *bruits* in various other veins. As to the neck, patients instinctively turn the head to the side opposite to that auscultated, and thus by putting the neck muscles on the stretch exercise a certain amount of pressure on the underlying vein; this, coupled with the stethoscopic pressure, is enough to cause a *bruit*, especially in anæmic subjects. Except in a few rare instances, this *bruit* is never heard unless some pressure is applied to the internal jugular vein. Trousseau and Herbert Davies have described cases of hepatic cirrhosis in which an abdominal *bruit de diable* was heard at the lower border of the liver, due to the presence (in these cases) of enlarged collateral veins. Verstraeten says this murmur may often (6 per cent. of all cases) be found in impressionable subjects suffering from various cachexiæ. The *bruit* has generally a sibilant *timbre*, but may resemble the deeper note of a seashell. Pressure on the abdomen at the level of the navel always modifies the murmur, and may completely suppress it. Another venous *bruit* frequently met with, especially in anæmia and in tuberculous subjects, is to be heard at the right costo clavicular articulation and the first and second intercostal spaces, and a similar, but fainter, *bruit* on the left side. These are generated in the innominate veins. Again, in 10 per cent. of all cases a murmur (arising in the inferior vena cava) may be heard in the sixth right interchondral space, loudest at the end of inspiration, and uninfluenced by stethoscopic pressure. In the axillary vein a *bruit* may often be heard (10 to 15 per cent. of all cases), especially in phthisical subjects, under the clavicle near Mohrenheim's furrow. A subclavian venous *bruit* is less frequent; both this and the axillary hum are more common on the right than the left side.

(128) Scurvy Rickets.

H. Ashby (*Practitioner*, December, 1894) criticises the view of Cheadle and Barlow that the anæmic and hæmorrhagic conditions in scurvy rickets are due to absence of fresh food, and therefore are to be regarded as true scurvy. Ashby holds that the hæmorrhagic condition is an exaggeration of the anæmia which is always present in severe or acute rickets. He supports his view by the following arguments: (1) In some cases of severe congenital syphilis there is a tendency to hæmorrhages, and in some cases of tuberculosis there is marked anæmia and tendency to bleed from the gums, although the patients may be taking fresh food. (2) The absence of fresh vegetables from the diet of an infant during its first year cannot cause scurvy, since vegetables do not form part of the diet. (3) In 25 cases of marked scurvy rickets, of which details are given, several were taking raw meat juice and fresh milk when the disease came on, and in one case of seventeen months potatoes entered into the diet. Under these conditions Ashby considers that the condition cannot be one of true scurvy. He proposes the name "rickets with hæmorrhagic diathesis" to replace that of "scurvy rickets." He explains the frequency of cases amongst the well to do as compared with the poorer classes as due to the fact that such children are always delicate and brought up with difficulty, and that such children survive and develop scurvy rickets among the better surroundings, but die of other diseases, such as diarrhœa and marasmus, in the slums before the age at which scurvy rickets appears. With regard to treatment, in addition to the usual administration of raw meat juice, cod-liver oil, fresh milk and orange juice, Ashby considers fat to be essential in some form, and fresh air to be as important as orange juice.

SURGERY.

(129) Appendicitis.

Murphy (*Med. News*, January 5th, 1895) holds that every case of appendicitis, promising or unpromising, should be treated by surgical operation at the earliest possible moment. This surgeon has operated in 194 cases, with a mortality of 9.6 per cent. He would not delay operating in a case that might be progressing favourably, and, on the other hand, would not shirk the risk of operating on the most dangerous cases. The following outline is given of the various conditions found in operating for appendicitis: (1) When the abdominal wall is infiltrated and the abscess is opened without opening the unaffected portion of the peritoneum, there may be (*a*) a small circumscribed abscess with the appendix forming part of the wall; (*b*) a small abscess with a track leading to a deep-seated larger abscess: (*c*) a large abscess filling the iliac fossa, containing fæcal concretions or a gangrenous appendix floating in the pus, closed in by firm adhesions; (*d*) there may be multiple abscesses with no connecting sinuses—a rare condition; (*e*) there may be an abscess in the opposite side of the abdomen. In another class of cases, when the peritoneum is opened and no adhesions to the anterior abdominal wall are found, a circumscribed abscess may exist in the posterior wall of the abdomen, the appendix and pus being enclosed within adherent omentum and intestine. This is the most common condition found in the early stage. In such cases the field of operation should be thoroughly protected by careful packing with iodoform gauze. The adhesions should then be separated, the pus sponged out, and the appendix liberated from its adhesions, and be ligatured and removed. Whenever the peritoneal cavity is opened directly the appendix should be removed. In another class of cases the peritoneal cavity will be found to contain a large quantity of free pus with no limiting adhesions, and the bowel may be smooth and glossy. All these cases recover. On the other hand, the bowel may have a livid and blistered appearance and be much distended. The great majority of such patients die. In either of the cases mentioned the appendix is usually gangrenous and perforated. Extensive drainage should

be employed in both instances, and irrigation must be avoided. In some cases there is a small quantity of pus around the appendix, with partial adhesions protecting the peritoneum. This condition may be caused by perforation of the appendix; by gangrene of the mucous membrane without perforation: by a simple non-perforating ulcer of the appendix; by accumulation and retention of muco-purulent fluid in the appendix, with only an abrasion of the mucous membrane of that organ. All the acute symptoms of appendicitis may be produced by tuberculous and typhoid ulcers of the appendix without perforation or infection of the peritoneum. In another class of cases the canal of the appendix is partially or completely obliterated, or sufficient stenosis of the canal is produced to cause retention of material at the distal end, and to give rise to recurrent attacks. In such instances removal of the appendix during a quiet and intermediate stage is indicated. In the condition known as appendicitis stercoralis there is a large accumulation of fæces surrounded by mucous or muco-purulent adhesion. The attacks of pain, which recur frequently, are severe and usually accompanied by high fever, and by vomiting and other symptoms of intestinal obstruction. The appendix in cases of this kind is very much enlarged at the distal end and small at the proximal end, and its mucous membranes thickened. The dilated portion of the canal contains a large quantity of hardened fæces.

(130) So-called "Choked Disc."

Elschnig (*Wien. klin. Woch.*, December 20th, 1894) reviews the various theories as to the origin of "choked disc"—for example, Graefe's pressure theory, the Schmidt-Manz transport theory, the Perinaud-Ulrich suggestion of œdema, and the Leber-Deutschmann germ theory. Choked disc is merely a clinical term for cases of optic neuritis where the summit difference of the disc equals at least 2 or 3 dioptres. He examined the optic nerves of 55 cases of intracranial disease—that is, 21 cerebral tumours, 28 inflammatory cerebral affections, especially syphilitic, 6 cases of increased intracranial pressure (from hæmorrhage or œdema). Evidence of inflammation was found in every case. The increased volume of the disc is chiefly due to inflammatory changes, œdema, diffuse hyperæmia, hæmorrhage, effusion, thickening of nerve fibres, etc. In older cases where atrophy is going on, the new connective tissue accounts for what swelling there may be; also a certain extrusion of disc substance out of the sclero-choroidal canal. Perineuritis is frequently found. An ampulliform extension of the intervaginal space is only met with in half the cases. In no single case in which the disc was inflamed was the optic nerve free from signs of inflammation. It is important to make sections in different parts of the optic nerve. Against all mechanical theories as to the origin of choked disc is the fact that damming up of fluid in the intervaginal space has no effect on the circulation in the disc; in typical choked disc this damming may be absent; œdema of the optic nerve trunk is often absent; evidence of compression of the central vessels of the optic nerve is regularly wanting; again, in typical cases of increased pressure from cerebral tumour there may be no trace of œdema of the disc but plenty of evidence of inflammation. The inflammation of the optic nerve may arise (Leber-Deutschmann) from the presence of phlogogenic substances in the cerebro-spinal fluid or lymph. But are these substances generally to be found? Perhaps the associated meningitis may have something to do with the neuritis. In the author's 21 cases evidence of more or less intense meningitis was found 13 times. Increased intracranial pressure is not an essential condition in the production of intra-ocular optic neuritis; moreover, the lymph stream is centrifugal in direction. The only point determining the presence or absence of choked disc in optic neuritis seems to be the behaviour of the lamina cribrosa. In choked disc it is almost always pressed forward, becoming convex, and no doubt has considerable influence in producing the ophthalmoscopic and anatomical picture of choked disc, but is probably not the real cause, which yet remains to be discovered. Whatever this may turn out to be, Elschnig thinks it cannot be mechanical.

(131) Modern Methods of Intestinal Resection and Anastomosis.

König (*Centralblatt für Chirurgie*, No. 4), whilst recognising the fact that modern methods of establishing intestinal anastomosis by bone plates, metal buttons, etc., favour rapidity of operation, holds that a prolonged laparotomy does not lead to shock. He states that in the many operations he has performed for intestinal resection and anastomosis he has never met with an instance in which death could be attributed to shock. In this conclusion, he states, he is supported by a large majority of his German colleagues. For this reason he is not disposed to substitute for older and safe operations, which may take some time in their performance, rapid methods the safety of which seems to him to be doubtful. That the use of Murphy's button may serve to extend the practice of resection, and thus enable inexperienced surgeons to perform these operations, is regarded as being, as far as the patients are concerned, rather a disadvantage than an indication of advance.

(132) Incision of the Pericardium for Purulent Pericarditis.

Von Eiselsberg (*Wien. klin. Woch.*, No. 2, 1895) relates the case of a youth, aged 17, who in October, 1893, received a punctured wound in the cardiac region, penetrating for 2.3 cm. The wound gave no pain, and was cured without medical treatment. A month later the patient began to suffer from dyspnœa, cyanosis, œdema, frequent small irregular pulse, increased cardiac dulness, apex beat no longer visible, no murmur, temperature not much raised. As the dyspnœa got worse, and there was much cough, the pericardium was punctured with a fine trocar, and a litre of purulent fluid withdrawn, followed by marked amelioration of the general condition, and rapid reduction of the cardiac dulness. A few days later the patient was as bad as ever, and the aspiration was repeated, 900 g. of purulent fluid being withdrawn. Once again a litre of pus was removed by aspiration, and as the patient then had signs of pleuro-pneumonia on the left side, it was decided to open the pericardium freely. This was done at the level of the fourth left costal cartilage, which was resected. A transverse incision of 4 cm. was made in the pericardium, and 2 litres of purulent fluid mixed with many large clots of fibrin were let out. The cavity was washed with a solution of salicylic acid, and two drainage tubes inserted. Marked improvement followed the operation, and the wound healed completely in twenty-one days; at the same time the other symptoms disappeared. Bacteriological examination of the pus showed the presence of the bacterium coli.

MIDWIFERY AND DISEASES OF WOMEN.

(133) Symphysiotomy.

Pinard (*Annales de Gynéc et d'Obstet.*, January, 1895) sums up his experience of symphysiotomy at the Baudelocque clinic in 1894. He has rigorously followed certain principles laid down over a year ago, namely: (1) Rejection of induced premature labour; (2) rejection of the forceps or other contrivance which involves the pressure of the fœtal head against any bony resistance in the inlet, cavity, or outlet; (3) unconditional and absolute rejection of embryotomy on the live child; (4) momentary increase of the pelvic diameters (by symphysiotomy, pubiotomy, ischio-pubiotomy, or coccygotomy) in all cases where there is bony resistance not overcome by the uterine contractions, the presentation of the head being well determined, and careful calculation showing that division of the pelvic arch and a sundering of the halves of the pelvis to an extent not exceeding 2.7 inches (7 cm.) will allow of the passage of a fœtal head at term; and (5) Porro's Cæsarean section in cases of absolute pelvic contraction. Twenty-two symphysiotomies were performed in 1894, with 3 maternal deaths, 1 from intestinal obstruction and 2 from sepsis, which was present before admission; 2 children were lost, 1 from severe injury from previous attempts at delivery with forceps, 1 from pressure of cord by head before the operation. In 13 cases the patient was a primipara, in 9 a multipara. The presentation was: 17 cases vertex, 2 breech, 1 shoulder, 1 forehead, and 1 face. The pelvic deformity for which symphysiotomy was undertaken

was in twenty cases purely rachitic; in 1 rachitic contraction complicated by congenital dislocation of one hip-joint; and in 1 spondylolisthesis. In 1 case it was performed for the second time on the same patient. The total statistics of symphysiotomy in the same establishment in 1892-4 include 49 cases—4 women and 5 children (no note of twins) were lost.

(134) Mollities Ossium.

Latzko (*Wiener medizinische Wochenschrift*, January 19th, 1895), speaking from an experience of fifty cases, states that mollities ossium is associated with fertility. The total average fecundity of the fifty was 4.9, and 1.75 at the time of the onset of the disease. Osteomalacia, in these cases, was originally diagnosed as rheumatism or paralysis; indeed, in its earlier stages, the disorder is easily overlooked. Kehrer, in the discussion, stated that osteomalacia was very common in certain places. Since 1881 he had observed about forty-five cases in Heidelberg. During the course of nearly every academic term there were one or more pronounced cases in the wards of his hospital. Most of the patients were lean, cachectic, poverty-stricken, and prematurely aged, but a third of the total were well-fed wives of butchers, bakers, innkeepers, and other flourishing tradesmen. Von Braun and Chrobak did not believe that osteomalacia was so frequent as Latzko's unusually large series might indicate. Von Winckel, however, relying on thirty years of observation, considered that Latzko's researches pointed to the truth. The discoveries of pathological anatomists in the deadhouse, independently of cases under the care of gynæcologists during life, confirmed this theory that osteomalacia is still far from rare.

(135) Cancer of the Body of the Uterus.

Godart (*Bull. de la Soc. Belge de Gynéc. et d'Obstét.*, No 1, 1895) relates two cases in which Jacobs removed the uterus for this disease. Both patients recovered from the operation, the first taking place on February 7th, 1894, the second on October 3rd. In both cases the patients had borne several children, and had frequently miscarried. One was 29 years old, the other 40. Menorrhagia occurred in both. Primary cancer of the body of the uterus was until recently held to be very rare. Now that the microscope is freely used, so that gynæcologists understand the normal and morbid histology of the uterine tissues, the disease in question is not rarely detected. Godart makes the important observation that the curette is not a sure instrument for diagnosis. The scrapings in the above cases only displayed the appearances seen in chronic endometritis, with alterations in the glands. Diagnosis can only be made if tissue belonging to the muscular wall is scraped away. The presence of columns of epithelial cells in the muscular coat, the nuclei undergoing division, is the most distinctive appearance in cancer of the body of the uterus.

(136) The Treatment of Uterine Fibroids.

Obalinsky (*Wiener Klinik*, December, 1894) maintains that the course of fibroid uterine disease, when seen in its earlier stages, cannot be determined in individual cases, and as bad results may suddenly be manifested in instances where the disease appears to be all but latent, operative measures are called for sooner than is generally advised. Enucleation is by far the best plan, whether practised through the vagina or through the abdominal wall. The object, which Obalinsky declares may be attained in two-thirds of the cases of fibroid, is to remove the tumour and yet spare the organs of generation. He particularly advises that when the tumour is enucleated through the abdominal walls, the uterine and parietal walls be united. In seven of his own operations this practice was carried out, all recovering without complications. Out of 8 cases where the uterine wound was sutured separately, and the uterus dropped back into the peritoneal cavity, four died. From further experience of numerous cases in his own wards treated in various manners, Obalinsky is tempted to place yet firmer reliance in the union of the uterine and parietal wounds. He looks with little favour on vaginal or abdominal hysterectomy, though he admits that the uterus must occasionally be sacrificed; and he considers that decortication and removal of the appendages are operations rarely justifiable.

(137) Menstruation in a Child.

G. E. Rein (*Vratch*, No. 44, 1894), showed at the Kieff Obstetrical and Gynæcological Society a girl, aged 6, who had commenced to menstruate regularly about a twelvemonth previously. The catamenia recurred every three or four weeks, and lasted on each occasion from four to ten days. The breasts, external genitals, and pubic hairgrowth resembled those of a girl 13 or 14 years old. The abdomen proved to be considerably enlarged, the circumference amounting to 85 centimetres. The examination revealed the presence of a fluctuating thick-walled ovarian cyst.

THERAPEUTICS.

(138) Serum Treatment of Diphtheria.

Soltmann, of Leipzig (*Deut. med. Woch.*, January 24th, 1895) does not think that any certain opinion can as yet be given on the value of this treatment. In most cases children are sent into hospital in an advanced stage in the disease so that early treatment may be impossible. Within nine months 193 children were admitted with diphtheria, of whom 27 per cent. died. In the first four months, with no serum treatment, the death-rate was 39.8 per cent., and in the last five months, when most children were injected, it was 18 per cent.; of these 27.2 per cent. of the not injected and 14.6 per cent. of the injected died. In comparing cases of diphtheria of similar localisation, 21 died out of 40, and of these 34 were intubated. In the last five months, 17 died out of 60 cases. Of 48 intubated and treated with the serum 27 per cent. died, and of 7 intubated and not so treated all died, but these last cases were not injected owing to their hopelessness. The epidemic during the first four months was of uncommon severity, and that during the second period of a lighter character. The author regards the behaviour of the disease after the serum treatment as more important than statistics. The loosening of the membrane was seen in 28 out of 89 cases, but this occurs without the treatment. In 13 cases the membrane extended down into the smallest bronchi, and in only 3 could the extension be proved clinically before the use of the serum. The author has also seen the temperature fall in mild and severe cases after the treatment, but not infrequently it has again risen. In only 5 cases was any good effect noted on the pulse. In 4 cases death took place unexpectedly after the serum treatment from collapse. Skin eruptions were noted. Paralysis (severe) supervened in 5 cases, and 4 of these had been injected. Relapses were noted in 3 injected cases. Of 13 fatal cases among the injected 6 were treated within the first four days. Ill-effects could not with certainty be attributed to the serum treatment. The author then draws attention to the carbolic acid in the serum which, as not being an indifferent agent, should be omitted.

(139) Treatment of Ascites.

Finsen (*Ugeskrift for Laeger*, Nos. 38, 39, 1894), who for ten years had suffered from ascites (due to congenital heart affection and hydatid of liver), and had tried all usual remedies in vain, attempted to "dry up" his ascites by bringing as little fluid as possible to the system. For nine days he took only 400 g. of fluid in the twenty-four hours, with the result that three or four days after commencing the dieting his diuresis increased in quantity from 800 c.cm. on the first day to 1,100 to 1,200 c.cm. on the third to the fifth day—an amount which he had not passed for years. At the same time the other distressing symptoms disappeared. He has since been able to keep his ascites in check by being careful not to imbibe too large quantities of fluid, and when he finds it increasing again adopting a dry regimen. By way of experiment he once brought on an ascites in ten days and got rid of it in another ten days. When the ascites was great and the diuresis small the treatment was slower in taking effect. When the diuresis was 800 c.cm. it was easy to get rid of the ascites by a not very severe diet: but of late years, when it has often been only 400 to 500 c.cm., the author has had to be much stricter in his dieting. He found by experiment that when the diuresis was 500 c.cm. he had to drink 300 c.cm. less daily to get the same result as when it was 800 c.cm. To expedite matters he has of late years combined the dry dieting with 7 to 8 g. doses of light magnesia daily or every other day, and was able to free the system from 700 to 800 c.cm.

fluid by purging only. In spite of this treatment, the author was able to carry on his work. He also tried 5 g. doses of chloride of ammonium and dry dieting, but, though less exhausting, this method was not so rapid as dry diet and magnesia. As regards the increase in the diuresis, which was almost in inverse proportion to the fluid imbibed, the author is inclined to think that, whenever there is a retention of fluid in the body in open connection with the lymphatics, absorption from it will not commence until the blood has reached a concentration requiring dilution. As a rule the increase of urine began first a few days after the commencement of the dieting, and these first days were the most distressing, with great thirst, dry tongue, and salt taste of the saliva. As soon as the diuresis began—generally on the third or fourth day—these symptoms disappeared. It must be asumed that the blood during the dry diet becomes concentrated, and when it has reached a certain degree of concentration the absorption begins from the lymphatics, and it would seem as if the absorption, having once begun, becomes more and more easy. And by the commencing absorption of the ascites the diminished intraperitoneal pressure on the liver and kidneys allows a freer passage of blood through them. It is well known that after tapping an ascites or anasarca a diuretic which previously had no effect now produces diuresis, which might be explained in a similar way.

(140) Antipyrin as an Antiseptic and Hæmostatic.

Roswell Park, of Buffalo (*American Medical News*), has found a 4 per cent. solution of antipyrin useful as a hæmostatic in checking general oozing from a bleeding surface, and also by experiments claims for it antiseptic properties which compare favourably with most of the anilin and coal tar derivatives. By experiments on animals he has shown that it can be used with safety on the peritoneum, and he now employs it in general surgery. As a styptic it has the advantage of constricting the small vessels without causing any external lot, which may break down. In cases of epistaxis he has found it useful when sprayed into the nose. In this form of a spray to the nose he has found it useful in certain cases of inflammatory occlusion, and also for ordinary headaches, coryza, etc.

(141) Salophen in Children's Diseases.

Richard Drews, of Hamburg, gives his experience of the use of salophen in children's diseases (*Allgem. med. Cent. Zeit.*, November, 1894). Salophen is a compound of salicylic acid and acetylparamidophenol. The advantage claimed for it over salicylic acid and its salts is the absence or mild character of the secondary effects which are sometimes produced by the salicylic acid salts (such as nausea, vomiting, giddiness, tinnitus aurium, and conditions of collapse.) Drews gives a summary of the chief results obtained by several observers of the employment of salophen in adults. The conclusion arrived at is that it acts in acute articular rheumatism equally with salicylate of soda, and without the bad effects of the latter. In chronic articular rheumatism it is not so successful, and only acts as a palliative measure. In muscular rheumatism and in neuralgic affections, including headache from various causes, it is stated to be of great use. It is also stated to be beneficial in headache due to chlorosis and anæmia. As an antipyretic it has been used with success in intermittent fevers, such as phthisis, and in high continued fevers, such as typhus. The dose used in acute rheumatism is from 4 to 8 grammes per diem, smaller doses being used for less severe complaints. Drew's own results concern the use of the drug in children's diseases. He states that salophen is well taken by children, and does not produce the evil effects of salicylate of soda (sudamina, tinnitus aurium, restlessness, delirium, collapse, etc). In 15 cases of acute rheumatism in children of 7 to 14 years of age he gave 3 to 5 grammes per diem. The pain abated at the end of the first day in most cases, and subsided in three or four days. The temperature of joint swellings also subsided in the same time. In 12 out of 15 cases the administration of the drug was followed in half an hour by copious perspiration, which, however, had no bad effect on the general condition of the patients. No other secondary effects were observed. Equally good results were obtained in 5 cases of "acute muscular rheumatism" of the neck muscles. In a case of chorea in a girl 13 years of age, in which a slight systolic *bruit* was present, in twelve days the movements had ceased, and the murmur disappeared. In this case 5 grammes per diem were given. He also obtained good results in a case of purpura rheumatica, in several cases of migraine, and in cases of fever (scarlatina, typhoid, croupous pneumonia, etc.), where he employed it as an antipyretic. Drews concludes that salophen has very good antirheumatic properties, and deserves a trial in preference to other drugs; that it is a useful antipyretic and a very good antineuralgic. The drug can be taken as a powder or floated on water.

PATHOLOGY.

(142) Glyco-inhibitive Action of the Pancreas.

Montuori (*Rif. Med.*, January 23rd, 24th, 1895), experimenting with the livers of dogs, concludes: that the pancreatic secretion exercises an inhibitive action on the production of sugar in the liver: that the increased *post-mortem* production of sugar in the liver is due to the failure of the glyco-inhibitive action which the pancreas exercises continually on the liver during life; that the glycosuria and glycæmia consecutive to the extirpation of the pancreas depends at least for the most part on the same failure of the glyco-inhibitive action of the removed gland. Montuori seriously doubts the existence of a so-called glycolytic ferment in the pancreas, and thinks the experiments adduced in support of its existence may be explained by the presence of micro-organisms, for if the solutions are kept strictly aseptic, the sugar does not disappear in the presence of extract of pancreas. He would not expect any success from the injection of pancreatic extracts in cases of pancreatic diabetes, for he believes that the pancreatic juice can modify pancreatic glycæmia or glycosuria only by checking the exaggerated glycogenesis which takes place when the pancreas is *hors de combat*. And to do this the pancreatic extract must arrive directly and unchanged at the liver itself, a thing impossible whether the extract be injected or taken by the mouth.

(143) Nucleated Red Corpuscles in the Circulating Blood.

Zenoni (*Virchow's Arch.*, Bd. 139, Heft 1) says that Bizzozero, Rieder, and others have noticed the appearance of nucleated red corpuscles in the blood after considerable or repeated hæmorrhage. These corpuscles were usually noticed some days only after the occurrence of the hæmorrhage, but Zenoni, in consequence of his experiments, places their appearance much earlier. His experiments were made on dogs, guinea-pigs, and rabbits, in whose blood he had previously satisfied himself that there were no circulating nucleated red blood corpuscles. He chose a dog weighing 6,700 kilog., and in ten repeated operations withdrew from it a total of 1,830 c.cm. of its blood; then, after defibrinating the blood, he reinjected it into the circulation, and in an hour and a-half after the operation noticed the appearance of nucleated red corpuscles in the circulating blood on examining a specimen under the microscope. In two other dogs similarly treated the appearances of these corpuscles in the circulating blood took place five hours and a-half and seven hours and a-half after the operation. In another dog, two rabbits, and four guinea-pigs, in whom a moderate amount of blood was withdrawn at a single operation, the appearance of nucleated red corpuscles occurred between eighteen and forty-eight hours after the operation. Zenoni thinks that the rapid appearance of these corpuscles is due to the mechanical effect produced by the withdrawal of blood, for after repeated bleedings they appear too soon for their reappearance to be due to a hæmatopoietic reaction; moreover, eight or nine days afterwards they are no longer noticed, exactly when the hæmatopoietic reaction is at its maximum. He further thinks that after loss of blood these corpuscles are mechanically drawn into the circulation from their normal site, the bone marrow; that a certain number of them get stopped in the spleen, proliferate there, and give to the spleen that fœtal hæmatopoietic function which has been ascribed to it by Bizzozero as taking place after hæmorrhages.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(144) The Flaccid Belly of Infancy.
Marfan (*Rev. des Mal. de l'Enf.*, February, 1895) observes that infants present distension of the abdomen under two forms—the one flatulent and tense, the other flaccid. In an infant who suffers from several attacks of dyspepsia with flatulent distension ending in diarrhœa, the abdominal parietes are apt to be permanently weakened, and then the condition of flaccid abdomen is produced. The condition is not a consequence, may even be an antecedent, of rickets, but is of the type and form so often seen in rickets and often called the "frog's belly." The abdomen is soft, tympanitic on percussion, but not to an extreme degree; palpation may provoke gurgling. The linea alba is often widened, and umbilical hernia is frequent; inguinal hernia and prolapse of the rectum are also common. The infant is normally big-bellied, but the bigness is mainly in front; in the child with flaccid enlargement of the belly the enlargement is in great part lateral, as may be well seen by looking at the trunk from behind; it also encroaches upwards, and may even protrude very notably immediately below the thorax, so as to make an angle with the ribs. The enlargement is clearly not due to flatulent distension, and Marfan has made a series of *post-mortem* examinations and measurements of the intestine. As a rule, the colon is found to be distended, lying over and partially concealing the stomach, which is also distended. The liver may or may not be enlarged, the spleen seldom. The distension of the colon and stomach may also be absent in typical cases. The enlargement of the abdomen is in Marfan's opinion really due to hypertrophic elongation of the intestine. In the newborn infant the small intestine is about five times the total length of the body; the large about equal to the length of the body; so that the total length of the intestine is about six times that of the body. The length of the intestine increases rapidly during the first two months of life, so that it becomes about seven or eight times the length of the body (small intestine six times, large, rather longer than the body). Measurement of the intestine in infants who have died after presenting the condition of flaccid belly showed that the intestine was longer than natural. In every one of 16 cases examined by Marfan the total length of the intestine was from nine to twelve times that of the body. Considerable elongation was observed also in certain of the cases of tympanitic distension. The elongation of the intestine is associated with a form of gastro enteritis which requires further study.

(145) Tabes or Diabetes Mellitus?
Grube (*Neurol. Centralbl.*, January 1st, 1895), remarks on the difficulty of diagnosing between certain cases of diabetic peripheral neuritis and tabes complicated with diabetes. Some writers have maintained that in diabetic neuritis the pupillary light reflex is not abolished, and that the integrity of this reflex is of decisive significance in doubtful cases. The author quotes a case which, in conformity with that teaching, he at first diagnosed as commencing tabes with independent glycosuria; the progress of the case, however, showed that that diagnosis was very doubtful, if not erroneous. The patient in question, aged 64, when seen in 1893 had suffered from glycosuria for three years; his gait was ataxic, paræsthesia and lancinating pains were present in the legs, the muscles of the legs were flabby and rather atrophied, knee-jerk was absent, Romberg's sign was marked, and there was bilateral myosis with loss of light reflex and absence of contraction during accommodation. Bladder functions were normal. No history of syphilis. Under treatment the glycosuria was greatly reduced, and in the course of a year the pupil immobility had disappeared, together with Romberg's symptom and the paræsthesia; the gait was only slightly ataxic; the knee-jerk remained absent. The author relates another case to show that reflex iridoplegia may occur in the course of diabetes. The patient, aged 39, non-syphilitic, was far advanced in diabetes when examined by the author in 1893; pupillary reactions were brisk; V in each eye when corrected with—0.5 D = $\frac{6}{6}$; papillæ pale; central scotoma for green and—in less degree—for red; knee-jerk unimpaired. In May, 1894, V was much worse, and the pupils (of medium size) neither acted with light nor during accommodation. No other nervous symptom was present. The author considers that the state of the bladder function is a more valuable differential index than the pupillary condition. As is known, disturbance of that function is both a frequent and early symptom in tabes, but in diabetic pseudo-tabes such is not the case.

(146) Gangrene after Typhoid Fever.
Drewitt publishes, in a pamphlet (1894), a case of gangrene of the leg following upon typhoid fever in a child aged 12. On the twenty-fourth day of a severe attack some dark mottling appeared on the left foot, and also on the leg above the ankle. No distinct pulsation could be felt in the femoral artery. The red discoloration extended later to about midway between the knee and the ankle. All sensation was lost. Three weeks after the onset of the gangrene the temperature had only twice risen above 100°, and the condition of the patient had improved. The toes were black and shrivelled. The leg had been enveloped in salicylic wool. The limb was now amputated above the knee by Bruce Clarke, and the patient made a good recovery. The muscles of the leg, as well as the medulla of the bone, were pale and contained but little blood. A red, friable, and loosely adherent clot was found in the artery of the amputated limb, extending to the bifurcation of the popliteal artery. Below this point the arteries were empty. According to published cases, gangrene of the limbs after typhoid is very uncommon. It is at times difficult to decide whether the obstruction is due to embolism or to primary thrombosis. The facts here were very much in favour of the former view. The original clot had most probably formed in the left auricle or round the slackened chordæ tendineæ of the weakened heart. The author raises the question of giving cardiac stimulants, alcoholic or other, during the decline of the disease, with the object of preventing the clotting in the heart. It seems possible that the *ante mortem* clot may be here as much the cause of death as the result of dying.

(147) Movable Kidney.
De Renzi (*Rif. Med.*, December 22nd, 1894), in a clinical lecture on a case of movable kidney, says that in the physical examination of such cases he prefers the lateral to the dorsal position. Movable kidney is often associated with dilatation of the stomach; this is either a mere coincidence, or due to pressure on the duodenum, or, as De Renzi believes, a reflex neurosis. Glénard (1885) believes that movable kidney (nephroptosis) is only part of a general prolapse of the abdominal organs due to loosening of the various ligaments. In De Renzi's case, in addition to the displaced kidney, there was prolapse of the stomach (gastroptosis) with slight dilatation and slight prolapse of the uterus (hysteroptosis). In cases where there is evidence of a more or less general prolapse of the abdominal organs, surgical interference for the movable kidney is always insufficient. For the stomach dilatation De Renzi highly recommends antiseptic drugs—naphthol, bism. salicyl., and resorcin.

(148) Perforating Disease in the Mouth.
Bordet (*Arch. Gén. de Méd.*, January, 1895) draws attention to the progressive absorption of the alveolar arches, with falling out of healthy teeth, usually occurring in men about 40 years of age, without pain; later perforations of the palate into adjacent cavities without any signs of cicatrisation may appear. The sensation of the mucous membrane and also of the face will mostly be found to be impaired in regard to touch, pain, and temperature. But this lesion of the trigeminus varies in different individuals. The voice may be altered and swallowing inconvenienced by the perforations. Exceptionally hæmorrhages, suppuration, and formation of sequestra are noted. Sometimes a neuralgia of the trigeminus has been observed. This neuralgia or neuritis may be accompanied by trophic changes. That the disease is of tabetic nature is the most probable explanation, but more evidence is still needed. The author

gives details of reported cases arranged as follows: Tabetics (1) with spontaneous falling out of the teeth; (2) with falling out of the teeth and absorption of the alveolar arches; and (3) with the formation of (*a*) a sinus or (*b*) a perforation in addition to the above. He then discusses the cause of these lesions in tabes dorsalis, and holds the view that they are due to disease of the nucleus of the fifth nerve or the fifth nerve itself. Other maladies, such as diabetes or general paralysis might involve the trigeminus, but no such instance has been recorded.

SURGERY.

(149) Prostatic Hypertrophy treated by Castration.

Lütken (*Deut. med. Woch.*, January 31st, 1895) relates the following successful case: A man, aged 65, had difficulty in micturition for several years past. The catheter had now to be used some seven or eight times a day, and recently this had been accompanied by much pain and occasionally by the passing of some clotted blood. The author felt *per rectum* in the region of the prostate a swelling of the size of a hen's egg. As no improvement occurred, castration was suggested and agreed to. Ten days after the operation the left half of the prostate was smaller. A month later this left half could hardly be felt, and the right half was about the size of a walnut. Four months later no distinct enlargement of the prostate could be ascertained. Immediately after the operation the catheter could be used less frequently, and in ten days' time discarded altogether. Five months after the operation the patient was perfectly well, and could pass a good-sized stream of water. The author thinks that this operation is preferable to others in use, and even to regular catheterism. No living spermatozoa could be found in the testes, so that this case speaks against the view that the organs must be functionally active to get shrinking after castration.

(150) Stab Wound of Pericardium.

Dalton (*Annals of Surgery*, February, 1895) reports the case of a man, aged 22, who had received a stab in the chest 1½ inch above the left nipple. Heart dulness was normal, and there was no dulness on percussion of chest. Ten hours after the temperature was 101° F., pulse 112, and respiration 40. Percussion now gave dulness over the entire left side. Respiration was superficial and the pain considerable. The dressing was removed, when blood and air gushed from the wound with each respiration. An incision was made over the fourth rib, and 6 inches of it excised and much fluid and clotted blood cleared out of the pleural cavity. A transverse wound of the pericardium 2 inches in length was now revealed. No wound of the heart could be discovered. The pericardial wound was with very great difficulty closed by continuous suture, and the patient made an uninterrupted recovery in spite of having been apparently moribund several times during the operation. In stab wounds of the thorax, the rule of non-interference without grave symptoms would not hold good if such injuries be low down, for here we may have injury to the diaphragm or abdominal viscera, often without grave symptoms. In this case there were no dyspnœa, cough, or increased cardiac dulness. Hæmorrhage came on several hours after the injury, and then temperature, pulse, and respiration were all increased. The closing of the pericardial wound was done to prevent infection from the pleural cavity, and to avoid adhesions to heart wall or pulmonary pleura, and the result seems to justify the rather difficult and prolonged manipulation.

(151) Gastro-Anastomosis for "Hour-Glass" Contraction of the Stomach.

Wölfler (*Beiträge zur klinischen Chirurgie*, Bd. xiii, Hft i) reports a case of "hour-glass" contraction of the stomach caused by the scar of a gastric ulcer, in which he opened the organ to the right and left of and below the scarred and contracted portion and stitched the edges of the two orifices together so as to establish a free communication between the dilated cardiac and the dilated pyloric portions of the stomach. The patient, who had been much exhausted by gastric pain, vomiting, and inability to take sufficient food, made a good recovery, and, during the first two months after the operation gained more than a stone in weight. The state of the stomach revealed on opening the abdomen fully accounted for the previous suffering of the patient. The portion of the stomach on the left side of the contraction was evidently capable of compressing and expelling its contents, whilst the coats of the larger sac on the pyloric side were thin and had lost much of their contractility. Consequently the first portion of the stomach speedily emptied itself after a meal, but the half digested food remained for a long time in the dilated pyloric portion, into which on attempting to wash out the viscus the sound could not be passed, and from which but little of its retained contents could be expelled by the injected fluid. The small cardiac sac could hold but little food, and discharged this by forcible and painful contractions. The digestive function of the pyloric and larger sac had been much impaired, and so what little nourishment the patient could take was not absorbed, and caused much discomfort. The operation performed in this case was the only one applicable to this condition of the stomach. Resection of the contracted portion of the organ was contraindicated by extensive adhesion of the posterior wall to the pancreas and the hepato-gastric ligament. The conditions were not favourable to pyloroplasty as the scar was a wide one and involved much of the gastric mucous membrane, and consequently the stitches would have been insecure. Gastro-enterostomy would very probably have failed on account of the atrophy and impaired function of the coats of the pyloric portion of the stomach.

(152) Horseshoe Kidney.

Oleson (*Annals of Surgery*, vol. xx, No. 6 reports a case of a Swede, aged 26, who died of pneumonia. On *post-mortem* examination, apart from the changes in the lungs, the most interesting point was the state of the kidney, which was single. The organ lay with two extremities in the usual situation of the kidneys. The lower margins of what should be the normal kidneys were continuous. Two adventitious kidneys existed, their hila being directed obliquely outward and downward, and their inferior margins continuous across the front of the aortic bifurcation. Each of the four kidneys was anatomically, and apparently functionally, perfect, with pelvis, ureter, vein, and artery. The renal arteries were normal one each side. In addition there was an adventitious vessel from the front and just above the bifurcation of the aorta. This separated into two, and supplied the supplementary kidneys. The veins were similarly arranged.

MIDWIFERY AND DISEASES OF WOMEN.

(153) Induction of Premature Labour.

Solovieff (*Répert. Univ. d'Obstét. et de Gynéc.*, January 25th, 1895) states that out of 290 labours in the Moscow Maternity induction of premature labour for general pelvic contraction was found needful in 12 cases. The labour was brought on between the thirty-sixth and thirty-eighth week of gestation. All the women recovered, but seven of the infants were lost. This enormous mortality is due, Solovieff believes, to individual predisposition on the part of the fœtus. In the interests of the child the forceps or turning is best. The integrity of the membranes is of the highest importance for its safety. Contracted pelvis is always unfavourable for the fœtus; slipping up of the arm and compression of the cord are both frequent under this complication. The mortality of the children however, Solovieff thinks, should not be a contraindication to induction of premature labour, for it is much less serious than symphysiotomy.—Marduel (*Lyon Méd.*, February 10th, 1895) successfully practised the induction of labour in the second, third, and fourth pregnancies of a young woman whose first labour was very lingering, and was terminated with difficulty by the forceps. The second labour was induced at the eighth month by Tarnier's bags, and a living female child was delivered without forceps. The true conjugate was 3½ inches. The third was induced a little later (not quite eight and a quarter months). The patient disliked the prospect of the dilating bags. The bougie was introduced, and after dilatation the forceps was applied as the patient was weak, a living male child being delivered. The fourth labour was induced at about the

same stage as the third, also by the bougie, and a female child successfully delivered without the aid of forceps. In this case the child was larger than in the preceding delivery. Its head, Marduel believes, moulded itself more readily. He used, it is noted, a little manipulation to assist delivery. Marduel thinks that the introduction of the bougie is undoubtedly the right way to induce labour. Tarnier's bag is sometimes expelled before it has time to dilate the cervix sufficiently. Champetier de Ribes's bag is apt to displace the fœtus so as to change the presentation. Kiwisch's vaginal irrigation is tedious and uncertain. Marduel has seen alarming symptoms follow this practice. He thinks that induction of premature labour is right under conditions where symphysiotomy is impossible or unjustifiable, as in private practice. Symphysiotomy is a hospital operation, and requires first-rate assistance, an ample supply of instruments, and many appliances not often at hand in practice.

(154) Symphysiotomy.

Noble (*Trans. American Gynec. Soc.*, vol. xix, 1894) describes a case of a woman whose pelvic measurements were as follows: external conjugate, 6⅝ inches; diagonal conjugate, 3⅓ inches; conjugata vera (estimated), 2⅞ inches. At her first labour the child died soon after birth from damage due to the forceps. A very small child was delivered spontaneously at the end of the second pregnancy. The third labour was a Cæsarean section done by Howard Kelly, with delivery of a child weighing 6½ lbs. The fourth labour was induced five weeks before term by Kelly and Noble, and a female child weighing 5 lbs. was delivered by the long forceps with great difficulty. Remembering these difficulties, Noble let the next pregnancy go on to term, and performed symphysiotomy on December 5th, 1892, delivering a male child over 8 lbs. in weight by aid of the long forceps (*Medical News*, Philad., vol. i. 1893). The mother was delivered a second time by symphysiotomy and the application of the forceps on March 19th, 1894. The child, a girl, weighed 6⅜ lbs. The mother recovered without any other incident than a mammary abscess.

(155) Fibroma of Ovary in Age.

Graefe (*Centralbl. f. Gynäk.*, No. 1. 1895) recently operated on two cases of this disease, which, according to Olshausen, is most frequent in young subjects. The first patient was aged 54, married eight years and childless. The period continued, and there was metrorrhagia as well as profuse menstruation. The consequent anæmia and cachexia caused suspicion of cancer. On exploration, however, the uterus and cervix were found healthy; a tuberous mass, fairly movable, lay in Douglas's pouch. At the operation the mass was easily drawn up; it was a fibroma of the ovary; the pedicle was ligatured and divided without difficulty. A day or two after the operation subcutaneous emphysema occurred; the same complication followed another laparotomy a little later. The patient recovered. The second patient was aged 72. Abdominal swelling had been noticed for about two years; ascites set in and caused dyspnœa. A hard irregular tumour of the size of a man's head moved freely in the abdomen, and was clearly connected by a pedicle to the atrophied uterus. There was pain, but no discharge. The operation was easy, the pedicle readily secured, and recovery rapid. Ascites, according to Graefe's opinion, in ovarian fibroma is due to mere irritation of the peritoneum by the hard and irregular surface of the tumour. Thus ascites was present in the second case, where the fibroma had risen into the abdominal cavity.

(156) Baths in the Treatment of Sterility.

Kisch (*Therap. Monats.*, January, 1895) ascribes sterility in the female either to the result of some form of pelvic peritonitis, to constitutional affections, to chronic local inflammations or catarrhs, or dyspareunia. He then describes the measures and treatments likely to alleviate the condition. Ordinary baths, partial or complete, douches, compresses, etc., are able to act on inflammatory deposits together with mineral waters, which increase the secretion of the intestinal tract. The baths of Elster, Franzensbad, and Marienbad endowed with ferruginous properties, or the saline baths of Kreuznach, etc., are specially indicated. Sterility dependent on anæmia should be treated at places like Pyrmont, Schwalbach, Spa, etc. For catarrhal conditions, alkaline springs such as those of Ems, Vichy, etc., should be resorted to; or, should the secretion be excessive, more benefit might be derived from the astringent waters containing sulphate of iron, namely, Alexisbad, Levico, etc. Excessive corpulence as a cause of sterility should be treated at Marienbad, Tarasp, Friedrichshall, or Püllna. The results of vaginismus may be alleviated by the warm springs of Schlangenbad, Wildbad, etc. Finally dyspareunia, an important cause in the author's estimation, may be improved by baths or douches of water containing carbonic acid, as also by residence at an altitude, or by the sea.

(157) The Origin of Papillomatous Cysts.

Kossmann (*Monatschrift f. Geburtsh. u. Gynäk.*, February, 1895) believes that there is no truth in the current theory that papillomatous cysts of the ovary and broad ligament are developed from the parovarium. He goes further than Whitridge Williams, who has stated his opinion that these cysts are sometimes developed from elements belonging to the Fallopian tube itself. Williams has detected tube-like involutions in ovarian tissue which he actually traced to tubal fimbriæ. Kossmann holds that what Williams considers exceptional is really the rule. He attaches great importance to accessory tubal structures, originally part of Müller's duct like the normal tube itself. These structures are seen not only as accessory ostia and accessory fimbriæ on the surface of the tube, but also as pedunculated fimbriæ or pedunculated cystic bodies springing from the surface of the broad ligament below the tube. Kossmann finds, as the result of careful research, that non-pedunculated intraligamentous cysts have a like origin. The objections to this theory are futile, the tube itself is intraligamentous in position; that an accessory tube should be similarly placed is only natural, and the microscope proves that it often is so placed. Kossmann endeavours to prove that papillomatous cysts cannot well spring from the parovarium. Previous theories are wrong; papillomatous cystic tumours of the ovary, as well as those confined to the broad ligament, are developed, he insists, from "paratubal" structures.

THERAPEUTICS.

(158) The Use of Alcohol in Diabetes.

Hirschfeld (*Berl. klin. Woch.*, February 4th, 1895), discusses the question as to when alcohol in moderate quantity should be allowed, and when altogether prohibited. The author does not agree with the view that alcohol may be an etiological factor in the production of diabetes. In cases of diabetes closely investigated he found that the addition of a small quantity of alcohol (30 to 70 g. per diem) had no ill effect. The quantity of nitrogen in the urine was only temporarily increased. With the use of alcohol more fats could be taken, and hence the increased feeding is made more easy. In two cases with some albuminuria the addition of alcohol led to no increase in the albumen, but in one case the opposite fact was noticed. The sugar was noted at the beginning sometimes to be diminished, at other times to be increased, but the original level was arrived at later. No change was noted in the acetonuria. In cases where there is already cardiac weakness or vascular disease alcohol should be used cautiously. There is no danger of increasing the polyuria. Alcohol is a food stuff, and yet it may possibly injure the heart, vessels, or kidneys. Cases are then given illustrating the different points in treatment. Beer is forbidden, as it contains the most extractive matters, which are chiefly carbohydrates. If a certain amount of these latter are to be allowed they are much better given in bread and vegetables. All sugar containing liqueurs and sweet wines are, of course, forbidden. Wine, cognac, certain forms of brandy, etc., may be allowed. The author concludes that 30 to 70 g. of alcohol are thoroughly consumed in the body in these cases, that it does not interfere with the secretion of the urine or the absorption of food, and that metabolism is only

temporarily increased. The general nutrition, however, is improved. Alcohol has no definite action on the tissue changes peculiar to diabetes. The state of the heart, vessels, and kidneys should be borne in mind. The use of alcohol is only necessary in severe cases in order to ward off as much as possible by over-feeding the falling off in strength and the development of tuberculosis.

(159) Treatment of Diphtheria.

V. A. Moltchanoff of Schluessalburg (*Vratch*, No. 1, 1895) lays stress on the fact that the death-rate of epidemic diphtheria may oscillate without any relation whatever to the treatment employed, and that a low mortality was not unknown in the pre-serum days. The author himself recently (between October 9th and November 22nd, 1894) observed a local outbreak of croupous and septic diphtheria, attacking 39 persons, with 31 (79.5 per cent.) recoveries. Of the patients, 27 were aged from 1 to 14; 5 of them died. The remaining 12 were from 15 to 40 years old; 3 of them (adult men) succumbed to the disease. The treatment consisted in local application of $HgCl_2$, Fe_2Cl_6, tannin, boracic acid, salicylate of sodium, etc., internal use of stimulants, light fluid food, and rest. Twenty cases were treated in the hospital with 4 deaths, one of the patients dying an hour and a-half after admission; 19 in private practice, with as many deaths. Of the 8 fatal cases, 5 (2 adults, 3 children) occurred in the beginning of the epidemic. The same thing has been observed by the author in every one of the 16 epidemics of diphtheria he came across previously in the course of his country practice: in each instance the initial period presented an enormous mortality in comparison with subsequent stages of the outbreak. In conclusion, the writer appeals to all medical men, especially to those practising in the country, inviting them systematically to publish statistical facts relating to all epidemics of infectious diseases which happen to come under their observation.

(160) Antipyrin in Pruritus.

F. Arnstein (*Gazeta Lekarska*. No. 48, 1894, p. 1298), following Blaschko's recommendation (*Berlin. klin. Wochenschr.*, No. 22, 1891), has tried antipyrin internally (in powder, 1 gramme at bedtime) in two severe cases, one of which was that of a woman, aged 28, with pruritus nervosus of three months' standing, while the other referred to a woman, aged 66, with inveterate pruritus senilis. In both the itching quickly subsided, to disappear altogether in a couple of weeks. Both of the patients had been previously treated by various physicians and after various ordinary methods without obtaining any relief whatever.

(161) Electricity in Bulbar Palsy.

Remall (*Berl. klin. Woch.*, January 14th, 1895) draws attention to cases of this disease in which the upper branches of the facial have been involved, and to cases in which no morbid lesion has been found after death (asthenic bulbar palsy of Strümpell). He relates in full the following case in a woman, aged 31. Difficulty in speech and in swallowing was first noted, then a feebleness in some of the eye muscles. Fibrillary contractions were at times present in the chin, cheek, and frontal muscles. There was slight double ptosis and difficulty in raising the eyebrows. At first it appeared as if the patient was suffering from ophthalmoplegia as well as bulbar palsy, but this was seen later not to be the case. The tongue became paralysed and somewhat atrophied later. The electric reactions showed that this case could not be one of asthenic bulbar palsy, but must depend on some anatomical lesion in the centres. Remall concludes that involvement of the upper branches of the facial is not necessarily in favour of a bulbar palsy without anatomical lesion. After five months of electrical treatment considerable improvement was noted in swallowing. The author refers to other cases in which similar good results have followed electrical treatment. The improvement thus obtained cannot be obtained in an equal degree by feeding with a tube, which, as has recently been shown, is not always free from danger.

PATHOLOGY.

(162) The Pathology of Albuminuria.

Semmola's latest observations and views on this subject are as follows (*Wien. klin. Rund.*, January 27th, 1895): Subcutaneous injections of egg albumen of fowl give rise constantly in animals (dogs) to an albuminuria, which in the first twenty-four to forty-eight hours is not attended by histological changes in the kidneys. This albuminuria is caused by the elimination of toxic albumens—that is, albumen which reaches the blood stream as a foreign substance, because it has not become gradually changed and assimilable through the metabolic processes which render it assimilable when entering the organism through the digestive tract. It is therefore a fact that egg albumen does not require an epithelial lesion in order to pass through the kidneys. Continuance of this albuminuria causes pathological changes in the kidney, commencing with simple hyperæmia and intertubular hæmorrhages, and progressing to chronic nephritis, with all the characters of large white kidney. Besides this effect, the injections, after a longer time, cause a pathological diffusibility of the egg albumen in the blood, which is accompanied by gradual increase in amount of albumen in the urine, which is doubled in amount in three or four weeks. Semmola does not regard the albuminuria as a result of the nephritis caused by injection of albumen, for the reason that no relation holds between experimental and clinical kidney lesions and the amount of albumen excreted, so that a true condition of dyscrasia must be attributed to the composition of the blood. Concerning the nephritis of cantharides or mercury salts, in cantharides nephritis the amount of albumen is small compared with the severity of the kidney lesion, while in other substances mixing with the blood, such as mercury, the kidney lesions are slighter and the amount of albumen much larger—a fact which must be explained by the action of the mercury on the molecular constitution of the blood egg albumen, and independent of the development of kidney changes. These experiments confirm Semmola's former opinion that the fundamental pathological condition necessary for the passage of albumen through the kidneys—and hence for the production of Bright's albuminuria—is the morbid diffusibility of the seroalbumen, which is a true dyscrasia in Bright's disease and a primary etiological condition. This view is for the most part confirmed by the latest investigations of Freund on the changes of the blood in Bright's disease. Semmola is convinced that in the majority of cases—acute infectious diseases, toxic, rheumatic, and gouty dyscrasias—the albuminuria always arises from modification in the diffusibility of seroalbumen, resulting from molecular alterations in the blood. When in these cases a nephritis exists, it is the result of the same diathetic condition, or due to the effect of the albuminuria on the kidneys. The egg albumen arising from nephritis, if no general dyscrasia is added to the arteriosclerosis—arterial and gouty nephritis due to uric acid deposits—is very small—0.30 to 0.50 per 1,000—while the amount of albumen secreted from a dyscrasial condition of the blood, when this is the primary effect of the disease, rises to 2 to 4 or even up to 20 grammes per litre, as is the case in Bright's disease. Continued subcutaneous injection of egg albumen causes albuminuric retinitis, and during life the animals experimented on show weakening of vision. Semmola concludes that a true Bright's disease can be artificially originated in this way, characterised by the following points: (1) Albuminuria; (2) secondary nephritis; (3) dyscrasia of blood with diffusibility of sero-albumen, and hence progressive increase of amount of albumen excreted; (4) serous subcutaneous infiltration; (5) progressive diminution in the amount of urine; (6) characteristic albuminuric retinitis. Perhaps there is at present no other disease which can be reproduced so completely and so be elucidated as regards its pathological mechanism. It is, however, still unknown how Bright's disease develops spontaneously; how the egg albumen of the food becomes so altered in molecular constitution as to be non-assimilable. Concerning treatment, Semmola urges that the aim of rational treatment in Bright's disease should be to bring about improvement in general nutrition and not to attempt to check the albuminuria, which he regards as a useful and providential elimination of a substance which has become heterogeneous and toxic.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(163) Vagus Pneumonia.

Meunier discusses (*Arch. Gén. de Méd.*, February, 1895) the clinical aspects and pathology of vagus pneumonia. In cases of aneurysm of the aorta, the frequency of pulmonary lesions due to pressure on the vagus was noted by Habershon and others. In the cases reported by Hanot the lesions were twice tuberculous and once an ordinary pneumonia, the disease in the vagus being very distinct. Suppurative broncho-pneumonia has been described in this relation. In a case of alcoholic paralysis, Déjerine found pulmonary lesions and disease of the vagus. Section of a vagus in operations has been known to be followed by pneumonia. The author gives the details of a case of Hanot's in which the pressure on the vagus was due to mediastinal glands enlarged by secondary malignant growth. Here there was pleuro-pneumonia with necrosis and suppuration. Possibly lesions of the pneumogastric centres may account for pulmonary changes in some cases. At the present time a neuro-infective theory must be added to the others advanced to account for vagus pneumonia. In an early stage the morbid lesions found are emphysema, increased bronchial secretion, congestion, ecchymoses. Later they are of an inflammatory order. Broncho-pneumonia is most often met with. There may be a gangrenous or suppurative pneumonia, a form rare in animals. The division of the pneumogastric diminishes the resistance of the lung tissue to micro-organisms, and the individuals may become the subject of broncho-pneumonia, ordinary pneumonia, tuberculosis. One lesion is so constant and striking that it has been termed vagus pneumonia. In human pathology section of the vagus, compression from any cause, a toxic neuritis, a neuroma, or even a functional affection may act as causes for the pulmonary lesions, but no single cause will by itself acount for them.

(164) Lactic Acid in the Stomach Contents.

Bial, of Ewald's Clinic (*Berl. klin. Woch.*, February 11th, 1895), relates a case of ulcer of the stomach with atrophic gastritis and gastrectasis, in which lactic acid was present in the stomach contents. He refers to recently recorded cases in which this acid has been present, and yet no malignant disease existed. It is only by recording such cases that a true estimate of Boas's views can be made; lactic acid is certainly present in a large number of cases of gastric carcinoma. A very wasted man was admitted with loss of appetite, feeling of weight in the epigastrium, and vomiting. The stomach was dilated. Lactic acid was found by Boas's method after Boas's test meal had been given. In two or three days the patient became apathetic and drowsy. The vomiting persisted in spite of washing out the stomach. The vomit contained lactic acid, but no hydrochloric acid. Death soon occurred in coma. In the stomach there were several ulcers, with cicatrices in the neighbourhood of the pylorus, which was slightly narrowed. There was chronic gastritis passing into atrophy about the cardia. Although no tumour could be felt, the case was thought during life to be one of gastric carcinoma owing to the absence of hydrochloric acid and the large quantities of lactic acid present. Although on admission the patient was wasted, there was no reason to anticipate so rapid an end; and he was in fairly good condition when the nervous symptoms supervened. No explanation of them could be found at the necropsy. They must have been due to auto-intoxication since there was no evidence of carcinoma, nephritis, or diabetes. The source of the poisoning lay in the retention in the dilated stomach and in the altered gastric juice secreted by the changed mucous membrane. Some other factor at present unknown must have co-operated, since fermentative changes may be marked, yet no poisoning occur.

(165) Endocarditis and Multiple Neuritis.

Lloyd and Riesman (*Amer. Jour. Med. Sci.*, February, 1895) relate a case of infectious endocarditis and septicæmia, in where there was extensive multiple neuritis with muscular atrophy. In general appearance the case resembled one of typhoid fever. *Post-mortem* examination showed very extensive soft vegetations on the aortic valves. The microscopical examination of nerve trunks showed the existence of marked perineuritis. There was some evidence of degeneration in the posterior columns of the cord. The authors admit the possibility of the neuritis being due to alcohol, and discuss the nature of the infection, which was not attended by the formation of pus in any part.

(166) Acute Tonsillitis.

Massei (*Rif. Med.*, January 21st and 22nd, 1895), discusses the clinical differences between the various forms of membranous angina. In the first place if you find the patient cannot open the mouth you may almost invariably exclude diphtheria, and suspect one of the inflammatory non-diphtheritic forms of angina. If the affection is a single manifestation, without any erythematous or papular eruption, suspect diphtheria; if on the second, third, or fourth day of scarlet fever, the angina is probably coccogenic and not bacillary. In presence of a yellowish white, easily separable membrane affecting chiefly the tonsil, one should suspect staphylococci alone or in conjunction with streptococci. If the exudation is thicker, more compact, greyish white, and developed not only on the tonsil but on the uvula as well, or if the membrane is surrounded by a well-marked hyperæmic zone, it is probably of streptococcal origin. If the exudation is very white, compact, and dense, it is probably due to pneumococci; if the pseudomembrane has the character of a compact, fixed, dense tissue, more or less thick, it is most likely due to staphylococci alone. These are, of course, only rough and ready clinical diagnoses, where bacteriological examination is not obtainable. Menstruation, dyspepsia, etc., and other so-called causes of tonsillitis, only act as way-openers for the ever ready microbe. In the treatment of the coccogenic forms Massei believes strongly in sublimate gargles (1-1,000), ice, cocaine, and Behring's serum for the doubtfully diphtheritic cases.

(167) Self-injury in Hysteria.

Krecke (*Münch. med. Woch.*, January 22nd, 1895) discusses a case at length in a woman, aged 61, under observation for thirteen years. Injuries are self-inflicted either on account of anticipated advantages or owing to abnormal mental states. The injuries inflicted on themselves by the hysterical are mostly of a chronic character. In the above-named case the injuries were chiefly on the arms, legs, and face. Various forms of lesions were noted—reddening, blisters, old crusts, ulcers, and scars. They were made by means of a caustic alkali (*Langenstein*). The author gives a short account of some of the well-known cases, such as those recorded by Strümpell, C. Fox, etc. These patients, as in his case, almost always present signs of hysteria. The author thinks that his patient first inflicted these injuries as the result of some imperative idea, and that later the comfortable hospital life played an important part in the etiology. The patient also suffered from mania operatoria. In the simplest cases the injuries are inflicted by means of friction with the nails and ends of the fingers, then by rubbing the bandage backwards and forwards, and lastly by a chemical agent. The question of diagnosis is important; the condition, if suspected, is generally recognised.

SURGERY.

(168) Treatment of Hepatic Abscess.

In a recently published pamphlet (*Contribution à l'Etude de la Chirurgie du Foie: Traitement des Abcès Intra-Hépatiques*) Pantaloni reports four cases of abscess of the liver successfully treated by operation. In one of these cases the abscess was situated in the left lobe, in the other three in different parts of the right lobe. The four patients were dwellers in Marseilles, and had never lived out of France. There was a clear history of dysentery in three of these cases. The author, in dealing with hepatic abscess, usually makes a free external incision; but bearing in mind the uncertainty as to whether the contents of the abscess be sterile or not, he

holds that in the absence of adhesions the abdominal or pleural cavity, as the case may be, should be carefully shut off from the seat of puncture by stitching the parietal peritoneum, or, when the opening is made through the chest wall, pleura, peritoneum, and diaphragm, to the surface of the liver. In abscess of the posterior and superior part of the right lobe he would make a large opening in the wall of the chest. In one of the reported cases almost the whole of the eighth, ninth, and tenth ribs were resected. In another case in which the abscess was seated near the upper surface of the right lobe the seventh and three following costal cartilages were cut away. The opening into the abscess was in each case a free one, and in an instance of a very large cavity in the right lobe allowed the passage of the surgeon's hand. The author does not approve of instrumental scraping of the inner surface of the abscess, and objects to frequent washing out of the cavity. He advocates, however, a copious injection of a weak sublimate solution at the time of the operation.

(169) Intestinal Anastomosis by Murphy's Button.

Wiggin (reprint from the *New York Med. Journ.* for December 1st, 1894), in his comments on a complicated case of intestinal obstruction, points out that Murphy's button should be used by surgeons with a proper understanding of its dangers, which are held to be numerous. In the author's opinion, it is somewhat unsurgical. It has been proved by experience that the button may be retained in the intestine, act there as a foreign body, and necessitate a secondary laparotomy for its removal. Murphy's method renders the patient dependent on the craft of the cutter rather than upon the skill of the surgeon, the spring of the button being made at times too strong, and at other times too weak. It is not always possible for the surgeon to lay his hand on a button of the proper size. A case has been reported in which perforation followed the use of a button a little too large for the portion of intestine united. There is a danger in the weight of the button which may act as an anchor to hold the bowel in a flexed position, and so cause obstruction. There is also a danger of the lumen of the button becoming plugged with hard fæcal matter, thereby causing fatal obstruction. The holes placed at the ends of the buttons for the purpose of drainage may cause perforation, if care be not taken in pressing the segments together. On the other hand, the statistics collected by Wiggin are much in favour of Murphy's method. In 84 cases of intestinal anastomoses, of gastro-enterostomy and of operations on the gall bladder, the mortality was 14 per cent., which compares favourably with the mortality of intestinal anastomoses by other methods, which, according to von Baracz, is 24.5 per cent.—In a consideration of Wiggin's objections which is published in this reprint, Murphy states that of the numerous cases in which his method has been practised, not a single instance has been reported to him of obstruction due to retention of the button, and he has heard of only two in which the button had been retained. In the case on which Wiggin bases this special objection, the button, it is held, might have been removed by an operation which no surgeon would consider of grave importance. In answer to the objection that in practising Murphy's method the surgeon depends mainly on the craft of the cutter, it is pointed out that he depends also on the silk manufacturer for the silk he uses, and as he tests his silk, he should test also his button. Murphy has sent models to all manufacturers who have requested them, and asserts that he would gladly inspect, and does inspect, all buttons sent to him. The fact that defective buttons have been manufactured cannot, he believes, be brought forward as a valid argument against the utility of his method.

(170) Hernia of the Linea Alba.

Niechues (*Berline· Klinik*, Heft 80, February, 1895) has collected 38 recent cases of hernia of the linea alba, 11 of which, treated by Kümmell, of Hamburg, are here recorded for the first time. This series of cases shows that the most frequent situation of hernia in the middle line of the abdominal wall is not near the ensiform process, but within an inch of the upper margin of the umbilicus. This form of rupture often follows violent muscular exertion and blows on the front of the abdomen, and occasionally rapid emaciation. In several of the cases published in this paper no distinct sac could be found at the time of operation for radical cure. Almost every patient belonged to the working classes, and of the whole number 30 were males and 8 females. In most instances hernia of the linea alba, even when it consists merely of a small protrusion of subperitoneal fat, causes pain, vomiting, colic, and other severe symptoms out of all proportion to the extent and nature of the lesion. The condition of the patient often becomes very distressing, as acute pain is usually brought on by very slight muscular exertion and after taking food. In some few cases those symptoms may be removed or much alleviated by the wearing of a closely-fitting vest or girdle. The use of any kind of truss supplied with a pad is to be avoided, as pressure directly applied to the seat of rupture is liable to dilate the abnormal opening in the abdominal wall, and to cause adhesive inflammation of the hernial contents. In most instances, and especially in those in which the rupture is irreducible, an operation for radical cure is indicated. The protrusion having been freely exposed, any adhesions of intestine and omentum to each other and to the neck of the sac or the margin of the ring should be carefully separated. The protruded omentum should be ligatured and removed, and the intestine carefully replaced in the abdominal cavity. Finally, the margin of the ring should be excised, and the raw edges be brought together by sutures. If the hernia consist only of a protrusion of subperitoneal fat, this should be cut away. The result of this operation is as a rule very striking, and the painful symptoms cease immediately.

MIDWIFERY AND DISEASES OF WOMEN.

(171) Pregnancy and Operations on the Appendages.

Delagénière of Le Mans (*Archives Provinciales de Chirurgie*, November, 1894) has performed three operations for diseases of the appendages in pregnant women, and all were afterwards delivered at term. In Case I the patient was three months pregnant, and was seized with symptoms of peritonitis. After the symptoms subsided a tumour was discovered. An operation was performed; an adherent ovarian cyst with twisted pedicle was discovered and removed. In Case III an ovarian dermoid was removed at the fifth month as it had grown very large. In the second case there was disease of the tube and ovary on both sides, and the patient at the fifth month was exhausted from pain. The abdomen was very tender. The appendages adhered to the uterus, and the intestines around them were also adherent. Both tubes and ovaries were removed. There was great trouble during convalescence owing to constipation. The patient was afterwards delivered at term of a healthy infant. A few hours later she felt severe pain close to the right side of the uterus, and there was nausea with pallor. All the trouble passed away at the end of an hour. A year later the patient was in excellent health. Henri Delagénière concludes that pregnancy need never modify the indication to operate. It is a complication of the existing disease, rendering operation all the more necessary if not urgent.

(172) Symphysiotomy in the United States.

Wheeler (*Boston Med. and Surg. Journal*, December 27th, 1894) operated at term on a well-developed Irishwoman, aged 28, and in her seventh pregnancy. The past was a history of forceps, version, and lost children. The conjugata vera was estimated at a little under 3¾ inches. It was too late to induce labour. At the natural labour Tarnier's forceps was applied for fifteen minutes, with no effect. Then, after due precautions, symphysiotomy was performed. The bones sprang a finger's breadth apart, and free venous hæmorrhage occurred from the tearing of the large plexus of the vessels under the pubic arch. The bleeding was checked without difficulty by pressure with a wad of gauze. The forceps was again applied, and the head delivered within twenty minutes. The passage of the head forced the bones 2¼ inches apart, and the venous hæmorrhage was again free. The child was saved after some

trouble with the cord; its head was above normal in all diameters. It was a male, weighing 8 lbs., and measuring 20½ inches. A mild attack of phlebitis in the left leg occurred during convalescence. At the end of the fourth week the patient was able to walk. On December 3rd, 1894, Harris, of Philadelphia, wrote to Wheeler, saying: "Up to date there have been 60 operations in the United States and 4 in Canada. There were 31 in 1893 in the United States, and there have been 18 this year. No death of a woman in the Canada cases."

(173) Reproduction of the Uterine Mucosa after Curetting.

Bossi (*Gaz. degli Ospedali*, February 2nd, 1895) gives the results of his experiments and clinical observations on this subject. In 1884 Duvelius examined and reported on the uteri of two cases in which hysterectomy had been performed two and four months after curetting, and in each case the mucosa was completely reproduced. Bossi endeavoured to find approximately the minimum time that the uterine mucosa takes to reproduce itself so as to be physiologically active after curetting. By direct examination of the uterus in three cases where hysterectomy had been performed twenty-five, twenty-seven, and fifteen days respectively after a previous curetting, he was able to affirm that in each case the mucosa was completely reproduced, so that from these three cases he arrives at fifteen days as a minimum limit. In seven other cases he fixed upon the first menstrual period after curetting as a sign indicating that the uterine mucosa was physiologically active; in these cases he found that normal menstruation occurred twenty, nineteen, eighteen, twenty-one, twenty-two, and seventeen (two cases) days respectively after curetting. Reckoning the first fecundation followed by full-term pregnancy as a more certain sign that the mucous membrane has been healthily reproduced, Bossi found that in seven cases fecundation occurred twenty-five, twenty-eight, twenty-seven (two cases), twenty-six, and twenty-nine days after curetting. Experiments on dogs gave a considerably longer period for repair; this was probably due to the greater severity of the operative *technique* on animals. Notwithstanding the evidence of these figures, Bossi would still recommend a period of at least sixty days' sexual rest after curetting.

(174) Asafœtida in Obstetrical and Gynæcological Practice.

Warman (*Therap. Monats.*, January, 1895) lays stress on the insufficiency of the remedies hitherto recommended in cases of abortion, pointing out that small doses of opium frequently disappoint, whereas large and repeated doses may prove injurious, both being of little value with patients subject to the habit of aborting. The author was therefore readily disposed to employ asafœtida, as first recommended by Italian obstetricians. It was usually administered in pills containing 1½ gr., though an enema containing the tincture was soon preferred in cases of threatening abortion. The author found the drug most efficacious in reducing the hæmorrhage which is prone to appear subsequently. Even with a very severe and alarming onset the first dose appeared to exert a most tranquillising effect, and led to a gradual separation of the ovum unattended by contractions. Several instances are described at length to illustrate this, but the material at the author's command is insufficient to warrant him in ascribing to asafœtida prophylactic properties. It is otherwise where habitual abortion has existed, and a successful issue in a most obstinate case is described, 5 in all having been observed by the author. To these patients the pills are administered, commencing with 2 per diem and increasing to 10, the number subsequently being again reduced. No unpleasant symptoms were produced, but, on the other hand, the action of the bowels was very much assisted, to which the author ascribes much of the success in those cases of what he terms "abortio habitualis."

(175) Fatal Vomiting of Pregnancy.

Davis (*Trans. American Gynec. Soc.*, vol. xix, 1894) relates three cases of fatal hyperemesis gravidarum. In two there was anteflexion with impaction of the pregnant uterus. All suffered from substernal pain. In one where a necropsy was performed extensive acute degenerative changes were found in the viscera. In Edward Davis's opinion death was due chiefly in these cases to pernicious anæmia. The substernal distress of which these patients complain may properly be considered as a reflex of the uterus in a pathological condition. Sudden and radical improvement does sometimes occur in cases of uncontrollable vomiting of pregnancy, but when pernicious anæmia is once established, delay in dilating and emptying the pregnant organ is dangerous at any stage of the pregnancy; and even when the uterus is found impacted, raising and sustaining it will not be sufficient, as two of the recorded cases clearly proved.

THERAPEUTICS.

(176) Picrotoxin as an Antisudorific.

Semmola and Gioffredi relate (*Rif. Med.*, December 29th, 1894) the case of a lady 43 years old, who had an attack of influenza in December, 1893, with high, persistent fever, headache, and slight cough. During the long convalescence she began to suffer from sweating, which came on after the least exertion, and gradually increased until the sweat poured off her in rivulets. Together with this hyperidrosis she had dull red patches on the skin, which were more or less persistent. There was no noticeable alteration either subjectively or objectively in the nervous system. There was a slight systolic murmur at the apex, and some accentuation of the second sound of the heart in the pulmonary area. Atropine, agaricin, camphor, gallic acid, and other antisudorifics were tried, but with no effect. Semmola concluded that the sweating was due to a vasomotor paralysis due to the action of some influenzal toxin upon the vasomoter centre in the bulb. The presence of the dull red patches on the skin offered confirmatory evidence of this diagnosis. Since picrotoxin has a stimulating action on the vasomotor centre, Semmola administered this drug twice a day in doses of half a milligramme each. The result was highly satisfactory. The sweats gradually diminished, and in eight days had entirely disappeared.

(177) Anæsthesia by the Infiltration Method of Schleich.

Würdemann (*Journ. American Medical Assoc.*, December 29th, 1894) gives a summary of Schleich's paper on a new method of inducing anæsthesia by infiltration, and records his own experience and that of other American surgeons. The principle of this method is (1) intracutaneous injection as distinguished from subcutaneous: (2) the production of local spots of œdema at each injection, by which œdema local anæsthesia is produced. Schleich found that 0.02 per cent. solution of cocaine produced anæsthesia without pain during injection; distilled water produced anæsthesia, but caused pain at first; 0.6 per cent. salt solution produced no effect, but 0.2 per cent. salt solution caused anæsthesia; stronger salt solutions caused burning pain. The same effect was noted with solutions of cocaine and morphine, 0.02 to 2 per cent. cocaine and 0.01 per cent. of morphine caused anæsthesia, while stronger solutions gave rise to pain before the anæsthesia. The anæsthesia is limited to the area of infiltration, which appears as a white raised wheal, and is due to pressure effect of the œdema on the nerves, and not to the narcotic properties of the drugs used, as is shown by anæsthesia being produced by salt solution very slightly different to normal salt solution. However, although salt solution will suffice for healthy tissues, drugs are required in addition for hyperæsthetic or inflamed parts. The advantage over other methods of local anæsthesia is that very weak solutions are used, several hundred times weaker than those in common use. The formula used by Schleich is: cocain. hydrochlor. gr. iij; morph. hydrochlor. gr. ½; sod. chlor. gr. iij; aq. dest. ad. ℥iij; ac. carbol. 5 per cent. 2 drops. This is used for operations on painful areas; for ordinary operations the amount of cocaine is reduced to gr. jss. The solution should be sterilised and cooled before the operation. Before the first injection the spot to be punctured is treated with ether spray, then successive injections are made intracutaneously along the line of incision. The deeper parts are treated as the operation proceeds, and even bone may be sawn after infiltrating the

periosteum without pain. In amputations the nerve trunks should be treated separately before cutting. The morphine in the formula avoids the preliminary pain sometimes caused by cocaine, and also lessens the after pain of the operation. Anæsthesia lasts ten to twenty minutes, hence it must be repeated if the operation lasts longer. In hyperæsthetic inflammatory areas the injection should be begun in the sound skin, and never in the inflamed area. Würdemann's own experience confirms the usefulness of this method, and he mentions cases where he has used it in circumcision of adults, in removing small tumours, opening abscesses, clamping piles, and other operations. He thinks it should replace 75 per cent. of cases where general anæsthesia has been used hitherto. He does not advise it in very large operations or in plastic surgery, or in cases where tension is caused by handling of parts.

(178) Treatment of Pneumonia.

G. IVANOFF (Bulgarian *Meditzina*, No. 4, 1894, p. 20), senior physician to the Lom Hospital, says that he most successfully treats croupous pneumonia by the internal use of camphor with antipyrin (℞ Camph. pulver. 0·5 gramme; antipyrin 2·0; morph. hydrochlor. 0·02; sacch. q.s. M. f. pulv. One-fourth to be given every one or two hours). In adynamic cases he simultaneously resorts to hypodermic injections of camphor in the dose of from 0.05 to 0.1 g., three or four times a day, for which purpose he employs a fatty solution (0.5 camphor to 0.1 g. olive oil). The writer reports a series of 22 cases treated consecutively by this method at the hospital during the period December 10th, 1893, to March 15th, 1894. All of them were rather severe, but nevertheless every one ended in recovery. The hospital registers for 1889 to December, 1893, show that, previously to the introduction of the treatment, from 3 to 7 patients succumbed to the disease every year, the yearly number of pneumonia cases admitted oscillating between 20 and 30.

(179) Treatment of Influenza.

PLICQUE (*Presse Médicale*, February 6th, 1895) adheres to the division of the various forms into thoracic, nervous, gastro-intestinal, and cardiac, but points out that it is not rare for the different forms to be combined together or to follow one another. Treatment should first be prophylactic. When several in one family are attacked, they should be isolated in separate rooms, since when together they appear to infect each other. In common cases without special complications, the patient should keep his bed for two or three days, and keep to his room for eight days; otherwise relapses and nervous complications are liable to arise. The medicines recommended by Plicque are antipyrin 30 to 60 grains, tincture of aconite 10 to 30 drops per diem, quinine, and coffee. Antiseptic treatment to the nose, mouth, and pharynx is important—boracic acid gargle, boracic vaseline to the nasal cavities, and great care of the mouth. This treatment does much to avoid complications and perhaps broncho-pneumonia. For the spasmodic cough in thoracic complications he recommends: Tinct. belladonnæ, tinct. aconiti, tinct. droseræ āā ♏ 30, tinct. myrrhæ ʒijss. ♏ 20 to 30 per diem. Congestion of the bases of the lungs may be relieved by dry cupping; blisters should be avoided. In respiratory catarrh emetics are useful in children and adolescents, and chlorhydrate of ammonia. Nervous complications with excitement and delirium are best treated with bromide of potassium, 30 to 60 grains per diem. For nervous depression he recommends equal parts of tincture of kola and coca. For the cardiac form Plicque advises dry cupping, sinapisms, subcutaneous injections of caffein and ether or of camphorated oil (sterilised olive oil ʒijss, camphor 30 grains). In the gastro-intestinal form, emetics are good in young subjects at the onset, and saline purgatives; if much diarrhœa, intestinal antiseptics (salol, napthol, and salicylate of bismuth). During convalescence, high altitudes are better than sea air.

PATHOLOGY.

(180) Avian Tuberculosis in Man and Mammals

PANSINI (*Gazz. degli Ospedali*, February 7th, 1895) has been experimenting on chickens and guinea-pigs with tubercle bacilli and with the tuberculous products of human tuberculosis, to find out the relation, if any, between avian and mammalian tuberculosis. In two cases—once from a guinea-pig made tuberculous by the expectoration of a phthisical patient, and once from a guinea-pig infected with fluid from a case of bovine tuberculosis—cultures were isolated having the characters of avian tuberculosis. Three other cases (Kruse) may be added. Hence Pansini concludes that in man and mammals there exist cases of tuberculosis of the avian type. The clinical history of the phthisic from whom the expectoration was taken did not differ in any noticeable degree from the usual type. Inoculation of large quantities of bacilli from human tuberculosis never produced any wasting or tuberculosis in the chickens experimented upon; inoculation of expectoration or human tuberculous products produced not rarely in the same animals marked wasting. Apparently the bacilli of human tuberculosis artificially grown are less virulent than when used direct. In two experiments peritoneal inoculation of typical cultures of avian tuberculosis was not followed by any tuberculosis or wasting of the chickens. Pansini supposes that in these cases the syringe perforated the intestine, and Maffucci has shown that intestinal injection of avian tubercle is innocuous to chickens. On inoculating a large quantity of typical avian tubercle culture into guinea-pigs, in many cases a true general tuberculosis followed. The quantity of bacilli injected, the various degrees of virulence of the culture, and the different degrees of susceptibility of the guinea-pig may each account for the discordant results of authors with regard to the effects produced by injecting avian tuberculosis into guinea-pigs. The tuberculosis which follows is somewhat different, both macroscopically and microscopically, from ordinary mammalian tuberculosis. The tubercles are larger and less confluent than in the common form.

(181) The Blood in Bright's Disease.

ERNST FREUND (*Wiener klinische Rundschau*, January 27th, 1895) gives the results of his observations on this subject, extending over three years. These refer to cases of Bright's disease (chronic parenchymatous nephritis, with dropsy), in which the clinical features were well marked, and which were verified by pathological examination. The results were compared with other cases of albuminuria and dropsy, without Bright's disease. (1) Analysis of the blood of 9 cases showed no changes in the absolute quantities of either organic or inorganic constituents. The only alteration was in the relative amounts of the globulins compared with the albumens in the serum. While in normal and other pathological conditions the relation was 1 to 1-1.5, in the 9 cases of Bright's disease it was 1 to 2-3. In 2 cases, in spite of the clinical diagnosis of Bright's disease, the relation of globulins to albumens was 1 to 1.1 and 1 to 11.3; in one of these cases the necropsy showed cystic kidney, in the other contracted granular kidney. This alteration of the relation of globulins to albumens cannot be held as specific, because in a case of pernicious anæmia it was found to be 1 to 2. (2) As regards the alkalinity of the blood, no specific abnormal condition was found. (3) The conditions of coagulation were found to be altered. While normal serum coagulates uniformly at a temperature of 70° to 74° C. to a firm jelly, in Bright's disease coagulation does not occur till 78° to 82°, and the clot, instead of remaining firm, is easily broken up by shaking. It has been shown that much dilution alters the point of coagulation as well as the condition of the clot, and a dilution of 1.018 generally raises the coagulation point. Normal serum diluted to the same specific gravity as serum from Bright's disease was found to behave in the same way, and similar results were obtained in serum from dropsy without Bright's and in pernicious anæmia. (4) Semmola in 1881 showed that serum from Bright's disease had a greater power of diffusion than normal serum, or serum from cases of albuminuria without Bright's; Freund's experiments confirm this view, for in 15 cases of Bright's disease the diffusibility with egg albumen was 0·006 to 0.025 g. per cent.; in 3 out of 16 control experiments from other diseases the diffusibility was 0.003 to 0.004 per cent., 13 giving negative results.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(182) Cerebral Sclerosis after Influenza.

Rendu reported (*Sem. Méd.*, December 26th, 1894) to the Société Médicale des Hôpitaux two cases in which nervous symptoms, which he believed to be due to cerebral sclerosis, came on after influenza. In the first case a strong young man, during the course of an attack of influenza, was seized with transitory partial hemiplegia, from which he recovered in a fortnight. Four months later, without obvious cause, he began to experience some difficulty in walking, with other symptoms suggesting a tumour of the cerebellum, but so variable and inconstant as, on the whole, to point rather to neurasthenia. Subsequently these symptoms disappeared, and the patient presented symptoms of astasia abasia. A few months later, however, tremor of the head and hands, exaggeration of the knee-jerks, and nystagmus appeared, pointing apparently to the occurrence of disseminated sclerosis. The second case was that of a child of 3 years who, after an attack of tonsillitis, which occurred during an epidemic of influenza, suffered from unilateral epileptic convulsions, which were succeeded by left hemiplegia. The child recovered from this hemiplegia, but there ensued a partial atrophy of the limb and an exaggeration of the tendon reflexes. Rendu thought that the evidence was in favour of localised encephalitis, that is to say, of a patch of cortical sclerosis. Marie, in commenting on the paper, said that he had formerly held that infantile disseminated sclerosis was relatively frequent; he now believed that he had been in error in putting forward this view. As a matter of fact, he had not met with a single example in childhood, and those cases which he had quoted in his work upon the subject turned out to be in reality examples of cerebral sclerosis.

(183) Relapse and Diplegia in So-called Rheumatic Facial Paralysis.

Hübschmann (*Neurol. Centralbl.*, November 15th and December 1st, 1894) states that of 135 cases of peripheral facial palsy treated at the University Policlinic in Leipzig during the last 14 years, 99 or 73 per cent. were reputed to be of a rheumatic nature, 9 per cent. were due to aural disease, and 6 per cent. to injury. These numbers agree closely with the statistical records published by Philip, from Mendel's Clinic. As regards sex, 54 of the 99 were males, 45 were females. Most cases occurred between the ages of 10 and 40; 16 were of severe type, 31 of the middle form and 33 slight. In 19 cases the type was not recorded. The seasonal distribution of the cases shows no excess of severe forms commencing in the colder months. Relapse was noted in 5 cases; in one other case a second attack occurred, involving, however, the opposite nerve to that first affected. The percentage of relapses in Philip's 94 cases was 6.4. Relapse, therefore, is not a common event; its infrequency is against Eulenburg's view that a first attack predisposes to another. Until Minkowski, in 1891, investigated the pathological condition in the case of a man who committed suicide during a severe attack of rheumatic facial palsy, no *post-mortem* evidence of the associated morbid changes was available. The condition revealed by Minkowski's case was a pure degenerative neuritis, advancing centralwards from the periphery; the neurilemma, peri- and epineurium were quite normal; no trace of inflammatory exudate was present. The author uses the qualification "so-called," from the fact that usually all cases of peripheral facial palsy arising apparently spontaneously in otherwise healthy persons are classed as rheumatic: thus, of the 99 cases so designated in his table, only 34 were attributed to cold. Besides, he is led to the conclusion that so-called rheumatic facial paralysis is probably an infectious disease, which as a rule affects a person once only. The occurrence of a relapse would appear to be explained by failure of the first attack to confer immunity. Cold would seem to play here the same part as in croupous pneumonia. Diplegia is very uncommon, occurring in only one male and one female of the author's cases. He considers that the free anastomosis of the two facial nerves permits extension of disease from one to the other; and he reports a case very fully, in which a slight first unilateral attack was followed six months later by relapse on the same side; during this second attack extension to the opposite nerve took place, the latter nerve recovering before the one first affected.

(184) Chronic Nasal and Laryngeal Disease and Pulmonary Tuberculosis.

Solly (*Jour. Amer. Assoc.*, September 15th, 1894) analyses 200 cases of pulmonary tuberculosis in relation to nasal and laryngeal disease. Of these, 33 had nasal, 38 laryngeal, and 23 both nasal and laryngeal affections. Thus, 56 had nasal and 61 laryngeal complications. Septal deformities, etc., were the most common form of nasal obstruction. Of 24 cases of right-sided nasal lesions, the pulmonary disease was present on the right side in 17, on the left in 1, and on both sides equally in 6. Of 14 left-sided nasal disease, it was on the left side in 8, on the right in 4, and on both equally in 2. Thus, in 38 cases where the disease could be classified as right- or left-sided, in 65.8 per cent. the lung disease could be said to be on the same side as the nasal. The author mentions this more as a matter of curiosity than for the purpose of basing any conclusions on it. Of the 200 cases, 30 had throat disease. It was tuberculous in 20.5 per cent., a simple laryngitis in 9 per cent., and syphilitic in 2 cases. In the nasal cases, probably only a few really had tuberculous rhinitis, thus bearing out the view of the comparative rarity of this affection. The practical relation of these various diseases lies undoubtedly in causing mouth breathing, in diminishing pulmonary expansion and complete aeration, in reflex irritations, etc. Both nasal and laryngeal disease should be treated and cured as soon as possible. In regard to laryngeal tuberculosis, the author says that, although grave, yet it is not necessarily fatal, and that it repays proper local treatment always by mitigation and occasionally by cure. High climates with proper local treatment are specially suited for laryngeal tuberculosis.

(185) Barlow's Disease.

Baginsky (*Berl. klin. Woch.*, February 18th, 1895), thinks that Barlow's disease is becoming more frequent in Berlin than it formerly was. He showed a child aged 11 months to the Berlin Medical Society. The child had beaded ribs, but showed no decided marks of rickets in the limbs. In the lower third of each thigh there was swelling, and deep indistinct fluctuation could be made out. The swollen regions were extraordinarily tender, and the child made no spontaneous movements of the limbs. The child's gums were slightly swollen and darker red than natural. Baginsky has noticed that the greater number of cases of this disease occur in families of good means, and most of his cases have occurred in private practice, when "artificial" foods have been used. The children do well on these foods at first, and then cease to progress or decline in their general nutrition, and painful swellings make their appearance. He does not think, however, that the blame can be as yet attached with certainty to these methods of feeding. One child had taken only cow's milk, and the disease followed on a convulsive cough. He calls attention to the superficial similarity between Barlow's disease and Parrot's syphilitic pseudoparalysis. In the latter affection the lesion is an acute gummatous osteochondritis, which has nothing to do with the subperiosteal hæmorrhages of the former disease. Syphilis could be excluded with certainty in all Baginsky's cases of Barlow's disease.

SURGERY

(186) Removal of the Gasserian Ganglion for Neuralgia.

Caponotto (*Il Policlinico*, February 1st, 1895) reports a third case of this operation. The patient was a baker, aged 20, who from childhood had suffered from dental neuralgia due to caries, for which he had the worst teeth extracted. About two years ago he noticed a tingling in the left cheek, lasting about a week, then burning pain starting from the left infraorbital foramen. The pain was at first limited to the inferior palpebral

margin, radiating to the external canthus and down to the angle of the jaw. The attacks lasted from one to two minutes, and were repeated every three or four minutes. They were less frequent, but more severe, during the night. He gave up work for three months. The pain then began to invade the forehead and parietal region, radiating to the upper neck and the external branches of the supraorbital nerve. He tried potassium bromide, 3 to 4 grammes, daily, then quinine and potassium bromide for three months without benefit. He was admitted to hospital on February 18th, 1891. He was fairly well developed; the special senses were unaffected; there was slight hypertrophy of the left side of the face, with ptosis and œdema of the left upper eyelid. The conjunctival vessels were injected; there was a pustule on the external corneal margin. The left angle of the mouth was slightly drawn upwards, and the tongue deviated to the left. There was no difference in tactile sensibility on the two sides; sensibility to pain was somewhat diminished on the left side. He complained of a burning sensation and pain in the left external canthus every 2 minutes, lasting 10 to 20 seconds. During the attacks there was spasmodic contraction of the muscles of the left side of the face, with abundant salivation, lachrymation, and nasal flux. The conjunctival reflex was sluggish on the left side. All the organs of the body were healthy. Antipyrin, antifebrin, phenacetin, bromide of gold, methylene blue, and electricity were tried, but gave no relief. An operation by Rose and Krönlein's method was performed on May 18th, 1891. Immediately after the operation high temperature set in, with vomiting of blood and blood-stained fluid through the nose and mouth, and depression so great as to prevent any examination of the condition as to sensation, etc. Death took place four days after operation from acute septicæmia. The *post-mortem* examination showed septic inflammation of the soft parts about the wound, and meningitis, laceration of the Eustachian tube, complete destruction of the Gasserian ganglion. A cholesteatoma the size of a nut was found just where the root of the trigeminus enters the pons; this evidently was the cause of the neuralgia. As to the *technique* of the operation, Caponotto opened up the foramen ovale with a chisel and mallet instead of a trephine, and used a sharp spoon instead of hooks in the removal of the ganglion. The foramen ovale was made the centre in opening the skull. At the time of operation Caponotto was ignorant of Rose's caution with regard to the danger of lacerating the Eustachian tube, and the way to avoid it.

(187) Castration in Hypertrophy of the Prostate Gland.

In an editorial article of the *University Medical Magazine* for February, 1895, castration in suitable cases of prostatic hypertrophy is regarded as an advance in surgery. Hitherto, it is held, the surgeon has been unable to afford distinct relief from the distressing symptoms of an advanced case of this description. The difficulties and the high mortality of the suprabubic method have led to an almost total abandonment of this operation for prostatic disease, and perineal prostatotomy is little more than a palliative measure. In view of these facts it is not strange that surgeons should have presented White's suggestions to patients suffering from the consequences of prostatic hypertrophy, nor is it unnatural that such patients accepted this chance of a relief from a condition that in many cases was rapidly and surely impairing the health of a person otherwise vigorous and, apparently, without this trouble destined to enjoy many additional years of life. With the testes already or soon to become functionless, and with the prospects of a long period of intense suffering, which will be relieved only by death, sentimental objections are not to be regarded, and the problem of securing relief without placing life in danger is the only one entitled to consideration. Since White first suggested this treatment in 1893, reports of eighteen operations have been published. All these have been more or less successful, and usually the relief from the distressing symptoms and the shrinking of the prostate have been marvellous. The least favourable cases have experienced infinitely greater relief than has been obtained by any method hitherto employed. At least as many unpublished cases have been operated on with equally favourable results. There have been no deaths from the operation. Castration, however, is not indicated in every case of prostatic enlargement or urinary obstruction. Cases of prostatic abscess, prostatitis, tumours of the prostate and the region of the neck of the bladder, and other forms of obstruction in the neighbourhood of the prostate must be distinguished from true prostatic hypertrophy, as without such discrimination both surgeon and patient will be disappointed, and the operation will be brought into unmerited discredit.

(188) Treatment of Penetrating Sword Wounds of the Chest.

Haguet and Péraire (*Rev. de Chir.*, January, 1895), in discussing what ought to be done in cases of penetrating wounds of the chest by sword or side-arms insist on the desirability of treating the patient on the spot. Transport of the patient, especially if for a long distance and in a wheeled vehicle, is likely to cause or aggravate hæmoptysis, and so cause death at an early stage. Syncope, since it favours hæmostasis, should in a certain measure be respected, and, unless the depression be very severe, the surgeon should trust rather to caffeine and hypodermic solutions of artificial serum than to injections of ether. Restriction of movement of the pulmonary organs is regarded as the chief condition of success in the treatment of penetrating chest wounds. Unless the patient can be kept at absolute rest other means, such as cold applications and iced drinks, astringents, and compression of the wound are not likely, it is held, to do good service. Careful dressing and compression of the wounded region should not, however, be neglected, but ought to be applied with as little disturbance of the patient as possible. In cases of hæmothorax due to wound of a large blood vessel the surgeon need not, as a rule, proceed immediately to any active treatment. He should be guided by the symptoms and complications, and refrain from practising thoracocentesis until the effusion has become so great as to cause alarming dyspnœa. In every case of penetrating wound of the chest the authors state only just such clothing should be removed as may permit exposure and careful dressing of the injured region.

(189) Cured Laryngeal Tuberculosis.

A. Rosenberg (*Berl. klin. Woch.*, February 18th, 1895) brought the following case before the Berlin Medical Society: The patient, a man aged 29, had experienced pain in swallowing for some months in 1887. On laryngoscopic examination both vocal cords, both ventricular bands, and the posterior wall of the larynx were seen to be ulcerated, and in the secretion taken from these parts tubercle bacilli were found. The patient was treated with injections of menthol in oil, and later on in the same year appeared to be cured. An examination nearly 8 years afterwards confirms this, scars being seen in the position of the old ulceration. The cure is the more remarkable, as the patient is a poor private teacher, and, being obliged to give private lessons to earn his living, has not been able to rest his larynx properly.

MIDWIFERY AND DISEASES OF WOMEN.

(190) Salipyrin in Uterine Hæmorrhage.

Orthmanns, of Martin's Clinic (*Berl. klin. Woch.*, February 18th, 1895), has used this agent in some 50 cases. It was given in doses of gr.j thrice daily. When possible the remedy was administered for a couple of days before the expected hæmorrhage. No unpleasant effects were ever noted and no increase in the hæmorrhage. Other measures were, when possible, suspended during the use of the drug. Thirty-two of these cases were followed for several months and carefully observed. In 14 cases of marked menorrhagia without obvious local disease, no improvement was noted in 5, whereas in 7 a marked diminution in the hæmorrhage occurred, and in the remaining 2 the effect was very beneficial. Pain when present was also relieved. In 3 cases with disease of the appendages, the drug was quite useless in 1 and efficient in 2. In 4 cases with accompanying perimetritis and oöphoritis the effect of salipyrin was not very marked, only a temporary improvement being noted in 2. One

of these patients took large quantities of salipyrin, perhaps at times a little irregularly. In 4 cases of endometritis hæmorrhagica after delivery or abortion the effect was favourable. In 7 cases of hæmorrhage after ovariosalpingotomy the results were not very favourable. This peculiar form of hæmorrhage is not so very uncommon after removal of the appendages. In 2 cases the tubes and ovaries were removed from one side only, and perhaps the hæmorrhage was due to disease on the other side. In the 5 remaining cases the appendages were removed from both sides. In 2 of these cases total extirpation of the uterus became eventually necessary after all other methods of treatment had been exhausted. In 4 of these 7 cases salipyrin had no effect whatever, in 1 there was considerable improvement, and in the 2 remaining cases a good effect was obtained. The author concludes that in some cases salipyrin has unquestionably a favourable effect. Out of 32 cases, improvement was noted in 20, the best results being obtained in menorrhagia after abortion or delivery. Further researches are desirable.

(191) Death from and after Post-Partum Hæmorrhage.

Tarnier (*Jour. des Sages Femmes*, February 1st, 1895), teaches that flooding after the application of the forceps must always be expected, since the instrument is usually employed because of uterine inertia, a source of hæmorrhage. The danger comes when the placenta is expelled. Tarnier, when called to apply the forceps for a colleague in private, used to leave before the delivery of the placenta. In consequence he was very often called back. He makes these observations in respect to a robust woman who suffered from uterine inertia, and was delivered by forceps. There was considerable flooding, but not so much as to lead to expectation of bad results. The patient went to sleep, but awoke a few hours later and complained that she was suffocating. There had been no fresh hæmorrhage. She very soon died. At the *post-mortem* examination miliary tubercle was found disseminated in abundance over the lungs, pleura, liver, and spleen. There was no evidence of insufficient blood in the system, no embolism, and no blood retained in the uterine cavity. The previous flooding, quite insufficient to harm a sound constitution, proved enough to kill this patient. Yet externally she looked healthy. We must be slow, says Tarnier, to find fault with a colleague for losing a patient after flooding. Had the above case occurred in private, and no necropsy held, the obstetrician would certainly have incurred more blame than he deserved.

(192) Sudden Death on the Eleventh Day after Hysteropexy.

Talley (*American Gynec. and Obstet. Journ.*, December, 1894), relates that on October 11th, 1894, abdominal section was performed on a single woman, aged 25, for chronic pelvic trouble. The uterus was found anteflexed, retroverted, and fixed. Both ovaries were prolapsed, large, and tender, and bound down by inflammatory adhesions. The fundus was freed from its bonds, and fixed in the lower angle of the wound by two fine sutures. The ovaries were also detached from their adhesions; the Fallopian tubes on both sides were apparently healthy. The uterus and ovaries were dotted over with miliary tubercles. The patient did very well until the eleventh day, when she was seen to throw up her hands, and to pass through a kind of epileptic fit. The resident physician found her cyanosed, with Cheyne-Stokes respiration. The pulse was 80, and strong. The patient was conscious, and exclaimed that she was about to die. In six minutes from the onset of these symptoms respiration ceased, the heart continuing to beat for several minutes. Artificial respiration proved unavailing. No necropsy was allowed, but the wound was opened, and the parts around seemed healthy. The tubes were free from tubercle. Hence, Talley observes, tuberculous pelvic peritonitis may occur without apparent affection of the tubes, usually said to be the source of the disease.

(193) Induction of Premature Labour in Contracted Pelvis.

Beuttner (*Archiv f. Gynäk.*, vol. xlviii, part 2, 1895) strongly favours this practice, and supports his opinion by valuable and well-analysed statistical tables. The question of induction of premature labour is not, he thinks, much influenced by the number of pregnancies through which the patient has already passed. The course of a previous pregnancy has little to do with the difficulties faced when labour should be induced. A conjugate of from 3 $\frac{7}{10}$ inches, (10 cm.) is no contraindication to induction of labour; decision rests, of course, not on great mechanical difficulties, but on a trifling misproportion between the pelvic measurements and the fœtal head. Whenever the head has grown just large enough and not too large to pass through the outlet when pressure is applied from without, under anæsthesia, if necessary, labour may be induced. The presumable stage of the pregnancy does not bear a reliable ratio to the degree of development of the fœtus; careful exploration is better than calculation. Fehling's opinion that in the lesser degrees of contraction spontaneous delivery gives better results than induced premature labour is not supported by Beuttner's experience. The puerperium is not unfavourably influenced by induction of labour.

THERAPEUTICS.

(194) The Uses of Aristol.

Gevaert (*Flandre Médicale*, February 21st, 1895) gives his experience of the use of aristol. Aristol, which is an iodine derivative of thymol, is a reddish inodorous powder, insoluble in water and glycerine, little soluble in alcohol, but soluble in ether and fatty oils. It has been used with success by Eichhoff in cases of psoriasis, lupus, parasitic cutaneous affections, and tertiary syphilitic ulcerations. In lupus it is said to have given good results, and even to have a specific action on the tubercle bacillus. Ethereal solutions of 10 per cent. sterilise all cultures of microbes excepting the anthrax bacillus and the micrococcus tetragenus. Its insolubility renders its use limited to the same extent as iodoform, over which it has the advantage of producing no toxic effects. It can be used as an ointment of 10 per cent. strength, made with olive oil and vaseline. Gevaert has used it with good effect in lupus combined with curetting, and quotes a severe case which he treated in this way which healed in five weeks, and has remained healed ten years afterwards. He also recommends it in suppurating bony cavities, and in otorrhœa with large perforation of tympanic membrane. In cases of otorrhœa with small perforations it is dangerous, from the liability to block up the perforation and cause accumulation of pus in the middle ear. It is also recommended in burns.

(195) The Formation of Phenyl Sulphuric Ether and the Treatment of Carbolic Acid Poisoning.

It has been shown by Baumann that carbolic acid, when absorbed, unites with sulphuric acid in the system and forms phenyl sulphuric ether; also the use of sulphates has been advocated in carbolic acid poisoning. Pio Marfori, in the *Archives Italiennes de Biologie*, tome xxii, Fasc. II, records the results of a number of experiments made on animals in order to determine: (1) the quantity of phenol tolerated by the organism and the amount of phenyl sulphuric acid which can be formed; (2) the quantity tolerated when sulphates are administered simultaneously, and how much phenyl sulphuri is then formed. These substances were administered by intravenous injection, and the sulphate used was ammonium sulphate. The author found that the tolerance for carbolic acid increased with the weight of the body of the animal. The quantity of phenyl sulphuric ether formed—estimated by the amount of this substance in the urine—almost always remained much below that which would correspond to the phenol injected. Dogs were able to tolerate large doses of carbolic acid when ammonium sulphate was administered at the same time. The quantity of phenyl sulphuric ether formed when carbolic acid and sulphate of ammonium were injected together was greater than when carbolic acid was injected alone. The sulphuric acid of the sulphate injected serves in part for the formation of phenyl sulphuric ether. A large portion of the phenol, however, does not combine with the sulphuric acid. There exists, then, a limit in the capacity of the organism for the formation of phenyl sulphuric ether. As the tolerance for carbolic acid is increased by the presence of sulphates in

the organism, the latter ought to be used as antidotes in cases of carbolic acid poisoning, though their action is very limited.

(196) Sulphuretted Hydrogen in Dilated Stomach.

Boas (*Centralbl. f. inn. Med.*, January 19th, 1895) says that in his experience sulphuretted hydrogen is most frequently present in gastric dilatation of simple origin, whereas in that secondary to malignant disease it is practically always absent. The formation of the gas is quite independent of hydrochloric acid. It depends upon some constituent of the food at present unknown. The author has never found it present except in mechanical insufficiency in the stomach, unless in acute errors of diet, when it has been temporarily observed. There is an antagonism between sulphuretted hydrogen and lactic acid formation; the author has never found them together. Thus in simple dilatation hydrogen, marsh gas, carbon dioxide, nitrogen and sulphuretted hydrogen predominate, whereas in malignant disease gas formation is almost always absent, at least in the later stages. Sarcinæ, almost always present in simple dilatation, are almost invariably absent in that due to malignant disease, at least in the presence of lactic acid. The author calls attention to a thread-like bacillus occurring in the stomach contents in the latter disease. As malignant disease may supervene upon other gastric lesions, or may behave in the beginning like benign gastric disease, exceptions to the above-named relations may be noted. Malignant disease thus gives rise to decomposition products quite different from those found in simple dilatation.

(197) Rare Form of Antipyrin Rash.

In *La Presse Médicale* of February 16th, a rare eruption caused by antipyrin is recorded. The patient, aged 30, and very fat, was seized with violent, even unbearable, pains in the head whilst at his doctor's residence, for which 15 grains of antipyrin were given. His urine contained a little sugar (225 grains in the twenty-four hours) and traces of albumen. He also presented an old and obstinate psoriasis in the seborrœic regions (scalp), scrotum, gluteal folds, palms of the hands, umbilicus, etc. Exactly four to five minutes after the ingestion of the remedy he was seized with tinglings over the whole body, then a most intense intolerable itching with desire to scratch himself. His face became red, his eyes filled with tears, a keen sensation of heat was experienced, his pulse noted 120 to 130 pulsations, at the same time red patches appeared on his neck, then on his back. On the morrow, after a sleepless night, there was the same febrile state, the same pruritus. The eruption at its height consisted of a collection of plaques of a bright inflammatory redness, scattered at all points of the body, without special localisations, without marked symmetry. In general round in shape these plaques were mostly of the size of a 5-franc piece. They formed a slight relief, and in their neighbourhood the skin was perceptibly hotter. Taken between the finger and thumb these lesions, in no way painful, gave the sensation of a pretty deep thickening of the skin; their evolution was rapid. On the second day after the febrile state had disappeared, the itching diminished progressively, to disappear on the eighth day. Most of the plaques grew pale, became covered with slight scales, and disappeared in fifteen days. Some of the largest ones presented in their centre an epidermic upheaval (abortive bulla), and were a little longer in disappearing. The patient afterwards stated that years before a dose of antipyrin had given him similar trouble. The eruption described differed from a nodose polymorphous erythema in the abruptness of the onset, the tingling and pricking over the whole cutaneous surface, in the itching preceding the eruption, and in the eruptive elements being more numerous, less prominent, painless, and with rapid evolution.

(198) Poisoning by Drugs.

Finz (*Berl. klin. Woch.*, January 21st, 1895) speaks of poisoning by drugs administered by the rectum. He refers to cases of poisoning by corrosive sublimate, opium and chloral, morphine, chloral, carbolic acid, and atropine. The sublimate and carbolic acid were both used as vermicides. In all the cases the dose of the agent employed was large. The medico-legal aspect of such cases is obvious. The vagina probably absorbs less readily than the rectum, yet cases of poisoning have also been recorded here. Recently it has been shown that potassic iodide, iodoform, salicylic acid, salol, antipyrin are absorbed from the vagina, and that during pregnancy, the puerperium, and fever this power of absorption is increased. Agents administered *per rectum* or *per vaginam* should of course be classed as internal remedies, and not as external ones. The same caution is used in injections into the bladder or uterus.

PATHOLOGY.

(199) The Tubercle Bacillus.

Coppen Jones (*Centralbl. f. Bakt. und Parasitenkunde*, Nos. 1, 2, and 3, 1895), gives a detailed account of the morphology of the tubercle bacillus, and discusses its biological position. In the tissues and secretions the tuberculous organism occurs chiefly in the form of shorter or longer bacilli, which multiply by transverse segmentation; but sometimes in the secretions (sputum), and always in old agar cultivations, filamentous forms appear, which are not segmented, and which also present true branches. By sections of cultures embedded in paraffin, the author has shown that the filiform variety of the tubercle bacillus occurs only on the surface of the culture. In the deeper parts, as in the tissues and in fluids (that is, in situations where the supply of oxygen is prevented), short rods are found. In the bacilli, as well as in the filaments, there are formations which possess many of the physical characters of spores, but which differ in various respects from the typical endospores of bacilli. The author describes peculiar bodies which he has found under certain conditions in the closest proximity to the tubercle bacilli, and which resemble the "clubs" of the actinomycosis fungi. The polymorphism of some of the higher fungi is referred to, and a number of observations are mentioned, which tend to show that bacteria, formerly looked upon as monomorphic, are only stages in the development of more complex forms. The author thinks we ought to hesitate, before accepting the common view that the excitor of tuberculosis is a parasitic organism, which is transmissible only from animal to animal, and which is without vegetative existence external to the animal body.

(200) The Incubation of Erysipelas.

H. Roger (*La Presse Méd.*, February 9th), after remarking that so-called idiopathic erysipelas cannot serve to solve the problem of the incubation period, gives a table of 41 cases occurring secondary to traumatism. Five cases presented an incubation of from 7 to 18 hours, 5 of 24 hours, 9 of 1 to 2 days, 8 of 2 to 3 days. His conclusion is that an incubation of a few hours only is much more common than is generally stated in standard works. At the same time the fact that the incubation period may extend to three weeks is undoubted. These prolonged periods of latency Roger would explain by supposing that the streptococci gain an entrance at the time of traumatism either from the wounding agent or integuments, and that a passing depressant influence, such as exposure to cold or a draught, lowers the resistance of the organism and enables the streptococci to become pathogenic. As to the incubation being as short as 7 or 8 hours, several very striking instances were observed by him. Experimental inoculation of cultures on a rabbit's ear gave also short periods, usually 24 to 48 hours; in 2 cases, however, it reached 11 days. Roger observed no relation between the duration of incubation and the severity of the erysipelas. One patient only out of the 41 died; in his case incubation lasted 8 days. In 2 other severe cases the incubation was in one 12 hours, in the other 8 days. The duration of incubation may be very short, from two very different conditions: in the first case from the virulence of the microbe and the rapidity of its development, and in the second because the organism is gifted with a high reactional power. Here the bactericidal serum and phagocytes arrive early, and triumph more easily over the microbes which have already developed. The duration of incubation and gravity of infection were in no way influenced by sex or age, by the general condition, or by previous diseases.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(201) Subphrenic Abscess.

Buttersack (*Münch. med. Woch.*, February 5th, 1895) relates a case successfully treated by operation. A patient, aged 28, who had suffered for some years from gastric symptoms, was suddenly seized with severe pain in the abdomen, followed by vomiting and collapse. On the next day there were symptoms of peritonitis. A fortnight after the onset the patient was very ill. The region between the umbilicus and the ensiform cartilage was much distended and tympanitic. To the left side of the hyper-resonance there was decided dulness, and fluctuation could be made out. There was impaired percussion and absence of breath sounds over the lower part of the left chest. The diagnosis was made of a limited suppurative peritonitis with the presence of air, due in all probability to a perforated gastric ulcer. Two litres of thin pus, with stinking gas, was evacuated by Mandry by incision. The abscess cavity communicated with the left chest. Later the left chest had also to be incised. As the discharge from the abscess cavity still continued offensive, the patient was treated by prolonged medicated baths (potassic permanganate) lasting from two hours and a-half to eight hours. Later the expectoration became purulent and offensive, and the creoline used for washing out the wound produced coughing, and the patient could smell it distinctly in the nose. The patient eventually made a good recovery. Four months later the pain had disappeared entirely, the digestion was greatly improved, and she had gained considerably in weight. The author thinks that the perforation must have been very small here. These air-containing subphrenic abscesses bear a great resemblance to pneumothorax. Besides this resemblance they may extend through the diaphragm. The author discusses the question as to whether in this case the abscess ruptured directly into the lung, or whether the empyema appeared first, and subsequently burst into the lung. Although puncture has been recommended in some of these cases, incision is certainly preferable. Whether resection of a rib, as in this case, will be necessary must depend on the case itself.

(202) Early Diagnosis of Carcinoma of the Stomach.

Stewart (Philadelphia *Med. News*, February 17th, 1895) gives a short account of the recent work on this subject by Boas, and confirms the latest results of this observer by his own observations. It was formerly stated by Ewald and Boas that lactic acid fermentation occurs regularly in normal digestion, but more recently Martius and Lüttke showed this to be erroneous. Boas then found that lactic acid was contained in all products of the bakery, and hence was contained in the "trial meals" used in the experiments. He therefore used a trial meal of flour soup (half an ounce of oatmeal to a litre of water), free from lactic acid, after previously washing the stomach. It was thus shown that lactic acid does not occur normally in digestion; also that it is absent in all affections of the stomach except carcinoma. In carcinoma it is moreover present in the early stages before a distinct tumour is felt, and hence when the case is favourable for operation. The detection of lactic acid at this stage is, therefore, most important in diagnosis and treatment. Uffelmann's test (canary yellow colour with perchloride of iron) is not satisfactory, because other substances (acid phosphates, sugar, alcohol, and tartaric acid) give a more or less yellow colour with this test. Boas used the following test: When a substance containing lactic acid is heated with oxidisers such as manganese dioxide and sulphuric acid, the lactic acid is decomposed into formic acid and acetic aldehyde; the latter is detected by the formation of iodoform with an alkaline solution of iodine; ketone and alcohol, which react similarly, are eliminated by concentrating the filtrate to a syrup. As carbohydrates also yield aldehyde when treated with oxidisers, a watery solution of an ethereal extract of the condensed gastric filtrate of a trial meal free from lactic acid must be used.

(203) Nitrobenzol Poisoning.

W. Schild (*Berl. klin. Woch.*, March 4th, 1895) gives 6 cases of nitrobenzol poisoning. Nitrobenzol is used in perfumery as a substitute for essence of bitter almonds. It is very poisonous, and 20 drops have been known to cause death. By timely treatment, however, recovery has taken place after much larger quantities. Lewin collected 51 cases, showing a mortality of 37 per cent. Amongst cases published since those of Lewin, 5 cases published by Von Buschow were due to drinking brandy containing an uncertain admixture of nitrobenzol; 2 of these cases were fatal, the other 3 resulted in recovery. All Schild's 6 cases occurred in females: 2 of them took the poison with suicidal intent, but both recovered: the other 4 wished to produce abortion, which actually occurred in 3 of them, who recovered, and might have occurred in the fourth case if death had not taken place too quickly. Nitrobenzol has therefore, not without some ground, the reputation of a means to procure abortion. Schild points out that no conclusion can be drawn from the doses taken, first because the amount was vaguely expressed, and secondly because vomiting nearly always took place soon after taking the poison. Besides the usual symptoms—vertigo, headache, vomiting, smell of the breath, cyanosis, dyspnœa, sopor, loss of reaction in the pupils, trismus, etc.—the following points are noteworthy: In 3 cases temporary increased knee-jerks and ankle clonus were noticed. In 3 cases some jaundice appeared on the third or fourth day. Lastly, note is made of fever occurring at about the same time, and of the appearance of albumen in the dark brown urine, which also smelt of nitrobenzol. Treatment consists of washing out the stomach, artificial respiration, and the various kinds of stimulation. In cases of deep sopor and where the respiration is much affected, a bath with cold water douche is recommended.

(204) Paralysis following Tonsillitis.

In support of the statement that paralysis similar to that following diphtheria may arise subsequently to other forms of sore throat, the following cases are recorded by Bourges (*Arch. de Méd. Expériment.*, January, 1895): A child, aged 7, was attacked with sore throat, pyrexia, etc. There was no membrane, and the illness subsided in twenty-four hours. About a fortnight later he was again attacked, and this time distinct false membrane appeared on the fauces, but not for three days was there any lividity of the neighbouring parts. The glands in the neck were swollen. There was no albuminuria. A few days later the mother, who had constantly nursed the child, was also attacked with sore throat, and membrane formed on the right tonsil. The membrane in each case was examined, cultures made, and mice inoculated. None of these showed the Loeffler bacilli. Various streptococci and staphylococci were found, and some small bacilli staining by Gram's method. About six weeks from the last attack of sore throat the child developed convergent strabismus, paralysis of the soft palate, loss of power in the limbs, and general weakness.

SURGERY.

(205) Castration for Prostatic Hypertrophy.

The *Norsk Magazin for Lægevidenskaben* for January, 1895, contains two contributions to this subject. Ramm, who was one of the first to advocate this method, has performed the bilateral operation five times successfully. Considering the risks of catheterisation in the patient's own hands, the author considers the operation quite justifiable, especially in thinly populated districts (the author resides in the most northern county in Norway) where it may be quite impossible for the patient to get timely medical aid should he fail to pass the catheter himself. But having noticed on three several occasions after unilateral castration for various causes that the corresponding half of the prostate had become distinctly atrophied, Ramm suggests that in cases where an asymmetrical hypertrophy can be distinctly diagnosed, it would be more conservative to excise only the corresponding testicle at first. Of the five cases only the last operated on is re-

ported in the present publication. This was the case of a man, aged 57, who had had difficulty in micturition for eight to ten years, and absolute retention for about ten days before he came under observation. This had been relieved by catheterisation by a medical man. The patient himself was unable to pass the catheter. He was found to have a symmetrically enlarged prostate, a dilated bladder, and severe cystitis. The bilateral operation was performed: the testes contained living spermatozoa. In spite of the obstinate cystitis, the patient on leaving the hospital about a month and a half after the operation could retain his urine many hours; he only passed water from four to seven times during the twenty-four hours. The prostate was considerably smaller and flatter. When seen five months later he had resumed his work as a fisherman, and had had no difficulties in urination since leaving the hospital.—Koren and Koren, jun. (*loc. cit.*) report the following case. A man, aged 63, had for about a year suffered from symptoms of prostatic hypertrophy, including constipation. The prostate projected considerably into the rectum: it measured 4 cm. in height, and about 6 cm. in breadth. Double castration was performed. During the first fortnight after the operation the bladder had to be emptied by the catheter; micturition did not occur spontaneously until the fifteenth day, although a diminution in the prostate (3 cm. by 4 cm.) was noticed on the seventh day. The catheter was used for some time after micturition had returned, on purpose to measure the residual urine. This decreased during the consecutive three months from 880 c.cm. to 15 c.cm. At the end of this time the prostate measured only 2 cm. by 3 cm., and the patient was relieved from all his symptoms, including the constipation.

(205) Section of the Trigeminal Nerve for Neuralgia.

Tansini, of Palermo (*Rif. Med.*, November 12th, 1894) reports the following case: A man, aged 67, who had suffered severely from malaria in childhood was seized some eight years before coming under observation with violent pain affecting the whole of the right half of his face; the attacks lasted a few seconds, and came on once every two or three days. Gradually they became more frequent, till two years ago they occurred so often that the patient had only a few minutes' freedom from suffering during the day. In 1893, the patient came to the Medical Clinic and was treated first with quinine and then with arsenic, but without benefit. He was then transferred to the Surgical Clinic where marked relief was given by the application of the continuous current in the course of the branches of the trigeminal. Some time afterwards, however, the pains returned worse than before, and the patient was readmitted to the Clinic in a state of great suffering, wasting, and exhaustion. The attacks were then so frequent as to be almost continuous. The painful points corresponded to the supraorbital, infraorbital, and mental foramina. Every attempt at mastication or speech brought on a paroxysm. Stretching of the facial nerve by Hueter's method was first tried, but with only the slightest and most transient benefit. Tansini next performed neurectomy of the branches of the trigeminal at their points of issue, followed by the application of the actual cautery to the central stump, reserving the more serious operation of neurectomy at the base of the skull for the event of this procedure proving inefficient. The operation was completely successful, and up to the date of report (about six months after the operation) there had been no return of the pain. In two other cases of a similar nature Tansini adopted the same treatment with equal success, the patients having remained for four years in perfect health and free from pain.

(207) Remote Results of Removal of the Gasserian Ganglion.

E. Doyen (*Flandre Méd.*, No. 3, 1894) reports the remote results of section of the trigeminal nerve in the case of a woman on whom he operated more than a year ago. He performed intracranial section of the trigeminal, and total ablation of the Gasserian ganglion. The patient is now perfectly well, suffers no pain, and presents no appreciable symptom except insensibility of the cornea and of one-half of the face. There are no trophic disturbances; the function of the eye on the side operated on is absolutely intact; vision is perfect.

(208) Suppurative Arthritis in Infective Diseases.

Mauclaire (*Arch. Gén. de Méd.*, February, 1895) deals in this number with the following cases: (1) Acute rheumatism: Pyarthrosis has been reported, but it is probable that the suppuration was due to a secondary infection. True articular rheumatism must be distinguished from the pseudo variety. (2) Pseudo-rheumatism: In this class the author places cases in which the joint affection is the first local manifestation of the general infection. Sometimes these infections are intense and the lesion multiarticular; sometimes less intense, only one joint being involved; or the infection may be very attenuated, the joint lesion being periarticular in character. In this group should be placed the suppurative arthritis sometimes seen in the first few years of life without previous illness. Acute articular rheumatism, epiphysial osteomyelitis, tubercle, and syphilis must be excluded. Usually one joint is affected. The prognosis is favourable in these children under proper treatment. Suppuration in the pleura and pericardium has, however, been noted. (3) Gonorrhœa: The author says that at the present time it is difficult to say whether the distant lesion is due to the gonococcus, toxins, or a secondary infection. Sometimes the general manifestations of gonorrhœa are slight, sometimes they may be severe, resembling typhoid fever. The lymphatic system plays an important part in propagating the disease. These joint affections have by some been attributed even to a spinal cord lesion. Suppurative arthritis occurs in the acute stage of gonorrhœa, but sometimes later in neglected cases.

(209) Primary Syphilitic Sore of the Tonsil.

Fournier (*Bull. Méd.*, Nos. 9 and 10, 1895) says that syphilitic ulcer of the tonsil ranks third amongst the ulcers of the mouth, having recognised it in 40 per cent. of his cases. The sore is generally single, and covers the whole tonsillar surface, occasionally extending to the pillars of the fauces and base of the tongue. The right tonsil is said to be affected more frequently than the left. The erosive form is the most common, giving rise to few symptoms or signs—only slight redness, swelling, and superficial erosion of the tonsil. The ulcerative form gives rise to more decided disturbances—pain, dysphagia, reddish brown, grey, or yellowish ulcers, with considerable induration of the whole tonsil. The anginal form is the least frequent, and shows itself as a tonsillitis with ulceration, much pain and dysphagia, and some general disturbance of the system. In addition to these three forms, or rather graver developments of the same, a diphtheritic and a gangrenous form are met with in rare cases. In the differential diagnosis of these ulcers, as well as the initial syphilo-sclerosis of the tonsil without ulceration, the chief points to bear in mind are the character of the associated adenopathy, the persistency and one-sidedness of the lesion, and the time of appearance and course of the disease. Benign cases usually last about five weeks; graver forms may continue for two months or more.

MIDWIFERY AND DISEASES OF WOMEN.

(210) Symphysiotomy.

At the meeting of the Italian Obstetrical and Gynæcological Society held in Rome last autumn (*Rif. Méd.*, November 12th, 1894) Lauro reported two cases in which he had performed symphysiotomy. One of the patients was a woman in whom cephalotripsy had previously been performed on account of pelvic deformity (C. V. 87 mm.). On the present occasion the fœtus presented transversely in the second position. The author first attempted to perform cephalic version by external manipulations, intending then to apply forceps. Failing in this, he performed symphysiotomy, and afterwards podalic version; in this way he saved mother and child. In twelve days the mother was quite well and able to leave the hospital. No details of the other case are given. In the discussion which followed, cases of symphysiotomy performed under conditions similar to those described by Lauro were reported by Guzzoni, Pazzi,

and Bompiani. Bordé thought that to justify symphysiotomy the narrowness of the pelvis should be less than it was in the case reported by Lauro. With a C. V. of 87 mm. the fœtus might have been delivered alive without symphysiotomy; in such a case he would have performed podalic version.

(211) Curetting the Uterus in Retained Placenta.

Oui, of Bordeaux (*Annales de Gynéc. et d'Obstét.*, February, 1895), comments on eight cases of curetting for the removal of placental relics after abortion. The cases all recovered, but Oui bids us remember that certain adjectives applied to the curette by its opponents are not entirely undeserved. The curette has been called "blind." The *cri utérin* is not trustworthy; Oui declares that it is sometimes heard when the instrument is scraping the surface of placental tissue. It is "unreliable." In two of Oui's cases portions of placenta were left behind, so that a fresh scraping was found necessary. It is "dangerous." This is true; in many cases the operator has poked a hole through the uterus. These objections, however, apply to any other surgical instrument unskilfully used. The operator need not be blind, his finger possesses a sense denied to steel instruments. He must not rely on the curette, and he must use it gently. Two conditions are needed to ensure safety and efficiency when the curette is used. The cervix must be well dilated, and the uterine cavity well explored by the finger. Chloroform is needless, except for very timid women; the curette gives less pain than is felt by the patient during manual extraction. A cutting, not a blunt, curette should be used. Oui finds the irrigating curette clumsy. Swabbing with creasoted glycerine or iodine and intrauterine injections are needed whenever the curette is used, and after the swabbing the uterus and vagina must be plugged with iodoform gauze.

(212) Normal Expulsion of Placenta: Duncan or Schultze?

Teuffel (*Monatschrift für Geburtshülfe u. Gynäk.*, February, 1895) reports 25 cases in which he allowed the placenta to be expelled spontaneously. He made these observations in order to determine the truth of the theory that the placenta is rolled up by the uterine contractions on an axis corresponding to the long axis of the uterus, so as to present by its lower margin (Matthews Duncan) and of the other theory that, especially when the uterus is inert, the placenta is inverted and comes out with its fœtal surface foremost (Schultze). Teuffel noted that in 13 cases the placenta was completely inverted, in 8 not inverted (Duncan's theory), and in 4 incompletely inverted. In all the 8 which were expelled in the manner Matthews Duncan held to be normal the rent in the membranes lay close to the border of the placenta. In the 13 cases of inversion the rent was found to be central (that is, opposite or as far as possible from the placenta) in 9; in 3 the tear in the membranes was between the centre and the placental margin. In only 1 were the membranes torn close to the margin. In the 4 cases of incomplete inversion the tear was never central, but eccentric in 3 and marginal in 1 case. Teuffel sees cause in the site of the rent and effect in the manner of expulsion. When the after-pains set in the placental site is lessened, the placenta thickened, and if the marginal attachment of the membranes be intact the placenta is pressed forwards, assuming a spherical form. The inverted position of the expelled structure is thus assumed, no effusion of blood is necessary to cause it or to hasten expulsion. When the membranes are rent close to the margin of placenta the latter meets with no resistance, so that its edge at the site of laceration is pushed down and takes the lead, after Duncan's fashion. It is evident that any pressure or kneading of the obstetrician's hands on the outside of the uterus tends to expel the placenta in Duncan's manner, as the edge of the structure at some point or other is certain to be pushed forward. Hence Fehling's results, which favour this method of expulsion.

(213) Living Premature Infants.

Villemin (*Annales de Gynéc. et d'Obstét.*, February, 1895) read notes last autumn at a meeting of the Paris Obstetrical Society, on a child which at that date was thirty-one months old, and of a fine physical and mental development. It was delivered at 5½ months, or at the longest computation at the 6th month. It weighed at birth less than 2 lbs. (950 grammes). By aid of the *couveuse* and the most careful feeding it was successfully reared. Maygrier declared that he had in one of his wards a six months' child a week old; it weighed only 770 grammes, or under 1 lb. 12 oz., but it seemed to be sinking. Budin observed that he had known 6½ months' babies to live for a day or two. The respiration was almost purely bronchial, the lungs did not float, and the vesicles were found full of epithelial cells. It is easy to believe that a strong premature infant could succeed in clearing the pulmonary vesicles and live. Charpentier had successfully reared an infant which weighed less than 2 lbs. 5 oz. at birth.

(214) Axis-Traction Forceps in Midwifery.

McGillicuddy (*Amer. Journ. Obstet.*, February, 1895) recently exhibited at a meeting of the New York Academy of Medicine an axis-traction forceps which he had contrived six years ago, and used since with entire satisfaction. It consisted of a Simpson forceps, with short handles made to project at a right angle to the longer angles when the instrument was used for axis traction. The extra handles were simply folded on the others when the instrument was employed as an ordinary forceps. He had contrived this modified forceps after a visit to Paris, where he learned that the Tarnier forceps had been practically discarded even by Tarnier himself. McGillicuddy attributed its disfavour to faulty construction, and not to any evil in axis traction. Tacker remarked that he had discarded this kind of forceps after some experience; the instrument was clumsy, and axis traction could be made just as well by ordinary forceps. He objected to the application of the term to any particular forceps, since it simply meant traction in the axis of the parturient canal. This was the only kind of traction that should ever be made by any instrument whatever. In agreement with McGillicuddy he thought that it was entirely unnecessary to make so great an amount of traction as required the obstetrician to brace himself against the bed. He should be strong enough to extract with one hand by firm traction. It was a mistake to try to deliver the child at once directly the forceps was put on. If time were given for moulding the head, and traction made only during uterine contraction, delivery would take place easily. Tacker had taken as long as fifty minutes, during the first thirty of which there was no advance the head simply moulding itself.

THERAPEUTICS.

(215) Tetanus Antitoxin in "Kopftetanus."

G. Caretti (*Rif. Med.*, January 17th, 1895), reports the following case: On September 8th, 1894, he was called to a peasant woman, aged 44, who had fallen from a cart on her head. He found a lacerated contused wound on the forehead, extending down to the bone, to which an improvised dressing of dirty rags had been applied. There was slight swelling for about a centimetre around the edges of the wound. He carefully disinfected the part with sublimate solution (1 in 1,000), put in three carbolised silk sutures, and applied an antiseptic dressing. On the following days the inflammation of the neighbouring parts increased, and œdema developed on the eyelids and cheeks. This was relieved by squeezing out a little pus at one of the points of suture, and by the seventh day, when perfect union of the wound made it possible to remove the sutures, it had almost entirely disappeared. On the previous day (sixth since the injury) the patient had noticed a certain difficulty in opening her mouth, and transient pains with slight contractions of the masseter muscles. Recognising that the symptoms pointed to the onset of tetanus, the author prescribed a draught of 4 grammes of chloral and bromide of potassium, half to be taken at once, and half the following morning. On September 16th the trismus had reached such a degree that only a coin about the size of a threepenny-piece could be passed flatwise between the teeth. A supply of antitoxin was at once procured from Dottoressa Cattani, and a dose of 2.25 grammes dissolved in 25 grammes of sterilised water was injected under the skin of the abdomen on September 16th. On the following morning the trismus was somewhat less, but slight contrac-

tions of the muscles at the back of the neck were noticed. Antitoxin was injected as before. On September 18th the general condition was satisfactory, but the lockjaw was complete; an injection of 1.10 gramme of antitoxin was given. The symptoms being somewhat worse on the evening of the 18th, another injection of the same amount was given. The patient was able to take liquid nourishment by sucking it through an aperture between the teeth formed by the powerful retraction of the lower jaw. The movements of the tongue and of deglutition were performed without difficulty. Another injection of 1.10 gramme was given. The patient suffered from sleeplessness and complained of severe pains in the head and along the masseter; there was facial paralysis on both sides. The temperature was not raised, and consciousness was undisturbed, and apart from the lockjaw and facial paralysis the patient was fairly well in herself. She remained in much the same condition until the beginning of October, when she began slowly to improve, but it was not till the middle of that month that she was able to open her mouth sufficiently. On November 3rd the author was able to announce to Professor Tizzoni that the patient was completely cured. He points out that the progress of the disease was checked immediately after the administration of the antitoxin was begun; although on September 17th there was some appearance of the posterior muscles of the neck being invaded, this soon passed off. The author attributes the fact that no spasm of the pharyngeal muscles occurred to the remedial influence of the antitoxin. He refers to another case of "kopftetanus" reported by Giusti and Bonajuti in the *Gazzetta degli Ospitali*, No. 56, 1894, which was cured by Tizzoni's antitoxin.

(216) Adeps Lanæ as a Basis for Ointments.

Unna (*Monats. f. p. Derm.*, December 15th, 1894), as the result of experiments extending over two years, now uses adeps lanæ instead of lanolin as a basis for ointments. Like lanolin, adeps lanæ is a cholesterin fat, but softer. As a basis for fatty ointments, cold creams, pastes, and salves, it is at least equal to lanolin. In the preparation of Unna's plaster mulls the substitution of adeps lanæ for lanolin is of decided advantage; the plaster mulls made with lanolin generally become hard, whilst those made with adeps lanæ do not. Salves to be applied to mucous membranes — urethra, conjunctiva, nasal mucous membrane—are better if made with the softer adeps lanæ. The latter has no irritating properties. As examples of the modes of prescribing it, Unna gives the following formulæ: R Adipis lanæ, 10.0; ol. amygdal. (vaselini) 5.0; aq. flor. aurant. 10.0. M. to make a cold cream. R Sublimat., 1.0; adipis lanæ, 66.0; ceræ, 33. M. to make a sublimate salve. R Zinci oxydat.; sulph. præcip; terræ siliceæ; adipis lanæ, āā 5.0; ol. olivar., 10.0; aq. destill., 20.0. M. to make a paste.

(217) Ferripyrin.

Ferripyrin (*Therap. Monatsh.*, February, 1895) is a new drug recently prepared and introduced by Witkowsky, being a combination of iron perchloride and antipyrin. It is an orange-coloured readily soluble powder, recommended both as a hæmostatic and a local astringent. Hedderich has already made investigations as to its practical usefulness, obtaining very good results, and finding it different from the more generally used perchloride of iron in being absolutely non-irritating and non-destructive to tissues. When applied to the nasal mucous membrane it is also proved to be a mild anæsthetic. A solution, 1.8 to 2.0 per cent. in strength, was usually employed, but the powder itself could also be applied. Its use in gonorrhœa and internally in cases of hæmatemesis is also suggested.

(218) Treatment of Cyanide Poisoning.

Antal (*Physiol. Studien aus d. Univ. Budapest*, 1895) observes that although the cyanides are the strongest of poisons, yet the rapid form of death only occurs in a small proportion of cases of poisoning by them. Atropine recommended by Preyer against the remote effects has given negative results. Potassic permanganate used by Kossa is perhaps the most efficient of chemical antidotes, yet it also is useless when the poison has got into the circulation. The author has investigated the action of cobaltum nitricum oxydulatum in this respect. When cyanides are present in the stomach of an animal, and a solution of this cobalt salt is introduced, a harmless potassic cobalticyanide (K_3CoCy_6) is formed. That the cobalt salt can render absorbed cyanides harmless is due to the rapidity of its absorption and to the small quantity needed to make large quantities of cyanide inert. As regards the physiological action of cobalt salts little is known at present; the excretion takes place through the kidneys, and the author believes them to have a powerful diuretic effect. The toxicity of the cobalt salts depends entirely on their concentration, as the author demonstrates by his experiments. In ½ to 1 per cent. solutions they have no definite action on the functions of the heart, and the red blood cells are not altered. The author records a series of experiments to show the antidotal properties of the above-named cobalt salt. When rabbits or dogs are given a lethal dose of cyanide, and a ½ to 1 per cent. of the cobalt salt is introduced into the stomach, no poisonous effects are produced. Experiments are also related which show that this solution, subcutaneously injected, will also neutralise the effects of absorbed cyanide. The author concludes that in man, to render inert already absorbed cyanide, ½ per cent. solution of the above-named salt (10 to 30 c.cm.) should be injected subcutaneously; at the same time the same solution should be given by the mouth or, if that is impossible, passed into the stomach by means of a tube to neutralise any cyanide still present there.

PATHOLOGY.

(219) Cause of Death and Changes in the Organs after Scalding.

Markusfeld and Steinhaus (*Centrabl. f. allgem. Path.*, January 15th, 1895), record the results of a number of experiments made in order to determine the cause of death after scalds. The experiments were performed on rabbits, and the scalding was produced by placing the ears in water heated to a high temperature. Generally the rabbits died when a temperature from 56 to 66° C. was reached. In the blood small globules were found, similar to those which can be produced by the influence of heat on a hanging drop of blood, and which are due to the separation of globular processes from the red blood corpuscles. The blood also contained microcytes and poikilocytes, and broken-down red corpuscles. Thrombi were found in numerous veins and arteries in the kidneys, liver, lungs, cardiac muscle, brain, and spinal cord. These thrombi were composed of blood plates, which in some cases occupied the whole lumen of the vessel; in other cases only a portion of the same; whilst the remaining part was filled with red corpuscles, broken-down red corpuscles, and more or less numerous leucocytes. Often the blood plates were mixed with granular masses, and sometimes the lumen of the vessel appeared filled with almost homogeneous hyaline substance. The arteries and many of the veins of the ears were filled with compressed masses of red blood corpuscles; the other veins contained finely granular or almost homogeneous masses. During the experiments the temperature of the rabbits rose considerably, but the same changes were found in the blood vessels when the rise of temperature was prevented by pouring very cold water over the animals. To furnish conclusive evidence that death and the pathological changes are due to the action of heat on the blood flowing through the vessels of the scalded ears, it would be necessary to determine the result of ligaturing the vessels of the ears, and so preventing their contents from entering the general circulation. Owing to the numerous capillary anastomoses this is impossible. But by ligaturing the main vessels only a small amount of blood from the ear reaches the general circulation, and in these cases the authors found that in spite of the ears being exposed to water at a very high temperature (70 to 75° C.), death did not occur during the course of the experiment, the temperature did not rise, the blood changes occurred later, and were much less marked, and thrombi were exceedingly rarely seen. The authors conclude that as the result of scalding morphological and probably chemical changes occur in the blood, which give rise to thrombosis (blood-plate thrombosis), and that the thrombi, met with in the organs and especially in the brain and spinal cord, are the cause of death.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(220) The Diaphragm Phenomenon.

Martius (*Wien. med. Woch.*, March 2nd, 1895) calls attention to the visible movements of the diaphragm, such as have been chiefly described by Litten. This important physical sign has not received the attention which it deserves. During the last three years the author has looked for it nearly in all cases frequenting his policlinic, and his results complete'y accord with those of Litten. This diaphragm phenomenon is really the result of the function of the complementary space formed by the lower part of the pleural sac. The walls of this space touch each other in ordinary breathing, but in deep breathing the diaphragm becomes flattened, and the diaphragmatic pleura is separated from the costal pleura, while the lung enters the space so formed. The sign is thus constituted by the up and down movement of the lower margin of the lung in this complementary space during forced breathing. The patient must lie in a horizontal position, with the feet towards a good window light; then in deep inspiration a shallow furrow will be seen travelling downwards towards the insertion of the diaphragm, and during extirpation it moves upwards towards the classical mid-diaphragm position. The limit between the liver and lung can thus be traced. This phenomenon reveals (1) whether the medium position of the diaphragm is the normal one, (2) whether the complementary space is free, and (3) whether the breathing is sufficient. The author says that it may always be seen in normal individuals, except in great obesity and a few other cases. It is more marked on the right than on the left side. The wave follows shortly after the commencement of deep inspiration. It is absent in pleuritic adhesions, in exudations into the pleural cavity, in emphysema, etc. The high position of the diaphragm in cases of peritoneal effusions can be made out.

(221) The Ulnar Symptom in General Paralysis.

Recently at a meeting of the Berlin Psychiatric Society Boedeker and Falkenberg (*Neurol. Centralbl.*, February 15th, 1895) gave the results of their researches on this subject. According to Cramer (Epitome, September 1st, 1894), in 75 per cent. of general paralytics the trunk of the ulnar nerve is not painful on pressure, while in most cases of other forms of insanity compression of the nerve as it lies between the olecranon and the inner condyle produces sharp pain and reaction. The authors examined 100 male and 25 female paralytics, and 300 non-paralytic insane persons. In 58 per cent. of the paralytics the ulnar nerve was analgesic; in 35 per cent. pressure caused pain; in 7 per cent. the result was doubtful. Of the non-paralytics, 39 per cent. showed ulnar analgesia; the remainder exhibited no such defect. The authors remarked on the fallacies apt to arise from the subjective element, and they concluded that analgesia of the ulnar trunk is of little value in the diagnosis of general paralysis. They found the ulnar symptom in 74 per cent. of 31 paralytics who exhibited loss of knee-jerk. At the same meeting Mendel stated that he not infrequently had observed analgesia of the legs to be an early symptom of general paralysis in cases where knee-jerk was present and no other evidence of tabes existed.

(222) Dilatation of the Heart.

Jacob (*Centralbl. f. inn. Med.*, February 2nd, 1895) describes a form of this affection chiefly characterised by very acute and oft-repeated attacks. An apparently healthy man, or one who has been complaining of lassitude and vertigo, is seized with shivering, amounting at times to a rigor. The face and body surface are pale. He complains of numbness and heaviness in the legs, and has a feeling of anxiety chiefly referred to the cardiac region. Difficulty in breathing is generally present, but cyanosis is uncommon unless the attack lasts long. First there is infrequency in the cardiac action, but later the heart beats may number 200 in the minute. If the pulse is felt it is found to be distinctly hard. The cardiac dulness is increased. If the attack last several days objective evidence of œdema of the lungs and albuminuria may supervene. In the severe attack there is dread of death, and the patient fights against impending unconsciousness. The attack lasts hours, or perhaps days. A feeling of warmth, accompanied by sweating, marks the remission. First, the signs of vascular spasm disappear, then the anxiety, difficulty of breathing, and cardiac pain. The evidence of dilatation takes a week to disappear. Oft-recurring attacks may lead to permanent cardiac dilatation. The author would attribute this affection to a widely-spread arterial spasm (angiospasmus). This would explain the cardiac dilatation. In the treatment digitalis is of no use. Morphine given subcutaneously is recommended as being the best remedy.

SURGERY.

(223) Hæmatoma of the Dura Mater.

Wagner (*Berl. klin. Woch.*, February 18th, 1895) reports two cases successfully treated by his method of temporary resection of the skull. (1) A man aged 55 received a blow on the head, and was admitted unconscious. Two hours later he began to come to a little, but on the following day a left hemiplegia developed and the unconsciousness returned. A pear-shaped flap, including scalp and bone, was turned down above the right ear. A fracture of the skull was present. A clot between the bone and the dura was removed, and both branches of the middle meningeal artery, which were ruptured, were secured. The flap was replaced. Consciousness returned shortly after the operation, and the paralysis began to improve. Owing to the fracture the flap did not lie quite accurately in its place, and the bone had to be wired a little later. The patient recovered completely. (2) A woman aged 26 had a blow on the head, after which she was unconscious for a short time. Later the stupor again appeared, and convulsions followed by a left hemiplegia developed. After a flap was turned down as above, a clot was found superficial to the dura mater. The anterior branch of the middle meningeal artery, which was bleeding, was secured. As the bleeding still continued from the lower and back corner of the wound, a second flap had to be reflected (after Wagner's method). The hæmorrhage came from the sinus transversus; it was arrested by plugging, and the flaps temporarily replaced. The convulsions ceased, but the patient was very restless. After forty-eight hours there was steady improvement. Six days later the flap had to be again reflected and the tampon removed; two small branches of the middle meningeal artery had to be tied. The patient made a good recovery. The diagnosis in both these cases was easy. In the second case there was ptosis on the right side, but it was not certain whether this was not present before the injury. Sometimes the clinical picture is far from being a clear one when contusion of the brain substance is present, but the symptoms of intracranial pressure always appear and indicate active measures. If there is no lesion other than the hæmatoma, the prognosis is good. As regards the time of operation, there should be no delay as soon as the unconsciousness reappears. These cases must be carefully watched. The author draws attention to the great value of temporary resection in these cases. It is so much easier to find the bleeding point, or, if this is impossible, a tampon may be applied and removed in a few days, and the parts thoroughly inspected; or if further bleeding ensues, as in Case II, the flap can be again turned down. The blood extravasation can be easily removed. The author always uses the chisel, and has seen no ill-effects from it.

(225) Luxation of the Semilunar Cartilages.

Paujat (*Rev. de Chir.*, February, 1895), who has lately studied the functions and lesions of the semilunar cartilages, sums up the results of his research in the following propositions: (1) In order that they may accomplish their physiological *rôle* during extension, flexion, and rotation of the knee, the semilunar cartilages must go through extensive movements on the upper surface of the tibia, and undergo rapid and decided changes in form. (2) The changes in the form and relations of these cartilages are due to (*a*) the pres-

sure of the femoral condyles on the upper surface of the tibia, and (*b*) the action of the ligaments and muscles with which the cartilages are connected. (3) Exaggerated or abnormal movements of the semilunar cartilages may cause partial rupture of the synovial membrane of the knee-joint, and partial or complete laceration of the ligaments and tendons attached to these structures. Such laceration may be caused directly by forcible extension or rotation, or by a momentary irregular fixation of the cartilage, associated with violent muscular contraction. (4) Laceration of the ligaments of the semilunar cartilages often constitutes the sole lesion in sprain of the knee. This lesion, however, is usually associated with rupture of the stronger ligaments of the joint. The special signs of laceration of the ligaments of the semilunar cartilages are ecchymosis, pain, and circumscribed swelling. (5) Free rupture of the anterior ligaments of the semilunar cartilages will produce subluxation of these structures, notwithstanding the integrity of their fibrous cornua, in portions of the leg comprised between flexion at a right angle and full extension. (6) Four varieties of luxation of the semilunar cartilages may be admitted: luxation (*a*) without and (*b*) within the femoral condyles, (*c*) backwards and (*d*) forwards. The first, which alone is known clinically, presents as its chief symptoms prominence of the injured cartilage, characterised by its situation and extent, and by the fact that it presents itself, diminishes, and subsides altogether in certain definite positions of the leg. (7) Inflammation external to or within the semilunar cartilage plays a considerable part in the clinical history of luxation of one of these structures. Thus a very limited rupture of the ligaments may give rise to a cartilaginous swelling the size of which is out of all proportion to the degree of subluxation. (8) Such inflammatory swellings may be distinguished by their disproportionate size, by their tenderness on friction or pressure, and especially by their gradual but decided subsidence. (9) The prognosis of sprained knee with laceration of the semilunar cartilages, and of luxation of these structures is dependent on two main factors: the greater or less extent of the laceration produced, and the more or less marked development of the inflammation around or in the structure of the displaced cartilage. (10) In the treatment of sprained knee and of luxation of the semilunar cartilages bandaging over layers of wool and prolonged immobility of the knee, with the limb fully extended, are especially indicated by the nature and seat of the lesions. In obstinate cases it would be right to open the joint, and either to fix the loose cartilages by sutures, or to perform partial or total resection of this structure.

(225) Carbolic Acid Gangrene.

Lannay (*Annales de Méd.*, March 1st, 1895) states that a considerable number of cases have already been recorded in which carbolic dressings have caused gangrene. He relates the following case to show that this may result, as he believes, even when a weak solution of carbolic acid is used. The patient is a man aged 50, who, during the war in 1871, suffered from a frostbite of the right foot. From this, however, he recovered without losing any of his toes. In 1894, after exposure to cold, the same phenomena as in 1871 showed themselves, but after three months the patient was again cured. In December of the same year, after exposure to cold, the toes of the right foot again became bluish, and the pain being worse in the following month, a doctor recommended a carbolic foot bath. Three baths of three-quarters of an hour were taken each day, a solution of about 3 per cent. being used. In the interval between the baths the patient kept a wet dressing of the same solution wrapped round the fourth toe, the one most affected. After three or four days of this treatment the fourth toe began to show signs of dry gangrene, but the patient persisted for some days in continuing the treatment without consulting his doctor again. He was then found to have a dry gangrene of the whole of the right fourth toe, which Lannay considers to have been determined by the carbolic acid. He points out that the solution used was made without any alcohol or glycerine, that under these circumstances the carbolic acid may not be completely dissolved, and undissolved crystals may come into direct contact with the skin.

(226) Catheterisation of the Ureters.

Brown (*Johns Hopkins Hospital Bulletin*, January, 1895) states that with Brenner's modification of Leiter's cystoscope he has found little or no difficulty in catheterising the ureters in the male or female. With the bladder containing, if possible, from 150 to 200 c.cm. of fluid, or even more, he passes the anterior cystoscope, and takes a complete survey of the bladder. This having been done, he replaces it with the Brenner instrument, which is passed with the stylet fixed. The ureteral orifices are searched for, and when these are found the stylet is removed, and the catheter inserted and passed nearly to the inner opening of the cannula The ureteral orifice is again sought for, and the catheter passed into it. To prevent kinking of the catheter, and to guard against exerting undue traction upon the ureteral orifice, the cystoscope must be kept in line with the catheter so long as the latter is within the ureter. Not infrequently it has been found of great advantage to give the catheter a slight curve at the tip. Nitze (*Centralblatt für Chirurgie*, No. 9, 1895), who has found the method very uncertain, asserts that there is little difficulty in catheterising the male ureter by passing through a special canal fixed to the cystoscope an elastic catheter, the end of which is made to take a direction when in the bladder corresponding to that taken by the lower extremity of the ureter as it passes through the vesical wall.

MIDWIFERY AND DISEASES OF WOMEN.

(227) Bactericidal Properties of the Vaginal Secretions in the Non-pregnant.

K. Menge (*Deutsch. med. Woch.*, November, 1894) gives an account of researches on this subject. They are complementary to those of Krönig on the vaginal secretion of pregnancy. Menge's first series of observations were made on 50 women who had undergone abdominal section, and who had thus been under exact observation for some time. He demonstrated the fact that in 44 out of 150 there were no pyogenic microorganisms either at the fundus or the introitus vaginæ. He next proceeded to investigate the fate of such germs when introduced experimentally. On 35 women he made 23 experiments with bacillus pyocyaneus, 30 with staphylococcus pyogenes, and 27 with streptococcus. The result was the same in all cases: after a longer or shorter time the vagina was found to be free, and the question as to whether the vaginal secretion was acid or alkaline did not affect the result. Further investigations were made to determine the mechanism of the germicidal process, and he reached the conclusion that it depends upon several factors, which rank in order of importance as follows: (1) The antagonism between the normal bacilli of the vagina and the micro-organisms which happen to penetrate there. (2) The products of the vaginal bacilli. (3) The acidity of the vaginal secretion. (4) The properties of the secretion of the anatomical elements of the vagina. (5) Leucocytosis. (6) The absence of free oxygen from the vagina. In one of these experiments Menge found that if two similar samples of acid vaginal secretion be taken, and one of them be sterilised by heat, the sterilised sample loses its bactericidal properties, but the other sample retains them. If by the addition of alkali the acid secretion be made alkaline its germicidal powers are lessened but not destroyed, but if the sample be then sterilised by heat it loses them entirely and becomes an excellent cultivation soil. These properties are active in the vaginal secretion of the newborn, notably so when the secretion contains no vaginal bacilli.

(228) Uterus and Symphysis in Labour after previous Cæsarean Section and Symphysiotomy.

Chrobak (*Centralbl. f. Gynäk.*, No. 9, 1895) recently read notes of a case in which Breisky had performed Cæsarean section in 1888, Chrobak himself delivering after symphysiotomy in 1891. The patient was recommended to see him from time to time, but she never presented herself till autumn, 1894, when she was in labour. Circumstances led Chrobak to rely on turning alone; the child died during delivery. Version and extraction proved easy; the maternal soft parts were not damaged. The Cæsarean cicatrix in the uterus was found to have become considerably stretched; it was rigid and felt like a tough pad of muscular tissue. The

symphysis pubis felt perfectly firm; the bones were united by a fibrous bridge not a third of an inch broad. The bones had not been sutured. The symphysis was not damaged during this third labour. The patient can now walk with ease. On rotation of the femur slight mobility of the symphysis is noted.

(229) Symphysiotomy in Australia.

A. J. McDonnell, of Queensland (*Australian Med. Gazette*, January 15th, 1895), performed this operation last December on a short and very stout woman, aged 39, and addicted to alcohol. There was a minor degree of pelvic contraction, due to a deformity at the sacral prominence, owing to which she had lost three children. The head was jammed. McDonnell attempted the forceps, but could not lock the handles. The patient was taken from her very humble and unhealthy abode to hospital. The forceps again proved a failure. As the patient was very stout it was found impossible to separate the symphysis subcutaneously. The patient was placed in the lithotomy position; a bougie was then passed into the urethra. McDonnell cut down on the bone; the bleeding was very free. After some trouble in cutting through the subpubic ligament, the bones separated. The child was delivered with forceps; it was asphyxiated, but revived. It had a large depressed fracture of the parietal bone, and died of convulsions in 24 hours. On compression and subcutaneous injection of ergotine the placenta came away without any trouble. The bones were not wired, as the application of wires would have proved a difficult and lengthy process, and the patient was greatly exhausted. The patient rallied for awhile, but died in 36 hours of exhaustion. McDonnell reasonably argues that the patient was not a favourable case for any operation, yet symphysiotomy was the proceeding most clearly indicated.

(230) Phenocoll in Pregnant Women.

M. Titone, of Palermo (*Rif. Med.*, November 24th, 1894), in view of the well-known ecbolic action of quinine, was led to try phenocoll in pregnant woment suffering from malaria. The results were such as to satisfy him that while the drug is efficient as a remedy for malaria, it has no action on the uterus. He gave it in doses of 1½ gramme, divided in four cachets, to be taken according to the Roman method, that is to say, five, four, three, and two hours before a febrile paroxysm is due. The drug was given in this way till the the attacks ceased, and in all the cases pregnancy went on to term without any of the uterine contractions, fœtal movements, or slight hæmorrhages due to partial detachment of the placenta, such as are observed when quinine is administered to pregnant women. The author gives details of four illustrative cases, but he has used the drug in many more with equally beneficial results.

(231) Intrauterine Rigor Mortis: Post-mortem Cæsarean Section.

Steinbüchel (*Wiener med. Woch.*, February 23rd, 1895) describes a fatal case of eclampsia in a primipara, aged 23, in labour at term. The case being clearly desperate, all preparations were made for *post-mortem* Cæsarean section. The fœtal heart sounds became inaudible, the os externum could just admit two fingers, the head was well engaged. The mother, after tracheal *râles* had continued for several minutes, ceased to breathe. Energetic artificial respiration was kept up for some time, and breathing was restored for a few minutes; then death occurred, and within three minutes Cæsarean section was performed. The child was a female; neither pulse nor respiration could be detected. Cyanosis was extreme. The body and limbs were firmly fixed in the usual intrauterine position by rigor mortis. The flexors of the limbs and the muscles of mastication were so rigid that it was hard to overcome their resistance. Though the infant was dead, the rigor completely disappeared after the body had been freely swung according to Schultze's method. At the necropsy of the mother compression of the ureters was found, with long-standing right hydronephrosis, and the same condition more recent in the left kidney. There were œdema of the brain, and other grave lesions. The death from uræmia was therefore easily accounted for.

THERAPEUTICS.

(232) The Serum Treatment in Tuberculosis and Syphilis.

Richet (*Soc. de Biol.*, January 12th, 1895), has resumed the experiments which he made in 1889 with Héricourt, showing that by means of injections with serum the evolution of avian tuberculosis could be retarded in rabbits. He took 20 guinea-pigs and divided them into five groups of four each: one group was used for purposes of control, the second received normal serum, the third microbic serum, the fourth the milk of an ass inoculated with tuberculin, and the fifth serum from an ass inoculated with tuberculin. All were then inoculated with a culture of tuberculosis. The animals of group 5 died very rapidly, those of group 4 died almost under the same conditions, those of group 2 died much later, while those of group 3 resisted for a long time, and some even altogether. Richet concludes from these experiments that the serum of an animal inoculated with tuberculin always contains toxic principles; that the milk of an animal inoculated with the same substance is almost innocuous; that normal serum retards the progress of tuberculosis; and that microbic serum can prevent its development. Héricourt began five years ago to treat a tuberculous subject, whom he cured by inoculating him with immunised dog's serum, and since that time Richet and Héricourt have had a very satisfactory result with the same serum in the case of a woman seriously ill with tuberculosis. Richet has also made some trials of the serum treatment in syphilis. He used the serum of a dog which eight days before had been inoculated with blood taken from a syphilitic patient. This serum was first inoculated in a woman who had had syphilis 20 years before, and who suffered from nervous troubles, apparently tabetic. These symptoms disappeared after the injections. More recently similar injections were used in the case of a woman who had contracted syphilis 18 months before, and who presented extensive ulcerations on which specific treatment had had no effect. After seven injections of immunised dog's serum the area of the ulcerated surfaces had diminished by four-fifths.

(233) The Treatment of Variola with its Antitoxin.

Passed Assistant-Surgeon Kinyoun, U.S. Navy, has reported to the Supervising Surgeon-General of the Marine Hospital Service (Philadelphia *Med. News*, February 2nd) the results of the employment of the blood serum of a heifer calf, vaccinated four weeks previously, in the treatment of two cases of variola. Fifteen cubic centimetres of the serum were injected subcutaneously when the cases came under observation, and again after the lapse of eight or ten hours. In one case four injections were made, in the other seven. A careful study of the cases, individually and comparatively, led to the conclusion that the treatment exercised a modifying influence on the disease, especially on the eruption. One of the patients died, but it is believed that his life was prolonged at least seventy-two hours by the treatment. It is suggested that as the serum appears to be capable of mitigating the attack of variola, it ought to have the power of rendering susceptible persons refractory to the disease.

(234) Toxic Effects of Duboisin in Therapeutic Doses.

E. Marandon de Montyel (*Sem. Méd.*, March 6th) has observed in the Ville-Evrard Asylum 12 cases occurring simultaneously in which duboisin caused toxic symptoms. The patients were epileptics who had first been treated, with favourable results, by hypodermic injections of neutral crystallised sulphate of duboisin in doses of 1 to 4 milligrammes, and afterwards by injections of extract of duboisin in the same dose. The accidents occurred on the day when a new bottle of extract, procured from the same source as the others, was opened, and the patients received the dose to which they had been accustomed. The toxic symptoms varied in different subjects. There was a peculiar quasi-drunken condition, with giddiness, vomiting, tingling of the skin, psychic and motor excitement, hallucinations, and delirium, sometimes followed by a leaden sleep. Pro-

longed attacks of tonic and clonic convulsions were also observed. The patients were very pale, although their skin was burning hot to the touch. There was also abundant sweating, sometimes limited to one-half of the body, and profuse green diarrhœa, polyuria, and frequent micturition. In one case there was alarming failure of the heart's action, which, however, yielded to stimulation. The pupils were always dilated to the fullest extent, and this symptom was accompanied by lachrymation and visual disturbances due to paralysis of accommodation. In all the cases there was extreme dryness of the tongue and of the whole buccal cavity, with intense thirst. All the patients rapidly recovered. These cases show that, whereas the therapeutic effects of duboisin consist in a sedative and hypnotic action, generally accompanied by diminution of the secretions, the toxic effects manifest themselves in symptoms of motor and psychic excitement and convulsions, with increase in the secretions, except those of the mouth. Marandon de Montyel concludes that as the toxic symptoms in these cases disappeared rapidly without leaving any trace, the use of duboisin in doses of 1 to 3, and even 4, milligrammes is in nowise dangerous to life, even when the drug causes phenomena of intoxication. With the view of avoiding such accidents he thinks it would be well, as a general rule, to use only the neutral crystallised sulphate, and not extracts of the drug.

(235) Neurodin.

UGO LIPPI (*Il Policlinico*, February 15th) gives an account of some experiments made by him with neurodin, an analgesic introduced by Von Mering (*Therap. Monats.*, 1893, p. 582). The cases in which the drug was tried were fourteen in number, and are classified as follows: (I) Experiments on persons not suffering from pain, made in order to determine the limits of tolerance of the drug, and the possible toxic effects which might be caused by it. (II) Experiments on persons suffering from pain of various kinds, either in the form of essential neuralgia or as an epiphenomenon in other morbid conditions: these included (*a*) four cases of sciatica; (*b*) one case of slight attacks of angina pectoris in a patient with atheroma of the aorta; (*c*) one case of intestinal pain caused by malignant growth of the retroperitoneal glands; (*d*) one case of neuralgia in a person suffering from polyneuritis; (*e*) one case of brachial neuralgia in a neurotic subject; (*f*) one case of gastric pain caused by epithelioma of the gall bladder; (*g*) one case of headache in a nervous person the subject of multiple neuralgia simulating polyneuritis; (*h*) one case of neuralgia of the bladder and stomach in a patient suffering from cancer of the liver and stomach; (*i*) one case of muscular pains, probably of rheumatic origin, in a tuberculous subject; (*k*) one case of pains in the arms symptomatic of spinal irritation. As the result of these experiments Lippi draws the following conclusions: (1) Neurodin may be given in doses from 0.5 to 3 grammes; these are effective and well borne, and may be repeated several times a day. (2) These doses are perfectly harmless, and produce no other ill-effect than occasional diarrhœa, with or without intestinal pain. (3) Hardly any physiological effects were noticed; in rare cases there was a very slight diminution in the heart beats; no marked effect on the kidneys was observed. (4) As regards the analgesic action of the drug it was found to have the property of soothing and even of abolishing pain, whether neuralgic in character or symptomatic of an organic affection; its action, however, is uncertain, and notably inferior to that of other similar remedies, such as phenacetin and antipyrin. The remedy moreover has the great disadvantage of not being readily soluble in the vehicles in common use.

PATHOLOGY.

(236) Leucocytosis in Malarial Fever.

J. S. BILLINGS (*Johns Hopkins Hosp. Bulletin*, 1894, No. 42) observes that little attention has been given to the leucocytes in this disease. The author made investigations to find out whether regular variations took place in the number of leucocytes in the blood during the febrile and afebrile periods. He first refers to the different kinds of malaria seen about Baltimore, namely, the spring or tertian type, the quartan and the fall type (summer-autumn fever). The diminution in the number of leucocytes during the febrile stage was striking. The maximum number of leucocytes was found two or three hours after the chill. From this time there was a progressive diminution until the minimum was reached at the end of the paroxysm, when the temperature was subnormal. The number of leucocytes then rises somewhat, and during the interval occupies a position midway between the maximum and minimum. It might be objected that the variation was so small as to come within the limits of error of the hæmatocytometer, but the results were constantly noted. The large mononuclear elements are as a rule greatly increased, both absolutely and relatively. With regard to the fall type of fever, it is impossible to arrive at a definite conclusion as in the tertian cases. There appears to be a slight diminution in the number of leucocytes towards the end of the attack to be repaired during the interval. The author alludes to the difficulty of diagnosis between malaria of the fall type and typhoid fever. In secondary anæmias leucocytosis is never very marked. In 4 cases investigated it involved solely the polynuclear leucocytes.

(237) The Plague and its Microbe.

NETTER (*Sem. Méd.*, February 16th), after reviewing the history and the geographical distribution of the plague, shows its contagious nature from the following facts: (1) In order to be developed it must be imported. Transmission is either direct, as by means of a plague-stricken person, or indirect through objects sullied by a previous sufferer. (2) The plague attacks especially persons who are exposed to contact with those affected. The epidemic of Wetlianka, in which the medical staff and nurses were nearly all attacked, is a case in point. (3) Isolation preserves from the plague. Rigorous quarantine measures, inflexibly carried out, have always been attended with success. (4) The plague is inoculable. Many observations have shown this. Cerutti, for example, inoculated six Europeans to preserve them from the plague; five of them died. The part played by the air in transmitting the disease is doubtful, but water clearly is antagonistic to it. At Canton nearly 80,000 Chinese dwelling in vessels on the river and in port escaped contagion. The contagion is very resistant, and, under favouring conditions, persistent. Trincivelli relates the death of a servant from handling ropes used in the interment of plague patients twenty years previously. Filth and bad hygienic conditions, though they do not hatch the disease, favour its spread. Extremes of temperature, especially great heat, retard its virulence. The plague is endemic in Africa and in the part of Asia washed by the Mediterranean and Black Sea; it has never penetrated into Europe except in epidemic form. (5) The microbe was first clearly made out in 1894, during the Hong Kong epidemic, by Yersin and Kitasato. In the pulp of the bubo the organism assumed the form of an ovoid rod whose large diameter is scarcely greater than the other, and whose poles, which stain well, are often separated by a central clear part. The microbe is also met with in the blood and in all the organs. It is easily stained with aniline colours but is decolorised by Gram's method. It is remarkable for its polymorphism. When cultivated in the usual solid media it mainly preserves the same form as in the glandular pulp, but the short rods are also seen to be accompanied by round figures like cocci, and elongated bacilli. In liquid culture media it forms little chains of several members placed end to end (strepto-bacilli). Often at the extremity or in the middle of the chaplet is seen a large, very deeply-stained sphere. This appearance is seen in sections taken from the spleens of guinea-pigs which have been subcutaneously inoculated. On gelatine the microbic colonies are white, at first transparent, but presenting later a more opaque and yellowish centre. In broth or peptones it forms tiny, whitish pulverulent clots, which settle to the bottom of the tube and along its sides, recalling the appearance of streptococci cultures. The broth remains clear. The microbe is very deadly to the rodentia. It may be transported by flies which die during an epidemic, and present the specific bacillus in the alimentary canal.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(238) Diphtheria.

Fürst (*Berl. Klinik*, March, 1895) discusses the clinical and bacteriological early diagnosis in suspicious sore throat. Early diagnosis is one made within twenty-four to forty-eight hours. Under the clinical diagnosis the author discusses (1) the indifferent, (2) the suspicious stages, and (3) the stage of the fully developed disease, and he gives at some length the symptoms belonging to these various stages. The bacteriological cannot set aside the clinical examination. The latter enables one to separate simple from other forms of angina with approximate certainty. The bacteriological examination can be effected in from twelve to twenty-four hours. The presence of the diphtheria bacillus is not absolute proof of the case being one of diphtheria, nor does its absence supply a similar proof of the absence of diphtheria. But these two statements apply only to exceptional cases. The author concludes that a satisfactory bacteriological examination is mostly impossible in private practice. There should be central stations at which such examination can be made. This bacteriological examination is, from the scientific, practical, and statistical point of view, of the greatest importance. The results of the examination must not always be waited for before the requisite treatment and isolation are adopted. Local treatment with Loeffler's iron-toluol preparation should be practised; a specimen of the exudation can be obtained before the application. Unfortunately, the nasopharynx and larynx cannot always be treated in this way without special experience. Gargling should be used after the application to prevent the burning. The specific antitoxin treatment is of use when the process is not limited to the site of invasion, and when local treatment is impossible. Its drawbacks are its uselessness (1) in septic secondary infections; and (2) in diphtheria of the bronchi; and (3) certain possible after-effects. Local treatment should never be neglected. The author also speaks of the bacteriological examination in those convalescent from diphtheria, and in nurses, etc., as well as of the preventive inoculation.

(239) Bright's Disease without Albuminuria.

Marion (*Arch. Gén. de Méd.*, March, 1895) after referring to the recorded cases, relates three cases of unquestionable nephritis occurring in patients aged 58, 19, and 59 years respectively. In the first case there never was albuminuria whilst the patient was under observation. In the second case a chlorotic girl was admitted with many of the symptoms of Bright's disease, and yet there was no albuminuria. Two years later she was readmitted, when albumen was present in the urine. In the third case the patient had been under treatment with Bright's disease and albuminuria. Later she was admitted with influenza. The albumen entirely disappeared, but the symptoms of Bright's disease persisted. The author draws attention to the fact that the quantity of albumen present may be of little prognostic importance, and he relates an illustrative case. Albuminuria is a feature of secondary importance in Bright's disease; it may occur in health, it may exist in large quantities in cases of Bright's disease with few symptoms, and it may be absent in uræmia. As Dieulafoy says, the important thing in renal disease is not so much what passes out in the urine as what remains behind in the body.

(240) Sciatica.

S. Erben (*Wien. klin. Woch.*, November 22nd, 1894) discusses exhaustively the vasomotor phenomena of sciatica. Among 160 cases he found 147 in which the affected leg was objectively colder in parts than the sound limb. This coldness was seldom felt subjectively by the patient. Of the 13 cases in which this sign was wanting, 12 were out-patients and not fully observed: the remaining case presented elements of doubt in diagnosis. Whereas Erb had stated that redness and heat with increased sweat and alternations of warmth and cold sometimes occurred in sciatica, the author found coldness only. Besides the 160 cases mentioned, 2 of tabes in which a unilateral sciatica was present presented the "cold knee." A few cases diagnosed as "spinal irritation" also furnished this symptom. The coldness was wanting in 4 cases of pure crural neuralgia, but was present in a further series of 6 crural cases to which a sciatica was added in the course of the disease. In these last 6 cases the diagnosis of neuralgia of the lumbo-sacral plexus was arrived at. A crural neuralgia or neuralgia of the plexus never developed during a sciatica. In one-half the cases spots painful on pressure were found in the course of the affected sciatic nerve, in 6 per cent. there was moderate atrophy, chiefly of the calf muscles and gluteus maximus. The degree of coldness and its distribution varied both in different cases and during the course of the same case. In 19 the whole leg was uniformly colder than the healthy. In the majority the coldness was restricted to certain parts, especially to the skin over the patella and that over the region of the greater sacro sciatic notch. In a few places the calf or hip presented the coldness but not the knee. In some cases attended with cyanosis the coldness was "corpse-like," in others "obviously cold" or "quite noticeable." Sometimes the knee, though not cold, was yet colder than on the sound side, or both being cold that of the affected side was the greater. To determine this sign the author placed the back of a finger first on the healthy, then on the diseased leg. The degree of pain did not coincide with the degree of cold, great pain often being associated with slight coldness and *vice versâ*. The variations in the coldness and those of the pain were not synchronous. In a few cases the coldness was latent, and first appeared two to ten days from the commencement of the observation. The pain remained uninfluenced even when the cold was removed by warm packing, pilocarpin, etc. Erben concludes that a vascular spasm is present, limited to certain parts, and directly "adjusted" through the nerve affection. He disagrees with Nothnagel, who attributed to "arterial colic" the pain met with where vascular contraction coexists. Erben believes that in sciatica, which is a condition of irritation of a peripheral sensory nerve, the central controlling fibres (inhibitory or specially vasodilator) are paralysed, hence the vasoconstriction. The fact of the vasomotor phenomena being predominant chiefly at the knee is explained by Pietrowski, who found that the sciatic and not the crural nor any other nerve is all-important in the vascular innervation of the leg.

(241) Hæmorrhage from the Gastric Mucosa in Neurasthenia.

Mesnard (*Journal de Méd.*, January 10th, 1895) describes a somewhat unusual complication in neurasthenia. A woman, aged 52, had suffered from neurasthenia for many years, of which a marked feature was hæmatemesis. The hæmorrhage generally supervened with any aggravation of her condition, which in turn was brought on by any extra strain, fatigue, or severe emotion. As an instance, Mesnard says that five years previously she was extremely fatigued by a journey. In the evening she unexpectedly, and without any special gastric pain, vomited rather dark, non-coagulated blood: the hæmatemesis lasted forty-eight hours. On another occasion the hæmorrhage, combined with the extreme wasting, was very suggestive of malignant disease, but time eliminated this factor.

SURGERY.

(242) A New Method of Cholecystotomy.

Block (*Rev. de Chir.*, February, 1895) describes a new method of performing cholecystotomy, devised with the view of avoiding on the one hand peritonitis, which often results from the giving way of sutures after immediate closure of the wound in the gall bladder, and, on the other hand, the formation of firm adhesions between the gall bladder and the abdominal wall after the establishment of a temporary fistula. In the method called extra-abdominal cholecystotomy, which is advocated by the author and was successfully practised by him in a case recorded in his paper, the distended gall bladder is drawn through the abdominal wound, and a portion about the size of a hen's egg outside this wound by sutures, until adhesions have formed

and the peritoneal cavity has been closed. The gall bladder is then opened, and any gall stones it may contain are removed. The wound in its coats having been closed by sutures, the gall bladder, after a further interval to allow of complete cicatrisation, is separated from the margins of the incision in the abdominal wall, and returned into the peritoneal cavity, the external wound being finally closed.

(243) Suprapubic Cystotomy in Children.

Folinea (*Rif. Med.*, February 20th, 21st, 1895) reports seven cases in which he performed suprapubic cystotomy for stone. The average age of the children was a little over 3 years. Complete cure followed on an average in thirteen days after the operation. Although the number of cases is small, the author feels justified in concluding that suprapubic cystotomy is an operation which may be performed on children with good results; that one ought in these cases to adopt complete suture of the bladder, provided that viscus be in a healthy condition; in chronic cystitis, renal mischief, and vesical hæmorrhage the author would not sew up the bladder. As a rule a double suture suffices, since the bladder forms a firm cicatrix. Folinea thinks that in children suprapubic cystotomy should be preferred to any other operation for stone. His seven cases all did well.

(244) Total Extirpation of the Rectum.

Vanderlinden and de Buck (*La Flandre Méd.*, March 7th) claim that partial resection, or even total extirpation, of the rectum for cancer is abundantly justified where at all practicable from the point of view both of its immediate and ultimate results. They record 2 successful cases of this kind. Case I. — A multipara, aged 31, in August, 1892, gave a history of a year and a half of pain in the lower belly, constipation, difficult defæcation, grooved fæces. For a year glairy mucus, blood, and yellowish fœtid sanious liquid had been passed with the fæces; marked loss of appetite and body weight. *Per anum* a growth was felt, ulcerated in places, extending 7 cm. from below, and invading the whole circumference of the rectum, with its greatest thickness posteriorly. The summit of the growth was easily reached, and the whole tumour could be moved downwards. The operation was performed on October 30th, 1892. The dorsal position was used, with the pelvis raised and thighs strongly flexed on the abdomen. The anus was surrounded by two short incsions, which joined in front and behind. A posterior median incision was prolonged from these to the coccyx. The anal canal and rectum were dissected out as far as 3 cm. above the growth, where section of the bowel was made. Suture of the bowel walls to the skin wound completed the operation, which lasted an hour. The patient returned home at the end of four weeks, and three months after had gained 10 kilos. in weight, and could already retain firm stools. There has been no recurrence up to the present time. The growth proved microscopically to be a lobulated epithelioma. Case II.—C. D., aged 52, married, no children. Three years' history, commencing from the climacteric, and in its details very similar to Case I. Two indurated ulcerated masses were found in the anal region. The rectum was invaded in its whole girth by a soft, yielding, easily-bleeding tumour, whose summit was reached with difficulty 10 to 11 cm. above the anus. Operation February 24th, 1895. Left lateral position, thighs strongly flexed, and pelvis raised. The incision ran from two finger's breadth below the posterior superior iliac spine along the groove between the gluteus maximus and sacrum towards the median line as far as the summit of the coccyx, then surrounding the anus. The musculature of the buttock was detached, the insertions of the great and small sacro-sciatic ligaments cut, and the coccyx extirpated. A part of the left side of the sacrum was removed, the abundant bleeding controlled, and the rectum isolated, commencing with the anal aperture. The peritoneum was opened after isolation of the anterior rectal wall. The bowel was cut transversely 2 cm. above the growth, and its end, slightly twisted on its axis, was sutured to the borders of the skin wound. The operation lasted an hour and three-quarters, much blood being lost. A large quantity of NaCl solution was therefore injected, and, except for two days' fever, the patient did well, and at the date of report was convalescent.

(245) Spina Bifida.

Marcy (*Annals of Surgery*, March, 1895) discusses the question of surgical interference in spina bifida. Failures in the past seem to have been mainly due to septic infection. The lower the opening in the canal the greater the hydrostatic pressure; the higher the opening the less the liability to return. Our advances in brain and spinal surgery are mainly due to asepsis. We must bear in mind that the sac of the tumour is in direct continuity with the spinal canal, and that the fluid contained therein is in intimate relation with that surrounding the great cerebral centres. Undue loss of fluid may cause sudden death from disturbance in intracranial organs. According to Marcy a free dissection is necessary by means of elliptical incisions on either side, ample lateral flaps being reflected right down to the base of the tumour before opening the sac. The patient's head being slightly lowered, the sac should now be emptied by a trocar. Certain portions of the cord may be spread out on the inner wall of the sac, and should be dissected off and returned to the spinal canal. The base of the sac is next ligatured by a double continuous tendon suture. The sac is then cut away. The stump is closed down on either side to the strong fascia, the wound closed with buried sutures, and, the skin coapted in this way, the whole is sealed with iodoform collodion.

MIDWIFERY AND DISEASES OF WOMEN.

(246) Symphysiotomy in Canada.

Sylvester, of Toronto (*Canadian Practitioner*, February, 1895), operated in autumn 1894 on a woman, aged 27, in her third labour. In both previous labours the child had been delivered, with great difficulty, by embryotomy. The conjugate measured 2⅝ inches, the oblique diameter of the inlet was 4½. Sylvester felt that either embryotomy or symphysiotomy would be necessary, and waited for decision until the presentation could be determined during labour. When labour came on it progressed very slowly in spite of strong pains, the fœtal head remaining high up in the pelvis. Symphysiotomy was performed, the pelvis opened up at once, with a distinct cracking noise, to the extent of about an inch, as far as a bandage, six inches wide, would allow. The wound was then plugged with iodoform gauze, the membranes were ruptured, and forceps applied. In about half an hour a healthy living child was delivered. After removal of the placenta a vaginal douche of bichloride was given. The pubic wound was washed with a similar solution. Three deep sutures of catgut were then introduced, and the wound was covered with iodoform and collodion. The sound was introduced (as at the beginning of the operation) into the bladder and urethra to press them back lest they should be pinched between the pubic bones, which were now firmly pressed together and retained by plaster and bandage. At the end of the third week union of the cartilage of the symphysis was perfect. A plaster-of-paris bandage was applied to the pelvis. No lameness resulted, and the child was reared.

(247) Diabetes in Labour and Pregnancy.

Ludwig (*Centralbl. f. Gynäk.*, No. 11, 1895) made observations of a severe case. The patient was 42, and in her ninth pregnancy. She was admitted into hospital almost dying on December 14th, 1894. Marked diabetes had existed for two years and a-half. The pregnancy began early in April, 1894. She had been troubled with pruritus vulvæ; the symptoms then abated. A few days before adimssion the size of the abdomen suddenly increased, and the patient became very ill. The urine contained 3.8 per cent. sugar. On admission the patient looked very ill and was hardly conscious; the urine was of a specific gravity of 1018 only, but the percentage of sugar was 2.3, and acetone and aceto-acetic acid were present in considerable quantities. The membranes were ruptured, and nearly nine pints of liquor amnii came away, and were carefully examined. Ten hours later a male fœtus in an advanced stage of maceration was delivered spontaneously. For two days the patient was very ill, vomiting all food. Enemata of water containing salt and peptone with wine were given. On December 16th she had an appetite, and on the 24th she left in good condi-

tion. There was practically no milk, nor could any pure blood be obtained by any justifiable means. The percentage of sugar in the patient's urine rose on December 17th to 2.5 per cent., falling to 0.8 per cent in twenty-four hours. The day before discharge it was 0.1 per cent., the specific gravity 1009. No aceto-acetic acid and but a trace of acetone remained. The liquor amnii contained 0.3 per cent. of sugar. It is not certain whether the hydramnios represented transfusion from the diabetic mother's blood, or urine passed by a diabetic fœtus. The latter theory seemed doubtful, as the fœtus must have been dead for some time, and the hydramnios had appeared only a few days before labour.

(248) Sequelæ of Symphysiotomy.

Tissier (*Archives de Tocol. et de Gynéc.*, February, 1895) recently exhibited at a French society a woman on whom he had performed symphysiotomy six weeks previously. She was a rickety multipara; the conjugate was hardly over 3 inches. As previous labours had been severe labour was induced by means of Tarnier's bags. The forceps were three times applied, but in vain. Symphysiotomy was therefore performed; hæmorrhage was very free. When the pubic bones parted distinct prolapse of the pelvic organs was observed. Delivery was accomplished with ease. There was troublesome tympanites about the third day. By the seventeenth day the symphysis was not consolidated, and the pubic bones still slid on each other a little, hence the patient could not walk long without feeling fatigued. A thrombus developed around the levator ani on each side during the puerperium, but both became absorbed. The child was born alive, but died when a few weeks old. A question was raised at the society as to the cause of the tympanites. Tissier attributed it to the prolapse of the uterus, which intercepted the free descent of flatus. Fournel believed that it was due to temporary intestinal paralysis, as is frequent after abdominal operations.

(249) Toxæmia and Infections in Pregnancy.

Doria (*Il Policlinico*, March 1st, 1895) discussing the toxæmia of pregnancy, says that in the uterus of a gravid woman, between the walls of the uterus and the membrane of the ovum a morbid process is set up, with the production of lesions upon or in which bacteria may develop belonging to the saprophytic group, and generally considered as non-pathogenic. Together with this local process a form of toxæmia is slowly developed, characterised by hæmorrhages. Then follows localisation of the bacteria in numerous hæmorrhagic and necrotic foci within the spleen and liver. These micro-organisms are identical with those contained in the uterus, and may give rise during life to gas as readily in one part of the body as another. This gas may make its way into the circulation during life, and so give rise to some of the symptoms of eclampsia. One of the most constant lesions met with in eclampsia is the presence of small hæmorrhagic foci in the liver and spleen. These hæmorrhages may be due to the micro-organisms contained in them, or it may only be that the organisms have found a suitable nidus in the focus of dead tissue. The bacteria may produce hæmorrhage through their toxins.

(250) Abuse of the Curette: Obliteration of Uterine Cavity.

Fritsch) (*Centrabl. f. Gynäk.*, No. 52, 1894) reports the case of a woman, aged 35, who came under his care in May, 1894. On January 31st, 1892, she was normally delivered of her first living child. Childbed proceeded without high temperature but with constant metrorrhagia. On February 24th, 1892, the patient was placed under chloroform, and it appears that the practitioner used the curette freely, and to his astonishment brought away a tough piece of tissue, which he could not tear with his fingers. A tampon was applied, the metrorrhagia ceased for good, and the patient was up at the end of a week. From that time forward the menstrual period was never seen. Fritsch found the patient very healthy, free from hysteria or any other neurosis. Both ovaries could be felt; they were free from any evidence of disease. The os externum was represented by a shallow pit; it was split up, then the cervical canal, above its obliterated orifice, was found to be not quite an inch long; the finest sound failed to pass further. The uterus appeared to be reduced to an infantile condition, hardly measuring two inches and three quarters from os externum to fundus. By aid of sound and scalpel an artificial uterine cavity was made, and kept open by a tent and gauze. After a fortnight the new cavity was completely closed. In October, 1894, the patient was examined once more: she was found in the same condition as in May. As her general health was perfect and no operation could be likely to improve the local condition, nothing was attempted.

THERAPEUTICS.

(251) Serum Treatment of Diphtheria.

Vierordt (*Deut. med. Woch.*, March 14th, 1895) has treated 75 cases with Behring's serum. In 61 cases Loeffler's bacillus was found, and to this number two other cases must be added, as other children in the same house suffered from diphtheria, bacteriologically proved. From these 63 cases 8 are deducted either as being moribund on admission or owing to some additional lesion being found after death. The mortality was then found to be 14 per cent., as against 67 to 37 per cent. in the preceding six years. If the moribund cases were added the mortality would be 25 per cent. Among those not tracheotomised the mortality was 2.7 per cent., and among the tracheotomised 46 per cent., the latter number not being more favourable than hitherto. Of the 24 cases admitted with the larynx intact, only 1 died, and, indeed, only one of these cases developed the barking cough. Of 5 admitted with a croupy cough and and hoarseness, 1 died. Of 23 cases admitted with stridor and retraction of the soft parts, 13 were tracheotomised; in 9 of these 23 cases the symptoms of obstruction passed off without tracheotomy in eighteen to forty-eight hours, a fact hitherto not within the author's experience. Early treatment did not always prevent a fatal issue. The cases did not appear slighter, but even, perhaps, more serious than usual (37 belonged to the severe or very severe group). No noticeable changes were seen in the membrane after the injection. The absence of spread to the larynx was remarkable. In short, a number of very severe, even desperate, cases recovered. A favourable action on the heart's action was noted. Albuminuria seemed to play a smaller part than hitherto. Paralysis of the palate was noted frequently, but no extension occurred. The author has never seen a rapid fall of temperature after the injection. A rash was noted 15 times. A relapse occurred 5 times. The author concludes that no remote harmful effect was produced by the serum. Although these cases provide no absolute scientific proof, Vierordt is more and more inclined to believe in the specific action of the serum. Its use is imperative. Cases should be treated without waiting for bacteriological proof. Less than 1,000 units should be rarely used in slight cases in the young, and should be repeated in severer cases within twenty-four to forty-eight hours. The author draws attention to the rigid character of the observations which should be made upon cases treated with the serum. It must be some time before the value of the method can be absolutely proved.

(252) Ichthyol in the Treatment of Tuberculosis.

At a meeting of the Royal Academy of Turin on March 8th, Scarpa (*Gazz. degli Osped. e delle Cliniche*, March 16th) communicated the results obtained in 150 cases of pulmonary phthisis treated with ichthyol between April, 1894, and January, 1895. Having referred to the favourable results of the treatment reported by Cohn of Hamburg in 100 cases of the same disease, the author pointed out that from what was known of the action of ichthyol as an astringent of the vascular system, as an antiseptic, as a disinfectant of the digestive apparatus, and as an *aliment d'épargne* it was *a priori* presumable that it would be useful in phthisis. He employed the drug in the purest possible state, dissolved in the proportion of one-third in distilled water or any suitable vehicle. Of this solution he gave from 20 to 180 or 200 drops, dissolved in water, in the course of the day. The remedy was in all cases well borne. No other treatment was employed beyond attention to the hygienic environment and feeding up. Of the 150 cases 23 died: all these were in a desperate condition before the treatment was be-

gun, but even in them the ichthyol appeared to do good. Of the remaining cases 17 were apparently cured; in 50 there was notable improvement; in 32 there was some improvement; in 28, up to the date of report, the treatment had produced no effect. The good effect of the ichthyol shows itself first in the influence which it has on the symptoms produced by the local lesions—cough, expectoration, dyspnœa—afterwards on the general condition. Physical examination shows profound modifications in the lesions, especially in the circumscribed infiltrations of the early stage, but also not infrequently in those of the breaking-down stage. The author does not attempt to decide whether the ichthyol acts only by improving nutrition or also by direct action on the lesions, or by neutralising the toxins produced by micro-organisms—both Koch's bacillus and the staphylococci, etc., which are the causes of secondary infections. He insists on the advantages which ichthyol presents over guaiacol in the treatment of tuberculosis.

(253) The Effect of Serum Injections on the Temperature and Pulse.

VARIOT (*Sem. Méd.*, March 6th) has studied this question. All children under suspicion of diphtheria who are admitted into the Trousseau Hospital receive, as soon as they come in, an injection of 20 c.cm. of diphtheria antitoxin. This practice has given the author the opportunity of observing in the children who do not develop diphtheria the physiological effects of the serum injections. His observations show that they cause a rise of temperature of from $\frac{1}{2}^{\circ}$ to 1° C., sometimes more. At the same time the heart's action is quickened and the pulse beat becomes more frequent. These phenomena are often followed by cardiac asthenia and arhythmia of the pulse. Variot thinks it probable that this artificial febrile action plays a certain part in the process of cure, being analogous to the normal febrile reaction seen after serious but curable diphtherias before the serum came into use. Rendu pointed out that in 3 cases in which he had used the serum in adult patients no rise of temperature followed the injections. Variot thought it possible that the febrile reaction might have been overlooked in these cases owing to the temperature not being taken with sufficient frequency.

(254) Toxic Symptoms Caused by Antipyrin in Therapeutic Doses.

J. GONZALEZ Y CAMPO (*Rev. de Med. y Cir. Prac.*, February 25th) reports the following case. A girl, aged 15, suffering from intermittent fever of the quotidian type, was ordered cachets each containing 25 centigrammes of sulphate of quinine and 37½ centigrammes of antipyrin. She took eight of these in twenty-four hours, without feeling any ill effect except slight mental confusion, due no doubt to the quinine. On the following two mornings she took one cachet containing only the sulphate of quinine, and on the third antipyrin was again prescribed in 50 centigramme doses (7½ grains). She took one of these, and immediately complained of intense burning in the lips, mouth, œsophagus, and stomach, with extreme *malaise* and oppression. The author, when called in, found the patient incapable of replying to questions, with lips swollen to about three times their ordinary size, and violet in hue, cyanosis of the face, conjunctivæ injected, pupils sensitive to light, breathing very shallow, pulse imperceptible, heart beats feeble and infrequent, and well marked coldness of the surface. Free vomiting had taken place. Caffeine (25 centigrammes) was injected and sinapisms were applied to the limbs and the præcordia, and in a short time the pulse became stronger and the breathing more active. The patient was able to speak, and complained of a disagreeable feeling of tightness in the fauces and of heat in the lips. An urticarial eruption appeared about half an hour after the antipyrin had been taken. By the following day the toxic effects had entirely disappeared. In this case the patient had taken 3 grammes (45 grains) of antipyrin in one day without ill effect, and the toxic symptoms followed a single dose of 7½ grains two days later. The author suggests that the intoxication might have been caused by cumulative action due to imperfect elimination, or by the absence, in the dose which was directly responsible for the toxic effects, of quinine which in the earlier doses may have counteracted the depressing action of the antipyrin.

(255) The Subcutaneous Use of Quinine.

VON FLEISCHL, of Rome (*Fort. der Medicin*, February 15th, 1895), thinks that the subcutaneous use of quinine is indicated in extremely severe malarial attacks when the hot stage lasts a very long time, or when there are very dangerous symptoms. He also recommends quinine to be given subcutaneously when the stomach or intestine, or both together, are much out of order, or in cases when the quinine is vomited. When the patient cannot swallow cachets, since very strong solutions of quinine are extremely bitter, and since pills may sometimes pass right through the bowel without being absorbed, the quinine may be given subcutaneously. It may also be given subcutaneously when it is desired to give it to children on account of malaria (though relatively rare in children), or pneumonia, or pertussis. Tannate of quinine, though its taste is less and it may be used as an astringent, is of little value as an antipyretic. The syringe must be clean and the solution pure. Von Fleischl prefers the bimuriate of quinine for subcutaneous use in preference to other salts on account of its great solubility, because its solutions keep well, and because its injection causes apparently less inconvenience to the patient than that of other salts of quinine. H. Holland, indeed, never found redness, swelling, induration, or pain to result, except at the time of the injection. Von Fleischl injected warm supersaturated solutions of this and some other quinine salts under the skin of rabbits. The tissues were then rubbed to cause good distribution of the solution injected, and after the lapse of a quarter to half an hour a skin incision was made at the site of injection. The fluid in the tissues was always found to be clear, and no precipitate of the quinine salt had taken place after injection.

(256) Aristol in Ophthalmic Practice.

HEUSE (*Therap. Monatsh.* February, 1895), as the result of lengthened investigations, finds that aristol is an excellent remedy in long existing corneal ulcers, especially where the base is covered by pus which is not readily detached. While several other applications failed, aristol applied as a powder by means of a brush, the eye being subsequently closed, led to the cleansing of the ulcer in two days. A curative action, however, cannot be ascribed to the powder. As an ointment containing 5 per cent., it proved most successful in ulcerative blepharitis and obstinate chronic hordeola, where, on account of its non-irritating properties, it might be used henceforth in preference to the yellow oxide of mercury.

PATHOLOGY.

(257) Effects of Ammonium Chloride on the Central Nervous System.

GOURINSKY (*Archives des Sciences Biologiques de l'Institut Impérial de Méd. Expér. à St. Petersbourg*, Tome iii, No. 3, 1894,) describes experiments on frogs and pigeons poisoned with ammonium chloride. The following are his conclusions: (1) In frogs whose spinal cord has been divided below the medulla oblongata ammonium chloride produces from the first a marked augmentation of reflex acts. (2) In frogs deprived of certain parts of the central nervous system (spinal cord, medulla oblongata, and cerebellum only being retained) this augmentation is preceded by a marked depression. (3) In normal frogs and pigeons chloride of ammonium produces at first depression of the central nervous system, then convulsions—that is, the higher centres exercise a great inhibitory influence on the spinal reflexes. (4) When the poison is introduced rapidly the first stage (that of depression) is but slightly marked, and soon gives place to the second stage (that of irritation, ushered in by convulsions). (5) When the poison is introduced slowly the general nervous depression is well marked, and lasts a long time. (6) In frogs and pigeons deprived of the cerebral hemispheres only, whatever be the method of introducing the poison, convulsions are not preceded by depression, but the latter is sometimes replaced by irritability. (7) All the facts can be explained only by the reciprocal action of the nervous centres on each other, modified by the poison.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(258) The Sensation of the Stomach and Disordered Digestion.

P. Sollier (*Rev. de Méd.*, January, 1895) makes a study of nervous dyspepsias. He says that the sensory innervation of the stomach derived from the sympathetic may, when disturbed, lead to modification in the gastric chemistry. The secretory functions of the stomach depend on the nervous system as well as on the state of the glands. The sensation of the stomach may be reflex or direct. The former is better known; it leads to the movements of the stomach and also to secretion. If the stomach is insensitive to the contact of food stuffs the glands are not put into action. The stomach has also a sensation proper to itself, and thus heat and cold can be appreciated. This sensation is not so obtuse as has been thought. The most special sensation of the stomach is in respect to food. The sensation of hunger disappears when the stomach becomes anæsthetic. Thus, without its own proper sensation there could be no feeling of emptiness, as in hunger, nor yet of satiety, and, without its reflex sensation, no secretion and no motion. There is no subordination of one form of sensation to the other. In nervous dyspepsia there may be a modification in the gastric chemistry or the sensation of the stomach may be involved. Clinically this is best studied in hysterical anorexia. Assimilation appears to improve when hunger returns, and the feeling of hunger reappears only with the restoration of the sensation of the stomach. The anæsthesia may involve only the superficial parts of the mucous membrane, or penetrate deeper when the digestive troubles are more marked. The author refers to a superficial cutaneous anæsthesia corresponding to the region of the stomach. If the mechanical functions are also involved there may be gastric atony. The same condition of the stomach is noted in melancholia and hypochondriasis. When the treatment is directed to the nervous system these cases improve rapidly without any special regulation of diet.

(259) The Etiology of Aural Vertigo.

Braina Grünberg (*Inaugural Dissertation, University of Berne*, 1894) records the results of (1) experimental infection of the semicircular canals of rabbits with the spores of aspergillus fumigatus; (2) irritation of the external ear by cold; and (3) electrical stimulation of the organs of hearing. In the infection experiments, in only a minority of the instances was any disturbance of equilibrium produced. The inoculation was effected through the jugular or the auricular veins. In the "positive" cases mycelial threads were found in the labyrinth. The condition of the labyrinth in the "negative" ones is not mentioned. In almost all of a number of patients into whose external meatus a fine spray of chloride of ethyl was directed vertigo was excited, proving that the giddiness produced by syringing the ear with cold water is due to reflex contraction of the vessels of the labyrinth excited by the cold, and not to the mechanical effect of the water. In the third class of experiment on normal ears, cathodal closure, anodal closure, and anodal opening of a constant current of 4 or 5 milliampères caused vertigo in a direction towards the opposite ear, sometimes accompanied by nystagmus. In ears affected with chronic suppurative inflammation or with dry perforation the effect was produced by much weaker currents. In a case of labyrinthine concussion no vertigo was excited till currents of 10 milliampères were employed.

(260) Basilar Aneurysms.

Hoffmann (*Wien. klin. Woch.*, Nos. 45 and 47) analyses 75 cases. Oppe had found this lesion to be more frequent in men, and attributed this to their greater exposure to traumatism. Hoffmann points out the sheltered position of these arteries, and the frequency with which women are affected. The duration of evolution of basilar aneurysms cannot be assumed from their size in all cases, but thin-walled blister-like aneurysms are *a priori* more likely to have run an acute course. Thrombosis of the sac and the condition of the thrombus may give information. In traumatic and certain parasitic and embolic aneurysms evolution is acute. The basal aneurysms develop without symptoms, and may remain latent till death. This may obtain even with large aneurysms. Usually, however, at a late stage symptoms of pressure and brain softening occur. A subjective sensation of pulsation is possible but very rare. The same remark applies objectively. Lebert and Oppe noted severe pressure symptoms in vertebral and basilar aneurysms, and in the case of the internal carotid the implication of neighbouring nerves may give rise to such. Hoffmann found the chiasma repeatedly displaced and compressed. In 2 cases the oculomotor nerve was implicated; hence where central visual disturbances and ophthalmoplegia exist these aneurysms must be thought of. The author noted headache but twice, and trigeminal neuralgia and migraine once each. Epileptiform attacks occurred 5 times; their usual outcome is rupture and death from intrameningeal hæmorrhage. The apoplectic fit occurs quite suddenly without prodromata, and death ensues in a few moments. Of the 75 cases 58 were reported as sudden deaths, the rest occurring after periods varying from half an hour to two days. The symptoms are a sudden heavy fall, instant insensibility, general paralysis from cerebral shock, perhaps clonic and tonic convulsions. In 11 cases headache, indisposition, and notably gastro-enteric symptoms preceded the fit by one or two days. The unexpected speedy death and attendant symptoms, which simulate poisoning, invest these cases with great medico-legal interest. Since traumatism is the most common cause of meningeal hæmorrhage there is great danger that these aneurysms may be overlooked. Bodily effort and emotion may cause their rupture, and the suddenness of the fall resulting may lead to injuries of every degree of severity.

(261) The Detection of Arsenic in the Urine.

Dixon Mann (*Med. Chronicle*, March, 1895), referring to a recent paper by Professor Carter, of Liverpool, in which it is stated that "the detection of arsenic in the urine is a matter of great uncertainty and great difficulty," has repeated the experiments of that gentleman and arrived at an exactly opposite conclusion. He holds that arsenic when present in the urine can be most easily detected, and that Reinsch's test properly applied is amply sufficient in delicacy and certainty to detect it, and he believes that Carter's failure was due to his not adding sufficient acid to the urine. The points to which attention should be paid when testing urine for arsenic by Reinsch's method are: (1) To take 12 to 16 ozs. of the urine, and to reduce it to one-fourth its volume by gentle evaporation; (2) to ascertain that the hydrochloric acid is free from arsenic; (3) to add to the urine one-sixth to one-fifth its volume of the acid; (4) to boil for at least fifteen minutes before accepting a negative result; (5) not to trust to the appearance of the foil after boiling, as it will probably be coated by extraneous matter; but to heat it in a reduction tube and not to pronounce in favour of the presence of arsenic unless perfectly distinctive crystals of As_2O_3 are obtained. In forensic work these crystals should be further tested chemically to prove that they are those of As_2O_3.

SURGERY.

(262) Operative Treatment of Advanced Cancer.

Farquhar Curtis (*Med. Rec.*, February 16th, 1895), in a paper on the curability of cancer when the lymph nodes are involved, advocates extensive and radical operations in cases of malignant disease. He points out that in sarcoma the nearest lymph glands are sometimes secondarily involved, although this infection is not so constant or so early a sequence of that disease as of the malignant epithelial tumours. Although it is well established that when the glands are infected in cancer the chances for the complete eradication of the disease are much diminished, the author holds that even in such advanced disease we need not despair of obtaining a cure by a thorough operation. At the same time by free excision of the primary

growth and free removal of affected glands, cancer affecting a limb will in some cases admit of more conservative measures than those surgeons are generally forced to adopt. The recent attempts in a similar direction in treating giant-cell sarcoma of the bones by enucleation, leaving the greater portion of the bone and thus avoiding amputation, have met with fair success and deserve imitation. In cancer, the author holds, extensive disease necessitates extensive operation, and in any case the operation must be so planned as to remove every particle of diseased tissue, for only when this is accomplished can a cure be effected. Thorough operation will, as a rule, require the removal of the original tumour, the lymph nodes of the nearest glandular region, and all the intervening cellular tissue if possible in one mass; for instance, the mamma, pectoral fascia, the fat on the edges of the pectoral muscles, and the axillary glands; the penis, inguinal glands, and intervening subcutaneous fat; and the tongue and submaxillary glands, with all the intervening cellular tissue in which the vessels run. In the tongue, when the disease has not crossed the median septum by direct extension, it is often possible to leave one lateral half, owing to the fact that each half has a distinct vascular and lymphatic system. In the breast, however, it is seldom safe to perform partial excisions, because the disease spreads so rapidly, and more particularly because the whole breast is likely to be in a condition which will surely end in the development of the disease.

(263) Hysteria: Spontaneous Gangrene or Malingering?

NARATH (*Wiener med. Woch.*, February 23rd, 1895) read notes on two cases at a recent meeting of a medical society. An hysterical girl, aged 18, stated that she had run a needle accidentally into her arm. The needle could be felt under the skin, but when an incision was made it could not be extracted. No sutures were applied. Three days later the bandages were removed; the wound was found to be gangrenous. The slough slowly increased in size. Nitric acid was applied, and, when the new slough caused by that caustic separated, healthy granulations developed. The wound became smaller; nevertheless after a few days it became gangrenous again. The slough was examined, and, to the surprise of the surgeon, no bacteria could be found. The girl was then watched, and it was discovered that she tried to irritate the wound through the bandage in all manner of ways. At length it was found that the patient produced the gangrene by the application of an irritant green pigment. She managed to cause a slough thirteen times, until a complicated bandage was applied, and the wound at length healed. In a second case a woman was accustomed to set up gangrene and all sorts of skin eruptions with caustic alkali. Narath believed that the majority of the cases of so-called spontaneous hysterical gangrene were simply instances of malingering. Kaposi remarked that it was not easy to diagnose spontaneous from induced gangrene. When bullæ were developed the base looked dark from the first in spontaneous gangrene, the process beginning in the corium. Narath declared, however, that he observed this appearance in his first case. Other speakers gave different opinions on the diagnostic value of the bullæ. Wintern itz mentioned that subcutaneous injection of chloroform caused gangrene.

(264) The Surgical Treatment of Trachoma.

FORTUNATI AND CHIARINI (*Il Policlinico*, March 1st, 1895), having obtained good results from the surgical treatment of trachoma—removal of the trachoma granules by a sharp spoon and free washing with strong sublimate solution (1 in 500)—publish a further series of 33 cases, in which they were able to follow the results for varying periods of time up to eight years. Of the 33 cases, 12 were cured—that is, no return was observed after periods of eight months up to two years—whilst in the remaining 21 cases the trachoma recurred, generally with partial or total trichiasis, and sometimes posterior symblepharon. In the cured cases the neoplasm had for the most part existed only a short time—from three years down to eight months. The most important factor in the prognosis seems to be the condition of the plica semilunaris and adjoining parts; if these are affected relapse is almost certain to occur after operation. In the cases where relapse occurred the disease had generally existed for some time—from a minimum of three years up to a maximum of eight years. Strong sublimate solutions (1 in 500) were freely used for the first twenty or thirty dressings, gradually reduced to 1 in 2,000. Notwithstanding constant care in breaking down adhesions, symblepharon occurred in a few cases. In all the cases except two there was so much improvement after the operation as to justify up to a certain point the term "cured;" but in many of the cases, after three or four months the eye began to relapse into the initial stages of trachoma, and finally developed the disease as before, but in a milder and less obstinate form. Sometimes, however, the disease returned with a "fulminating rapidity." In the cured cases the disease was comparatively recent, and almost exclusively localised in the superior fornix, rarely in the inferior fornix and tarsal region, and the caruncle and plica semilunaris were always free from contagion.

(265) The Value of the Stomach Tube in Feeding after Intubation.

MORRISON (*Boston Med. Surg. Journ.*, February 7th, 1895), having found that one of the most serious difficulties in dealing with diseases of the throat is the inability of the patient to take a proper amount of nourishment, has in cases of diphtheria treated by intubation adopted the systematic use of the stomach tube. During the past four years he has carried out this practice in 28 cases of diphtheria in children, 12 of whom recovered. To obtain satisfactory results, and to prevent undue exhaustion, certain precautions, he states, must be observed. Two assistants are required. The child is rolled in a blanket with the hands by the sides. The first assistant sits in a chair near the bedside, and holds the child firmly in a reclining position upon his left knee, whilst the second assistant holds the head. A soft rubber catheter, to which a funnel is attached, is oiled and introduced into the nostril with the eyelet on the under side, as it thus meets with less resistance on passing into the pharynx. As a nourishing injection, cream with about 20 per cent. of fat is used, and, to aid digestion, essence of pepsin and liquor pancreaticus. Brandy, wine, or any liquid medicine may be added according to circumstances. The author states that after the first few times the child suffers little or no discomfort during the passage of the tube. This method permits a definite amount to be placed in the stomach at regular intervals, thus affording this organ its natural periods of rest.

MIDWIFERY AND DISEASES OF WOMEN.

(266) Composition of Human Milk.

AXEL JOHANNESSEN (*Jahrb. f. Kinderhlkde*, Bd. xxix, H. 4, p. 380) has analysed the milk of 25 suckling women. He found considerable variations in the composition of the milk in different women, and in the same women at different times. He found the proportion of albumen (all proteids taken together) to be about 1 per cent., as a rule, but a robust 1-para, aged 21, in the sixth or seventh month of suckling, was found to be yielding a milk containing 2.6 per cent. of albumen; and a well-nourished 2-para, in the first month of suckling, a milk containing 2.6 to 2.8 per cent. of albumen. In other cases the same woman yielded milk containing a proportion of albumen which varied from 0.6 to 2.0 per cent.; from 0.6 to 1.4 per cent.; from 0.7 to 1.0 per cent.; from 0.9 to 1.2 per cent. The average of all his estimations was 1.104 per cent. The proportion of fat showed still greater variations. The lowest observed was 0.63 per cent., the highest 6.65 per cent. The variations in the same woman at different times were also very great, in one case from 1.34 to 6.09 per cent.; the average of all his observations was 3.21, which is rather lower than the average found by König (3.78 per cent.). The amount of sugar varied also; the lowest observed was 2.55 per cent., the highest 9.77 per cent. The average was 4.67 per cent., as compared with the average of 6.21 per cent. found by König. The variation in individual women at different times was also considerable, the greatest difference being from 4.0 to 7.5 per cent. in one case. The specific gravity, as a rule, ranged between 1030 and 1032, but the

extremes observed were 1025 and 1036; the variations appeared to be due mainly to variations in the amount of fat present. Comparative analyses were made of the milk at the beginning and at the end of the nursing. The general result was that the percentage of albumen was practically the same; the sugar slightly less (5·70 and 5·09 per per cent. on the average); the fat rather greater (2·77 before and 3.94 after). This difference in the percentage of fat, considerable as it is, is less than Pfeiffer and others had recorded. Comparing the composition yielded by women at various periods after delivery, it appeared that the percentage of albumen became steadily less as lactation advanced; that the sugar became slightly greater; that the fat decreased at first, increased again at the end of the year. The milk of a primipara appeared to be slightly richer than that of a multipara. As to the influence of the age of the mother, the largest amount of fat was found in the milk of women between 20 and 25 years of age; of albumen between 25 and 30 years of age; and of sugar above 30 years of age. As to the complexion of the mother, the results were the same as those of Vernois and Becquerel, that is, that blondes yield a milk richer in fat and sugar, but rather poorer in albumen, than that of brunettes. The data for conclusions as to the influence of diet on the milk secreted were not sufficient to afford trustworthy results, but it appeared that a woman on a poor, mainly amylaceous, diet yielded a milk poorer in albumen and sugar, but richer in fat, than one fed on a sufficiently mixed diet. A change from a poor amylaceous diet to a diet rich in proteids and fats was followed by an increase in the percentage of albumen and fat. Cultivations gave in 43 cases no results, in 6 various microbes developed, staphylococcus pyogenes albus five times, pyocyaneus once. Slight differences were observed between the milk yielded by the two breasts in the same woman, the greatest variations being in the percentage of fat. In one extreme case the milk from the right breast contained 2.29 per cent. of fat, that from the left 6.29 per cent. In another case that from the right breast contained 5.5, and that from the left 2·4 per cent.

(267) Fibro-sarcoma of the Uterus with Telangiectasis.

Aslanian (*Archives de Tocol. et de Gynéc.*, February, 1895) records a case in which a woman, aged 40, had an abdominal tumour much larger than the pregnant uterus at term. There had been no hæmorrhages; the tumour was soft and seemed to fluctuate; it resembled a multilocular ovarian cyst. At the operation it was found to be an enormous soft growth attached by a broad pedicle to the left side of the uterus. This pedicle contained numerous large veins. The uterus bore small myomata; it was removed with the tumour by Poncel, of Marseilles. The patient recovered. The tumour weighed over 24 lbs. On section, several pints of blood steadily oozed out from its cut surface, yet there was no distinct cystic cavity. Its tissue was rich in highly-developed plexuses of veins forming minute lacunæ. The stroma was sarcomatous. In this case it should be noted that there was no anæmia nor any trouble due to disturbed circulation, and no menorrhagia or irregularity of the catamenia. The parietes on section were more vascular than in health; but this might be attributed to the fibroids, as vascularity of the abdominal walls is common in myoma. The left ovary was flat and atrophied through pressure by the tumour.

(268) Large Blood Cyst of Uterus after Menopause.

Webster (*Amer. Jour. Med. Sciences*, March, 1895) records this case, which occurred in a woman aged 53. About two years before operation she was seized with pain in the pelvis after lifting a heavy tub. A tumour developed, and the abdomen became as large as in the seventh month of pregnancy. The body of the uterus was found retroverted, somewhat enlarged, and softer than usual. Above it could be felt the cyst, which seemed to move separately. Laparotomy was performed by A. R. Simpson. The cyst was found growing from the fundus of the uterus. It was adherent at several points anteriorly, and was removed with the body of the uterus and the appendages. The patient recovered. The cyst contained several pints of dark fluid, chiefly blood. Its pedicle contained tissue, which seemed to represent a true primary angioma. Webster believes that the cyst also was part of an angioma, and was in no sense a secondary condition representing a broken-down myoma.

(269) An Ascaris in a Pelvic Abscess.

Koch (*Centralbl. f. Gynäk.*, No. 8, 1895) states that during the removal of a pyosalpinx a small abscess was discovered in Douglas's pouch; its cavity lodged an ascaris. No communication with the rectum could be found. The patient died of purulent peritonitis on the third day. At the necropsy a perforation was discovered at a point where an adhesion had been separated. Two fistulous tracks led from the rectum into the cavity of the abscess where the ascaris was found. Koch believes that the abscess had burst into the rectum, the parasite afterwards passing from the bowel into the abscess cavity.

THERAPEUTICS.

(270) Influence of Starvation upon the Action of Drugs.

Th. Jordan (*Cent. f. d. med. Wiss.*, March 2nd, 1895) remarks that as yet the great question of the modified action of drugs according to the various conditions of the organism has not been systematically investigated. Starvation is one of the most important of those conditions likely to modify the action of drugs. It is, moreover, of practical as well as theoretical importance to ascertain its influence, for starvation plays a prominent part in the clinical aspect of diseases, and some diseases produce the same pathological changes in the organism which starvation does. Delafoy found that starvation increased the action of strychnine in frogs. Lewin, from experiments on animals, considered that hunger caused the effect of intravenous injection of quinine, atropine, and nicotine to be diminished. This result in the case of atropine was confirmed by Roger. Jordan himself has made fifty experiments to ascertain what effect starvation has in modifying the action of digitalin. He took dogs for his experiments, and in each case injected the digitalin in the form of a watery solution (3 per mille) into the left vena cruralis. The dogs experimented on were allowed to drink water, but had no food, and the experiments were made on the third to the twelfth day of fasting. Control experiments were made on dogs chosen on account of their similarity for experimental purposes to the dogs used. He found that the minimal dose which appeared to have any effect was less in the starving dogs than in the others; that the minimum fatal dose is likewise less; and that by the same dose starving dogs are killed more rapidly than the control dogs. Fasting for only a short time alters but little the action of digitalin on the pulse frequency. When the fasting is prolonged the diminished frequency of the heart's pulsation during the first and third periods of the action of digitalin, and during the second period the increase in frequency, are not so marked as in the control experiments. The blood pressure rose very little during the first period, and the transition to the second period occurred gradually, and not suddenly as it did in the normally-fed dogs. In fasting dogs the vagus nerve is less easily stimulated; this phenomenon becomes more distinct the longer food is withheld, and, Jordan thinks, may account for the diminution in pulse frequency being so little marked during the first period of the action of digitalin in fasting dogs.

(271) Digestive Troubles in Diabetics and their Treatment.

K. Grube, of Neuenahr (*Sem. Méd.*, February 16th) has several times observed in diabetic patients gastric crises very similar to those of tabes. The patient all at once experiences a violent pain in the abdomen, especially at the pit of the stomach, accompanied ordinarily with swelling of the belly and eructations. Violent contractions of the stomach are appreciable on simple inspection. Very soon there supervene nausea, acid vomitings, and sometimes diarrhœa and cramps in the calves of the legs. The tongue is foul, the pulse quickened, the buccal mucous membrane dry; a little fever is noted. The urine may contain, besides sugar, acetone, but it does not give the reactions of diacetic nor oxybutyric acids.

Lastly, the breath acquires an odour recalling that of chloroform. These symptoms, which Grube attributes to an irritation of the vagus by toxic substances circulating in the blood, last from some hours to one or two days, and leave behind them a more or less prolonged state of enfeeblement. The best treatment of these gastric crises consists in immediately provoking an alvine evacuation by means of aqueous or oily enemata, and in applying hot fomentations over the belly. Internal medicaments and feeding are impossible, owing to the vomiting. The drinks best supported immediately after the cessation of the crisis are milk, chicken broth, tea, or weak brandy and water. These crises, although not dangerous *per se*, are of bad augury, for they indicate that the disease is reaching its final stage. To avoid their recurrence, the diet must be altered, so that fleshy foods do not predominate too much, and the regularity of the action of the bowels must be attended to. Besides these acute digestive troubles, at certain periods of the disease a state of chronic dyspepsia is frequently observed characterised by diminution of appetite, especially by dislike for meat, by painful digestion and constipation. The best treatment Grube believes to be an alcoholic extract of pancreas taken after the three principal meals, a remedy which, though not improving the glycosuria, may undoubtedly be beneficial in relieving the digestive disturbances.

(272) Salophen in Rheumatism.

H. Lavrand (*Journ. d. Sci. Méd. de Lille*, December 22nd, 1894) reports seven cases of rheumatism, mostly chronic in character, in which he used salophen. His experience leads him to conclude that the drug is as powerful as salicylate of soda, both as an analgesic and an anti-rheumatic, without the disagreeable secondary effects (headache, intoxication, noises in the ears) of that drug. As salophen does not decompose in an alkaline medium such as the intestine, it does not disorder the digestion nor cause nausea. It relieves neuralgic as well as rheumatic pains. Being tasteless, patients have no objection to taking it. The average dose is 2 grammes (30 grains) daily, divided into four doses. It is most conveniently given in plain water.

(273) Treatment of Uræmia.

Renaut (*Annales de Méd.*, March 14th, 1895) in treating uræmia endeavours to overcome the renal impermeability by the application to the loins of leeches, which he greatly prefers for this purpose to wet cupping. He demonstrated in 1888 the anastomoses which exist between the subcutaneous blood vessels of the loins and those of the cortex of the kidney. Inhalations of oxygen may be of use in aiding the blood to oxidise the retained toxic products. To increase the circulation in the kidney, the muscular substance of the heart must be stimulated, and for this purpose Renaut prefers the administration every four days of 1 miligramme of crystallised digitalin, to be continued even after the renal obstruction has been removed. A milk diet, although it usually increases the daily amount of albumen secreted in the urine, is to be preferred on account of its diuretic action, and because it is a diet yielding very little toxic residue. During the uræmic attack subcutaneous injections of ether act as a cardiac stimulant, and to some extent render the nervous system insensible to the action of the toxic agents of uræmic origin.

(274) Climatotherapy in Graves's Disease.

Glax (*Wien. med. Woch.*, March 2nd, 1895) mentions 5 cases of Graves's disease which were greatly improved by the mild sea climate of Abbazia. Four of these patients were from 25 to 35 years of age, the remaining one being 50. In one case the exophthalmos and enlarged thyroid were particularly marked, whereas in the remaining cases the cardiac symptoms of tremor were prominent. In 2 cases the heart beat was 120 to 140 per minute, and there was evidence of cardiac dilatation. The tachycardia quickly diminished, and the cardial dilatation disappeared; the general condition also improved, and there was considerable increase in weight. This favourable action of sea air has previously been noted in Graves's disease.

(275) Tannin in Enteritis.

Künkler (*Allg. med. Central-Zeitung*, No. 13, 1895) advocates the use of tannin in cases of enteritis. He considers this drug to have fallen into disuse unadvisedly, and recommends a further trial for it. He gives an account of 41 cases, consisting chiefly of infants and children, and also a few adults. Of these, 27 were cases of chronic enteritis and gastro-enteritis, 12 of acute enteritis, and 2 tuberculous. In all, benefit appears to have resulted from the use of tannin. Some of the cases which had previously been under treatment with naphthalin, calomel, and bismuth, without any good result, improved rapidly under tannin. Künkler recommends in the first stage of an enteritis a combination with a stronger disinfectant such as naphthalin or calomel.

PATHOLOGY.

(276) The Pathogenesis of Diabetes Mellitus.

Kaufmann (*Sem. Méd.*, January 16th, 1895) brings forward evidence in favour of the view that the excess of sugar in the blood in diabetes is always due to an increase in the sugar formation, and not to a diminished sugar destruction in the capillaries. He believes that in the normal condition the destruction of sugar in the blood is always compensated by an equivalent sugar formation by the liver, and that any modification of the destruction of sugar in the tissues reacts at once on the liver by the nervous paths or by the blood, and impresses on the sugar formation an activity in direct relation to the sugar destruction. In hibernating animals the sugar in the blood diminishes during the period of torpor, although the sugar destruction in the tissues is greatly decreased. After the revival the sugar in the blood increases greatly, though the consumption of sugar in the tissues is increased. Under normal conditions the amount of sugar in the blood of the horse is increased during muscular activity; also during digestion there is an increase of the sugar in the blood. In these physiological conditions the increase of sugar in the blood is to be explained by increased sugar formation. This is also the cause of the glycosuria after poisoning by curare and morphine, in asphyxia, after the administration of anæsthetics, after lesions of the nervous system, and after extirpation of the pancreas in animals. In the case of pancreas extirpation the evidence against the increased sugar production is stronger. But the chief argument against the increased sugar formation is the supposed diminution of oxidation in diabetes. Recent researches have shown, however, that in many cases of diabetes the activity of oxidation and nutrition is the same as in the normal state. Lépine and Barral from the chemical examination of the blood conclude that in experimental pancreatic diabetes, and in diabetes in man, the glycolytic power of the blood is diminished—that is, the power of sugar destruction is diminished. Kaufmann and Chauveau have made a series of analyses of the arterial and venous blood in healthy persons and in cases of diabetes, but they have never found any difference between the normal sugar destruction and that in diabetes. Kaufmann has isolated the liver by tying all its vessels in a healthy dog, and also in another dog which had been rendered diabetic by extirpation of the pancreas. The action of the sugar-producing focus being suppressed, the sugar in the blood gradually became diminished during its circulation in other parts of the body. But an hour after the isolation of the liver the blood had lost the same proportion of sugar both in the healthy and in the diabetic animals. After having determined the diminution of sugar, Kaufmann re-established the circulation in the liver by removing the ligatures placed on the vessels. He found that the sugar in the blood soon regained its previous percentage. Hence he concludes that sugar destruction proceeds with the same activity in dogs rendered diabetic by pancreas extirpation as in the normal condition, and that the excess of sugar in the blood is due to increased sugar formation by the liver. Kaufmann believes that increased sugar formation and not diminished destruction in the capillaries is the cause of the excess of sugar in the blood in the diabetes produced by pancreas extirpation, by lesions of the medulla, and in all other ways.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(277) Pneumonia.

Ch. Talamon (*Méd. Mod.*, March 20th) discusses some features of pneumonia. (1) Its contagion cannot now be doubted. The following cases are in point. Observation I: In a family composed of father, mother, and a son aged 16, the mother first died on the ninth day of a pneumonia. Father and son, exhausted by watching and scanty meals, went out in bitter weather to register the death. On returning, both were seized with rigor, and compelled to take to bed. The father (nursed at home) died some days after. The son (taken elsewhere) had double pneumonia of the gravest type: extreme typhoid prostration, delirium, abundant albuminuria. Recovery, however, ensued on the thirteenth day, but the pneumonia took more than a month to be reabsorbed, and on discharged after six weeks much albumen remained in the urine. Observation II: An old man, hemiplegic and aphasic, but otherwise in good health, occupied for some months a ward in which were two beds. One day a patient with pneumonia (who recovered) was placed in the other bed. Three days after the hemiplegic was seized with rigor and right pneumonia, from which he died on the fourteenth day. At the necropsy grey hepatisation of the right upper lobe was seen Observation III: Female, 43, admitted on second day of left basal pneumonia. She had nursed, day and night, a pneumonic patient who died on the night of February 23rd-24th. At 4 P.M. next day she experienced pain at the base of the left chest, with severe rigor and general *malaise*. The ensuing pneumonia for a time ran a benign course. Herpetic vesicles broke out on the 27th, at right angle of the mouth. On March 1st temperature fell to 38°, but on the 3rd it rose to 40°, and right base was implicated. She died on March 5th. The points noted are (1) the gravity of the prognosis in cases communicated by contagion. All the above cases ended in death but one, and that patient passed through a pneumonia of the severest type, with albuminuria remaining after six weeks, an exception to the general mildness of pneumonic nephritis. This points to an exaltation of the virulence of the microbe during its sojourn in the lungs of the contagion-giving patient. (2) The significance of herpetic eruptions. These Talamon regards as due to individual peculiarity, not to the disease. Many persons present the outbreaks at other times, and hence are liable to them during a pneumonic attack. They are not to be regarded as critical, appearing indifferently either early or late in the disease. Moreover, they are not coincident with the fall of temperature or any modification of the general or local state. Where present the prognosis is not always good, though this holds as a rule. G. Sée noted a mortality of 9 per 100 in pneumonia with herpes, as compared with 25-30 per 100 in pneumonias taken *en bloc*. (3) The question of critical collapse. Talamon has often seen a rapid fall of temperature in a few hours from 40° C. and above to 36°, accompanied with coldness and cyanosis of the extremities, feeble pulse, and weakening of the heart sounds, but these patients, as a rule, rapidly recovered. A case of a different nature, in which death ensued on the sixteenth day, is related. Here, three days after defervescence, the temperature began to fall by successive daily stages, reaching 34° some hours before death. At the necropsy nothing was found to account for the lowering of temperature, the pneumonia of the left base being well on the road to recovery. Since the patient before his attack had suffered much privation, Talamon compares the case to the "starvation" pneumonias of English authors.

(278) Renal Manifestations in Enteric Fever.

Roth (*Münch. med. Woch.*, March 12th, 1895) refers especially to cases in which the renal symptoms are more marked than those referable to the alimentary canal. After citing statistics as to the frequency of nephritis he mentions Mygge's observations, in half of whose cases the patients developed either cystitis or pyelitis. He then relates the following case in a boy aged 16½ years. A few days before admission he was seized with headache, thirst, fever, and severe pain in the right loin. On admission the urine was scanty, albuminous, and contained many epithelial cells and white blood cells, but no casts. Four days after admission the stools were loose and rose spots were found. On the next day the urine still contained albumen and abundant cells resembling those from the renal pelvis. The abdomen was distended and the spleen palpable. The boy then steadily improved, but the urine contained albumen for some time. It was only on the eighth day that the diagnosis of typhoid fever was evident, the disease having begun with signs of pyelitis. The constant absence of casts was against a nephritis. The occurrence of pyelitis in the course of enteric fever is not easily overlooked, but if the symptoms of pyelitis appear first the dignosis may be obscured. In these cases of renal complications the author would not use the cold bath treatment unless absolutely necessary, and then only in a modified form. Care is also requisite in the feeding during convalescence.

(279) Tumour of Dura Mater

Bremer and Carson (*Amer. Journ. of Med. Sciences*, February, 1895) report the following case. A man, aged 46, first noticed weakness in his right shoulder six months before coming under observation; gradually paresis and wasting extended to the arm, and the whole limb at times felt numb. Jacksonian epilepsy then developed. On admission into hospital, there was a hypersensitive area a little below and in front of the left parietal eminence; the right arm was completely paralysed, its muscles being partially atrophied; the right leg was paretic, also wasted to a slight extent; right side of face paretic. Deep reflexes increased in right limbs; ankle clonus on this side. Muscular sense and cutaneous sensibility were unimpaired. Engorgement of the retinal veins was the only ocular abnormality. Tumour of the left hemisphere, involving chiefly the upper limb centres, was diagnosed. At the operation the new growth was found to implicate the dura mater, leaving the subjacent brain surface apparently healthy. A mass weighing 14 oz. was removed, but after death on the seventeenth day it was found that a considerable portion of the tumour (a cylindroma endothelioides) had escaped removal.

(280) Kreatinin in the Urine.

Kolisch (*Centralbl. f. inn. Med.*, March 16th, 1895) refers to the few investigations into this subject, whereas the other nitrogenous constituents of the urine have been thoroughly studied. The following are the characters of kreatinin: (1) A colour reaction with nitro-prusside and picric acid; (2) power of reducing metallic oxides in alkaline solution; and (3) property of forming stable compounds with certain heavy metals. If mercuric chloride and sodic acetate be added to an alcoholic solution of kreatinin a thick white precipitate is produced and no kreatinin can be found in the filtrate. Urea is also precipitated, but only from alkaline or neutral solutions; the addition of acetic acid prevents this precipitation. The author uses the following reagent, containing sublimate 30.0, sodic acetate 1.0, ac. acet. glac. miij, abs. alcohol 125.0. The amount of kreatinin is ascertained by estimating the amount of nitrogen present.

SURGERY.

(281) Sterile Pus in Hepatic Abscess.

Longuet (*La Presse Méd.*, March 16th) reports the following case. A carman, aged 41, came into hospital June 14th, 1894. Antecedents: No personal nor hereditary peculiarity. No previous disease, no hepatic colic nor jaundice at any time. Had never travelled in hot countries. No alcoholic habits; no history of traumatism in the hepatic region or elsewhere. Onset and Evolution: Two years ago, in August, 1892, pains first appeared in the right hypochondrium when fatigued. By degrees a swelling appeared in the hepatic region and increased for two months, becoming prominent without changing the surface colour. Meantime increased pain necessitated cessation of work, and digestive troubles supervened, perpetual nausea, frequent food vomitings, constant anorexia, and special loathing for meat. Constipation was usual, except for a few diarrhœic stools, which

ere neither frequent nor bloody, nor ttended by tenesmus. Slight febrile tendencies now existed, but never rigors nor shiverings. Morning headache at times, but no epistaxis was noted. In October, 1892, Marchant, after exploratory puncture, opened the abscess by free incision, followed by drainage, which gave issue to much reddish pus. In two months the wound healed, and in January, 1893, the man went out cured and free from pain. In October, 1893, the abscess suddenly reappeared without assignable cause. Sudden tumefaction and violent pains existed from the onset. There was however no vomiting nor fever as before. A second hepatotomy was practised. The pus, again reddish and clotted, was less abundant. This time, however, the pains persisted with increased swelling; yet quick healing ensued, and patient went out still suffering severely from pains and food vomitings. On June 14th, 1894, he entered hospital a third time, and once more hepatotomy was performed on August 4th by a vertical incision, 4½ litres of pus draining away. There was no enucleable membrane which could suggest suppurating hydatid cyst. The wound closed up in a month and a-half without further trouble. The pus, received in sterilised tubes, gave no result on culture with broth, gelatine, or gelose. In the fresh state *débris* of hepatic cells, hæmatin, leucocytes were seen, but no amœbæ. Slide preparations, coloured, some with Kuhne's blue, others gentian violet, or by Gram's method gave negative results. The remarkable points of the case were: (1) The abscess supervened without cause. No explanation could be found of this enormous collection of pus. (2) The abscess was reproduced at three intervals despite three surgical interventions. Only one case, recorded by Tuffier, is at all parallel in nature. (3) The abscess was rare by its volume. Only a few cases are recorded of equal or greater quantity of pus. (4) The pus was sterile. This fact is now well known, this case being the thirty-eighth recorded. There exist many suppositions to account for this sterility: (1) That the microbes are killed by the bile. Recent researches have shown this to be untenable, the bile to certain micro-organisms behaving even as an excellent culture medium. (2) That hepatic suppurations may be due to germs which are incapable of being coloured or cultivated by the usual methods. This supposition obviously evades the question, and is not satisfactory. (3) Chauffard's view that the hepatic cell by a chemical action yet unknown causes the pathogenic bacteria to disappear. The fact that sterile collections of pus are frequently met elsewhere, as in the Fallopian tubes, is an objection to this supposition. (4) The theory of late secondary sterility. This finds most supporters. In proportion to the length of duration of the case the greater the chance of finding sterile pus. The fact that Zancarol and others, after observing the micro-organisms in slide preparations, in some cases only obtained feeble cultures with difficulty in a single medium, seems to show an approaching sterility.

(282) Aneurysm of Aorta Cured by Macewen's Method.

BIGNONE (*Rif. Med.*, March 1st, 1895) relates the case of a man, aged 68, admitted into hospital, November 7th, 1894, suffering from aneurysm of the ascending aorta. He had much pain and sense of oppression behind the sternum, dypsnœa, stertor, increased on swallowing, and dry barking cough. In the third sterno-intercostal space a rounded pulsating expansile tumour over which a systolic *souffle* could be heard. The radial pulses were equal. On November 30th two steel needles were inserted into the aneurysmal sac, and allowed to remain for twenty-four hours, then withdrawn; similar treatment on December 4th, 6th, and 14th. Satisfactory results followed immediately after the first operation, and finally the tumour was reduced to one-third its original size, and the pulsation almost disappeared. A last puncture was made on January 10th; the needle seemed then to pass through a fibrous tumour to reach a small cavity in the centre. The patient was now able to sit up all day, and walk about without any pain or discomfort.

(283) Frank's Method of Gastrostomy.

SINDNER (*Berl. klin. Woch.*, No. 8, 1895) gives the results of his experiences of Frank's operation for opening the stomach in cases of malignant and cicatricial stenosis of the œsophagus. This method consists in opening the abdominal cavity by a small incision, in drawing through the opening as large a portion as possible of the stomach, in fixing the base of this to the peritoneal edges of the wound, and in passing the free outer portion under a bridge of undermined skin, and finally bringing it through a second wound made over the margin of the ribs, to the edges of which the gastric walls are fixed by a second row of sutures. This operation, the author states, is superior to that of Hahn, in which there is a risk of wounding the pleura. Frank's method, if performed on patients who have not been too much reduced by starvation and cachexia, or poisoned by the secretions from the ulcerating cancer, promises good results. The food can be retained, and also the gastric juice, which in older methods is freely discharged from the fistula, and causes deep ulceration of the skin around the margins of the wound in the abdominal wall. If the operation be performed under favourable conditions, the surgeon, it is held, may with a good conscience offer to his patient a fair expectation of a prolongation of life under relatively comfortable conditions for at least twelve months.

(284) Injuries of Spine and Cord.

DENNIS (*Annals of Surgery*, March, 1895) draws attention to the great value of Sayre's plaster-of-paris jacket in the treatment of injuries of the spine and cord, and concludes as follows: Traumatisms of the spine, with or without compression of the cord, should be immediately subjected to extension and counter-extension, and then immovably fixed by Sayre's jacket. Recovery has followed fractures of the lower cervical vertebræ by this method. The most unpromising case should be given the benefit of a trial of the jacket. The usefulness of the jacket is greatly enhanced by the administration of iodide of potassium, at first in moderate and later in very large doses, and pushed to the extreme and continued for several weeks. The use of the jacket is not confined to recent cases alone. The jacket is a most useful adjuvant for immobilisation of the spine after laminectomy.

MIDWIFERY AND DISEASES OF WOMEN.

(285) Deciduo-Sarcoma of the Uterus.

SCHAUTA (*Centralbl. f. Gynäk.*, No. 9, 1895) describes a typical case of malignant degeneration of decidual relics. The patient was aged 29. She came under his care during her fifth pregnancy, for frequent hæmorrhages. The last period had occurred in March, 1894. On October 9th, as the bleeding had continued for over a fortnight the uterus was explored. Two fingers could be passed into the os. The uterine cavity contained a degenerated myxomatous ovum, the so-called hydatid mole. The uterus was cleared of its contents as thoroughly as possible by the fingers and packed with iodoform gauze. Hæmorrhages occurred, with free watery discharge, after recovery. During the last week in November the uterus was explored. One finger could be passed into the cervical canal and easily pushed through the internal os. Soft masses were detected projecting into the uterine cavity. On the posterior vaginal wall was a tough dark blue swelling of the size of a nut; the mucosa which covered it was not adherent. There were two separate pelvic tumours. As scrapings from the uterus showed all the signs of deciduo-sarcoma, vaginal hysterectomy was performed and both ovaries, considerably enlarged, were removed as well. The secondary vaginal deposit was excised. The whole operation was relatively easy, as the uterus was perfectly movable. This seems the rule in this disease, contrary to what is seen in ordinary cancer of the uterus, but the former is generally diagnosed earlier. Œdema and extreme anæmia of the vulvar and vaginal mucous membrane were observed in this case. The patient recovered. Not only the endometrium, but also the vaginal deposit and the connective tissue of the ovaries contained new growths, resembling decidual tissue. This appears to be the first case in which the ovaries were infected. Three distinct forms of malignant degeneration of the decidua have recently been distinguished. In the first proliferation of the connective tissue of a decidual relic occurs (Gottschalk's sarcoma

of the chorionic villi). In the second the epithelium of the villi proliferates (Klein's carcinoma of the villi). In the third and commonest variety the decidua cells and not the epithelium of the villi proliferate; hence the new growth must be reckoned as a sarcoma (S. deciduo-cellulare, according to Schauta).

(286) Thrombus of Vagina in Pregnancy.

Queirel, of Marseilles (*Annales de Gynéc. et d'Obstét.*, March, 1895) writes that a primipara, aged 19, when in the eighth month of pregnancy, was seized with pain after violent coitus, and a swelling rapidly developed and bulged out of the vulva. It formed a purple pyriform body 4 inches long and nearly 2 inches wide at its broadest part. It was evidently about to slough. Queirel applied forceps to the pedicle, cut it flush with the forceps, and passed four sutures through the pedicle behind the forceps. The instrument being relaxed, the sutures were tied; suddenly hæmorrhage occurred as the last was being tightened. The mucous membrane had to be ligatured around the bleeding point. The patient was afterwards delivered at term, labour being spontaneous and perfectly normal. Queirel observes that this is the seventh case of thrombus of the vagina in pregnancy recorded in medical literature. In one (Auvard's) the thrombus was already sloughy when removed. The patient, as in all the other cases, recovered. The chief importance of thrombus of the vagina in pregnancy is, of course, this tendency to slough, which sets up an essentially dangerous complication. Fortunately removal of the thrombus and disinfection of the genital tract are easily effected.

(287) Management of Labour Complicated by Heart Disease.

Barton Hirst (*Amer. Journ. Obstet.*, March, 1895) has successfully conducted many such cases without a death. One patient had mitral insufficiency and stenosis, with orthopnœa and "a face as blue as indigo." Another was a primipara, aged 44, with congenital mitral and tricuspid disease and advanced renal complications. A third was the subject of aortic disease and aneurysm of the arch of the aorta. A fourth had old mitral disease, albuminuria, and profound anæmia. Hirst's principles of treatment are recorded. Digitalis and strophanthus are given in unusually large doses during pregnancy, which, as a rule, should be induced prematurely. When labour begins, digitalis and strychnine are administered hypodermically in strong doses until the os is of the size of a dollar. Then, in head presentations, the forceps should be applied and the child extracted as rapidly as possible without regard to the integrity of the maternal tissues and without anæsthesia. In several cases Hirst has deeply incised the cervix on all four sides. The hæmorrhage from the lacerations and incisions after delivery is the best safeguard against engorgement of the lungs and overstrain of the heart after childbirth. A hypodermic syringe charged with nitroglycerine and some pearls of nitrite of amyl should be close at hand, and when the placenta is expressed no ergot should be given nor any other means taken to prevent *post-partum* bleeding, which, within bounds, should rather be encouraged. To compensate for the sudden diminution of intra-abdominal pressure a large pad above the umbilicus and a tight binder should be applied.

(288) Meckel's Diverticulum in Infants: Artificial Anus.

Brundeau (*Nouv. Archives d'Obstét. et de Gynéc.*, February 25th, 1895) exhibited recently at a Society an infant which died when 5 days old. It was an 8 months' child, and weighed only a little over 2 lbs. 3 ozs. A Meckel's diverticulum was found 8½ inches above the cæcum. Attached to the base of the cord, the diverticulum drew the gut forward at a sharp angle; the portions of intestine immediately above and below the abnormal structure were thus drawn together like the barrels of a fowling piece. The diverticulum being pervious, an abnormal anus existed, and the meconium before birth had, it is recorded, been passed into the liquor amnii. The intestine above the diverticulum was dilated, below it was very small. Brundeau exhibited a second case. The child was born in the middle of the eighth month and lived 10 days. The diverticulum lay 9⅜ inches above the cæcum, and lay free in the abdominal cavity.

(289) Laparotomy for Gauze left in Abdomen after Previous Operation.

Koch (*Centralbl. f. Gynäk.*, No. 8, 1895) reports a case in which a left hydrosalpinx was removed; two months later a second abdominal section was needed, as severe and increasing pelvic pains had set in. On the right side of the uterus was found a cavity full of pus, and very evenly lined with iodoform gauze. It had been packed in the pelvis at the previous operation and forgotten. The patient recovered completely after its removal.

THERAPEUTICS.

(290) Feeding by the Rectum.

G. Singer (*Cent. f. de ges. Therapie*, March, 1895) recalls that the clinical value of rectal nutrition was established by Voit, Bauer, von Eichhorst, and others. Egg albumen, with or without preliminary peptonisation, is absorbed and assimilated by the mucous membrane of the large intestine. For direct absorption milk is well suited. According to some egg albumen is best when first mixed with salt (1 gramme to the egg), though Ewald attaches no value to it, thinking, as he does, that the peptonisation is the most important. Better still is Huber's combination of the two methods: six eggs are mixed with six grammes of salt, and 200 c.cm. of a 0.15 per cent. solution of HCl, containing 5 grammes of pepsin, and the mixture is kept for ten hours in the warm chamber. Of this mixture, nutrient enemata may be given twice daily. Rectal feeding is still insufficiently employed in practice, partly because it is sometimes disagreeable, partly also, perhaps, because this method of nutrition has not quite fulfilled the somewhat exaggerated expectations at first entertained of its utility. Singer thinks that after hæmorrhage from a gastric ulcer rectal feeding should be resorted to for some days. It diminishes the likelihood of a recurrence of the hæmorrhage by doing away with the irritation caused by the presence of food, and by giving the stomach physiological rest, with freedom from the peristalsis and hyperæmia accompanying digestion; it is at the same time a treatment for the troublesome vomiting of gastric ulcer, with or without hæmorrhage. The nutrient enema should not consist of more than a quarter of a litre. Singer has practically kept to the mixture recommended by Boas, and uses 125 grammes milk, 125 grammes wine, the yolk of two eggs, mixed with a little salt and a teaspoonful of Witte's peptone; he sometimes adds a little grape sugar. The mixture is well beaten up, and an ordinary enema syringe furnished with a soft tube is used to inject it. The nutrient enema may be given three or four times daily at intervals of four to five hours. The rectum must be cleaned out with enemata before each nutrient enema is given, and neglect of this precaution is a common cause of symptoms of rectal irritation. Singer recommends after each nutrient enema the administration of a suppository containing $\frac{1}{10}$ grain of extract of opium. When there is great tendency to tenesmus 8 to 10 drops of tincture of opium with the other ingredients of the enema. It is very seldom that the enemata are not retained, but in this case the preparation of the mixture may be at fault; there may be too much salt, or an unsuitable ready-made peptone preparation may have been used. The patients with hæmorrhage from gastric ulcer were kept in bed and nourished solely by the rectum for four to eight days. Singer says that recurrence of the hæmorrhage took place only when patients secretly took solid food before they were allowed. When there is much pain a mixture containing subnitrate of bismuth and chloroform can be given by the mouth. Excessive feeling of hunger and thirst can be treated by a little opium (better than cocain), and 200 c.cm. of water (for thirst), but if the thirst be excessive owing to diarrhœa more fluid may be given. Singer also recommends exclusive rectal feeding to be tried in some cases of dilatation of the stomach, in some gastric neurosis including excessive vomiting of pregnancy, and after some abdominal operations. In cases of typhoid fever he thinks that he has diminished the great loss of weight by feeding patients by the rectum, in

addition to the ordinary feeding by the mouth. Enemata containing alcohol and tea may be useful in collapse during acute diseases, and where alcohol cannot well be administered by the mouth.

(291) Abortive Treatment of Gonorrhœa.

Viceconti (*Rif. Med.*, February 9th, 1895) draws attention to Guiard's treatment of gonorrhœa by means of frequent washings out with weak solutions of permanganate of potash. He uses a vessel of a capacity of about 2 litres for holding the solution; attached to this is a rubber tube 2 metres in length, fitted with a glass cannula and tap, so arranged as to be workable by the same hand that holds the nozzle in the penis. If the inflammation is confined to the anterior urethra, only a small quantity—about 5 or 6 grammes—is allowed to flow in, and then immediately voided. About half a litre is the utmost that should be used at one sitting. The best results are obtained with weak solutions, for example, 1 in 10,000, the maximum being 1 in 5,000. There should be two washings on the first, second, and fourth day. On the third and last four days of the eight days' treatment only a single washing out is advised. The results obtained are very satisfactory. The stains produced by the solution may be removed by a 30 per cent. solution of bisulphite of soda.

(292) The Hæmostatic Properties of Turpentine.

Sasse (*Therap. Monatsh.*, February, 1895) states that though some authors have used oil of turpentine successfully in hæmaturia and cases of hæmoptysis, its valuable properties in this respect are not sufficiently known. He first used it with considerable success after extraction of teeth, a severe instance of hæmorrhage yielding to no other remedy. Thus emboldened, he applied it to the gums and used it as a mouth wash in an obstinate case of scurvy, complicated by hæmaturia. The oil was used undiluted, and also administered internally in small doses. He was equally successful in curing a patient suffering from hæmorrhage, the bleeding being from the bladder. An emulsion of the oil was given hourly. The patient's general health does not appear to be influenced by the drug. Finally, Sasse mentions the success obtained by a colleague, who at his instigation also employed turpentine as a hæmostatic after extractions.

(293) Treatment of Diphtheria.

Bennie (*Australian Med Journ.*, January 20th, 1895) speaks highly of the treatment by mercurial salts. After referring to published cases, he describes his own results. During the last four years he has thus treated 38 cases, with a mortality of only 8 per cent. Eight of these cases had severe laryngeal symptoms, and in 3 cases diphtheritic palsy supervened. No bacteriological examination was made. The author used mercuric perchloride in the same doses as Jacobi, only more largely diluted. The daily amount given by Jacobi was ¾ gr. to a baby of 4 months, and ½ gr. to a child from 3 to 5 years, always largely diluted. His single dose varied from $\frac{1}{50}$ to $\frac{1}{20}$ gr. In a few days the dose was diminished. Locally Bennie uses pot. permanganate (1 in 1,000). He thinks that possibly the mercurial salts may combine with the toxins, and he is not at all inclined at present to change over to the serum treatment.

(294) Nosophen.

Seifert (*Wiener klin. Woch.*, March 21st, 1895, p. 213) gives the results of a trial of nosophen. The latter (tetraiodide of phenolphtalein) is a pale yellow powder, tasteless and inodorous, and contains about 60 per cent. of iodine. It is insoluble in water and acids, slightly soluble in alcohol, more readily in ether and chloroform, and easily in alkalies without undergoing change. It reacts chemically as a fairly strong acid and forms salts with sodium, mercury, etc. It and its sodium salt are absolutely non-poisonous, and iodine is not set free in the organism. (A) It is specially adapted, owing to its insolubility and lack of odour, to the after-treatment of operations on the nares: (1) As an insufflation applied after the cautery (chemical or galvanic) it prevents suppuration and formation of adhesions. (2) In rhinitis sicca it causes no irritation and no secretion. (3) In rhinitis hypersecretoria it diminishes the secretion and cures the inflammation quicker than bismuth, aristol, europhen, or sodium sozoiodolate. (4) It appears to shorten the course of rhinitis acuta. (5) In one case of nasal diphtheria, where it was used the membrane disappeared in four days. (B) In venereal diseases: (1) Six cases of balanoposthitis were cured in three days. (2) In cases of soft chancre it was equal to europhen if precautions were taken to prevent it forming a crust and retaining the secretion by first cauterising the sore with liq. ferri. (3) In hard chancre the number of cases treated was too small to form any opinion. (C) One case of traumatic weeping eczema was cured in a remarkably short time by using nosophen in powder.

PATHOLOGY.

(295) Morbid Anatomy of Thomsen's Disease.

Déjerine and Sottas (*Revue de Méd.*, March, 1893) record a case of Thomsen's disease, with an account—apparently the first—of the necropsy. The subject was a man, aged 32, who presented extreme enlargement of the muscles of the lower limbs and of the lower part of the trunk, more especially of the sacro-spinal group. The upper limbs and upper part of the trunk were only slightly above average size, but such was the contrast that they appeared much smaller than usual. Palpation of the muscles gave the impression of their being constantly in a condition of semi-contraction, nor could one move the muscle masses laterally when in a state of relaxation, as in the normal body. On making any movement the peculiar rigidity described in other cases was observed, followed by a slow relaxation. This was less marked after repetition of the movement. Notwithstanding the size of the muscles, his muscular force was greatly diminished. His previous history showed that he was always weak, and this became more marked as he grew up; at about 20 he seemed to get somewhat stronger. Careful investigation into his family history failed to discover a similar condition in his own or the previous generation, nor was there anything pointing to nerve disease. The case was under observation for five years, at the end of which he died of acute nephritis. At the necropsy the skin was found everywhere tense, and the subcutaneous tissue fibrous with very little fat. The muscles were very large, and protruded from the sheath on this being incised. It was more especially the middle part of a muscle which was enlarged, giving it a globular shape in some instances. The muscles were less red than normal, their colour being dulled, and in consistence they were less elastic. On section they were very fasciculated. Microscopic examination showed very marked irregularity in the shape and size of the muscle fibres, some being of extreme size; the quantity of connective tissue between them also varied in amount. There was marked increase in number and size of nuclei of the muscle fibres. Here and there the fibres were quite atrophic, the surrounding connective tissue being increased. There was an absence of fat cells. Minute examination showed separation in many instances of the sarcous elements, so that the sarcolemma sheath seemed filled with granules. In other instances the sheath seemed filled with a homogenous substance, which occasionally appeared vacuolated. The diaphragm presented marked alteration. Careful examination of the medulla, cord, and peripheral nerves failed to show any lesion. The cardiac muscles showed no lesion.

(296) The Generalisation of Intestinal Microbes.

Beco (*Ann. de l'Inst. Past.*, March, 1895) finds that in the majority of cases microbes characteristic of the intestine, including especially the B. coli, are to be found in the spleen or thyroid, or both, immediately before death in many diseases, including some in which the intestines were not diseased. In diarrhœa produced artificially in rabbits, such generalisation was observed only in the less acute cases. He argues that the microbes must have been carried to the spleen and thyroid by the blood, and thinks the B. coli multiplies rapidly in them after death. He contends that much caution must be exercised in deducing from the presence of the B. coli in the internal organs after death in intestinal diseases that their existence there has any pathological significance.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(297) Influenza.

A. Claus (*Flandre Méd.*, March 7th) considers that the specific pathogenic microbe of influenza is not yet discovered. Some attribute it to a diplococcus, others to a streptococcus; others think that it is due to microbes normally present whose virulence, under epidemic influence, has been greatly augmented. The infectious nature of the disease is generally conceded. The microbe, whatever it be, secretes toxins which cause in the blood or lymph vessels either simple congestion or free inflammation. These states determine consecutively in the nerve elements, fibres or cells, compressions or irritations whose painful manifestations will form one of the most constant symptoms. Prominent amongst these is headache, often accompanied by trigeminal neuralgia. More rare are neuralgia of the cervical plexus, intercostal neuralgia, and sciatica. Rachialgia is almost universal and appears abruptly, a feature which the pains possess in common. The latter are migratory, are difficult to define, are not lancinating, and are rarely spontaneous, yet the patient is kept immobilised by them. Pressure is painful yet their seat cannot be localised. As to the nature of the changes produced by the toxins in the nerve elements, Claus believes that they vary from a simple nerve congestion (producing a neurosis neuralgia) to real anatomical changes (subacute neuritic or chronic neuritic neuralgia). He also believes the neuralgias to be of a diathetic nature since they present the features of that class of neuralgias—namely, diffuseness, bilateral distribution, erratic nature, and amenability to treatment aimed at the diathesis. The influenzal neuralgias present these characteristics since they migrate with extraordinary facility, and often occupy several nerve trunks at once. The neuralgia is seldom seen on one side only, the cephalalgia, for instance, occupying the whole head. Whether these neuralgias are primarily of central or peripheral origin is still *sub judice*. As indicated above, Claus considers the diathetic element all-important in their etiology, age, climate, heredity having but slight influence. It is those who eat and drink too much—the gouty, rheumatic, and arthritic—in whom these neuralgias are especially found. The accuracy of this is proved by the fact that the medicaments of most value rank in the order of their antiarthritic action. Such are antipyrin and salicylate of soda followed by remedies of lessening efficacy, as salipyrin, salol, agathin, phenacetin, exalgin, quinine, etc. Most valuable of all, according to the author, is salophen.

(298) Chlorosis.

V. Noorden (*Berl. klin. Woch.*, 1895, Nos. 9 and 10) discusses the pathology and treatment of this affection. The deficiency in hæmoglobin is due either to its increased destruction or to diminished formation or to both factors. The theory based on increased destruction is unsatisfactory. If in the absence of biliary stagnation many derivatives of biliary and allied pigment are largely present in the stools, the destruction of hæmoglobin is abundant; if few the destruction is small. The latter is true in chlorosis, and thus there can be no question of excessive destruction; therefore diminished formation of hæmoglobin alone remains. As regards the absorption of iron, Bunge advanced the theory that iron holding nucleo-albumin can only be absorbed, this compound being destroyed in the alimentary canal of the chlorotic. But the increased decomposition products assumed for the destruction of this nucleo-albumin do not exist, and it has been shown that the livers of animals fed on iron salts contain abundant iron. As to the cure effected by iron it is very improbable that it simply supplies the deficit because every chlorotic absorbs sufficient iron for the purpose. There is abundant iron supplied in diet as a nucleo-albumin, but this is not used probably owing to deficient function in the hæmatopoietic organs. Arsenic, of unquestionable service in chlorosis, acts by its stimulating action on the hæmatopoietic organs. The author is of opinion that iron only acts like many other medicinal and hygienic agents by stimulating the hæmatopoietic organs, and he does not attach any importance, to its relation to the hæmoglobin molecule. Absorption from the alimentary canal in chlorosis is usually good. Metabolism behaves as in health. As to dietetic treatment chlorotics who are wasted should receive a diet favouring the laying of fat. To those who are well nourished abundant nitrogenous food should be given. Any relation between alcohol and blood formation is highly improbable. The author lays stress on the first meal in the day containing plenty of albuminous matters.

(299) Puberty in Infantile Hemiplegia.

Leblais (*Publications du Prog. Méd.*, 1895, Thèse) states that observations made by him in M. Bourneville's clinic, show that certain trophic changes associated with infantile spasmodic hemiplegia are only to be noted at puberty. Differences in the size of the testicles were noted in 8 out of 29 boys examined. In 7 of these the testicle on the hemiplegic side was smaller than on the sound side; in 1 it was larger. Retention of the testicle in the inguinal canal seemed to be more common than among normal children. Among the girls the only abnormality noticed at puberty was that in one case the mamma on the paralysed side was hypertrophied. As a rule the hair developed at puberty less well on the paralysed side, but sometimes the opposite was the case; in others the development took place unequally, but the inequality was not symmetrical; in others, again, development of hair was normal on the two sides. Puberty developed in the hemiplegic children at the same age and with the same phenomena as in healthy children.

(300) Estimation of Hydrochloric Acid.

Wiener, of v. Jaksch's clinic (*Centralbl. f. inn. Med.*, March 23rd, 1895) speaks of Mierzynski's gas volumetric method for the quantitative estimation of hydrochloric acid in the stomach contents (Epitome, British Medical Journal, 1894). The acids are converted into barium salts, and eventually a barium chromate is obtained. The amount of hydrochloric acid present is then estimated by measuring the quantity of oxygen to be obtained from this chromate. The results obtained by this method and by the Sjöqvist-Jaksch method were remarkably alike, so that the author thinks that this method is available for clinical work, but he does not grant that it can claim advantages in regard to simplicity.

(301) The Pharyngitis of Albuminuria and Diabetes.

Garel (*Ann. des Maladies de l'Oreille*, etc., February, 1895) speaks of a form of pharyngitis which indicates the presence of diabetes or albuminuria. There are two forms of pharyngitis associated with these diseases, namely, the hyperæmic and anæmic; these appear to the author to be two stages of the same disease. In the dry or anæmic form the mucous membrane may be of somewhat a greyish appearance, granular, often traversed by small vessels. It is only the hyperæmic form which presents characteristic features. Sugar or albumen is then almost invariably found in the urine, whereas in dry pharyngitis they are only present in one-eighth of the cases. In this hyperæmic pharyngitis there is discomfort in the throat, trouble in swallowing saliva, and the pharyngeal mucous membrane is swollen, hypersensitive, and with excess of secretion. The voice is often a little husky. In 21 such cases the author found sugar in 10 and albumen in 11. In the former the age varied from 40 to 50, in the latter from 28 to 75. As regards the amount of sugar present, the state of the throat gave no indication, but the albuminuria, except in one case, was always slight. The author concludes that this hyperæmic pharyngitis may be considered as the first indication of diabetes or albuminuria. It is almost pathognomonic.

SURGERY.

(302) Excision of the Rectum.

Micheli (*Rif. Med.*, February 23rd, 1895) gives short notes of 19 cases of excision of the rectum for cancer, occurring in Professor von Bergmann's clinic. The favourable results, more particularly with regard to the absence of post-operative inflammation in the

perirectal space, are attributed to the special *technique* employed in and after the operation. The patient being in the lithotomy position, the surgeon begins by making a horizontal incision down to the bone over the sacrum at the level of the third foramen; from the extremities of this he makes two slightly divergent incisions as far as the anus. These are made less deep as they approach the anus, so that at this point the skin only is involved. The sacrum is then divided and the osteo-cutaneous flap raised, leaving ample room to deal with the disease. The author uses a circular suture in all those cases where the ends of the bowel can be brought together without undue stretching. Even when some point of the posterior suture gives way, as frequently happens at the first defæcation, the resulting fistula does not give much trouble as the wound is by that time in a granulating condition. The patient is made to lie on his side for the first week after the operation, and the osteo-cutaneous flap gradually brought into position. Necrosis of the bone only observed once. The advantages of this operation are that it does not injure the nerves so much, leaves the shape of the perineum unaltered, the anal sphincter is not left without a fixed point of insertion, and especially the ease with which the fistulous tracks spontaneously close.

(303) Lymphangioma.

Zuccaro (*Puglia Medica*, 1894, Nos. 8 and 9) removed a large congenital tumour involving the regions of the upper arm and thorax in an infant, aged 17 days. It was soft, distinctly fluctuating in parts, and rapidly growing. The liquid removed from the cysts in it coagulated quickly. Buried in the connective tissue stroma there were lymphatic cavities and spaces often visible to the naked eye. These spaces were lined by an endothelium. The connective tissue was in different stages of development. For such a tumour as the above to be classed as a neoplasm of lymphatic tissue it has been said that there should be lymphatic varices in connection with it, or the spaces in the tumour should communicate with the lymphatics. It does not follow that if these conditions are not present the tumour is not a lymphangioma. The diffuse form of the growth and the distribution of the spaces tend to show that it is not a fibroma which has become telangiectatic. The author would class his case as a congenital cystico cavernous lymphangioma of the subcutaneous lymphatic rete. He lays stress on the central parts being adherent to the skin and the peripheral portions being of indefinite limitation. The indication for operation here was the size and growth of the tumour, which would soon have given rise to pressure incompatible with life. The only rational treatment is extirpation. The extent of the tumour and tender age of the patient must be remembered. Here it was necessary before the completion of the operation to desist owing to the extent of the growth, and to be satisfied with draining. Death occurred some sixteen days later, apparently owing to inflammation of the lymphatics starting from the wound. The result might have been different if the whole tumour could have been removed and primary union obtained.

(304) The Operative Treatment of Perforation in Typhoid.

Hare (*Intercolonial Quart. Journ. of Med. and Surg.*, February, 1895) is hopeful as to the results of surgical intervention in cases of typhoid perforation. He holds that the general idea that all, or at any rate most, of the subjects of this complication are in an advanced state of prostration at the time of the accident is fallacious. Given a case in which vomiting has been inhibited and in which collapse is not marked, it seems to him not only justifiable to operate, but unjustifiable to wait. In performing laparotomy the author would always make the section over the part where the pain began. If this is not umbilical, it is stated the lesion is more easily reached; if it is umbilical and the lesion is not found immediately beneath, then more room is obtained for exploration. If, as in the majority of cases, the pain starts from the left iliac region, then no hesitation need be felt in making the incision on that side, since the probability is always in favour of the lesion being found in that direction. In a reported case in which the author operated there was general peritonitis, considerable collapse, and fæculent vomiting. The patient rallied for a short time, but died at the end of eighteen hours. At the necropsy the gut was found impervious to water under pressure. Stress is laid on the advantages, in cases of perforation in which there is much vomiting and the intestines are distended, of washing out the stomach and incising the bowel.

(305) Treatment of Penetrating Wound of the Abdomen.

Chaput (*Bull. et Mém. de la Soc. de Chir.*, February, 1895), in a report on a case in which Rochard successfully treated by laparotomy and intestinal suturing a double punctured wound of the cæcum, gives the following conclusions with regard to surgical intervention in such instances. When the patient is cold and collapsed, it would be well, he holds, to abstain from operating. If, however, it be evident that the shock is due to hæmorrhage, the surgeon should intervene, notwithstanding the serious general condition. If it be probable that the patient will die on the table, the operation should not be performed. In difficult and doubtful cases the surgeon should be guided by his experience and trust to the dictates of his own conscience. Expectant treatment, it is held, is absolutely binding when, with a wound twenty-four or forty-eight hours old, the patient remains free from disturbance, the facial expression being as usual, the temperature and pulse normal, and the abdomen free from pain and tenderness. In such a case it may be assumed either that the intestine has not been involved or that the wound has been rapidly closed by adhesions. Laparotomy in cases of abdominal wound is contra-indicated when the medical attendant is inexperienced in such work, and in the absence of proper instruments and appliances and of competent assistants. These conditions being favourable, and in the absence of decided contraindications, laparotomy should be performed in every case of recent penetrating wound of the abdomen, even if this wound be but a punctured one. Chaput, in such cases, would open the abdominal cavity in the middle line and not attempt to follow the course of the penetrating wound. He would advise laparotomy also in cases in which there may be a doubt as to whether the wound is a penetrating one or not, and in cases of violent contusion of the abdomen caused by an agent having a narrow surface—as, for instance, a horseshoe—provided in such cases there be any general disturbance. In cases of abdominal wound which has existed for longer than twenty-four hours, it would be necessary to operate should clear indications of peritonitis be presented.

MIDWIFERY AND DISEASES OF WOMEN.

(306) Brow Presentation: Rigidity of Cervix: Death.

Tarnier (*Journ. des Sages-Femmes*, March 1st, 1895) describes, in a clinical lecture, an instructive case under his care in a maternity in February. The patient was admitted in labour; the membranes had ruptured prematurely. The os was hardly open; the forehead could just be felt; the bridge of the nose was directed towards the left. The rupture of the membranes, Tarnier observes, is of little gravity in vertex presentations, as the broad cranium stops up the os and prevents both the escape of all the liquor amnii and the entrance of germs. These evils are not avoided in brow presentation. Antiseptic injections were at once thrown up, and the vagina was plugged with iodoform gauze. The os was very rigid. Next day the labour hardly progressed and fœtid fluid escaped from the uterus. On the second day dilatation was effected, but the labour did not go on of itself, therefore the forceps was applied and used with great care, the operator managing to terminate the delivery as a face presentation, placing a finger in the child's mouth, which was thus brought down with the chin. The placenta was very fœtid. Free irrigation was at once carried out. On the fourth day the vulva began to slough; the vagina became involved. Fœtid membrane was scraped away from the uterus. The patient died of peritonitis. Brow presentations involve risk; the mortality is 1 in 6. Rigid os, even when the presentation is favourable, is, as statistics show without clearly explaining the

fact, a serious complication. Adding the premature rupture of the membranes, this patient was exceptionally unfortunate.

(307) Carcinoma of Uterus and Sigmoid Flexure.

Czempin (*Centralbl. f. Gynäk.*, No. 50, 1894) observed this condition in a woman aged 54. For six months she had suffered from severe floodings and sharp bearing-down pains. There was much discharge between the attacks of hæmorrhage, and the patient was greatly exhausted, the mind being also affected. The sound passed into a spongy tissue, free hæmorrhage being caused; a cupful of soft material was then scraped away, and proved to be cancerous. Vaginal hysterectomy was deemed impracticable, as a mass was felt over the fundus which seemed to represent adhesions, and abdominal section was undertaken. A cancerous tumour of the sigmoid flexure was found adherent to the uterus. That organ was removed with its appendages; the patient's condition was so bad that resection of the cancerous gut was not thought justifiable. The patient died sixteen hours later. At the necropsy cancerous deposit was found between the layers of the left broad ligament. The malignant disease had advanced in that manner from the uterus to the intestine.

(308) Retention of After-coming Hydrocephalic Head.

Charles, of Liége (*Journal d' Accouchements*, March 31st, 1895) relates a troublesome case of this kind. The patient was 24, and in her third pregnancy, which seems to have gone on well enough to term, though towards the end there was much pain in the flanks and hypogastrium. On the night of March 13th labour began; at 8 A.M. on the 14th the midwife arrived and ruptured the membranes; at 9 A.M. a local practitioner attempted turning and extraction. All went well till he tried to deliver the head. Traction proved useless, the forceps could not be fixed, so the patient was sent to the Liége Maternity, with the child half delivered. The fundus still lay as high as four fingers' breadth above the umbilicus, though the whole fœtal trunk was external to the vulva. The perineum was ruptured as far as the anus, the neck was detached, excepting a tract of integument, and the lower jaw had been torn away and lay outside with the trunk. Yet the head was very high, far above the inlet. The hospital midwife tried to pass a rubber catheter up the spinal canal so as to tap the cranium (there was a spina bifida), but the cervical vertebræ were already crushed, so this manœuvre failed. Charles arrived, and detached the neck which was useless for any manipulation. The foramen magnum could not be accurately made out, being buried in lacerated tissues. Charles passed his entire left hand up to the fœtal cranium, and then made an opening with Blot's perforator. The cerebral fluid, with pieces of brain matter soon came away; then two fingers were passed into the perforation, the head being gradually delivered. The placenta came away a quarter of an hour later. The perineum was sutured. Antiseptic vaginal and intrauterine injections were thrown up twice daily during the puerperium, as the temperature rose to 104°, and there were fœtid lochia. By the tenth day the patient was well.

(309) Fœtal Skeleton, not Lithopædion, in Pelvis.

Emanuel (*Zeitschr. f. Geburtsh. u. Gynäk.*, vol. xxxi, part 2, 1895) exhibited at a recent meeting of the Berlin Obstetrical Society a specimen of some importance in relation to the fate of cases of ectopic gestation when no operation is performed. The specimen was from an old woman who died of diffused melano-sarcoma. The menopause had been completed ten years before death, and at that time the pelvic tumour formed by the specimen seemed as large as it was at the patient's decease. The specimen was reported by Sonnenburg last summer as a lithopædion. Further examination has proved that there was no deposit of calcareous salts, whilst the soft parts of the fœtus had entirely disappeared. Most of the bones lay loose in the cavity of the sac, whilst the vertebræ were intimately adherent to a part of the wall consisting of degenerate placental tissue. The pregnancy was tubal.

(310) Symphysiotomy.

Kufferath (*Ann. de la Soc. Méd.-Chir. de Liége*, February) on May 23rd, 1893, performed symphysiotomy in the Brussels Maternity on a rickety multipara, aged 41, pregnant for the ninth time. In none of the previous pregnancies had a living child been delivered. The pelvis in the sacro-pubic diameter measured 6½ centimetres. As the premature induction of labour had failed on the former occasions, Kufferath determined not only to induce labour, but to perform symphysiotomy at 8½ months. By this procedure he saved both the mother and the child.

THERAPEUTICS.

(311) The Serum Treatment of Diphtheria.

Mya (*Lo Sperimentale*, February 21st, 1895) discusses some of the drawbacks to the serum treatment. Cutaneous manifestations have been unanimously attributed to the treatment; they have rarely been hæmorrhagic, and occasionally with general disturbance. A very few cases of articular complications have been noted, which pursued a rapid course, but were not serious. Some have attributed, with apparently insufficient reason, renal, cardiac, and nervous complications to the serum. The author's observations extend to over fifty cases, and the inconveniences caused by the treatment have been insignificant. In four cases there was a scarlatiniform eruption. The resemblance in one case to scarlet fever led to the isolation of the patient, but the subsequent course showed the true nature of the case. A rapid and evanescent urticaria was seen in two cases. Sometimes the temperature was raised and a general disturbance was noted. This, of course, is no contra-indication to the treatment. Most authors have attributed the eruptions to the horse serum. The serum does not possess any demonstrable action upon the red blood cells. The author would attribute the cutaneous manifestations to a vasomotor change or to an alteration in the lymphatic circulation. Fever must be due to exaggerated personal susceptibility. Dose has no effect in producing the cutaneous complications. The author does not think it possible to attribute either albuminuria or the myocardial and nervous manifestations to the serum. Among the fifty cases there was diphtheritic paralysis in four or five cases, and in one sudden death from cardiac complications; but in days before the serum treatment the author saw more cases of this kind. He concludes that the serum should be used early and abundantly in severe cases. It must be recognised that since the introduction of the serum treatment cases hitherto looked upon as beyond help have recovered, and especially in infants. — Santucci and Mucci (*Lo Sperimentale*, February 11th, 1895) first remark upon the *technique* of tracheotomy. They have treated 13 cases with serum supplied by Roux and Behring. The diagnosis was confirmed bacteriologically in 6 cases. The cases were all injected, except one, immediately after admission. In only 2 cases was urticaria noted. Among 13, 3 died, representing a mortality of 23 per cent., whereas in 7 cases otherwise treated during the same period 4 died. The authors think that the results speak in favour of the serum treatment. They also are of opinion that tracheotomy increases the gravity of the case by opening the way to the absorption of infective products, but intubation is only practised in Mya's clinic in infants under 1 year of age, in whom recovery after tracheotomy has not been noted.— Silva (*Gaz. d. Osped.*, March 2nd, 1895) has treated 17 cases with Behring's serum, details of which are given. The youngest patient was 10 months, the eldest 15 years old. Bacteriological examination was made in 15 cases, and in 14 Loeffler's bacillus was found. Of the 17 cases, 3 died, but one of these was obviously not diphtheria, and perhaps another should also be excluded; the mortality would then be 7.14 per cent. Among the recoveries were some very severe cases with complications. In 6 cases there were symptoms of laryngeal stenosis. Sometimes the serum was injected into the veins, and then half the quantity only was used. No signs of local irritation were produced. Enlargement of the submaxillary glands was noted, and the membrane began to detach itself spontaneously. Where albuminuria or nephritis was present

the serum did not aggravate it. The general condition of the patient was improved. Recovery soon took place after the injection—in from five to eleven days. Paralysis was twice seen. There was a suppurative parotitis in one case. The author concludes that the results of the treatment were satisfactory.

(312) Hot Baths in Cerebro-spinal Meningitis.

J. Woroschilsky (*Therap. Monatshefte*, February, 1895) recently had occasion to treat two cases of the above affection, and followed the method advocated by Aufrecht (*ibid.*, August, 1894). The results having been most satisfactory, the author gives detailed histories of the cases. The first patient had been in an acute condition for eight days, when a bath was first administered, the immersion lasting eight minutes. Sleep was induced, and when the bath was again prepared on the following day the patient was able, to a limited extent, to render assistance in reaching it. After eight daily baths the patient was practically cured, and has now completely recovered. The second case also was very acute in nature, and the same treatment was followed with equally satisfactory results. The temperature of the baths throughout was 32° Réaumur, and their average duration ten minutes. Their apparent effect was not only to produce sleep, but to reduce the temperature, accelerate the pulse, and diminish the extensive headache.

(313) Antituberculous Serum.

Paquin (*Jour. Amer. Assoc.*, March 9th, 1895) maintains that horse blood serum may be rendered more antagonistic to tuberculosis than it naturally is. The author gives details of over twenty cases which he has treated with such serum. An increase of weight was noted. The cough and expectoration diminished, the appetite increased and the night sweats lessened. Even cases with large cavities showed improvement. The author maintains that the great prostrating debility first yields to the treatment. As to the preparation of the serum, healthy horses were taken and experimentally immunised against tuberculosis, the serum being obtained at intervals during immunisation, and experimented with on animals. As to dosage, ten drops of the serum were injected into patients, and subsequently 30, 40, 60, or even more drops were used. No reaction was noted, and no accidents except in two cases a benign local abscess appeared. The author thinks that the future of the serotherapy of tubercle is a very promising one. The preparation of the serum needs of course skill and care. It takes months to obtain the most efficient serum.

(314) The Effects of Mechanical Vibrations on Healthy Persons.

Bechterew (*Neurol. Centralbl.*, March 1st, 1895) gives the results of experiments carried out in his laboratory on healthy persons. During an experiment the individual rested for fifteen to twenty minutes on an insulated table, to the under surface of which tuning forks of 128 to 286 vibrations per second were attached. In most cases the pupils dilated. The pulse varied; sometimes it was first retarded then accelerated, in other cases its frequency was increased then lessened. Blood pressure was always raised. Respiration varied much the same as the pulse; prolongation of the expiratory act was noticed. In the majority of the cases the temperature of the skin, axilla, and ear was lowered, while that in the rectum was a little raised. Heat radiation from the skin was always diminished. Cutaneous sensibility to touch and pain was slightly dulled. Hand power, as measured by dynamometer, was mostly unchanged. Towards the end of the sitting, or after it, many of the persons became sleepy.

(315) Treatment of Cholelithiasis.

Elum (*Münch. med. Woch.*, March 19th, 1895) draws attention to the value of large olive oil injections in the treatment of biliary colic. These rectal injections can be substituted for the large doses of olive oil given by the mouth to which patients often object, and which may disturb the functions of the stomach. In addition to the probable cholagogue action of these injections, olive oil has a slight laxative action. The author follows Fleiner's directions in giving these large enemata; 400 to 500 c cm. of pure warm oil are introduced, at first daily, and subsequently at longer intervals. The author gives details of 5 cases treated with benefit in this way.

PATHOLOGY.

(316) Chlorine and the Halogens in the Animal Organism.

Nencki and E. O. Schormow-Simanowsky (*Archives de Sciences biologiques de l'Institut impérial de médecine expérimentale à St. Petersbourg*, Tome iii, No. 3, 1894), in a former paper by one of the authors (*Archiv f. exp. Path. u. Pharm.*, vol. xxxiii, p. 336), having confirmed the researches of Maley (*Ann. Chem. Pharm.*, vol. clxxiii, p. 228, 1894), that NaCl is decomposed in the gastric mucosa into free HCl and alkaline hydrate, in which change the albumin of the gastric glands is probably the chief factor, made experiments to solve the question how the gastric mucosa would act on the allied salts of bromide and iodide of sodium. The experiments were made on dogs with a gastric fistula after performing œsophagotomy. The food was specially prepared to eliminate NaCl. In the experiments on NaBr, the first dose was given on January 25th, and the last on February 6th; total NaBr given being 53 g. During May (4th to 17th) 72 g. of sodium sulphate were given to the same dog. The NaI was given to another dog from May the 4th to 17th; total NaI given was 73 g. The proportion of bromine to chlorine was estimated both in the gastric juice and urine by a modification of Bergland's controlled by Fresenius, that of iodine to chlorine by T. H. Cook's method. The following results confirm the previous work of Külz (*Zeitschr. f. Biologie*, vol. xxiii, p. 460), and are in opposition to that of Richet (*Journal de l'Anatomie et de Physiologie*, 1878). (1) HCl can be actually replaced by HBr, and also to a less extent by HI in the gastric juice. On some days the latter contained more bromine than chlorine. (2) The acidity of the dog treated with NaBr was about 5 per cent. less than normal as regards HCl. If on the day when it contained most HBr the HCl present were added, a much higher degree of acidity was obtained. This can only be explained by admitting that HBr replaced HCl according to their molecular weights (*cf.* Grützner, *Deut. med. Woch.*, 1893, No. 52). (3) The most remarkable point is the difference of behaviour of NaBr and NaI in the dog's body. NaI (just as Na_2SO_4) is quickly got rid of; it is not utilised for vital purposes; only small quantities of HI were found in the gastric juice; the amount of HCl was uninfluenced, and abundant quantities of iodine were present in the urine. But NaBr, at least if an insufficient quantity of NaCl be given, is retained in the organism, and employed as a substitute for NaCl, bromine being found in the urine and gastric juice nearly four months after the last dose was given. It does not follow, however, that it replaces NaCl, to the advantage of the organism; for, while the dog bore large doses of NaI and Na_2SO_4, NaBr caused dyspepsia, great feebleness, and, finally, pneumonia and nephritis. NaBr is completely transformed in the gastric mucosa into HBr and an alkaline hydrate, and, when NaCl is deficient in the food, it plays the part of NaCl in the other organs as long as the organism can support it. To prove the latter point the normal proportion of chlorine in the various organs and blood of five healthy dogs was first estimated by Bererkin. NaBr was then given (38 g. in 10 days), and the animal killed by arteriotomy, and the proportion of Br and Cl estimated. The result proved that the organs which normally contained most Cl contained likewise most Br.

(317) Foreign Bodies in the Bronchi.

S. Kobler (*Wiener klin. Rundschau*, March 24th, 1895, p. 177) investigated the anatomical position of the bronchi to explain the undoubted greater frequency of foreign bodies in the right than in the left bronchus. In conjunction with v. Hovorka he made experiments on bodies hardened by chromic acid, and found that the right bronchus, contrary to the old teaching, always runs more in a line with the trachea than the left, thus confirming the previous work of Aslay and Kocher. Another factor which decides which bronchus the foreign body enters, he considers to be the position of the individual at the moment when the aspiration takes place.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(318) Influenza.

Mossé (*Rev. de Méd.*, March, 1895) contributes a study upon the pathogeny and treatment of influenza. The experiments were arranged in three groups. (1) Animals were inoculated with the blood of individuals suffering from influenza. In 4 out of 7 experiments it was found that rabbits previously injected with quinine were protected in varying degrees against the disease as compared with control animals. Healthy human blood had no such action as that from influenza patients. (2) Animals were inoculated with Pfeiffer's bacillus. In 3 out of 4 rabbits the animal previously treated with quinine escaped, whereas the control animals became ill and 2 died. In one of these cases tuberculosis was found. This had been latent before the inoculation, and the author instances it as an example of a disease becoming active as a consequence of the diminished resistance produced by influenza. Another rabbit developed no symptoms, although it had only received half the usual dose of quinine. (3) Cultivations were made from patients' blood and also from that of rabbits infected with influenza. The first-named experiments were negative. The latter experiments revealed Pfeiffer's bacillus in 1 out of 3 rabbits previously treated with quinine, and in 2 of 3 rabbits not so treated. From clinical observations the author concludes that quinine is useful as a prophylactic, and also, to some extent, as a means of aborting the attack. As regards the dose, 1 g. to 1.25 g. should be given on the first two days, then 0.8 on the third, and this may be gradually diminished to 0.4 g. The author then deals with the possible objections to quinine. Cardiac symptoms cannot be attributed to it. Hypodermic injections have the advantage of sparing the stomach and getting the quinine into the circulation rapidly. The author gives details of three very severe cases of influenzal pneumonia so treated, with two recoveries. The largest total amount of quinine injected by him in the twenty-four hours was 1.6 g.

(319) Acute Non-suppurative Encephalitis.

Oppenheim discussing this affection before the Berlin Verein f. inn. Med. (*Centralbl. f. inn. Med.*, February 9th, 1895) said the separation of the non-suppurative from the suppurative disease was most important. The etiology of the hæmorrhagic form of the disease is not always the same. By some it has been attributed to alcohol, by others to influenza, and there are a number of cases of no known etiology. It begins with severe symptoms, but usually runs a favourable course. The author gives short details of 5 cases observed by him, all of which recovered. Three cases were acute, occurring respectively in girls aged 16 and 10 and in a young woman. In 2 subacute cases in a girl aged 12 and a man aged 21, the lesion lay in the floor of the fourth ventricle (Wernicke's type), and a complete ophthalmoplegia developed itself. In none of these cases was there any evidence of syphilis. In the literature of this disease, the prognosis has not always been looked upon as very favourable, but in recent writings recoveries have been noted. The author's experience has been most favourable. Polioencephalitis must be distinguished from disseminated sclerosis, which not very rarely takes an acute form, and which, according to the author, may end in complete recovery. Acute course, rapid development, high temperature, etc., are unfavourable signs, whereas low temperature and a protracted course make the outlook favourable.

(320) Meningitis and Quincke's Puncture.

Fürbringer (*Berl. klin. Woch.*, 1895, No. 13) recalls how Quincke, in 1891, at Wiesbaden, made known his method of lumbar puncture in cases of meningitis of various kinds. The Pravaz syringe can be introduced between two of the lumbar vertebræ at a level below the conus medullaris, and cerebro-spinal fluid can thus be withdrawn. Lichtheim, in 1893, expressed some doubt as to the curative effect of the proceeding. In none of his 15 cases—cerebral tumour, tuberculous and purulent meningitis—could he perceive any relief in the symptoms of compression of the brain, although he withdrew up to 80 c.cm. of cerebro-spinal fluid. Lichtheim, however, attached great importance to the diagnostic value of the lumbar puncture. He found that in cases of cerebral tumour the fluid contained less albumen than in cases of basal meningitis —0.8 per mille instead of 1.0 to 1.6 per mille; that in the latter the fluid more often clotted; and, whereas the fluid usually contained sugar in the former cases, sugar was present only as an exception in cases of tuberculous meningitis. The purulent character of the exudation was determined by the lumbar puncture in 3 cases; in 2 of them streptococci were found; out of 6 cases of tuberculous meningitis, tubercle bacilli were found in 4. As to the possible therapeutic use of the lumbar puncture, for which it was at first recommended, A. Fraenkel has recently brought forward some favourable evidence, inasmuch as he noticed diminution of the swelling of the papilla optica and improvement in other symptoms after the puncture. Fürbringer's cases number 86. Out of 37 cases of tuberculous meningitis, in 27 he found tubercle bacilli in the cerebro-spinal fluid obtained by the puncture, and in all the 27 cases the diagnosis was confirmed by a necropsy: in 3 other cases tubercle bacilli were found, but no necropsy was made; 1 of them recovered and was published by Freyhan. In 4 tuberculous cases where there was no meningeal affection, no bacilli were found in the puncture fluid or after death in the meninges. In order to avoid possible errors the use of new coverslips only is recommended in examining for bacilli. In three children with meningeal symptoms where no bacilli were found in the puncture fluid, the necropsy showed the disease to be Quincke's simple serous meningitis. Fürbringer, however, cautions against accepting this diagnosis if the examination of the meninges be not made with the greatest care. In the case of a young woman the puncture fluid was purulent, and the diagnosis of purulent cerebro-spinal meningitis was confirmed by a necropsy. In another young woman, now convalescent, the puncture fluid contained many leucocytes and microbes resembling pneumococci. The diagnostic value of the lumbar puncture Fürbringer places high, but he is doubtful as to its therapeutic value. In several cases of basal meningitis in children no alteration in the symptoms followed, although in some cases sinking of the fontanelle proved that the intracranial pressure had been reduced by the lumbar puncture. In a case of chronic hydrocephalus accompanying tuberculous tumours in the cerebellum, the frequency of convulsive attacks was diminished after lumbar puncture. In uræmia and the headache due to tumour of the brain the results appear uncertain. In 2 or 3 of these cases death occurred rather suddenly not long after the puncture, but may not have been in any way induced by it.

SURGERY.

(321) Excision of the Larynx.

Powers and White (New York *Med. Rec.*, March 23rd, 1895) report 6 new cases of excision of the larynx, and present an analysis of 303 additional cases gathered from various sources; of these cases 240 were collected by Kraus in 1890. Of the 6 cases here reported in full for the first time 5 were treated by W. T. Bull. The first was one of partial laryngectomy for cancer, the subject of which died from recurrence at the end of the fifth month. The second and fifth were both cases of total laryngectomy for cancer; death occurred at the end of the year in one, and after an interval of two months and a-half in the other. Of the 3 remaining cases, all of partial laryngectomy for malignant disease, 2 were fatal, and in the third the patient was well at the end of four years. In analysing the whole collection of cases the authors find that after 101 of 309 operations the patients died within the first eight weeks from shock, hæmorrhage, pneumonia, septic infection, or exhaustion. The mortality was much greater after complete than after partial excision, being 35 per cent. in the former against 27 per

cent. in the latter. The cases collected by the authors, which are later than those analysed by Kraus, show a decrease in the death ratio in the complete excisions, while the mortality in the partial operation is, on the other hand, markedly increased. The authors point out that the fact that a large percentage of the operators have had but a single case may possibly be accepted as in some measure an explanation of the high death-rate, and they think it is but fair to assume that more careful selection of cases, early operation, and a constantly improving *technique* will tend to diminish the mortality. The statistics here published are very unsatisfactory with regard to the ultimate results of the operation in cases of malignant disease. In 108 cases of total laryngectomy for cancer performed prior to 1892, in which the direct results of the operation were not fatal, recurrence occurred in 51 patients during the first year, and 11 patients only were free from relapse three or more years after the operation. Of 77 patients in whom partial laryngectomy was performed for cancer, 26 died during the first two months. Of the remaining 51 cases 7 are reported as quite well three or more years after the operation. It is worthy of note that in both the complete and the partial operations there are but 2 instances of relapse after an interval of three years. The authors state in conclusion that the only hope of cure in cancer lies in excision, and that it is not irrational to expect that the progress which is constantly being made in the treatment of all forms of malignant disease will in due time enable us to record an increasing number of cases of cancer of the larynx free from relapse.

(322) Trephining in Epilepsy.

HALLAGER (*Arch. de Neurol.*, April, 1895) records the following case. A woman, aged 22, with a phthisical and neurotic family history, chlorotic since the age of 13, suddenly became aphasic in January, 1893. The next day she had her first convulsive attack, and the right upper limb became paretic. Fits recurred frequently for some days, during which paresis developed in the right lower limb. In the course of a few weeks the aphasia and paresis disappeared, leaving alexia that had not previously been noticed. Subsequently fits became more frequent and severe. Each fit commenced with a sensation of trembling in the right upper limb; the arm then was raised and the wrist flexed; the right facial muscles twitched, and an indefinable pain was felt in all parts of the body; immediately after this consciousness was lost and general convulsions ensued. Occasionally a fit did not proceed beyond the aura and slight twitching in the upper limb. Bromide treatment continued for a year reduced the frequency of the fits, but had to be abandoned owing to the toxic symptoms induced. In February, 1894, memory was impaired, intellect dulled, pain was frequent and intense on both sides of the head; the ocular fundi were normal; increasing weakness of the right upper limb was observed. In April, 1894, a trephine hole was made over the centre for this limb, and a cyst the size of a hazel nut was found just beneath the exposed cortex. This was emptied of its brownish *débris*. For some days after the operation the right limbs were paretic and felt numbed and heavy. From time to time sensations of muscular contraction in the forearm were felt, but there was no visible contraction. On May 19th the patient had two fits of the same type as before; 4 g. of bromide daily were then prescribed. No more fits occurred up to the time of being seen in August.

(323) Traumatic Disease of the Vertebral Column.

KUMMELL (*Deut. med. Woch.*, March 14th, 1895) first refers to his previous observations upon a rarefying osteitis of the vertebral bodies following injury. He thinks that some cases in which simulation or exaggeration has hitherto been suspected may be thus explained. The symptoms observed by the author have been mostly the same, coming on after direct or indirect injury. The patient complains for some days of pain in the affected part. This gradually diminishes, but returns in the course of a few weeks or months. There may be neuralgic pains referred to the intercostal nerves, slight motor disturbances and an uncertain gait. A kyphosis develops. The prominent vertebræ are tender as in tuberculous spondylitis in the acute stage. There is never suppuration or thickening of the whole mass of the bone. As to whether a compression fracture is present in the vertebral bodies the author leaves the question undecided, but at any rate there is no severe splintering with dislocation. No pathological anatomy has yet been obtained. The curvature is often not very pronounced. The treatment is satisfactory. At first rest in bed in a horizontal position with extension is required, and then in two to four weeks a supporting apparatus is put on. At first the author used plaster-of-paris, but now he employs exclusively Hessing's corset with head support. An arrest in the rarefying osteitis occurs and an ankylosis in the affected parts. The corset must be worn for months, perhaps years. The author gives details of six cases.

(324) Sponge-Grafting.

D'AMBROSIO (*Rif. Med.*, March 16th, 1895) used this method of treatment with success in the case of an obstinate ulcer of the leg secondary to severe fracture. The patient was a boy, aged 9, who on August 29th fractured his tibia and fibula, and so injured the soft parts as to raise the question of amputation; however, it was decided to save the limb, and the fracture was completely united and cured by October 10th. There remained, however, over the external malleolus an ulcer 10 cm. by 8 cm., which resisted all methods of treatment, so that finally the author resolved to try sponge-grafting. About thirty pieces of *Spongia officinalis*, from 1 to 3 mm. broad and 2 mm. thick, were planted on the ulcerated surface at not more than 2 cm. distance from each other, and kept in position by oiled silk; over this was placed a gauze dressing. Every antiseptic precaution was taken. At the first dressing two days after the suppuration was found to be less, the luxuriant granulations were reduced almost to the level of the margins of the wound, and at the edges of the wound there was a halo of young epithelial tissue. Dressings were changed about every two days, and each time the ulcer was noticed to be steadily improving, so that in a little less than four weeks the large ulcer was cured, and in its place was formed a hard resistant reddish cicatrix. The sponge may act as a kind of scaffolding upon which new vessels and new granulations build, and upon which processes of epithelium from this margin extend. It also acts as an absorbent filter for the pus which bathes the ulcer and as a slight stimulant to the ulcer itself. D'Ambrosio finds that the pieces of sponge are not organised, but are split up by some imperfectly understood chemical process, and carried into the circulation through the lymphatics. In sections of cicatricial tissue where sponge-grafting had been used he was never able to find any trace of the sponge.

MIDWIFERY AND DISEASES OF WOMEN.

(325) Pleurisy in the Puerperium.

BUDIN and other obstetricians (*Journ. de Méd. de Paris*, April 7th, 1895) discussed this subject at a recent meeting of the Société Obstétrique et Gynécologique de Paris. Budin denied that pleurisy always became purulent. Charpentier stated that he attended a young woman sinking from puerperal septicæmia. He used the curette and she got better. On the twelfth day she caught cold, and pleurisy set in. On aspiration a little serous fluid escaped. A few days later, on renewal of the puncture, the fluid was found to be purulent. Pichevin described a bad case of pleurisy coming on a week after delivery. The left appendages were tender and swollen; hitherto the puerperium had been normal. The urine was albuminous, the temperature 102°. Pleural effusion was very rapid, and the patient seemed very ill. The pleura was tapped, over two pints of fluid being withdrawn. To Pichevin's surprise the fluid was found to be quite clear and free from pus. The patient began at once to recover. Bar agreed that empyema did not necessarily occur in pleurisy attacking very septic midwifery cases. Guéniot admitted that the effusion in these cases was sometimes serous and at others purulent, without being able to explain why this difference was frequent. Doléris laid more stress on the bacteriology of the question. Clear serum might contain pneumococci, or even ptomaines without germs. For-

man, in a case of pleuro-pneumonia beginning before premature labour, tapped the pleura during the puerperium. The fluid was purulent and contained pneumococci.

(326) Injuries of Sterno-mastoid at Birth. Pincus, of Danzig (*Zeitschr. f. Geburtsh. u. Gynäk.*, vol. xxxi, Part 2, 1895), has compiled a valuable monograph on this subject, with a table of forty-three cases. Slight damage to the sterno-mastoid muscle may be frequent, but injury sufficient to produce marked symptoms is rare. Two distinct morbid conditions follow this injury: hæmatoma where inflammation is secondary, and chronic traumatic myositis which represents primary inflammation. The lesion has nothing to do with syphilis. The causes of damage to the muscle, in order of frequency, are twisting of the fœtal neck, direct violence, pressure of forceps, pressure of fingers, and twisting of the funis round the neck. Congenital shortening of the muscle and the natural tenderness of fœtal tissues play some share in the lesion, but Pincus denies that Schultze's swinging of the fœtus to induce respiration can expose the muscle to any harm. The mechanism of the injury has been clearly shown. The right sterno-mastoid is liable to damage in the second variety of head presentation, and the first of pelvic presentation. With the head in the first or the pelvis in the second position, as understood by modern teachers, the left sterno-mastoid is subject to damage. Contrary to the opinion of some obstetricians, the injury rarely leads to permanent torticollis. The injury is of little medico-legal importance. Damage to the sterno-mastoid is an accident which must be guarded against; obstetricians must teach and practise the use of properly made forceps, avoidance of twisting of the neck, and intelligent manipulation of the child when manual interference is needed.

(327) Birth of Child without Rupture of Membranes.

Forman (*Jour. de Méd. de Paris*, April 7th, 1895) observed this rare occurrence in the case of a woman, aged 22, seven months advanced in her second pregnancy. She was suffering from pleuro-pneumonia, the temperature having risen to 103·6°. A few minutes after cupping glasses had been applied to the bases of the lungs the patient felt a desire to defæcate; this was followed by a single pain which expelled the entire ovum with a little blood. There was no further escape of blood. Forman arrived a few minutes later. He found between the patient's thighs a big cyst with transparent walls. The mother was free from all the evils which may follow precipitate delivery; the uterus contracted well. The wall of the cyst was then cut; about a pint of amniotic fluid escaped. A female child was seen; there was no pulsation of the cord, but after active measures the infant breathed well and took the breast. It weighed 3 lbs. 6 oz., and measured over 14 inches; the placenta weighed a little under a pound. The cord was very gelatinous and measured 18½ inches in length. Judging from the position in which the ovum lay—outside the vulva—it seemed that the breech had presented, and that the placenta had been inserted very low down without being prævia. The child lived only sixteen hours, and the mother had a bad attack of empyema. Forman quotes a considerable number of cases of membranes unruptured at birth.

(328) Hæmatocolpos after Adhesive Inflammation of Vagina.

Winternitz (*Centralbl. f. Gynäk.*, No. 13, 1895) records the case of a woman, aged 62, where the menopause occurred at 50. She had been delivered eight times at term without instruments. For four months she suered from difficulty in micturition. A fluctuating tumour occupied the pelvis and reached a hand's breadth above the symphysis. It resembled a uterus at the fourth month of pregnancy and did not move freely. Sanious watery fluid ran from the vagina. The vaginal mucosa was smooth, no cervix could be felt, the fluctuating cyst pressed down posteriorly. The mucosa showed numerous petechiæ and ecchymoses, and the vagina ended in a funnel-shaped point, to the left, and surrounded by cicatricial bands. On rectal examination, a tender body, the uterus, could be felt behind the fluctuating swelling. An exploratory puncture was made into the swelling from the vagina. Chocolate-coloured blood came away. An incision was made extending to the right and left of the puncture, and a pint and a half of old blood escaped. Then it was found that the cavity whence the blood came was the upper part of the vagina, the cervix opened into it. Around the incision was a dense ring of cicatricial tissue, produced by old inflammation (senile colpitis).

THERAPEUTICS.

(329) The Serum Treatment of Diphtheria. Withington (*Boston Med. and Surg. Journ.*, March 14th, 1895) has treated 91 cases with the serum; 11 of these are excluded as they did not present bacteriological evidence of diphtheria; if these were included the percentage of recoveries would have been increased. The remaining 80 cases belonged to a class of more than average severity; of these cases 13 died, representing a mortality of 16 per cent. Short details are given of the fatal cases; 2 of these ought perhaps to be excluded as they were complicated with scarlet fever. Intubation was performed in 3 cases and tracheotomy in another. In only 1 case did the injection precede the intubation. If another 40 cases with a mortality of 30 per cent., not treated with the serum for several reasons, were added to the above, there would then be 25 deaths, or a mortality of 21 per cent. The average hospital mortality is 45 to 50 per cent. In a corresponding period in the previous year there were 84 cases with 44 deaths. The author draws particular attention to the improvement in the general condition of these patients treated with the serum. Of the cases intubated or tracheotomised 80 per cent. died. The patients were not discharged until all membrane had disappeared, and two negative reports had been received from the bacteriologist; 21 cases were injected a second time at an interval of one or two days; 5 cases were injected for prophylactic purposes, and none developed the disease, but one child, admitted with diphtheria, had received an injection exactly three weeks previously. Not only Behring's serum was used, but a similar serum prepared by Gibier of New York, 10 c.cm. (of No. 1) of the former and 20 to 50 c.cm. of the latter being used. A change in the membrane, with subsequent exfoliation was noted. Urticaria occurred in 13 cases. Nephritis and endocarditis could not be attributed to the serum. The author speaks very highly of the value of the serum.—Springthorpe (*Austral. Med. Journ.*, February 15th, 1895) first gives details of 6 cases treated by him with the serum. No bacteriological examination was made. Three were instances of the virulent disease, and 2 of these recovered. The dose used in the fatal case was too small, and the case came under treatment late in the disease. In another case improvement was effected by the treatment, but the patient died. Another fatal case was, in the author's opinion, one of scarlet fever with putrid angina. After trying a combination of large doses of mercuric perchloride internally and the antitoxin hypodermically, the author thinks that such a combination is not admissible. The author is of opinion that (1) the antitoxin neutralises the diphtheria toxins, but not those of other micro-organisms; (2) uncomplicated diphtheria may be promptly arrested mainly in this way; and (3) repair in nervous and other tissues depends on the extent of the damage done by the toxins, and is uninfluenced by the antitoxin. In an addendum 2 further cases are related; in both diphtheria bacilli were found; 1 recovered and the other was in progress. Here again, owing to deficient supply, the amount of antitoxin used was small.

(330) Treatment of Enteric Fever.

Vogl (*Münch. med. Woch.*, 1895, Nos. 12 and 13) bases his remarks on the treatment of some 217 cases. In 83 of a total of 426 cases influenza had occurred during the incubation period, and the disease was thus rendered more severe. The frequency of hæmorrhages into the skin from the nose, throat, stomach was striking. In the 16 fatal cases these hæmorrhages were present in 15. The mortality was 7.3 per cent. The author then refers to the mortality before the cold bath treatment. Forty years ago the mortality was 25 per cent., and it then fell to about 18. Since the cold bath treatment and up to the present epidemic the author's mortality has not

been more than 5 1 per cent. Owing to the apparent severity of the epidemic in question a much higher mortality was expected. The author then discusses the effects of the cold bath treatment, beginning with the temperature. As regards the nervous system the stupid appearance of the patient is lost. Cold baths have a strengthening action on the heart. The peripheral vessels are made to contract. Stimulants lead to a disappearance of this contraction, and the author strongly recommends surface rubbing for the same object. He has never seen a death from collapse due to the bathing. After a temporary acceleration the pulse becomes less frequent, and dicrotism disappears. The effect on respiration is at first hindering, but afterwards fuller respirations occur and expectoration is promoted. The renal secretion is increased. Diarrhœa ceases and meteorism becomes less marked. Peritonitis was observed, but perforation was never noted. Antipyretic treatment by drugs shows different results. Thus a fall of temperature is produced by antipyrin, but it rises again, so that later the same height may be reached as on the first day of treatment. The first dose requires as much caution as the first bath. Antipyrin may produce nausea, vomiting, etc. The diarrhœa is not checked. The renal secretion is lessened rather than increased—an undesirable thing in acute infective illnesses. The chief part of the treatment of enteric fever does not consist in reducing temperature. The author then refers to the suggested bacteriological treatment, but more evidence is required. He emphasises the value of the cold bath treatment, and says that modified bath treatment is not so efficient. It is absolutely without danger to otherwise healthy and not too old individuals. Where it is not absolutely contraindicated, as in thrombosis, perforation, a modified bath treatment may be of service.

(331) The Treatment of Tubercle by External Applications of Guaiacol.

BUGNION AND BERDEZ (*Revue Médicale de la Suisse Romande*, March 20th, 1895), with reference to the surprising results obthined by Bard, Courmont, Box, and others in the treatment of phthisis and even acute miliary tuberculosis with external applications of guaiacol, experimented on nine rabbits as follows: Each received an intravenous injection of 1 c.cm. pure cultivation of tubercle bacilli; three were afterwards left without any treatment; three had 0 1 g. guaiacol (in almond oil) applied externally every day for three months. Three had 0.2 g. in the same way. The animals were all killed about fourteen days after the treatment was left off. Results and conclusions: (1) External applications of guaiacol lower the temperature in rabbits as in man; (2) in rabbits as in man, guaiacol is absorbed by the skin and excreted in the urine; (3) in rabbits these applications have no influence whatever on the course of acute tuberculosis, for all the animals were affected with an acute miliary tuberculosis at exactly the same stage of development. In spite of this the authors do not consider that the treatment ought to be abandoned in man, as the good results obtained may be explained in other ways, for example, by causing oxidation of the coagulable toxalbumins (Hoelscher and Seifert).

(332) Determination of Chloroform in Urine.

SCALFATI (*Rif. Med.*, February 28th, 1895) gives the results of a series of experiments upon this subject. If the urine of those who have been chloroformed is examined with sufficiently delicate tests, chloroform may always be detected therein. The best test, according to the author, is to distil the urine to one-third its volume in a current of air previously freed from every trace of chlorine, boil the distillate with a pure alcoholic solution of potash, acidify with pure nitric acid, and then treat with a solution of nitrate of silver. A cloudiness occurred in every case, which disappeared on the addition of ammonia, and was therefore due to chloride. No similar reaction took place in the urine of those who were not chloroformed. Other reactions are a slight violet coloration with thymol and potash (Vitali), and an odour of phenylcastamine with alcoholic potash and aniline. Potassium hydrate and β naphthol is not a sufficiently delicate test for the small quantities of chloroform contained in the urine in these cases. The author estimates the chloroform quantitatively by means of the chloride formed when the distillate of urine is boiled with pure alcoholic potash. This reaction due to the action of potash on chloroform, potassium chloride, potash formate, and water being formed. Scalfati gives the results of examining the urine of 10 cases in which chloroform had been administered. The quantity of chloroform found ranged from 0.00003 g., after 50 m chloronarcosis to 0.000057 g., after 55 m chloronarcosis, and in urine passed 2½ hours after anæsthesia.

PATHOLOGY.

(333) The Existence of Antiperistalsis.

A. CHRISTOMANOS (*Wiener klin. Rundschau*, March 24th, 1895, p. 180) made experiments to test the results published by Grützner (*Deutsche med. Woch.*, November 29th, 1894) and Nothnagel (*Zeit. f. klin. Med.*, iv, s. 532-57). Frogs, pigeons, white mice, and rabbits were used, and the method was to inject into the rectum small quantities of some substance not normally present in the intestines, such as carmine, Berlin blue, or lycopodium seeds mixed with distilled water or 6 per cent. NaCl solution, and killing the animal some hours after. He found that if proper precautions were taken to prevent the animal swallowing any of the injected substance, by using a Czermak's mouth compressor, ligaturing and dividing the œsophagus, etc., none was ever found in the stomach. In rabbits none was ever present in the small intestine or cæcum, but frequently in the large intestine. In mice the injected substance was usually wanting in the rectum, but present to a moderate extent in the large intestine, especially in the cæcum. This was due directly to the injection, and depended on the pressure used; if much, it reached even the lower part of the small intestine. Control experiments on animals, when the above precautions were not used, showed quantities of the substance in the stomach and small intestines. No difference was observed when distilled water instead of 6 per cent. NaCl solution was used.

(334) Recognition of Tubercle Bacilli in Putrid Media.

PERRANDO (*Rif. Med.*, February 18th, 19th, 1895), experimenting with tuberculous sputa and other tuberculous products kept in a moist warm atmosphere until they became putrid, arrived at the following results with regard to the morphological recognition of the tubercle bacillus. The material used generally became putrid in two to six days, during which time the bacilli were readily recognised, and indeed often more easily than in fresh sputa. After ten to twenty-five days the chief morphological elements (pus corpuscles, epithelial cells, etc.) could no longer be recognised owing to dissolution. In twenty to forty days the bacilli gradually became more granular, and less easily stained by ordinary means. In forty to sixty days the bacilli underwent dissolution, and could no longer be recognised as such. Quite early in the process of putrefaction, minute fibrils of elastic tissue were deposited. Bacteriological examination of the contents of the tympanic cavity often reveals presence of tubercle bacilli in the rare cases where other and more usual parts are unavailable for examination. The conditions of fluid in the tympanic cavity of the dead are not unlike those of the author's experiments. Tubercle bacilli are possibly driven through the Eustachian tube into the tympanic cavity during life by coughing.

(335) Glycosuria ab Ingestis in Healthy Subjects.

LINOSSIER AND ROQUE (*Sem. Méd.*, March 27th, 1895, p. 130) found: A. After giving cane sugar to nineteen healthy subjects: 1. Saccharosuria occurred in all, but the dose which caused this was very variable, ranging from 50 to 350 grammes. 2. A large excretion of saccharose is always associated with a slight glycosuria. 3. In some subjects (16 per cent.) the minimum dose (100 grammes) which caused saccharosuria caused, also, glycosuria to a large extent (up to 83 per cent. of the sugar eliminated). B. Of the three varieties of sugar, saccharose appears most readily in the urine, then glucose, then lactose. C. The fact that in 16 per cent. considerable glycosuria occurs after the ingestion of 100 grammes of saccharose makes it impossible to consider glycosuria as a proof of a grave lesion of the hepatic cells.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(336) Congenital (Anatomical) Constipation. Marfan (*Rev. des Mal. de l'Enf.*, April, 1895), in a clinical lecture on constipation in infants, discusses at some length the so-called congenital or anatomical constipation associated with undue length of the colon and folding of the sigmoid. Instead of making the simple S or Ω curve the sigmoid is thrown into several folds, which may be variously disposed. He quotes from the *Thèse* of Bourcart (Paris, 1863) a classification into three types—ascending, transverse, and descending. Of these the commonest is the ascending type, in which the colon after entering the pelvis and passing across it near the middle turns sharp upon itself and ascends out of the pelvis again before descending once more to open into the rectum. This anatomical peculiarity favours delay of fæces in this part of the intestine with consequent absorption of fluid, and the formation of large hard masses difficult of expulsion. The stools are firm or pasty, or dry solid balls, sometimes streaked with blood, an indication of excoriation of the anus. When there has been no stool for several days there may be a good deal of flatulent distension, which causes discomfort, but pain is not a prominent symptom. By palpation the mass of fæces may be felt, generally in the left iliac fossa. Occasionally the efforts which the child makes appear to determine the production of hernia, most commonly of the umbilicus, and also prolapsus ani. A convulsion may occur at the time of expulsion of a large mass of fæces. Anal fissures are liable to be produced by the passage of these large masses: and when not seen exteriorly their presence may be suspected if the child cries much and ceases to make effort or if the solid fæces are streaked with blood. The coprostasis may lead to colitis—simple, mucous, or ulcerative. Marfan believes that the cases of so-called congenital dilatation of the colon, of which a few instances have been described, are really secondary to prolonged coprostasis due to this congenital peculiarity of the sigmoid. As to treatment, he thinks that something might be done by attending to the diet, and especially by using sugar water to dilute the milk. If in children at the breast there is reason to believe that the milk is deficient in sugar it is well to give the child a small quantity of sweetened water before suckling. Laxatives and purgatives are not to be recommended. The best treatment is injections of tepid water, of water with a little sea salt gr.j to ℥j), or with glycerine (℥ss in ℥vj), or of oil. He prefers the last-named, ℥j of oil in emulsion with the yellow of an egg in about ℥viij of water. He uses a long soft tube, which he says usually passes easily after a small quantity of the injection has been introduced. He sees no objection to giving the injections daily or even oftener; though there be may some prejudice to overcome before the nurse can be induced to do this. Injections may sometimes be replaced by suppositories; for this purpose he uses a hollow suppository of cocoa butter containing about 8 grains of glycerine and a little soap. In older children a small quantity of aloes (gr. ℥) or calomel (gr. ¼) may be added, but in infants these drugs should be avoided. Massage of the abdomen along the course of the colon may also be of use. When a case is seen presenting signs of obstruction the best treatment is to wash out the stomach, and then to endeavour to remove the hard masses from the rectum with the finger or a spoon. Electricity may also succeed in cases of obstruction, and the author relates one case in point. Occasionally faradisation may succeed; one electrode in the rectum and the other moved about over the course of the colon. If the continuous current be used the strength ought not to exceed 15 to 20 milliampères. The positive pole should be in the rectum at first for five minutes, and the current then reversed and interrupted subsequently every twenty seconds for another five minutes.

(337) Floating Liver. Bastianelli (*Il Policlinico*, April, 1895) deals with those cases in which some portion of the liver substance has been partly constricted off from the general body of the organ, and, remaining attached by a more or less extensive peduncle, give rise to a movable tumour in the abdomen. He records the case of a woman, aged 37, who had had five children, and was admitted into hospital complaining of fixed pain in the belly and loins on the right side for the last nine months, worse on movement. Loss of appetite, wasting, pallor, cough; urine normal in quantity and quality. Upper limit of hepatic dulness normal; lower edge of liver not felt, but from percussion seemed to be at level of costal arch. Spleen a little enlarged. On the right side there was a tumour the shape of a kidney, but three times bigger, hard, slightly nodulated, and easily movable. The tumour altered occasionally in size; it hardly moved at all with respiration. The upper end of the tumour seemed twice the size of the lower; no connection with the liver could be made out; behind the tumour a semielastic body could be felt. Percussion was dull over the tumour, but resonant all round. *Per vaginam* nothing abnormal could be detected. The diagnosis was displaced cancerous kidney, and laparotomy was performed. An ovoid tumour was at once discovered, covered with fine white striæ and greyish-white nodules: no adhesions. It was felt to be connected with the right lobe of the liver by a band of liver tissue, and on its inferior surface lay the gall bladder. No cicatrices, nodes, or adhesions on liver itself. The tumour was removed with the gall bladder, and the patient made an uninterrupted recovery, and returned thirteen months after the operation seven months pregnant and in good health. The piece of liver removed weighed 500 grammes, and showed recent gummata in its substance. "Floating" liver lobes may be due to malformation, deformation, or the traction of new growths. The symptoms are not characteristic. Most likely to be confounded with floating kidney. Bastianelli refers to 9 cases where operation has been performed.

(338) Granuloma Fungoides. Zum Busch (*Dermatol. Zeit.*, 1895, Band ii, Heft iii) gives the case of a man, aged 73, who died at the German Hospital, Dalston, in 1894. His skin was much thickened over the whole of the body, with the exception of the lower limbs below the knees. This thickening of the skin, together with the exaggerated folds, gave his face something of the appearance of tuberous leprosy. Some parts of the skin were more thickened than other parts, having the appearance of raised patches or wheals. This condition of the skin had existed since 1892, and had been preceded by three attacks (the first about four years ago) of a skin eruption of an erythematous or eczematous appearance. The inguinal and axillary glands had remained considerably enlarged since the last of these attacks. The patient complained of cough, loss of appetite, and feeling of fatigue, and, shortly after admission, died suddenly of syncope. At the necropsy the heart was found enlarged, with patches of fibroid degeneration in its muscle; the valves were somewhat atheromatous. The thoracic aorta and the coronary arteries were atheromatous to the highest degree. The spleen was of about four times the normal volume, and there was evidence of old perisplenitis. The microscopic examination of different parts of the affected skin showed that there was a varying amount of round-cell infiltration of the upper parts of the corium; this was also to some extent observed in the subcutaneous connective tissue; there was a remarkable absence of fat. The liver showed a considerable round cell infiltration, chiefly of the interlobular spaces. In the kidneys there was a slight interstitial fibrosis, with some degree of degeneration in the epithelial cells; in places there were patches of round cell infiltration, possibly corresponding to that in the liver. The spleen showed considerable thickening of the capsule and the trabeculæ, but the increase in size appeared to be due in great part also to a round-cell infiltration. Neither in the skin nor in other organs could any micro-organisms be detected by the methods of Gram, Weigert, or Gabbett. The case was probably one of mycosis fungoides, although as yet there was a remarkable absence of the circumscribed and fungating tumours from which that disease derives its name; these might, however, have developed had the patient

lived longer. Kaposi considered that in "lymphodermia perniciosa" the deeper layers of the corium were chiefly infiltrated, but in the present case the superficial layers of the corium were those most involved. Zum Busch points out objections to the view that cases of multiple sarcoma are related to those of mycosis fungoides, and inclines to the view that mycosis fungoides is a disease *sui generis*. He prefers the term "granuloma fungoides," as suggested by von Auspitz. Although, as in syphilis, the specific microbe has not been discovered, the disease probably belongs to the group of infective granulomata, which includes leprosy, tuberculosis, rhinoscleroma, etc.

SURGERY.

(339) Vaginal Resection of the Rectum.

REHN (*Centralbl. für Chir.*, No. 10, 1895) states that in cancer of the rectum in females the affected gut can be readily removed through a vertical incision made in the middle line of the posterior wall of the vagina and carried backwards in the perineum as far as the external sphincter ani. By such an incision he was able with very little difficulty and without much hæmorrhage to remove an extensive cancer from the rectum of an aged woman. The incision of the posterior wall of the vagina, he states, permits of free removal of a large malignant growth and facilitates the separation of the diseased mass from the surrounding soft parts. The rectum having been plugged with antiseptic gauze and the vagina thoroughly disinfected, the posterior vaginal wall is carefully incised and separated from the diseased gut. The perineum is next incised in the middle line and the rectum below the seat of disease isolated, ligatured, and divided. The upper and cancerous portion of the gut is now drawn through the vaginal wound and excised. This stage of the operation, it is asserted, can be effected with but little hæmorrhage and with free exposure of the diseased structures. An opening in the peritoneum can be readily dealt with in this operation, and any enlarged glands in the meso-rectum can be removed without difficulty.

(340) Embolism and Thrombosis of the Mesenteric Blood Vessels.

WATSON (*Boston Med. and Surg. Journ.*, December 6th, 1894) has collected all the known cases of embolism and thrombosis of the mesenteric blood vessels. These are 27 in number, 1 of which occurred in the practice of the author. From a study of these cases it was found that "pain" was a very constant symptom, occurring in 18 cases. In most of the cases it came on as the first symptom or occurred in connection with vomiting or diarrhœa; in 15 of these cases it was violent, paroxysmal, and colicky, and was not definitely localised to any part of the abdomen. In 2 cases it was localised to the epigastrium, and in 1 to the right iliac fossa. In most of the cases the pain was persistent. "Diarrhœa" occurred in 14 of the cases, and in 7 of these the stools contained blood. "Vomiting" occurred as the first symptom or closely after the abdominal pain in 14 cases: in 2 of these it was bloody and in 3 it was fæcal. In most of these cases it was persistent, and continued through most of the illness. "Abdominal distension" occurred in 12 cases, appearing a day or two after the beginning of the illness and gradually increasing. In 15 cases the source of the embolus or thrombus was found to have been the heart or atheromatous aorta; in 1 case aneurysm of the aorta; and in 9 it was not determined. In 3 other cases thrombosis of the mesenteric vein was met with. In about one-sixth of the cases the necropsy showed that the intestinal lesion was sufficiently limited and well defined to allow of a successful resection of that part of the bowel. In the majority of cases there were coexisting diseases, most frequently cardiac or renal affections, or atheromatous arteries: and most of the patients were beyond middle life. In nearly all cases the patients die if left alone or to medical treatment. Watson advocates the performance of laparotomy in all cases in which the symptoms suggest the nature of the disease, and in which the patient is not too greatly prostrated or has not some other fatal disease. Resection of the diseased part of the intestine is recommended when it is possible; or, if this cannot be done, an artificial anus should be made, and, if the patient survives, the cut ends may be united subsequently. One case is reported in which this was done successfully, four feet of the small intestine being resected.

(341) The Surgical Treatment of Diaphragmatic Hernia.

LLOBET (*Rev. de Chir.*, March, 1895) reports a case of old diaphragmatic hernia treated with success by an extensive plastic operation on the side of the chest. The patient, a man, aged 50, had in 1883 received a deep punctured wound in the eighth intercostal space on the left side. This injury was followed in the course of forty-eight hours by the appearance of a small swelling, which increased in size when the patient coughed. At the end of twelve months it had become as large as a hen's egg, and subsequently, though not further enlarging, it caused increasing pain and discomfort, and much difficulty in breathing. When seen by the author the patient was in a fair state as to general health, but complained much of shortness of breath. The respiratory movements were less free than in the normal condition. Dulness and friction sounds could be made out at the base of the left lung, and there was a dry pleuritic cough. A large flap, including all the layers of the chest wall with portions of the seventh, eighth, and ninth ribs, was formed on the left side, and turned upwards so as to expose the interior of the left pleural cavity. It was then seen that the external tumour formed part of a large hernia containing omentum and a portion of the transverse colon. The protruded omentum and the hernial sac were resected, and the opening in the diaphragm was closed by sutures applied both to peritoneum and muscle. The large flap of thoracic wall was then replaced, the detached portion of the ninth rib being fixed in its placed by wire sutures, and the soft structures by two rows of sutures, one row for the muscular layer, the other for the skin. The hernial orifice in the eighth intercostal space was closed by a catgut suture. Finally, the air in the pleural cavity, the pressure of which had caused complete collapse of the left lung, was removed by aspiration. The patient progressed favourably after this operation, and at the end of the third week was regarded as absolutely cured.

(342) Traumatic Prolapse of the Lachrymal Gland.

G. HALTENHOFF (*Revue méd. de la Suisse Romande*, March 20th, 1895) reports a case in which prolapse of the lachrymal gland was caused by a fall on the face in a boy aged 2½ years. Three days after the accident the gland was excised, and some months afterwards no difference in the two eyes could be seen. The gland does not seem to be necessary to the eye. The secretion of the conjunctival glands and conjunctiva, and possibly of the subconjunctival glands of Krause, keep the eye sufficiently lubricated. In this case, when the child cried, both eyes wept equally.

MIDWIFERY AND DISEASES OF WOMEN.

(343) Flexions and Displacements of the Uterus.

MACKENRODT (*Archiv f. Gynäk.*, vol. xlviii, Part 3, 1895) has carefully studied the anatomy of the structures supporting the uterus, and illustrates his dissections by a series of instructive diagrams. The pelvic fascia forms the pelvic floor. It is the supporting agency which prevents displacement of the viscera. The genitals do not simply pass through a foramen in the fascia, the edges of which hold on to the uterus and vagina by a few stout fibres. The fascia sends dense ligamentous bands into the supravaginal part of the cervix and the vaginal wall, and these bands support the uterus and vagina. As the upper part of the cervix is normally concave forwards, the body of the uterus necessarily hangs forward over the cervix. In other words, the natural anteversion and anteflexion of the uterus are due to the shape of the cervix, and dissection further shows that there are no processes from the pelvic fascia to hold the body of the uterus in the well-known position, nor is it so held by the peritoneal folds. The uterus is retained in its anteflexion by gravitation and abdominal pressure from above. The perineum, Mackenrodt insists, has only an indirect share in resisting intra-abdominal

pressure. Flexions and displacements may be due to pathological changes in the ligamentous bands distributed to the cervix or to morbid changes in the essential uterine tissue itself. Thus, a bulky uterus with weak muscular walls in a roomy pelvis may become abnormally anteflexed. The special primary condition in retroflexion is relaxation of the uterus and of the ligaments of the cervix. In prolapse there is tension and atrophy of the ligaments of the cervix and vagina, always accompanied by atrophy of the muscular structures in the pelvis.

(344) Ruptured Fœtal Cyst of Tube simulating Strangulated Inguinal Hernia.

MALHERBE (*Bull. de la Soc. Anat. de Paris*, vol. ix, January-February, 1895) relates that on December 29th, 1894, a woman, aged 34, was admitted into the Hôpital Bichat under Terrier. She was pale, her tongue dry and brown, her pulse too rapid to count. For four days she had passed neither flatus nor fæces. On the day before admission she was suddenly seized with violent abdominal pain. An inguinal hernia, which had existed for some time, at once became tense and painful. Bilious vomiting set in before admission, the taxis had been attempted, and the patient fainted. The period was reported as regular, but pain in the pelvis had been felt a month before the more severe and recent attack. Malherbe found the local and general indications of strangulated inguinal hernia. He cut down on the sac, which was large and tense. A quantity of treacly liquid blood escaped, but the sac was absolutely empty. Much blood issued from the internal ring, so the parietes were freely incised. Black blood and masses of clot then came away in abundance. The uterine appendages were drawn up, and a small ruptured tubal sac discovered. The tube and ovary were removed, and the pelvis and peritoneal cavity cleared of clot. The long incision in the parietes was closed very carefully, the peritoneum and musculo-aponeurotic layers with interrupted silk sutures, the skin with silkworm gut. The patient recovered.

(345) Colossal Ovarian Cysts.

MCGILLICUDDY (*American Gyn. and Obstet. Journ.*, April, 1895) publishes for the first time a case in which the operation was performed in 1882 by Garclon. The patient was a woman, aged 28. The abdomen was 69 inches in circumference at the umbilicus, and 47 inches in vertical measurement from the sternum to the pubes. On July 3rd, 1882, Garclon tapped the cyst, removing 132 lbs. of fluid. On July 8th he performed ovariotomy, removing a pair of simple non-adherent ovarian cysts, which with their contents weighed 70 lbs. The patient never rallied from the operation; she was in a very feeble condition, and the step was taken as a last resource. She died on the second day. Before operation the great tumour hung down as far as the knees, the abdominal walls chafing the front of the thighs McGillicuddy notes Briddon's case (*New York Medical Journal*, February 8th, 1890) in which an ovarian tumour weighed 149 lbs. Death followed operation.

(346) Two Cases of Spontaneous Rupture of the Uterus in Labour: Recovery.

GESSNER (*Zeit. f. Geb. u. Gynäk.*, vol. xxxi, Part 2, 1895) recently exhibited at a German Medical Society a woman who suffered rupture of the uterus whilst she was being rendered antiseptic before turning was undertaken. An asphyxiated child was extracted. The tampon was applied and the abdomen firmly bandaged. Two hours and a half later, as the pulse was bad, the abdomen was opened; but, contrary to diagnosis, the rupture was found not to be complete. There was an extensive hæmatoma in the left broad ligament. The parietal wound was closed; the patient recovered. In another patient, rupture of the uterus was caused by hydrocephalus in the fœtus. Craniotomy and extraction being done, the incomplete rupture was plugged and drained with sterilised gauze. During the puerperium a vesico-vaginal fistula developed.

(347) Pregnancy with Unruptured Hymen.

GUÉRARD (*Centralbl. f. Gynäk.*, No. 15, 1895) relates three new cases of pregnancy in which the hymen was persistent. In the first and second there was a protracted second stage due to the resistance of the hymen, which was perfect and very elastic. After a crucial incision the fœtus was at once delivered, but in one case the child was lost. In the third case the patient appeared to be in the seventh month of her first pregnancy, and suffered from severe pain in the genital tract. Although she had twice been operated on for atresia of the hymen, the vagina was still closed by a firm, impermeable, and tender membrane. This was excised, the pains disappeared and the pregnancy continued and ended naturally. Guérard notes a case of bifenestrated hymen where the openings barely admitted a hair; yet the patient reached the third month of pregnancy, and abortion was induced in a manner which could not be ascertained. In considering these cases, he notes how the alkaline uterine mucus, poured out during orgasm, protects the spermatozoa from destruction by vaginal mucus.

THERAPEUTICS.

(348) Thymus Feeding in Goitre and Graves's Disease.

MIKULICZ (*Berl. klin. Woch.*, April 22nd, 1895) speaks first of thyroid feeding, and recalls the observation of Reinhold that, when insane people having goitres were fed with the thyroid glands of sheep, their goitres mostly became smaller, although their mental condition remained unaffected. Out of 60 cases of goitre treated by thyroid feeding, von Bruns observed a decided improvement in 34. The goitre in a great many of these cases may be regarded as a true hyperplasia of the gland substance demanded by unusual necessities of the organism. Part of the function of the thyroid may be to destroy some "poison" circulating in the blood, and the excess of this "poison" in the blood may act as an irritant on the thyroid and induce its hypertrophy. The thyroid feeding may in such cases diminish the work thrown on the thyroid gland, and, by thus removing the cause, get rid of the goitre. This theory would, indeed, not be at variance with the explanation of the beneficial action of thyroid feeding in myxœdema, but it does not explain why and when the thyroid feeding is discontinued the hypertrophy does not make its reappearance for a considerable time. Another explanation is therefore suggested. Two different substances may be contained in the thyroid; one which prevents myxœdema, and which can only be supplied by the thyroid gland; the other which is useful in cases of goitre, and which may also be obtained from the thymus gland. Mikulicz himself has employed thymus feeding in 11 cases, 10 of goitre, and 1 of Graves's disease, and, as far as he can see, the result is similar to that obtained by thyroid feeding. He always employed fresh raw sheep's thymus, of which 10 or 15 grammes, finely cut up, on toast was the dose used at the commencement of the treatment; this was gradually increased to 25 grammes. It was usually given thrice weekly, so that the total amount taken by a patient during the week varied from 30 to 75 grammes. Within the first three weeks one can get an idea of the probable result of the thymus treatment, just as one can of the thyroid treatment. The diminution in size of the goitre is most marked within the first fourteen days of the treatment, and after six weeks no further effect is noticed, although the thymus feeding be continued. Out of his 10 cases of goitre Mikulicz says that 1 was rapidly cured, 6 decidedly improved, 2 slightly improved, and 1 remained unaffected by the treatment. In the woman, aged 44, with Graves's disease, the most noticeable point was the improvement in subjective symptoms; the exophthalmos and the tachycardia were likewise diminished, but the goitre and tremor remained practically the same. Although apparently thymus feeding and thyroid feeding produce much the same effect in cases of goitre, Mikulicz does not believe that their action is identical, and wishes to know what the effect of thymus feeding may be in cases of myxœdema.

(349) Antistreptococcic Serum.

ROGER (*La Presse Méd.*, April 6th, 1895) discussed before the Société de Biologie some cases of puerperal fever and erysipelas which were treated by the injection of this serum. He first refers to one case, related at a previous meeting, in which he first essayed this treatment. The case, a severe one, was cured in forty-eight hours. The

next case, treated by Roger and Charrin, was that of a woman who was delivered on February 18th. The next day fever appeared, and on the evening of February 22nd the temperature was 102·2° F. On the morning of February 23rd the temperature was 101°, lochia fœtid; 26 c.cm. of the serum was injected. In the evening, the temperature having risen nearly one degree, another injection of 20 c.cm. was made. Next morning the patient felt better, and on February 25th, after two more injections of 20 c.cm., the temperature fell, the lochia became normal, and the general condition was excellent. In another instance, a weakly infant, aged 3 weeks, and weighing only about 5½ lbs. at its birth, was attacked by erysipelas. Forty-eight hours after the appearance of the rash on the upper lip and cheeks 5 c.cm. of the serum was injected under the skin. The infant was cured in four days. Its weight rapidly increased, and on March 17th was 6¾ lbs. This case is the more interesting since erysipelas neonatorum is almost always fatal. The last case was one of severe suppurative tonsillitis, with pseudo membrane containing cocci, occurring in a woman twenty hours after confinement. The temperature varied between 103° and 106°, pulse 148, feeble and irregular. The patient received 60 c.cm. of serum the first day, in two injections; 30 c.cm. the next day. Thirty-six hours after the first injection the temperature had dropped to 101°, and twenty-four hours later it became and remained normal. Although these cases are too few in number to justify any general conclusions regarding the curative action of the serum, yet they are believed sufficient to demonstrate its harmlessness and to encourage early resort to the treatment.

(350) Sublimate Injections.

Lewin (*Berl. klin. Woch.*, 1895. Nos. 12 and 13) commences an account of the results of his sublimate injection method in syphilis compared with other modes of treatment. His experience is based on over 80,000 cases. Owing to the objection to daily injections, insoluble mercurial compounds have been tried. He has found albuminate and peptonate of mercury less efficient, and has always returned to the sublimate. The author uses a 0·6 per cent. of sublimate in distilled water, and injects daily 2 g., or 0·01, of sublimate. He discusses the inunction treatment and the inhalation method. With the insoluble mercurial compounds there is no evidence to show that they are always gradually absorbed; as a result of muscular movements they may be rapidly absorbed. If symptoms of poisoning supervene it is very difficult to get rid of the deposit of mercury; excision has even been recommended. The author then discusses the symptoms of poisoning under the various methods of treatment. (1) Stomatitis: With insoluble preparations (injected) stomatitis arises in 10 to 40 per cent.; in the author's experience in from 6 to 7 per cent. With inunction it may also occur. Even other individuals living in the same room as the patient may develop stomatitis. It can easily be avoided with sublimate injections if ordinary care is used. The author has never seen severe stomatitis during thirty-two years. (2) Enteritis: He has seen this complication in 3 to 5 per cent. of those treated with insoluble preparations. It may arise suddenly even after the cessation of the treatment. Diarrhœa may easily occur with inunction, and it may arise without warning. The author has never seen marked enteritis from sublimate injections. (3) Nephritis probably rarely occurs with the insoluble preparations. Welander found albuminuria in 4 per cent. of those treated by inunction. The author has never seen nephritis and very rarely indeed albuminuria after sublimate injections. (4) Embolism: Pulmonary embolism has been noted from the insoluble preparations. It could not occur after inunction, and the author has never seen symptoms pointing to it after sublimate injections. (5) Nervous symptoms: After the injection of insoluble preparations he has seen headache, noises in the ears, and in two cases weakness in the extremities. Nervous complications, including paralysis, have been seen after inunction. The author has never observed mental change or motor or sensory symptoms due to sublimate injections. (6) Pain is more common after the insoluble preparations. (7) Abscesses occur in 2 to 15 per cent. of cases in which insoluble preparations have been injected. After sublimate injections by himself the author has never seen an abscess.

(351) Action of Antipyrin on the Central Nervous System.

Langlois and Guibaud (*Sem. Méd.*, March 27th, 1895, p. 132) by graduating doses on animals whose spinal cord had been divided below the medulla oblongata, could distinguish several stages of poisoning: (1) A cerebral stage in which clonic epileptiform convulsions are limited to the head; (2) a cerebro-spinal stage in which the head is still affected with clonic convulsions, while the trunk is attacked with one or more tonic spasms (opisthotonos); (3) a cerebral stage with spinal hyper irritability, in which the shocks caused by the clonic convulsions of the head set up violent reflex movements of the body, comparable to the spasms of strychnine poisoning; (4) the reflexes of the head disappear at the same time as those of the trunk. Antipyrin has, then, an eclectic action in the higher centres, and this explains why its sedative action is more marked in head affections than in spinal.

PATHOLOGY.

(352) Glanders.

Levy and Steinmetz, of Naunyn's Clinic (*Berl. klin. Woch.*, March 18th, 1895) refer to Straus's method of injecting some of the suspected material into the abdominal cavity of a male guinea-pig, when in two or three days inflammation and suppuration appear in the tunica vaginalis, subsequently involving the testis. The glanders bacillus is always present in the pus. A case is then related in which the injection of material from a suspicious ulcer on the hand produced such a swelling as above described, but only staphylococci and no glanders bacilli could be found; in two other guinea-pigs no such swelling occurred. The cause of the swelling in the first case lay in the fact that the large and mobile vesicula seminalis had been wounded in the lateral injection of the suspected material into the abdominal cavity. To avoid this the injection should be made in the middle line just above the bladder. The authors quote a doubtful case in a horse, in which the diagnosis was established by Straus's valuable and practical method.

(353) Endocardial Lesions in the Tuberculous.

Biondi (*Centralbl. f. allg. Pathol.*, February 23rd, 1895) first refers to the tuberculous endocarditis recently described, especially by French writers. The evidence as to its being really tuberculous is still in question. The author has examined cardiac vegetations from eleven cases of tuberculosis. The vegetations were of varied structure. In some cases they were made up of a homogeneous material or of slightly granular masses intersected by fibrin fibrils. Sometimes spaces were seen filled with red and white blood cells. In some instances there were large cells at the base of the vegetation, but in no case was the structure like that of tubercle. The bacteriological examination never revealed tubercle bacilli either at the periphery or in the centre of the vegetation. In three cases cocci were found. Thus the vegetation consisted of a hyaline thrombus more or less converted into new tissue. Any idea of a tuberculosis of the endocardium could not be entertained. In no case was the endocarditis due to a secondary infection. The presence of cocci in the periphery of the vegetation was, in the author's opinion, a chance find, nor does he think that there was any question of a past infective endocarditis. He would assign to the endocarditis a similar nature to that described by Ziegler, namely, an alteration in the endothelium of the endocardium, owing to which blood plates accumulate and become attached together to form a hyaline thrombus. Fibrin is deposited and red and white blood cells are included. The slight changes in the endothelium necessary to the formation of a thrombus are easily understood in exhausting illnesses such as tuberculosis. The failing nutrition in tuberculosis and the presence of toxins in the blood cannot be a matter of indifference to the endocardium. A true tuberculous endocarditis is at any rate not as common as has been thought.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(354) Puncture of the Spinal Meninges.

FÜRBRINGER (*Berl. klin. Woch.*, April 1st, 1895) has punctured the membranes more than 100 times in 86 cases. The procedure is quite easy. The author recommends that the patient should sit up, at the same time bending well forwards, and that the needle be introduced on a level with the under surface or exact extremity of the spinous process. An anæsthetic is unnecessary. Sometimes the aspiration of the fluid was found to cause pain in the neck, back, or head, so that the author uses the Pravaz syringe almost exclusively. The amount of fluid withdrawn varied from a few drops to 110 c.cm. The amount evacuated does not always correspond to the amount present or to the pressure. Very occasionally a bloody or blood-stained fluid was withdrawn. Once, owing to pain in the legs, it was thought that a nerve root had been pierced. In four-fifths of 37 cases of tuberculous meningitis the diagnosis was established with certainty by the presence of the tubercle bacillus. Improvement is so rare that any curative action can hardly be thought of. In the author's opinion the symptom-complex of this disease is not in any great measure the direct result of increased pressure. In 2 cases with meningeal symptoms in which no tubercle bacilli were found the after-examination showed a serous meningitis. In one case of chronic hydrocephalus the fits lessened after the puncture; the necropsy eventually showed the hydrocephalus to be due to a tuberculous nodule in the cerebellum. In one case pus was withdrawn. In 3 cases of cerebral tumour there was slight improvement in the headache in one case. There was but slight change in a second case, which subsequently recovered under antisyphilitic treatment. In a third case sudden death occurred the day after the puncture. In a fourth case much improved by trephining, lumbar puncture was practised owing to a relapse. The symptoms improved slightly, but death occurred twenty-four hours later. It cannot be said whether the puncture had anything to do with the sudden deaths. In two uræmic cases 90 and 50 c.cm. of fluid were withdrawn without result. In one case of cerebral hæmorrhage with rupture into the ventricles blood was withdrawn, as well as in a case of hæmorrhage into the cerebellum rupturing into the fourth ventricle. For diagnostic purposes spinal puncture is most valuable in tuberculous meningitis and when pus is withdrawn. In hæmorrhages into the ventricles or subarachnoid space it may also be of service. Therapeutic results (at all permanent in character) are either absent or only rarely to be seen. Whether there is any danger in spinal puncture is neither proved nor disproved.

(355) Nutrition in Phthisis.

ROBIN (*Arch. gén. de Méd.*, April, 1895) gives the results of his researches into the urinary solids in phthisis. In 43 cases the average daily excretion was about 50 g. in 21 cases which were either improving or stationary, 33 g. in 6 cases which were losing ground, and 29 g. in 16 fatal cases. Any case of phthisis in which the average reaches 30 g. may be looked upon, with certain exceptions, as having arrived at the cachectic stage so far as nutrition is concerned. Cases improving under treatment excrete more solids in the urine the weight being stationary, or less solids with increase in weight if fever, diarrhœa, or appreciable night sweats are absent. Hæmoptysis causes a diminution in the urinary solids, persisting for several days. In cases which become worse, a steady diminution in the solids without any increase in weight stands in relation with an aggravation of the malady. In advanced phthisis fever is rarely accompanied by increase in the urinary solids. The supervention of generalised tuberculosis, pneumonia, etc., causes a diminution, and such a sudden diminution should draw attention to the appearance of these complications. In cases treated with increasing doses of cod-liver oil after Jaccoud's method, diminished solids indicate saturation of the body with the oil, which should then be stopped. If the solids then increase without loss of weight it is a favourable sign. As regards the inorganic compounds an increase is noted in early phthisis, and the author thinks that this increase may have something to do with the preparation of the soil for the tubercle bacillus, and may furnish indications for treatment.

(356) Diphtherial Paralysis.

HASCHE (*Münch. med. Woch.*, March 12th, 1895) reports a widespread and fatal case of this disease in which no anatomical lesion could be found. He mentions the various pathological changes to which the paralysis has been referred. A boy, aged 9 years, developed paralysis about one month after the onset of a faucial diphtheria. Death occurred a fortnight later, the paralysis having extended to the legs and arms. The heart presented microscopic evidence of a moderately well-marked fatty degeneration. No naked-eye or microscopic change could be found in the spinal cord, medulla, nerves, or muscles. Even the vagus and oculo-motor nerves, in the distribution of which there was complete paralysis, showed no change, and their nuclei of origin were intact. Only in one place in the cervical cord was there any trace of a lesion, and this only consisted in engorged vessels and very minute extravasations of blood, the nervous elements being intact. The case shows, according to the author, that paralysis may be produced by a specific poison without any anatomical explanation—in the present state of our knowledge.

(357) Hysterical Polyuria.

SOUQUES (*Arch. de Neurol.*, December, 1894) reports a case to illustrate the part played by fixed ideas in the pathogenesis of hysterical polyuria. The patient, a jeweller, aged 37, for many years had daily consumed about 5 litres of wine, besides cognac and absinthe. In addition to this, he frequently committed grosser alcoholic excesses. On the day following any of these acute debauches he noticed that he had to urinate very frequently and passed large quantities of urine. In November, 1893, he was stunned by a blow on the head. He recovered consciousness after some hours, but soon fell into a delirious state that lasted three or four days. On emerging from this state, constant in tense thirst and polyuria developed. The urine amounted to about 20 litres in the twenty-four hours, and was free from sugar and albumen. When received into the Salpêtrière in May, 1894, the patient was found to have hemianæsthesia, with a "pseudo-ovarian" zone and contraction of the visual fields; the polyuria and thirst had continued unrelieved by treatment. A few weeks later treatment by hypnosis and suggestion was commenced. Diminution of the urinary excretion at once resulted, and after thirteen sittings the daily quantity was only 3 or 4 litres. The author remarks that at first this case might be taken for one of traumatic polyuria, but the existing stigmata of hysteria and the cure of the condition by suggestion plainly establish its hysterical character. While in the somnambulic state the patient related how vividly he had been impressed by the great frequency of micturition that followed his acute excesses. From that impression the author traces the evolution of the fixed idea. The latter, he supposes, is in these cases the starting point of a cortical reflex that inhibits the renal vasomotor centre, thus inducing vaso-dilatation and augmented blood pressure in the renal vessels, with consequent hyduria.

SURGERY.

(358) On the Use of Steam in Removing Tumours from Parenchymatous Organs.

SNEGIREJEFF (*Berliner Klinik*, April, 1895, p. 13) reports a case of echinococcus which he removed from the spleen by the following method. The tumour was the size of a man's head. The incision was in the linea alba. The jet of steam was directed on to the larger convexity of the spleen, and the subjacent tissue at once became white and dry. A completely bloodless incision, 7 inches long, was then made through the splenic tissue, and the tumour peeled from its surroundings by the finger. Whenever hæmorrhage, which was sometimes

violent, occurred, it ceased at once when steam was directed on to it, and in this way the whole tumour was shelled out. It was then decided to suture the incision in the spleen except at one spot, to pack the cavity with iodoform gauze, to make a small incision in the left hypochondrium, and to stitch the spleen to the abdominal walls. In doing this the splenic artery was pricked and bled profusely, but hæmorrhage ceased on the application of steam. Unfortunately the artery became thrombosed, and after ligaturing it the spleen was completely removed. The patient recovered. Although owing to the accident to the splenic artery the intended treatment could not be carried out in this case, yet it is evident that an echinococcus or other tumour could be removed from any organ, instead of extirpating the latter. The steam is best superheated to 150° to 200° C. In the case of soft organs the steam must not be at high pressure, and must always be directed obliquely on to the bleeding spot. In operations on bones the steam must be at high pressure.

(359) Intra- and Extracranial Cyst in the Occipital Region.

WALTHER (*Presse Médicale*, April 6th, 1895) relates a unique case lending important confirmation to the inclusion theory of the origin of dermoid cysts. The patient entered the Hôpital de la Pitié on February 3rd, 1893, under the care of Tillaux. About eight years earlier, in 1885, he first noticed a swelling in the occipital region. After a time he suffered from frequent "tearing" pains in the head, neck, and shoulders, with tingling of the arms, legs, lips, and tongue; dimness of vision, diplopia, phosphenes, humming in the ears, failing memory, occasional vomiting, and constipation. At the end of September, 1888, the cyst was removed. Ten days afterwards the patient appeared with a hæmatoma the size of an olive. The lower angle of the incision being reopened gave exit to blood, pus, and a substance resembling "white cheese." A fistula formed, from which came a thick liquid, mixed with sebaceous matter. From time to time the orifice healed and the swelling increased, this event being always signalised by aggravation of the whole train of symptoms. In January, 1889, a counter-opening was made and a drain inserted, through which injections of sublimate and phenol solutions were made to wash out the cyst contents. In January, 1893, when the patient came under the care of Walther there was a fistulous tract at the level of the external occipital protuberance, leading to a pretty large intracranial pocket filled with horribly fœtid pus. As the cerebral symptoms had become more marked on February 10th, 1893, an incision 16 cm. long was made across the fistula. A fibrous cord or prolongation of the tumour was found leading to an orifice in the occipital bone. This was cut away and the opening in the bone cleared. It was elliptical in shape, 15 mm. long and 4 broad. It was closed internally by a fibrous membrane, with a small central aperture leading to the intracranial pocket. This being incised, the pocket was exposed and found to be filled with horribly foul pus, and a fragment of drainage tube thickly encrusted with phosphates. This pocket evidently lay between the occipital bone and the dura mater, immediately below the torcular Herophili and the right lateral sinus. The right lobe of the cerebellum was depressed by the tumour, and was apparently deformed or atrophied, as it did not resume its shape subsequently. The cyst wall was very thin, and in places inseparable from the dura mater. The cavity was thoroughly cleaned out and packed with iodoform tampons. The after-history was in every way satisfactory. A small fistula persisted for some time and an obturator had to be worn, but all discharge ceased, and the symptoms entirely disappeared. This is the only recorded case of a dermoid cyst developing at the same time outside and inside the cranium. There are many cases on record in which they have been found within the skull, and in one remarkable instance related by Lannelongue in which a fibrous cord traversed by a minute canal connected the intracranial cyst to the bone but without piercing it. It is plain from these cases that the usual theory of the formation of dermoid cysts is correct. An included part of the ectoderm has been caught by the developing cranial bones and, so to speak, strangulated, and in most cases altogether cut off from the surface Only in these two cases was any connecting link left to explain the mode of origin.

(360) So-called Syphilitic Stricture of the Rectum.

HARTMANN AND TOUPET (*Sem. Méd.*, March 27th, 1895, p. 129) admit that some cases of so-called syphilitic stricture of the rectum are directly dependent on a local syphilitic or tuberculous lesion. More often they are caused by a cicatrising rectitis, in which case the syphilis, if it exists at all, only acts by allowing the infectious process to penetrate the mucosa. The radical cure, by excision of the stricture, may be successful in congenital strictures or where there is a cicatricial band, but, excluding these, in nineteen cases of the authors no complete recovery followed the operation. In all cases a rectal discharge remained, and generally there was a tendency to recurrence. The latter is easily explained by the persistence of the rectitis, which caused and accompanied the stricture.

(361) Traumatic Glycosuria.

HIGGENS AND OGDEN (*Boston Med. and Surg. Journal* February 28th, 1895) report the results of observations on 212 cases of head injury made with the object of establishing whether any relation exists between such lesions and transitory glycosuria. In these observations frequent and systematic examinations were made of the urine obtained as soon as possible after the injury, and afterwards from time to time during the patients' stay in the Boston City Hospital. The authors endeavoured to ascertain if any connection existed between the nature of the injury and the appearance of sugar in the urine; and also if such a condition, when it occurred, could help the diagnosis, especially in obscure and doubtful cases, as, for instance, in supposed fracture of the base of the skull, resulting in recovery with no other prominent symptoms save temporary unconsciousness and hæmorrhage from the ear. Glycosuria was observed in 20 of the 212 cases. It is stated that of all cases of head injury taken together, about 10 per cent. manifest glycosuria as the result of traumatism. Of the more severe cases, such as those of fractures of the vertex and base, sugar may be present in the urine in from 20 to 25 per cent. Sugar may be found as early as six hours, and disappear within twenty-four hours after the injury. The average time for its appearance is from eight to twelve hours, and for its disappearance the fifth to the ninth day. In a small proportion of cases the glycosuria may become permanent. Acetone and diacetic acid are rarely if ever found in such cases, excepting where the condition becomes a permanent glycosuria, and even then probably only after some months or years. Of the 20 cases in which sugar was found, in 11 (55 per cent.) the injury was on the right side of the head, and in 5 (25 per cent.) on the left side. In 2 cases there was no external evidence of violence. It is impossible, the authors conclude, in the present state of the knowledge of the pathology of diabetes and glycosuria, to draw any inferences from the necropsies they made in fatal cases. Of the 20 cases in which glycosuria was noted 8 died—6 from the direct results of severe injuries, 1 from intercurrent disease, and the third probably from alcoholism. Of the 212 cases, 16 were fatal, 50 per cent. of these having presented glycosuria.

MIDWIFERY AND DISEASES OF WOMEN.

(362) Vaginal Hysterectomy: Utero-Vaginal Fistulæ.

RICHELOT (*Gaz. Méd. de Paris*, April 20th, 1895) has observed the development of small vaginal fistulæ a week or ten days after hysterectomy. They coincide with the separation of the eschars. They are generally considered to be due to wound of the ureter, but Richelot thinks it more probable that they are the result of damage to the base of the bladder. French surgeons have recently discussed the fact that in vaginal hysterectomy the right is more frequently wounded than the left ureter. —Fournel (*Gazette des Hôpitaux*, April 23rd, 1895) shows that this is due to the fact that the right forefinger, with little difficulty, can thoroughly separate the tissues on the left side of the cervix, whilst the uterus is drawn down by the left hand holding the volsella; but it cannot so easily separate the cervix

from the structures on the opposite side. The left hand, when grasping the volsella firmly, so as to draw the uterus well down, tends to be supinated, and in that position it draws the uterus easily towards the right side of the patient; hence it is easy to separate the tissues to the left of the cervix working with the right forefinger, since the left hand does not readily get fatigued; but to let the right forefinger work in the right side of the uterus, the left hand has to be pronated, depressed towards the patient's perineum, and swung to the patient's left. To hold the volsella long in so clumsy a position is very tiring, and of course the right hand shares in the fatigue; hence the right side of the cervix is not always well cleared from surrounding tissues. The right ureter is consequently in danger when the ligatures are applied. The best way of avoiding the accident is to make a trusty assistant grasp the volsella and draw down the uterus with his right hand, whilst the operator clears the cervix on the right side with his own right forefinger.

(363) Cæsarean Section.

RAPIN (*Revue Méd. de la Suisse Romande*, April 20th, 1895) communicated this case to the Société Vaudoise de Médecine. The patient was a woman, aged 41, and it was her third confinement. The last was fifteen years ago, and was initiated prematurely in consequence of a moderate degree of pelvic narrowing of the rachitic type. A year ago she underwent the operation of hysteropexy for retroflexion of the uterus. The present operation was undertaken at term, and the incision was made through the scar left after the hysteropexy. The uterus was firmly adherent throughout the whole length of the first incision, and the peritoneal cavity was not opened. This was afterwards done to a slight extent, when it was found necessary to extend the incision downwards in order to give birth to the head. The result both as regards mother and child left nothing to be desired. Rapin remarks that when hysteropexy is performed in cases in which contracted pelvis exists, the surgeon should bear in mind, in planning the extent of the operation, the possible advantage that may accrue in the event of Cæsarean section being subsequently required.

(364) Hypertrophy of the Cervix.

THOMSON, of Odessa (*Centralbl. f. Gynäk.*, No. 16, 1895), believes that this condition is congenital rather than inflammatory; at least, in all cases where the increase in length is extreme—the so-called "tapiroid cervix." Küstner has observed it in the newborn infant. The rarity goes against the theory that it is due to any kind of sexual abuse or to injury during labour. Thomson describes a very marked case. The patient was 25, and apparently a virgin. She had felt bearing down pains in the pelvis for ten years. About six years before she first noticed something projecting from the vulva, especially after a walk. The period was regular, free, and painless. The diseased, or, rather, abnormal, cervix, gave a little trouble when walking or standing, but the patient was subject to obstinate constipation, and this accounted for much of the inconvenience of which she complained. When the patient lay down the cervix projected over 3 inches beyond the vulva. The os externum was of the normal virgin type. The sound passed over 5 inches till it stopped at the os internum. The supravaginal portion of the cervix seemed of normal length; the uterus was small, retroflexed, and somewhat low in the pelvis. The hymen was not torn, but extremely stretched. The cervix was amputated by the bloodless method; the sutures were removed on the twelfth day; the uterus and stump of the cervix then measured a little over 2½ inches. The abnormal amputated structure showed no sign of inflammation, though it was œdematous.

(365) Physometra or Tympanites Uteri.

HERMES (*Der Frauenarzt*, April, 1895) observed this condition in a primipara, aged 37, and syphilitic. The child had evidently died some time before labour, which lasted over five days, and was mismanaged; the child's thigh was broken in an attempt to deliver with the blunt hook. The practitioner sent the patient into hospital. She was in a sinking condition, the abdomen greatly distended. The perineum was torn. The pelvis was slightly contracted in all diameters. On passing the finger into the os, a great quantity of fœtid gas escaped. The child, very large, and in an advanced state of decomposition, was extracted. The placenta, quite putrid, had to be removed manually. The uterus contracted badly; it was carefully washed out with a solution of carbolic acid at 122 F°. There was no severe flooding. The patient died about one hour after delivery. There were no air emboli, said to be the main cause of fatal results in tympanites uteri. There was perimetritis. Under the endocardium in the left ventricle were abundant ecchymoses; the pericardium contained a considerable amount of serum. The fœtid air which issued from the uterus clearly came from the dead fœtus. The frequent attempts to deliver, badly followed up, admitted air and germs from without. In other cases it has been found that when the fœtus had died quite recently fœtid gas rapidly collects if air be admitted into the uterus.

(366) Metrorrhagia in Ovarian Cystic Disease after the Menopause.

DELAUNAY (*Bull. de la Soc. Anat. de Paris*, vol. ix. January-February, 1895) describes in full two cases in which ovariotomy was performed successfully. The first was aged 59. At 52 she was tapped, the abdomen having suddenly enlarged; 12 pints of reddish fluid escaped. The period soon afterwards ceased and the abdomen remained normal for several years. Seven months before operation metrorrhagia set in and continued without pain or fœtor. The abdomen began to swell. The tumour was removed, and proved to be an ordinary ovarian cyst. The second patient was aged 51. The menopause occurred at 46. At the age of 49 a kind of false menstruation set in, the interval between the show being eight days at first, a fortnight later on. The abdominal enlargement had existed for nine months. The tumour was a cyst, with myxomatous degeneration of part of its outer wall.

THERAPEUTICS.

(367) Serum Treatment of Carcinoma.

EMMERICH AND SCHOLL (*Deut. med. Woch.*, April 25th, 1895) relate their clinical experience of the treatment of carcinoma with erysipelas serum. They first refer to Coley's researches into the treatment of inoperable tumours, both carcinoma and sarcoma, with bouillon cultures of the erysipelas coccus inoculated with B. prodigiosus. In addition to the favourable results obtained by Coley, there were some unpleasant by-effects. The authors inoculate sheep with erysipelas cultures and free the blood serum from microorganisms by filtration. They have treated a number of cases of carcinoma (and sarcoma) with this serum during the past half year. In only 2 cases were there no results, and here there was secondary infection with suppurative changes in the carcinoma. Details are then given of 6 mostly advanced and quite hopeless cases; 4 of these were examples of recurrent mammary carcinoma, another of rapidly-growing and inoperable mammary carcinoma, and a sixth of long-standing cancroid. (1) A recurrent mass was present in the scar as well as carcinomatous glands in the axilla, and the whole of the infrascapular space was infiltrated with growth. The masses in the scar and axilla disappeared under the treatment, and the improvement was such that the patient could move her arm. (2) The hard masses about the scar disappeared, but a larger mass did not become less before the treatment had to be unavoidably suspended. (3) There was an ulcerating mammary carcinoma with metastases. Several of the masses became less, and the general condition of the patient greatly improved. (4) A metastasis in the upper arm disappeared in another case. (5) A large and rapidly-growing mass of carcinoma in the breast and axillary glands rapidly became less. The mass in the axilla diminished to half its original size in fourteen days. (6) Great diminution in size occurred in a cancroid in the face. The author thinks that the action of the serum is specific; it is probably even more efficient in sarcoma than carcinoma. It cannot yet be decided whether it acts on all forms of carcinoma. The younger the carcinoma the better the results, but older carcinomata soften and become absorbed. The amount of the injection must depend on the size of the growth and the condition of the

patient; 1 to 4 c.cm. of the serum injected daily into the growth suffices for small tumours; 10, 15, 20, or 25 c.cm. may be injected into a large tumour. No pain was noted with the smaller injections, and in no case was it necessary to give up the treatment on account of pain. There was usually no fever. The action on the general health was remarkable. A pseudo-erysipelas was sometimes noted, lasting from twenty-four to forty-eight hours. The serum should not be used only in inoperable and hopeless cases, but, injected before operation, it should complete the work of the surgeon, preventing recurrence. The authors say that thus surgery and internal medicine will assist each other. They draw attention to the difficulties and expense in preparing the serum, and the object remains to make the serum as powerful as possible. This method of treatment is in its infancy, and further clinical investigation is much to be desired.

(368) Treatment of Diphtheria with Antitoxic Serum.

BOKAI (*Deut. med. Woch.*, April 11th, 1895) reports 120 cases of diphtheria treated with antitoxic serum (Behring's) in hospital in Buda-Pesth between September 10th and December 31st, 1894. All the cases counted as cured were in good health on February 11th, 1895, the date of the report. There were 31 deaths, a mortality of 25.8 per cent., which is compared with a total of 337 cases in the fourth quarter of the three preceding years, with a mortality of 203 or 60.23 per cent. His statistics, arranged on the plan adopted in the BRITISH MEDICAL JOURNAL (see Febru-16th, p. 386) are as follows:

Age.	Treated.	Died.	Percentage.
0 to 1	1	1	100.00
1 ,, 2	22	10	45.45
2 ,, 3	22	7	31.81
3 ,, 4	24	4	16.66
4 ,, 5	18	3	16.66
5 ,, 10	29	6	20.69
10 ,, 15	4	0	0.00
15 ,, —	0	—	—
	120	31	25.83

The Klebs-Loeffler bacillus was found in all but 5 cases at the time of admission, but in nearly all it was associated with streptococci, staphylococci, and small micrococci. The causes of death in the fatal cases were: sepsis 5; descending membrane, 13; pneumonia, 7; heart failure, 3; acute nephritis, 1; scarlatina 1; tuberculosis, 1. In 63 cases there was laryngeal stenosis; intubation was performed in 49 cases with a mortality of 43 per cent. (21 cases). His previous statistics of deaths after intubation varied from 57.3 to 77.5 per cent. The average period for which the tube had to be retained in the 200 cases of recovery before the serum was introduced was 80½ hours; after the serum was used this average was reduced to 58 hours. Albumen in the urine was tested for in all but a few cases which died very shortly after admission, and was found in 53 cases. In 13 cases it was found before the serum had been injected. It was not found in certain cases of fibrinous laryngitis and tracheitis, in which very large doses of the serum had to be given. Bokai had not sufficient data to answer the question whether paralysis and heart failure occur more frequently after the serum treatment. He thinks it reasonable to expect that more cases of paralysis will be seen since a larger number of severe attacks are survived. Urticaria followed the injection in 11 out of the 120 cases, at an interval varying from 3 to 13 days. In 4 cases it was accompanied by high fever, in 1 by slight fever. One patient, a girl aged 6 years, had erythema exsudativum multiforme, which came on after an urticarial eruption which started from the point at which the injection had been made 10 days earlier; the child complained also of pain in the larger joints. Complete recovery ensued in less than a week. Bokai states, in conclusion, that he is fully convinced of the value of the serum in diphtheria, and that it has no injurious action beyond the tendency to produce a skin eruption. He considers, however, that its value in cases in which a septic character is pronounced from the beginning is doubtful, and that it cannot be depended on to check the development of heart failure when that sets in.

(369) External Applications of Guaiacol as an Antipyretic.

BLAISE (*La Presse Méd.*, April 10th, 1895) draws attention to the antipyretic action of guaiacol following its absorption through the skin. It appears from the experiments of Linossier and Lannois, made with crystallised synthetic guaiacol (*alpha*), that this action is due to the absorption by the skin of the vapour of the medicament. The guaiacol (not more than 30 grains) is liquefied by gentle heat in a test tube, and painted with a small brush over the breast of the patient. The area painted is then immediately covered by adhesive gummed or rubber plaster. In fifteen minutes the taste of guaiacol will be perceived by the patient and the temperature quickly falls from one to three degrees, slowly ascending again to its initial point in the course of five hours. The cases in which it is particularly indicated are those of pulmonary tuberculosis with febrile attacks; it can also be used in typhoid fever and erysipelas, etc. In pleurisy 45 grains of guaiacol dissolved in 6 drachms of tincture of iodine may be applied in the same way, two applications in the 24 hours.

(370) Treatment of Epilepsy.

C. FÉRÉ (*Rev. de Méd.*, March, 1895) speaks of the importance of continuing the bromides even in cases which are apparently cured. He instances three cases of epilepsy associated with infantile hemiplegia, epilepsy persisting from infancy and the ordinary epilepsy of adolescence. The bromide brought about a complete suspension of the fits. After some time it was gradually diminished and then stopped. The fits recurred after considerable periods to be again controlled by bromides. The action of the bromides consists rather in suspending the fits than in curing them. Occasionally patients after prolonged treatment cease to have fits for several years, and yet this cannot be foreseen. When properly given the bromides are harmless. They cannot be effectual unless habitually tolerated, and they are more easily tolerated than is usually believed. Intestinal antisepsis may help to ward off unpleasant symptoms. Bromide of strontium may be substituted. Frequent baths are useful in warding off cutaneous complications. All the manifestations arising during the treatment must not be forthwith put down to the bromides.

PATHOLOGY.

(371) Alkalinity of the Blood and Infection.

JOSEF V. FODOR (*Centralbl. f. Bakt. u. Parasitenk.*, February 28th, 1895) records a number of experiments showing the influence of the alkalinity of the blood on diseases produced by micro-organisms. Four series of experiments on animals are first reported which show clearly that, by the administration of alkalies (sodium bicarbonate by the mouth or by subcutaneous injection), the power of resistance against infection with cultures of anthrax bacilli is greatly increased. The normal alkalinity of the blood was determined by the examination of 76 healthy rabbits, and 4 experiments are reported showing the increase in the alkalinity of the blood which occurs after the administration of sodium bicarbonate. The author then records the results of a large number of observations on the alkalinity of the blood in rabbits after infection with the bacilli of anthrax, cholera, typhoid fever, tuberculosis, and erysipelas. These observations show that in the living organism, after infection with certain bacilli, there is first an increase of the alkalinity of the blood and then a diminution of the same, more or less. If the infection is fatal, the diminution of the alkalinity is marked and progressive; if not fatal, the diminution is slight, and is followed by an increase of the same, in consequence of which the alkalinity of the blood becomes permanently higher than before the infection. Thus there exists a connection between the pathological action of certain bacteria and the alkalinity of the blood. Those rabbits, having the greater alkalinity of the blood, as well as those in which the alkalinity of the blood is increased to a greater extent after infection, have greater power of resistance against certain infectious organisms (anthrax bacilli), than the rabbits in which the alkalinity of the blood is less. It appears, therefore, that the degree of alkalinity of the blood, as well as the power of the organism to increase this alkalinity with corresponding intensity after infection, is of essential influence upon immunity.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(372) Tabes Arrested by Blindness.

DÉJERINE (*La Méd. Mod.*, March 20th) draws special attention to those forms of tabes in which blindness appears. Two cases of this kind are compared with a third of the common or classical type. Case I.—Female, 31, totally blind, presents double papillar atrophy. Pupillar reflexes: those to light and general sensibility lost, that to convergence present. General sensibility of the body in all its forms unaffected, no inco-ordination, gait easy, steps equal, without deviation. History: Married at 17, at 22 sore throat (syphilitic?). At 26 years of age intense lightning pains appeared, first in the left leg, next in the left arm, a year later in the right limbs. Very soon the sight began to fail, first in the left eye, then in the right. At 28 commencing papillar atrophy was detected, which progressed to complete blindness. Concurrently the lightning pains became less severe and less frequent, and have so remained. Knee jerks entirely lost. Case II.—Female, 36, had a syphilitic chancre at 25, and at 28 lightning pains in the lower limbs. At 28 or 29 visual weakness appeared, which led on to total blindness in two years. The gait was that of a blind person; no inco-ordination, pupillary reflex of convergence preserved, those to light and to pain lost. Concurrently with the progress of the visual trouble the lightning pains had diminished in frequency and intensity. The gastric crises were unaffected by the blindness, existing as before. Case III was of ordinary type. Female, 50. At 40 lightning pains appeared, quickly followed by inco-ordination, which was excessive. Romberg's sign was very marked. The sensibility of the lower limbs was much altered, that of the upper limbs more slightly. Sight normal, marked myosis, with Argyll-Robertson's sign and abolition of the reflex to pain. In his comments Dejerine speaks of three forms of tabes associated with blindness. (1) In by far the largest class the optic atrophy supervenes at a period, longer or shorter, after the appearance of lightning pains, and inco-ordination never appears. In these cases as the blindness is being established the pains diminish in frequency and severity. (2) In the second variety the amblyopia appears simultaneously with, instead of shortly after, the lightning pains, and the tabes develops with the blindness, stopping when the latter is complete. (3) In a few cases blindness exists without pains. Such cases are mostly seen by ophthalmologists. In them the knee-jerks have disappeared, whilst as regards the pupil, loss of the reflexes to light and pain exists, whilst that for convergence is preserved. Gowers has pointed out that lightning pains appear if these cases are sufficiently long observed. No satisfactory explanation yet exists, Dejérine thinks, of the antagonistic action of optic atrophy on tabes. In almost all cases the pains diminish considerably, and sometimes even disappear. Once the author saw the patellar reflex reappear after an abolition of several months. In the rare cases where blindness supervenes on inco-ordination no improvement of the latter takes place, though the pains amend. The features of the optic atrophy are: (1) It attacks the eyes successively; (2) it is rapid in its course, six to eighteen months; (3) pupillar inequality, myosis, mydriasis, or normality indifferently exist; (4) though due to syphilis intensive treatment is of no avail. Romberg's sign is absent in these cases, and the gait is easy. Sensibility in its various forms is unaffected.

(373) Ruptured Thoracic Aneurysms.

DRAPER (*Boston Med. and Surg. Journ.*, March 14th, 1895) gives short records of 10 cases of sudden death due to the rupture of thoracic aneurysms previously unsuspected. They show how little the development of even a large aneurysm may proceed, with but little injury to health. Four of these cases occurred in women, the youngest being 37 and the eldest 75. Of the 6 men, the youngest was 30 and the oldest was 77. The aneurysms were mostly small and occupied various positions in the arch and descending aorta, one being placed just above the diaphragm. There are among them examples of rupture of a fusiform aneurysm, also of a dissecting aneurysm. The vertebræ were eroded in 3 cases. The author draws the following conclusions: (1) The rupture of the aneurysm does not of necessity require physical exertion as an exciting cause. (2) The pericardium most often receives the escaping blood, and this leads to an inhibition of the cardiac action. (3) These deaths, although sudden, are not instantaneous, and sometimes a considerable period may intervene. (4) The death is not generally painful. (5) The escaping blood does not always follow the lines of least resistance. (6) Aneurysms of small size and fusiform in character may rupture suddenly. (7) Aneurysm is not necessarily limited to advanced life.

(374) Peripheral Facial Paralysis.

L. MANN (*Berl. klin. Woch.*, December 31st, 1894) draws attention to two cases in which all branches of the nerve were not equally involved. In both cases the orbicularis oris muscle escaped completely. The orbicularis oculi muscle has also been known not to be paralysed to the same extent as the other muscles. The early regeneration of this muscle and also of the orbicularis oris has likewise been noted in peripheral facial palsy by other observers. Cohn has seen 4 cases in which the orbicularis oris was intact. The author thinks that Gowers's statement, that if the orbicularis oris is unaffected there is a lesion of the facial nucleus, cannot be maintained, as the above-named cases were undoubtedly strictly peripheral in character. The author suggests that when fibres in a nerve are derived from other sources they may behave in a different manner, and even be less liable to damage than the rest of the nerve. The fibres supplying the orbicularis oris come from the hypoglossal centre (Gowers, A. Bruce). The fibres of the orbicularis oculi also would appear to come from the oculo-motor nucleus. These anatomical relations, however, require further proof.

(375) Syphilitic Meningo-Myelitis.

LAMY (*Arch. de Neurol.*, December, 1894) deals with the clinical aspect of this subject under the following heads: (1) Syphilitic spinal meningitis; (2) meningo myelitis; (3) myelitis. The first form rarely occurs alone. In the two cases that he has reported elsewhere, basal cerebral meningitis and radicular neuritis, at the level of the cervical enlargement, existed as complications. Nocturnal rachialgia in this form has the same diagnostic significance as the nocturnal headache of syphilities. Prognosis is more favourable in this than in any other form of spinal syphilis. Meningo-myelitis presents two phases in its clinical evolution—a prodromal or meningitic and a paralytic. The symptoms of the first stage are often preceded by indications of basal meningitis, such as disturbance of vision and paralysis of cranial nerves. Rachialgia, lancinating pains, and rigidity of the spine mark the invasion of the spinal meninges. The symptoms of the paralytic stage are much less characteristic. Most often they point to a transverse dorsal myelitis, uni- or bilateral. The most important diagnostic features are the characters of the premonitory stage and the coexistence of the signs of intracranial mischief above noted. Myelitis, in a considerable number of cases, appears to be primary, signs of meningeal irritation being absent or insignificant. There is nothing in its symptomatology to indicate its syphilitic origin; evidence of the latter is to be sought in traces of ocular palsy, optic nerve atrophy, nocturnal cephalalgia, etc. The acute forms seem to be related more especially to lesions of the nutrient vessels of the cord, producing rapid destruction of the grey matter. The author mentions some experimental researches he has made bearing upon this. By injecting lycopodium into the spinal arteries of dogs he discovered that, when arterial obliteration is uniformly distributed through a segment of the cord, the grey substance is the part that is first affected by the vascular occlusion.

SURGERY.

(376) The Treatment of Umbilical Hernia in Children.

CAHIR (*Rev. de Chir.*, April, 1895) lays down the following rules as to the treat-

ment of umbilical hernia in infants and young subjects. Apart from certain exceptional conditions in children below the age of 18 months, whether of rich or poor parents, attempts should be made to cure the hernia by a firm pad and an abdominal bandage. In such cases a flat pad should always be preferred to a conical one. Children from 2 to 7 years, if belonging to well-to-do parents, and well cared for, should be treated in like manner; but if the parents be poor, hard-working, negligent, or ignorant, it will be found useless to attempt any cure of umbilical hernia by such simple means. There are no good grounds, the author states, for attributing to this treatment of umbilical hernia the subsequent protrusion of a hernial sac in the inguinal region. If any temporary affection of the respiratory organs, such as bronchitis, whooping cough, or laryngitis, should occur during the application of the pad and bandage, such treatment ought to be interrupted whilst the chest trouble lasts, and afterwards renewed and steadily maintained. Operative treatment by one of the numerous modern methods is indicated in the following cases: (1) When an umbilical hernia in an infant causes symptoms of strangulation, or is associated with persistent gastro-intestinal troubles which cannot be attributed to any other cause. (2) Also in young subjects from 2 to 7 years of age in whom like symptoms are caused by umbilical hernia. (3) In children from 2 to 7 years of age, suffering from umbilical hernia, who in consequence of defective means of retention or of careless treatment remain with the hernia in much the same condition after the use of pad and bandage continued for twelve or eighteen months. (4) In children over 7 years of age suffering from unmanageable or irreducible hernia presenting a tendency to increase in size. (5) When the skin over the hernial swelling is ulcerated and inflamed. (6) When the existence of an umbilical hernia is likely to interfere with the patient's career in any special calling. (7) When the hernial ring is large. (8) When the patient is subject to strangulation or to inflammatory attacks. (9) When the hernia, by exciting pain and gastro-intestinal disturbances, seriously impairs the development of the young subject.

(377) Castration for Prostatic Hypertrophy.

WALKER (*New York Med. Journ.*, April 20th, 1895) reports favourably of the treatment of enlarged prostate by double castration, and publishes three recent cases, in one of which there has been apparent recovery, and in the other two evident improvement. To these are added four other records of double castration performed by Tupper some years ago, in which the operation, though not performed with any view of relieving the urinary symptoms of enlarged prostate from which all the patients had suffered, was followed by much improvement in this respect. Other operative procedures for the relief of distressing symptoms accompanying enlarged prostate are not, in the author's opinion, always attended with success. Prostatectomy is very questionable in its results, and suprapubic and perineal methods of drainage are simply palliative measures, and do not materially diminish the size of the prostate. The reports of castration, he states, are certainly promising, as this operation unquestionably gives rest to the general function of the prostate, lessens its size by causing first arrest of inflammation and œdema, and afterwards gradual atrophy. Indiscriminate emasculation, however, will do much to bring this mode of treatment into disrepute.

(378) Etiology and Treatment of Suppuration.

REICHEL (*Sitzung-Berichte d. phys.-med. Gesellsch. zu Würzburg*, 1894) relates his investigations into the predisposition of tissues to suppurate and the disinfection of wounds. Everything tending to promote the absorption of micro-organisms and their products tends to prevent suppuration, whereas the opposite conditions favour it. Thus the situation and also the structure of tissues have an important influence. Copious and repeated bleedings did not promote suppuration. A single bleeding before infection seemed to hinder it, probably owing to rapid absorption. Loss of blood with the injection of saline fluid rather favours suppuration. Increasing or diminishing the alkalinity of the blood by means of feeding respectively hinders or promotes suppuration. All causes which increase cell activity and metabolism assist in preventing suppuration. The author then refers to Schimmelbusch's experiments, in which, after inoculation with anthrax at the root of the tail, the mouse could not be saved by disinfecting the wound. He obtained better results with the less virulent staphylococcus. The author comes to the conclusion that in rabbits very extensive phlegmonous processes can be brought to an end by free incision, extirpation of the pus-infiltrated tissues, and plugging the wound cavity with antiseptic gauze. If severe general infection is present the operation, whether carried out antiseptically or aseptically, is without avail. He concludes that strict asepsis, not antisepsis, should be adopted in the treatment of fresh wounds, and that infected wounds and phlegmons should be laid open under aseptic precautions and subsequently plugged with antiseptic gauze, secondary suture being adopted.

(379) Certain Muscular Ruptures of the Lower Limb.

BERNE (*Rev. de Thérap.*, April 1st, 1895, p. 208) has formulated the following conclusions about those ruptures in the posterior part of the lower limb in which the patient feels as though he had been suddenly struck: (1) Rupture of the plantaris is the exception, of one of the heads of the gastrocnemius the rule. (2) The swelling produced by the rupture of muscular fibres is due to effusion of blood, probably venous. (3) Varicosity of the veins must be considered a predisposing, and almost the commonest, cause of the rupture (Verneuil). (4) In subjects apparently with healthy veins an important cause of rupture is a partial or temporary spasm of certain muscular fibres before the effort which excites an extreme tension of the fibres. Without being an essential condition, the existence of deep varices favours the process. (5) The treatment ought to be as follows: (*a*) Perfect rest of the limb; (*b*) wrapping it up in cotton wool; (*c*) massage to be begun first on the second or third day; (*d*) a moderate amount of walking as soon as the pain is not too intense.

MIDWIFERY AND DISEASES OF WOMEN.

(380) After-Histories of Removal of Diseased Appendages.

PINESSE (*Journ. de Méd. et de Chir. Pratiques*, April 25th, 1895) has traced 136 out of 268 patients who had been operated upon by Lucas-Championnière, both appendages being removed for inflammatory diseases of the tubes and ovaries. The 136 only include after-histories of over one year, the majority being of two years', and a few of five or six years', standing. In only 8 per cent. did abdominal pain persist. It is significant that the pyosalpinx cases gave the best results, the pains felt before operation always ceasing. Persistence of the pain seems to be neurotic. On the other hand the catamenia persisted in 22 per cent. of the cases, pyosalpinx being the most frequently (50 per cent.) followed by this phenomenon. In the least advanced cases of inflammatory disease subjected to the operation in question the period ceased in almost every instance. Persistence of the menses is undoubtedly due, as might be expected, to the leaving behind of portions of ovarian tissue. This has been proved in second operations where corpora lutea were seen on the stump of the old pedicle. In itself, however, partial or occasional irregular menstruation is rather favourable to the health of young patients. The inflamed structures being removed, they can no more give pain and acquire adhesions to viscera, whilst the gradual suppression of the period is less likely to shock the nervous system of a young patient than its total cessation. Pinesse has never seen insanity follow the operation, nor is obesity the rule. All nervous symptoms are to be attributed to the artificial menopause. Vaginismus developed after operation in a few cases, and one patient suffered from contraction of both hands. Both these symptoms seem to be neurotic.

(381) The Dangers of Damaging the Soft Parts in Symphysiotomy.

AUDEBERT (*Archives de Tocol. et d'Obstét.*, March, 1895), of Bordeaux, discusses the prevention of serious accidents of this kind. After the incision the soft parts must be thoroughly cleared from their attachments to the symphysis and

the subpubic ligament. The vulva is best dilated before operation by means of Champetier de Ribes's bag. The forceps must be applied at the pelvic inlet, and traction should be made downwards; the head is to be disengaged transversely. During the last manœuvre Audebert applies to the symphysis a powerful spring apparatus —*fixateur symphysien*—each point of which is pressed into the periosteum of the os pubis on one side of the gap made by operation. A dial is connected with the spring, so that the amount of separation of the symphysis is indicated with precision; at the same time it prevents dangerous stretching of the parts during delivery of the child. When laceration is directly threatened, Audebert is inclined to advise separation of part of the vagina from its attachments.

(382) The Later Evils following Retention of Placental Relics.

HARTMANN AND TOUPET (*Annales de Gynéc. et d'Obstét.*, April, 1895) have prepared a valuable monograph on the changes which nonseptic fragments of placenta may undergo when left attached to the uterine wall. These changes are (1) simple sclerosis of the placental tissue, (2) benign deciduoma, (3) hydatidiform mole, and (4) malignant deciduoma. In all, chorionic villi are to be detected by aid of the microscope. By benign or innocent deciduoma is understood the true "placental polypus" and more sessile growths, in which there is distinct evolution going on in the chorionic villi, and no sclerosis of the connective tissue. The growth does not, however, recur after thorough removal. The authors relate a case where, as usual, the prominent symptom was frequent metrorrhagia.—Legars and Lévi (*ibid.*) describe a very distinct case of placental polypus, with the same symptoms. The malignant deciduoma (see EPITOME, vol. ii. 1894, par. 460), which Hartmann and Toupet term "chorioncell sarcoma," and the hydatidiform mole are, in their opinion, related. In the latter, so long and so well known to the obstetrician, just as in the former, which appears to be a disease but recently recognised, the growth tends to invade and even perforate the uterine wall. In these graver as in the less serious changes in retained placental tissue, uterine hæmorrhages are always an early and prominent symptom.

(383) Mollities Ossium.

FEHLING (*Archiv f. Gynäk.*, vol. xlviii, pt. 3. 1895) discusses very thoroughly this disease as a special disorder and as a grave complication in pregnancy. He objects to Cæsarean section with removal of the appendages, agreeing with Runge that Porro's operation should be performed in preference. The latter proceeding leaves but one wound instead of three in the internal genitals. It is much easier than conservative Cæsarean section and far safer. The conservative operation leaves the patient with a weak uterus, liable to flooding. In progressive mollities attacking women who are not pregnant the appendages should be removed completely when therapeutic means have failed. This operation, where the mortality is remarkably low, must not be delayed, till the patient has become greatly reduced in strength. The cachexia is extreme in advanced mollities, and the patient may become too weak to bear anæsthetics and abdominal section; besides, tuberculosis is not rare in the last stages. The tubes and ovaries must both be thoroughly removed.—Rossier (*ibid.*) reports the result of microscopical examination of the ovaries of patients subject to mollities. One feature, and only one, was common to all specimens. This was extreme vascularity with hyaline changes in the cortical portion. Not only is the parenchyma involved, but the blood vessels also suffer, their outer and middle coats showing marked hyaline degeneration.

(384) Intractable Galactorrhœa.

VAN TUSSENBROEK (*Répertoire Universel d'Obstét. et de Gynéc.*, February 25th, 1895) describes an unusually bad case in which this troublesome disorder followed an abortion at the fifth month in a primipara. Emaciation set in, and, as no therapeutic measures were of any avail, the mammæ were amputated. Microscopic examination did not explain more than might be expected, the glandular tissue being in a very active condition.

THERAPEUTICS.

(385) Antitoxin Treatment of Diphtheria.

D'ESPINE (*Rev. Méd. de la Suisse Rom.*, April 20th, 1895) contributes a report on 60 cases of diphtheria treated at Geneva between October, 1894, and the end of March, 1895. The first supply of the serum was obtained from Behring; later that of Roux was used. Two thirds of the cases were treated in hospital, and the remaining third in private practice. There were 6 deaths, all among the hospital patients, and none of them was injected until very late in the disease—one on the fourteenth day and the other on the ninth day. Two of the other fatal cases, infants aged 14 and 18 months respectively, were not received for treatment until the disease was firmly established, and tracheotomy was necessary in both instances on the second day of treatment. Polymorphous pruriginous eruptions were observed in 9 cases. In 14 cases the serum was injected in healthy children as a preventive. None of these had up to the date of the report contracted the disease. The following are the conclusions in relation to post-diphtheria paralysis drawn by D'Espine from an analysis of the cases: (1) That the serum treatment has no effect on paralysis already existing: (2) that it does not favour the occurrence of paralysis: (3) that it tends to prevent the onset of paralysis when administered early in the disease. In 56 of the 60 cases the diagnosis was confirmed bacteriologically.—Porquet (*L'Année Méd.*, April 15th, 1895), gives brief particulars of 13 cases of diphtheria treated in five instances by a single injection of 10 to 20 c.cm. of serum; in one case three injections were given, and two injections in the remainder. The disease was extremely prevalent in the district (Viri), and there seems to have been no doubt about the diagnosis, which in six instances was verified bacteriologically. There were 2 deaths, one from post-diphtheria paralysis (hemiplegia) occurring a fortnight after rapid convalescence from the throat and febrile symptoms; the other in an infant of 2 years of age, upon whom tracheotomy was performed. The cannula was removed finally in eleven days, and the child appeared well. A sudden attack of asphyxia supervened only half an hour later, and proved fatal. The only untoward symptom which could be attributed to the treatment was a general urticarial eruption lasting three days in a child of 2 years. It followed a single injection of 20 c.cm. of serum, and hardly retarded convalescence. The injections were made with careful antiseptic precautions, and no local troubles followed.

(386) Physiological Action of Antidiphtheritic Serum.

MYA (*Lo Sperimentale*, April 11th, 1895) has investigated the physiological action of the serum in children not suffering from diphtheria. They were cases of slight measles, malarial cachexia, mild rickets, and slight laryngeal catarrh. The ages were 6 years, 18 months, 2 years, and 29 months respectively. In these four cases there was no noteworthy action on the circulatory apparatus or kidneys. In the case of mild measles, slight arhythmia, noted before injection, was not aggravated by it. The author says that this arhythmia is sometimes seen in children after infective diseases. No change was produced in the temperature except in one case in which a scarlatiniform rash appeared. A slight increase in the quantity of the urine was observed, and also in the amount of urea. The most obvious change was noted in the blood, and consisted in an increase of the white cells and diminution of the red cells immediately after the injection; it was transitory, not lasting more than twenty-four to forty-eight hours, and was not accompanied by any alteration in the colouring matters of the urine. The author's results correspond with those of Zagari and Calabrese, but he does not agree that there was any hæmolytic action exercised by the serum. He thinks that the injection of a heterogeneous serum causes a dilution of the blood, which is brought about by the absorption of lymph. Sevestre has lately shown that the injection of horse's serum produces fever and urticaria in children. Mya is of opinion that the antidiphtheritic serum exercises no noxious action such as can be appreciated by present methods of examination, and that disturbances hitherto

noted have been due to the lymphagogue action of the horse's serum introduced subcutaneously.

(387) New Treatment for Diabetes.

Lépine (*Sem. Méd.*, April 24th, 1895) records the result of the treatment of four cases of diabetes mellitus with a glycolytic ferment prepared from the diastase of malt. In all four cases there was distinct improvement, and details of these cases are given. As regards the sugar excretion, in the first class, before treatment the mean quantity for the twenty-four hours was 140 grammes; under the influence of the ferment it was 70 grammes. In the second case the sugar was reduced from 41 to 11 grammes; the third case from 116 to 80 grammes; in the fourth case from 257 to 124 grammes, but later only to 163 grammes. The ferment is not diuretic; it has no injurious effects, but the improvement is only temporary.

(388) Europhen.

De Bulk and Walton (*Ext. de la Flandre Méd.*, 1894) treat of the surgical applications of europhen. Iodoform has some great disadvantages. It often irritates the skin, and provokes erythema, urticaria, etc. It is a bad cicatrising agent; granulating wounds dressed with it become indolent, flabby, and are slow to be covered with epidermis. Its odour is most objectionable, especially for private practice. The hitherto suggested methods of deodorisation of it are unsatisfactory. Lastly, it needs careful watching on account of its toxicity. Iodoform poisoning is capricious and peculiar, suddenly bursting forth without prodromata in the susceptible, causing grave cerebral disturbances which may even be fatal. The merits of iodoform reside in its great holding of iodine (96·47 per cent.). This, loosely fixed in the molecule, separates itself continuously in presence of organic juices, and to this nascent iodine is due its microbicidal action on infected wounds. Various iodised substances, mostly of the aromatic series, have been brought forward of recent years to obtain the advantages of iodoform without its disadvantages. Such are the sozoiodols, losophan, and antiseptol. Since, however, their iodine is not liberated freely, they cannot replace iodoform. Aristol and europhen present stronger claims. The latter (isobutyl-ortho-cresol-iodide—28 per cent. iodine) is superior to iodoform in that it has a very slight agreeable odour, feeble toxicity, lightness (five times lighter). It possesses almost the antiseptic properties of iodoform, slowly frees its iodine in alkaline media, diminishes secretion, and opposes diapedesis of the white corpuscles. Clinical experience has shown its antivenereal and antisyphilitic value; and Jasinsky and Christmann attest its antituberculous properties. Europhen keeps wounds very dry, favours the reunion of sutured wounds, and the granulation and cicatrisation of open sores and cavities. The authors give twenty instances of its use. The only drawbacks noted were one case of well-marked erythema, and complaints from two or three patients of slight local smarting. It strongly adheres to everything it touches, a property which, if advantageous as regards wounds, may present inconveniences to instruments and the surgeon's hands.

PATHOLOGY.

(389) The Gonococcus in Gonorrhœa, Purulent Ophthalmia, and Pyosalpinx.

J. H. Wright (*Amer. Jl. Med. Sc.*, February, 1895) succeeded in cultivating a diplococcus, which was, with little doubt, the gonococcus, from seven cases of acute gonorrhœal urethritis, from eight cases of purulent ophthalmia (of whom four were infants), and from four out of twenty cases of pyosalpinx. It was also found in a case of vaginitis in a child aged nine years. The only uncertainty about the identification of the diplococcus was that inoculations were not made into the human urethra. Other bacteria developed in the cultures from the cases of acute urethritis, but their colonies were usually few in number, and developed more slowly than the gonococci. The cultures from the case of vaginitis were almost pure, but contained a few bacteria like pneumococci. In the cases of ophthalmia, it would appear that the cultures were pure in all but two cases. In the cultures from the cases of pyosalpinx no other bacteria appear to have grown. The culture material used was a solid urine-serum-agar. Contrary to the experience of other experimenters, it was found that ox serum would serve as well as human. A litre of nutrient agar (beef infusion) prepared in the usual way was evaporated to 600 c.c., run into test tubes and sterilised by steam three times. Blood serum, which it was not necessary to have free from corpuscles, was first run through white sand to remove coarse particles, and mixed with half its volume of fresh urine. The mixture of serum and urine was filtered through a porcelain filter by exhaustion. The filtered mixture was then added to the agar (at 40° C.) in the proportion of two or three parts to six parts of agar. The tubes are then cooled on the slant. In a footnote Wright states that W. R. Stokes has succeeded in cultivating the coccus from gonorrhœal urethritis on Loeffler's coagulated blood-serum mixture rendered slightly acid. The medium was coagulated in the tubes by dry heat, and sterilised by steam. This method was tried in consequence of the publication by Turro (*Cent. f. Bakt.*, July 2nd, 1894) of the statement that he had succeeded in cultivating the gonococcus on acid gelatine, a statement which Wright, however, is unable to confirm.

(390) Sero-fibrinous Pleurisy.

Lemoine (*Sem. Méd.*, March 27th, 1895, p. 132) inoculated various culture media with liquid drawn off from cases of sero-fibrinous pleurisy. Out of 38 cases 28 remained sterile, and 4 produced a pure cultivation of staphylococcus albus. Of the 28 sterile cases, 15 were obtained from patients in whom the pleurisy was the starting point of tuberculous infection, 1 from a patient in whom pleurisy supervened on an existing phthisis, 7 from those who left the hospital with suspicious signs at the apices, and 5 only from those apparently cured. This confirms the view of Netter and Vaillard that the mere fact of the cultivations from a sero-fibrinous pleurisy remaining sterile ought to raise suspicions of its tuberculous nature.

(391) Bacteriology of Gastric Fermentations.

Kaufmann (*Berl. klin. Woch.*, 1895, Nos. 6 and 7) says that different micro-organisms behave differently in the presence of free hydrochloric acid. The cholera bacillus is very susceptible, the typhoid bacillus less so, and the tubercle bacillus and anthrax much less so. Generally speaking, the micro-organisms which split up carbo-hydrates are less susceptible than those which split up nitrogenous material, whereas those that cause lactic acid fermentation are the most resistant. The important part played by micro-organisms in the alimentary canal is not doubted, but it is also very desirable to know what micro-organisms normally inhabit the stomach. Hydrochloric acid combined with albuminous bodies has its antiseptic as well as its digestive powers diminished. When free hydrochloric acid only appears, as in nitrogenous feeding, four hours after digestion it can offer little hindrance to the growth of pathogenic and non-pathogenic micro-organisms. At present it is unexplained whether fermentation occurs at the height of normal digestion. The absence of fermentation, then, might be ascribed to the presence of the free acid. But fermentations are often absent when free hydrochloric acid is wanting, and are present when it exists in large quantities. In stagnation free hydrochloric acid cannot prevent fermentation. In all cases of disordered fermentation in the stomach containing much hydrochloric acid there has always been gastric dilatation. In one case fully investigated by the author, a neurasthenic patient suffered from atony of the stomach, and a considerable increase in bacteria in the living state was observed in spite of an excess of free hydrochloric acid. Among other micro-organisms frequently found, the bacillus subtilis is often present, but whether it acts as a fermentative agent cannot be stated at present. The author found in this and in another case a micro-organism very like the B. coli communis. This is curious, as this micro-organism cannot exist in gastric juice containing free hydrochloric acid. Perhaps it has some relation to fermentation. The chief interest of this case was the occurrence of fermentation at the height of digestion, in spite of free hydrochloric acid.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(392) Scurvy.

Albertoni (*Il Policlinico*, April 15th, 1895) relates his researches into gastric digestion, putrefactive processes, nitrogenous metabolism, and the changes in the various elements of the blood in scorbutics. His investigations show that in scurvy with a protracted course free hydrochloric acid is absent from the gastric juice, and the total acidity is much reduced, but this is not so in every case, nor yet at all stages in the disease. Peptonisation is also feeble. There is no deficiency of chlorides in the body, and the chlorides in the urine are diminished. Much depends on the various degrees of alimentation. These researches give a scientific basis for the use of acid, fruits, and vegetables in the treatment. In investigating the putrefactive processes the method of determining the amount of sulphuric acid in the urine, both combined and preformed, was adopted. These putrefactive processes are markedly exaggerated, and they become less as recovery ensues. During the height of the disease the colouring matters in the urine were increased and the quantity of urine was lessened, but improvement was accompanied by abundant and limpid urine. In regard to nitrogenous metabolism, the author concludes that it is altered and the assimilative functions lessened. In four investigations into the blood the amount of iron was below the normal by about one-third. Nothing unusual was noted about the coagulation, but the serum had a greenish yellow colour, more or less pronounced, owing to the destruction of red cells. The author then details the examination of the blood in a scorbutic patient compared with that in a pregnant woman. The diminution in the mineral components was striking. Figures are quoted to show that the quantity of sodium and potassium oscillate as much in normal blood as in that of scorbutics. The variation in potassium was greater than that in the sodium. A diminution in the potassium salts of the blood was not present, hence no pathogenic importance can be attached to this element.

(393) Pentosuria.

Salkowski (*Berl. klin. Woch.*, April 29th, 1895) describes a body occurring in the urine which has marked reducing properties, but which is incapable of fermentation, and of which the phenylhydrazin derivative crystallises in orange yellow needles melting at 159°. This pentosazon is soluble in hot water, but very insoluble in cold, thus differing from the similar derivative of grape sugar. The urine containing it does not present any other abnormal properties. The bismuth test gives but a slight result, the deposit being grey and not black: the polarisation test is negative. In the first case investigated by the author pentosuria was constantly present; in a second only one examination was made, and in the third the examinations at the end of two and a-half and three and a-half months gave positive results. In one case the patient was a morphinomaniac, but the quantity of morphine taken bore no relation to the amount of pentose in the urine. In the other cases no symptoms could be attributed to the pentosuria. In one case glycosuria was found along with the pentosuria. To find out whether there was any real relation between these two conditions the author investigated nine cases of diabetes, but in none could he find pentose. Pentose is not derived from the food, but from the tissues. Pentosuria seems to bear some relation to the pancreas. A nucleoproteid has been found in the pancreas, which splits up into pentose. The resemblances between the pentosazon obtained from the pancreas and that obtained from the urine make it almost certain that they are identical bodies. It may be accepted that pentosuria is due to an increased formation and destruction of this nucleo-proteid, and that the resulting pentose is not destroyed in the body as it is under normal conditions. Thus the phenylhydrazin test cannot be looked upon by itself as proof of the presence of sugar, but the resulting osazon must be examined. If 200 c.cm. of urine are heated with 5 g. of phenyl hydrazin, the osazon separates from sugar-containing urine while it is still hot, whereas the pentosazon only deposits in the cold. This is the method of separating these two bodies. It cannot yet be said whether pentosuria has any deleterious effect upon the health, but it represents an abnormality in the total metabolism.

(394) The Causes of Dysentery.

Gasser (*Arch. de Méd. Expérimentale*, March, 1895) gives the result of an investigation of 153 cases of dysentery, more especially as to its causation. Of the various parasites which have at times been supposed to play an important part the anguillula stercoralis seems far from being important. The B. coli and B. pyocyaneus, especially the former, are more important, but the most interesting point is in regard to the amœba coli. According to the author this organism was present in nearly half of the acute cases, and in 13 out of 34 chronic cases. From his observations the writer finds no relation between the numbers of amœba present and the severity of the case. In order further to approximate the value of their presence, Gasser examined the stools of perfectly healthy individuals, with the result that amœbæ were present in considerable numbers in 20 per cent. Ulceration similar in every respect was produced in the large intestine of a cat by injecting into it dysenteric fæces, but on injecting sterile vegetable *débris* the same effect was produced; hence the writer is inclined to call in question the value of the amœba as the chief cause of dysentery. That it has some causal influence is most probable, but these investigations, if confirmed, go to show that it is only partly responsible.

(395) Primary Melanotic Sarcoma of Liver.

Holsti (*Finska Läkaresällskapets Handlingar*, January, 1895) reports the following case. A woman, aged 52, had for a couple of months suffered from pain in the liver region and nausea, and had rapidly lost flesh. On examination a large uneven tumour, reaching as far as the umbilicus and connected with the liver, could easily be felt; there was also some ascites. There was cataract of the right eye, with complete blindness and right facial paralysis, but the two latter symptoms had existed for eighteen years, and came on after a suppurative process in the cheek. The *post-mortem* examination revealed the following changes in the liver: the colour of the surface was a spotted dark-brown and greyish-red. Over the darker parts the surface was uneven and scattered with dark-greyish button-like growths of a soft consistency. A very large mass of similar soft tissue was found adherent to the suspensory ligament and adjacent liver tissue. This was divided into large lobes, containing a fluid greyish-brown mass. The parenchyma had a similar spotted colour to the surface, the darker parts predominating. Microscopically it was found that the normal liver structure had almost entirely disappeared. There was a large number of round and oval cells of variable size filled with dark pigment, which was also detected in the tissues outside the cells in the form of granules. There were similar growths scattered over the peritoneum, omentum, and heart muscle immediately under the endocardium. As there were no symptoms or history of any primary mischief in the skin or choroid, the author thinks there is sufficient ground for presuming that it was a case of primary melanotic sarcoma of the liver, although he does not know of any similar case having been previously recorded.

SURGERY.

(396) Surgical Treatment of Epilepsy.

Eulenburg (*Berl. klin. Woch.*, 1895, Nos. 15 and 16) speaks especially of excision of the cortex in idiopathic epilepsy. Cases which would particularly show the value of the procedure would be those in which there is no pathological change in the excised part. The author records a case of old genuine epilepsy with local onset. At the operation Rinne removed a corresponding part of the motor cortex after electrical testing. There was transient paralysis of the arm and face. Notwithstanding a chequered course, no fits occurred for seven months. They were then accompanied by great pain in the arm and tonic contraction in the face. When compared with cases of a similar kind, this case must be looked up as a com-

paratively considerable and unusual success. Sometimes an operation reveals the true nature of the case. The author mentions one in which a tumour was found and enucleated, but, unfortunately, with a fatal result. Eulenburg quotes a case in which there was a depression in the soft parts but none in the bone. Trephining alone was had recourse to. The fits persisted for a year, then gradually diminished. Whether the operation had anything to do with the improvement is doubtful. Another case is related in which adhesions were found between the soft parts and the pericranium. The bone was not trephined. There were no more fits, but the patient became worse after a blow on the head. The result may have been due here to suggestion. No guiding rules can be laid down as to what cases can be benefited by operation. The author thinks that neither the characters of traumatic or partial nor idiopathic or general form reliable indications or contraindications. The difficulties of estimating the value of the history of traumatism or the absence of it are alluded to. In old cases, traumatic or otherwise, little can be hoped for. The absence of success is often due to the limits imposed by the nature of the disease. Medico-hygienic treatment must not be too lightly estimated, and perhaps this treatment is capable of improvement.

(397) Laparotomy in Abdominal Injuries.

SORGE (*Rif. Med.*, March 26th, 1895) gives brief notes of 14 cases of abdominal injury (stabs, gunshot wounds, etc.) in which he performed laparotomy as soon as possible after the injury. 9 out of the 14 recovered. Of the 5 deaths, 2 were due to hæmorrhage (1 very severe from the injury itself and the other from hæmorrhage of the tenth intercostal artery, the wound of which was not detected at the time of operation), 1 to septic infection (general peritonitis had set in before the operation), 1 to collapse due to the severity of the injury (gunshot wound in ninth intercostal space, piercing diaphragm and injuring spleen and stomach), and 1 to collapse due to fatty degeneration of the heart. In 4 only of the 14 cases was the laparotomy a simple exploration. The author advises laparotomy in all cases when it is clear that the wound has penetrated the abdomen, unless peritonitis has set in, when operation does more harm than good. It is difficult always to be sure whether a wound has penetrated the abdominal cavity or not; in such cases it is better to enlarge the wound and see; one cannot trust to physical or functional symptoms. The most frequent certain sign of penetration is hernia of the epiploon (4 in 14). If laparotomy be necessary it should be done on the site of the wound, using a simple longitudinal **T** shaped or **7**-shaped incision. When the thorax is injured it is better to dilate the wound, do subperiosteal resection of rib, enlarge the wound in the diaphragm, and then suture in mass. In laparotomy the author uses separate sutures for the different coats of the abdomen. Laparotomy, if done rapidly, is not a dangerous operation in the class of cases Sorge is dealing with; in the case of gunshot wounds, if in doubt as to whether internal organs are injured or not, he advises laparotomy.

(398) Resection of Ileo-cæcal Coil.

AFTER a clinical review, tabulating results, examining and classifying methods, and noting the indications for this operation, Magill (*Annals of Surgery*, vol. xx, No. 6) concludes somewhat as follows: Excision of the cæcum should be attempted in every case of primary neoplasm, unless forbidden by extensive infiltration. Tuberculosis or inflammation localised at the ileo cæcal coil demands its resection if the patient can bear operation, and if more than temporary benefit will accrue. Operated appendicitis with unsatisfactory results is amenable to resection, and primary resection is safer and better than excision for fistula. Invagination in the region of the cæcum is frequently complicated by cancer, and the excision must be extensive. Fistula of the ileo-cæcal coil can safely be treated by resection if no extensive suppuration has invaded or entered the iliac fossa. An irreducible cæcum may be excised with safety. Except in acute obstruction the continuity of the digestive tract must be at once established and secured against leakage. For this sutures are bad, the better plan being anastomosis by absorbable plates or lateral implantation with the anastomotic button.

(399) Bone Suture in Fracture of the Lower End of the Femur.

WALTHER (*Méd. Mod.*, April 20th, 1895) reports a case in which the lower extremity of the femur was broken into three fragments, and the tibia was displaced backwards, carrying one fragment—the inner condyle—with it. The joint was freely exposed and the fragments reduced and sutured in position; twelve months later the knee seemed rather large: functionally the result is perfect. The joint can be flexed to a right angle.

(400) A Special Football Lesion.

MAAG (*Hospitals Tidende*) has frequently met with subpatellar bursitis in football players, and regards this as a special lesion, which he attributes to violent and repeated contraction of the quadriceps femoris muscle in kicking the ball. Rovsing, in an abstract of this paper (*Cent. f. Chir.*, No. 16, 1895) is inclined to attribute the bursitis rather to effusion of blood into the bursal sac.

MIDWIFERY AND DISEASES OF WOMEN.

(401) A Peculiar Form of Carcinoma of the Ovary.

C. v. KAHLDEN (*Centralblatt f. allg. Path. u. path. Anat.*, April 1895) describes and figures a form of carcinoma which differs in many respects from any before described, and which throws light on the mode of origin of carcinomata in this position. Although many have upheld the theory that carcinomata originate from the epithelium of the Graafian follicles or of Pflüger's tubes, this has never been strictly proved histologically, and Fritsch maintains that the only origin is from the germ epithelium, since (*a*) the Graafian follicle is a mature structure which might become a retention cyst, but could not actively proliferate; (*b*) Pflüger's tubes are fœtal structures, and do not exist at the time when carcinomata are common. The tumour, removed from a young girl, was as big as two fists and smooth on the surface. Histological examination showed that (1) the origin of the tumour from depressions of the germ epithelium could practically be excluded, as no depressions could be found anywhere in the thickened capsule; (2) it did not arise directly from the epithelium of the follicles, but passed through a stage which must be looked on as adenoma of the Graafian follicles—a condition hitherto unknown. There was (*a*) an excessive new formation of small round structures, which had the greatest resemblance to small Graafian follicles, since there was a lining of short cubical epithelial cells, enclosing a mass of protoplasm staining with eosin. The smallest, the size of a primordial follicle, contained a single short oval nucleus in the enclosed protoplasm; those twice as large contained two or three nuclei, and the largest ones five or six. These structures lay close together in a fibrous stroma, and each had a membrana propria. (*b*) Still larger structures, about ten times the size of a primordial follicle, were present in parts. These had an epithelial lining as in the smaller ones, but contained masses of structures, similar to those described above, but lying free in the interior. Sometimes each one of these enclosed follicle-like structures was sharply defined, but in places there was a proliferation of these epithelial structures, so that the whole large follicle was filled up with epithelial cells. Even then the origin of this proliferation from the small included follicles could still be proved, because some of the original masses of protoplasm were preserved. (*c*) Lastly, in some places this structure was lost and large epithelial columns were present, just as in carcinoma. (*d*) A second method of development into carcinoma was also observed. In places the wall of the follicle-like structures began to proliferate outwards and to send out narrow solid epithelial processes, which very soon became constricted off, and grew as narrow solid strands of epithelium in the connective tissue stroma, producing a typical carcinoma, which in some places resembled a papillary cancer; in others a cylindroma.

(402) Symphysiotomy Twice on the Same Subject.

GUÉNIOT (*Méd. Mod.*, May 1st, 1895), discussing the question whether an oblique oval pelvis is a contra indication to symphysiotomy, stated that he

had operated on a woman who suffered from scoliosis, the consequence of a fall when 18 months old. The pelvis was of the scoliotic oblique type; the conjugate 3½ inches. At her first pregnancy basiotripsy was performed. Guéniot, before term, divided the symphysis. The articulation was a little difficult to distinguish. The symphysis was parted to the extent of 1½ inch; the child, who weighed nearly 6 lbs. 9 ozs., was delivered at term. The patient became pregnant again, and Potocki divided the symphysis at term. The articulation was still harder to strike off than at the first operation, and behind the joint there was a tough mass of cicatricial tissue. Fochier, in discussing Guéniot's case, believed that the parting of the bones really involved only one side of the pelvis. It is transverse diameters which are the most increased in symphysiotomy.

(403) Subcutaneous Emphysema caused by Straining during Parturition.

ULRIK (*Ugeskrift for Laeger*, No. 6, 1895) was called in to see a primipara, aged 28, who, after having been delivered of a stillborn twin, had suddenly become incapable of further assisting the progress of the labour. An hour and a-half after the birth of the twin the woman's strength seemed almost gone, but on some strong pains again commencing she was told by the midwife to attempt further straining efforts, during one of which a sudden swelling of the face and neck was produced, coincident with a complete cessation of the pains, which had not since returned. The second twin was easily delivered by the forceps. The face had the appearance of pronounced œdema; the deformity was considerable, the skin pale and tightly stretched, especially over the cheeks and under the eyes, which the patient could scarcely open. Downwards the swelling extended over the whole neck region and the upper part of the chest, and also into the axillæ, and behind as far as the scapular spines. Everywhere the characteristic crepitant sensation was experienced. The breathing was unimpaired, and there were no signs of lung disease. The emphysema began to disappear after a couple of days, and was quite gone in a fortnight. The patient has not subsequently developed any lung affection. The author believes that the air after the rupture of the air cells must have found its way to the hilum, and thence along the great vessels and trachea through the mediastinum to the loose tissues of the neck and face; the nervous shock produced by the accident evidently caused the sudden cessation of the pains. He considers the accident so natural that it seems strange that it should not occur more often.

(404) Chlorosis Means More than Anæmia.

STIEDA (*Zeitschrift f. Geburtshülfe u. Gynäk.*, vol. xxxii, part 1, 1895) insists that chlorosis is by no means a simple anæmia such as may exist in males, whilst women may suffer at any age from anæmia, which is in no sense chlorosis. He has drawn up a table of 23 cases under his observation during a space of thirteen months. The columns of the table are severally headed: (1) Personal note (age, married or single, number of children, profession and residence). (2) Family history. (3) Previous illnesses. (4) Age of development of chlorosis. (5) Menstruation. (6) Reason for admission into hospital. (7) Physical development. (*a*) Size, nutrition, condition of thyroid gland. (*b*) Development of skeleton, especially pelvis. (*c*) Genitals. (*d*) Mammæ. (8) Special notes. A glance at these columns, which show research worthy of imitation, is sufficient to demonstrate the fact that chlorosis patients exhibit signs of general ill-development. In particular, certain well known indications of ill development of the genitals and breasts, with contracted pelvis, largely prevail amongst the 23 patients. Stieda concludes that true chlorosis, not to be traced to external injury or to a primary disease, is a disorder of development like any other such disorder or sign of physical degeneracy. It is very frequently associated with infantile types of structure in the adult patient, especially ill-developed pelvis, labia, uterus, pudendal hair and breasts, and is only one of the symptoms of general ill development, being neither the cause nor the effect of any of the other symptoms.

(405) Vaginal Cyst (? "Wolffian Nest").

NICHOLAS SENN (*Amer. Journ. of Obstet.*, April, 1895) recently exhibited, at a meeting of the Chicago Gynecological Society, a cyst removed from the recto-vaginal septum of a multipara, aged 49. It seems to have existed for over twenty-four years. For the last two or three years it gave trouble. Senn states that it protruded from the vaginal outlet, looking like a hard cystocele. A catheter was passed into the bladder and the tumour gently pressed; it was then found that the latter had no connection with the vesical cavity. The tumour was removed by two elliptical incisions and subsequent dissection, which, on account of adhesions, proved difficult. It contained 2 inches of chocolate-coloured fluid. It was lined with a layer of columnar epithelial cells. Byron Robinson did not agree with Senn's opinion that the cyst was a "Wolffian nest." It seemed rather as if derived from a post-anal gut.

(406) New Method of Performing Abdominal Hysterectomy.

RICHELOT (*Presse Méd.*, April 27th, 1895) describes his method of performing abdominal hysterectomy, combining with the ordinary method some of the advantages of vaginal hysterectomy. The uterus and tumour are exposed by an abdominal incision, and drawn out (being reduced in size for that purpose if necessary) into the lower angle of the incision. A portion of the peritoneum covering the anterior surface of the uterus is dissected off and turned down in front so as to cover and preserve the denuded lower segment of the bladder. A communication between the peritoneal cavity and the vagina is then made in the anterior *cul-de-sac*. The uterus is next separated from the anterior wall of the vagina. An opening at the base of the broad ligament is then made in the posterior *cul-de-sac*. Large pressure forceps with long jaws are applied to each broad ligament from the vagina, the jaws pressing in front and behind through the respective openings and the *culs-de-sac*, and locked. The ligament being now divided, as well as the only remaining attachment of the uterus to the post-vaginal wall, the organ can be removed from the abdominal incision. Any bleeding points are secured by pressure forceps introduced from the vagina, and are left. The abdominal incision is closed and dressed, and the usual dressing for vaginal hysterectomy is applied in the vagina. Richelot has operated in this way on four cases of fibromata with success, and had had one unsuccessful case of uterine cancer. The operations occupied, dressing included, 45, 30, 35, 55 minutes respectively.

THERAPEUTICS.

(407) The Therapeutic Action of Iron.

E. REINERT (*Wiener med. Blätter*, April 25th) criticises the theories advanced at the recent Congress für innere Medizin, held at Munich, by Bunge, who made experiments by giving inorganic preparations of iron to animals, and found that it reappeared *in toto* in the fæces. If organic preparations were used they were absorbed, but he doubted if they were assimilated. He therefore came to the startling conclusion that the results of treatment by iron must be referred to the domain of suggestion, and would substitute a diet rich in iron, particularly meat, eggs, spinach, etc., for the usual method of administration. Reinert advances the following facts against these conclusions: (1) *A priori* we should expect a difference in relation to the absorption and assimilation of iron between a healthy and a chlorotic subject, where much of the normal iron is lost with the hæmoglobin, and Reinert is not acquainted with an idiopathic chlorosis in the animals experimented on analogous to that occurring in man. (2) Bunge's experiments were all made on animals, and he neglects those made by others on the human subject. In the Tübingen Clinic experiments were made with chlorotic girls, who were placed for weeks under the best hygienic surroundings, with excellent food and plenty of rest in bed, but only had a quinine mixture for medicine. The percentage of hæmoglobin in the blood rose very little in several weeks. When, however, an organic iron (Blaud's pills) was given, the percentage rose rapidly. Similar experiments with like results have been made by v. Ziemssen. (3) The part played by other therapeutic factors in the treatment of chlorosis is doubtful, but out-patients usually quickly recover when

iron is given (unless the hæmoglobin has fallen below 40 per cent. of the normal) while pursuing their usual callings, and without special change of diet. (4) The diagnosis of chlorosis must always rest on an examination of the blood. Omission to do this accounts for some apparent failures in cases treated by iron. (5) Lastly all so-called specifics, for example, mercury or quinine, fail in isolated cases.

(408) The External Application of Pilocarpin in Nephritis.

MOLLIÈRE (*Lyon Méd.*, April 14th, 1895) advocates the treatment of the various forms of Bright's disease by the inunction into the skin of the trunk of a dilute ointment of nitrate of pilocarpin. This method of administering pilocarpin was first suggested and applied, chiefly for affections of the joints, by the author's brother, Daniel Mollière, in 1882. He believed that he in this way secured a purely local diaphoresis with a minimum dose of the alkaloid, and without the inconveniences and dangers (collapse, etc.) which sometimes attend its subcutaneous injection. The *modus operandi* in cases of Bright's disease is as follows: An ointment is made of nitrate of pilocarpin with white vaseline 1 in 1.000 or 2 000. About ℥iij of this is rubbed into the skin over the whole of the trunk, which is then enveloped in a thick layer of cotton wool and waxed linen, the whole maintained in place by bandages. This "carapace" may be left on for several hours, or even until the reapplication of the dressing on the following day. In ordinary cases this treatment may be repeated daily for ten to fifteen days. Mollière finds the results of this treatment exceedingly satisfactory, even when, as in his later cases, the usual restriction of diet and other routine treatment have not been combined with the inunction. In acute cases threatened uræmia is averted and the dyspnœa is relieved; there is profuse diaphoresis and salivation, increase in the amount of urine, and diminution of albumen, and a rapid disappearance of anasarca. The cure is rapid and complete. In chronic cases he claims that it produces greater alleviation of symptoms and prolongation of life than any other remedy.

(409) Transfusion of Blood.

V. ZIEMSSEN (*Münch. med. Woch.*, April 2nd, 1895) maintains that the transfusion of non-defibrinated blood from arm to arm is a valuable therapeutic measure. The infusion of saline solution is most useful in cases of acute loss of blood threatening life, but the effect is fleeting. It is not always easy to say which of the two procedures is the better one. The weakness of the cardiac muscle with insufficient filling of the aorta, the amount of hæmoglobin and red cells in the blood, furnish important indications. In hæmorrhages due to wounds, childbirth, etc., the blood-forming organs are unimpaired, but this is not the case in progressive anæmias due to internal causes. In malignant forms of anæmia the regenerative power of the blood is lost, and therefore little can be expected from the infusion of saline solution. In cases of repeated hæmorrhages in gastric ulcer, typhoid fever, abortion, infusion leaves much to be desired. The author then records a case of gastric ulcer with repeated hæmorrhages. The hæmoglobin stood at 50 per cent., and the red cells at nearly 2½ millions. Owing to danger to life, 1 litre of 0.6 per cent. saline solution was subcutaneously infused. This was followed by improvement, but the general condition again became threatening: 175 c.cm. of non-defibrinated blood was infused intravenously. From this time the patient steadily improved. She was subsequently treated by subcutaneous injections of sol. natrii arsenicosi (1 per cent.) with the best results. Without the infusion of blood the patient would, in the author's opinion, certainly have died. No immediate increase in the hæmoglobin or red cells takes place, so that the author would attribute the good results to the stimulation of the blood-forming organs. The depression in the blood pressure, even for some time after the quantitative and qualitative improvement in the blood is striking. It is doubtful whether it is desirable to wait much beyond twelve hours after the infusion of saline solution before having recourse to the transfusion of blood.

(410) Metabolism in Thyroid Treatment.

DENNING (*Münch. med. Woch.*, April 23rd, 1895) has investigated the effects of the thyroid treatment on metabolism. The researches were carried out upon three healthy but obese individuals. In the first case there was a slight increase in the nitrogenous excretion in the urine, but only to the extent of 5 per cent. The amount of urine remained the same. There was loss of weight to the extent of 2½ kg. In the second case there was an increase in the amount of urea, but the amount of urine showed no increase, although a larger amount of fluid had to be allowed during the treatment owing to thirst. In the third case there was only a slight increase in the urea and nitrogenous products. The amount of urine was increased. There was a loss of weight of some 5 kg., but an increase took place later, even when the regulation diet was adhered to. The author thinks that differences exist in different individuals in respect to the effect of thyroid treatment upon metabolism. Sometimes the variations in the individual are considerable, when care is needed. Albuminuria or glycosuria are looked upon as unfavourable effects; the former is rare. The author has also made some similar experiments upon himself. He lost over 3 kg. in weight, and a reducing body appeared in the urine, which at times gave all the reactions of sugar, but it did not deflect the ray of polarised light; under diabetic diet this body disappeared from the urine. There was no thirst and no polyuria. The author thinks that the phenyl-hydrazin test for sugar is too delicate for ordinary purposes. Thyroid treatment requires to be carried out with prudence.

(411) Intravenous Injection of Mercurials.

ABADIE (*Sem. Méd.*, April 27th, 1895) demonstrated on two patients his method of administering mercurials by intravenous injection, before the French Society of Dermatology and Syphilography. The injection is made into a vein at the bend of the elbow, and a syringe made entirely of glass is used. The mercurial he prefers is a 1 per cent. solution of cyanate of mercury in distilled water, of which the dose is 1 c.cm. These patients had received numerous injections without inconvenience or accident. In contrast with subcutaneous injections of mercurial salts, which are very painful, the intravenous method is absolutely painless.

PATHOLOGY.

(412) Microbic Association in Tuberculosis.

MARAGLIANO (*Clin. Mod.*, April 15th, 1895) would explain the varying course of phthisis in different subjects by the absence or presence of micro-organisms other than the tubercle bacillus. For him the tubercle bacillus is responsible for the tubercle nodule solely, and for a certain diminished resistance of the tissues created by its proteins or its toxins, and so rendering them more susceptible to the attacks of other micro-organisms. It is to these latter that we owe the pneumonic and caseous foci so frequently found in the course of phthisis. Unless other micro organisms come it may be that the tubercle bacillus may give rise to no symptoms during life, and occasionally one finds *post mortem* tubercle nodules where there has been no suspicion of phthisis during life. Most of the secondary symptoms of phthisis—for example, fever, wasting, broncho-pneumonia—are, according to the author, due to the superposition of micro-organisms other than the tubercle bacillus; and it is just because the air of mountains and of the sea is so free from these organisms that it is so negatively beneficial to the phthisical. This conception of mixed infection in phthisis was broached by the author in 1891, and seems to throw light on the clinical course of pulmonary phthisis.

(413) A New Variety of the Bacillus Anthracis.

CHAUVEAU AND PHISALIA (*Sem. Méd.*, April 27th, 1895), in experimenting on guinea-pigs with cultures of the bacillus anthracis, attenuated by the action of compressed oxygen, have obtained other cultures disclosing a new variety of this microbe, which they name the *bacillus anthracis claviformis* because of its key-like or bell-clapper-like form. This organism is permanent and specific in its form, and physiologically is distinguished by its total want of virulence in all but very large doses. It also possesses only the feeblest immunising power, and neither this nor the original virulence of the anthrax bacillus can be restored to it by the usual procedures.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(414) Latent Tuberculosis of the Three Tonsils

DIEULAFOY (*Bull. de l'Acad. de Méd.*, April 30th, May 7th, 14th, 1895) has made an experimental investigation to ascertain whether hypertrophy of the tonsils and adenoid vegetations of the pharynx are in any cases of a tuberculous nature, and, if so, in what proportion. He obtained from various hospitals in Paris, but chiefly from the Hôpital des Enfants, a number of portions of tonsils and of adenoid vegetations which had been removed on account of overgrowth. Hypertrophied tonsils from 61 cases were inoculated into guinea-pigs, and 8 of the animals became tuberculous; adenoid vegetations from 35 cases were inoculated, and 7 of the guinea pigs became tuberculous. Thus, 1 in 8 of the cases of apparently simple hypertrophy of the tonsils and 1 in 5 of the cases of apparently simple adenoid vegetations were in reality tuberculous. Dieulafoy points out the bearing of these experimental results on the production of general tuberculous infection through the throat. He seeks to distinguish three stages in the history of such cases. The first is that of latent tuberculosis of the three tonsils, during which the bacillus, having become established in the lymphoid tissue of the pharyngeal or of the two other tonsils, causes a multiplication of phagocytes and a greater or less enlargement of the organs. After some months or years the phagocytes may get the upper hand, much fibrous tissue is formed, and the tonsils shrink without any extension of the tuberculous process beyond them. Frequently, however, the infective microbe reaches the lymphatics of the tonsils, and passes to the lymphatic glands in the submaxillary and cervical regions. The enlargement of these glands constitutes the second stage. The glands involved may be few in number and may subside after a time; on the other hand, the process may extend from group to group, descending from those in immediate relation with the tonsils to both the superficial and deep cervical glands. Frequently an attack of scarlet fever, measles, whooping-cough, influenza, or syphilis appears to be responsible for a rapid extension of the infection of the glands, and for their suppuration. The third stage recognised by Dieulafoy is that of infection of the lungs. This he believes to take place by gradual extension in continuity through the lymphatics, until either the thoracic duct or the right lymphatic duct is reached. From here the bacillus is carried to the right side of the heart, and finally to the lung. The first evidence of its presence in this situation may be hæmoptysis (the "defensive hæmoptysis" of Dieulafoy). The interval between the second and third stages may vary from a few months to several years—even, Dieulafoy believes, as many as sixteen years. The fact that the pharyngeal tonsil is found to be more frequently the seat of chronic tuberculosis than the palatine tonsil confirms the view, rendered probable by Strauss's observation that the bacillus tuberculosis can easily traverse the nasal passages, that this form of tuberculosis of the pharyngeal structures owes its origin more commonly to infection derived from the air inspired than from the food ingested. In infants predisposed by heredity to tuberculosis special care should be taken to remove them from domestic relations with persons suffering from pulmonary phthisis, or at least to disinfect the sputa, and to see that the milk is from a safe source. As to treatment, Dieulafoy relied mainly on the introduction of much fat into the diet—cod-liver oil, sardines, butter—and on sea air. At the marine hospital at Berck enlargement of the cervical and submaxillary gland disappeared in 900 out of 1,293 cases treated. The reading of the paper was followed by a long discussion, in the course of which Cornil criticised Dieulafoy's conclusions on two grounds: (1) that the histological examination of adenoid vegetations from 70 cases, made in most instances under his own supervision, showed evidence of tuberculosis in 4 only, and that not once in the course of the histological examination of a very large number of hypertrophied tonsils had he found giant cells or other evidence of tuberculosis; (2) that inoculation experiments were open to the fallacy that tubercle bacilli entering by the mouth or nose might be entangled in the mucus lying in the anfractuosities of the adenoids or in the crypts of the palatine tonsils. In this way tuberculosis might be produced in the guinea-pigs by the inoculation of portions of adenoid vegetations or tonsils which were not really infected with tuberculosis, though active tubercle bacilli existed on their surfaces.

(415) Addison's Disease.

GIOFFREDI AND TINNO (*Rif. Med.*, April 15th and 16th, 1895) record a case of Addison's disease in a tuberculous woman, aged 22. The disease appeared within a few days after a severe mental and moral shock (the patient's husband left her without any warning), and developed with great rapidity. There had been signs of pulmonary tuberculosis for some months previously. The father died of phthisis; the mother was healthy; one maternal aunt died of a slow visceral disease associated with profuse diarrhœa; one brother was tuberculous. *Post mortem*, extensive pulmonary tubercle with cavities and caseous pneumonia was found in each lung. There was advanced fibro-caseous degeneration of the right suprarenal capsule; the left suprarenal capsule was similarly affected, but to a less degree, the necrotic substance being less, the small-celled infiltration more abundant; some healthy tissue was left, and there was no pericapsular formation of fibrous tissue. The semilunar ganglion, the nerves of the cœliac plexus, and the adjoining sympathetic, were examined histologically, and found free from disease. As a working hypothesis, the authors suggest that, in cases of lesion of the sympathetic or other nerves without any capsular disease, the nervous disturbance may induce a functional alteration in the suprarenal capsule, so that it can no longer exercise its physiological function (whether or no that is the destruction of neurin). On the other hand, in those cases where there is capsular lesion, and yet no symptoms of Addison's disease, one may suppose that enough healthy tissue is left in the capsules to carry on their function. The authors had intended to examine the urine with regard to the presence of neurin, but owing to profuse diarrhœa, it was impossible to carry out this research. However, as the result of a few examinations, they found that the toxic power of the urine was increased. The normal urotoxic coefficient being 0·065 (Bouchard), in the patient it was found to be 0·092: 0·046: 0·045: 0·048. The higher coefficients corresponded to days when there was a diminished renal secretion.

(416) Transient Clubbing of Fingers during Empyema.

SCHON (*Ugeskrift for Laeger*, No. 6, 1895) reports the following case: A girl, aged 10, presented symptoms of a localised pneumonia in the upper part of the lower lobe of the left lung, which later spread over the whole lung. As the disease did not progress in the orthodox manner and the temperature kept high an empyema was suspected. On the seventeenth day of illness there were physical signs of fluid, and pus was withdrawn by the aspirator. The following day the usual operation was performed, and the same evening the temperature was normal, and remained so throughout the illness. Some time after the operation the deformity of the fingers was noticed. This became very marked: the terminal phalanges were enlarged both from side to side and in the dorso-volar direction; the nails were abnormally convex, but their colour natural. The deformity quickly disappeared, and by the time the sinus had closed the patient's fingers were quite normal again. The author regrets his neglect to make a bacteriological examination of the pus evacuated from the pleura, as he thinks this affection must in some way be connected with pyogenic bacteria or their products. It has been noticed in connection with other suppurating processes, as, for instance, by Marfan in a case of pyelonephritis. The author has found only four similar cases previously published, two by Moigard.

SURGERY.

(417) Suture of the Heart.

DEL VECCHIO (*Rif. Med.*, April 4th, 5th, 1895), as the results of experiments on dogs, concludes that suture of the heart in cases of wound is possible. At the recent Congress in Rome (1894) he showed a dog whose left ventricle had been wounded in two places (one penetrating into the ventricular cavity) forty days previously. The author had sutured the two wounds with catgut and silk, and the dog appeared at the time of exhibition to be in perfect health; it was killed on the forty-second day after suture. The apex of the heart was found firmly adherent to the thoracic parietes. Both wounds were firmly healed, and in one the scar could be seen on the endocardium, proving the penetration. An interrupted suture was found to answer better than a double continuous suture, as necrosis generally followed the use of the latter. Dogs present a special difficulty in these experiments, inasmuch as one has to open the pleural cavity to reach the heart. In cases of wound of the human heart Del Vecchio proposes the following operative procedure. Two longitudinal incisions to be made from the lower border of the third rib to the upper border of the seventh, the one along the lower margin of the sternum, the other 5 to 10 mm. inside the nipple line; these incisions to be joined by a horizontal one made in the fourth intercostal space. The fourth, fifth, and sixth ribs and cartilages to be divided, and the outer cutaneous flaps turned up. The pleura to be separated and pushed on one side with the finger, exposing the pericardium, which is incised longitudinally. The wound is then united by interrupted sutures. Death in cases of wound of the heart seems to be chiefly due to pressure from the blood effused into the pericardial sac. Since this pressure is also a check to further hæmorrhage, it is a nice question whether operative interference may not do more harm than good as far as the hæmorrhage is concerned. Paracentesis may however be practised, to be followed, if necessary, by free incision of the pericardium. A short bibliography of the subject is appended. Fischer collected 376 cases of heart wound with a mortality (two to three minutes after injury) of 20 per cent. Death has been noted in periods varying from a few seconds to nine months after the injury.

(418) The Surgical Anatomy of the Spine in Infancy.

CHIPAULT AND DALEINE (*Rev. d'Orthop.*, May, 1895), in the course of a second paper on the surgical anatomy of the infant, direct attention to the following points. The spine of the fœtus and newborn infant, taken in relation to the whole length of the body is longer than that of the adult on account of the slight development in early age of the lower limbs. The relative length of different regions of the spine varies at different periods of life, whilst the relative proportions of the dorsal segment and the cervical and lumbar segments taken together vary but little during growth. The cervical segment, which at birth exceeds the lumbar segment, becomes relatively smaller with advancing age, until in the adult the latter is one-third longer. Whilst in the adult the umbilicus corresponds to the level of the third lumbar spine, in the infant it is opposite to the fourth spine or even lower. The base of the sternum corresponds in the infant to the top of the seventh cervical spine, instead of as in the adult, to the second dorsal spine. In the newborn infant the spinal cord descends but a little below the upper part of the spine of the first lumbar vertebra. Whilst in infancy the lower limits of the cervical and lumbar portions of the cord vary but slightly from those in the adult, the lower limit of the dorsal portion corresponds to the eighth, and not as in the adult, to the ninth dorsal spine. The cauda equina in the infant instead of forming, as it does in the adult, a cylindrical mass which fills up the dural sheath, is arranged in two distinct processes occupying the sides of the canal and separated by an interval of from 3 to 5 millimetres in width, occupied by cerebro-spinal fluid. The spinal canal might thus be punctured in the third or fourth lumbar space in the infant without risk of wounding the cauda equina. Laminectomy, it is pointed out, may be performed under much more favourable conditions on the infant than on the adult. In the former the laminæ may be easily resected, the fatty tissue around the dura mater is much less vascular, and the periosteum, which can be readily detached from the bone, is capable of throwing out fresh osseous structure, and of repairing the breach made during the operation in the posterior wall of the canal.

(419) The Lingual Tonsil.

KRONENBERG (*Berliner Klinik*, No. 77) says the commonest affection of the lingual tonsil is hyperplasia. Among the symptoms he describes "globus hystericus," a feeling of foreign body in the throat, pain (generally in the laryngo-tracheal region), increased mucous secretion, dry spasmodic cough, dyspnœa, feeling of oppression, disturbance of voice such as muffling, loss of resonance, and abnormal fatigue (attributed by the writer to irritation of the nerves of the part by the inflamed tissue, and not to hampering of the epiglottis by the hypertrophic mass), spasm of the œsophagus, and local hæmorrhage (apart from dilatation of the veins). Among the causes are repeated acute inflammations, probably the infectious diseases of childhood, scrofula, true tuberculosis, and syphilis (Virchow observed a "smooth atrophy" of the base of the tongue in the subjects of old syphilis). The diagnosis is effected by means of the laryngeal mirror or the probe (pain on pressure on any of the follicles, relieved by means of cocaine). The feeling of "foreign body" is sometimes rather intensified than diminished by cocaine. Sometimes the diagnosis cannot be determined without the test of treatment, but operative measures must not be instituted in the absence of marked symptoms. General treatment is directed towards such conditions as syphilis, scrofula, neurasthenia, and chlorosis. Local treatment in slight cases consists of astringent gargling (a few drops of tincture of myrrh or of rhatany in a wineglassful of water), and brushing with a glycerine solution of iodine, with or without carbolic acid (iodi 1-2, pot. iod. 2-4, glycerin. 50), nitrate of silver (5 10-20 per cent.), pyroligneous vinegar, menthol (50 per cent.), resorcin, etc. Individual swollen follicles can be destroyed by means of fused chromic acid, solid nitrate of silver or trichloracetic acid. In more pronounced hypertrophy, the galvano-caustic point or flat burner or snare may be employed, and in suitable cases the cold snare or a special tonsillome, with or without the superaddition of the scissors. Recurrence is frequent, but should be combated by means of iodine. Dilated veins generally disappear with the hypertrophy, and should only be cauterised when they give rise to hæmorrhage. Acute inflammation (tonsillitis pre-epiglottica acuta) may be follicular, phlegmonous, or peritonsillar, and may be primary or secondary to faucial tonsillitis. Sometimes the follicles are the seat of exudation plugs or of superficial ulcerations. The non-suppurative forms are treated like ordinary angina, with the addition of local applications, of which cocaine, antipyrin, or tolupyrin are recommended. Pharyngo-mycosis of the lingual tonsil may be treated locally with tincture of iodine, chromic or trichloracetic acid, or, as advised by Moritz Schmidt, left untreated altogether.

MIDWIFERY AND DISEASES OF WOMEN.

(420) Uncontrollable Vomiting of Pregnancy.

PUECH (*Méd. Mod.*, May 1st, 1895) recently introduced a discussion on this question before the Société Obstétricale de France. His patient, a hystero-neurasthenic subject, suffered very early, so he emptied the uterus, by the curette, at the sixth week, without loss of blood. The vomiting at once ceased. Circumstances contraindicated palliatives in this case. Gaulard believed that palliatives should be tried until there was a rise of temperature, which was a dangerous symptom. Charpentier stated that he is now in favour of terminating the pregnancy as early as possible. During the first three months it is easy to get all the ovum away. He now introduces into the uterus a short stick of solid nitrate of silver, which is left to melt there. But in one case where a practitioner, fearing to use so strong a caustic, introduced a pledget of cotton soaked in a 20 per cent. solution of nitrate of silver, the result was prompt and satisfactory. Disproportion between pulse and temperature is a grave sym-

ptom. Marduel related a serious case. The patient had an insane blood relation. Bad vomiting set in during her pregnancy. Opium was given, and she then could keep a little food down, but symptoms of abortion appeared, the drug having probably killed the fœtus. Partial blindness set in. A laminaria tent was introduced; next day Fochier emptied the uterus under ether. This proceeding proved very difficult, the uterine walls and even the abdominal parietes being bruised. The sickness ceased, but returned on the next day. A trace of albumen was detected in the urine. For a week the patient grew worse, becoming quite blind from retinal hæmorrhage and œdema around the disc, due to cerebral mischief. A blister was applied to the nape. The sight was partly restored, and a few days later the vomiting ceased. Marduel's services were dispensed with too early; he was recalled, and found the patient delirious. She died on the same day, nearly a month after the induced abortion. Fochier, in reference to the difficulty of emptying the uterus when he operated in Marduel's case, observed that ether is a good anæsthetic for such work. The uterus must be well depressed when the finger is used to empty the uterus, as the placenta is very adherent in these cases.

(421) The Influence of Ablation of the Ovaries on Metabolism.

CURATULO AND TARULLI (*Il Policlinico*, May 1st, 1895) publish a preliminary note on some experiments they have been making on this subject. They find that after removal of the ovaries there is a marked and constant diminution in the amount of phosphorus anhydride found in the urine. Bearing in mind the beneficial effect of ovariotomy in osteomalacia, the authors conclude that the ovaries secrete some unknown chemical product capable of favouring the oxidation of the organic phosphates which furnish the material for the formation of bone salts. Consequently, when the ovaries are removed, there occurs a greater retention of organic phosphorus, and a greater accumulation of calcareous salts under the form of calcic and magnesian phosphate.

(422) Alexander's Operation.

KUMMER (*Centralbl. f. Gynäk.*, No. 14, 1895), publishes statistics of 14 cases in which he operated, recording no results where the after-history is less than a year long. Four of the operations were for prolapse, and 10 for retroflexion. In all the 4 cases of prolapse plastic operations on the vagina were also undertaken, so that whether the result was due to the shortening of the round ligaments or to colporrhaphy could not be decided. In 1 case the prolapse, notwithstanding the combined operations, recurred; in 3, observed respectively 3 years, one year and a-half, and 1 year, cure was complete. Of the 10 retroflexion cases, in 5 complete cure followed Alexander's operation; 3 seem cured, but are excluded as the after-history was under a year, whilst in 2 the displacement recurred. In both these failures there were adhesions affecting the mobility of the uterus, but it seemed so easy to draw the organ forward that Alexander's operation was preferred to hysteropexy. The latter is always safest when any adhesions exist. In the 5 completely cured cases, as well as in the 3 recently performed, all the uncomfortable symptoms, so prominent in many cases of retroflexion, disappeared; the uterus remained in its normal condition of anteflexion. One patient had been married for three years, but had never conceived. After the operation she became pregnant, and was delivered at term. The uterus remained anteflexed after involution. Kummer modifies some of the details of Alexander's operation according to circumstances.

(423) Conservative and Operative Treatment of Pelvic Inflammation.

DOLÉRIS (*Nouv. Arch. d'Obstét. et de Gynéc.*, April 25th, 1895) defends the conservative treatment of chronic pelvic inflammatory diseases. He insists that removal of appendages and hysterectomy are only justifiable in very chronic cases. No active steps should be taken when painful or subacute parametritis is present. Operations should be undertaken soon after the catamenial period. Neurotic patients must be handled with caution. They show symptoms which mislead the observer, such as great pain with trifling lesions or little pain when there is extensive disease. As to the alleged intolerance of a patient's system to prolonged therapeutical treatment, the surgeon, however conscientious, is apt to fear complications which are improbable in any one case, especially if the patient be kept out of harm's way by her medical adviser. The patient herself is usually quite content to wait. Doléris believes that dilatation of the cervix, drainage, and the use of the curette are sufficient to cure a majority of cases of chronic disease of the appendages which most authorities would doom to removal of the diseased organs. The precautions above given apply to this conservative, as they do to operative, treatment. Indeed, in one case cited by operators as an instance of the danger of the conservative method, the curette was used when posterior parametritis existed. Bad symptoms followed and the appendages were removed, and not till after the abdominal section did the patient die.

(424) The Fillet in Breech Labours.

BAR (*Arch. de Tocol. et de Gynéc.*, March, 1895) exhibited at the February meeting of the Paris Obstetrical and Gynæcological Society an infant, aged 2, with a deep scar on the right groin. It limped slightly, and the right thigh was four-fifths of an inch short. The mother at its birth was a primipara, aged 39; the child was then very bulky, and the fillet was used, as all other means to deliver the child, especially the forceps, had failed. Bar attributed the shortening to atrophy of the head of the femur following separation of the epiphysis due to the fillet. He exhibited a cast of a similar case where he had used the fillet. A deep incised wound lay in the left groin. A crack was heard during the extraction. The wound suppurated, and the child died of pneumonia. Charpentier admitted that he had damaged both soft parts and bones even when employing the fillet with the greatest care. Guéniot always aided the traction of the instrument by passing the hollow of the hand into the concavity of the sacrum, and exercising further traction. This provoked uterine efforts. Budin added uterine expression as an aid to the fillet. Porak believed in the application of two fillets, one on each thigh. Maygrier held that the fillet should be used in dorso-anterior, and the forceps in dorso-posterior, positions. By that principle fractures are avoided. Olivier protected the fillet by enveloping it in a rubber tube. In that way he had always avoided accidents.

THERAPEUTICS.

(425) Serum-therapy in Syphilis.

GILBERT AND FOURNIER (*Sem. Méd.*, April 27th, 1895), after summarising the work hitherto recorded in this direction by Feulard, Tommasoli, Mazza, Kollman, Fournier, and Pellizzari, detail the method and results of some new experiments which they have undertaken in the treatment of syphilis by the serum of immune animals and men. They commenced by repeating in a single case the method adopted by Pellizzari, injecting, however, much larger doses of the serum. The serum was obtained from the blood of a patient with a clear history of old syphilis and suffering from tabes, but in a very satisfactory general condition, and from another patient who had had gummata and was under treatment for obstruction of the vena cava superior. The subject of the experiment was a patient until then untreated, having two infecting chancres on the penis, double buboes, anæmia, headache at night, aching in the joints and bones, and a general maculo-papular eruption, most intense on the trunk. He received 304 c.cm. of serum in twenty days, the average dose being 35 c.cm. During that time the chancres cicatrised, his pains vanished, the general condition was much ameliorated, and the eruption disappeared except a slight lingering roseola. The eruption was earliest influenced, and soonest gone on the front of the abdomen at about the level at which the injections were made. This local action was very striking. The new method essayed by the authors was to insert under the skin of certain animals the serum of the blood, chancres, and papules obtained from patients suffering from primary and secondary syphilis, with the object of increasing the natural antagonism of the blood of these animals to the syphilitic poison. (1) A she-goat received 180 g. of blood in fifteen days in ten injections. (2) A dog received

170 g. of blood in eight injections in forty-five days. (3) A she-goat received under the skin in the course of two months 9 syphilitic chancres. (4) A dog received in three months 4 chancres and 2 papules and 120 g. of blood in four injections, 60 g. of this being injection into the cavity of the peritoneum. The patients treated by the serum obtained from the animals thus prepared were 17 in number. Of these, 7 underwent the usual antisyphilitic treatment concurrently with the serum injections. All improved; but the authors hesitate to ascribe much force to these cases. The results in the other 10 cases were contradictory. While some of the cases showed marked improvement under the treatment, others appeared to be uninfluenced by it. A patient may be instanced who presented at the commencement of the treatment three cicatrised preputial chancres, roseola confluens, and headaches worse at night. In the space of twenty days he received 48 c.cm. of serum in seven injections. The roseola paled, but nevertheless persisted; hence, although the man's other symptoms and general condition were favourably influenced, the authors are inclined to regard the result as negative. Further researches are in progress.

(426) Sero-Therapeutic Treatment of Cancer.

RICHET AND HERICOURT (*Presse Méd.*, May 4th, 1895), communicated to the *Académie des Sciences*, April 29th, 1895, details of two cases of malignant growths in which they applied the serum treatment. The serum employed was obtained from the blood of an ass and two dogs, into which the authors had injected the liquid expressed from an osteo-sarcoma of the leg removed by Reclus. The first case was a fibro-sarcoma, about the size of an orange. It was removed in October, 1894, by Terrier, and reappeared about the size of a small nut in February, 1895. By the middle of March, when the injections were commenced, it had attained the size of a small orange. The injections were made into the cellular tissue round about the tumour, 3 c.cm. for each injection daily, and were continued during 40 days, representing a total dose of 120 c.cm. By March 26th the tumour was manifestly smaller, and progressively diminished, until at the conclusion of the treatment it was reduced to a small indurated plaque. The general condition of the patient had also improved. The second case was one of cancer of the stomach, showing itself by a tumour as large as an orange in the epigastric region of a man 44 years of age. The treatment was commenced on April 6th, 1895, by the injection of 4 c.cm. of serum. From this date until the 24th of the same month the relatively considerable dose of 64 c.cm. was injected. An amelioration in the general condition of the patient immediately took place. His weight increased from 57 kilogrammes on April 10th to 60 kilogrammes on the 23rd of that month. On April 10th also the tumour had diminished in volume, and this diminution was so rapid that on April 20th there was no longer felt any isolated, prominent growth. Palpation of the epigastric region only gave the impression of a vague, deep resistant spot, difficult to define.

(427) Treatment of Oxyuris by Naphthalin.

AUREL SCHMITZ (*Jahr. f. Kinderhlke.*, xxxix, S. 121) recommends naphthalin in the treatment of oxyuris vermicularis in children. In 26 out of 46 cases the patients appeared to be cured at an early date, and remained free from the worms three or four months later. In the remaining 20 only temporary improvement took place, lasting, however, in most cases for a month or more. In some of these cases it is suggested that reinfection may have occurred. Importance is attached to the mode of administration. The dose given to an infant of 1½ year was 2½ grains, and to a child of 12 to 13 years 6½ grains. The drug was given in powder with sugar, or to older children in capsules. The bowels were first opened with compound liquorice powder, or in older children with castor oil and calomel. Directions were given that the powders should not be taken immediately before or after meals, and that the child should have no fatty or oily food, since naphthalin is soluble in oils, and their ingestion might lead to solution and absorption of the drug in the upper part of the intestine. This would not only prevent the naphthalin from having the desired effect on the contents of the lower intestine, but might also cause poisonous symptoms to appear. Eight doses were given during two days, and then an interval of a week was allowed. Then the eight doses were given again during two days, and an interval of a week or a fortnight allowed, after which the treatment was repeated if necessary. No unpleasant symptoms followed the use of the drug in this way, except in one case, in which the patient, a girl aged 3, had painful micturition three days after the ending of a second course of naphthalin. If the bowels are not open spontaneously after the course of naphthalin, a laxative should be given—compound liquorice powder. Professor Ungar, in whose clinic Schmitz tried this treatment, now gives ten doses at each course.

(428) Digitoxin.

WENZEL of Unverricht's Clinic (*Centralbl. f. inn. Med.*, May 11th, 1895) draws attention to the value of digitoxin (Merck's), which is the most active principle of digitalis. He has treated with it 9 patients—3 with valvular disease, 3 with myocarditis, and 3 with nephritis. In 1 of these cases the treatment had to be repeated after an interval, and in 2 others it was adopted on three separate occasions. In addition 3 other patients suffering from other incurable disease, as well as cardiac complications, were also treated with digitoxin. In most cases the patients were desperately ill with disturbed compensation, engorgement of the pulmonary circulation, and marked diminution in the urine. When possible the patients were not treated for twenty-four to thirty-six hours after admission. The drug was always administered by clyster; 15 g. of the following solution (digitoxin 0·01, alcohol 10, aq. dest. ad 200) was administered by the rectum in 100 g. of lukewarm water, at first thrice, then twice, and lastly once daily. The single dose thus given was 0·00075 digitoxin. Only in 2 cases was an unpleasant result noted—namely, vomiting—and this soon ceased. The author gives details of 12 cases. The duration of treatment and the effects on the breathing, pulse, quantity and specific gravity of the urine, as well as on the amount of albumen present, were carefully noted. The author never had negative results, the patients responding more or less promptly to the digitoxin. It was successfully used in cases of valvular disease and myocarditis, even when other remedies, including digitalis, had been tried in vain. The pulse became stronger and less frequent. The cyanosis and dyspnœa promptly and surely disappeared, and the diuretic action of the remedy was very marked. This method of administering digitoxin reduces to a minimum any disturbance of the alimentary canal. The prompt results obtained by the above-mentioned doses suggest that even smaller ones might be efficient.

PATHOLOGY.

(429) Accessory Spleens.

ALBRECHT (*Wien. med. Woch.*, May 2nd, 1895) showed a specimen before the Vienna Society of Physicians, in which there was an enormous number of accessory spleens. These seldom exceed thirty to forty, but in this case there were countless numbers, some being only the size of a pin's head and the largest of a hazel nut, except in the normal position of the spleen, where there was one as big as a walnut, having a splenic artery and vein arising in the normal position. The most remarkable point was that they were not confined to the mesogastrium, which is the generally accepted site for the development of the spleen, but were present over the whole peritoneum (for example, on the convexity of the liver). They had a normal splenic structure, but in some there was a great quantity of pigment. The specimen was taken from a patient, aged 25, who died of chronic parenchymatous nephritis. No such case has been reported.

(430) Pneumococci in Hydatid Cyst.

GALLAIRD (*Méd. Moderne*, April 20th, 1895) relates a case under his care in which a large suppurating cyst of the liver was opened and drained. The pus, examined microscopically, was found to contain hooklets and pneumococci, without any other microbe. The patient was not then suffering, nor had he ever suffered, from pneumonia.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(431) Internal Anthrax.

POELCHAU (*Centralbl. f. inn. Med.*, April 14th, 1895) relates a case occurring in a man admitted with great dyspnœa, much cyanosis, irregular pulse, and fever. The breath sounds were weakened over the lower part of the right chest, which did not move as freely as the other side; there was also slight percussion dulness here. The heart sounds were normal. The abdomen was distended, but not painful. The liver and spleen could not be felt, but the hepatic dulness extended two finger's breadths below the costal margin. An examination of the blood showed no bacteria and no obvious spectroscopic changes. The clinical diagnosis was very difficult; a hydropneumothorax was suspected, but exploratory puncture was negative. Death occurred rapidly. The anatomical diagnosis ran thus: sloughing ulcers in the stomach and duodenum, acute swelling of the spleen, pleuritis, hydropericardium, slight ascites, and engorgement in the pulmonary circulation. Bacteriological examination of the blood from the spleen showed the case to be one of anthrax. The old pleural adhesions had become swollen owing to the anthrax infection, hence the physical signs noted during life. The gastro-intestinal ulcers had produced no distinct clinical manifestations. The infection appeared to have found access by the alimentary canal, but possibly by the lungs. It may conceivably have occurred through a small and unrecognised skin wound. The patient had to handle some kind of wool, but no fellow workman was affected. The author then refers to the recorded cases. From these it is evident that there is no single clinical picture for intestinal anthrax. At times there were symptoms of gastro enteritis; at other times general symptoms predominated. General prostration, frequent breathing, small pulse, and often marked cyanosis have been seen. Thus the recognition of internal anthrax may be very difficult. In the case here recorded the cyanosis was marked, such indeed as might exist in the worst cases of cardiac insufficiency. This cyanosis may be of diagnostic value when the history shows it to arise suddenly without previous evidence of cardiac disease.

(432) Glycogen in Lymph.

A. DASTRE (*Sem. Méd.*, April 10th and May 1st, 1895) recently communicated the results of his researches on this subject to the Paris Biological Society. He collected the lymph from a cow in which a fistula of the thoracic duct had been made by Colin's method. The lymph was divided into four specimens, and it was found that: (1) Glycogen exists in the lymph in small quantities (about 0·095 per 1,000). (2) Glycogen is destroyed in the lymph by a diastatic ferment within twenty-four hours. (3) In the other two specimens the corpuscles were separated from the plasma, precautions being taken to restrain the action of the diastatic ferments as much as possible. It was then found that glycogen does not exist in solution in the plasma, but is contained in the formed elements, being combined with them in the same way as hæmoglobin with the stroma of the red corpuscles, and is therefore incapable of passing normally into solution in the plasma of blood and lymph. This accords with Cl. Bernard's theory as regards the *rôle* of glycogen. In the discussion which followed, Kaufmann objected that Salomon and Huppert had shown that glycogen did exist in the blood, and W. Saake that washing recent liver with normal saline solution extracted a considerable amount of glycogen with the blood plasma. Again, Dastre's experiments were on dead blood and lymph. Dastre replied that he held to the idea of fixed glycogen. The liver only yielded sugar and not glycogen to the blood. The sugar was used up by the tissues, and when necessary transformed into glycogen in the muscles and leucocytes. Proofs of this were: (1) The direct proof just given that glycogen does not exist in the plasma. (2) The existence in the blood and lymph in the living and normal state of a diastatic ferment (Magendie, Bernard, Schiff, Biel, and Röhmann), which is quite incompatible with glycogen existing in the same solution. (3) Washing the liver with normal saline solution removes rapidly and completely all the sugar, but only scantily and slowly the glycogen, which is nevertheless there in enormous quantities (Saake). (5) Lastly, glycogen is present in the formed elements—leucocytes of pus and lymph (Dastre). Kaufmann then advanced further objections: (1) Livierato demonstrated the presence of glycogen apart from the blood corpuscles in dried preparations of blood. (2) Lépine found that blood contained a larger quantity of glycogen a quarter of an hour after removal from the blood vessels. (3) Kaufmann found that glycogen existed in the blood serum of a dog, probably rendered diabetic through the removal of the pancreas. Dastre replied to this that he had experimented on the organs of normal subjects, while Kaufmann's dog was diabetic.

(433) Polio-mesencephalitis.

KALISCHER (*Berl. klin. Woch.*, 1895, No. 10) communicated to the Berlin Neurological Society the case of a man, aged 62, with bilateral ophthalmoplegia externa and flaccid paralysis of the limbs. Previously he had been healthy. There was no general cerebral disturbance as shown by headache, vertigo, etc. No signs of general paralysis or tabes. Of bulbar symptoms only a weakness in the lower right facial muscles was noticed. No ataxy, twitchings, atrophy, abnormalities in sensation, or sphincter troubles were observed. Reaction to electricity seemed partly increased, partly decreased. The disease lasted four months and a half; death took place by sudden respiratory paralysis, though speech, swallowing, and sensorium had remained perfect. At the necropsy nothing abnormal was observed by macroscopic examination, but microscopically hyperæmia and hæmorrhages were found in the grey motor nuclear region from the third ventricle to the lumbar enlargement of the cord. These lesions were most marked in the cervical enlargement and in the region of the anterior oculomotor nucleus. The walls of the blood vessels were not obviously altered. Kalischer remarks that the muscles were powerless for hours together, but at times the patient regained some power in them, though they soon became tired out and paralysed again. This has been noticed in other recorded cases. He mentions similar cases in the literature where the necropsy yielded negative results. The terms "polioencephalitis superior" and "upper bulbar paralysis" he considers unsuitable, and he points out that when the oculomotor region is affected the correct term should be "polio-mesencephalitis"; the present case, he says, would therefore be one of "polio-mesencephalo-myelitis."

(434) Enteric Fever in Infants.

STOWELL (*N. Y. Med. Rec.*, xlvii, p. 321) in a paper on enteric fever in infants, records 5 cases, and collects 80 others. The mortality was high, 25 or 31.76 per cent. The characteristic rash appears to have been noticed in 16 (possibly 18) cases; in 2 others there were irregular rashes. Death appears to have been due to the severity of the disease associated with marked intestinal lesions (ulceration, sloughing, perforation) in the majority of the cases, but in 2 cases it was probably determined by peritonitis; in 1 other by intestinal hæmorrhage. In 1 case only was perforation recorded.

SURGERY.

(435) Castration under Cocaine Anæsthesia.

BRYSON (*N. Y. Med. Journ.*, April 27th, 1895) reports a case of complete castration for prostatic hypertrophy on a patient aged 74. As the condition of the heart and kidneys contraindicated general anæsthesia by chloroform or ether, the following steps were taken to avoid giving pain: The entire scrotal sac was seized by the left hand as high up as possible, and manipulated for a sufficient time to relax the dartos and cremasters, after which a strong rubber band was passed above the hand around the root of the sac, close to the peno-scrotal and perineo-scrotal angles. This band was drawn tight enough to strangulate the vessels of the scrotum and cord. The line of incision on the anterior surface of each sac was now injected with a 4 per cent. sterilised solution of cocaine, four punctures being

made, and half a drachm of the solution used for each side. The needle was then inserted, half an inch below the constricting band, into the central part of each cord, and 5 minims of the same solution were thrown in. The scrotal punctures caused some pain, but the injection of the cord caused none. After an interval of twelve minutes, pinching and puncturing of the skin caused no sensation. The usual incisions were then made exposing the glands and a sufficient portion of each cord, and the organs were removed. The cords were ligatured *in toto*, and the wounds were closed with continuous catgut sutures. During the operation, which lasted 20 minutes, the patient was not aware of what was being done. When the testes were dragged upon for the purpose of ligaturing the cords above the point of puncture, only a slight sensation was felt, but the application of the ligatures was unnoticed. Beyond a slight mental exhilaration, no systemic effects of the cocaine were observed. There was certainly no change, the author states, in the respiration or in the size of the pupil, and there was no flushing or pallor of the face. The pulse remained unchanged.

(436) Results of Partial Resection of the Humerus for Sarcoma.

Heurtaux (*Bull. et Mém. de la Soc. Chir.*, No. 2, 1895) has recently reported a case in which eleven years ago he resected the upper half of the left humerus for a large and rapidly-growing tumour which after removal was proved by very competent authority to be a true sarcoma developed at the expense of the medulla. According to the report of Malherbe, which was subsequently confirmed by Ollier, the malignity of the growth was placed beyond doubt. The patient, who at the time of operation was 6 years of age, was last seen by the author in the autumn of 1894. Then he found that there was not only a total absence of any indications of relapse, but also that the mutilated limb had proved a very useful one. Even when the arm was free, and not supported by any apparatus, the patient was able to lift and to drag heavy and resistant objects, and could use the limb with sufficient precision to play on the piano. The left forearm and hand were as well developed as those on the right side, but the arm was much wasted, being not more than 8 inches in length, whilst the right arm measured nearly 13 inches. The portion of the left limb between the shoulder and elbow was composed chiefly of soft parts, as the remaining portion of the humerus, the upper part of which was very thin, measured only 4 inches in length. This bone, since the operation, had undergone atrophy both in length and thickness. Notwithstanding this deformity the limb has proved so useful to the patient that the author holds that he is justified in advocating in cases of malignant growths of the head of the humerus a free resection of the upper part of this bone as a measure preferable to removal of the whole limb.

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(437) Effects on the Testis of Injury to Spermatic Cord.

Alessandri (*Il Policlinico*, May 1st, 1895), experimenting on the effects of injury to various parts of the spermatic cord, finds that after ligature of the vas deferens the testis and epididymis eventually atrophy. The process begins with dilatation of the canaliculi of the epididymis and narrowing of the seminiferous tubules; fatty degeneration and increase of connective tissue, especially about the vessels, finally obliterate the canals. These changes occur more slowly in the epididymis. The author never found cystic degeneration, either partial or *en masse*. Ligature of the spermatic artery and pampiniform plexus *en masse* invariably caused atrophy of the testis. If the circulation be maintained through the artery of the vas, the testis and epididymis still atrophy, but more slowly. Ligature of the spermatic artery or pampiniform plexus alone causes partial atrophy. Ligature of the spermatic artery with some of the pampiniform veins caused hæmorrhagic infarction, degeneration, formation of fibrous tissue, but not so rapidly as in ligature *en masse*. The epididymis was only affected secondarily. Ligature of the artery of the vas deferens alone has no effect on the testis or epididymis. Excision of the nerves of the cord is not without effect on the nutrition of the testis. A coagulative necrosis beginning at the centre of the testis and spreading to the periphery, with similar changes in the epididymis, was noticed after injury or excision of the nerves. There was, however, no noteworthy diminution in the size of the testicle seventy-five days after operation.

MIDWIFERY AND DISEASES OF WOMEN.

(438) Parotitis and Psychoses after Ovariotomy, etc.

Everke (*Deut. med. Woch.*, May 16th, 1895) describes a case in which parotitis set in after a double ovariotomy. The parotid suppurated; marked mental symptoms were present, though the pulse and temperature were not remarkably high. The patient became irascible; she refused food and had to be handcuffed. At the end of a month she was quite well in mind and body. In a second case both ovaries and tubes were removed. The patient was allowed an air cushion, against which she laid her face. It happened that the cushion had just been used by a woman who had facial erysipelas. Both parotids were attacked and the patient died. A woman who had never shown any previous indication of mental disease was operated upon for ruptured extrauterine pregnancy. On coming to herself after the operation she was pleased that all the pain had gone. Next day she was seized with severe thirst. The surgeon refused to allow her more than the prescribed amount of fluid nourishment. She cast a peculiar glance at him, and when he left the ward drew a knife off the table and cut her left brachial artery under the bedclothes. None of the other patients noticed the change, yet she bled to death. In the last case described by Everke an old maid had been subject to religious melancholy. A large ovarian cyst was removed a few years after her recovery. The operation was successful. She remained well for several months, but religious hallucinations slowly returned, and she died at the end of two years. The brother seems to have been mentally afflicted.

(439) Tubal Gestation taken for Fibroma of the Fundus.

Delaunay (*Bull. de la Soc. Anat. de Paris*, March, 1895, part 4) performed vaginal hysterectomy last March on a married woman aged 31. She had never borne a child or aborted. From the age of 24 she suffered from hypogastric pains, worst during the period, and these continued. Seven years before operation metrorrhagia set in and lasted ten days. Two months before operation another attack of uterine hæmorrhage set in, and only ceased a week before the parts were removed. A mass could be felt in the left fornix, continuous with the uterus, which was much enlarged. In the right fornix a movable swelling of the size of a walnut was detected. Fibroma of the fundus was diagnosed and the parts removed. The swelling on the left proved to be a tubal pregnancy; the ostium was patulous. The patient recovered. Delaunay was misled by the absence of amenorrhœa or of any recent exacerbation of the pelvic pains, which had lasted for many years. The blood discharged from the uterus for two months before the operation was not of the chocolate-brown character which Pilliet believes to be characteristic of the metrorrhagia of extrauterine pregnancy.

(440) The Future Treatment of Septic Pelvic Diseases.

Heurotin (*Amer. Gynec. and Obstet. Journ.*, May, 1895) thinks that in ten years these affections will be treated in a more definite manner than at present. Having failed to stop the disease within the uterus physicians will not wait idly by whilst peritonitis and cellulitis play havoc and produce incurable destructive conditions. Incipient phlegm in the broad ligaments will be incised and drained early, intratubal disease will be recognised in time for conservative treatment, which will follow the perfection of radical work. In neglected cases, when the appendages are the seat of chronic disease, they will not always be sacrificed; in a young subject drainage of an ovarian or tubal abscess may be followed by cure and restored function. The incision in such a case will be made through the abdominal parietes. But when it is evident that both appendages are hopelessly diseased hysterectomy through the vagina, with complete removal of the appendages, will be practised. Too many radical operations are now performed; ten years hence conservative treatment will save numerous ovaries. When the append-

ages are physiologically destroyed the uterus will always be removed with them, and, in default of special contra-indicating reasons, by the way of the vagina.

(441) Forceps and Facial Paralysis in an Infant.

LASKINE (*Progrès Méd.*, May 11th, 1895), speaks of an instrumental labour where the mother was a primipara, aged 22. After she had been in labour for 54 hours the forceps was applied. A large child, weighing nearly 10lbs. 4ozs., was delivered; the perineum was torn. The child had facial paralysis, which was treated by the interrupted current. At the end of two months the condition had disappeared. Laskine admitted that the child's father had syphilis. Altogether, however, he thought the evidence was in favour of the opinion that the paralysis was caused by injury with the forceps. This complication took, he thought, long to cure. Gaulard, in a discussion on the case, knew of another far more chronic instance of the same lesion, for one of his colleagues, about 40 years old, still suffered from facial palsy, caused by the forceps when he was brought into the world.

(442) Endometritis in Pregnancy: Hydatidiform Mole.

VEIT (*Zeitschrift f. Geburtshülfe u. Gynak.*, vol. xxxii, part 1, 1895) discusses the question of endometritis in pregnancy, a source of many troubles to fœtus and mother. He continues Emanuel's researches (*ibid.*, vol. xxxi, part 1, p. 187), and dwells on the fact that bacteria are found in the diseased endometrium in pregnancy. This probably indicates that endometritis existed before the pregnancy; indeed, it was observed that bacteria existed in the same case in two pregnancies. In Emanuel's case of hydatiform mole microbes were also discovered. This change in the chorion is, both the observers believe, a result of endometritis in pregnancy, a disease which of itself interferes greatly with the development of the fœtus to the last. When a hydatidiform mole has developed, it may be discharged and no further ill-result ensue. In other cases a few vesicles left behind may undergo malignant changes, and perforate the uterine wall. This latter results probably means that the primary endometritis was severe, so that the uterine tissues cannot resist the growth of the mole.

(443) Suppuration of Corpus Luteum in Ovarian Abscess.

LANGER (*Prager med. Wochenschrift*, No. 10, 1895) carefully examined four specimens of undoubted abscess of the ovary. He found that the abscess wall was lined with cells bearing all the characters of those of the membrana granulosa in the degenerative stage, when the corpus luteum is developed. In a fifth the same condition seemed very probable, though not quite so certain. Langer holds that this kind of abscess is caused by direct suppuration of a corpus luteum; it is not the result of suppuration of a corpus luteum cyst, which is itself a pathological condition. Langer is still investigating this subject, for, according to the above researches, abscess of the ovary would seem to be a primary disease associated with menstruation or pregnancy.

THERAPEUTICS.

(444) The Antitoxin Treatment of Diphtheria.

A REPORT of the provincial Governments of Croatia and Slavonia on the above subject appears in the *Wiener klin. Woch.* for May 2nd 1895, and includes all cases treated with Behring's serum between August 1st, 1894, and January 31st, 1895. In most cases the diagnosis was confirmed by bacteriological examination. For the first five months of this period only the most serious cases were so treated, but all children with whom isolation was impossible received prophylactic injections. Those cases which were brought to the authorities too late, for example, on the sixth, seventh, or eighth day of the disease, or later, were not treated with serum, as it is then useless, and would have spoilt the statistics. The prophylactic injections were completely successful, as since their introduction the disease was limited to sporadic cases. They were practised on 826 children, of whom only 17 (or 2 per cent.) afterwards contracted diphtheria; 16 of these were very slight cases, all of whom recovered; 1 was serious and died (a mortality of 0·12 per cent.). In 5 of the immunised children the disease started within eight days of the injection, and was probably contracted before it, as they had all been previously exposed to infection. The other 12 became ill from six to twelve weeks after the injection. In the rural districts in all 255 cases of diphtheria were treated with antitoxic serum, 181 of which were serious, and 74 moderately serious; of these 226 recovered, that is, a mortality of 11·4 per cent. In the towns of 173 diphtheria cases (101 serious and 72 less so) 156 recovered, giving a mortality of only 9·7 per cent., or 1·7 per cent. less than in the country. This difference is to be explained by the country cases coming, as a rule, later under treatment. In all 428 diphtheria cases, of whom 282 were serious and 146 moderately ill, were treated with Behring's serum: of these 382 recovered and 46 died, giving a mortality of 10·8 per cent., which was limited to grave cases with complications and those where the injections were made for the first time on the fifth, sixth, or seventh day. The complications occurring in the above 428 cases were diphtheritic laryngitis in 35, nasal and laryngeal diphtheria in 1, diphtheritic laryngitis for which tracheotomy had been performed in 1, nasal diphtheria in 1, and septic diphtheria in 13. Among the 46 who died was 1 case of tracheotomy, 5 of diphtheritic laryngitis injected on the third, fourth, and fifth days, 8 septic cases—one of uncomplicated diphtheria injected on the fourth day, 2 septic cases injected when already moribund, and 5 serious cases injected on the fifth, sixth, and seventh day of disease. The remaining 24 were all serious cases, and received a too small dose of serum, either from lack of serum or of experience. If the two moribund cases and those where treatment was commenced on the fifth, sixth, and seventh days are deducted there remains a mortality of 9·1 per cent., while in previous years it had been between 40 and 65 per cent. Clinically it was observed that in most cases even the highest temperatures fell considerably, generally to normal, within 24 to 48 hours after beginning the treatment, and a general improvement set in, while the membrane became looser after 24 hours, and vanished on the third or fourth days. No bad results attributable to the serum were observed among the 428 cases, only a slight urticaria appearing in 2, and erythema exudativa multiplex in 2. Owing to these favourable results the provincial Government has ordered that for the future all cases of diphtheria are to be treated with Behring's serum.

(445) Salicylate of Soda in Graves's Disease.

CHIBRET (*Journ. de Méd.*, April 10th, 1895) speaks of the good results he obtained in the treatment of exophthalmic goitre by salicylate of soda. In each of four cases marked improvement took place in a few days, particularly in one case—a man who was totally incapacitated, but who was much better in six days, and able for field labour in a month. In others the symptoms returned on suspending the drug, although it seemed in one instance that after two years it could be much reduced without bad effect. If, however, the patient were overfatigued or chilled, the salicylate was taken in order to prevent any return of the symptoms. The writer was led to try this treatment by finding a family arthritic history.

(446) Sulphonal Poisoning.

MARTHEN (*Münch. med. Woch.*, April 30th, 1895) reports a case, with the morbid anatomy. An insane woman, aged 39, was given sulphonal on account of great restlessness. In 2½ months she took 66 g., 18 g. being taken within the last 25 days, and 8 g. within the last 14. The drug was frequently intermitted. The patient became collapsed and had retention of urine. Later, urine of a dark colour was passed; it contained no albumen, sugar, hæmoglobin, or bile pigment, and was unaltered by heating with acids and alkalies. The patient died in four days. At the necropsy, besides the lesions in the brain and meninges, the heart muscle was of a greyish yellow colour and soft, the valves being intact; the lungs were œdematous. The capsule of the kidneys stripped readily, the surface was of a dark-greyish red colour, the substance soft and containing much blood. In the bladder there was blackish-red urine. Under the microscope there was found, as in Stern's case, a wide-

spread affection of the secreting epithelium of the renal convoluted tubes, and of the ascending branch of Henle's loop tubes. In addition, the diseased epithelium showed in its centrally placed end a tendency to disintegration. The cardiac muscle showed fragmentation, but how far this was due to the sulphonal could not be exactly stated There were no noteworthy minute changes in the liver. The engorgement of the liver and kidneys was such as is frequently found in those dying of progressive paralysis of the brain. It is probable that the patient succumbed to a paralytic attack following upon the sulphonal poisoning.

(417) Intravenous Sublimate Injections in Cerebral Syphilis.

Bruni (*Il Policlinico*, May 11th, 1895) records the following case, which he looks upon as being one of undoubted cerebral syphilis. A man, aged 25, was seized with convulsions. They were limited to the right side, and recurred from one to three times in the day. In addition he had severe pain in the left side of the head. About four years previously he had contracted syphilis. The author says that the history—absence of fever, regularity of the pulse, etc.—made him think that the Jacksonian epilepsy was due to a gumma in the left Rolandic area. He treated the patient at first with intramuscular injections of mercury and potassic iodide by the mouth. As there was no improvement by the seventh day, 3 mg. of corrosive sublimate in solution was injected into the left median cephalic vein after Baccelli's method (Epitome, April 7th, 1894, par. 283). This was repeated on the following day, and the dose was steadily increased up to 6 mg. In all, sixteen intravenous injections were given. From considerations of convenience, mercurial inunction was then adopted. The fits ceased after the second intravenous injection, and the pain in the head also disappeared. Good reports of the patient were received for some time after. The author then gives details as to the *technique* of the method. It is useful and even necessary to have recourse to these intravenous injections in cases in which other mercurial treatment has failed in severe cases of cerebral syphilis, and in patients who cannot be subjected to treatment with large doses of mercury.

(418) The Treatment of Lightning Pains in Locomotor Ataxy.

Blondel (*Rev. de Thér.*, April, 1895) treated a case of locomotor ataxy in a man with syphilitic history, aged 29, who suffered intolerable lightning pains, as follows: The patient lay on a bed with the thighs flexed on the abdomen, so that the knees approached the chin, the legs being flexed as much as possible at the same time. A cord passed round the neck and under the knees enabled him to maintain this position for five minutes. This was repeated every night for eight days, when the pains disappeared. As they returned a month after, the same treatment was resumed for five nights. Two years have passed since then, and the man is apparently completely cured. Blondel considers this a scientific method of treatment, causing a slight elongation of the spinal cord in the same way as suspension, without any of the danger which accompanies the latter method, and without any apparatus.

PATHOLOGY.

(449) The Influence of the Diphtheria Virus on the Circulation.

Beck and Stapa (*Wien. klin. Woch.*, May 2nd, 1895) experimented on rabbits by making injections into the jugular vein or subcutaneously, the carotid being connected with a Huertle's manometer. They found that (1) large quantities of diphtheria antitoxin could be injected into the jugular vein of healthy animals without marked alteration in the circulation; (2) injections of large quantities of very virulent diphtheria cultivations or pure toxin did not influence the blood pressure or pulse frequency for some hours after the injection; but (3) if the registration of blood pressure was commenced on the day following the injection—that is, a short time only before death—the results were in all cases (15) practically identical. No abnormality of blood pressure was observed half an hour to an hour before death; only just before death the heart's action suddenly became irregular, and the blood pressure rapidly fell. That this sudden disturbance of the circulation was not due to the experiment itself was proved by the following facts: (1) An experiment on a rabbit treated in exactly the same manner lasted three hours, when it was abandoned, as no change took place. Death followed suddenly an hour later, when the experiment was resumed. (2) Two rabbits of equal weight were taken, and a hypodermic injection of the same quantity of toxin was given to each simultaneously. One received also, either immediately or later, an injection of antitoxin into the circulation. After ten or more hours the registration of blood pressure was commenced on each animal at the same moment. The result was that the one which had the injection of toxin alone died as in the above experiments, while the one which received an injection of antitoxin as well lived, if the injection were given early; or, if later, survived the other so long that the experiment could not be continued the whole time. The above results accord with the clinical facts observed in man. The disturbance of the circulation is due to cardiac paralysis alone, and not to paralysis of the respiratory or vasomotor centres, for when the blood pressure began to fall either artificial respiration or ligature of the aorta below the diaphragm was at once performed, but neither prevented the fall of pressure even for a moment. The toxin does not act as an ordinary chemical poison when injected into the circulation, for then it would act at once. Neither can this action be due to anatomical changes, for their gradual development would affect the blood pressure curve earlier, and the authors are driven to suppose that the cardiac paralysis is due to a disturbance of nutrition of the nerve centres supplying the cardiac muscle. It may be that after some centres, either intracardiac or in central nervous system, have become functionless, the remainder are sufficient for the normal cardiac action, and only when all or most of the centres are attacked paralysis supervenes.

(450) Pneumococcus Infection in Erysipelas.

Roger (*Rev. de Méd.*, April, 1895) found that in 10 cases of erysipelas a distant lesion apparently due to the same exciting cause as the erysipelas was really brought about by a secondary infection with the pneumococcus. In 6 of these cases the secondary lesion implicated the lungs, in 1 the lungs and peritoneum, and in 3 the meninges, either exclusively or predominantly. In the pulmonary complication it would have been impossible to determine the nature of the process except by bacteriological examination. In the case of a woman, aged 70, the pneumonia occurred during convalescence. The disease was fatal in 3 of the 6 cases. In 3 of the 6 cases the pneumonia was secondary to facial erysipelas, in the remaining 3 the leg was affected. In the case of combined pneumonia and peritonitis, and also in those of meningitis the erysipelas was of the facial type. The onset of this pneumonia is insidious, the course rapid and mostly fatal. The temperature curve is little altered. The lesion is a broncho-pneumonia. In the cases which recovered the pneumococcus was found in the sputum, in the fatal cases in the blood and organs. In two of the latter the streptococcus was also present, but in small numbers and only yielding a few colonies on cultivation. The pneumococcus was shown by experiment to be virulent. The symptoms of meningitis may be sufficiently distinct to lead to its recognition, but sometimes they are masked, revealing themselves only by delirium, paralysis of the sphincters, etc. In 2 of the 3 cases of meningitis the streptococcus was present but also in small numbers. The author thinks that streptococcus broncho-pneumonia is rare in erysipelas. Clinical investigation cannot differentiate the different forms of meningitis, but as regards the morbid anatomy the pneumococcus gives rise to a more fibrinous and thick exudation, less rich in leucocytes (namely a dry fibrinous meningitis), whereas the streptococcus produces a serous or purulent meningitis; only bacteriological examination can provide certain proof. Perhaps erysipelas favours the invasion of the pneumococcus frequently present in the mouth, owing to the debilitated state of the patient. Perhaps also the microbic association may account for the peculiar evolution of these pneumonias.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(451) The Nervous Manifestations of Rickets.

SZEGÖ (*Jahrb. f. Kinderhlknde.*, Bd. xl, H. 1, S. 78) gives some statistics with regard to rickets and the nervous manifestations associated with it. He found that at the Stefanie Children's Hospital at Buda-Pesth, as at hospitals in other large towns, the largest number of cases of rickets applied for treatment in January, February, and March, the smallest in August and September. The largest number of cases of laryngismus were seen in February, March, and April, and the largest number of cases of afrebile convulsions (eclampsia) in the same months. As to tetany, the largest number was seen in January, February, and March, but the total number was small. The author found laryngismus to be the commonest and the most dangerous manifestation of rickets. It was most frequent between the fifth and the fourteenth months of life, and was best treated by phosphorus, the remedy which is also the best for rickets. Under the head of laryngismus he includes apparently all forms of respiratory spasm. Inspiratory spasm is seldom complete, but air is able to enter even in the most severe stage, a high note being produced by the air passing through the narrowed larynx. The expiratory spasm, on the other hand, may be so complete that death is brought about by asphyxia owing to the complete arrest of respiration. Two such fatal cases were met with among 241 cases of respiratory spasm. Pure expiratory spasm is characterised by prolonged expiration accompanied by a whining cry; this is followed by a short deep inspiration which is noiseless, or least not accompanied by any cry. In pure inspiratory spasm the expiration is not prolonged nor accompanied by whining, but the inspiration is prolonged and attended by a high piping note. These two forms are the most frequent, but Szegö describes certain intermediate forms. In one of these the expiration is followed by a pause of varying duration, during which there is no movement of the chest; this is followed by an unobstructed inspiration. In another and more dangerous form the pause is followed by a prolonged, noisy, difficult inspiration. In other cases there is no pause, but both inspiration and expiration are obstructed and prolonged. Szegö describes also another form of respiratory spasm only observed in suckling infants, and not, as he thinks, associated with rickets. It appears to be determined by the act of suckling, and consists of one long-drawn inspiration. As to tetany, the number of cases presenting the characteristic contractions was small, but the facial phenomenon was obtained in 104 cases, Trousseau's in 20, and both in 46, out of a total of 205 cases of rickets observed.

(452) Urobilinuria in Childhood.

GIARRÉ (*Lo Sperimentale*, Fasc. i, 1895) has investigated this subject in 72 cases of infective disease, in 7 cases of hepatic lesions, in 16 newly born, and also in 10 infants under 12 months. A small quantity of urine (50, 30, or even 10 c.cm.) was saturated with ammonium sulphate after acidifying with acetic acid, the precipitate filtered off, dried, and extracted with absolute alcohol. From 14 cases of measles the author concludes that urobilinuria is observed during the height of the eruption or after the crisis. The highest equivalent was obtained when broncho-pneumonia was present. In 3 cases of scarlet fever, as well as in Mya's cases urobilinuria was observed in considerable quantity. Diphtheria (16 cases) was not accompanied by the marked urobilinuria seen in measles, scarlet fever, and especially in broncho-pneumonia. This accords with the experimental evidence that Loeffler's bacillus has a feeble hæmolytic action; 13 cases of pneumonia, 5 of empyema and 1 of serofibrinous pleurisy were examined. Urobilinuria is present not only in croupous pneumonia but also in primary and secondary broncho-pneumonia. It was also slightly observed in the case of pleurisy. The intense urobilinuria is easily explained in pneumonia and empyema, owing to the hæmolytic action of the pneumonogenic agents and to hepatic stasis. In typhoid fever urobilinuria is out of proportion to the virulence and intensity of the infection, and is not in relation to the greater or less absorption of stercobilin. As far as 12 cases of tuberculosis permit of conclusions, the localised disease is not accompanied by a noteworthy degree of urobilinuria; it is most marked in acute tuberculosis and tuberculous meningitis. In 2 cases of angiocolitis urobilinuria was present. In hepatic disease with permanent biliary stasis it is present in quantity, whereas in cases of destruction of liver cells it is absent. In icterus neonatorum it was absent or but slightly present. The author then discusses the various theories to account for urobilinuria. He adheres to the pigmentary theory according to which it is a reduction product of bilirubin analogous to that brought about in the intestine by putrefactive processes; the reduction is effected through the agency of the tissues. The author also concludes that urobilin is absent or present only in traces in the urine of children, that it is absent in the newly born and in those suckled, while it is not uncommon to find stercobilin in the fæces of infants artificially fed on milk. In the pneumonia of sucklings it is usually found without corresponding to the amount of stercobilin in the fæces. In the majority of infective diseases it is present, and is in relation to the increased hæmolysis.

(453) New Growth in the Heart.

PAVLOWSKY (*Berl. klin. Woch.*, May 13th, 1895), concludes a study of this subject. The obstruction to the circulation in his case was caused by a pedunculated tumour (myxoma) in the auricle, which hindered the closure of the mitral valve. If the heart was placed in a vertical position, the tumour pressed against the venous openings, and embarrassed the circulation in a more marked degree; hence the patient's objection to the sitting posture. The hæmoptysis and hæmorrhagic infarcts were the result of the engorged pulmonary circulation. No explanation was found for the periodic attacks of paresis seen during life except general anæmia of the brain, and the presence of fluid in the cerebral ventricles and about the base of the brain; there was no embolism or hæmorrhage. The author gives an exhaustive account of the literature of the subject. Of 11 cases, including his own, of which details are given, 6 occurred in men and 5 in women. The ages of 4 women varied from 55 to 80, whereas in the fifth it was only 18 years. Of the 6 men 3 were between 21 and 27, and 3 between 42 and 54. The symptoms consist of cough, hæmoptysis, dropsy, cyanosis, etc., all due to obstruction of the circulation, but no clinical picture applicable to all cases can be deduced. In 6 cases also, including the author's, the growth projected through the mitral orifice into the ventricle.

(454) Intention Tremor in Infantile Hemiplegia.

T. COHN (*Berl. klin. Woch.*, 1895, No. 10) showed a female patient, aged 25, at the Berlin Neurological Society. At the age of 1½ she had a right-sided convulsive attack, lasting between three and four hours, and followed by right hemiplegia. Before the age of 9 she had two or three more similar attacks, but after that age they did not recur. She was backward at school, and now reads and reckons badly, but writes (with the left hand) relatively better. The left pupil is somewhat larger than the right; both react well. Divergent strabismus of the right eye. Paresis of the lower right facial muscles. Speech sometimes somewhat indistinct. The right upper limb is not shorter or atrophied compared to the left, but shows a tendency to contracture, and the grasp and movements of the little finger are weaker than on the left side. There is hyperextension of the right fingers. No abnormal movements are observed, except when voluntary movements are being executed by the right upper limb; then a nearly rhythmical "intention tremor" is observed in the limb, increasing as the object of the movement is approached. A few irregular intermediate movements of the limb indicate perhaps the presence of some ataxy. Shutting the eyes makes no difference. Some motor paresis in the right lower limb. Tendon reflexes active on both sides. Sensation normal. Cohn remarks that cases are rare in which an "intention tremor" takes the place of the ordinary posthemiplegic chorea or athetosis.

He has found only eight cases recorded. In the cases in which a *post-mortem* examination has taken place there has generally been found a lesion (softening, hæmorrhage, or tumour) in the posterior limb of the internal capsule or in the adjoining parts of the optic thalamus or corpus striatum.

SURGERY.

(455) Antistreptococcic Serum.

ACCORDING to a brief editorial paper in the *Revue de Chirurgie* of May it seems very probable, from recent observations, that a serum has been prepared which is capable of arresting the numerous forms of infection caused by streptococci. About three years ago it was shown by Roger that cultures of streptococci contain two antagonistic substances, one of which diminishes whilst the other increases the resistance of inoculated animals. The former is destroyed by heat, so that with a culture raised to a temperature of 230° F. animals can be vaccinated against streptococcic infection. The serum of animals thus treated acquires the property, not of destroying, but of attenuating the microbes which are introduced into them, and of checking the infection set up by virulent cultures. Serum taken from a mule, which had been extensively injected with sterilised cultures, was used on a woman suffering from puerperal fever. After unsuccessful injections of 8 and 16 c.cm., a third injection of 25 c.cm. on the third day was followed by defervescence of the fever and rapid recovery. Three other cases have since been published by Charrin and Roger (Société de Biologie, March 30th, 1895). The first of these was also one of puerperal fever. Injections of serum amounting to 40 c cm. were followed after the third day by speedy defervescence and cure. An infant, 21 days old, suffering from erysipelas of the face, recovered after a single injection of 5 c.cm. of serum. In the third case which was one of streptococcic pseudo-membranous angina with very serious cardiac symptoms and a temperature above 104° F., a single injection of serum was followed by recovery in the course of thirty-six hours. The author of the paper, though unwilling to draw any definite conclusions from this smal' number of cases, is hopeful of future success from commencing the treatment early and introducing large quantities of serum. The prospects of success in this direction are favoured by the fact that Marmorek, another and independent investigator, has recently recorded a series of 45 cases of erysipelas in which the patients rapidly recovered after the injection of a specially-prepared serum.

(456) Indications for Operation in Head Injuries.

BULLARD (reprint from the *Boston Med. and Surg. Journ.*, 1895) asserts that the primary condition for immediate operation in severe head injuries is increased intracranial pressure. The question of operation in such cases depends on the degree of pressure. When the patient is in a condition of deep stupor and cannot be roused by supraorbital pressure, an operation is imperative. When, however, unconsciousness is deep but the patient can still be roused, the indication is less definite. Much will depend on the presence or absence of a tendency to an increase of unconsciousness. In any doubtful case the most careful watch should be kept for any increase in the degree of unconsciousness, and as soon as this has been clearly determined, an operation should be performed. The surgeon should act also in all cases in which, whether the patient be only lightly or deeply unconscious, there has been a rapid increase in the degree of unconsciousness, or a distinct increase of paralysis of the extremities within the course of a few minutes or hours after the injury. Delirium without unconsciousness, the author holds, contraindicates operation or indicates that the surgeon should not operate at once. Localised cerebral irritation as evidenced by clonic convulsions, either general or local, is not, it is believed, a common sign of head injury. In cases in which there is no history, convulsions render it probable that the case is non-traumatic, or that some ordinarily non-traumatic condition has been set up by the injury. In cases in which there is no evidence of paralysis, and no pupillary symptoms are presented, the surgeon must consider the general condition of the patient. As a rule, the author would advise operation in any case in which the patient (an adult) could not be roused by supraorbital pressure and the pupils do not react to light. In all conditions of lasting unconsciousness, stupor, and coma, there is, the author asserts, an increase of intracranial pressure. Such pressure is not always due to hæmorrhage, but in many instances is the result of a swelling of the brain analogous to the so-called acute cerebral œdema. In such instances the author would recommend a large opening—at least 2 inches by 1—in the skull, and incision of the dura mater. There is no more danger, he holds, in opening this membrane under proper antiseptic precautions than in opening any other serous cavity. The operation should be performed as rapidly as possible. In children many deaths are caused in operations of this kind by loss of time. In adults the consequences are not, as a rule, so serious; still, next to asepsis, time is probably the most important factor in the success of an exploratory cranial operation.

(457) The Treatment of Hydrocele.

THE treatment of hydrocele by the injection of irritating substances is sometimes very painful. The use of cocaine as a local anæsthetic in the ordinary way not being free from danger, Nicaise has since 1889 (Acad. de Méd., June 4th; *Sem. Méd.*, June 5th) employed the following method:—The usual antiseptic precautions being taken, the hydrocele is punctured with an ordinary trocar; about one-third of the fluid is allowed to flow away, then 3 to 4 c.cm. of a 1 per cent. watery solution of cocaine is injected into the bulk of the serous effusion remaining in the sac, through the cannula of the trocar with a syringe of the capacity of 4 c cm. The scrotum is then gently manipulated, and after waiting four or five minutes the remainder of the serous fluid is drawn off. Next tincture of iodine, either pure, or mixed with one-third of water, according to the age of the hydrocele and that of the patient, is injected. The scrotum is again gently manipulated, and after four or five minutes the iodine is allowed to escape. The operation done in this manner is painless. The method has the advantage of utilising a natural aseptic fluid as the excipient of the injection. Moreover, the quantity of cocaine absorbed by the serous surface is less in the case of a serous solution than of a watery solution of the medicament of the same strength.

(458) Treatment of Fractured Femur by Suture.

WALTHER (*Rev. de Chir.*, May) has recently communicated to the Société de Chirurgie of Paris the case of a man who in falling from a wagon received a severe injury to the knee. The lower end of the femur was broken into three fragments, and the tibia was displaced backwards. The internal condyle remained attached to the tibia, and had been carried backwards with the head of this bone. Walther, finding that the reduction and coaptation of the fragments of the femur would be attended with much difficulty, opened the knee by a long incision on the antero-internal aspect of the joint, placed the osseous fragments in contact and in their normal relations, and fixed them together by sutures. The patient made a good recovery. Twelve months after the operation the knee was still slightly swollen, and the injured limb a little shorter than the other, but the patella was movable, and the leg could be freely flexed and extended by the patient, who was able to walk without any difficulty, and to follow his occupation of floor-making. The result, the author holds, is certainly far superior to what would have been obtained by practising the ordinary treatment of fracture.

MIDWIFERY AND DISEASES OF WOMEN.

(459) The Cold Bath in Puerperal Septicæmia, and for High Temperature in Pregnancy.

FOCHIER, of Lyons (*Progrès Méd.*, May 25th, 1895) raised a discussion on this subject when reading notes of a case in which toxæmia existed during pregnancy. She had seen no period since her first confinement six years previously, and mental symptoms developed. When the second pregnancy set in the sight failed. Milk diet was enforced. Eclampsia occurred, and notwithstanding palliative treatment the

temperature rose above 105°, the pulse could not be counted, and breathing was stertorous. The patient was placed in a bath at 77° F. Within ten minutes the pulse fell to 100, then to 80. The patient came to her senses, and was removed from the bath. Two hours later she was again placed in the bath, this time at 90°, and cold affusions were applied to the head for half an hour. The patient recovered. Gaulard mentioned a labour case in which a student conveyed septic infection. After delivery a rigor occurred, the temperature rose to 104°; the curette was used, and the temperature then rose to 106°. For a fortnight cold baths were given, the temperature being lowered till it stood at last at 68°. Suppurative parotitis developed during this treatment. Gaulard asked Fochier if the latter was not the cause of the ultimate cure of the patient. Both the cold bath and the provocation of abscess at a fixed spot were methods practised in the Lyons lying-in hospitals. Gaulard had tried the abscess method, and found that the results were not satisfactory. He once injected turpentine subcutaneously, but the patient died with two enormous phlegmons. Fochier remarked that the cold bath should never be administered when the temperature oscillates, but only when it keeps high for a long time. This method requires greater precautions in high temperature during pregnancy and childbed than in the treatment of typhoid fever, where there are none of the great falls of temperature so frequent in disorders of gestation.

(460) Primary Cancer of Omentum complicating Fibroid of Uterus.

PICK (*Deutsche med. Wochenschrift*, April 11th, 1895) exhibited at the end of 1893 two growths, each as large as a fist, which he had removed from a woman, aged 46, when performing hysterectomy for myoma. He found that they were distinctly cancerous, and diagnosed primary cancer of the omentum. Virchow admitted that they were cancerous, and agreed with Pick that they were independent of the uterine tumour. He advised close watching of the patient to confirm the diagnosis, lest some primary tumour of the alimentary canal might be overlooked. The patient died in November, 1894, a year after the operation. It was found that the omentum was really the seat of the primary disease. There were metastatic deposits in the parietal and visceral peritoneum, the mesenteric and lumbar glands, the left pleura and the coats of the stomach. The cancer was of the endothelial type.

(461) Dangers of the Curette.

PICHEVIN (*Ann. de Gynéc. et d'Obstét.*, May, 1895) believes that the curette is high value, but the more it is employed the more its dangers must be borne in mind. Abortion has been produced, and even relatively advanced pregnancy has been mistaken for simple enlargement of the uterus or interstitial fibroid, to the dismay of the operator. Septic troubles have followed the use of this instrument, but with antiseptics this accident is very rare. Far more insidious is the danger from overlooking pelvic abscess: a pyosalpinx has been burst with fatal results. Uterine atresia due to abuse of the curette has been noted by two authorities only. The most probable and frequent accident is perforation of the uterus by the curette itself. In 1854 Richard, a great supporter of Récamier, noted a case of perforation. It was soon found that, as in the case of perforation by the uterine sound, the results were far less serious than theory would lead one to suspect. Still there is no fear that the operator, discovering the accident, will think it a trifle. As to the causes, softness of the uterine tissues, especially in the puerperium, greatly increases the chance of perforation. The uterus, in some reported cases, may have been wounded by the dilator before the introduction of the curette, which then receives blame which it does not deserve. Ignorance and roughness have certainly been the sole causes of the accident in some instances. One operator confessed that he once sent the curette clean through the uterus, till the handle lay so deep that it could not be withdrawn without the aid of a long-handled forceps. The walls may have been soft, but no doubt there was want of caution in this case. As a rule the perforation takes place close to one of the cornua. Turning to diagnosis, Pichevin notes that in one case, in which perforation was suspected, the curette had simply slipped into an abnormal cornu. The theory of catheterisation of the Fallopian tube has been brought forward to explain certain cases where the curette has slipped far into the patient's body without evil results. The phenomenon itself, however, has seldom been satisfactorily demonstrated, even in the case of the uterine sound. Symptoms of perforation vary from total absence to the most alarming subjective and objective conditions, such as profound collapse and the appearance of a coil of intestine at the vulvar orifice. Hence there is no rule for treatment. Pichevin holds that hysterectomy is too severe a measure in an average case. When the curette has penetrated the wall, and the antiseptic solution injected during the scraping process has entered the peritoneal cavity, Douglas's pouch should be opened and drained.

(462) Acquired Atresia Vaginæ.

BLENK (*Centralbl. f. Gynäk.*, No. 14, 1895) relates in a thesis the case of a girl who became pregnant; in order to procure abortion she allowed a solution of a mineral acid to be injected into the vagina, but without the intended effect. At labour the atresia could not be overcome, and craniotomy was necessary. The child weighed nearly 7 lbs.

(463) Syphilis and Suckling.

EUDLITZ (*Arch. Gén. de Méd.*, May, 1895) relates a very grave case of contagion of this kind. Twenty-three years ago a woman suckled the syphilitic child of another mother. A chancre developed on her nipple; her own child became infected. The results were particularly disastrous to him, for though he is now 23 years old he is absolutely devoid of hair on the face, the genitals are undeveloped or rather atrophied, and he is in other respects quite a child.

THERAPEUTICS.

(464) The Serum Treatment of Cancer.

FREYMUTH (*Deutsch. med. Woch.*, May 23rd) has employed the treatment described by Emmerich and Scholl (EPITOME, May 11th, par 367) in two cases. In one of these (epithelioma of the tongue) the patient was *in extremis* and the treatment did not avert death. The tumour itself, however, was greatly modified, appearing to undergo a kind of semifluid caseous transformation. In the second case (recurrent sarcoma of the upper jaw) the patient developed during the treatment a genuine erysipelas, which he communicated to his wife who was nursing him. He bore the attack well, however, and here also the effect of the serum treatment on the tumour was very remarkable. The illness of the wife shows that the serum is to be used with the greatest care.—P. Bruns (*ibid*, No. 20) having seen for himself the good effect which erysipelas has on certain cases of cancer was readily induced to try the method of Emmerich and Scholl. He injected the serum in six cases of malignant tumour, but his results were disappointing. He noticed no diminution in the size of the growths; on the other hand the treatment caused considerable respiratory and circulatory disturbances. In all the cases there was a rise of temperature proportionate to the amount of serum injected, with systemic disturbances. In one case the temperature remained high for eight days, and the patient complained of severe pains in the limbs. The cause of these accidents was that the serum had not been properly sterilised; after a few days it showed albuminous flakes and cocci.

(465) Serotherapy in Rabies.

TIZZONI AND CENTANNI (*Gazz. degli Osp.*, April 20th, 1895) have been experimenting with antirabic serum for the last six years, and find that the serum treatment has conspicuous advantages over the Pasteur method of vaccination. They could readily immunise a rabbit by subdural injection of serum twenty-four hours before infection, and even after infection could save the animal provided the proper neutralising dose was injected. The serum acts very much more quickly than vaccination; even a few minutes after injection the blood acquires an immunising property. Moreover, as the serum may be dried and still preserve its properties it can be managed much more easily, and can be sent out more readily. There are no evil effects associated with its use, and as it is easily soluble and assimilable

very little local irritation occurs. Economically it presents decided advantages over the Pasteur vaccine. As the result of experiments on rabbits the authors recommend that for a man of 70 kilos. the curative dose of serum, directly after a bite, should be 20 c.cm. of their antirabic serum, equalling 2.5 g. of the dried product. From the fourth to the fifteenth day after a bite this quantity should be doubled, and in each case it is advisable to divide the dose into three separate injections, giving half the total quantity in the first injection.

(466) The Thyroid Treatment.

STIEGLITZ (*N. Y. Med. Journ.*, May 4th, 1895) relates some curious cases. (1) A girl, aged 22, was suffering from disease of the nails, for which she had been treated for more than a year. The nails were of a brownish hue, rough, irregular, and misshapen. The skin of the hands was rough to the touch and slightly puffy. There were no signs of myxœdema. After one month of thyroid treatment the nails were shed and also part of the hair. Two months later well-developed nails had grown; the growth of hair had also become more profuse. (2) In a girl, aged 17, sister to the above, the same result was noted, but only one nail was diseased. These two cases show that thyroid feeding stimulates the growth of nails. (3) A woman, aged 33, had a patch of circumscribed scleroderma on the inner side of the right leg. Arsenic had been given for some time without result. Ultimately a very great improvement was noted in the patch under thyroid treatment. Perhaps the change for the better was coincident, but the disease had been steadily progressive until the treatment was adopted. (4) A girl, aged 23, had progressive facial hemiatrophy. Twitchings of the face, including both clonic and tonic spasms, occasionally seen in this disease, were present. The author was led to try the thyroid treatment because of the resemblance of the skin in this disease to the second or atrophic stage of scleroderma and also because scleroderma has been associated with facial hemiatrophy. Beyond a temporary cessation in the spasms no results were obtained. The author does not discuss these cases, but merely relates facts with the view of helping to throw light on the remarkable relationship between the thyroid gland and the structures of the skin as well as the nervous system.

(467) Lavage of the Stomach with Bismuth

FOURRIER (*Presse Méd.*, April 10th, 1895), at the Société Médico-Chirurgicale, March 31st, 1895, described a new method of treating ulcerative affections of the stomach by introducing into it through the stomach tube 2½ to 3 drachms of subnitrate of bismuth suspended in 15 ounces of water. The stomach is first cleared as far as possible of mucus, food, etc., by washing it out with a simple solution of bicarbonate of soda in the ordinary way. The bismuth and water, continually agitated to prevent premature deposition, is then rapidly introduced and allowed to remain ten minutes, the tube meanwhile being removed. The heavy bismuth salt is then allowed time to deposit on the inflamed and ulcerated mucous membrane of the stomach. The procedure is concluded by carefully withdrawing the water, which should come away clear, leaving the bismuth behind. Several cases are recorded in which the relief afforded by this method of applying bismuth was prompt and marked after all other remedies, including simple lavage, had been unsuccessful. The cases for which it proved most efficacious were those of chronic ulcerative gastritis the result of alcoholism, but it is also useful in the simple round ulcer of chlorotic girls. In gastritis without ulceration the beneficial result is much less decisive, and in these cases it is probably inferior to other modes of treatment.

(468) The Febrile Reaction after Tuberculin.

MATTHES (*Centralbl. f. inn. Med.*, April 20th, 1895), has previously proved that albumoses may produce the same reaction as tuberculin when injected in sufficient doses even in healthy animals. It has also been shown that albumoses and peptones are present in tuberculous lesions, especially when caseating. When albumoses are injected, they produce hyperæmia in parts where like bodies are present. If healthy animals are given albumoses a marked hyperæmia is produced in the alimentary canal, but if the animals are previously starved no such effect is produced. When tuberculin is injected, the reaction is due to the escape into the blood of the albumoses present in the tuberculous tissues. The only part of the body in which albumoses and peptones are present in health is the alimentary canal, and no albumose as such gets into the circulation under normal conditions. A further proof of the above view is that albumoses are found in the urine. The fact of becoming accustomed to tuberculin can thus also be explained, namely, the albumoses have already escaped from the tuberculous tissues owing to the repeated doses.

PATHOLOGY.

(469) The Pathogenic Action of Blastomycetes.

SANFELICE (*Il Policlinico*, March 1st, 1895) describes a form of blastomycetes found in some fermenting fruit sugar, inoculation of pure cultures of which into guinea-pigs, etc., gave rise to tumours resembling carcinomata. The blastomycetic cells presented a complete morphological identity with the so-called coccidia found in certain malignant tumours. The author injected pure cultures of the blastomycetes into the mammæ of a dog and the comb of a cock, and, killing the animals after a few months, found hard resistant greyish-white nodules, made up of new cells containing blastomycetes here and there; enlargement of inguinal and mesenteric glands and of lymphatic follicles of intestine; nodules on surface of kidneys and slight enlargement of the spleen. In the dog the blastomycetic cells were never found free, but always included within the cells; in the cock free cells were observed, especially in fresh preparations. The cells in the new formations were dispersed in a manner such as to remind one strongly of carcinoma. The author succeeded in double staining the preparations so as to exhibit the blastomycetes green or violet on a red ground. No inflammatory reaction was noticed around the new growths.

(470) A Ptomaine in the Urine of Cancerous Patients.

GRIFFITHS (*Comptes Rendus de l'Acad. des Sciences de Paris*, vol. cxviii, p. 1350) describes a ptomaine extracted from the urine of cancerous patients. It is a white substance, crystallises in needles, and dissolves in water with an alkaline reaction; it gives a brown reaction with Wessler's reagent. It is very poisonous, and injected into the veins leads to fever and death in three hours. It is not present in normal urine.

(471) The Diphtheria Bacillus.

ABEL (*Centralbl. f. Bakt. u. Parasitenkunde*, May 4th, 1895) relates his researches into the action of winter cold upon this micro-organism. He first draws attention to the propagation of the disease directly from individual to individual, and also by means of utensils, etc. The first is a much more common mode of propagation than used to be admitted. During winter an increase in diphtheria is often noted. Experiments were made by the author from three sets of material. In each case serum tubes of four days' growth protected from light were placed both in the open air and in a room at 15° to 22° C. Sterilised silk threads were soaked in the water of condensation of a well-developed cultivation and dried, some being placed in the open air and some left in the room. It was found that the vitality of both cultures and threads diminished more rapidly in the open air than in the room. The vitality was lost first in case of the infected threads. It was, however, also shown that diphtheria bacilli can retain their vitality for some months in the open air. It is not to be supposed that they could live the winter through if dried in a thin layer; a comparison with the silk thread experiments would show that they could hardly live more than two months. It is still to be ascertained whether bacilli embedded in masses of mucus are more resistant. The virulence of these bacilli was found not to suffer from the cold. Even after sixty-eight days' exposure they had only lost slightly in virulence, and rather less so than in the case of those kept indoors.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(472) Carcinoma of the Liver.

GILBERT AND CLAUDE (*Arch. Gén. de Méd.*, May, 1895) record the following case: A girl, aged 22, began to fail in health about ten months before her death. A month later she had attacks of gastralgia, and after one of these the conjunctivæ were yellow. The jaundice became more marked, the itching more troublesome, and the strength more impaired. Two months later the liver was found enlarged. The disease was supposed to be biliary colic, and during the next few weeks the general condition improved, but later the jaundice became intense, the appetite was impaired, and epistaxis supervened. The surface of the liver was smooth, and the left lobe protruded in the epigastrium. Owing to the steady progress of the disease an operation was undertaken in the hope of finding an impacted calculus. The liver was found to have a deep green colour, with small whitish nodules on its surface; enlarged glands were felt. Exploration of the gall bladder, cystic duct, and common bile duct was negative. A cholecystenterostomy was done. After lingering for three weeks the patient died without any real improvement in the jaundice. At the necropsy the enlarged liver presented not only the above-named nodules, but also a large mass of growth of the size of the fist protruding from the upper surface of the right lobe. The gall bladder was unaltered. The common bile duct was of normal size in its lower parts, but dilated to the size of the thumb above. Here it was occupied by a mass of growth very slightly adherent to its walls, and extending up to the hepatic ducts. It could be further traced up the right hepatic duct, and eventually terminated in the large mass of growth above-mentioned. This primary growth had split up and followed the bile channels. The microscope showed these growths as well as a secondary deposit in the lung to be carcinoma proper and not adenoma. The authors draw attention to the anomalous clinical course and to the difficulties of diagnosis. There were many reasons against growth. Fragments of the growth had probably become detached and, escaping into the bile channels, had produced the symptoms of biliary colic. The obstruction of the channels caused the jaundice. The glands in the hilum of the liver were enlarged, and pressing on the vessels had caused the circulatory disturbances. There was some degree of cirrhosis of the liver consecutive, in the authors' opinion, to the carcinoma.

(473) Gastric Erosions.

MAX EINHORN (*Berl. klin. Woch.*, 1895, Nos. 20 and 21) briefly records seven cases, after referring to the literature of the subject. The most characteristic fact noted was that the water used for washing out the stomach in the fasting state contained one to four small pieces of mucous membrane. In these could be seen well-preserved glands and collections of blood cells. They could not have been produced by any injury inflicted by the tube, as a soft tube was used and no aspiration practised. Again, the constancy of their presence was also against such an origin. The chief symptoms noted are pain, wasting, and a feeling of weakness. The pain is not intense, and occurs after food, without special reference to articles of diet. There are intervals quite free from pain. There is no cachetic appearance with the wasting. As regards the gastric juice, there was a diminished secretion of hydrochloric acid, and a lessened total acidity in six cases, and in two of these there were considerable quantities of mucus. A chronic gastritis was thus present in all these cases. In the seventh case there was hyperchlorhydria. In only one case was the water used for the washing out slightly blood stained. The small portions of mucous membrane must have been completely detached or nearly so before the washing out. As regards etiology, gastric catarrh was nearly always present, but there may be other causes as yet unknown. The course of the disease is prolonged, and there may be intervals of apparent health. Although these erosions might be thought to favour the development of ulcers, this does not appear to be the case. In only one case was the presence of ulcer even to be suspected. The local treatment is important. The author employs a stomach spray, using 10 c.cm. of a 1 to 2 per thousand solution of argentic nitrate. The effect of the treatment is often striking. He also employs galvanism, at times alternating it with the spray. A rigorous diet is not necessary. Frequent meals, with the avoidance of heavy vegetables, salads, and puddings, are recommended. Condurango, nux vomica, an easily assimilated preparation of iron, are of value, but the local treatment is the most important.

(474) Functional Disorders of Digestion.

AT the recent meeting of the American Medical Association, J. H. Kellogg read a paper (*Med. News*, May 18th, describing certain "new methods of precision" in the investigation of functional disorders of digestion. From observations covering 4,000 cases, he found that the failure to digest starch is one of the most common features in dyspeptics. He commented upon the large amount of sugar found present in the stomach fluid, 7 or 8 drachms per 100 c.cm. of stomach fluid being frequent. He also noted the interesting relation between starch conversion and proteid digestion. He found 6 cases of complete apepsia in which there was no free hydrochloric acid in the stomach, and the coefficient of proteid digestion was absolutely *nil*. He presented the results of a number of tests that he had made as to the influence of various acids on the salivary digestion of starch. He found that it required the following quantities of different acids to neutralise completely the effect of the salivary action: Oxalic acid, 1 part to 10,000; hydrochloric acid, 1 part to 4,000; lemon juice, 1 part to 200; and vinegar, 1 part to 200.

(475) Sclerema Neonatorum.

HERMANN SCHMIDT (*Zeitschrift f. Geburtsh. u. Gynäk.*, vol. xxxii, Part II, 1895) relates three cases. As in those already recorded, the integuments were tense and swollen, the affection beginning in the lower extremities and extending to the trunk and arms. The skin of the chest was scarcely affected, and the face involved only to a trifling extent. The temperature always fell, and could not be kept up by artificial means; hence the patients all died; they were already sickly, and one was premature. The difficulty in moving the limbs and the trouble experienced in feeding them added to the causes of death. There were hæmorrhages in the muscular substance of the heart, and also in the pulmonary vesicles. Partial atelectasis was observed in both lungs. Schmidt detected bacteria in the blood of all the cases, and found that these microbes blocked the capillaries of the skin and the subcutaneous fat, which was increased, or at least thicker, owing to œdema and thrombosis of its vessels. The blood effused in the lungs and heart also contained bacteria. Schmidt admits that he could discover no specific type, but believes that the evidence confirmed Runge and Baginsky's opinion that sclerema neonatorum is to be traced to infection from germs.

SURGERY.

(476) Lumbar Choledochotomy.

TUFFIER, at the meeting of the Société de Chirurgie de Paris on May 15th (*Gaz. des Hôp.*, May 18th, 1895) said that the many difficulties and dangers which he had met with in the performance of operations upon the biliary passages had induced him to suggest a new method of operation which he thought was applicable to cases in which the common duct was the seat of lesion. The method was suggested to him by an experience which he had when exploring a tumour in the renal region through a lumbar incision. After the right kidney had been fixed to the ribs, the common bile duct and the gall bladder (both of which were filled with biliary calculi) were easily felt as a tumour, immediately in front of the kidney. This induced him to carry out a series of researches upon the dead body, from which he drew the following conclusions:—He says that the common bile duct, the second portion of the duodenum, and the posterior surface of the pancreas lie outside the peritoneum, and on this account the common bile duct can be exposed by the following surgical procedure: The patient is placed on his left side, a pillow having been placed underneath the

loin. An incision is made parallel to the twelfth rib, and one finger's breadth below its lower border, commencing at the angle, and passing inwards for about 15 cm., and is deepened until the lower extremity of the right kidney is defined: this is pushed upwards with a broad retractor. The inferior vena cava is raised and pushed inwards, and the second portion of the duodenum along with the head of the pancreas is drawn outwards. By means of the finger a cord can now be felt at the bottom of the wound, which passes upwards, and consists of the common bile duct and its accompanying vessels. By careful dissection that portion of the common bile duct which lies in the pancreas and behind the duodenum can be isolated and examined. The author has performed this operation in ten bodies, and in no case failed to find the duct. This method of operation is also suggested as being a possible way of evacuating purulent foci situated in the pancreas. In the discussion which followed the paper, many anatomical objections were raised as regards the possibility of performing the operation. The most important of these was the liability to injure the inferior vena cava, the pancreas, the portal vein, or the hepatic artery.

(477) Appendicitis.

At the recent meeting of the American Medical Association, J. B. Deaver, of Philadelphia (*Med. News*, May 11th, read a paper on this subject. He insisted on the use of the term "appendicitis," and the avoidance of confusion from the use of the designations "typhlitis" and "perityphlitis." The diagnosis was based upon the initial pain, the gastric disturbance, the situation of the point of greatest tenderness, the torpidity of the bowel, following closely upon the ingestion of indigestible substances or even of digestible substances when the integrity of the gastro-intestinal mucous membrane has been impaired, as from sudden exposure to cold, fright, grief, etc.; together with rigidity of the lower right quadrant of the abdominal wall, nausea, or vomiting, a disposition to flex the thighs upon the abdomen, restricted abdominal respiration, increased pulse-rate, elevation of temperature, intense thirst, pain referred to the back, and abdominal distension. The causes of appendicitis included the presence of foreign bodies, indiscretion in diet, exposure to cold or wet, occlusion of the lumen of the appendix from various causes. As all inflammations of the appendix were septic, drainage was essential for recovery. Early operation was a conservative and not a radical procedure. The proportion of cases in which but one attack occurred and was followed by recovery was exceedingly small as compared with those in which the attack was repeated and a condition of invalidism existed in the interval. Early operation was, as a rule, a comparatively simple abdominal procedure. Operation at the end of an attack or in an interval was usually more difficult. Remonstrance was made against the median incision, first, on anatomical grounds, and second, because the peritoneal cavity could not so well be protected against infection. The two incisions to be considered were that through, or immediately to the inner side of, the linea alba (not cutting the rectus but pushing it inward); and that through the abdominal walls according to the method of McBurney. In any event the incision should be small. In the discussion, Murphy, of Chicago, laid particular stress on making the diagnosis at once, and operating, if possible, within twelve hours after the commencement of the illness.

(478) Laparotomy and Penetrating Wounds of the Abdomen.

Filippo (*Rif. Med.*, April 18th and 19th) reports a series of 13 cases of abdominal injury with penetration in which laparotomy was performed. In 6 in which the operation was merely exploratory, speedy cure resulted; in in 5, one or more wounds of the intestines or stomach were found, and of these 1 died, owing to the fact that one wound was overlooked at the time of operation. In 2 cases the left lobe of the liver was injured, and there was copious hæmorrhage; of these, 1 is alive, the other died 33 days after operation from pneumonia. The author concludes that laparotomy, as a rule, gives good results in these cases, if done early. During the operation all the abdominal viscera should be most carefully examined, lest any small wound be passed by. Lavage of the abdominal cavity with some antiseptic useful. Subsequent ventral hernia not to be dreaded, whether incision is made *in situ* or in the linea alba. Suppuration of the abdominal walls is a not infrequent sequel after laparotomy for penetrating wounds.

(479) Intracranial Resection of the Fifth Nerve.

At the German Surgical Congress on April 19th, Krause, of Altona, related two cases in which he had resected the fifth nerve by an intracranial operation (*Münch. med. Woch.*, No. 20, 1895.) He says that removal of the ganglion is preferable to excision of the three parts of the nerves, and that it is not more difficult or dangerous, whilst it is more efficacious. He says that Rose's method does not allow sufficient room for the performance of the necessary procedures, that it makes arrest of hæmorrhage difficult, and that the Eustachian tube may be ruptured and cause infectious meningitis. In performing the operation Krause advises that a portion of the squamous portion of the temporal bone should be removed, and the cranial cavity opened. Next the middle meningeal artery is ligatured, and the dura mater carefully detached from the bone. In this manner the Gasserian ganglion is exposed and removed. It may be adherent to the meninges, and if great care is not taken they may be injured or the cavernous sinus opened. If the latter happen the hæmorrhage must be arrested by packing with gauze, and further operation desisted from. One of the patients was a woman, aged 66, and after the operation she had complete paralysis (sensory) on the affected side of the face. There was no keratitis, although the cornea was insensible. The cure of the neuralgia was complete, and two years after the performance of the operation there had been no recurrence. The second case was also successful.

MIDWIFERY AND DISEASES OF WOMEN.

(480) Diagnosis of Ureteral and Renal Diseases in Women.

In a paper read at the recent meeting of the American Medical Association (*Med. News*, May 11th) Howard A. Kelly considered three methods of diagnosis: (1) inspection, (2) catheterisation of the ureter, (3) catheterisation of the pelvis of the kidney itself. 1. *Inspection* is carried out as follows: (*a*) The patient urinates. (*b*) She is placed in the knee-breast position. (*c*) A 10 per cent. solution of cocaine is applied to and within the urethral meatus for five minutes. (*d*) The orifice is dilated, when necessary, with a single conical dilator up to nine or ten (these measurements always mean millimetres in diameter). (*e*) A simple cylindrical vesical speculum provided with an obturator is next introduced into the bladder, and the obturator withdrawn, when the bladder at once balloons out with air. (*f*) The examiner, with a head mirror on his forehead, now reflects into the bladder a light (preferably electric, held as near the sacrum as possible). (*g*) By turning the speculum thirty degrees to right or left, and dropping the handle, the ureteral orifice comes into view. The inspection shows: (1) The appearance of the orifice and its surroundings. In inflammatory disease of the ureter or kidney this is often red, œdematous, puffed out, mammillated, or even slightly ulcerated. In tuberculous disease descending from the kidney the infection may be seen thickly strewed over a triangular area, with its apex at the orifice. (2) The character of the fluid seen issuing from the orifice will often settle the diagnosis and determine the plan of treatment. In cases of hæmaturia and pyelonephritis there is no difficulty in picking out the affected side, and seeing, by the clear urine issuing from the other side, that it is sound. When no discharge takes place it may be started by compressing a renal tumour bimanually. (3) The urine normally flows in intermittent jets of a clear, limpid fluid. If one side discharges in this way and nothing comes from the other, there must be some obstructive disease. Pus accumulations, when they escape, are likely to flow in a continuous sluggish stream. It is possible to catch the urine as it escapes directly in the speculum, and take it up for a microscopical, chemic, and bacteriological investigation, without once passing a catheter into the ureter. 2. *Catheterisation of the Ureters.*—Atten-

tion must be paid to the following details: (1) An aseptic speculum. (2) cleansing the ureteral orifice with a pledget of cotton held in Kelly's mouse-tooth forceps, (3) a sterile catheter not contaminated by handling, (4) avoidance of contamination of the catheter during the introduction, (5) placing the sterilised outer end (protected up to this time with a piece of rubber tubing) in a test tube, to collect the urine as it flows from the ureter without contamination. Kelly uses three kinds of catheters: First, and by preference, a flexible silk catheter, 30 cm. long and 2 mm. in diameter, which is engaged in the orifice of the ureter, and pushed in for 12 or 15 cm., and left there to drain the ureter as long as desirable; secondly, a simple straight metallic catheter, which is more likely to bruise the ureter; thirdly, a short metallic catheter, introduced entirely within the ureter and bladder, but discharging through the ureter by a fine rubber tube. Both ureters are easily drained at the same time with the flexible catheters. By noting the time the catheter is put in and taken out the rate of flow is determined; and by the chemical, microscopic, and bacteriological study the relative value of the kidneys is settled. The urea estimation often differs so widely that it may be expressed by such a formula as this: Right kidney=r.; left kidney=l.; r:l::3:10::30:100. 3. *Catheterisation of Kidney.*—For this Kelly has made renal catheters 50 cm. long, which are kept sterilised in glass tubing, and when introduced are simply drawn out of the tubing as they are pushed into the ureter. In this way he has drawn pus out of a kidney, evacuating a large renal abscess, and by reversing things he has forced in solutions and washed out the pelvis, curing a pyonephrosis.

(481) Aseptic Treatment of the Remains of the Umbilical Cord.

GRÓSZ (*Wien. klin. Rundsch.*, May 12th, 1895) found that normal separation of the cord took place in only 96 out of 444 cases, in spite of the aseptic treatment. There was more or less sloughing of the cord in 250 cases, a degenerative fraying out without sloughing in 49, ulcus umbilici in 19, fungus umbilici in 21, profuse suppuration of the proximal end in 5, and in 4 the separation was unduly prolonged. The temperature was raised in 26 cases only of the 444, while the umbilicus healed normally in only 8 of these. One case ended fatally with symptoms of septicæmia, although there had been only a very small slough on the cord. Conclusions: (1) Fever may be present during normal healing of the umbilicus; this is probably due to an infection of the navel, while the cord may slough without fever—that is, without general infection of the organism; (2) the 1 fatal case shows that the possibility of sepsis is as much present in newborn infants as in puerperal women; (3) it is therefore necessary to take all possible precautions to guard against this infection.

(482) Antistreptococcic Serum in Puerperal Septicæmia.

JACQUOT (*Presse Méd.*, May 18th) communicated to the Société de Biologie the case of a woman attacked by puerperal septicæmia in which intra-uterine injections and quinine were without effect. The symptoms persisted and the evening temperature reached 40.8° C. He then injected 30 c.cm. of Roger and Charrin's antistreptococcic serum. The same evening the temperature fell to 37° C. After three injections of the serum the patient seemed well, when, three days later, her mother contracted facial erysipelas. This seemed to be the origin of a new infection, for in two days the convalescent had a severe rigor and the temperature again rose to 40° C. Only one other injection of the serum, however, was required to arrest the process, and there was no further relapse. Jacquot remarks that this case, while showing the favourable action of the serum in puerperal septicæmia, and notably on the temperature, further illustrates the reciprocal relationship which exists between this disease and erysipelas.

(483) Permanent Effect of Hydrastinin in Metrorrhagia.

KALLMORGEN (*Zeit. f. Geburtsh. u. Gynäk.*, May 29th, 1894) remarks that, while no doubt can remain as to the value of hydrastinin in metrorrhagia, reports are hitherto wanting as to the permanency of the results. He kept 86 patients of the Berlin Gynæcological Policlinic under observation during 1¾ to 2¼ years after treatment with the drug. The best results were obtained in cases of simple menorrhagia and of hæmorrhage connected with retro-uterine hæmatocele, previous abortion, or disease of the appendages. The success was less marked in chronic endometritis, very doubtful in hæmorrhage during pregnancy or due to myoma, and *nil* in carcinoma.

THERAPEUTICS.

(484) Serum Treatment of Diphtheria.

GIABRÉ (*Lo Sperimentale*, April 21st, 1895) gives details of a second series of cases, 29 in number, treated with the serum. The youngest patient was 14 months, the eldest 11 years old. In 16 the lesion was situated in the pharynx, and in 13 it spread to the larynx. Loeffler's bacillus was found alone in 9 cases, and associated with other micro-organisms in 20. Sixteen cases were treated with Behring's serum, and 13 with an Italian serum which was not less efficient. There were no other ill-effects than a skin eruption in 5 cases. Local treatment with Loeffler's solution was adopted as often as possible. Of 16 cases of diphtheritic angina, 14 recovered and 2 died (mortality 12.50 per cent.). Symptoms of other intoxication were present in both fatal cases on admission. Enormous swelling of the glands was noted, a sign to which the author would attribute an unfavourable prognostic significance. In 4 cases the symptoms of croup rapidly disappeared. In 3 there was transitory albuminuria, and in 1 a passing arhythmia, but in no case was there paralysis. In the youngest child the disease was most severe, and the author attributes the recovery to the treatment. In the cases of diphtheritic croup, 8 out of 13 died (a mortality of 61.53 per cent.). The patients were admitted from the third to the twelfth day of the disease. In all 8 fatal cases, albuminuria was present before the injection; 5 died within twenty-four hours of admission, and 2 within forty-eight hours after the injection. In 7 there were evidences after death of advanced intoxication. The author would not attribute the want of success to the inefficacy of the serum, but to its being used too late. He draws special attention to the importance of early treatment. Perhaps the serum recently sent out is hardly as powerful as formerly. Six died of 9 injected with the serum obtained from Höchst. The character of the epidemic must also be considered.—DASTROS (*Méd. Mod.*, April 20th, 1895) reports the results in 96 children treated with the serum. 34 were cases of pharyngeal diphtheria; 8 deaths = mortality of 23 5 per cent; 38 were cases of croup, with or without angina; 13 deaths = a mortality of 34 per cent. Among these latter cases 8 recovered without operation; in the remaining 30 intubation was found necessary; and all the fatal cases were in this category. The serum was used in 26 non-diphtheritic cases of croup and angina, with only one death.

(485) Sublimate Injections.

G. LEWIN (*Berl. klin. Woch.*, 1895, No. 14) concludes his remarks on this subject. As regards skin eruptions, he knows of no cases in which any serious cutaneous affection has followed the injection of soluble or insoluble mercurial preparations. Severe and even fatal skin complications have followed inunction; eczema is very common. In his method of sublimate injections 0.012 g. is injected daily, whereas insoluble preparations are injected every five to ten days. The smaller number of injections is only an illusionary advantage. With inunction patients have been known to rub in more than the prescribed amount with even serious results. With the sublimate injections the treatment may be interrupted, whether such interruption is desirable owing to the supervention of some acute infective illnesses or to other causes. This is not so easily effected with insoluble preparations. If the syphilitic manifestations become threatening, the treatment may be forced and the sublimate injections given even thrice daily, whereas with inunction and the injection of insoluble preparations increased absorption cannot be depended upon. The treatment with insoluble preparations is not shorter, but frequently longer. The author then discusses the subject of relapses and the difficulties attending the estimation of relapses. Among

those at present frequenting his clinic, 5 out of 120 men have had malignant relapses, and of these, 1 had been treated with sublimate injections, 3 with insoluble preparations, and 1 with potassium iodide. Among 195 women, there were also 4 such cases, and 2 had been treated with inunction, 1 with subcutaneous injections, and 1 had not been treated. The author refers to 15 recorded cases of death after the injection of insoluble preparations. He also gives details of some deaths connected with mercurial inunction, mostly due to colitis. He is of opinion that the injection of insoluble preparations should be abandoned. He knows of no case in which death followed sublimate injections.

(486) The Treatment of Tuberculosis by Creasote and Peppermint.

At the recent meeting of the American Medical Association, De Lancey Rochester (*Med. News*, May 11th), presented a report of 34 cases of pulmonary tuberculosis treated by peppermint inhalations with creasote internally, according to the plan recommended by Carasso (see Epitome, December 9th, 1893, par 478). The Italian practitioner reported 44 cases with 38 recoveries and 6 deaths. The average duration of treatment was 60 days, and the recovery in all the recorded cases was said to be permanent. Rochester gave the method a trial, as he had had the best results in cases in which the inhalation of menthol in petroleum oil had been combined with the internal administration of increasing doses of creasote. He treated 34 cases by Carasso's method in the Erie County Hospital, and came to the conclusion that while the internal treatment is unphysiological and very likely to cause digestive disturbance, the inhalation of peppermint is valuable and deserves further trial. Amos, of Baltimore, confirmed Rochester's statements by a report of between 85 and 90 cases which had been under treatment about a year. In only two was there marked improvement, and in one of these this was doubtless due to the altitude and rarefied air of a mountain home. Amos, however, particularly recommended the inhalation of peppermint, saying that patients even at the point of death were benefited by it. Rochester, in further discussion, strongly advocated the administration of increasing doses of creasote, commencing with 1 minim and increasing it until a dose of 15 minims was reached. His cases had steadily improved by careful attention to their general condition, but without any other medicine than creasote. Irritation of the stomach might be in great measure prevented by giving the creasote not in water but in claret or in mucilage of acacia.

(487) Trional.

L. Galliard (*Méd. Moderne*, May 18th, 1895) relates his experience of trional in 40 cases of acute diseases, chronic bronchitis, phthisis, heart affection, nephritis, alcoholism, simple insomnia, and one case of morphinomania. He found its action to be almost identical with that of sulphonal, except that it was rather more prompt, no doubt because of its greater solubility. In 33 cases its administration was followed by sleep, sometimes for several hours, sometimes the whole night. In 5 cases of phthisis it failed, also in 1 case of cardiac asystolia, and 1 of chronic bronchitis. It was without effect on the night sweats of phthisis. He only exceeded a grain dose in two instances, one of chronic bronchitis and of morphinomania; the latter indeed developed "trionalomania." There was no antipyretic or analgesic action. A few patients complained on waking in the morning of *malaise*, heaviness of the head, vertigo, or nausea. Except in these cases the results were excellent, and no serious accident or disorder could be traced to the use of the drug.

(488) Injections of Pilocarpin in Diseases of the Middle Ear and Labyrinth.

Girmounski (*Vratch*, No. 10, 1895) summarises the results which he has obtained by hypodermic injections of pilocarpin in affections of the middle ear and labyrinth as follows: (1) The injections act only in the early stage of labyrinthine affections, whatever be their origin—syphilitic, traumatic, or secondary—and the earlier in the process the treatment is begun the more effectual it is. (2) In inveterate disorders of the labyrinth, and in dry catarrh of the middle ear, pilocarpin, whether injected subcutaneously or directly into the tympanic cavity, has no effect.

PATHOLOGY.

(489) Nature and Origin of Epileptiform Convulsions.

C. D. Marshall presented a paper to the Royal Society "On the Changes in Movement and Sensation produced by Hemisection of the Spinal Cord in the Cat," of which the following is an abstract. The research was undertaken with the object of determining more exactly the nature and origin of epileptiform convulsions, and the paths in the spinal cord by which both afferent and efferent impulses are transmitted. Hemisection of the spinal cord was performed in the lower dorsal region on the right side, the animals being anæsthetised with ether, and strict antiseptic precautions being observed. The animals were kept alive for different periods of time after the operation. After death the spinal cords were at once removed, and, after hardening and staining by Marchi's method, both the lesion and the tracts of degeneration were investigated microscopically; sixteen experiments were performed. The following is a summary of the results:—(*a*) Motion: After hemisection of the cord there is immediate paralysis of the limb below, and on the same side as the section; this remains for a time, and then gradual recovery takes place to a greater or less extent; sometimes the recovery is so complete that it is with difficulty that one can determine which was the paralysed limb. At other times more or less permanent weakness is left so as to cause a limp when walking; foot drop is not infrequently seen, and the animal does not appear to appreciate correctly the position that the leg occupies. (*b*) The reflexes are, as a rule, greatly exaggerated below and on the same side as the lesion, and sometimes continue so for a long period; in many cases they become less as time goes on; occasionally they are not so well marked as on the opposite or uninjured side. (*c*) Sensation: This is always interfered with on the side of the lesion. Painful sensations appear to be felt on both sides; but the evidence seems to show that these painful sensations are more quickly felt on the non-paralysed than on the paralysed side, and also that the animal does not localise the painful spot on the injured side with anything like the precision that it does on the unaffected side. Tactile sensations are only felt on the non-paralysed side. Both descending and ascending degenerations were found in the cord. The former were confined almost entirely to the side that was cut, and they occupied the direct and crossed pyramidal tracts; a few scattered degenerated fibres were seen in the antero-lateral tracts of both sides. The ascending degenerations were not entirely confined to the side of the lesion. They were mostly seen in the column of Goll, the direct cerebellar tract, and the antero-lateral tract.

(490) Artificial Production of Amyloid Disease.

Krawkow (*Centr. f. allg. Path. u. path. Anat.*) has artificially induced amyloid disease in animals. He inoculated rabbits and fowls with increasing doses of broth cultures of staphylococcus pyogenes aureus, and found that as the result of the suppuration so induced eight out of twelve rabbits showed amyloid disease in the spleen and in the alimentary canal. These parts suffer earlier and to a greater degree than the liver and kidneys. The salivary glands were also affected. The degeneration comes on in rabbits very quickly; in one case, eleven days after inoculation, it was recognisable macroscopically by means of the iodine reaction in the spleen. Fowls are more resistant to the staphylococcus aureus, but are very suitable for the investigation, since all the birds except one showed marked amyloid degeneration. Other micro-organisms—for example, B. pyocyaneus, Koch's comma bacillus, and putrefactive bacteria—were also used, but they were not so reliable. The degeneration could not be obtained in dogs, nor by other means, than by using microbes. The author concludes that amyloid material is a product of the life history of microbes which are constantly poisoning and lowering the organism. From this standpoint the abscesses are only important as being foci of bacterial poisons which injure the body. In one rabbit amyloid disease was induced by long-continued injection of the filtrate of a culture of B. pyocyaneus.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(491) Atrophy of the Stomach Mucous Membrane.

SCHMIDT (*Deut. med. Woch.*, May 9th, 1895) observes that gastric atrophy may be secondary to carcinoma of the stomach, etc., or it may be primary. Such primary atrophy shows that the suppression of gastric digestion is not of such little moment as has been thought. It is the terminal stage of acute or more especially chronic gastritis. The symptoms are general anæmia simulating pernicious anæmia, failure of the secretory and sometimes of the motor functions of the stomach, and attacks of severe pain with vomiting. The author then records the following case: A man, aged 49, had an attack of acute gastritis five years previously. This improved in five weeks, but later there were severe attacks of pain. No free hydrochloric acid or pepsin was found in the gastric contents. Lactic acid was present. Death was due to pulmonary and intestinal tuberculosis. The stomach was very small, the mucous membrane being atrophied and without rugæ. The mucous membrane consisted almost entirely of connective tissue infiltrated with cells. There were also present spaces containing the remains of glands. The muscular coat was unaffected. The intestinal mucous membrane showed atrophy in places. The diagnosis was easy in this case, owing to the patient being long under observation. The phthisis came on after the gastric disease. Apparently here the acute gastritis terminated in atrophy without any chronic stage. Only the mucous membrane was affected, the muscular coat being intact; hence the long duration of the case. Two kinds of atrophy of the mucous membrane have been described, the parenchymatous and interstitial. Mostly these processes go hand in hand. Primary atrophy of the gland cells is easily understood when the injuries to which they are exposed is taken into account. The author has examined the gastric mucous membrane in many cases after special precautions have been taken to preserve it intact. He finds the surface epithelium the most resistant element in the gastric parenchyma. He gives reasons for believing that mucoid degeneration of the gland cells is not the precursor of the atrophic changes as held by some authorities.

(492) Gigantism and Acromegaly.

BRISSAUD AND MEIGE describe (*Journ. de Méd.*, January 25th, 1895) a case of acromegaly supervening in a "giant." The patient was a man aged 47, whom the authors discovered in a travelling show. His history was that up to 16 years of age he was healthy and did not show any peculiarity of growth. He then began to grow rapidly till he reached the height of 7 feet. He maintained good health and was of enormous strength. His weight was 346 lbs. When about 37 he injured himself in lifting a heavy weight, as he thought, breaking his back. After this his height diminished, for he developed a marked kyphosis; he became quite unfit for manual labour, suffering from extreme fatigue, thirst, and night perspirations. On examination his height was 6 ft. 2 ins.; his arms reached to the knees, his hands and feet being enormous; the cheek bones were very prominent, and there was marked prognathism. These features, together with prominent supraorbital ridges, gave him the appearance of one of the higher apes. There was projection forwards of the lower part of the thorax and backwards of the dorso-lumbar part of the vertebral column; while on the right side the iliac crest passed under the lower ribs, on the left it formed a marked projection outside the corresponding ribs. On both sides the ribs showed much displacement. All the limb bones were of great size. Careful measurements of all these were taken, and showed the very great size. The inferior maxilla was very large; the tongue also large, but not to the extent sometimes observed. The voice was very low pitched and indistinct. The muscles, which in his youth were well developed, now appeared atrophied, especially those of the lower limbs. The skin seemed thickened, dark-coloured, and hard, while marked varices were found on the legs. The visual field did not appear diminished. The patient, in fact, was a marked example of acromegaly. The association of acromegaly and gigantism has been observed in several cases, and the two conditions are closely related. In the case of gigantism there seems to be an abnormal vigour of growth in the adolescent, but in some cases there may be a recrudescence of growth in the adult, the result being acromegaly. Lastly, both conditions may occur, as in this instance. The authors believe the instance of large hands and feet so frequently observed about puberty, together with the disproportion of other organs, to be in reality cases of transitory acromegaly.

(493) Complications of Malaria.

AT the recent meeting of the American Medical Association J. M. Anders, of Philadelphia (*Med. News*, May 18th), read a paper entitled "A Statistical Study of the Complications of Malaria." He analysed 1,780 cases with reference to their complications, which were noted in 189 instances, or 10.7 per cent. The cases were classified into; intermittent fever, 1,434; remittent, 74; malarial cachexia, 27; chronic malaria and irregular types, 22; unclassified, 222. All instances in which an element of doubt existed were eliminated. The complications of malaria, while as frequent as those of some of the other acute infective diseases, were somewhat peculiar in character, and on the whole not grave in nature, as illustrated by a list of the complications of most frequent occurrence, prominent among which were heart disease, enteritis, neuralgia, albuminuria, pleurisy, rheumatism, pulmonary tuberculosis, typhoid fever, etc. The author agreed with the opinion that malaria promotes the development of pulmonary tuberculosis. Pleurisy was more frequently due to secondary infection, and was to be regarded as a genuine complication. Rheumatism was a not uncommon concomitant of malarial toxæmia. Among the 1,780 cases of malaria analysed, there were only 5 of lobar pneumonia and 1 of catarrhal pneumonia. There was a class of cases in which both malaria and typhoid fever were met with in the same individual simultaneously. The relationship, however, could not be close, nor was the compound affection due to a third extraneous "compound agent," but to the effects of two pathogenic organisms in one body at the same time. A careful blood examination in cases of suspected typho-malarial fever would show many to be instances of pure typhoid fever, chills and sweats and intermittent temperature curve being sometimes observed in typhoid. When the temperature curve was of the intermittent type from the commencement, the course of the affection was usually favourable.

(494) Spastic Rigidity.

HAUSHALTER (*Rev. de Méd.*, May 10th, 1895) reports nine cases of various forms of nervous disorder in children in which spastic rigidity was a more or less prominent symptom, either alone or in association with athetoid or choreiform movements. While recognising the desirability of making distinct classes for congenital spastic rigidity, Friedreich's disease, and the hereditary cerebellar ataxy of Marie, he yet thinks that a series of cases could be arranged forming a transition from the one to the others. May not, he asks, a degenerative process in certain regions of the nervous system originating at different stages of development, and associated with a congenital malformation, often hereditary, of certain parts of the nervous system—as, for instance, arrest of development of the pyramidal bundles—produce either a typical form or a transition form, according to whether it attacks one system or several at the same time? He suggests that the importance of the part played by difficult labour in the production of the conditions may have been exaggerated. Such a history is not always to be obtained; further, difficult labour is very common, while these nervous disorders are rare; moreover, spastic rigidity may come on quite late (at the age of 30 according to Bernhardt, *Virch. Arch.*, 1891, p. 59; an analogous history has been reported by Tooth, *Bart.'s Repts.*, 1892). Haushalter suggests that certain infectious diseases—syphilis, tuberculosis—or alcoholism or consanguinity in the parents may be of more importance in the etiology.

SURGERY.

(495) Treatment of Bone Cavities in the Shaft of the Tibia.

ERCOLE (*Archiv. di Ortop.*, An. 12, No. 2) has practised with success a new method of treatment for the cavities left after removal of a sequestrum. The principle consists simply in removing the lateral parietes, and in reducing the superior and inferior extremity of the cavity to an inclined plane, so as to render plane the surface which before was concave, the greatest care being taken to preserve as much periosteum as possible. The periosteum is afterwards sutured together, and a careful dressing applied, so as to exercise a graduated pressure on the parts. By this new method a mere linear osteo periosteal wound is substituted for a large open surface. In four out of the six cases recorded union occurred by first intention in from 15 to 20 days; in the other two cases, which were complicated by numerous old scars and fistulous tracts, union occurred by second intention in 54 and 65 days respectfully. The posterior lamina of the tibia left is quite strong enough to support the limb, and all the more so since in these cases the bone is generally enlarged. The paper is illustrated by two coloured plates.

(496) The Surgical Treatment of Hernia.

AT the recent meeting of the American Medical Association, W. B. De Garmo, of New York (*Med. News*, May 11th), read a paper entitled "What Advance has been Made in the Surgical Cure of Hernia?" He described the Czerny operation of 1876, the Macewen operation of 1886, then the McBurney operation, and finally the Halstead and Bassini operations of 1890, and detailed the results of each. He expressed himself as in favour of the Bassini and Halstead operations, because by these operations the canal was cleared of all foreign substances. Then repair began at the internal ring, and the structures were restored to as nearly a normal condition as possible. In his own operations he had found the following substances, which if not removed, would have furnished strong predisposing causes for the recurrence of hernia: (1) Tough and thickened sacs, a persistent tube with a serous lining. (2) Good-sized bunches of soft fatty tissue, connected with the cord. (3) Lipomatous growths—extraperitoneal. (4) Enlarged veins connected with the spermatic cord. (5) Masses of adherent omentum inside the sac and in the vicinity of the internal ring. He also dwelt upon the desirability of removing portions of the omentum, and upon the necessity of tying every vessel large enough to be seen, without including any fat, in order to prevent the slipping off of the ligature and the consequent occurrence of hæmorrhage. The author summed up his conclusions in the following propositions: (1) Asepsis has so far diminished the dangers that we are justified in performing a truly radical operation for the relief of hernia. (2) Any method that fails to remove all abnormal tissue, or that uses suture material quickly absorbed, invites failure. (3) The mortality has been reduced from 8 per cent. to a small fraction of 1 per cent. (4) The time of confinement to bed has been reduced from three or four weeks to eight or ten days. (5) We cannot at this time speak with absolute certainty, but we have the best reason to believe that the number of permanent cures has been advanced from 40 to 50 per cent. to at least 90 per cent.

(497) Trendelenburg's Operation for Varix of the Leg.

THIS operation is based on the fact, established chiefly by Trendelenburg's investigations, that the primary cause of the varix is insufficiency of the valves of the veins, whereby the weight of the blood column in the saphena is thrown on the peripheral vessels. It consists in ligature of the saphena in the upper part of the thigh. G. Perthes (*Deut. med. Woch.*, No. 16, 1895) reports 41 cases thus treated, of which 32 were permanently cured. Relapse having been traced in several cases to renewed permeability of the ligatured vein, the rule is now, instead of simply tying the saphena, to excise a short portion. The results are stated to be surprisingly good, and the proceeding has over Madelung's extirpation of the varices the advantage of simplicity and ease of performance.

(498) Electrolysis in Detachment of the Retina.

TERSON (*Presse Méd.*, May 11th, 1895) communicates to the Société Française d'Ophtalmologie observations on 12 cases of retinal detachment treated by electrolysis. He uses fine platinum-iridium electrodes, and introduces the positive pole through a sclerotic opening as small as possible at the seat of the detachment. The positive pole is to be preferred, as in aneurysm, on account of its hæmostatic properties. Terson insists on the necessity of attention to the measurement of the current, that five or six milliampères be not exceeded, and that the duration of the operation do not extend over one minute. The results he has obtained in the 12 cases are as follows: 1, an old case of 3 years' standing, was made worse, 2 were unaffected, 5 were temporarily improved, 5 considerably improved, and 1 case was cured. This was a myopic woman of 38 years of age, having for eight days a detachment of more than a fourth of the lower part of the retina and almost total blindness. The vitreous was turbid; forty-eight hours after a single application of the positive pole for one minute the retina was found to be completely replaced and the vitreous humour cleared. An examination nine months later showed no relapse of the detachment, and with —12 D the vision was one tenth. Terson concludes: (1) That electrolysis with the positive pole is a suitable and hopeful treatment in recent cases of retinal detachment, and that the prospect of success is greater in proportion as the operation is done early. (2) That there is nothing in electrolysis incompatible with the ordinary accessory modes of treatment.

MIDWIFERY AND DISEASES OF WOMEN.

(499) Rupture of the Uterus.

FRITSCH (*Wiener med. Presse*, June 9th, 1895) read at the Vienna meeting of the German Obstetrical Society, June 5th to 7th, a valuable paper on this subject. He recommends as prophylaxis that when the head presents and the pelvis is narrow, dangerous tension of the uterine wall is best counteracted by laying the patient on her side. When rupture threatens, the uterus must be rapidly emptied by the method which takes up the least space in the already overdistended genital tract. If the head present, craniotomy is immediately indicated. In a cross birth, when the child is living, a cautious endeavour to turn may be undertaken under deep anæsthesia. When the child is dead, an operation to lessen immediately its bulk must be performed. When rupture has been diagnosed and the fœtus lies in the peritoneum, it must be removed as quickly as possible by abdominal section. When it remains partly in the uterus, it may be delivered through the vagina if extraction appear easy. When it would evidently be difficult, and in any case where hæmorrhage is severe, laparotomy is needed. The tampon and compression are never certain to check all hæmorrhage. Securing the vessels by passing curved needles under them from the vaginal side is unsafe. Only from the abdominal aspect are bleeding vessels easy to secure. If the uterus has been ruptured and the bleeding has ceased for several hours, opium and rest must be prescribed. No injections are allowable. When the uterus is septic within, or when a myoma is present which should be removed, the uterus must be amputated above the cervix.

(500) A New Method of Abdominal Hysterectomy.

AT the recent meeting of the American Medical Association (*Med. News*, May 11th), N. Senn described the *technique* of a new method of abdominal hysterectomy. The dangers attending hysterectomy, he said, were shock, hæmorrhage, injury to important adjacent organs, and septic infection. The operation now described was intended to remove these dangers. Unnecessary handling of organs and loss of heat were the most active agents in the production of shock. The aim of the operation was to secure access to the myomatous uterus in as short a time and with as little exposure of the organ as possible. After incision, as in the ordinary manner, with ligation of the ovarian arteries, the uterus was brought to the wound. The peritoneum was then incised across the uterus, and the flap thus matched to the parietal peritoneum. The opposite side was treated in the same manner. This cuff was readily made by means of dissecting

forceps and the hand. As soon as the cuff had been sutured to the lower angle of the wound, the remainder of the abdominal incision was closed. The tumour or tumours were then extirpated. This part of the operation could be accomplished within a few minutes, and the remainder proceeded with leisurely. The uterus was next amputated at the desired point. If the cervix was affected the entire uterus could be extirpated in the same manner. The uterine arteries were then ligated by an indirect ligature. The arteries need not be isolated, but could be recognised and tied. Amputation was effected by an oblique incision, so made as to form a cone of the uterus and a corresponding depression in the parts left. There was very little hæmorrhage if the arteries were tied on both sides. After removal of the uterus the mucous membrane of the cervical canal is cauterised and the uterus closed by chromicised catgut. Two additional rows of buried sutures were then inserted to close the stump and thus arrest parenchymatous oozing. If hæmorrhage occurred at any time the amputated surface remained in ready access for the next forty-eight hours. Adhesions need no longer be dreaded, because the enucleation was the same whether the uterus was adherent or free. If the operator used the necessary antiseptic precautions, the only possible source of infection would be the hand or sponges. The wound, 2 or 3 inches long, with the stump of the uterus on the floor, was packed with iodoform gauze. Temporary sutures were inserted. In from twenty-four to forty-eight hours later the gauze was removed and the wound closed. At no time was there any tension at the stump. If infection should occur after the operation, it was limited to the wound outside of the peritoneum. The crucial test of an operation was furnished by its results. In 32 or 35 unselected cases treated by this method recovery ensued in all without untoward results.

(501) Tubal Abortion.

MURET (*Rev. des Sc. Méd.*, April, 1895) discusses this subject. The termination of tubal pregnancy during the early months is little recognised, but is nevertheless frequent, and perhaps more frequent than rupture of the gravid tube. Complete tubal abortion takes place all at once. The ovum is expelled into the abdominal cavity with corresponding symptoms more or less marked. Uterine decidua are expelled, and an intraperitoneal hæmatocele is formed. Then resolution occurs, and there is no repetition of the onset. Tubal abortion should be considered a favourable termination of tubal pregnancy, not requiring operation and capable of diagnosis. If the abortion be incomplete, part of the ovum is retained in the tube, and a tubal mole is formed. As in incomplete uterine abortion, so with incomplete tubal abortion, hæmorrhage occurs repeatedly till the oviduct is evacuated. The blood effused in the tube empties itself into the abdominal cavity through the patent ostium abdominale, and forms a hæmatocele which gradually increases. The symptoms of incomplete tubal abortion are tubal colic, the expulsion from the womb of decidua without chorionic villi, and repeated attacks of intermittent pain with symptoms of internal hæmorrhage. Locally, there is perceived first a swelling of the tube, and then the development of a gradually enlarging tumour. At first the symptoms of anæmia are much less serious and less acute than in the case of rupture of a gravid tube. Sometimes a very considerable thinning of the tubal wall takes place at the summit of the insertion of the tubal mole, and Muret thinks that this may be due to the fact that at first hæmorrhage is localised between the ovum and the wall of the tube, and that in this way rupture of the tube might be caused even though the ostium abdominale were patent. In incomplete tubal abortion abdominal section is always indicated.

(502) The Therapeutic Action of Chloroform in Parturition.

AT the recent meeting of the American Medical Association Bedford Brown (*Med. News*, May 18th) read a paper on the use of chloroform in labour. He said that in all literature there are reported not more than 40 cases of death from chloroform in labour. He had used the anæsthetic, given every half hour for from twenty to forty hours, without any trouble following. He had seen profound chloroform narcosis in obstetrics lasting for three or four hours without grave effects. He objected, however, to the careless fuse of the anæsthetic. The alteration in the vasomotor system of a pregnant woman enabled her to resist the toxic action of chlorcform to this wonderful extent. Was the use of chloroform in labour for the relief of pain alone justifiable? He believed it was not only justifiable, but that it would be inhuman to withhold it. At what stage of parturition was chloroform applicable? For pain in any stage in small quantities. To remove muscular rigidity of the cervix or perineum a larger quantity was required, until there followed complete muscular relaxation. Did chloroform tend to prevent uterine contractions? If given in sufficient quantity it would do this. Did its use tend to promote hæmorrhage? He had never seen a greater tendency to hæmorrhage after than without its use. In 2 000 cases of labour which he had attended he had given chloroform in 1,500 without ill effects following.

THERAPEUTICS.

(503) Treatment of Enteric Fever.

ZINN (*Münch. med. Woch.*, May 28th, 1895) bases his remarks on some 190 cases treated during the past five years. Calomel was administered at the beginning of the attack or of the relapse. Fluid diet was exclusively used. Painting the tongue with glycerin was found to relieve the distressing dryness. Antipyretic treatment was largely used. A trial was made with malakin, thermodin, sodic salicylate, salol, and chloroform without any special advantages. Antipyrin, phenacetin, lactophenin, quinine, and baths were chiefly employed. By means of antipyrin the temperature can be kept down nearly to the normal, and the action of the drug on the nervous system is of great value. Phenacetin acts similarly but not so efficiently. The antipyretic action of lactophenin is very considerable and almost constant. It produces marked sweating, but no definite action on the general state was noted. The frequency of the pulse diminished with the fall of temperature, and its quality remained good. No specific action could be attributed to lactophenin. Quinine was also found to have marked antipyretic powers. It is particularly noted that in a number of cases with very slow defervescence a large dose of quinine often sufficed to produce a permanent apyrexia. The well-known unpleasant effects of quinine were experienced. If not tolerated by the mouth it may be given by the rectum. With the bath treatment, three baths on an average were given in the day, rarely more. The author sums up that antipyrin has no action on the duration of the disease, and since it would not appear always wise to interfere artificially with the temperature, he has used it but little during the past two years. Quinine is sometimes very useful, but the most advantageous treatment is by baths. Quinine may be combined with them. The experience of the last few years is not such as to give antipyretic drugs, and especially lactophenin, the first place in the treatment of enteric fever. Regulated bath treatment, alone or combined with quinine, still remains the best treatment.

(504) The Action of Normal and Anti-diphtheritic Serum on the Healthy Organism.

ARLOING (*Lyon Méd*, June 2nd, 1895) experimented on the action of the normal serum of a horse and of anti-diphtheritic serum by making injections on healthy animals. 1st Series: Three batches of 8 healthy guinea-pigs each. The first batch were for control purposes. Subcutaneous injections of 0·5 c.cm. of normal serum were given daily to the second and third batch, December 13th to January 15th; from then to February 22nd 0·75 c.cm. daily. On February 22nd the first batch had increased 34·28 per cent. of their initial weight, the second batch 15.8 per cent., and the third 19·07 per cent. This shows that normal serum had a prejudicial effect on nutrition. 2nd Series: Very young guinea-pigs were used with a view to their growing. The first batch consisted of two "control" animals. Every day the second batch of two animals was injected with 0·75 c.cm. of antidiphtheritic serum—enough to render immune an animal more than 50 times their weight. After 12 days there

was a slight difference in weight between the two batches in favour of the control animals, and during the whole time the experiment lasted (45 days) the first batch increased 50 per cent., the second only 44.5 per cent. Thus there was a sensible retardation of development in the animals which were injected with antidiphtheritic serum.

(505) Tetanus treated by Antitoxin.

Matteucci (*Rif. Med.*, April 22nd, 1895) reports the case of a man whom he first saw on March 15th, complaining of general *malaise*, rheumatic pains (attributed to a chill), and some stiffness of the jaw. On March 19th there were decided symptoms of tetanus—risus sardonicus, opisthotonos, rigidity of the lower limbs. There was no history of injury and no recent scar. The only supposed cause was a chill three or four days before, when the patient was suffering from aphthous stomatitis. On March 23rd the patient was worse, speech was hardly intelligible, the finger could not be introduced into the mouth, and tetanic spasms occurred—about twenty every hour. Tizzoni then saw the patient, and injected 30 c.cm. of antitoxic serum (of 1 to 10 mil. immunising power) prepared by him and taken from a horse two days previously. On March 24th the patient was better, the spasms were less intense, less frequent, and less painful. The injection was followed by a copious eruption of urticaria, rise of temperature (39° C.), and profuse sweating. Injections of 10 c.cm. were made on the 24th, 25th, and 26th, and were also followed by urticaria and raised temperature, but to a less degree. After the injections were begun the patient steadily improved, so that on April 1st the abdominal walls were relaxed. On April 5th mastication was possible, and on April 8th recovery was complete and he was able to leave his bed. Sedative injections of morphine were used as supplementary aids to the antitoxin treatment.

(506) Potassium Iodide and Immunity of Cattle against Foot-and-Mouth Disease.

Pick (*Centralbl. f. Bakt., u. Parasitk.*, March 23rd, 1895) publishes some facts which appear to show that the administration of potassium iodide to cattle produces immunity against foot and-mouth disease. Whilst the author was making experiments on two cows in order to obtain obtain iodised milk for therapeutic use, an epidemic of foot-and-mouth disease occurred. One case had been receiving 12 grammes of potassium iodide daily for eight weeks, the other cow the same quantity for ten weeks, when the disease broke out in the stable in which these cows, along with sixty-eight other cows, were kept. The disease spread rapidly, and, as is the custom in such cases, in order to shorten the epidemic all the cattle were subjected to infection by wiping out the mouth cavity of the diseased cows with a cloth, and then bringing it in contact with the mouths of the healthy animals. The result was that all the cattle suffered from the disease except the two cows which had been treated with potassium iodide. Though these were subjected to the same procedure as the rest, they remained unaffected by the disease. These two cows were not isolated from the others, and the cows to the right and to the left (in the stable) suffered from the disease. In spite of the usual precautions the cows in a second stable were all affected with the disease. As the predisposition from the disease amongst cattle is very great and general, and as both the iodised cows had certainly not suffered from the disease previously; and further, as neither in the manner of feeding nor in the external conditions was there any difference, the author believes that immunity was due to the use of the potassium iodide.

(507) Chloralose as a Hypnotic.

Marandon de Montyel (*Rev. de Méd.*, May 10th, 1895) condemns chloralose as a general hypnotic for general use in the treatment of alienation. He admits that it generally exerts a certain, though variable, amount of hypnotic action, but the patient very rapidly becomes habituated to the drug, which then ceases to have any effect. The only cases in which he found chloralose to be really useful were cases of epilepsy complicated by insomnia. The drug appeared not only to produce sleep, but to cut short the duration of the period of excitability. The dose given was from 25 to 50 centigrammes (3¾ to 7½ gr.) nightly until the crisis appeared to be over.

(508) Effect of Certain Drugs on the Calibre of the Thoracic Duct.

Gley (*Sem. Méd.*, May 11th), speaking at the Académie de Médecine, said that he had found in the course of some researches made by himself and Carnus that various toxic substances bring about lessening in the calibre of the thoracic duct. Such, for instance, is pilocarpin, while atropine, on the other hand, leads to its dilatation. The antagonism of pilocarpin and atropine is thus illustrated here, as in its action on many other organs, the heart, glands, etc. Curare, he finds, is a dilator of the duct. In asphyxia there is first contraction, and in the last stage relaxation.

PATHOLOGY.

(509) Extirpation of the Suprarenal Capsule.

Lo Re (*Rif. Med.*, May 7th, 1895) publishes a preliminary note on his experiments with regard to the removal of the suprarenals in dogs. The left suprarenal was removed from a healthy dog on March 4th; the wound healed by first intention, and the animal seemed none the worse. On March 21st the right suprarenal was extirpated; suppuration occurred in and about the wound, and finally gangrene of the ascending colon set in. Laparotomy was performed twice, and the dog died fifty-three days after the removal of the left capsule. The right suprarenal showed no signs of compensatory hypertrophy. No trace of suprarenal tissue on either side was found at the *post-mortem* examination, and during life the animal had shown no signs of pigmentation of the mucous membranes or any disturbance of the nervous system. Moreover, this and other similar experiments show that dogs may live after removal of both suprarenals.

(510) The Mechanism of Immunity.

Mesnil (*Annales de l'Institut Pasteur*, Tome ix, No. 5, p. 301) contributes the results of investigations into the question of immunity with especial relation to the part played by eosinophile cells in the process. The subjects of the experiments were fishes, esp. Gobio fluviatilis and Perca fluviatilis. He found that the microbes (anthrax), which were inoculated into the peritoneal cavity, always end by being taken into the interior of leucocytes and there destroyed. According to his experiments the microbes, when in the interior of the cells, are still living and virulent; upon this point he gives details of experiments. In the case of the perch, at no time were eosinophile cells found either in peritoneal fluid or in the blood, and this both before and after inoculation. It is, according to Mesnil, therefore certain that in this fish destruction of micro-organisms cannot be brought about by bactericidal products secreted by the eosinophile cells. The work is of considerable importance from a scientific point of view, and supports the views on immunity already enunciated by Metchnikoff.

(511) A Demonstrative Experiment with Regard to Renal Pathology.

Francotte (*Centralbl. f. allg. Pathol.*, March 30th, 1895) draws attention to an experiment which he has found very suitable for class demonstration. It is performed on a dog (weighing from 5 to 7 kilos.), which is fed with abundance of meat on the day of the experiment. Morphine is given before the experiment to cause narcosis. A cannula is inserted into each ureter; the cannula of an injection syringe is fastened into the external jugular vein, and then the vagus is exposed. The flow of urine is usually slow. After the rate of flow has been observed by the students, a warm concentrated solution of grape sugar is injected into the jugular vein—a solution of 25 g. of sugar in 25 g. of water must be used. The flow of urine at once becomes very rapid, and this marked diuresis can easily be observed by the class of students. A strong faradic current is then passed through the central end of the vagus nerve. Almost immediately the flow of urine becomes slower or ceases entirely. If the faradic current is discontinued the flow of urine commences again. The stimulation of the vagus can be repeated several times, and the result demonstrated. The effect is due, as Masius has shown, to contraction of the renal vessels.

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